J. A. BODKIN.

RAIL JOINT.

APPLICATION FILED MAY 20, 1910.

978,546.

Patented Dec. 13, 1910.

Fig. 1.

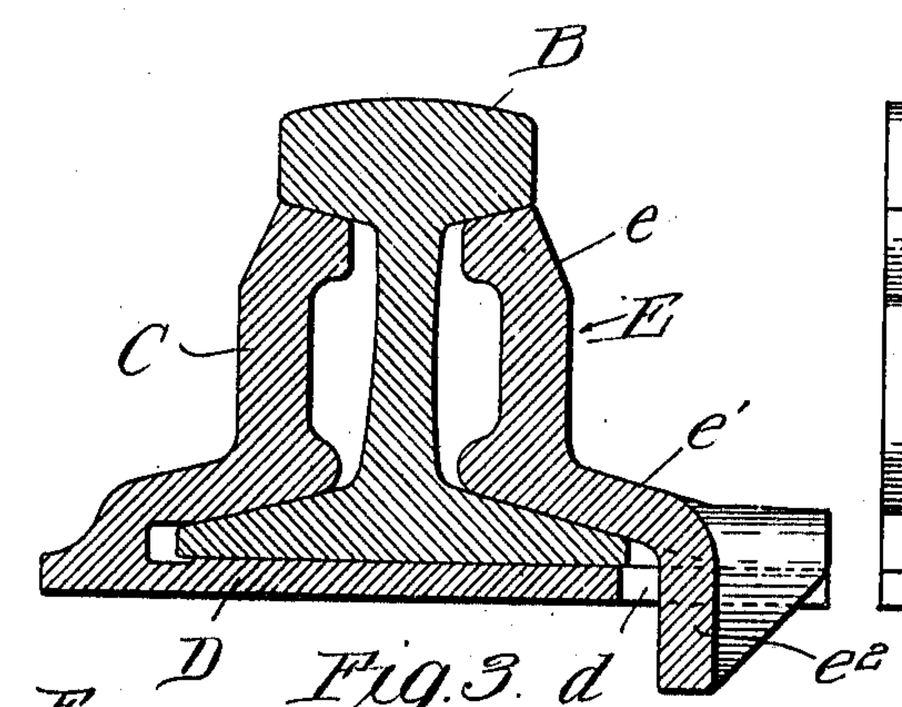


Fig. 2.

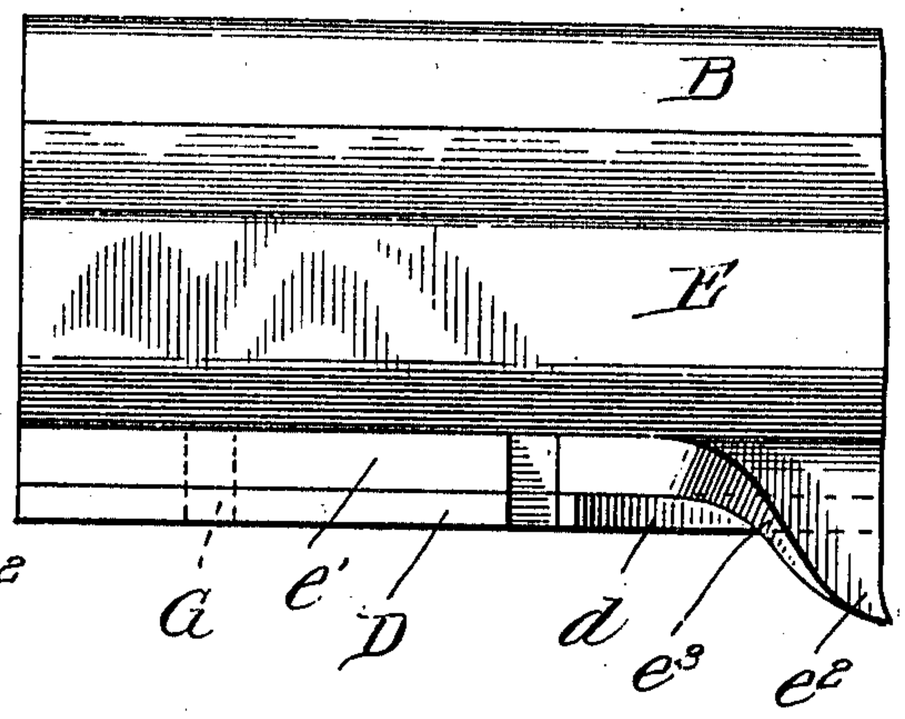
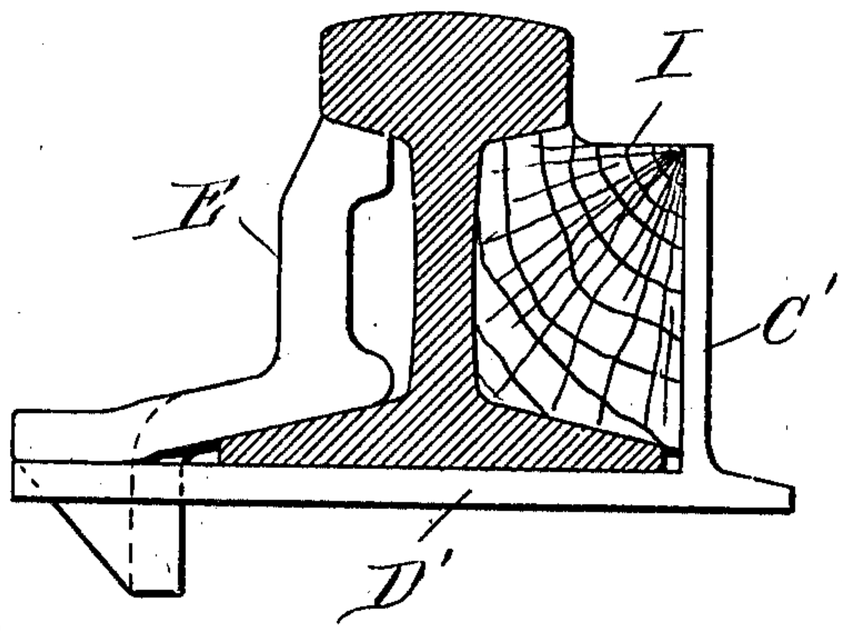


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN A. BODKIN, OF NEW YORK, N. Y.

RAIL-JOINT.

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To all whom it may concern:

Be it known that I, JOHN A. BODKIN, a citizen of the United States, residing at New York, county of New York, State of New York, have invented a certain new and useful Improvement in Rail-Joints, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object to provide a simple and novel rail joint which will effectively maintain two meeting rail ends in alinement with each other without the use of a separate tie plate; and which will afford a rigid support for the rail ends.

The various features of novelty whereby my invention is characterized will hereinafter be pointed out with particularity in the claims; but for a full understanding of my invention and of its object and advantages, reference may be had to the following detailed description taken in connection with the accompanying drawing, wherein:

Figure 1 is a transverse section taken through an assembled joint near the end of one of the rails; Fig. 2 is a view looking toward the left in Fig. 1, showing only a fragment of the joint; Fig. 3 is a plan view showing a fragment of the joint; and Fig. 4 is an end view of a modified form of joint, the rail being shown in cross section.

Referring to Figs. 1 to 3 of the drawings, A and B represent the meeting ends of two rails, C is a splice bar of any suitable construction fitting between the heads and the bases of the rails and having a base member D extending beneath the bases of the rails and projecting therefrom at the opposite side. E is a splice bar comprising a girder fitting between the heads and the bases of the rails and a laterally projecting foot flange e' which overlies the base members of the rails and projects laterally beyond the same. The parts are so proportioned that the outer end of the flange e' rests upon the projecting portion of the base plate D. The base plate is cut away at the center as indicated at d so that the outer edge thereof at this point does not project beyond the edges of the rail bases. The central portion of the flange e' is pressed downwardly as indicated at e^2 thereby forming a downwardly depending truss which is preferably connected to the remainder of the foot flange by means of inclined webs e^3. The parts are so proportioned that the truss and the connected webs are free to project downwardly into the opening d in the base member. The member C may be provided with spike holes F and the members e' and D may be provided with two sets of registering spike holes G and H; the holes G being so located that spikes driven therethrough lie close to the edges of the rail bases, while the openings H may be placed near the edges. It will be seen that by providing three sets of spikes a very secure fastening is obtained, particularly where the extension of the base member and of the foot flange is wide, as shown.

In Fig. 4 I have shown a modification in which the trussed splice bar E is the same as in the first form but the splice bar C′ differs from the splice bar C in that a wooden block I is arranged between this splice bar and the rail ends. The base member D′ forming part of the splice bar C′ is the same as the base member D. By placing a wooden block between the splice bar and the rail ends, it is possible to draw the members of the joint very snugly against the rail ends during the spiking operation, the wood being compressed and exerting a pressure which tends to prevent looseness. The splice bars are of course joined to the meeting rail ends by the usual bolts which, for the sake of clearness, have been omitted from the drawing.

While I have illustrated and described with particularity only two forms of my invention I do not desire to be limited to the specific details so illustrated and described; but intend covering all constructions and arrangements which fall within the terms employed in the definitions of my invention constituting the appended claims.

What I claim is:

1. In a rail joint, a splice bar arranged upon one side of two meeting rail ends and having a base plate extending therefrom beneath the rail bases, said base plate projecting laterally beyond the opposite side of the rail bases, a second splice bar fitting between the heads and the bases on the latter side of the rail ends and having a foot flange overlying the rail bases and extending laterally out beyond the rail bases and in engagement with said base plate, the middle portion of said foot flange being bent downwardly so as to form at the lower end of said second

splice bar a central truss and feet projecting outwardly beyond the truss at the ends thereof, said base plate being cut away so as to leave a free space within which said truss lies.

2. In a rail joint, a splice bar arranged upon one side of two meeting rail ends and having a base plate extending therefrom beneath the rail bases, a second splice bar fitting between the heads and the bases on the opposite side of the rail ends and having a foot flange overlying the rail bases and projecting laterally therefrom, said base plate being formed so as to project beyond the edges of the rail bases and engage with the underside of said foot flange, said foot flange having a downwardly extending truss, and said base member being cut away so as to leave a free space within which said truss lies, said foot flange and said base member having registering spike holes adjacent to the edges of the rail bases and also having registering spike holes adjacent to the outer edges thereof.

3. In a rail joint, a splice bar arranged on one side of the meeting ends of two rails and having a base member extending beneath the rail bases and projecting beyond the rail bases at the opposite side, a second splice bar arranged on the latter side of the rails and fitting between the heads and the bases of the rails, said second splice bar having a wide foot flange overlying the rail bases and projecting beyond the same so as to engage with the projecting portion of the base member, the projecting portion of said base member being cut away adjacent to the ends of the rails, and said foot flange being bent downwardly between the ends thereof into the cut away portion of the base member so as to provide a downwardly extending truss connected to the end portions of the foot flange by webs.

In testimony whereof, I sign this specification in the presence of two witnesses.

JOHN A. BODKIN.

Witnesses:
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H. S. GAITHER.