No. 894,404. PATENTED JULY 28, 1908.

J. G. SNYDER.

METALLIC RAILWAY TIE.

APPLICATION FILED SEPT. 3, 1907.

Fig. 1.

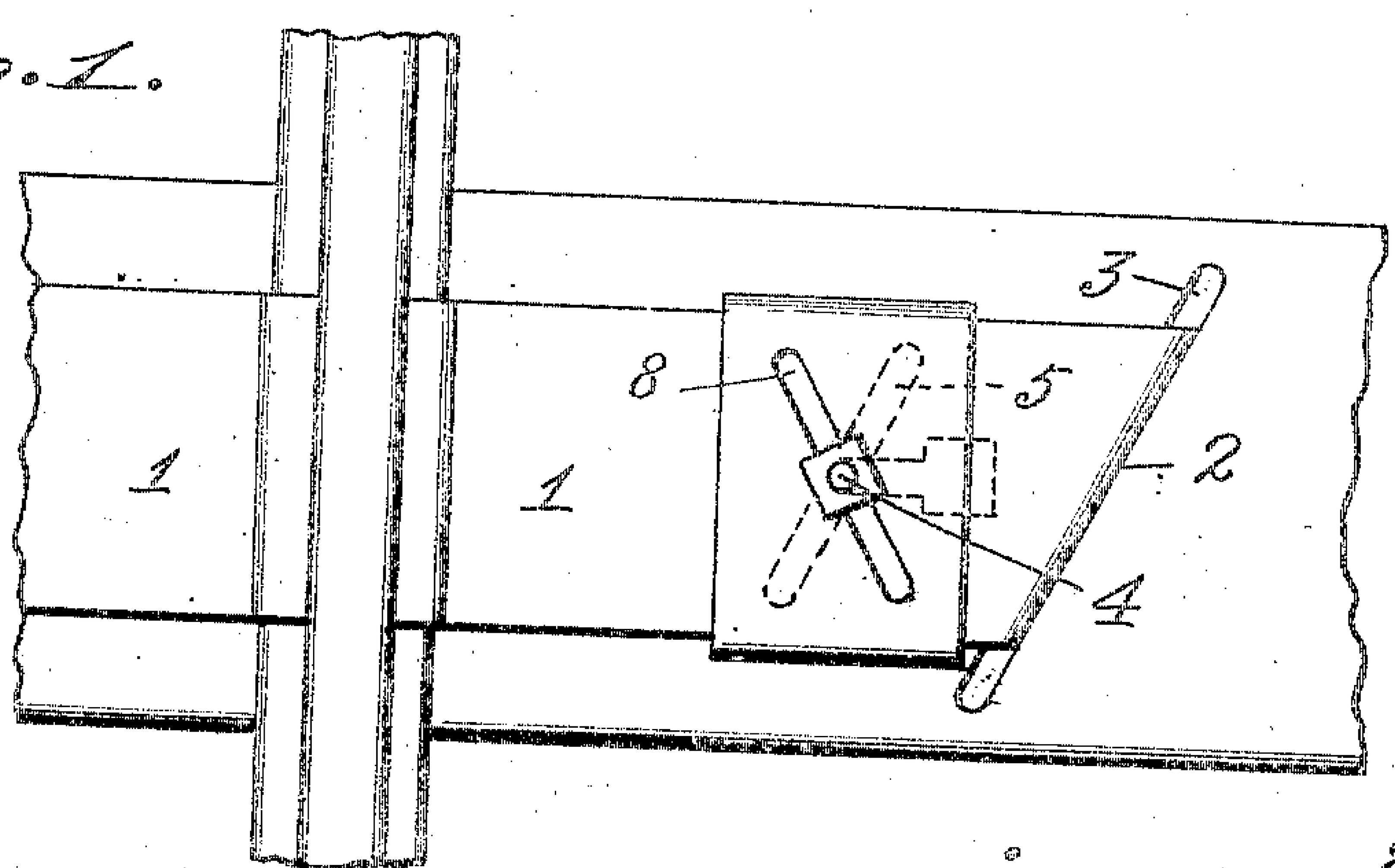


Fig. 3.

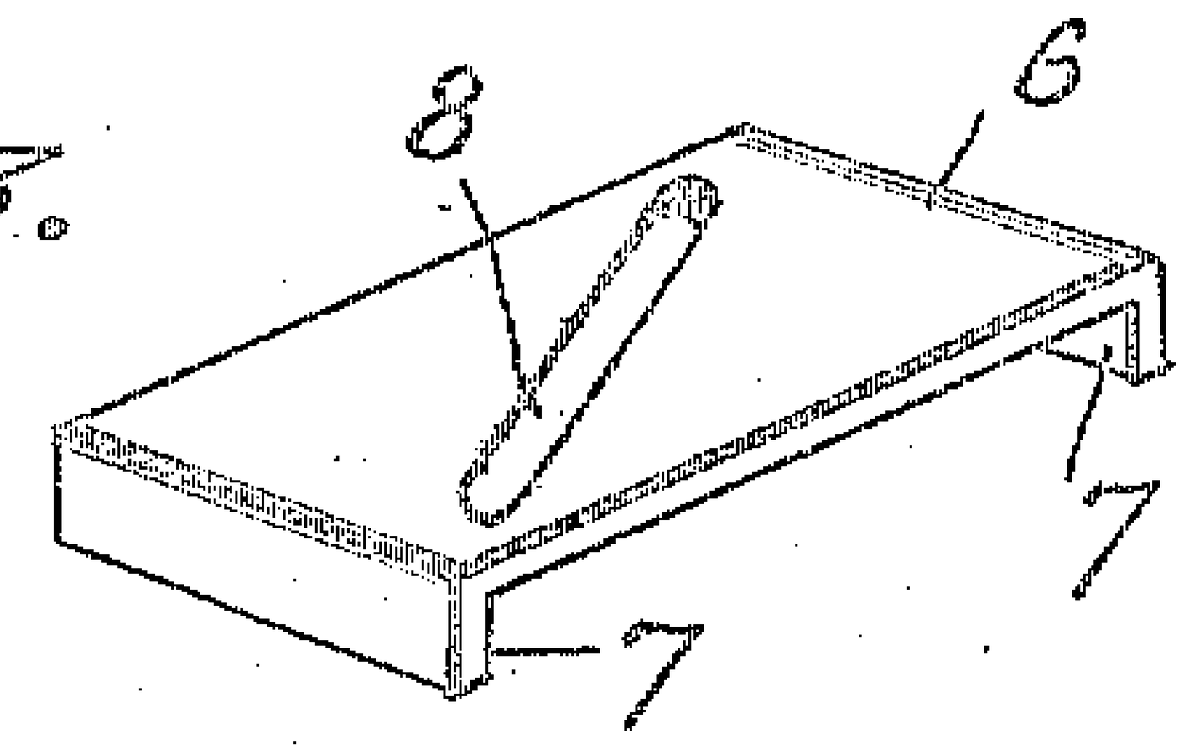


Fig. 2.

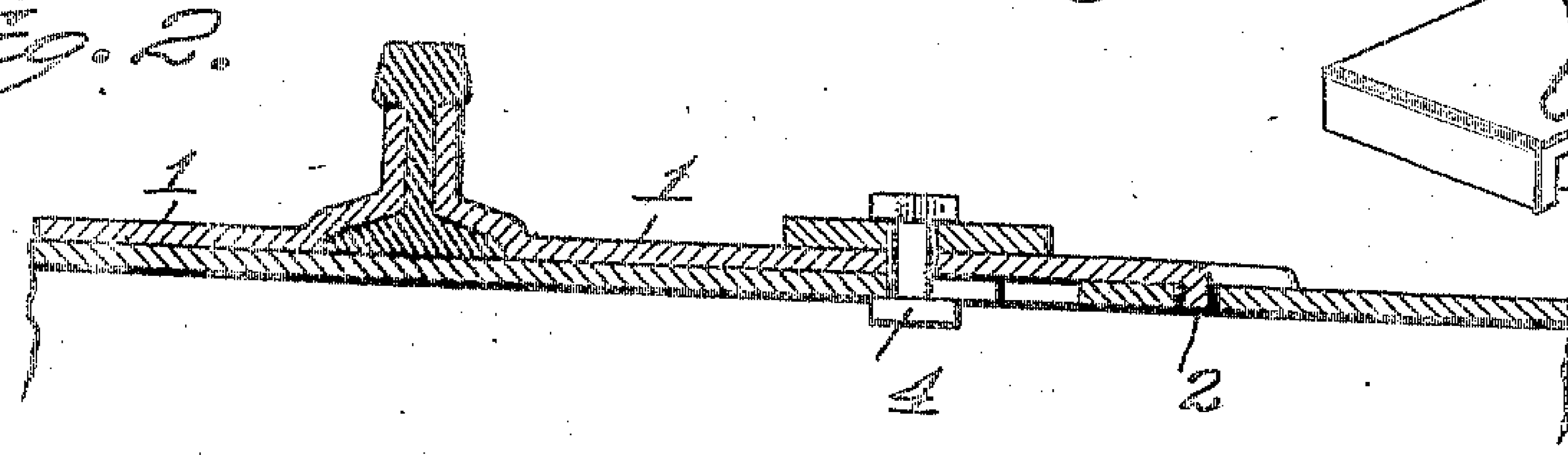


Fig. 4.

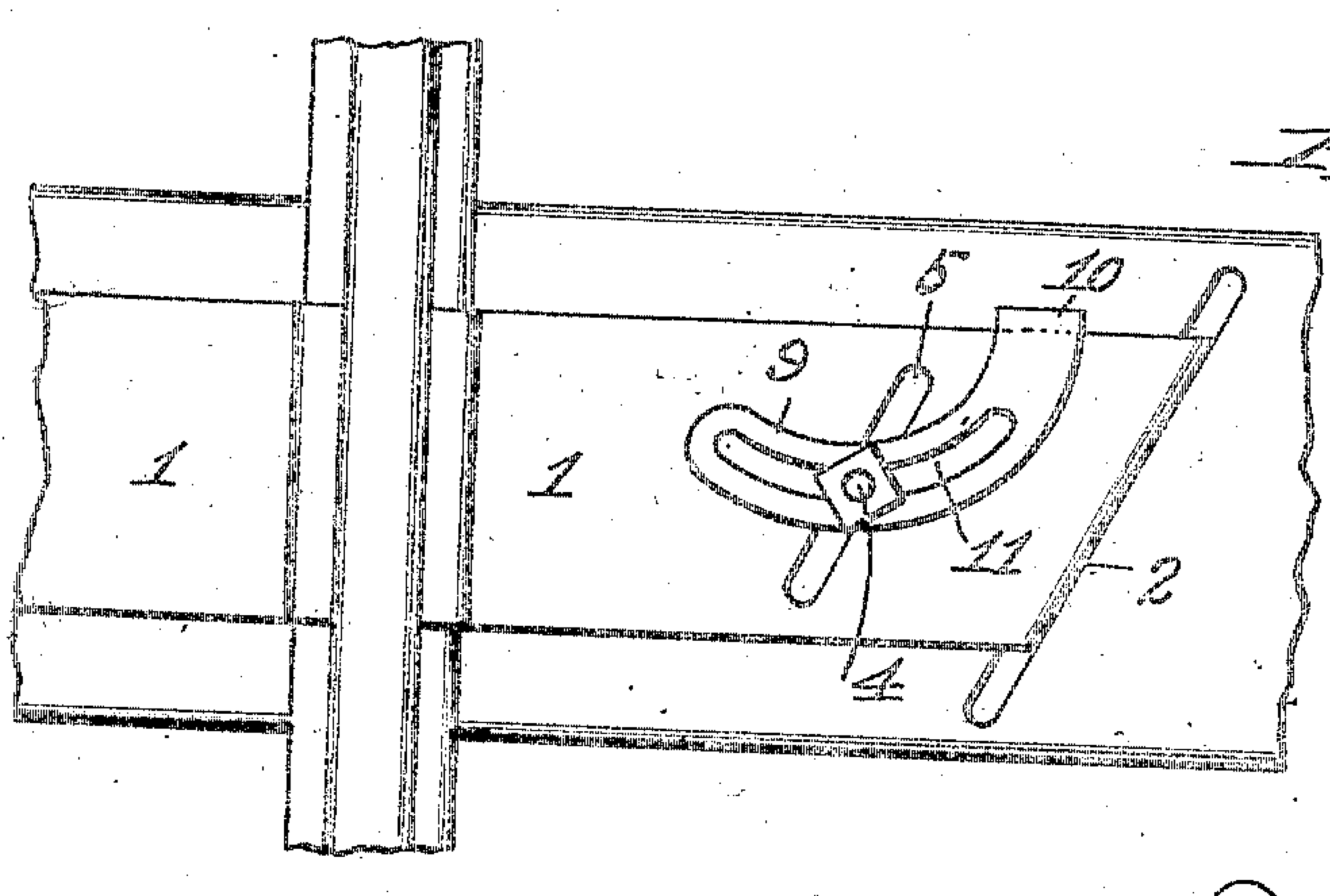


Fig. 6.

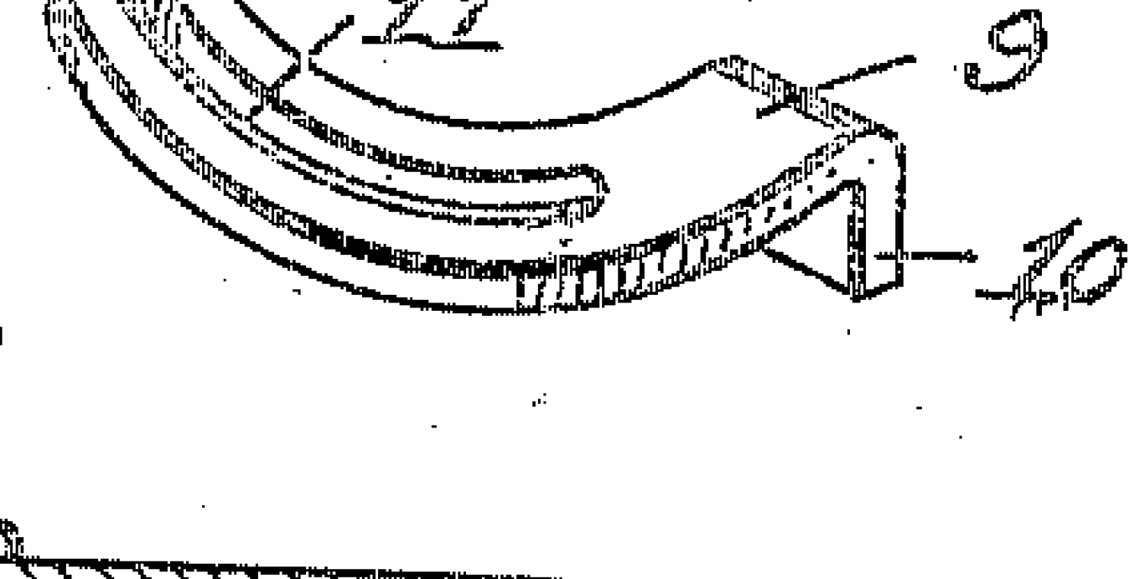
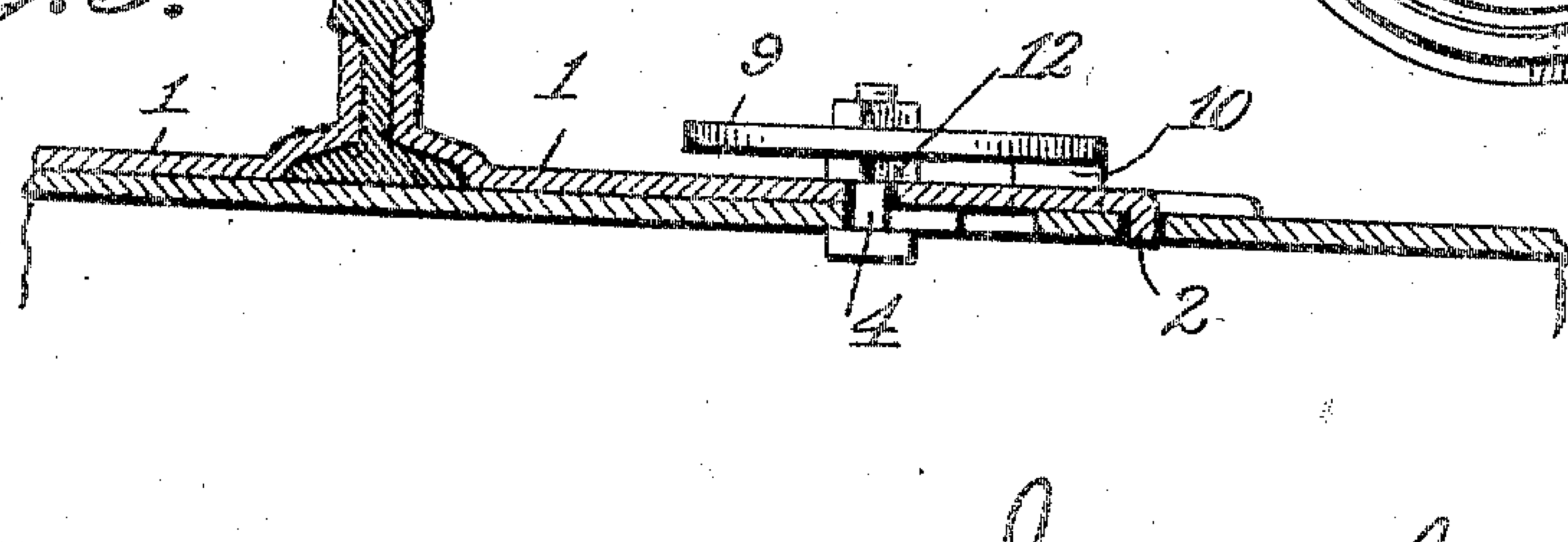


Fig. 5.



Witnesses

Edwin L. Jewell

J. E. Hutchinson Jr.

Inventor

John G. Snyder

By William M. Davis

Attorney

UNITED STATES PATENT OFFICE

JOHN G. SNYDER, OF ALTOONA, PENNSYLVANIA.

METALLIC RAILWAY-TIE.

No. 894,404. Specification of Letters Patent. Patented July 28, 1908.

Application filed September 3, 1907. Serial No. 391,102.

To all whom it may concern:

Be it known that I, JOHN G. SNYDER, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Railway-Ties, of which the following is a specification.

The invention relates to improvements in metallic railway-ties of that description which are made of sheet metal, and more particularly to the clamping mechanism for securing the rail to the tie.

It has for its object the provision of means whereby the clamp can be readily adjusted to meet the rail after the latter has been positioned on the tie and which will securely hold it in place.

The invention consists in the novel construction, combination and arrangement of parts, such as will be hereinafter fully described, pointed out in the appended claims, and illustrated in the accompanying drawings.

In the drawings, in which similar reference characters designate corresponding parts, Figure 1 is a plan view of a device embodying the invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the holding plate. Fig. 4 is a plan view showing a modification of the device. Fig. 5 is a longitudinal sectional view of the same. Fig. 6 is a detail perspective view of the holding plate in the modification.

The body of the tie is of sheet metal and may be of any suitable formation. To it is secured the rail by the clamps 1 placed on opposite sides of the same and secured to the crown. Each clamp 1 has at its outer end the diagonal flange 2 registering with the slot 3 extending diagonally across the crown of the tie. As the slot is longer than the flange the clamp can be moved sidewise on the tie while the flange is in engagement with the slot. Owing to the engagement of the flange with the slot the sidewise movement of the clamp will give a longitudinal adjustment of the clamp on the tie so that the clamp can be properly positioned with relation to the rail. When the clamp is in place the flange 2 engaging the slot 3 will hold the clamp against the thrust of the rail. The clamp is secured in place by the bolt 4 mounted in the tie passing through the slot 5 extending diagonally across the clamp parallel with the flange 2 and the slot 3. As the flange 2 and the slots 4 and 5 are parallel the clamp can be moved sidewise so that the required longitudinal adjustment can be secured.

As shown in Figs. 1, 2 and 3, the clamp is held against accidental displacement by the locking plate 6. On the sides of the locking plate are the opposite parallel ribs 7 fitting over the longitudinal edges of the clamp and they serve to hold the plate against transverse movement on the clamp, but allow a longitudinal movement of the plate on the clamp. Extending obliquely across the plate 6 is the elongated slot 8 through which the bolt 4 passes when the parts are assembled. The slot 8 crosses the slot 5 and at their points of intersection the bolt passes through them.

In assembling the parts the clamp is positioned on the tie to engage the rail with the bolt 4 passing through the slot 5. Then the locking plate 6 is placed on the clamp with the bolt passing through the slot 8 and the nut is turned down on the bolt to secure the different parts together. As the locking plate is held on the clamp against transverse movement by the ribs 7, and as the slots 5 and 8 cross each other at an angle, and as the bolt passes through the slots at their intersection, the clamp is firmly held against accidental displacement.

As shown in Figs. 4, 5 and 6, the locking plate 6 in the first instance is replaced by the curved locking plate 9. The latter has but a single rib 10 to engage the side of the clamp. In the curved locking plate is the curved elongated slot 11 through which the bolt passes. When in position the rib 10 of the curved locking plate engages the longer side of the clamp and the curved slot crosses the slot 5 at the bolt. When so assembled the locking plate holds the clamp against movement sidewise in the direction of the longer side. Movement of the clamp in the opposite direction, that is towards its shorter side, is prevented by the clamp abutting against the rail.

For some purposes, to avoid friction between the two for an instance, it is desirable to separate the locking plate from the clamp. This is done by the nut 12 placed between the two members as shown in Fig. 5.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

1. In a rail-fastener, a tie, a rail-clamp provided with a slot adjustable on said tie, a

locking plate engaging said rail-clamp having an elongated slot at an angle to the slot in the rail-clamp and said plate being adjustable on the rail-clamp so that its slot can be positioned to cross the slot of the rail-clamp, and a bolt mounted in said tie passing through both of said slots at their intersection to secure the rail-clamp to the tie.

2. In a rail-fastener, a tie, a rail-clamp provided with a slot adjustable on said tie, a locking plate engaging said rail-clamp having an elongated slot at an angle to the slot in the rail-clamp and said plate being adjustable on the rail-clamp so that its slot can be positioned to cross the slot of the rail-clamp, ribs on said locking plate to engage said rail-clamp, and a bolt mounted in said tie passing through both of said slots at their intersection to secure the rail-clamp to the tie.

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

JOHN G. SNYDER.

Witnesses:
STEPHEN H. REID,
JOHN C. L. O'REILLY.