It possesses, in my judgment, sufficient strength and rigidity, while any tendency to overturn bodily, by the lateral pressure of high winds, appears to be suitably guarded against by the width of the bridge (about 55 feet), and by anchoring the towers to their foundations. Inasmuch, however, as both the centre of gravity and the centre of form are comparatively high, I think the towers should be widened 10 to 12 feet, by spreading them 5 to 6 feet on either side.

I apprehend no undue or dangerous strains from the tension in the towers, caused by a moving load upon the main span, as the horizontal thrust would be amply resisted by the rigid triangular system at each of the shore ends, composed of the towers themselves and the lower lenticular trusses. There is, however, an inherent local weakness against wind strains, resulting from the openings left for the roadways, which seems more difficult to guard against in this design than in that of the cantilever presented by the Delaware Bridge Company. It is also more difficult to erect; but, inasmuch as a responsible and well-known company is willing to undertake its construction and erection for a specified sum, this point possesses no special significance.

I do not think it safe to assume that a clear height of only 120 feet at the towers, will be all that the general government will require at Blackwell's Island. That height was accepted, it is true, for the Brooklyn Bridge, but the decision in that case was not a general one.

Although it is understood that Clarke, Reeves & Co. are willing to raise the bridge at the towers to a height of 130 feet above high water without extra charge, if required to do so, their design does not lend itself, as readily as the cantilever or the suspension plans, to such an increase of height.

While it may be conceded that the principle of the hinged arch is applicable to longer spans than 750 feet, one of the advantages claimed for it—that of great economy of material—would be more largely realized in shorter than in longer spans.

By widening the towers, as already suggested, the plan would, in my judgment, be suitable for adoption.

The design of a cantilever bridge submitted by the Delaware Bridge Company exhibits an excellent application of the principle involved in that method of bridge construction. The