

No. 741,773.

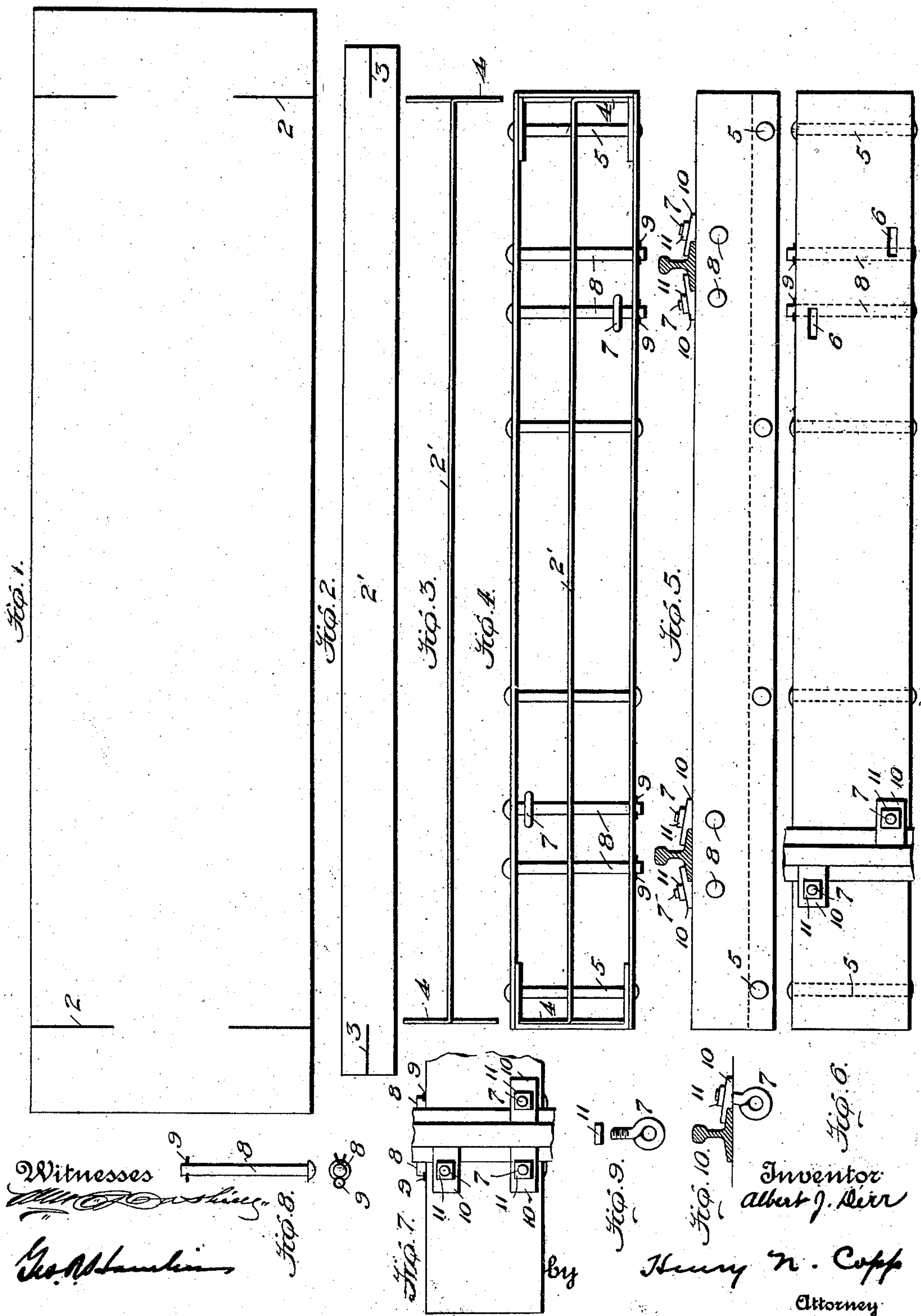
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A. J. DERR.

# METALLIC TIE FOR RAILWAYS.

APPLICATION FILED FEB. 2, 1903.

NO MODEL.





# UNITED STATES PATENT OFFICE.

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## METALLIC TIE FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 741,773, dated October 20, 1903.

Application filed February 2, 1903. Serial No. 141,505. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT J. DERR, a citizen of the United States, residing at Bellevue, county of Huron, and State of Ohio, have invented certain new and useful Improvements in Metallic Ties for Railways, of which the following is a specification.

My invention relates to metallic ties for railways.

The object of the invention is the provision of an improved and novel metallic tie for railways which will be of such construction that it will be adapted to sustain the various strains in the most satisfactory manner, be simple, strong, and durable, and provided with means for quickly and easily securing the rails thereto or removing them therefrom and also for rapid substitution of the fastenings for the purpose of repair when necessary.

Having the foregoing objects in view, the invention embraces a metallic tie of improved and novel construction, as fully set forth hereinafter and embodied in the appended claims.

In the accompanying drawings, Figure 1 is a view of the blank from which the body of the tie is made; Fig. 2, a view of the blank from which the main brace is made; Fig. 3, a detail of the main brace when its ends have been spread and ready for application to the body of the tie; Fig. 4, a bottom view of the completed tie; Fig. 5, a side view; Fig. 6, a plan view; Fig. 7, a view showing the way the rail will be held on a curve; Fig. 8, details of one of the fastening-bolts; Fig. 9, details of one of the eyebolts, and Fig. 10, a detail showing the arrangement of the eyebolts and washers.

As shown in Fig. 1, the blank from which the tie is made is a rectangular piece of metal 1, having slits 2 at opposite ends and leading in from opposite longitudinal edges. Dotted lines represent the lines on which the bends are made to form the body into the completed tie.

In Fig. 2 is shown the blank 2' of the main brace, having slits 3 leading in from its ends. This brace has its ends 4 bent in opposite directions, as shown in Fig. 3, to put it in condition for use within the box-like body of the tie, as shown in Fig. 4. The brace 2' extends

longitudinally of the tie, with its ends or feet 4 abutting the bent ends of the body 1, while fastening-bolts 5 pass through the sides of the body and the brace, and the end bolts also pass through the overlapping ends of the body.

In the top of the body of the tie I provide slots 6 sufficiently large to permit the passage of the eyes of the eyebolts 7 to permit the eyebolts to be inserted through these openings or withdrawn through them.

Passed through the body of the tie are the removable bolts 8, which pass through the eyes of the eyebolts, and these bolts 8 are held by cotter-pins 9. The shanks of the eyebolts pass up through the openings 6 and are provided with the rectangular washers or clamp-plates 10, which bear on the base-flange of the rail, and above the washers are the clamping-nuts 11.

In Fig. 7 is illustrated the manner of placing the fastenings to secure the rail on a curve.

The bolts 8 absolutely prevent displacement of the eyebolts, and the nuts 11 provide for tightening the eyebolts to any desired extent to cause the washers or clamp-plates to bear upon the flange of the rail to clamp it to the top of the tie.

It will be noted that by my construction the necessity for using seats formed in the tie is obviated, while provision is made for clamping the rail securely and also for the rapid removal of the eyebolts in case they or the washers or nuts should become damaged or it was desired to remove the rail. To remove the eyebolts, the cotter-pin 9 of the securing-bolt is taken out, the bolt 8 removed, and the eyebolt lifted out through the slot 6.

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

1. A metallic tie comprising a box-like body, and a brace provided with feet at its ends and extending within the tie longitudinally thereof.

2. A metallic tie comprising a body of box-like shape provided with inturned ends overlapping the sides of the tie, and a brace extending longitudinally of the body within the same.

3. A metallic tie comprising a box-like

body having inturned ends overlapping the sides, a brace extending longitudinally of the body within the same, and bolts extending through the body and the overlapping ends  
5 and the brace.

4. The combination with a railway-tie of box-like form provided with a slot in its top, of a bolt extending transversely of the tie below the top portion thereof, and a fastening  
10 member detachably engaged with the bolt and extending through the slot and engaging the rail and adapted to be removed upwardly through the slot.

5. The combination with a railway-tie of  
15 box-like form provided with a slot in its top,

of a bolt extending from side to side of the tie below the top thereof and adapted for removal, an eyebolt engaged with the bolt aforesaid and having its shank extending through the slot, and a clamping member on the eye- 20 bolt for engaging the tie, said clamping member being adapted for adjustment on the eyebolt, said eyebolt being adapted to be removed upwardly through the slot in the tie.

In testimony whereof I hereunto affix my  
signature in presence of two witnesses. 25

ALBERT J. DERR.

Witnesses:

S. A. ORWIG,

C. A. WILT.