to the abutment. At the top, $b$ forms a bevel joint with the top stringer.

The vertical $d$, is $12 \times 3$ inches; passes through $e$ in the middle, and $k$ at the lower end, where $d$ and $k$ are both secured to the stringer by two $1\frac{1}{4}$ inch bolts. The cross beam at this point may be let into the edge of $d$, 3 inches, and boxed, so as to bring the centre of the beam within 4 inches of the centre of $d$. At the upper end, $d$ terminates in two pieces of 2 inch plank, 5 feet long, one on each side; locked $\frac{1}{2}$ or $\frac{3}{8}$ inch deep, bolted and spiked, so as to occupy a space of 6 inches from out to out, and cut away on the inside, so as to make room for $g$, which is $3 \times 12$ inches.

The oblique piece $f$, $9 \times 4$ inches, passes through $e$, $k$, and $l$; being secured at the lower end by two $1\frac{1}{4}$ inch bolts, and a $1\frac{1}{4}$ inch pin, 9 inches long, with bearing plates, 2 or $2\frac{1}{2} \times 3 \times \frac{1}{4}$ inch, on the under side of $k$. At the upper end, $f$ has 2 pieces of $3 \times 12$ inch plank about 7 feet long, locked on $\frac{3}{8}$ inch deep, and spreading so as to be 11 inches from out to out at the end; boxed 1 inch on each outside, to receive the top stringer and the brace $b$; and cut away inside, making a space of 6 inches for $d$. The piece $f$ should extend 9 or 10 inches above the stringer. Two $1\frac{3}{4}$ inch bolts through the whole, and two $1\frac{1}{4}$ inch iron pins through all but the stringer and brace, will be sufficient for this point.

The diagonal $e$, $4 \times 9$ inches, at the upper end, has a shoulder of 1 inch on each side, cut vertically, and acting against the end of the inner plank of the top stringer. It has a $1\frac{3}{4}$ inch bolt and 2 iron pins, $1\frac{1}{2}$ inch, and 7 inches long, through $i$, on the upper side of $e$, with bearing plates under the ends of the pins.

The diagonal $l$, ($3\frac{1}{2} \times 9$ inches,) and the top stringer, are each boxed 1 inch, to let in the width of the other; with two $1\frac{1}{4}$ inch bolts. $l$ has 5 mortices, including those at the ends, as have also the other diagonals that stand edgewise to view in the plan.