A. D. Millard,

Sash Fastener.

No. 107,281. Patented Sep. 13, 1870.

Fig. 2.

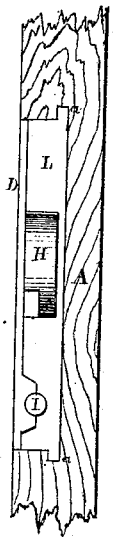


Fig. 1.

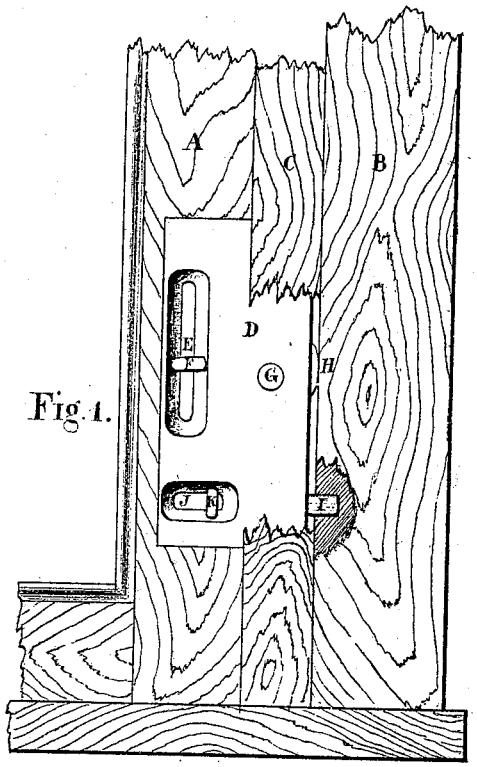


Fig. 7

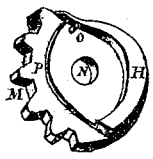
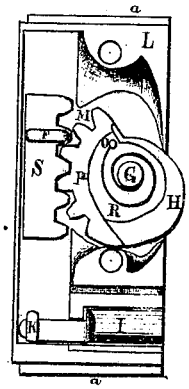


Fig. 3.



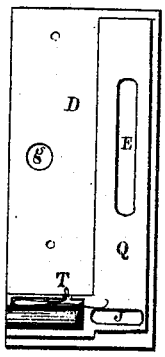
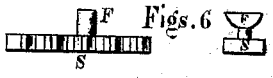


Fig. 4

Figs. 5

Figs. 6



A. O. McKinley
Andrew Choffin } Witnesses

A. D. Millard Inventor
by Job Abbott Attorney.

United States Patent Office.

ALONZO D. MILLARD, OF CANTON, OHIO.

Letters Patent No. 107,281, *dated September* 13, 1870.

IMPROVEMENT IN SASH-HOLDERS.

The Schedule referred to in these Letters Patent and making part of the same

I, ALONZO D. MILLARD, of Canton, in the county of Stark, in the State of Ohio, have invented certain Improvements in Sash-Holders and Sash-Locks, of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to the construction and operation of a toothed cam, with a coiled spring seated in a depression on its face, and a sliding toothed bar, in combination, inside of such case, in such a manner that a sash may be moved up and down freely, or be fastened at any point at will, with but a slight force exerted by any one on the inside of the room or upon both sashes.

It is expedient to have the locking-bolt in the device, because, when a sash is to be held in a particular position for a considerable length of time, for instance, for a whole day or night, it will hold the same without yielding in the slightest degree, as the cam might do by sinking into and bruising the wood of the frame, and, perhaps, rubbing off the paint or varnish in a short time of use, and, moreover, when the sash has been sustained by the impingement of the cam against the wood of the frame, for any considerable length of time, the cam is apt to become so bound and indented in the wood that it will not turn back with facility, but the simple bolt is free from such objectionable action.

Description of Accompanying Drawing.

Figure 1 is an elevation of a section of a frame and sash, with my improvements in position for use;

Figure 2 is an elevation of the edge of a sash, showing the edge of the case, and how it is inserted in the sash itself;

Figure 3 is an elevation of the main case without its cover;

Figure 4 is a like view of the cover, turned over so as to display the under side of it;

Figure 5 shows side and end views of the locking-bolt; and

Figure 6 shows similar views of the sliding toothed bar.

Figure 7 is a perspective view of the cam.

General Description.

In fig. 1 the strip C has been cut away to show the back edge of the cam H and the locking-bolt I, inserted in the frame B and the axle G, of the cam; but, when my device is in position in a window, all that is visible from the front is the cover D, with its two countersinks, with their respective slots, E and J, and the knobs, F and K.

The countersinks are provided in order that the knobs on handles F and K may move back and forth in them as grooved ways, and not project themselves out beyond the surface of the cover.

The stem which connects the knob F with the sliding toothed bar S, moves freely up and down in the slot E, and the stem which connects the bolt I with the knob F moves freely back and forth in the slot J.

In fig. 2 the inner edge of the sash is shown, and the outer edge of the case L, which has been driven into the mortise in the sash until no portion of it is visible, except the outer edge.

The flanges *a a*, before mentioned, are seen, as well as the edge of the cover D, which is flush with the inner surface of the sash. The cam shows through at H, and the end of the bolt I also appears in the circular recess provided for it between the main case and its cover.

These two parts last named may well be cast of iron, or other suitable metal.

In fig. 3 are shown the sliding toothed bar S, with the knob F, the cam H, with its teeth M, and depression P, the axle G of the cam, the coiled spring R, one end of which is attached to the axle G, and the other to the post O.

A depression is made upon the face of the cam, in order to furnish space for seating and operating the spring R, the force of which is constantly exerted to drive the cam out against the frame B, and thus support the sash at any point where any power raising it may be withdrawn.

The cam is cut away at P, as shown in fig. 3, so that it may pass freely under the countersink Q, in the cover D, and the locking-bolt I has a spring, T, arranged in the said countersink, as shown in fig. 4, so that its end presses on the flat end of that bolt, which is thus prevented from rattling or accidentally sliding forward.

It is obvious, from the drawing and the foregoing description, that, by applying force by the finger to the knob F, to raise the sliding toothed bar S, it will, by means of its teath, which mesh with those of the cam, turn the latter away from the frame B, so that the sash, if up, will slide down by its own weight, or, if down, it may be raised by a force merely sufficient to overcome its force of gravity; or, if the sash be up, and it be desired to fasten it up, this may be done by raising the bar S, and thus forcing the cam against the window-frame; and that, if it be desired to lock the sash at any point, so that it may not be forced either up or down, then the bolt I may, by its knob K, be made to slide into any one of the recesses provided for it in the frame B.

What I claim as my invention is—

The combination of the sliding toothed bar S, provided with the knob F, working in the slot E, in the case-cover D, and the toothed cam H, turning on the axle G, and provided with the coiled spring R, seated in a depression in its face, the several parts being constructed, and all arranged and combined substantially as and for the purpose described.

A. D. MILLARD.

Witnesses:

JOB ABBOT,

D. HAMMOND.