M. N. WARD.
Sash-Fasteners.

No. 197,702. Patented Nov. 27, 1877.

Fig. 1.

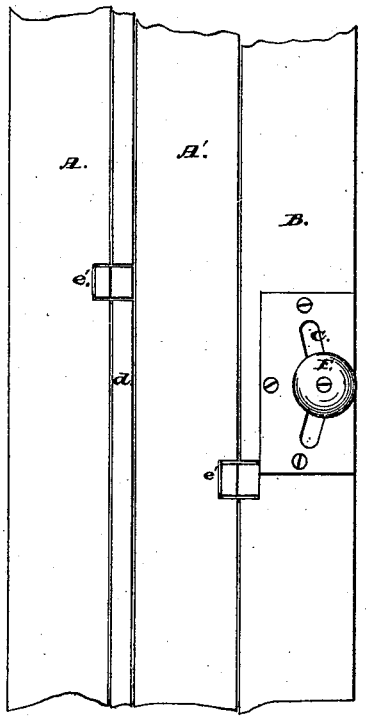


Fig. 5.

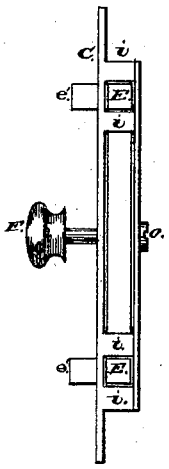


Fig. 2.

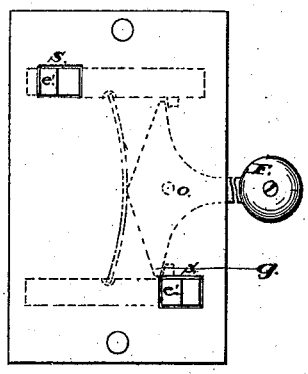


Fig. 3.

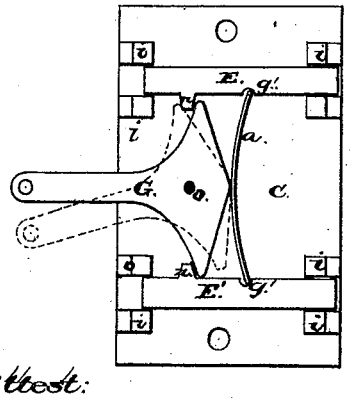
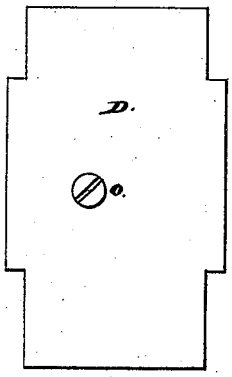


Fig 4.



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UNITED STATES PATENT OFFICE.

MOSES N. WARD, OF CEDAR RAPIDS, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO D. J. BUCKLEY, OF SAME PLACE.

IMPROVEMENT IN SASH-FASTENERS.

Specification forming part of Letters Patent No. **197,702**, dated November 27, 1877; application filed September 24, 1877.

To all whom it may concern:

Be it known that I, MOSES N. WARD, of Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Window-Sash Fasteners, of which the following is a specification:

The present invention relates to improvements in window-sash fasteners; and the novelty consists in the detail of the construction and combination of the several parts, whereby a simple, strong, and durable device is produced, all as will now be more particularly set out and explained.

In the accompanying sheet of drawings, Figure 1 represents the fastener as applied to a window, showing its manner of holding the sash. Fig. 2 shows the front or external face of the same disconnected. Fig. 3 is a rear view of the same, with the cap, Fig. 4, removed; and Fig. 5 represents a side view of my invention.

Sections of the upper and lower sash, respectively, are shown by letters A A′, Fig. 1. In the front face and outer edge of the sash are formed proper recesses, into which the catch slips as the two are opposite. A downward pressure on the knob F draws the upper bolt *e*, and releases the corresponding sash, while the lower one, *e′*, is set free by raising the knob. The reason of this will more clearly appear by reference to the mechanism described hereinafter.

As no part of the fastener is visible, except the knob and catches *e′ e′*, the knob being the only portion which extends beyond the wood-work, the danger of objects catching and wrenching the fastener or mutilating the wood-work is thus largely obviated. Besides its use in connection with the fastener, this knob, with its accompanying plate *c*, forms an ornamental addition to the window, and, if desired, it may at the same time be used as a convenient object to which to fasten the curtain-cord.

It will be seen that the fastener operates to hold the sash down as well as up, and therefore it will be found impossible for the window to be raised from the outside when shut. This constitutes one striking advantage over many of the fasteners now in use.

The mechanism is illustrated in the remaining drawings.

C is a plate of metal, provided with projecting lugs *i i*, &c., slots *s*, screw-holes for attaching to the casing, and another hole for the pivot-screw *o*. The lugs serve for the double purpose of confining the bolts E E′ and affording a bearing for cap D. The bolts E E′ are provided with shoulders *e e′*. These, extending through the slots *s*, form the catches for holding the sash. Interposed between these bolts, and moving on the pivot *o*, is an irregular-shaped lever or cam, G. The main part of this cam is nearly diamond-shaped, thus giving it a double face, and enabling it to be operated at will, intermediately through the spring *a*, on either of the bolts E. This cam has an arm extending from one side and beyond the edge of the plate C, and has attached to it the knob F. The extremities *g*, formed by the acute angles, pass behind small nibs *n* on bolts E E′, and, as the cam is oscillated, serve to withdraw the bolt from the recess in the sash. Its movement is illustrated by the dotted lines in Fig. 3.

It will be seen that the slipping of one bolt has no effect on the other; hence one sash may be raised or lowered at will, while the other remains stationary.

On the remaining and obtuse angle of the cam is poised a curved spring, *a*, the ends of which enter notches *g′*, prepared in the bolts, and the same serves to throw the catches into their appropriate recesses in the sash. Its action is indicated by the dotted lines Fig. 3.

By this simple arrangement is attained the least expense in manufacture, the least liability of getting out of order, with the greatest efficiency and durability.

A jog being formed in the guiding-lugs *i i*, the plate D, conforming to the irregular outline of Fig. 4, is fastened to the main plate C by means of the screw *o*, which serves also as a pivot for cam G.

In adjusting the fastener to the window it is let into the casing until flush with the face thereof. A recess is cut in the dividing-strip *d* to make room for the back action of catch *e*, and a similar one in stop *h* for the corresponding movement of catch *e′*. A curved

slot is also made through stop B, and the plate *c* is fastened thereon. Through this slot passes the screw holding the knob to the lever before mentioned. The sash then being notched, and the same with the stops returned to their places, the whole is ready for use.

It will be apparent that no harm can result to the fastener by the falling of the windows or by other strains, as the catch supporting the sash extends but little past its point of support. The plate C, Fig. 5, and the main portion of the bolt being entirely inclosed by the plates and lugs renders the whole strong and rigid.

As the fastener, when fixed to the window-frame, presents a considerable surface to both of the sash, another benefit is found in the protection it thus affords against wear on the casing.

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

1. In a window-sash fastener, substantially as described, the combination of the pivoted double-faced cam G, with bolts E, having ribs *n*, and with spring *a*, which takes at either end in or upon bolts E, substantially in the manner and for the purposes set forth.

2. In a window-fastener, as above claimed, the plate C, provided with lugs *i i*, &c., and cap D, the bolts E E′, with offset shoulders *e e′*, the cam G, and spring *a*, all constructed and operating substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

MOSES N. WARD.

Witnesses:
J. M. ST. JOHN,
R. H. GILMORE.