J. J. PRICE.

Sash-Balances.

No. 163,407. Patented May 18, 1875.

Fig. 1.

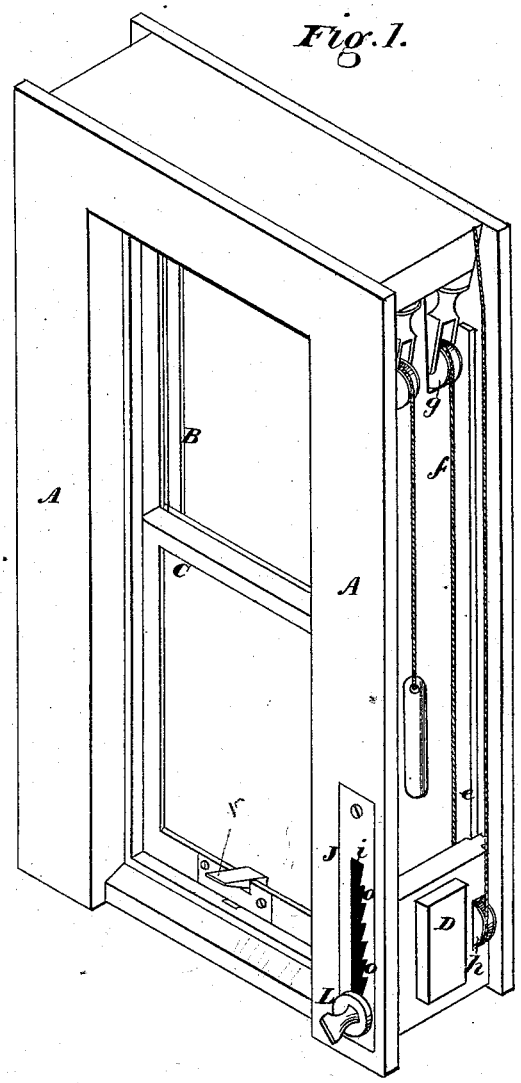
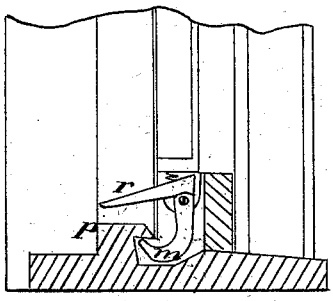
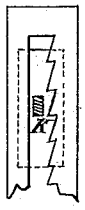


Fig. 2.





Witnesses

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UNITED STATES PATENT OFFICE.

JOHN J. PRICE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO PHILO N. TRYON, OF SAME PLACE.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **163,407**, dated May 18, 1875; application filed April 2, 1875.

To all whom it may concern:

Be it known that I, JOHN J. PRICE, of San Francisco city and county, State of California, have invented Improvements in Operating and Locking Window-Sash; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

The object of my invention is to provide an improved arrangement for raising, lowering, and locking the upper sashes of windows. My improvement consists in so arranging one of the weights which assist in balancing the upper sash that it will operate as a slide inside of the window-casing, and then applying the force to raise and lower the weight, instead of applying it to the sash. As the weights exactly balance the sash when hanging freely in the casing, the lifting or lowering of the slide-weight will raise or lower the sash.

My improvements are fully represented in the accompanying drawings, in which—

Figure 1 is a perspective view of my device. Fig. 2 is an enlarged section of a part of the device.

A is the casing of a window. B is the upper and C the lower window-sash. The upper sash B is balanced by two weights—one on each side of the casing. One of these weights, D, I arrange to slide up and down in ways *e* in the lower part of the casing. The cord *f*, which connects the sash B with this weight, passes over a pulley, *g*, in the top of the casing, in the usual way, and is then carried down under the pulley *h* in the sliding weight D, and thence is carried up inside of the casing to the top of the window-frame, where it is fastened. The weight-pulley will then travel in the bight of the cord, and will only have to rise and lower a little over one-half the distance in order to raise and lower the sash that it would if the end of the cord were attached directly to the weight D. The weight in the opposite side of the casing is suspended in the ordinary way. In the facing of the casing A, directly in front of the sliding weight D, I make a vertical slot, I, which is as long as the weight D will have to travel in order to raise and lower the sash. A metal plate, J, which is slotted to correspond with the slot in the casing, is sunk into the outside of the casing, so as to be flush with its outside face, and one edge of the slot in this plate is provided with teeth *o*, as shown. The shank K of an ornamental button, L, passes through the slot, and is fastened to the sliding weight D inside of the casing, while the button L remains on the outside. The shank K is so constructed that by turning it to one position it will move up and down freely in the slot, but by giving it a half or quarter turn in either direction it will lock into the teeth *o* and fasten the weight firmly in place. Now, as the sash is balanced by the two weights, very little power is required to raise and lower it, and this power I apply to the sliding weight D through the button L and its shank K.

By turning the knob or button L its shank is released from the teeth, when a slight upward or downward pressure applied to the button will raise or lower the weight and upper sash to any desired point, where it can be again locked by turning the button, so that it cannot be opened farther until the weight is released; and as the weight travels in the bight of the cord a short movement of the button up or down will completely raise or lower the sash, thus bringing it within the reach and power of the merest child to raise and lower the upper sash.

This arrangement avoids the trouble of having to raise the lower sash in order to reach outside and grasp the lower rail of the upper sash to lower and raise it.

Where three or more sashes are placed in one window-opening the upper sashes can all be balanced and operated by sliding weights, as described for my upper sash; and in this case the sliding weights which operate the different sashes can be placed on opposite sides of the window.

The slot I can be made on the inside face of the casing, if preferred, and the locking-shank inserted through it and fastened in the weight,

as above described; but this can be arranged according to convenience.

It is not absolutely necessary that the lifting-weight should slide in ways, but it is much preferable to so construct it.

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

1. In combination with a balanced sash, the shank K, passing through the slot O in the casing, and fastened to the weight D inside of the casing, and provided with the button or handle L on the outside of the casing, substantially as and for the purpose described.

2. In combination with the sliding weight D and lifting-button L, operating through a slot, O, in the casing, the slotted rack-plate J and locking-shank K, substantially as and for the purpose described.

JOHN J. PRICE.

Witnesses:
GEO. H. STRONG,
JNO. L. BOONE.