(No Model.) 2 Sheets—Sheet 1.

R. L. OMENSETTER.

WINDOW FOR STREET RAILWAY CARS.

No. 323,360. Patented July 28, 1885.

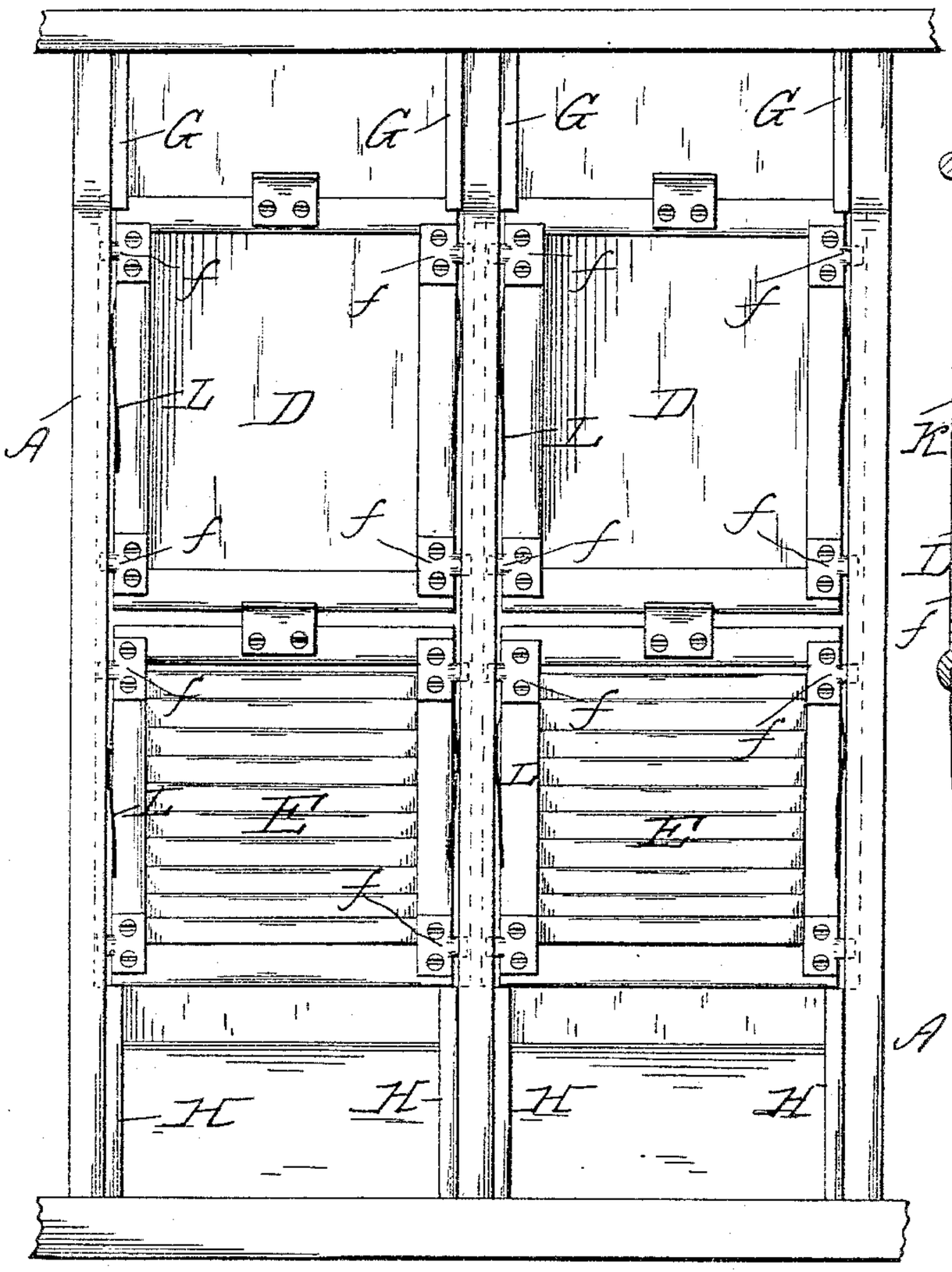

Fig. 1

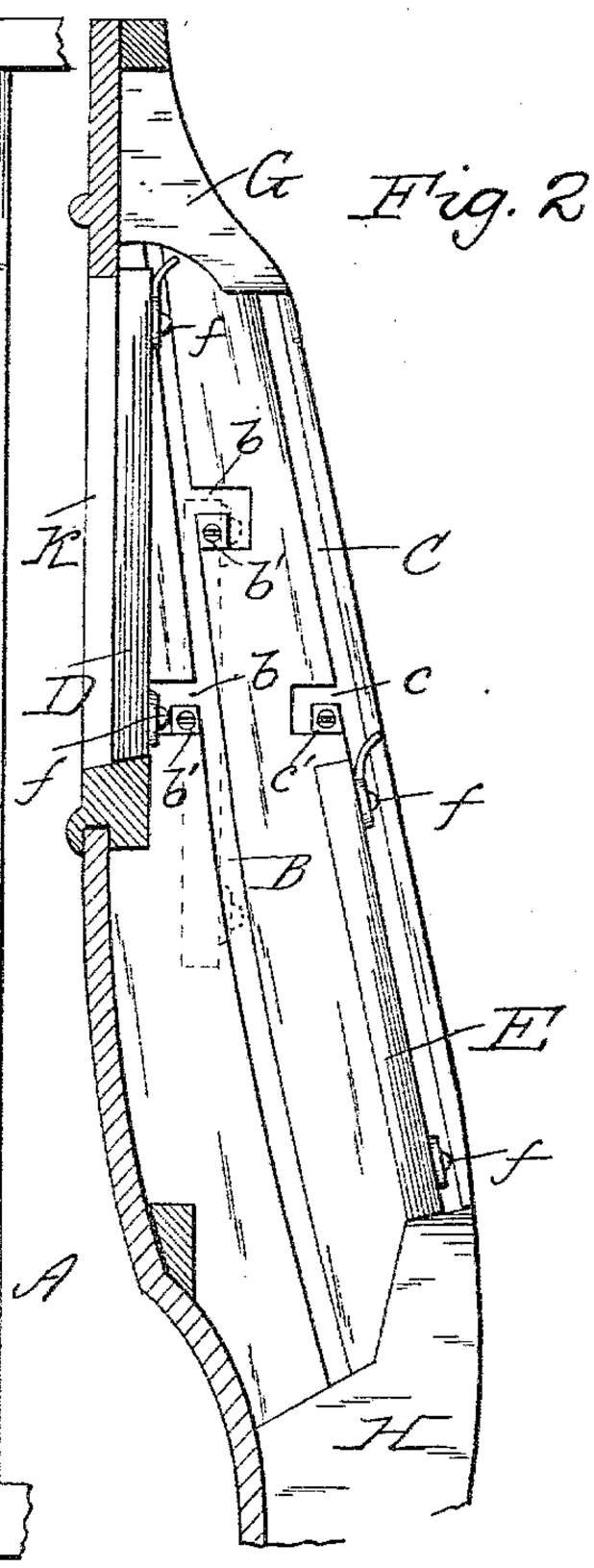

Fig. 2

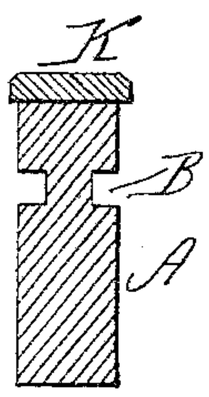

Fig. 3

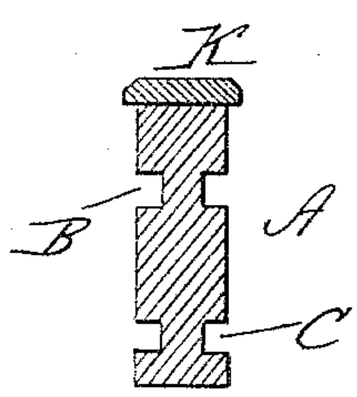

Fig. 4

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(No Model.) 2 Sheets—Sheet 2.

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WINDOW FOR STREET RAILWAY CARS.

No. 323,360. Patented July 28, 1885.

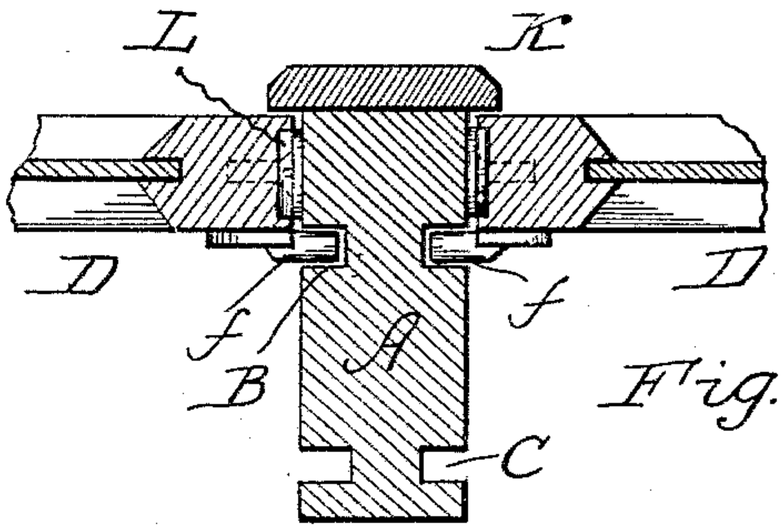

Fig. 6

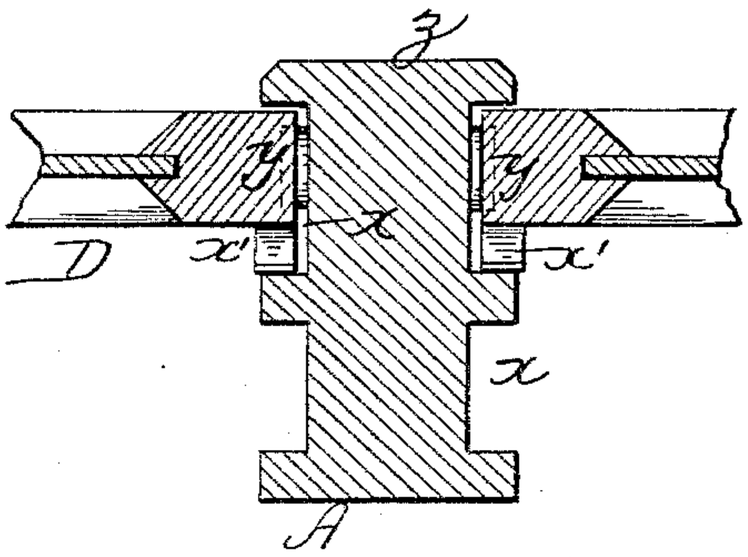

Fig. 7

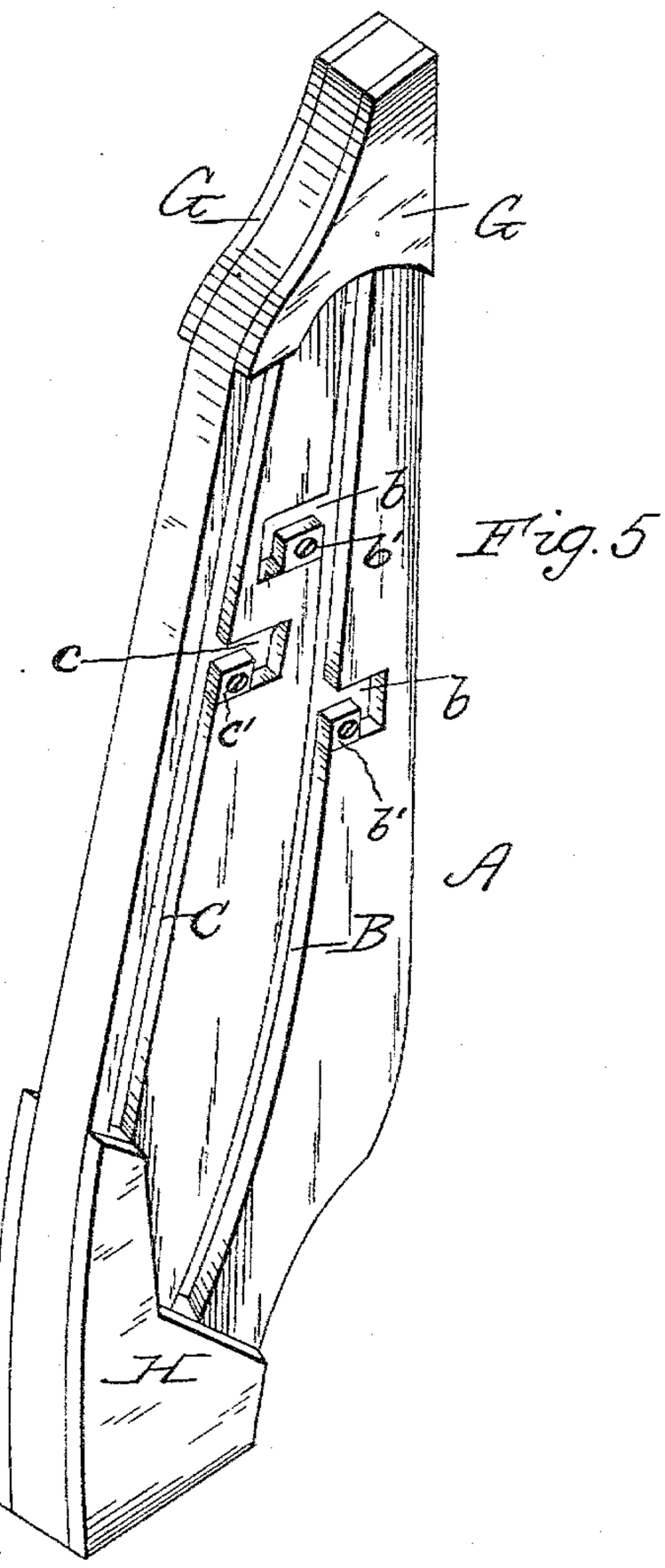

Fig. 5

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UNITED STATES PATENT OFFICE.

ROBERT L. OMENSETTER, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW FOR STREET-RAILWAY CARS.

SPECIFICATION forming part of Letters Patent No. 323,360, dated July 28, 1885.

Application filed September 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. OMENSETTER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Street-Railway Cars, of which the following is a specification, reference being had therein to the accompanying drawings, wherein—

Figure 1 is an elevation of a part of one side of a street-railway car embodying my invention. Fig. 2 is a vertical transverse section of same. Figs. 3 and 4 are cross-sections of posts, having respectively one and two side grooves, the former being for window-sashes only and the latter for both window and blind sashes. Fig. 5 is a perspective of the post without its facing-strip. Fig. 6 is a broken cross-section of post and window-sashes; and Fig. 7 is a like view of same as heretofore made, and upon which my invention is an improvement.

My invention has relation to street-railway cars, having particular reference to the side posts and the manner of supporting the window and blind sashes so that they can be moved up and down on the posts in the usual manner; and it has for its object to economize in the material or lumber required for the posts and in the time consumed for cutting or finishing their grooves. Heretofore these posts have been made with side grooves, *x*, (see Fig. 7,) in which the edges *y* of the sashes enter to move up and down the same, and these grooves are made irregular in width and wide enough to permit the usual lateral movement required for the sashes as they are elevated or depressed, such lateral movement being necessary owing to the curved outline of the posts. As these grooves, as well as the face-strips *z* of the posts, are cut or worked out of the latter, much time is consumed and skillful labor required for their manufacture, besides which an undue thickness of lumber or wood must be used. Again, as the grooves in the posts have an irregular width, or are made wide enough to permit of the lateral movement of the sashes as they are elevated or lowered, the latter must be provided with spring arms or fingers *x'* on their inside faces to hold them in position and to prevent rattling.

In using my improvements no extra thickness of material is required for the posts. The edges of the sashes do not enter or move in the post-grooves. The latter are regular or of an even width. Very little time is consumed in working the grooves in the posts, and the face-strips of the latter are made separate from and attached thereto.

My invention accordingly consists of the combination, construction, and arrangement of parts as hereinafter described and claimed, having reference particularly to the provision of a post having narrow grooves provided with L or other shaped branches, to posts having separate or independent facing strips, and to sashes having guide pins or bars, which enter and move in the post-grooves.

In the drawings, A represents a side post of a street-railway car, and B and C the grooves in its sides, the former being for the window-sash D and the latter for the blind-sash E. These grooves are provided at suitable intervals with branches *b* and *c*, respectively, which are preferably made L-shape, as shown, but they may be otherwise configured, as desired.

The sashes D and E are made of just such a width that they will loosely fit between two posts, as shown in Fig. 1, and upon their inside faces are secured guide-pins *f*, which enter and move in the post-grooves as the sashes are raised or lowered. The top and bottom of the grooves are closed by cheek-pieces G and H, respectively, the former limiting the upward movement of the sashes and the latter supporting the sashes when lowered. These cheek-pieces G and H cause the shocks incident to raising and lowering the sashes, as well as the strain of supporting them when lowered, to fall upon the sashes themselves and not upon their guide-pins; consequently the latter cannot work loose, and their fastenings always remain intact.

The branch grooves *b*, or those for the window-sashes, may be on both sides of the main groove B, as shown, and all such branch grooves are preferably provided with a metal facing or sides, as illustrated at *b' c'*, to avoid wear of their edges by the sash guide-pins.

The width of all the main and branch grooves is the same as or equal to the thickness of the sash guide-pins, so that the latter

will snugly fit and move in said grooves without binding, and prevent lateral movement or rattling of the sashes. The latter, therefore, are in themselves anti-rattling sashes, and spring-fingers or other devices heretofore used for preventing rattling of the sashes are dispensed with.

The posts A are each made of a strip of wood of an equal thickness throughout, but as the edges of the sashes do not pass into the post-grooves a much less thickness of wood is required for the post and a saving of lumber is effected.

As the post-grooves, as shown, are mainly narrow and regular straight or slightly curved grooves, they can be formed at one operation by a cutter-head; therefore they need no finishing, and no skilled labor is required to make them, thereby effecting a saving of labor and time required for their manufacture.

As the post facing-strips K are of a greater width than the thickness of the posts, the former are made separate from and screwed or otherwise secured thereto. These facing-strips being separate from the posts, they are more inexpensively repaired when damaged by contact with a wagon or other vehicle passing the car.

To prevent too sudden descent of the sashes when lowered their edges are provided with buffer or spring arms L, which bear against the sides of the post with sufficient pressure to cause the sashes to slowly descend when the hand is removed therefrom before being completely lowered.

The operation of raising and lowering the sashes is obvious. When they are raised to their full limit, their lower guide-pins, *f*, register with the horizontal parts of the L-shaped branched grooves, and upon giving said sash a slight or the usual lateral movement said pins pass into vertical part of said grooves and hold the sashes in position when elevated, as shown in Fig. 2. By providing a number of these branch grooves the sashes may be adjusted or lowered to any desired distance, as indicated by the dotted lines in Fig. 2.

When the blind-sashes are not used, the grooves B only are formed in the posts, as illustrated in Fig. 3.

While I have shown the posts' grooves arranged at an angle to the perpendicular, yet I do not confine myself thereto, as they may be otherwise arranged, as desired, without departing from the spirit of my invention.

Instead of fastening all the guide-pins *f* to the inner face of the sash, a pair of said pins may be secured in the edge of the sash at that side, and this is sometimes required at the corner-posts of the car in refitting old cars with my improvements.

What I claim as my invention is—

1. In a street-railway car, the posts A, having one or more side grooves, B, extending from near the top to the bottom of said posts, and provided with L-shaped branches *b* and end cheek-pieces, G and H, in combination with sash-frames adapted to move in said grooves and branches, substantially as shown and described.

2. In street-railway cars, the posts A, having one or more side grooves, B, with branches *b*, having metal facings *b'*, substantially as and for the purpose set forth.

3. The street-car posts A, having narrow regular grooves B, with branches *b* and cheek-pieces at the ends of said grooves, substantially as shown and described.

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

ROBT. L. OMENSETTER.

Witnesses:
S. J. VAN STAVOREN,
THOS. H. CLARKE.