No. 775,593. PATENTED NOV. 22, 1904.

W. W. BAUMAN.

SASH FASTENER AND LIFT.

APPLICATION FILED OCT. 24, 1903.

NO MODEL.

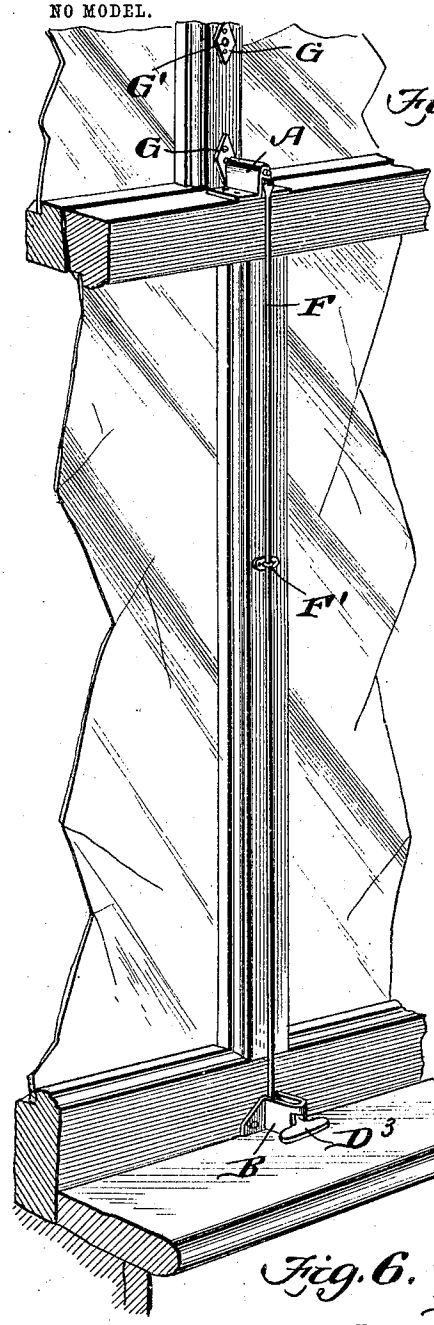


Fig. 1.

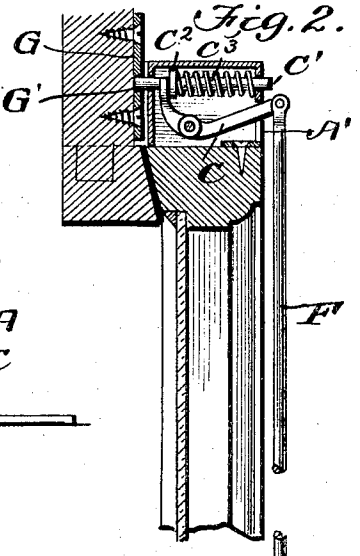


Fig. 2.

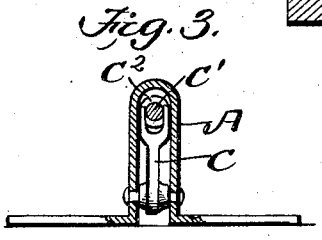


Fig. 3.

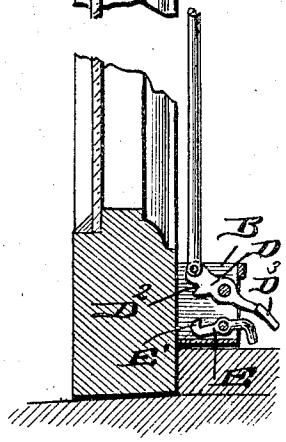




Fig. 7.

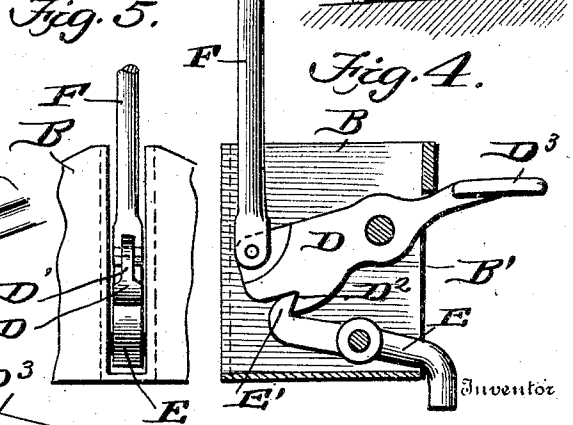


Fig. 4.

Fig. 5.

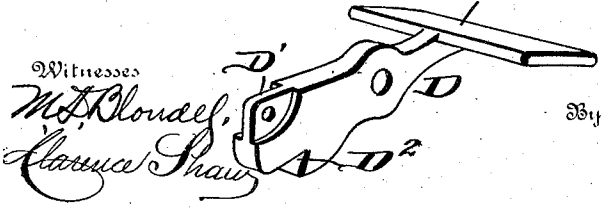


Fig. 6.

Witnesses
M. A. Blondel.
Hanna Shaw

Inventor
W. W. Bauman,
By O'Meara & Brock
Attorneys

No. 775,593. Patented November 22, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM W. BAUMAN, OF MORTON, OHIO.

SASH FASTENER AND LIFT.

SPECIFICATION forming part of Letters Patent No. 775,593, dated November 22, 1904.

Application filed October 24, 1903. Serial No. 178,392. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. BAUMAN, a citizen of the United States, residing at Morton, in the county of Monroe and State of Ohio, have invented a new and useful Sash Fastener and Lift, of which the following is a specification.

My invention is a combined fastener for locking together the frames of an upper and lower sash, of a lift attached to the lower sash and so connected to the upper-sash fastener that the act of lifting the lower sash will automatically release the fastening-bolt from the upper sash; and a further object of this construction is to provide for the automatic locking of the upper and lower sashes when the lower sash is lowered.

My invention consists in the novel features of construction and combination of parts hereinafter described, particularly pointed out in the claims, and shown in the accompanying drawings, in which—

Figure 1 is a perspective view showing the practical application of my device, the lower sash being locked to the upper sash. Fig. 2 is a vertical section showing the device in locking position, an intermediate portion of the lower sash and the connecting-rod being broken away. Fig. 3 is a transverse vertical section through the casing containing the locking mechanism. Fig. 4 is a vertical section through the casing carrying the lift, parts being shown in elevation. Fig. 5 is an end elevation of the lift. Fig. 6 is a perspective view of the lift detached from the casing, and Fig. 7 is a perspective view of the locking-lever.

In the drawings, A and B represent casings or housings, and for cheapness they are formed in one piece, having the shape of a U-shaped bracket, with outwardly-extending flange portions adapted to be secured to the sash by suitable screws. I thus secure the casing A on the top of the upper portion of the lower window-sash. It is shown in detail in Fig. 2. The outer end is vertically slotted, as shown at A′, and perforated above the slot, and the inner end, which is arranged adjacent a portion of the upper sash, is perforated to aline with the perforation of the outer end. Within this casing is pivoted what is practically a bell-crank lever C, having a bifurcation at its inner end, which is the end of the shorter arm, and its outer end extends through and is adapted to work vertically in the slot A′. A locking-pin C′ is loosely arranged in the perforations of the casing and slides in same as in a guide-bracket. This pin rests in the bifurcated portion of the bell-crank, and a collar C^2 is arranged rigidly on the pin adjacent the slotted portion of the bell-crank arm. A coiled spring C^3 encircles the pin and bears at one end against the outer end wall of the casing and at its inner end against the collar C^2, the tendency of the spring being to hold the pin projected through the perforation of the inner end of the casing.

The casing B is attached to a side of the lower portion of the sash in vertical alinement with the casing A. It is open at the upper end and cut out on the side, as shown at B′. In this casing is pivoted the lifting device D. This device, which is pivoted intermediate its ends, has at its inner end a reduced portion D′ and on the under side below the reduced portion a notch D^2. The lifter extends through and works vertically in the cut-out portion D′ and at its outer end carries a plate D^3, arranged substantially in a horizontal plane and of sufficient size to be readily grasped by the fingers. Pivoted in the casing B below the lifter D is a locking-lever E, having at its inner end a hook E′, adapted to engage the notch D^2, and its outer end extends through the cut-out portion B′ and projects below the casing B when the hook is in engagement with the notch D^2.

A rod F is pivoted at its upper end to the outer end of the bell-crank C, and its lower bifurcated end fits over and is pivoted to the reduced portion D′ of the lifter D. A guide-eye F′ is arranged on the sash for the intermediate portion of the rod, which may be a light wire, to slide in. The eye may be omitted, if desired.

Arranged on the upper sash are a plurality of diamond-shaped plates G, each having a socket G′, adapted to be brought into alinement with the locking-pin C′ by movement of the sash.

The operation of my device is as follows: The spring C^3 normally holds the pin in engagement with a socket G′, the plates G being so arranged that when the lower sash is down and the upper sash raised the pin will engage the socket of the lowermost plate G. It will be further noted that when the lower sash is down the bent end of the lever E will be in contact with and lifted by the window-sill, preventing the hook E′ from engaging the notch B^2. It may be further observed that the outer bent end of the lever E is heavier than the inner end, the inner portion being reduced in thickness. When, therefore, the window is lifted by pulling upward on the plate D^3, the rod F will be drawn downward, the inner notched end of the lifter D moving downward, and as the sash rises above the sill the lever E will fall to the position shown in Fig. 4 and the hook E′ will engage the notch B^2, locking the pin C′ against inward movement, the pin having been moved out of engagement with the lowest socket G′ through movement of the rod or wire F and bell-crank C, the inner slotted arm of the latter bearing on the collar C^2 when the rod is drawn downward. As long as the locking-lever E remains in engagement with the notch D^2 either sash can be moved freely, and when the desired adjustment of either sash is reached the outer end of the lever can be lifted, disengaging the hook from the notch and allowing the lifter to fall and the locking-pin to engage the socket G′ with which it may at that time be in alinement. It will be further noted that when the lower sash has been raised and is lowered as soon as the lower end of the lever E contacts with the window-sill it will be lifted, releasing the hook from the notch B^2 automatically and permitting the pin C′ to engage the lowermost socket G′ or such other socket as may be in alinement with it.

It will be obvious that cord may be substituted for the rod or wire F and that continuous perforated strips may be substituted for the plates G or sockets formed direct in the frame of the upper sash. I prefer the diamond-shaped plates on account of their neat appearance and the further reason that in a continuous strip the sockets are arranged a fixed distance apart, while by having each socket carried by a separate plate they can be arranged at the desired distance apart by the user to suit the particular window-frame with which the fastener is used and according to the particular manner in which he may desire to adjust the sashes, and as many of these plates can be used as is necessary to secure the various adjustments of the sashes.

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

1. In a device of the kind described comprising a casing, a locking member therein adapted to engage an upper sash, the said casing being arranged upon the lower sash, a pivoted bell-crank in the casing connected to the locking member, a U-shaped member secured to the lower sash, and having its bow portion cut out, a lifting-lever pivoted in the U-shaped member, and adapted to engage the non-cut-out portion of the bow portion of the said member, a rod pivoted at one end to the bell-crank in the upper casing, and at its lower end to the lfting-lever and adapted to draw the locking member out of engagement with the upper sash, when the lifting-lever is in engagement with the bow portion of the U-shaped member, and the pivoted dog adapted to engage the lifting-lever, and hold the same in engagement with the said bow portion.

2. A device of the kind described comprising a casing adapted to be secured on the upper portion of a lower sash, a spring-actuated pin therein said pin being adapted to engage the upper sash, a casing secured to the lower portion of the lower sash and cut out on its front side, a lifter pivoted in said casing and adapted for vertical movement in the cut-out portion, a locking-lever pivoted in the said casing and adapted to lock the lifter with its projecting portion in a raised position, and means connecting the lifter and pin and adapted to retract the pin when the lifter is in such raised position.

WILLIAM W. BAUMAN.

Witnesses:
S. C. GRIFFITH,
E. A. HARTLIEB.