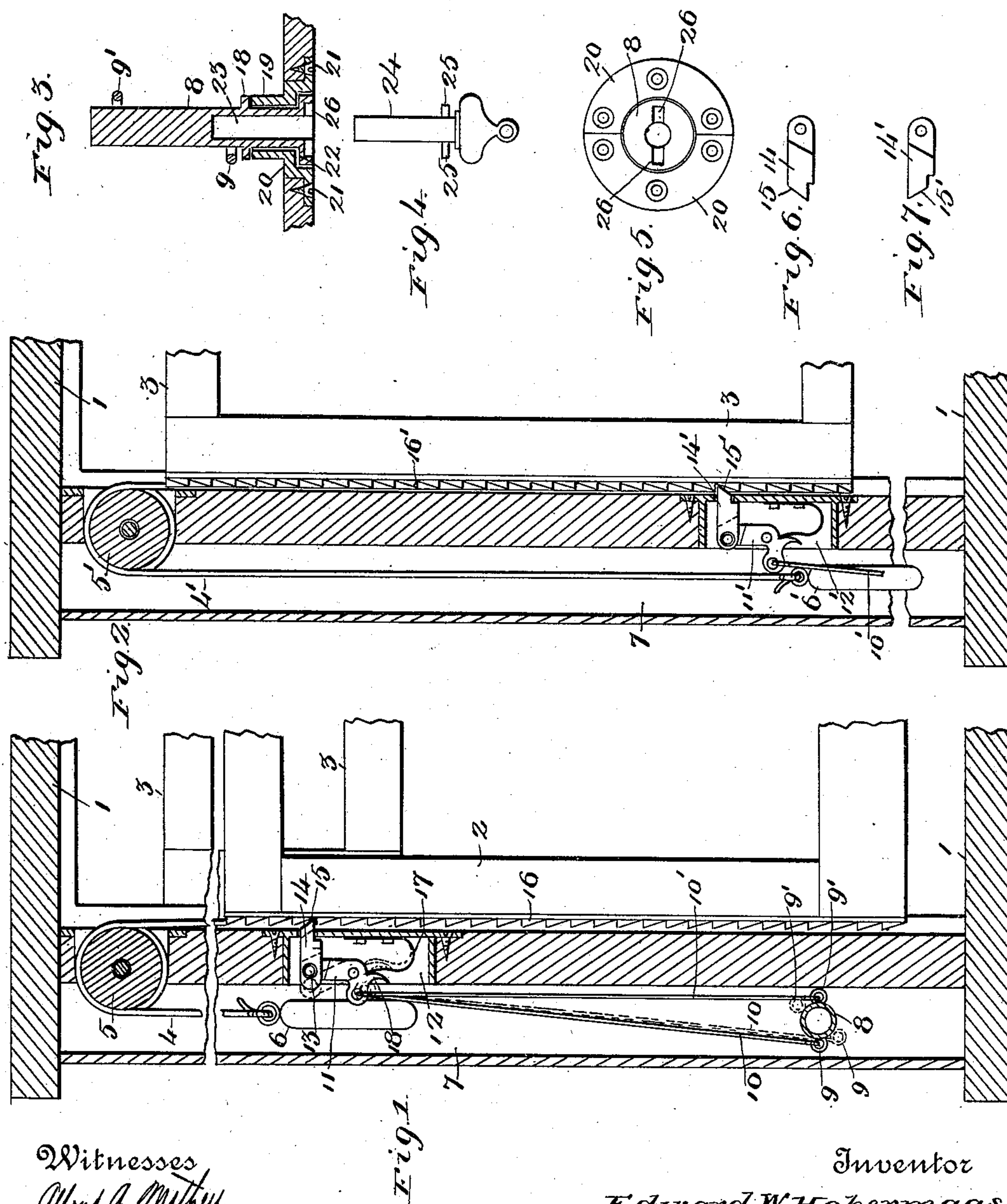


(No Model.)

E. W. HABERMAAS.
SASH LOCK.

No. 604,982.

Patented May 31, 1898.



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EDWARD W. HABERMAAS, OF ST. LOUIS, MISSOURI.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 604,982, dated May 31, 1898.

Application filed March 9, 1897. Serial No. 626,641. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. HABERMAAS, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Sash-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in sash-locks; and it consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a vertical longitudinal section of a window-frame, showing my invention applied to the lower sash. Fig. 2 is a similar section showing the invention applied to the upper sash. Fig. 3 is a sectional detail of the rotatable spindle to which the cords controlling the locking devices for the sashes are secured. Fig. 4 is a detail of the key used for operating said spindle. Fig. 5 is a front elevation of the casing within which the spindle is mounted, and Figs. 6 and 7 are respectively detached views of the locking-latches operating in connection with the lower and upper sashes.

The object of my invention is to construct a sash-lock which upon proper manipulation on the part of the operator will permit the lower sash to automatically move upward to any predetermined height or permit the upper sash to drop any desirable distance, the locks being so constructed that when either sash has been moved to the proper position the latch of the lock will intercept any further movement of such sash and permanently hold and lock the same in position against any attempt to shift or move the same by unauthorized persons.

In detail the device may be described as follows:

Referring to the drawings, 1 represents the window-frame, 2 the lower sash, and 3 the upper sash. The lower sash is provided with a cord 4, passing over a pulley 5, mounted in the frame, the opposite end of the cord carrying a weight 6, operating in the casing 7, located to one side of the frame, as usual, the only difference from the ordinary construction in the present instance being that the

weight 6 more than balances the weight of the sash, whereby the tendency of such weight is to always pull the sash up. The upper sash is likewise provided with a cord 4', passing over a pulley 5' and having a weight 6' at its free end, the sash in this case more than balancing the weight 6', whereby the tendency is always for the upper sash to drop and draw the weight after it. Mounted between the front and rear walls of the casing 7, near the lower end of the frame, is a rotatable or oscillating spindle 8. The periphery of the spindle is provided with two eyes 9 9', located diagonally opposite one another, the eye 9 having secured thereto one end of a cord or wire 10, whose opposite end is connected to the short arm of a pivoted bell-crank or tripping lever 11, mounted in a lateral chamber 12, communicating with the casing 7 and located in the line of the upper rail of the lower sash when closed, the long arm of the said bell-crank being normally vertical. The free end of the long arm of the tripping lever is scarfed and provided with a pin 13, to which is pivotally secured a latch 14, the pivotal or basal portion of the latch being similarly scarfed, so that the latch and long arm of the tripping lever shall be of the same thickness at their pivotal connection as at any other portion of their length. The free end of the latch 14 is provided with a downwardly-inclined locking end 15, adapted to engage the bases of the upwardly-tending series of triangular teeth 16, carried by the side vertical member of the sash. The latch is kept normally in engagement with the teeth by the resilient action of a flexed spring 17, mounted in the chamber 12 and having one end secured to the inner surface of the outer wall of said chamber, the free end of said spring bearing normally against a finger 18, depending from the pivotal point of the tripping lever. The spindle 8 is provided with a collar 18, bearing normally against the base of the reduced tubular inner extension 19 of a sectional casing 20, set into and secured to the window-frame by means of screws 21, the said tubular extension serving as a direct bearing or support for the spindle and embracing the latter between the collar 18 and the outer terminal flange 22 of the spindle. The forward portion of the spindle, or that directly supported by the tu-

bular portion 19, is provided with a socket 23 for the reception of the shank or stem 24 of a key, the processes 25 of which are adapted to enter the depressions 26, radiating from the outer end of the socket 23 along the flange. It is apparent that upon inserting the key into the socket of the spindle until the processes thereof are received by the depressions 26 and then turning the key so as to rotate or oscillate the spindle—for example, in the direction as shown by dotted lines in Fig. 1—so as to draw upon the cord 10, the bell-crank lever will be tripped, so as to draw the locking end 15 of the latch 14 out of engagement with the teeth 16, and the weight 6 will automatically pull the lower sash up to any predetermined height, when the operator upon releasing the spindle will cause the spring 17 to restore the latch to its normal position, the latter engaging the teeth 16 of the sash and preventing the same from being raised farther by the weight 6. The lower sash can of course be drawn down at any time, the upwardly-inclined faces of the teeth 16 readily riding over the bevel locking end 15 of the latch. The other eye 9' carried by the spindle has secured thereto one end of a similar cord 10', whose opposite end is secured to the bell-crank or tripping lever 11', pivoted in the lateral chamber 12', also communicating with the casing 7, and located in the line of the lower rail of the upper sash when closed.

From the arrangement of the eyes 9 9' it is apparent that when the key is turned to rock the spindle in a direction to pull on one cord the other cord will remain slack, and vice versa, so that either one lever 11 or the other 11' can be tripped according to the pleasure of the operator, and one or the other sash is thus controlled. The upper sash 3 of course works similarly to the lower one, but reversely thereto—that is to say, it is provided with teeth 16' tending downwardly, the locking-latch 14' therefor having a locking bevel end 15', inclined upwardly, so that when the latch is disengaged from the teeth by the tripping of the lever 11' the said sash, being heavier than the weight 6', will drop until intercepted by a release of the locking-latch. The

upper sash can of course be readily closed, as the teeth 16' freely ride over the upwardly-inclined locking end 15' of the latch 14'. In each case the teeth 16 16' form a part of a suitable plate carried by the vertical lateral member of the sash.

It is apparent that minor changes might be made in the construction without departing from the spirit of my invention.

Having described my invention, what I claim is—

1. In a sash-lock, a lower sash a weight in connection with the same, and heavier than said sash, an upper sash a weight in connection with same and lighter than said sash, a series of teeth carried by each of said sashes a bell-crank tripping lever for each of said sashes and located in proximity to the latter, a latch pivoted to one arm of each of the tripping levers and having respectively upwardly and downwardly inclined locking ends cooperating with said teeth springs cooperating with the bell-crank levers, a rocking or rotatable spindle, means for rotating the spindle, and cords connecting the periphery of the spindle with the bell-crank tripping levers, whereby the rocking of the spindle in either direction will release either one of the latches from its locked position allowing the upper sash to fall automatically, or the lower sash to automatically move upward.

2. In a sash-lock, a suitable spindle, a socket for the same, radiating depressions at the outer end of the socket, a collar carried by the periphery of the spindle, a terminal flange surrounding the outer end of the socket, a casing carried by the frame and having a tubular reduced extension embracing the spindle between the collar and the terminal flange, said socket and depressions being adapted to receive the shank and processes of a key, respectively, for rotating the spindle, substantially as set forth.

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

EDWARD W. HABERMAAS.

Witnesses:

EMIL STAREK,

ALFRED A. MATHEY.