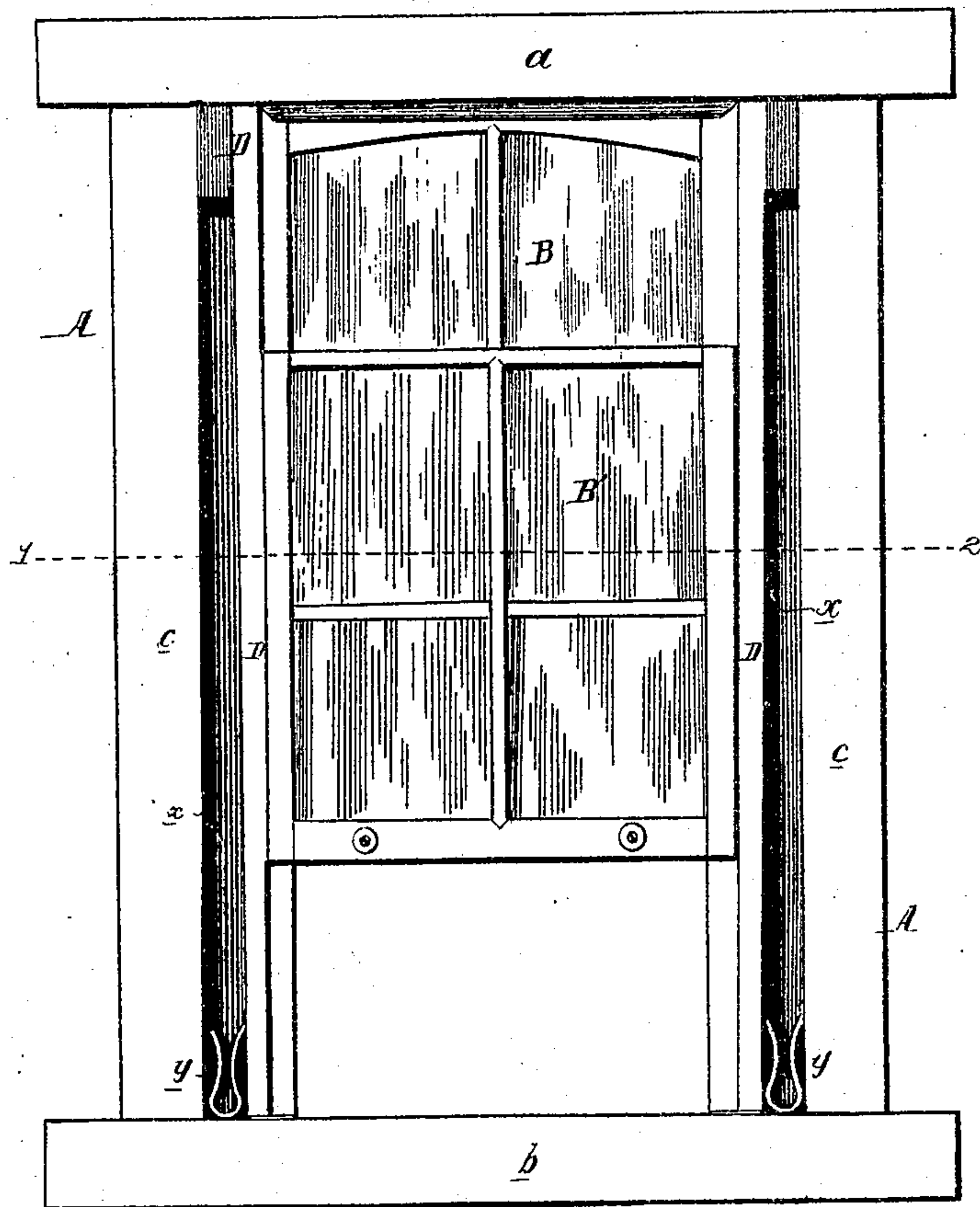
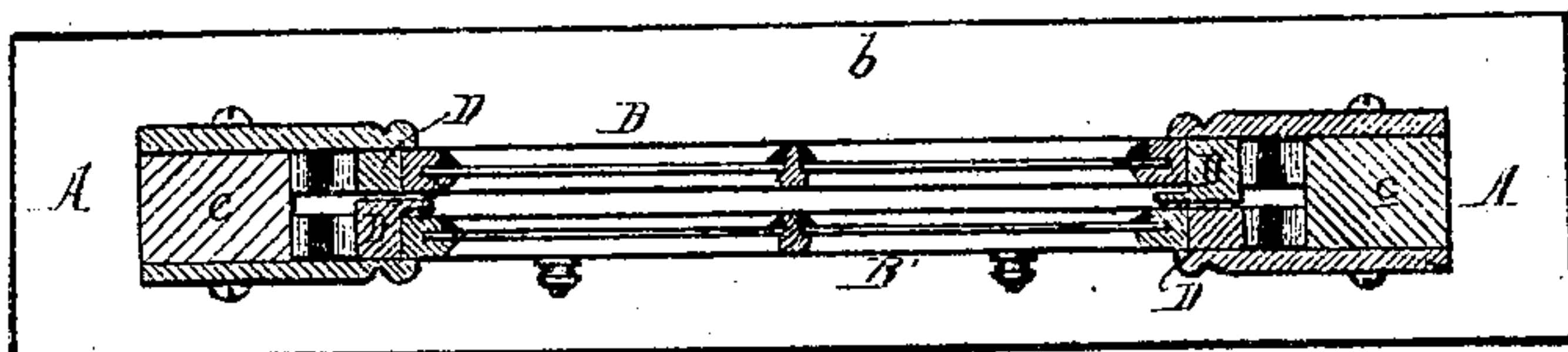


CHARLES A. SMITH.  
Improvement in Window Sash Frames.  
No. 124,169. Patented Feb. 27, 1872.

*Fig. 1.*



*Fig. 2.*



Witnesses { *Mrs. A. Steel*  
*John Parker*

*Charles A. Smith*  
*by his Atty.*  
*Howson and son*

# UNITED STATES PATENT OFFICE.

CHARLES A. SMITH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND JACOB E. RIDGWAY, OF SAME PLACE.

## IMPROVEMENT IN WINDOW-SASH FRAMES.

Specification forming part of Letters Patent No. 124,169, dated February 27, 1872.

Specification describing an Improvement in Window Frames and Sashes, invented by CHARLES A. SMITH, of Philadelphia, Pennsylvania.

My invention consists in the combination of a window-sash having its opposite edges inclined toward each other at the bottom, with a spring strip or strips secured to the window-frame, and arranged to bear against one or both edges of the said sash, as fully described hereafter, for the purpose of retaining the same in any position to which it may be raised or lowered.

Figure 1 is a view of a window-frame and sashes with my improvement; and Fig. 2, a sectional plan view of the same on the line 1 2, Fig. 1.

A represents a window-frame, of which *a* is the top, *b* the bottom, and *c c* the opposite side pieces; and in grooves formed in the edges of the latter are arranged to slide the upper and lower sashes B and B'. Instead of the usual boxes in the window-frame and balancing weights and cords for retaining the sashes, the latter are sustained in any position to which they may be raised or lowered by wooden strips D D adapted to recesses *x* of the window-frame, secured to the latter at their upper ends only, and caused to bear against the opposite edges of the sashes by springs *y y* interposed between the lower or free ends of the strips and the window-frame. These strips offer no undue resistance to the raising and lowering of the sashes, but only bind against the edges of the latter with a sufficient degree of pressure to prevent them

from falling when raised. The opposite edges of the sash are inclined so as to make the sash somewhat wider at the top than at the bottom, as shown in the drawing, as I have ascertained that when the sashes are thus made slightly wedge-shaped, and the spring strips correspondingly inclined, the said sashes can be raised by a very slight effort, while the resistance offered by the spring strips to the descent of the same is increased. Gum, spiral, or other springs may be used in connection with the strips D in place of those shown in the drawing; and in some instances springs can be dispensed with altogether providing the retaining strips are made of hickory or equivalent elastic material. The strips may also be secured to the window-frame at the bottom instead of at the top, and in some cases a spring strip at one side of a window-frame, and bearing against one side only of the sash, will be found sufficient to retain the latter; but I prefer to arrange them at both of the opposite edges of the sash, as before described.

I claim as my invention—

The tapering or wedge-shaped sash B or B', in combination with a spring-retaining strip or strips, D, secured to the window-frame, all substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES A. SMITH.

Witnesses:

WM. A. STEEL,  
W. J. R. DELANY.