the upright, with the pin resting in the concave, is shown at $c$.

A heavy cross-bar from flange to flange at $a$, and light cross-bars at intervals of 16 to 18 inches from $a$ to $b$, serve to support the flanges, and stiffen the piece.

The diagonals are formed with eyes to receive the connecting pin at the upper end, and screws and nuts to connect with the block at the lower chord, in the same manner as in the arch truss.

The main diagonals, those inclining outward from the centre of the truss, should be in pairs, and in size, proportioned to the stress they are liable to, as determined by the process fully described in sections xxxix, &c.

The links acting in conjunction, horizontally, with the main diagonals, should go on next the end of the connecting block, as that arrangement obviously produces less stress upon the block.

The upper chord, usually formed of hollow cylinders, has openings in the underside at the joints, for uprights and diagonals to enter, where they connect by means of the transverse pin already mentioned. The cylinders should have an extra thickness for 3 or 4 inches from the ends, and a strong collar around the opening, to restore the loss of strength occasioned by the opening; and the ends should be squared in a lathe, to secure a perfect joint and a straight chord.

If it be required to give a cambre to the truss, the ends of cylinders should be slightly beveled at the ends, making the underside a trifle shorter. This is easily effected by throwing the end opposite the one being turned, out of centre more or less, according to the cambre required. An 8 panel truss requires an eccentricity equal to $\frac{1}{8}$ of the required rise in the centre