The Plate Chord.

There are two other forms of lower chord, which are worthy of consideration as competitors of the Link chord; both composed of flat plates, instead of round or square bars. One plan is to have the plates correspond in length with the panels, and terminate in strong eyes at the ends, for transverse connecting-pins of wrought iron or steel. The eyes may be made heavy enough to stand as much strain as the body of the plate. But whether this would involve less expense than to produce equal strength in the ends of links, is mostly a practical question.

This arrangement does not afford the same facility for adjusting diagonals by common screws and nuts, as the cast iron connecting block. In Cancellated or Trapezoidal bridges, however, the Main diagonals may be formed with eyes at both ends, & left to find their own adjustment, while the few Counters required, may be provided with swivels, or turn-buckles. For the Arch truss, the diagonals all require screw adjustments, or equivalents.

Turn-buckles are objectionable, both on account of their expense, and the danger of imperfection in the weldings. When their use can not be dispensed with however, the latter difficulty may be obviated by proper inspection and testing.

It is practicable, moreover, to pass the diagonals through the arch, (one on each side of the upright,) and secure them with nuts upon the upper ends,