plates, through one of the smaller rivets used in the splice; and, the relative thickness of the two splice-plates, should, as nearly as practicable, be inversely as the respective distances of their centres from the centre of the spliced plate.

For illustration; at the 6th node, the continuous plate is 5-8th", and the thinner spliced plate 7-8th, making in the two, a thickness of 1½", by 7" for net width; giving a section of 10½ sq'" inches. This splice requiring 1¼" rivets next the joint, to give the necessary rivet section, the net width of splice-plates and continuous plate, through two opposite 1¼" rivets, is only 5½". Consequently, the aggregate thickness required to give 10½ sq'" inches, is about 1.91"; and, deducting 0.625" for the continuous plate, we have 1.285" for thickness of the 2 splice-plates.

**Fig. 62.**

Then, representing thickness of spliced plate by \( a \), that of continuous plate by \( b \), that of the two splice-plates by \( c \), and that of the thicker one by \( x \), we form the following equation;

\[
\frac{1}{2}(a + x) = (b + \frac{1}{2}(a + c - x)) \times (c - x);
\]
whence, the Formula, \( x = (ac + 2bc + c^2) / 2(a + b + c) \).

**Fig. 62** is an Edge View of splice at Node 6.