a total of 68½ M, for compression material, excepting the 6 intermediate uprights, excluded as above.

Both of the above considered trusses exhibit a beautiful simplicity, and facility of comprehension in principle, and they will be left for the present, for a discussion of the

Post Truss.

CXXXIV. This, like the two preceding plans, is designated by the name of its distinguished designer and publisher, S. S. Post, Esqr., of Jersey City.

Fig. 49 gives a general view of the only specimen of this truss which the author has had an opportunity of examining. It is a sort of compromise between the trusses represented by Figs. 18 and 19, of which the object sought appears to have been, to obtain a nearer approximation to the most economical angle of inclination for both thrust and tension members (between chord and chord), by inclining the latter at an angle of 45°, and the former at a less angle with the vertical. These are both favorable conditions, considered alone and by themselves, as we have already seen [LXV and LXVI]; and it is proposed to compare the economy of this particular arrangement, with that of a truss having vertical posts, with oblique tension diagonals; as well as with other plans, preceding and succeeding.

Assuming the same length and depth of truss, and the same load, both constant and variable, as in the preceding cases, acting at the points x, v, u, &c., let w represent the greatest variable load for the length of one panel, and w' the weight of superstructure bearing upon one truss, for the same length, supposed to be concentrated at the nodes of the lower chord, and assumed to be equal to \( \frac{3}{4} w \). Also, let 1 equal the verti-