least five times their diameter from the lockings, or from the ends of the pieces.

The top stringer is composed of two 5×8 portions, 9 inches apart, with a 2 inch plank on the inside of each, extending from the second to the fourth connecting point, or half the length of the stringer. The parts in the top stringer may be in two or more pieces, meeting by square ends, or lapped a few inches and halved, without locking.

The end braces are each composed of two pieces, 8 inches deep by 7 wide, and 5 inches apart, with a block at the lower end and the centre; the latter having a \( \frac{7}{2} \) bolt passing through it, and thus connecting the two portions of the brace. The block at the lower end is secured by the main bolt connecting the brace with the ends of the stringer pieces.

The lower end of the brace is fitted into a 1\( \frac{1}{2} \) inch triangular boxing on the inside, and a 1 inch boxing on the upper side of the stringer pieces, as shewn by the dotted lines in the figure; the boxing on the upper side, only extending to within one inch of the outside of the stringer; the lower stringer being two inches wider from outside to outside, than the brace and the upper stringer.

The brace meets the end of the upper stringer by a bevel joint bisecting the angle formed by the two; the brace pieces being cut away upon the inside, where they interfere with the vertical.

The vertical, \( v \), is composed of two pieces of 8×4, with a space of 4 inches, to admit the diagonals \( b \) and \( c \) between. Each part of the vertical has a 1\( \frac{1}{2} \) inch boxing at the upper end, to receive the inside of the upper stringer and main brace pieces, with two 1\( \frac{3}{4} \) inch bolts passing through the whole. There are also at this point, two \( \frac{3}{4} \) inch iron pins, passing through the vertical pieces and the diagonal \( b \), but not through the stringer or brace pieces. These pins should be, one directly under each of the bolts, but not cutting the same fibres in \( b \), as are cut by the bolt holes. The vertical should extend about nine inches