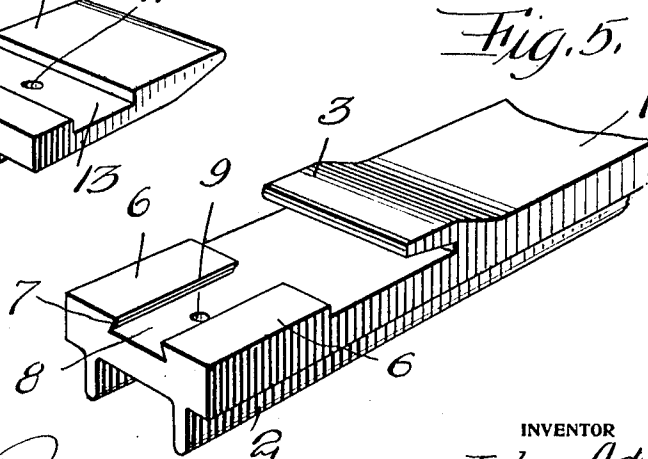
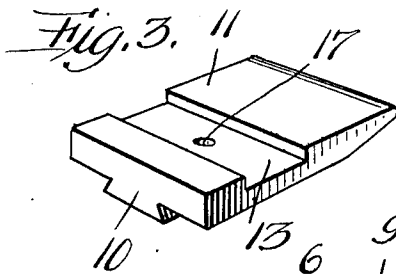
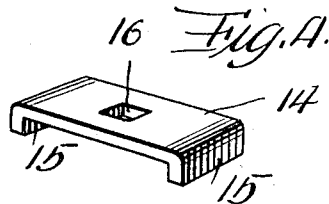
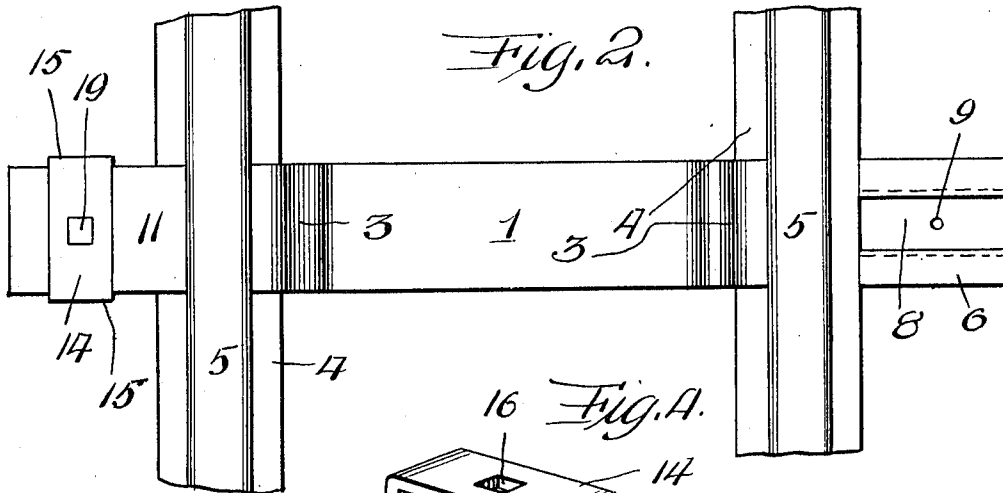
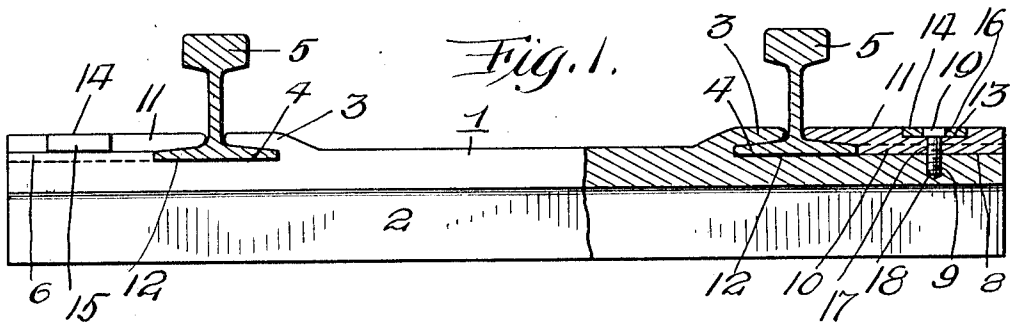


J. ADAMS.
METALLIC TIE AND RAIL FASTENER.
APPLICATION FILED DEC. 4, 1911.

1,020,392.

Patented Mar. 19, 1912.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN ADAMS, OF CONGO, OHIO.

METALLIC TIE AND RAIL-FASTENER.

1,020,392.

Specification of Letters Patent.

Patented Mar. 19, 1912.

Application filed December 4, 1911. Serial No. 663,764.

To all whom it may concern:

Be it known that I, JOHN ADAMS, a subject of the King of Hungary, residing at Congo, in the county of Perry and State of Ohio, 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.

10 This invention relates to metallic ties and rail fasteners, and the objects of my invention are to provide an extremely light and durable tie that can be manufactured at a minimum cost, and to provide a tie with a bearing surface possessing the necessary area for the adequate support of rails.

Further objects of my invention are to furnish a tie with simple means for preventing the tie from creeping in a road bed, and to provide a tie that can be easily tamped and installed by unskilled labor.

Further objects of my invention are to furnish a metallic tie with a fastener that will preserve the alinement of rails, and to provide a fastener that is durable and inexpensive to manufacture.

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:—

35 Figure 1 is a side elevation of the tie partly broken away and partly in section. Fig. 2 is a plan of the tie and rail fastener. Fig. 3 is a perspective view of a detached outer fastener. Fig. 4 is a perspective view of a detached bolt locking plate, and Fig. 5 is a perspective view of a portion of the tie.

45 A tie in accordance with this invention comprises a flat plate 1 provided with depending longitudinal parallel ribs 2 arranged adjacent to the side edges of said tie and extending from one end thereof to the opposite end. These ribs have the advantage of preventing the tie from creeping relatively to a road bed. The top of the plate 1 adjacent to the ends thereof is provided

with integral inner rail fasteners 3 overhanging the inner base flanges 4 of rails 5 arranged upon said tie. The ends of the plate 1 are provided with longitudinal parallel enlargements or guides 6 having the confronting sides thereof beveled, as at 7 to provide a longitudinal dovetailed groove 8. The plate 1, intermediate the ends of the groove, is provided with a socket 9 having the walls thereof screw threaded.

Slidably mounted in the grooves 8 are dovetailed depending longitudinal tongues 10 of outer fasteners 11 adapted to extend over the outer base flanges 12 of the rails 5. The outer fasteners 11 correspond in width to the plate 1 and are provided with transverse grooves 13 for locking plates 14. The plates 14 have depending ends 15 to engage the side edges of the outer fasteners and said plates intermediate the ends thereof are provided with rectangular openings 16. The outer fasteners are provided with openings 17 intermediate the ends of the grooves 13. Extending through the openings 17 into the sockets 9 are screw bolts 18 having rectangular heads 19 to be engaged by the walls of the openings 16 of the locking plates 14.

After the outer fasteners have been shifted into engagement with the rails and the screw bolts placed in position to hold the outer fasteners, the locking plates are arranged in the grooves 13 of the outer fasteners to prevent the screw bolts from rotating.

The tie and the fastener thereof can be made of light and durable metal and of various sizes.

What I claim is:—

In a metallic tie and rail fastener, the combination with rails, of a flat metallic plate for supporting said rails, longitudinal depending ribs carried by the under side of said plate, inner rail fasteners formed integral with the top of said plate for engaging the inner base flanges of said rails, longitudinal parallel guides carried by the ends of said plate and providing dovetailed grooves, outer fasteners having depending dovetailed tongues engaging in said grooves with said fasteners extending over the outer

base flanges of said rails, said outer fasten-
ers having transverse grooves formed there-
in, locking plates arranged in said grooves
and having depending ends engaging the
5 side edges of said fasteners, screw bolts ex-
tending through said outer fasteners into
sockets provided therefor in said plate, and
rectangular heads carried by said screw

bolts and adapted to be held within said
locking plates. 10

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

JOHN ADAMS.

Witnesses:

JOHN W. RICHARDS,

JOHN ADAMS, Jr.

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