

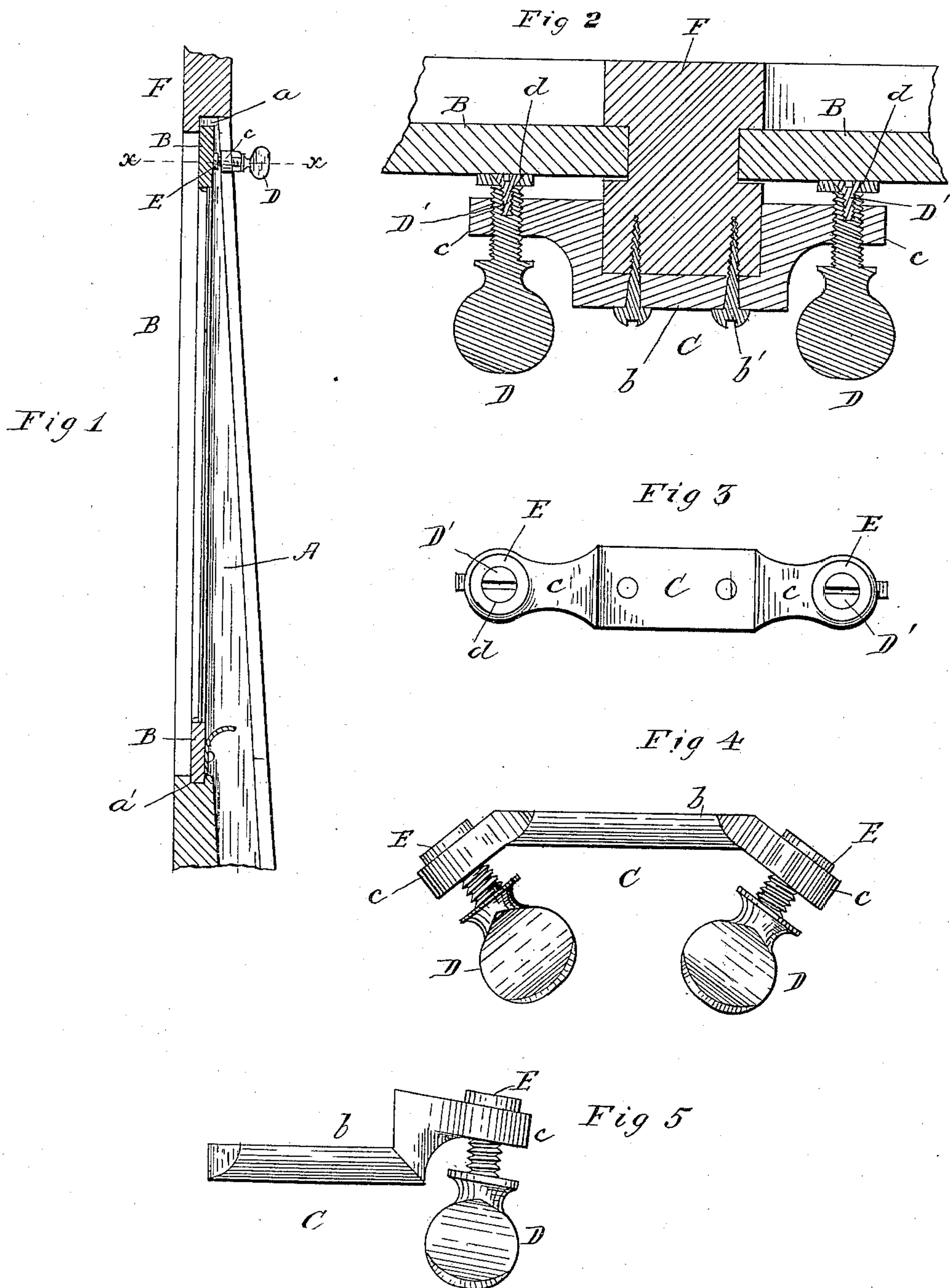
(No Model.)

I. N. W. SHERMAN.

SASH HOLDER FOR STREET CAR WINDOWS.

No. 277,793.

Patented May 15, 1883.



Witnesses
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SASH-HOLDER FOR STREET-CAR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 277,793, dated May 15, 1883.

Application filed December 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, I. N. WALTER SHERMAN, of Des Plaines, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Fastenings for Window-Sashes in Omnibuses and Street-Railway Cars, of which the following is an exact description, reference being had to the accompanying drawings, forming a part of the specification, in which—

Figure 1 represents a vertical cross-section of an omnibus-window; Fig. 2, a plan section on an enlarged scale, taken on the line *xx*, Fig. 1; Fig. 3, a rear elevation of one of the fastening devices. Fig. 4 shows a plan view, on the same scale, of one of the angle-pieces; Fig. 5, a plan view of one of the corner-pieces, on the same scale.

My invention relates to devices which have for their object the securing of sashes when in the desired position, so as to prevent them from rattling, and also to prevent the window-glass from breaking in omnibuses and street-cars when the groove in the frame in which the sash slides is wider at the point where the bottom of the window rests when closed than at the top of the frame; and it consists of a metal device having at one or both ends thereof holes for the insertion of thumb-screws, which thumb-screws have at the inner or screw end thereof a loose circular washer fastened loosely to the end of said screw by means of an ordinary screw.

The manner of attaching and securing windows in street-cars and omnibuses so that they can be readily raised and lowered is peculiar and different from the ordinary methods of raising and lowering window-sashes, at least that part of the attachment which relates to the groove in the frame, this groove being irregular and much wider at certain points than at others. All this, however, is well known, and I only refer to it for the purpose of fully describing my invention.

In the drawings, A represents a groove in an omnibus window-frame, as shown in Fig. 1. *a* is the upper point of such groove.

a' represents a point or shoulder in the groove where the bottom of the window rests when closed, the remainder of such groove being below the window and back of the omnibus-seat, in which the window slides when low-

ered, this part of said groove being of uniform width, and into which the window-sash fits closely.

B represents an omnibus or street-car window-sash, which is shown as closed in Fig. 1 and fastened at *a* by means of my device. My device is of metal, preferably of brass, and in which C in the drawings represents that part of my device which contains the hereinafter-described angle-pieces, and which is secured to the frame adjacent to or between the windows of the car or omnibus.

D D are thumb-screws; E are washers secured loosely to the end of the thumb-screws at *d* by means of an ordinary small screw, D', passing through a circular conical aperture in the center of the washer, and into the end of the thumb-screw D, the end of the thumb-screw pressing against the washer and tightening the sash, as hereinafter shown.

C is cast in one piece, and consists of a back or connecting and securing device, *b*, for securing my device to the frame, and angle pieces *c*, which may be one, as shown in Fig. 5, where there is only one window to be secured; or there may be two angle-pieces, as shown in Figs. 2, 3, and 4. At the side of the omnibus, and where the window-frames are adjacent to each other, and in the same plane, the angle-pieces *c* are at right angles to *b*, as shown in Fig. 2, while at the corners of the vehicle, where the corner-windows are at right angles to each other, the angle-pieces *c*, instead of projecting forward at right angles with *b*, are turned back and form an obtuse angle with the part *b*, the device being so formed as to secure the window at the end and on the side. This form of my device is shown in Fig. 4.

Usually I intend that my device shall be so constructed that each device shall secure or fasten two windows, as shown in Fig. 2; but at the ends of the omnibus, or where there is only one window, one thumb-screw only is required, as shown in Fig. 5. My device is secured to the frame F between the windows, as shown in Fig. 2, in the inside of the vehicle, at the upper part of the frame F and near point *a* in Fig. 1, by means of screws *b'*. The device C is of sufficient length to allow the connecting part *b* and the angle-pieces *c* to exactly fit the face and two sides of the frame F, the angle-pieces extending on each side far enough to al-

low the thumb-screws D to work freely against the window-sash B when desired. The manner of fastening my device to the frame F and the manner of tightening the window-sash B
5 by means of the thumb-screw and washers is shown in Fig. 2.

It is obvious that at the corners where the window-sashes are at right angles C is secured to the frame by screwing it to the frame
10 F in the same manner; but the connecting part *b* only rests against the inside face of the frame F, the angle-pieces projecting back from *b* and forming an obtuse angle, as shown in Fig. 4. When the window is raised or low-
15 ered it is evident that the sash, without some method of fastening, would rattle, and would also be more liable to break. By means of my device, when the window is raised, the window is readily made tight by turning the thumb-
20 screws D, and thereby pressing the loose

washer E against the window-sash. The peculiar construction and attachment of my washer is a valuable element in my device, as by this construction the paint is not rubbed off, nor is there any breaking or indentation
25 of the sash.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a fastening device for omnibus-windows and street-cars, a fastening device composed of angle-pieces and connecting part in one
30 piece, in combination with thumb-screws and washer, all substantially as and for the purposes set forth.

I. N. WALTER SHERMAN.

Witnesses:

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