

(No Model.)

J. M. GLICK.
SASH BALANCE AND HOLDER.

No. 550,752.

Patented Dec. 3, 1895.

Fig. 1.

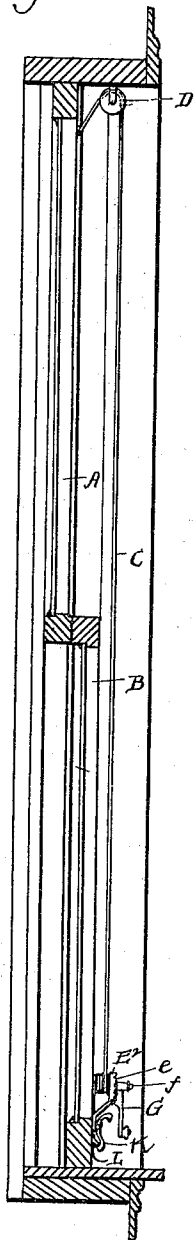


Fig. 2.

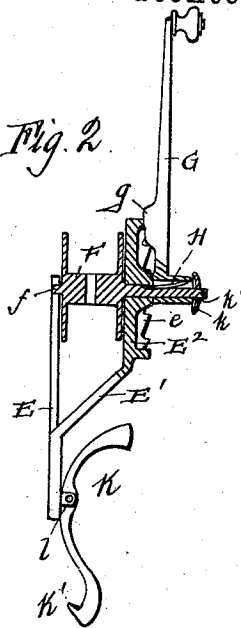
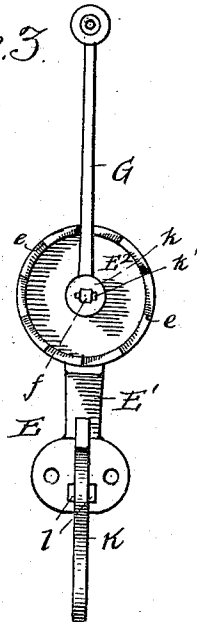


Fig. 3.



WITNESSES

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SASH BALANCE AND HOLDER.

SPECIFICATION forming part of Letters Patent No. 550,752, dated December 3, 1895.

Application filed April 20, 1895. Serial No. 546,491. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MILLER GLICK, a citizen of the United States, and a resident of Milnesville, in the county of Augusta and State of Virginia, have invented certain new and useful Improvements in Adjustable Center Sash-Balances; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical section of the invention. Fig. 2 is a sectional view in detail of the arm and bracket or operating mechanism, and Fig. 3 is a face view of same.

The object of this invention is to provide a combined sash balance and lock of simple character by means of which either one or both of the sashes may be moved to and held at any desired point; and the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claim.

Referring to the accompanying drawings, the letters A and B designate, respectively, the upper and lower sashes of a window, to which I have shown the invention as applied.

C designates a cord or small wire cable which is securely fastened at one end to the upper rail of the upper sash at the central portion thereof, from whence it is carried up and over a small pulley D, attached to the window-casing, and thence down to the lower rail of the lower sash, where it is made fast to a spool-and-ratchet device now to be described.

E designates a bracket formed at its lower end with a perforated-plate portion, by means of which it is attached to the sash-rail. Said bracket has also the oblique arm E', which projects inward from the sash and carries at its end a circular plate E², which is parallel with the base portion of the bracket. The inner face of this plate is provided with a peripheral series of ratchet-teeth *e*. F is a flanged spool whose shaft or axis *f* is journaled in the base portion and plate E² of the bracket, its inner end being extended for some distance beyond said plate for the attachment of a

crank-lever G. This projecting portion is squared to fit a corresponding opening in the eye of the lever. This opening is, however, sufficiently larger than the squared portion of the shaft to permit the lever a slight play, for the purpose presently to be described. On said lever is a swell or enlargement *g*, which forms a pawl for engagement with the ratchet-teeth of the plate E². Seated in the eye of the lever and upon the squared portion of the shaft is a spring H, the action of which throws the pawl *g* into engagement with the ratchet-teeth.

The crank-lever is made detachable, being secured on the shaft by means of a washer *k* and pin *k'* or other suitable means.

K designates a locking-lever which is pivoted between lugs *l* of the attachment portion of the bracket. The lower arm of this lever is shaped to form a catch K', which, when the lower sash is entirely closed, engages a suitable plate or seat L on the sill and locks the sash against movement. The opposite end of this lever is shaped to form a convenient bearing for the hand or finger to release the lock and without releasing from the hand or finger to move the sashes on their balance.

When either sash is moved up or down without operating the crank, the device acts merely as a connection between the two sashes whereby they balance each other. When both sashes are closed and it is desired to raise the lower one, the crank-lever is turned, which winds the cord C on the spool and raises said sash, the upper one remaining stationary. The ratchet and pawl lock the spool and secure the raised sash in the desired position.

When it is desired to lower the upper sash, the lower one remaining closed, the crank is turned in the opposite direction, unwinding the cord from the spool. In order to turn the crank backward, it is necessary to draw the pawl out of engagement with the ratchet-plate by pulling the crank toward one's self, this being permitted by the play in the eye of the crank above referred to. As soon as the crank is released, which may occur accidentally, owing to a slip of the hand, the spring throws the pawl back into engagement with said ratchet-plate.

I attach the spool-and-ratchet device to the

lower rail of the lower sash for the reason
that this rail is always the broadest and
strongest and is never raised beyond the
reach, and also because the lower sash can
5 then be locked by the lever K, and the upper
sash works more freely and better. As this
lever locks of its own accord, the lower sash
will always be locked when it is entirely down.
At the same time the upper sash is securely
10 locked by means of the cord or wire cable.

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

15 In a sash balance, the combination with a
cord fastened at one end to the upper sash
and having a bearing on the window casing
above the sash, of a ratchet and spool device
to which the opposite end portion of the cord
is attached, said device being secured to the

lower rail of the lower sash, and consisting 20
of a bracket having a ratchet plate, a spool
journaled in said bracket and having an ex-
tended shaft, a crank lever secured on said
shaft extension and capable of a rocking
movement thereon, said lever having an in- 25
tegral pawl adapted to engage the teeth of
said ratchet plate, a spring in the eye of said
lever arranged to normally hold said pawl in
engagement, and a pivoted, self-locking lever
attached to said bracket and adapted to en- 30
gage a seat or catch of the sill when the lower
sash is closed, substantially as specified.

In testimony whereof I affix my signature
in presence of two witnesses.

JOSEPH MILLER GLICK.

Witnesses:

J. T. ROBSON,

D. S. LONG.