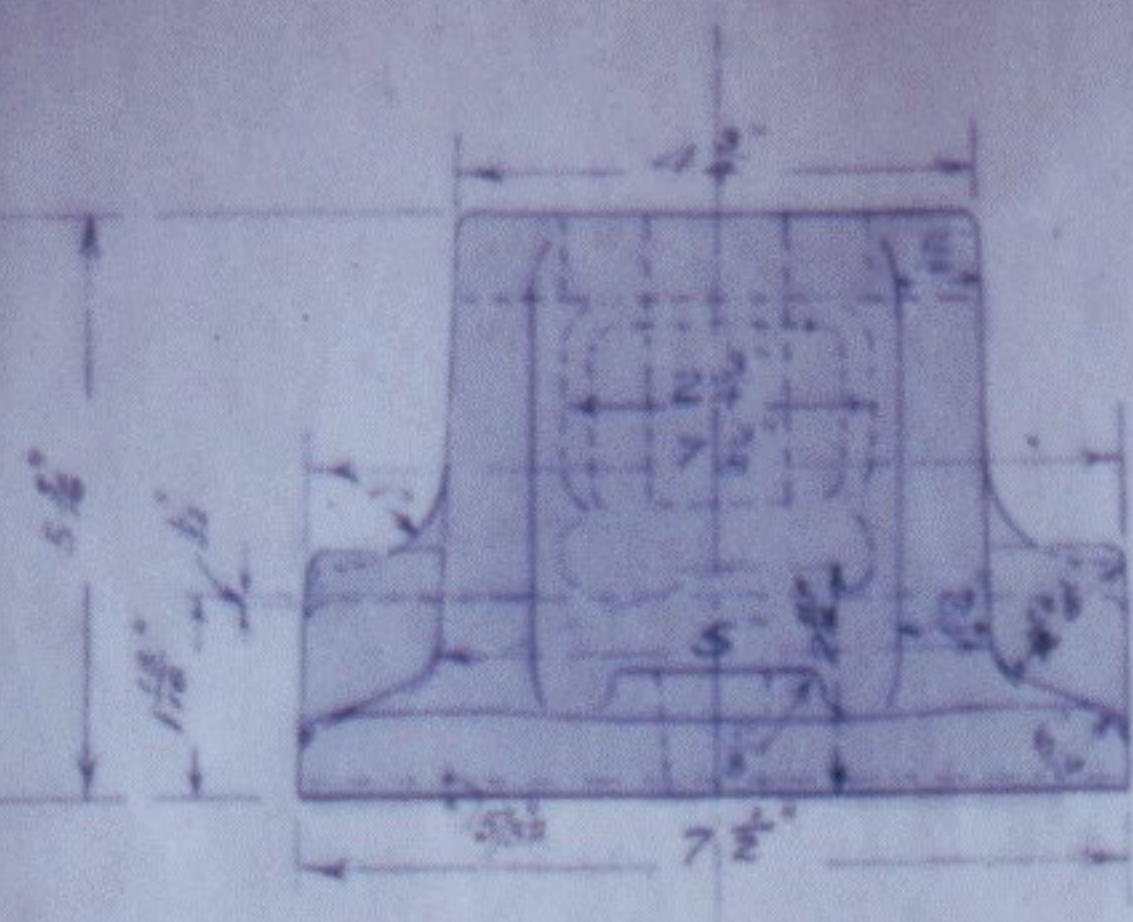
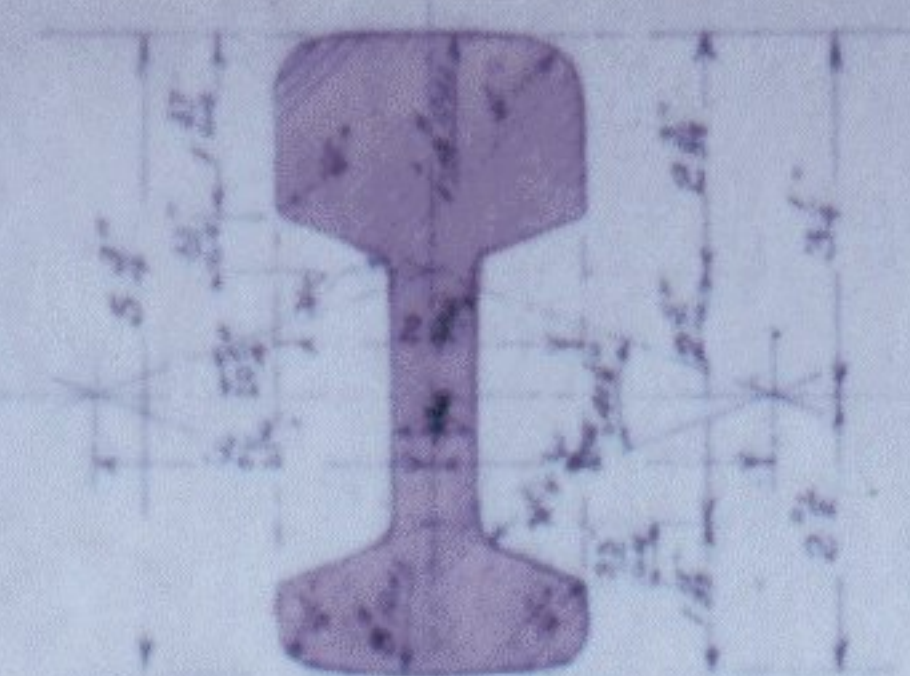


ELEVATION OF CHAIR



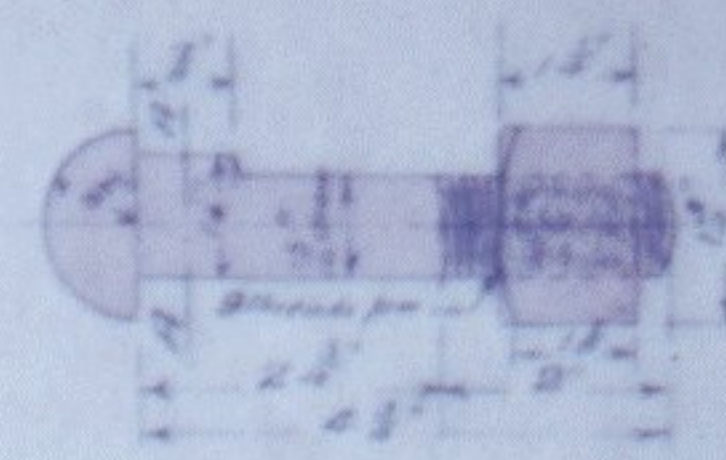
END ELEVATION OF CHAIR



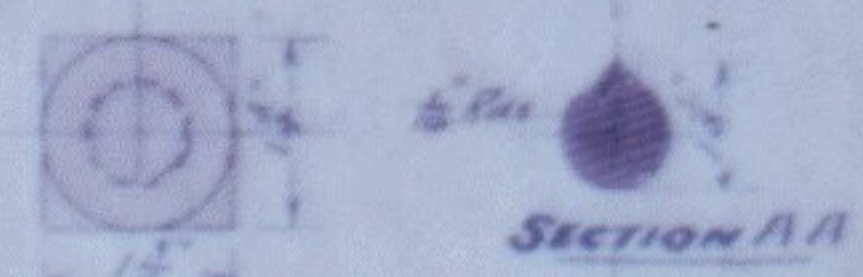
SECTION OF RAIL



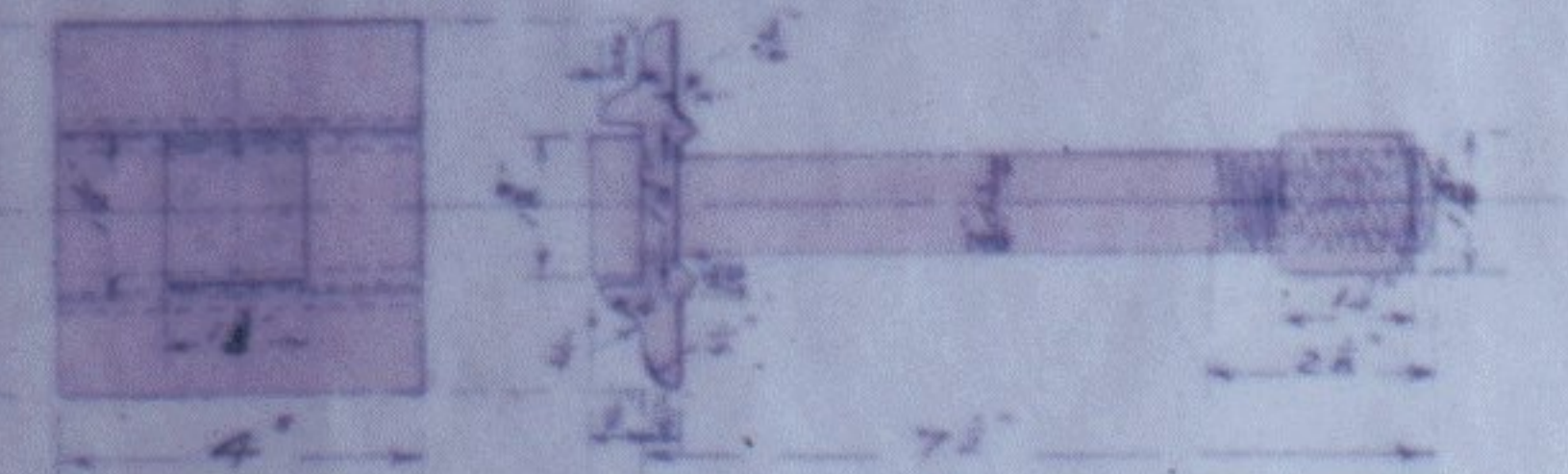
SPECIALLY COMPRESSED TAPER OAK RAIL KEY L.H.
Note - The keys are made Right Hand & Left Hand respectively



FISH BOLT



SECTION A-A

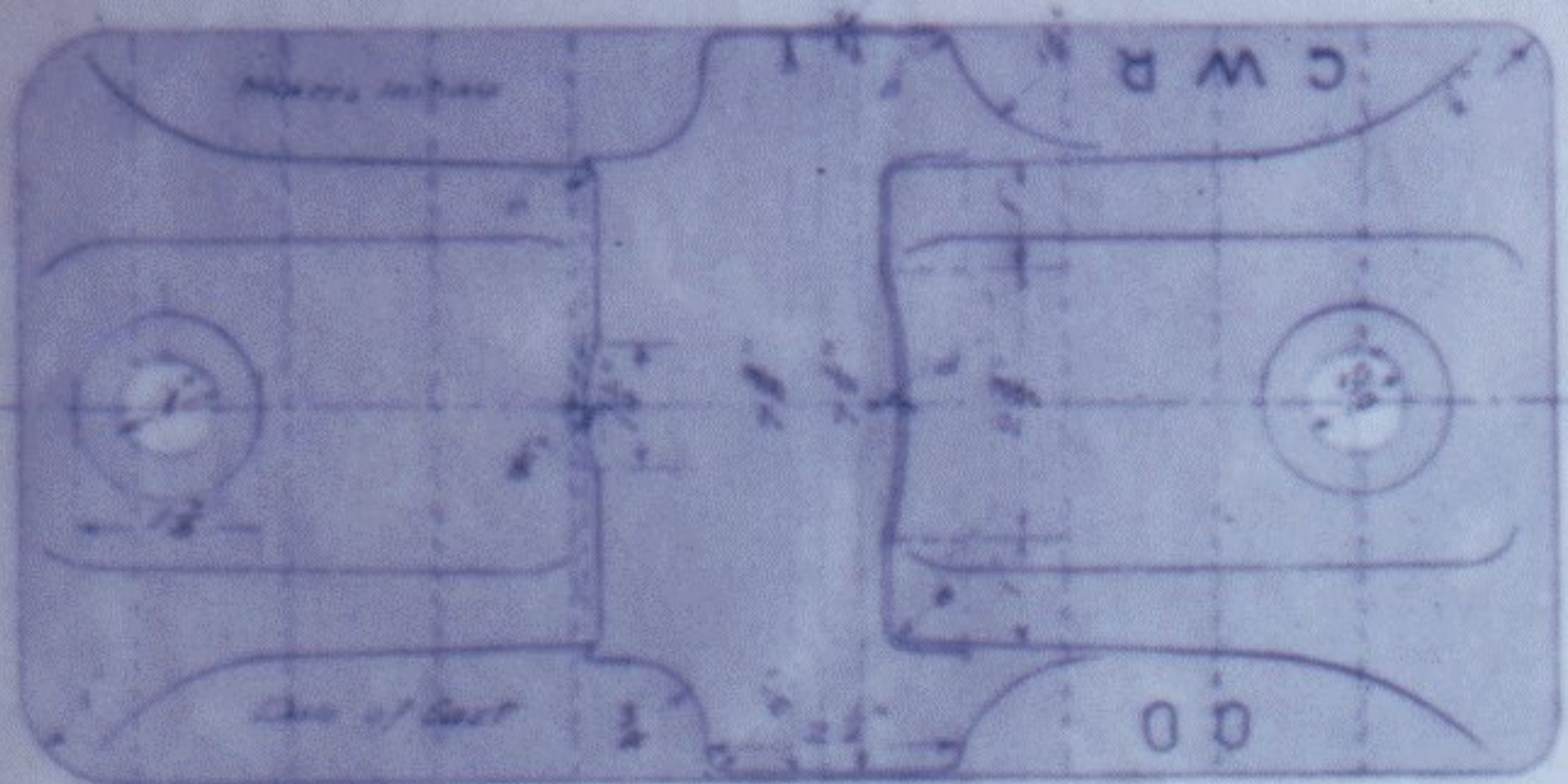


CHAIR BOLT WITH RIBBED WASHER



SPACING OF SLEEPERS FOR ORDINARY PLAIN LINE

Scale 1/4 of an Inch to a Foot

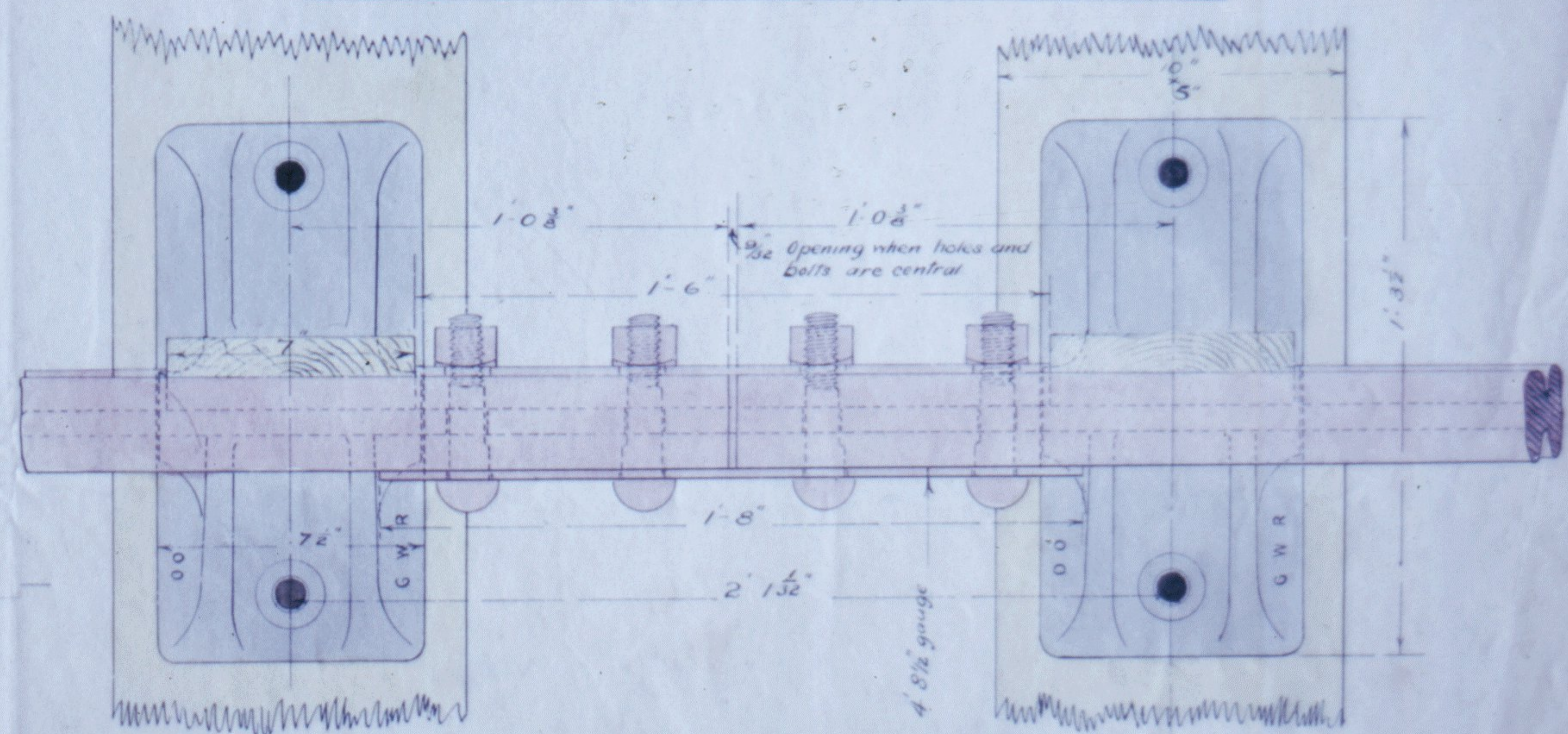


PLAN OF CHAIR

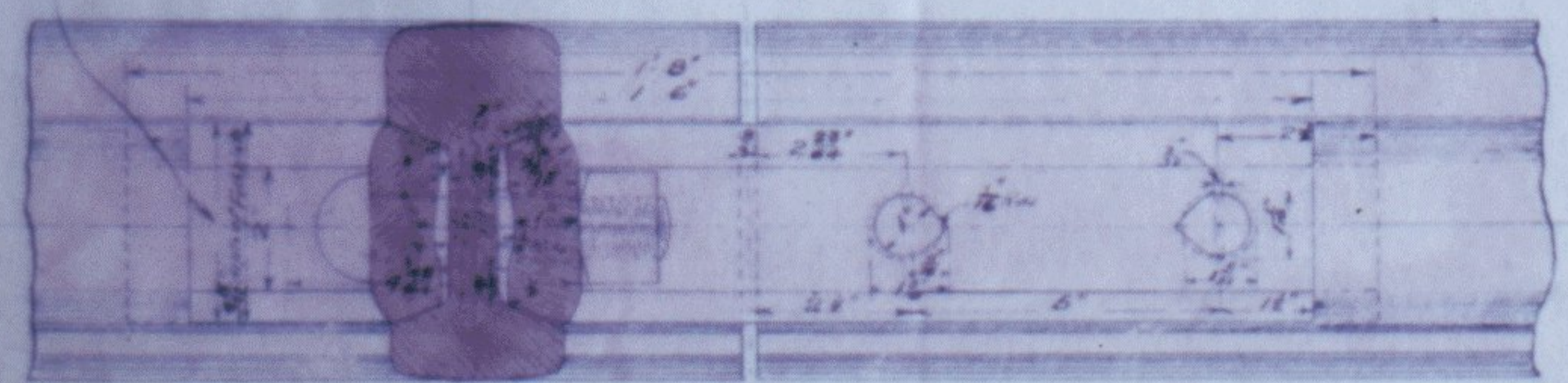
SPACING OF RAIL JOINTS

Note: The following spaces must be left at the joints according to the temperature for the expansion and contraction of the metal for all rails above 32° and not exceeding 44.6 in length

TEMPERATURE	NATURE OF WEATHER	SPACE
60	In hot summer weather	5/16"
60	Moderately cool weather	3/16"
30	In cold winter weather	1/16"



PLAN OF JOINT SHOWING POSITION OF LONG & SHORT FISHPLATE



SECTION & ELEVATION OF JOINT SHOWING PART FISHPLATE WITH BOLTS REMOVED

REFERENCE

- Steel Rails 44.6" long, 97 1/2 lbs per lin yard
- Steel Fish Plates, Outer 18", Inner 20" long 1" thick, 33 lbs per pair
- Steel 7/8" Chair bolt 7/8" dia. with 1/4" nut & 5/16" ribbed washer 3 1/2 lbs each
- Steel 4 1/4" Fish bolts 1 5/16" dia with 1 1/4" nut 2 1/2 lbs each
- Cast Iron Chair 52 lbs each
- Rectangular Redwood or Hardwood sleepers 9.0" x 10" x 5" serrated & bored with 2 1/2" bit by machinery, the Redwood afterwards creosoted
- Keys Taper Oak Specially compressed 7" long

G.W.R. DETAILS OF PERMANENT WAY FOR MAIN LINES

BULL HEAD STEEL RAIL SECTION 00

WEIGHT 97 1/2 LBS PER YARD

Scale 3/16" = 1 Foot