inch will be allowed, nor any variation of more than one thirty-second \((\frac{1}{32})\) of an inch between the centre of the eye and the centre line of the bar.

\textit{Pins.} — Pins are to be proportioned to resist the greatest bending produced in them by the bars or struts which they connect.

Steel pins are also to be proportioned for shearing.

No pin is to have a diameter less than eight-tenths \((\frac{8}{10})\) of the depth of the deepest bar coupled thereon; nor shall it vary from that of the eyes of the bars coupled thereto by more than one-fiftieth \((\frac{1}{50})\) of an inch.

The least allowable diameters for chord pins are two \((2)\) inches for bridges of Class A, and one and a half \((1\frac{1}{2})\) inches for those of Classes B and C. The least allowable diameter for pins belonging wholly to the lateral systems of bridges of any class is one and a quarter \((1\frac{1}{4})\) inches.

\textit{Pin Bearings.} — All pin holes through webs shall be re-enforced by additional material, so that the permissible pressure upon the bearings shall not be exceeded. Where a pin bears against a re-enforced channel bar, the web of the latter is not to be assumed to take any bearing-stress, unless the re-enforcing plates be riveted to it before the pin-hole be bored.

\textit{Chord Packing.} — The lower chords are to be packed as closely as possible, and in such a manner as to produce the least bending-moments upon the pins. The various members attached to any pin must be packed as closely as possible, and all interior vacant spaces must be filled with wrought-iron fillers.

\textit{Expansion Rollers.} — Expansion rollers for bridges of Class A are to be proportioned by the formula

\[ \rho = 0.25\sqrt{d}, \]

and those for bridges of Classes B and C by the formula

\[ \rho = 0.3125\sqrt{d}, \]

where \(\rho\) is the working-load in tons per lineal inch of roller, and \(d\) is the diameter of the roller in inches.