

W. H. CASTLE.
RAILWAY TIE.
APPLICATION FILED JAN. 8, 1908.

915,072.

Patented Mar. 16, 1909.

Fig. 1.

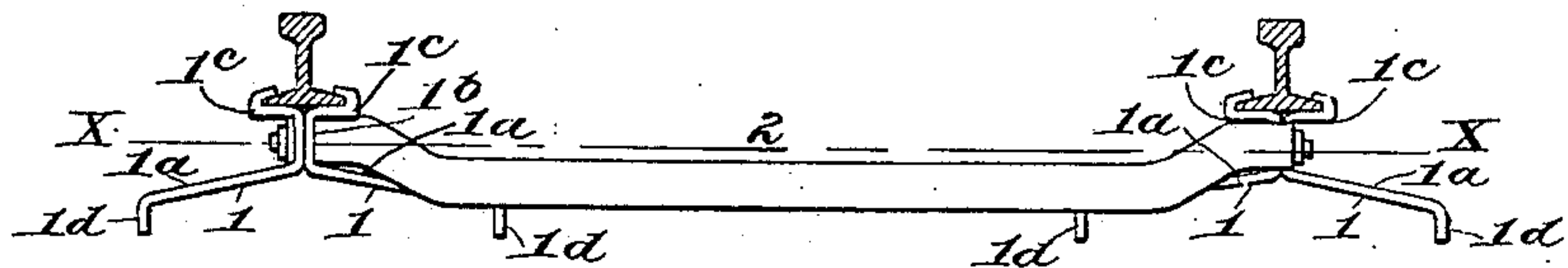


Fig. 2.

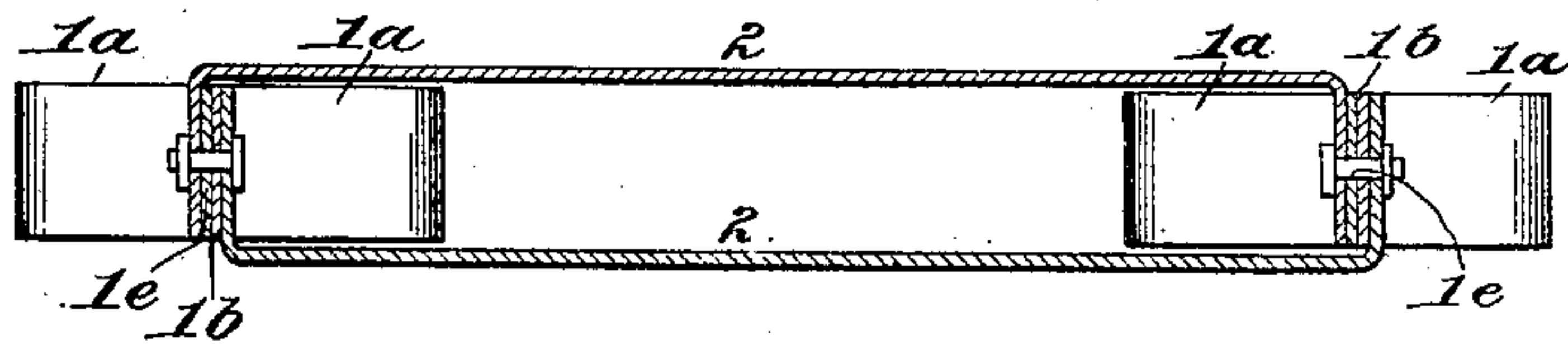


Fig. 3.

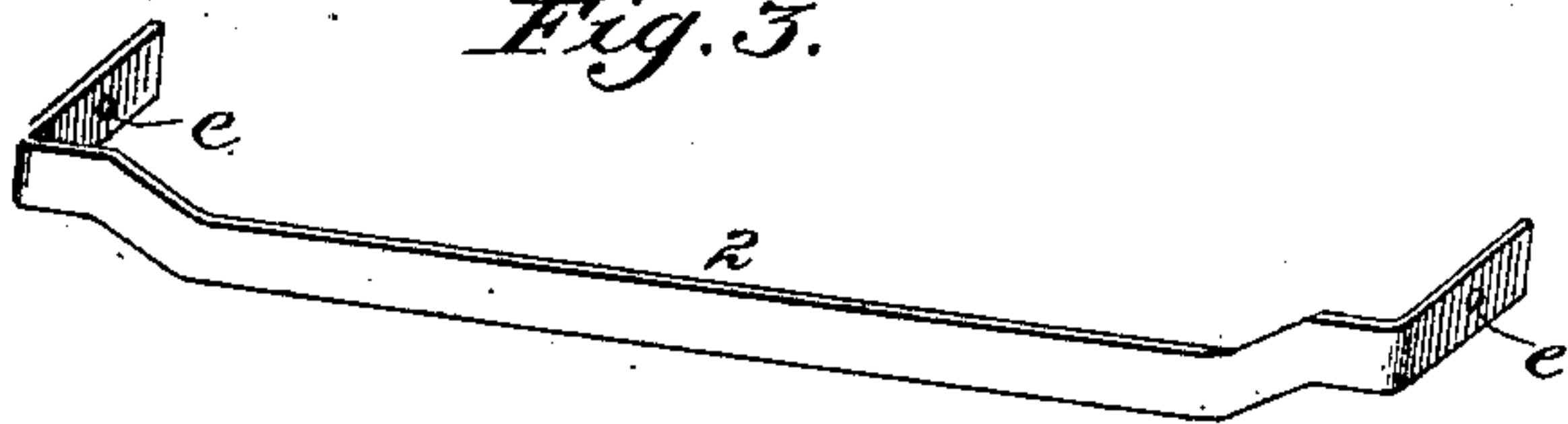
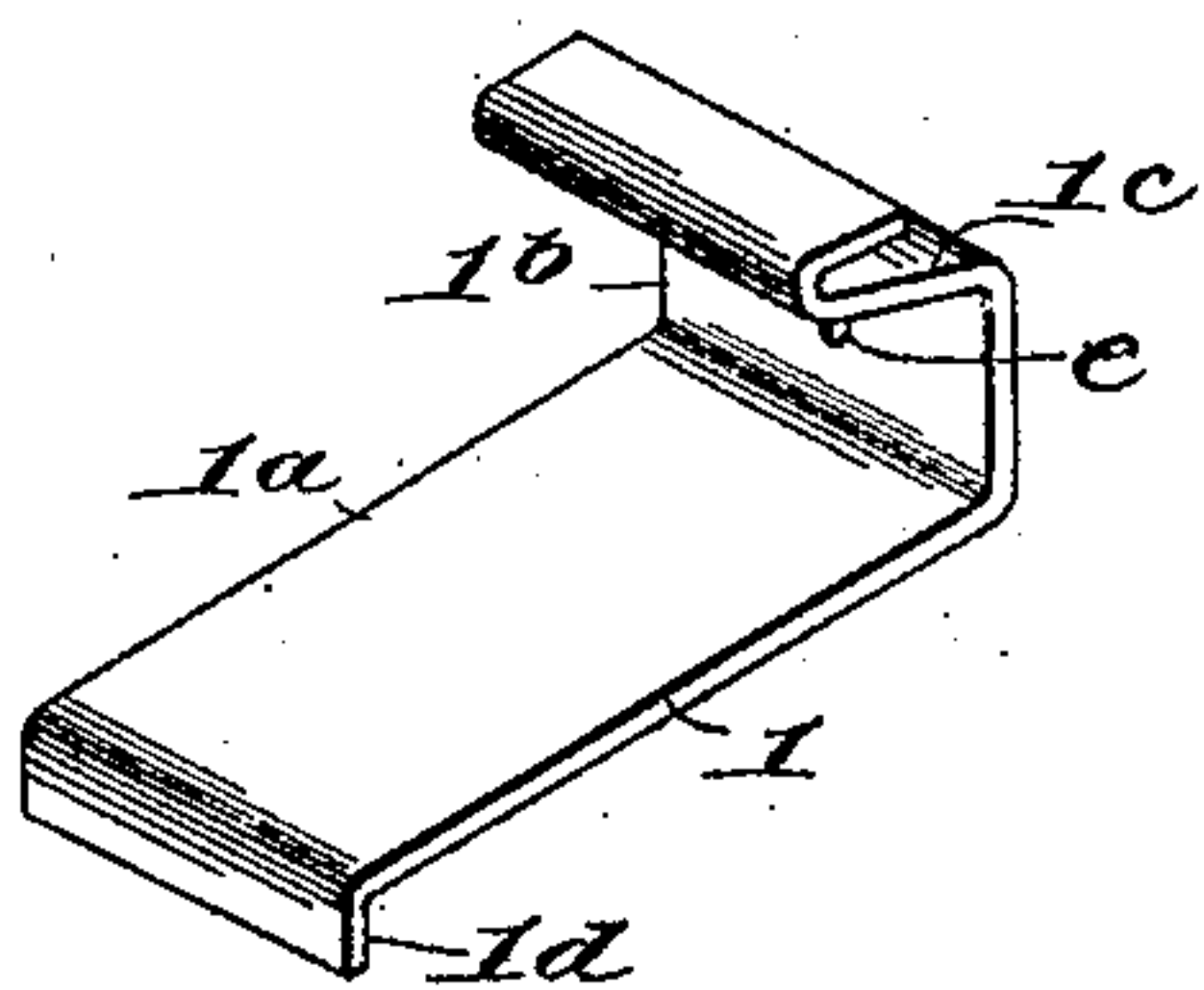


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. CASTLE, OF GENEVA, OHIO.

RAILWAY-TIE.

No. 915,072.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed January 8, 1908. Serial No. 409,853.

To all whom it may concern:

Be it known that I, WILLIAM H. CASTLE, a citizen of the United States, residing at Geneva, in the county of Ashtabula and State of Ohio, have invented a new and useful Improvement in Railway-Ties, of which the following is a specification.

My invention relates to improvements in railway-ties.

10 It has for its object to provide a device for supporting and tying together the rails of a railway-track, which is of simple construction, cheap of manufacture, and durable.

The invention consists of the features of 15 construction and combinations of parts hereinafter described.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is an elevation of a tie constructed in accordance with my invention showing the rails gripped thereby. Fig. 2 is a sectional plan view of the tie cut through the line *x, x*. Fig. 3 is a perspective view of one of the tie-bars, and Fig. 4 is an enlarged 25 perspective view of one of the chair plates.

In carrying out my invention, I employ chairs supporting and gripping the rails. The chairs supporting one rail are arranged opposite those supporting the other rail, and 30 each pair of chairs is connected by two tie-bars having means at each end for clamping the two parts of the chairs together, and thereby securely gripping the flanges of the rails.

35 Referring more particularly to the drawings, each chair is composed of two bent plates 1 and 1, both plates being bent to the same form, having a horizontal base portion 1^a a vertical portion 1^b and an upper horizontal portion 1^c. The end of said base portion is bent downward forming a vertical flange 1^d which sinks into the road bed and tends to prevent lateral movement of said chairs, the upper horizontal portion being 45 turned over to grip the flange of the rail.

The tie-bars 2 and 2 are identical in form. They are made from flat bar steel, of a width equal to the depth of the vertical portion 1^b of the chair plates, between the upper horizontal portion 1^c and the lower horizontal portion 1^a and both ends of the tie-bars, 2 and 2 are bent to a right angle near each end

and in the same direction, the bent portions being in length equal to the width of the chair plates 1 and 1. The bent portions 55 of the tie-bars have a hole E to correspond with hole E in the vertical portion of plates 1 and 1. When assembled, one bent end of one of the tie-bars 2 and 2 engages with the outside vertical portion of one chair and the opposite end engages with the inside vertical portion of the opposite chair, and the bent ends of the opposite tie-bar engage with the opposite vertical sides of the chairs, and all are held securely clamped together with bolts or 65 rivets passing through the holes E.

The main body of the tie-bars 2 and 2 may extend in a straight line across from one chair to the opposite chair; but I prefer that the main body of the tie-bars be depressed by 70 means of a lateral bend near each right angle bend, as shown in Figs. 1 and 3, the object of which is to cause the tie-bars to lie deeper in the ballast.

Other changes may be made in the construction shown and described herein without departing from the spirit or sacrificing the advantages of my invention. 75

What I claim as my invention and desire to secure by Letters Patent, is— 80

In combination a pair of rail chairs for supporting the opposite rails of a railway track, each chair composed of two bent plates, and each plate having a lower horizontal portion, a vertical portion and an upper horizontal portion, the upper horizontal portion having means to grip a rail, a pair of tie-bars the ends of each bar being bent at right angles to embrace the vertical portions of said chairs, one end of the bars to engage 85 one with the outside and the other with the inside of said vertical portions of one of the chairs, and the opposite bent ends to engage, in reverse order with the vertical portions of the opposite chair, one with the inside and 95 the other with the outside, all securely bolted or riveted together.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM H. CASTLE.

Witnesses:

R. H. CASTLE,
L. J. ADAMS.