The number of rivets in each bar is so arranged as to make the sectional area of the rivets fully equal to that of the bar. They are placed in vertical lines, two rows of four each being in the side flanges of the T bar of the post, and the others on lines parallel to these and diminishing in number, so that they are arranged quincunxially on the tie bar, commencing with one rivet. The effective area of the tie bar is thus only diminished by the amount of metal taken out by one rivet hole.

The top and bottom chords, of which a section is shown in Fig. 5, are composed of horizontal plates 26 inches wide, extending from end to end of the girders and varying in thickness from the middle to the ends. At right angles to these are two vertical plates in each chord, placed 15 inches apart and connected with the horizontal plates by four angle irons in each chord, to which both plates are riveted.

The horizontal and vertical plates, except at the ends of the girders, are mostly in lengths of 15' 9". The joints coming between the posts of the truss.

At the joints in the plates there are covers of the proper size and thickness to make the strength uniform.

The rivets in the chords are 3 1/8" apart and are one inch in diameter.

Between the lower edges of the vertical plates of the upper chords there are wrought iron distance pieces, one to each panel, by which the two plates are held securely in place and give the chords additional stiffness.

The top chord at the middle has two horizontal plates, 26" × 3/4", four angle irons, 4" × 4" × 5/8", and two vertical plates, 15" × 5/8"; making a sectional area of 76.2 square inches.

At the end there is one horizontal plate, 26" × 5/8", with angle irons 4" × 4" × 3/4", and vertical plates of the same dimensions as the middle; making an area of 50 square inches.

The bottom chord is the same as the top except in the thickness of the horizontal plates, there being at the centre two plates of 26" × 5/8" and 26" × 3/4", and at the ends one plate of 26" × 1/2".

The sectional area at the middle is 72.9 square inches, or, deducting rivets, it is 58.4 square inches. Near the ends it is 34.5 square inches.