W. GADKE.

WINDOW FASTENER.

APPLICATION FILED AUG. 11, 1916.

1,244,725.

Patented Oct. 30, 1917.

FIG. 1.

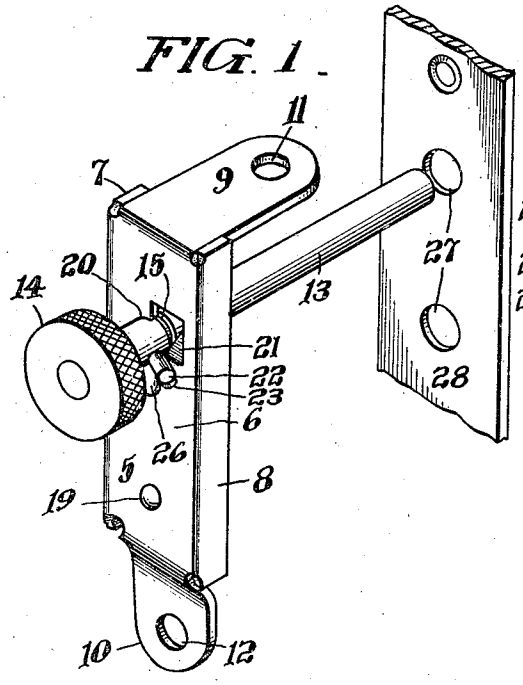


FIG. 2.

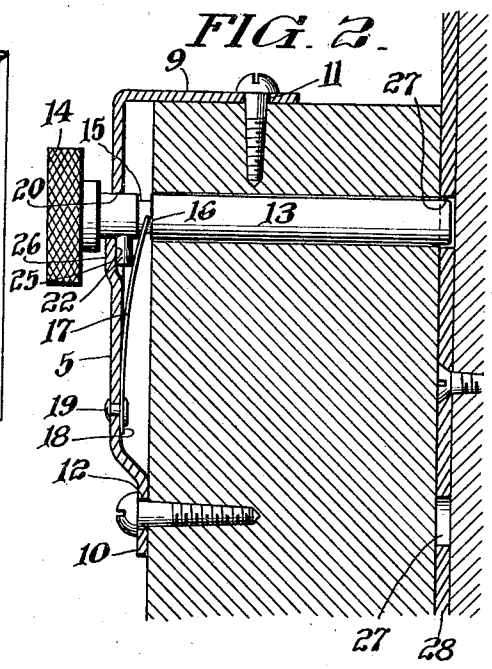


FIG. 3.

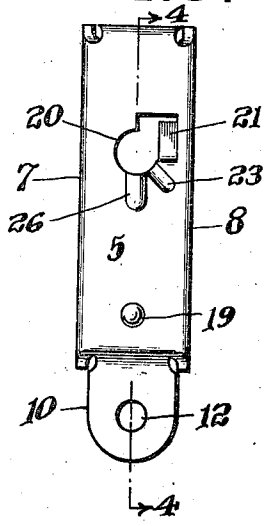


FIG. 4.

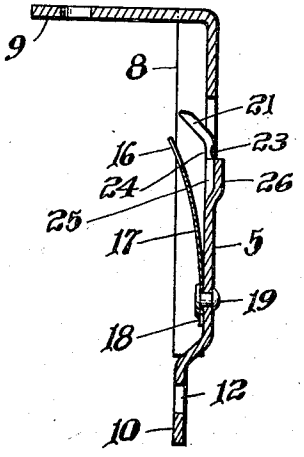
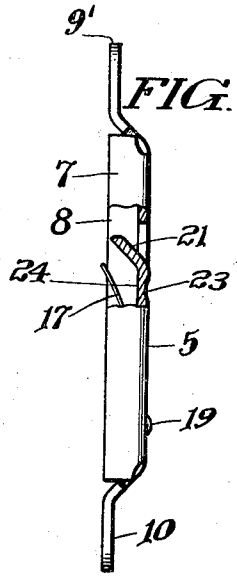


FIG. 5.



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WINDOW-FASTENER.

1,244,725. Specification of Letters Patent. Patented Oct. 30, 1917.

Application filed August 11, 1916. Serial No. 114,409.

To all whom it may concern:

Be it known that I, WILLIAM GADKE, a citizen of the United States, residing at 2222 W. Huntingdon St., Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Window-Fastener, of which the following is a specification.

My invention relates to window fasteners of the type that are secured to one of the sashes of the window and engage the other sash or the frame of the window.

The purpose of my invention is to simplify the construction, to hold the fastening bolt in place by the same spring which normally presses the bolt toward locking position, to secure effective forward feed by a single cam surface and a single spring, and to latch the bolt in both locking and open positions by said single spring.

Further purposes of my invention will appear in the specification and particularly in the claims thereof.

I have preferred to illustrate my invention by but one form thereof, selecting one which has proved in use to be practicable, efficient and inexpensive and which at the same time well illustrates the principles of my invention.

Figure 1 is a perspective view of my fastener in unlocking position.

Fig. 2 is a central longitudinal section of my fastener, the sash upon which it is mounted and the adjoining engaging member.

Fig. 3 is a front elevation of my fastener with the locking pin removed therefrom.

Fig. 4 is a section of Fig. 3 upon lines 4—4.

Fig. 5 is a partly sectioned side elevation of a modified form.

In the drawings similar numerals of reference indicate like parts.

My fastener is intended for use upon one of the bars of a window sash, either upon the face of the side or top bar, or top rail of a lower sash to engage the upper sash at the side or at some point along its bottom rail, or upon the inner edge of the side bar of either sash, passing through it parallel to the glass and engaging the inside of the channel of the window frame.

The body 5 of the fastener comprises a plate 6 turned down at 7 and 8 to form sides, and fastened to the sash at the ends by strips 9 or 9′ and 10, which may also be made to close the ends effectually. The end 9 is adapted for engagement with a sash face at right angles to the face of the plate, as where it is secured to the top of the side bar. But where both fastener ends are to be secured to the face of the bar the end 9′ (Fig. 5) is made much like that at 10. The ends are apertured at 11, 12 for suitable attachment.

The bolt 13 is adapted to be turned by hand. For convenience, the outer end is provided with a knurled head 14. The bolt is annularly grooved at 15 to seat the hollowed end 16 of a spring 17 whose opposite end 18 is riveted to the casing top as at 19. The spring normally presses the bolt to the right in Fig. 2.

At the edge of the aperture 20, through which the bolt passes, a strip of the metal of the top is cut loose along the side and at one end, and is bent to form a cam 21 upon which the pin 22 upon the bolt will ride, when the bolt is turned in a clockwise direction, from the position shown in Fig. 2 until the bolt is drawn against the pressure of the spring sufficiently for the pin 22 to emerge from the body of the fastener, when further movement causes it to reach the preferably radial groove 23, into which the pin is drawn by the action of the spring. This latches the bolt in the unlocked position. In order not to interfere with movement of the pin 22 when within the body of the fastener, I prefer not to convex the inside of the plate beneath 23, as at 24. Though the inner edge of cam 21 is not curved in the illustration, the slope and extension of the cam are such that the pin 22 in following it moves in a substantially spiral path.

When the locking bolt is turned in a counter-clockwise direction the spring causes the pin 22 to follow the surface of the cam 21 until it reaches the lower part of the body of the fastener at preferably the same time that the spring comes to rest. Further turning of the bolt causes the pin 22 to press between the under face of plate 6 and the spring, forcing the spring beyond its position of rest, so that when the bolt is turned opposite the preferably radial groove 25 the pin 22 is pressed within this groove by the spring, latching the bolt in its locking position.

The groove 25 is preferably made by pressing the metal outwardly, providing a

corresponding convexity upon the outside of the plate 6 as at 26, which closely adjoins the groove 23, protecting against excessive turning of the rod and pin in unlocked position.

The bolt is shown as entering one of the apertures 27 of a reinforcing plate 28. The apertures are laterally extended to permit relative movement of one sash relative to the other or to the casing.

It will be evident that my sash lock gives a shearing strain upon the bolt, can be used for either the center or the side of the sash, can be withdrawn by rotation without having to pull it out against the spring, is securely held in both inner and outer positions by spring-pressure, and cannot be opened by an implement inserted between the sash.

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

1. In a sash lock, a body, apertured, and having a cam strip about the aperture, a bolt passing through the aperture, circumferentially grooved, and having a head thereon adapted to be turned, a pin radially projecting from the bolt at a point located between the groove and the head and a spring secured to the inside of the body and engaging the bolt within the groove to press the head of the bolt inwardly.

2. In a sash lock, a body, apertured, having a cam forming a substantially spiral track about the aperture, and having a radial groove adjoining the aperture upon the outside of the body in combination with a bolt adapted to pass through the aperture, and having a circumferential groove, a leaf spring engaging the walls of the groove and a pin upon the bolt adapted to ride upon the cam and rest within the radial groove.

3. In a sash lock, a body, apertured, having a cam forming a substantially spiral track about the aperture, and having a radial groove adjoining the aperture upon the inside of the body, in combination with a bolt adapted to pass through the aperture, and having a circumferential groove, a leaf spring engaging the walls of the groove and a pin upon the bolt adapted to ride upon the cam and fit between the spring and the internal groove.

4. A sash lock comprising a body having an aperture and external and internal radial grooves in the walls of the body adjacent the aperture, a cam strip forming a substantially spiral track about the aperture, in combination with a spring secured to the internal wall of the body, and a bolt adapted to fit through the aperture and circumferentially grooved to receive the free end of spring and a radially-extending pin adapted to engage the cam strip and fit into the radial grooves.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."