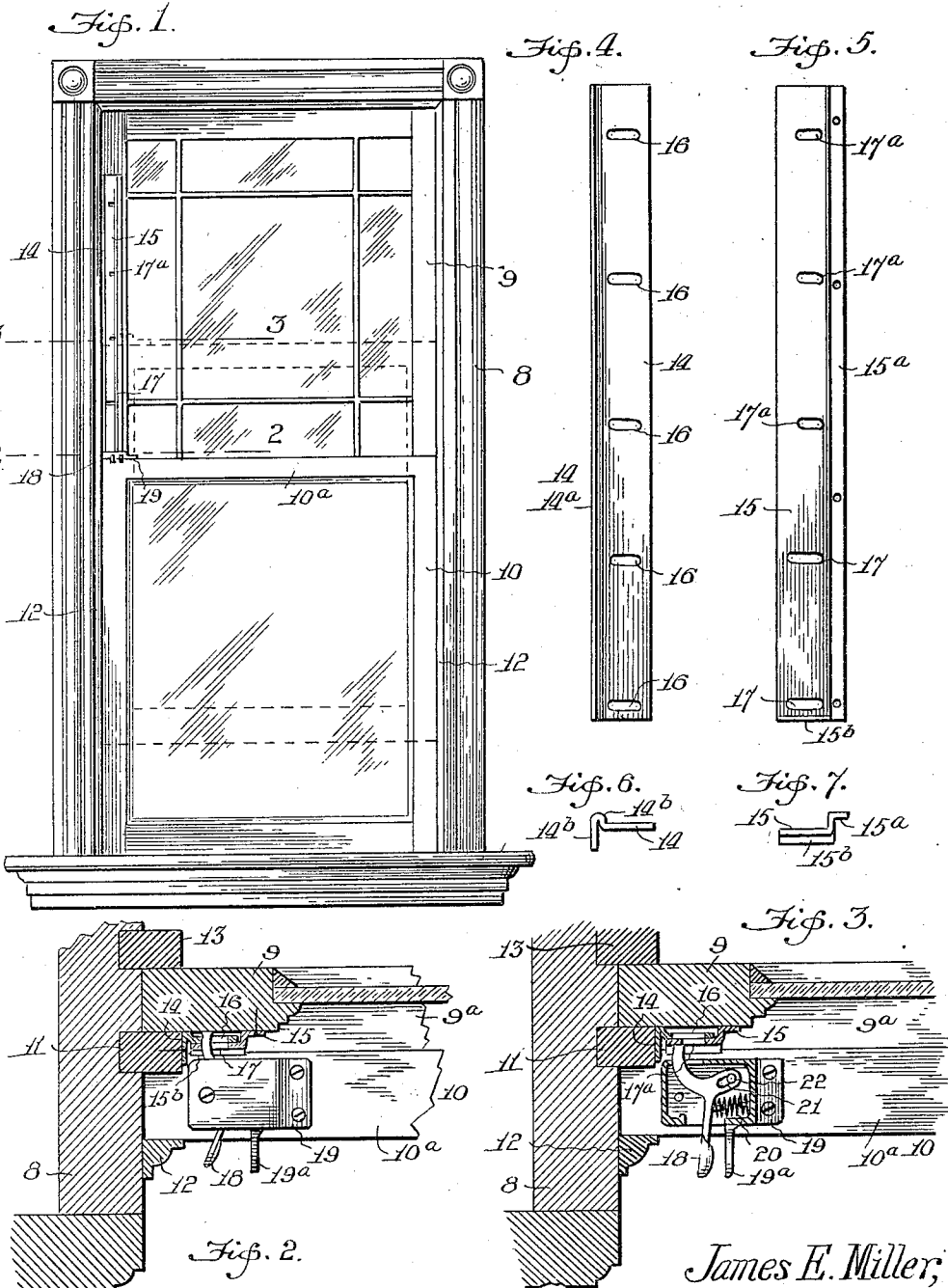


J. E. MILLER.
 COMBINED WINDOW LOCK AND VENTILATOR.
 APPLICATION FILED APR. 10, 1912.

1,046,833.

Patented Dec. 10, 1912.



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COMBINED WINDOW LOCK AND VENTILATOR.

1,046,833.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed April 10, 1912. Serial No. 689,773.

To all whom it may concern:

Be it known that I, JAMES E. MILLER, a citizen of the United States, residing at Braddock, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Combined Window Locks and Ventilators, of which the following is a specification.

My invention relates to that particular class of window locks in which the window-casing and one of the sashes is provided with plates slidable one over the other and having holes adapted to register and receive a catch secured to the other sash; whereby both sashes may be securely locked in closed position, or either sash locked in a more or less open position for ventilation purposes.

The primary object of my present invention is to provide a window-lock of this particular character which will be burglar-proof when the sashes are in locked position; that is to say, the peculiar construction and arrangement of the locking devices are such that they cannot be tampered with or unfastened from the outer side of the window when the sashes are closed or either one slightly open for the purpose of ventilating the room.

A further object of my invention is to provide a form of locking device in which the holes in the plates are in such position with relation to the spring-catch as to provide an automatic engagement when either sash is opened to a certain extent, but permit free movement of the lower sash beyond that point and the locking of the same by operation of the catch.

Other objects and advantages of the invention will hereinafter appear, and what I claim as new, and desire to secure by Letters-Patent is more specifically set forth in the appended claims.

In the accompanying drawings, which form a part of this specification: Figure 1 is an elevation, looking at the inner side of a window provided with a combined lock and ventilator device constructed in accordance with my invention. Fig. 2 is a transverse sectional view, enlarged, on the line 2—2 of Fig. 1. Fig. 3 is a similar view, on the line 3—3 of Fig. 1, the lower sash being raised as indicated in dotted lines in said Fig. 1. Figs. 4 and 5 are front views of

the plates which are attached to the window-casing and upper sash, respectively. Figs. 6 and 7 are end views of said plates.

Like numerals of reference indicate like parts in all the figures of the drawings.

My invention is applied to a window of conventional form, comprising a casing or frame 8, upper and lower sashes 9 and 10, respectively, which slide in said casing or frame, a parting bead 11, between the sashes, and inner and outer beads 12 and 13, respectively, forming guides for the sashes; the ends of the upper rail 10^a of the lower sash and lower rail 9^a of the upper sash being cut away at their meeting edges, as usual, to receive the parting-bead 11, as shown in the drawings.

My improved devices for locking the sashes closed, as well as locking either one or both partly open, are located at one side of the window, being attached to the parting-bead and to the sashes, as hereinafter particularly described.

14 designates a metal strip or narrow plate having an outwardly-projecting flange 14^a at one of its longitudinal edges by which it is nailed or otherwise attached to the parting-bead 11 immediately in front of the adjoining stile of the upper sash, and in order that the plate itself may be disposed a slight distance away from the stile, for the purpose hereinafter explained, said plate is offset on a line with the attaching-flange to form a shoulder 14^b, which may bear lightly against the stile of the window-sash. Co-operating with this plate 14 on the parting-bead is a similar plate 15, attached to near the inner edge of the adjoining stile of the upper sash so as to overlap said plate 14 and slide thereover as this sash is moved up and down, and so that the plate 15 may properly overlap the plate 14 said plate 15 is formed with an angular attaching flange 15^a at its outer edge.

The plate 14 is provided with a vertical series of holes or slots 16, spaced at suitable distances apart, and the companion plate 15, carried by the upper sash, is provided with similar holes or slots 17, 17^a, which are adapted to register with the holes or slots 16 when said sash is closed, and to register with some of them only when this sash is opened to a more or less extent, as will be obvious, and in the present instance the

slots 17^a may be, and preferably are, slightly shorter than the slots 17, for the purpose hereinafter explained.

Firmly secured upon the upper rail 10^a of the lower window-sash 10, so as to properly engage the registering holes in the plates 14 and 15, is a spring-catch 18, pivoted in a suitable housing 19, the inner or hook-end of said catch riding over the plate 15 carried by the upper sash when either sash is opened. The outer or operating-end of the catch projects beyond the front of the housing, and for convenience in manipulating the catch said housing is provided with a projection or finger-hold 19^a. The catch is actuated to engage the holes or slots in the plates by means of a spring 20, suitably supported within the housing, and to provide for a slight bodily movement of said catch laterally a slot 21 is formed therein to receive the pivot-pin 22 projecting from the housing.

By disposing the plates 14 and 15 a short distance away from the stile of the upper sash the hook-end of the catch will pass entirely through the registering holes or slots in said plates and slightly beyond the inner plate 14, thereby insuring a positive and secure engagement, and in order to insure this disposition of the plates in attaching them to the window the plate 14 is provided with the bearing-shoulder 14^b hereinbefore described. Of course the shoulder may be dispensed with, and an ordinary angle-plate used and attached to the parting-bead a slight distance away from the stile of the upper sash, but it will be readily understood by providing the shoulder it will prevent the plate from being carelessly placed too near the stile. It will also be noted that by providing the lip at the lower end of the outer plate it will serve to protect the hook-end of the catch from being operated by a knife-blade inserted between the meeting-rails of the window-sashes.

In applying the window locking devices the plates 14 and 15 are nailed or otherwise attached to the parting-bead 11 and upper sash 9, respectively, in such position that when both sashes are closed the holes or slots in the plates will register and the lowermost registering holes or slots will be on a line with the spring-catch for engagement of the latter therewith to lock the sashes in such closed position, the said catch being secured upon the top rail of the lower sash for this purpose. When it is desired to raise the lower sash and lock it open a slight distance the spring-catch is first disengaged from the lowermost holes or slots in the plates, and as the sash is raised said catch when released will ride over the plate 15 and automatically engage the registering holes or slots 16, 17, immediately above, thereby securely locking the lower sash in

this slightly raised position, as well as locking the upper sash in closed position. When it is desired to further raise the lower sash the catch is disengaged from the last mentioned holes or slots and as said sash is pushed up the catch when released will ride over the plate 15 at one side of the holes 17^a (see Fig. 3), so as not to automatically engage in said holes. But to engage the catch with any one of the upper holes 17^a, and thereby lock the sash in either the position shown in dotted lines Fig. 1, or at a greater elevation, said catch is moved bodily laterally on its pivot by pushing rearward on said catch until the hook-end thereof enters the hole 17^a, and, as will be noted, this bodily movement is facilitated by disposing the slot 21 at an obtuse angle with respect to the handle 18. In like manner the upper sash may be lowered and locked, but in this instance, as will be noted, the plate 15 moves downward with the sash, being carried thereby, while in the former instance, that is, in operating the lower sash, the plates are stationary; but of course the lower sash may be raised and the upper sash lowered, to ventilate from top and bottom of the window, and both sashes locked securely in such position.

It will be noted that the catch has both a pivotal movement and a bodily movement, and that the spring acts to position said catch so that the hook-end thereof will normally ride over the plate 15 at one side of the holes 17^a, the holes 17 being longer or in the path of the catch in its normal position. By this arrangement the lower sash may be raised and lowered above a certain point without being automatically locked, and this is a convenience inasmuch as the height of the catch in such instance would require the operator to mount on a step-ladder or a chair in order to reach it, and therefore this may be done only when it is desired to lock the upper sash by means of one of the holes 17^a.

Having thus described my invention, I claim:

1. In a window locking device for the purposes set forth, the combination with a window-frame and sashes slidable therein, the window-frame having the usual parting-bead, of companion plates attached to the parting-bead and adjoining stile of the upper sash, respectively, to slide one over the other, said plates having holes which register with each other, and the upper set of holes in the outer plate being out of line with the lower set of holes therein; and a spring-catch pivoted upon the lower sash to engage the registering holes and have a bodily movement laterally, substantially as shown and described.

2. In a window locking device for the purposes set forth; the combination with a window-frame and sashes slidable therein,

the window-frame having the usual parting-bead, of a plate having a longitudinal flange at one edge for attaching the plate to the parting-bead and a longitudinal shoulder on
5 a line with the flange to dispose the plate a short distance away from the adjoining stile of the upper sash, said plate having a vertical series of holes; a companion plate having an angular flange at one edge by which
10 it is attached to the inner edge of the stile of the upper sash to overlap the other plate, said last mentioned plate having a lip at its lower end and a series of holes adapted to register with the holes in the first men-

tioned plate, the upper set of holes being out 15 of vertical line with the lower set of holes; and a spring-catch pivoted on the lower sash to ride over the outer plate and engage the holes therein, said catch having a slot through which the pivot-pin passes, sub- 20 stantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES E. MILLER.

Witnesses:

CLARA E. JAQUAY,
GIDEON H. JAQUAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
