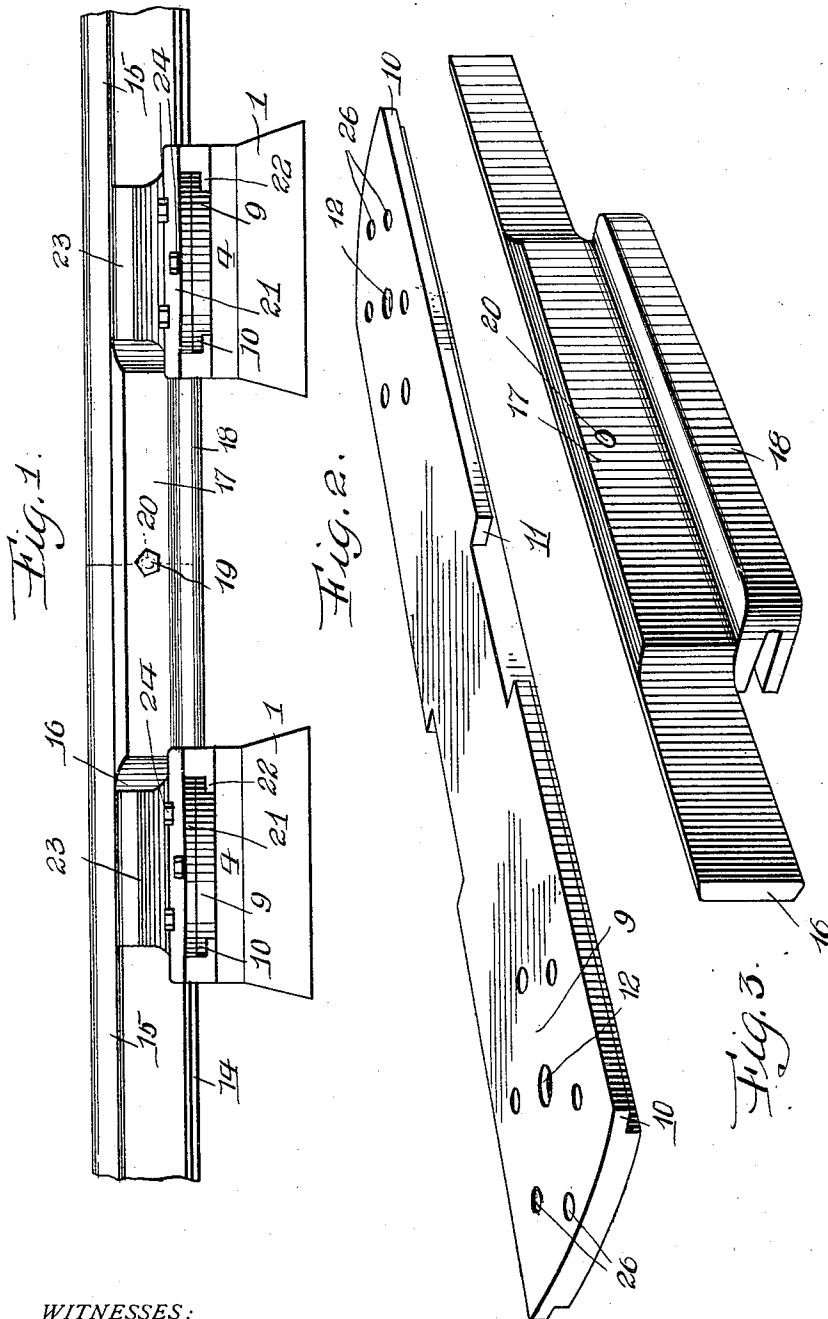


M. S. REIGH.  
TIE AND RAIL FASTENER.  
APPLICATION FILED AUG. 4, 1911.

1,007,490.

Patented Oct. 31, 1911.

2 SHEETS-SHEET 1.



WITNESSES:

*Samuel Payne*  
*Nicholas L. Bogue*

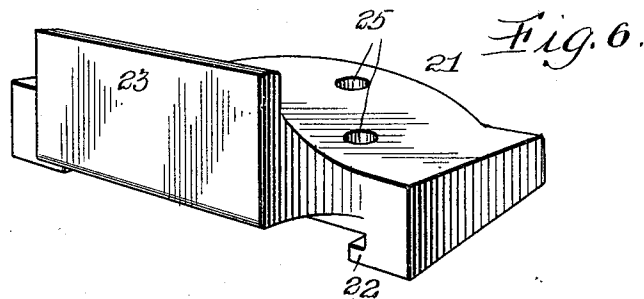
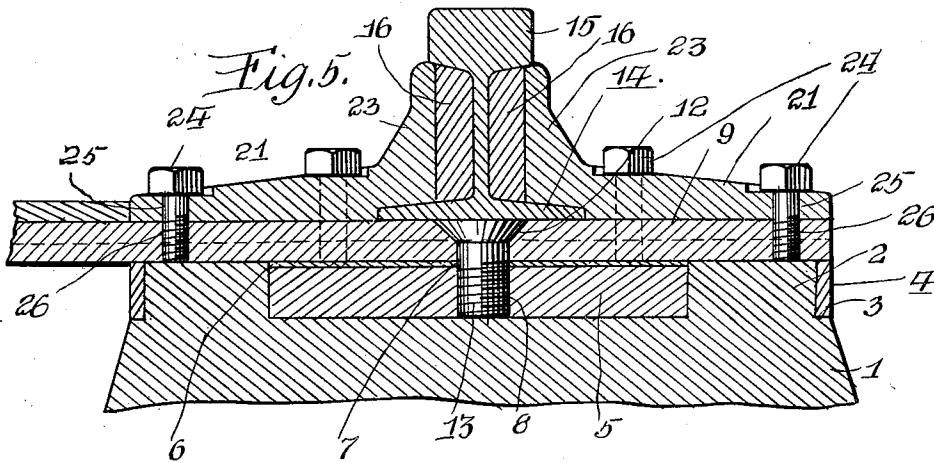
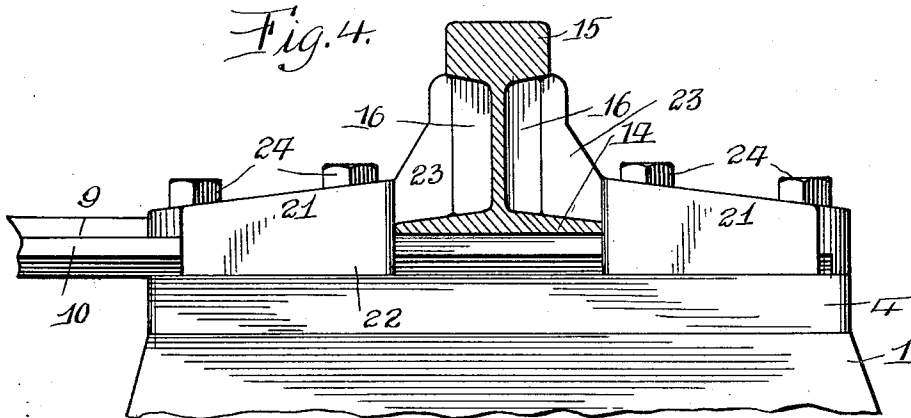
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WITNESSES:

*Samuel Payne*  
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INVENTOR.  
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# UNITED STATES PATENT OFFICE.

MARTIN S. REIGH, OF PITTSBURGH, PENNSYLVANIA.

TIE AND RAIL-FASTENER.

1,007,490.

Specification of Letters Patent.

Patented Oct. 31, 1911.

Application filed August 4, 1911. Serial No. 642,303.

*To all whom it may concern:*

Be it known that I, MARTIN S. REIGH, a citizen of the United States of America, residing at Pittsburgh, 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 the objects of my invention are to combine concrete, metal and wood into a strong and durable structure for supporting the rails of a track, and to furnish the structure with fasteners of a novel design for retaining the rails upon the structure.

Other objects of the invention are to provide concrete pedestals or individual supports for the rails of a track, and to connect the pedestals whereby they will be prevented from spreading or becoming accidentally displaced relatively to one another, and to provide a tie and rail fastener that can be easily and quickly installed without the use of skilled labor.

Further objects of my invention are to provide a tie of the above type that is strong and durable and highly efficient for the purposes for which it is intended, and to use a rail fastener that allows for the expansion and contraction of rails, and one that cannot be readily tampered with.

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 drawings, wherein like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is an end view of ties in accordance with this invention, Fig. 2 is a perspective view of a detached metallic pedestal connecting plate, Fig. 3 is a perspective view of a detached splice bar, Fig. 4 is an enlarged side elevation of the rail fastener as applied to the tie, Fig. 5 is a longitudinal sectional view of the same, and Fig. 6 is a perspective view of a detached fastener.

A tie in accordance with this invention comprises two frusto-pyramidal shaped pedestals 1 preferably made of concrete or other plastic material capable of being seasoned to provide durable waterproof struc-

tures. The upper end of each pedestal is provided with a vertical rib 2 located in proximity to the side edges of the pedestal and extending around the four sides thereof. The rib 2 provides a horizontal shoulder 3 and seated upon the shoulder is a rectangular metallic band 4 adapted to reinforce and brace the outer sides of the rib 2. Mounted upon each pedestal in the space between the inner walls of the rib 2 is a rectangular block 5, preferably made of wood, said block being of a less depth than the rib 2 to accommodate a flat cushioning member 6 upon said block, the upper surface of the member being flush with the upper edges of the rib 2. This member is preferably made of a piece of tarpaulin, although rubber or other yieldable or resilient material can be used. The member 6 and the block 5 are provided with central vertically alining openings 7 and 8 respectively, the latter having the walls thereof screw threaded.

Mounted upon the cushioning members 6 of the pedestals 1 are the ends of a metallic connecting plate 9, said plate being of a less width than the pedestals and having the longitudinal edges thereof provided with longitudinal flanges 10, these flanges intermediate the ends of the plate being cut away to provide entrance openings 11, for a purpose that will presently appear. The ends of the plate 9 have large vertical openings 12 to accommodate screws 13 employed for securing the ends of the plate to the block 5, said screws engaging in the openings 8 and having the heads thereof counter-sunk, as best shown in Fig. 5.

Mounted upon the ends of the plates 9 above the screws 13 are the base flanges 14 of rails 15 and adapted to engage the side of the web of each rail are splice bars 16 having the outer sides thereof provided with central longitudinal enlargements 17. Formed integral with the enlargements of the splice bars are chairs 18 adapted to embrace the base flanges 14 of the rail. These chairs fit between the end pedestals of two ties and can be advantageously used when it is desired to connect the confronting ends of two rails between ties. Should it be desired, a bolt 19 can connect the splice bars, said bolt extending through openings 20 provided therefor in the enlargements 17 and through an opening in the web of a rail or at the confronting ends of two rails. After the splice bars have been placed in position, rail fas-

teners 21 are placed upon the ends of the plate 9 to engage the ends of the splice bars 16. The fasteners 21 have depending side tongues 22 adapted to engage under the longitudinal flanges 10 of the plate 9 and prevent vertical displacement of said fasteners. The fasteners have the inner ends thereof provided with braces 23 adapted to engage the ends of the splice bars 16, and after said fasteners have been placed in position, screws 24 are mounted in openings 25 provided therefor in each fastener, said screws engaging in openings 26 in the ends of the plate 9, the walls of the openings 26 being screw threaded to receive said screws. These screws prevent longitudinal displacement of the fasteners relatively to the plate 9. The entrance openings 11 of the plate 9 allow the inner fasteners to be easily placed in engagement with the plate 9 and then pushed toward the inner sides of the rails to engage the inner splice bars.

It is preferable to provide all the screws or bolts used in connection with the tie and rail fastener with polygonal-shaped heads or heads having rectangular facets, whereby an ordinary wrench cannot be used for moving the screws or bolts, thus preventing the fastener from being tampered with. Should

the fastener be used in connection with an ordinary wooden tie spikes can be substituted for the screws.

What I claim is:—

1. A tie and rail fastener comprising pedestals, wooden blocks mounted in said pedestals, a metallic plate having the ends thereof secured to the wooden blocks of said pedestals and adapted to support rails, splice bars arranged between the end pedestals of two ties, fasteners slidably mounted upon the ends of said plate and adapted to engage the ends of said splice bars upon one of said ties, and means adapted to secure said fasteners to said plate.

2. In a tie, pedestals, ribs carried by the tops of said pedestals, bands surrounding said ribs, blocks mounted between the inner walls of said ribs, a plate having the ends thereof secured to said blocks and adapted to support rails, and means secured to said plate and adapted to retain the rails thereon.

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

MARTIN S. REIGH.

Witnesses:

MAX H. SROLOVITZ,

J. P. APPLEMAN.

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