

H. H. WIGGINS.  
TIE AND RAIL FASTENER.  
APPLICATION FILED JUNE 16, 1911.

1,001,569.

Patented Aug. 22, 1911.

FIG. 1.

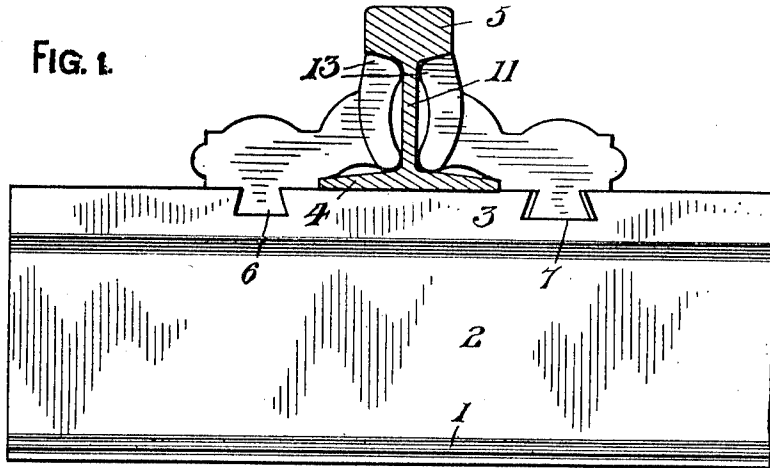


FIG. 2.

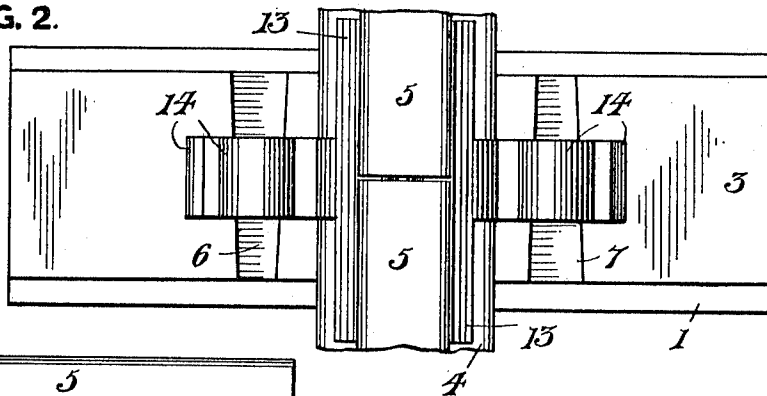


FIG. 3.

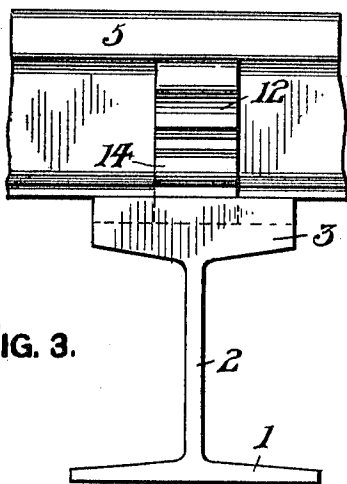
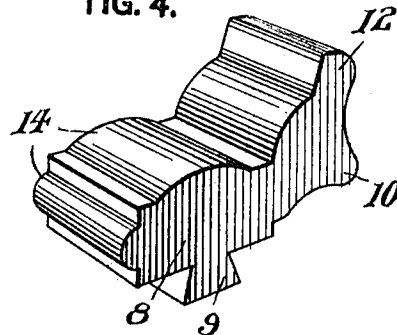


FIG. 4.



WITNESSES:

*Samuel Payne*  
*R. H. Butler*

INVENTOR.

*H. H. Wiggins.*

BY

*H. C. Everett & Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

HENRY HARRY WIGGINS, OF PITTSBURG, PENNSYLVANIA.

TIE AND RAIL-FASTENER.

1,001,569.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed June 15, 1911. Serial No. 633,240.

*To all whom it may concern:*

Be it known that I, HENRY HARRY WIGGINS, citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Ties and Rail-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to ties and rail fasteners and more particularly to certain new and useful improvements in the tie and rail fastener disclosed in my companion application for patent executed the first day of June nineteen hundred and eleven.

Besides having the same objects in view as disclosed in my companion application, the present invention aims to furnish a tie with a fastener that can be advantageously used at the abutting ends of two rails, to firmly brace and support the same.

Another object of the present invention is to provide a rail fastener which will afford, in connection with rails, practical and continuous tread for rolling stock, thereby eliminating to a great degree the jarring and bumping experienced by rolling stock in passing over joints or the confronting ends of rails.

The invention will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein:—

Figure 1 is a side elevation of the tie and rail fastener in accordance with this invention. Fig. 2 is a plan of the same. Fig. 3 is an end view of the tie and rail fastener, and Fig. 4 is a perspective view of the rail fastener.

As disclosed in my companion application, the tie is of an I beam construction comprising base flanges 1, a web 2 and a head 3, said head adjacent to the ends thereof having transverse tapering dove tail grooves 6 and 7, said grooves tapering in opposite directions. The space between these

grooves is adapted to support the base flanges 4 of a rail or rails 5.

The fasteners for the rail or rails 5 provide bodies 8 of a less width than the head 3, each body having a depending dove tail tapered tongue 9 adapted to engage in one of the grooves 6 or 7, the tongue 9 being tapered whereby the fastener can be driven to a point approximately intermediate the ends of the grooves. The fastener 8 has an overhanging flange 10 adapted to engage the top of the base flange 4 and the fillet of the web 11 of a rail. The flange 10 has an integral enlargement 12 engaging the upper edge of the web 11 and the under side of the head of a rail, thereby providing a reinforcement and brace for the web of a rail.

When the flanges are used at a joint or the confronting ends of rails, the flange 10 and the enlargement 12 thereof are formed integral with longitudinal extensions or splice bars 13 adapted to firmly brace the sides of the rails at the abutting ends thereof, preventing one rail from becoming laterally or vertically displaced relatively to the other rail. The splice bars 13 are curved outwardly or concavo-convex to receive the stresses and strains brought to bear upon the heads of rails by rolling stock, and to further strengthen the fasteners, the bodies thereof are provided with transverse ribs or enlargements 14.

In constructing the fasteners provision is made for expansion and contraction of the rails and it is practically impossible for the end of one of the rails to be "beat down", consequently a continuous tread is provided for the rolling stock.

What I claim is:—

In a tie and rail fastener, the combination with a tie of the I beam construction having the head thereof provided with tapering dove tail grooves with one of the grooves tapered in the opposite direction from the other groove, of fasteners adapted to hold the ends of rails upon said tie, each fastener comprising a body having a depending dove

tail tapering tongue adapted to engage in one of the grooves of said tie, an overhanging flange carried by the body of said fastener and adapted to extend onto the base  
5 flanges of the rails mounted upon said tie, said flanges having enlargements bracing the webs and heads of the rails mounted upon said tie, and longitudinal extensions formed integral with the enlargement of the flange

of said fastener and adapted to brace the 10 webs and heads of the rails held by the flange of said fastener.

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

HENRY HARRY WIGGINS.

Witnesses:

MAX H. SROLOVITZ,

CHRISTINA T. HOOD.

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

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