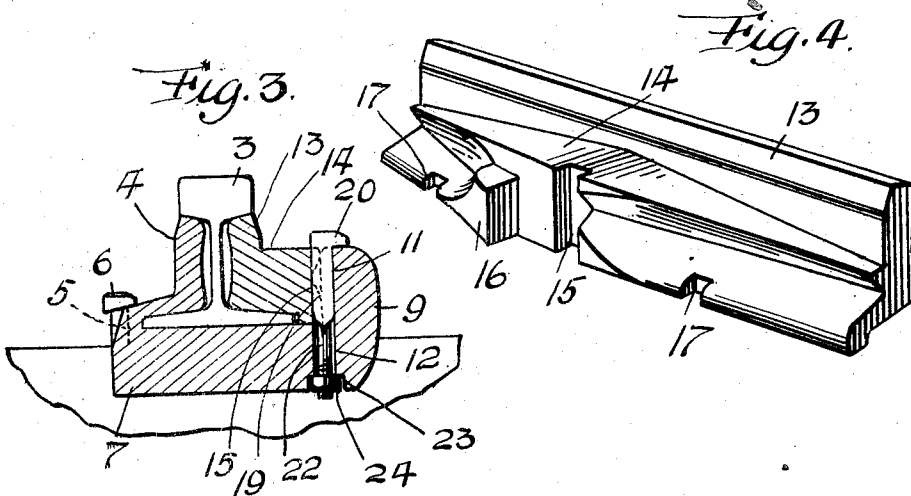
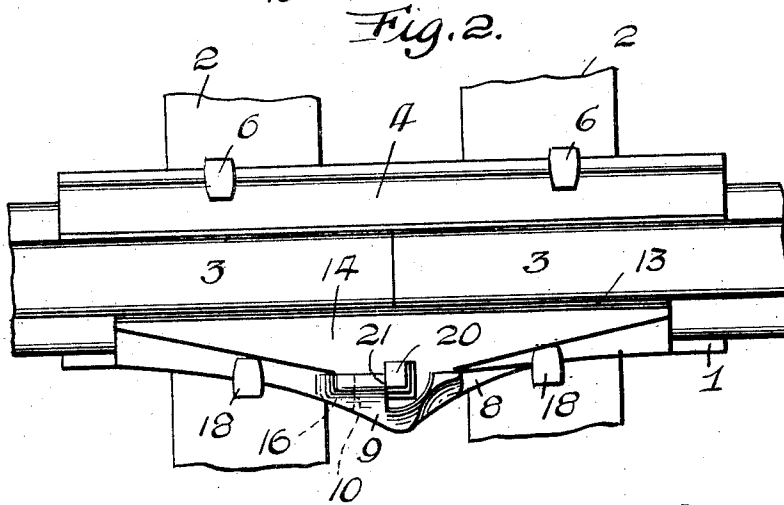
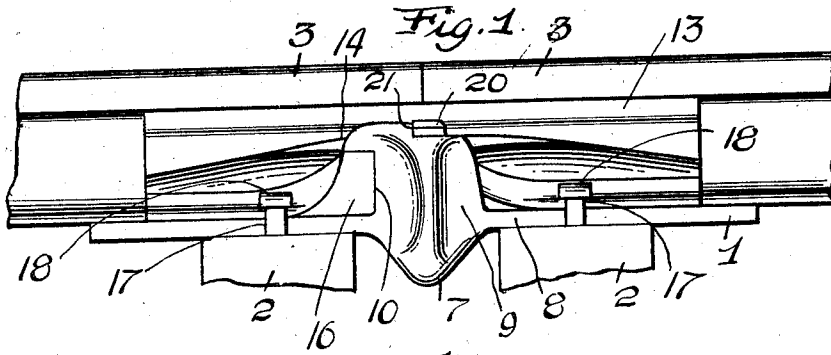


M. EFFINGER.
RAIL JOINT AND FASTENER.
APPLICATION FILED APR. 6, 1912.

1,031,059.

Patented July 2, 1912.



WITNESSES

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UNITED STATES PATENT OFFICE.

MAGDALENA EFFINGER, OF MIDLAND, PENNSYLVANIA.

RAIL JOINT AND FASTENER.

1,031,059.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed April 6, 1912. Serial No. 688,921.

To all whom it may concern:

Be it known that I, MAGDALENA EFFINGER, a citizen of the United States of America, residing at Midland, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Rail Joints and Fasteners, of which the following is a specification, reference being had therein to the accompanying

10 drawing.
This invention relates to rail joints and fasteners, and the objects of my invention are to provide a novel rail chair for supporting the confronting ends of rails, and 15 to furnish the chair with fasteners that prevent vertical and lateral displacement of the rails held thereby.

Other objects of my invention are to provide a rail fastener that can be installed in 20 connection with broken rails to preserve the alinement of the broken ends thereof, and to provide a rail chair and fastener that allows for expansion and contraction of the rails.

Further objects of my invention are to 25 provide a rail chair and fastener that is not liable to injury by ordinary use, and to accomplish the above results by a mechanical construction that can be easily and quickly installed, manufactured at a comparatively 30 small cost and employed to reduce the maintenance in connection with a railroad track.

With the above and other objects in view, the invention resides in the novel construction, combination and arrangement of parts 35 to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein like numerals denote corresponding parts throughout the several 40 views, in which:—

Figure 1 is a side elevation of the rail joint and fastener, Fig. 2 is a plan of the same, Fig. 3 is a cross sectional view of the rail joint and fastener, and Fig. 4 is a perspective view of a detached fastener.

45 The reference numeral 1 denotes a rail chair arranged upon ties 2 and supporting the ends of rails 3. The chair 1 has the inner side thereof provided with a longitudinal integral splice bar 4 that braces the 50 inner sides of the rails 3. The edges of the splice bar 4 are cut away, as at 5 to accommodate spikes 6 that are driven into the ties 2 to hold the chair in position.

55 The chair 1 has a central transverse reinforcing rib 7 upon the bottom thereof

that is located between the ties 2, and the outer edge of the chair has an extension 8 provided with a post 9. One edge of the post has a recess 10 and the inner side of 60 the post has a vertical groove 11 alining with a vertical opening 12 in the extension 8 and the rib 7.

The reference numeral 13 denotes an outer splice bar adapted to brace the outer 65 sides of the rails 3 and this splice bar has an enlargement 14 provided with a vertical groove 15 adapted to confront the groove 11, and a lug 16 adapted to engage in the recess 10 of the post 9. The enlargement 70 14, adjacent to the ends thereof, has notches 17 for spikes 18 that are employed for holding the outer side of the chair and the outer rail fastener.

After the outer fastener has been placed 75 in position, a spike 19 is placed in the grooves 11 and 15 with the head 20 of the spike engaging a shoulder 21 of the post 9, said shoulder preventing the spike from 80 rotating. The lower end of the spike is reduced to form a bolt 22 that extends through the opening 12, and the lower end of the opening 12 is enlarged, as at 23 to accommodate a nut 24 that is screwed upon the 85 bolt 19.

The lug 16 of the outer fastener cooperates with the heads of the rails 3 in preventing vertical displacement of said outer fastener, and longitudinal displacement of the 90 fastener is prevented by the spikes 18 and 19.

While in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural 95 elements are susceptible of such variations as fall within the scope of the appended claim.

What I claim is:—

In a rail joint and fastener, the combination with ties, and rails, of a chair arranged 100 upon said ties and supporting the confronting ends of said rails; an inner splice bar formed integral with said chair and bracing the inner sides of said rails, a transverse rib carried by the under side of 105 said chair between said ties, a post carried by the outer edge of said chair at the ends of said rib and having a recess formed therein, said post having the inner side thereof provided with a vertical 110 groove alining with a vertical opening in said chair and the rib thereof, an outer fas-

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tener bracing the outer sides of said rails,
an enlargement carried by said fastener and
having a vertical groove formed therein
confronting the groove of said post, a lug
5 carried by said enlargement and engaging
the recess of said post, a spike arranged in
the grooves of said enlargement and said
post, and means mounted upon the lower

ends of said spike to prevent vertical dis-
placement of said spike. 10

In testimony whereof I affix my signa-
ture in the presence of two witnesses.

MAGDALENA EFFINGER.

Witnesses:

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PATRICK F. Cox.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."