June 2, 1964 R. J. INGALLS 3,135,543

VENTED WINDOW LATCH

Filed March 12, 1963

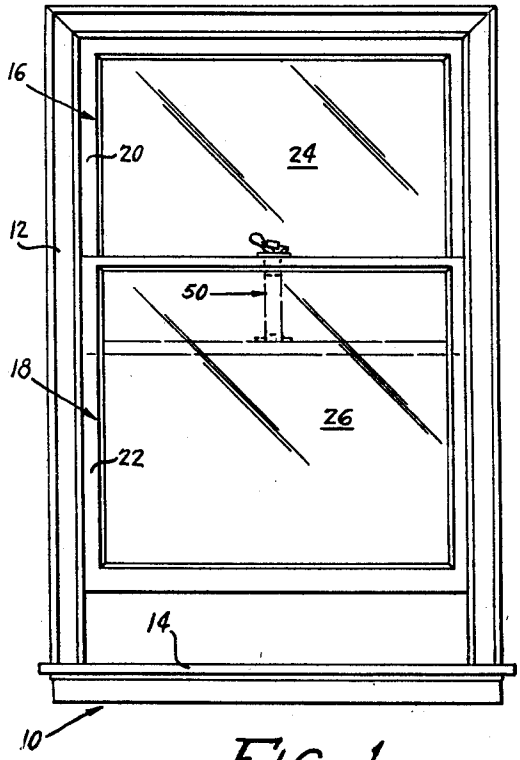


FIG. 1

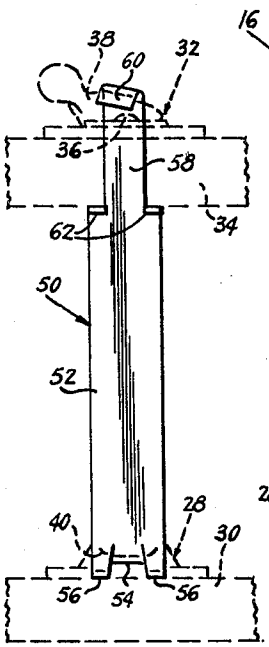


FIG. 2

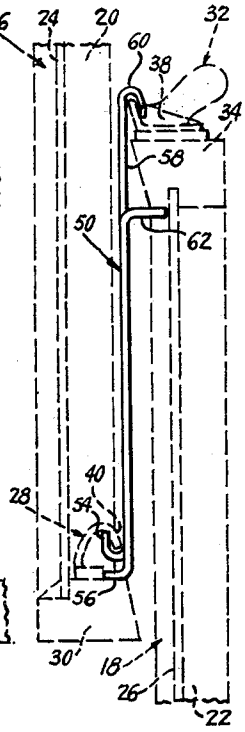


FIG. 3

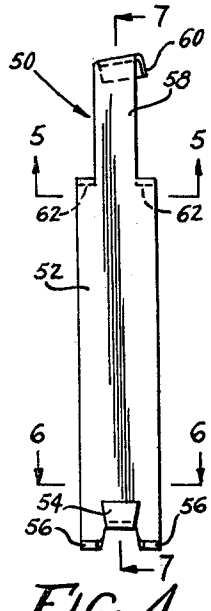


FIG. 4

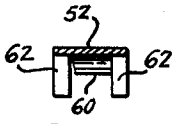


FIG. 5

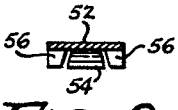


FIG. 6

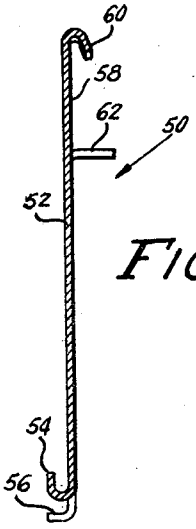


FIG. 7

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VENTED WINDOW LATCH

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This invention relates to a vented window latch and relates more particularly to a device for locking windows in a vented position so that they cannot be tampered with from outside the window.

As conducive to a better understanding of the instant invention it is to be understood that in most windows used today there are two slidably mounted sashes arranged in side by side relationship and it is conventional to provide the lower portion of the upper or outer sash with keeper means and the upper portion of the lower or inner sash with a latching means which is detachably engageable with the keeper means to lock the windows in closed relationship. However, it is very often desirable to have the windows open a slight amount to allow for proper ventilation and it has been rare with devices known heretofore, to lock a vented window so that it could not be tampered with from the outside.

It is therefore an object of this invention to provide a vented window latch which will allow the sashes in a conventional window to be locked in a partly open position.

It is another object of this invention to provide a device of the character described which is engageable with the conventional locking means on the window and will convert the same from a completely closed locking means to a partially open or vented locking means.

A further object of this invention is to provide a device for locking windows in a vented position having a first auxiliary locking means adapted to engage the keeper means on one (usually the outer) of the sashes of a window and a second auxiliary locking means adapted to be detachably engaged with the latching means on the other of (usually the inner) the two sashes when the windows are in partly opened relationship.

Another object of this invention is to provide a vented window latch which is resilient and has pressure means which will bear against the window pane to assist in preventing the loosening or detaching of the device by an unauthorized person.

A still further object of this invention is the provision of such a device wherein the first auxiliary locking means includes right angularly disposed flanges to engage on opposite sides of the conventional reverted hook of the keeper means on one of the sashes to further prevent the unauthorized removal of the latching means.

Other and further objects reside in the combination of elements, arrangement of parts, and features of construction.

Still other objects will in part be obvious and in part be pointed out as the description of the invention proceeds and as shown in the accompanying drawing wherein:

FIGURE 1 is an inside elevational view through a convnetional double-sash window having a vented window latch in accordance with the instant invention secured thereto to lock the sashes in partly opened relationship;

FIGURE 2 is an enlarged inside elevational view of the device of the instant invention showing the conventional locking means on the sashes of the window in dottted lines as they would be engaged with the instant vented window latch to lock the window in partly opened relationship, with parts being broken away for illustrative clarity;

FIGURE 3 is an enlarged left side elevational view of the device as shown in FIGURE 2 with portions of the sashes and their conventional locking means being shown in dotted lines;

FIGURE 4 is an enlarged rear elevational view of the vented window latch of the instant invention;

FIGURE 5 is a transverse cross-sectional view taken substantially on line 5—5 of FIGURE 4 looking upward;

FIGURE 6 is a transverse cross-sectional view taken substantially on line 6—6 of FIGURE 4 looking downward; and

FIGURE 7 is a longitudinal cross-sectional view taken substantially on line 7—7 of FIGURE 4.

Like reference characters refer to like parts throughout the several views of the drawing.

Referring now to the drawing in general and to FIGURE 1 more particularly, a conventional window is designated by the reference numeral **10** and includes a frame portion **12** having an inside sill **14**, an upper sash **16** and a lower sash **18**. Each of the sashes **16** and **18** includes a frame portion **20** and **22**, respectively, and a window portion **24** and **26**, respectively. As will be seen more clearly in FIGURES 2 and 3 the upper sash **16** includes a conventional keeper means **28** secured inside of and to the top of the lower member **30** of the frame portion **20**. A conventional latching means **32** is secured to the top of the upper frame member **34** of the lower sash **18** and is rotatable about a pivotal connection **36** in a well-known manner to detachably engage its upwardly extending cam type locking member **38** with the reverted hook **40** on the keeper means **28** in a well-known manner (not shown).

Referring now more particularly to FIGURES 4–7 the vented window latch of the instant invention is designated generally by the reference numeral **50** and includes an elongated generally planar body member **52** preferably formed of a resilient material such as spring steel or the like. The lower end is formed into a first auxiliary locking means including a reverted hook **54** and a pair of right angularly disposed flange members **56** for a purpose to be described more fully hereinafter.

The upper end of the vented window latch **50** is formed into a second auxiliary locking means including a connecting member **58** and an angularly bent reverted hook **60** with a bend line at an angle of approximately 120° to the longitudinal axis of the elongated member **52**, the funtcion of which will be described in greater detail.

At the bottom of the connecting member **58** are two elongated pressure members **62** bent at substantially right angles to the plane of member **62**.

The use and operation of the device of the instant invention will now be apparent. The reverted hook **54** of the first auxiliary locking means is engaged under the reverted hook **40** of the keeper means on the upper sash **16** with the right angularly disposed flange member **56** on each side of the reverted hook **40** and contacting the base of the keeper, to thereby prevent accidental or unauthorized disengagement of the hooks **54** and **40** respectively by working the first auxiliary locking means sideways. The substantially right angularly disposed elongated pressure members **62** bear upwardly against the upper sash of the inner window and also bear horizontally transversely against the glass window portion **26** of the lower sash **18** just below the glaze line as will be seen best in FIGURE 3 to assist in keeping the first auxiliary locking means tightly engaged. The connecting member **58** is dimensioned to receive the upper frame member **34** of the lower or inner sash **18**. The angularly disposed reverted hook **60** of the second auxiliary locking means is then engaged by the upstanding cam type locking member **38** on the second locking means **32**, as illustrated in FIGURES 2 and 3 to lock the window in the vented position shown in FIGURE 1. Since the upwardly disposed conventional cam type locking member **38** has an arcuate upper surface, it will be frictionally pressed against the inner sur-

face of the reverted hook 60 of the second auxiliary locking means as it is turned to its usual locking position. Thus, the entire device maintains the window 10 locked in a position opened sufficiently to provide ventilation but not enough to allow unauthorized entry.

It is to be understood that the elongated member 52 can be made in various lengths such as 2, 4 or 6 inches to allow the user to open the window a predetermined amount. It is also within the skill of the art to render the elongated member 52 longitudinally adjustable with a positive securing means (not shown) so that the amount of ventilation can be readily varied.

It will now be seen that there is herein provided a vented window latch which satisfies all of the objectives of the instant invention and others, including many advantages of great practical utility and commercial importance.

Since many embodiments may be made of the instant inventive concept and since many modifications may be made of the embodiments hereinbefore shown and described, it is to be understood that all mattter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. A latching device for use in a window having outer and inner sashes movable relative to each other between a closed position and a vented position,

the outer sash having a reverted hook keeper means, with a base of the latter means secured to said sash, and the inner sash having a latching means secured thereto, said latching means including a rotatably mounted cam type locking member for detachably engaging said keeper means when said sashes are in said closed position,

said device comprising an elongated planar body member having end portions, the length of said elongated member approximately the distance one sash is moved from a closed to a vented position,

a first auxiliary locking means at one end of said elongated member engageable with said keeper means on said outer sash and including both an axially aligned reverted hook which is engageable with the inside of said reverted hook of said keeper means to prevent by compression therebetween longitudinal movement

thereof and to prevent transverse separatory movement therebetween, and a pair of flange members right angularly disposed with respect to the plane of said body member and spaced on each side of said reverted hook and directed towards the base of the keeper to prevent relative movement of said one end of the elongated member towards said hook base and to prevent longitudinal compressive movements between said flange members and the adjacent sash of the outer window,

and a second auxiliary locking means at the other end of said elongated member, said latter locking means possessing pressure members which are engageable from below with said inner sash, and also hook means engageable from above with said rotatably mounted cam latching means on said inner sash, to cooperatively prevent longitudinal movement between said elongated member and said inner sash, when said sashes are in said window vented position.

2. A device in accordance with claim 1 wherein,

said pressure members are a pair of elongated arms bent at approximate right angles from the plane of the elongated body in a direction opposite to said flange members and of a length to bear against the edge of a pane of glass in said inner sash when said device is in operative relationship to thus also prevent transverse movement of said body member towards the sash of the inner window and to align said latter hook means with the rotatably mounted cam.

3. A device in accordance with claim 2 wherein,

said latter hook means are bent from the plane of the body and over the cam and the bend line approximates an angle of 120° with respect to the longitudinal axis of the body member.

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