

(No Model.)

F. J. RABBETH.
FASTENER FOR THE MEETING RAILS OF SASHES.
No. 467,954. Patented Feb. 2, 1892.

Fig. 1.

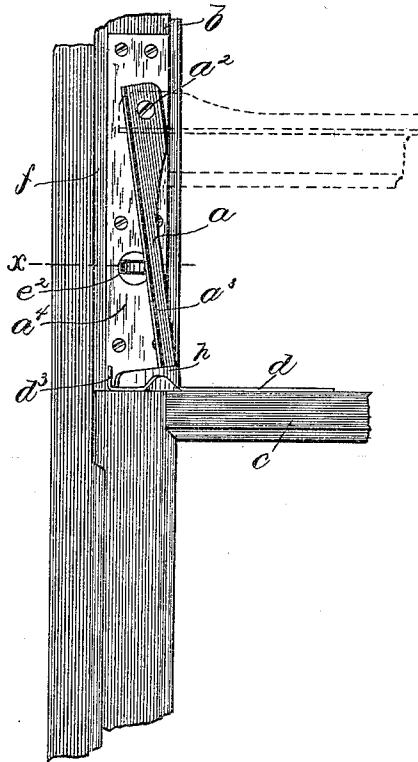


Fig. 4.

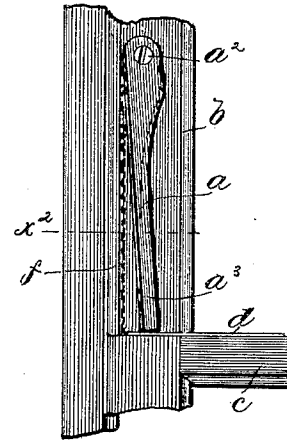


Fig. 5.

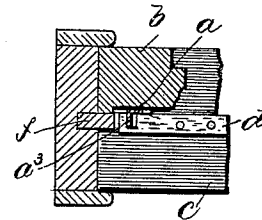


Fig. 2.

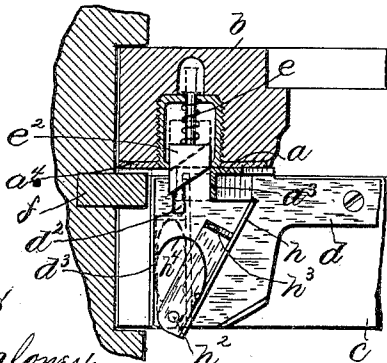
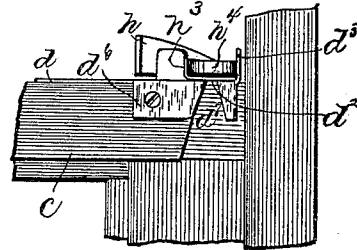


Fig. 3.



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FRANCIS J. RABBETH, OF BOSTON, MASSACHUSETTS.

FASTENER FOR THE MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 467,954, dated February 2, 1892.

Application filed June 3, 1891. Serial No. 395,154. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS J. RABBETH, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Sash-Fasteners, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to a fastener or lock for window-sashes, and is embodied in a fastener which is automatic in operation, locking the sashes when the window is shut, and which may also be employed to lock the sashes when part way open, or, in other words, to permit the raising of the lower sash or the dropping of the upper sash, or both, for a short predetermined distance, and then positively prevent further movement of the sashes in the direction to open the window.

The fastener will be described as applied to window-sashes having the ordinary arrangement, the said sashes running in grooves or guideways in the window-frame and the lower sash being at the front of the upper sash.

The fastening consists, essentially, of a movable locking-bar securely fastened to the stile or vertical member of the upper sash-frame and having a rib or projection that overhangs the top of the lower sash and is normally in position to engage with the upper rail of the lower sash or a bearing-plate fixed thereon, so as to prevent movement of the said lower sash upward or of the upper sash downward. The said locking-bar is shown as pivotally connected with the stile of the upper sash, so that the force of gravity or that of a spring, or both, causes it normally to hang in a slightly-inclined position, with its lower end projecting out over the upper rail of the lower sash, thus obstructing the movement of both sashes; but when said locking-bar is moved by the operator into line with the line of movement of the sashes its lower end just clears the meeting-rail of the lower sash or is in line with a notch or recess provided in said rail to receive the said locking-bar, which thus permits free movement of both sashes. In the construction which is believed to be the most desirable the locking-bar is a strip of metal flanged or L-shaped in cross-section, with its flange projecting out like a spline or rib from the stile of the up-

per sash over the top rail of the lower sash, which latter is provided with a metallic bearing-plate that engages the end of the locking-bar to prevent movement of the sashes, but is provided with a notch of sufficient size to receive the rib of the locking-bar when brought into line with said notch, and said bearing-plate is provided with an operating-handle for the locking-bar, by which the end of the latter is brought into line with the said notch without especial attention on the part of the person operating it, who merely has to press said handle firmly against a stop provided for it in order to bring the locking-bar in line with its notch, so as to permit either sash to be moved. When the sashes are wholly closed, the flange of the locking-bar passes out of the slot and swings over the unslotted part of the bearing-plate, and thus automatically locks the sashes.

Figure 1 is a front elevation of a sash embodying this invention; Fig. 2, a plan view thereof below the section plane indicated at x in Fig. 1 on a larger scale; Fig. 3, a detail showing a portion of the upper rail of the lower sash in rear elevation; Fig. 4, a front elevation showing a modification of the construction shown in Figs. 1, 2, and 3, and Fig. 5 a sectional plan on line x^2 of Fig. 4.

The fastener consists, essentially, of a locking-bar a , shown as pivotally connected at a^2 , with the stile b of the upper sash a short distance above the meeting-rail c of the lower sash, which is preferably provided with a metallic facing or bearing-plate d upon its upper surface. The said locking-bar a is preferably a flanged strip of metal L-shaped in cross-section, as shown in Figs. 2 and 5, the flange a^3 thereof projecting out from the face of the stile b and overhanging the top of the meeting-rail c of the lower sash, so as to engage with the said meeting-rail of the bearing-plate d thereof, and thus positively obstruct the movement of both sashes, except when the said locking-bar a is moved into such position as to be in line with a recess in the bearing-plate d or wholly beyond the end of said bearing-plate and of the rail c of the lower sash, so that the movement of said sashes is then unobstructed.

When the locking-bar a is pivoted, as shown, its pivotal point is so located that the said

bar will normally hang under the action of gravity in a slightly-inclined position with relation to the stile *b*, as shown in full lines, Figs. 1 and 4, in which position the flange *a*³ overhangs the rail of the lower sash in position to obstruct the movement of both sashes, and it is obvious that the bar *a* will always come to such position when the window is closed without care on the part of the person closing the window, or, in other words, the locking of the window will be effected automatically when the sashes are brought to position to wholly close the window.

If desired, the bar *a* may be acted upon by a spring tending to throw it to the locking position, as shown in Figs. 1 and 2, the said spring *e*, Fig. 2, tending to press outward a beveled face-bolt *e*² at the rear of the bar *a*, the beveled end of which bearing against the rear corner of the bar *a*, crowds the said bar into inclined position, as will be understood from Figs. 1 and 2. The action of the spring-bolt *e*² may be substituted for that of gravity or may be used to supplement the action of gravity when the said bar *a* is pivoted, as shown, so as to naturally hang in inclined position.

The bar *a* may either be pivoted directly to the wood of stile *b*, as shown in Fig. 4 on the shank of a stout screw screwed into the said stile, or it may be pivoted by a rivet to a suitable metallic plate *a*⁴, which may be securely fastened to the stile, as shown in Figs. 1 and 2.

In order to unlock the sashes, so that they may be raised or lowered, the locking-bar *a* has to be moved to such position that its flange *a*³ will no longer engage with the top of the rail of the lower sash.

In the simplest construction (shown in Figs. 4 and 5) the bar *a* is pivoted so that the upper end of the flange *a*³ comes near the parting-bead *f* of the window-frame, and the operator by pressing the lower end of the bar toward the said parting-bead will swing the bar into position shown in dotted lines, Fig. 4, in which the flange *a*³ lies directly along the edge of the parting-bead, so that it can pass between the edge of the parting-bead and the end of the portion of the upper rail *c* of the lower sash adjacent to the parting-bead, there being sufficient room for the flange to pass between the stile of the lower sash and the parting-bead, so that the sashes can run freely up and down as soon as the lower end of the flange *a*³ has once entered between the parting-bead and the lower sash. In order to secure a more effective operation of the locking-bar and to prevent possibility of its being tampered with by anything being inserted between the sashes from the outside of the window, it is preferably arranged and operated as shown in Figs. 1, 2, and 3, in which the bar is hung with its flange *a*³ a short distance from the parting-bead *f*, and the bearing-plate *d* is provided with a notch *d*² (see Fig. 2) in proper position to receive the flange

*a*³ when the latter is brought into line with the stile *b*. The said bearing-plate *d* is also provided with a flange *d*³ and an operating-handle or thumb-piece *h*, pivoted at *h*² upon said bearing-plate, so that when turned by the operator from the full to the dotted line position, Fig. 2, the end of the handle *h* engages the flange *a*³ of the bar *a* and brings it directly over the notch *d*², so that when either sash is moved the said flange *a*³ will pass through the slot *d*², and will thus offer no obstruction to the movement of the sash. The handle *h* is provided with a stop *h*³, which brings up on the flange *d*³ when the said handle *h* is moved to the proper position to place the flange *a*³ in line with the slot *d*², thus insuring the registering of the spline or rib connected with the upper sash with the recess in the lower sash. The spring *h*⁴ moves the handle *h* away from the flange *d*³, as shown, as the said handle is released by the operator, thus leaving the bar *a* free to swing into the inclined position as soon as the sashes are closed, so as to insure the automatic locking of the said sashes. In order to insure the proper entrance of the upper end of the flange *a*³ into the notch *d*² in the act of closing the sashes, the said bearing-plate *d* has a flange or portion *d*⁵, (see Fig. 3,) that extends down over the rear edge of the meeting-rail and is provided with a flaring notch or guide-way *d*⁷, the edges of which converge toward the notch *d*² in the top surface of the bearing-plate. In the closing movement of the sash the upper end of the flange *a*³, which is near the pivot-point *a*², and thus has but little lateral movement, enters the wide end of the notch *d*⁷, and will thus be guided into the notch *d*², after which the remainder of the flange *a*³ will pass freely through the said notch, being held thereby in line of movement of the sash until the sashes are wholly closed and the locking-bar *a* has passed out of the notch and stands above the bearing-plate *d*, when the said bar will immediately swing out of line of the notch and thus lock the windows until it is again placed in line therewith by the manipulation of the handle *h* by the operator at the inside of the window. By turning the locking-bar to the horizontal position, as shown in Fig. 1, it will obstruct the movement of the sashes beyond a point at which the meeting-rail *c* of the lower sash rests against the said locking-bar, as shown in dotted lines, and thus the said locking-bar may be employed to prevent opening movement of either sash beyond the amount thus determined by the length of the locking-bar itself—that is, assuming that the locking-bar *a*, Fig. 1, is about four inches long, it will, when turned to the dotted-line position, admit of an opening of the sashes a trifle less than four inches, which opening may be made either by lowering the upper sash or raising the lower sash or divided between the two.

The invention is not limited to the precise construction shown, as it is obvious that the

changes can be made without materially altering the construction and mode of operation of the mechanism.

It is not in all cases essential that the locking-bar should have a pivotal movement, the said bar consisting, essentially, of a spline or rib fastened to the upper sash, which normally projects over the top of the lower sash, but which can be moved into line with a recess or space of the lower sash when it is desired to permit movement of the sashes.

I claim—

1. A sash-fastener comprising a locking-bar movably connected with the stile or vertical member of the upper sash and normally projecting over the top of the lower sash, said locking-bar being movable to bring it into register with a recess in the lower sash to permit movement of the sashes, substantially as described.

2. The locking-bar pivotally connected with the vertical member of the upper sash and normally hanging in an inclined position with relation thereto, combined with the top rail of the lower sash, recessed to permit the passage of the said locking-bar only when in line with the line of movement of the sashes, substantially as described.

3. The combination of the locking-bar con-

nected with the vertical member of the upper sash and movable with relation thereto with a notched bearing-plate on the lower sash and a movable handle thereon, by which the locking-bar is engaged and moved into line with the notch of the bearing-plate, substantially as and for the purpose described.

4. The locking-bar pivotally connected with the upper sash and projecting over the lower sash, combined with a notched bearing-plate on said lower sash and a spring acting on said locking-bar to move it out of line with the said notch, substantially as and for the purpose described.

5. The locking-bar pivotally connected with the upper sash and projecting over the lower sash, combined with a notched bearing-plate on said lower sash, provided with a flaring or V-shaped guide at the rear of the sash converging toward said notch, substantially as and for the purpose described.

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

FRANCIS J. RABBETH.

Witnesses:

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M. E. HILL.