June 7, 1932. B. F. KELLY 1,862,056

SASH LATCH

Filed July 16, 1931

Fig. 1.

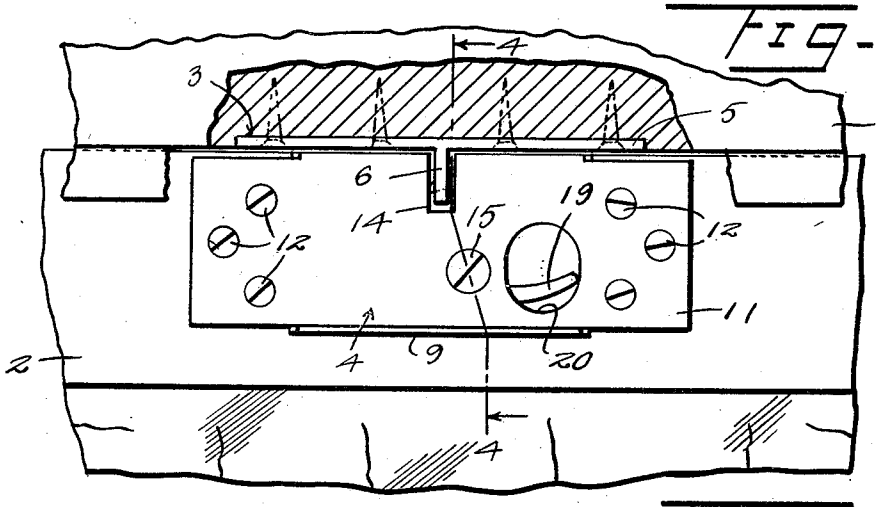


Fig. 2.

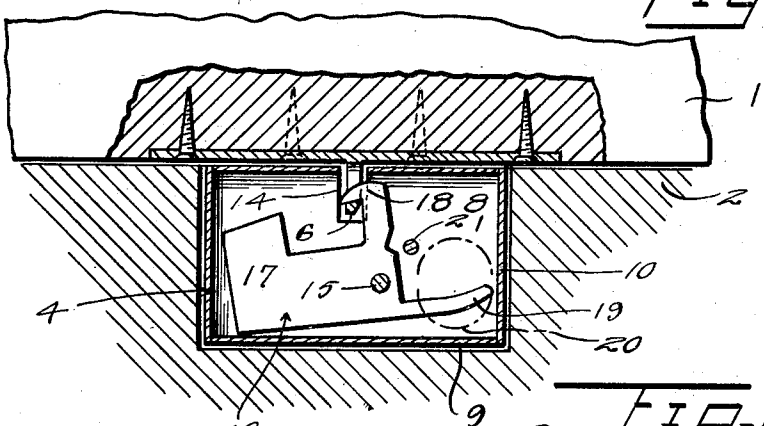


Fig. 3.

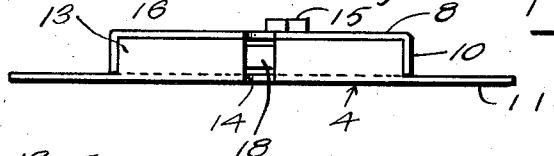
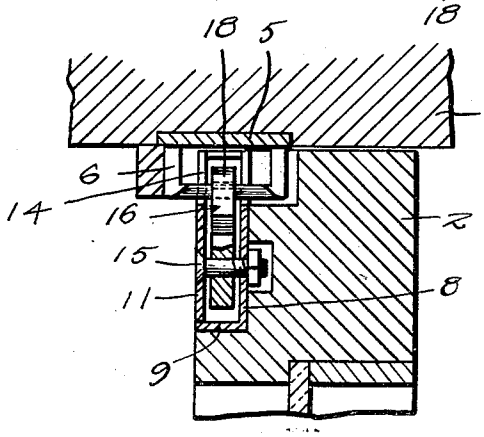


Fig. 4.



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UNITED STATES PATENT OFFICE

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SASH LATCH

Application filed July 16, 1931. Serial No. 551,255.

This invention relates to improvements in latching devices, and pertains particularly to an improved latch designed primarily for use upon an upper window sash.

The primary object of the present invention is to provide a window sash latch which may be employed for securing the upper sash of a window in closed position and which is of such a character that the hook of a window pole may be readily engaged therewith for releasing the latch so that the sash to which it is attached may be drawn down.

Another object of the invention is to provide an improved sash latch which operates without springs but through the action of gravity and is therefore of simple construction and will not readily get out of order.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:

Figure 1 is a view partly in front elevation and partly in section of a portion of the upper part of a window showing the device embodying the present invention applied thereto.

Figure 2 is a vertical sectional view taken through the applied structure in a plane parallel with and behind the front plate of the lock.

Figure 3 is a top edge view of the lock per se.

Figure 4 is a sectional view taken on the line 4—4 of Figure 1.

Referring more particularly to the drawing, wherein like numerals of reference indicate corresponding parts throughout the several views, the numeral 1 indicates generally a portion of the top part of a window frame and the top rail of the upper sash in the window is indicated generally by the numeral 2.

The present latch structure comprises a keeper element 3 and the latch carrying unit 4. The keeper element consists of a plate 5 which is secured against the underface of the top bar of the window frame, as shown, and a staple 6 which projects downwardly from the plate and is disposed transversely of the frame.

The front face of the top rail 2 of the upper sash is mortised out to receive the rear portion of the latch carrying structure 4. This rear part or portion of the latch carrying structure comprises a casing which is formed in two sections, the rear section consisting of the rear wall 8 and the bottom and end walls 9 and 10 respectively, and the front wall portion or plate 11 which extends across the front edges of the end walls 10 and rests upon the bottom wall 9, as shown in Figure 4. The front wall of the casing forms the front plate of the latch structure and has its ends extended beyond the end walls 11 and apertured to receive securing screws 12 which retain the latch casing in the mortise formed for it in the top rail of the upper sash.

Formed integral with the upper edge of the front plate 11 and extending inwardly at right angles therefrom is a top wall for the latch casing, which is indicated by the numeral 13, and this lies within the area defined by the end and back walls with its top surface flush with the top edges thereof.

The top wall 13 and the upper part of each of the back and front walls 8 and 11 are cut out to form the keeper staple receiving recess 14 which extends transversely of the latch casing and, when the casing is mounted in position in the top rail of the upper sash, the staple enters this transverse recess when the sash is closed, as shown in Figure 4.

The front plate of the casing is secured to the back section by the screw bolt 15 and this supports within the casing the latch element which is indicated generally by the numeral 16.

This latch element consists of a heavy body portion 17 which is eccentrically mounted for oscillation on the bolt 15 and which has integral therewith and extending upwardly from a point substantially directly above the bolt

15, the hook or latch proper, which is indicated by the numeral 18. It will thus be seen that due to the weight of the body 17 and the eccentric mounting thereof the side remote from the bolt 15 will drop until it is stopped by the bottom 9 of the casing and it is so positioned in the casing that when this occurs the bill of the hook 18 will extend across the slot 14 in the manner shown.

Extending laterally from the body 17, adjacent the pivot 15, is an arm 19 by means of which oscillation of the latch is effected. This arm 19 normally extends across an opening 20 which is formed in the face plate or front wall 11 of the casing. It will thus be seen that when a pole, having a hook at its upper end, is employed for opening the upper sash of a window equipped with the present latching device the hook may be engaged in the opening 20 and upon pulling down thereon the arm 19 will be oscillated to disengage the latch 18 from the keeper staple 6.

Extending forwardly from the rear wall 8 of the casing is a pin 21 which limits the oscillatory movement of the latch element 16.

In schools and other public buildings the windows are materially larger than those employed in the majority of residences and where the usual latching devices are employed for securing the sash of such windows together, it is necessary for the person desiring to unlock the windows to climb up on a chair or ladder in order to reach the latch.

The upper sash is then drawn down by connecting a hooked end of a pole, with an aperture in the top rail thereof, whereas by employing the latch embodying the present invention as a means for locking the upper sash in place, the upper sash may be unlatched and opened simply by engaging the hooked end of the operating pole in the aperture 20 so as to effect the depression of the arm 19 and the release of the latch 18 from the keeper 6 in the manner previously described. By then pulling down upon the pole while the hooked end is still in the aperture 20 the sash may be drawn to open position.

Having thus described the invention, what is claimed is:

1. A latch of the character described, comprising a relatively flat casing having an edge opening to receive a keeper staple and an opening in one side thereof, an elongated body in the casing, pivot means oscillatably supporting the body at one end, a latch bolt comprising an extension from said body at right angles to the length thereof and at the pivoted end and a hook at the end of the extension, the end of the body remote from the pivot operating as a weight to oscillate the body to normally maintain the latch bolt hook across said edge opening, and an arm extending from the end of the body adjacent the pivot and upon the side of the pivot opposite the latch bolt and further extending longitudinally of the body and normally disposed across the side opening of the casing to be engaged and depressed by a member inserted into the said side opening to effect the oscillation of the body.

2. A window sash latch, comprising a casing having a front wall plate and further having an opening formed transversely of one edge for the reception of a keeper staple, a body eccentrically mounted in the casing and formed adjacent the mounting to provide a latch bolt having a bill disposed across said opening, the body being enlarged to form a weight at a point remote from the mounting therefor to normally maintain the bill of said latch bolt in the said position with respect to said opening, said front wall plate having an opening therein for the insertion of an actuating element, and an arm carried by said body and projecting therefrom upon the side of the mounting therefor opposite from said weight and normally disposed across said front wall plate opening for engagement by an actuating element, said arm being pulled away from the first mentioned opening by the actuating element to effect the shifting of the latch bolt bill.

In testimony whereof I hereunto affix my signature.

BENJAMIN F. KELLY.