

T. F. SHERIN.
RAIL JOINT.
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964,454.

Patented July 12, 1910.

Fig. 1.

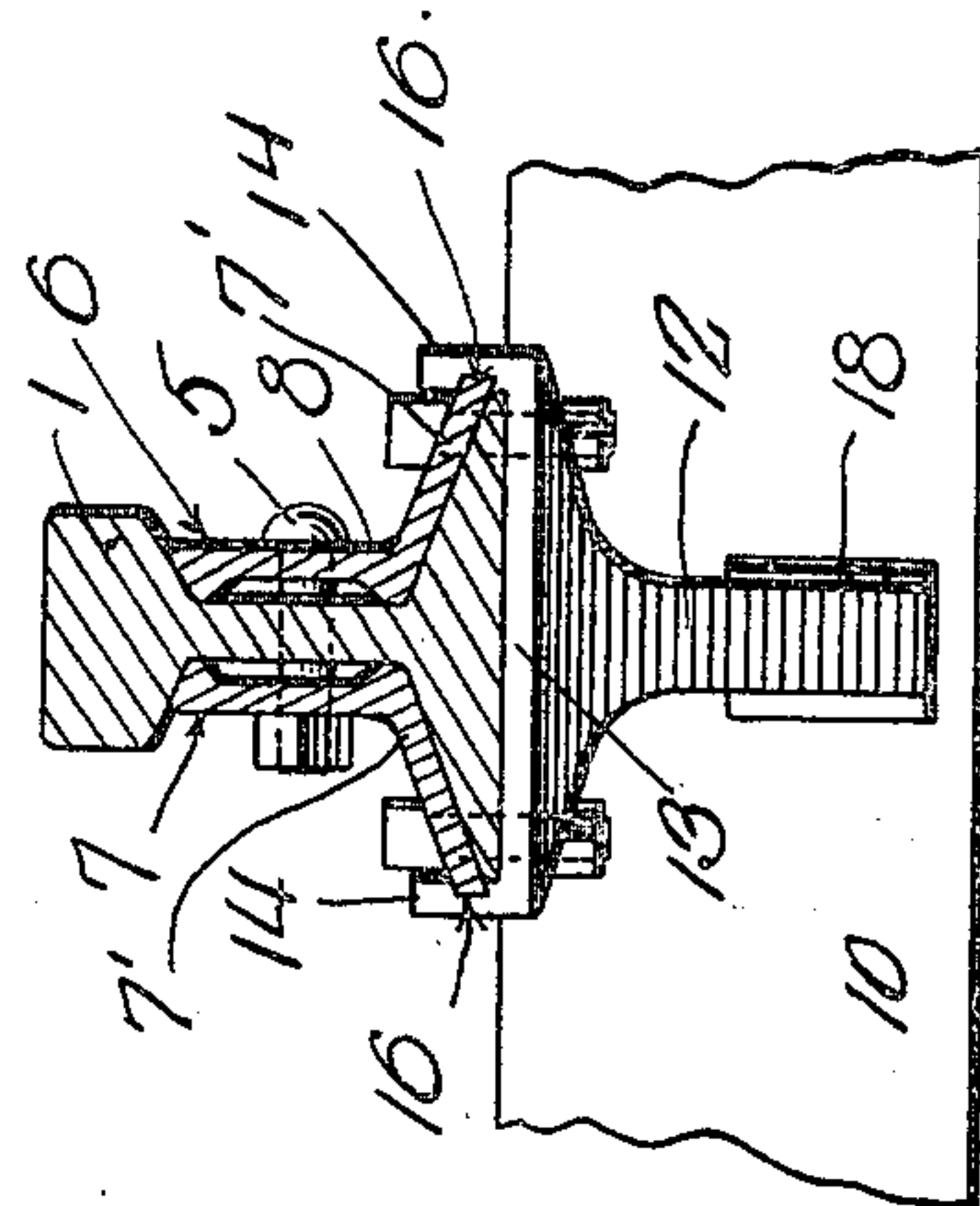
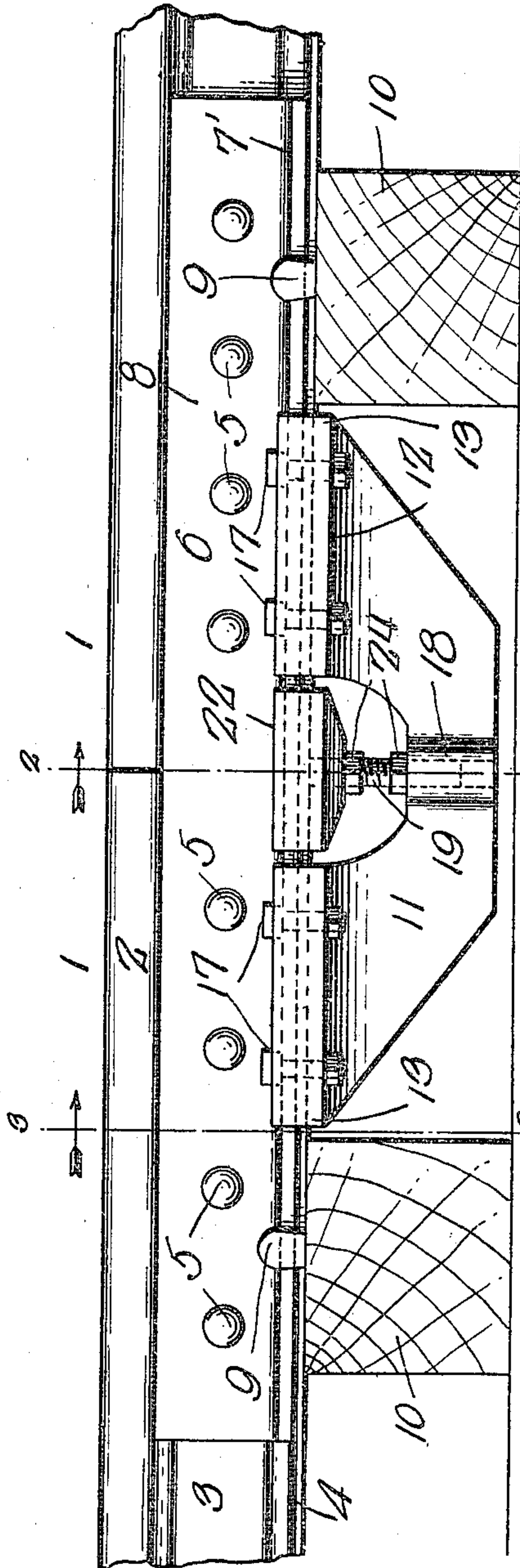


Fig. 3.

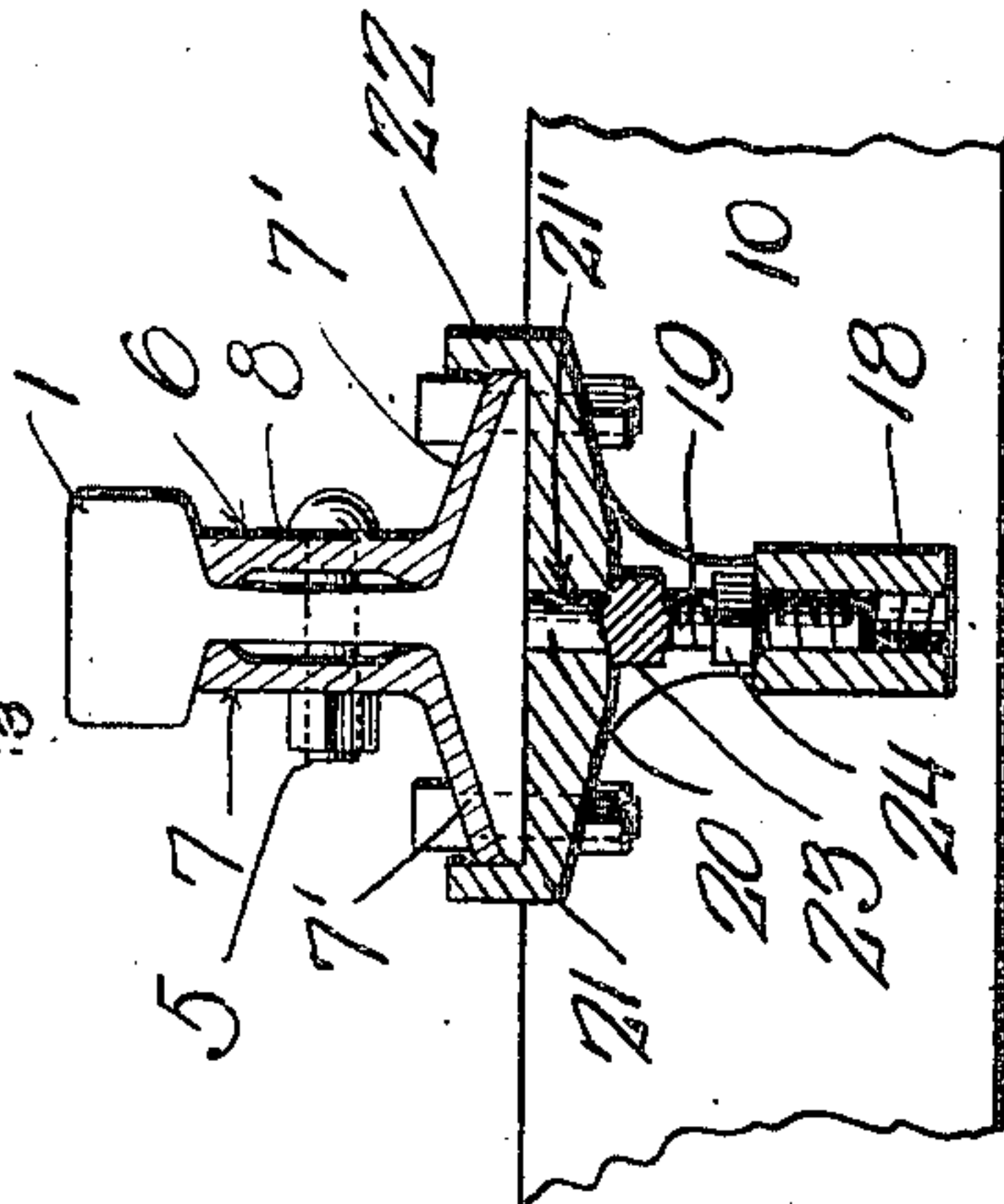


Fig. 2.

Witnesses

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RAIL-JOINT.

964,454.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, TIMOTHY F. SHERIN, a citizen of the United States, residing at Whitinsville, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to improvements in rail joints, and the object of the invention is to provide a device of this character which may be easily and quickly applied to the meeting ends of a pair of rails and which is so constructed as to provide a substantially continuous rail for entirely preventing the sagging or lateral movement of the rails at their point of juncture, thus obviating the noise and jar incident to the rolling stock passing thereover and materially adding to the life of the rails as well as to the comfort of the traveling public.

With the above objects in view, and others which will appear as the description progresses, the invention resides in the novel construction and combination of elements hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the improvement, and in which:—

Figure 1 is a side elevation of the contiguous ends of a pair of rails connected by the improvement. Fig. 2 is a vertical transversely sectional view upon the line 2—2 Fig. 1. Fig. 3 is a similar view upon the line 3—3 Fig. 1.

In the accompanying drawing the numeral 1 designates the contiguous ends of a pair of rails. These rails are of the ordinary construction, each comprising a head 2, web 3, and base flange 4 and the webs of the rails are each provided with a plurality of transversely arranged slots or openings which are adapted for the reception of suitable securing elements 5, whereby the fish plates 6 and 7 are connected with the rails. The fish plates each comprise an overlying flange 7, adapted to engage with the bevel upper face of the base flange 4 of the rails, and a vertically extending, integrally formed member 8 which has its upper face underlying the under faces of the heads 2. The fish plates 7 and 8 are each provided with longitudinally extending beads or offsets upon their inner faces so that the

vertical members of the plates are positioned a suitable distance away from the sides of the webs and provide reinforcements for their point of engagement with the rails. The plates 7 and 8 are of a sufficient length to extend a suitable distance along the sides of the rails, and the edges of the overlying flanges 7 are provided with a plurality of spaced openings, the outer members of which being adapted for the reception of suitable spikes 9 adapted to enter the ties 10 upon which the rails are positioned.

The numeral 11 designates the rail chair. This rail chair comprises a centrally arranged body portion 12 provided with an enlarged horizontally flat plate or member 13, which is of a width corresponding with the width of the base flange 4 of the rails. The outer edges of the plate 13 are provided with vertically extending offsets 14, and the said offsets have their inner faces provided with longitudinally extending grooves 16, which are adapted for the reception of the overlying flanges 7' provided by the fish plates 7 and 8. The plate 13 as well as the base flanges 4 of the rails are provided with a plurality of openings adapted to aline with the openings in the overlying flanges 7' when the chair 11 is positioned between two of the ties 10, and these openings are adapted for the reception of the headed securing elements 17, whereby the chair 11 is effectively connected with the fish plates and with the base flanges of the rails. By this arrangement, it will be noted that I have provided a comparatively simple and thoroughly effective device for preventing the sagging of rails at their point of meeting and one which may be easily and quickly attached or removed from the rails when desired. The chair 11 has its central portion cut away on the upper side, the remaining part thereof being enlarged and its upper wall arranged in a substantially horizontal plane. The enlargement, designated by the numeral 18 is provided with a threaded bore, which is adapted for the reception of a threaded lower portion 19 of a spindle 20. The said spindle 20 has integrally formed thereon, a preferably rectangular enlargement 23 which is adapted to serve as a wrench hold whereby the said spindle may be rotated. The smoothed upper portion 20 of the spindle is circular in cross sec-

tion and is adapted to engage within a centrally arranged bore 21' provided by a rail seat 21. The rail seat 21 is of a width corresponding to the width of the base flanges 5 of the rails, and the said seat is provided upon its ends with vertical offsets 22, which contact the edges of the flanges and the edges of the fish plates of the rails. It is, of course, to be understood that the chair 10 11 is positioned directly beneath the point of meeting of the rail members 1, and by providing the device with the threaded spindle 19, it will be further noted that the seat 21 may be easily and quickly forced 15 into contact with the base flanges of the rails. In order to relieve the threads of the spindle, a binding nut 24 is provided, which normally bears upon the horizontal face of the cut-away portion of the member 11. 20

From the above description taken in connection with the accompanying drawing, it will be noted that I have provided a simple, strong and effective device for the purpose set forth, and it is to be understood 25 that while I have illustrated the preferred embodiment of the improvement, as it now appears to me, minor details of construction within the scope of the following 30 claims, may be resorted to if desired.

Having thus described the invention, what I claim as new is:—

1. In combination with the meeting ends of a pair of rails, fish plates for the rails, 35 said fish plates being provided with overlying flanges, a chair for the rails, said chair being provided with an elongated body portion having integrally formed plates adapted to engage the under faces of the rails, the 40 plates having their ends provided with vertical offsets, the said offsets having their inner faces provided each with a longitudinally extending groove adapted to engage the overlying flanges of the fish plates, 45 means for connecting the chair with the rails and the fish plates, the chair having a central portion cut away, and an adjustable

seat positioned within this cut-away portion and adapted to engage beneath the flanges of the rails at their point of connection.

2. In combination with the meeting ends of a pair of rails and fish plates provided with overlying flanges therefor, of a chair for the rails, said chair being provided with a central body portion having integrally formed horizontally straight plates, the ends of the plates being provided with vertical offsets, the inner faces of the offsets having longitudinally extending grooves adapted to engage with the flanges of the fish plates, a 6 seat positioned central of the chair plates, said seat having its edges provided with vertical offsets adapted to engage the edges of the base flanges and the edges of the overlying flanges of the fish plates of the rails, 6 and adjustable means for retaining the seat in contact with the rails.

3. In combination with the meeting ends of a pair of rails, and fish plates provided with overlying flanges therefor, of a rail 7 chair, said chair comprising a body portion having each of its ends integrally formed with horizontally straight plates, the longitudinal edges of the plates being provided with vertical offsets, a seat between the chair 7 plates, said seat being provided with a central opening, the central portion of the chair between the plates being provided with a threaded opening, a spindle, said spindle being provided with an enlargement and hav- 80 ing one of its ends projecting beyond the enlargement smooth and adapted to engage the opening within the seat, and the opposite end below the enlargement threaded and adapted to engage the threaded opening in 85 the chair body, substantially as and for the purpose set forth.

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

TIMOTHY F. SHERIN.

Witnesses:

AMÉDÉ MORIN,
LEVI RASCO.