

1,054,600.

Patented Feb. 25, 1913.

Fig. 1

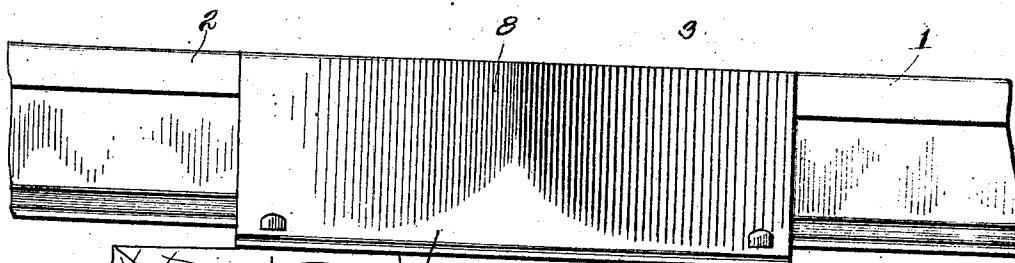


Fig. 2

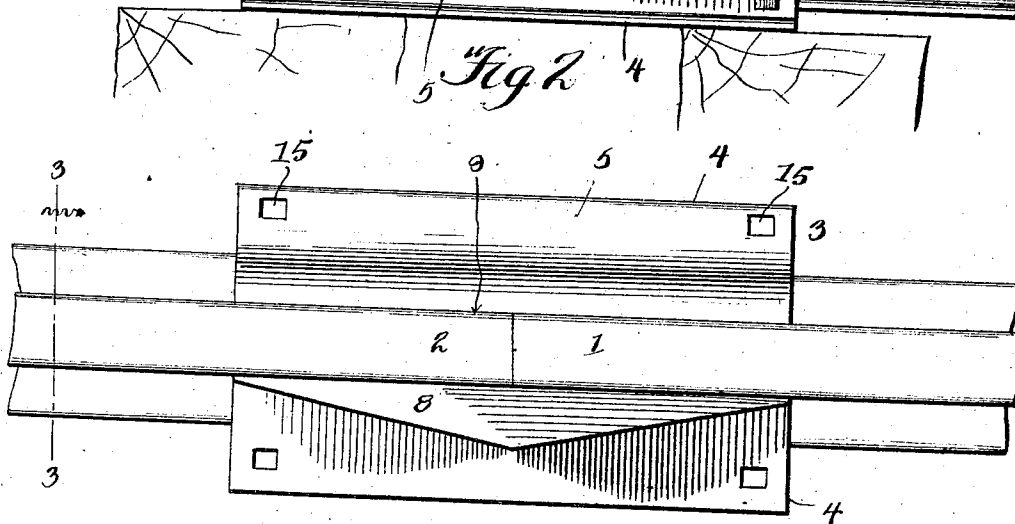
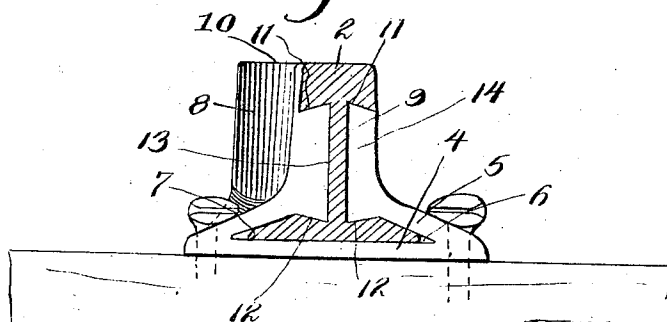


Fig. 3



Witnesses
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RAIL-JOINT.

1,054,600.

Specification of Letters Patent.

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Application filed November 8, 1910. Serial No. 591,261.

To all whom it may concern:

Be it known that I, WILLIAM T. ORR, a citizen of the United States, residing at St. Louis, State of Missouri, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints and the object of the invention is the provision of a combined rail chair and tread joint which is adapted to connect the ends of separate rails together without the use of bolts or other fastening devices and which will permit ready expansion or contraction of the rails.

A further object of the invention is the provision of means for effectually preventing lateral disengagement of the fish plate sections of the joint without the use of bolts.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which—

Figure 1 is a side elevation. Fig. 2 is a top plan view. Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring more particularly to the drawing 1 and 2 represent the ends of the separate rails which are to be connected and 3 represents the combined chair and tread joint. This combined chair and tread joint is made of an integral casting having a base 4, which extends beneath the base of the rails and is formed with the inwardly extending flanges 5, having a groove 6 which is adapted to receive the base of the rail 7. Extending upwardly from the flanges 5 are the vertical fish plate sections or flanges 8 and 9 the former extending up flush with the tread of the rail and forming a seat 10 for the wheel which rides thereover without being affected by the space between the rails. The heads of the rails are undercut as shown at 11 and the base 7 is also undercut as at 12 so as to form a dove-tailed groove or mortise 13 in which the dove-tailed edges 14 of the flanges 8 and 9 are adapted to seat. The upper dove-tailed

edge on the flange 9 is formed by cutting away the tread 10 in the manner shown. Suitable spike apertures 15 are provided to prevent the device from slipping longitudinally on the rails. It will be noticed that the dove-tailed connection of the flanges 8 and 9 with the rail absolutely prevents any lateral movement of these flanges and avoids the use of bolts as in the attachment of the ordinary fish plates.

In applying the device the ends of the rails are slipped in toward each other until they abut and the device is then spiked to the adjoining ties.

It will be noted from the accompanying drawing that one of the outer side faces of the chair member inclines outwardly from the opposite free ends thereof and terminates intermediate the said ends in an enlarged thickened portion the transverse center of the thickened portion being arranged in alinement with the meeting ends of the rails, forming a substantial reinforcement for rail ends at their meeting portions.

Having thus described the invention, what is claimed is—

A rail chair comprising a base adapted to support the meeting ends of the rails and a base flange extending inwardly therefrom, the heads of said rails having their underside beveled upwardly and inwardly toward their webs, the bases of said rails having their upper surfaces inclined from the center thereof in opposite directions, splice bars rising upwardly from said flanges and having their upper edges oppositely beveled to engage the beveled portion of said heads, and said base flange having its underface oppositely inclined from the center to correspond to and engage the oppositely inclined portion of the base in a manner and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM T. ORR.

Witnesses:

PASCAL E. BITTER,
JOHN MORES.