

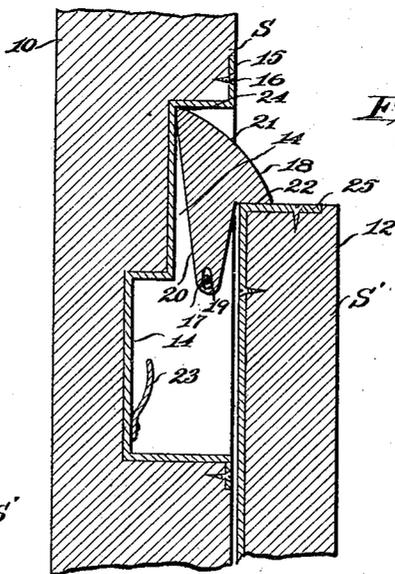
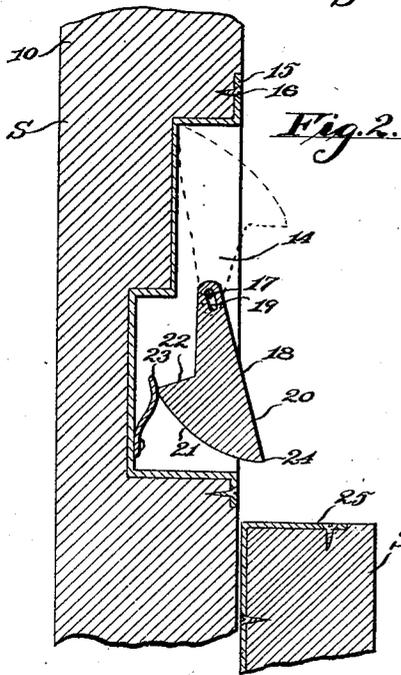
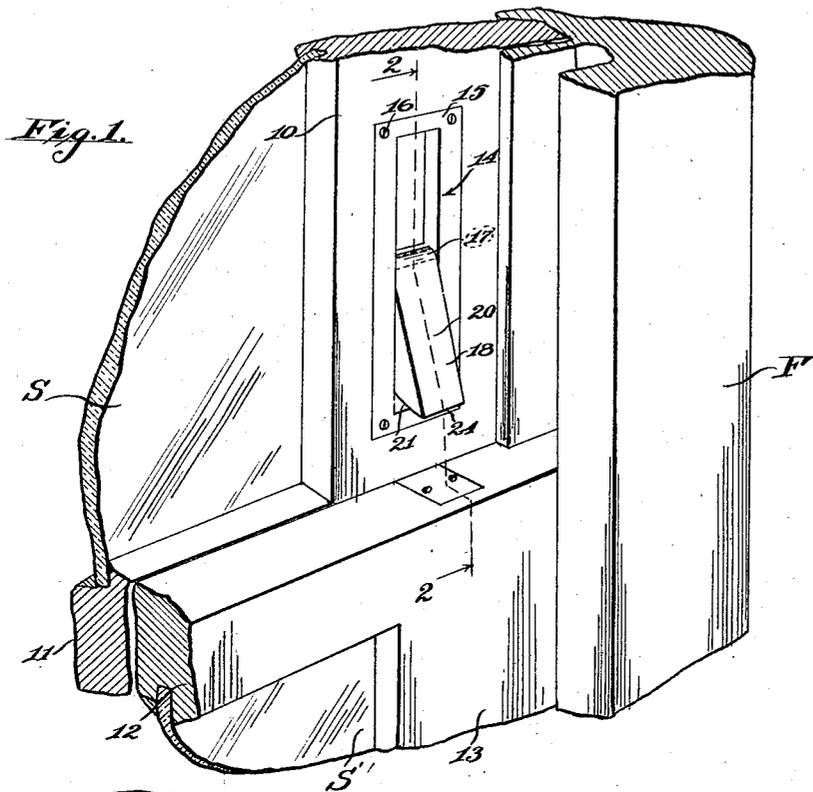
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SASH LATCH

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UNITED STATES PATENT OFFICE.

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SASH LATCH.

Application filed August 31, 1927. Serial No. 216,577.

This invention relates to improvements in sash latches.

An object of the invention is to provide an improved sash latch which is adapted to be mounted upon one of two sash movable relatively to each other, which will serve to limit the relative movement between the sash so that they can not be opened from the outside.

Another object of the invention is to provide a sash latch for the above mentioned purpose which will take care of itself so that it is normally in that position which will limit the relative movement between the sash so that it is not necessary to manipulate any part in order to hold the sash against relative movement. The improved sash latch however, can be moved into such position from the inside as to permit the relative movement of the sash.

A further object of the invention is to provide an improved sash latch which is self-actuated on moving the sash from open position to closed position.

Another object of the invention is to provide a sash latch of novel, simple and durable construction.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

Figure 1 is a partial view in perspective of two sash, illustrating the improved sash latch as having been mounted thereon.

Fig. 2 is a vertical section taken substantially upon the line 2—2 upon Figure 1, illustrating the sash in fully closed position before the sash latch has become operative.

Fig. 3 is a view similar to Figure 2, illustrating the manner in which the latch limits the relative movement between the sash.

Referring to the accompanying drawing wherein similar reference characters designate similar parts throughout, the frame of the window is indicated at F, in which there are two sash, S and S'. These window sash are vertically slidable in the window frame and the sash S is shown as having a stile 10 and a bottom rail 11, while the lower sash S' has a top rail 12 and a stile 13. The sash latch consists of an open sided housing 14 which is adapted to be recessed in the stile

10 of the upper sash. This housing is somewhat deeper at the bottom than at the top and has an apertured flange 15 about its open side to receive screws 16 by which it may be attached to the stile 10. A pin 17 extends transversely across the housing and serves to pivotally mount a latch member 18 which has a slot 19 through which the pin extends. The latch member, when in the position shown in Figure 2, presents an outwardly and downwardly inclined outer surface 20, a rounded bottom surface 21 and a shoulder 22 on its inner surface which, when the latch member is moved into the position shown in Figure 3, forms a horizontal abutment. The formation of the latch member is such that it normally projects a short distance through the open side of the housing due to gravity. To insure the latch member assuming such normal position, a small leaf spring 23 is fastened to the back of the housing and is engageable with the latch member to keep it in this position. The back and top walls of the housing are so positioned that when the latch member is swung into the upper position, the edge 24 will bear against the back and top walls of the housing so as to limit the movement of the latch member in two directions when the latch member is in its upper or locking position. Such bearing engagement between the edge 24 and the back and top walls is permitted by the pin and slot connection at 17 and 19.

The operation of the improved sash lock is as follows:

The latch member being in the position shown in Figures 1 and 2, if either of the sash should be started from the closed position to the open position, the latch member will have its bottom surfaces 21 engage the top surface of the rail 12 on the lower sash S'. A further movement causes the latch member 18 to swing upwardly from the position shown in Figure 2 to the dotted line position shown on this figure or the full line position shown in Figure 3. In such position the shoulder 22 forms the horizontal abutment which is adapted to be engaged by the top surface of the rail 12, limiting the relative movement between the sash. In such position any force imparted to either of the sash to force the sash open will be transmitted by the latch member to the back and top walls of the housing

so that all strain on the pin 17 is eliminated. If it is desired to open the sash, this can be accomplished by forcing the latch member inwardly against the action of the
 5 spring 23 so that the latch member will be entirely contained within the housing. While in such position the lower sash S' can be started upwardly or the upper sash S can be started downwardly, and after the edge
 10 24 has passed beneath the top surface of the rail 12, the latch member will be kept within the housing by its engagement with the outer side of the stile 13. When the sash are subsequently moved into closed po-
 15 sition, the latch member 18 is caused to swing outwardly into the position shown in Figure 2. If desired, a protecting plate 25 may be fastened over the top surface of the rail 12 and down over the outer surface of
 20 the stile 13 to prevent the latch member from marring or scratching the lower sash.

From the above described construction it will be appreciated that it is not necessary to manipulate the latch in order to have
 25 it hold the sash against material relative movement. Whenever the sash are moved into their closed positions, the latch acts automatically to move into locking position. The improved sash latch is not limited in
 30 use to the exact position shown. If the window has merely the lower sash slidable, the sash latch can be mounted either upon the upper stile 10 or on the window frame F so as to engage the top rail 12 of the
 35 lower sash S' in a manner similar to that as above described. It will thus be seen that a novel, simple, durable and advantageous sash latch is provided which can be easily and quickly installed, and which may have
 40 an attractive appearance.

This sash latch is especially intended for permitting the lower or upper sash to be raised or lowered respectively for ventila-
 45 tion and yet preventing the unauthorized further opening of the sash from the outside, thus being in a sense a burglar proof device.

It will be understood that various changes in the details of construction may be made
 50 without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

55 1. A sash latch comprising an open sided housing, a latch member pivoted within the housing and capable of being swung through the open side thereof, said latch member normally assuming a position partially projecting from the housing but being capable
 60 of being moved into a position wholly within the housing or into another position wherein it partially projects from the housing, said latch member in the last mentioned position bearing against walls of the hous-
 65 ing so as to take the strain off the pivot

when a force is applied to the latch member.

2. A sash latch comprising a housing having an open side, a latch member mounted within the housing and having a pin and slot connection therewith, said latch mem- 70 ber normally assuming a position projecting from the housing but being capable of being moved into a position wholly within the housing or into a locking position projecting from the housing, said latch member 75 being adapted to bear against the top and back walls of the housing when in such position as and for the purpose described.

3. A sash latch comprising a housing having an open side, a latch member mounted within the housing and having a pin and slot connection therewith, said latch mem- 80 ber normally assuming a position projecting from the housing but being capable of being moved into a position wholly within the housing or into a locking position projecting from the housing, and means en- 85 gageable by the latch member to limit its movement in two directions when in the last mentioned position as and for the purpose 90 described.

4. A sash latch comprising an open sided housing, a latch member mounted for move- 95 ment within the housing, said latch member being capable of being swung upwardly through the open side of the housing into a locking position but normally assuming a lower position partially projecting from the housing, said latch member presenting a downwardly and outwardly inclined sur- 100 face in such position, a rounded bottom surface and a shoulder on its inside surface adapted to form a horizontal abutment projecting from the housing when the latch member is in locking position, said latch 105 member being adapted to bear against the top and back walls of the housing when in locking position.

5. A latch for a pair of window sash one of which at least is movable relatively to the 110 other, comprising means providing a pivot on one of the sash, a latch member mounted upon said pivot and normally disposed on that side of the pivot most adjacent the other sash and in a position wherein it will be en- 115 gaged by said other sash upon relative movement between the sash, said latch member being capable of being moved by said other sash to a position on the opposite side of the pivot and presenting a shoulder in such po- 120 sition adapted to be engaged by said other sash so as to prevent further relative movement between the sash.

6. A latch for a pair of window sash one of which, at least is movable relatively to 125 the other, comprising means providing a pivot on one of the sash, a latch member mounted upon said pivot and normally disposed on that side of the pivot most ad- 130 jacent the other sash and in a position where-

in it will be engaged by said other sash upon relative movement between the sash, said latch member being capable of being moved by said other sash to a position on the opposite side of the pivot and presenting a shoulder in such position adapted to be engaged by said other sash so as to prevent further relative movement between the sash, and means upon which the latch member may engage in the last mentioned position so as to take some of the strain from off the pivot.

7. A latch for a pair of window sash one of which at least is movable relatively to the other, comprising means providing a pivot on one of the sash, a latch member mounted upon said pivot and normally disposed on that side of the pivot most adjacent the other sash and in a position wherein it will be engaged by said other sash upon relative movement between the sash, said latch member being capable of being moved by said other sash to a position on the opposite side of the pivot and presenting a shoulder in such position adapted to be engaged by said other sash so as to prevent further relative movement between the sash, said latch member being capable of being moved into a position to permit relative movement between the sash.

8. A sash latch comprising an open sided housing, means providing a pivot at approximately the center of the housing, a latch member mounted upon said pivot normally assuming a position partially within the

housing on one side of the pivot and partially projecting through the open side thereof, said latch member being capable of being swung through the open side of the housing on the opposite side of the pivot from the first mentioned position, said latch member presenting an outwardly extending shoulder extending outwardly from the open side of the housing when in the last mentioned position.

9. A sash latch comprising an open sided housing, means providing a pivot at approximately the center of the housing, a latch member mounted upon said pivot normally assuming a position partially within the housing on one side of the pivot and partially projecting through the open side thereof, said latch member being capable of being swung through the open side of the housing on the opposite side of the pivot from the first mentioned position, said latch member presenting an outwardly extending shoulder extending outwardly from the open side of the housing when in the last mentioned position and a leaf spring mounted in the housing engageable upon the latch member and assuring its being partially projected from the housing, when in the first mentioned position by permitting the latch member to be forced into a position wholly within the housing.

In testimony whereof I have signed my name to this specification.

R. H. BERGSTROM.