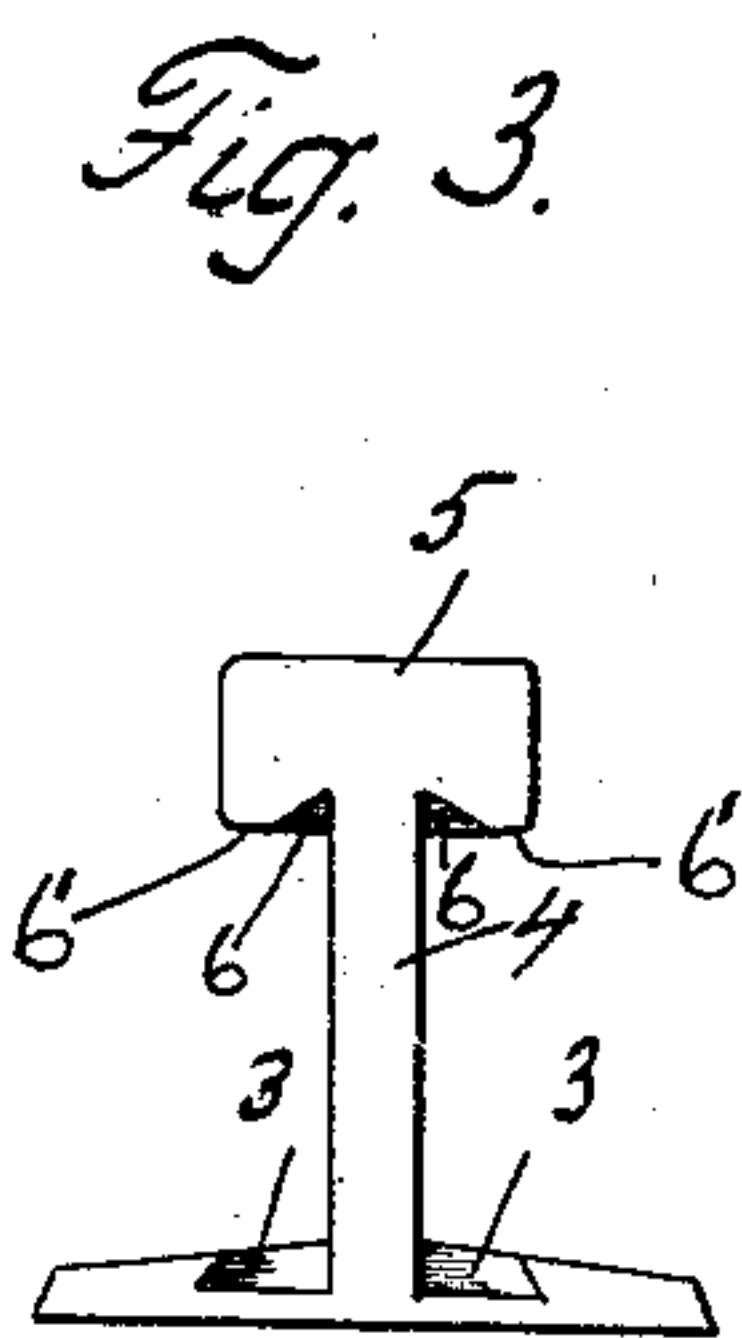
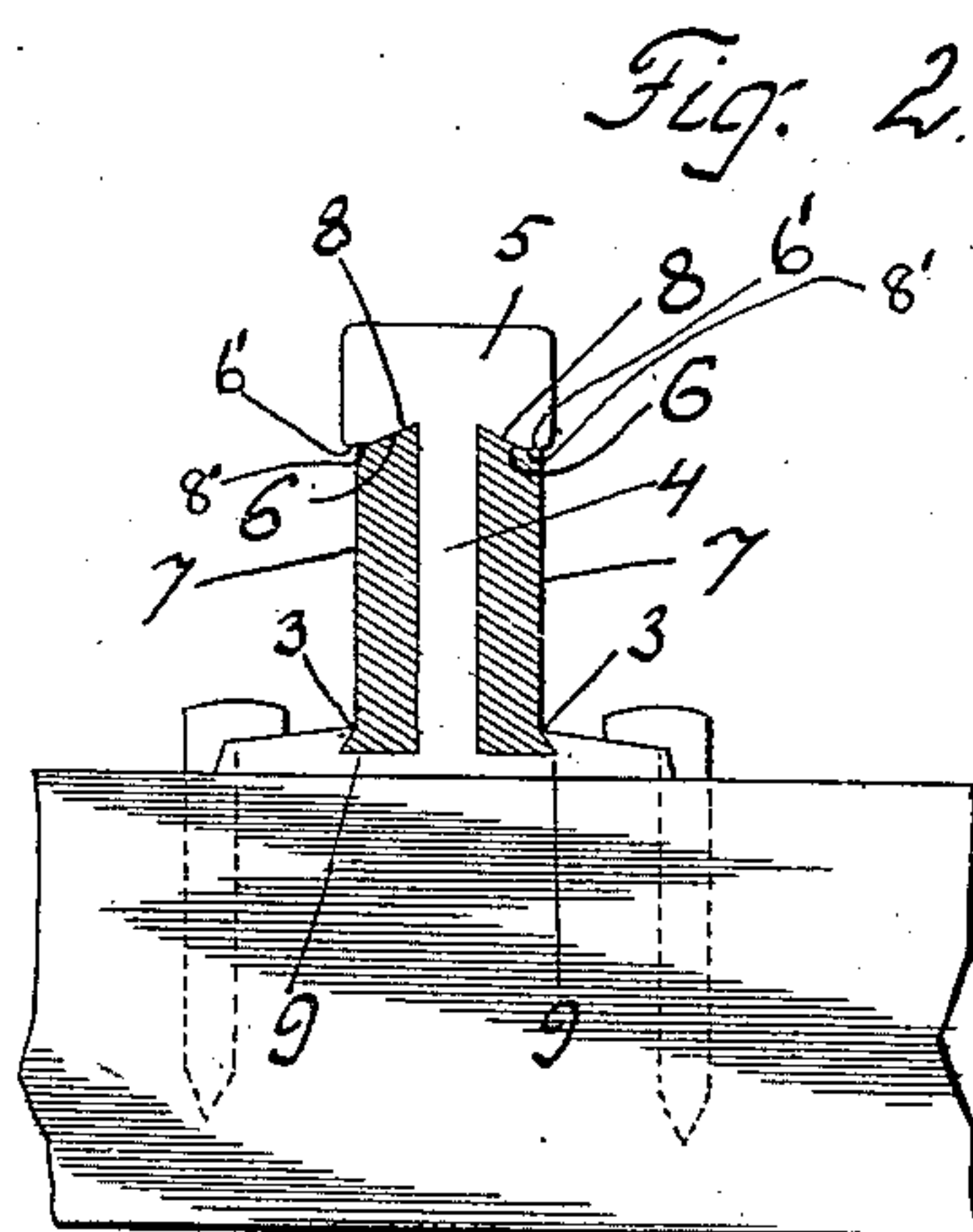
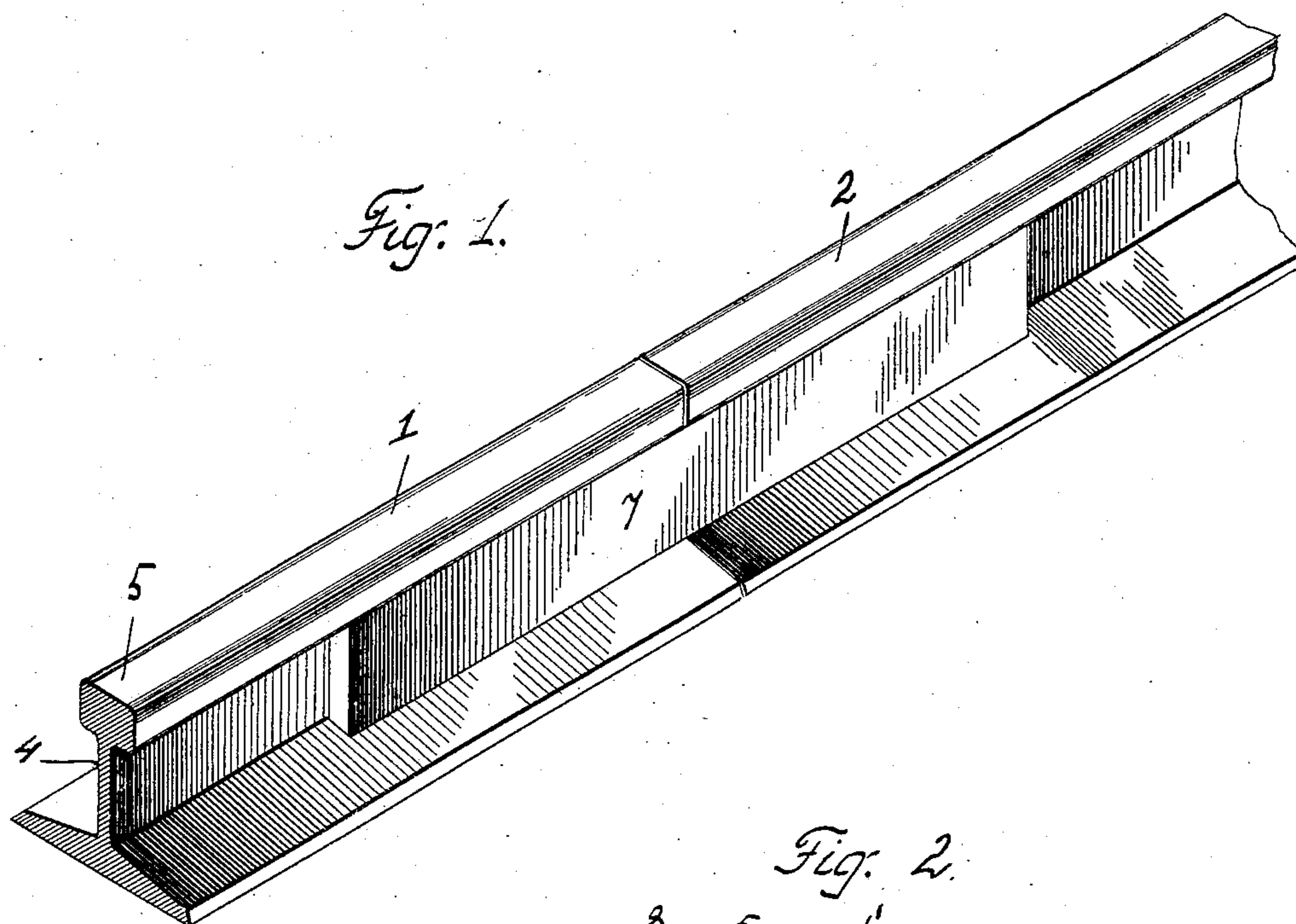


No. 884,268.

PATENTED APR. 7, 1908.

S. ENDERLE,
RAIL JOINT.

APPLICATION FILED AUG. 31, 1907.



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STEFAN ENDERLE, OF ALLEGHENY, PENNSYLVANIA.

RAIL-JOINT.

No. 884,268.

Specification of Letters Patent.

Patented April 7, 1908.

Application filed August 31, 1907. Serial No. 390,898.

To all whom it may concern:

Be it known that I, STEFAN ENDERLE, a subject of the Emperor of Austria-Hungary, residing at Allegheny, 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 drawing.

This invention relates to rail joints, and its object is to provide simple and inexpensive means for connecting the meeting ends of railway rails without the employment of nuts and bolts.

The construction of the improvement will be fully described hereinafter, in connection with the accompanying drawing which forms a part of this specification and its novel features will be set forth in the appended claims.

In the drawing:—Figure 1 is a view in perspective of a rail joint embodying the invention, Fig. 2 is an end elevation of the same, showing the fish plates in cross section, and, Fig. 3 is an end elevation of one of the rail sections.

In the drawings, I have shown in Fig. 1, a part of the adjacent ends of two rails, designated respectively 1 and 2. These rails are shown as being of the usual T-shape form having a web 4 and a tread or head portion 5.

In the base flange of each rail, at the end thereof, I provide longitudinal recesses 3 which extend in the flanges of the rails from a point near the ends thereof to said ends. These recesses are formed in each base flange, that is, a recess is provided at each side of the web 4; the web 4 constituting the inner wall of each recess, the base of each recess being at direct right angles to the inner wall of the recess, and the outer wall of the recess being at an inclination to the vertical, so that the recess is of dove-tail form along the outer wall thereof.

The tread or head 5 of the rail is provided on the underneath face with recesses 6, which recesses are of less width than the width of the head between the outer or side wall thereof and the side wall of the web. The inner side wall of these recesses 6 is in a plane with the side walls of the web 4, the top walls of the recess being at an angle to the inner wall, and terminating in the underneath face of the head at a point about midway between the inner wall of the recess 6 and the outer wall of the tread.

The fish plates 7 have their upper and

lower longitudinal edges shaped to conform to the shape of the recesses 3 and 6 respectively. To this end, the upper longitudinal edge of each fish plate 7 is provided with an outer longitudinal flat portion 8' and an inner longitudinally-extending inclined face 8 which conforms to the inclined top wall of the recess 6. The flat face portion 8' on the upper edge of each fish plate thus fits with the flat face portion 6' on the underneath face of the side of the rail tread or head.

The lower longitudinal edge of each fish plate 7 fits with the bottom wall of the recess 3 and each of said fish plates is provided on its outer face adjacent the lower edge with an inclined face 9 projecting beyond the side wall of the plate 7 and fitting with the inclined outer wall of the recess 3. Thus, when the fish plates are slid into position in the recesses 3 and 6, respectively they are securely held against lateral displacement without requiring any separate means for fastening the same to the rails.

In practice, the fish plates 7 are inserted into position in the respective recesses 3 and 6 in one rail and the end of the other rail then inserted into position between the fish plates.

It will be apparent that the fish plates do not require supplemental fastening means, and that the improvement avoids the weakening of the rails by the formation of bolt holes therein.

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

The combination with railway rails, having recesses formed in the base flange thereof at each side of the web, the inner wall of said recesses being flush with the side walls of the web of said rails, the bottom wall of said recesses being at direct right angles to the inner walls thereof, and the outer wall of said recesses inclining towards the web, the head member of said rails being provided with recesses of less width than the width of the head member on each side of the web, the said recesses in the underneath face of the head member having the inner wall thereof in line with the side walls of the rail web and the top wall inclining downwardly and terminating on the underneath face of the head member at a point removed from the side walls of said head member, and fish plates to engage in said recesses, the upper longitudinal edges of said fish plate having a flat face

along the outer edge to engage the flat face on the underneath part of the rail head, and having an inclined face projecting above said flat face and fitting the inclined top wall of the recess in said head, the lower longitudinal edges of said fish plates fitting the base wall of the recesses in the rail flanges, and said fish plates having an inclined wall on their outer face adjacent the lower edge fit-

ting with the inclined wall of said recesses in the base flange.

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

STEFAN ENDERLE.

Witnesses:

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