Dec. 29, 1931. J. B. SOLOMON 1,838,713

WINDOW SAFETY LOCK

Filed Jan. 25, 1930

Fig. 1.

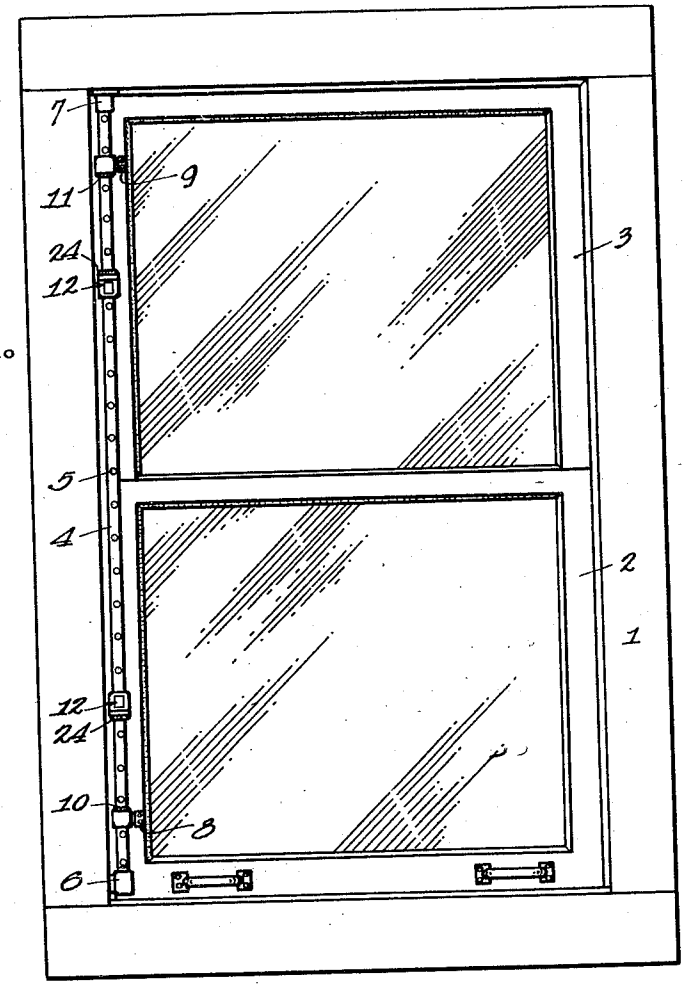


Fig. 2.

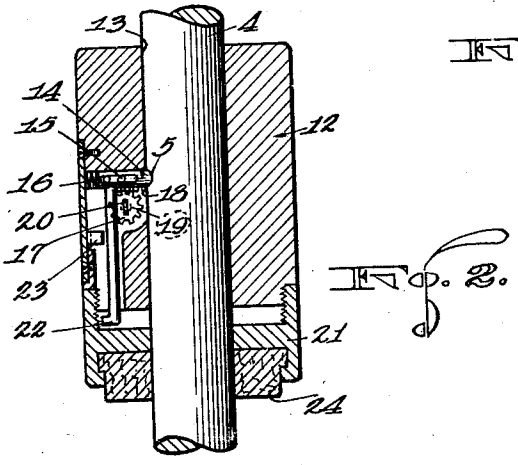
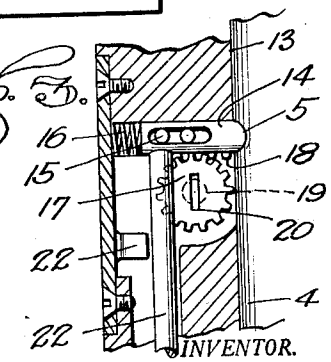


Fig. 3.



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WINDOW SAFETY LOCK

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My invention relates to improvements in window safety locks, and it consists in the combinations, constructions and arrangements hereinafter described and claimed.

In office buildings and in other types of buildings such as homes for the aged and insane asylums, some means should be provided for permitting the window sashes to be opened a slight distance for allowing air to enter and leave the room, but this means should limit the opening of the window sashes so as to prevent a person from accidentally stepping out through a window fully opened or from intentionally stepping out in an attempt to commit suicide.

With the above objects in view, I have designed a window safety lock that will permit the upper and lower sashes to be moved a predetermined distance and then be prevented from further movement unless an authorized person temporarily releases the locking mechanism to permit the full opening of the window sashes. The device is adjustable so as to permit the window sashes to be opened a slight distance or a greater distance.

It should further be noted that the device is especially adapted for use in homes to prevent burglars from moving the sashes into full open position after the sashes have been partly opened. The device is extremely simple in construction, and may be key-actuated or actuated by an authorized person who knows the secret combination.

Other objects and advantages will appear as the specification proceeds, and the novel features of the device will be particularly pointed out in the claims hereto annexed.

My invention is illustrated in the accompanying drawing, in which:

Figure 1 is a front elevation of a window showing my device operatively applied thereto,

Figure 2 is a vertical section through a portion of the device, and

Figure 3 is an enlarged view of a portion of the mechanism disclosed in Figure 2.

In carrying out my invention, I make use of a window which consists of the usual window frame 1, lower window sash 2, and an upper window sash 3.

To this window I secure a rod 4 that has a number of recesses 5 therein equally spaced from each other. These recesses may be arranged close together if desired, or they may be separated from each other a considerable distance. The rod 4 is received in a socket 6 that in turn is secured to the window frame 1 and in a second socket 7 that is also secured to the window frame. The rod 4 is preferably disposed adjacent to one side of the frame so as not to obstruct the view, but it is obvious that it may be placed in different positions other than that shown in Figure 1.

Each window sash carries an arm, and I have numbered these arms 8 and 9 respectively. The arms have bores for slidably receiving the rod 4, and carry rubber bumpers 10 and 11 for a purpose hereinafter described.

The particular construction of the lock is shown in Figure 2. I provided two locks 12, one for each arm 8 and 9, and these locks are adjustable on the rod 4 so as to determine the amount of opening of the sashes 2 and 3. Referring to Figure 2, it will be noted that the lock 12 has a bore 13 therein for receiving the rod 4. A spring-pressed locking pin 14 is carried by the lock 12 and is designed to enter any one of the recesses 5. Pins 15 guide the locking pin 14, and a spring 16 urges the locking pin into the recess 5. When the pin is received in the recess, the lock 12 cannot be moved on the rod 5.

I provide two means for releasing the locking pin 14. I will first describe the key-controlled means. A gear 17 is mounted within the lock 12 and meshes with a rack 18 formed on the locking pin 14. The gear has a trunnion 19 that rotatably supports the gear in position. A centrally disposed opening 20 in the gear of any desired shape is provided, and the casing 12 has an opening which permits a key to be inserted into the opening 20, and if this key is of the required shape, a turning of it will turn the gear 17 and free the locking pin 14 from the recess 5. The lock 12 may now be moved into any position desired, and the freeing of the key (not shown) will cause the spring 16 to again seat the locking pin 14 in the recess 5 for

preventing further movement of the lock 12.

A manually controlled means is also provided for releasing the pin 14. At the bottom of the lock 12 I mount a collar 21 that is threaded upon the lock 12. When this collar is released from the lock 12, an arm 22 is exposed. This arm is rigidly connected to the lockng pin 14 so that a manual movement of the arm to the left in Figure 2 will free the locking pin from the recess. A spring clip 23 receives the arm 22 and yieldingly holds it in place with the bolt 14 retracted so that the lock 12 may be freely moved along the rod. When the lock is disposed in the desired position, the arm 22 is moved to the right and is freed from the spring clip 23. The collar 21 may now be screwed upon the lock 12 so as to hide the arm 22.

The collar 21 carries a resilient bumper 24 that abuts the bumpers 10 or 11 when the arms 8 or 9 are moved into engagement with the locks 12. The bumpers prevent the shattering of the glass should too much force be used in raising the window sash.

When the locking pin 14 is key-actuated, it also moves the arm 22, and the arm is received in the spring clip 23 in the same manner as already described. This holds the locking pin 14 out of engagement with the rod 4 until the key is again turned for freeing the arm 22 from the spring clip 23.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

The device may be applied to any standard window, and the locks 12 positioned in any desired place on the rod 4. The locks permit the window sashes to be opened until the arms abut the locks. Further movement is prevented unless the lock is released from the arm 4 by an authorized person who has a key or who has the knowledge of how to gain access to the arm 22.

Although I have shown and described one embodiment of my invention, it is to be understood that the same is susceptible of various changes, and I reserve the right to employ such changes as may come within the scope of the invention as claimed.

The lock can be replaced with a new one without inconvenience to anyone.

I claim:

1. A window safety lock comprising a rod having recesses therein, locks adjustable on said rod and having plungers removably receivable in the recesses, arms slidable on said rod and being secured to the window sashes, said locks limiting the movement of the arms.

2. A window safety lock comprising a rod having recesses therein, locks adjustable on said rod and having plungers removably receivable in the recesses, arms slidable on said rod and being secured to the window sashes, said locks limiting the movement of the arms, and resilient bumpers carried by said locks and arms for abutting each other when the arms are moved into contact with the locks.

3. A window safety lock comprising a casing having a bore for slidably receiving a rod having recesses therein, a spring pressed pin carried by said casing for entering the recesses, an arm carried by said pin for moving it, a collar normally covering the end of the arm and being removable from the casing for permitting the arm to be moved.

4. A window safety lock comprising a casing having a bore for slidably receiving a rod having recesses therein, a spring pressed pin carried by said casing for entering the recesses, an arm carried by said pin for moving it, a collar normally covering the end of the arm and being removable from the casing for permitting the arm to be moved, and a spring clip for holding the arm and pin in retracted position.

JOSEPH B. SOLOMON.