C. KEMMERER.

COMBINED RAIL CHAIR FASTENER.

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1,066,624.

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Fig. 1.

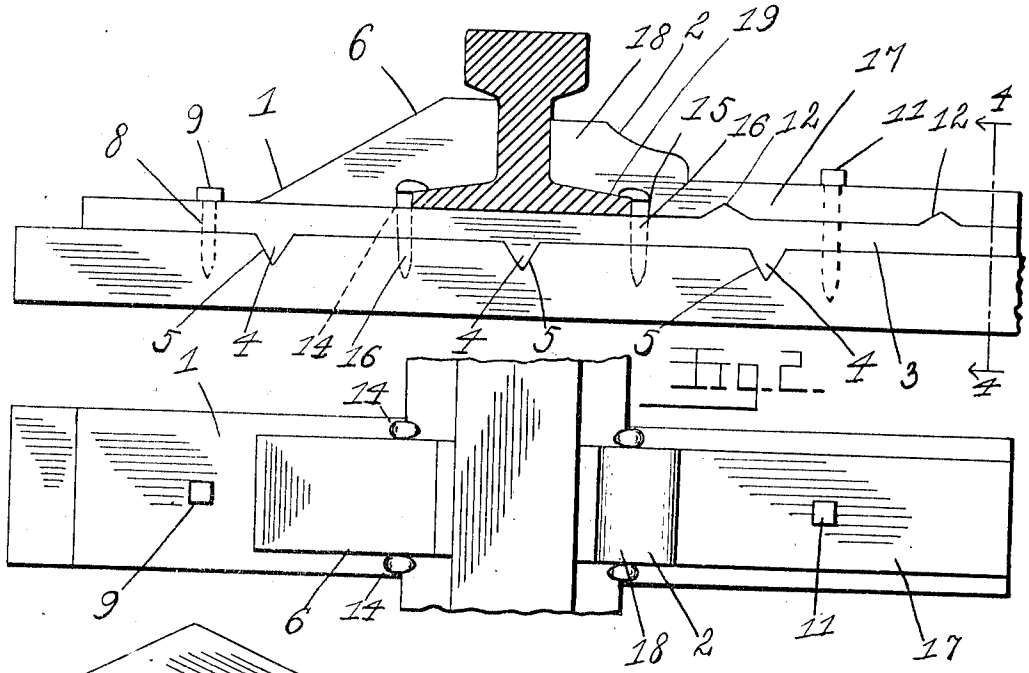


Fig. 2.

Fig. 3.

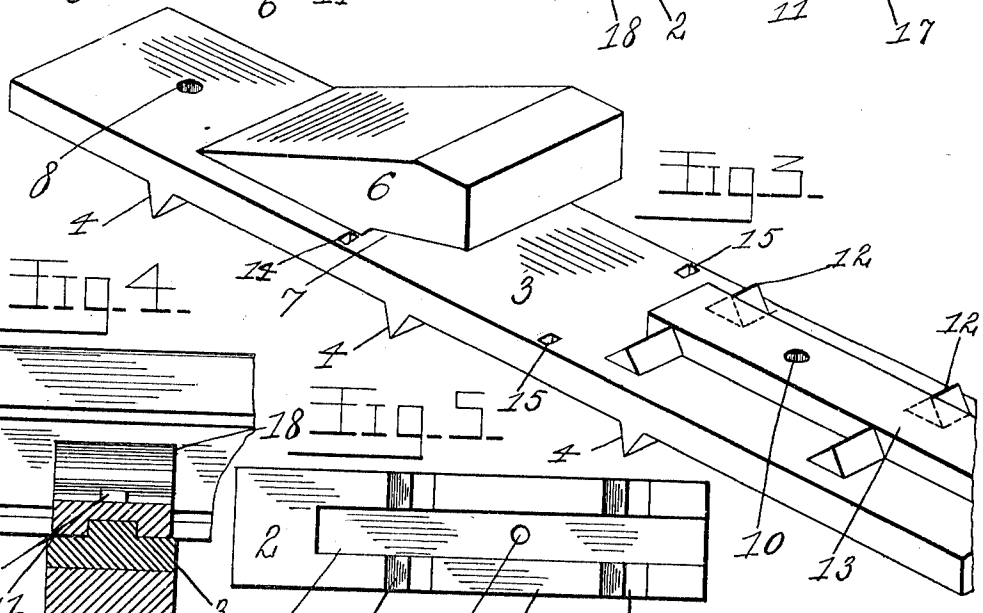


Fig. 4.

Fig. 5.

Witnesses

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COMBINED RAIL-CHAIR FASTENER.

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To all whom it may concern:

Be it known that I, CHARLES KEMMERER, a citizen of the United States, residing at Barberton, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Combined Rail-Chair Fasteners; and I do 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 improvements in combined rail chairs and fasteners.

One object of the invention is to provide a rail chair and fastener adapted to be employed in connection with main or switch rails whereby they are prevented from spreading or upsetting and which is provided with means to permit a switch tongue to move freely over the locking devices for the detachable member of the fastener.

Another object is to provide a rail chair and fastener of the character described which will be simple, strong, durable and inexpensive in construction, efficient and reliable in operation and well adapted to the purpose for which it is designed.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 is a vertical cross sectional view through a railway rail showing my improved chair and rail fastening device applied thereto; Fig. 2 is a top plan view of the same; Fig. 3 is a perspective view of the chair and stationary fastening member of the device; Fig. 4 is a vertical cross sectional view taken on the line 4—4 of Fig. 1; Fig. 5 is a bottom plan view of the removable fastening member of the device.

Referring more particularly to the drawings 1 denotes the stationary or chair member of the device and 2 denotes the removable rail fastening members thereof. The chair member 1 comprises a base plate 3 which may be of any suitable length and width and which has formed on its under side integral transversely disposed V-shaped tie engaging lugs or spurs 4 which when the chair is in place are adapted to engage similarly shaped notches 5 in the tie as clearly shown in Fig. 1 of the drawings. Formed integral with the base plate 3 near one end thereof is an upwardly projecting stationary rail fastening and bracing block 6 the inner end of which is adapted to engage one side of the web of the rail and to fit beneath the adjacent lower edge of the head of the rail as shown. In the lower portion of the inner side of the block 6 is a recess 7 adapted to receive the flange on the side of the rail with which the block 7 is engaged. The upper wall of the recess 6 is inclined to correspond to the inclination of the upper side of the rail flange and the inner web engaging portion of the block above the recess 7 is preferably of such width as to fit closely between the flange and the lower side of the head of the rail as shown.

In the plate 3 between the block 6 and the adjacent end of the plate is formed a bolt hole 8 with which is engaged a screw bolt or other suitable fastening device 9 which is screwed or driven into the tie or other support of the chair. In the opposite end of the plate 3 is also formed a bolt hole 10 to receive a screw bolt or other fastening device 11 which will be hereinafter referred to. On the upper side of the base plate 3 or chair member at the opposite side thereof from that having the bracing and fastening block 6 are pairs of upwardly projecting angular fastening lugs 12 which are arranged transversely across the plate 3 and spaced apart as shown. The lugs of each pair are separated by an integral upwardly projecting centrally disposed extension 13 of the base plate 3. The extension corresponds in height to the height of the lugs 12 and is provided for a purpose hereinafter described. In the base plate 3 adjacent to the opposite edges thereof and at the inner ends of the recess 7 are spike holes 14, corresponding holes 15 being formed in the plate 3 adjacent to the side edges thereof and spaced from the holes 14 at a distance corresponding to the width of the base flanges of the rail when engaged with the plate. The holes 14 and 15 are provided to receive spikes 16 which are driven therethrough and into the tie or other support and have their heads engaged with the flanges of the rails as clearly shown in Figs. 1 and 2 of the drawings, said spikes 16 forming additional means for firmly fastening the rail and the jaw to the ties or other support.

The removable rail fastening member 2 comprises a plate 17 having on its inner

end a rail engaging block 18 the outer end of which is adapted to engage the web of the rail on the opposite side from that with which the block 6 of the member 1 is engaged. In the lower side of the block 18 is a recess 19 which corresponds to the recess 7 in the block 6 and which is adapted to receive the flange on this side of the rail. In the lower side of the plate 17 of the member 2 are pairs of inverted V-shaped recesses 20 and a central longitudinally disposed rectangular recess 21. The recesses 20 and 21 are provided to receive respectively the lugs 12 and the extension 13 on the base plate 3 of the jaw member of the device whereby the removable fastening member 2 is firmly held against lateral or longitudinal movement on the base plate 3 when the member 2 is engaged therewith. In the plate 17 is formed a bolt hole 22 which when the member 2 is in place registers with the bolt hole 10 in the base plate 3 and is adapted to receive the bolt 11 or other fastening device which, as will be seen serves to hold the member 2 in position on the base plate as well as fastening the latter to the tie or other support.

When the jaw and rail fastening members are constructed and applied to a rail as herein shown and described it will be seen that the latter will be firmly supported and secured to the ties or other supports and will be firmly braced against lateral spreading or upsetting movement. When the chair and fastening device is employed in connection with the switch rails the fastening member 2 is removed and the rail braced and supported by the chair member and bracing block. When the device is employed with switch rails and the detachable member 2 removed the switch tongue will be permitted to slide freely on the extension 13 of the base plate, said extension as hereinbefore described being of the same height as the locking lugs 12 on the base plate 3, thus preventing said lugs from interfering with the free movement of the switch tongue. It will thus be seen that the extension member 13 not only serves to hold the removable member 2 of the device against lateral movement on the base plate 3, but also serves as a rest for slidably supporting a switch tongue when the device is employed in connection with switch rails.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

1. In a combined chair and rail fastening device, a chair member comprising a base plate having thereon a rail fastening and bracing block, and a switch tongue support, a removable rail fastening member adapted to be secured to said base plate in position to engage the opposite side of the rail from that engaged by the block on said base plate, said removable fastening member having in its lower side a recess to receive the switch tongue support on said base plate whereby said removable fastening member is held against lateral movement on said plate.

2. In a combined chair and rail fastening device a chair member and a removable fastening member, said chair member comprising a base plate having on its lower side a series of apertures, a rail engaging block on the upper side of said base plate and adapted to engage one side of the rail, said block having therein a recess to receive the flange on this side of the rail, upwardly projecting stop lugs on said plate, an upwardly projecting combined stop and tongue supporting extension on said base plate, a removable rail fastening member comprising a plate having in its under side notches to receive the stop lugs on said base plate, and a recess to receive the extension on said base plate, a rail engaging block on the inner end of the plate of said removable member, said block having therein a recess to receive the flange on this side of the rail, and fastening elements engaged with said chair member and removable member of the device whereby said members are fastened together and to a suitable support.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES KEMMERER.

Witnesses:
WILLIAM ECKERT,
LEE H. LYTLA.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."