connection with the beam, not less than \( \frac{1}{8} \) of the distance of upper chord from the beam.

Fig. 35 will serve to illustrate the modes of connection for most of the members of a bridge of the kind under consideration. That part of the upright between \( a \) and \( b \), is contracted in length. Otherwise, the parts are represented in nearly correct proportions. At \( c \), is represented the connection of the upright with the end of the beam, by means of a double eye and bolt, as shown at \( h \). This receives the web of the beam, to which it is secured by the transverse bolt, which should be long enough to receive the eye of a sway rod under both head and nut. The stem of this fixture extends through the upright at its widest part (whence it may taper in both directions), and is secured by a nut upon a screw of about \( 1\frac{3}{4} \) in diameter. The beam should rest with its lower flange upon a small projection cast upon the upright, and not hang upon the connecting fixture.

If so preferred, the sway rods may be connected by a screw and nut cast in the end of the connecting block, as seen at \( d \). This plan has been used, but the connection by the bolt at \( c \) is deemed preferable.

The outer and inner flanges of the upright at the top, being increased to nearly an inch in thickness, according to size of bridge, and extending 3 or 4 inches above the web, terminate in semicircular concaves to receive the pin connecting the diagonals with the upper chord. A full view of the flange at the top of