No. 622,903. Patented Apr. 11, 1899.

T. B. STEVENS.

SASH FASTENER.

(Application filed May 24, 1898.)

(No Model.)

Fig. 1.

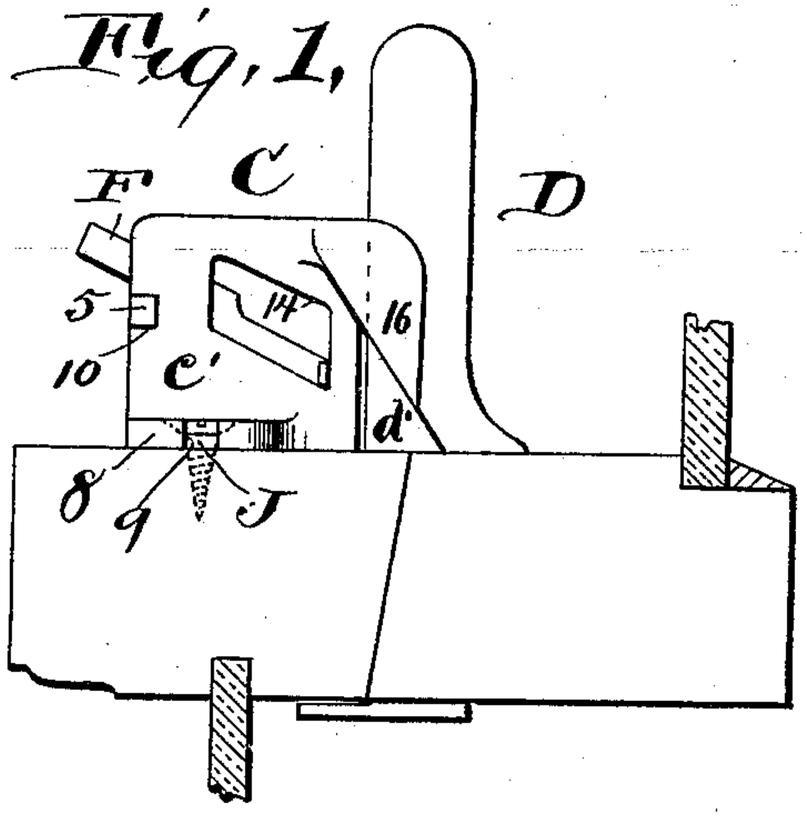


Fig. 2.

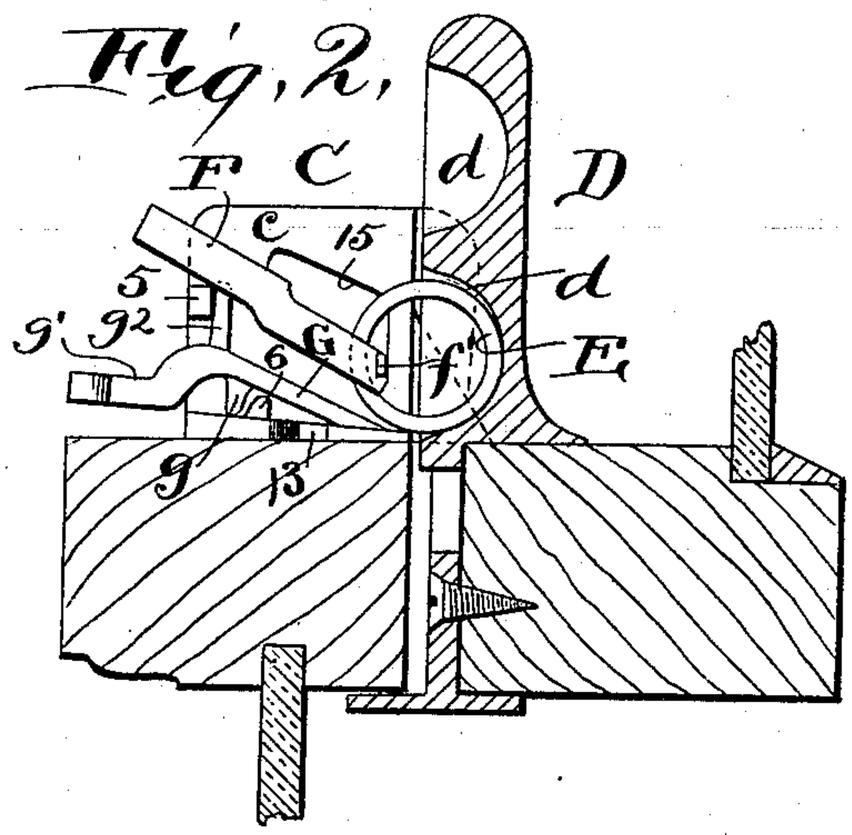


Fig. 4.

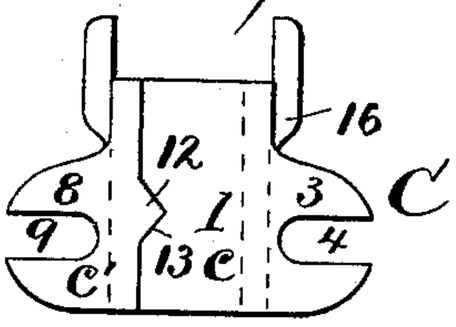


Fig. 3.

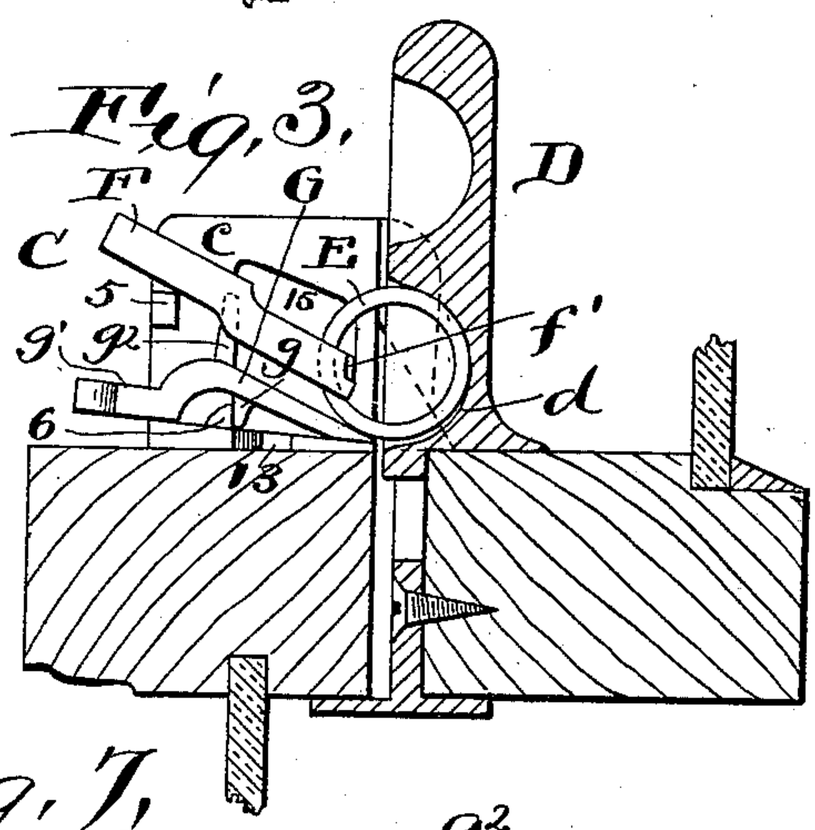


Fig. 5.

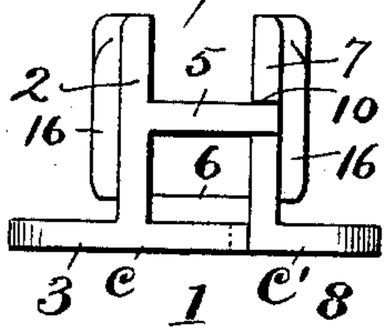
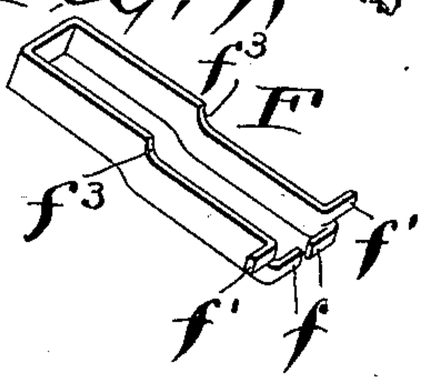


Fig. 7.



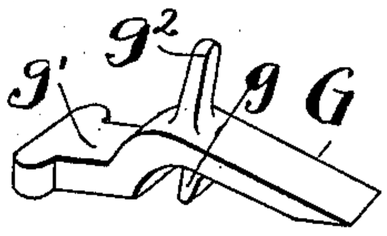
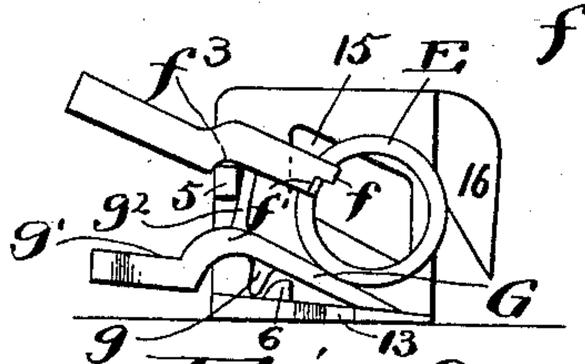


Fig. 6.

Fig. 8.



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UNITED STATES PATENT OFFICE.

THEODORE B. STEVENS, OF CLEVELAND, OHIO.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 622,903, dated April 11, 1899.

Application filed May 24, 1898. Serial No. 681,605. (No model.)

To all whom it may concern:

Be it known that I, THEODORE B. STEVENS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Sash-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The present invention is an improvement on that sash-lock which forms the subject of my pending application, Serial No. 661,639, filed December 30, 1897, the object being to simplify and cheapen the device and render it more efficient.

The invention consists in the construction and combination of parts hereinafter described, and pointed out definitely in the claims.

In the drawings, Figure 1 is a side elevation of the sash-lock. Fig. 2 is a side elevation of the same when casing member *c'* is removed and casing D is sectioned. Fig. 3 is a similar view of the same parts when the wedge is driven in to draw the two sashes together. Fig. 4 is a bottom plan view. Fig. 5 is a front view of the casing C. Fig. 6 is a perspective view of the wedge. Fig. 7 is a perspective view of the bail. Fig. 8 is a side elevation similar to Fig. 2, except that the parts are assembled in a slightly-different manner, whereby the locking-roller may be disengaged from the recess in the casing D.

The sash-lock shown in the drawings, embodying my invention, includes two casings C and D, of which the former is intended to be secured to the upper rail of the lower sash and the latter to the lower rail of the upper sash.

The casing D is or may be substantially like the corresponding casing shown and described in said former application—that is to say, it contains in its front face one or more recesses *d*, which are adapted to receive the locking-roller and are preferably nearly semicylindrical in form. The improvement is to be found in the construction of the casing C, the wedge, and the bail.

The casing C is made of two members *c c'*, which are not intended to be fastened together, but are intended to be independently secured to the sash-rails in proper relation to each other. The member *c* consists of a base 1, a vertical side 2, a foot 3, containing a slot 4 for the fastening-screw J, and a horizontal bar 5, which projects laterally from the front edge of side 2 at a suitable distance above the base. On the upper surface of the base 1 is a transverse rib 6, which is preferably beveled on its front side and is substantially vertical on its rear side.

The casing member *c'* consists of a vertical side 7 and a foot 8, having a slot 9 for the fastening-screw J'. In the front edge of the side 7 is a notch 10, adapted to receive the end of the bar 5. A V-shaped tongue 12 at the bottom of the member *c'* enters a correspondingly-shaped notch 13 in the edge of the base 1, whereby the parts are caused to assume their proper relative position.

The casing C, constructed as described, may be more cheaply made and finished than it could be if it were made in one piece, and it may be just as easily attached to the sash-rail. It is, moreover, a construction without which or its equivalent the wedge G and bail F could not be constructed and disposed as described. On the sides 2 and 7 are formed the beveled hooks 16, which are intended to engage with beveled wings *d'* on casing D when the windows are closed, and thereby draw the two meeting sash-rails together. After the engagement of these wings and hooks has taken place the greater the relative movement of the sashes in the closing direction the more closely will the sashes be drawn together.

A movable wedge G lies between the two sides 7 and 2 of the casing and its front end passes under the bar 5. A lug. *g* is formed on the bottom of this wedge and rests upon the base 1, as does also the rear end *g'* of the wedge G, whereby the top surface of this so-called "wedge" inclines downward from its front to its rear end. The rear side of the rib *g* is beveled substantially as shown, while the front side is preferably vertical. On the upper side of the wedge is an upwardly-extended finger g^2, which lies just behind the bar 5 and by engaging with said bar prevents the withdrawal of the wedge from the position shown. On the front end of the wedge are two lateral extensions g^3, which serve as stops to limit the rearward movement of the

wedge. These stops and the finger g^2 prevent the withdrawal of the wedge from the casing when the casing members are assembled as shown. The top surface of this wedge acts as an inclined floor down which the locking-roller E rolls into one of the recesses *d*. When the windows are closed, said locking-roller is drawn forward out of the recess *d* by means of a bail F, which is provided with fingers *f*, which enter the ends of the roller, whereby said roller may be moved. The ends of the bail are also provided with oppositely-directed fingers *f'*, which enter slots 14 and 15, which are respectively formed in the vertical sides of the casing C. These fingers *f'*, while permitting the roller to move backward as far as it should to properly engage with the casing D and the recess *d* therein, prevent it from being drawn out of casing C. This bail F is preferably made of thin metal bent into the desired shape with its ends split, one part of said split end being bent inward to form the finger *f* and the other outward to form the finger *f'*. Under normal conditions the wedge is in the relative position with respect to the casing as is shown in Fig. 2—that is to say, the rib *g* on the under side of the wedge is in front of the rib 6 on the base of the casing. When the windows are closed, the roller E rolls down the inclined surface of the wedge and enters one of the recesses *d*. If now it is desired to draw the two meeting-rails close together, the wedge G is pushed in, its rib *g* passing over and behind the rib on the base of the casing, thereby preventing the accidental releasing movement of the wedge. The described rearward movement of the wedge acts to move the roller E up relative to the meeting-rail upon which the casing C is secured. This roller presses upward upon the upper wall of the recess *d*, which moves the casing D upward relative to the casing C. The hooks 16, carried by the casing C, being in engagement with the bevéled wings in the casing C, act to draw into close contact with each other the two sash-rails to which said casings are secured.

The bail is provided on each leg with an inclined shoulder f^3, which when the parts are assembled as shown in Fig. 8 is on the lower edge of said leg. When the locking-roller is drawn forward, these shoulders catch on the bar 5 and hold said roller in a position where it cannot engage with the casing D. By this means a heavy window may be held unlocked while it is being raised; but the jar incident to closing the window is sufficient to shake the bail out of engagement with said bar, whereby the roller will roll backward into the locking position. On light windows, which may be raised with one hand, the parts are preferably assembled as shown in Figs. 1, 2, and 3; but on heavy windows, which ordinarily require both hands to raise them, the parts will be assembled as shown in Fig. 8.

Having described my invention, I claim—

1. In a sash-lock, in combination, a casing having two slotted sides, a roller between said sides, a bail having fingers which enter the ends of the roller and oppositely-extended fingers which enter the slots in the sides, substantially as described.

2. In a sash-lock, in combination, a casing having two slotted sides, a roller between the said sides, a bail having fingers which enter the ends of the roller and oppositely-extended fingers which enter the slot in the sides, and a suitable inclined floor within the casing down which said roller tends to roll, substantially as described.

3. In a sash-lock, in combination, a casing having two slotted sides which are capable of independent attachment to the window-sash, an inclined floor within the casing, a roller between the sides of the casing, and a bail having fingers which enter the ends of the roller and oppositely-extended fingers which enter the slots in the sides, substantially as described.

4. In a sash-lock, a casing composed of the member *c* having the base 1, slotted side 2, foot 3 and bar 5, and the member *c'* having the slotted side 7 with the notch 10 and the foot, each of said feet having a hole for an attaching-screw, substantially as and for the purpose specified.

5. In a sash-lock, a casing having two sides and a base, a locking-roller and a bail, combined with a movable wedge which rests on the top of the base of the casing and has its incline exposed to the roller for the whole length of travel of the latter whereby the wedge itself furnishes the whole incline required and obviates the necessity of any other inclined floor to give the roller a constant downward tendency, substantially as described.

6. In a sash-lock, a casing having two separable sides, a base and a bar 5, combined with a movable wedge resting upon said base, having the finger *g'* and the laterally-extended stops g^3, a locking-roller, and a bail, substantially as and for the purpose specified.

7. In a sash-lock, a casing having two sides, a base, and a rib 6 on said base, combined with a wedge having a rib *g* on its under side, a locking-roller and a bail, substantially as and for the purpose specified.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

THEODORE B. STEVENS.

Witnesses:
E. L. THURSTON,
E. B. GILCHRIST.