

(No Model.)

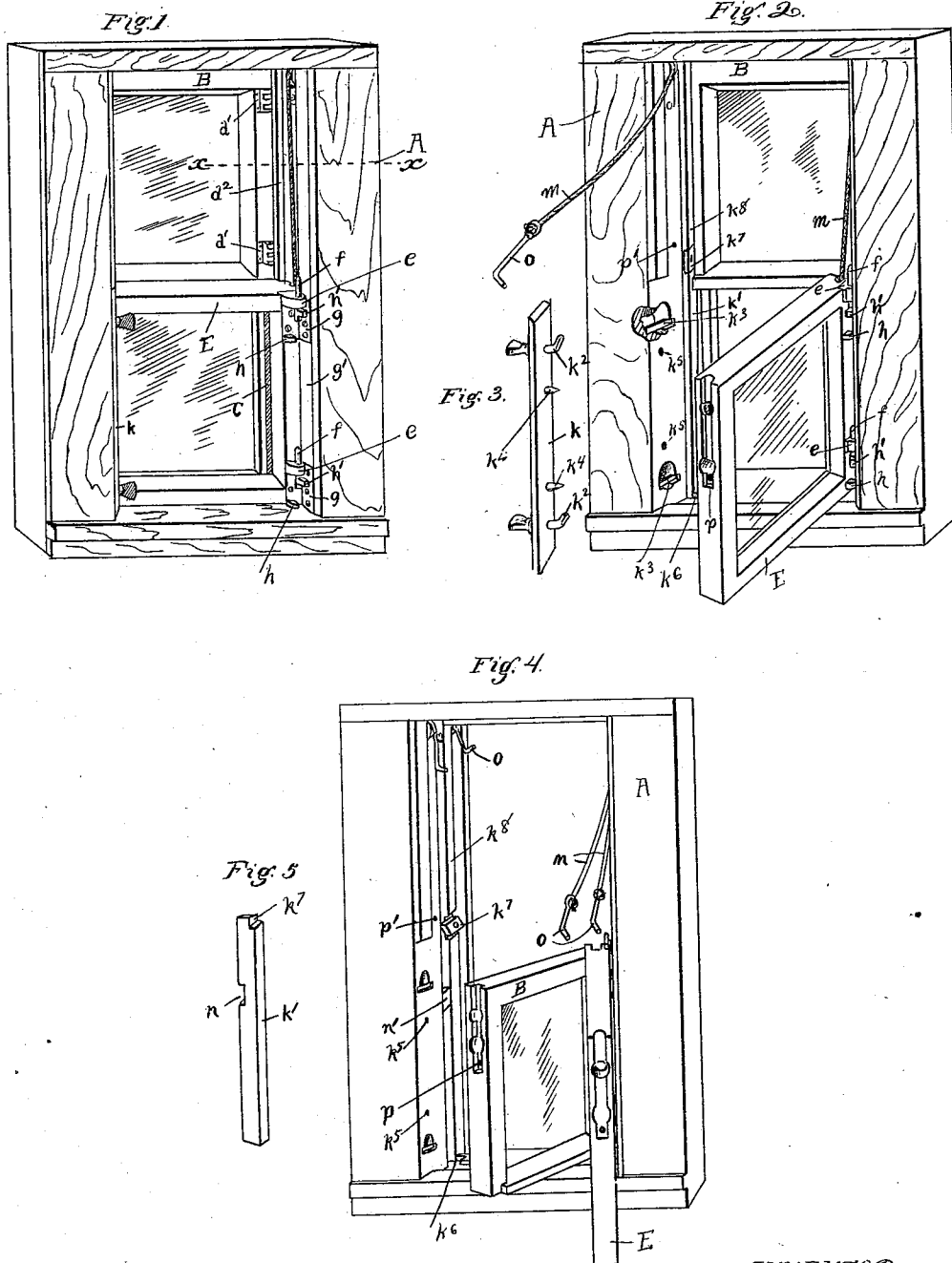
2 Sheets—Sheet 1.

H. TAYLOR.

DEVICE FOR OPERATING WINDOWS FOR CLEANING.

No. 560,948.

Patented May 26, 1896.



WITNESSES
C. J. Cross
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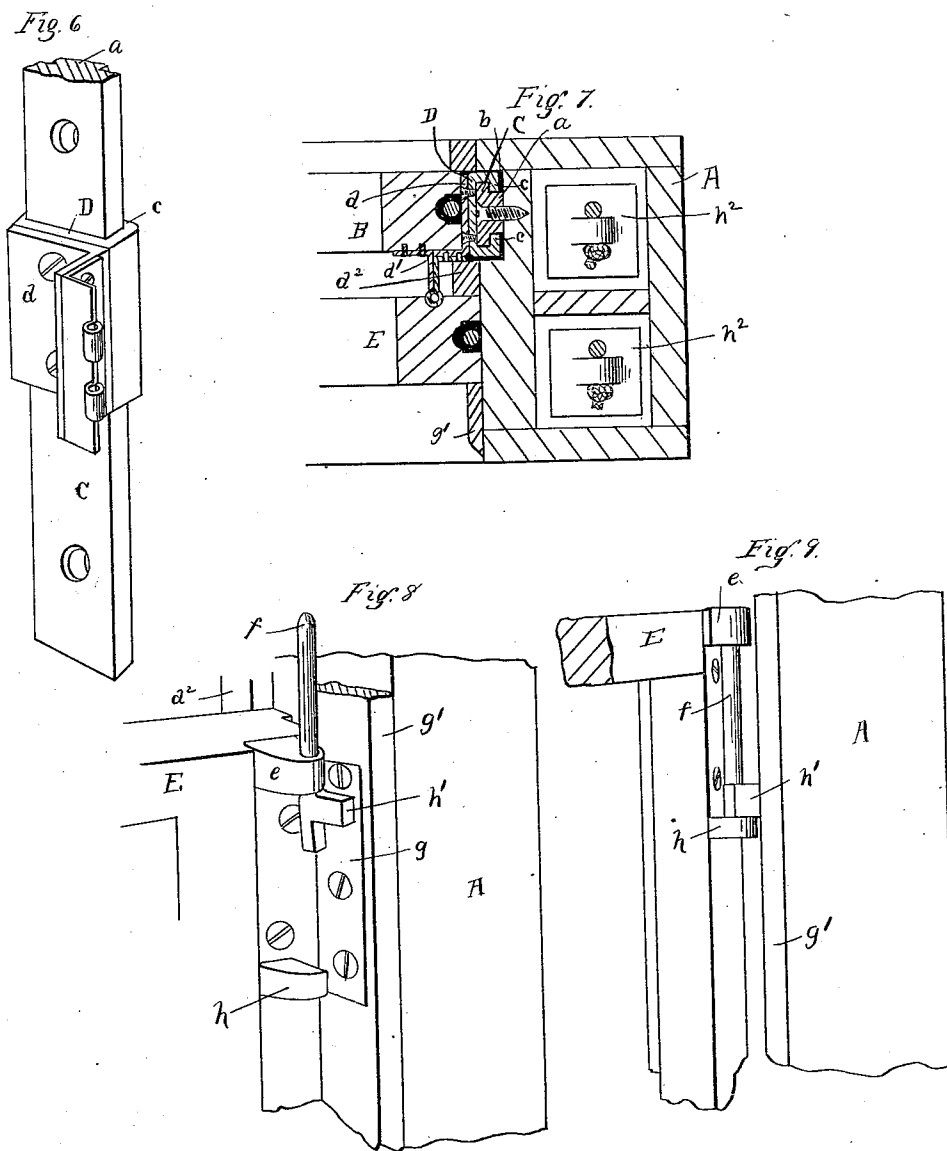
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UNITED STATES PATENT OFFICE.

HIRAM TAYLOR, OF SALEM, OHIO.

DEVICE FOR OPERATING WINDOWS FOR CLEANING.

SPECIFICATION forming part of Letters Patent No. 560,948, dated May 26, 1896.

Application filed February 26, 1896. Serial No. 580,781. (No model.)

To all whom it may concern:

Be it known that I, HIRAM TAYLOR, a citizen of the United States, residing at Salem, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Devices for Operating Windows for Cleaning; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation showing the window-sashes in their normal positions. Fig. 2 is a view showing the lower window-sash open or turned upon its hinges to bring it in proper position for cleaning. Fig. 3 is a view of the detachable window-bead and devices for securing said bead in its normal position. Fig. 4 is a view showing the lower window-sash and its glass turned upon its hinges and the upper sash and its glass lowered and partially turned, also showing the button for securing the top or upper end of the parting-rail. Fig. 5 is a detached view of one of the parting-rails. Fig. 6 is a view showing a portion of the hinge-retaining bar, also showing one of the hinge-sections attached thereto. Fig. 7 is a transverse section through line *x x*, Fig. 1. Fig. 8 is a view of one of the lower sash-hinges, showing the same properly attached. Fig. 9 is a view showing one of the lower sash-hinges and illustrating the sash partially elevated and turned thereon.

The present invention has relation to devices for operating windows for cleaning; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the window-frame proper, which is constructed in the ordinary manner and may be of any desired style or kind, inasmuch as the window-frame forms no particular part of the present invention, except that some kind of a window-frame must necessarily be used.

For the purpose of providing a means for lowering the upper window-sash B, and at the

same time providing a hinged connection for said sash, the bar C (see Figs. 6 and 7) is provided, which bar is formed of sufficient length to properly hold said window-sash at any point within the limits of its movements. The bar C is provided with the rib *a*, which rib is for the purpose of holding the bar C, so as to form the spaces *b* back of said bar, as illustrated in Fig. 7, said spaces being for the purpose of providing room for the bent portions *c*, formed upon the slide D, said bent portions *c* being for the purpose of holding the slide D upon the bar C. To the slide D is attached the plate *d*, which plate forms one leaf of the hinge, the opposite leaf *d'* being attached to the proper bar of the window-sash B, substantially as illustrated in Fig. 7.

It will be understood that the parts *d* and *d'* are attached to the proper bar of the window-sash B and to the slide D and move up and down with the movements of the window-sash. The leaves or plates *d* and *d'* are so constructed that the joint or hinge portion will clear the parting-strip *d²*, which parting-strip is formed in the usual manner and located between the upper and lower sashes, as usual.

The lower window-sash E is provided with the eye-plates *e*, which eye-plates are located and arranged substantially as shown in Figs. 1, 2, 8, and 9, and are so arranged that they will engage with the pins *f* when the lower sash is placed in its normal position, and also after the lower sash has been lifted a sufficient distance to clear the bottom or lower portion of the window-sash from its groove or seat in the window-frame proper, said pins being formed of sufficient length to allow a slight elevation of the sash without detaching the eye-plates *e* from the pins.

For the purpose of holding the pins *f* in proper position they are preferably formed integral with the plates *g*, which plates are securely attached to the window-bead *g'* or its equivalent, thereby forming a hinge for the lower sash to turn upon when the eye-plates *e* are engaged with the pins *f*. The eye-plates *e* extend downward a short distance, as illustrated in the drawings, and the bottom or lower ends thereof are provided with the lugs *h*, which lugs are so located that they will pass the flanges *h'*, located

upon the plates *g*, when the window-sash *E* is in its normal position; but when said window-sash is turned upon its hinge the lugs *h* engage the bottom or underside of the flanges *h'*, thereby preventing the window-sash from being drawn upward by the window-weights *h²*.

In the drawings I have shown lugs, such as *h*, formed upon the upper and lower eye-plates *e*, and flanges *h'*; but it will be understood that one lug, such as *h*, formed upon either the upper or lower eye-plate, will answer the same purpose, and I do not desire to be limited to forming lugs upon the upper and lower eye-plates. For the purpose of providing for swinging the window-sashes *B* and *E* inward, as illustrated in Figs. 2 and 4, it becomes necessary to remove the window-bead *k* and the parting-strip *k'*, and in order to provide for carrying out the object of my invention the bead *k* is removably attached to the window-frame by means of the catches *k²*, which catches engage the bars *k³* when turned, so as to engage the back sides of said bars *k³*.

For the purpose of guiding the catches *k²*, together with the bead *k*, the pins *k⁴* are provided, which pins enter the apertures *k⁵* at the time the bead is placed in position. The parting-strip *k'* is removably attached, so that it can be removed to allow the upper sash to be turned inward after it has been lowered. The bottom or lower end of the parting-strip *k'* is seated into the recess *k⁶* and the top or upper end held against displacement by means of the button *k⁷*, said button being so formed that when turned in one direction it will overlap the shoulder *k⁷*, and thereby prevent the top or upper end of the parting-strip *k'* from becoming detached. The button *k⁷* is attached to the bottom or lower end of the upper parting-strip *k³*.

For the purpose of assisting in holding the detachable parting-strip *k'* in proper position it is provided with the notch *n*, which notch embraces the bar or plate *n'*, which bar or plate is attached to the window-frame in any convenient and well-known manner. For the purpose of providing a means for removing the window-cords *m* from the free sides of the window-sashes *B* and *E* said cords are provided with the hooks *o*, which hooks when attached to the window-sashes are placed in the recesses *p*, and for the purpose of holding the weights when the cords are detached the apertures *p'* are formed in the window-frame, which apertures hold the cords from being drawn upward to the top of the window-frame.

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

1. The combination of a window-frame provided with window-sashes, the plates *g*, secured to the window-casing and provided with the pins *f*, the flanges *h'* and lugs *h*, and the removable window-bead *k*, substantially as and for the purpose specified.

2. The combination of a window-frame having connected thereto a bar, slides located upon said bar and hinges connected to the upper and lower sashes, the plates *g*, secured to the window-casing and provided with the pins *f*, the flanges *h'*, and lugs *h*, and the removable window-bead *k*, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HIRAM TAYLOR.

Witnesses:

C. H. JOHNSON,
A. J. KING.