O. R. COOKE.
Sash-Fastener.

No. 202,152. Patented April 9, 1878.

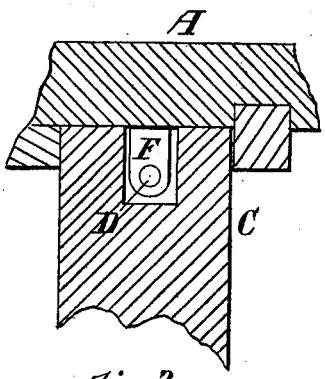
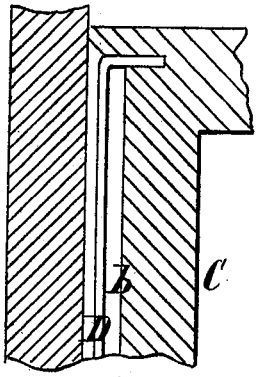


Fig 3



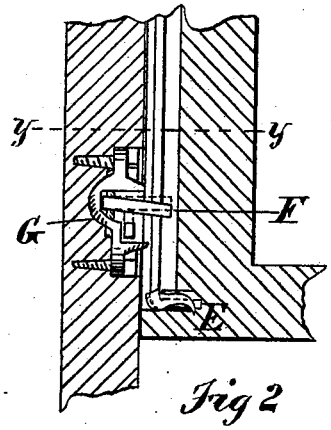


Fig 2

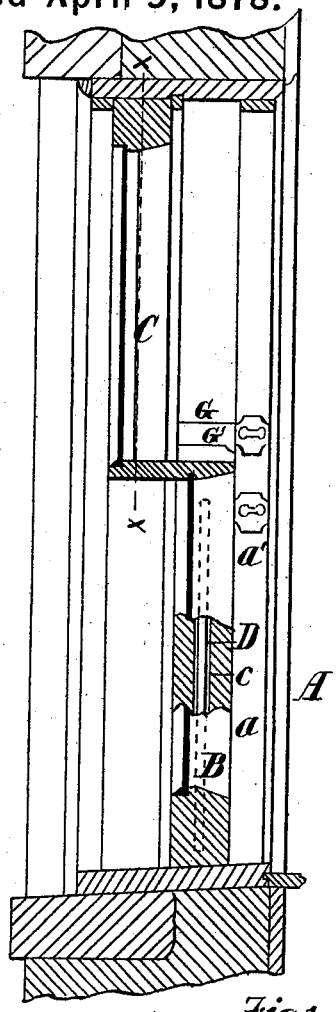
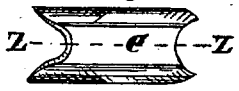


Fig 1

Fig 8



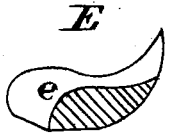


Fig 9

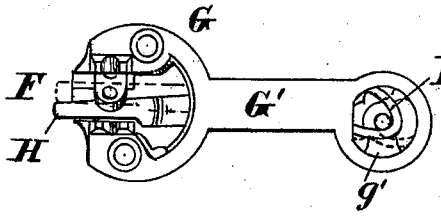


Fig 4

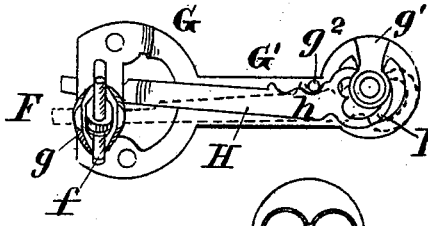


Fig 5

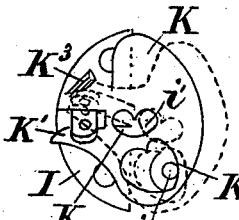


Fig 6

Fig 7

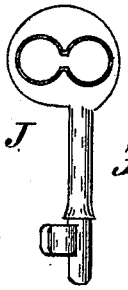


Fig 10

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UNITED STATES PATENT OFFICE.

OSBORN R. COOKE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN SASH-FASTENERS.

Specification forming part of Letters Patent No. **202,152**, dated April 9, 1878; application filed February 21, 1878.

To all whom it may concern:

Be it known that I, OSBORN R. COOKE, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sash Holder and Lock, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a transverse section of a window frame and sash with my improvements applied, looking from the inside; Fig. 2, a longitudinal section of a portion of the upper part of the same, taken on the line *x x*, Fig. 1; Fig. 3, a plan section of the same, taken on the line *y y*, Fig. 2; Figs. 4 and 5, detached plan views of the top and bottom, respectively, of the lock and holder for the upper sash; Fig. 6, a plan view of a similar device for the lower sash; Fig. 7, an edge view of the same; Fig. 8, a plan view of the bottom of the keeper for the lower end of the sash-rod; Fig. 9, a sectional view of the same, and taken on the line *z z*, Fig. 8; and Fig. 10, a plan view of the latch-key.

My invention relates to an improvement upon the sash-holder for which Letters Patent No. 129,774 were granted, dated July 23, 1872.

The object of my present improvement is to apply to the biting catch of the above mentioned sash-holder a device for vibrating it, by means of which the catch may be locked, so as to fasten the sash in any position desired.

The invention consists in a sliding bolt or cam-lever operated by a key, by means of which the biting catch is manipulated to lock the sash.

It also consists in special devices and combinations of devices for accomplishing this purpose.

It also consists in a retaining-socket of special construction for the lower end of the sash-rod, all of which will be hereinafter more fully set forth.

In the drawings, A represents the window-frame; B, the lower sash, and C the upper sash, in each of which is a groove, *b c*, in one of the inner edges, within which is placed a sash-rod, D, as in the prior patent above mentioned. At the lower end of the grooves a retaining-socket, E, is fixed in the sash, as shown in Fig. 2 of the drawings. This retaining-socket has a groove, *e*, in its lower face and outer end, and the inner end is bent down and pointed, as shown in Figs. 2 and 9 of the drawings. The sash is cut away slightly at the lower end of the groove, and the pointed end of the retaining-socket inserted, as shown in Fig. 2 of the drawings, the lower bent end of the sash-rod being held in the groove of the former, as shown in the same figure. This holds the sash-rod firmly in place, and also prevents the catch from binding at the extreme lower end of the rod.

A biting catch, F, is placed upon each of the sash-rods, similar in construction, and attached to the rod in a similar manner, as shown and described in the prior patent, and operating in a similar manner to bite the rod when raised above or dropped below a level position, thereby preventing the raising or lowering of the sash, according to the position of the catch, but permitting the rod to slide freely through it when in a level position, as shown in dotted lines in Fig. 2 of the drawings.

Within a suitable recess on the inside of the window-frame is secured a keeper, G, near the lower end of the upper sash. This keeper is of circular form, with a portion at one side cut away, as shown in Figs. 4 and 5 of the drawings. Upon its rear side are lugs or projections *g*, with an opening between them, into which the outer end of the catch projects. The lugs or projections pass into holes in the window-frame, and a pin, *f*, is inserted through a hole in the catch within the opening between the lugs, thereby fastening this end of the catch to the keeper G, the pin being held in place by the frame which surrounds the lugs, projecting into it.

The keeper is provided with an arm or extension, G′, projecting outward along the side of the window-frame in an extension of the recess provided for this purpose. The outer end is enlarged, as shown in Fig. 4 of the drawings, and is provided with a circular opening, back of which a bent lug, g^1, is also provided with a small circular opening. On the back of the extension-piece G′ is also cast a small pin or projection, g^2, near the lower edge thereof, as shown in Fig. 5 of the drawings.

A lever, H, is arranged back of the keeper G, being supported on the pin g^2, the lower edge of the lever being cut away to form a seat or recess, h, for the pin. The inner end of this lever extends past the opening in the keeper G, under the catch F, as shown in Fig. 4 of the drawings. The outer end is arranged opposite the opening at the extremity of the extension G′, and is itself provided with a heart-shaped opening, h'. The inside stop-bead a covers the outer ends of the keeper and lever, and is provided with a key-hole, a', through which a key, J, is inserted, the end of which enters the hole in the bent lug g', in which position the web of the key is within the heart-shaped opening in the lever, which is so shaped that when the key is turned down the inner end of the lever may be raised, thereby raising the catch, as shown in dotted lines in Fig. 4 of the drawings; and, if desired, the lever may be constructed so as to slide on its bearing-pin, and the opening arranged so that when the key is turned up it will shoot the lever inward, though it is not necessary that this movement should be given to it, or that it should have any effect on the catch. It is only necessary to hold the upper sash from dropping, which is accomplished by the falling of the catch by its own gravity, when it bites the sash-rod and prevents it from slipping. The vibration of the lever by the key is to raise the catch to level position when it is desired to lower the sash. A keeper, I, is also provided for the catch of the lower sash, similar in its main features of construction to the keeper G, and having the catch for the lower sash attached to it in the same way as shown in Fig. 7 of the drawings. It does not have the long extension, however, of the former, but is provided with a short projection, I′, which is bent downward slightly, so that its outer end may be brought under the stop-bead. Its extreme outer end is provided with a hole, i, to receive the end of the key, and on its outer face is a pin or stud, i'.

The lever K, for operating the catch at the lower sash, is also somewhat different from the lever H, above described. It is shorter and of irregular shape, as shown in Fig. 6 of the drawings, and is provided with a central cam-shaped opening, k, which receives the stud i' on the keeper, which forms a pivotal bearing, on which the lever may be vibrated. The cam-opening is elongated, so as to permit a movement of the lever back and forth on its supporting-stud, the projection at the upper part of the opening furnishing a stop to hold the stud at one or the other end of the opening.

On the inner edge of the lever is a projection, k^1, which is recessed or forked, and extends in far enough to embrace the catch within the fork, as shown in Fig. 6 of the drawings. In the lower portion of the main body of the lever is a heart-shaped opening, k^2, which is just over the opening i in the keeper-arm when the devices are all mounted in position. This opening receives the key through another key-hole made in the stop-bead just over it, through which the key is inserted, as above described, the end entering the hole i and the web resting within the cam-opening k^2. When this pivoted lever is thrown out to its fullest extent, as shown in dotted lines in Fig. 6 of the drawings, its outer end is the heavier; hence it will vibrate on its pivot, and the inner forked end will throw up the catch sufficiently high to cause it to bite the rod above its level position, and thereby prevent the sash from being raised.

The same effect is produced when the key is inserted and turned down, as this movement will always throw up the inner end of the lever. When the key is turned up in the opposite direction, however, it raises the outer end of the lever, and consequently turns down the inner end, thereby pulling down the catch, so that the sash-rod will slip in it and permit the window to be raised. If turned far enough, the key will strike the cam-projection in the opening and slide the lever inward, in which position it is balanced, as shown in full lines in Fig. 6 of the drawings, and will hold the catch in a depressed position, which will permit the sash to be raised, but at the same time will prevent its dropping, as any movement downward will cause the end of the catch to drop so as to bite the rod. In this position of the lever the window may be raised, but will be locked against falling.

If it is desired to lower the window, the key must be turned in the opposite direction, so as to move the lever outward and turn down its outer end, as above described. The lever K is also held from tilting above a level position by a stop, k^3, on the face of the keeper.

It will thus be seen that the sash may be raised and lowered by a proper manipulation of the vibrating lever by means of the key, and at the same time may be locked against raising or dropping, as may be desired. The levers can be manipulated only by the keys designed for this purpose, so that if the latter are taken away the windows are secure from all tampering with the fastenings, whatever may be the position in which they are left.

A special key may be made for each sash and hung upon the window; or the devices may be so constructed that one key will answer for all the windows in a house. This device also adapts my sash-holder for use on both the upper and lower sash, the position of the key-holes being such that both can be easily reached from the floor.

The special form and construction of the devices herein described and shown may be varied somewhat without changing their principle and mode of operation.

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

1. A keeper provided with forked projections upon its rear side, in combination with the biting catch F, pin f, and rod D, substantially as described.

2. A keeper provided with projections on its rear side, within which the catch is secured, in combination with the catch and holding-pin, the parts being arranged within a recess in the side of the window-frame, so that the pin is prevented from falling out by the walls of the frame-opening, substantially as described.

3. A keeper constructed substantially as described, in combination with the biting catch F, secured thereto by the pin *f*, the sash-rod D, and a vibrating lever arranged to be operated by a key, substantially as described.

4. The keeper G, provided with a pin or stud, g^2, in combination with the lever H, constructed and arranged to rest upon the stud, substantially as described.

5. The keeper G, provided with an extension, G′, having an opening in its outer end and a bent perforated lug, g^1, substantially as described.

6. The socket E, constructed as set forth, in combination with the sash-rod, substantially as described.

7. The keepers and vibrating levers for the upper and lower sash, arranged with their outer ends beneath the stop-bead, which is provided with key-holes, through which only the levers can be operated, substantially as described.

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