

S. L. RILEY.
METAL TIE.
APPLICATION FILED FEB. 11, 1911.

990,904.

Patented May 2, 1911.

Fig. 1.

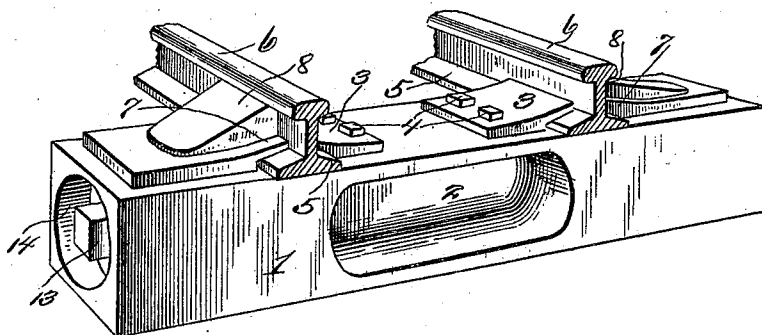


Fig. 2.

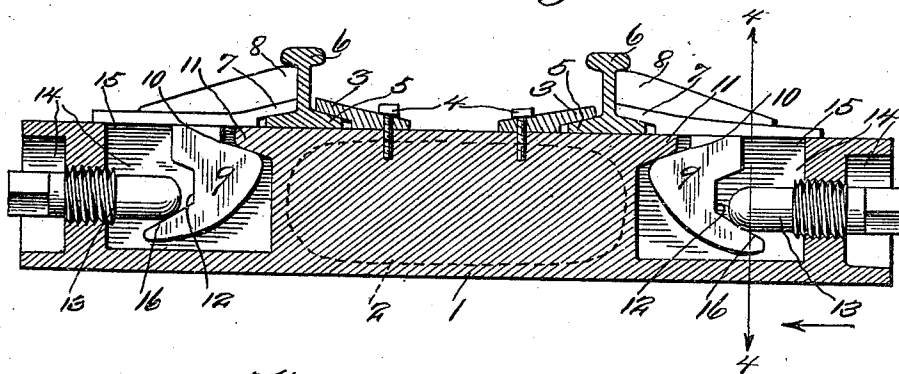
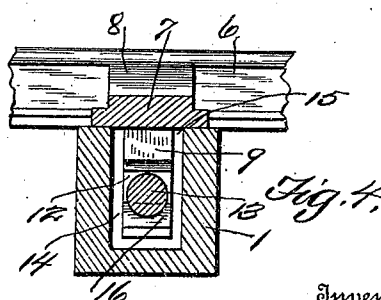
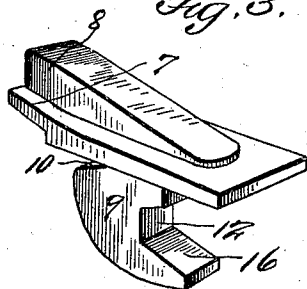


Fig. 3.



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UNITED STATES PATENT OFFICE.

SAMUEL L. RILEY, OF PALESTINE, TEXAS, ASSIGNOR OF ONE-THIRD TO NELSON BOOZIER AND ONE-EIGHTH TO E. M. GRIGGS, BOTH OF PALESTINE, TEXAS.

METAL TIE.

990,904.

Specification of Letters Patent.

Patented May 2, 1911.

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To all whom it may concern:

Be it known that I, SAMUEL L. RILEY, a citizen of the United States, residing at Palestine, in the county of Anderson and State of Texas, have invented a new and useful Metal Tie; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a new and useful metallic railway tie and rail fastener combined.

The main object of the invention is to provide an improved device of this design, in which simplicity of construction and practicability thereof are involved.

A further object of the invention is to provide a fastener and brace combined for the rail, and means for holding the fastener in place.

In the drawings, however, there is only disclosed one form of the invention, but in practical fields this form may require alterations, to which the applicant is entitled, provided the alterations are comprehended by the appended claims.

The invention comprises further features and combination parts, hereinafter set forth, shown in the drawings and claimed.

In the drawings;—Figure 1. is a perspective view of a railway tie embodying the features of the invention. Fig. 2 is a longitudinal sectional view through the tie showing the rail fastening means firmly bracing the rails. Fig. 3 is a view in perspective of one of the movable members of the rail fastener. Fig. 4 is a sectional view on line 4—4 of Fig. 2.

Referring to the drawings one designates the metallic tie, which is rectangular in cross section. The opposite longitudinal side faces of the tie are hollowed out, as shown at 2. The hollowed out portions are for the purpose of permitting the ground rock or other filler to extend therein, so as to hold the tie securely in place. The top face of the rail tie is provided with adjacent flange engaging members 3, which are fastened by bolts 4 to the tie. These members 3 engage the adjacent flanges 5 of the rails 6. The outer flanges of the rails are engaged by removable slidable clamping jaws 7, the upper faces of which are supplied with bracing means 8 designed to

engage the web of the rails. The under faces of the clamping jaws 7 are provided with downwardly extending restricted lugs 9. The upper portions of the lugs adjacent the jaws are recessed, as shown at 10, which recesses receive the portions 11 of the tie, thus preventing the clamping jaws 7 from upward displacement. The lower portions of the lugs, at points approximately diagonally opposite the recesses 10, are provided with recesses 12, which receive the ends of the key bolts 13. These key bolts 13 are threaded through partitions in the hollowed out portions 14 of the tie, at each end thereof. By means of a suitable wrench (not shown) these key bolts may be screwed tight against the bottoms of the recesses 12 of the lugs, thus constituting means for holding the clamping jaws 7 and bracing means 8 in contact with rails and webs thereof, as will be clearly understood from the drawings. The lugs 9 of the clamping jaws extend through openings 15 of the tie, which openings are adjoining the hollowed out portions 14. The lower portions of the recesses 12 are inclined, as shown at 16. By virtue of the ends of the key bolts contacting with the inclined portions 16, the under faces of the clamping jaws will be held securely in contact with the upper face of the tie, and in such a manner as to prevent displacement of the rails.

From the foregoing it will be observed that a novel form of combined rail tie and rail fastener is devised, and one which has been found to be simple and sufficient in construction and practicable in use. Furthermore this combined tie and rail fastener has been found to be capable of fulfilling all the requirements, in the construction of railroad.

The invention having been set forth, what is claimed as new and useful is:—

1. In combination, a rail tie having its upper face provided with flange engaging members to engage the adjacent flanges of rails, said tie having its end portions hollowed out, while the upper face of the tie at each end is provided with openings adjoining the hollowed out portions, clamping jaws to engage the outer flanges of the rails and provided with bracing means for the webs of the rails, the clamping members having restricted lugs extending through the openings into the hollowed out portions,

and threaded key bolts threaded into the hollowed out portions to engage the lugs to bind the clamping jaws against the rails.

2. In combination, a rail tie having its
5 upper face provided with flange engaging members to engage the adjacent flanges of rails, said tie having its end portions hollowed out, while the upper face of the tie
10 at each end is provided with openings adjoining the hollowed out portions, clamping jaws to engage the outer flanges of the rails and provided with bracing means for the webs of the rails, the clamping members having restricted lugs extending through the
15 openings into the hollowed out portions, the lugs adjacent the under faces of the clamping jaws being recessed to receive portions of the tie, while the lower portions of the lugs at points approximately diagonally op-

posite the first recessed portions being recessed, the last named recesses having their bottoms inclined, and threaded key bolts threaded into the hollowed out portions of the tie to engage the last named recesses of the lugs, the inclined bottoms of the last
20 recesses when contacted with by the end of the key bolts constituting means for drawing the clamping jaws closely in contact with the upper face of the tie and in contact with the webs of the rails. 25 30

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL L. RILEY.

Witnesses:

E. M. GRIGGS,
B. F. WHITE.

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