

A. BYNUM.
RAIL JOINT.
APPLICATION FILED AUG. 18, 1908.

940,633.

Patented Nov. 16, 1909.

Fig. 1.

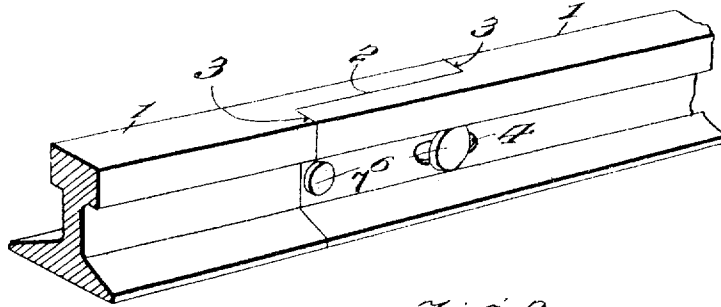


Fig. 2.

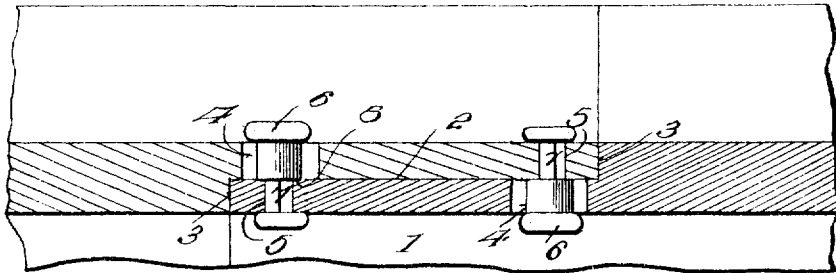


Fig. 3.

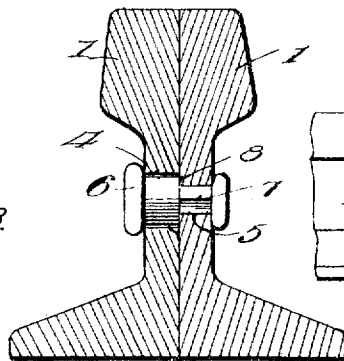


Fig. 5.

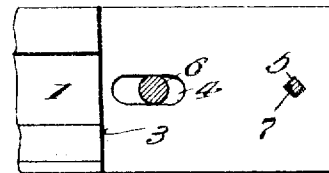
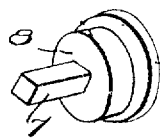


Fig. 4.



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UNITED STATES PATENT OFFICE.

AMANDA BYNUM, OF STRATHCONA, ALBERTA, CANADA.

RAIL-JOINT.

940,633.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed August 18, 1908. Serial No. 449,084.

To all whom it may concern:

Be it known that I, AMANDA BYNUM, a subject of Great Britain, residing at Strathcona, Province of Alberta, Dominion of Canada, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention comprehends certain new and useful improvements in rail joints, and the object of the invention is an improved device of this character which is arranged to effectually and permanently secure together the adjacent ends of the rails and at the same time permit a limited longitudinal movement thereof, so as to compensate for the expansion and contraction of the rails during hot and cold weather, and in which the fastening means may be readily applied to the rails and requires no subsequent attention, thus effecting a material economy in the cost of construction and maintenance of the track.

With this and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe, and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of my improved rail joint; Fig. 2 is a horizontal section thereof; Fig. 3 is a transverse section; Fig. 4 is a detail view in perspective of one of the rivets; and, Fig. 5 is a view in elevation of one of the recessed rail ends.

Corresponding and like parts are referred to in the following description, and indicated in all the views of the drawing, by the same reference characters.

Referring to the drawing, the numeral 1 designates two rails which may be of the ordinary or any desired construction or design, and the adjacent ends of which are oppositely recessed or halved to constitute a scarf joint 2, the said recesses preferably terminating in oppositely facing shoulders 3. The halved ends of the rails are formed in the web portions thereof near the respective shoulders 3 with longitudinally elongated openings 4 extending transversely

therethrough and arranged to register with relatively narrow preferably square apertures 5 that are formed in the opposing rail ends in transverse alinement with the openings, as shown. In order to permanently secure the ends of the rails together, I employ rivets 6 which are preferably round in cross section and which are designed to fit in the respective openings 4 and are arranged for a limited longitudinal movement therein, the extremities of the rivets being reduced as indicated at 7 and thus forming shoulders 8 which face the opposing ends of the rails and are arranged to bear against the inner faces of the same around the respective apertures 5. The reduced ends 7 of the rivets are preferably square in cross section and substantially the same in width as the apertures 5 so as to fit snugly therein, said reduced ends 7 extending through the apertures 5 with their projecting portions suitably headed to permanently secure the rivets in position in the rails.

From the above description, in connection with the accompanying drawing, it will be apparent that I have provided a simple, durable and efficient construction of rail joint which is effectually prevented from binding the halved ends of the rails too tightly together by means of shoulders 8 formed upon the rivets and bearing against the opposing faces of the rail ends, by means of which the rails are positively held against any loosening movement, while at the same time they are rendered capable of yielding sufficiently to compensate for the effects of heat and cold, and which consists of comparatively few parts that may be easily and cheaply manufactured and readily assembled.

Having thus described the invention, what I claim is:

1. In a rail joint, the combination of rails having their adjacent ends oppositely recessed or halved to form a scarf joint, said recesses terminating in oppositely facing shoulders and the reduced ends of the rails being formed in the web portions thereof near the respective shoulders with longitudinally elongated transverse openings and in their extremities with relatively narrow square apertures arranged to register with the respective openings, and fastening means mounted in the respective openings and arranged for a limited longitudinal movement therein, said fastening means having their extremities reduced to form shoulders ar-

5 ranged to abut against the inner faces of the opposing rail ends around the apertures, and the reduced extremities being square in cross section and fitting snugly in the square apertures, as and for the purpose specified.

10 2. In a rail joint, the combination of rails having their meeting ends scarf jointed and formed with registering openings, one of which is larger than the other, and a fastening element mounted in the larger opening and formed with a reduced portion secured in the smaller opening, the reduced portion

providing a laterally facing shoulder bearing against the opposing rail end around the smaller opening, one of the openings being elongated to admit of the limited play of the fastening element.

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

AMANDA BYNUM. [L. S.]

Witnesses:

CHAS. H. GRANT,
POLK BYNUM.

239-8

813,057,	Mr. Clune,
804,768,	Roberts,
856,087,	Mr. Voy,
894,038,	Mr. Brown,
897,707,	Blanchard,
791,333,	Englehardt,
494,680,	Lawes,
856,086,	Mr. Voy,
831,542	Denberry,
747,115,	Olin,
588,596,	Norton