The diagonal $k$ (3 x 9 inches) is boxed in the same manner as $l$, at the upper end, and has one 1$\frac{1}{8}$ inch bolt.

The piece $n$, is 3$\frac{1}{2}$ x 7 inches except about 8 feet of its upper end, which is reduced to 3$\frac{1}{2}$ inches wide; and passes through its fellow $m$, and through $k$. $m$ is also reduced to 3$\frac{1}{2}$ inches at the upper end, and at the lower, fits a boxing of 1 inch in the lower stringer, but has no shouldering; has two 1$\frac{1}{4}$ inch bolts and a $\frac{1}{2}$ inch spike through, and two 1 inch pins with bearing plates on the underside, through $g$.

The diagonals $i$ (9 x 3,) and its antagonist (7 x 3,) at the lower end, halve and lock, with lap pieces locked, bolted and spiked, as in the case of $d,d$, in the preceding plan, making up a thickness of 6 inches, which, of course, requires a $\frac{1}{2}$ inch boxing on the inside of the stringer pieces. This point has two 1$\frac{1}{4}$ inch bolts. The diagonals generally, should have $\frac{4}{8}$ inch spike at the crossings; or perhaps a round iron pin from $\frac{1}{2}$ to $\frac{5}{8}$ inch diameter would be cheaper and better.

The cross beams for this stretch, being 9 feet apart, should be 10 x 14 or 12 x 12 inches and put on as in preceding plans. The horizontal braces may be from 3 x 5 in the middle, to 3 x 7 at the ends of the span.

Across the top are light tie beams, say 5 x 7 inches, fitted on to the top stringer, similarly to the fitting of the bearing beams below; secured with small bolts or spike, with diagonal horizontal braces, 3 x 4, or 4 x 4 inches. At the ends should be lateral supporters, running down from near the upper end of the main end braces $\delta$, diverging from 1 in 6 to 1 in 4 outward, to the abutment, or a bed timber lying on the abutment; and properly secured at both ends. These braces should be about 6 inches square, with perhaps a steadying block and small bolt midway.

The truss in this plan is proportionally higher than is thought advisable for long spans, the height being to the length, as 1 to 4$\frac{1}{2}$. It is not certain whether this proportion for an 80 or 90 feet span is more or less economical than