

Allen P. Lord.

Railway Chair.

No. 119,624.

Patented Oct. 3, 1871.

fig. 1.

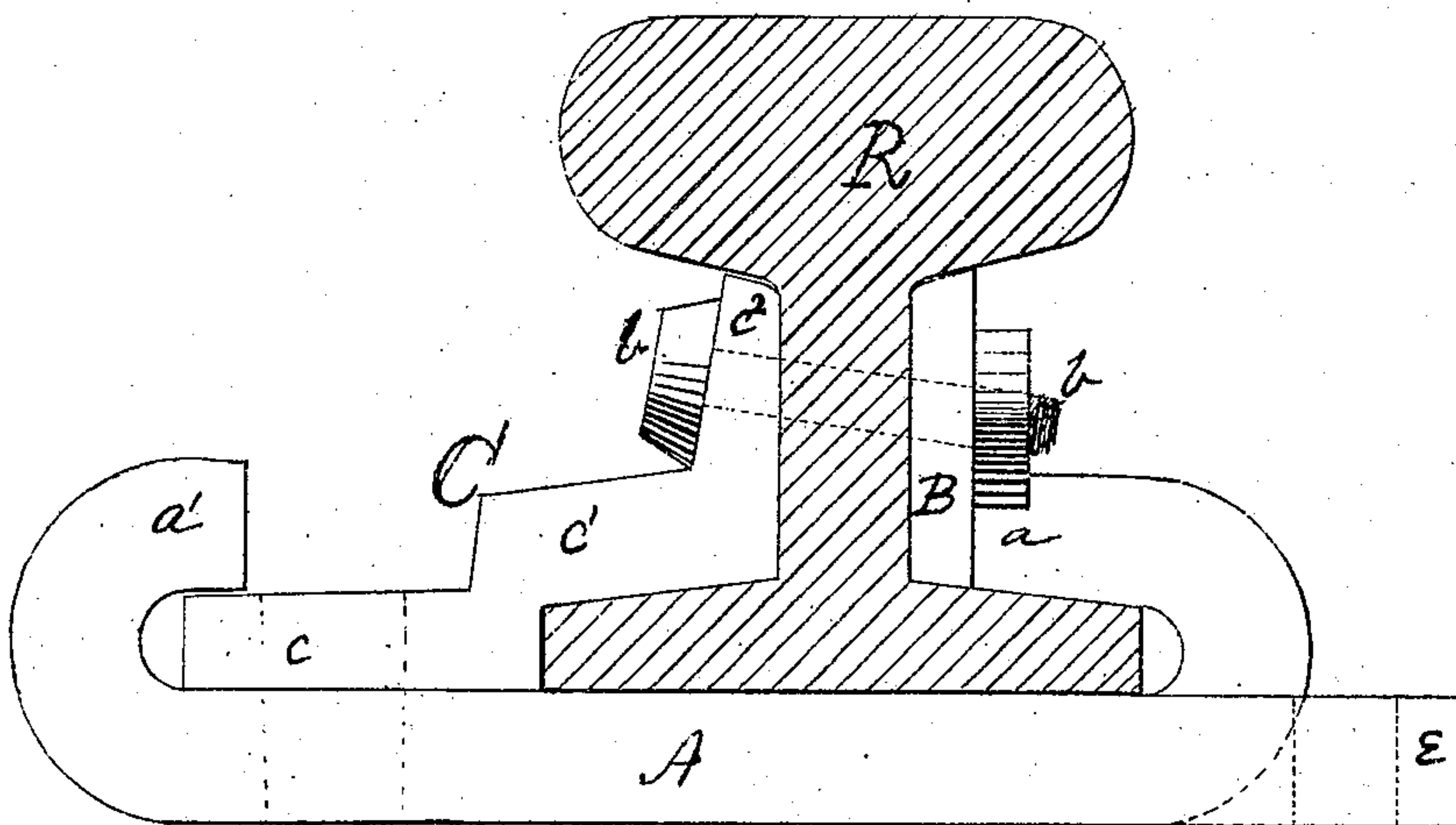
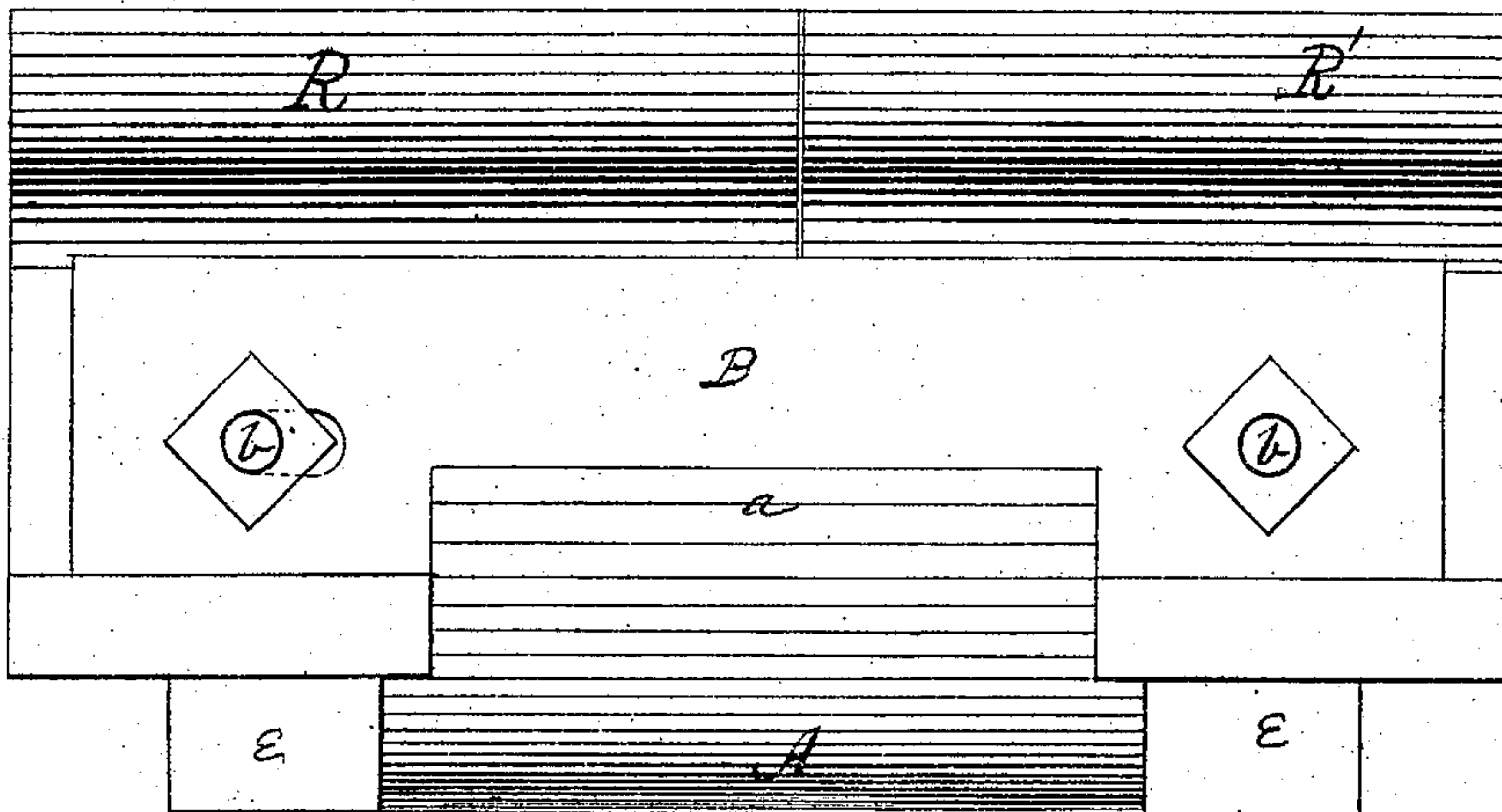


fig. 2.



Witnesses:

Victor Haynam
Andrew Rawlings

Inventor:

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UNITED STATES PATENT OFFICE.

ALLEN P. LORD, OF FRIENDSHIP, NEW YORK, ASSIGNOR TO HIMSELF AND
JOHNSON HIGGINS, OF SAME PLACE.

IMPROVEMENT IN RAILWAY RAIL-CHAIRS.

Specification forming part of Letters Patent No. 119,624, dated October 3, 1871; antedated September 30, 1871.

To all whom it may concern:

Be it known that I, ALLEN P. LORD, of Friendship, in the county of Allegany and State of New York, have invented a new and useful Rail way-Chair; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a transverse vertical section, and Fig. 2 a horizontal section through line *x x* of Fig. 1.

Similar letters of reference in the drawing indicate corresponding parts.

The object of this invention is to construct a cheap and strong wrought-iron chair for railway rail, which will hold the rails firmly and yet admit of their removal without taking up the chair; to this end the chair is constructed and applied to the rail in the manner which I will now proceed to describe.

A is the base-plate of the chair, formed of wrought-iron rolled into shape from a flat plate of uniform thickness. On one side the central part is turned up over the base of the rail, as shown at *a*, leaving a horizontal flange or projection, *e e*, at each corner, about an inch wide. On the other side the whole edge of the plate is turned up, forming a lip, *a'*, as shown in Fig. 1. B is a wrought-iron fish-plate interposed between the edge of lip *a* and the side of the rails R R', and C is a wider plate, also of wrought-iron, rolled into shape from a flat bar of uniform thickness, and interposed between the opposite side of the rails and the lip *a'*, its edge extending under the edge of the lip, as shown in Fig. 1. The plate C is rolled into a peculiar shape, which perfectly adapts it to its purpose. When finished it consists of three parts, viz., a horizontal part, *c*, filling the space between the base of the rail and the edge of the plate A; an inclined part, *c'*, covering the base of the rail; and a vertical part, *c''*, fitting against the side of the rail, and answering as a fish-plate to support the latter, the part *c''* and the opposite fish-plate B being connected together by means of bolts *b b* passing through the rail, either the rails or plates being sufficiently slotted to accommodate the ex-

pansion and contraction of the metal. The chair is bolted to the cross-ties on one side of the rail by means of bolts or spikes passing through the projections *e e*, and on the other side by two or more bolts through the part *c* of plate C. It will be observed that the base of the rail extends under the lip *a*, nearly filling the recess formed by said lip; but on the other side of the rail it does not extend to the lip *a'* by at least an inch. The object of this construction is to enable the piece C to be bolted to the chair along the flat part *c*, between the rail and the lip *a*, so that the bolts will interfere with neither of said parts. This saves expense in construction, and also enables the rail to be removed without taking up the chair, since it can be withdrawn longitudinally whenever the bolts *b b* are removed; or by removing the plate C it can be lifted directly out of the chair.

Every part of this chair is made from flat plates or bars of wrought-iron, and the construction is specially designed to enable the parts to be rolled or struck up from such plates by machinery at the least possible expense, and yet cause them, when combined, to form a chair which cannot be broken by concussion, and which will hold the rails firmly without interfering with their contraction and expansion, and admit of their being easily and readily inserted and removed.

I am aware that chairs consisting of a base-plate corresponding in general shape with the plate A, together with plates supporting each side of the rail, have been heretofore in public use; and I do not claim, broadly, the combination of such base and side-plates when any of them are constructed of cast-iron; nor when made in a different shape or connected in a different manner from that herein shown; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

A chair for railroad rails constructed from flat wrought-iron plates or bars in parts A B C, each formed specifically as herein described, and the whole combined and arranged to operate together in the manner shown and specified.

ALLEN P. LORD.

Witnesses:

NOADIAH ADAMS,
JEROME D. SCOTT.