

No. 688,722.

Patented Dec. 10, 1901.

T. W. DEVORE.

RAIL JOINT.

(Application filed Apr. 15, 1901.)

(No Model.)

Fig. 1.

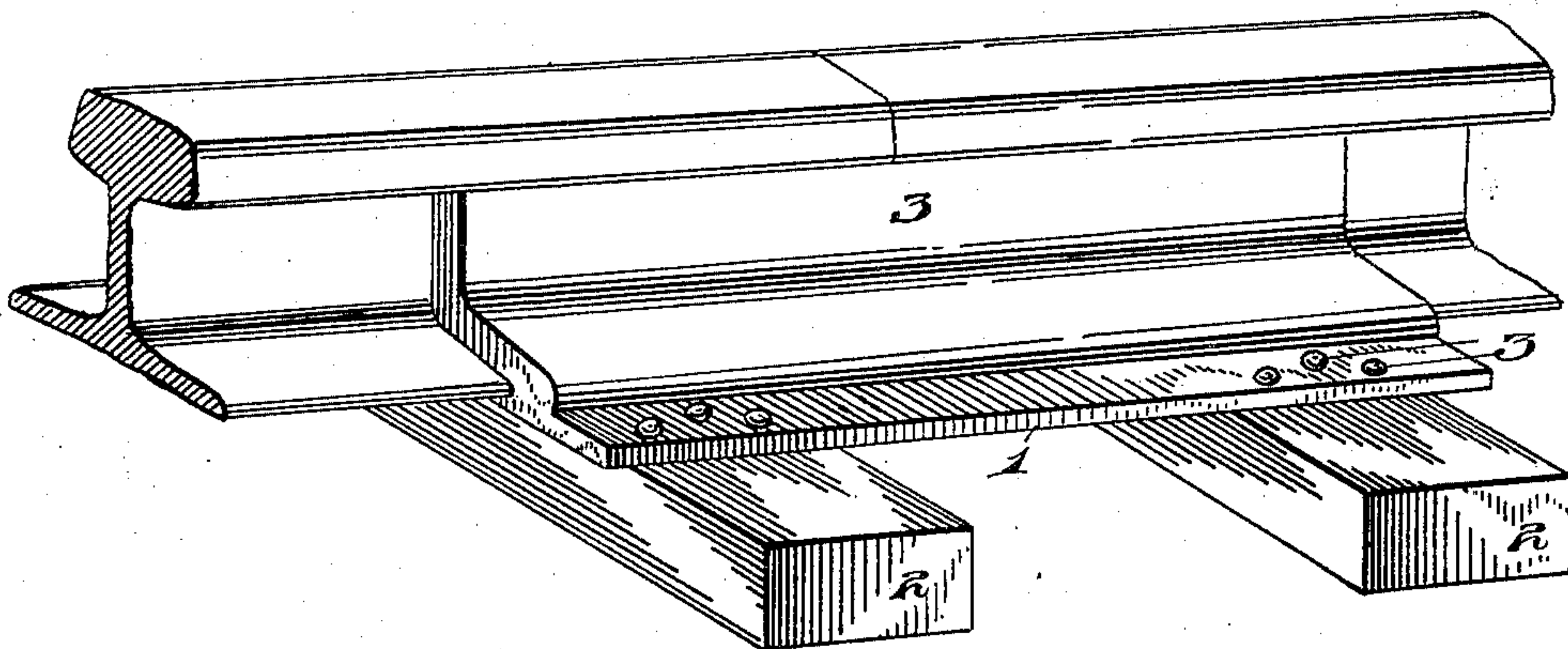


Fig. 2.

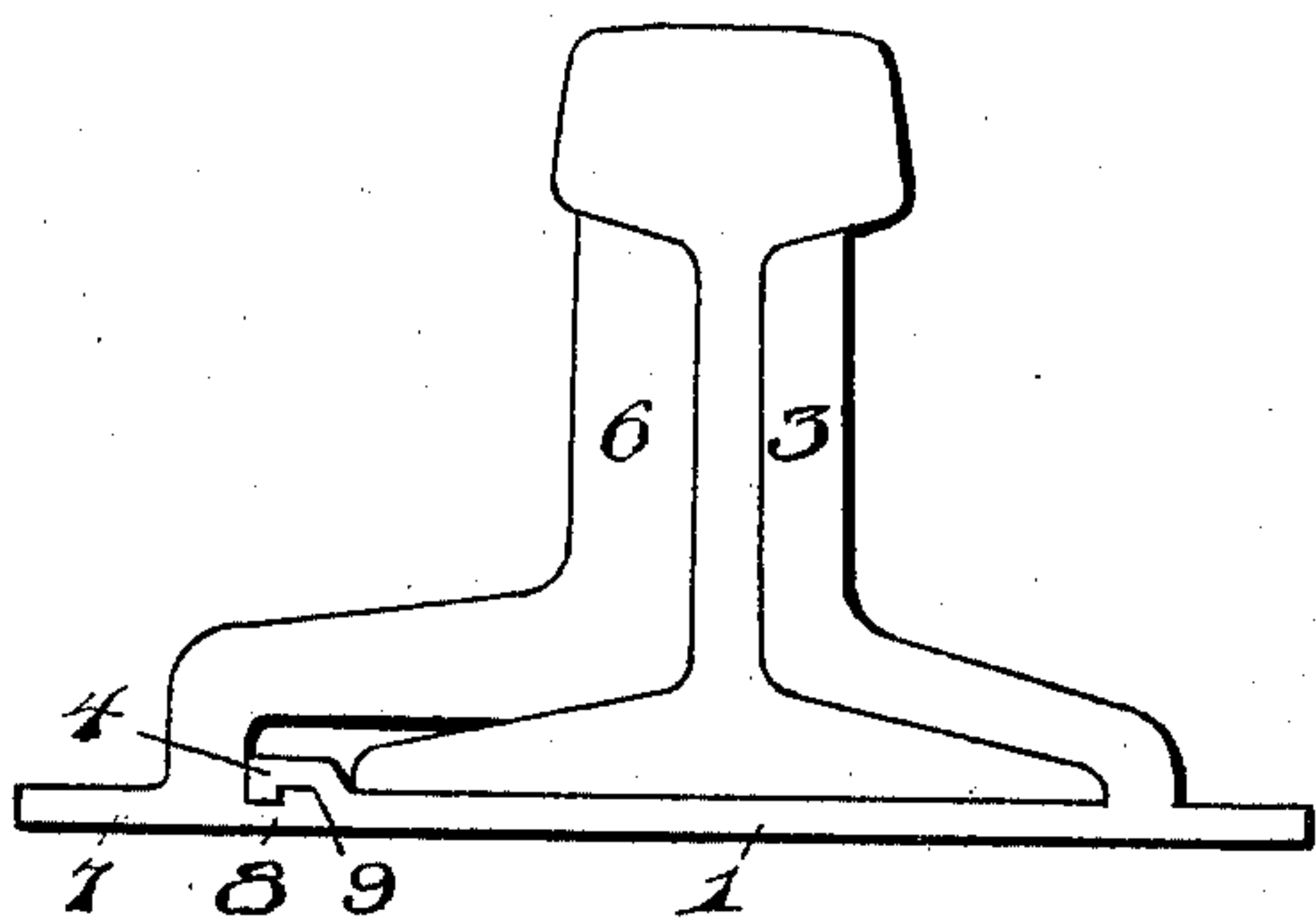


Fig. 3.

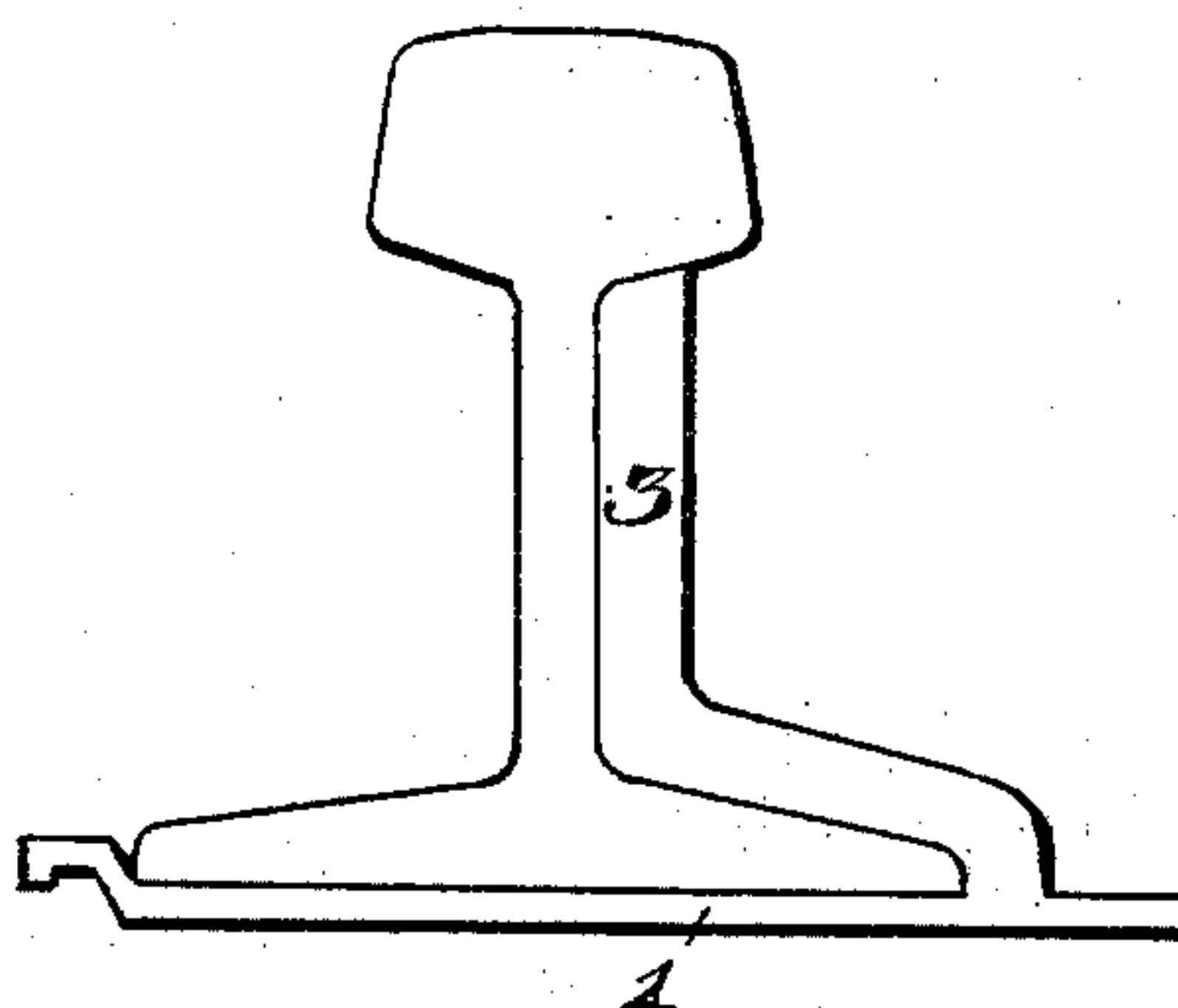


Fig. 4.

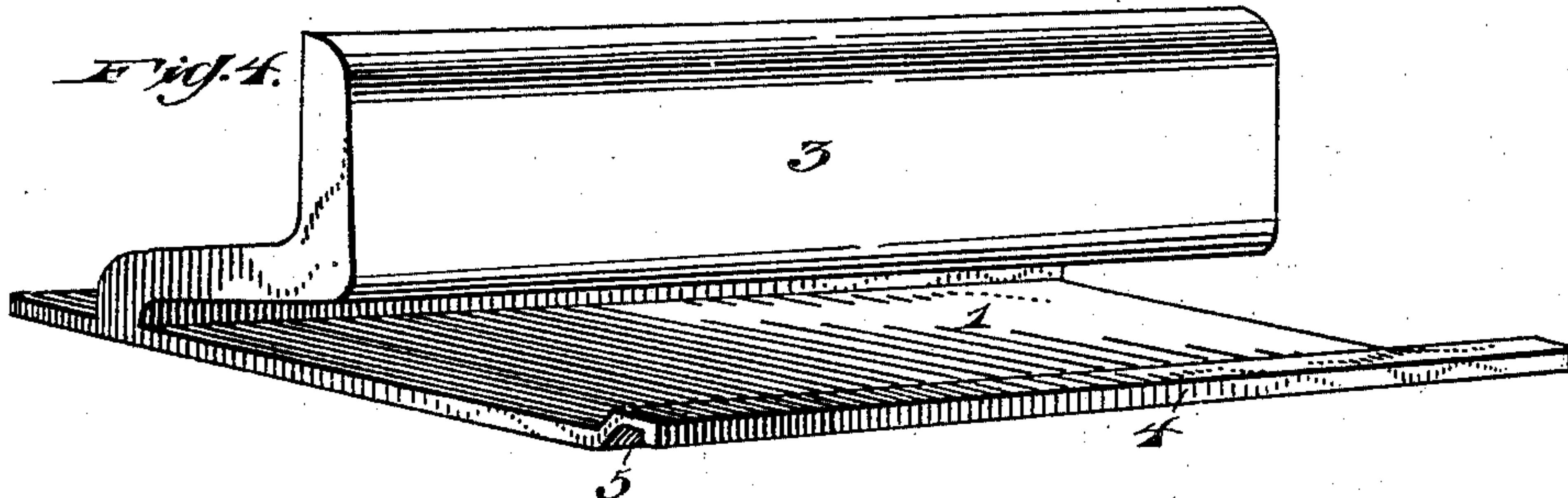
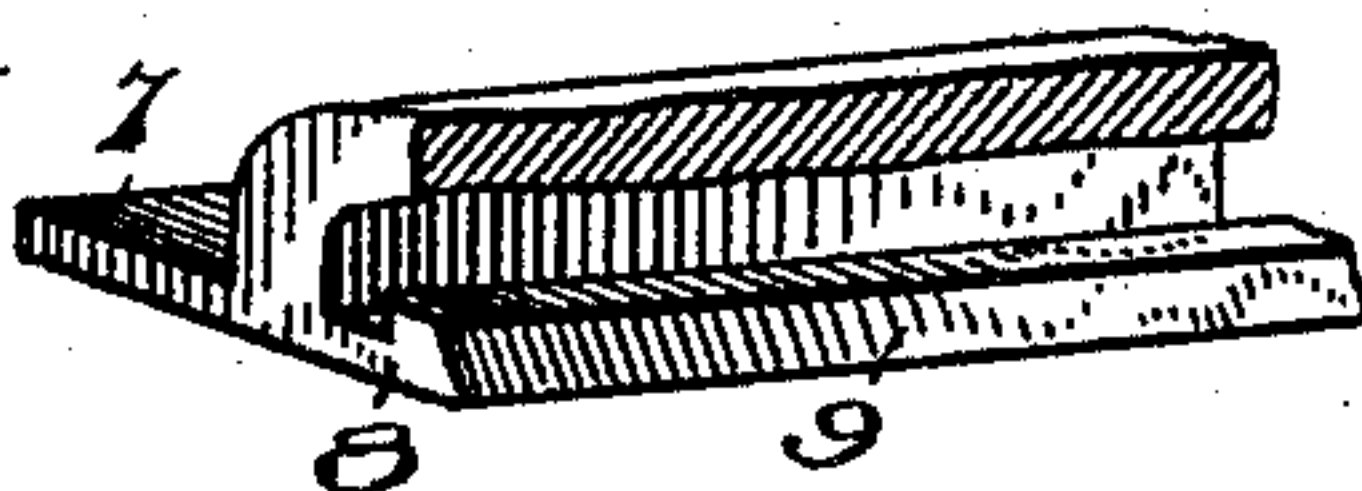


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

THOMAS W. DEVORE, OF WILKINSBURG, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 688,722, dated December 10, 1901.

Application filed April 15, 1901. Serial No. 55,803. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. DEVORE, a citizen of the United States of America, residing at Wilkinsburg, in the county of Allegheny 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 has for its object to provide novel and effective means whereby the rails may be joined together at their ends without the aid of nuts
15 or bolts.

Briefly described, the invention comprises a saddle-plate which is of a length sufficient to reach across two of the ties upon which the rails are laid and carries an integral fish-plate to embrace one side of the rails at their meeting ends. The free edge of the saddle-plate is struck upwardly, and this upwardly-projecting portion is provided on its underneath face with a groove. A separate fish-plate to embrace the opposite side of the rails is employed, and this separate fish-plate has a base portion which lies on a plane with the saddle-plate and is provided on its upper face with a ridge which fits with the groove on the under side of the saddle-plate, all of which construction will be hereinafter more specifically described and then particularly pointed out in the claims.

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

40 Figure 1 is a detail perspective view showing the application of my improved joint to the rails. Fig. 2 is an end view thereof with both fish-plates in position. Fig. 3 is an end view with the detachable fish-plate removed.
45 Fig. 4 is a detail perspective view of the saddle-plate and fish-plate carried thereby. Fig. 5 is a detail perspective view of a portion of the detachable fish-plate.

Referring now to the drawings by reference-
50 numerals, 1 indicates a saddle-plate, which is made of a desired width and of a length sufficient to reach across two of the cross-ties 2.

This plate carries, adjacent to one edge thereof, an integral fish-plate 3, which is shaped to conform to the base, web, and underneath 55 face of the rail-tread, the portion of the saddle-plate outside of said fish-plate being provided with apertures to receive securing-spikes 3' for fastening the plate to the cross-ties. Along its other edge this saddle-plate 60 is struck upwardly to form a ridge which lies above the upper face of the plate, this ridge 4 being provided in its underneath face with a groove 5, the outer wall of which is vertical and the inner wall of which is at an incline 65 to the vertical wall or to the face of the plate. The fish-plate 3 embraces the rails at one side thereof at the joint, and to similarly engage the rails at the opposite side I provide a fish-plate 6, which has a base portion 7, that lies 70 on the same plane as the saddle-plate 1. The portion of this base outside the fish-plate is apertured to receive the securing-spikes on this side, the same as are employed for fastening the saddle-plate to the ties. The part 75 of this base 7 which abuts against the saddle-plate is provided along its upper face with a ridge or flange 8, which fits within the groove 5 in the saddle-plate, this ridge or flange having one inclined wall 9 and one vertical wall 80 to conform to the walls of the groove.

To place the joint in position, the saddle-plate is placed on the cross-ties and the rails laid thereon. The fish-plate 6 is then slid in from one end until in the position shown in 85 Fig. 2, when the spikes may be driven through the saddle-plate and through the base portion of the separable fish-plate for securing the parts to the ties.

It will be observed that the joint is ex- 90 tremely simple in construction and will be effective in its purpose, the rails being securely held, while at the same time being permitted to expand or contract. It will also be observed that in the practice of the inven- 95 tion various changes may 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 a saddle-plate extending across the base of the rails, a fish-plate made integral with one edge thereof, the other edge

of said plate having a ridge made integral therewith, the said ridge having a groove formed in its underneath face, in combination with a detachable fish-plate having a base portion, which when in position lies on a plane with the saddle-plate, said base portion having a ridge made integral therewith, adapted to fit in the said groove, substantially as described.

10 2. In a rail-joint, a saddle-plate having a ridge along one edge, said ridge having a groove in its underneath face, the one wall of said groove being vertical and the other wall being at an incline thereto, and a detach-

able fish-plate having a base portion which, 15 when in position lies on a plane with the saddle-plate, said base portion carrying a ridge the side walls of which conform to the side walls of the groove in the saddle-plate, into which said ridge fits when the detachable fish- 20 plate is in position, substantially as described.

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

THOMAS W. DEVORE.

Witnesses:

JOHN NOLAND,
E. E. POTTER.