the short splice plates and opposite rivets, as seen at BR, Fig. 45. \( p \) indicates the connecting pin (which, in the concrete plan of construction should be replaced by two opposite rivets, as seen in Fig. 44), having a cross-section in the parts passing through the chord plates, about equal to that of one of the two main diagonals connecting with each pin respectively, at the several nodes.

The body of the pin between chord plates, should have lateral stiffness enough to withstand the stress produced by diagonals horizontally, estimated upon the principles of the lever, which will be greater as the distance of diagonals from chord plates is greater, and the contrary. If the bearing of the upright upon the pin be between the diagonals and the chord plates, as by a bi-furcation like that at the upper chord (see a Fig. 38) the body of the pin will usually require a section about equal to that of the two main diagonals connected with it. But this is no certain rule.

The ends of the connecting pin should extend through the chord plates so as to receive a thin nut upon each end, and also the eyes of sway rods upon the inside end, in case that mode of connection be adopted for those parts.

In the case of trusses without verticals constructed in rivet work, the best balanced action will be secured by connecting diagonals between the splice plates, by means of rivets through both, thus bringing each diagonal bar directly over each half chord, and producing uniform stress, as nearly as is practicable. When diagonal bars do not fill the space between splice-plates, the deficiency may be made up by furring plates, or thimble rings.