July 27, 1948. F. D. STORY 2,446,144

RATCHET VENTILATOR AND AUTOMATIC SASH LOCK

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FIG. 1

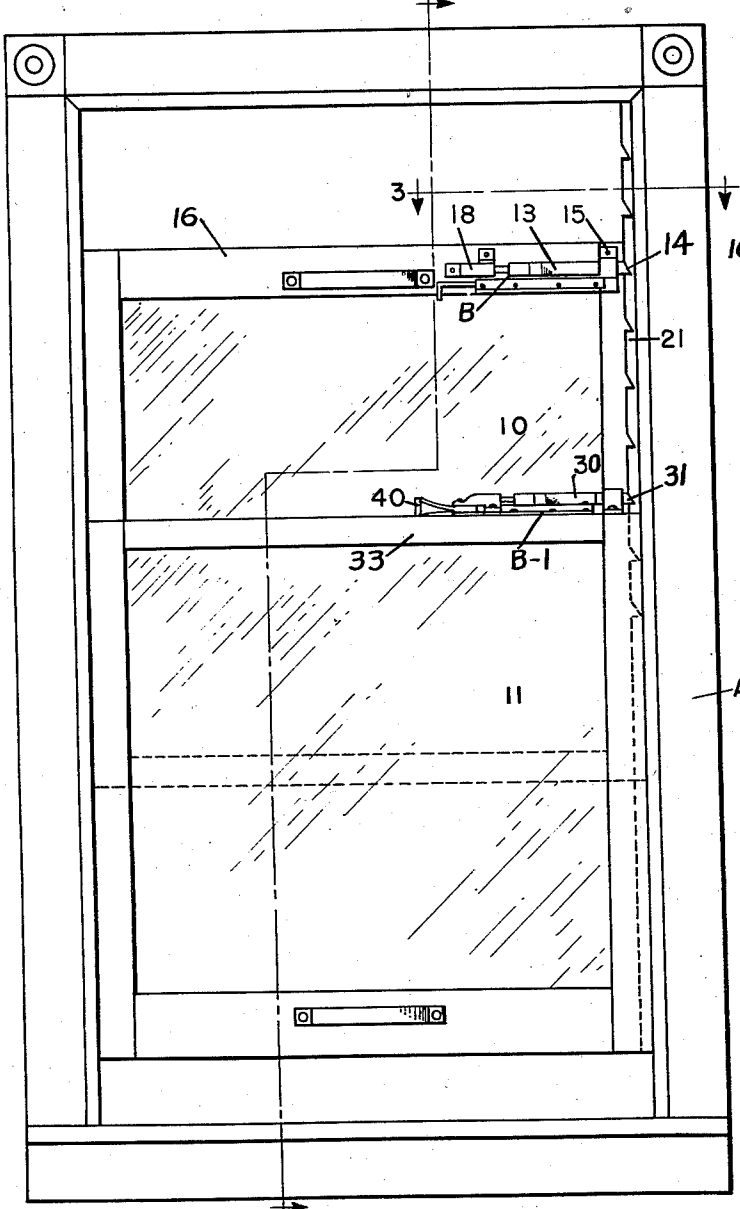


FIG. 2.

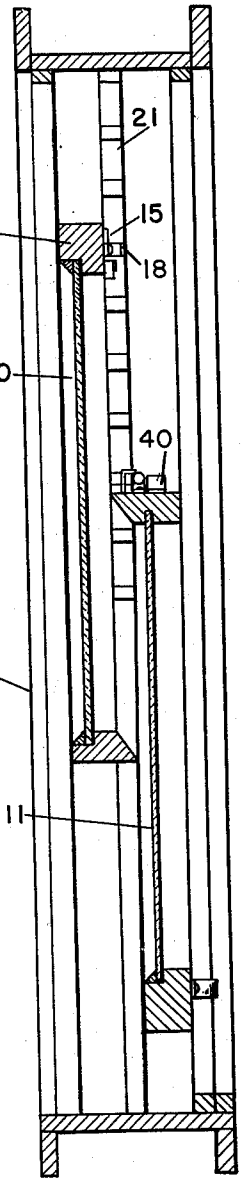


FIG. 8

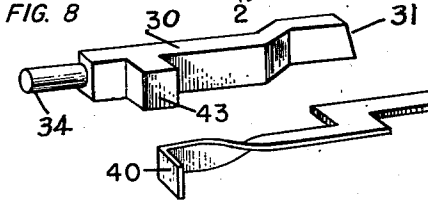
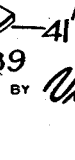


FIG. 9



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FIG. 3.

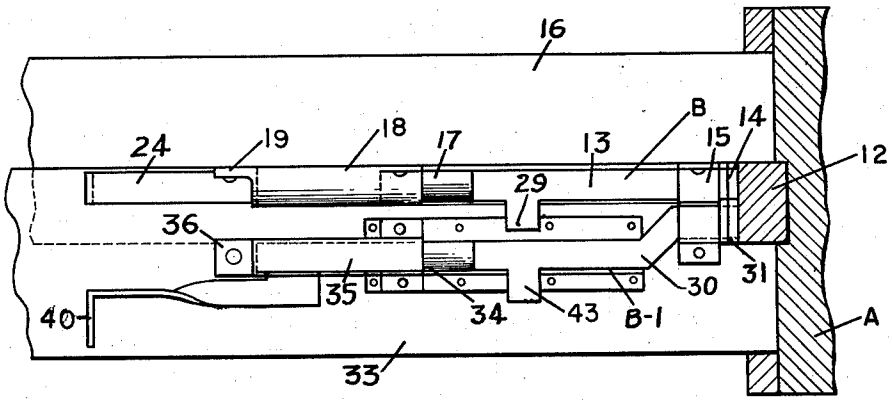


FIG. 4

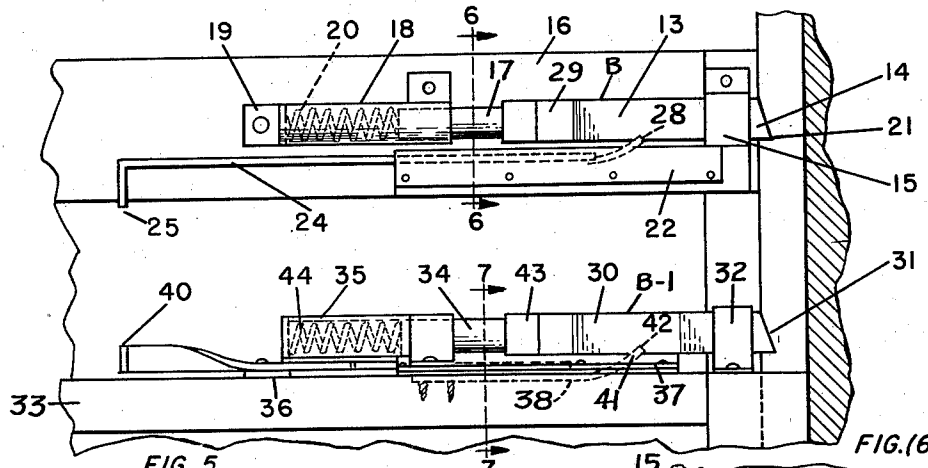


FIG. 5

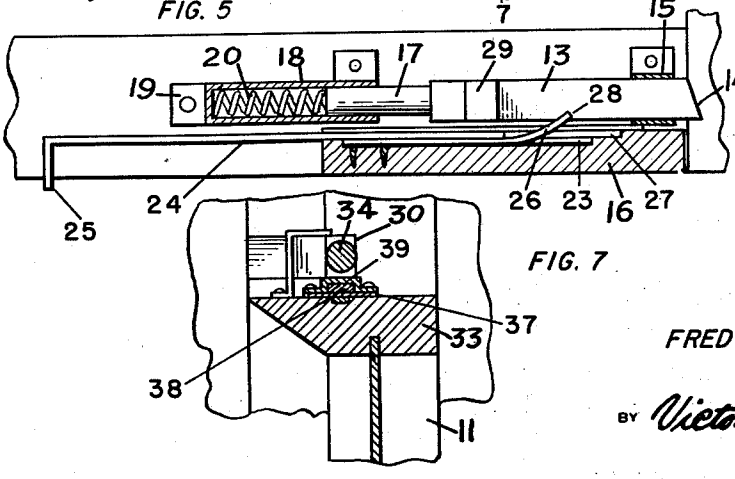
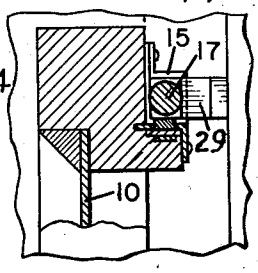


FIG. 7

FIG.(6)



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RATCHET VENTILATOR AND AUTOMATIC SASH LOCK

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Application March 19, 1945, Serial No. 583,577

1 Claim. (Cl. 292—175)

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The invention relates to a window sash latching or locking device, and more especially to an automatic sash lock.

The primary object of the invention is the provision of a device of this character, wherein the lower sash of a window can be raised and locked in its raised adjusted position, or the upper sash can be lowered and locked in such lowered adjusted position, thus in this manner, permitting ventilation through the window to an enclosure, and eliminating tampering with the sashes from without the said window for effecting a false entry to the enclosure through the latter.

Another object of the invention is the provision of a device of this character, wherein the locking bolt thereof can be held inactive or maintained inoperative, so that the window sashes may be freely raised or lowered for the opening or closing thereof, the device being of novel construction and unique in the working thereof, and such device is usable on various types of windows having sliding sashes.

A further object of the invention is the provision of a device of this character, which is simple in construction, thoroughly reliable and efficient in operation, readily and easily controlled, strong, durable, does not detract from the appearance of the window when applied, susceptible of locking the sashes of a window at any desired adjusted positions, conveniently accessible, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention, and pointed out in the claim hereunto appended.

In the accompanying drawings:

Figure 1 is an elevation of a window showing its sashes and looking toward the inner sides thereof, with the device constructed in accordance with the invention applied and locking the sashes in partly open positions.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1 looking in the direction of the arrows.

Figure 3 is a fragmentary sectional view taken on the line 3—3 of Figure 1 looking in the direction of the arrows.

Figure 4 is a fragmentary vertical sectional view through the window frame showing several of the devices installed and in locking position.

Figure 5 is a similar view of Figure 4 showing one of the devices partly in section.

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Figure 6 is a sectional view taken on the line 6—6 of Figure 4 looking in the direction of the arrows.

Figure 7 is a sectional view taken on the line 7—7 of Figure 4 looking in the direction of the arrows.

Figure 8 is a perspective view of the locking bolt of the device.

Figure 9 is a perspective view of the releasable latch for the bolt.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, A designates generally the window frame, which is of any ordinary construction, while 10 and 11 denote the upper and lower sashes, respectively, slidably fitted within the frame at opposite sides of a parting strip 12 on each side of the latter, which also is common in window construction. On each of the sashes 10 and 11 there is adapted to be carried a latching or locking device generally denoted at B and B—1 respectively constructed in accordance with the invention, and hereinafter set forth in detail.

The device B as carried by the upper sash 10, comprises a sliding latching or locking bolt 13 arranged close to the parting strip 12 next thereto, and the beveled ratchet acting locking end 14 of such bolt slidably fits a guide 15 secured in position on the upper cross-rail 16 of the said upper sash 10, while the rounded plunger end 17 of the said bolt 13 reciprocates within a cylindrical housing 18 containing a spring 20 and having the attaching ears 19 secured to the said rail 16, to have the housing disposed in a horizontal plane, which is the lay of the bolt 13, the spring 20 within the housing 18 urging the said bolt in locking engagement with the parting strip 12, which is formed with ratchet notches 21.

Immediately beneath the path of movement of the bolt 13 and secured in place on the rail 16 is a catch mounting 22 in which is a slideway 23 for a hand operated bolt catch or latch member 24 having the finger grp end 25 and the inherently springy catch or latching jaw end 26, respectively, the latter working through a clearance 27 for engaging a keeper notch 28 in the bolt 13 to hold the same in locking position engaged with the parting strip 12, with the resultant locking of the sash 10 in an open or closed position, until the said bolt releases the said sash. The bolt 13 is built with a finger knob 29, so that it can be released from locking condition against the resistance of the spring 20 within the housing 18.

The device B—1 carried by the lower sash 11, comprises a slidable latching or locking bolt 30 with an offset end, arranged close to the parting strip 12 next thereto, and the beveled ratchet acting latching end 31 of such bolt slidably fits in a guide 32 secured in position on the upper cross rail 33 of the said lower sash 11, while the rounded plunger end 34 of this bolt reciprocates in a cylindrical spring containing housing 35 having the securing ears 36, which are attached to the rail 33 and to a catch mounting 37, which latter is also attached to the said rail and lies immediately beneath the bolt 30. The mounting 37 has a slide way 38 therein for a hand operated bolt catch or latching member 39, provided with a finger grip end 40 and the inherently springy catch or latching jaw end 41, respectively, the latter working through a clearance in the mounting to engage a notch 42 in the bolt 30 so as to secure the latter in a locking position for the same purpose as has heretofore been described with respect to the bolt 13.

The bolt 30 is built with a finger knob 43 for the hand release thereof against the resistance of the spring 44 in the housing 35, which spring urges the bolt to a locking position for engaging the parting strip 12, and in this manner locking the lower sash 11 in an open adjusted condition, similarly to the upper sash 10, as heretofore described.

What is claimed is:

In a sash lock for windows having vertically slidable sash with parting strips at the sides, the parting strip at one of the sides of the window having notches therein, a lock bolt having a notch in the under surface positioned on one of the sash, a socket with a spring therein into which the inner end of the bolt projects wherein the spring urges the opposite end of the bolt into engagement with the notches of the parting strip, and a slide latch positioned under the bolt with a tongue thereof positioned in the notch in the under side of the bolt holding the bolt in engagement with the parting strip, said slide latch having a handle thereon by which it may be withdrawn to release the bolt for moving the sash.

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