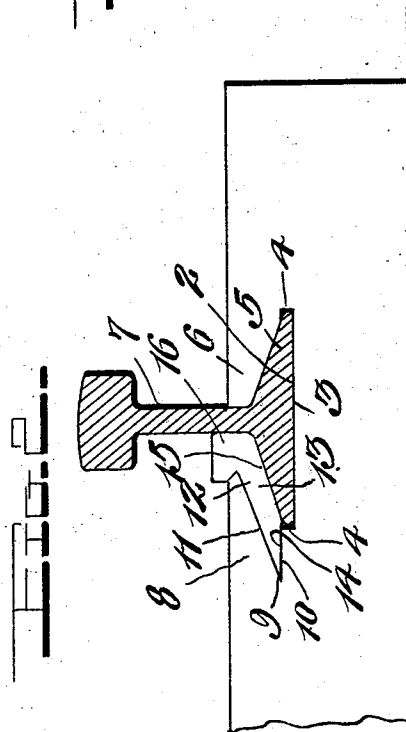
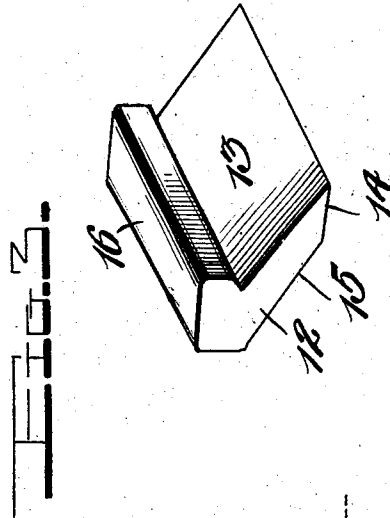


1,012,205.



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RAIL TIE AND FASTENER.

1,012,205.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed August 21, 1911. Serial No. 645,131.

To all whom it may concern:

Be it known that I, JOHN KATRINA, a citizen of the United States, residing at Yukon, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Rail Ties and Fasteners, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to metallic ties and rail fasteners and has for its object to provide a strong tie for supporting rails and a fastener for the same which is simple in construction and efficient in operation, and one which may be quickly manipulated for laying a new rail or removing a broken one.

With the above and other objects in view, the invention resides in the novel features of construction, combination, and arrangement of parts, as will be fully hereinafter described, claimed, and illustrated in the accompanying drawing, in which,

Figure 1 is a plan view of a portion of the tie and rail; Fig. 2 is a side elevation of the same; Fig. 3 is a perspective view of one of the wedges.

Referring to the drawing, the numeral 1 designates a metal tie preferably rectangular in cross section and being provided near its ends with rail supporting seats 2, each consisting of a bottom 3 and vertical side walls 4. Formed integral with the upper surface of the tie 1 and adapted to overhang the outer flange of the rail base 5 is a hook 6, the under surface of which is inclined so as to rest flush against the upper inclined surface of the base flange. The upper surface of the hook 6 is flush with the upper surface of the tie 1, the inner end of the same being adapted to bear against the lower portion of the web 7 of the rail. A second hook 8 is provided and is adapted to overhang but not bear against the inner flange of the rail base 5; the upper surface of the hook 8 is also flush with the upper surface of the tie 1 and has its under surface inclined and stopping at a point slightly above the bottom of the rail seat 2 and beyond the inner vertical wall 4, thus forming a transverse groove 9, the bottom 10 of which is above the bottom plane of the rail seat. The

rear walls 11 of the grooves 9 are slightly tapered, the purpose of which will be hereinafter described.

Adapted for insertion in the grooves 9 are wedges 12, each of which consists of a flange 13, the upper and lower surface of which is inclined for engagement with the under inclined surface of the hook 8. The lower end of the flange 12 is provided with a horizontal bearing face 14, the same being adapted to rest upon the bottom 10 of the groove 9. The outer edge of said flange is tapered to correspond with the tapered formation of the wall 11 of the groove so that, when the wedge is driven, the under surface 15 thereof will bear against the inner rail base flange. The flange 13 is further provided with a head 16, the inner end of which bears against the inner face of the web 7 and, when driven, will force the rails laterally into binding engagement with the hooks 6, whereby the rails are firmly clamped and braced.

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

In a metallic tie and rail fastener, the combination with rails, of a tie having seats formed therein and extending below the upper surface of the ties, said seats having vertical walls for the rail flanges to rest against, hooks formed integral with the outer ends of the ties and overhanging said seats, second hooks formed upon the inner portion of the ties whereby a groove is formed adjacent the seats, the bottoms of which are arranged above the bottom plane of said seats, the inner walls of said grooves being tapered, wedges adapted for insertion in said grooves, said wedges having flanges formed with tapered outer edges for engaging the tapered inner walls of said grooves, heads formed integral with said flanges and adapted to engage the webs of the rails to firmly clamp said rails.

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

JOHN KATRINA.

Witnesses:

JOSEPH KLEIN,
H. A. VANDYKE.

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