

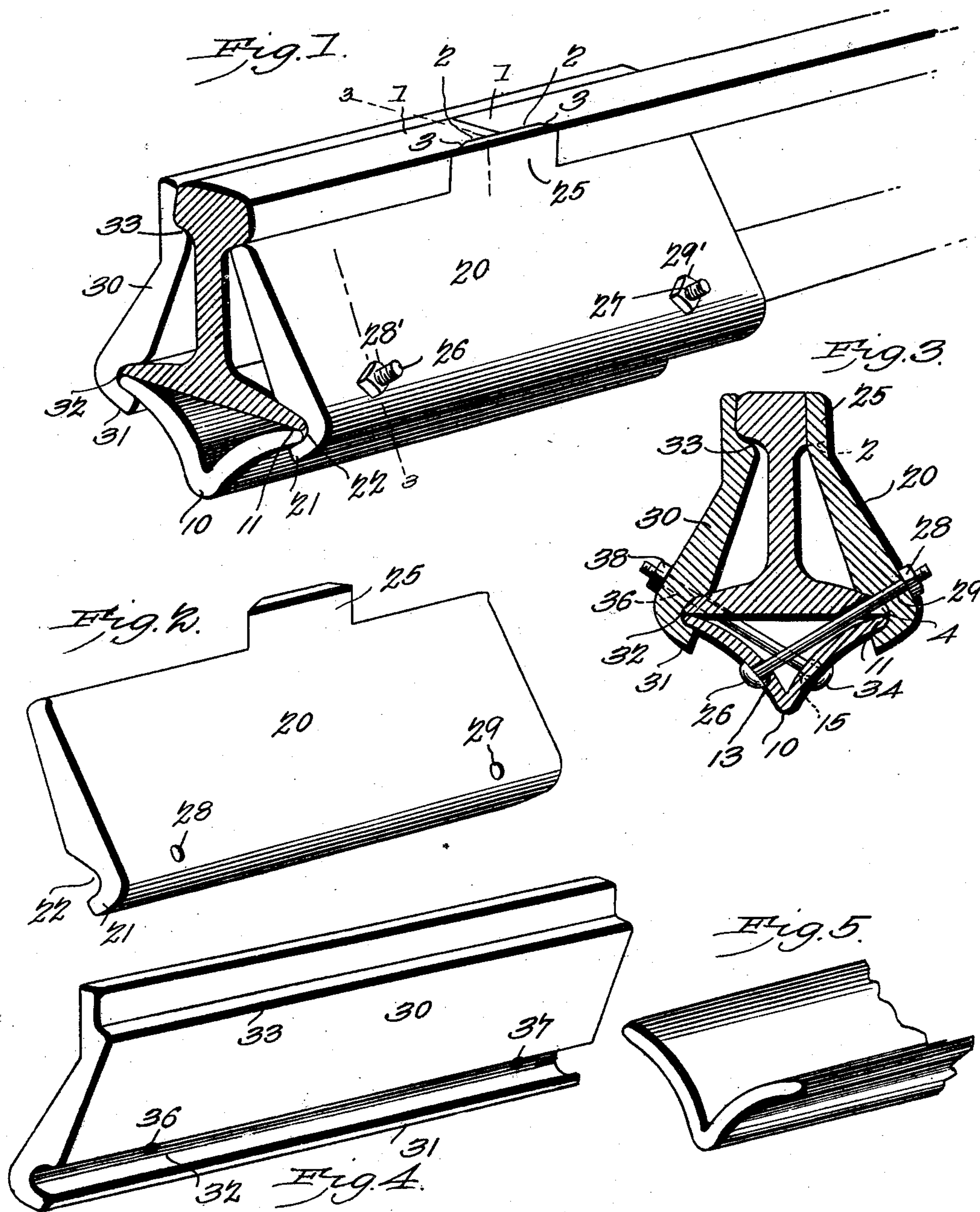
No. 697,569.

Patented Apr. 15, 1902.

B. H. TRIPP.
RAIL JOINT.

(Application filed Dec. 26, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

BRADFORD H. TRIPP, OF MARCUS, IOWA, ASSIGNOR OF ONE-HALF TO
FRANCIS S. BARNES AND BENJAMIN RADCLIFFE, OF MARCUS, IOWA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 697,569, dated April 15, 1902.

Application filed December 26, 1901. Serial No. 87,319. (No model.)

To all whom it may concern:

Be it known that I, BRADFORD H. TRIPP, a citizen of the United States, residing at Marcus, in the county of Cherokee and State of Iowa, have invented a new and useful Rail-Joint, of which the following is a specification.

This invention relates to improvements in rail-joints.

The object of the invention is to improve the construction of rail-joints and provide a simple and inexpensive one which will support the end of the rails and prevent the wheels of a train from wearing and injuring the rail ends and also to provide a brace to take the place of the ordinary chair and for holding the side braces or fish-plates in place by means of bolts.

Figure 1 of the accompanying drawings represents a perspective view of the ends of two rails, showing this improved rail-joint lock applied thereto. Fig. 2 represents a perspective view of the inside truss-brace detached. Fig. 3 represents a transverse vertical section taken on line 3 3 of Fig. 1. Fig. 4 represents a perspective view of the outer side brace detached, the view being taken from the inside of the plate. Fig. 5 shows a perspective view of the bottom double truss-brace, a portion thereof being broken off.

The same reference-numerals indicate corresponding parts in all the figures.

The form illustrated shows the meeting ends 1 1 of two ordinary rails supported at their bottoms by a double truss-brace 10, which takes the place of the ordinary rail-chair and which is held in place by two side braces, hereinafter to be described. The rail ends 1 1 are recessed on their inner faces, adjacent to their meeting ends, at 2 and are preferably provided with beveled shoulders, as 3. This bevel may be made as shown in the drawings or exactly the reverse, so that the lip on the side brace, hereinafter described, may dovetail into the rail, if desired. The rails are provided on the outer edges of their bottom flanges with notches, as 4, for engaging retaining-bolts hereinafter described. These notches are made wider than the diameter of the bolts they are to receive in order to provide for the expansion and contraction of the rails.

An inner truss-brace 20 is provided with a downturned flange 21, bent inwardly at their edges and adapted to engage the edge 11 of the truss-brace 10 and the inner edge of the bottom rail-flange and bind them closely together. This truss-brace 20 is preferably provided on its inner face adjacent to the flange 21 with a groove 22, into which these edges extend. This truss-brace 20 is provided at its upper edge, along a portion thereof, with an extension or lip 25, having the end thereof beveled to fit in the recess 2, whereby the ends of the rails are bridged and practically a continuous rail is formed. The upper edge of the truss-brace 20, adjacent to its extended lip 25, is adapted to extend under and engage the lower face of the rail-heads. These parts are held together by bolts 26 and 27, which extend through bolt-holes, as 13, in the double truss-brace 10, through the notches, as 4, in the inner bottom flanges of the rail ends and through the holes 28 and 29 in the truss-brace 20, where they are secured by nuts 28' and 29'. These nuts may be held securely on the bolts by nut-locks. (Not shown.)

The outer truss-brace 30 is provided with a downwardly and inwardly extending flange 31 and having a groove 32 on the inner face thereof adjacent to said flange for receiving the outer edges of the truss-brace 10 and the bottom flanges of the rail ends 1 1. This fish-plate 30 is preferably in the form of a truss-brace, and the upper edge thereof extends up flush with the top of the rail ends and is provided with a shoulder 33, which extends under and engages the lower face of the rail-heads on their outer side. The upper edge of this plate is recessed to form this shoulder, and the inner face of said recessed portion fits tightly against the outer side of the rail-heads. This plate is clamped in adjusted position by means of bolts, as 34, which extend through bolt-holes, as 15, in the double truss-brace 10, cross over the bolts 26 and 27 through the notches, as 4, in the outer bottom flanges of the rail ends 1 1, and through the holes 36 and 37 in the plate 30, where they are secured by nuts, as 38.

The fish-plates 20 and 30 being made in the form of truss-braces afford a more perfect support for the rail ends, bearing as

they do on the rail-heads and the outer edges of their lower flanges only.

The double truss-brace 10 for the bottom of the rail ends takes the place of a rail-chair 5 and forms a suspended support for the joint to be used between ties. The brace is made slightly shorter than the space it is to fill and will be sprung in place by tightening the bolts.

10 I claim as my invention—

1. A device of the class described comprising the upwardly-converging inner and outer truss-plates designed to be arranged at opposite sides of a rail, and a bottom support hav- 15 ing downwardly-converging sides, substantially as described.

2. A rail-joint lock comprising inner and outer truss-braces adapted to engage rail ends at their head and bottom flanges, and a 20 double truss-brace adapted to be connected with the lower edges of said braces.

3. A rail-joint lock comprising inner and outer truss-braces adapted to engage rail ends on their opposite sides, said braces being 25 adapted to extend up on each side of a rail even with the top thereof, and a bottom support connected with said braces.

4. The combination with the rails, of a bot- 30 tom-supporting brace, truss-braces provided with flanges for engaging the edges of said

bottom brace and the edges of the rail-flanges, said truss-braces being provided with means for engaging the rail-heads, and means for fastening said parts together.

5. The combination with the rails and fish- 35 plates, of a double truss-supporting bottom brace adapted to extend under said rails, and means for connecting said rails, fish-plates and bottom brace.

6. The combination with the rails, of a 40 double truss bottom brace having the edges thereof extended flush with the edges of the bottom rail-flanges, and side braces adapted to engage the edges of said flanges and brace and hold them together, said braces having 45 means at their upper end for engaging the rail-heads, and means for holding said parts firmly together.

7. The combination of rail ends disposed adjacent to each other and provided with re- 50 cesses on one side thereof, a bottom support for said rail ends, and a truss-brace having an extended lip adapted to engage said recesses.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 55 the presence of two witnesses.

BRADFORD H. TRIPP.

Witnesses:

F. PAINE,

C. W. ROE.