

J. A. KIMBALL, DEC'D.
E. R. MCPHEETERS, ADMINISTRATOR.
RAIL JOINT.
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Patented Nov. 7, 1911.

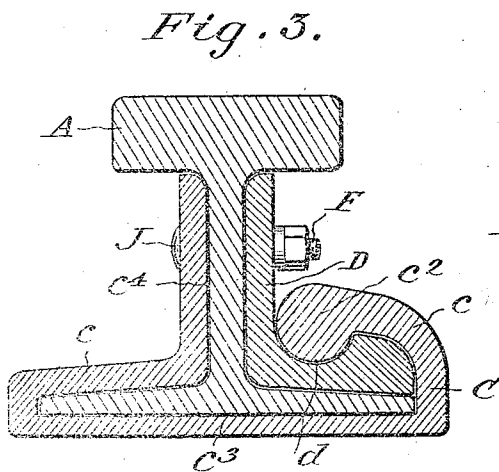
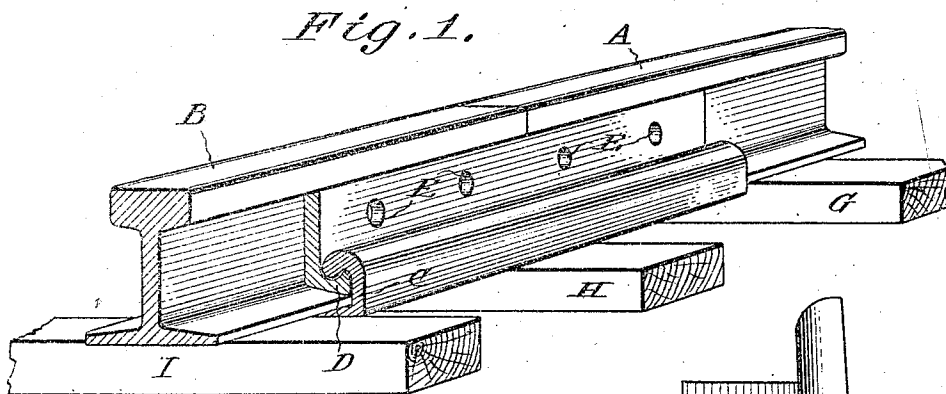
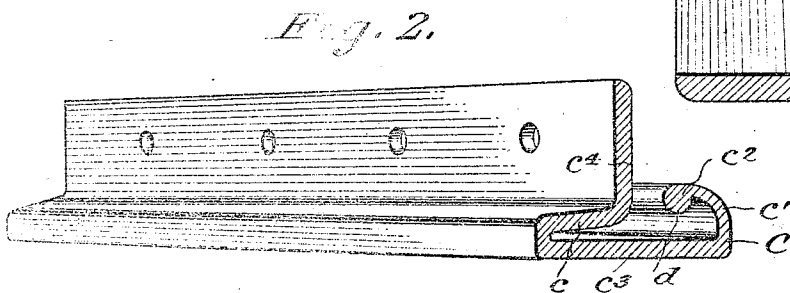
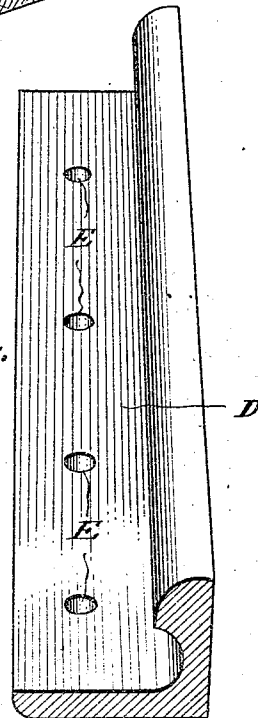


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN A. KIMBALL, DECEASED, LATE OF GLOBE, ARIZONA TERRITORY; EARL R. McPHEETERS, ADMINISTRATOR.

RAIL-JOINT.

,008,038.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that JOHN A. KIMBALL, late a citizen of the United States of America, and resident of Globe, Gila county, Arizona Territory, did invent a certain new and useful Improvement in Rail-Joints, of which the following is a specification.

The invention relates to rail joints of that kind in which two rails are connected together by means of bars or plates bolted thereto.

Generally stated, the object of the invention is the provision of an improved and highly efficient rail joint.

A special object is to provide an improved construction and arrangement whereby the ordinary angle bars or fish plates will not be necessary, and whereby the joints will be more effectually prevented from giving or working loose, thus preventing, or tending to prevent, the wheels from battering or pounding the ends of the rails.

It is also an object to provide certain details and features of improvement tending to increase the general efficiency of a rail joint of this particular character.

In the accompanying drawings, Figure 1 is a perspective of a rail joint embodying the principles of the invention, the same being viewed from the outer side of the rail. Fig. 2 is a perspective of the plate which is applied to the inner side of the joint, and which passes under the ends of the rails to the outer side thereof. Fig. 3 is a cross section of the said joint. Fig. 4 is a perspective of the angle bar that forms a part of the joint, and that is applied to the outer side thereof.

As thus illustrated, the rails A and B are arranged end to end and supported in the plate C. It will be seen that this plate is composed of side portions c and c' , the latter being somewhat higher than the former and having a rounded or enlarged inner edge portion c^2 . The two side portions c and c' are joined together by a flat base portion c^3 upon which the rails are supported. The inner side portion c has extending upwardly therefrom, at its inner edge, a vertical portion c^4 which fits within and bears against the inner side of the rails. The angle bar D is interposed between the plate C and the outer side of the rails, and is provided with

a groove d that receives the portion c^2 , whereby the latter is prevented from moving away or outwardly from the side of the rail. The two plates C and D thus provided are clamped upon opposite sides of the rails, being provided with bolt holes E for the bolts F. The rail joint thus formed is supported on the ties G, H and I, the bolt heads J being inside the rails.

A rail joint thus constructed affords a practically continuous rail. It tends to prevent the end of one rail from moving relative to the other, so that the wheels do not batter or pound the ends of the rails—that is to say, at least not as much so as heretofore. The construction is simple and inexpensive.

What is claimed as the invention is:

1. In a rail joint, a support for the ends of the rails, a portion integral with said support for engaging the inside of the rails, a portion integral with said support at the outer side thereof, which last mentioned portion has a rounded inner edge, and an angle bar applied to the outer side of the rails and provided externally with a longitudinal groove for said rounded edge, which groove prevents movement of said rounded edge outwardly or away from the rail.

2. In a rail joint, a flat portion serving as a support for the ends of the rails, a flat vertical portion fitting within and engaging the inner side of the rails, a flat portion extending horizontally to connect said vertical portion with the inner edge of said support, an outer portion formed integral with the outer edge of said support, said outer portion having a depending inner edge disposed near the side of the rail, an angle bar fitted within and engaging the outer side of the rails, the horizontal portion of said angle bar being provided externally with a groove or depression for engaging the depending edge of said outer portion, and bolts extending through the angle bar and rails and the said vertical portion.

3. In a rail joint, a plate extending continuously from one side of the rails to the other, so as to support and embrace the ends of the rails, an angle bar interposed between a portion of said plate and one side of the rails, said portion bearing downward upon the said bar, and bolts that extend through

the angle bar and rails and plates to hold the rails together.

4. The improved rail joint, the same having an angle bar which is provided with an external longitudinal groove, a plate having means for engaging said groove, and bolts that extend through the angle bar and rails and plate to hold the rails together, substantially as shown and described.

Signed by me at Globe, Arizona, this 24 10 day of May 1910.

EARL R. MCPHEETERS.

Administrator of the estate of John A. Kimball, deceased.

Witnesses:

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