the beam at 1" from the centre, so that one being placed on each side, they will be kept far enough apart to admit the upright between them. The plates should be long enough to lap 20" upon the beam, and extend to outside of side walk. They may be bolted with two 1" bolts near the end of the lap, and one near the end of the beam by the upright; as seen under the letter u in Fig. 33. A 1¼" bolt in the centre of depth, and 7 or 8 inches from the upright, will serve both to aid in holding the plates in place, and to connect the sway rods l. These plates should not be cut by bolt or rivet holes in the upper part, except at considerable distance from the upright u.

Small bolts or rivets, r r, etc., should be inserted at intervals of 9 or 10 inches, near the lower edge, with thimbles to stay the extension plates apart, leaving a space equal to the diameter of the upright. In Fig. 33, s-w is a part of the extension for supporting side walk; s, a cast iron saddle weighing about 4 lbs. for joist bearings, and c, a cross-section through the splice.

To afford a proper bearing upon the connecting block, it is proposed to use a wrought iron ring (R. Fig. 34), high enough to throw the whole weight upon the extension plates ee, and ¼" to 1" in width, except on the side next the beam proper, where it is to be clipped or drawn down to ½". This, however, is not an essential point. In case of bridges already erected, the ring will have to be left open as at R', and when used, heated and closed around the upright.