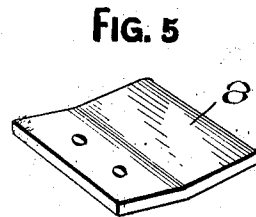
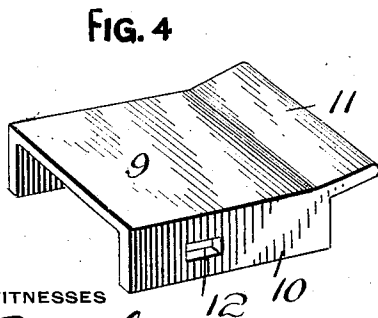
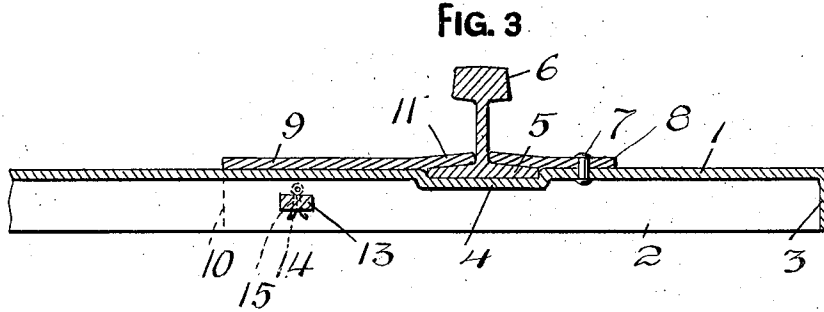
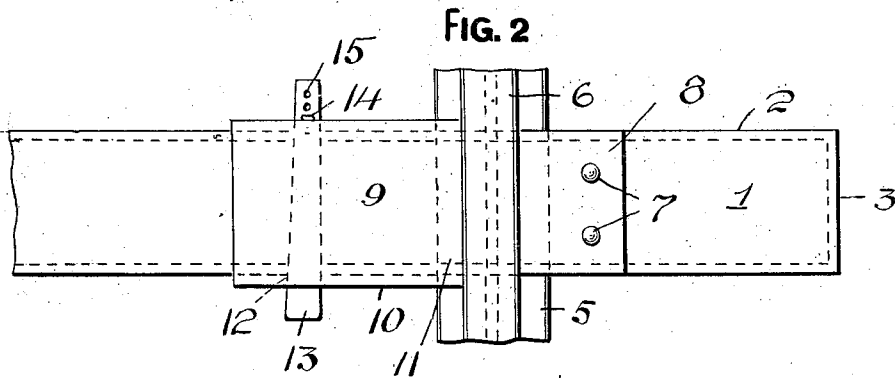
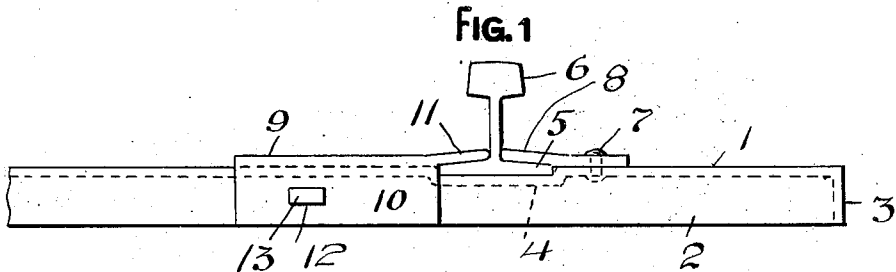


B. STIFFLER.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED FEB. 7, 1913.

1,058,112.

Patented Apr. 8, 1913.



WITNESSES
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UNITED STATES PATENT OFFICE.

BOYD STIFFLER, OF ALTOONA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO THOMAS H. WATTS, OF ALTOONA, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

1,058,112.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed February 7, 1913. Serial No. 746,723.

To all whom it may concern:

Be it known that I, BOYD STIFFLER, 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 objects of my invention are to provide a strong and durable metallic tie that can be easily and quickly tamped in the ballast of a road bed for supporting rails, and to furnish the metallic tie with a rail fastener that prevents vertical and lateral displacement of a rail placed thereon.

Other objects of my invention are to obviate the necessity of using bolts, nuts and spikes as a fastening means for rails, and to provide fasteners that can be advantageously used in connection with a metallic tie and quickly installed by unskilled labor.

Further objects of my invention are to provide a metallic tie that affords a large base area for the rails of a track, the construction of the tie being such as to withstand the heavy weight of rolling stock that passes over the same, and to accomplish the above results by a mechanical construction that is inexpensive to manufacture and highly efficient in connection with steam or electric railway.

With the above and other objects in view, the invention resides in a novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

Figure 1 is a side elevation of a portion of a tie in accordance with this invention. Fig. 2 is a plan of the same. Fig. 3 is a longitudinal sectional view of the tie. Fig. 4 is an enlarged perspective view of the detached inner fastener, and Fig. 5 is a similar view of the detached outer fastener.

A metallic tie in accordance with this invention is of the channel bar type, said tie comprising a top plate 1, longitudinal paral-

lel side walls 2 and end walls 3, said walls closing the ends of the channel and bracing the side walls 2.

The top plate 1, adjacent to each end thereof, has a transverse depressed portion providing a seat 4 for the base flanges 5 of a rail 6, and secured to the top plate, adjacent to said seat by a rivet 7 or other fastening means is an outer rail fastener 8 in the form of a plate that extends over the outer base flange 5 of said rail.

The inner rail fastener is in the form of a saddle 9 that has side plates 10 adapted to engage the outer side of the walls 2. The saddle plate 9 has an extension 11 that protrudes onto the inner base flange 5 of the rail 6. The side plates 10 and the walls 2 are provided with registering transversely alining openings 12 to accommodate a tapering key 13 employed for holding the inner fastener upon the tie. The tapering key 13 is retained in its adjusted position by a cotter pin 14 located in one of the openings 15 provided therefor at the small end of the key.

From the foregoing it will be observed that when the inner fastener is removed, the rail 6 can be raised from the tie 1 without removing the outer fastener, consequently a rail can be repaired or renewed without necessarily removing the tie from the balance of a road bed.

The tie and rail fasteners thereof are made of strong and durable metal, and while one embodiment of my invention has been illustrated, it is to be understood that the structural elements are susceptible to such variations and modifications as fall within the scope of the appended claim.

What I claim is:—

A metallic tie of a channel bar construction comprising a top plate, side walls and end walls, said top plate adjacent to each end thereof having a transverse depressed portion providing a seat adapted to accommodate the base flanges of a rail, an outer fastener secured to the top plate of said tie and extending onto the outer base flanges of the rail, a saddle plate arranged upon said tie and constituting an inner fastener for the rail, side plates carried by said saddle plate, said side plates and the walls of said

tie having transversely alining openings
formed therein, tapering keys extending
through said openings for holding said sad-
dle plate in engagement with said tie, and
5 a cotter pin extending through the small
end of said key for locking said key in an
adjusted position.

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

BOYD STIFFLER.

Witnesses:

E. D. JIKES,
L. B. CARTER.