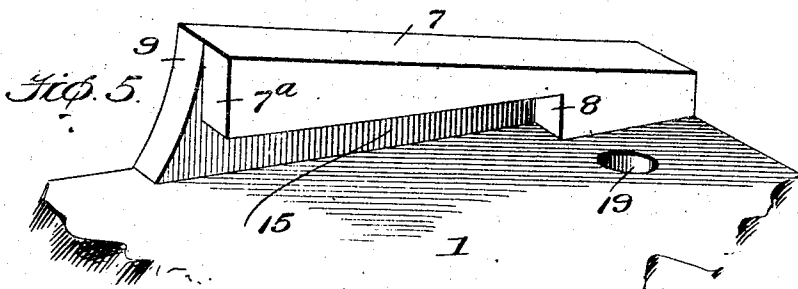
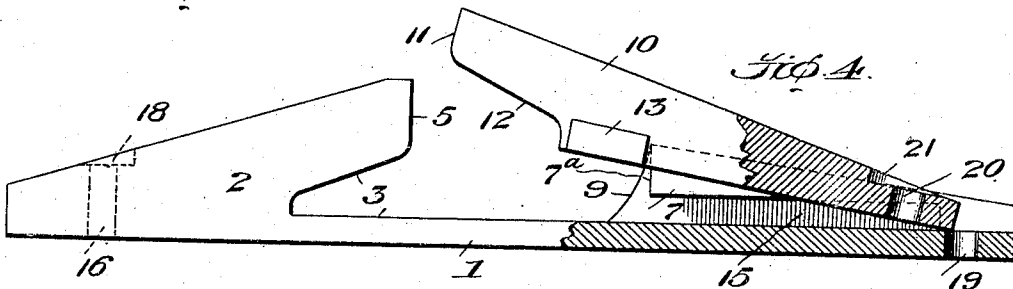


1,058,802.

The image contains three technical drawings of a mechanical assembly, labeled Fig. 1, Fig. 2, and Fig. 3.

- Fig. 1:** A perspective view of the assembly. It shows a long, thin rectangular block (1) with a T-shaped cross-section. A smaller rectangular block (2) is mounted on top of block 1. A cylindrical component (3) is attached to the side of block 2. A dashed line indicates the internal structure of block 2. Other components shown include a cylindrical part (4), a rectangular block (5), a rectangular block (6), a rectangular block (7), a rectangular block (8), a rectangular block (9), a rectangular block (10), a rectangular block (11), a rectangular block (12), a rectangular block (13), a rectangular block (14), a rectangular block (15), a rectangular block (16), a rectangular block (17), a rectangular block (18), a rectangular block (19), a rectangular block (20), a rectangular block (21), a rectangular block (22), and a rectangular block (23).
- Fig. 2:** A cross-sectional view of the assembly. It shows the internal structure of the components. A rectangular block (1) is shown with a rectangular block (2) mounted on top. A cylindrical component (3) is attached to the side of block 2. A dashed line indicates the internal structure of block 2. Other components shown include a cylindrical part (4), a rectangular block (5), a rectangular block (6), a rectangular block (7), a rectangular block (8), a rectangular block (9), a rectangular block (10), a rectangular block (11), a rectangular block (12), a rectangular block (13), a rectangular block (14), a rectangular block (15), a rectangular block (16), a rectangular block (17), a rectangular block (18), a rectangular block (19), a rectangular block (20), a rectangular block (21), a rectangular block (22), and a rectangular block (23).
- Fig. 3:** A detail view of a component. It shows a rectangular block (1) with a rectangular block (2) mounted on top. A cylindrical component (3) is attached to the side of block 2. A dashed line indicates the internal structure of block 2. Other components shown include a cylindrical part (4), a rectangular block (5), a rectangular block (6), a rectangular block (7), a rectangular block (8), a rectangular block (9), a rectangular block (10), a rectangular block (11), a rectangular block (12), a rectangular block (13), a rectangular block (14), a rectangular block (15), a rectangular block (16), a rectangular block (17), a rectangular block (18), a rectangular block (19), a rectangular block (20), a rectangular block (21), a rectangular block (22), and a rectangular block (23).



WITNESSES

WITNESSES.
Wm. H. Oliver
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INVENTOR

James R. Smith
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UNITED STATES PATENT OFFICE.

JAMES R. SMITH, OF KILDONAN, WINNIPEG, MANITOBA, CANADA.

RAIL-CHAIR.

1,058,802.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed November 26, 1912. Serial No. 733,615.

To all whom it may concern:

Be it known that I, JAMES R. SMITH, a subject of the King of Great Britain, residing at Kildonan, Winnipeg, Manitoba, Canada, have invented certain new and useful Improvements in Rail-Chairs, of which the following is a specification.

This invention relates to rail chairs.

My object is to provide an improved rail chair having but two parts constructed and arranged so that they will possess great strength and durability and will so bear on the web of the rail that it is strongly braced, it being a well known fact that the weakest part of a rail is its web.

Another object of the invention is to provide a rail chair of improved construction having an integral base plate and web brace and a movable web brace, together with improved means for slidably attaching the movable web brace to the chair in such manner that the movable web brace may be readily shifted to permit the rail to be seated in the chair and then adjusted and held to the chair and against the web of the rail by spikes driven into the ordinary tie and also constructed and adapted to the chair so that the said movable rail brace may be readily detached from the chair after the rail has been removed.

The invention consists; first, in a rail chair having a base and an integral web brace, a detachable web brace, and a novel interlocking connection between the web brace and the chair brace; second, in a rail chair having an integral base and brace and provided with locking flanges, and a detachable brace having lugs or lips adapted to interlock with said flanges when the movable brace is in position and to be secured by spikes used for connecting the chair to the tie, but which can be slid in one direction to permit the placing of the rail on the chair and then made to lock the rail in position and which is also so constructed and adapted to the parts of the chair that said detachable brace may, when the rail is not in position, be interlocked with the chair or removed therefrom.

In the accompanying drawings: Figure 1 is a perspective of the chair and a section of a rail held thereby, dotted lines representing the manner in which the movable brace may be slid back before spiking to permit the placing of the rail in the chair; Fig. 2, a section on line 2—2, Fig. 1; Fig. 3, a sec-

tion on line 3—3, Fig. 1; Fig. 4, a front view, certain parts being in section, showing how the movable brace may be detached from or interlocked with the chair; and Fig. 5, an enlarged perspective of one of the flanges on the base of the chair.

The base 1 and one of the braces 2 are formed integral, the said brace 2 being positioned, when the chair is in place on the tie, either inside or outside of the rail according to the requirements of the section of track on which the chair is used. The brace or abutment 2 is preferably heavier than the detachable brace, as it is intended to be so located that it will take up the greatest strain exerted by the rail on the chair, the detachable brace not requiring so much strength. The conformation 3 of the face of the brace 2 corresponds to the contour of the upper face of the base and the web of the rail 4 and the brace 2 at its abutment face 5 is preferably of substantially the height of the rail web, or nearly so.

Formed integral with the base 1, are flanges 6 and 7, one of which is shown enlarged in Fig. 5, said flanges being arranged in overhanging relation to the base but terminating at a shoulder 8. The inner ends 9 of the flanges are positioned and formed so that when the rail 4 is tilted into or out of position under the brace 2, its opposite base will just clear the said flanges. Consequently, the flanges strengthen the base 1 as they extend comparatively close to the base of the rail at their inner ends 9, and being thick at their overhanging portions 7, they are not appreciably weakened by the undercut or overhanging construction employed.

The detachable brace is shown at 10 and it is provided with an abutment face 11 adapted to bear against the web of the rail 4 and has a conformation at 12 adapting it to the top and edge of the base of the rail when it is in the position shown in Fig. 1. The detachable brace 10 is adapted to snugly, yet easily, fit between the overhanging flanges 6 and 7 and it is provided with laterally extending lugs 13 and 14 which take under the overhanging flanges 6 and 7, as shown in Fig. 2. The lugs 13 and 14 are relatively short so that they are adapted for travel in the channels 15 below the overhanging flanges 6 and 7 and hence they permit the detachable brace 10 to be moved in both directions. When moved toward the brace 2, the lugs 13 and 14 clear the ends 7^a of the flanges

7, permitting the detachable brace 10 to be lifted out from between the flanges 6 and 7, as shown in Fig. 4. When, however, the rail is locked by the brace 10, the lugs 13 and 14 are then in the channels 15 and the brace is secured against detachment. When it is desired to place the rail in the chair, the detachable brace 10 is slid backwardly, as shown by dotted lines in Fig. 1, and may travel until the lugs 13 and 14 strike the shoulders 8, at which time the abutment face 11 has passed back so that it is substantially in line with the surfaces 9. Consequently, the rail 4 can be tilted in underneath the brace 2 and seated on the base 1 and the brace 10 can then be slid forward to the position shown in Fig. 1. The brace 2 is provided with spike holes 16 to accommodate round shank spikes having round heads 17 which seat in depressions 18. The spikes are to be driven into the wooden tie in the usual manner. The base 1 has round openings 19 and the brace 10 has corresponding holes 20 which, when the parts are in the position shown in Fig. 1, register with holes 19. The brace 10 has concavities 21. Round shank spikes 22 may be passed through the holes 19 and 20 when the rail is seated in the chair and said spikes driven into the ordinary tie, the round heads 23 of the spikes seating in the concavities 21. The spikes 22, therefore, not only spike the chair to the tie, but they secure the brace 10 to the chair in such position that the lugs 13 are in the channels 15 and the abutment faces 5 and 11 bear firmly against opposite sides of the web of rail 4.

Assuming that the chair has been spiked and it is desired to release the rail, the spikes 22 are withdrawn, whereupon the brace 10 may be slid back, as shown in dotted lines in Fig. 1, and the rail can then be tilted out of the chair.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a rail chair, the combination of a chair base having overhanging flanges and shoulders underneath said flanges, a slidable and detachable brace adapted to fit between said flanges and to rest on the chair base below and provided with lugs slidable underneath the flanges and adapted for separation from said flanges when moved in one direction and to abut the shoulders when moved in the opposite direction.

2. In a rail chair, the combination of a chair base having overhanging flanges and shoulders underneath said flanges, a slidable and detachable brace adapted to fit between said flanges and to rest on the chair base below and provided with lugs slidable underneath the flanges and adapted for separation from said flanges when moved in one direction and to abut the shoulders when moved in the opposite direction, and a brace formed integral with the base aforesaid, said fixed and movable braces having a conformity adapting them to the base and the web of the rail and arranged to hold the rail between them.

3. In a rail chair, the combination with a chair base and a rail brace connected thereto, said base being provided with flanges having overhanging parts providing channels between themselves and the chair base, said channels terminating in a shoulder at their outer ends and being open at their inner ends, of a slidable and detachable rail brace received between the flanges and provided with lugs adapted for reception in the channels and so related thereto that the slidable rail brace may be slid outwardly without detachment from the flanges to permit the rail to be placed in position or removed from the chair, said lugs also permitting the rail brace to be slid inwardly when the rail is out of the chair to permit the lugs to become detached from the overhanging flanges and to enable the brace to be removed.

4. In a rail chair, the combination with a chair base and a brace connected thereto, of a slidable rail brace resting on the chair base and having a detachable interlocking connection with the upper part of the base.

5. In a rail chair, the combination with a chair base and a brace resting on the chair base and connected thereto, of a slidable rail brace having a detachable interlocking connection with the base, the base and the supposed slidable brace having openings adapted to receive spikes or fasteners when brought into register with each other and being adapted to register when the brace is in position to secure the rail in the chair.

In testimony whereof, I hereunto affix my signature in presence of two witnesses.

JAMES R. SMITH.

Witnesses:

WM. C. DASHIELL,
GEO. B. PITTS.