

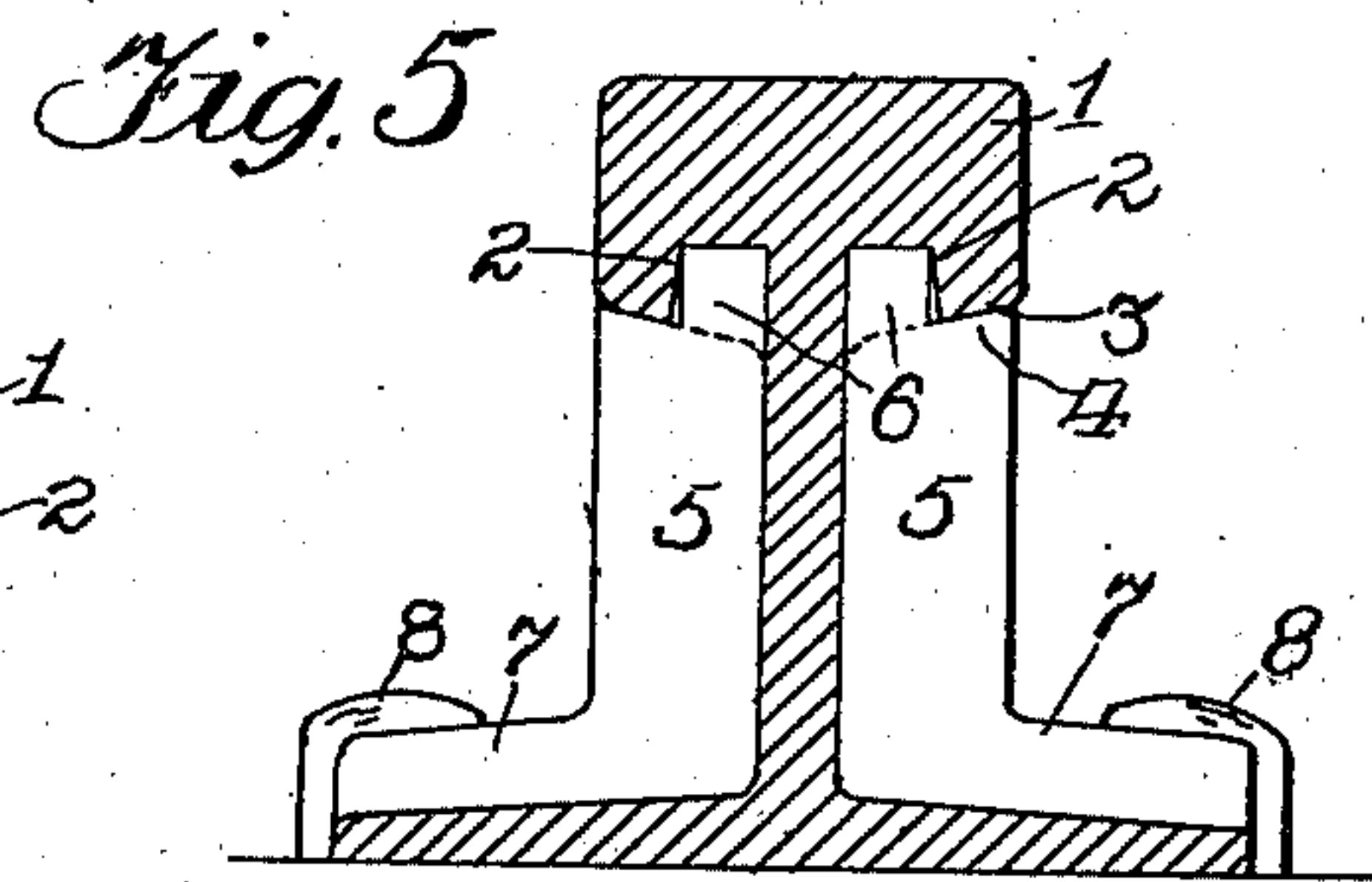
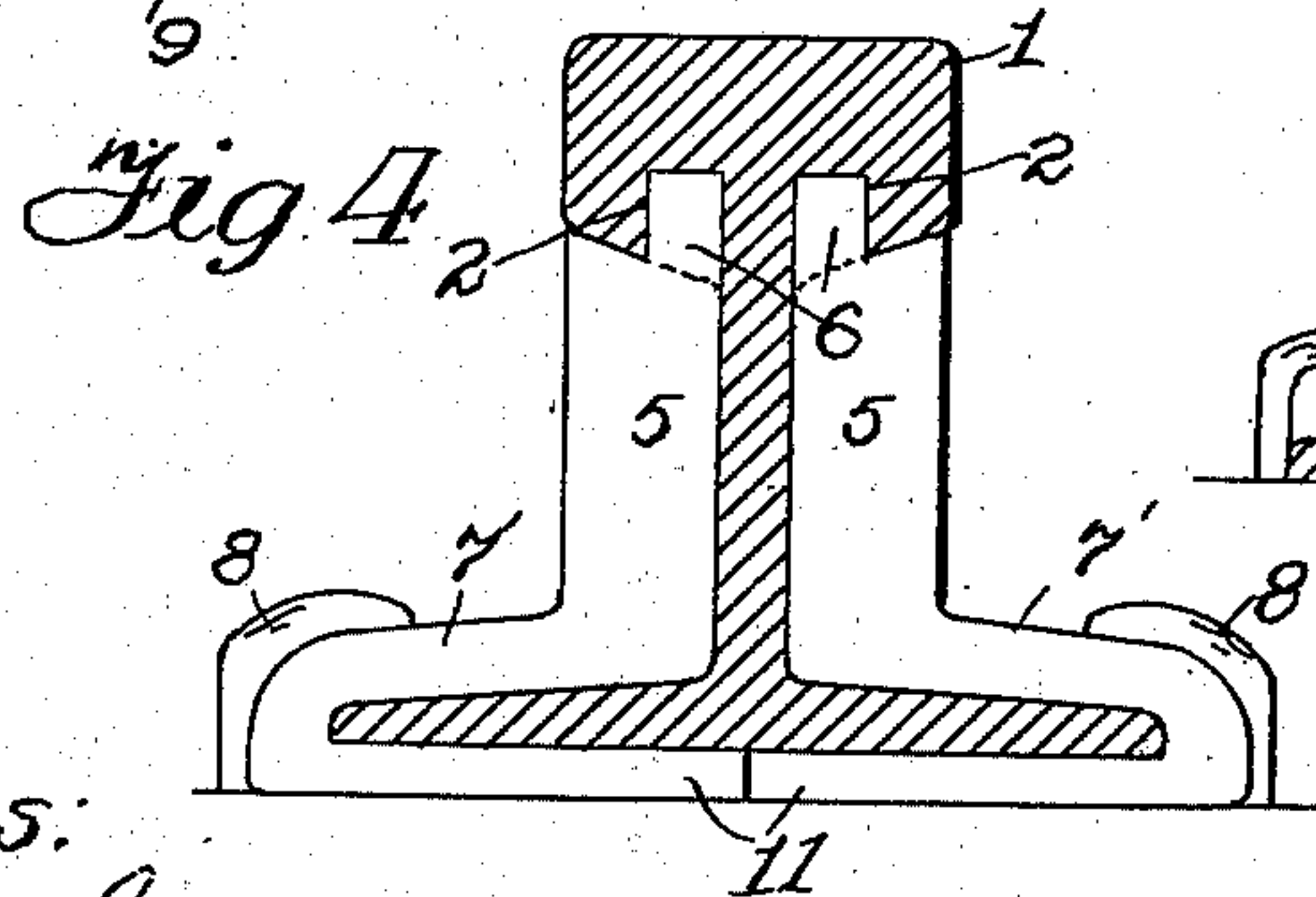
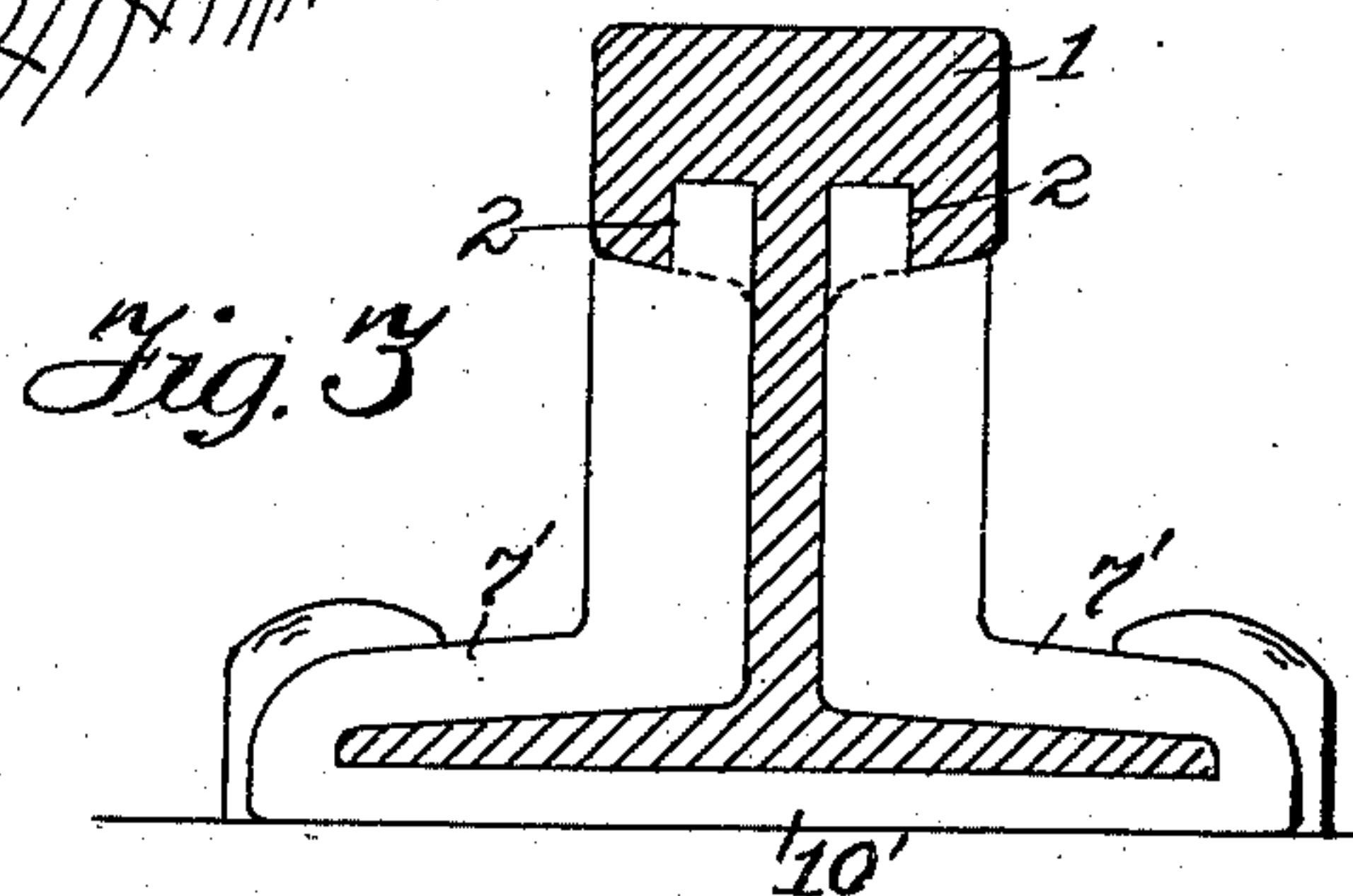
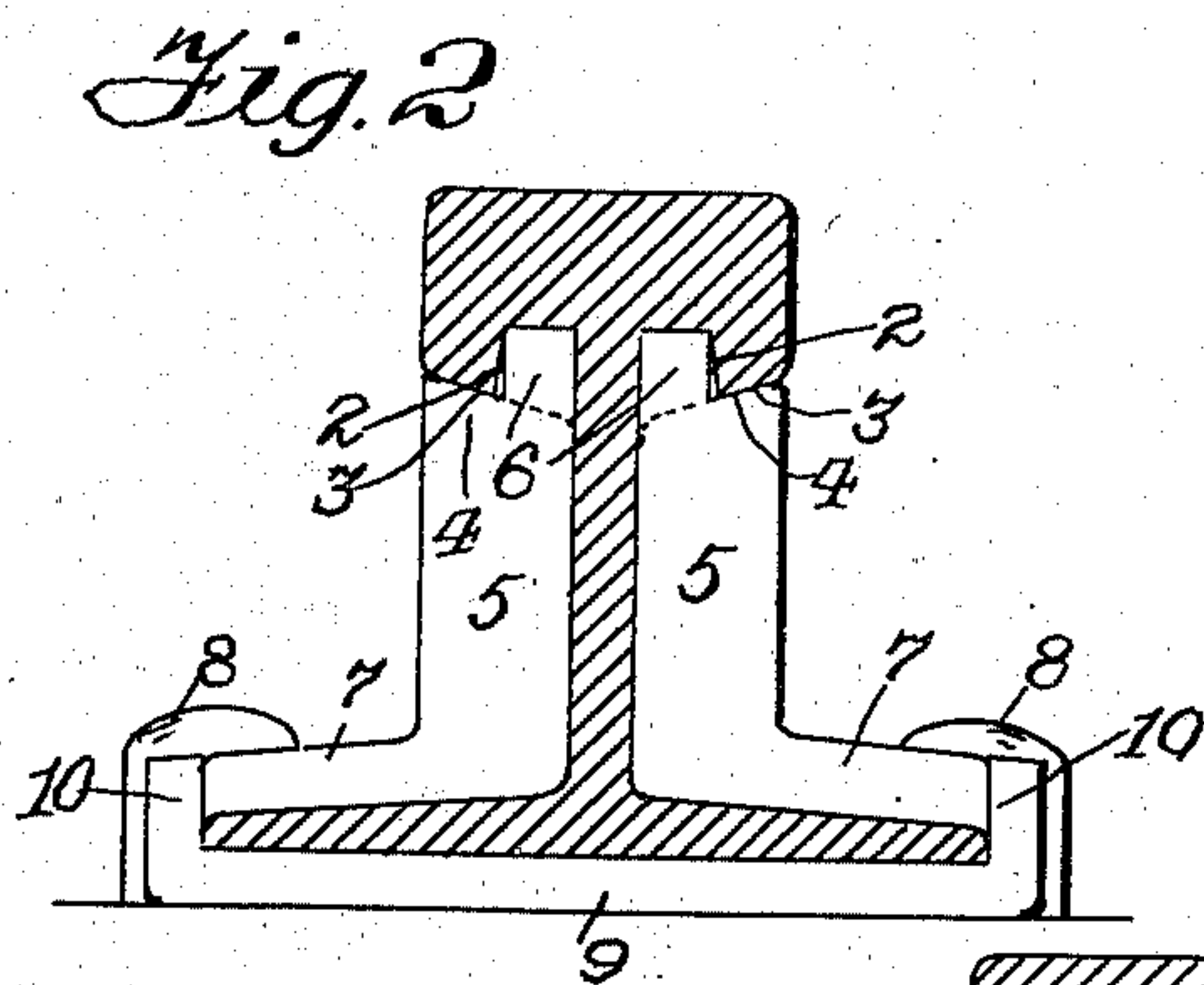
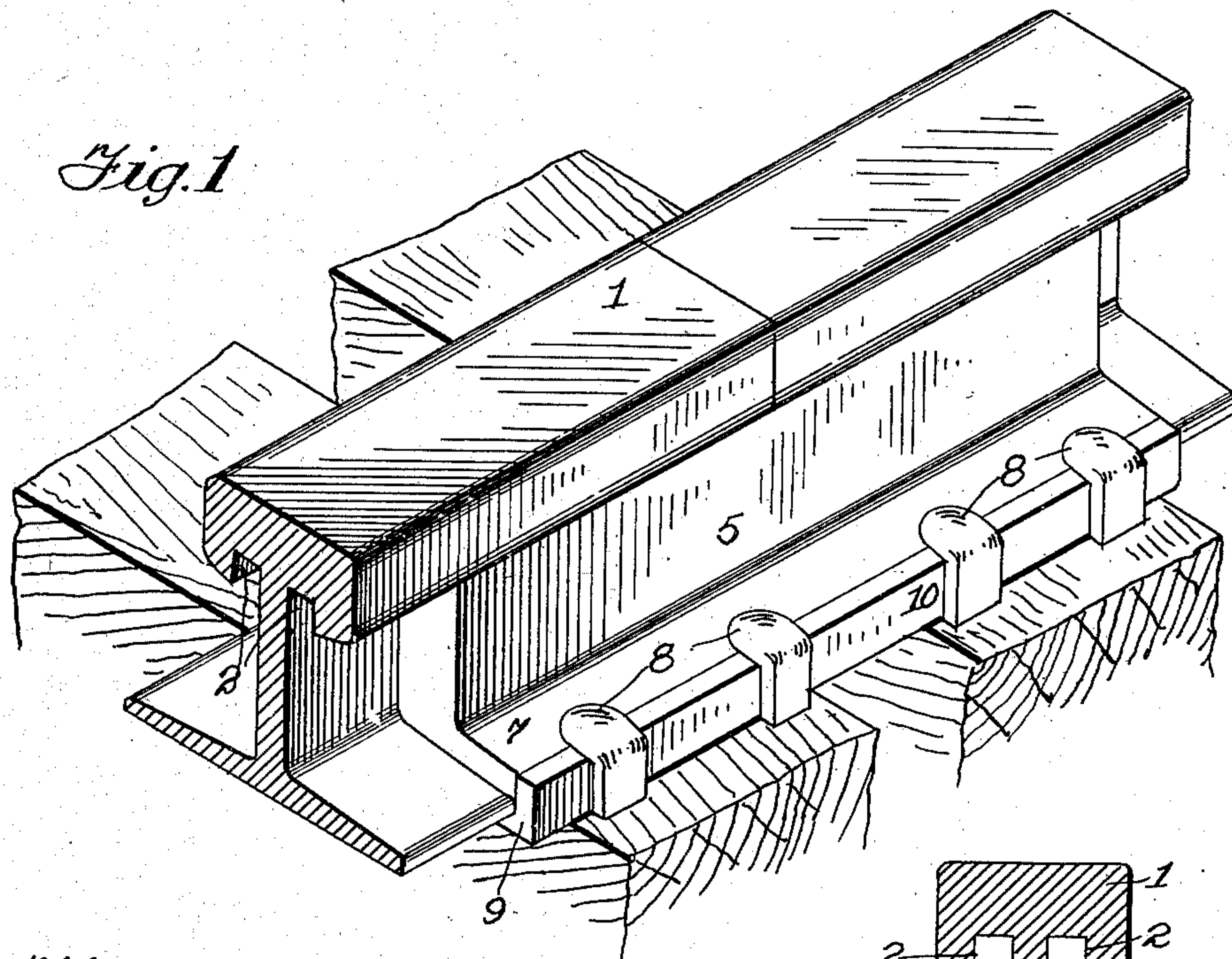
No. 749,333.

PATENTED JAN. 12, 1904.

E. J. SCHINDEHÜTTE.
RAIL JOINT.

APPLICATION FILED SEPT. 5, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

ERNEST J. SCHINDEHÜTTE, OF McKEES ROCKS, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 749,333, dated January 12, 1904.

Application filed September 5, 1903. Serial No. 172,063. (No model.)

To all whom it may concern:

Be it known that I, ERNEST J. SCHINDEHÜTTE, a citizen of the United States of America, residing at McKees Rocks, 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 the invention has for its primary object to construct an efficient and durable joint without the use of bolts and nuts and at the same time provide
15 for the strengthening of the rails at the joint.

Briefly described, my invention consists in providing a pair of fish-plates, the vertical bar of which is provided on its upper edge with a rib or tongue adapted to fit within a channel
20 or groove provided therefor in the underneath face of the rail-tread. The fish-plate is made of a thickness equal to the distance between the outer face of the rail-web and the outer face of the rail-tread, the rib or tongue on the
25 upper edge of the fish-plate being of less thickness than the plate and the latter being engaged at its upper edge outside the tongue by the base of the rail-tread. I may use the fish-plates in connection with or without a chair-
30 plate or may form the fish-plates integral with a chair-plate, all of which construction will be hereinafter more specifically described and then particularly pointed out in the appended claim.

35 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 different views of the drawings, in which—

40 Figure 1 is a detail perspective view of a rail-joint constructed in accordance with my invention. Fig. 2 is a transverse vertical sectional view of the rail, showing the fish-plates in end elevation. Fig. 3 is a like view of a modified form of construction. Fig. 4 is a like view of another modified form of construction, and Fig. 5 is a like view showing
45 the use of my improved fish-plates without the employment of a chair-plate.

To put my invention into practice, I provide the tread 1 of the rails with grooves or channels 2 in the underneath face thereof, the web of the rail at the upper edge of the latter forming one wall of the groove and the lower edge
55 of the rail-tread outside the groove being at an angle, as shown at 3, to engage the inclined upper edge or shoulder 4 of the fish-plate 5. This fish-plate at its upper edge is provided with a longitudinal rib or tongue 6, extending
60 the length of the fish-plate and which is adapted to be received in the groove or channel 2, the latter where the fish-plates are adapted to be placed in position from the side of the rails, as in the construction shown in
65 Fig. 5, being slightly wider at the base than at the top, so as to permit the entrance of the rib or tongue. The provision of the rib or tongue and the increasing of the thickness of the plate materially increases the strength of
70 the joint, the rail-tread when under pressure having a bearing both on the upper edge of the rib or tongue and on the shoulder 4 of the fish-plates. The base 7 of the fish-plates is adapted to rest upon the upper face of the rail-
75 base, as seen in Figs. 1 and 2 and 5, and be engaged by the securing-spikes 8.

In Figs. 1 and 2 I show the employment of a chair-plate 9, provided with upwardly-extending side flanges 10, against the inner wall
80 of which the outer edge of the base 7 engages.

In Figs. 3 and 4 I show the base of the fish-plates formed integral with the rail-chair, in Fig. 3 showing the base 7', fish-plates 5, and chair-plate 10' all in one piece, while in Fig.
85 4 I show the joint made in two pieces, the members 11 of the chair-plate being equally divided on each section of the joint.

With the construction shown in Fig. 5 it will be observed that the fish-plates may be
90 placed in position from the side and then spiked down. This is also true of the construction shown in Figs. 1 and 2, and after the fish-plates have been positioned the chair-plate 9 is placed in position. It is possible
95 also to so insert the fish-plates shown in Fig. 4, or, in this construction, as will be required in the construction shown in Fig. 3, the fish-plates and chair-plate may be moved longitudinally, the grooves or channels 2, if not
100

extended the length of the rail, being of sufficient length to permit the shifting of the plates onto one rail until the end of the adjacent rail is brought into line therewith, when the fish-plates are moved up over the joint. The fish-plates being flush with the side faces of the tread gives a full bearing for the underneath face of said tread, whereby to materially strengthen the joint. No bolts and nuts will be required, and the joint is quickly made.

While I have herein shown and described the invention in detail, yet it will be evident 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 as new, and desire to secure by Letters Patent, is—

In a device of the type set forth, the combination with the rails having a groove in the underneath face of the tread at each side of the

web, of fish-plates having their outer faces flush with the outer face of the rail-tread, tongues extending the length of the fish-plates on their upper edges and engaging in said grooves, bases formed integral with said fish-plates and extending flush with the longitudinal edges of the rail-base, and the chair upon which said rails seat, said chair being provided with upwardly-extending side flanges lying substantially flush with the upper face of the fish-plate bases, and spikes in contact with said side flanges of the chair, and having their heads overlying and engaging the outer faces of the fish-plate bases.

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

ERNEST J. SCHINDEHÜTTE.

Witnesses:

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L. E. EVERT.