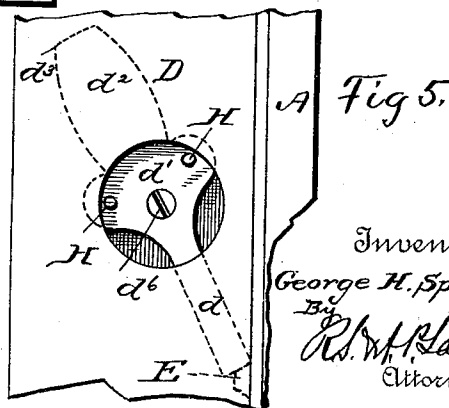
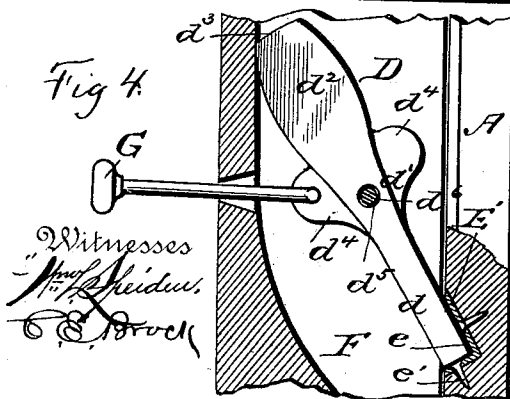
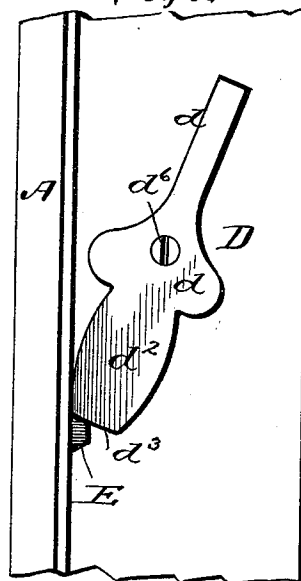
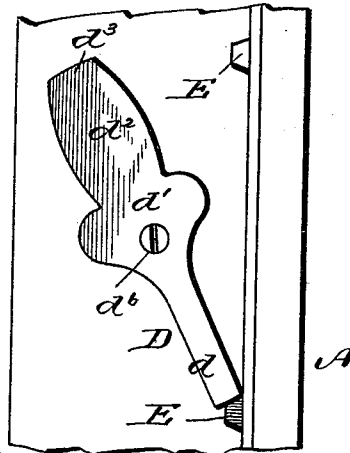
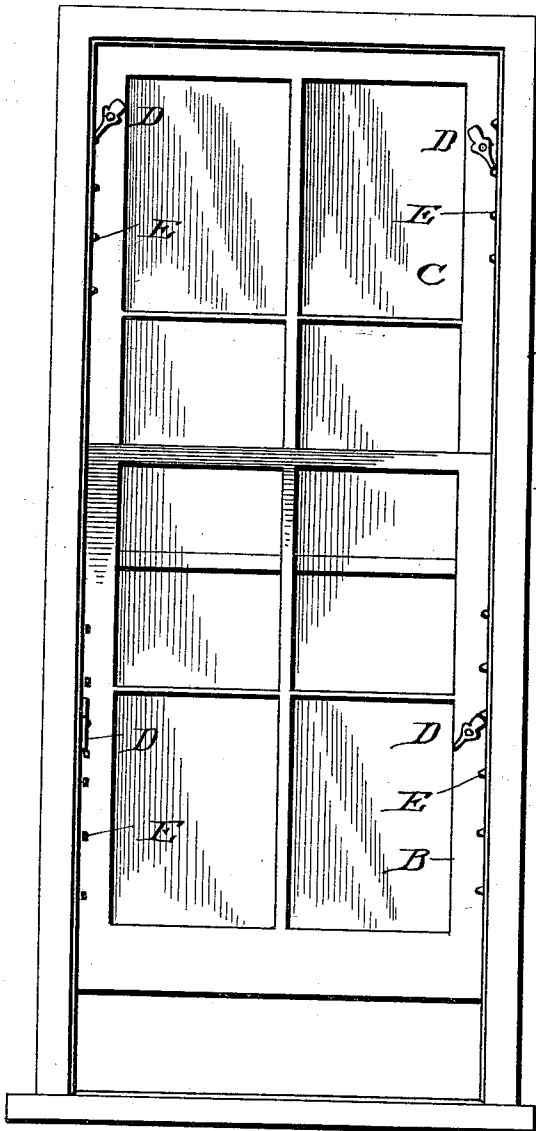


(No Model.)

G. H. SPRING.
SASH FASTENER.

No. 544,326.

Patented Aug. 13, 1895.



UNITED STATES PATENT OFFICE.

GEORGE HOPKINS SPRING, OF LEMARS, IOWA.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 544,326, dated August 13, 1895.

Application filed April 16, 1894. Serial No. 507,759. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HOPKINS SPRING, a citizen of the United States, residing at Lemars, in the county of Plymouth, State of Iowa, have invented certain new and useful Improvements in Sash Locks and Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention is an improved sash lock or holder, the object being to provide an exceedingly cheap and simple device that may be adjusted to automatically lock the sash in a raised, lowered, or intermediate position and to be released automatically from intermediate support of the sash in one form of its adjustment by slight movement of the sash.

The invention consists in certain details of construction and combination of parts, as will be fully described hereinafter, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a view showing my invention applied to the upper and lower sashes of a window. Fig. 2 is a detail view of the lock enlarged. Fig. 3 is a view showing the button reversed and applied to the opposite side of the window-sash. Fig. 4 shows a slight modification. Fig. 5 is a view of the holder arranged within the sash.

My invention as constructed and sold can be attached to the window by any one, no alteration being made to said window except when applied in the preferred manner hereinafter described.

Referring to the drawings, A indicates an ordinary window-frame, B the lower sash, and C the upper one.

D indicates my improved sash lock or holder, which is formed of a single piece of metal, and comprises a narrow arm or member d , having straight sides and a flat end; the central laterally-enlarged body portion d' , and the arm or member d^2 , essentially oval in shape, but having a flat end d^3 . The arm or member d^2 is much heavier than the arm or member d , and the central portion is reduced upon each side, as shown at d^4 , Fig. 5, so that the preponderance of weight is concentrated in the arm d^2 . A perforation or opening d^5 is made

in the central or body portion d' , said perforation being intended to receive the pivotal screw or bolt d^6 , by means of which the button or plate is secured to its support. The button is secured to the lower sash near the bottom of the same and near the top of the upper sash, as clearly shown. The holder is usually secured with the large or heavy end uppermost, but may be set reversely, as shown in Fig. 3, and as described hereinafter.

Stops E are arranged upon the sides of the frame at regular intervals and in the path of the button or holder D, so that either end of said holder can be brought to engage any one of the stops and hold the sash open or closed, according to the position of the button or holder, as will appear more fully hereinafter. If desired, the holder can be secured to the side of the frame and the stops arranged upon the window-sash, as clearly shown, on one side of the lower sash in Fig. 1.

In the place of the stops E, which project outward from the frame or sash, I may employ an angular plate E' , which is set into a recess e formed in the frame or sash, said plate being secured therein by means of the pins or screws e' . I prefer to conceal the fastener and stops from view, and to do this I pivot the holder within a vertical recess F formed in the side of the sash, said recess being of such width and length that it will readily permit the movement of the sash over the stops. The holder is pivoted as usual with the heavy end uppermost, and in order to operate said holder to throw the upper or lower end into engagement I use a short wire rod or handle G, which projects through the sash a sufficient distance to enable one to grasp it and trip the holder within the recess. In Fig. 5 I have shown the holder pivoted within the recess F, but instead of using the wire rod or handle I cut a circular opening in the sash, exposing the central portion of the holder, and to one or both of the side extensions is connected a stud or pin H, by means of which the holder can be reversed, as desired. It will therefore be noticed that a lock constructed and arranged as described is capable of oscillation in a vertical plane and from side to side to points on opposite sides of a line dropped vertically through its pivot, so that either the upper or lower end can be brought into engage-

ment to hold the sash. When used with its heavy end above its pivot the tendency of the holder, on account of its heavy upper end, is to remain in the position to which it is moved, and it will therefore act automatically after it has once been adjusted. Thus, suppose the upper and lower sashes both closed, the lower ends of the holders on the upper sash will engage the stops, while the upper ends of the holders on the lower sash will engage their stops and neither sash can be opened. To raise the lower sash the lock or holder is thrown off from the window-frame—that is, the upper end is thrown outward from the frame and the lower end inward toward the same. The sash can now be raised, and as it moves upward the lower end slips over each stop, but after it passes said stop it is immediately brought against the frame on account of the heavy upper end. When the proper height is reached the sash is released and the lower end of the stop coming in contact with one of the stops will hold the sash in that position.

Whenever I desire to lock the window against both upward and downward movement the holder at one side of the window is turned to bring the lower end of the holder against the stop, (see Fig. 2,) while at the opposite side the upper end is brought into engagement with the stop, thus locking the sash against movement in either direction. Such an arrangement, it will be understood, is applicable to both the upper and lower sash. When the buttons or holder are disposed in this manner it is necessary to release each by hand before the sash can be moved; but by pivoting one of the holders with the heavy end downward and using said button to hold the sash up it is clear that by releasing the opposite holder and moving the window up the lower end, as soon as moved from the button, will swing outward and the sash released ready for lowering. When the holder is secured within the recess in the sash it is operated by the wire rod or stud to throw either end into engagement with the stops; but after it has been adjusted its action is purely automatic on account of the heavy end tending to hold the button always in that position.

The foregoing relates mainly to the buttons or holders as secured for use with the heavy end of each above its pivot, which manner of use will be preferred by those who wish to have their windows locked without fail when closed, for the locking device of this invention when rightly attached as indicated is adapted to be released from supporting a lower window in open position in its casement by being turned in its vertical plane reversely

to bring its upper end to an outward position, which change resets it for its next service, (locking the sash,) so that as the window is being lowered its heavy end will bear outwardly against the casement and slip in a yielding manner over any stops in its way and will fall outwardly at length just below the lower or terminal stop, engaging with it there to lock the sash securely down.

As many windows in very high buildings are not exposed to intrusion and have no need of being locked, many will prefer to use a single-holding device of this invention attached within or upon a lower sash with its heavy part beneath the pivot, as in Fig. 3, as being adapted thus to hold the sash open when disposed, so as to engage upon any preferred stop on the casement, so that as the sash is slightly raised it will, by its preponderance of gravity over the lighter part above the pivot, swing away from the stop and casement into upright pendent position, (not shown,) leaving the sash free for raising or lowering, as may be desired.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a sash having a mortise or recess, of the button or holder pivoted within the mortise or recess said button being pivoted intermediate the ends, and having one end heavier than the other, means extending through the same for operating the button, and the stops arranged in the path of said button for engagement with the same, substantially as shown and described.

2. The combination with a frame having stops of the sash having a mortise or recess a button or holder pivoted within the said mortise or recess said button being heavier at one end than at the other and provided with lateral extensions and the studs or pins connected to said extensions whereby the button is operated the said sash being cut away to permit the movement of said studs or pins.

3. An improved sash locking device consisting of a button or plate, symmetrical in shape, and pivoted upon its longitudinal axis about midway its length, said button or plate having one of its arms narrow and light and the opposite end broad and heavy said button being so constructed that each end is capable of operation in two positions, substantially as shown and described.

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

GEORGE HOPKINS SPRING.

Witnesses:

JOHN R. MAYHER,
JOHN B. IVEY.