No. 814,842. PATENTED MAR. 13, 1906.

W. GRIESSER.

METALLIC RAILWAY TIE.

APPLICATION FILED OCT. 23, 1905.

Fig. 1.

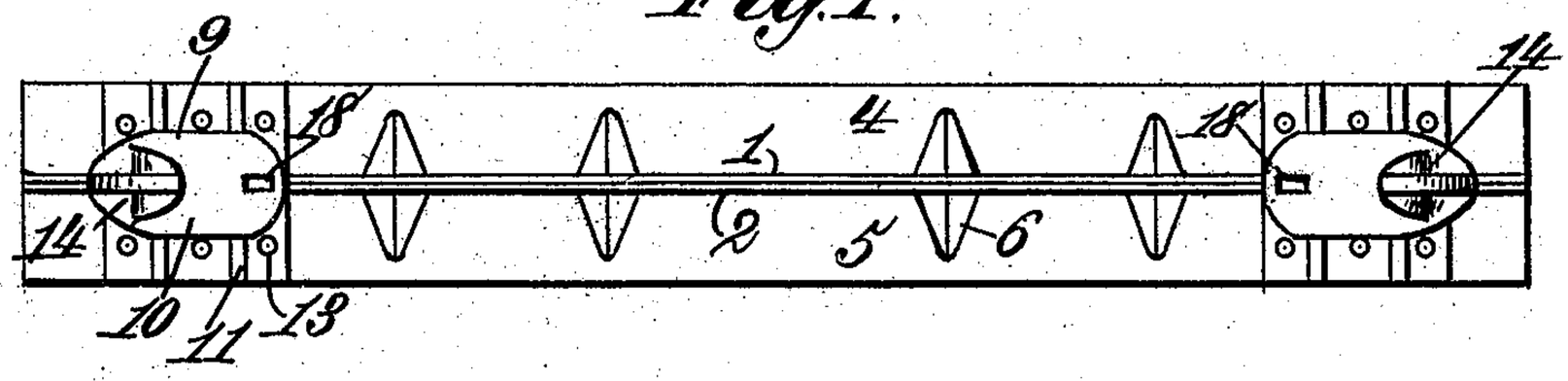


Fig. 2.

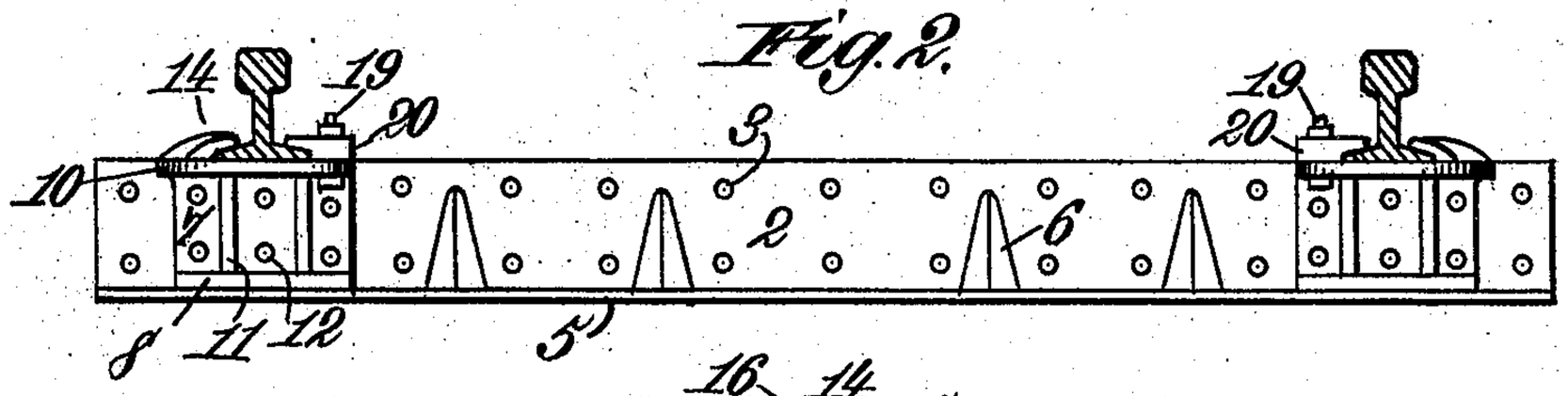


Fig. 3.

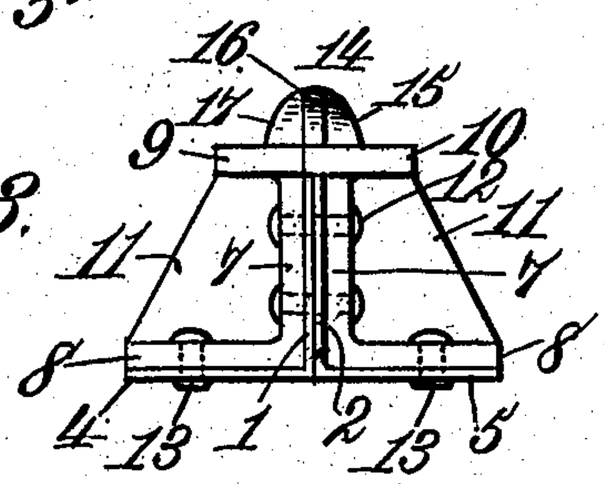
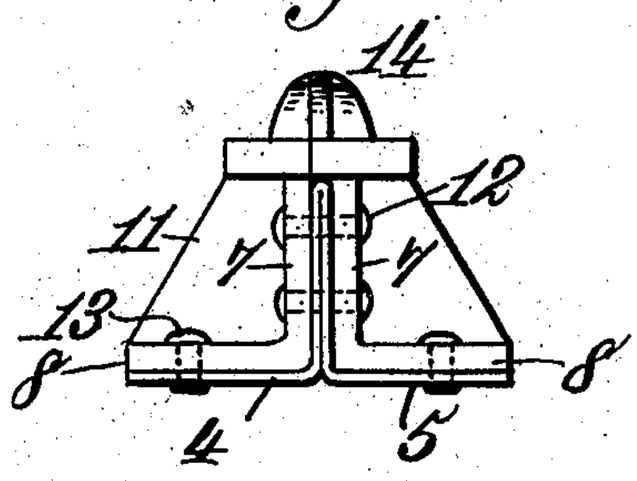


Fig. 4.



Witnesses.
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Julius L. Morris, Jr.

Inventor.
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UNITED STATES PATENT OFFICE.

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METALLIC RAILWAY-TIE.

No. 814,842. Specification of Letters Patent. Patented March 13, 1906.

Application filed October 23, 1905. Serial No. 284,045.

To all whom it may concern:

Be it known that I, WILHELM GRIESSER, a citizen of the United States, residing at Joplin, in the county of Jasper and State of Missouri, have invented new and useful Improvements in Metallic Railway-Ties, of which the following is a specification.

This invention relates to certain new and useful improvements in metallic railway-ties, and has for its object to provide a compound tie which shall combine strength and durability with simplicity of construction and in the use of which the rails may be readily secured to the tie and when so secured will be prevented from spreading.

In order that the invention may be clearly understood, I have illustrated the same in the accompanying drawings, in which—

Figure 1 is a top plan view of a cross-tie constructed according to my invention. Fig. 2 is a view in side elevation of the same, but showing in section the rails secured thereon. Fig. 3 is an enlarged view, in end elevation, of the cross-tie; and Fig. 4 is a similar view illustrating a modification.

The main body of my tie is composed of two plates or bars of metal, each of which is bent at right angles to itself. Two of these members 1 2, which in the use of the tie will occupy a vertical position, are united by means of rivets or bolts 3 passed through them, and the other two members 4 5 will thus project in opposite directions to form a continuous base for the cross-tie. Each of the members 1 2 is strengthened by having pressed therein webs or braces 6, these braces being also integral with the base members 4 5. The braces 6 are substantially triangular in shape, the apex of each being located near the upper ends of the members 1 2 and the base of each of said triangular braces being on the base members 4 or 5. In order to provide seats for the rails at or near opposite ends of the cross-ties, I provide two castings, each of which comprises a web 7, a base 8, and a head 9 10, respectively. Integral flanges 11 extend laterally from the web 7 and between the heads 9 and 10 and the base 8. These castings are applied to opposite sides of the cross-tie near the outer ends thereof, and rivets or bolts 12 are passed through the webs 7 and the web members 1 2 of the cross-tie to securely clamp said castings in position. Rivets or bolts 13 also secure the base 8 of the castings to the base members 4 and 5 of the cross-tie, as clearly shown in Fig. 3. The heads 9 and 10 form when the castings are secured in position as described a continuous seat for the rail, the head 10 projecting a slight distance inward beyond the web 7, so as to extend over the upper ends of the web members 1 2 of the cross-tie, as clearly shown by Fig. 3.

14 indicates a tongue for engaging one side of the brace of the rail, one part 15 of this tongue and a strengthening-flange 16 being formed integral with the head 10 and the other portion 17 of said tongue being carried by the head 9.

Recesses are provided at the meeting edges of the heads 9 and 10 to form an aperture 18 for receiving a bolt 19, by means of which the rail may be clamped by a plate 20 on the opposite side of that engaged by the tongue 14.

The modified construction illustrated in Fig. 4 differs from the construction just described, owing to the fact that the web members 1 and 2 and the base members 4 and 5 are made by bending a single plate upon itself to form these parts, so that the body of the tie will be an integral construction. The seats of the rail are applied to this construction exactly in the same manner as above described with reference to the preferred construction.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A metallic railway-tie comprising metal plates riveted together to form a web and bent outward in opposite directions, at right angles to said web, to form a base, metal castings secured to said web member and base near the outer ends of the tie and providing seats for the bases of the rails of a track, and members integral with said seats for engaging one side of each of said rails, respectively.

2. A metallic railway-tie comprising metal plates riveted together to form a web and bent outward in opposite directions at right angles to said web to form a base, metal castings formed in two parts and secured on opposite sides of said cross-tie and near opposite ends thereof to the web and base members thereof, each of said pairs of castings affording a flattened portion forming a seat for the rail and having an integral tongue for engaging one side of the base of said rail, and opposite said tongue a bolt-hole.

3. A metallic railway-tie comprising metal plates secured together to form a web member and bent outwardly in opposite directions

at right angles to said web member to form a base, and having integral braces connecting the web member with said base on both sides of the tie, and metal castings formed in two parts and secured on opposite sides of the tie near the outer ends thereof, each of said pairs of castings being provided with a flat seat for receiving the base of the rail, an integral tongue to engage one side of the base of the rail and opposite said tongue with a bolt-hole whereby a suitable clamp may be applied to the other side of the base of the rail.

4. A metallic railway-tie comprising a sheet of metal bent upon itself to provide two members extending parallel and in contact with each other to form a web and being bent outwardly in opposite directions at right angles to said web to form a base, said parallel members being connected together, and angular metal castings secured to and in face-contact with said base and web near opposite ends of said tie and affording seats for the bases of the two rails of a track, and means for securing said rails to said seats.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILHELM GRIESSER.

Witnesses:
R. B. PETTY, Jr.,
E. A. MORROW.