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I. W. KIFER & G. F. MILLER.

RAILROAD CONSTRUCTION.

APPLICATION FILED JUNE 7, 1904.

NO MODEL.

Fig. 1.

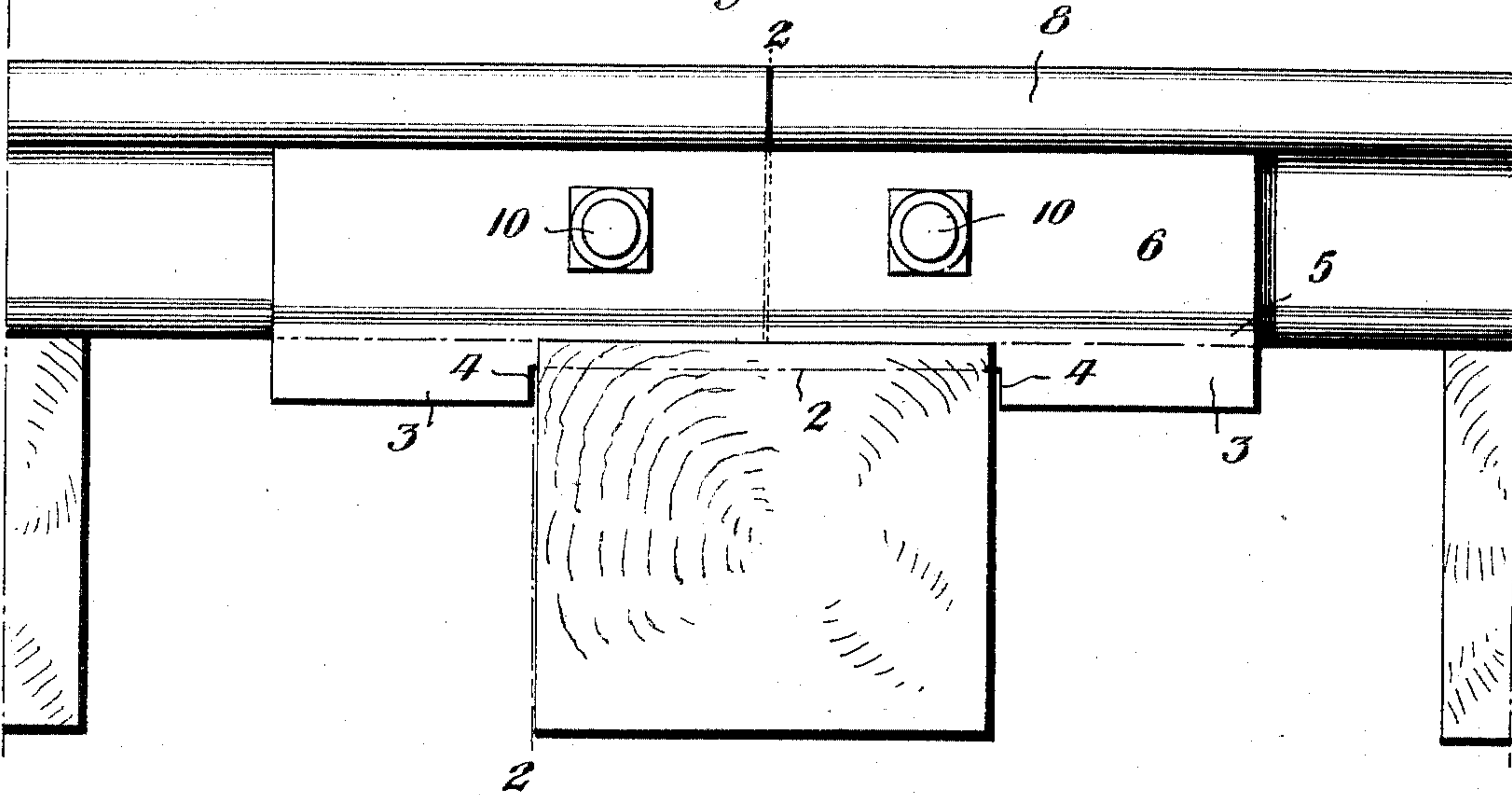
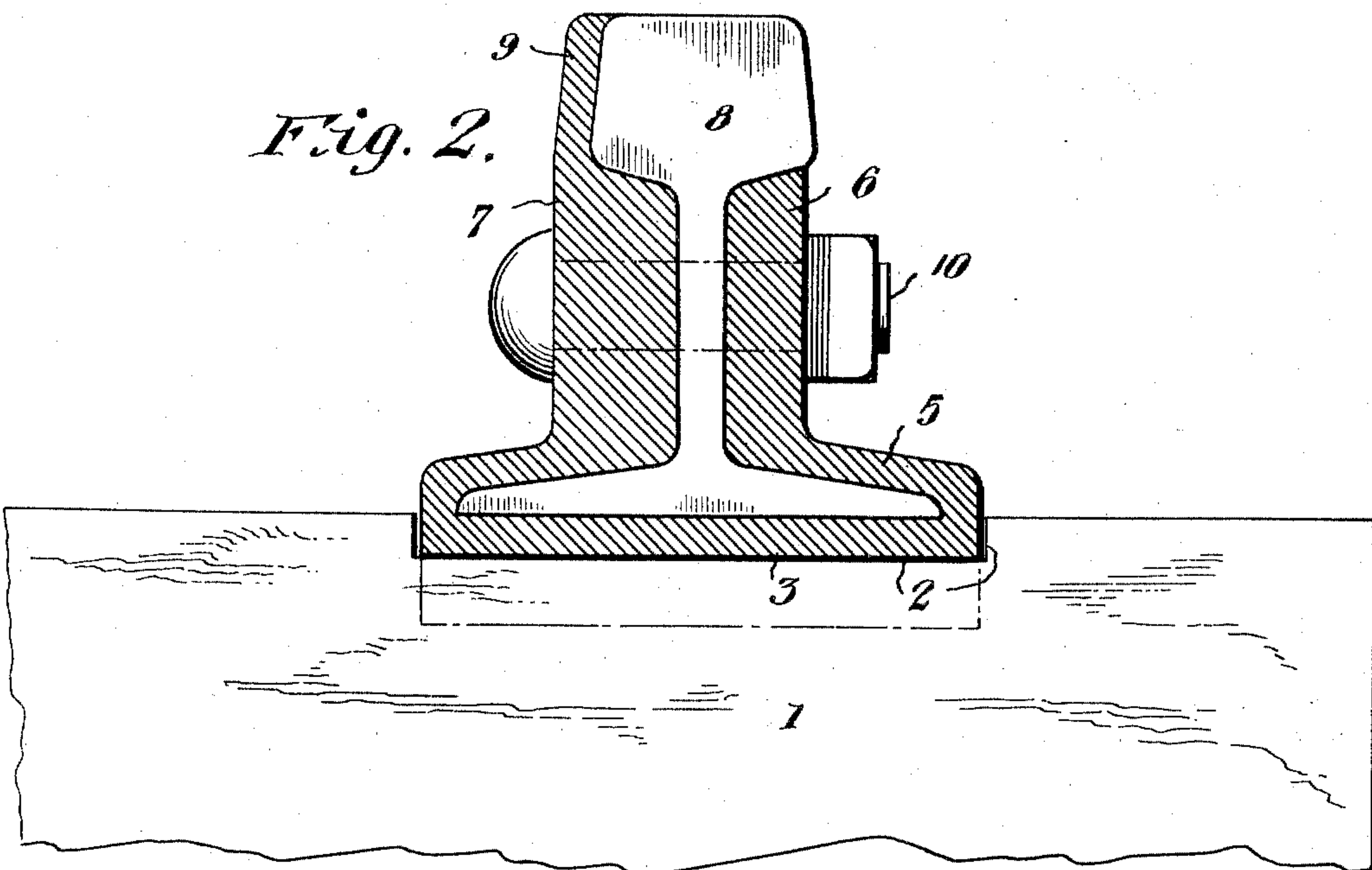


Fig. 2.



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IRA W. KIFER AND GEORGE FREDRIC MILLER, OF ELBERFELD, INDIANA.

RAILROAD CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 777,422, dated December 13, 1904.

Application filed June 7, 1904. Serial No. 211,543. (No model.)

To all whom it may concern:

Be it known that we, IRA W. KIFER and GEORGE FREDRIC MILLER, citizens of the United States, residing at Elberfeld, in the county of Warrick and State of Indiana, have invented new and useful Improvements in Railroad Construction, of which the following is a specification.

Our invention relates to new and useful improvements in railroad construction; and its object is to provide means whereby the rails are tied together and prevented from spreading by the cross-ties or sleepers.

The object of the invention is to provide chairs of peculiar construction which are adapted to be placed upon the sleepers at the adjoining ends of rails and hold said rails firmly together and at the same time support the ends thereof so as to prevent pounding by wheels passing thereover.

With the above and other objects in view the invention consists of a chair having a transversely-extending groove in its lower face which is adapted to engage the bottom of a groove extending transversely of a sleeper adjacent one end thereof. Inwardly-extending flanges are located at the sides of the chair and extend upward therefrom and form therebetween a groove for the reception of the base-flanges and webs of rails. One of the side flanges of the chair also overlaps the sides of the heads of the rails and is in alinement with the tread thereof, so as to prevent pounding by the wheels passing over the adjoining rail ends.

The invention also consists of the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of our invention, and in which—

Figure 1 is a side elevation showing two rails connected by means of our improved chair; and Fig. 2 is a section on line 2-2, Fig. 1.

Referring to the figures by numerals of reference, 1 is a sleeper having a groove 2 extending transversely thereof adjacent each end. A chair of novel construction is adapted to be arranged within each groove. This

chair comprises a base 3, having a groove 4, 50 which extends transversely thereof, and the grooved portion of the base fits within the groove 2. The base-plate and the sleeper are thus caused to interlock and are prevented from moving longitudinally or laterally independently of each other. Inwardly-extending 55 flanges 5 are formed integral with the side edges of the base-plate 3 and have fish-plates 6 and 7 integral therewith. A space is formed between these fish-plates and the flanges 5, 60 which is of sufficient size to permit the insertion therein of the ends of rails 8. One of the fish-plates, 7, has a reduced extension 9 at its upper edge which is adapted to overlap one side of the head of the rail, and the upper end of 65 this extension alines with the tread of the rail. Bolt-holes are formed within the fish-plates 6 and 7 for the reception of securing-bolts 10.

In constructing a railroad the sleepers placed under the ends of the rails are provided with 70 grooves 2, and the grooved base-plates 3 of the chairs are placed within these grooves. The ends of the rails are then inserted between the fish-plates 6 and 7 so as to extend therefrom in opposite directions, and the fish-plates 75 will contact with the lower faces of the heads of the rails and will support them. Moreover, the extension 9 of the fish-plate 7 will form a smooth tread at the joint and will prevent pounding by wheels passing thereover. 80 It will be seen that the rails are rigidly supported and are prevented from being accidentally displaced. It is unnecessary to use rails of special construction, and the chairs can be readily applied to rails now in use. 85 The chair is inexpensive, durable, and compact in construction and can be quickly applied not only at the ends of the rails, but at any desired points therebetween.

In the foregoing description we have shown 90 the preferred form of our invention; but we do not limit ourselves thereto, as we are aware that modifications may be made therein without departing from the spirit or sacrificing any of the advantages thereof; and we there- 95 fore reserve the right to make such changes as fairly fall within the scope of our invention.

Having thus described the invention, what is claimed as new is—

1. The combination with a sleeper having a groove in one face thereof; of a transversely-grooved base-plate seated within the groove in the sleeper and engaging opposite faces of said sleeper, inwardly-extending flanges integral with opposite sides of the base-plate, fish-plates integral with the side flanges, and rails upon the base-plate and between the fish-plates, the heads of said rails bearing upon the fish-plates and supported thereby.

2. The combination with a sleeper having a groove in one face thereof; of a transversely-grooved base-plate seated within the groove in the sleeper and engaging opposite faces of said sleeper, inwardly-extending flanges integral with opposite sides of the base-plate, fish-plates integral with the side flanges, rails upon the base-plate and between the fish-plates, the

heads of said rails bearing upon the fish-plates and supported thereby, and an extension integral with one of the fish-plates and overlapping one side of the rail-heads and forming a tread.

3. A chair comprising a base-plate having a groove in the lower face thereof, inwardly-extending flanges integral with the sides of the base-plate, rail-head-supporting fish-plates integral with said flanges, and an extension integral with one of the fish-plates and adapted to overlap one side of a rail-head to form a tread.

In testimony whereof we affix our signatures in presence of two witnesses.

IRA W. KIFER.

GEORGE FREDRIC MILLER.

Witnesses:

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