(No Model.)

S. H. RUSSELL.

SASH BALANCE.

No. 261,877. Patented Aug. 1, 1882.

Fig. 1.

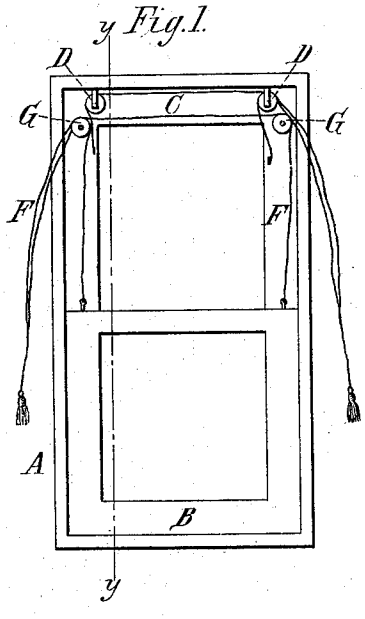
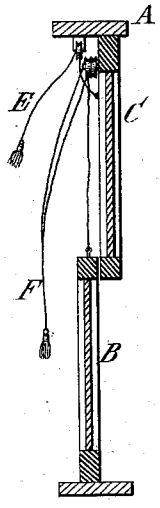


Fig. 2.



Witnesses:
Joseph J. Sullivan
Wilmot Johnson Jr

Inventor:
S. Howland Russell
by G. H. Pellinghuysen
his atty

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

S. HOWLAND RUSSELL, OF NEW YORK, N. Y.

SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 261,877, dated August 1, 1882.

Application filed March 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, S. HOWLAND RUSSELL, of New York city, New York, have invented a new and useful Improvement in Window-Sash Adjusters, of which the following is such a full, clear, and exact description as will enable others skilled in the art to make and use the same when taken in connection with the accompanying drawings, in which—

Figure 1 is a front view of the sash and window-frame with the adjusters attached. Fig. 2 is a vertical section on the line *y y* of Fig. 1.

This my invention consists in the combination, with the window-frame and sashes of a window, of pulleys and cords, so that the two sashes may be raised and lowered and regulated in their relative positions to one another by means of two cords and two pulleys, as hereinafter more fully set forth, and hereinafter set forth in the claim.

The arrangement is shown in Figs. 1 and 2, where the cord F for raising the lower sash passes over the pulleys G G on the upper sash, so that the pulling of these cords F F will raise the lower and lower the upper sashes; and the cords E E are fastened at one end to the upper sash, C, and, passing over the pulleys D D, attached to the window-frame A, will, when force is applied at the free end, raise the upper sash.

When it is desired to raise the lower sash, B, without lowering the upper sash, C, the upper sash, C, is held in position by means of force applied to the cord E, and the lower sash, B, raised by pulling on the cords F F, and when the upper sash, C, is to be lowered a pull on the cords F F will accomplish it, as the force applied to the upper sash, C, as compared with that applied to the lower sash, B, by a pull on the cords F F, is doubled by the action of the pulleys G G.

The attachment of a pulley to one sash and a cord to the other, and passing this cord so attached over the pulley, makes one sash the point of resistance for the movement of the other, whereby both sashes are moved by the same force which would be necessary to move one alone.

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

In a sash-balance, the combination of the sash B, having cord F, attached to its top at each side and passing over pulleys G on the top part of the upper sash, with the sash C, having cord E, attached thereto and passing over pulleys D on the top of the window-frame, substantially as and for the purpose set forth.

S. HOWLAND RUSSELL.

Witnesses:
G. G. FRELINGHUYSEN,
W. L. BENNEM.