The connecting blocks used with this chord, sustaining only the horizontal action of diagonals, may be considerably lighter than those used with the links, especially in arch trusses. In order to transfer the horizontal action of diagonals to the chords, mortises may be made in the plates, as seen at \( m \) Fig. 342, not wider than the smallest rivets used in splicing, to receive tenons of wrought iron cast in the block.

As to the merits of the riveted plate, as compared with the link chord, it may be assumed that two splices are sufficient for any truss not exceeding 100\' long, and that the weight of splicing plates and rivets will equal 4 or 5 feet extra length of plates, say 6 per cent upon a chord 80\' long. To this we have to add about 14 per cent for extra section to compensate for rivet holes, making 20 per cent of iron lost in forming connections.

Links require about half as much extra material, to be taken up in bends, lappings, and enlargement of section at the ends; showing about 10 per cent less iron for the link, than for the plate chord. This would amount to about 400 lbs. for two trusses of 80\', with links of 1\( \frac{3}{4} \)\' round iron. But this may be nearly or quite balanced by 500 or 600 lbs. of castings, which may be saved in weight of connecting blocks.

The economy of material being so nearly equal in the two chords, their relative merits must depend mostly upon the comparative cost of manufacture, and the relative efficiency of the chords in use. It is deemed far from improbable that the riveted plate chord might be found, on fair and thorough trial, to be worthy of extensive use in arch trusses, in place of the link chord. The fact that in the plate chord, the iron is used in its original condition, as it comes from the rollers, is certainly favorable.