

J. F. Stillman.

Railway Chair.

N<sup>o</sup> 87,308.

Patented Feb. 23, 1869.

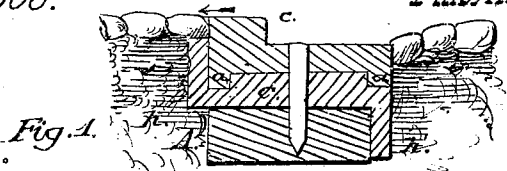


Fig. 1.

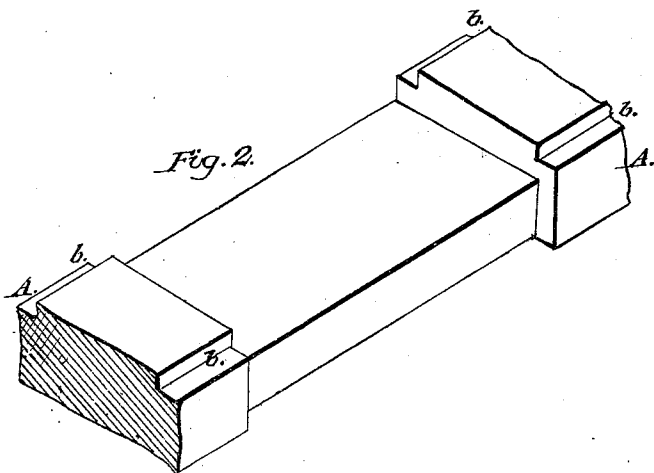


Fig. 2.

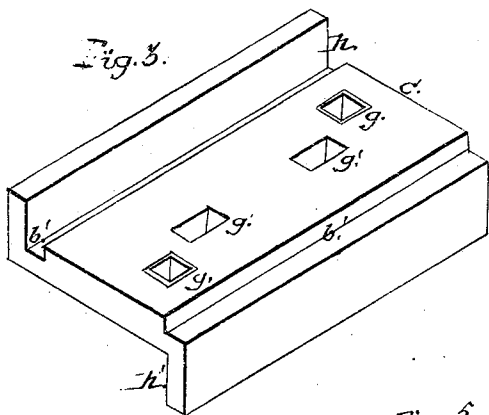


Fig. 3.

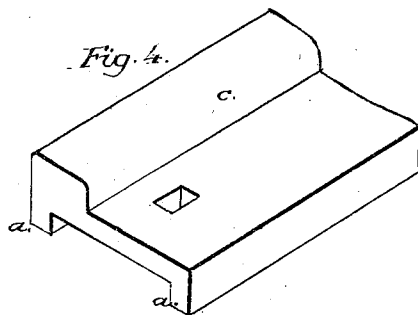


Fig. 4.

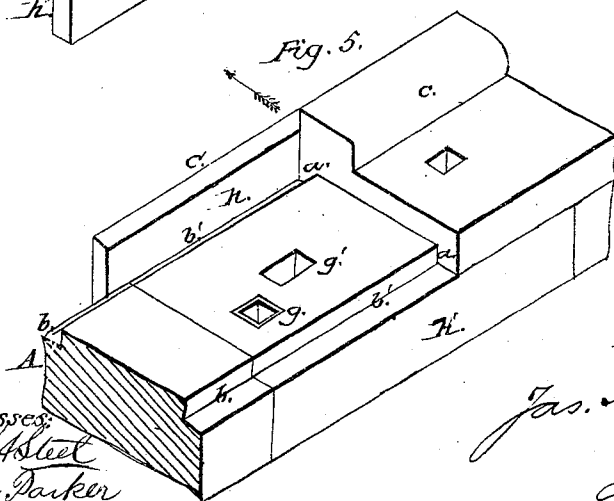


Fig. 5.

Witnesses:  
Wm. Aslett  
John Parker

Inventor:  
Jas. F. Stillman  
By  
H. Houston  
attorney

# UNITED STATES PATENT OFFICE.

JAMES F. STILEMAN, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVED CHAIR FOR STREET-RAILWAY RAILS.

Specification forming part of Letters Patent No. 87,308, dated February 23, 1869.

To all whom it may concern:

Be it known that I, JAMES F. STILEMAN, of Philadelphia, Pennsylvania, have invented an Improved Chair for the Ends of Street-Rails; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of a chair adapted to the stringer and to the rails of a city-railroad at the point where two rails meet each other, substantially as described hereafter, so that the depression, loosening, and displacement of the rails at this point may be prevented.

In order to enable others skilled in the art to make and use my invention, I will now describe a mode of constructing and applying the same, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a transverse sectional view of a portion of a street-railway, showing my improved chair; Fig. 2, a perspective view of that portion of a longitudinal stringer which is prepared for the reception of the chair; Figs. 3 and 4, perspective views of the chair and rail detached from each other; and Fig. 5, a perspective view, showing the several parts as they appear when fitted together.

Similar letters refer to similar parts throughout the several views.

The rails of city-railroads usually rest upon wooden stringers A, which are placed longitudinally, and connected together at suitable intervals by cross-ties, the rails being secured by spikes, and prevented from slipping laterally on these stringers, should the spikes become loose, by lips or flanges *a a* on the under side of the rails, which are adapted to corresponding grooves *b b* on the stringer. This plan answers well for the central portions of the rails; but the ends are liable to be forced downward until they compress the wood beneath them, the spikes consequently becoming loose.

Another objection to the ordinary plan is, that it offers no sufficient lateral steadiment for the ends of the rails, which are frequently forced outward by the car-wheels in the direc-

tion of the arrows, Figs. 1 and 5. These objections I overcome by employing a cast-iron chair, C, which is fitted over the stringer (cut away to receive it, as shown in Fig. 2) at a point directly beneath the ends of the two rails.

This chair is secured to the stringer by spikes, which are driven through the holes *g g*, and on its upper surface are recesses *b'*, forming continuations of the recesses *b* of the stringer, and receiving the flanges *a a* of the rails.

The spikes which secure the ends of the rails to the stringer pass through openings *g'* in the chair, which are made somewhat larger than the spike in order to allow for slight differences in the positions of the holes which are punched in the rails.

It will be readily understood that a chair or plate thus introduced beneath the ends of the rails will afford a firm support for the same, and will prevent them from being unduly depressed by the action of the car-wheels.

The lateral protection of the ends of the rails is fully effected by means of a flange, *h*, of the chair, which projects upward and fits against the outside of the rails, the outward lateral displacement of the chair itself being prevented by a flange, *h'*, which bears against the inner edge of the stringer.

I claim as my invention and desire to secure by Letters Patent—

1. A chair, C, fitted to the stringer A, arranged for the reception of the rails, and situated at the point where two rails meet each other, all substantially as and for the purpose herein set forth.

2. The flange *h*, bearing against the outer edge of the rail, in combination with the flange *h'*, bearing against the inner edge of the stringer, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES F. STILEMAN.

Witnesses:

JOHN WHITE,  
C. B. PRICE.