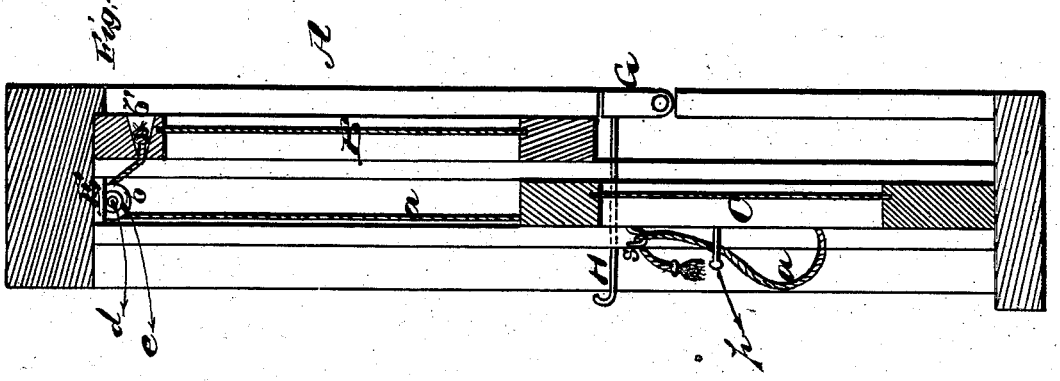
N. J. SKAGGS.

SASH-BALANCES.

No. 192,024. Patented June 12, 1877.

Fig. 2.



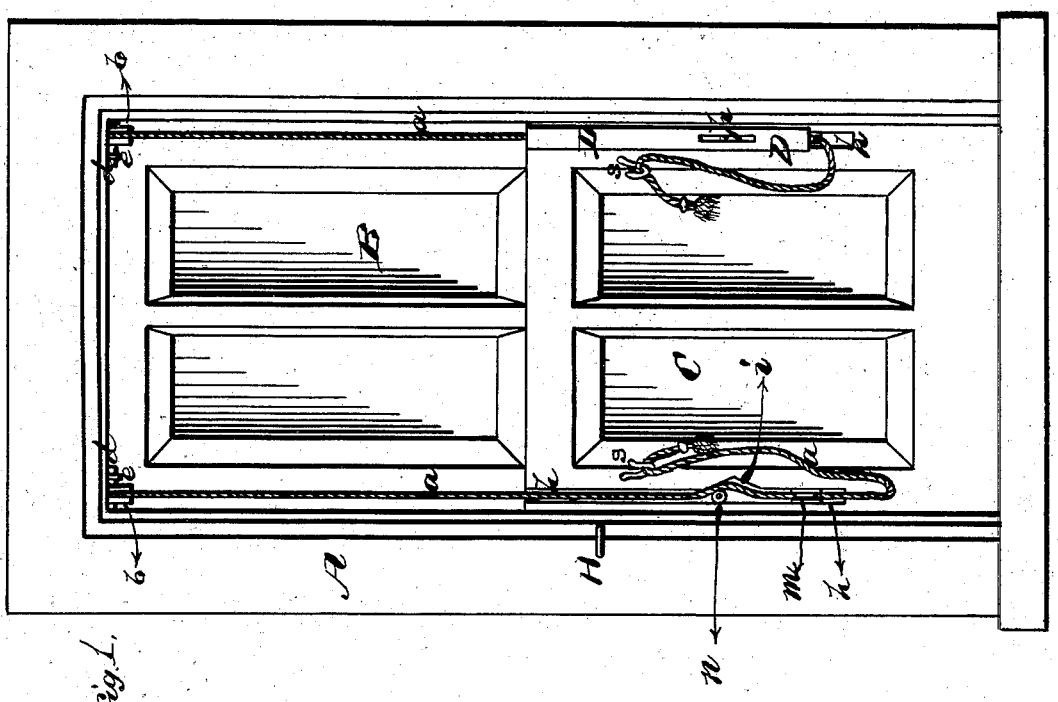


Fig. 1.

WITNESSES.

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NEWTON J. SKAGGS, OF TALLADEGA, ALABAMA.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **192,024**, dated June 12, 1877; application filed May 5, 1877.

To all whom it may concern:

Be it known that I, NEWTON J. SKAGGS, of Talladega, in the county of Talladega and State of Alabama, 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front view of my sash-balance, and Fig. 2 is a transverse vertical sectional view of the same.

The nature of my invention consists in the novel construction, combination, and arrangement of parts in a sash-balance, as will be hereinafter more fully set forth and definitely claimed.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the window-frame; B, the upper sash, and C the lower sash, constructed in any of the known and usual ways.

a a are the two hoisting and balancing cords, which are passed horizontally through holes *b' b'* made in the side rails of the upper sash near the top. These holes are made tapering from the outside inward, so as to take in a knot on the ends of the cords *a*, to prevent the same from pulling out in consequence of the weight of the sash. The cords then pass over wooden pulleys *b b* in each corner at the top of the window-frame A. These pulleys are secured by means of wires *d* passing through them into the frame, the inner ends of the wires being held by staples *e* driven through blocks E into the frame. From the pulleys *b* the cords *a* then pass downward into grooves *h* made in the front of the side rails of the lower sash C, and out under pulleys *m*, arranged in the lower ends of said grooves.

In one side of each groove *h* is made an inclined recess, *i*, into which the cord is pressed by means of a gravitating-roller, *n*, said roller being provided with a pin, *p*, that acts as a handle projecting from the end of the roller through a longitudinal slot in a strip, D, that is fastened to the lower sash and covers the groove *h*. The friction of the cords *a*, caused by passing over the rollers *n* out of a direct line, causes said rollers to press the cords hard against the walls or sides of the inclined recesses *i*, as any motion of the cords either upward or downward causes said rollers to revolve, which makes a self-acting roller catch or clamp. The lower ends of the cords *a* are then passed upward and suspended on hooks *s s*, to be out of the way while working the sash up and down.

The operation is as follows: Take hold of the lower sash and raise the same, when the top sash will come down as the bottom one goes up, and stop at any point where ventilation is desired; but, before commencing to work the sash at any time, take the cords *a* off from the hooks *s* and bring their ends together, pulling them slightly with the left hand at right angles from the lower pulleys *m*, which will take the weight of the top sash off from the rollers *n*. Then, with the right hand, take hold of the roller-handles *p* and press them slightly upward, which causes the pressure of said rollers to come evenly and regular on the cords. The object of this is to make both cords of the same length between the lower rollers and pulleys *b* at the top, for otherwise the sash would not work plumb, and might bind in the frame.

To raise the lower sash, take the cords in the right hand and pull slightly at right angles, as before mentioned, so as to bring the top sash B hard up against the window-frame at the top. This top sash is supported and held firmly in place by turning a stop, G, inward under its bottom edge. This stop is pivoted in the window-frame and operated by a rod, H, from the inside, as shown. Now, with one or both hands, pull the cords at right angles, and the bottom sash will go up, the top one remaining firm in its place. If, at this point, ventilation is desired at the top of the window, the stop G is pushed back and the bottom sash raised by hand, when the top sash will come down to correspond.

To let the lower sash down, bring the stop G under the top sash, as before, and take the cords, one in each hand, close to the sash, and, with a finger, press down the roller-handles *p*, which takes the pressure off of the cords,

and then allow the cords to slip through the hands until the sash is down. Then adjust the cords the same as before, and push back the stop G, when the sashes are both ready to balance again.

The rollers *n* are preferably made of hard wood, and slightly fluted to make them bite hard on the cords.

The pulleys *b m* may be made of wood or metal, as preferred.

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

1. The combination of the sash C, having grooves *h* and inclined recesses *i*, the cords *a*, rollers *n*, with handles *p*, slotted covering-strips D, and pulleys *m*, all substantially as and for the purpose set forth.

2. The stop G and handle H, arranged in combination with the top sash B and suitable balancing devices, as and for the purpose set forth.

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

NEWTON J. SKAGGS.

Witnesses:
J. A. HUEY,
JESSE PEACOCK.