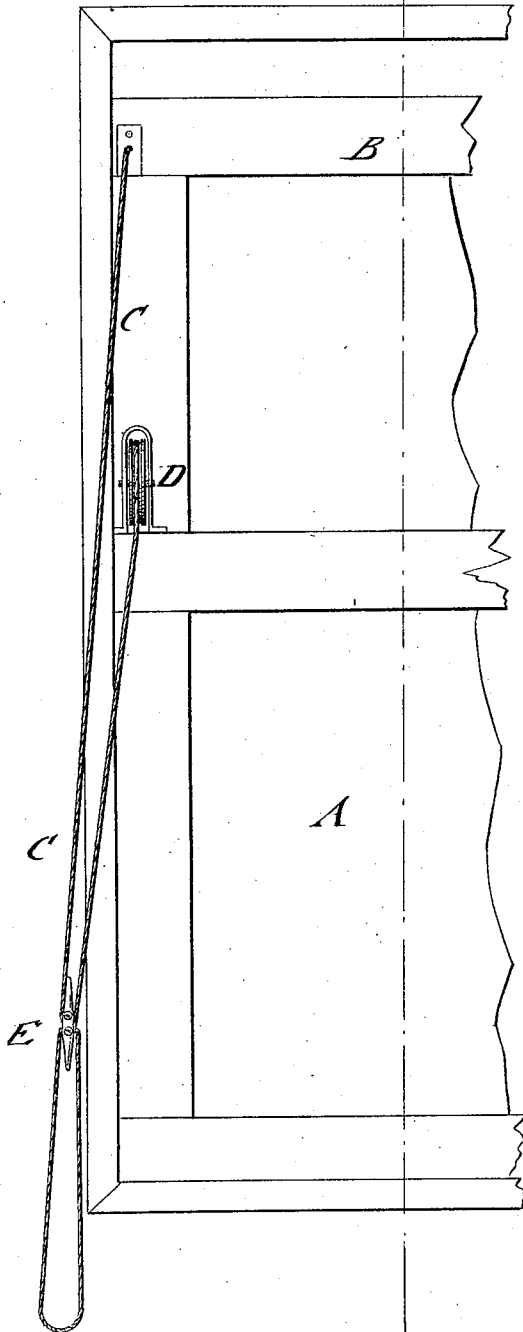


J. WADDELL.
SASH-BALANCE.

No. 178,690.

Patented June 13, 1876.

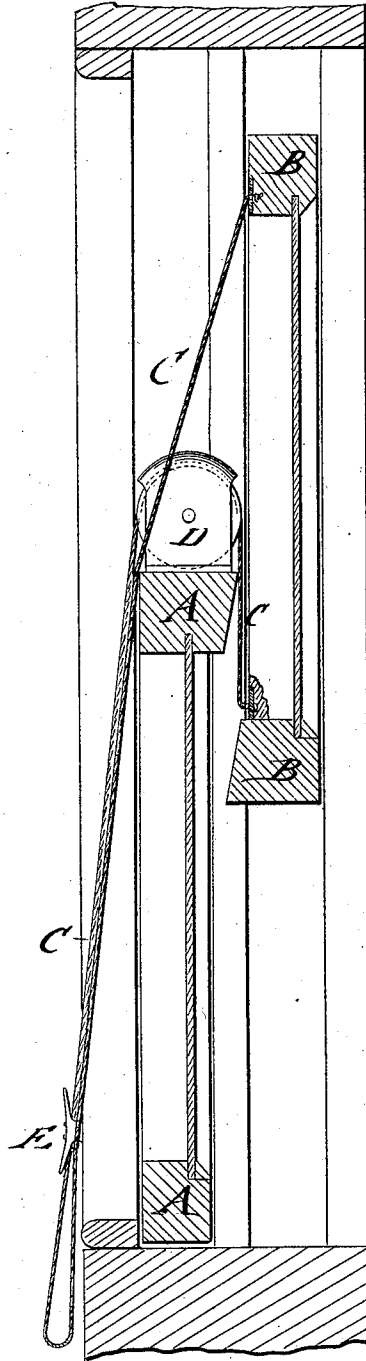
Fig: 1. c



WITNESSES:

Cras. Nott
John Wetbals

Fig: 2.



INVENTOR:

J. Waddell

BY

Wm. H. H.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES WADDELL, OF MAMARONECK, NEW YORK.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **178,690**, dated June 13, 1876; application filed May 9, 1876.

To all whom it may concern:

Be it known that I, JAMES WADDELL, of Mamaroneck, Westchester county, State of New York, have invented a new and Improved Sash-Holder, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a front elevation, and Fig. 2 a side elevation of my improved sash-holder, partly in section on line C C, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved sash-holder by which the upper sash may be readily opened and closed and retained in any position for ventilation, and by which also both sashes may be secured in closed position.

The invention consists in a novel combination and arrangement connecting the cords with the top and front of upper sash, and then passing them over pulleys arranged on the top of lower sash, as hereinafter more fully described and definitely claimed.

In the drawing, A represents the upper, B the lower sash, and C the sash connecting and holding cord which is applied by its ends to the top and bottom rails of the upper sash at any point, but preferably at both ends of the same. The lower end of the cord C passes over a guide-pulley, D, with suitable guarding to prevent the escape of the cord, which pulley is securely attached to the top rail of the lower sash B. Both cord-sections

may be readily secured to a suitable fastening or clamping device, E, for the purpose of retaining the upper sash at any position. By pulling at that part of the cord B that is connected to the top rail of the upper sash, the same is lowered with great facility without getting on a chair, and retained at the proper height by fastening the cord. This feature is of special advantage for church and hall windows of all kinds. By pulling the lower part of the cord the upper sash is raised, and, when the lower sash is in open position, it may be lowered with great facility. When the cord is firmly applied to the fastening device, both sashes are retained in position without being forced open from the outside, forming thus, besides the convenience in handling the upper sash, a means for securely locking both sashes in position. The device is simple and cheap, and may be readily attached to any window in use.

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

The combination, with upper and lower window-sashes, of the pulleys D arranged on top of lower sash and the cords C fastened to front of upper sash, and passing over the said pulleys, as and for the purpose specified.

JAMES WADDELL.

Witnesses:

PAUL GOEPEL,
T. B. MOSHER.