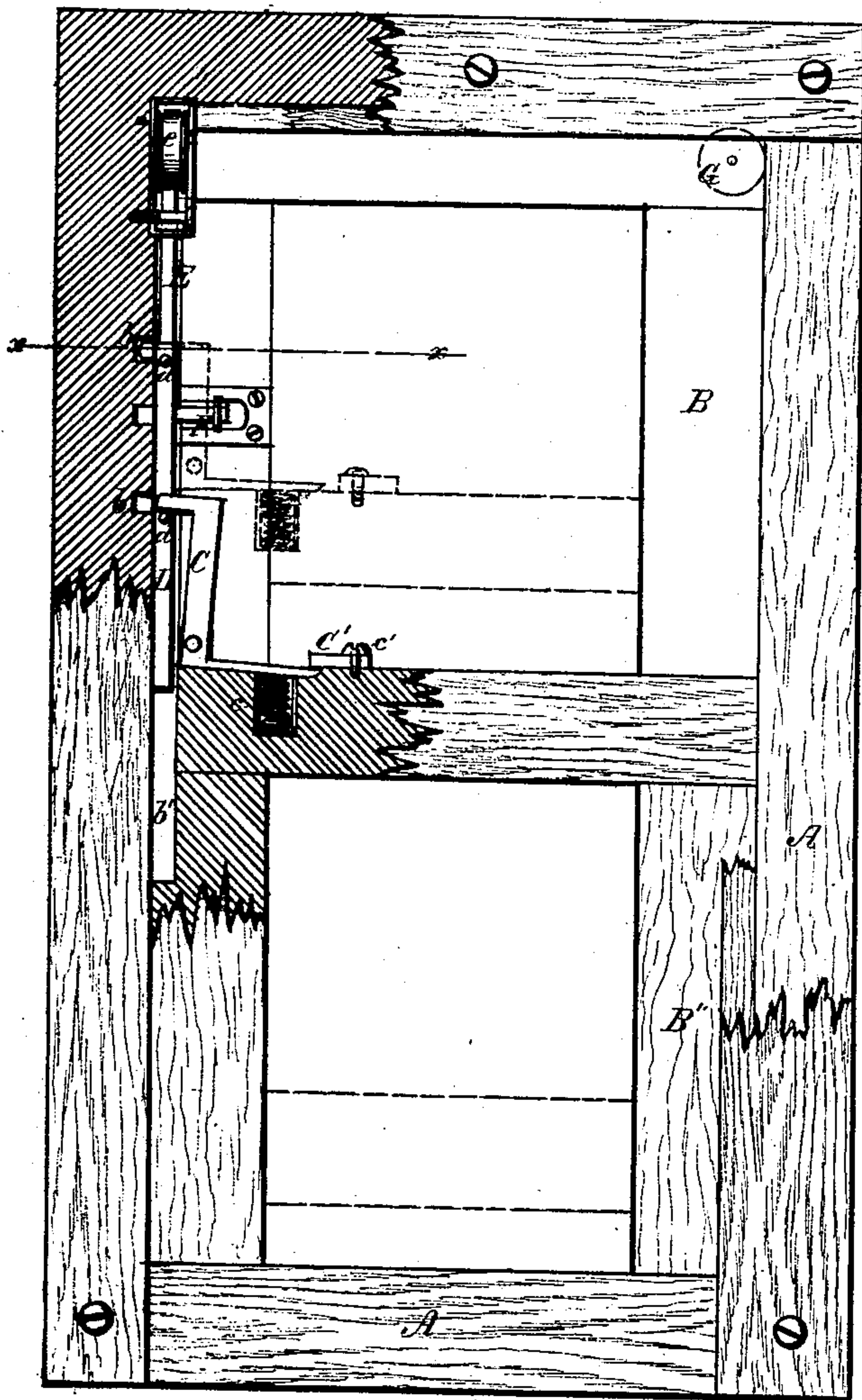
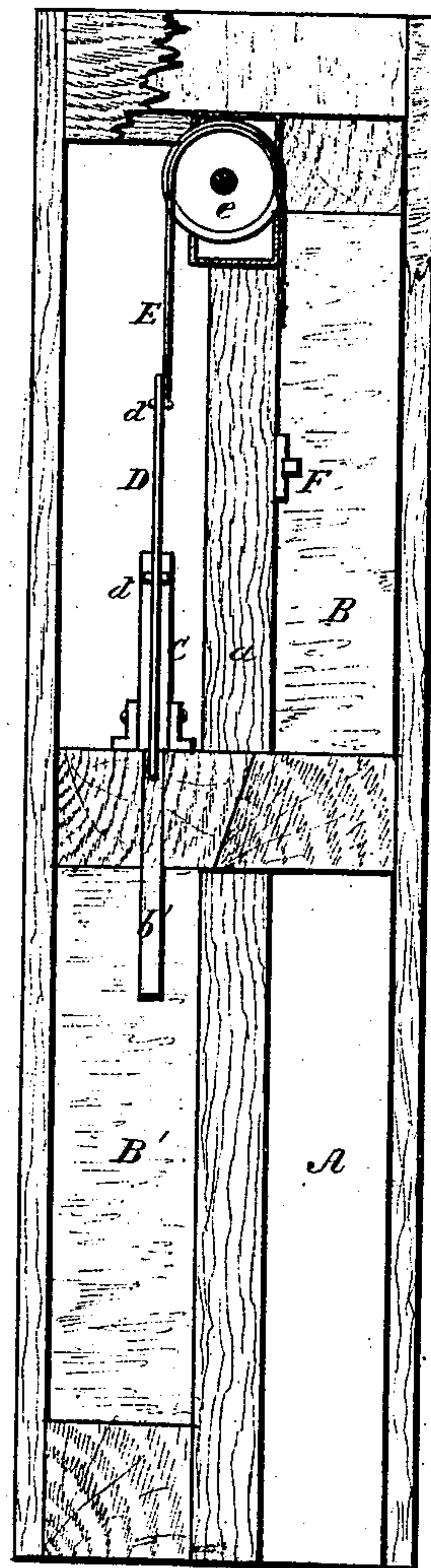


*G. W. Bishop,*  
*Sash Balance.*  
*No. 103,547.      Patented May 31, 1870.*

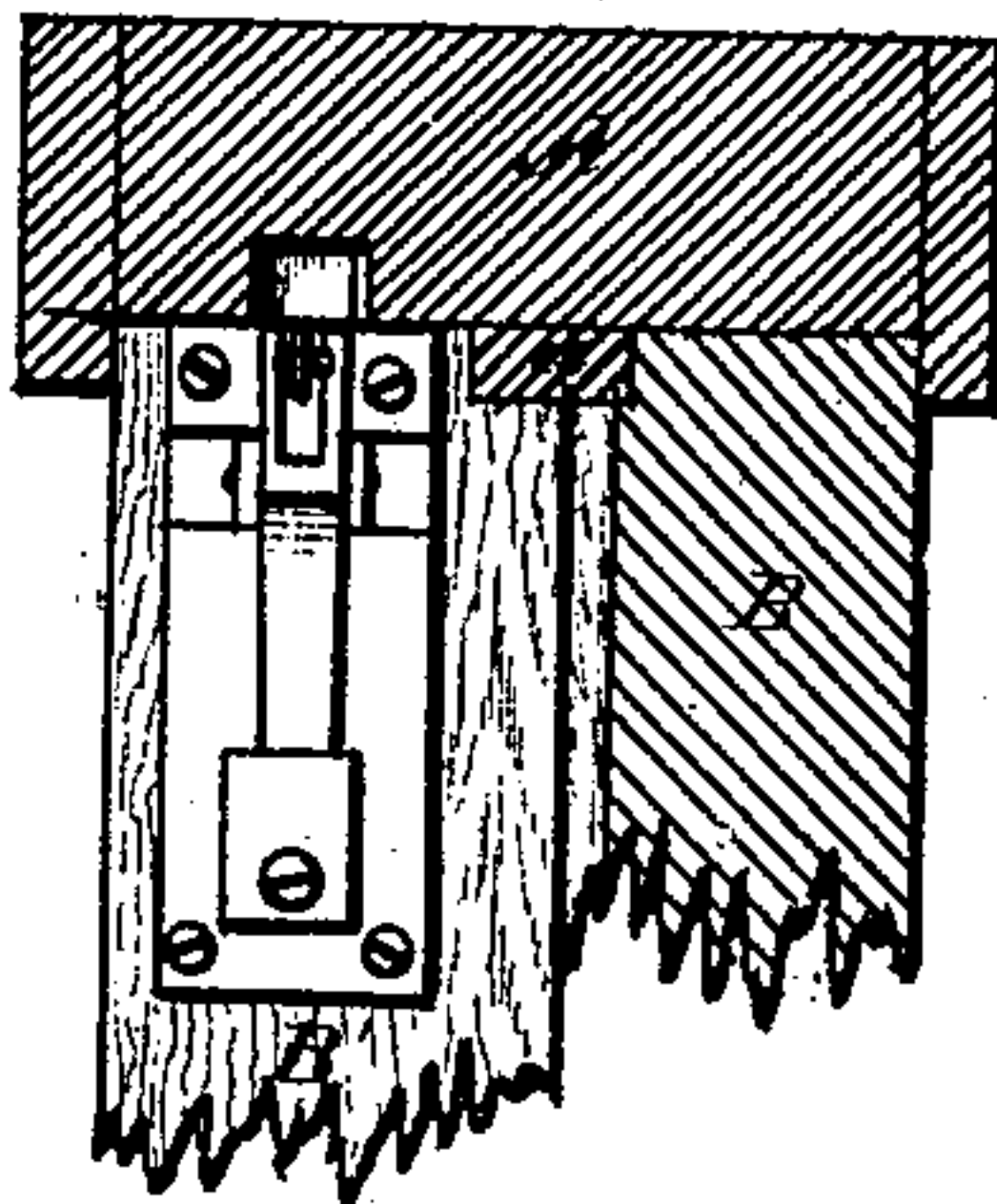
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses:*  
*Ed. A. A. A.*  
*Jno. H. M. C.*

*Inventor:*  
*Geo. W. Bishop*  
*By M. C. C. Grant & Co.*  
*Atty*



# United States Patent Office.

GEORGE W. BISHOP, OF SARATOGA SPRINGS, NEW YORK.

Letters Patent No. 103,547, dated May 31, 1870.

## IMPROVED SASH-HOLDER AND BALANCE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, GEORGE W. BISHOP, of Saratoga Springs, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Window-sash Fasteners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings which make part of this specification, and in which—

Figure 1 represents a side view, partly in elevation and partly in section, of a window-frame and sashes with my improvements attached;

Figure 2, an end view of the same with the jamb removed; and

Figure 3, a horizontal section of the same, at the line *x x* of fig. 1.

My invention consists in a novel combination of devices for fastening the sashes of a window, whereby the same may be locked in different positions, either in connection or independently of each other, as hereinafter described.

In the accompanying drawings, which show a convenient arrangement of parts for carrying out the objects of my invention, A represents a window-frame, and *a* the parting-strip, which separates the upper and lower sashes, B B'.

A metallic latch, C, having arms projecting in opposite directions at its upper and lower ends, is pivoted near its lower angle to a plate on the top of the lower sash B', its lower arm being pressed up by a spring, *c*, beneath it, in such manner as to force its upper arm into any one of a series of holes, *b*, in the window-frame, in order to fasten the sash in the position desired.

A pivoted detent or catch, C', turning upon a pin or bolt, *c'*, in the lower sash, holds down the lower arm of the latch C when it is desired to prevent its entrance into one of the holes *b*, and, when swung aside, the spring *c* will press the upper arm of the latch into a hole when brought opposite thereto, thus locking the sash.

A slot is formed in the upper arm of the latch C, through which passes a metallic plate, D, which enters a slot, *b'*, in the sash B', and is connected, at its upper end, to a strap or wire, E, which passes over a pulley, *e*, near the top of the window-frame, and is secured to the upper sash B.

Pins, *d d*, are secured to the plate D above and below the upper arm of the latch C, the lower of which, by its position relative to the arm, serving to raise the lower sash, when the upper sash, B, is lowered.

A block or guide may be secured to the lower end of the plate D to prevent its twisting in the slot *b'*, if desired. By regulating, conveniently, the position of the pins upon the plate, the upper sash may be lowered a greater or lesser distance without moving the lower sash.

In order to hold the upper sash in desired position, while the lower sash is moved and locked, a bolt, F, is provided, which can be inserted into any one of a series of holes in the jamb or side frame of the window. When this bolt is withdrawn from the hole the two sashes can be moved together, as desired.

In order to prevent undue friction or sagging of the upper sash during its movements, a pulley, G, (shown in dotted lines in fig. 1,) may be mounted in bearings near the top of the sash, and bears against the jamb when the sash is raised or lowered.

From the construction and arrangement of the parts, as hereinbefore described, it will be seen that the upper and lower sashes may be moved either together or independently of each other, in a simple and convenient manner.

Having thus fully described my invention,

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

The plate D, working in the slot in the upper arm of the latch C, and operating the same by means of the pins *d d*, in combination with the said latch C and detent C', strap E, pulley *e*, slot *b'*, and sashes B and B', arranged substantially as described, by means of which the upper and lower sashes may be moved, either together or independently of each other, as shown.

In testimony that I claim the foregoing as my invention, I have hereunto set my hand this 8th day of April, 1869.

GEORGE W. BISHOP.

Witnesses:

E. H. PETERS,  
L. VARNEY.