MULTIPLEX CHORDS.

CXXIV. In very long or heavy bridges, the required amount of chord section in the middle portion of the truss, is so great, that it is deemed expedient to introduce more than two links or eye bars to the panel. This is sometimes done by alternating them upon the connecting pin, increasing the number and sizes according to the increase of stress from panel to panel toward the centre.

This mode of construction, unless the bars be arranged and proportioned with almost impracticable care and nicety, is liable to be attended by an accumulation of lateral strain upon the connecting pin, beyond what it can bear without bending, or springing so much as to materially disturb the equality of stress upon the links, or chord bars.

To illustrate this subject, let Fig. 43, represent one quarter of the chord of a 16 panel bridge. The line CC may denote the central axis of the chord running through the centres of connecting pins; D, at a distance of, say 8" from C, the line in which the diagonals act upon pins, and the other parallel lines at intervals of 3" from D, and from one another (see Figs.