

is usually known as the "Triangular" truss, although sometimes called the "Warren Girder." The marked difference between this form of truss and the Whipple and Queen Post trusses consists in the fact that the posts as well as the tension-rods are inclined, and if the angle of inclination is well proportioned, a considerable economy of material is obtained over that required by the straight post trusses. When a *vertical* post is used, the weight delivered to it by its tension-rod makes no progress whatever toward the abutment; but in the case of an inclined post, by the time the weight has been transmitted to its foot, it has progressed toward the abutment by an amount equal to the horizontal reach of the post. When the span becomes long and the stretch of the triangles is so great as to necessitate an intermediate support for the flooring, a rod is dropped from the apexes of the triangles to form such support,

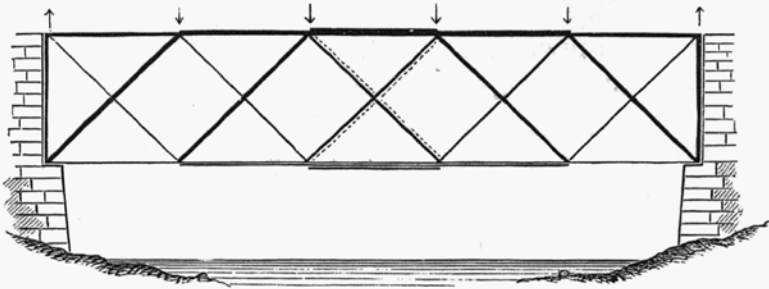


FIG. II. DOUBLE TRIANGULAR OR LATTICE TRUSS.

or two systems of triangles may be used corresponding to the double cancelled Whipple truss, as in Fig. 11. In the case of the trusses being *beneath* the roadway, the verti-