(No Model.)

P. RILEY.

RAIL JOINT SUPPORT.

No. 424,221. Patented Mar. 25, 1890.

Fig. 1.

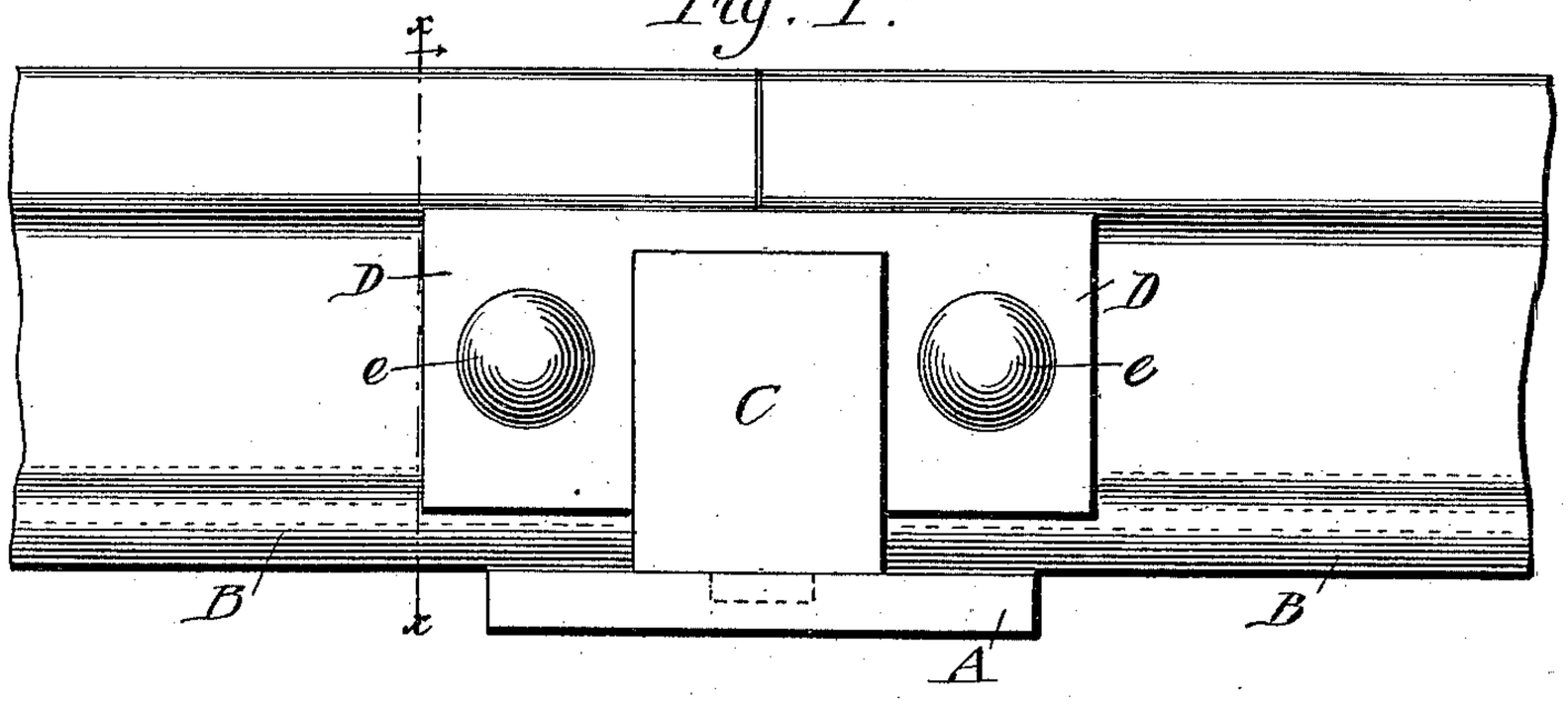


Fig. 2.

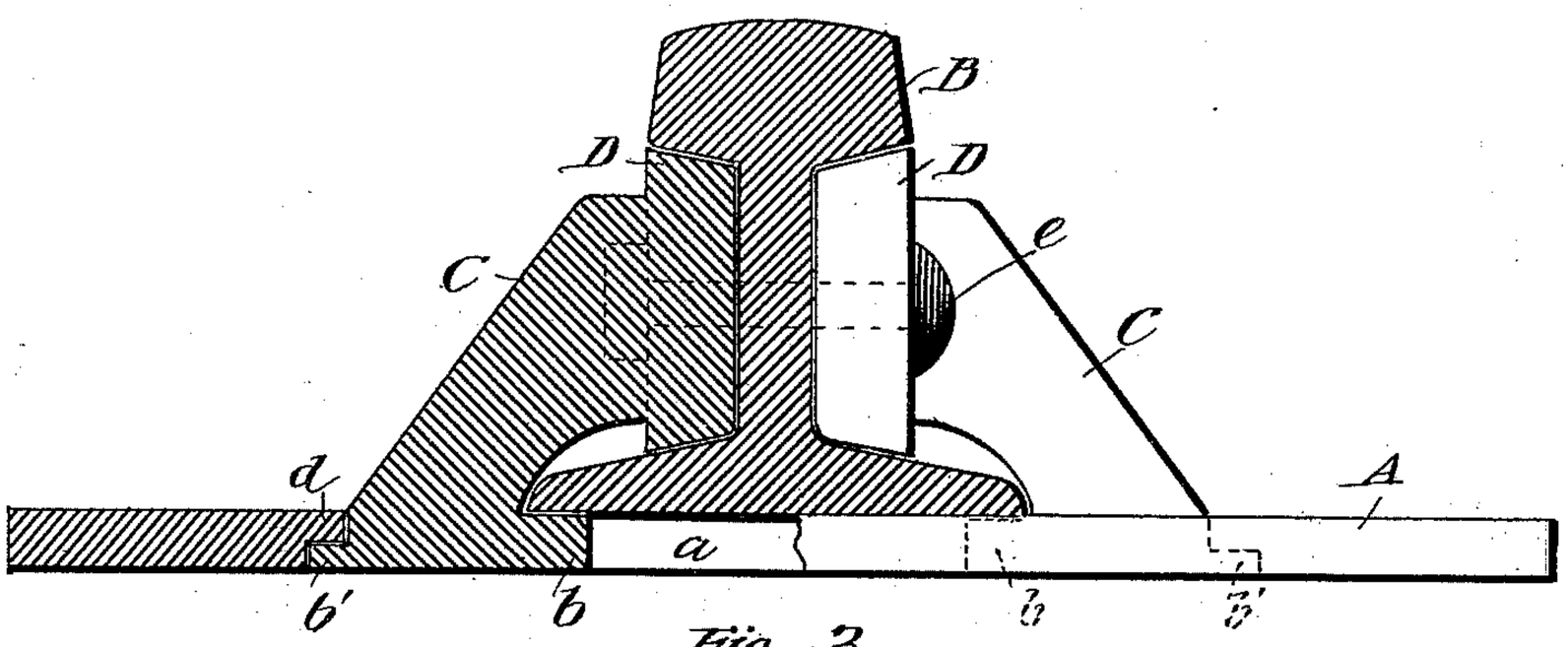
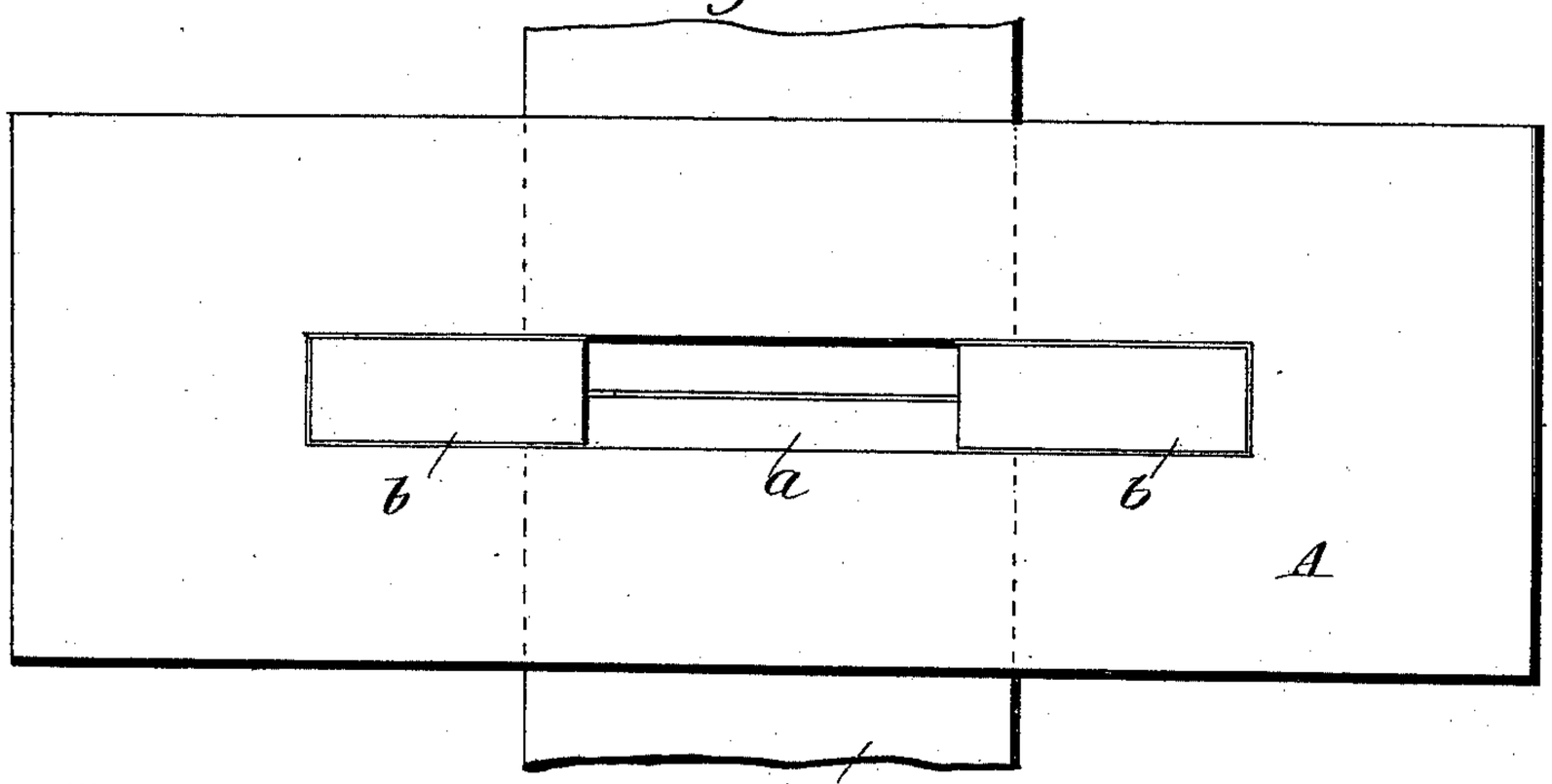


Fig. 3.



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PHILLIP RILEY, OF MARION, IOWA.

RAIL-JOINT SUPPORT.

SPECIFICATION forming part of Letters Patent No. 424,221, dated March 25, 1890.

Application filed November 30, 1889. Serial No. 332,090. (No model.)

To all whom it may concern:

Be it known that I, PHILLIP RILEY, of Marion, in the county of Linn and State of Iowa, have invented a new and Improved Rail-Joint Support, of which the following is a full, clear, and exact description.

The object of my invention is to provide means for making the joints of ordinary railway-rails abut in such a manner that they can not spread and get out of place, so that the weight upon the rails, instead of spreading the joint, as it usually does, will be utilized to hold the parts together.

The invention will be hereinafter fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a rail-joint embodying my invention; Fig. 2, a cross-section through a rail on the line *x x* of Fig. 1, one of the braces and the adjacent part of the plate A being shown in section to better illustrate the construction; and Fig. 3, a bottom view of the same.

The plate A should be made or iron or steel, and is placed underneath the rails B, so as to cross the same at a right angle. It is provided with a slot *a* about midway of the plate, which runs lengthwise of the same and should be a little longer than the width of the bottom of the rails B. On each side of the rails B is a brace C, which is provided on the bottom with a flange *b*, which fits into the slot *a* of the plate A and is provided with a projecting end *b'* at the outside edge of the brace C, which fits under a corresponding shoulder *d* of the plate A. The upper faces of the inner ends of the flanges *b b* are flush with the upper face of the plate A, so that the weight of the rail is borne by the plate A and not by said flanges.

The upper end of the braces C C is provided with a plate D, having its upper and lower edges beveled, as shown, so that it will fit closely between the upper and lower flanges of the rails B. The plates D may be made integral with the braces C, as shown in the drawings, or separately and attached to the braces in any suitable manner. The plates D are held in position against the sides of the rails B by bolts *e*, which pass through the plates and rails and are provided with the usual heads and nuts to hold them in place.

In applying my invention the plate A is placed upon a railway-tie underneath the joint formed by the abutting ends of the rails B. The braces C will come opposite said joint, the outer ends of the flanges *b'* of said braces beneath the shoulder *d* of the plate A, and the inner ends of the flanges *b* beneath the rails B, which will rest upon them. One of the bolts *e* will pass through one end of the plates D and one of the rails B and the other bolt will pass through the other ends of the plates and through the other rail B, thus preventing the rails from moving lengthwise.

When a train passes over the rails B, the weight will bear upon the plate A and the inner ends of the flanges *b* of the braces C, so that as the weight is increased the parts will be held more firmly in place, thus making the rails B nearly as strong as a continuous single rail.

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

1. The combination, with the plate A, having a longitudinal slot *a*, undercut at its ends to form shoulders *d*, of the opposed inclined rail-braces having inward-extending flanges *b* on the lower ends fitting in said slot, the flanges being flush at their upper faces with the upper face of the plate A, and the outward-extending projections *b'*, projecting under said shoulders, substantially as set forth.

2. A rail-joint support consisting in the plate A, having a longitudinal slot *a*, provided at its ends with inwardly-extending shoulders *d d*, and the inclined rail-braces C, formed at their upper ends with rail-plates D to fit the web of a rail and at their lower ends with inward-extending flanges *b*, fitting the slot *a*, the upper faces of the said flanges over which the rail passes being flush with the upper surface of the plate A and the outward-extending projection *b'* fitting under the shoulders *d*, substantially as set forth.

PHILLIP RILEY.

Witnesses:
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