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H. F. KENS

RAIL CHAIR

Filed April 4, 1927

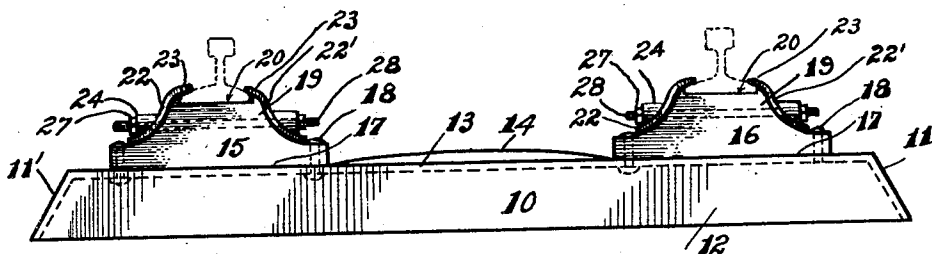


Fig. 1.



Fig. 2.

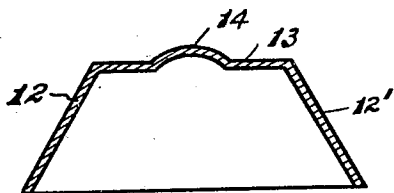


Fig. 3.

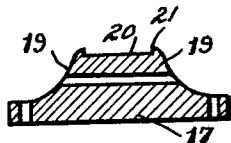


Fig. 4.

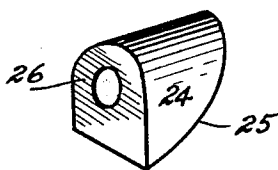


Fig. 5.

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# UNITED STATES PATENT OFFICE.

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## RAIL CHAIR.

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

5 The object of the present invention is to provide a rail chair particularly suitable for riveting to a metal tie, and one which is simple in construction and serviceable in use.

10 The invention consists mainly of a rail chair constructed of a metal casting having a seat with lateral shoulders forming checks for the foot of the rail, the flanges of the rail being clamped to the chair by means of  
15 clamp plates wedged on sloping ends of the chair.

Referring to the drawings, Figure 1 is a side elevation of a tie and chairs supporting a pair of rails.

20 Figure 2 is a plan view of Figure 1 with the rails omitted.

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 2.

25 Figure 4 is a vertical sectional detail of one of the rail chairs with the clamp plates and wedging means omitted.

Figure 5 is a perspective view of one of the wedges.

30 Like numerals of reference indicate corresponding parts in each of the figures throughout the drawings.

In the drawings, the improved rail chair is shown applied to a pressed metal tie in order to give a practical illustration of its  
35 use; however it is to be understood that this is for purposes of illustration only and that the invention could be used with other types of ties if so desired.

40 The tie, generally indicated by the numeral 10, is pressed from a suitable metal sheet into a trough-shaped configuration. In use it is invertedly positioned. The ends 11, 11' are corrugated for strengthening purposes. The sides 12, 12' are left plain. The  
45 bottom, which, when invertedly positioned becomes the top 13, has a lengthwise rib 14

extending between the rail chairs 15 and 16.

The rail chairs are identical in construction and hence a description of one will suffice for both. The base 17 is preferably riveted  
50 to the top side 13 of the tie by means of rivets as at 18, one at each corner. The ends 19 slope upwardly on curved lines, as shown, to the seat 20 upon which the foot of the rail rests.

As best discernible in Figure 4, shoulders are provided as at 21 in order to engage the sides of the rail to preclude its lateral movement. Clamps 22, 22' rest against the sloping  
60 sides and are designed so that their tops 23 bear upon the rail flanges. The clamp plates are pressed tightly against the flanges by means of wedges 24 detailed in Figure 5. These have sloping faces 25 to conform to the contour of the clamp plates and are shaped  
65 to present a flat face 26 for engagement with the respective nut 27 carried by a thru-bolt 28. The thru-bolt passes through an aperture in the rail chair which is preferably made a casting such as malleable iron.

What I claim is:

A rail chair for a tie, said rail chair comprising an elongated casting having a transverse rail seat of a substantially lesser width  
75 than the length of the rail chair, shoulders rising from the seat for abutting the rail flanges, the ends of the chair being sloped downwardly on inwardly curved lines to the base, a clamping plate fitted against each sloping end of the chair and shaped to conform  
80 to the curvature thereof, said clamping plates being designed to bear upon the rail flanges, a thru-bolt passing thru said chair and clamping plates, wedges lodged on the ends of the thru-bolt for engaging the plates  
85 and presenting flat faces, and nuts threaded on the bolts and engaging the flat faces of the wedges.

Signed at Rose Lake, British Columbia, Canada, this 9th day of March, 1927.

HENRY FOREMAN KENS.