

N. S. BABCOCK.
RAIL CHAIR.
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995,941.

Patented June 20, 1911.

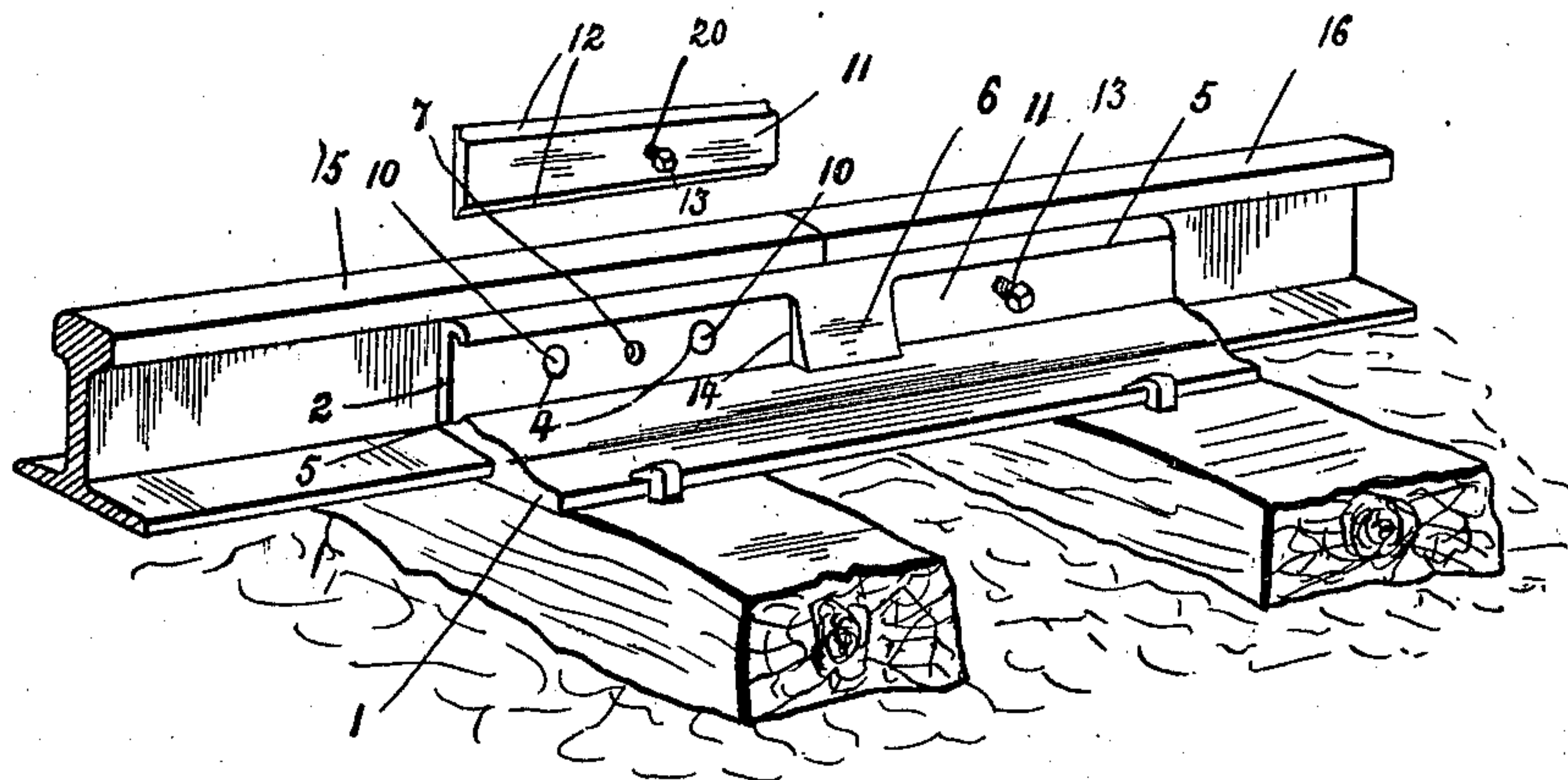


Fig. 1.

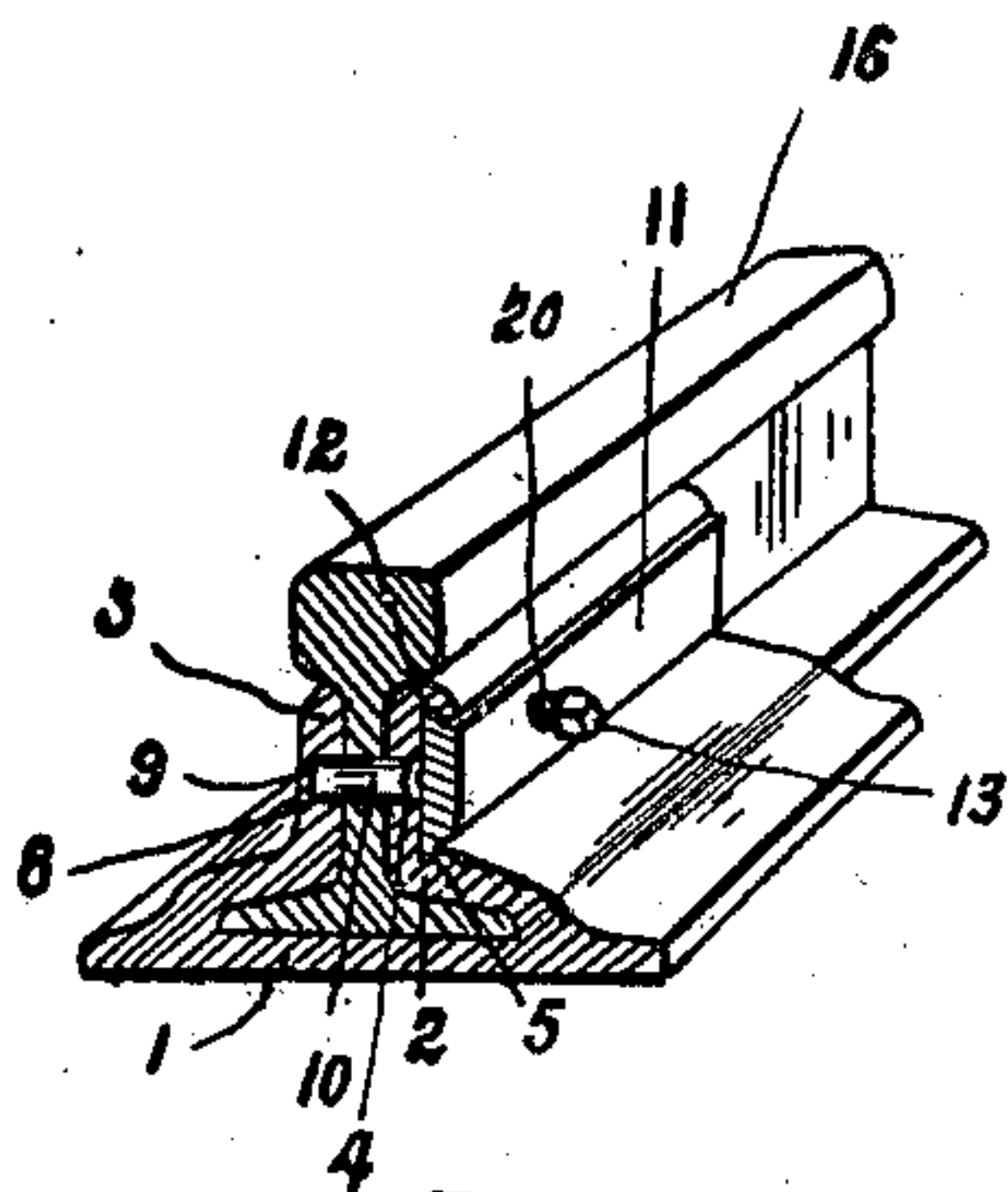


Fig. 2.

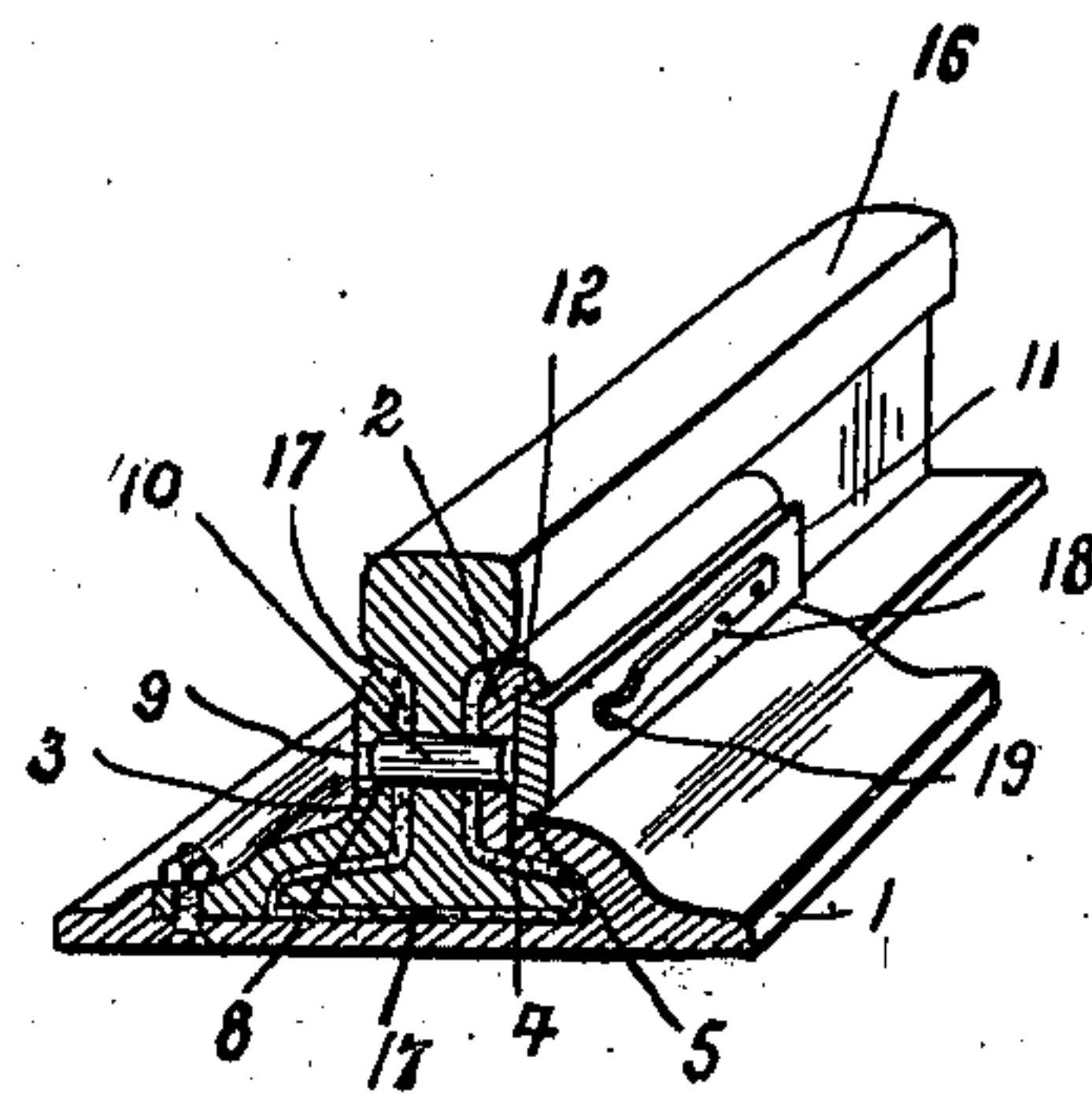


Fig. 3.

Witnesses.
T. R. Balmer.
C. Eckstein.

Inventor.
N. S. Babcock.
by Lloyd Blackmore Atty

UNITED STATES PATENT OFFICE.

NORMAN STUART BABCOCK, OF MATAWATCHAN, ONTARIO, CANADA, ASSIGNOR OF
ONE-HALF TO WILLIAM D. WILSON, OF MATAWATCHAN, CANADA.

RAIL-CHAIR.

995,941.

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To all whom it may concern:

Be it known that I, NORMAN STUART BABCOCK, a subject of the King of Great Britain, residing at the town of Matawatchan, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Rail-Chairs, of which the following is a specification.

The invention relates to improvements in rail chairs, as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially of a base having flanges extending upwardly therefrom and fitting against the sides of the rails, said flanges having suitable orifices therethrough for the reception of pins which extend through the regular orifices in the ends of the rails and keeper-plates suitably secured over said pins.

The objects of the invention are to provide a rail chair which shall be cheap to manufacture and of strong and durable construction, and obviate the necessity of using bolts and nuts to join the ends of the rails together, and which shall be very secure when fastened in place on the ends of the rails, and thereby minimize the wear of the rails at the joints thereof.

In the drawings, Figure 1 is a perspective view of the clamp as applied to rails, showing one of the keeper-plates removed. Fig. 2 is a sectional perspective view of the rail chair. Fig. 3 is a sectional perspective view of the rail chair used as an insulator and having one side flange thereof removable.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is a base plate, which may be of any desired length to extend over any number of ties. The base plate 1 has the side flanges 2 and 3 extending longitudinally thereof, and formed to fit over the base of the rails and against the web thereof, said flanges terminating immediately below the tread of said rails. The flange 2 has the orifices 4 therethrough and the dove-tailed grooves 5 in the outer side thereof over said orifices 4, said grooves extending from the ends of the flange to a point adjacent to the center thereof, and leaving the block 6, which materially strengthens the flange 2 in the center.

7 are recesses extending partway into the outer side of the flange 2.

8 are recesses in the inner side of the flange 3 in alinement with the orifices 4 in the flange 2.

9 are orifices extending through the flange 3 concentrically with the recesses 8.

10 are pins extending through the orifices 4, and into the recesses 8, said pins being perfectly plain and of sufficient length, so that when inserted in the orifices 4, the ends thereof come flush with the bed of the grooves 5.

11 are keeper plates having the flanges 12, and sliding into the grooves 5 over the pins 10, and having the threaded orifices 20 therethrough for the reception of the set-screws 13, said set-screws turning through the orifices 20 into the recesses 7, and effectually preventing the keeper plates 11 from sliding from over the pins 10. The said keeper plates at the inner ends thereof abut against the stops 14, which brings the set-screws 13 in register with the recesses 7.

In joining the ends of two rails such as 15 and 16 in the chair, the chair is slid onto an end of one rail as 16, until the outer end of the chair comes flush with the end of the rail. The second rail 15 is then brought into alinement with the rail 16, on which the chair has been placed, and the chair moved back, so that half of the chair is under the rail 15, the orifices 9 being so arranged that they are in alinement with the regular bolt holes in the ends of the rails, and when the pins 10 are inserted as above explained and the keeper plates secured in place, a very firm joint is made without the use of bolts and nuts as is customary.

As shown in Fig. 3, the flanges 2 and 3, as also the base 1 may be lined with fiber if it is desired to insulate the rails one from the other when joined in the chair. The pins 10 will also be made of fiber, and if desired the flange 3 may be separated from the base and bolted thereto.

As further illustrated in Fig. 3, the set-screws 13, as hereinafter described with reference to Figs. 1 and 2, may be replaced by spring fingers 18 secured by rivets or in any suitable manner to the plates 11, and having the spring ends thereof turned inwardly, and projecting through the orifices 20 in said plates into the recesses 7 in the flange 2 of the chair, whereby said keeper plates will be effectually prevented from working along the grooves 5.

What I claim as my invention is:

1. In a rail chair, the combination with the rail ends to be joined, of a base plate having side flanges extending longitudinally thereof and fitting against the rails to be joined on each side thereof, one of said flanges having pin orifices therethrough and the other of said flanges having pin recesses formed on the inner side thereof in alinement with the orifices of the aforesaid flange and orifices extending from the outside of the recessed flange to the said recesses, pins extending through the pin orifices in one flange and into the pin recesses in the opposite flange and keeper plates secured over said pin orifices on the outside thereof.

2. In a rail chair, the combination with the rail ends to be joined, of a base plate having side flanges extending upwardly therefrom and fitting against the sides of the rails to be joined, one of said flanges being grooved longitudinally and having a plurality of orifices therethrough and the other of said flanges having a plurality of recesses from the inner face thereof in alinement with said orifices and orifices from the outside thereof communicating with said recesses, pins extending through the orifices in said grooved flange and into the recesses in the opposite flange, a keeper plate sliding in the groove in said grooved flange over the ends of said pins and means for retaining said keeper plate in said groove.

3. In a rail chair, the combination with the rail ends to be joined, of a base plate having side flanges extending upwardly therefrom and fitting against the sides of the rails to be joined, one of said flanges being grooved longitudinally from each end

thereof and having a plurality of orifices therethrough in the beds of said grooves and the other of said flanges having a plurality of recesses from the inner face thereof in alinement with said orifices and orifices from the outside thereof communicating with said recesses, pins extending through the orifices in said grooved flange and into the recesses in the opposite flange, keeper plates sliding in the grooves in said grooved flange over the ends of said pins and means for retaining said keeper plates in said grooves.

4. In a rail chair, the combination with the rail ends to be joined, of a base plate having side flanges extending upwardly therefrom and fitting against the sides of the rails to be joined, one of said flanges being grooved longitudinally and having a plurality of orifices therethrough and the other of said flanges having a plurality of recesses from the inner face thereof in alinement with said orifices and orifices from the outside thereof communicating with said recesses, a lining fiber extending on the inside of said side flanges and across said base plate between said side flanges, fiber pins extending through the orifices in said grooved flange and into the recesses in the opposite flange, a keeper plate sliding in the groove in said grooved flange over the ends of said pins and means for retaining said keeper plate in said groove.

Signed at the city of Ottawa, in the Province of Ontario, in the Dominion of Canada, this twenty first day of June 1910.

NORMAN STUART BABCOCK.

In presence of—

K. F. MACGIBBON,
T. R. BALMER.