weight is transferred from oblique to oblique, and not from oblique to vertical, and the contrary. The same may be said of truss Fig. 15, sometimes called the Triangular, in which verticals are used merely to transfer the action of weight from the point of application to the connections of the obliques; after which, the weight has no action upon verticals.

Now finally, we see by table of results, that if the Post truss be changed to the trapezoidal form, as above suggested, it will occupy a position, as to amount of material, or more strictly speaking, the amount of action upon material, between Fig. 50 and Fig. 51; which latter differ from one another less than 2 per cent; a difference, which would undoubtedly be increased somewhat, under different general proportions of trusses. For instance, while Fig. 50, shows an inclination of diagonals used in connection with verticals, probably nearly approaching the optimum, Fig. 51, though superior to the true Isometric (with angles of 60°), in the greater inclination of its obliques, would give still better results with an inclination of about 40°.

CXXXIX. On the whole, we must look to other quarters than the amount of action upon material, for plausible ground upon which to found a decided preference for either of the three plans in question. A difference of two or three per C., and even more, may easily result from greater or less facility of constructing and erecting the structure, while a regard for appearance may also be worthy of consideration. Hence, Engineers and builders will adopt one or another plan, according to individual taste and judgment, and the one who carries out the principles of either system with