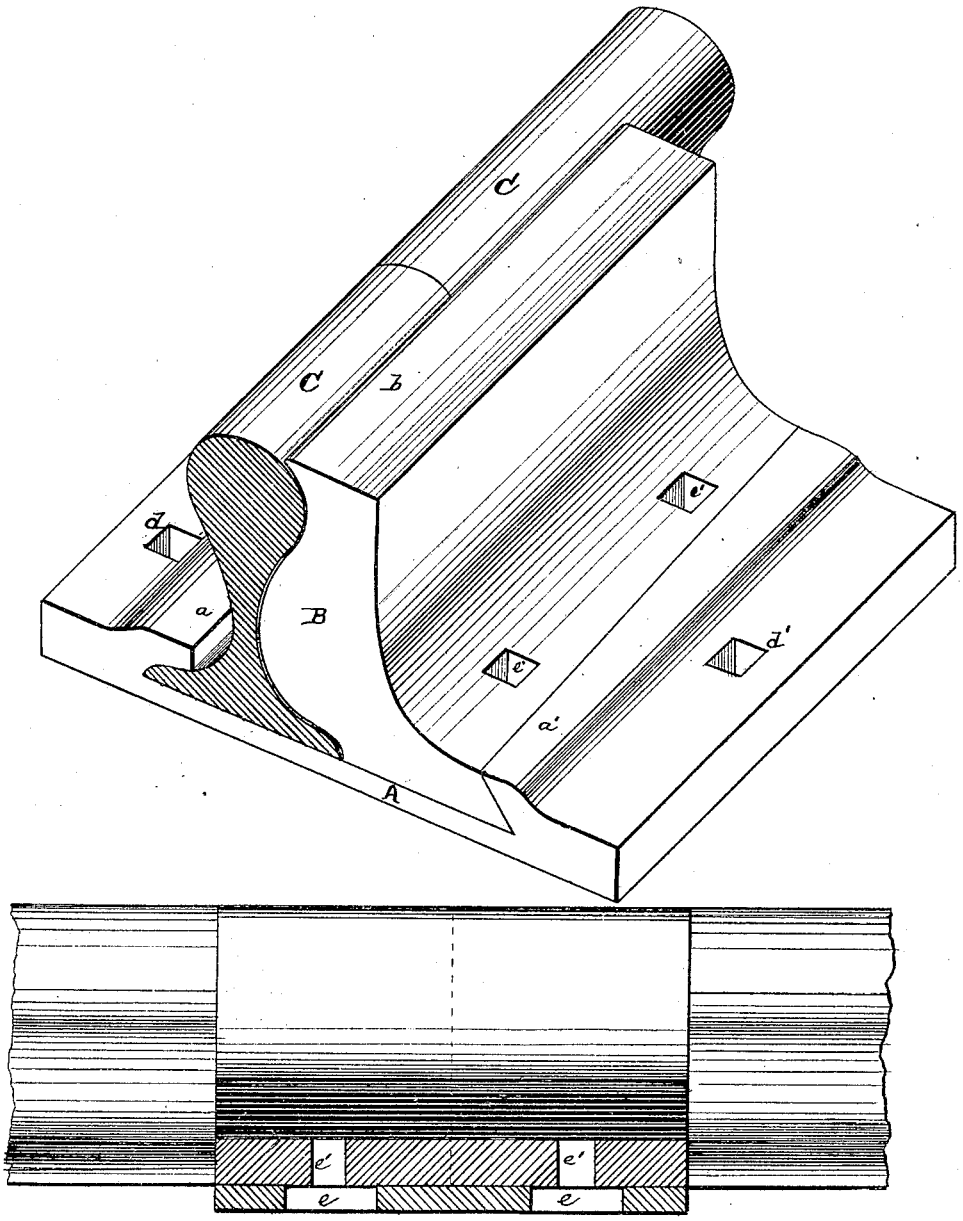
C. R. JOYCE.

RAILWAY RAIL CHAIR.

No. 109,418. Patented Nov. 22, 1870.



Witnesses:

S. J. Noyes

J. P. Theodore Leney.

Inventor

Chas. R. Joyce by

H. W. Beadle, atty

United States Patent Office.

CHARLES R. JOYCE, OF ALEXANDRIA, VIRGINIA, ASSIGNOR TO HIMSELF AND EDWIN REESIDE, OF SAME PLACE.

Letters Patent No. 109,418, dated November 22, 1870.

IMPROVEMENT IN RAILWAY-RAIL CHAIRS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES R. JOYCE, of Alexandria, in the county of Alexandria and State of Virginia, have invented a new and useful Improvement in Railroad-Chair; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to that class of railroad-chairs which is provided with an auxiliary wedge-shaped rail, having a bearing-surface flush with the surface of the main rail, and consists in certain specific details of construction, relating, especially, to the adjustment of the auxiliary rail upon the base of the chair.

In the drawing—

Figure 1 represents a perspective view of my improved chair, and

Figure 2, a side elevation, partly in section.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A represents the bed-plate of the chair, which is provided with the lips *a a'*.

The lip *a* runs parallel with the bed-plate, and is formed to correspond with the base-flange of the rail, which fits snugly against it when in place, as shown in fig. 1.

The lip *a'* is not parallel with the bed-plate, but runs in a slanting direction across it, one end being wider than the other. Its inner face also is inclined, for the purpose of forming a socket for the outer edge of the auxiliary rail, as shown.

B represents the auxiliary rail, which is wedge-shaped in its upper outline. Its inner edge corresponds in shape with the outline of the main rail, and it is also provided with a bearing-surface, *b*, which is flush with the surface of the main rail. Its outer edge is inclined, to correspond with the socket formed by the lip *a'*.

C C represent ends of the main rail, which are to be held by the chair.

The location of the spike-holes is peculiar.

d d represent holes in the lip *a*, and

d', a single central hole in the lip *a'*.

e e represent slots in the bed-plate of the chair, which correspond in their location laterally with the holes *e' e'* in the auxiliary rail.

The operation is as follows:

The chairs are fastened down upon the ties at the proper distances apart, the spikes being placed in the holes *d d d'*. The rails are then laid in position, and the auxiliary rails are forced into the socket formed by the central inward curve of the rail and the lip *a*. When they have been forced into place sufficiently far to securely hold the rails, they are themselves secured in place by driving spikes into the holes *e' e'*, the slots beneath permitting a reasonable amount of latitude in the position of the auxiliary rail.

When it is desired to take up a rail, it is necessary simply to draw the spikes in holes *e e*, remove the auxiliary rail, slip the main rail sufficiently far toward the lip *a'* to clear its base-flange from the lip *a*, and lift it out vertically.

It will be observed that the chair itself need never be disturbed after being once laid.

It will be observed, also, that the openings in the rail B are less in their area than the head of the spike which is driven into them to secure the rail in place, and, consequently, they are closed sufficiently to prevent the entrance of moisture in such quantities as to cause the sleeper beneath to decay. The rail B is thus rendered adjustable without having the objectionable feature of an open orifice to catch the moisture, and cause decay.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent of the United States, is—

A chair having its base A, with flange *a'*, and slots *e e*, and rail B, with small holes *e' e'*, as described.

This specification signed and witnessed this 20th day of August, 1870.

CHARLES R. JOYCE.

Witnesses:

R. O. W. BELL,

ELY BELL.