T. P. LIVINGSTON.

RAIL CHAIR.

APPLICATION FILED JAN. 8, 1910.

978,176.

Patented Dec. 13, 1910.

Fig. 1.

Fig. 2.

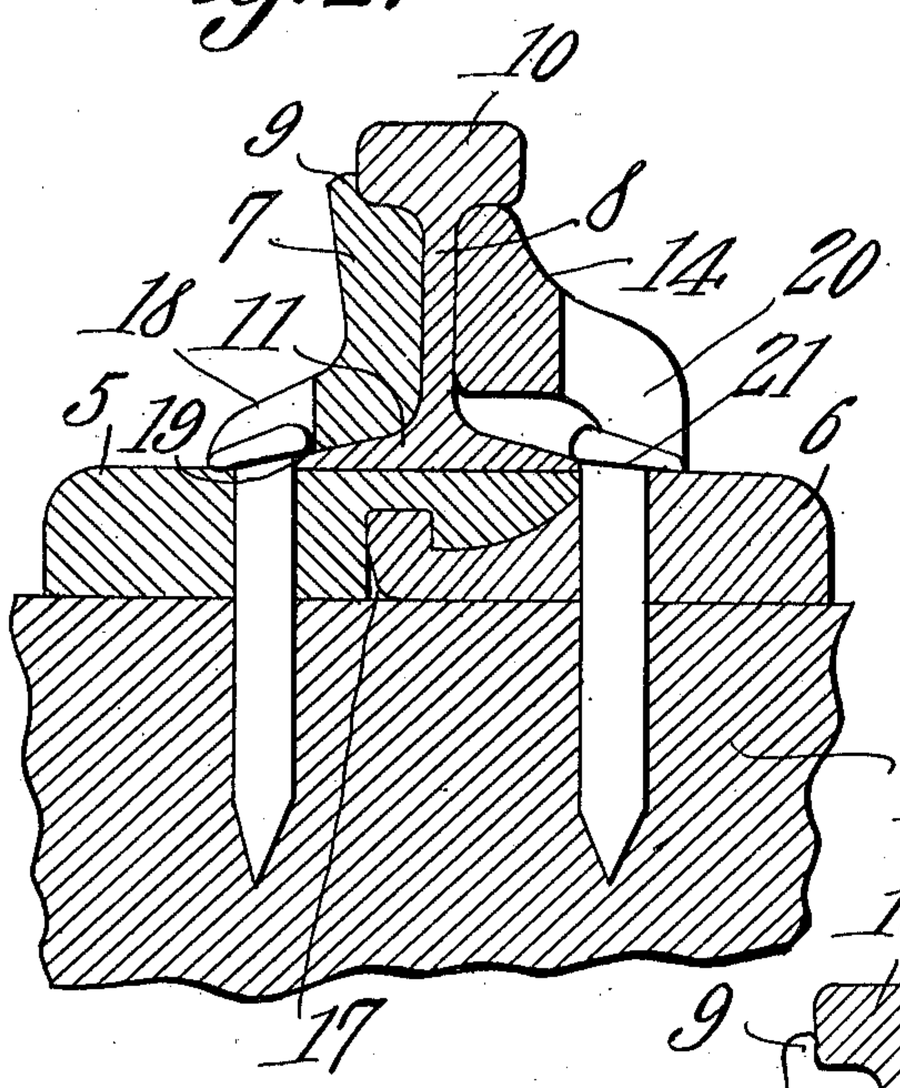
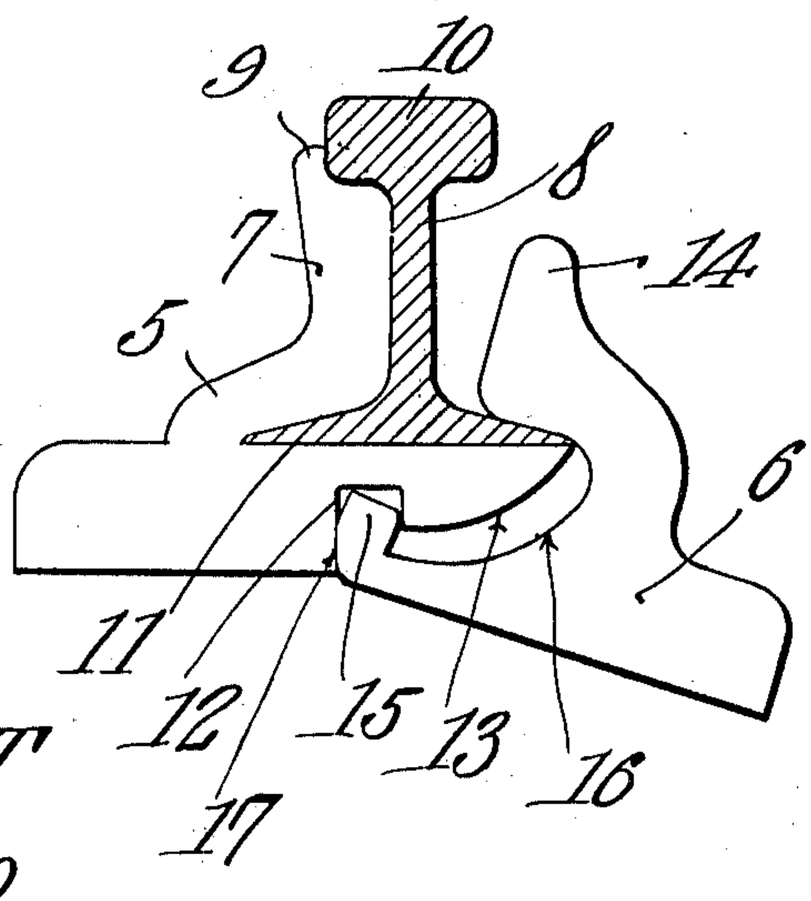
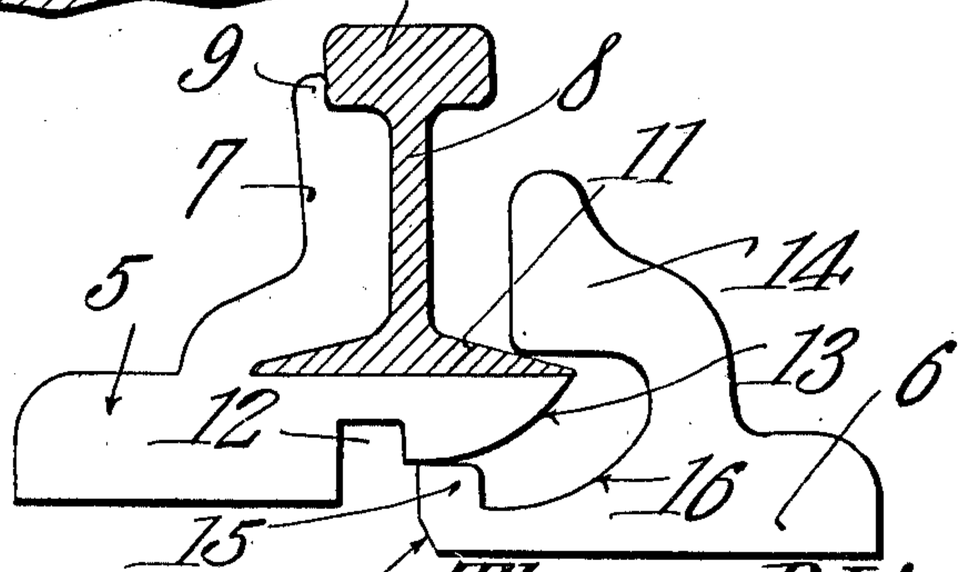


Fig. 3.





Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS P. LIVINGSTON, OF AUGUSTA, GEORGIA.

RAIL-CHAIR.

978,176. Specification of Letters Patent. **Patented Dec. 13, 1910.**

Application filed January 8, 1910. Serial No. 537,011.

To all whom it may concern:

Be it known that I, THOMAS P. LIVINGSTON, a citizen of the United States, residing at Augusta, in the county of Richmond and State of Georgia, have invented a new and useful Rail-Chair, of which the following is a specification.

The present invention aims to provide an improved rail chair and one of the objects of the invention is to provide a chair in which the employment of bolts is obviated.

Further the invention aims to provide a rail chair so constructed that its sections may be assembled with a rail without the necessity of removing or displacing the rail or rails from the ties.

In the accompanying drawings: Figure 1 is a view in side elevation of a rail chair constructed in accordance with the present invention, Fig. 2 is a vertical transverse sectional view in detail therethrough, Fig. 3 is a similar view but showing the first position assumed by one of the sections in disengaging it from the other section, Fig. 4 is a similar view showing a further step.

In the drawings, the rails joined by the chair embodying the present invention are indicated by the reference character R and a tie supporting the chair and the said rails is indicated by T. The chair, as before stated, is embodied in sections of which there are two, one indicated by the numeral 5 and the other by the numeral 6.

Upon the upper side of the body portion of the chair 5 there is formed an upstanding rail engaging flange 7, the inner face of which abuts against one side of the webs 8 of the rails R. At its upper edge, this flange is formed with a rib 9 which rests against one side face of the head or tread 10 of each of the said rails. The flange, further, overlaps the base flange of each rail at that side at which it is located, the said base flange being indicated by the numeral 11. This section 5 of the rail chair is formed in the underside of its body or base portion with a groove 12, the side walls of which are vertical. This groove extends parallel to the inner edge of the said body of the section in which it is formed, and the underside of the body, between the said edge thereof and the adjacent edge of the groove, is beveled as at 13, this bevel being preferably convex as clearly shown in the several sectional views of the drawings. The plane, so to speak, of this bevel is such that the body of the section is decreased in thickness toward its said inner edge.

The section 6 of the chair, as in the case of the section 5, is formed upon the upper side of its body portion with an upstanding rail engaging flange indicated by the numeral 14, the upper portion of which engages against the web of the rail and beneath the head or tread of the said rail as shown in Fig. 2 of the drawings. This flange does not, however, overlap the corresponding side of the rail base flange, as in the case of the flange 7, in the sense that it engages with the same, but it merely overlies the said base flange and is spaced therefrom for a purpose which will be presently described. A tongue or rib 15 is formed upon the upper face of the body of this section 6 and is designed to engage in the groove in the underside of the body portion of the section 5. Between this rib, which rib extends along the inner edge of the body of the said section 6, and the base of the upstanding rail engaging flange 14, the upper face of the said body of the section is beveled or concaved as at 16, this concavity having the same surface contour as the bevel 13 and these surfaces coöperate by mutual contact as shown in Fig. 2 of the drawings. It will be observed that, as a consequence of the bevel 13 of the underside of the chair section 5, one wall of the groove 12 is considerably shortened and it will further be observed, from an inspection of Figs. 2, 3 and 4 of the drawings, that that face of the rib 15 which opposes the deeper wall of the groove 13 is beveled as at 17 so that the section 6 may be rocked from the position shown in Fig. 2 of the drawings to the position shown in Fig. 3 thereof and may then be lowered and at the same time rocked as if to return it to normal position whereupon it will assume substantially the position shown in Fig. 4 of the drawings, whereupon the two sections may be completely separated from each other as well as from the rails which they join. It will be understood that by having the rail engaging flange of the section 6 engage only the underside of the tread and the upper portion of the web, the section 6 may be rocked as stated above, the base flange of the rail at this side being received in the concavity of the said flange 14.

The section 5 of the chair is formed with a number of spike openings 18 and the section 6 is formed with openings 20. Spikes

or other suitable securing devices are driven through the openings in the sections 5 and 6 and into the tie T and serve to hold the sections to the tie.

It will be observed that the heads of the spikes are presented outwardly or away from the rails instead of toward the same as is usually the case and that the employment of bolts and nuts is obviated.

What is claimed is:

In a device of the class described, chair sections, one of said sections comprising a body portion formed with an upstanding rail-engaging flange arranged to abut against one side of the web of a rail disposed between the chairs and to overlap the base flange of the said rail, the said chair being formed in the under side of its body with a groove, the side walls of which are vertical, the said groove extending parallel to the inner edge of the said body of the chair, and the under side of the body between the said edge thereof and the adjacent edge of the groove being beveled and convex and of such a width that the outer edge of the bevel will register with the edge of that base flange of the rail other than the one overlapped by the said chair; the other chair comprising a body formed with an upstanding rail-engaging flange arranged to overlie the base flange of the rail in spaced relation with respect thereto, the upper face of the body of the said chair being formed with a tongue fitting in the groove in the under side of the body of the first mentioned chair, the said body of the last mentioned chair between the said tongue and the base of the rail-engaging flange, being concave in its upper surface, that side of the tongue next adjacent the deeper wall of the groove in the under side of the first mentioned chair being beveled whereby to permit of rocking of the last mentioned chair to bring the bevel of its tongue against the said deeper wall of the groove of the first mentioned chair and the overhanging portion of its rail engaging flange upon the outer edge portion of the base flange of the rail and subsequent rocking of the last mentioned chair to cause its tongue to clear the under side of the body of the first mentioned chair.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

THOMAS P. LIVINGSTON.

Witnesses:

JOHN P. WEITIGE,

EDW. J. MULHERIN.