

No. 803,279.

PATENTED OCT. 31, 1905.

E. W. FLINNER.

RAIL JOINT.

APPLICATION FILED JULY 10, 1905.

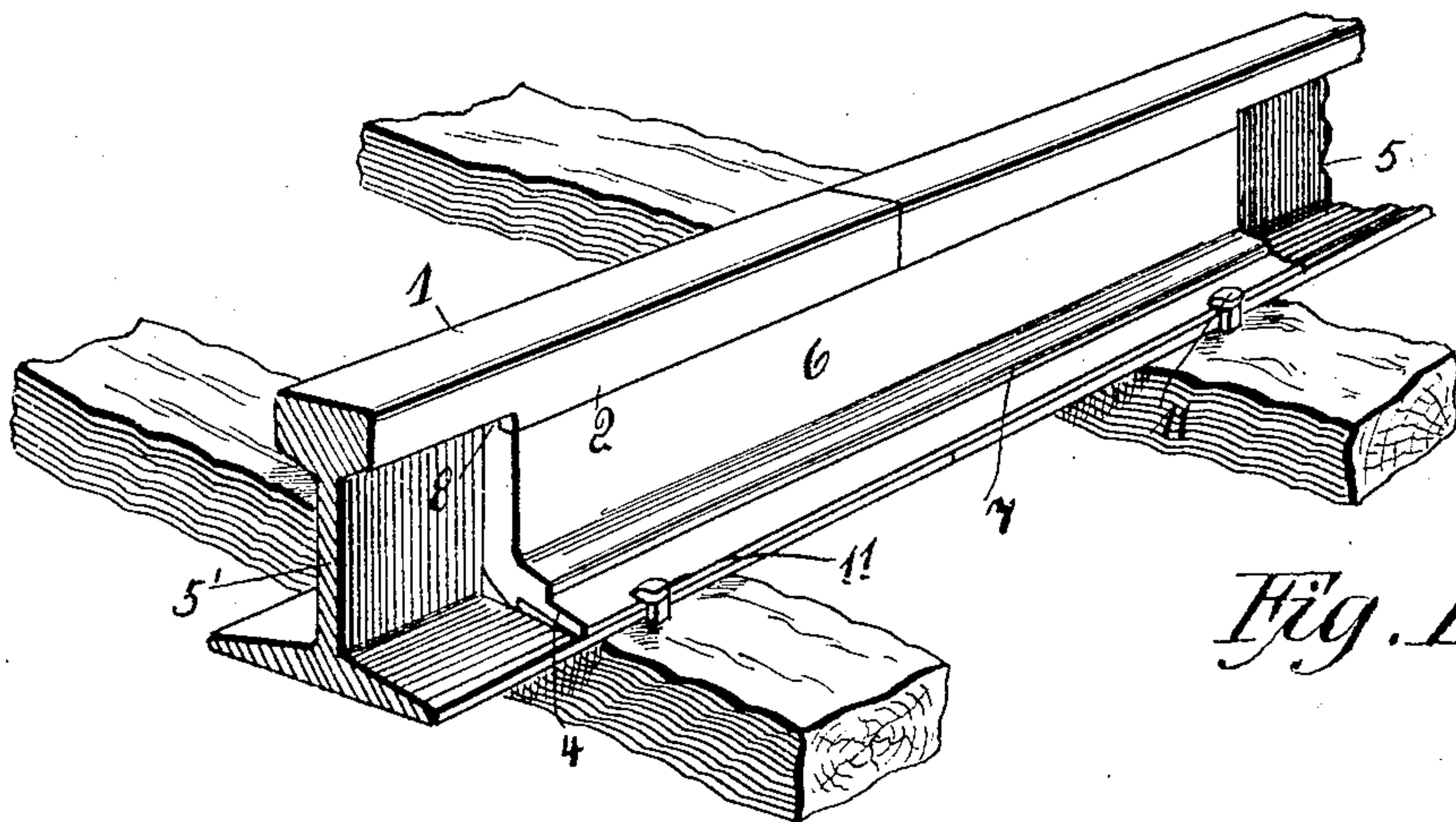


Fig. 1.

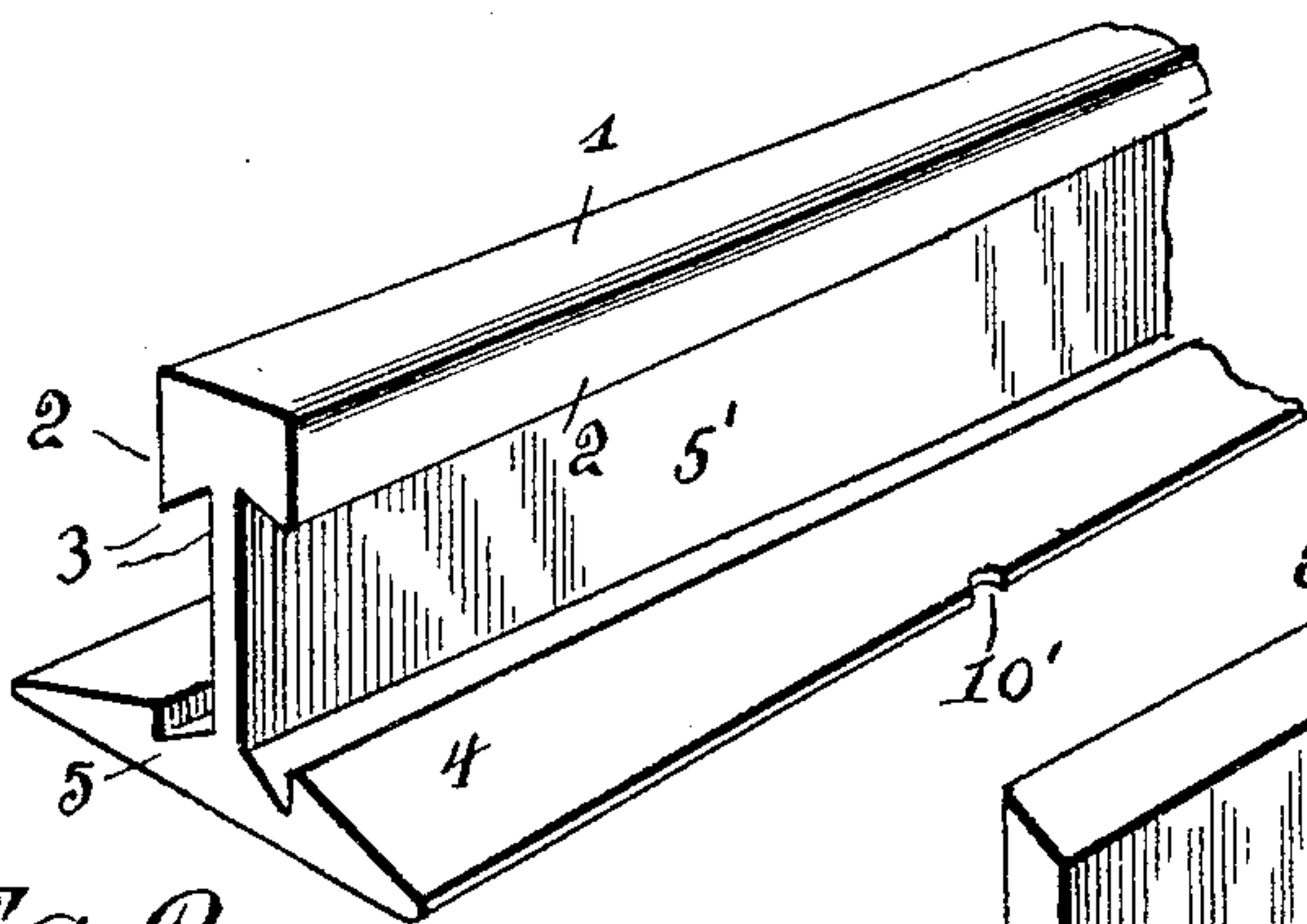


Fig. 2.

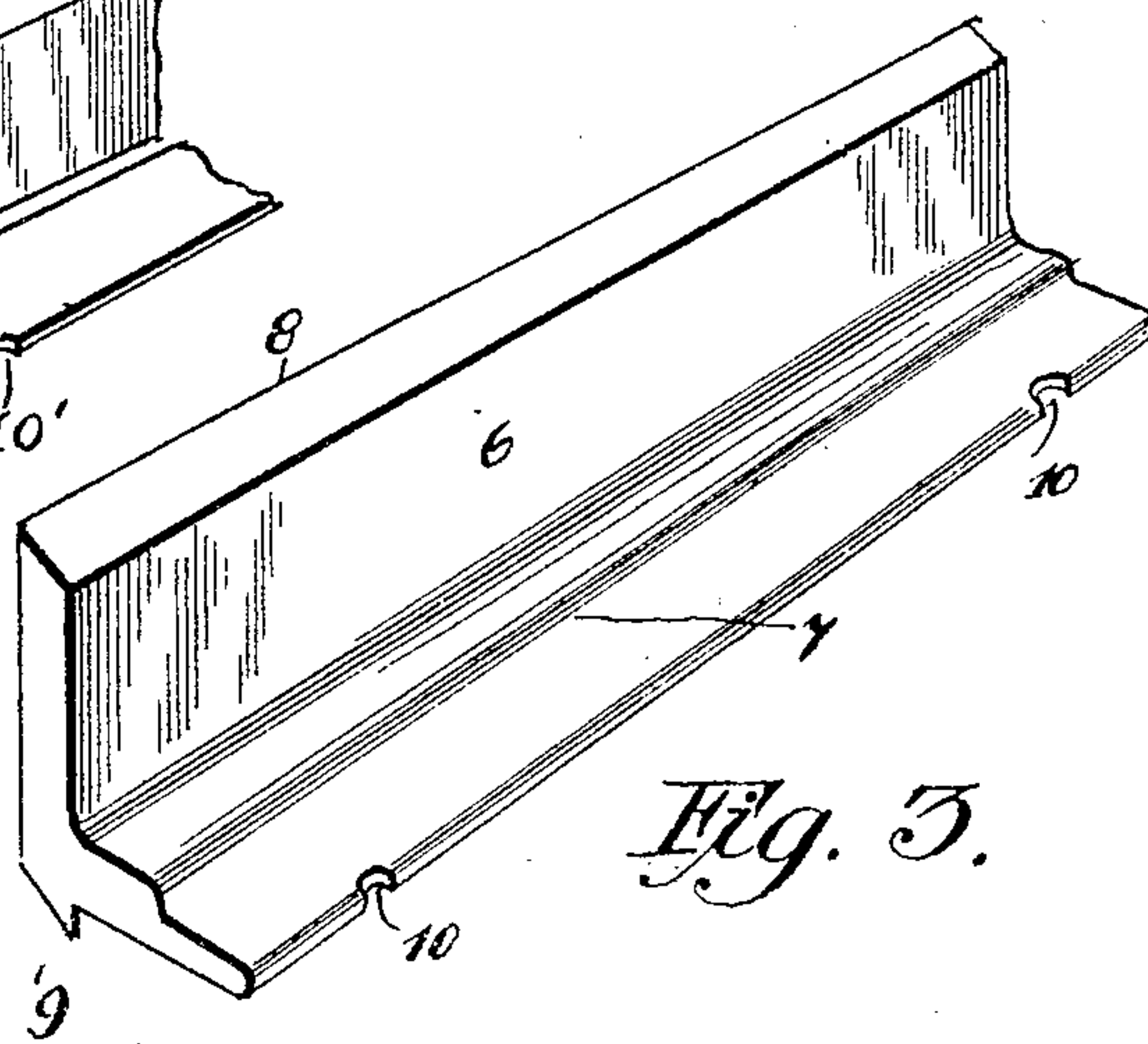


Fig. 3.

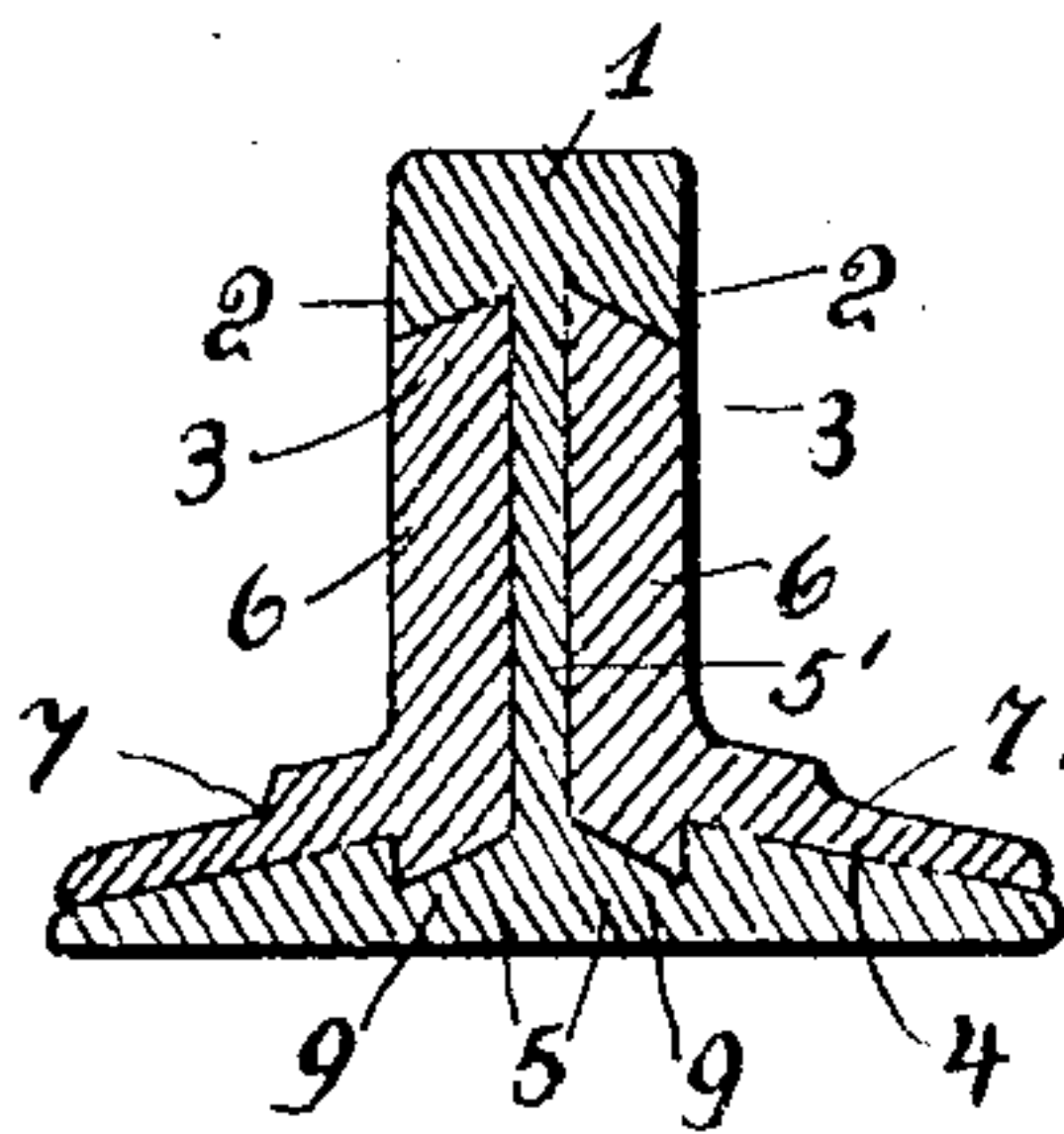


Fig. 4.

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UNITED STATES PATENT OFFICE.

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RAIL-JOINT.

No. 803,279.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed July 10, 1905. Serial No. 268,971.

To all whom it may concern:

Be it known that I, EDWARD W. FLINNER, a citizen of the United States of America, residing at Eidenau, in the county of Butler 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.

This invention relates to certain new and useful improvements in rail-joints, and has for its primary object the provision of novel means for the joining of two rails together in an effective manner without the employment of the ordinary bolts and nuts.

Briefly described, the invention comprises forming the rails with grooves in the treads and in the base and also in forming the treads of the rails with depending flanges throughout the entire length of the rail. In connection with rails of such construction I employ fish-plates the vertical plate or bar of which is chamfered along its upper edge to engage in the grooves of the tread and which further has a flange depending below the base-flange of the fish-plate to engage in the groove of the base.

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

Figure 1 is a perspective view of my improved rail-joint in position. Fig. 2 is a detail perspective view of a portion of a rail as constructed to be employed in connection with my improved fish-plate. Fig. 3 is a detached detail perspective view of one of the fish-plates. Fig. 4 is a transverse vertical sectional view of the rail and the fish-plates in position.

To put my invention into practice, I provide the treads 1 of the rails with depending flanges 2, thus forming grooves 3 between the said flanges and the web of the rail. The base-flange 4 of the rail is provided with grooves 5 the entire length of the rails, these grooves being formed in close proximity to the webs 5' of the rails.

With rails constructed as described above

I employ fish-plates to engage therewith and which embody the vertical plate or member 6 and the base-flange 7, made integral with each other. Along its upper edge the plate 6 is beveled downwardly and forwardly, thus forming a rib 8 to fit in groove 3, and the base-flange 7 joins with the plate 6 above its lower edge, thus forming a rib 9 to engage in the groove 5. The underneath face of the base-flange 7 fits neatly on the upper face of the flange 4 of the rail. The outer edge of the base-flange 7 may have notches 10, as shown, to receive the securing-spikes 11, and notches 10' may also be provided in the rail-base 4.

In practice of the invention it will be observed that various changes may be made in the details of construction without departing from the general spirit of the invention.

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

1. In combination with rails having depending flanges the entire length of their treads, and having their base-flanges provided with grooves, of fish-plates having base-flanges extending over the base-flange of the rail to the outer edge thereof and having ribs along the upper and lower edges thereof to engage in the respective grooves of the rails, substantially as described.

2. The combination with a rail having grooves on the bottom of its head, said grooves being formed by the vertical wall of the web of the rail and the inwardly and downwardly beveled bottom of the head of the rail and said rail having grooves in its base, the bottoms of said grooves being outwardly and downwardly inclined, of fish-plates having ribs on their lower edges fitting the ribs in the grooves of the rail and having their upper edges beveled to fit the grooves in the head of the rail, said fish-plates having base-flanges extending to the outer edge of the base-flanges of the rail.

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

EDWARD W. FLINNER.

Witnesses:

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H. B. WISE.