C. E. & J. N. DUNHAM.

RAIL CHAIR.

APPLICATION FILED MAR. 2, 1911.

1,043,216. Patented Nov. 5, 1912.

Fig. 1.

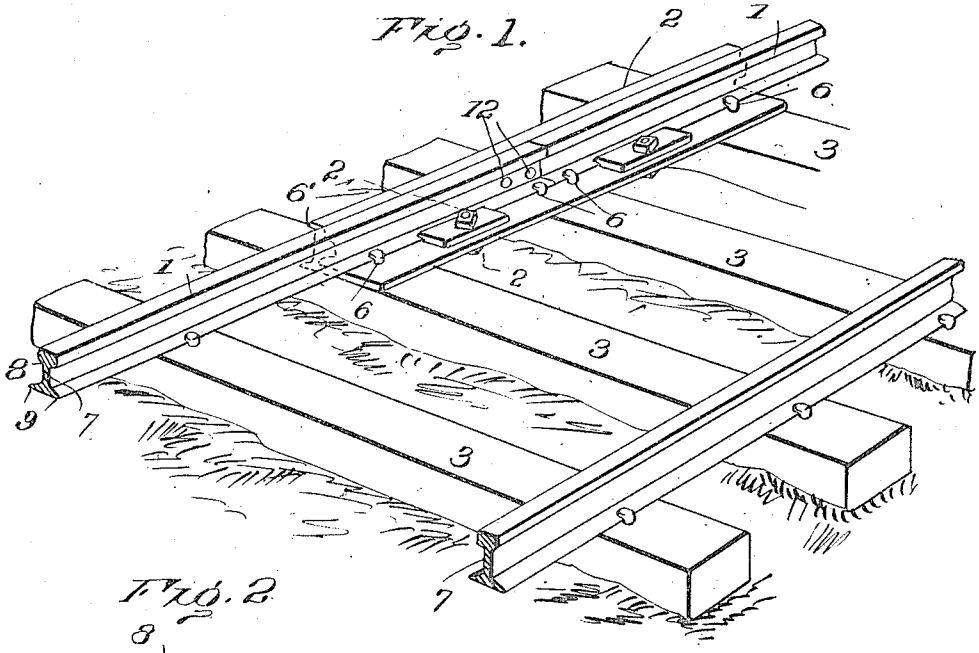


Fig. 2.

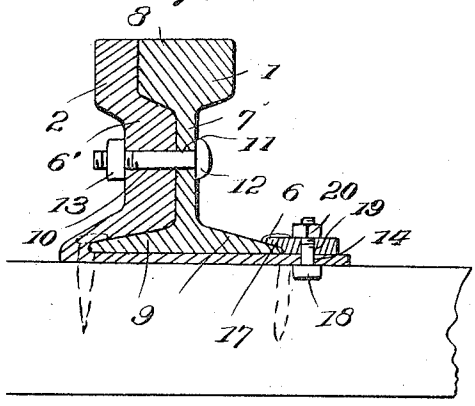
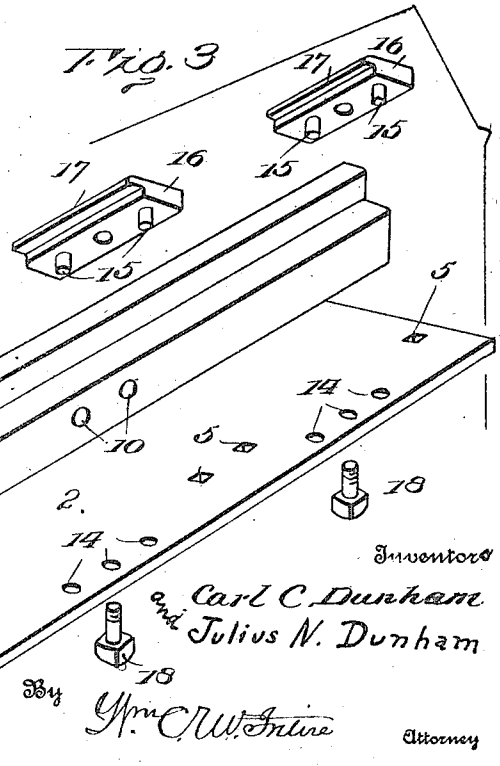


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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RAIL-CHAIR.

1,043,216. Specification of Letters Patent. Patented Nov. 5, 1912.

Application filed March 2, 1911. Serial No. 611,880.

To all whom it may concern:

Be it known that we, CARL E. DUNHAM and JULIUS N. DUNHAM, citizens of the United States, residing, respectively, at Maddock, county of Benson, State of North Dakota, and Norge, county of James City, and State of Virginia, have invented certain new and useful Improvements in Rail-Chairs; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in rail chairs.

An object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use, and readily operated.

Another object of this invention is the provision of a rail chair which makes possible the elimination of two fish plates now in common use, by forming upon one edge of the chair plate a vertically extending flange, which engages one side of the rail ends, and is of such formation that it may be bolted to the rail ends and give sufficient strength thereto.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more particularly described, claimed and illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of my invention; Fig. 2 is a section taken on the line 2—2 of Fig. 1, and Fig. 3 is a perspective view of the chair removed from the rails.

Referring to the drawing by characters of reference, the numeral 1 designates generally the meeting ends of a pair of rails located in our rail chair 2, which is secured upon the customary rail supporting ties 3.

Our improved rail chair 2 consists of a base plate 4, one edge of which is apertured, as at 5, for the reception of the customary spikes 6, by the means of which the rail chair, as well as the rails, are securely retained upon the ties 3, as clearly illustrated in the drawing. The opposite edge of the plate 4 is provided with an upwardly extending flange 5′, the inner face of which is provided with a longitudinally extending rib 6′ adapted to engage the connecting web 7 of the rail ends and rest at its upper and lower edges against the heads 8 and base flanges 9 respectively. The substantially intermediate portion of the plate 5′ is provided with a series of apertures 10, through which, and through apertures 11 formed in one of the rail ends 1, bolts 12 are adapted to be extended and clamp the said rail end to the chair by means of locking nuts 13. The apertured edge of the base flange intermediate the portions which rest upon the ties is provided with a series of apertures 14, the outer of which are adapted to form an engagement for the depending pins 15 carried by the clamping member 16, the inner edge of which is beaded, as at 17, for engagement with the edge of the adjacent base flange 9. A suitable bolt 18 extends upward through the intermediate ones of the openings 14 and through an opening 19 formed in the clamping member 16, whereby the said clamping member is securely held upon the rail chair against displacement by means of a locking nut 20.

Owing to the arrangement of the various parts, it will be readily seen that it is necessary to attach but one end of the rail to the rail chair, which will manifestly hold the rails against displacement and permit of the necessary expansion and contraction of the metal composed therein due to the various acting elements.

From the foregoing disclosures it will be manifest that a rail chair is provided which will fulfil all of the necessary requirements of such a device.

Having thus fully described this invention, what we claim as new and desire to secure by Letters Patent is:

The combination with the adjoining ends of abutting rails, of a rail chair of a length to overlap said ends, said chair embodying a base plate extending underneath the rail bases and formed with spike-receiving openings, a flange extending upwardly from the outer side of said base plate and formed integral therewith, the upper surface of said flange lying flush with the tread surface of the rails and overlapping the joint between the ends of the rails, whereby a continuous tread surface is maintained from one rail to the other, the base plate being formed at its inner edge with two sets of apertures extending therethrough, there being two end

and one intermediate aperture in each set, base flange clamping members formed at their ends with positioning pins adapted to enter said end apertures and with intermediate apertures designed to register with the intermediate apertures of the base plate, fastening devices received in the registering apertures of the clamping members and base plate, the flange being formed on its inner face with a longitudinally extending rib fitting underneath the head of the rails and above the outer sides of the base flanges thereof and contacting with the outer side of the webs of the rails, said flange being formed in line with one rail only, with transverse openings extending through the rib, one of said rails being formed with registering openings and bolts extending through the registering openings of the flange and its rib and the adjacent rail, the other rail being devoid of attachment to the flange.

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

CARL E. DUNHAM.
JULIUS N. DUNHAM.

Witnesses as to C. E. D.:
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