

(No Model.)

J. N. STALLINGS.
SASH BALANCE.

No. 511,030.

Patented Dec. 19, 1893.

Fig. 1.

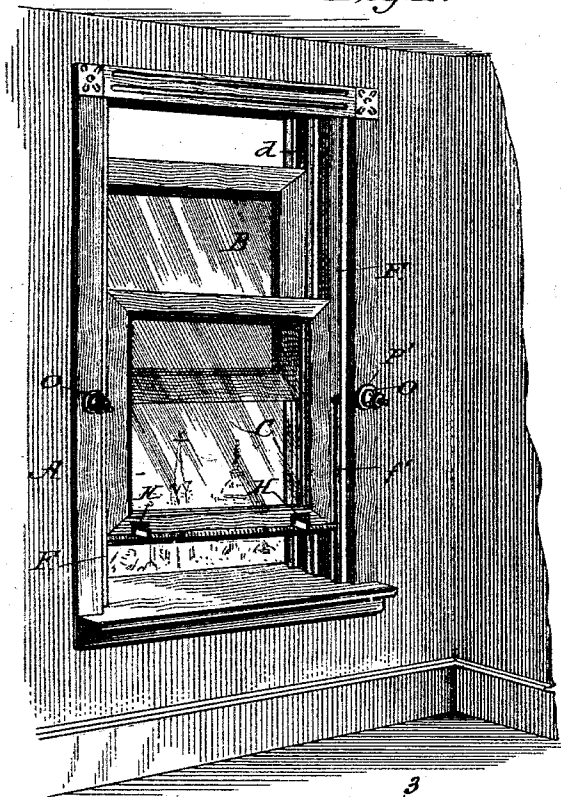


Fig. 2.

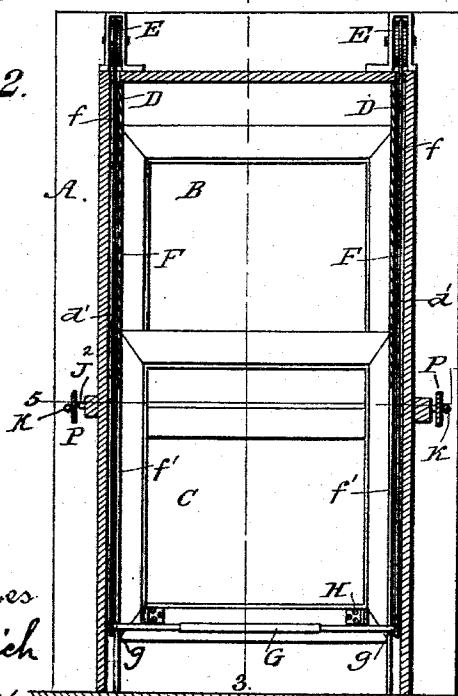


Fig. 3.

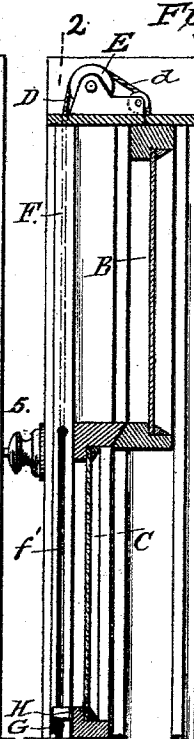
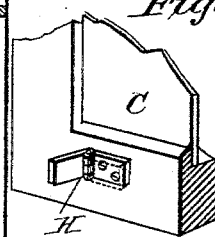


Fig. 4.



Witnesses
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JOHN NICHOLAS STALLINGS, OF HIGH POINT, NORTH CAROLINA.

SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 511,030, dated December 19, 1893.

Application filed November 25, 1892. Serial No. 453,091. (No model.)

To all whom it may concern:

Be it known that I, JOHN NICHOLAS STALLINGS, residing at High Point, in the county of Guilford and State of North Carolina, have invented certain new and useful Improvements in Sash-Balances, of which the following is a specification.

My invention refers more particularly to that class of sash balances in which the upper and lower sashes are connected in such a manner as to counterbalance each other, and it has for its object to provide in connection with such balanced sashes, suitably arranged mechanism whereby the two sashes can be readily connected to operate in unison, or disconnected, so that they can be operated independently.

The invention consists in the peculiar combination and novel arrangement of parts as described in the specification and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a window, with my improvements applied. Fig. 2 is a sectional elevation of the same taken on the line 2—2 in Fig. 3. Fig. 3 is a transverse vertical section thereof, on the line 3—3, Fig. 2. Fig. 4 is a detail view hereinafter referred to.

Referring to the accompanying drawings, A indicates the window casing, which is of the usual construction; B the upper, and C the lower sash, which sashes are supported on the sash ropes D, one end *d* of each of which is connected to the upper sash, while the opposite ends of such ropes are connected with the lower sash in the manner most clearly shown in Figs. 1 and 2. By reference to such figures it will be noticed that the free ends *d'* of the ropes D after they pass over the supporting sheaves E, extend down to the rear of the inner guide strips F, such strips being grooved on their rear faces as at *f*, such grooved strips forming ways for the ropes, and entirely incasing the same; thereby not only protecting such ropes, but also holding them in their proper position. The lower halves of the beads or strips F are slotted on their front faces as at *f'* to receive the ends *g* of the combined connecting and pull bar G, such ends being connected to the lower ends of the rope sections *d'*. By this construction it will be observed that the pull rod is always held from

any lateral (outward) movement, as its ends are guided by the slotted strips F, and as such ends are connected with the rope ends *d'* inside such hollow strips F, it is manifest that the danger of the bar becoming disconnected from the sash rope is entirely avoided.

Upon the lower end of the lower sash C are pivotal lugs H (see Fig. 6) which, when closed in, are out of the path of the vertical movement of the pull bar G, but when operated outward, as shown in Figs. 1 and 3, form stops which the bar G engages as shown. When such lugs H are turned outward as stated, it will be readily seen that the upper and lower sashes become connected, they balancing each other. It is therefore obvious that by pushing the rod G upward, the upper sash will be lowered in proportion to the elevation of the lower sash, and by pulling such rod down, the upper sash will be raised while the lower sash will drop by gravity, it being obvious that as such sashes counterbalance they will remain at any position to which they may be adjusted, so long as they are connected in the manner stated. When it is desired to operate the upper sash independent of the lower sash, the pivotal lugs H are closed inward as shown in dotted lines in Fig. 4 which will allow for a free movement of the upper sash, which movement is regulated by the pull upon the bar G, and after such sash is adjusted as desired it may be held in place by a suitable lock bolt J².

From the foregoing description taken in connection with the drawings it will be noticed that very simple and effective means are provided for counter balancing the sashes, adjusting them together or independently, and housing the lower end of the sash cord and the point of its connection with the operating bar.

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

1. In a sash balance, the combination of the upper and lower sashes, the supporting sheaves, the cords having one end secured to the upper sash, a pull-bar secured to the opposite or free ends of such cords, and operating in front of the lower sash, end guides for such bar, adapted to hold such bar from outward movement, and stops on the lower sash

projected over such bar, all substantially as and for the purpose described.

2. In a sash balance, in combination, the upper and lower sashes, the supporting sheaves, the sash cords suspended therefrom, their rear portions connected to the upper sash, the front guide strips, having recessed rear faces adapted to receive the front sections of the sash cord, said strips slotted at their lower ends, a pull bar having its ends extended in the slotted guide strips and connected to the free ends of the sash cords and the stops on the lower sash projected over the said pull-bar, all substantially as and for the purpose described.

3. In a sash balance, the combination with the upper and lower sashes, the sheaves, the

sash ropes, connected at one end to the upper sash, a pull-bar connected at its ends with the free ends of the sash cord, end guides for such pull-bar arranged to hold such bar from outward movement, and stops on the lower sash projected over the pull-bar, said stops having a pivotal connection with such sash whereby they can be closed inward against such sash, and be out of the path of movement of the said pull-bar, substantially as and for the purposes described.

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

JOHN NICHOLAS STALLINGS.

Witnesses:

W. C. JONES,

EUGENE M. ARMFIELD.