No. 634,332. Patented Oct. 3, 1899.

D. GARDNER.

SASH LIFT AND LOCK.

(Application filed Oct. 13, 1898.)

(No Model.)

Fig. 1

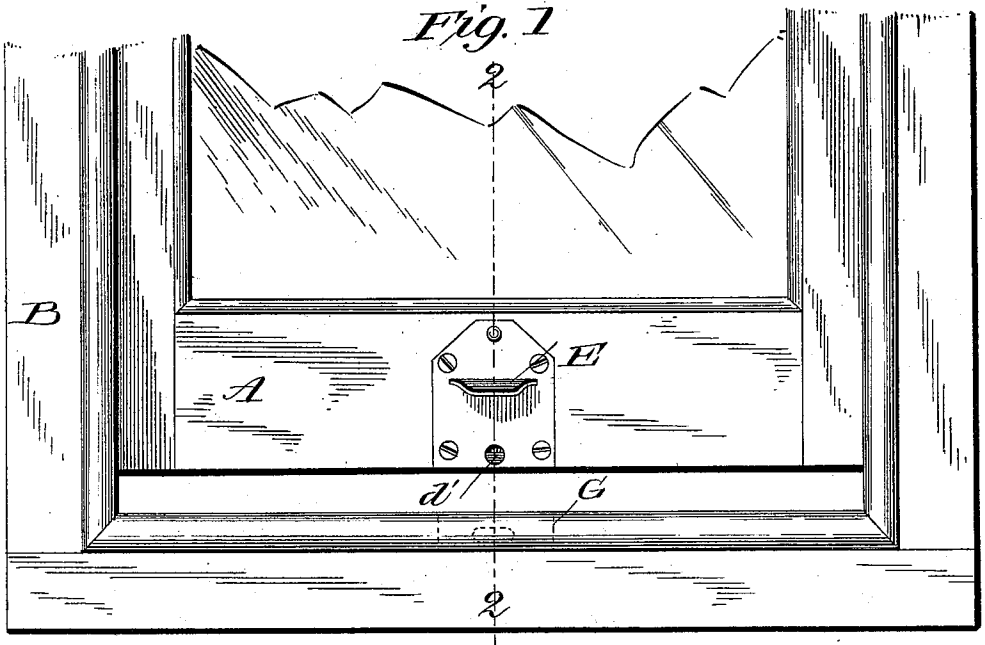


Fig. 4.

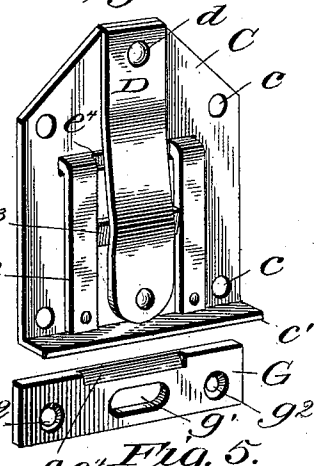


Fig. 2.

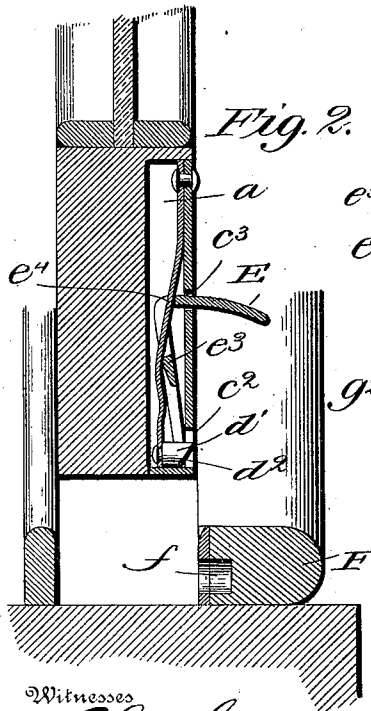


Fig. 3.

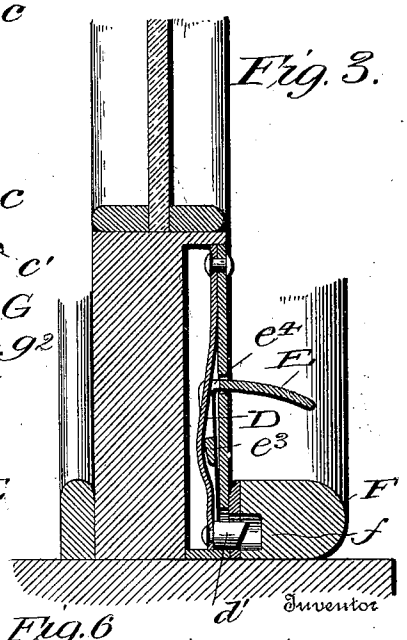


Fig. 5.

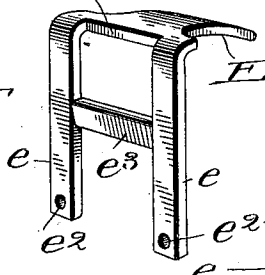
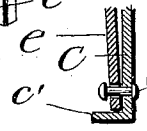


Fig. 6



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UNITED STATES PATENT OFFICE.

DANIEL GARDNER, OF NEWBURG, NEW YORK.

SASH LIFT AND LOCK.

SPECIFICATION forming part of Letters Patent No. 634,332, dated October 3, 1899.

Application filed October 13, 1898. Serial No. 693,415. (No model.)

To all whom it may concern:

Be it known that I, DANIEL GARDNER, a citizen of the United States, residing at Newburg, in the county of Orange and State of New York, have invented certain new and useful Improvements in Sash Lifts and Locks; 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.

My invention is an improvement in sash lifts and fasteners; and it consists in the novel features hereinafter described, reference being had to the accompanying drawings, which illustrate one form in which I have contemplated embodying my invention, and said invention is fully disclosed in the following description and claim.

Referring to the said drawings, Figure 1 is a front view of the lower part of a window casing and sash, showing my improved sash lift and fastener secured thereto, the sash being slightly raised from the bottom of the casing. Fig. 2 represents a transverse section on the line 2 2 of Fig. 1, drawn to an enlarged scale. Fig. 3 is a similar view showing the window-sash in its lowest position and locked to the casing. Fig. 4 is a perspective view of the parts of my improved sash lift and fastener, taken from the rear. Fig. 5 is a detail view of the lifter-plate. Fig. 6 is a detail view showing the preferred manner of attaching the lower end of the lifter-plate arms to the face-plate.

In the drawings, A represents a window-sash adapted to slide vertically in a window-casing B in the usual manner. The lower horizontal bar of the window-sash is provided, preferably centrally, with a recess a in its front face, over which is placed the face-plate C, which is secured to the bar of the sash by means of screws passing through apertures c in the plate. The plate may also be provided at its lower edge with an inwardly-extending lip or flange c', if desired.

D represents a flat spring-plate secured at its upper end rigidly to the face-plate, preferably by means of a rivet, as shown at d, and having its lower end provided with a locking stud or bolt d', provided with a beveled face d^2. The face-plate C is provided with an aperture c^2 in its lower part, through which the locking-stud d' projects.

E represents the lifter-plate, which is disposed horizontally and extends through a horizontal slot c^3 in the face-plate. In rear of the face-plate the lifter-plate E is provided with downwardly-extending arms e e, the lower ends of which are connected to the face-plate by a pivotal connection, permitting the lifter-plate E to move in and out a short distance through the slot c^3. I have found in practice that a cheap and efficient means of securing these arms to the face-plate is by riveting them, as shown at e', and allowing a slight play between the arms e and the heads of the rivets e'. The rivets pass through apertures e^2 in the lower ends of the arms e, which apertures are slightly larger than the portion of the rivets between their heads.

The arms e of the lifter-plate are connected below the lifter-plate by a cross-bar e^3, which lies beneath the spring-plate D, so that when pressure is exerted on the lower side of the lifter-plate said lifter-plate will be pushed inwardly and the cross-bar e^3 will press the spring-plate D away from the face-plate C and withdraw the locking stud or bolt, so that a further upward pressure upon the lifter-plate will raise the window-sash.

By reference to Fig. 3 it will be observed that the rear edge of the cross-bar e^3, which engages the spring-plate D, is in a different vertical plane from the rear edge e^4 of the lifter-plate, so that there is a slight space between the rear edge of the lifter-plate and the spring-plate D. When the lifter-plate is pressed upwardly and inwardly, so as to withdraw the locking-stud d', the rear edge e^4 of the lifter-plate will strike the spring-plate D at a point much nearer to its connection with the face-plate than the cross-bar e^3, and this will form a stop to limit the inward movement of the lifter-plate, so that the further upward pressure exerted upon said lifter-plate will elevate the sash. This construction greatly simplifies the device.

F represents a horizontal portion of the window-casing, the rear face of which is provided with a recess f to receive the locking-stud d' when the window-sash is closed, and the said part F is preferably provided with a

retaining-plate G. (Shown in detail in Fig. 4.) This plate is provided centrally with an inclined portion g, adapted to be engaged by the beveled portion of the locking-stud, and with an aperture g' to receive the locking-stud. The plate G is also provided with screw-holes g^2, so that it can be attached to the part F.

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

In a combined sash lift and lock the combination with the face-plate provided with a transverse slot therein, of a spring secured to the face-plate extending perpendicularly across said slot and provided at its free end with a locking-stud, a movable lifter-plate having a horizontal portion extending through the slot in the face-plate and movable therethrough, and downwardly-extending arms on the rear side of said face-plate secured at their lower ends to the said plate, said arms being connected by a cross-bar lying between the spring-plate and the face-plate, for engaging the spring-plate, the horizontal portion of said lifter-plate having its rear edge adapted to engage the spring-plate between its point of attachment and its point of engagement with the said cross-bar, to limit the inward movement of the said horizontal portion of the lifter-plate, substantially as described.

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

DANIEL GARDNER.

Witnesses:
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