June 15, 1937. A. P. SWANSON 2,083,878

SASH LOCK

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Fig. 1.

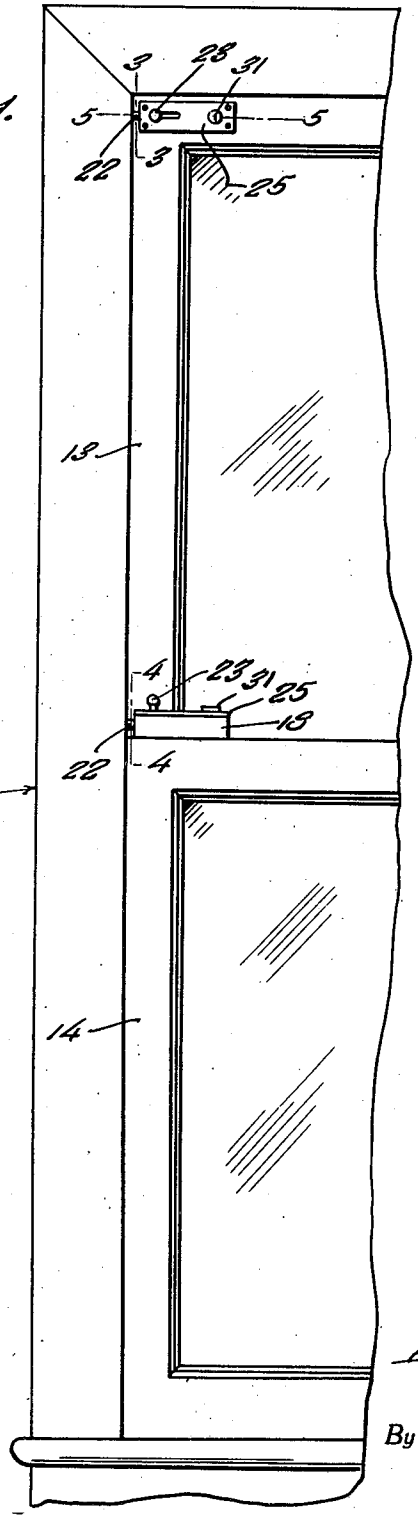



Fig. 3.

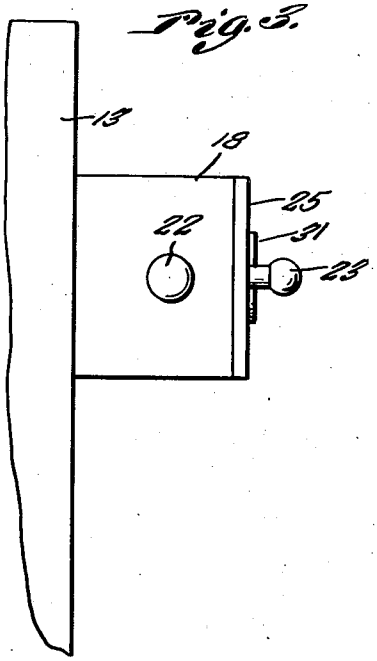
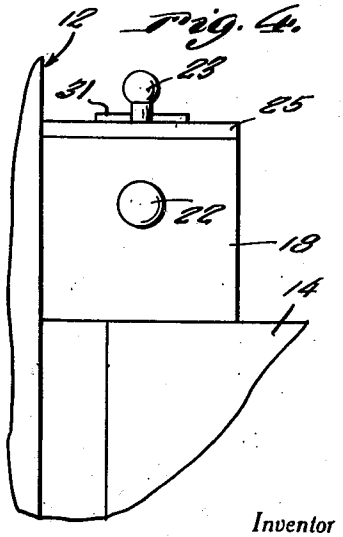



Fig. 4.




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Fig. 2.

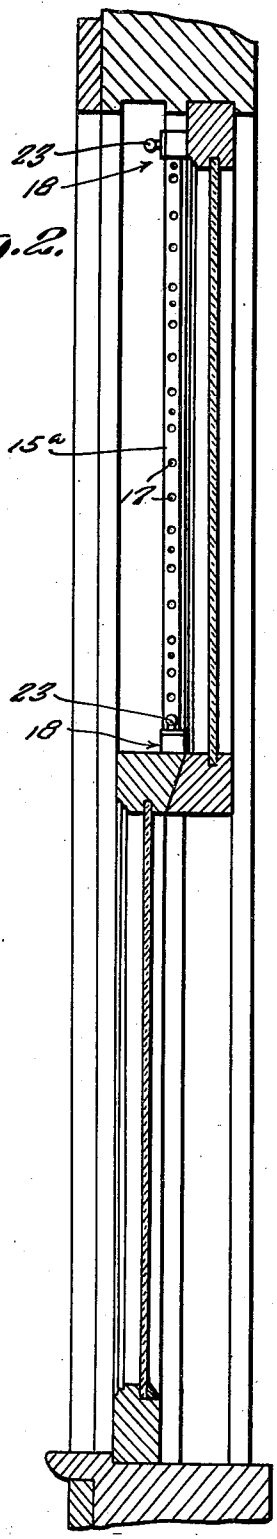



Fig. 9.

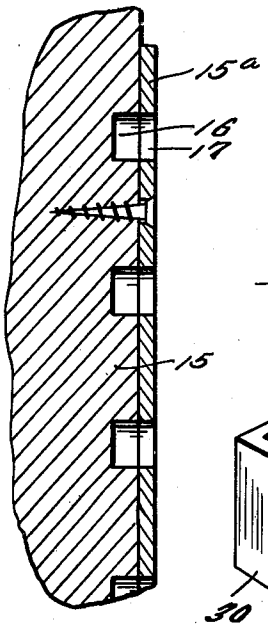
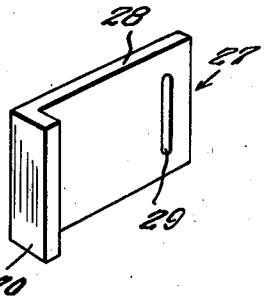



Fig. 11.



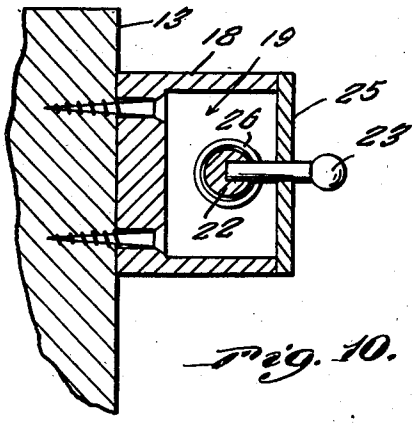




Fig. 10.

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Fig. 5.

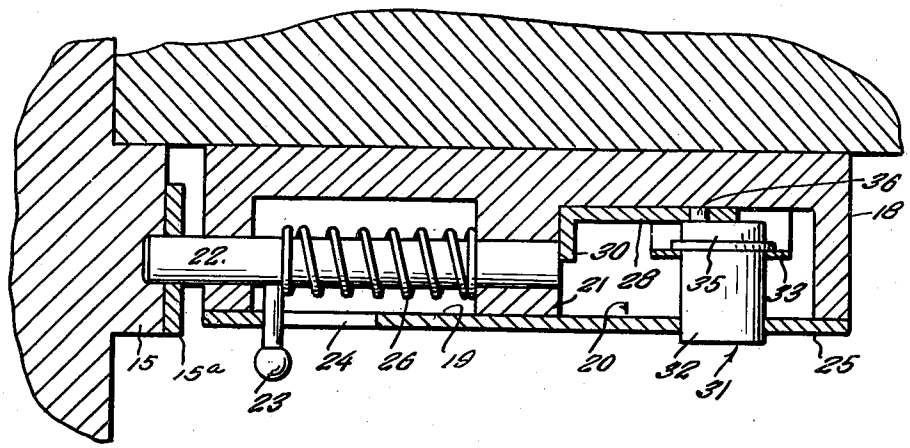



Fig. 6.

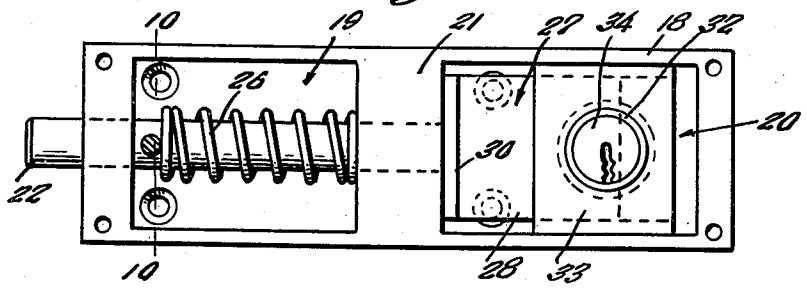



Fig. 7.

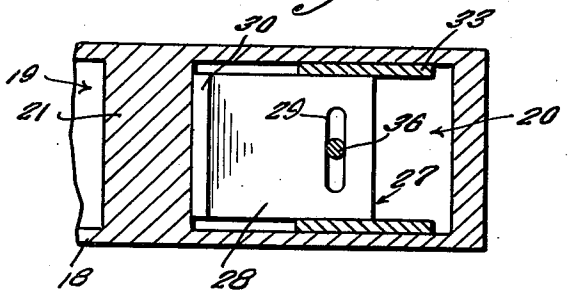
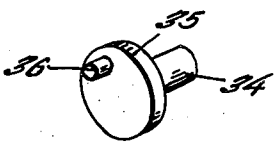



Fig. 8.




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# UNITED STATES PATENT OFFICE

2,083,878

## SASH LOCK

Albin P. Swanson, Mount Jewett, Pa.

Application March 10, 1936, Serial No. 68,116

1 Claim. (Cl. 70—90)

This invention relates to window sash fastening and retaining devices, and has reference in particular to a key controlled lock for positively locking window sashes in variable predetermined open or closed positions.

In reducing the principles of the invention conception to practice, I have evolved and produced a simple and economical lock which is so standardized in construction as to permit it to be selectively and alternately used on either the upper or the lower sash. That is to say, I have perfected what may be called a standard window lock including a projectable and retractible locking bolt cooperable with a fixed keeper strip, wherein the parts mutually cooperate to allow the same lock to be successfully used on the upper or the lower sash, as is desired.

In the lock itself, novelty is predicated upon the casing structure and the internal mechanism, which mechanism is characterized by a spring-projected, manually retracted locking bolt, and individual key-controlled means to maintain said bolt in a projected sash-retention position.

Other features and advantages will become more readily apparent from the following description and accompanying illustrative drawings.

In the drawings, wherein like numerals are employed to designate corresponding details and parts, throughout the same:

Figure 1 is a fragmentary elevational view of a window construction, including the frame and upper and lower conventional sliding sashes, illustrating how the standardized, interchangeable sash lock is utilized.

Figure 2 is a view observing Figure 1 in a direction from right to left, also utilized to illustrate the principle of interchangeability.

Figures 3 and 4 may be said to be enlarged views taken approximately on the plane of the lines 3—3 and 4—4, respectively, of Figure 1.

Figure 5 is a view in section and elevation, taken substantially on the plane of the line 5—5 of Figure 1.

Figure 6 is a detail view of the casing and internal mechanism, the cover plate being removed for clearness of illustration.

Figure 7 is a fragmentary detail sectional and elevational view of the right hand portion of Figure 6, utilized to show the placement and construction of the slidable trip or latch unit.

Figure 8 is a perspective detail view of the locking barrel.

Figure 9 is a fragmentary sectional view of the parting strip and metal attached facing and keeper plate.

Figure 10 is a transverse sectional view taken approximately on the plane of the line 10—10 of Figure 6.

Figure 11 is a perspective view of the reciprocatory trip unit.

In the drawings, the window frame, which is conventional, is denoted by the numeral 12, while the upper and lower standard sliding sashes are differentiated by the numerals 13 and 14, respectively. As shown in Figures 5 and 9, the parting strip is indicated at 15. In Figure 9, it will be observed that the parting strip is provided with a vertical row of sockets 16 suitably bored or mortiched to define keeper seats. The facing or keeper plate is provided with registrable holes 17 which may be designated as the keeper holes. In practice, this strip 15 extends the complete distance of the parting strip, or substantially so, between the lower and the upper sash. The keeper holes and seats are substantially equi-distant and serve to regulate the predetermined or selected open and closed positions of the sashes 13 and 14. The idea reflected from this arrangement is that by utilizing a standard and interchangeable lock, it can be applied to the sashes as shown in Figures 1 and 2 and in either position, will be in readiness to cooperate with the strip 15 and its associated features 16 and 17. Quite frequently in inventions of this general character, this diversified standardization and interchangeability is not taught or suggested. Thus from a combination standpoint, it is thought that there is a definite companionate connection between the key-controlled projecting bolt and the strip 15, which permits this desirable result to be obtained. Such result is advantageous in that no skill of application is required. That is to say, the parts can be applied in a self-evident manner and will register or match irrespective of whether the lock is applied to the top sash or the bottom sash, as the case may be, or it may be used simultaneously on both sashes with equal facility.

Considering now the construction of the lock itself, the rectangular block-like casing is denoted by the numeral 18 and has cavities formed therein to define individual compartments 19 and 20 and a divider 21. This divider is formed with a bore constituting a guide for the inner end of the reciprocatory locking bolt 22. The bolt is of the projectable and retractible type and provided with a finger knob or grip 23 slidable in the guide slot 24 in the detachable cover plate 25. The numeral

26 merely designates a coiled expansion spring which serves to normally project the bolt.

Slidable in the compartment 20 is the L-shaped lock-controlled and actuated L-shaped trip or latch unit 27. This comprises a plate which fits snugly for sliding in said compartment, the plate portion 28 having a transverse elongated notch 29 and a laterally directed flange 30. The flange is proportioned to engage the inner slidable end of the bolt, as shown in Figure 5, to lock the bolt in projected position. It can be retracted, however, by the key-controlled locking means 31. This comprises a suitable casing 32 mounted in a supporting fixture or hanger 33. It includes a key-controlled barrel 34 provided with a disk 35 having an eccentric pin 36 fitting slidably into the slot 29.

The assemblage comprising the U-shaped supporting clip 33 and the associated lock 31 and complemental L-shaped trip 27 consolidated and located in the compartment 20 to properly perform in conjunction with the sliding bolt, is believed to be an innovation in this particular line of endeavor. The device as a whole is possessed of an augmentation of cumulative features and advantages virtually assuring commercial and industrial endorsement.

In practice it is obvious that the oscillatory portion of the lock is controlled through the instrumentality of an individual key. By placing the key in the lock and turning it either one way or the other, this controls the position of the trip unit 27 and determines the position of the locking bolt. To state the problem otherwise, the locking bolt cannot be retracted and released from the keeper means until the lock is unlocked. Hence, this is not an ordinary window fastener or retainer, which belongs to the latch class, but rather one which possesses the positive assurance of a definite locking facility.

It is thought that the description, taken in connection with the drawings, will enable a clear understanding of the invention to be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

In a structure of the class described, a casing, a knob equipped spring pressed locking bolt slidably mounted in said casing, a substantially U-shaped clip mounted in said casing and constituting an adapter, an L-shaped slide having one end engageable with the inner adjacent end of said locking bolt and having the opposite end slidable through the arch defined by said U-shaped clip, a sleeve attached to said U-shaped clip and arranged at right angles to the major portion of the slide, a barrel mounted for oscillation in said sleeve, said barrel including an eccentric pin, said slide having a transverse slot in which said pin is operable in the manner and for the purposes described.

ALBIN P. SWANSON.