

No. 705,563.

Patented July 29, 1902.

J. F. CLEARY.  
METALLIC TIE AND RAIL JOINT.

(Application filed Apr. 7, 1902.)

(No Model.)

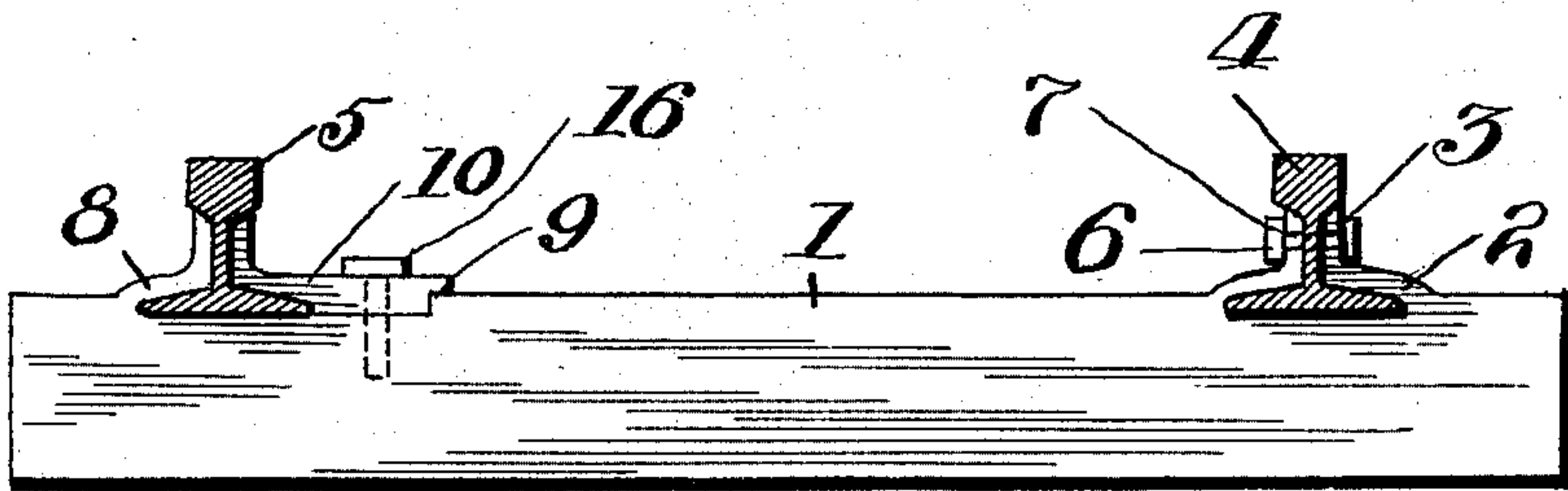


Fig. 1.

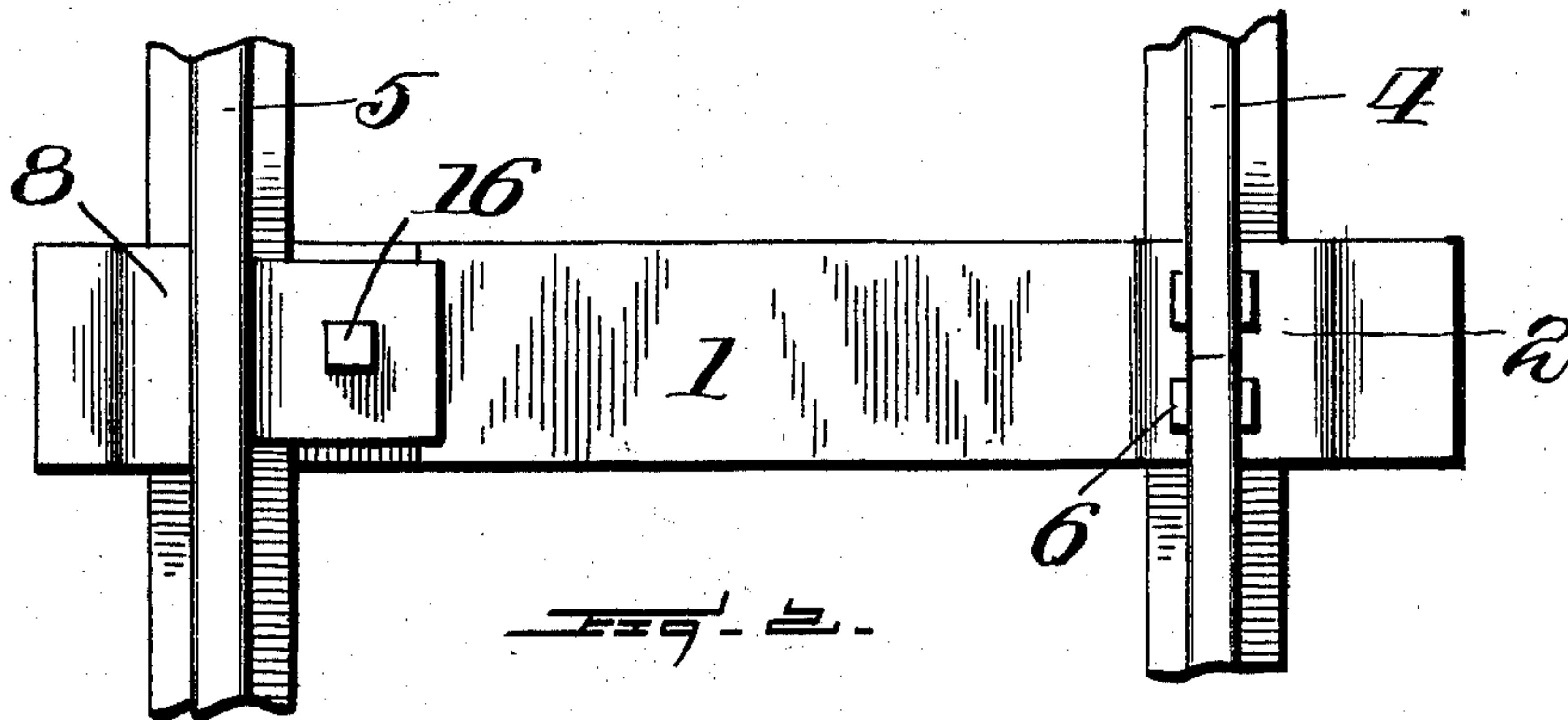


Fig. 2.

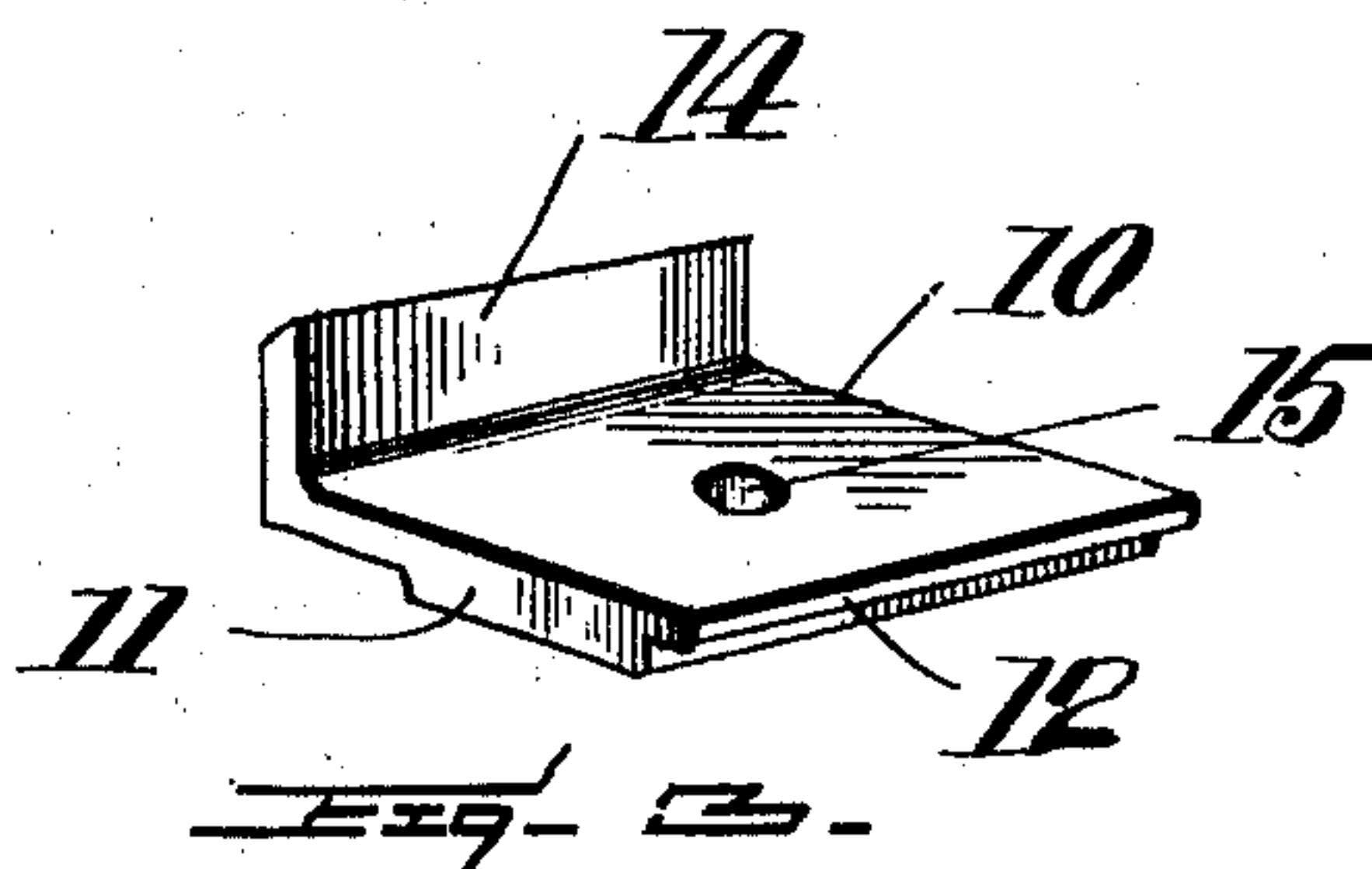


Fig. 3.

Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN F. CLEARY, OF HOYTDALÉ, PENNSYLVANIA.

## METALLIC TIE AND RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 705,563, dated July 29, 1902.

Application filed April 7, 1902. Serial No. 101,691. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. CLEARY, a citizen of the United States of America, residing at Hoytdale, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Ties and Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in metallic ties, rail-joints, and rail-fasteners combined, and has for its object the provision of novel means whereby a metallic tie carries both a rail-fastener and a rail-joint.

It is a well-known fact that in railway construction the rail-joints are not opposite one another upon the rails, but are intermediate one another; and it is the object of my present invention to provide a rail-fastener upon one side of the tie and a rail-joint upon the other in order to meet the demands of this form of construction.

My invention further contemplates to provide a device of the above-described class that will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its use; furthermore, one wherein the rails may be easily removed and replaced when desired.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail, reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of my improved metallic tie, showing the rails in vertical section applied thereto. Fig. 2 is a top plan view of the same. Fig. 3 is a perspective view of the removable clamping-plate.

In the drawings, the reference-numeral 1 represents the metallic tie carrying on one end thereof a chair 2, comprising integral fish-plates 3.

The numerals 4 and 5 represent the rails. Securing-bolts 6 extend through the integral fish-plates which form the joint. These bolts

also extend through the web of the rails and carry securing-nuts 7. Upon the opposite end of the tie a rail-clamp is employed, and the outer end of the tie carries an integral fish-plate 8. Upon the opposite side a recess 9 is provided to receive a clamp 10, which carries the downwardly-extending portion 11 on its under face and forms an outer flange 12. This clamp 10 carries an integral fish-plate 14, and the body portion of the clamp has formed therein an opening 15 to receive the securing-bolt 16, which extends into the metallic tie and forms a substantial clamp for the rail 5. It will be noted that the upper edges of both the integral fish-plates and that of the clamp 10 are beveled to register with the beveled under face of the rail-treads.

The manner of securing the rails in position will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a device of the character described, the combination of a metallic tie carrying at one end integral fish-plates, rails secured in said fish-plates, bolts extending through said fish-plate and webs of the rails, nuts secured to said bolts, the other end of the tie having formed therein a recess, an integral fish-plate formed on the outer end of the tie, a rail, a removable clamp provided at its outer end with an integral fish-plate and having a recess formed therein and carrying a downward extension seated in said recess formed in said tie, one edge of said extension being rounded to conform to the base of the rail, a flange formed on the inner edge of said clamp and engaging the upper face of the tie, and a securing-bolt extending through said clamp and engaging said tie, substantially as described and for the purpose set forth.

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

JOHN F. CLEARY.

Witnesses:

JOHN NOLAND,  
E. E. POTTER.