of the rod. Hence, it is difficult to avoid the conclusion that rods of soft and flexible iron, such as ought to be used for tension members in bridge work, bent to a proper fit upon connecting pins of diameter about twice that of the rods, and formed into links by welding in the straight parts, are quite safe under any stress within the limits adopted in bridge work.

But it seems to be more convenient to form the weld at one end of the link, if not both, and such has been the usual practice; and, as before remarked, if a surplus of metal section quite around the bend be secured, and the work well performed, this plan can scarcely be regarded as faulty, especially, in view of the long, varied, and successful usage of such vast numbers of links made in this manner.

Now, although the link chord is very simple, efficient, and convenient to make and manage, there are available alternative devices, some of which will be here described.

**The Eye-bar Chord.**

CXIV. This is composed of two or more single rods, of oblong, square, or round section to each panel; connected by cylindrical pins passing through strong eyes at each end of the chord bars.

This plan until recently, has involved quite as much welding as the link chord; the eyes having been formed in separate pieces, and welded to the body of the rod. But within a few years a process has been devised by the Phenix Iron Co., of Pennsylvania, for upsetting and forming eyes upon rolled bars. A mold or die gives the desired form and size to the head, and aside from the fact that a violent disturbance of the normal condition of the iron is produced in the vicinity