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Fatented Mar. 9.1869. M. 87.708, Tig. 1. Fig. 2. Fig. 3. Fig. 4. Tig. 6. Fig.7. Fig. 8. Tig.5. Tig. 9. Fig. 10. Inventor a. C. Rogers byhis attorney Houry Stowson Mitnesses Im Asteel.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.



AMOS C. RODGERS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND J. AND G. H. GIBSON, OF SAME PLACE.

Letters Patent No. 87,708, dated March 9, 1869.

IMPROVEMENT IN SASH-HOLDER.

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, Amos C. Rodgers, of Philadelphia, Pennsylvania, have invented certain Improvements in Sash-Retainers and Fasteners; and I do hereby declare the following to be a full, clear, and

exact description of the same.

My invention consists of a toothed catch, arranged to slide between diagonal guides within a metal case, and adapted to the teeth of a ratchet secured to a window-frame or sash, the whole forming a device for retaining the sash in any position to which it may be raised or lowered, and for locking the same at the limit of its upward or downward movement, as fully described hereafter.

In order to enable others to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a view of a portion of a window-frame

and sashes with my improvements attached;

Figure 2, a vertical section of the same, on the line 1-2, fig. 1, looking in the direction of the arrow;

Figure 3, a side view, partly in section;

Figure 4 is a sectional view, showing a modification of the invention;

Figure 5, a section on the line 5-6, fig. 2;

Figure 6, a sectional plan view on the line 7-8, fig. 2; Figures 7, 8, and 9, detached views drawn to an enlarged scale, and illustrating portions of my invention; and

Figure 10, an enlarged sectional view of the modification shown in fig. 4.

Similar letters refer to similar parts throughout the several views.

A represents one of the side-pieces of a window-frame, in which are the usual recesses, a and a', for the reception of the lower sash, B, and upper sash, C.

To one edge of the lower sash, B, is secured a rack or ratchet, D, the teeth of which extend into the recess a, and at the upper end of the ratchet is an abrupt shoulder, b.

At the lower end of the ratchet is an inclined edge, c, and at a point opposite to this ratchet, and within a recess in the side-piece A, is a metal case, E. (See fig. 5.)

A catch, F, is arranged to slide in this case, between diagonal guides, dd, figs. 8 and 9, and has two or more teeth, e, adapted to those of the ratchet D, and a pointed projection, f, at its lower end, adapted to the shoulder b of the said ratchet.

The catch F is arranged to fall by its own gravity, until it rests upon a shoulder, i, of the case, and its teeth and projection extend beyond the latter, as shown in fig. 8, and the said catch is operated by a lever, G, which extends through and beyond the side of the window-frame, and is connected to the catch by a link, h, as shown in fig. 3.

When the lower sash is closed, as shown in fig. 5, the projection f of the catch rests upon the shoulder b of the ratchet, by which means the sash is locked, and prevented from being again raised until the catch F is elevated and drawn back into its case, by operating the lever G.

On elevating the sash, the teeth of the ratchet do not engage with the teeth of the catch, and the latter offers no obstruction to the movement of the sash.

On lowering the sash, however, the case is reversed, the catch then, by reason of its diagonal guides, falling toward the ratchet, until it engages with the teeth of the same, and effectually prevents the sash from being lowered until the catch is again raised by means of its lever G.

When the sash B is raised to its full height, and it is attempted to lower it, the teeth of the catch F bear against the bevelled edge c of the ratchet, and firmly lock and hold the sash in its raised position.

The above arrangement is intended to be applied to both upper and lower sashes, either of which, as described, can be retained in any position to which it may be raised or lowered, or locked at the limit of its downward or upward movement.

In the modification shown in fig. 10, the position of the parts is reversed, the ratchet being secured to the window-frame, and the metal case to the sash.

The arrangement of the catch F and its diagonal guides is also reversed, the catch receding from the ratchet, on the downward movement of the latter, instead of on its upward movement.

The lower end of the catch rests upon one arm of a lever, k, and a weight, l, upon the opposite arm of the said lever, the catch being, by this means, maintained in contact with the ratchet of the window-frame.

On raising the weight l, however, by means of an operating-lever, m, and slightly elevating the sash, to disengage the teeth of the ratchet and catch, the latter will fall, and will offer no further obstruction to the raising or lowering of the sash.

This modification is especially adapted for the windows of railway-cars, where the sash-frames are too light to admit of being recessed for the reception of a case.

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

The toothed catch F, sliding between diagonal guides d d, operated by the devices herein described or their equivalents, and arranged in respect to the ratchet D, secured to a window-frame or sash, substantially as and for the purpose herein set forth.

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

A. C. RODGERS.

Witnesses:

JOHN WHITE, WM. A. STEEL.