

(No Model.)

J. B. COHEN.
WINDOW SASH.

No. 470,139.

Patented Mar. 1, 1892.

FIG. 1.

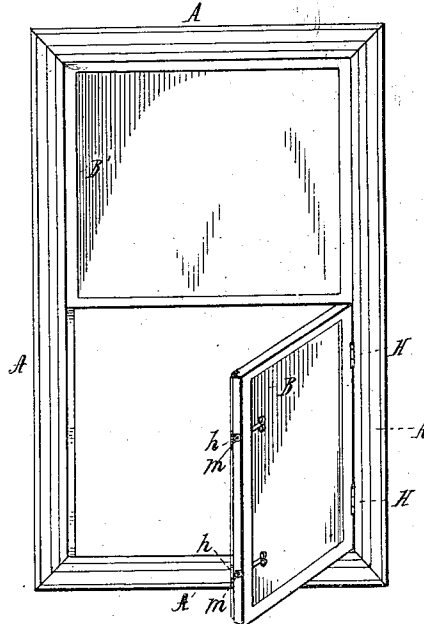


FIG. 2.

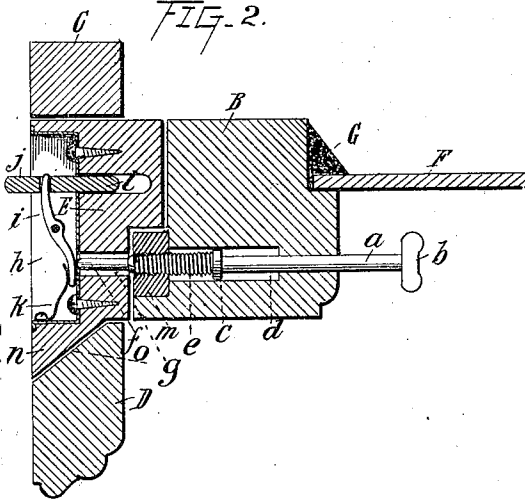
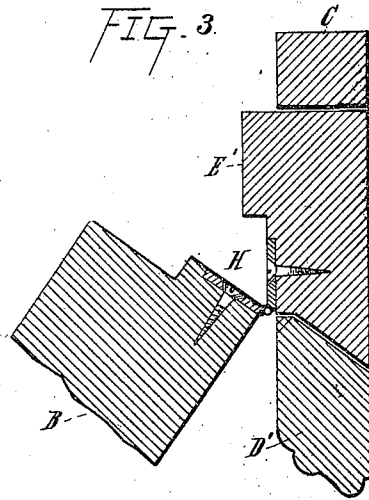


FIG. 3.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOSEPH B. COHEN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
FRANCIS LATHROP, OF SAME PLACE.

WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 470,139, dated March 1, 1892.

Application filed June 20, 1891. Serial No. 396,892. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH B. COHEN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sashes for Windows, of which the following is a specification.

My invention relates to improvements in window-sashes, and is related to such forms of sash as are set forth in my Letters Patent of the United States dated July 14, 1891, No. 455,825. In it the sashes are so hung to certain sliding side pieces or strips that both sides of each sash may be cleaned without removing either of them from the window-casing and simply by tilting them upon the pivots by which they are fastened to the sliding side strips. There are other features, also, of my said prior invention, which, however, need not be referred to here. In that invention the sliding side strips were held in position within the rabbets in which they slide by the parting-strip on one side by the bead-strip on the other side, and I relied upon the pull of the weight-cord to prevent them from tipping inwardly when the window was tilted forward for cleaning. I have found that somewhat more reliable means for preventing this is sometimes desirable; also, in that former construction the sashes were tipped in a vertical plane forwardly into the room for the purpose of cleaning them on the outside. This rendered some means for supporting the inner end desirable—as, for instance, a chair or a table. I have discovered a means whereby I can so hinge the sashes that they may swing in a horizontal plane, and thus I avoid the necessity or desirability for any support for the sash. The two improvements above set forth form the subject-matter of this present invention.

Figure 1 illustrates an elevation of a window-casing with two sashes, showing the invention. Fig. 2 illustrates a horizontal section taken through the center of one of the sash and sliding-strip locking devices. Fig. 3 illustrates a view similar to Fig. 2. It is taken, however, on a horizontal line through one of the sash-hinges.

A is the casing.

B B' are the sashes.

C are the parting-strips.

D D' are the bead-strips.

E E' are the sliding strips, to which the weight-cords are fastened.

F is the glass.

G is the putty or molding.

At one side the sashes are hinged by hinges H to the sliding strip E', and at the other side there are provided two locking devices for the sashes and also for the sliding strip on that side, which of course is disengaged from the sash when it is swung open and but for these locking devices would be carried to the top of the casing by the weight to which it is attached.

The locking devices are as follows: *a* is a spindle having a milled head *b*. *c* is a collar formed on the spindle, which works through a hole or recess *d* made in the strip. Beyond the collar is a threaded section *e* of the spindle, and beyond the threaded portion there is a projecting terminal part *f*, which is adapted to pass through a hole *g* in the sliding strip E. *h* is a small casting or struck-up box let into a properly-formed recess in the sliding strip and confined therein by screws, as shown. In it is pivoted a little lever *i*, which engages at one end with a pin or finger *j*, adapted to slide in and out, and also provided with a spring *k*, which is attached to the casting, whereby the lever is normally caused to project the pin *j* outwardly. The inner end of the pin works in a recess *l* made in the sliding strip. *m* is a nut fastened in the face of the sash-stile in any suitable manner. The threads in it coincide with the threads on the spindle *a*. *n* is a dovetail projecting portion of the sliding strip, which fits in and is held by an undercut part *o* of the bead-strip.

It will be observed that the feature which I call the "recessed sill" in my said former patent should be present in this construction, excepting that instead of the recess being on or in the sill it should be at the upper inner part of the window-casing to allow for excessive upward movement of the inner and lower sash in the same manner as in the other construction the outer and upper sash was allowed excessive downward movement. This,

as fully explained in my former patent, is to allow inward swinging of the outermost sash without interference from the inner one.

I do not claim this feature of the recessed window-frame here, since it is claimed in my said former patent.

The operation is as follows: The dovetail *n*, engaging with the undercut part *o* of the bead-strip, prevents the sliding strips on both sides of the sash from moving forwardly into the open window-space. Thus at the side on which the hinges are the sash is held in proper position when open, and also at the other side the sliding strip is likewise held in proper position when the sash is swung forwardly. When the sash is so swung, the spindle *a* is turned back by its milled head until the threads on it have escaped from the nut. Then the collar *c* on it will have nearly if not quite engaged with the end of the recess *d* and the spindle cannot move in either direction, because the threads will not by themselves re-engage with the threads in the nut. Therefore it cannot move in that direction, and the collar *c*, engaging with the shoulder at the end of the recess, will not permit movement in that direction, and the proportions are such that when the spindle is in the position the end of the part *f* will be flush with the side of the sash frame or stile *B*, and of course the spring *k* when the parts are in the above-stated position, acting through the lever *i*, will project the pin *j* into suitably-located holes in the window-casing, (not shown,) as now well understood, there being, preferably, a number of them provided for this purpose. Thus the sliding strip will be held in proper position for re-engagement with the sash when it is swung back again. When this takes place, the spindle is screwed outwardly by turning it by means of its milled head until the threads on it, engaging with those in the nut *m*, project the terminal *f* against the end of the lever *i*. The screwing is continued until the lever has been rocked on its pivot suf-

ficiently to withdraw the pin *j* from the holes with which it engages. Then the sliding strip is free to move with the sash up and down, as desired.

I do not limit myself to the details of construction, because it will be apparent to those who are familiar with the art that alterations may be made in them to some extent and still the essentials of my invention be employed.

I claim—

1. In combination with a swinging sash, a side strip having a dovetail part which fits beneath or behind an overlapping part on the bead-strip and a threaded spindle and nut, the end of said spindle being adapted to enter a hole in one of the sliding strips, substantially as set forth.

2. The combination, with a swinging sash, of a sliding side strip provided with a locking device whereby it is prevented from upward movement when the sash is swung out from the frame and a device which locks the sash to the sliding strip, the said latter locking device operating to release the former or strip-locking device, substantially as set forth.

3. A sash hinged to a sliding strip having a dovetail part which underlies the bead-strip and a locking device for the sash, provided with means whereby it may be held both in a projected and a retracted position relative to the edge of the sash, substantially as set forth.

4. In sliding and swinging window-sash mechanism, the combination of sliding strips with which the sash engages and locking devices for the strips and for the sash, the former controlled by the latter, substantially as set forth.

Signed at New York, in the county of New York, and State of New York, this 19th day of June, A. D. 1891.

JOSEPH B. COHEN.

Witnesses:

PHILLIPS ABBOTT,
J. E. HOFFMAN.