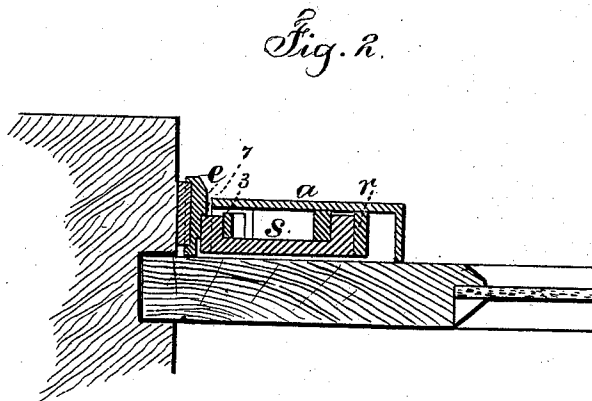
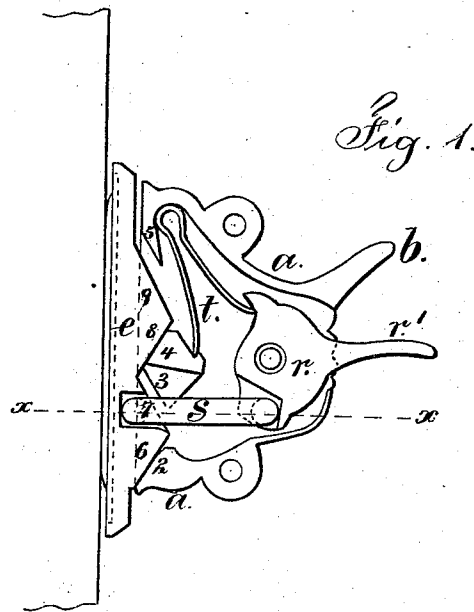


J. B. WILFORD.
Sash-Holder.

No. 168,697.

Patented Oct. 11, 1875.



Witnesses

Chas. H. Smith
Geo. D. Ginkney

Inventor

John B. Wilford.

per Lemuel W. Perrell
att'y

UNITED STATES PATENT OFFICE

JOHN B. WILFORD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HEZEKIAH BRADFORD AND HERMAN HAMBURGER, OF SAME PLACE.

IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. **168,697**, dated October 11, 1875; application filed
March 9, 1875.

CASE B.

To all whom it may concern:

Be it known that I, JOHN B. WILFORD, of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Sash-Supporters, of which the following is a specification:

Letters Patent No. 151,529, granted to Loring J. Baker for a sash-supporter, show a pressure-plate and double inclines upon the back of the pressure-plate, and corresponding inclines inside the case. In practice it is found that there is but one of the inclines operative at one time, and hence the pressure is either above or below the center of the pressure-plate, and the friction is not uniform.

My invention is an improvement upon this device; and relates to two pairs of double inclines operating toward the ends of the pressure-plate to force the same bodily against the window-frame, and in combination with the same I employ a swinging lever, spring, and link, by means of which the pressure-plate is drawn from the frame or pressed upon the same, so as to dispense with the curved spring-rod in the aforesaid patent of Baker, and render the fastening more compact.

In the drawing, Figure 1 is an elevation of the improved fastening as removed from the sash and seen at the rear, and Fig. 2 is a section at the line *x x*.

The case *a* is made of any suitable ornamental shape, and provided with a fixed thumb-piece or lifter, *b*, and at the side of the case that comes next to the window-frame there are openings with the double pairs of inclines 2 3 and 4 5, and upon the pressure-plate *e* there are also two pairs of inclines, 6 7 and 8 9. If the pressure-plate is close to the edge of the case, then the four inclines of the pressure-plate bear against the four inclines in the case, and if the sash and case are moved up while the pressure-plate is against the win-

dow-frame, the inclines 3 and 7 and 5 and 9 bear against each other and press the plate *e* against the frame with increased force, and the entire surface of the pressure-plate is equally acted upon, because the double inclines carry the plate toward the frame in a direction parallel to the case. The same is true if the window is moved down, at which time the inclines 2 and 6, 4 and 8 act together. In order to withdraw the pressure-plate from the frame, and allow the sash to move freely up or down, I make use of the lever *r* within the case *a*, and having a finger-piece, *r'*, outside the case, and a link-connection, *s*, from the said lever *r* to the inner part of the pressure-plate, and the spring *t*, acting between the lever *r* and the case, serves to press the plate outwardly against the window-frame when the lever *r'* is not acted upon by the hand in raising or lowering the sash.

I do not claim a double incline upon the pressure-plate and a double incline upon the case, as these have been used and are shown in Patents Nos. 151,529 and 55,659; but they do not act to force the pressure-plate against the window-frame with uniformity, for the reasons before stated; but

I claim as my invention—

1. The sash-holder having the double pairs of inclines 6 7 8 9 upon the pressure-plate and the corresponding double pairs of inclines 2 3 4 5 in the case *a*, substantially as set forth.

2. The combination of the lever *r*, link *s*, and spring *t* with the pressure-plate *e* and case *a*, each having the double pairs of inclines, for the purposes and as set forth.

Signed by me this 27th day of February, A. D. 1875.

JNO. B. WILFORD.

Witnesses:

W. C. STRAWBRIDGE,
J. QUINN.