Nov. 21, 1939. J. E. MULCAHY 2,180,994

SASH FASTENER

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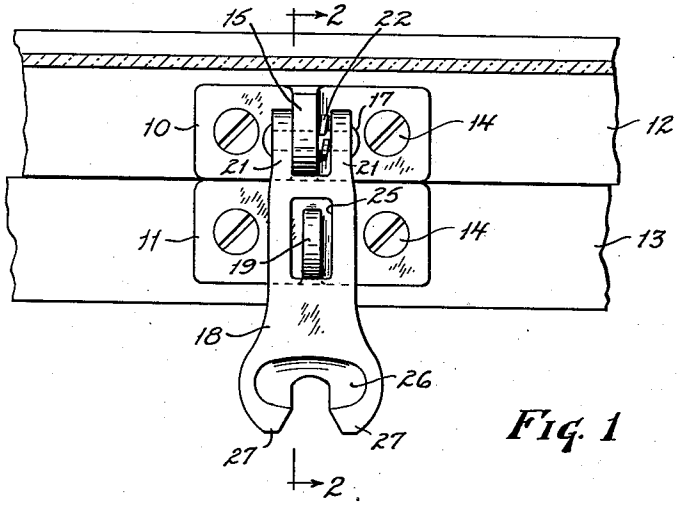


FIG. 1

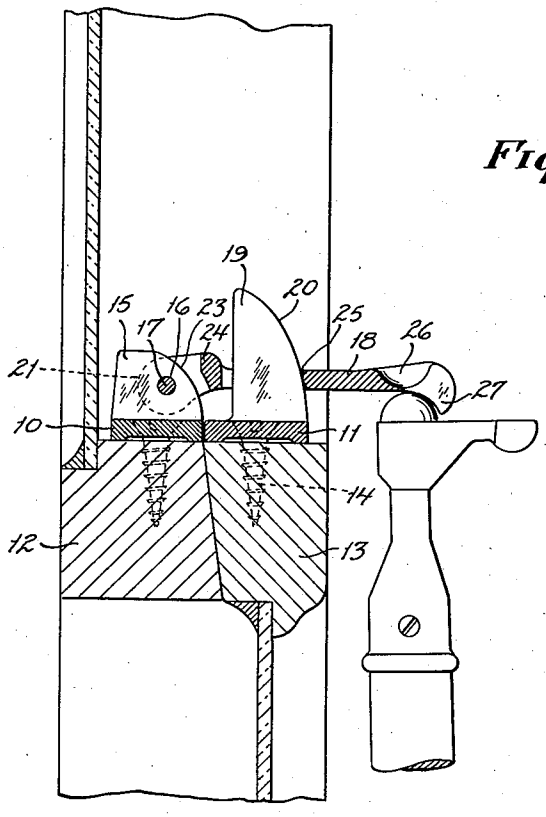
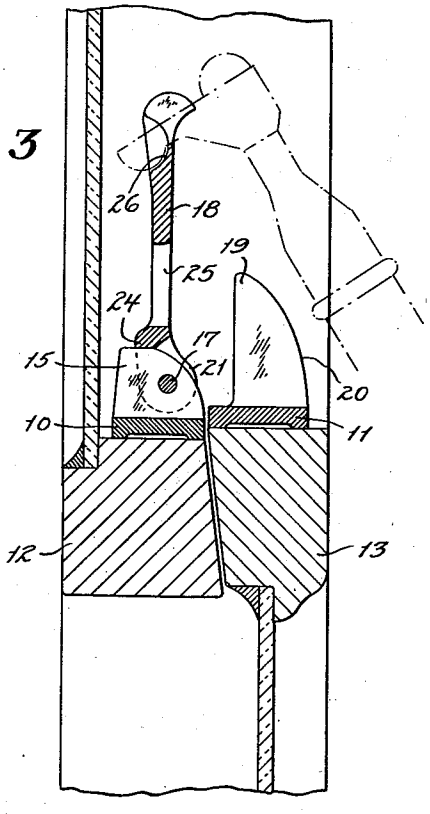


FIG. 2

FIG. 3



INVENTOR.
JAMES E. MULCAHY
BY
Bates, Golwick & Teare
ATTORNEYS

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SASH FASTENER

James E. Mulcahy, Cleveland, Ohio

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2 Claims. (Cl. 292—240)

This invention relates broadly to improvements in window fasteners, and more particularly to window fasteners or locks of the type actuated by use of a window pole, such as described in U. S. Patent No. 2,055,698, granted to me March 25th, 1936.

The principal objects of the present invention are to provide a window fastener which is simple in construction, efficient, economical to manufacture, and easily installed upon the meeting rails of the upper and lower sash of a window.

A further object of the present invention is to provide a window lock, the construction of which permits hand operations in the event it is installed within reach, thus dispensing with the necessity of using the aforementioned window pole.

Other objects of my invention will become apparent from the following description, which refers to the accompanying drawing and the essential characteristics of the invention will be summarized in the claims.

In the drawing, Fig. 1 is a plan view of my invention, installed on a window and shown in the locked position; Fig. 2 is a cross-section, taken on a plane corresponding to line 2—2 of Fig. 1, the window pole being illustrated; Fig. 3 is a sectional view similar to Fig. 1, but showing the window fastener in unlocked position and the window pole in broken lines.

In the embodiment of my invention as illustrated and which shows a preferred construction, I provide an improved window fastener which consists generally of a pair of apertured metal plate members 10 and 11 which may be secured to the meeting rails of upper and lower sash members 12 and 13, respectively, of a window in any convenient manner, as for example, by screws 14. Plate 10 is provided with a lug 15, which may be formed integral therewith and supplied with a horizontal hole 16 to receive a pivot pin 17, the latter being carried by a locking member or arm 18. Plate member 11 is provided with an upstanding lug 19, which may also be formed integral therewith and supplied with a cam surface 20, for reasons presently explained.

The locking member 18 may likewise be made of metal, and have its ends bifurcated. One bifurcated end of the locking member may be supplied with spaced-apart eyes 21—21, which are received adjacent opposite sides of the lug 15 to receive the horizontal pivot pin 17, thus pivotally attaching one end of the locking member to the lug 15. If desired, a split spring washer 22 may encircle the pivot pin 17, and be inserted between one of the eyes 21 and the lug 15, so that the locking member is frictionally retained in the position shown in Fig. 3, as in the case when the window is unlocked. During the operation of swinging the locking member 18 upon its horizontal pivot pin 17 from the horizontal or locked position shown in Fig. 2, to the vertical or unlocked position shown in Fig. 3, it is desirable that the lug 15 be cut away as at 23, to clear the bridge portion 24 of said locking member. The locking member 18 is preferably provided with an elongated opening 25, the width of which is greater than the thickness of the lug 19 to compensate for any misalignment of the sash members 12 and 13. The free end of locking member 18 is preferably bifurcated, and supplied with a concaved socket 26, to receive the tip of a window pole, during the operation of locking the window in a manner thoroughly illustrated in Fig. 3, and is further provided with projecting portions 27—27 which cooperate with the tip of the pole, as clearly shown in Fig. 2, during the operation of unlocking the window.

The construction of my improved sash fastener is such that during locking or unlocking of the window, the locking member 18 is swung in a plane at right-angles relative to the upper and lower sash panes, and when swung to an unlocked position is readily detected.

An advantage of my improved sash fastener is that in the event the sash members 12 and 13 are slightly out of alignment after closing the window, as illustrated in Fig. 3, for example, the closing or locking operation of the member 18 will cause a camming action against the cam surface 20 of lug 19, to thereby force the sash members 12 and 13 into alignment with one another as shown in Fig. 2, and at the same time draw them towards one another, whereby a weather-tight joint is effected.

It will be apparent from the foregoing that I have provided an improved window fastener, which, in addition to being extremely simple in construction, economical to build and positive in its action, also acts to force the sash members 12 and 13 towards one another by a camming action, and which, when moved to a locking position, effectively locks the sash members 12 and 13 together. Furthermore, any lateral misalignment of the sash members 12 and 13 relative to one another is compensated for by the width of slot 25 in the locking member 18, being greater than the thickness of lug 19 on the plate member 11.

It will be further observed that the preferred method of operating the window lock is by the use of a window pole, such as described in the aforementioned United States patent, but in the event the lock is installed in a position which may be readily reached, the locking member 18 may be manually operated without the use of such pole.

I claim:

1. A fastener of the character having two coacting parts, one of which comprises an arm that is carried on one part of a window sash and that coacts with a keeper on a coacting sash and projects beyond the last named sash, the arm having a slot opening outwardly at one end thereof and having a socket on one face thereof adjacent the base of the slot for receiving a window pole.

2. A fastener of the character having two coacting parts, one of which is carried by one sash and the other of which is carried by a coacting sash, one of the parts comprising a flat strip having a longitudinally extending slot at the outer end thereof and having a socket in one face adjacent the base of the slot and having a curved portion on the opposite face, said socket and curved portion being adapted to receive a window pole for moving the strip either to locked or unlocked position.

JAMES E. MULCAHY.