F. LANDRETH.

RAILROAD TIE.

APPLICATION FILED MAY 15, 1915.

1,166,997.

Patented Jan. 4, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

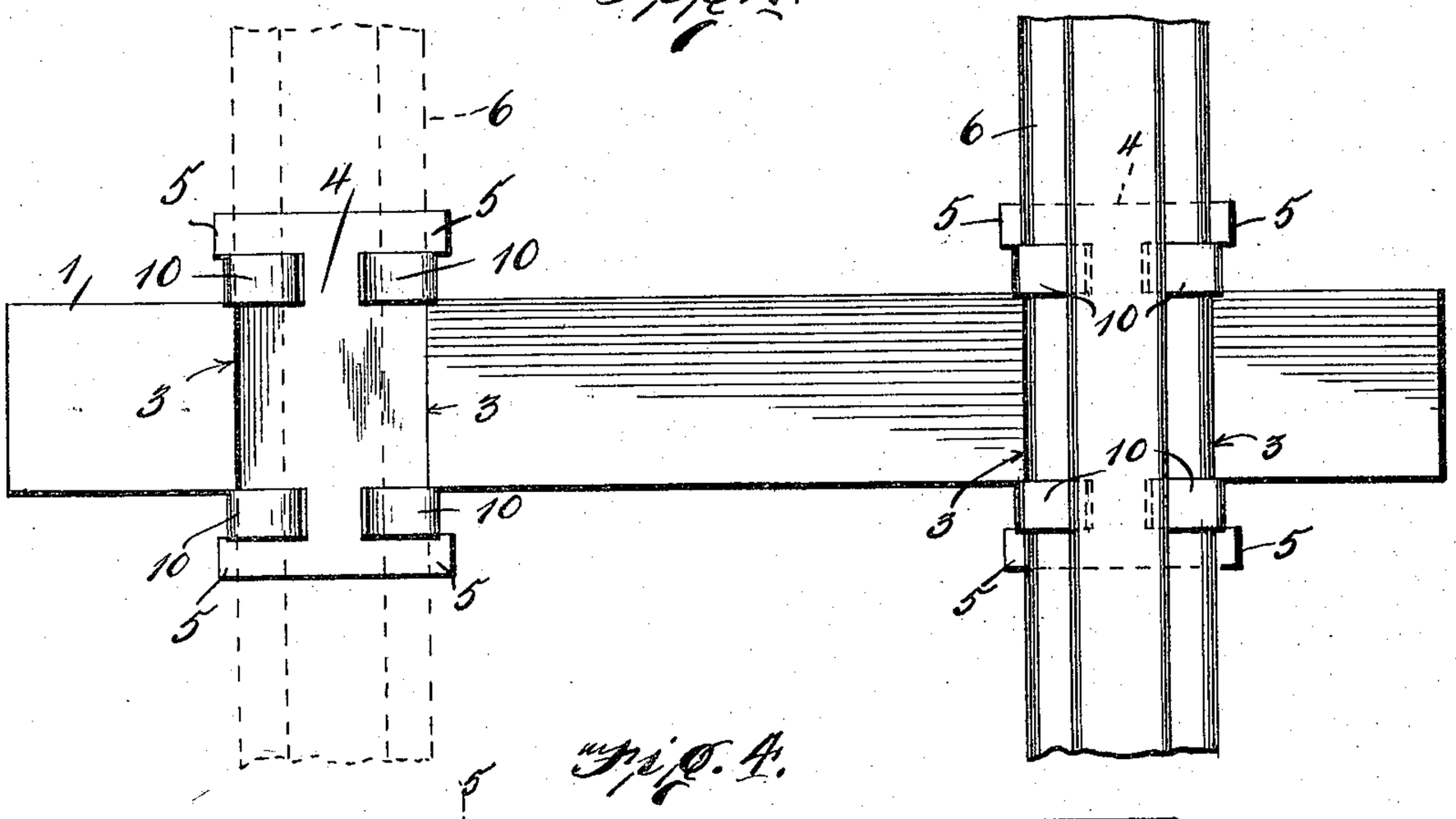


Fig. 4.

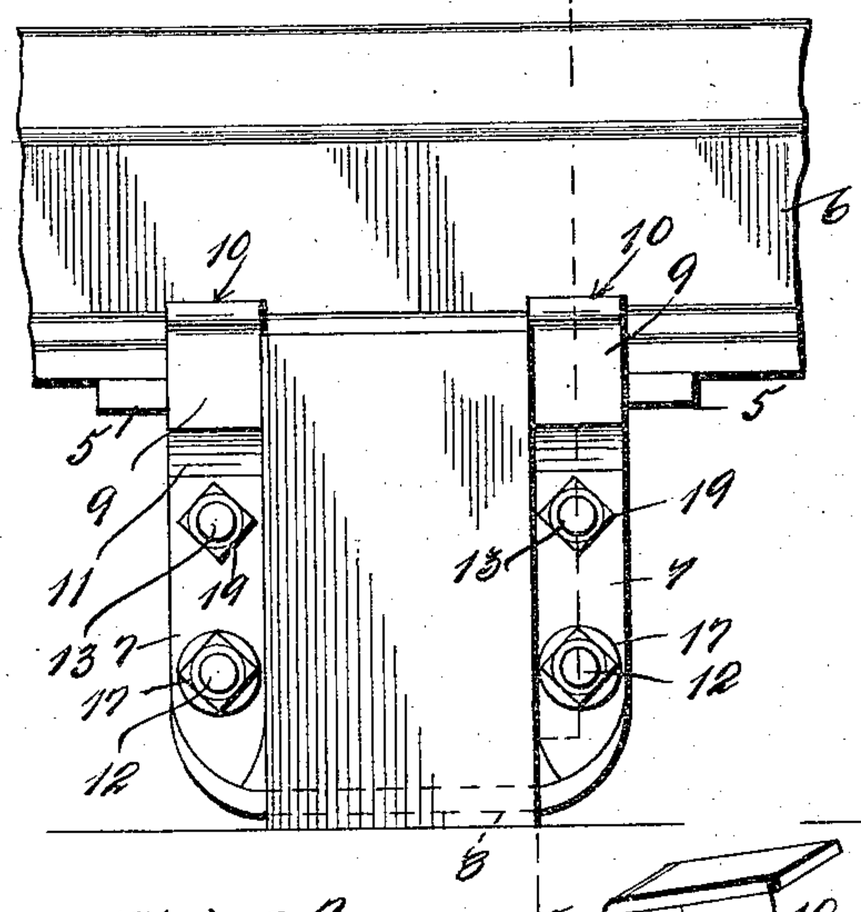


Fig. 5.

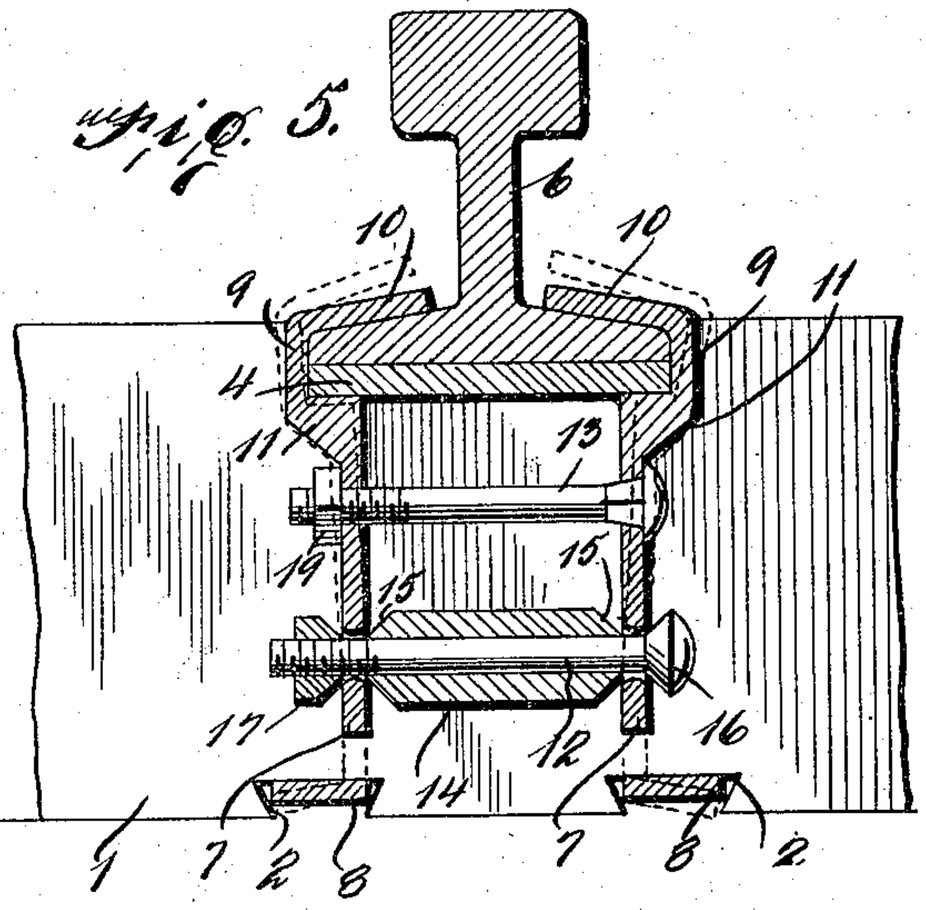


Fig. 7.

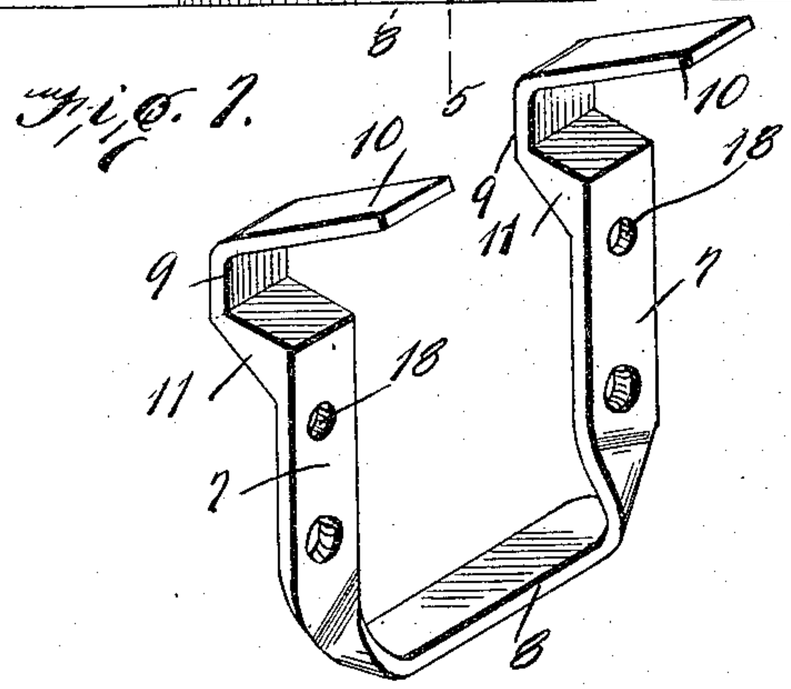
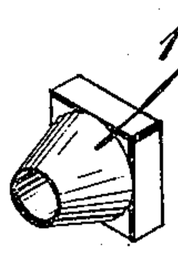


Fig. 9.



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2 SHEETS—SHEET 2.

Fig. 2.

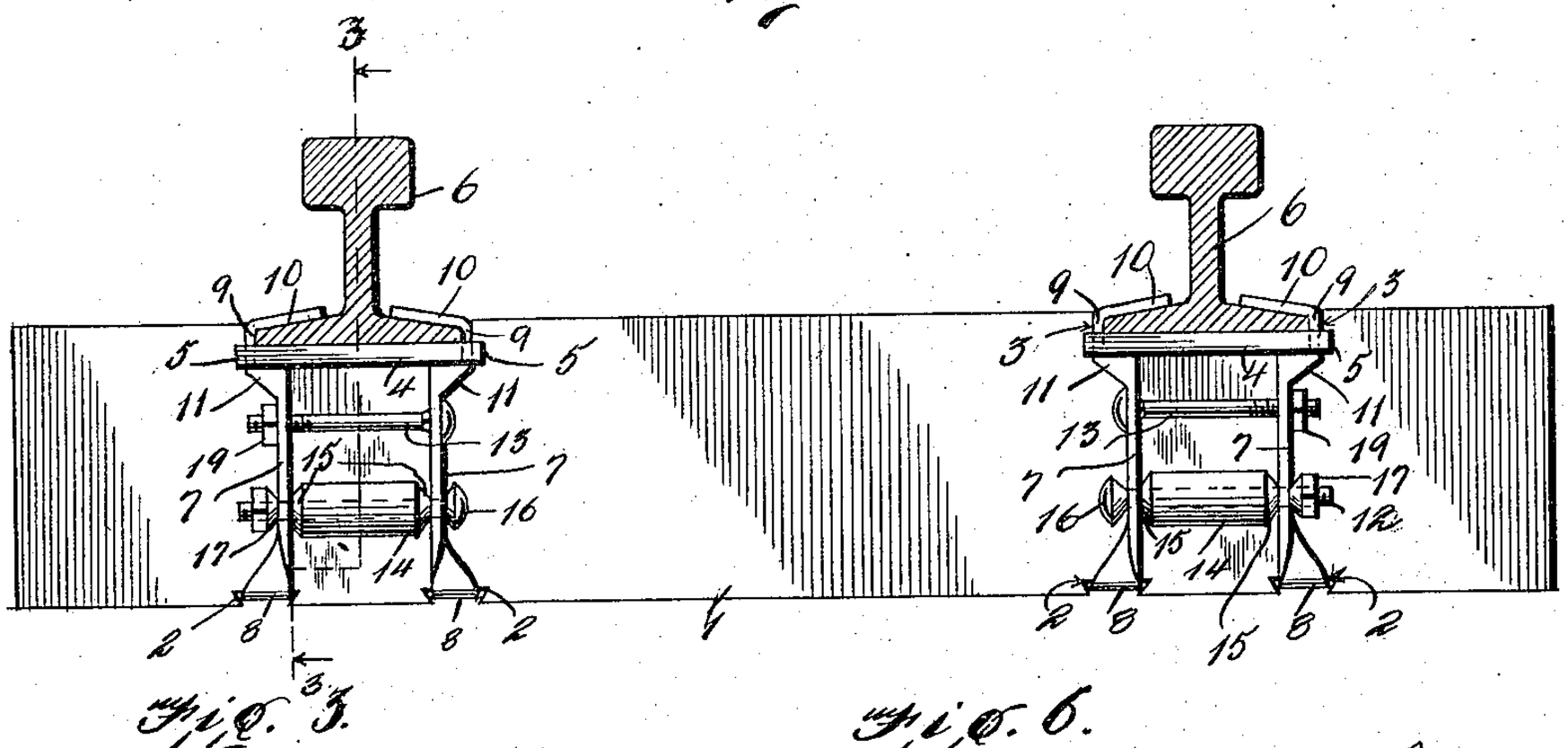


Fig. 3.

Fig. 6.

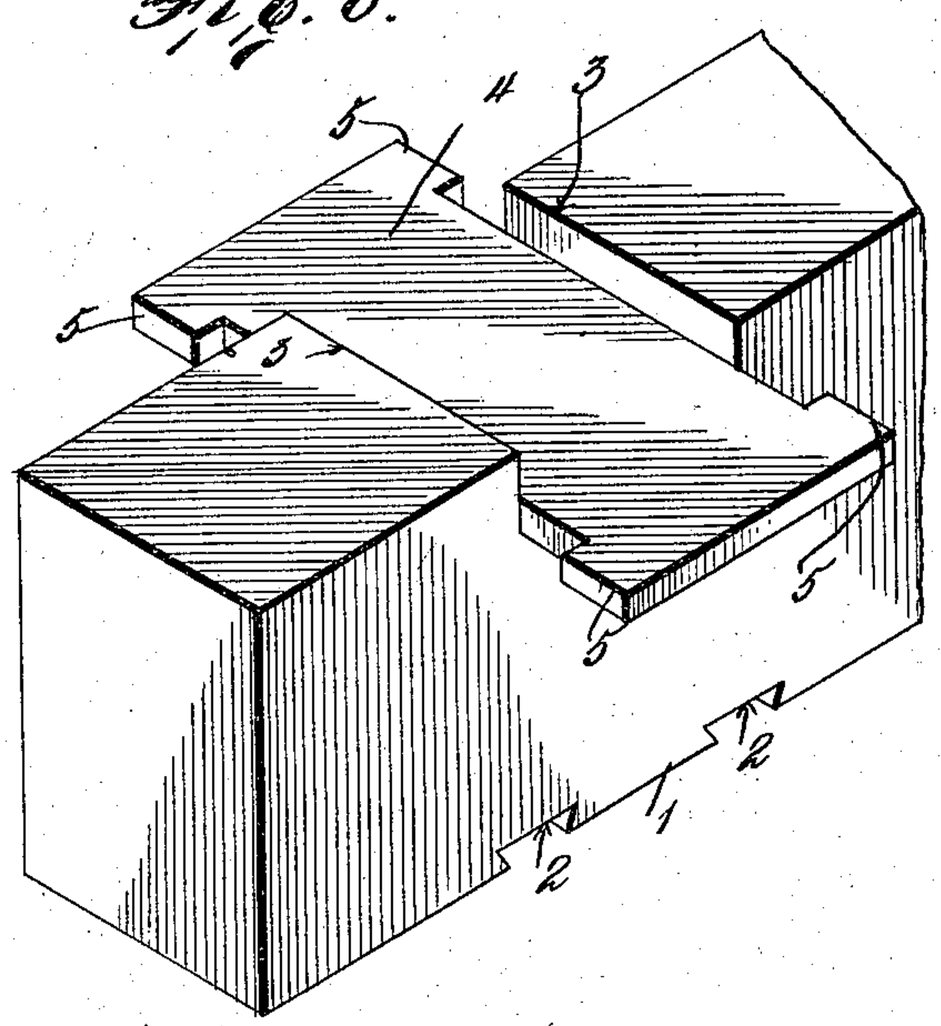


Fig. 4.

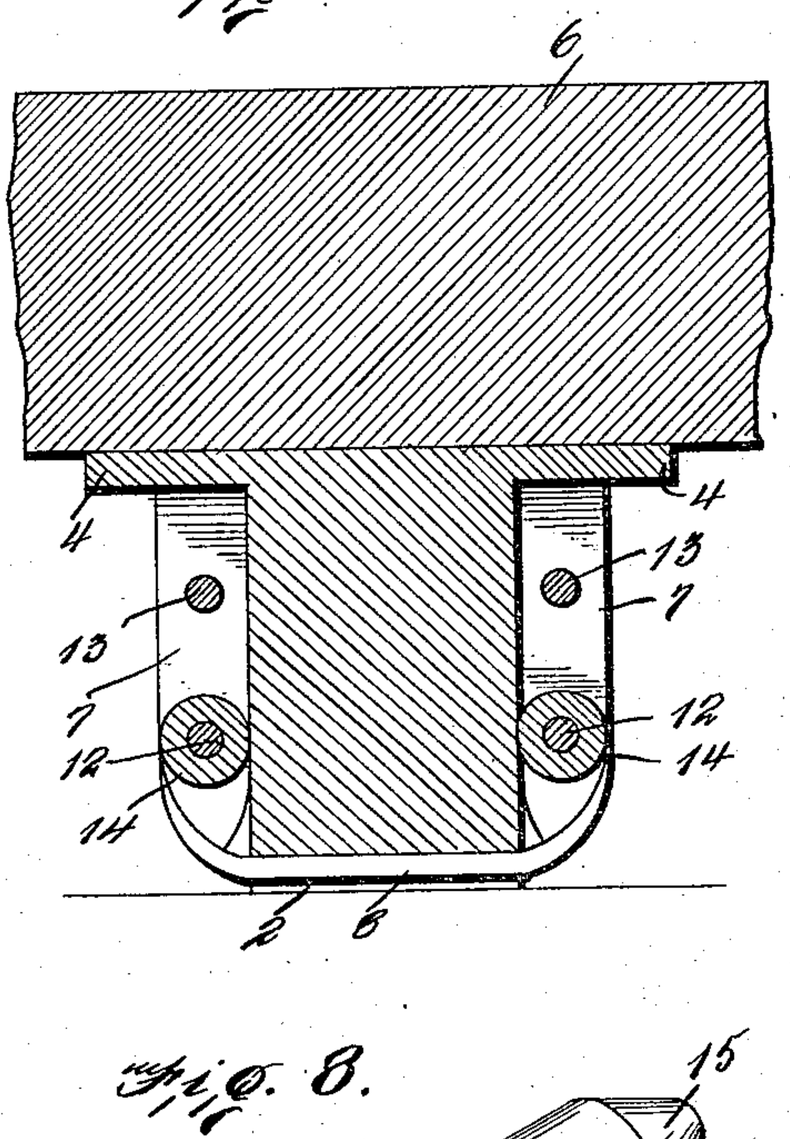
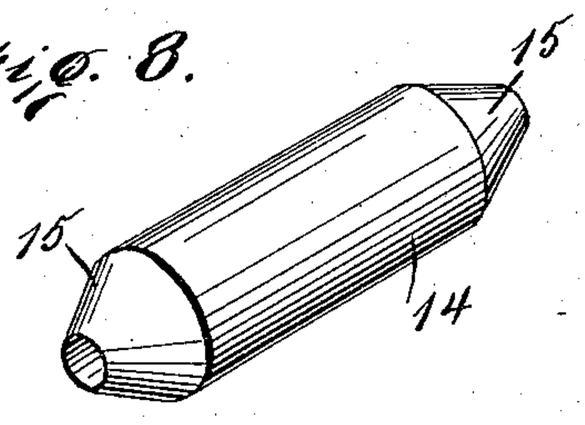


Fig. 8.



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UNITED STATES PATENT OFFICE.

FRED LANDRETH, OF ARCOLA, ILLINOIS.

RAILROAD-TIE.

1,166,997. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed May 15, 1915. Serial No. 28,377.

To all whom it may concern:

Be it known that I, FRED LANDRETH, a citizen of the United States of America, residing at Arcola, in the county of Douglas and State of Illinois, have invented certain new and useful Improvements in Railroad-Ties, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to railroad ties and rail fasteners and has for its object the production of a simple and efficient means carried by a railroad tie for facilitating the holding of a rail firmly in engagement therewith.

Another object of this invention is the production of a simple and efficient means for facilitating the gripping of a rail in a convenient manner upon either side of a railroad tie and holding the rail in a firmly seated position upon the tie.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a top plan view of a railroad tie showing the manner in which the rails are held in engagement therewith. Fig. 2 is a side elevation of a railroad tie, the rails being shown in transverse section. Fig. 3 is a section taken on line 3—3 of Fig. 2. Fig. 4 is an end elevation of a railroad tie, showing the manner in which the tie fasteners engage the rail. Fig. 5 is a section taken on line 5—5 of Fig. 4. Fig. 6 is a detailed perspective of one end of a railroad tie, showing the rail plate passing therethrough. Fig. 7 is a detailed perspective of one of the rail fastening members. Fig. 8 is a detailed perspective of one of the spacing members of the rail engaging members. Fig. 9 is a detailed perspective of one of the nuts used in connection with the present invention.

Referring to the accompanying drawings by numerals it will be seen that 1 designates the railroad tie which is provided upon the bottom face thereof with a plurality of notches 2, as clearly illustrated in Fig. 6 of the drawings. The railroad tie 1 is provided upon the top face thereof with pockets 3, which pockets receive the rail supporting plate 4. This rail supporting plate 4 is provided with laterally extending ears 5 upon the respective ends thereof, as illustrated in Fig. 6 of the drawings.

The rail 6 is adapted to fit or be seated upon the supporting plate 4, as clearly illustrated in Fig. 2 of the drawings.

A plurality of yoke-like rail fasteners 7 are used in connection with the present device and each of these yoke-like rail fasteners comprise a pair of vertically extending arms which are connected to a twisted bridge portion 8, as clearly illustrated in Fig. 7. The vertically extending portions of the rail fastener terminate at their upper ends in laterally projecting and substantially U-shaped rail gripping pockets or jaws 9, the jaws or pockets 9 being provided with overhanging lips 10, as clearly illustrated in Fig. 7 of the drawings. It should be understood that these pockets or jaws 9 are reinforced by means of the thickened portion 11 placed or formed directly under the jaws 9 as shown in Fig. 7. It should be understood that one of these yoke-like rail fasteners is adapted to fit upon each side of the rail and the vertically extending portions are adapted to lie snugly against the side face of the tie 1 as clearly shown in Fig. 4, so as to permit the jaws 9 to fit snugly over the base of the rail 6, as clearly indicated in the drawings, and firmly hold the rail upon the tie 1. It should be understood that these jaws 9 fit between the side faces of the tie 1 and the inner edges of the projecting ears or laterally extending ends 5 of the rail supporting plate 4, as clearly shown in Fig. 1 of the drawings. By means of the present device it will be seen that this rail supporting plate will be firmly held against transverse movement with reference to the railroad tie 1.

From the foregoing description and by carefully considering Fig. 5, it will be seen that these rail fasteners are used in pairs, the pairs of fasteners being firmly secured and held together by means of the spacing bolt member 12 and the clamping bolt member 13. The transversely extending bridge portion 8 is adapted to fit snugly within the notches 2 formed upon the under face of the railroad tie and in this manner be protected and firmly held in proper position against spreading. The spacing bolt member 12 carries a sleeve 14 which is provided with a cone-shaped end 15 at each end thereof, as clearly shown in Fig. 8. The bolt 12 is provided at one end with a cone-

shaped head 16 and a cone-shaped nut 17 is threaded upon the opposite end of the bolt 12 as shown in Fig. 5.

The clamping bolt 13 passes transversely through the vertical portions of the yoke members 7 by extending through the apertures 18 and by tightening the nut 19 upon the bolt member 13, it will be seen that the upper ends of the rail fastener will be firmly drawn together and tightly held around the face of the rail 6 as is clearly shown in Fig. 5.

It will be seen that the spacing member 14 will constitute a pivoted support and spacing member for the respective clamping or rail fastening member.

What I claim is:—

1. A rail fastener of the class described comprising a plurality of yoke-shaped bodies, each yoke-shaped body provided with vertically extending arms, each arm provided with a substantially U-shaped pocket extending at right angles to said arm and adapted to fit over the face of a rail and firmly support the same, a spacing member spaced between the adjacent vertically extending arms of said rail fasteners, and means for drawing said vertically extending arms in firm engagement with the rail adapted to be supported thereby.

2. A device of the class described comprising a plurality of rail fasteners, each rail fastener comprising a pair of vertically extending arms, each vertically extending arm provided with a pocket upon the upper end thereof, spacing members between the respective vertically extending arms of the opposite yoke-shaped members, and constituting a fulcrum therefor, and means passing through the upper ends of said arms for drawing the upper ends of said arms toward each other.

3. A device of the class described comprising a plurality of rail fasteners constituting yoke-shaped body portions, each yoke-shaped body portion provided with a plurality of vertically extending ends, rail engaging means formed upon the ends of said yoke-shaped body portions, a spacing bolt passing through the opposite arms of the opposite fasteners, a sleeve carried by said spacing bolt and provided with tapering ends, said tapering ends constituting a fulcrum for said vertically extending arms, a binding bolt passing through the upper ends of the oppositely disposed arms of the opposite rail fasteners for drawing said arms toward each other near the upper ends thereof.

In testimony whereof I hereunto affix my signature.

FRED LANDRETH.