

GEORGE W. BISHOP.
Improvement in Sash Balances.

No. 115,418.

Patented May 30, 1871.

Fig. 1.

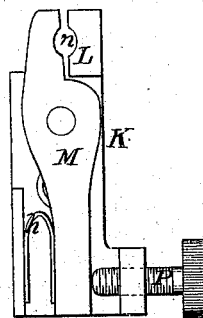
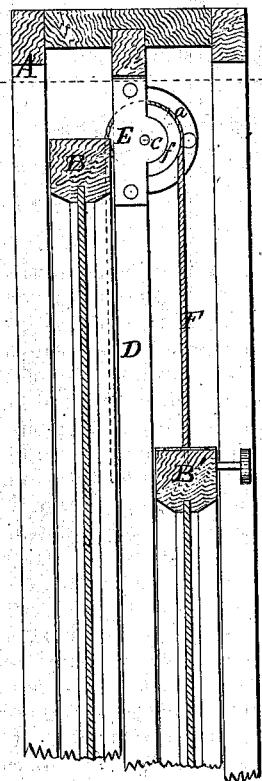


Fig. 3.

Fig. 4.

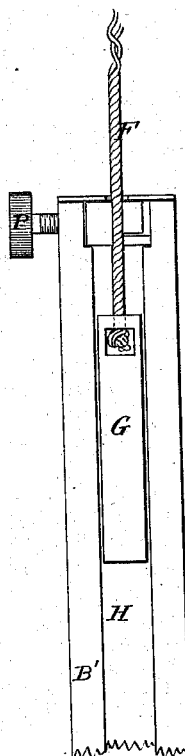


Fig. 5.

Fig. 6.

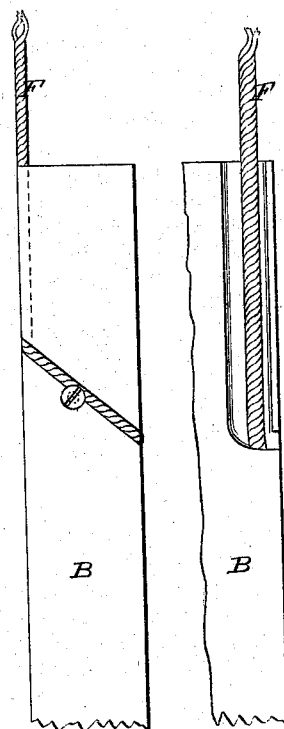
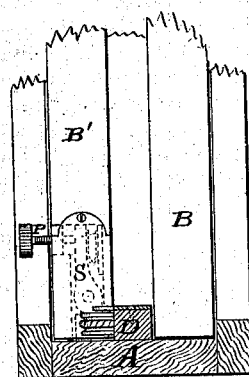


Fig. 2.



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

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. 115,418, dated May 30, 1871.

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 a new and valuable Improvement in Sash-Balances; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical transverse section of a window, showing my invention. Fig. 2 is a horizontal section of same. Fig. 3 is a top view of the sash-rope clamp. Figs. 4, 5, and 6 are details.

My invention has relation to means for raising, lowering, and adjusting window-sash in their frames; and consists in novel devices for said purposes, which are hereinafter fully described.

A of the drawing represents a window-frame, and B B' window-sash arranged therein. D represents the guide-strip on the window-frame, against the sides of which the sash are moved up and down. E represents a frame for the balancing-pulley affixed to the frame as a continuation of the guide-strip D, and, being attached by screws, is made removable at will. The rear plate of this frame is constructed with a disk, as shown by the letter *a*, and the front plate has a lip, marked *c* on the drawing, and the balancing-pulley *f* is arranged between said plates in the manner shown on Fig. 1. My object in constructing the plates of the pulley-frame in the manner above described is to enable the carpenter to arrange said frame upon the top of the guiding-strip without interfering with the track of the upper sash, which could not be done without the disk-shaped rear plate *a* or the lip *c*, or some equiv-

alent mode of construction. The letter F represents the operating rope or cord; and the letter G is the operating-weight. This weight G is arranged to move up and down in a groove, H, formed in one side of the lower sash. The letter K represents a clamp usually attached to the meeting-rail of the lower sash at right angles with the groove above mentioned. This clamp consists of a stationary bar, L, a pivoted bar, M, a spring, *h*, and a thumb-screw, P, all of which are covered by a plate, *s*. At the point *n*, as shown on Fig. 3, I cut out a groove both in the bar L and M, so as to form a passage-way for the operating-rope. It will be observed that the plates L and M assume the shape of jaws at their outward extremities. Between these jaws it is my purpose to clamp and hold the operating-cord at will at any desirable point by means of the thumb-screw P.

By this device the operator is enabled to so adjust the sash that either the upper or lower may be raised or lowered to any desirable position while the other remains at rest. This device also provides effective means for tightening the cord, so as to thoroughly close the window when the cord has slackened by damp weather or otherwise.

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

The clamp K, constructed with bars L and M and spring *h*, together with an operating device, when inserted in the meeting-rail of the sash for holding the cord, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in presence of two witnesses.

GEORGE W. BISHOP.

Witnesses:

JOHN M. HYNE,
D. D. KANE.

800 words