(No Model.)

E. I. FROELICH.

SASH FASTENER.

No. 584,343. Patented June 15, 1897.

Fig. 1.

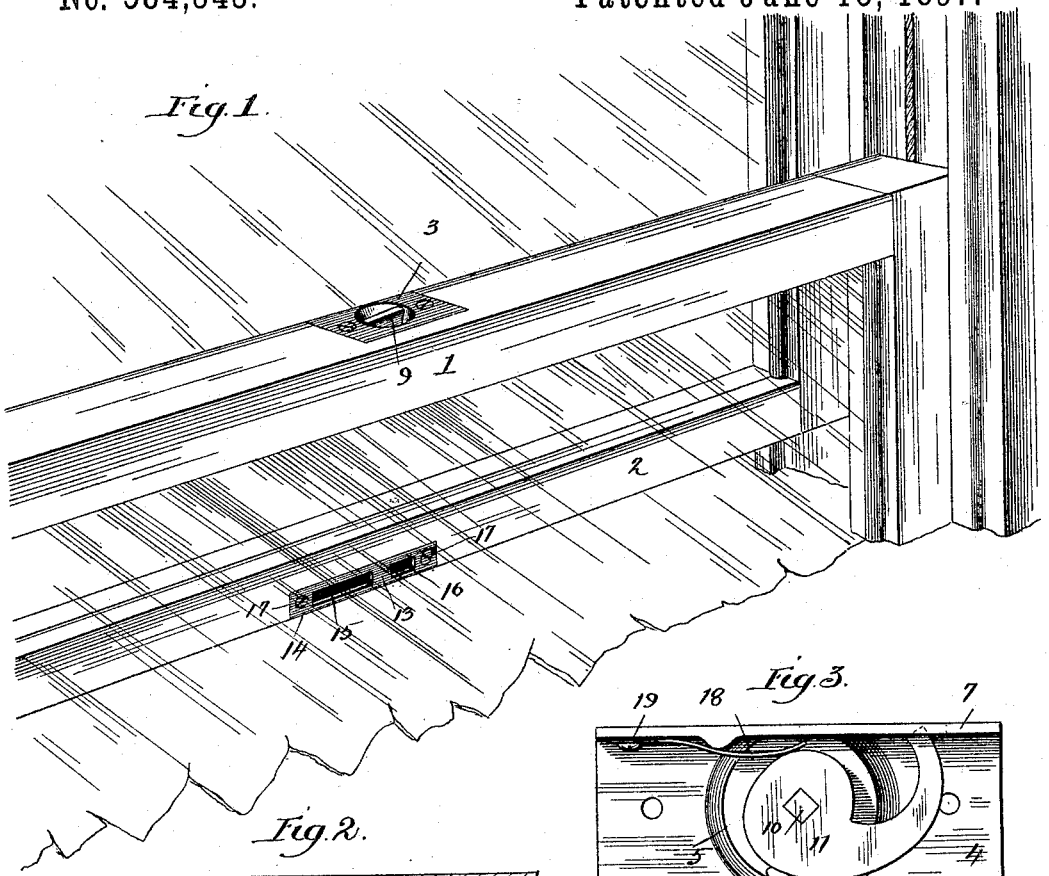


Fig. 3.

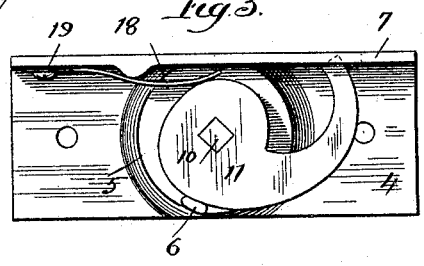


Fig. 2.

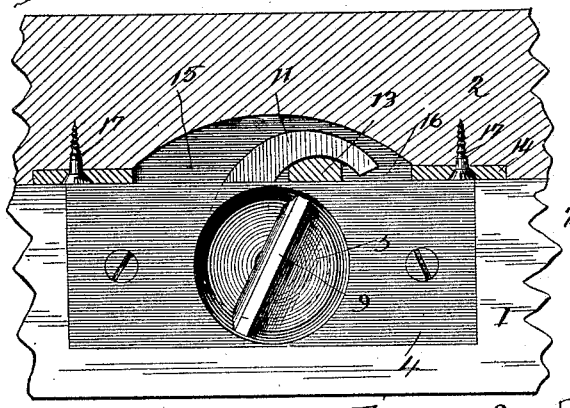


Fig. 4.

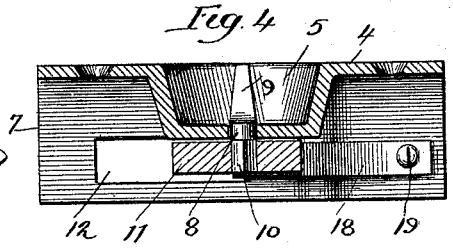
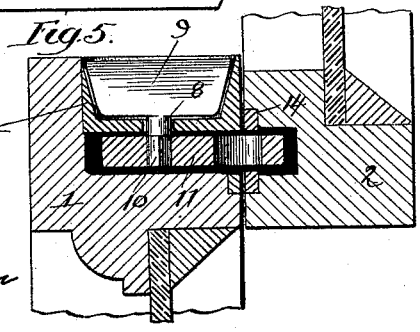


Fig. 5.



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UNITED STATES PATENT OFFICE.

ELMER I. FROELICH, OF PHILADELPHIA, PENNSYLVANIA.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 584,343, dated June 15, 1897.

Application filed April 14, 1896. Serial No. 587,528. (No model.)

To all whom it may concern:

Be it known that I, ELMER I. FROELICH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

My invention relates to a new and useful improvement in sash-locks, and has for its object to provide a device of this description by means of which the meeting-rails of the upper and lower sashes of the window will be securely held against vertical movement and at the same time drawn tightly together and prevented from rattling.

My invention consists in a turning bolt having a convolute form, pivoted upon the under side of the frame of the sash-lock, and a stop also arranged on the under side of the frame and which engages with the bolt by frictional contact, combined with a spring which engages the rounded end of the bolt and which serves to help keep the bolt from working out of the frame at its free end, the frictional stop serving to hold the free end of the bolt in the frame when not held by the spring, as will be more fully described hereinafter.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction and operation in detail, referring by number to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective of a portion of the upper and lower sashes of a window, showing my improvement applied thereto, the lower sash being slightly raised so as to clearly illustrate the position of the escutcheon upon the rail of the upper sash; Fig. 2, a plan view of the meeting-rail of the lower sash and a section of the meeting-rail of the upper sash, showing the lock in operative position; Fig. 3, a plan view of the lock; Fig. 4, a central longitudinal section thereof, and Fig. 5 a central cross-section of the two meeting-rails with my improvement applied thereto.

Referring to the drawings in detail, 1 represents the meeting-rail of the lower sash, and 2 the meeting-rail of the upper sash, which, when both of said sashes are closed, lie side by side and parallel with each other. Upon the rail 1 is secured the lock 3, which is preferably set within a suitable recess formed therein, so as to be flush with the upper surface of the rail, and this lock is composed of a plate 4, having an annular recess 5 formed therein, the walls of which project downward, as clearly shown in Figs. 4 and 5. On the inner side of the recessed portion 5 is a stop or lock 6, as shown in Fig. 3, and which is curved on its inner edge and located so as to engage with the rounded edge of the bolt 11. This stop is so located that when the bolt is forcibly retracted the rounded edge of the bolt engages by frictional contact with this stop, so as to lock the bolt in place and prevent it from protruding at its outer end from the shaking of the sash. This plate is also provided with a flange 7, adapted to be set flush with the inner surface of the rail 1. 8 is a spindle provided with a turn-button 9 and journaled within the bottom of the recess, and I prefer to make the lower end of this spindle square in cross-section, as indicated at 10, whereby the bolt 11 may be secured thereon against rotation. This bolt is of convolute form, is made to turn through about a quarter of a circle at its outer end, and the nose thereof is arranged to pass through the slot 12 in the flange 7 and engage with the cross-bar 13 of the escutcheon 14 by passing into the elongated slot 15 and projecting into the shorter slot 16, formed in this escutcheon. The escutcheon is secured in place by means of suitable screws 17, passed through holes therein upon the outer surface of the rail 2. Against the hub of the bolt bears a spring 18, the opposite end of which is secured by a screw 19 to the flange, as clearly shown in Figs. 3 and 4, and the tension of this spring upon the irregular surface of the hub is such as to tend to hold the bolt in either its open or closed position, as will be readily understood, so that the operation of my improvement will be as follows:

After the lock and escutcheon have been secured in place, as before described, and the rails 1 and 2 are brought side by side by the sliding of the sash the nose of the bolt is turned into engagement with the cross-bar 13 by the proper manipulation of the turn-button 9, and if sufficient force be exerted

upon this turn-button the nose will draw the two sashes tightly together at their meeting-rails, thereby preventing any rattle in the window.

It is obvious that a window thus secured cannot be unlocked from the outside, since no tool, however thin, can be passed between the escutcheon and flange 7 on account of the binding of these surfaces together by the action of the bolt, as just described, and therefore my improvement forms a perfectly secure lock against the opening of a window except from the inside.

One of the advantages of my improvement is that all the parts of the lock are flush with the woodwork of the sash, and therefore does not interfere with surrounding objects and is not objectionable to the eye.

In practice I prefer to thicken the bar 13, as clearly shown in Fig. 2, and curve it upon its rear side, by means of which the contour of the bolt will be adapted thereto, providing a firmer bearing than would otherwise be the case.

Having thus fully described my invention, what I claim as new and useful is—

In a sash-lock, the plate 4, provided with a recessed portion 5, and a stop 6 formed on the rear of the recessed portion, and so arranged as to engage with the bolt by frictional contact, combined with a turning bolt pivoted upon the recessed portion and having a convolute form, a spring for engaging with the rounded face of the inner end of the bolt, a turn-button located in the recessed portion of the plate 4, and an escutcheon-plate 13 provided with perforations to receive the outer curved end of the bolt, whereby the meeting-rails of the two sashes are drawn forcibly together, and locked, substantially as shown.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

ELMER I. FROELICH.

Witnesses:
S. S. WILLIAMSON,
MARK BUFORD.