No. 805,766. PATENTED NOV. 28, 1905.

C. H. WILLIAMS.

WINDOW SASH FASTENER.

APPLICATION FILED JAN. 12, 1905.

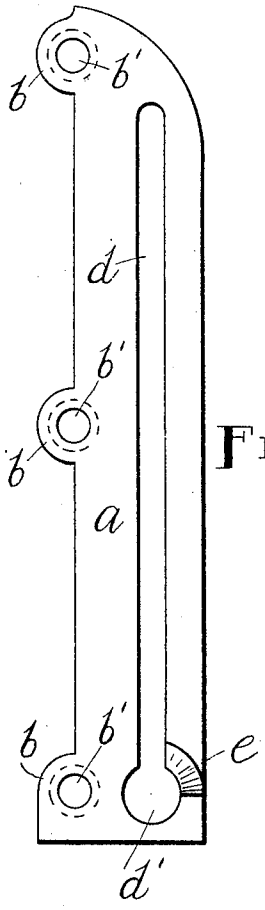


FIG. 1.

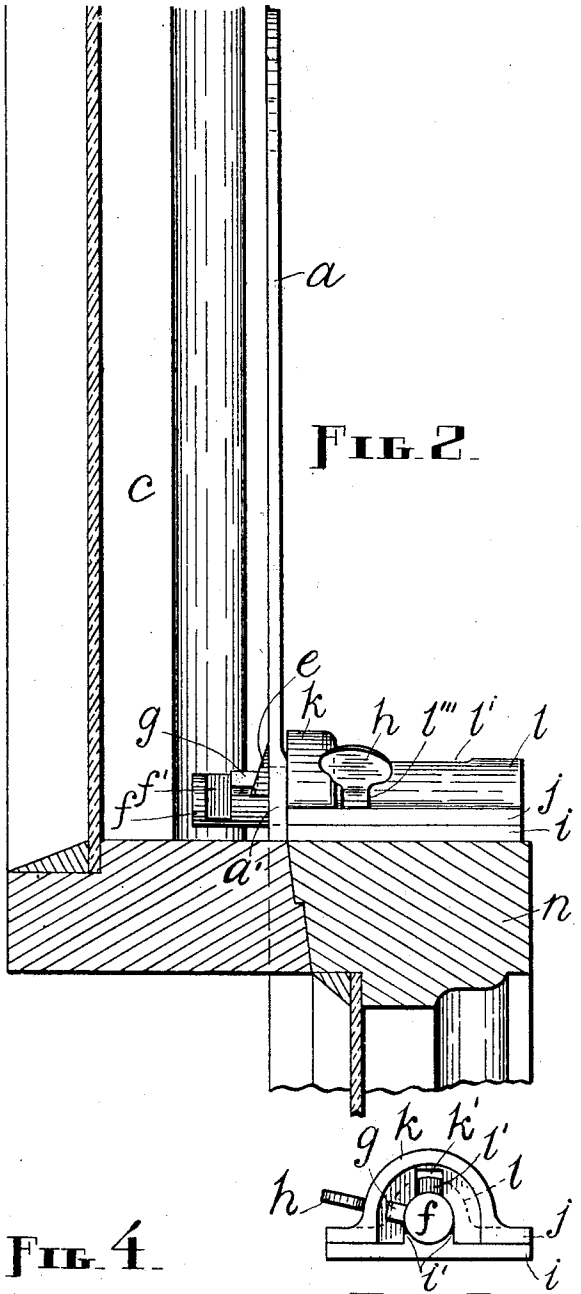


FIG. 2.

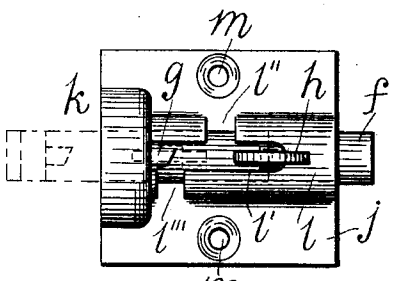


FIG. 3.

FIG. 5.

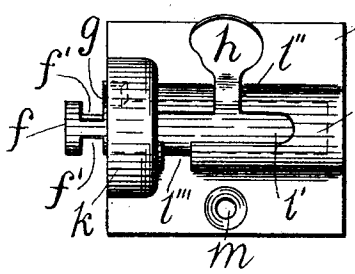


FIG. 4.

Witnesses
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WINDOW-SASH FASTENER.

No. 805,766. Specification of Letters Patent. Patented Nov. 28, 1905.

Application filed January 12, 1905. Serial No. 240,684.

To all whom it may concern:

Be it known that I, CHARLES HOYT WILLIAMS, a citizen of the United States of America, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Window-Sash Fastener, of which the following is a specification.

My invention relates to improvements in devices for fastening or locking windows, and comprises a certain peculiar bolt and keeper for the same adapted to be secured to the top rail of a lower window-sash, and a perforated plate provided with a cam adapted to be secured to one of the side bars of the associated upper sash in such position that it can be engaged by said bolt, all as hereinafter more fully set forth.

The object of my invention is to provide a durable, simple, and comparatively inexpensive window-sash fastener which can be easily and readily secured to the two sashes without cutting either of them and which not only serves as a lock for the windows when closed, but prevents the same from rattling; furthermore, this device may be arranged so as to permit one or both of the windows to be partially opened when it is not desired to unlock them entirely.

Windows are very liable to be vibrated by the wind to such an extent that the rattling thus produced becomes annoying. This disagreeable occurrence is obviated by the use of my fastener. For the purpose of ventilation it is often desirable either to lower the upper sash or raise the bottom one a short distance, or to open both windows a little, and I have provided for these important features.

My fastener can be very easily and quickly manipulated and caused to lock and release the windows to which it is attached with one hand and without exerting a great amount of strength.

I attain the object and advantages above pointed out by the means illustrated in the accompanying drawings, in which—

Figure 1 is an outside face view of the locking-plate; Fig. 2, a sectional view of two windows having my fastener connected therewith, said windows being locked together by said fastener, which is also so arranged as to prevent them from rattling; Fig. 3, a plan view of the bolt and keeper, showing the former retracted to its fullest extent in full lines and thrust forward to its fullest extent, but not turned so as to engage the cam on the plate, as shown in the preceding view in dotted lines; Fig. 4, a plan view of the same, showing the bolt partially retracted and turned into the position necessary when the grooved portion thereof is to operate in the slot in the plate; and Fig. 5, an end view of the parts standing as they appear in Fig. 4 looking at the head or working terminal of the bolt.

Similar letters refer to similar parts throughout the several views.

A locking-plate *a*, which forms a part of my device, is provided at one edge with a number of ears *b*, having holes *b'* therein for the passage of screws with which said plate may be attached to one of the side bars of an upper sash, such a side bar being shown at *c* in Fig. 2, all of the plate except said ears projecting beyond the inside edge of the bar. In other words, the major portion of the plate stands entirely clear of the bar. This arrangement does away with any necessity of cutting the bar *c*, because the plate *a* projects far enough to enable the bolt, presently to be described, to operate freely in connection with said plate without interfering with the bar. The plate *a* is further provided with a vertical slot *d*, terminating at the base in an enlarged opening or bolt-hole *d'*, and with a cam *e* on the outside face between the edge of the plate opposite the ears *b* and the adjacent junction of said bolt-hole with said slot. The lower terminal of the plate *a* may be made thicker, as shown at *a'* in Fig. 2, if desired, for the purpose of affording better accommodation to the bolt when operating in the slot *d*, such extra thickness being on the inside face of said plate.

The bolt *f* which I employ has two grooves *f'* cut in opposite sides thereof at the head or working terminal and is provided with a lug *g* and a thumb-piece *h*, both standing substantially at right angles to said grooves. The lug *g* is adapted to engage the cam *e* on the plate *a*, the edge of said lug which is designed to bear against said cam being preferably beveled. When the bolt *f* is turned so that the lug *g* points upward, the head of said bolt can be passed through the hole *d'* in the plate *a*, said lug going through the slot *d*; but the latter is not wide enough to permit the bolt to enter the same unless arranged to bring the grooved portion thereof parallel with said slot.

The keeper, which confines the bolt *f* and fixes limits to its different movements, consists of a base-plate *i* and a top casing *j*, having a

hood k and a barrel l thereon. The passage in the barrel l for the bolt opens into the recess in the hood k. There is a slot k' in the upper part of the vertical wall of the hood k, through which the lug g passes when the bolt f is retracted to its fullest extent, as shown by full lines in Fig. 3. A longitudinal slot l' in the top of the barrel l accommodates the thumb-piece h of the bolt when standing upright, and lateral slots l'' and l''', opening into said slot l' from opposite sides, are designed to receive said thumb-piece when turned over in one direction or the other for purposes presently to be described. The slot l'' is remote from the closed end of the slot l' opposite the hood k. Holes m are made in the casing j, also corresponding holes immediately below in the base-plate i for the passage of the screws (not shown) with which these parts are secured on the top rail n of the lower sash. A central ribbed guide i' for the bolt extends longitudinally along the upper surface of the plate i. The keeper just described is so located on the sash-rail n as to bring the head of the bolt directly opposite the hole d' in the locking-plate when the meeting-rails of the two sashes are exactly contiguous, as in Fig. 2.

Although the base-plate i is a desirable element of the keeper, it is by no means vitally essential, since the casing j and the bolt f might rest directly on the sash-rail n; but said bolt would not then of course work as smoothly.

When the parts are adjusted as illustrated by full lines in Fig. 3, the thumb-piece h bears against the end of the slot l' opposite the hood k, thus preventing further retraction of the bolt f, the grooved part of said bolt being within said hood and the lug g in the slot l'. This is the unlocked position, and the windows to which the locking-plate and keeper are attached can now be opened to any extent. Upon moving the bolt until the thumb-piece encounters the hood the head of said bolt enters the hole d' in the locking-plate, the lug g having passed through the slots k' and d, and the windows are securely locked, although liable to rattle. This last is, however, absolutely prevented by thrusting the thumb-piece h down into the slot l''', which action turns the bolt in such a manner as to cause the lug g to engage the cam e. The base of the plate a is now held tightly between the hood k and the lug g, with the meeting-rails in such close contact that no vibration is possible. (See Fig. 2.) To permit a limited movement to one or both of the windows while they are still locked, retract the bolt until the thumb-piece can be thrust into the slot l'', as shown in Figs. 4 and 5, which action brings the contracted portion of said bolt into line with the slot d in the locking-plate, and the windows can be moved within the limit fixed by said slot to the travel of the bolt or of the locking-plate, or both.

Changes in the shape and size of the several members and in construction of minor importance other than those already referred to may be made in my invention without departing from the nature of the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a window-sash fastener, with a locking-plate adapted to be attached to and extend beyond a side bar of the upper sash, having a slot and a bolt-hole therein and provided with a cam, such slot, bolt-hole and cam being in and on that portion of said locking-plate which projects beyond said side bar, of a bolt provided with a lug adapted to pass through said bolt-hole and slot and said lug engaging said cam when said bolt is turned, and a keeper for the bolt capable of being attached to the upper rail of the lower sash.

2. The combination, in a window-sash fastener, with a locking-plate adapted to be attached to and extend beyond a side bar of the upper sash, having a slot and a bolt-hole therein and provided with a cam, a casing adapted to be attached to the upper rail of the lower sash and having longitudinal and transverse slots therein, and a bolt operating in said casing and provided with a lug adapted to pass through said bolt-hole and said slot in said locking-plate and the lug engaging said cam when said bolt is turned, the bolt being also provided with a thumb-piece arranged to operate in the slots in the casing.

3. A bolt-casing, for a window-sash fastener, comprising a longitudinally and transversely slotted barrel and a hood at one end of larger diameter than said barrel, a slot being provided in the vertical wall of said hood and opening into the longitudinal slot in the barrel.

4. A bolt-keeper, for a window-sash fastener, consisting of an independent base-plate provided with a ribbed guide for the bolt, and a casing adapted to be superimposed on said base-plate and comprising a longitudinally and transversely slotted barrel and a hood at one end of larger diameter than said barrel, a slot being provided in the vertical wall of said hood and opening into the longitudinal slot in the barrel.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES HOYT WILLIAMS.

Witnesses:

EDGAR A. TAYLOR,

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