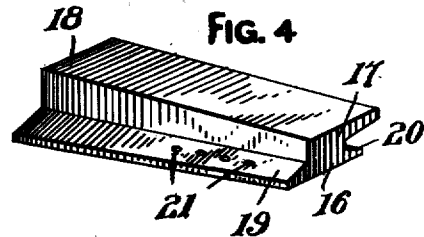
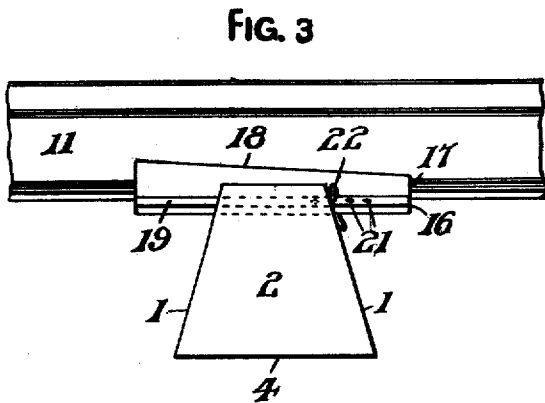
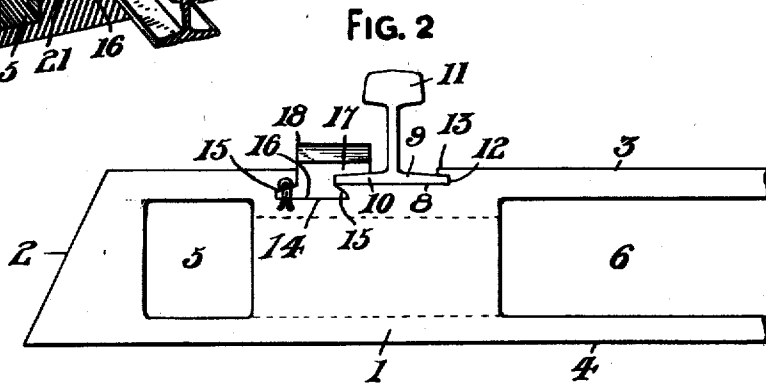
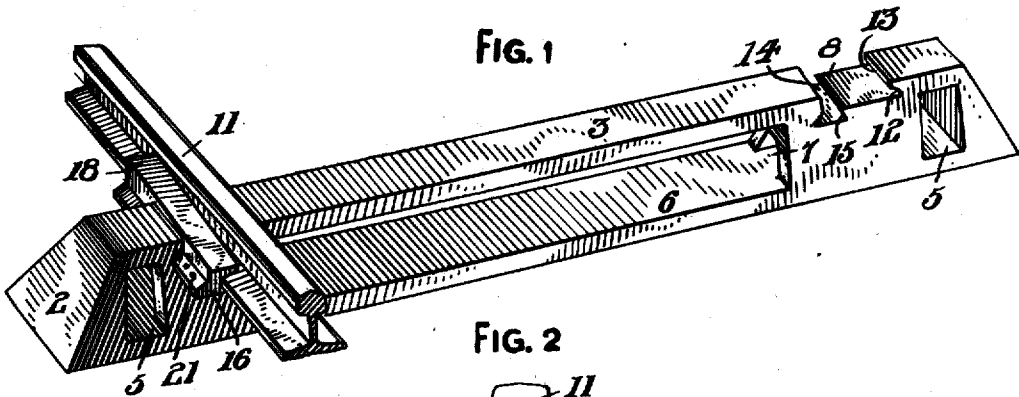


W. C. NETH.
 METALLIC TIE AND RAIL FASTENER.
 APPLICATION FILED OCT. 18, 1911.

1,017,449.

Patented Feb. 13, 1912.



WITNESSES
J. P. Hoffman,
Ralph L. Evert.

INVENTOR
William C. Neth
 BY *J. E. Evert*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM C. NETH, OF CONNELLSVILLE, PENNSYLVANIA.

METALLIC TIE AND RAIL-FASTENER.

1,017,449.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed October 18, 1911. Serial No. 655,303.

To all whom it may concern:

Be it known that I, WILLIAM C. NETH, a citizen of the United States of America, residing at Connellsville, in the county of Fayette 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 for supporting the rails of a track, and to provide a tie that can be stamped and firmly anchored in a road bed by unskilled labor.

Further objects of my invention are to provide a metallic tie that affords sufficient bearing surface for rails and fasteners and to furnish the tie with fasteners that will prevent vertical and lateral displacement of rails mounted thereon, thereby eliminating the spreading of rails due to the great weight of rolling stock.

Still further objects of my invention are to obviate the necessity of using bolts and nuts for retaining rails upon a tie, and to furnish a tie with fasteners that are inexpensive to manufacture, easy to install and highly efficient for preserving the alinement of rails.

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

Reference will now be had to the drawing wherein like numerals denote corresponding parts throughout the several views in which:—

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

A metallic tie in accordance with this invention comprises an oblong body having inclined side walls 1 and inclined end walls 2 with the top 3 of said tie in parallelism

with the flat bottom 4 thereof. The tie at the ends thereof is provided with transverse openings 5 and centrally of said tie there is an oblong opening 6, said opening communicating with the opening 5 through the medium of longitudinal openings 7 beneath the rail seats 8 of the tie. The rail seats 8 are formed by cutting away the top of the tie to accommodate the base flanges 9 and 10 of a rail 11.

In forming the rail seat 8 the top of the tie is cut away, as at 12 to provide an overhanging fastener 13 for the flange 9 of the rail 11. The top of the tie is further cut away at the opposite edge of the seat 8 from the fastener 13 to provide a transverse tapering groove 14 having inclined walls 15. Mounted in this groove is a tapering tongue 16 corresponding in cross section to the shape of the groove 14. The tongue 16 is carried by a fastener 17 that extends over the flange 10 of the rail 11. The top of the fastener is beveled or inclined, as at 18 whereby one end of the fastener will be of greater cross sectional area than the opposite end in order that the large end of the fastener can receive a hammer blow without injuring said fastener.

The shape of the tongue 16 provides flanges 19 and 20 that engage the inclined walls 15 of the groove 14 and the flange 19 has a series of openings 21 to receive a cotter pin or key 22 employed for holding the fastener in an adjusted position. Should the fastener become loose it can be struck a blow to further drive it into the groove 14, said groove gradually tapering from one end thereof and the tongue 16 having a corresponding taper, which permits of the fastener being firmly seated in the top of the tie and locked therein by the cotter pin 22.

While in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural elements are susceptible of such variations as fall within the scope of the appended claim.

What I claim is:—

A metallic tie and rail fastener comprising an oblong body having inclined sides and ends, said body further having transverse openings at each end, a longitudinally

extending opening, and longitudinally extending passages communicating with the longitudinal opening and with the transverse opening, the top of said body formed with rail seats, certain of the walls of said seats overhanging the flanges of the rails and constituting fasteners.

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

WILLIAM C. NETH.

Witnesses:

WALTER PRICKETT,
W. H. COUGHENOUR.
