Dec. 26, 1933. E. JOHANSON 1,941,031

WINDOW SASH LATCH

Filed March 14, 1933

Fig. 1.

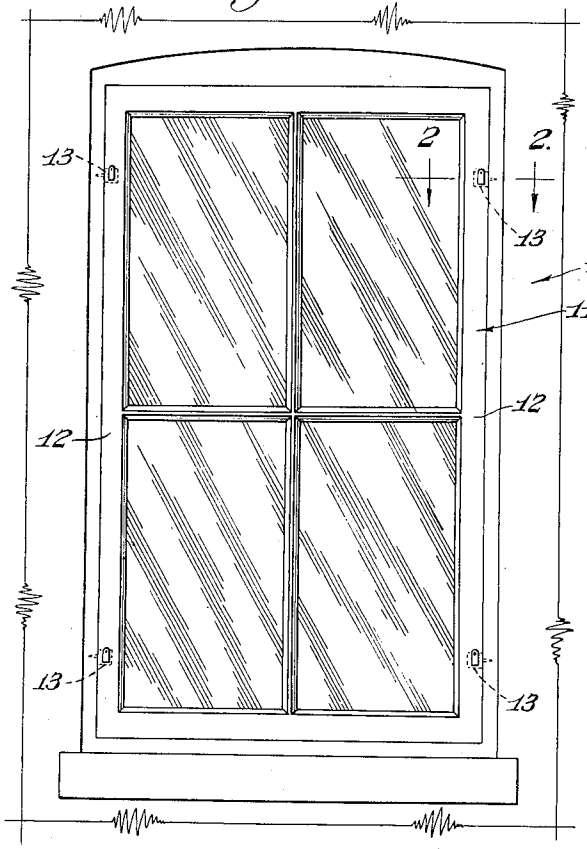


Fig. 2.

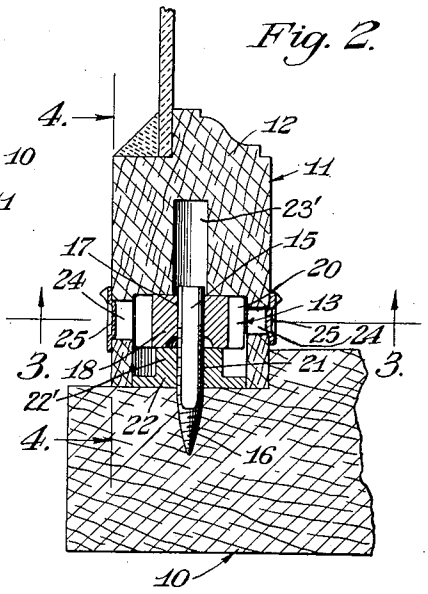


Fig. 4.

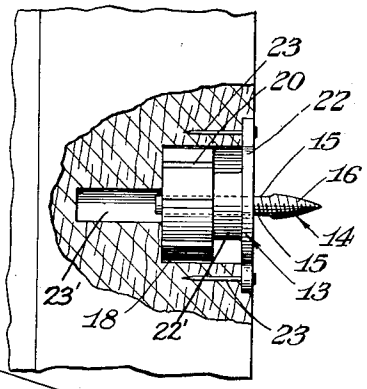


Fig. 3.

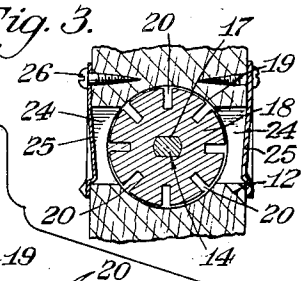


Fig. 5.

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WINDOW SASH LATCH

Emil Johanson, Chicago, Ill.

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3 Claims. (Cl. 292—251)

This invention relates to certain novel improvements in window sash latches.

An object of this invention is to provide a new, simple, and relatively inexpensive device for latching storm or other window sashes in place. The most common latch now in use for this purpose consists of a button, usually rotatably mounted upon the casement, and turned, after the sash is in place, so that a portion of the button projects over the sash to hold the same in place. These latch buttons are usually left exposed to the weather and often rust in place so that they become hard to turn. Moreover, they must, of necessity, be used on the outside of the sash and hence necessitate a ladder or other arrangement for placing the sash.

Another object of the present invention is, therefore, to provide an improved latching unit for storm windows which in use will not be subject to the aforementioned objectionable features of the most commonly used prior art latch unit and which in use may be manipulated from either the inside or the outside of the casement to latch the sash in place.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing, showing the preferred form of construction and in which:

Fig. 1 is an elevational view of a sash and casement showing four of the new latch units in position to hold the sash in place;

Fig. 2 is a sectional view on line 2—2 in Fig. 1;

Fig. 3 is a sectional view on line 3—3 in Fig. 2;

Fig. 4 is a sectional view on line 4—4 in Fig. 2; and

Fig. 5 is a perspective detached detail view of the new latch unit.

In the drawing a casement is indicated at 10 having a sash 11 arranged therein including vertical stiles 12. The new latch unit is generally indicated at 13 and preferably there are four of these units arranged at preselected points on the sash 11. Each of the new latch units 13 includes a latch bolt or screw 14 having an end portion or piercing point 16 and a shank 15. The shank or stem 15 is non-circular in cross section and is disposed in a corresponding slot 17 that extends axially or transversely through a cylindrical disc 18 for progressive turning and traveling movement therein. These discs 18 are designed for rotation in cylindrical recesses 19 formed in the stiles 12 of the sash 11 in a manner to be presently understood. Formed on the circumferential periphery of each of these discs 18 and spaced radially therearound is a series of tool slots or kerfs 20 which extend transversely or axially of the discs 18.

In assembling the latch units the threaded stem 16 of each latch bolt or screw 14 is threadedly projected through an aperture 21 formed at the center of a closure cap 22; these caps 22 and boss 22′ therefor being attached to the stiles 12 to close and weatherproof the outer ends of the recesses 19, as at 23. Opening out of the stiles 12 from each of the recesses 19 is a slot 24; these slots 24 being normally closed and weatherproofed by closure caps 25 that are pivotally mounted on the stiles 12 as at 26.

The slots 24 are for the purpose of permitting access of a tool, such, for example, as a screw driver, or nail to the tool slots 20 of the discs 18. These slots 24 may open either onto the outer or inner side of the stiles 12, so that the sash 11 may be latched in place from either the outer side of the casement and building or from the inner side of the casement and building. This fact is a material advantage since by installing the sash from the inner side of the building the necessity of a ladder or the like is eliminated. Moreover, the slots 20 may be either rectangular in shape, as shown, for the reception of a screw driver or flat pointed nail or they may be cylindrical in shape for the reception of the point of a common nail.

By successively opening the closure caps 25 a tool may be projected through each of the slots 24 successively onto the tool slots 20 to rotate the discs 18 and feed the screws 14 (counterclockwise as seen looking from right to left in Fig. 5); thereby projecting the piercing points 16 of the latch bolts or screws into latching engagement with the casement 10, and thus securing the sash 11 in place in the casement. The engagement of the latch bolts or screws 14 with the caps 22 and bosses 22′ will facilitate the disposing of the same in alignment with the passages 23′ aligned with the axial centers of the recesses 19 whereby the discs 18 carried by the screws 14 will be supported in a manner whereby same will be free from frictional contact with the walls of the recesses to insure ease in the manipulation of the device.

To remove the sash the aforementioned operation is repeated except that the direction of rotation of the discs 18 (clockwise as seen looking from right to left in Fig. 5) is reversed so as to reverse feed and remove the piercing points 16

from latching engagement with the casement 10 and thus release the sash.

Thus the new latch unit 13 eliminates the now commonly used latch buttons and the aforementioned objectionable features of the latter and enables the sash to be placed in the casement from either the inside or outside of the building.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. A window sash latch comprising a cylindrical disc adapted to be rotatably mounted in a recess in a vertical stile of the sash and having a series of tool-receiving slots formed in its circumferential periphery and arranged at radial intervals therearound, and a latch screw carried by the disc having a piercing point for projection laterally from the stile into the adjoining casement, said screw being operated by rotation of said disc.

2. A window sash latch comprising a cylindrical disc adapted to be rotatably mounted in a recess in a vertical stile of the sash and having a series of tool-receiving slots formed in its circumferential periphery and arranged at radial intervals therearound, a closure cap for the recess having a threaded aperture, and a latch bolt carried by the disc having an end portion threadedly engaged within the aperture of the closure plate for projection laterally from the stile into latching engagement with the adjoining casement, said bolt being operated by rotation of said disc.

3. A window sash latch comprising a cylindrical disc rotatably mounted in a recess in a vertical stile of the sash and having a series of tool receiving slots formed in its circumferential periphery and arranged at radial intervals therearound, a closure cap for the recess having a boss projecting within the latter and having a threaded aperture axially aligned through the center of the cap, and a latch bolt carried by and slidably connected with the disc having an end portion threadedly engaged with the boss and closure plate for projection from the stile into latching engagement with the joining casement, said bolt being operated by rotation of said disc.

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