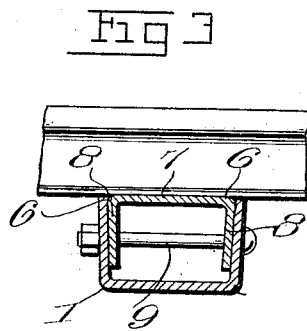
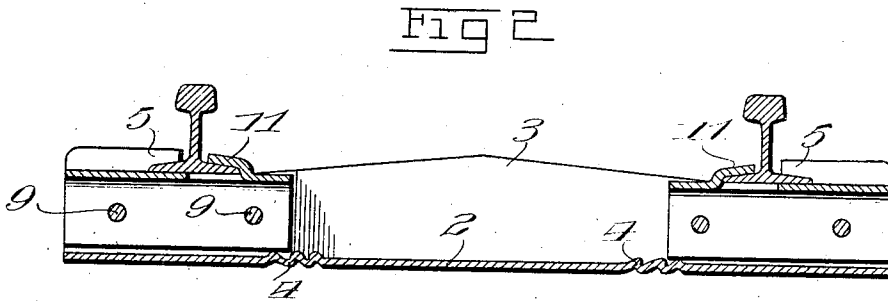
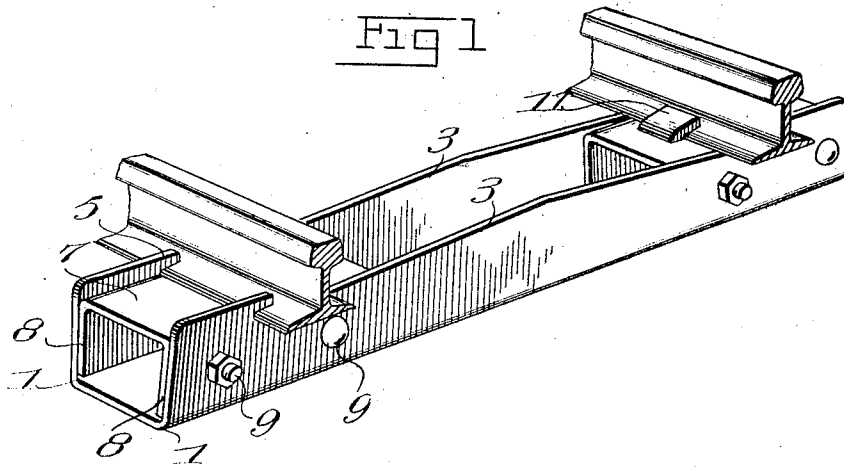


J. M. ROE.
RAILWAY TIE.
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1,033,735.

Patented July 23, 1912.



Witnesses

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RAILWAY-TIE.

1,033,735.

Specification of Letters Patent.

Patented July 23, 1912.

Application filed April 20, 1912. Serial No. 692,017.

To all whom it may concern:

Be it known that I, JACKSON M. ROE, a citizen of the United States, residing at Sunnyside, in the county of Yakima and State of Washington, have invented new and useful Improvements in Railway-Ties, of which the following is a specification.

This invention relates to railroad ties, the object of the invention being to provide an all-metal railway tie having combined therewith chairs, so related to the tie and connected therewith by means of bolts, that the parts which engage the rails are securely clamped to the rails in tightening the bolts, so that an effective and reliable connection is obtained between the rails and the tie, which will avoid any possibility of the spreading of the rails.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claim hereunto appended.

In the drawings: Figure 1 is a perspective view of the railroad tie, embodying the present invention, showing sections of rails held thereby. Fig. 2 is a longitudinal section through the tie and chairs, and also showing the rails in section. Fig. 3 is a cross section taken through one end of the tie and one of the chairs.

Referring to the drawings, it will be seen that the main body of the tie is formed of a single sheet metal blank, which is bent along parallel lines 1 to form a bottom 2, and upwardly extending and upwardly diverging side flanges 3, while the bottom 2 of the tie is crimped or corrugated, as shown at 4, to provide an effective hold or seat for the extremity of a pinch bar to be used in forcing the chairs and rails into the proper gage, before finally clamping the chairs in place between the flanges of the tie. The flanges of the tie are cut away, as shown, to provide rail holding lips 5, adapted to engage over the base of the rail at the outside of the latter.

In connection with each tie, I employ a pair of chairs, each of which is formed of a single sheet metal blank bent along parallel lines 6 to form a main body or top portion 7, and downwardly converging flanges 8, which lie and work in contact with the inner faces of the flanges of the tie, each chair being secured between the flanges of the tie by means of bolts 9 inserted in opposite directions therethrough, said bolts passing through the flanges of the tie, and also through the flanges of the chair. Each chair is provided with an upwardly extending rail holding lip 11 which engages over the bottom flange of the rail at the inner side thereof.

From the foregoing description, it will now be seen that by tightening the bolts which fasten the chairs to the tie, a wedging action takes place between each chair and the tie, which serves to force the engaging lips of the tie and the chairs into firm engagement with the rail, thus securely clamping the rail and preventing all lost motion between the rail and the chairs. This adds greatly to the life and durability of the tie, and the roadbed as a whole, and prevents possibility of the rails spreading, the outside rail holding lips being integral parts of the tie itself.

What is claimed is:

A metallic railway tie, the main body of which is composed of a single sheet metal blank bent along parallel longitudinal lines to form a bottom, and upwardly diverging flanges, the latter being notched to provide rail holding lips, rail chairs, each consisting of a sheet metal blank bent along parallel lines to form downwardly converging flanges having a wedging action against the flanges of the tie body, rail holding lips on said chairs, and bolts passing through the contacting flanges of the tie and chairs.

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

JACKSON M. ROE.

Witnesses:

V. O. NICHOLSON,
H. H. NEWCOMB.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."