C. LOMBARDO.

SASH LOCK.

APPLICATION FILED JULY 16, 1918.

1,344,048. **Patented June 22, 1920.**

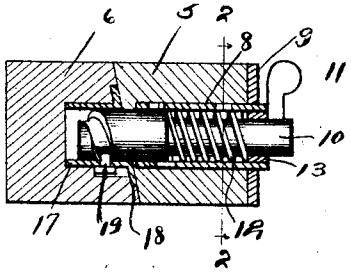

Fig. 1.

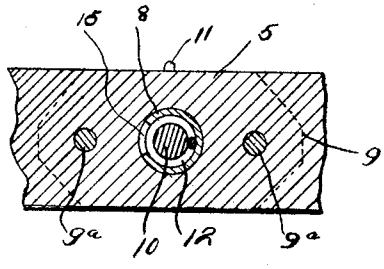

Fig. 2.

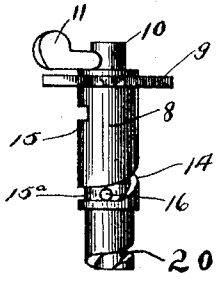

Fig. 3.

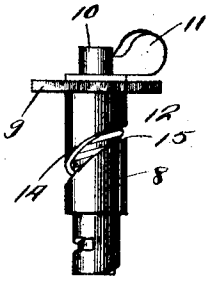

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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SASH-LOCK.

1,344,048. Specification of Letters Patent. Patented June 22, 1920.

Application filed July 16, 1918. Serial No. 245,157.

To all whom it may concern:

Be it known that I, CHARLES LOMBARDO, a citizen of the United States, residing at Waterford, in the county of Camden, State of New Jersey, have invented certain new and useful Improvements in Sash-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to builders' hardware, and more especially to sash locks; and the broad object of the same is to produce a bolt to be mounted into the mid-rail of one sash so that it may be projected by screw action into the mid-rail of the other sash.

Specifically the invention consists in novel means for mounting the bolt within sleeves in both sashes so that when it has been advanced to locking position it is bound or cramped in place, and when it is retracted or thrown out of locking position it is held so by means described below.

With the above and other objects and advantages in view, the invention resides more particularly in the novel combination, formation and arrangement of parts hereinafter described and particularly pointed out in the appended claim.

In the accompanying drawings:

Figure 1 is a sectional view taken transversely through the meeting rails of a pair of sashes equipped with the improved locking device.

Fig. 2 is a sectional view taken transversely on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the locking bolt and sleeve, looking toward one side of the sleeve.

Fig. 4 is a similar view, but looking toward the other side of the sleeve.

Referring now more particularly to the accompanying drawings, 5 and 6 designate a pair of meeting horizontal sash rails, although it will be appreciated that the present device may as well be used in conjunction with any other pair of meeting members. The inner rail 5 is provided with a transverse bore therethrough and positioned in this bore is a sleeve 8 which is secured in place by a face plate 9 at one end thereof which seats against the edge of the rail 5 remote from the rail 6 and which is in turn secured by screws 9^a passed therethrough into the rail. Slidable in the sleeve and projecting outwardly of the face plate is a bolt 10 having a finger piece 11 on its outer end and having its outer portion reduced whereby to form a seating shoulder against which is engaged one end of coil spring 12 mounted on the reduced portion of the bolt within the sleeve and bearing at its other end against a flange 13 at the outer end of the sleeve, which flange also forms a bearing for the reduced portion of the bolt. The sleeve is provided with a spiral slot 14 which terminates at its ends in straight portions 15 and 15^a extending in planes at right-angles to the axis of the sleeve, and a pin 16 is projected radially from the intermediate portion of the bolt and travels in said slot, the straight extension 15 which is at the outer end of the sleeve providing a means for holding the bolt retracted in the sleeve against the action of the spring. For receiving the bolt 10, the rail 6 is provided with a keeper socket sleeve 17 which is set into the rail 6 and secured thereto by outstanding wings 18 countersunk in the edge of the rail. A lug 19 projects inwardly from the wall of the sleeve 17 and this lug is engageable in a spiral groove 20 formed in the inner end portion of the bolt and open at the inner extremity thereof. Thus, with the bolt retracted and lying entirely within the sleeve 8, the sashes are freely afforded their normal movements, and when the sashes are closed, with the sleeve 8 and socket sleeve 17 in alinement, the bolt may be rotated, whereby its pin or lug 16, traveling in the slot 14 will force the bolt inwardly into the keeper sleeve 17, the lug 19 of said keeper sleeve engaging in the groove 20 of the bolt. As the lug or pin 16 reaches the end of the slot 14 and slides in the straight portion 15^a of said slot further advance of the bolt is checked and continued rotation of the bolt will serve to clampingly bind the sash rails together by reason of the continued pull exerted by the keeper lug 19 in the bolt groove 20. It will be observed that the expansive work of these great springs tends to advance the bolt, and the pin 16 thereof would be held in the space portions 15^a of the slot and the bolt projected, even if the bolt were not pulled to work by the groove 20 engaging the pin 19. On the other hand, when the bolt is retracted the spring is com-

pressed, and therefore it tends to bind the pin in the straight portion 15 of the slot 14 so as to hold the bolt in retracted position. Furthermore the bolt at all times is prevented from rattling by the presence of the spring.

A comparatively simple and efficient device has thus been provided which may be readily mounted in a pair of meeting sash rails in a manner presenting a most neat and attractive appearance by the elimination of exposed mechanism, it being particularly noted that manipulation of the device to open the same from the exterior of the window is impossible, since even were sufficient space afforded between the sash rails in their locked position to permit insertion of a knife between the rails for engagement with a bolt, the knife or other tool could only slide against the side of the bolt, and could not move the bolt longitudinally of its spiral slot connections.

What is claimed is:

A lock of the class described comprising a keeper adapted for securement in a member to be locked, a lug projecting from the inner wall of said keeper, a sleeve adapted for securement in a coöperating member to be locked and provided with a spiral slot having extensions at its ends disposed in planes at right angles to the axis of the sleeve, a bolt rotatably and slidably mounted in the sleeve and provided adjacent one end with a spiral groove for receiving the lug of the keeper, and a pin on the bolt engaged in said spiral slot and movable into its extensions at the extreme positions of said bolt.

In testimony whereof, I affix my signature, in the presence of two witnesses.

CHARLES LOMBARDO.

Witnesses:
GEO. H. KRUEGER,
HERMINA KRUEGER.