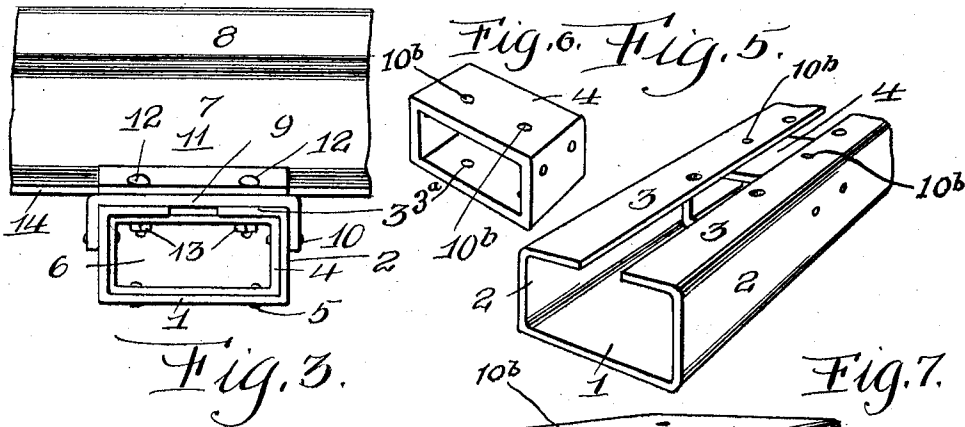
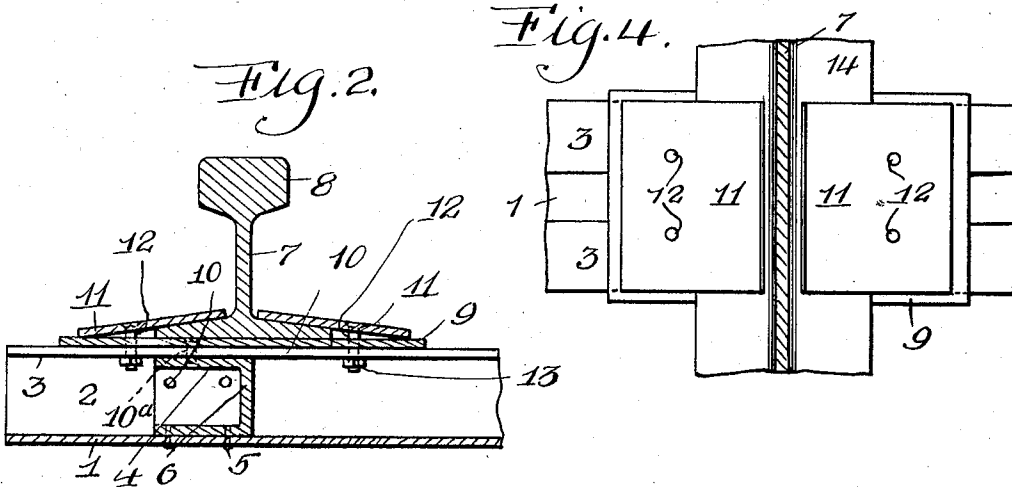
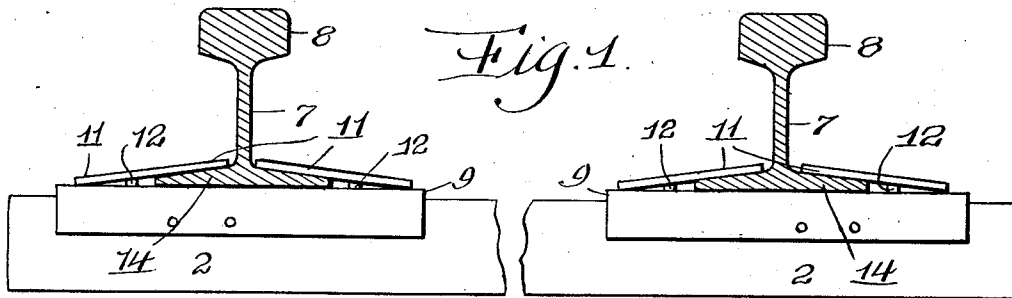


S. S. BLATT.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED DEC. 29, 1910.

1,009,462.

Patented Nov. 21, 1911.



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UNITED STATES PATENT OFFICE.

SAUL STEVER BLATT, OF ALTOONA, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

1,009,462.

Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed December 29, 1910. Serial No. 599,814.

To all whom it may concern:

Be it known that I, SAUL STEVER BLATT, a citizen of the United States of America, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Ties and Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a metallic tie and rail fastener, and the primary object of the invention is to obviate the necessity of using wooden ties by providing a metallic structure that is durable and capable of supporting the rails of a track.

Another object of the invention is to furnish a metallic tie with a novel rail fastener for positively retaining rails upon the tie and preventing lateral and vertical displacement of the rails.

A further object of the invention is to provide a metallic tie and rail fastener that is simple in construction, easy to install without the use of skilled labor, and efficient for the purposes for which it is intended.

A still further object of this invention is to provide a rail fastening means that will not present any obstructions to the flange of a wheel or to the brake rigging of rolling stock.

These and such other objects as may hereinafter appear are attained by the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein like numerals of reference designate corresponding parts throughout the several views, and in which:—

Figure 1 is a side elevation of a portion of the metallic tie and rail fastener, Fig. 2 is a central longitudinal sectional view of a portion of the tie and rail fastener, Fig. 3 is an end view of the metallic tie and rail fastener, Fig. 4 is a plan view of the tie and fastener with the head of the rail removed, Fig. 5 is a perspective view of a portion of the tie, Fig. 6 is a perspective view of a detached cup-shaped member, and Fig. 7 is a perspective view of a detached channel-shaped rail plate.

In the drawing the reference numeral 1 denotes a channel-shaped metallic tie having the side walls 2 thereof bent inwardly to

provide confronting lateral flanges 3, these flanges and the side walls of said tie being reinforced and braced adjacent to the ends of the tie by cup-shaped members 4, said members being riveted or otherwise connected, as at 5 to the bottom of the tie with the vertical wall 6 of the member directly beneath the web 7 of a rail 8 mounted upon the end of the tie.

Mounted upon the top of the tie at each end thereof is an inverted channel-shaped rail plate 9 having the side walls thereof riveted or otherwise connected, as at 10, to the side walls 2 of the tie 1 and the side walls of the cup-shaped member 4. The rail 8 is mounted upon the tie plate 9, and to retain the rail thereon transverse inclined plates 11 are secured to the tie plate 9 and to the lateral flanges 3 by bolts 12 and nuts 13. The inclined plates 11 extend over upon the base flanges 14 of the rail 8, and as the bolts and nuts are detachable, smaller or larger plates 11 can be employed for holding smaller or larger rails.

The flanges 3, channel-shaped rail plate 9 and top wall of the member 4 are provided with openings 10^b which register with each other. Extending through the registering openings 10^b are hold-fast devices 10^a, by way of example, rivets, whereby the member 4, flanges 3, and rail plate 9 are connected together. The slots 3^a in the lateral flanges 3 permits of the nuts and bolts and the rivets of the tie and rail fastener being easily placed in position.

The tie and rail fastener in its entirety is made of light and durable metal and the construction of the tie permits of the same being tamped upon the ballast of the road-bed.

What I claim is:—

A metallic tie and rail fastener comprising a channel-shaped member having the top marginal portions of the side walls thereof for their entire length bent inwardly to provide a pair of oppositely disposed longitudinally-extending spaced supporting flanges, cup-shaped elements mounted within said members adjacent to the ends thereof and having their inner end walls substantially in vertical alinement with respect to the webs of the rails supported by the tie, inverted channel-shaped rail supporting plates mounted upon said flanges and overlapping the side walls of said member,

means for securing said elements to the horizontal portion of said member, inclined plates mounted upon said channel-shaped plates and extending over the base flanges of the rails, means for securing the said inclined and channel-shaped plates to the base flanges and to said elements, and means for securing the channel-shaped plates to

the sides of said member and to said elements.

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

SAUL STEVER BLATT.

Witnesses:

MAX H. SROLOVITZ,

K. H. BUTLER.

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