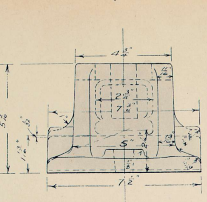
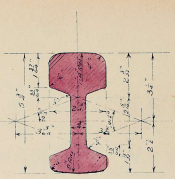


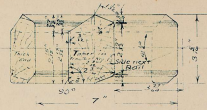
ELEVATION OF CHAIR



END ELEVATION OF CHAIR

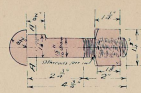


SECTION OF RAIL



SPECIALY COMPRESSED TAPER OAK RAIL KEY L.H.

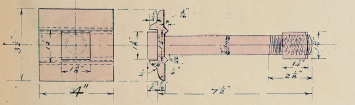
Note: The keys are made Right Hand & Left Hand respectively



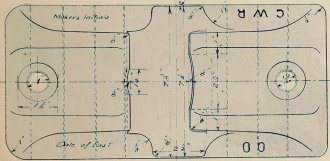
FISH BOLT



SECTION A-A



CHAIR BOLT WITH RIBBED WASHER

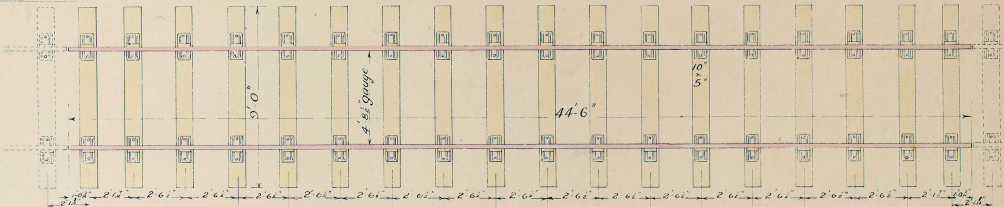


PLAN OF CHAIR

SPACING OF RAIL JOINTS

Note: The following spacings must be left at the joints according to the temperature for the expansion and contraction of the metal. For all rails, except 35.0 and not exceeding 44.6 lbs weight.

TEMPERATURE	NATURE OF WEATHER	SPACING
60°	Very hot summer weather	30"
60°	Moderately hot weather	32"
60°	Little weather or weather	34"

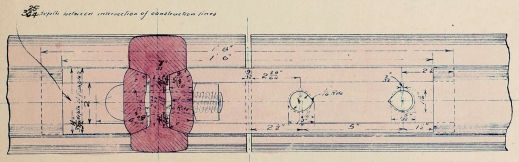


SPACING OF SLEEPERS FOR ORDINARY PLAIN LINE

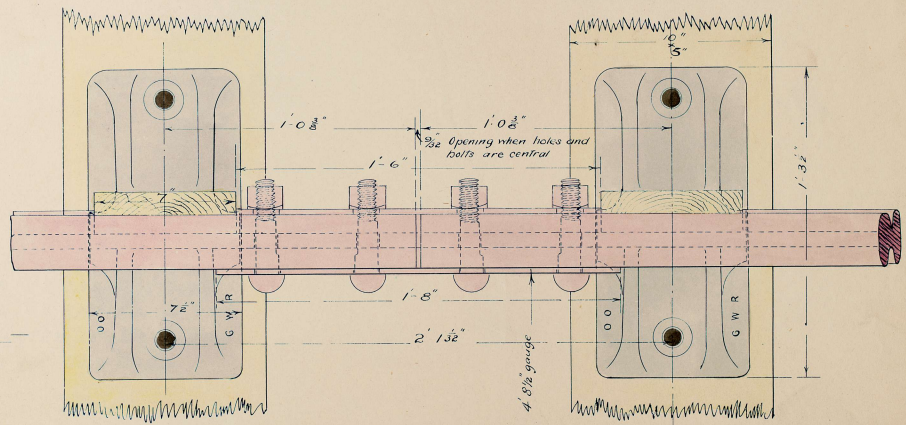
INCHES 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

Scale 1/4 of an Inch to a Foot

25 feet



SECTION & ELEVATION OF JOINT SHOWING PART FISHPLATE WITH BOLTS REMOVED



PLAN OF JOINT SHOWING POSITION OF LONG & SHORT FISHPLATE

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 & 3/8" ribbed washer 3 1/2 lbs each
 Steel 4 1/2" Fish bolts 1 1/2" dia with 1/4" nut 2 1/8 lbs each
 Cast Iron Chair 52 lbs each
 Rectangular Redwood or hardwood sleepers 9'0", 10'5" serraired & 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 1/2" = 1 Foot