A. HEETER.

RAIL TIE.

APPLICATION FILED OCT. 16, 1920.

1,361,579. Patented Dec. 7, 1920.

Fig. 1.

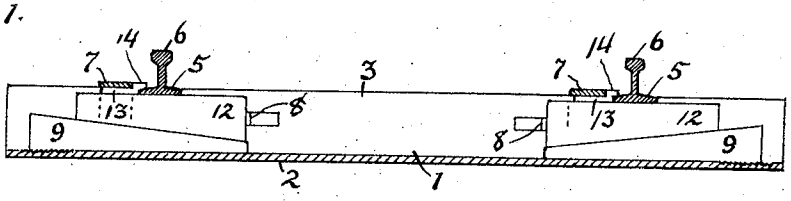


Fig. 2.

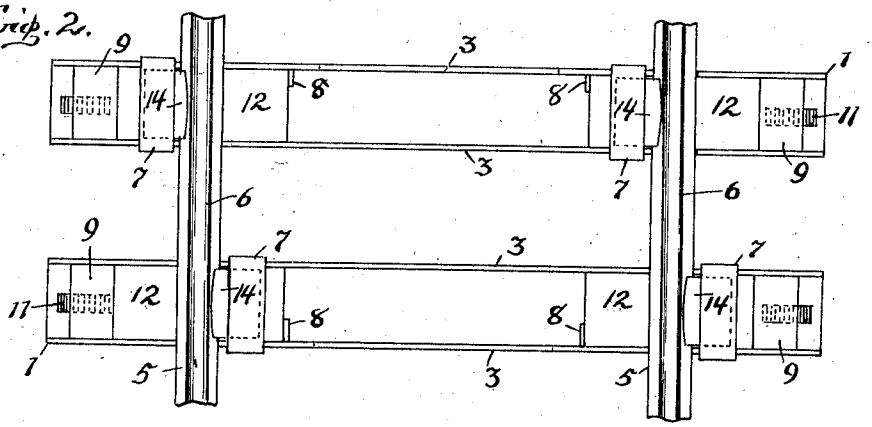


Fig. 3.

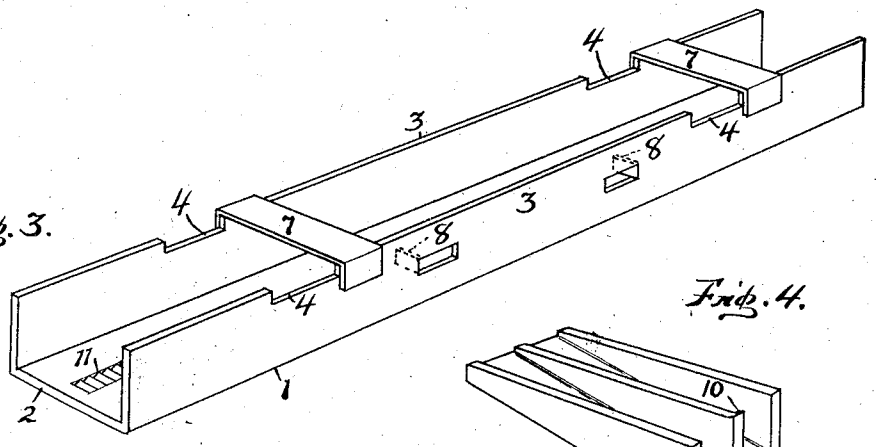
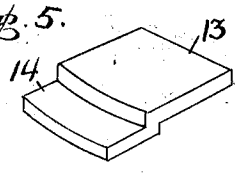


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

ALBERT HEETER, OF NORTH MANCHESTER, INDIANA.

RAIL-TIE.

1,361,579. Specification of Letters Patent. Patented Dec. 7, 1920.

Application filed October 16, 1920. Serial No. 417,387.

To all whom it may concern:

Be it known that I, ALBERT HEETER, a citizen of the United States of America, and resident of North Manchester, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Rail-Ties, of which the following is a specification.

This invention relates to improvements in rail ties and the object thereof is to provide a tie for supporting rails that is practically indestructible and which will afford means for easy renewal of the wearing parts. Another object is to provide a construction by means of which connection between the rails and ties may be readily tightened as they become loosened through climatic changes as well as wear.

The object of the improvement is accomplished by the construction illustrated in the accompanying drawings in which:

Figure 1 is an elevation of a tie embodying the invention shown in longitudinal section;

Fig. 2 is a plan view showing rails mounted upon ties arranged in alternate positions;

Fig. 3 is a perspective view of a tie constructed in accordance with the invention;

Fig. 4 is a perspective view of a wedge in inverted position and which is used in conjunction with the tie; and

Fig. 5 is a perspective view of a clamp shown inverted and which is used in securing the rail tie.

Similar characters of reference indicate corresponding parts throughout the several views and referring now to the same:

The tie comprises a channel iron 1 which is intended to be positioned with its back 2 facing downwardly and with its sides 3 extending upwardly. In the upper edges of the sides 3 are formed recesses 4 of a proper breadth to receive the bases 5 of the rails 6 respectively.

Adjacent each pair of notches 4 are positioned upon the tops of the sides 3 corresponding braces 7 which are secured permanently thereto by any suitable means, such as by welding. Also, in one of the sides 3 of each channel is formed an internally projecting lug 8 formed by cutting a portion of the side to form the lug and pressing it inwardly at an angle so that the lug projects transversely into the channel.

In each end of the channel is arranged a wedge 9 having upon its bottom at the rear thereof a projecting tooth 10 adapted to engage in a series of teeth 11 formed in the bottom of the channel. Also upon each wedge is positioned a tapering wooden chair 12 adapted to support the corresponding rail 6, the chair resting with one end against the adjacent lug 8 in the channel. A clamp 13 having an offset 14 is arranged between the corresponding chair 12 and brace 7 with its offset 14 extending over the adjacent edge of the foot of the rail so as to hold the same upon the chair.

In using the invention the ties are spaced apart as usual and are arranged alternately endwise so that the braces of one tie extend on one side of the rails while those of the next succeeding tie extend upon the opposite side of the rails. The ties are held in alinement by the rails which rest in the notches thereof, and in this manner also the rails are held properly spaced apart. The clamps 13 are inserted beneath the braces so that their offsets extend over the adjacent foot of the corresponding rail and the chairs 12 are positioned beneath the rails and the wedges 9 are inserted respectively beneath the chairs and are then driven inwardly so as to force the chairs up against the rails and clamps. As each wedge is forced inwardly, the tooth 10 engages successively the teeth 11 formed in the bottom of the channel, which prevents it from retracting.

By means of this construction, only a small amount of timber is employed and such parts are in a form that admit of inexpensive and easy renewals as deterioration necessitates.

What I claim is:

1. In a tie for rails a metallic channel having in its upper edges near each end thereof a pair of notches for the reception of the foot of a rail; a brace extending across the channel at the top thereof adjacent the notches; a wedge arranged within each end of the channel; a chair resting upon each wedge for the support of the corresponding rail, there being an inwardly projecting lug in the channel for each chair for holding the same in alinement; and a clamp having an offset adapted to be held between the corresponding chair and brace with its offset engaging and holding the rail in position.

2. In apparatus of the class described a channel having alined notches formed in its

edges, spaced apart for the reception of a pair of rails, and having also braces connecting its upper edges at points adjacent the notches; a pair of wooden chairs for the support of the respective rails; a clamp for each rail adapted to engage the same and to be held between the corresponding brace and chair; and wedges positioned in the bottom of the channel and affording adjustable support for the corresponding chairs arranged thereon.

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

ALBERT HEETER.

Witnesses:
MATILDA METTLER,
W. G. BURNS.