

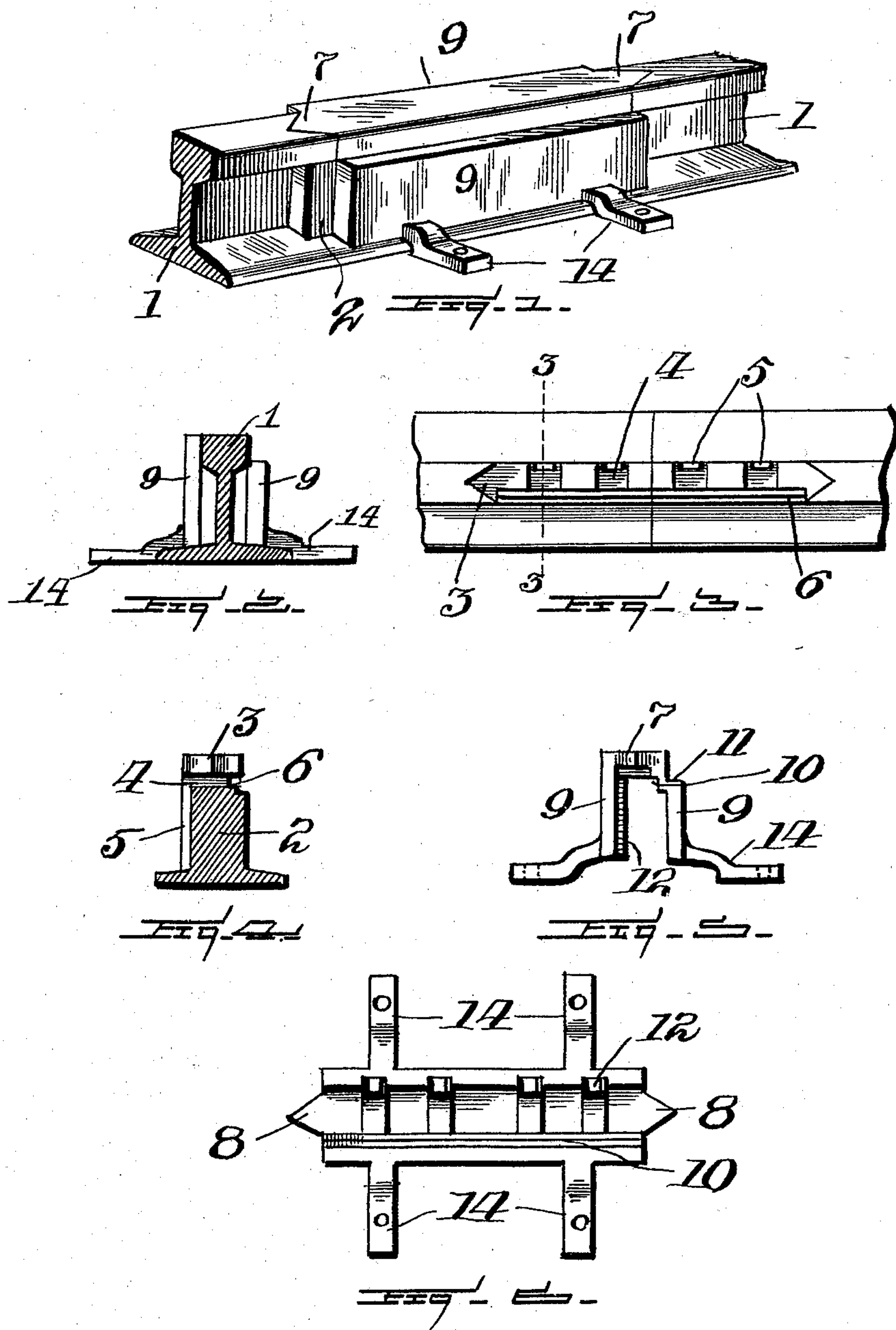
No. 705,575.

Patented July 29, 1902.

W. FLOSS.
RAIL JOINT.

(Application filed May 2, 1902.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM FLOSS, OF MEADOW LANDS, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 705,575, dated July 29, 1902.

Application filed May 2, 1902. Serial No. 105,641. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FLOSS, a citizen of the United States of America, residing at Meadow Lands, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in rail-joints, the object of the invention being to construct a joint which may be easily applied and secured in position without the aid of the ordinary nuts
15 and bolts.

Briefly described, my invention consists in constructing the mutually-adjacent ends of the rails of a greater thickness in the web portion thereof than the remainder of the rails,
20 recessing the tread of the rails in this thickened portion, and in providing a cap-rail having a tread portion which fits in the recesses in the tread of the rails and provided with ribs which interlock with recesses provided
25 therefor in the said thickened portions of the rails.

The above and other features of construction entering into my invention will be hereinafter more fully described, and specifically
30 pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like
35 parts throughout the several views, in which—

Figure 1 is a perspective view of my improved joint as applied in position on the rails. Fig. 2 is an end view of Fig. 1. Fig. 3 is a top plan view of the adjacent ends of
40 two rails. Fig. 4 is a transverse vertical sectional view taken on the line 3 3 of Fig. 3. Fig. 5 is an end view of the cap-rail. Fig. 6 is an underneath plan view of the same.

To put my invention into practice, I construct the rails 1 with a thickened web portion 2, which is cut away on its upper face at the end of the rail, the cut-away portion terminating into the V-shaped recess 3. This thickened portion is provided in its upper
50 face with cut-away portions 4 4, which are in registry with the vertical grooves 5, formed in the side of the thickened portion of the rail-

web. On the opposite side of the vertical grooves 5 this thickened portion of the rail-web is formed with stepped shoulders 6 for a
55 purpose as will presently appear. After the rails have been placed in the abutting position, as shown in Fig. 3, I place thereon the cap-rail, consisting of the tread portion 7, which fits within the cut-away portion in
60 the upper face of the rail-treads and has V-shaped projections 8 on each end to match with the V-shaped recesses 3 in the tread of the rails 1. This cap-rail has downwardly-extending integral sides 9, forming fish-plates,
65 which embrace the sides of the thickened portions of the rails and one of which is provided on its inner face, at the upper end thereof, with stepped shoulders 10, which are adapted to mesh with the stepped shoulders 6.
70 One of these fish-plates, it will be observed, is set out from the tread of the cap-rail, so as to form a passage-way 11 for the flange of the wheel. The other of the fish-plates carries on its inner face integral ribs 12, which extend
75 vertically along the inner face of the said fish-plate and also across the under face of the tread 7, and these ribs 10 fit within the vertical grooves 5 and the recesses 4, thus holding the two rails together and preventing longitudinal movement thereof. Each fish-plate
80 9 is constructed with one or more outwardly-extending lugs 14, which are so shaped as to lie flat on the cross-ties (not shown) and are adapted to receive the securing-spikes for
85 fastening the joint to the ties.

With my improved joint it will be observed that while the break or joint between the two adjacent rails will come at the point between two of the cross-ties, yet the cap-rail being
90 placed across the joint gives an unbroken joint between the rails. The joint is easily placed in position and is quickly removed when desired.

It will be noted that various changes may
95 be made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters
100 Patent, is—

1. In a rail-joint, the combination with the rails having thickened web portions at the ends thereof, said web portions being cut away

in their upper faces and provided with recesses and vertical grooves, of a cap-rail comprising a tread and depending fish-plates to fit in the cut-away portion of the rail ends and
5 having interior ribs to engage in the recesses and vertical grooves of said thickened rail ends, substantially as described.

2. In a rail-joint, the combination with the rails having thickened web portions provided
10 in one side with vertical grooves and in the upper faces with recesses, of a cap-rail fitting over said thickened portions and having interior ribs to fit in the recesses and grooves in said thickened portions, and securing-lugs
15 carried by said cap-rail, substantially as described.

3. In a rail-joint, the combination with the rail ends having thickened portions provided with vertical grooves and recesses, and having stepped shoulders along one edge, of a
20 cap-rail having stepped shoulders to match with the stepped shoulders on the rails, and interior ribs carried by the said cap-rail to engage in the grooves and recesses of the rails, substantially as described. 25

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

WILLIAM FLOSS.

Witnesses:

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