

1,015,657.

Patented Jan. 23, 1912.

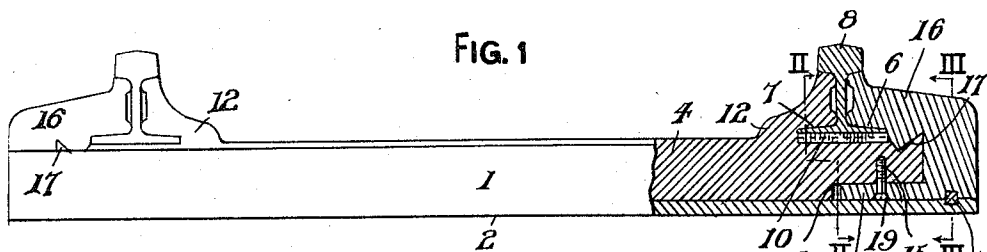


FIG. 1

FIG. 3

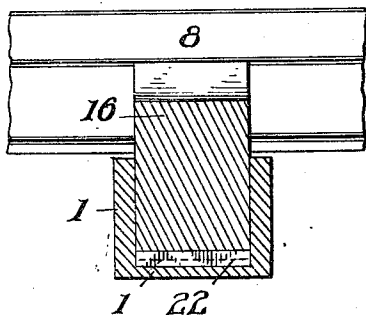


FIG. 4

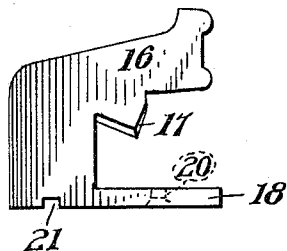
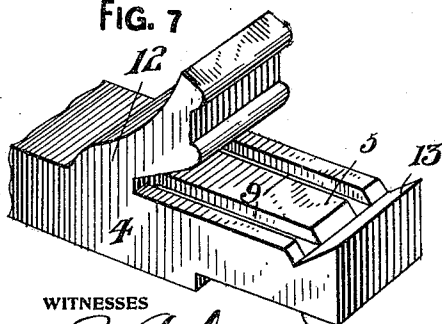


FIG. 7



WITNESSES

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FIG. 2

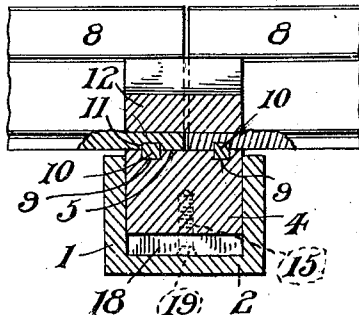


FIG. 5

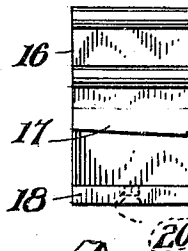
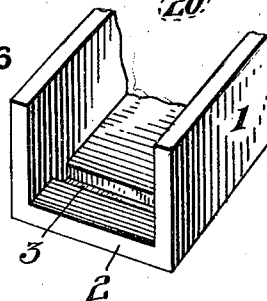


FIG. 6



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UNITED STATES PATENT OFFICE.

FLORYAN WAJDA, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO MIKE DUBISH,
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TIE AND RAIL-FASTENER.

1,015,657.

Specification of Letters Patent.

Patented Jan. 23, 1912.

Application filed November 10, 1911. Serial No. 659,626.

To all whom it may concern:

Be it known that I, FLORYAN WAJDA, a subject of the Emperor of Austria-Hungary, residing at Chicago, in the county of Cook and State of Illinois, 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 my invention aims to provide:— First, a metallic tie possessing sufficient strength and firmness to support the great weight of rolling stock. Second, a tie having the requisite amount of elasticity to prevent injury to rolling stock. Third, a tie that can be easily tamped in a roadbed by unskilled labor. Fourth, a tie having rail fasteners that preserve the alinement of rails and prevent lateral and vertical displacement. Fifth, rail fasteners that can be advantageously used upon a curved section of track.

The invention further aims to accomplish the above results by a combination of elements that will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein like numerals denote corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of a tie partly broken away and partly in section, Fig. 2 is an enlarged cross sectional view taken on the line II—II of Fig. 1, Fig. 3 is a similar view taken on the line III—III of Fig. 1, Fig. 4 is a side elevation of a detached outer fastener, Fig. 5 is a front elevation of the same, Fig. 6 is a perspective view of a portion of the tie shell, and Fig. 7 is a perspective view of a portion of the tie body.

A tie in accordance with this invention comprises a shell 1 of the channel bar construction, said shell having the base 2 thereof, adjacent to each end, provided with a transverse groove 3, the object of which will presently appear. Located within the shell 1 is a tie body 4 having the ends thereof provided with seats 5 for the base flanges 6 and 7 of rails 8. The seats 5 are provided with longitudinal grooves 9 for locking bars 10 which are rectangular in cross section, said bars extending into transverse grooves 11 provided therefor in the base flanges 6 and 7 of the rails. The tie body 4, at the inner edge of the seat 5, is

formed integral with an inner rail fastener 12 that extends upwardly over the inner base flange 7 of the rail 8 and braces the web and head thereof. The ends of the tie body 4 are provided with transverse tapering grooves 13 and the under sides of said tie body are cut away, as at 14 and provided with sockets 15, the walls of the sockets being screw threaded.

Mounted upon the ends of the tie body 4 are outer rail fasteners 16 employed for holding the outer base flanges 6 of the rails 8 and bracing the webs and heads thereof. The fasteners 16 have tapering tongues 17 for engaging in the grooves 13; and the base of each fastener has a lateral extension 18 that extends into the cut away portion 14 of the tie body. The lateral extension 18 is secured to the tie body by a screw 19 that extends through an opening 20 in the extension 18 into the socket 15, the screw having a countersunk head. The base of each fastener has a transverse groove 21 confronting the groove 3 at each end of the tie shell. Arranged in the grooves 3 and 21 are transverse locking bars 22. These bars prevent longitudinal displacement of the tie body relatively to the tie shell and the bars 10 prevent longitudinal displacement of the rails 8 relatively to the tie body 4.

The outer fasteners 16 are placed in position in engagement with the rails 8 prior to placing the tie body 4 in the tie shell 1. By tapering the grooves 13 and the tongues 17, the outer fasteners can be driven into engagement with the ends of the tie body to firmly anchor the rails 8 upon the tie body or in engagement with the inner fasteners 12.

The tie and the fasteners thereof are made of strong and durable metal and can be made of various sizes according to the type or gage of the track in connection with which it is used.

What I claim is:—

1. In a tie and rail fastener, the combination with rails, of a tie shell of the channel bar construction having the inner side of the bottom thereof provided with transverse grooves, a tie body arranged in said shell and having seats adapted to support said rails, inner rail fasteners formed integral with said tie body and bracing the inner sides of said rails, outer rail fasteners arranged upon the ends of said body for bracing

ing the outer sides of said rails, lateral extensions carried by said fasteners and extending under said tie body and secured thereto, and locking bars arranged in the grooves of said tie shell and extending into the base of said outer fasteners.

2. In a tie and rail fastener, the combination with rails, of a tie shell of the channel bar construction having the inner side of the bottom thereof provided with transverse grooves, a tie body arranged in said shell and having seats adapted to support said rails, inner rail fasteners formed integral with said tie body and bracing the inner sides of said rails, outer rail fasteners arranged upon the ends of said body for bracing the outer sides of said rails, lateral extensions carried by said fasteners and extending under said tie body and secured thereto, locking bars arranged in the grooves of said tie shell and extending into the base of said outer fasteners, and locking bars arranged in the rail seats of said tie body and extending into the base flanges of said rails.

3. In a tie and rail fastener, the combination with rails, of a tie shell of the channel bar construction, a tie body arranged in said shell and provided with seats for said rails, inner rail fasteners carried by said tie body and bracing the inner sides of said rails, outer rail fasteners mounted upon the ends of said tie body and bracing the outer sides of said rails, and locking bars interposed between the base flanges of said rails and the seats of the tie body.

4. In a tie and rail fastener, the combination with rails, of a tie shell of the channel bar construction, a tie body arranged in said shell and provided with seats for said rails, inner rail fasteners carried by said tie body and bracing the inner sides of said rails, outer rail fasteners mounted upon the ends of said tie body and bracing the outer sides of said rails, locking bars interposed between the base flanges of said rails and the seats of the tie body, and locking bars interposed between said outer fasteners and

the inner sides of the bottom of said tie shell, whereby said tie body will be prevented from shifting longitudinally of said tie shell.

5. In a tie and rail fastener, the combination with rails, of a tie shell of the channel bar construction, a tie body arranged in said shell and provided with rail seats adapted to support said rails, inner fasteners carried by said tie body for bracing the inner sides of said rails, outer fasteners detachably connected to the ends of said tie body for bracing the outer sides of said rails, tapering tongues carried by said outer fasteners and extending into grooves provided therefor in the ends of said tie body, lateral extensions carried by said outer fasteners and extending under the base of said tie body, and means extending into said outer fasteners for anchoring said tie body relatively to said tie shell.

6. In a tie and rail fastener, the combination with rails, of a tie shell of the channel bar construction, a tie body arranged in said shell and provided with rail seats adapted to support said rails, inner fasteners carried by said tie body for bracing the inner sides of said rails, outer fasteners detachably connected to the ends of said tie body for bracing the outer sides of said rails, tapering tongues carried by said outer fasteners and extending into grooves provided therefor in the ends of said tie body, lateral extensions carried by said outer fasteners and extending under the base of said tie body, means extending into said outer fasteners for anchoring said tie body relatively to said tie shell, and means interposed between the base flanges of said rails and the seats of said tie body for preventing longitudinal movement of said rails relatively to said tie body.

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

FLORYAN WAJDA.

Witnesses:

ANTONI KUCIA,
MAELK GNYELK.