

C. MOYER.
RAIL TIE.
APPLICATION FILED JUNE 15, 1909.

952,925.

Patented Mar. 22, 1910.

2 SHEETS—SHEET 1.

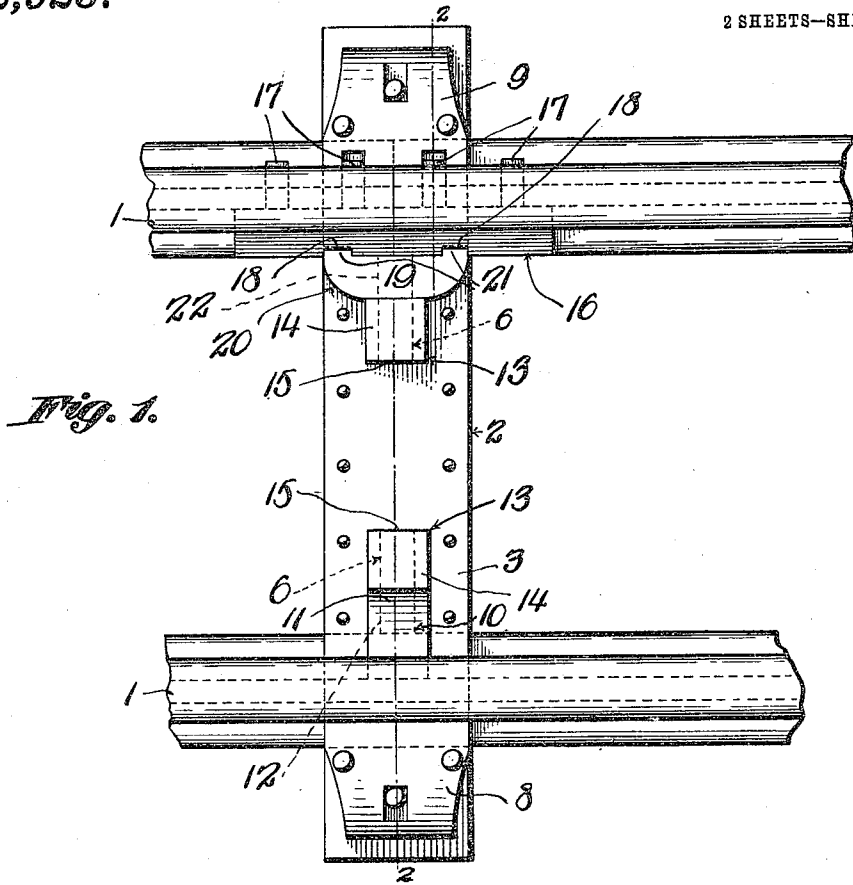


Fig. 1.

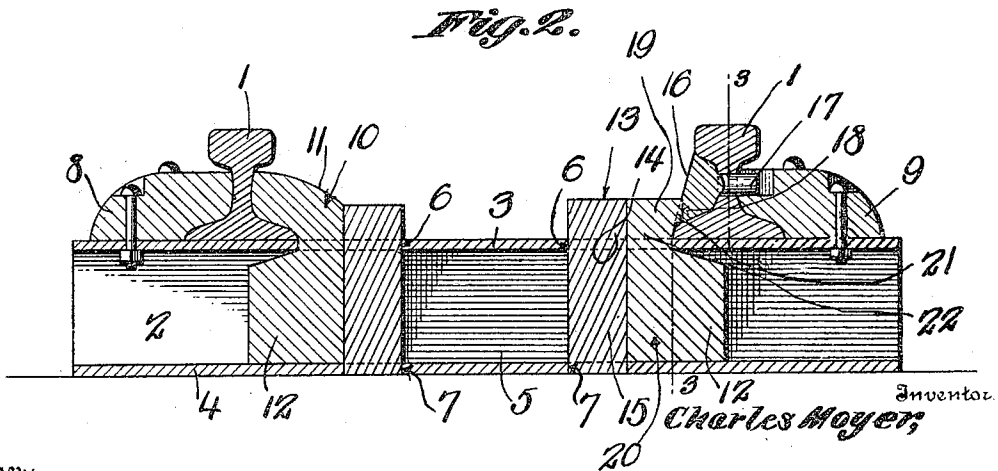


Fig. 2.

Witnesses
Charles Richardson.
Wm. J. North

Inventor
Charles Moyer,
By Victor G. Evans
Attorney

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2 SHEETS—SHEET 2.

Fig. 3.

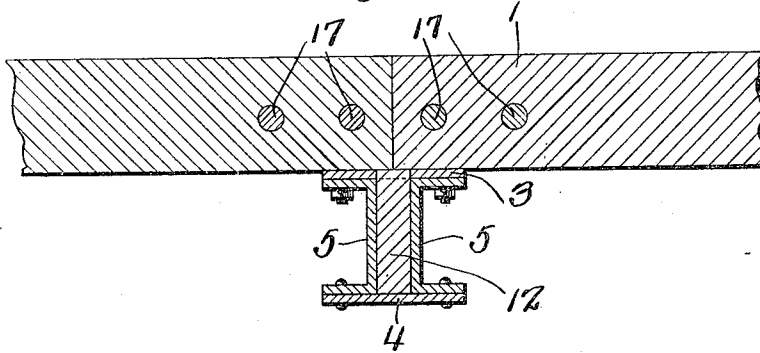


Fig. 4.

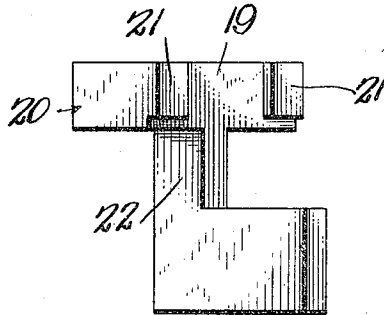
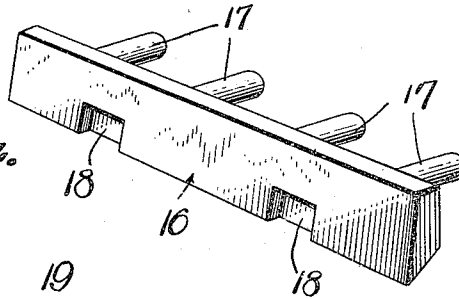


Fig. 5.

Fig. 6.

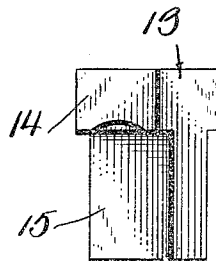
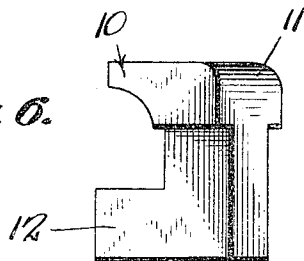


Fig. 7.

Inventor
Charles Moyer,

Witnesses

Chas. L. Richardson
Wm. Doerth.

By *Victor J. Evans*
Attorney

UNITED STATES PATENT OFFICE.

CHARLES MOYER, OF HARMONY, PENNSYLVANIA.

RAIL-TIE.

952,925.

Specification of Letters Patent.

Patented Mar. 22, 1910.

Application filed June 15, 1909. Serial No. 502,303.

To all whom it may concern:

Be it known that I, CHARLES MOYER, a citizen of the United States, residing at Harmony, in the county of Butler and State of Pennsylvania, have invented new and useful Improvements in Rail-Ties, of which the following is a specification.

This invention relates to metallic ties, and the object of the invention is to provide a device of this character which is extremely strong and simple in construction.

Another object of the invention is to provide a rail tie provided with means whereby a rail may be securely and effectively retained upon the tie without the use of bolts or the like.

A still further object of the invention is to provide a tie of this class with an inner plate of a novel construction having projecting members and adapted to engage the slots within the webs of the ties and being also provided with simple and effective means for retaining all the members in secured position.

With the above and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of my device showing the same supporting a pair of rails. Fig. 2 is a sectional view upon the line 2—2 Fig. 1. Fig. 3 is a transverse sectional view upon the line 3—3 Fig. 2. Fig. 4 is a perspective view of the locking plate for the contiguous ends of a pair of rails. Fig. 5 is a perspective view of the engaging member for the locking plate. Fig. 6 is a perspective view of one of the rail engaging members. Fig. 7 is a similar view of one of the filling block members.

In the accompanying drawings the numeral 1 designates the rails and 2 the ties. The rails 1 are of the ordinary construction, comprising a head, web and base flange. The webs of the rails have their meeting ends provided with the usual spaced openings adapted for the reception of securing elements provided by the ordinary fish plates and whereby the said rails are secured together.

The tie 2, in the present instance, comprises a top rectangular plate 3 and a bottom rectangular plate 4. These plates 3 and

4 are retained in spaced relation with each other through the medium of a pair of channeled irons 5. By reference to Fig. 3 of the drawings it will be noted that the irons 5 are spaced a suitable distance away from each other and that the top and bottom plates are connected with the flanges of the said irons 5 through the medium of suitable bolts or analogous devices. The top and bottom plates are each provided with suitable openings 6 and 7, and the opening 6 has its inner wall alining with the inner wall of the opening 7. The plate 3 is provided adjacent its outer extremity with suitable rail blocks 8 and 9. Both of these rail blocks have their inner faces provided with overlying flanged portions and vertical extensions therefor which are adapted to engage one side of the flanges and webs of the rail members 1.

Upon the left hand side of Fig. 2 it will be noted that I have provided a structure slightly different from that provided on the opposite side of said figure. On this left hand side there is provided a rail engaging member 10. This member 10 is also provided with an overlying flange and a vertical extension which is adapted to engage the inner face of the web and the flange of the rail 1 positioned upon this side of the tie. By reference to Fig. 6 of the drawing it will be noted that this member 10 comprises a headed portion 11 having an integrally formed downwardly extending substantially L-shaped portion 12. The extension 12 is of a width approximately equal in width to that of the slot 6 and the depth provided between the top plate 3 and the bottom plate 4. When the member 10 is positioned upon the rail 1, I provide a filling locking block 13. This block 13 also comprises an enlarged head 14 provided with a reduced stem 15. The width of the stem 15 is substantially equal to that of the width between the channel irons 5 and the said stem 15 is adapted to extend through the opening 7 in the bottom plate 4 and to tightly force the member 10 against the rail 1.

The device illustrated upon the right hand side of Fig. 2 is primarily intended for connecting the contiguous meeting ends of a pair of rails. In this instance I have employed an inner plate 16 which has its inner face beveled to correspond to the con-

tour of the inner face of the rail members 1.
 The inner plate 16 is of a sufficient length to
 engage both of the rails to be connected and
 is provided with a plurality of projecting
 5 fingers 17 upon its inner face which are
 adapted to engage with the openings pro-
 vided in the webs of the rail. The opposite
 face of the inner plate is provided with
 spaced depressions or pockets 18, and the en-
 10 larged face 19 of the plate engaging mem-
 ber 20 is provided with a pair of spaced pro-
 jections 21 which are adapted to engage with
 these pockets 18 when the device is in posi-
 tion. It will be noted by reference to Fig. 5
 15 of the drawings that the engaging member
 20 is provided with an integrally formed
 substantially L-shaped depending portion
 22, and it is to be understood that this L-
 shaped portion engages between the chan-
 20 neled rails in a manner similar to that de-
 scribed in connection with the member 10.
 The member 20 is retained in locked posi-
 tion through the medium of a block, similar
 to that described in connection with the
 25 member 10, and it will be understood from
 the above description that I have provided
 a simple, comparatively cheap, and thor-
 oughly effective device for the purpose set
 forth.
 30 It is to be further understood that while I
 have illustrated and described the preferred
 embodiment of the invention, as it now ap-
 pears to me, minor details, within the scope

of the following claims, may be resorted to
 if desired. 35

Claim:—

In combination with a pair of railroad
 rails having their webs provided with
 spaced openings, of a tie for the rails and
 rail securing devices for the tie, said tie be- 40
 ing constructed of a pair of spaced members,
 the top of the tie being provided with open-
 ings communicating with the interior of the
 tie, the ends of the tie being provided with
 blocks having their inner faces adapted to 45
 engage with the webs and the base flanges of
 the rails, an elongated plate upon the oppo-
 site face of the rails, said plate being pro-
 vided with a plurality of fingers engaging
 the openings of the rails, the plate being 50
 also provided with spaced pockets, a plate-
 engaging member provided with offset mem-
 bers engaging the pockets of the plate, said
 member having its body portion positioned
 within the opening of the tie, and a block 55
 member also positioned within the opening
 of the tie adapted to contact the plate en-
 gaging member and the walls provided by
 the opening of the tie.

In testimony whereof I affix my signature 60
 in presence of two witnesses.

CHARLES MOYER.

Witnesses:

JOHN R. HENNINGER,
 L. A. MARKEL.