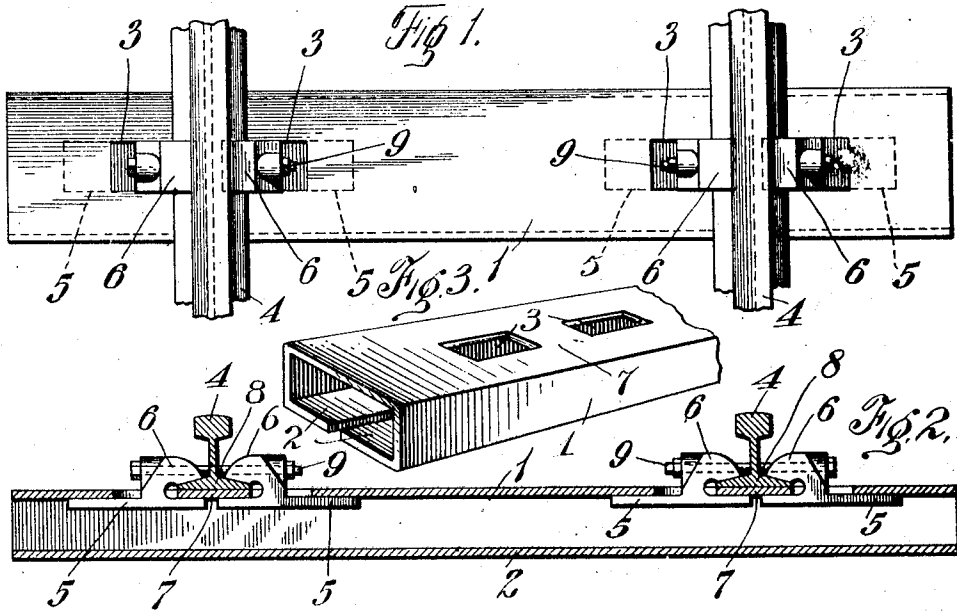


A. M. BROADWELL.
RAILWAY TIE.
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1,057,031.

Patented Mar. 25, 1913.



Inventor

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UNITED STATES PATENT OFFICE.

ALLIE M. BROADWELL, OF DETROIT, MICHIGAN.

RAILWAY-TIE.

1,057,031.

Specification of Letters Patent.

Patented Mar. 25, 1913.

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To all whom it may concern:

Be it known that I, ALLIE M. BROADWELL, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Railway-Ties, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to railway ties and means for fastening rails thereto and more particularly to a metal tie structure and clamping means whereby a reasonable amount of resiliency is retained in the tie and the rail is firmly held in position without the use of bolts or like members which are liable to shear.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claim.

In the drawings, Figure 1 is a plan view of the tie and railway fastening embodying features of the invention; Fig. 2 is a view in longitudinal section therethrough; Fig. 3 is a view in detail of an end portion of the ties shown in Figs. 1 and 2.

As herein illustrated in preferred form, a tie 1 is formed of a sheet metal plate bent between its lateral margins 2 to form a substantially rectangular hollow body, the said margins being brought closely together but not in contact, the interval allowing the body of the tie to yield laterally to a slight degree. A pair of openings 3 are formed in the rail face of each tie near the end thereof through which clamps may be placed to engage rails 4 crossing the ties. In preferred form these clamps comprise plates 5 with upwardly extending bosses 6 having slots adapted to embrace the tongue 7 of the tie between the opening and the superposed base 8 of the rail. The clamps are secured in position by bolts 9 passing therethrough and through the web of the rail. As the upper faces of the rail web are beveled and the notches are correspondingly shaped, the bolt in drawing the clamps together forces them upwardly against the under face of the upper part of the tie thereby holding the rail securely in position.

In this construction, the rail body is adapted to be firmly seated in and held by road ballast of the ordinary character while the rails are held securely in position on the bearing surface of the full width of the tie. Furthermore the rail load is carried down the vertical walls to the inturned margins which may yield slightly thereby giving the resilient effect of the ordinary wood tie which prevents crystallization of the rail and loosening of the parts. In this construction the rails are quickly secured in place by means which are inexpensive and effective.

Obviously, changes may be made in the construction and arrangement of parts without departing from the spirit of the invention and I do not wish to limit myself to any particular form or arrangement of parts.

What I claim is:

A railway tie consisting of a sheet metal plate bent between its lateral margins into a hollow open ended rectangular body with said margins in parallel spaced relation along one side thereof and with openings through the opposite face of the body, and clamping members for securing rails against the outer face of the apertured side consisting of a pair of plates adapted to bear upwardly against the under face of the apertured side while bridging the opening thereof, and bosses on the plate extending through the opening and laterally slotted to engage the adjacent portions of the apertured side and the base of a track rail supported thereon with bolts for drawing the clamping members toward the middle of an applied rail, the clamping members permitting limited adjustment of the rail longitudinally of the tie.

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

ALLIE M. BROADWELL.

Witnesses:

CHAS. W. STAUFFIGER,
ANNA C. RAVIER.