

W. WARNER.

Improvement in Chairs for Street Railway-Rails.

No. 129,697.

Patented July 23, 1872.

FIG. 1

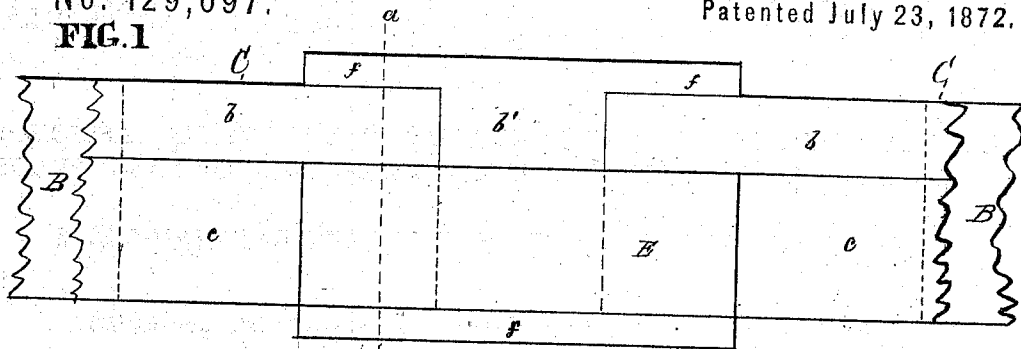


FIG. 2

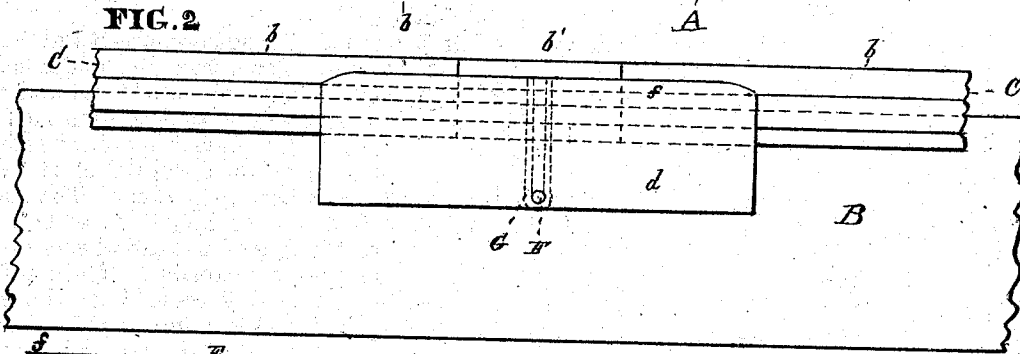


FIG. 3

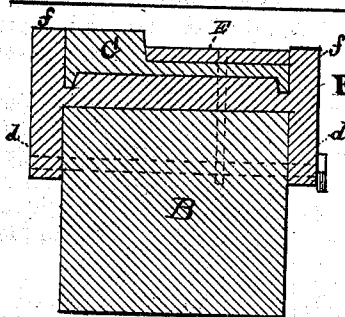


FIG. 4

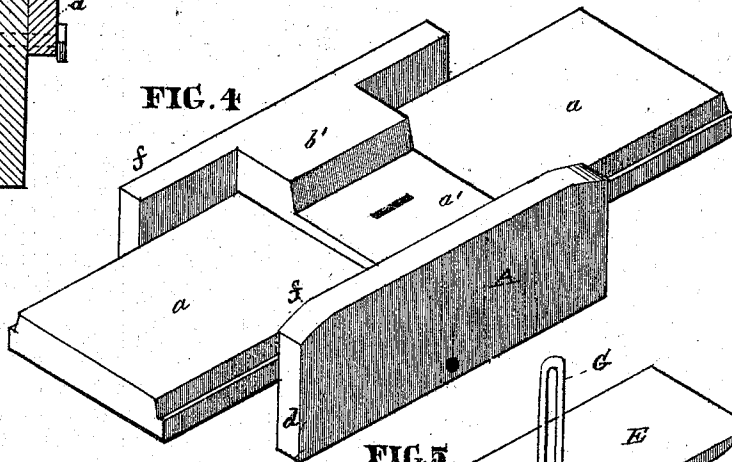
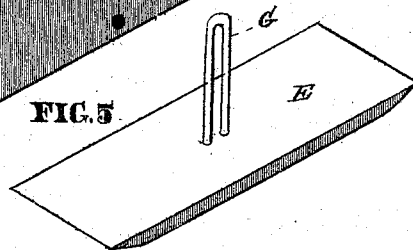


FIG. 5



WITNESSES.

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INVENTOR

William Warner
By His Attorney.
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UNITED STATES PATENT OFFICE.

WILLIAM WARNER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO SAMUEL McMULLIN, OF SAME PLACE.

IMPROVEMENT IN CHAIRS FOR STREET-RAILWAY RAILS.

Specification forming part of Letters Patent No. 129,697, dated July 23, 1872.

Specification describing certain Improvements in Horse-Car Railroad Chairs, invented by WILLIAM WARNER, of the city of Philadelphia and State of Pennsylvania.

The first part of my invention relates to the combination of a clamping-plate with the chair and the contiguous ends of the rails in such a manner as to hold them securely upon the string-piece. The second part of the invention relates to providing the bed-plate with flanges on its upper and under sides, which fit against the edges of the rails and string-piece to prevent the lateral movement of the rails, as hereinafter fully described.

Figure 1 is a plan view of the chair in connection with a string-piece, B, and the contiguous ends of the rails C C. Fig. 2 is a side elevation of the same. Fig. 3 is a cross-section at the broken line *a b* of Fig. 1. Fig. 4 is an isometrical view of the chair A. Fig. 5 is a like view of the cap-plate E in a reversed position.

Like letters in all the figures indicate the same parts.

A is the improved chair, whose bed-plate *a* is let into the string-piece B and level with the same, so as to provide a firm foundation for the ends of the rails. C C are contiguous ends of the rails, which bed on the bed-plate *a*. The treads *b* of the rails are level with the tread *b'* of the chair, and the clamping-plate E beds upon the face *c* of the rails and the raised part *a'* of the bed-plate. The clamping-plate is held down upon the flat parts *c c* of the rails and the raised part *a'* of the chair, so as to bind the rails firmly upon the bed-plate *a* and the string-piece B by means of the bolt F, which passes through the downwardly-projecting cheeks *d d* of the bed-plate, as seen in

Fig. 2, through the string-piece B and the staple G, which projects from the under side of the said clamping-plate into a suitable mortise of the string-piece, thus holding the parts firmly together and preventing the ends of the rails springing up when relieved of the pressure of the car-wheel upon them. The clamping-plate E is of such height as to be borne upon by the flanges of the car-wheels as their treads roll over the treads *b* of the rails C C and the connecting-tread *b'* of the chair A, so as to relieve the joints of the rails of a portion of the weight of the car, and thus prevent the usual rapid wear and rubbing off of the corners.

A saving in the expense of rails is effected by constructing the chair with the tread *b'*.

The cheeks *d d* of the bed-plate *a* fit against the edges of the string-piece B, and the rails C C have a lateral support against the flanges *f f* of said plate, to prevent the lateral movement of the rails.

I claim as my invention—

1. The combination of the clamping-plate E, provided with a staple, G, the chair A, rod F, and string-piece B, through which it passes for holding the rails and chair firmly upon the string-piece, substantially in the manner above set forth.

2. The combination of the cheeks *d d* and flanges *f f* of the bed-plate *a* with the edges of the string-piece B and the edges of the rail C C, respectively, for preventing the lateral movement of the rails, substantially as described.

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Witnesses:

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