

J. B. Mulvey,

Sash Balance.

N<sup>o</sup> 64,441.

Patented May 7, 1867.

Fig. 1

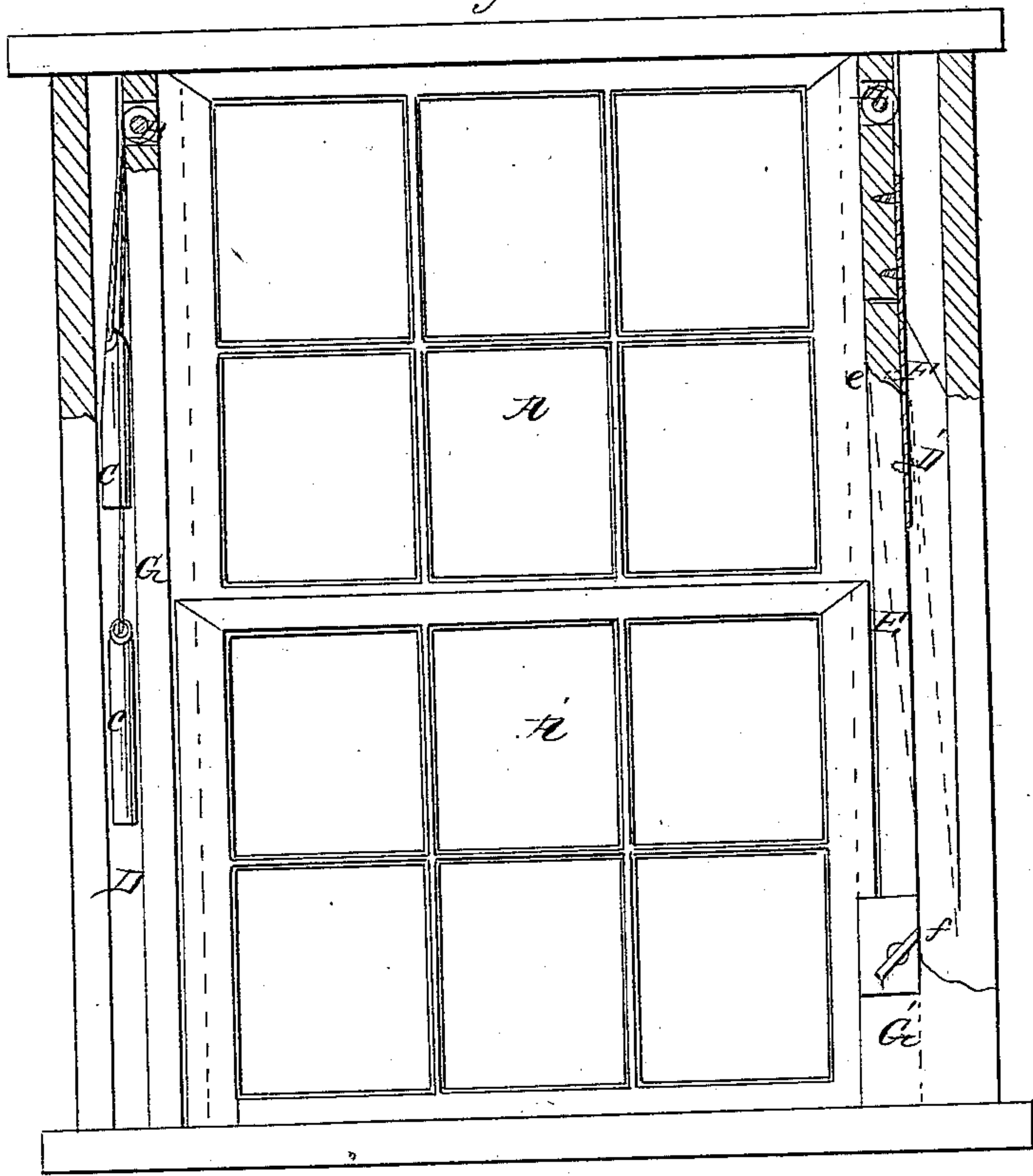


Fig. 2

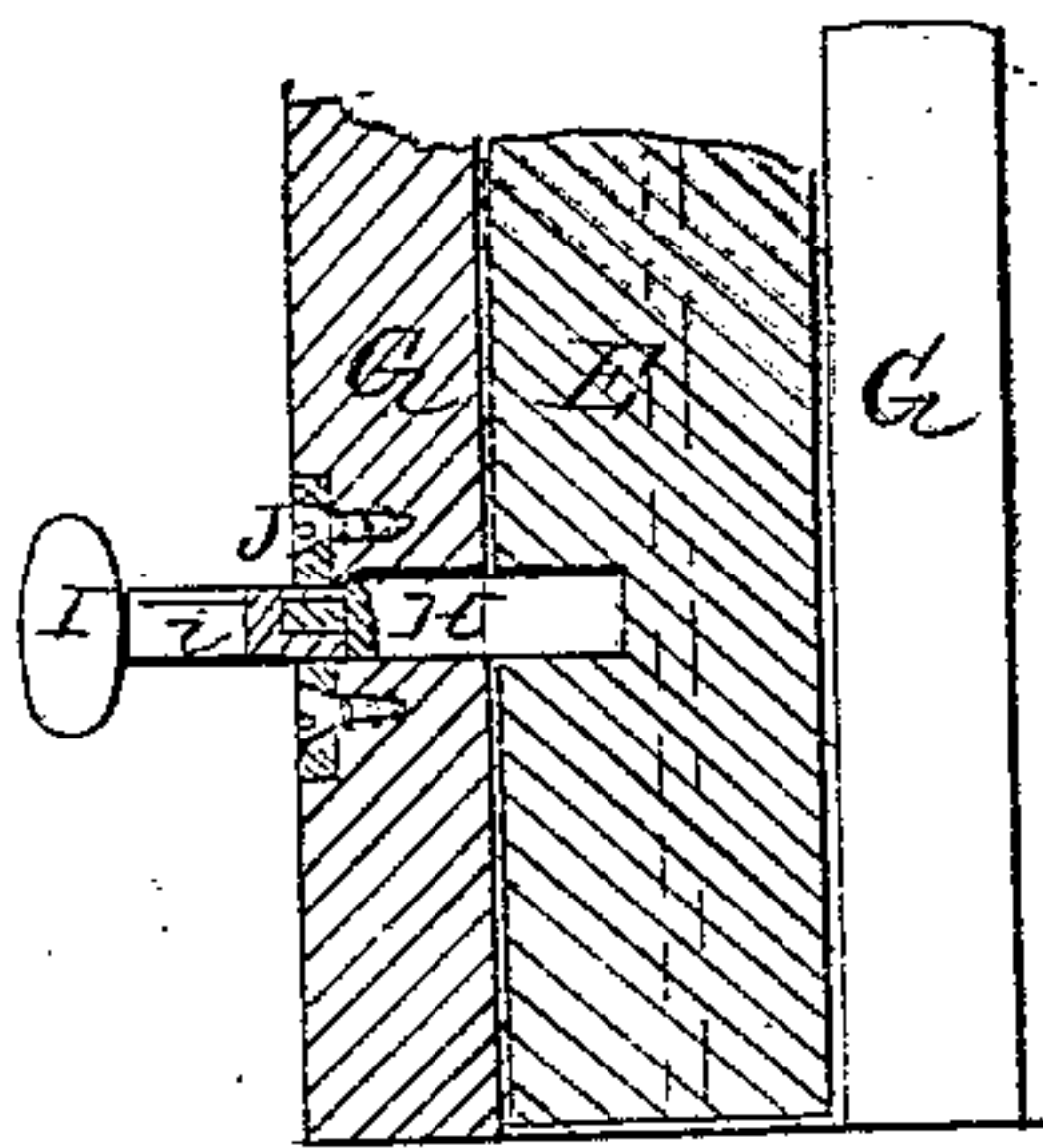
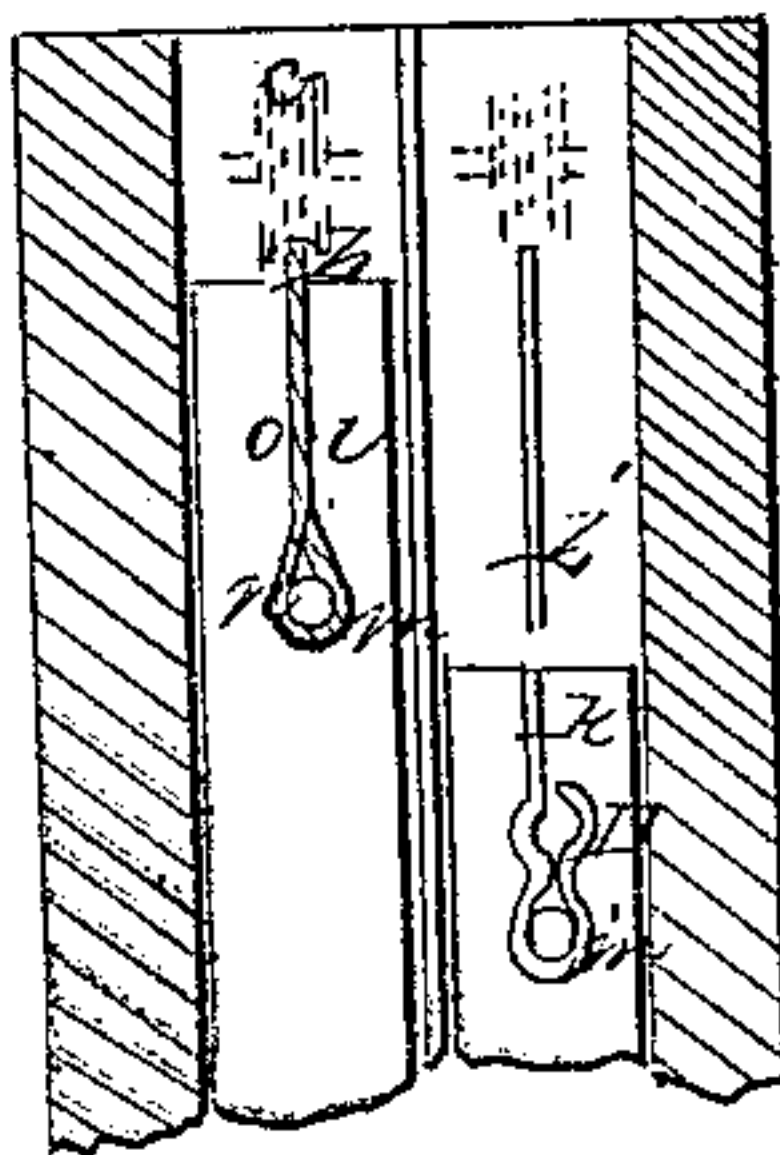


Fig. 3



Witnesses.

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# United States Patent Office.

JOHN B. MULVEY, OF VISALIA, KENTUCKY.

Letters Patent No. 64,441, dated May 7, 1867.

## IMPROVEMENT IN WINDOWS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO WHOM IT MAY CONCERN:

Be it known that I, JOHN B. MULVEY, of Visalia, Kenton county, Kentucky, have invented certain new and useful improvements in Windows; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

My invention is designed principally as an improvement on the common box-frame window, whose sashes are suspended or counterbalanced by means of cords and weights depending from pulleys, and the first part of my invention consists in the provision of a pulley-stile whose lower end, on withdrawal of a bolt or catch, is susceptible of being pressed backward sufficiently to permit the removal of either or both sashes without disturbing either the "stops" or the "parting strips," which stops may, in my arrangement, be, and indeed preferably are, in one piece with the jamb. The second part of my invention consists in a construction of locking-bolt and key, which secures against the unlocking of the strip by mischievous persons. The third part of my invention relates to an improved mode of securing the cord to the sash.

Figure 1 is a vertical section of the frame in the plane of the sash, the latter being in elevation.

Figure 2 is a section at right angles to the above at that part of the box which contains the locking-bolt.

Figure 3 is an edge view of the upper portion of the sashes, exhibiting the attachment of the cords.

A A' are two customary window-sashes, suspended over pulleys B B' by means of weights C C' working in pockets D D', the said pockets being excavated in a solid piece of wood, instead of being framed together in the usual manner. E is a pulley-stile having a rib or tongue *e* to divide the two sashes, and divided transversely near its upper end, the two portions being connected by a metallic spring, F, enabling the lower portion to be pressed back into the pocket, as shown by dotted lines. The stile on the other side G is a portion of the solid window-frame, which is recessed to receive the two sashes, and mortised near the top to receive the pulley B, while on the other side the frame G' consists of two pieces, one on each side of the pulley-stile, lapping over the sash and holding it fast without the usual strips. The sashes are inserted or removed only at the lower portion of the frame by pressing back the movable stile until the sash slips into the opposite recess, when it is held in place by the spring E and secured as follows: A square hole, *f*, in the lower end of the stile E, receives a square locking-bolt, H, which moves in a corresponding aperture traversing the frame G', (see fig. 2,) and has a screw-threaded tongue, *h*, at its outer end to engage with a female screw in the end of a round key, *i*, having a head, I, by means of which it is operated. The bolt H, when pushed in, holds the pulley-stile immovable, and when withdrawn into the frame admits of the stile being pressed back to remove or insert the sash. A metal cleat, J, is attached to the frame G', having a round aperture for the key *i*, through which the square bolt H cannot escape, and the stile being secured and the key removed the locking-bolt is inaccessible except to the possessor of the key. The outer edge of each sash has near its top a groove, *k*, in which are two circular recesses *l m*, the lower one, *m*, having in its centre a flat-headed pin, *n*. The cords *b b*, which support the weights, have, at their ends, knots *o o*, which are fitted into the upper recesses; the cords then pass down around the pins *n n'* and return in the grooves, holding the knots in position by the pressure of the tightened cords which is assisted when the sash is in position by the pressure of the stile, but when the sash is taken out the cord is at once easily cast off by slackening it.

I claim herein as new, and of my invention—

1. The combination of the solid window-frame G G', spring pulley-stile E, and locking device H I *i*, substantially as shown and set forth.
2. The locking device composed of the square bolt H, removable key I *i*, and cleat J, as set forth.
3. Attaching the cords of the weights to the sash by means of the grooves *k k*, the recesses *l l' m m'*, the pins *n n'*, and knots *o o'*, substantially as set forth.

In testimony of which invention I hereunto set my hand.

JOHN B. MULVEY.

Witnesses:

GEO. H. KNIGHT,  
SAMUEL KNIGHT.