

J. SPIELMANN.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED MAR. 19, 1912.

1,047,583.

Patented Dec. 17, 1912.

FIG. 1

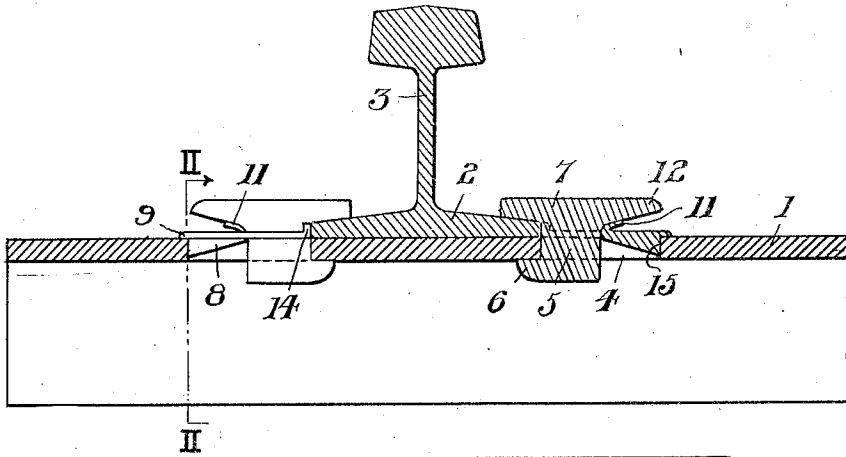


FIG. 2

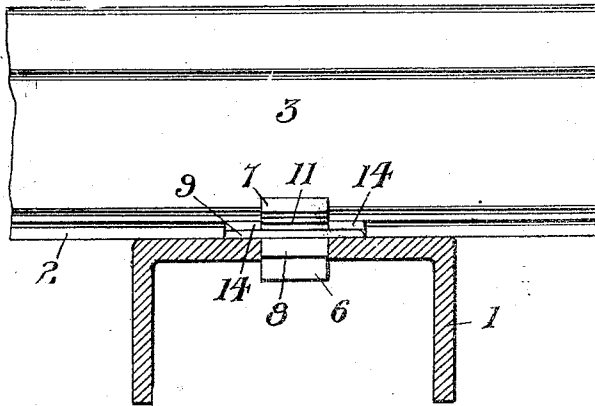


FIG. 3

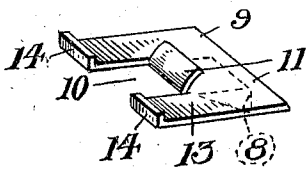
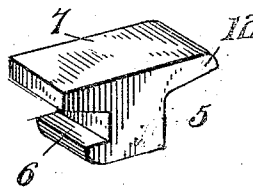


FIG. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

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METALLIC TIE AND RAIL-FASTENER.

1,047,583.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEF SPIELMANN, a subject of the King of Hungary, residing at Versailles, in the county of Allegheny 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 my invention is to furnish a tie of the channel-bar construction with novel fasteners that can be easily and quickly placed in position for retaining a rail upon a tie in a manner that prevents vertical and lateral displacement of the rail.

Another object of this invention is to provide rail fasteners that can be installed by unskilled labor, the fasteners being simple in construction, durable and highly efficient for the purposes for which they are intended.

A further object of this invention is to provide a metallic tie that can be easily tamped in a roadbed to provide a firm foundation for the rails of a track.

With the above and other objects in view, the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein:—

Figure 1 is a longitudinal sectional view of a portion of a tie in accordance with this invention, Fig. 2 is a cross sectional view of the same, taken on the line II—II of Fig. 1, Fig. 3 is a perspective view of a detached fastener plate, and Fig. 4 is a perspective view of a detached fastener.

The reference numeral 1 denotes a tie of the channel-bar construction, the bar being inverted and supporting the base flanges 2 of a rail 3. The top of the tie is provided with oppositely disposed rectangular openings 4 at the longitudinal edges of the base flanges 2 of the rail 3, and arranged in these openings are fasteners 5. The lower ends of the fasteners 5 have lips 6 engaging the under side of the top of the tie, and the upper ends of said fasteners are provided with longitudinal heads 7, said heads extending on to the base flanges 2 of the rail 3. The fasteners 5 in cross section are of a less

area than the openings 4, thereby providing sufficient room in the openings 4 for the depending portions 8 of fastener plates 9. The fastener plates 9 are rectangular in plan and the inner end of each plate is cut and sheared, as at 10 and a portion of the cut and sheared material bent upwardly to provide a support 11 for the outer end 12 of the heads 7. In shearing and cutting the plates 9, as at 10, said plate is provided with parallel arms 13 and the inner ends of these arms are bent upwardly to provide flanges 14 that engage the longitudinal edge of the base flange 2 of the rail 3. The depending portion 8 of the plate 9 is removed from the outer edge of said plate and said depending portion 8 presents a vertical shoulder 15 for engaging the outer wall of the opening 4 with the outer edge of the plate 9 projecting on to the top of the tie, as best shown in Fig. 1.

To assemble the fasteners in the tie 1 for holding the base flanges 2 of the rail 3, a fastener can be placed in the cut away portion 10 of the fastener plate 9 and with this plate made of a resilient material, the plate can be placed upon the tie 1 with the flanged ends of the arms 13 resting upon the tie and with the plate at an inclination to the tie. With the lower end of the fastener 5 extending into the opening 4, the fastener 5 can be gradually shifted into engagement with the tie 1 and the base flange 2 of the rail 3. The depending portion 8 of the fastener plate can be quickly sprung into the opening 4 and the support 11 engaging under the end 12 of the head 7, will firmly hold the fastener and prevent accidental displacement.

What I claim is:—

In a metallic tie and rail fastener, the combination with a tie of the channel-bar construction having the top thereof provided with rectangular openings, and rails supported by said tie between said openings, of fasteners arranged in said openings, lips carried by the lower ends of said fasteners and engaging under the top of said tie, longitudinal heads carried by the upper ends of said fasteners and extending on to the base flanges of said rails, fastener plates arranged upon the top of said tie, depending portions carried by said fastener plates and

extending into the openings of said tie and
engaging the outer walls of said openings,
said fastener plates being cut away to pro-
vide clearance for said fasteners with a por-
5 tion of the cut away material bent upwardly
to provide supports adapted to engage under
the outer ends of the heads of said fasteners,
said fastener plates having the inner edges

thereof flanged to engage the longitudinal
edges of the base flanges of said rail. 10

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

JOSEF SPIELMANN.

Witnesses:

MARTIN BREYER,

NICHOLAS S. MANDSKIG.