

J. ELLIS.  
 COMBINED RAIL COUPLING AND CHAIR.  
 APPLICATION FILED MAR. 7, 1911.

999,103.

Patented July 25, 1911.

Fig. 1

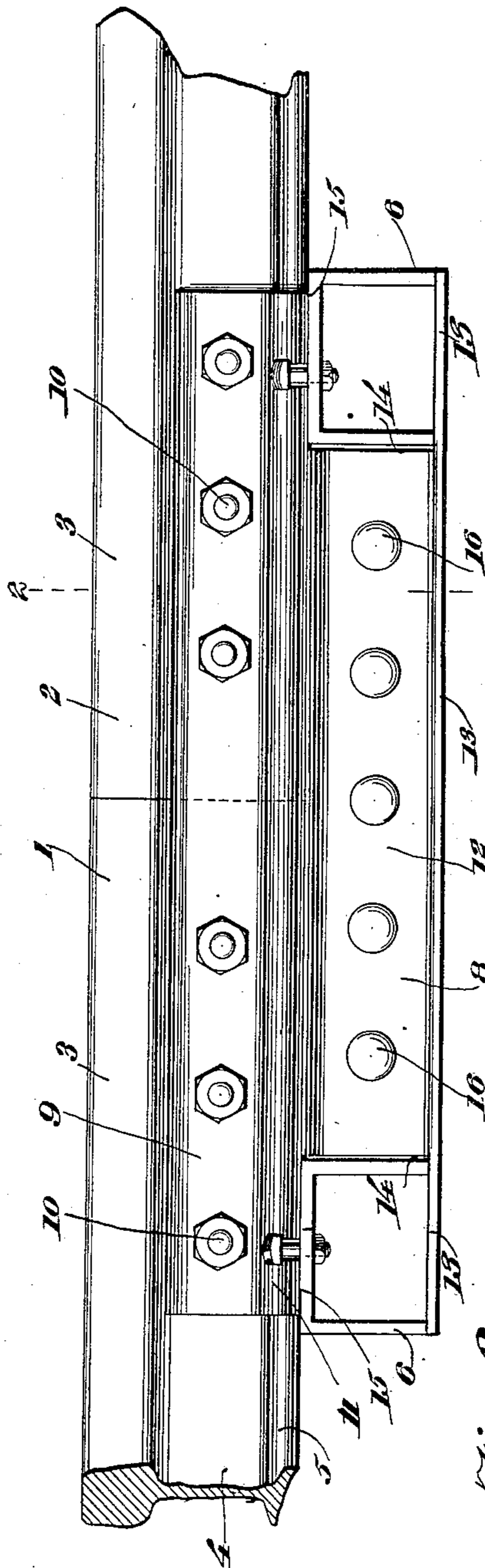


Fig. 2

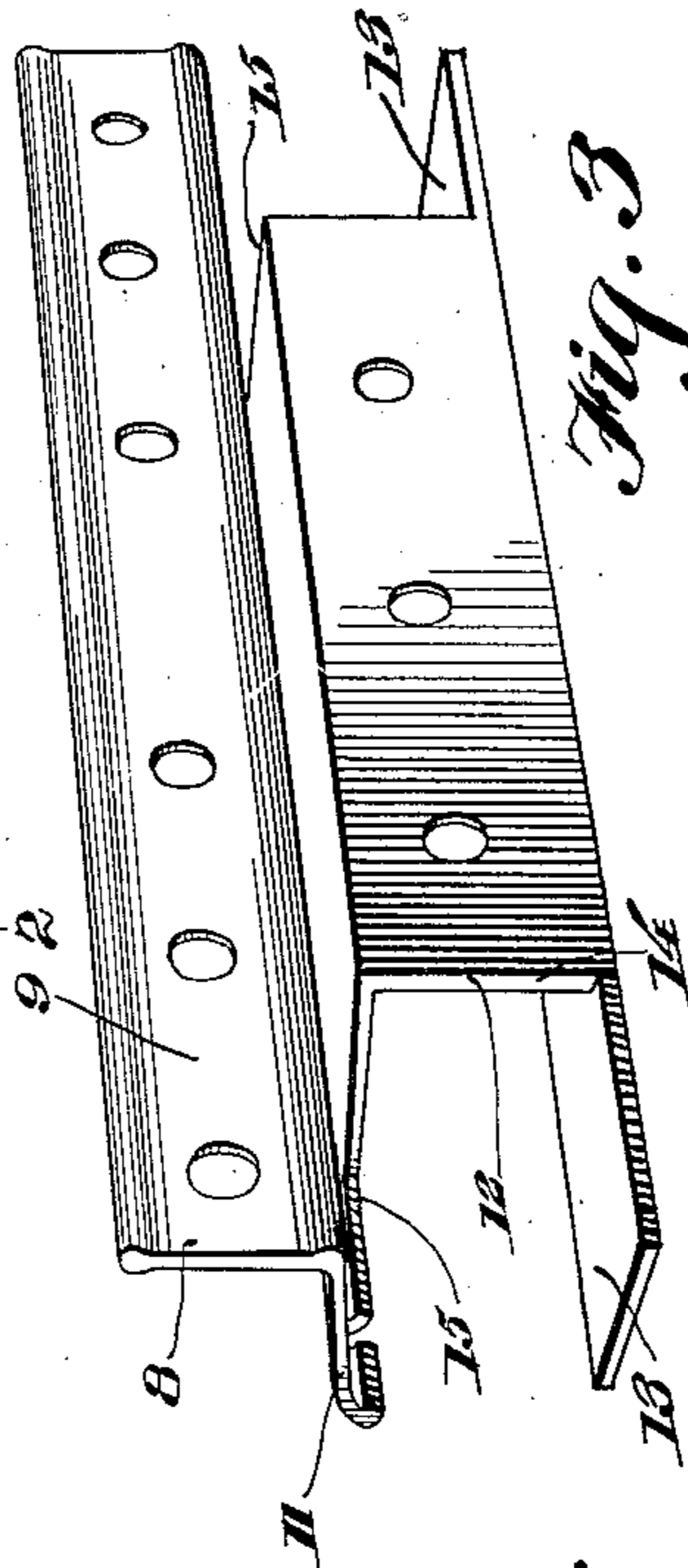
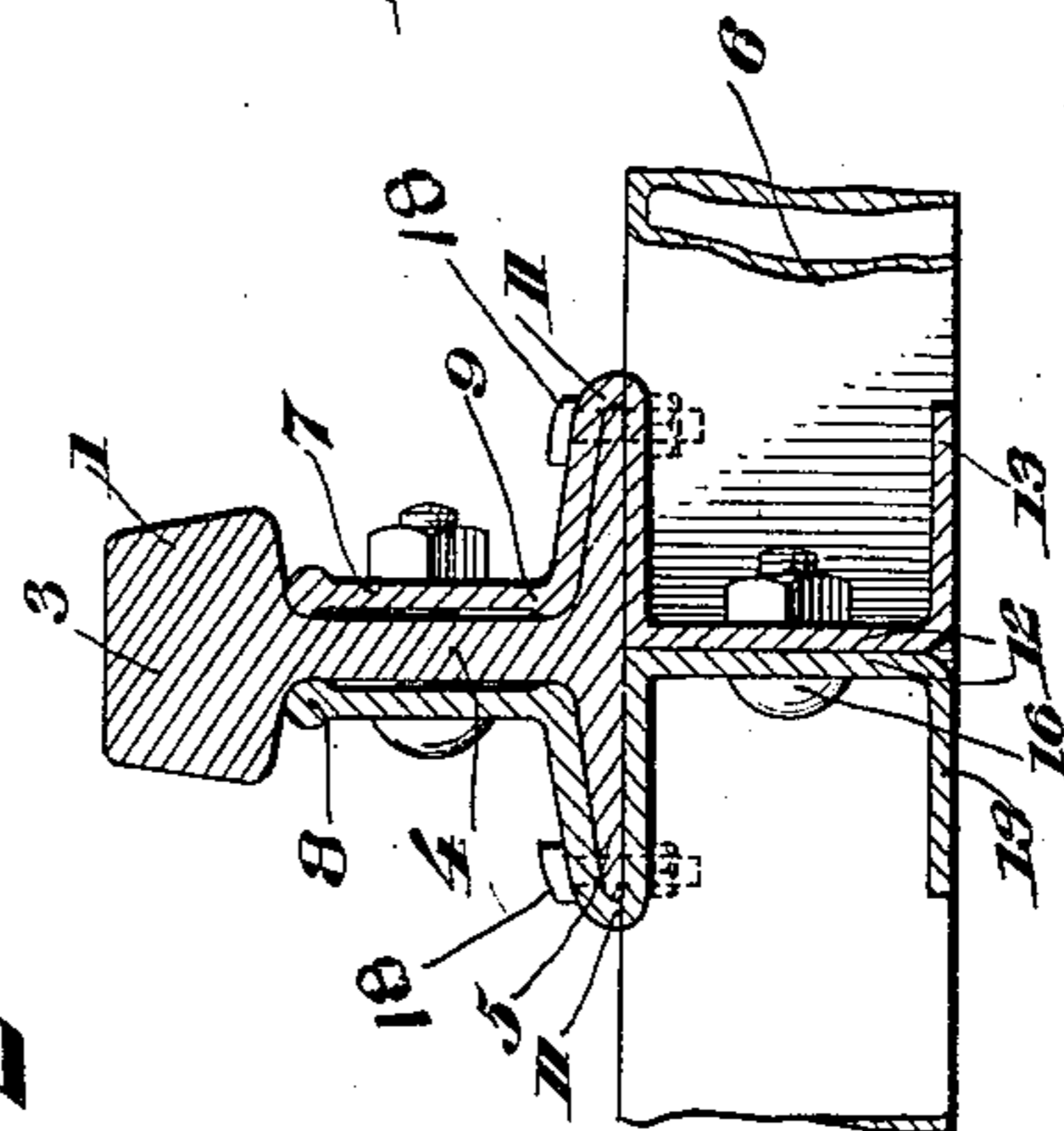


Fig. 3



Witnesses  
 All Gardes,

*Edwards*

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# UNITED STATES PATENT OFFICE.

JOHN ELLIS, OF CULPEPER, VIRGINIA, ASSIGNOR TO THE ELLIS RAIL COUPLING AND CHAIR CO., OF CULPEPER, VIRGINIA, A COPARTNERSHIP.

COMBINED RAIL COUPLING AND CHAIR.

999,103.

Specification of Letters Patent. Patented July 25, 1911.

Application filed March 7, 1911. Serial No. 612,730.

*To all whom it may concern:*

Be it known that I, JOHN ELLIS, a citizen of the United States, residing at Culpeper, in the county of Culpeper and State of Virginia, have invented new and useful Improvements in Combined Rail Couplings and Chairs, of which the following is a specification.

This invention relates to combined rail couplings and chairs and the object of the invention is to provide a simple, efficient and durable device which will connect the ends of the rails together and which will support them upon the ground.

A further object of the invention is the provision of a device of this character which may be attached to the rails and which will coact with the ordinary ties and connect with the same so as to cause any movement communicated to the rail to be imparted to the ties.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing, which forms a part of this application, and in which:—

Figure 1 is a side elevation showing the device connected to the rail and ties. Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1. Fig. 3 is a detail perspective view of one of the members removed from the rail.

Referring more particularly to the drawings, 1 and 2 represent the ends of the separate rails to be connected. These rails are provided with the usual head 3, web 4 and base flanges 5, and are supported upon the ties 6, in this instance shown to be formed of metal substantially U-shaped in cross section. It is to be understood, however, that these ties may be the usual wooden ones or of any preferred form, it being only necessary to modify the construction of attaching devices to be hereinafter described.

The coupling members are illustrated at 7 and 8 and as both are similar in every respect one only will be hereinafter described. Each plate comprises a single integral piece of metal either bent or cast in the form shown and each embodies a fish plate portion 9 which is apertured to receive the connecting bolts 10. Extending laterally from the fish plate portion 9 is the base flange portion 11 which is substantially U-shaped

in cross section so as to have one member thereof lying against the base flange of the rail. The portion of each coupling plate just described is supported upon the web 12 and the base flange 13, the latter extending beneath the ties 6 and the former being cut away, as at 14, so as to permit the ties to be inserted between the rail and the base flanges 13. The base flange portion 11, which lies beneath the flange of the rail, is also cut away to permit the rail to rest directly upon the ties, as shown at 15, and the webs of both coupling members are connected together by bolts 16.

The rails are preferably notched at the edges of their base flanges and registering with these notches are similar notches formed in the base flange portions 11 of the coupling plates to receive the attaching bolts 18 which pass through the same and through apertures in the ties, so as to connect the ties, the rails and the coupling members together, preventing lateral movement of the rails upon the ties and also preventing longitudinal creeping of the rails. Where wooden or cement ties are used, the type of fastening devices must be somewhat modified to prevent expensive installation.

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

1. The combination, with rail ends to be connected and supporting ties therefor, of coupling members arranged on opposite sides of the rails and between the ties, means to connect said coupling members together and to hold them upon the rails, means to connect said coupling members to the ties, and means on the coupling members for supporting the rails, said means extending beneath the ties.

2. The combination, with rail ends to be connected and supporting ties therefor, of coupling members arranged on opposite sides of the rails and having supporting webs extending to a point approximately flush with the lower side of said ties, bolts connecting said webs together, bolts passing through the rails and connecting the coupling members and rails together, base flanges extending laterally from the webs, and extensions on one of the base flanges arranged beneath the ties.

3. The combination with rail ends to be connected and supporting ties therefor, of

coupling members arranged on opposite sides of the rails between the ties, means to connect said coupling members to hold them upon the rails, and means on the coupling  
5 members for supporting the rails together with extensions on said last means extending beneath the ties.

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

JOHN ELLIS.

Witnesses:

J. J. ROBERTS,

JNO. S. COVINGTON.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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