

No. 773,666.

PATENTED NOV. 1, 1904.

P. F. McCALL.
METALLIC RAILWAY TIE.
APPLICATION FILED FEB. 17, 1904.

NO MODEL.

Fig. 1.

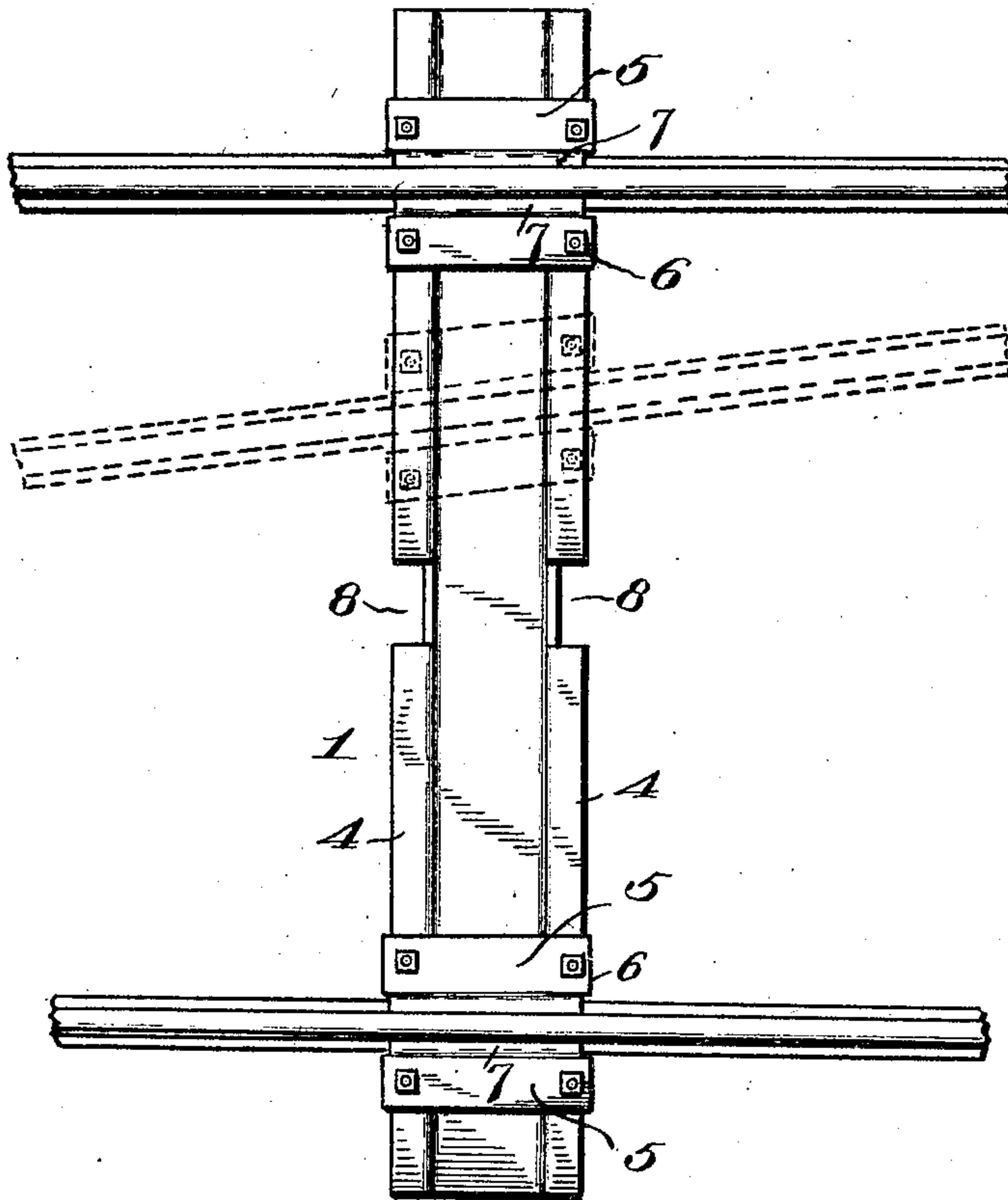


Fig. 2.

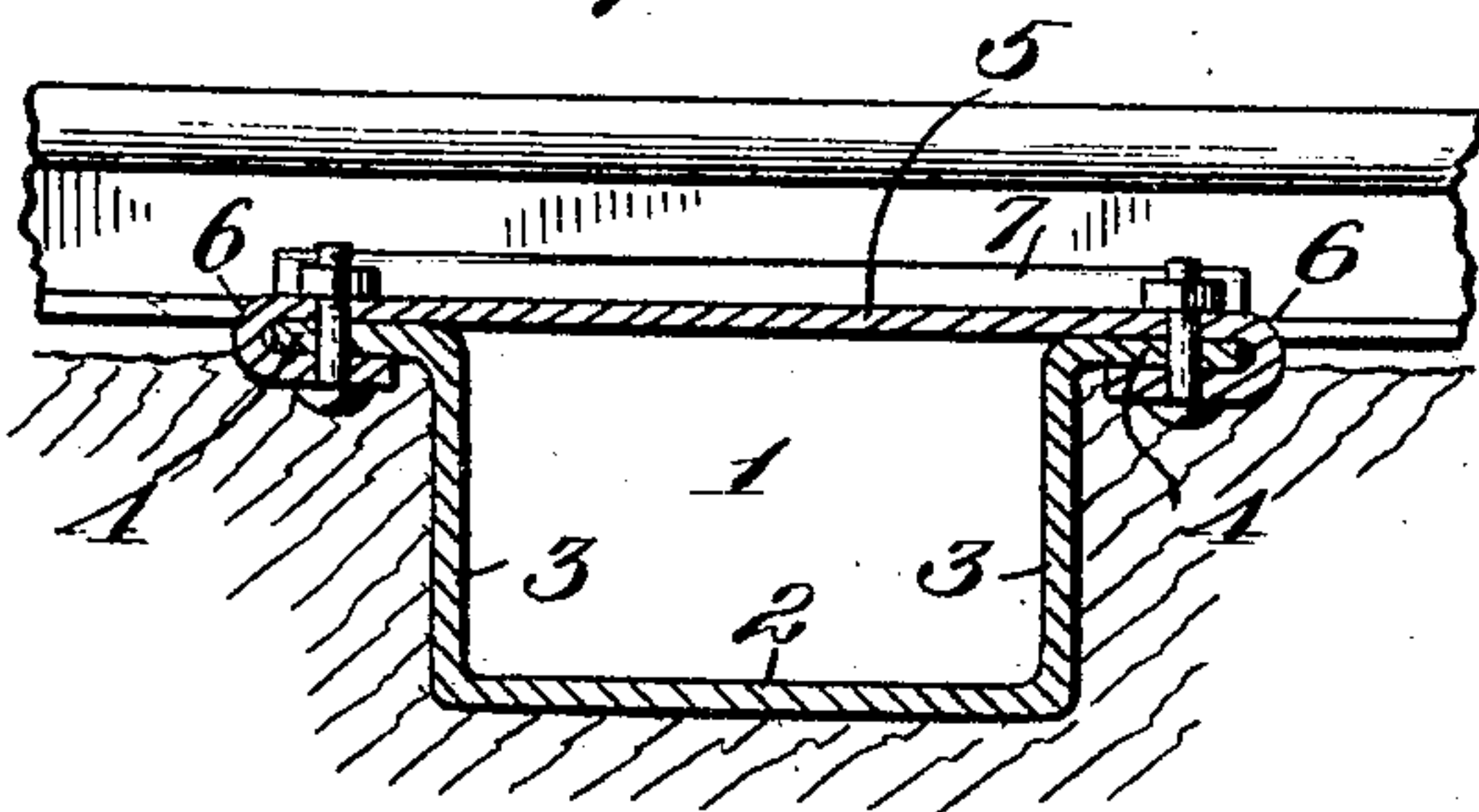


Fig. 4.

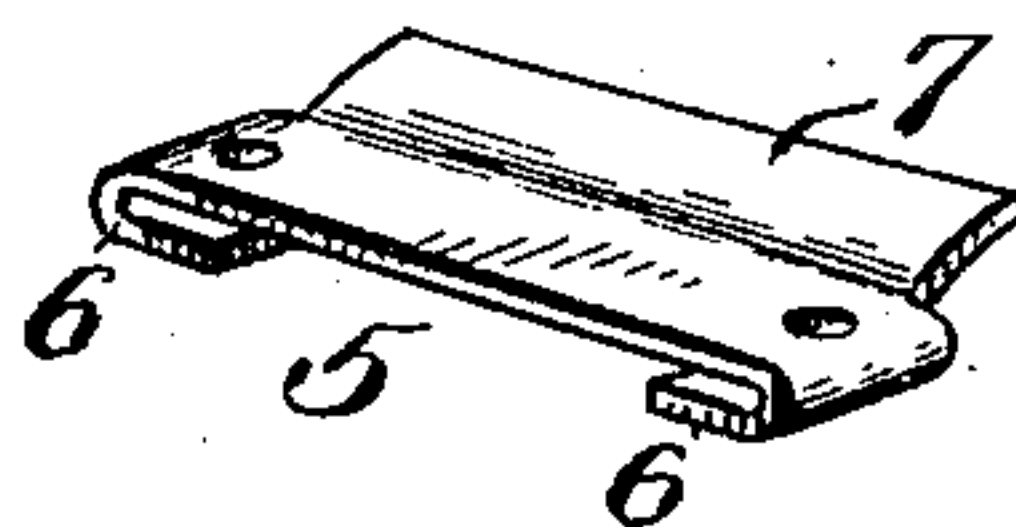
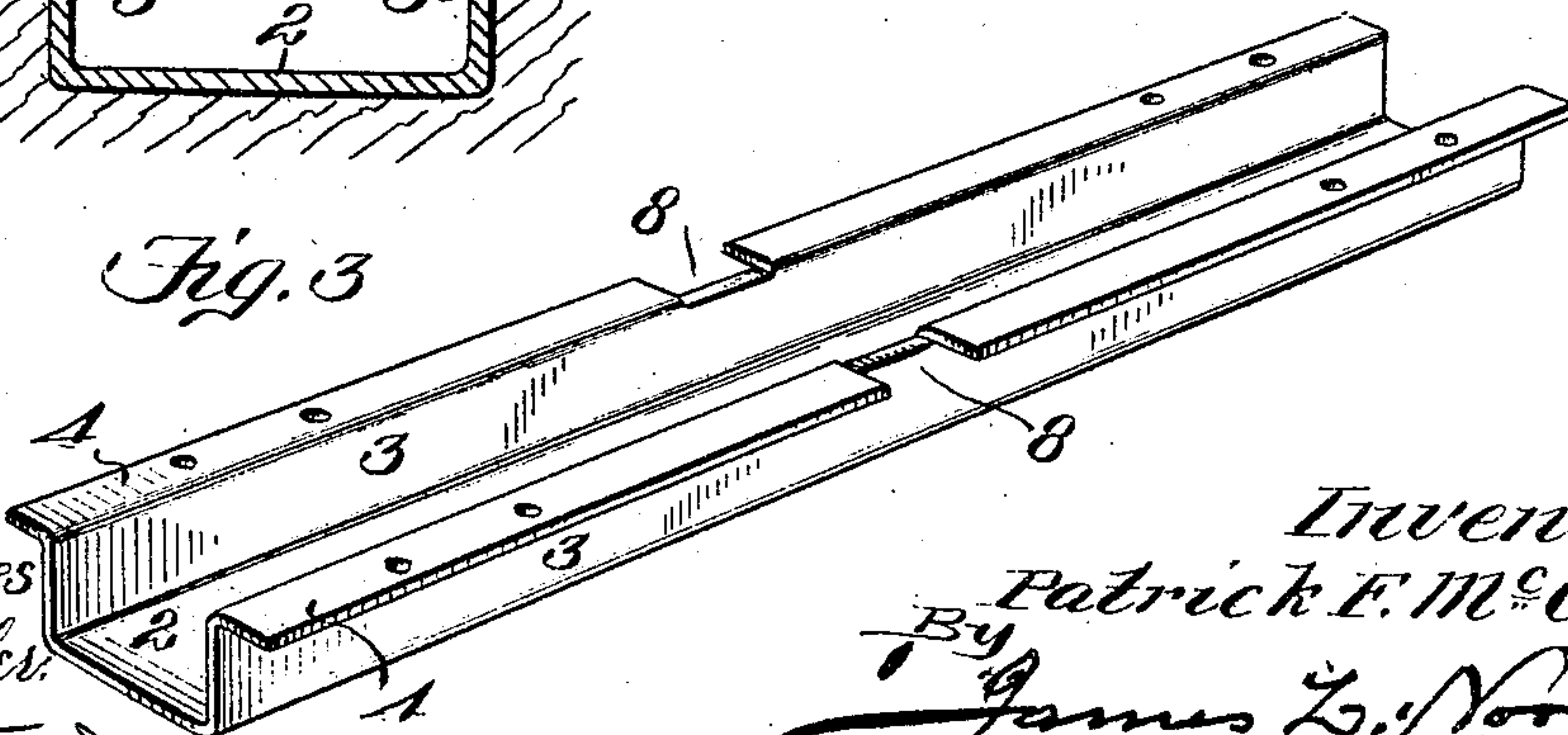


Fig. 3.



Witnesses
C. S. Hester.

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By
James L. Norris.
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UNITED STATES PATENT OFFICE.

PATRICK F. McCALL, OF POTTSVILLE, PENNSYLVANIA.

METALLIC RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 773,666, dated November 1, 1904.

Application filed February 17, 1904. Serial No. 193,949. (No model.)

To all whom it may concern:

Be it known that I, PATRICK F. McCALL, a citizen of the United States, residing at Pottsville, in the county of Schuylkill and State of Pennsylvania, have invented new and useful Improvements in Metallic Railway-Ties, of which the following is a specification.

This invention relates to metallic railway-ties, and has for its object to provide ties of the character referred to, whereby the rails may be readily applied to and removed from the ties.

To these ends my invention consists in the features and in the combination, construction, and arrangement of parts hereinafter described, reference being had to the description forming a part of this application, wherein—

Figure 1 is a top plan view illustrating the switch-rail in dotted lines. Fig. 2 is a transverse section. Fig. 3 is a perspective view of the tie, and Fig. 4 is a perspective view of one of the clamping-brackets.

Referring to the drawings, the numeral 1 indicates in a general way a metallic railway-tie which is trough-shaped in cross-section and comprises a bottom 2, two vertically-projecting sides 3, and laterally-extending flanges 4, the flanges 4 extending from points on opposite sides of the center of the tie, whereby there is left remaining an intervening space 8 between the inner adjacent ends of the flanges 4. Bolted, riveted, or otherwise secured to the opposite ends of said flanges are brackets 5, which are formed angular in cross-section, the arrangement being such that the inclined portions of the brackets will embrace the outer sides of the faces of the railway-rails. Arranged on the inner side of the rails are corresponding brackets 6, that are in like manner attached to the flange 4 of the ties and embrace the inner sides of the rails. Each of the brackets referred to is provided at its opposite ends with downwardly-turned ribs or flanges 6, which embrace the under sides of the laterally-projecting flanges 4 of the tie. In practice the outermost brackets will be firmly attached to the ties, and the ties will be affixed in the road-bed, after which

the railway-rails will be slipped in place on the ties, so that the outermost sides of the flanges will be seated beneath the upturned ends of the outermost brackets. Then by slipping one by one the innermost brackets between the centrally-spaced ends of the flanges said brackets may be moved up into place to engage the rails and be bolted, riveted, or otherwise securely fastened in place.

Should it become necessary for any reason to remove a rail from the track, it is only necessary to remove those brackets which engage the inner sides of the rail, and this may conveniently be accomplished by detaching the fastening devices and sliding the brackets back on the flanges 4 until the center of the tie is reached, whereupon the bracket may be removed bodily from the tie. By the means above described provision is also made for inserting a switch or siding in the track, as it is only necessary to slip an additional pair of brackets on the tie at the point where the siding or switch-rails are designed to join the track-rail.

The important feature of my invention resides in the fact that after the metallic ties have been embedded in the road-bed rails may be applied thereto and removed therefrom without the necessity of disturbing the ties themselves.

Having thus described the invention, what I claim is—

1. A tie consisting of a trough-shaped body having two lateral flanges on each side of its central portion, the inner ends of the two pairs of flanges being separated and said flanges constituting rail-supports, substantially as specified.

2. A railway-tie comprising a channeled piece of metal provided on its upper opposite sides with laterally-projecting flanges, said flanges extended longitudinally of the channel and leaving an intervening space intermediate their inner ends, brackets movably arranged on said flanges and means for securing the brackets to the flanges for the purpose specified.

3. A tie consisting of a trough-shaped body having two lateral flanges on each side of its

central portion, the inner ends of the two pairs
of flanges being separated, said flanges con-
stituting rail-supports, clips arranged to be
movable upon and fastened to said flanges,
5 said clips being formed to embrace the flanges
of the railway-rails and means for fastening
the clips to said flanges.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

PATRICK F. McCALL.

Witnesses:

WILLIAM DEVLIN,
MICHAEL DARCY.