

No. 697,775.

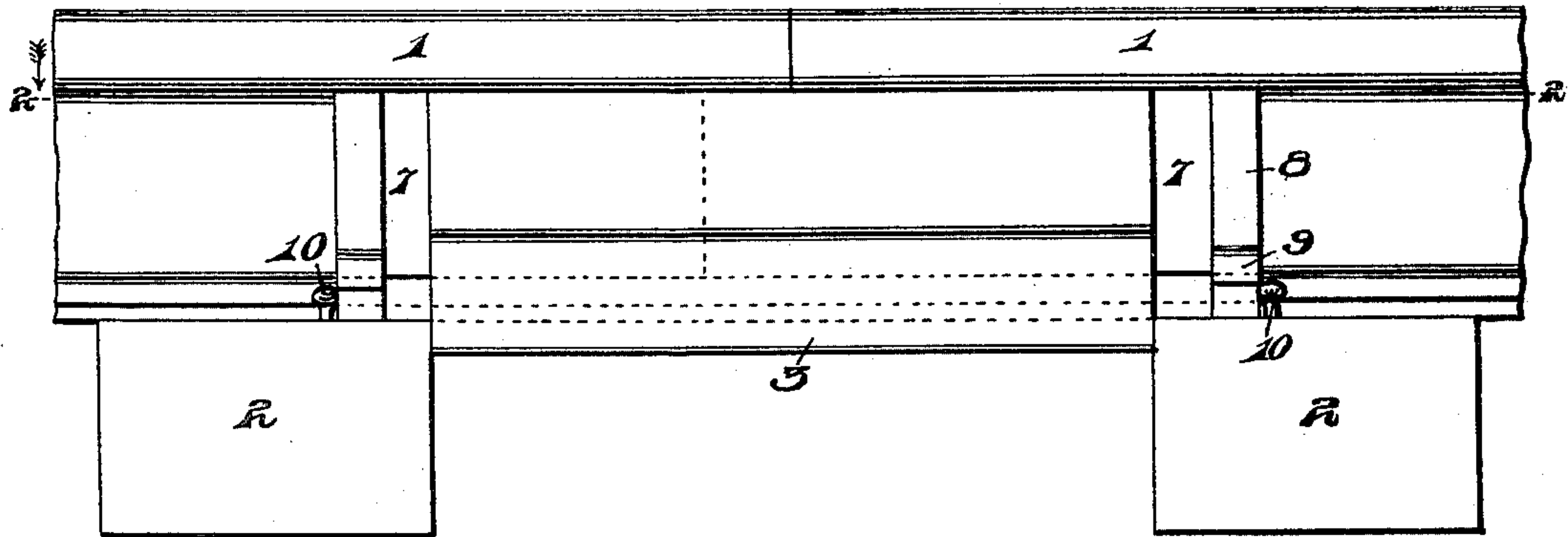
Patented Apr. 15, 1902.

P. BARAN.  
RAIL JOINT.

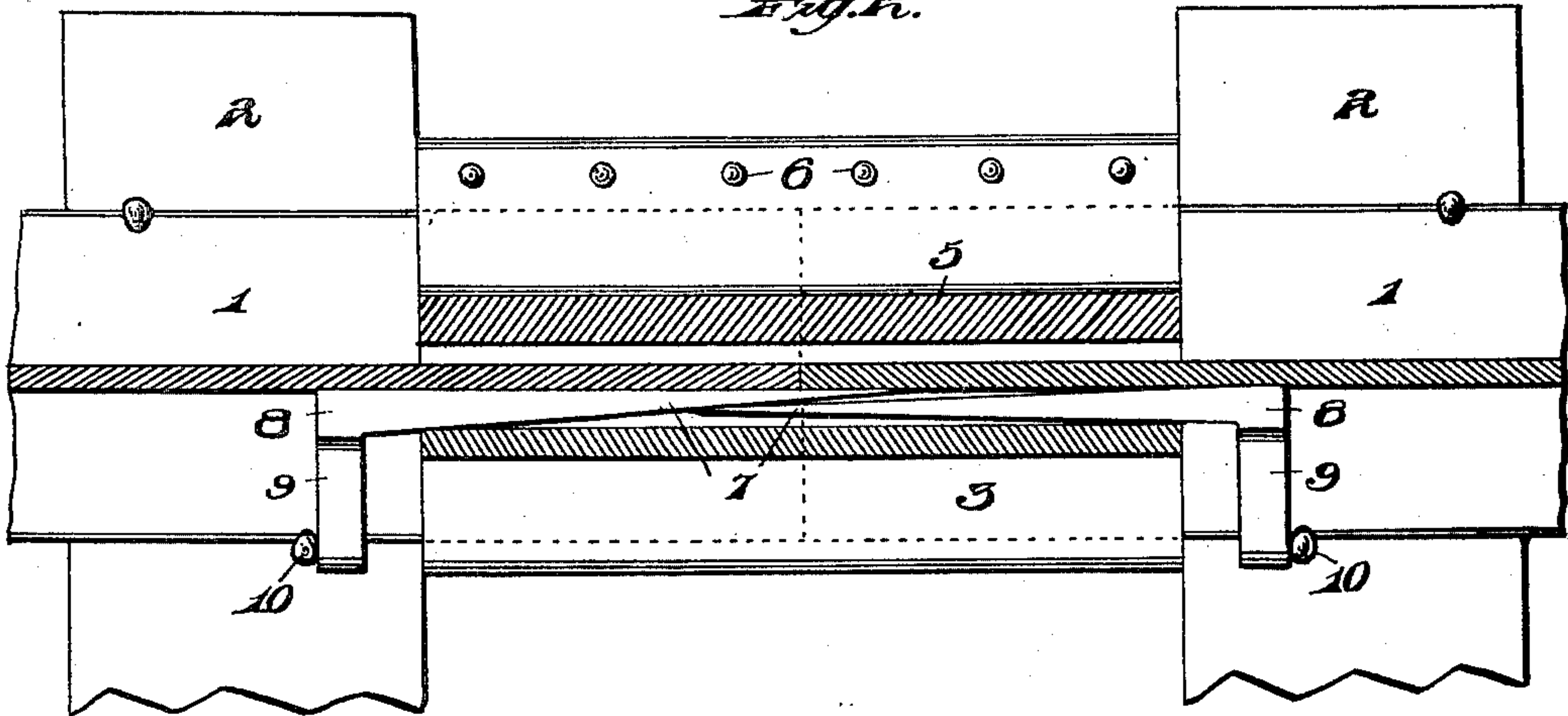
(Application filed Jan. 13, 1902.)

(No Model.)

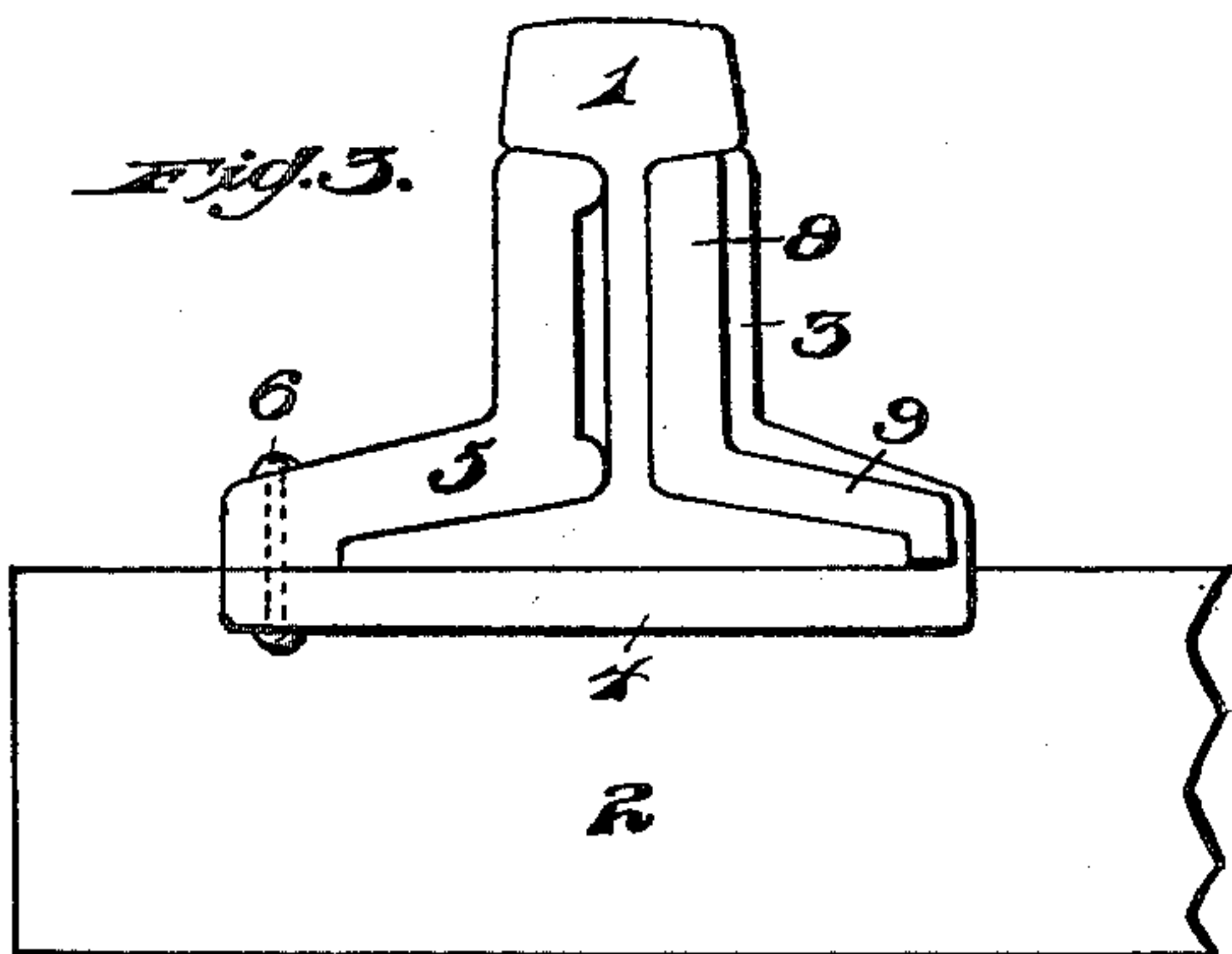
*Fig. 1.*



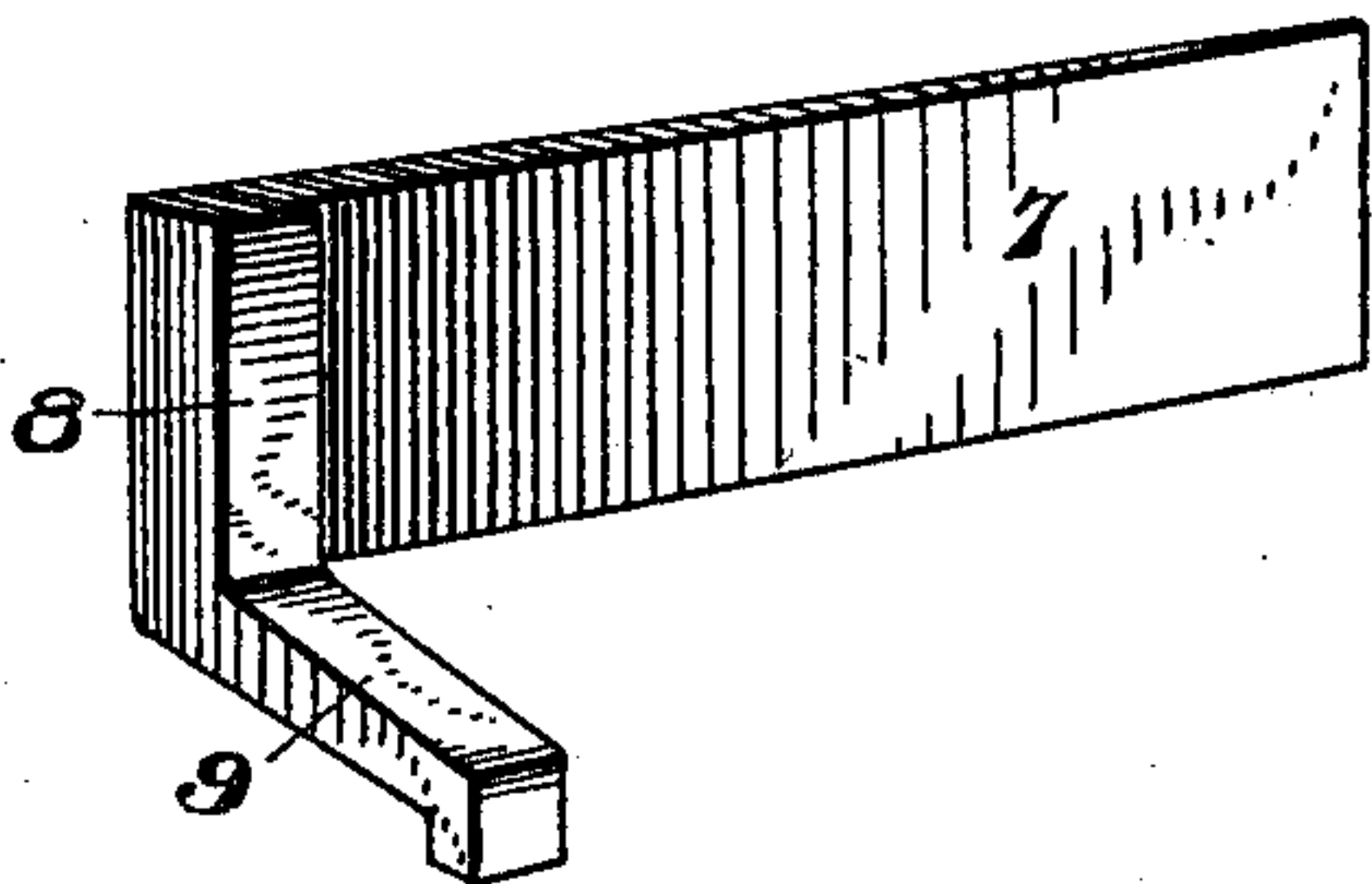
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

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# UNITED-STATES PATENT OFFICE.

PAUL BARAN, OF NEW KENSINGTON, PENNSYLVANIA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 697,775, dated April 15, 1902.

Application filed January 13, 1902. Serial No. 89,493. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL BARAN, a citizen of the United States of America, residing at New Kensington, in the county of Armstrong 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, and relates more particularly to that class wherein the use of nuts and bolts is entirely dispensed with.

15 The present invention further consists in providing two wedges between the web of the rail and one of the fish-plates, thereby locking the rail firmly in position; furthermore, to provide an integral chair with one of the fish-plates and securely fastening the same to the opposite fish-plate.

The invention still further consists in the novel combination and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

25 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 corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved rail-joint as it appears when applied in position to two sections of rails. Fig. 2 is a longitudinal sectional view taken on the line 2 2 of Fig. 1 looking in the direction of the arrow. Fig. 3 is an end view of the same. Fig. 4 is a perspective view of one of the wedges.

35 In these drawings the reference-numeral 1 indicates the rails, and 2 the cross-ties.

The reference-numeral 3 represents the fish-plate, having formed integral therewith a chair 4, extending under the base of the rail.

45 The reference-numeral 5 represents the opposite fish-plate, which is secured to the chair portion 4 by means of rivets 6.

The reference-numeral 7 represents wedges arranged between the fish-plate 3 and the web of the rail. These wedges extend from opposite sides and partially overlap one another. The said wedges carry an enlarged portion 8

and a foot extension 9, which is retained in position by means of spikes 10, secured in the cross-ties.

The operation of my improved rail-joint is as follows: The rails being applied in position endwise between the fish-plates and chair, the wedges 7 are driven between the fish-plate 3 and web of the rail from opposite directions, thereby creating a wedging action which will effectually lock the rails in position. The spikes 10 are then driven into the cross-ties for the purpose of retaining the wedges in position, preventing the same from becoming disengaged.

65 The many advantages obtained by the use of my improved rail-joint will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

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

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

1. In a rail-joint, a chair having a fish-plate formed integral therewith, and a second fish-plate secured to said chair, independent wedges engaging between one of said fish-plates and the webs of the rails, and foot extensions carried by the outer ends of said wedges, said foot extensions extending beyond the ends of the fish-plate and chair, engaging the base of the rail and secured to the tie, substantially as described.

85 2. In a rail-joint, a chair having a fish-plate, formed integral therewith, and a second fish-plate carried by the chair and engaging the webs of the rails, independent wedges engaging between said first-named fish-plate and the webs of the rails, and means carried by the said wedges adapted for engagement with the bases of the rails secured to the ties, substantially as described.

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

PAUL BARAN.

Witnesses:

JOS. MCKEAN,  
J. S. MCKEAN.