

W. W. S. ORBETON.

Improvement in Sash-Balances.

No. 131,773.

Patented Oct. 1, 1872.

Fig. 1.

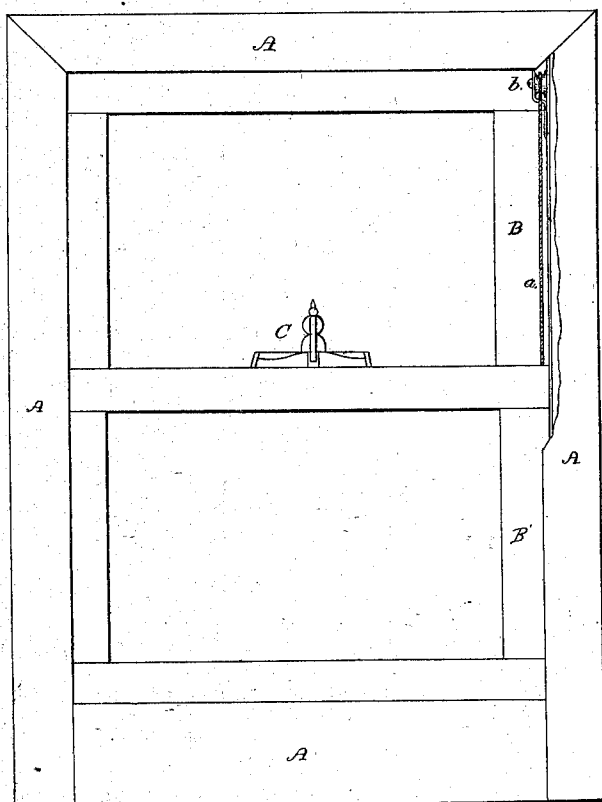
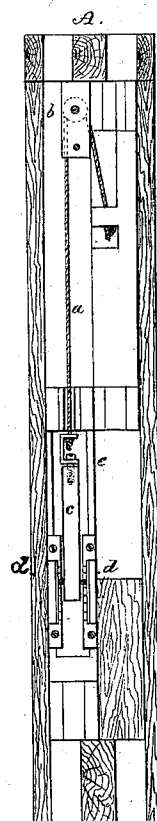


Fig. 2.



Witnesses.

Geo. Gray

F. L. Hale

W. W. S. Orbeton.

by his attorney.

F. P. Hale

UNITED STATES PATENT OFFICE.

WILLIAM W. S. ORBETON, OF BRADFORD, MASSACHUSETTS, ASSIGNOR TO
HIMSELF AND FRANK G. PHILLIPS, OF SAME PLACE.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. 131,773, dated October 1, 1872.

To all whom it may concern:

Be it known that I, WILLIAM W. S. ORBETON, of Bradford, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Windows provided with Balanced Sashes; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, in which—

Figure 1 denotes a front elevation of a window as provided with my improvement; and Fig. 2, a vertical section taken on line *x x* of Fig. 1.

My invention relates to that class of windows whose sashes are connected by means of cords running over pulleys, whereby one sash is made to balance the other, and thus be maintained in any desired position without any extraneous aid; and my invention consists in combining with the sashes and their cords fixed and positive adjusting devices, as hereinafter described, whereby the cords may always be preserved under a proper degree of tension, and thereby maintain the sashes in their normal relative positions.

In the said drawing, A denotes the frame of the window, and B B' the upper and lower sashes thereof. C is the device by which the sashes are locked. *a a* are two cords, whose upper ends are connected to opposite sides of the upper sash B in the ordinary manner. The said cords pass up and over pulleys *b b*, (only one of which is shown,) disposed in the opposite upper corners of the window-casing, the lower ends of the cords being carried downward, and respectively attached to adjustable sliders or catch-bars *c c*, which slide within rack-plates *d d*, (one only of such sliders and plates being shown, as each is a duplicate of the other,) which are respectively fixed in sockets made in the external vertical faces of the sash B'. The lower ends of the cords may be affixed directly to the sliders; but I prefer to connect them by means of a swivel, *d*, provided with an adjusting-screw, *e*, which screws into a female screw made in the upper end of

the sliders or catch-bar, which, acting as auxiliary to the catch-bar, enables the most perfect tension of the cords to be obtained. The said rack-plate is formed with a series of parallel notches arranged at equal distances apart, into which the studs of the catch-bar take.

In applying my improved device after the upper ends of the cords have been secured to the upper sash in the ordinary manner, the cords are carried up over the pulleys and brought down and affixed at their lower ends to the slider or the swivel affixed thereto, and the slider drawn down and fastened in the desired holes in the rack-plate. Should a nicer adjustment be desirable, by either raising or lowering the swivel-screw the most perfect adaptation may be secured. By my construction and arrangement of parts any desired degree of ventilation of a room may be effected. Should it be desirable to have the window open at the top while it remains closed at the bottom, we have simply to move the slider or catch-bar backward into the desired notches, and the upper sash will be lowered to give the desired opening.

I am aware that rubber springs have been applied to the ends of the cords to act as compensatory attachments. Such I do not claim, my invention consisting in the employment of positive adjusting devices so applied as to enable the window to be maintained open both at top and bottom, or open only at the top, as may be desirable.

Having described my invention, what I claim is—

The combination, with the cords, the pulleys, and sashes, of a compound adjusting mechanism, as described, the same consisting of the rack-plates *d d*, catch-bar *c*, and the screw *e*, constructed and operating together in manner and for the purpose stated.

W. W. S. ORBETON.

Witnesses:

F. P. HALE,
F. C. HALE.