

No. 754,452.

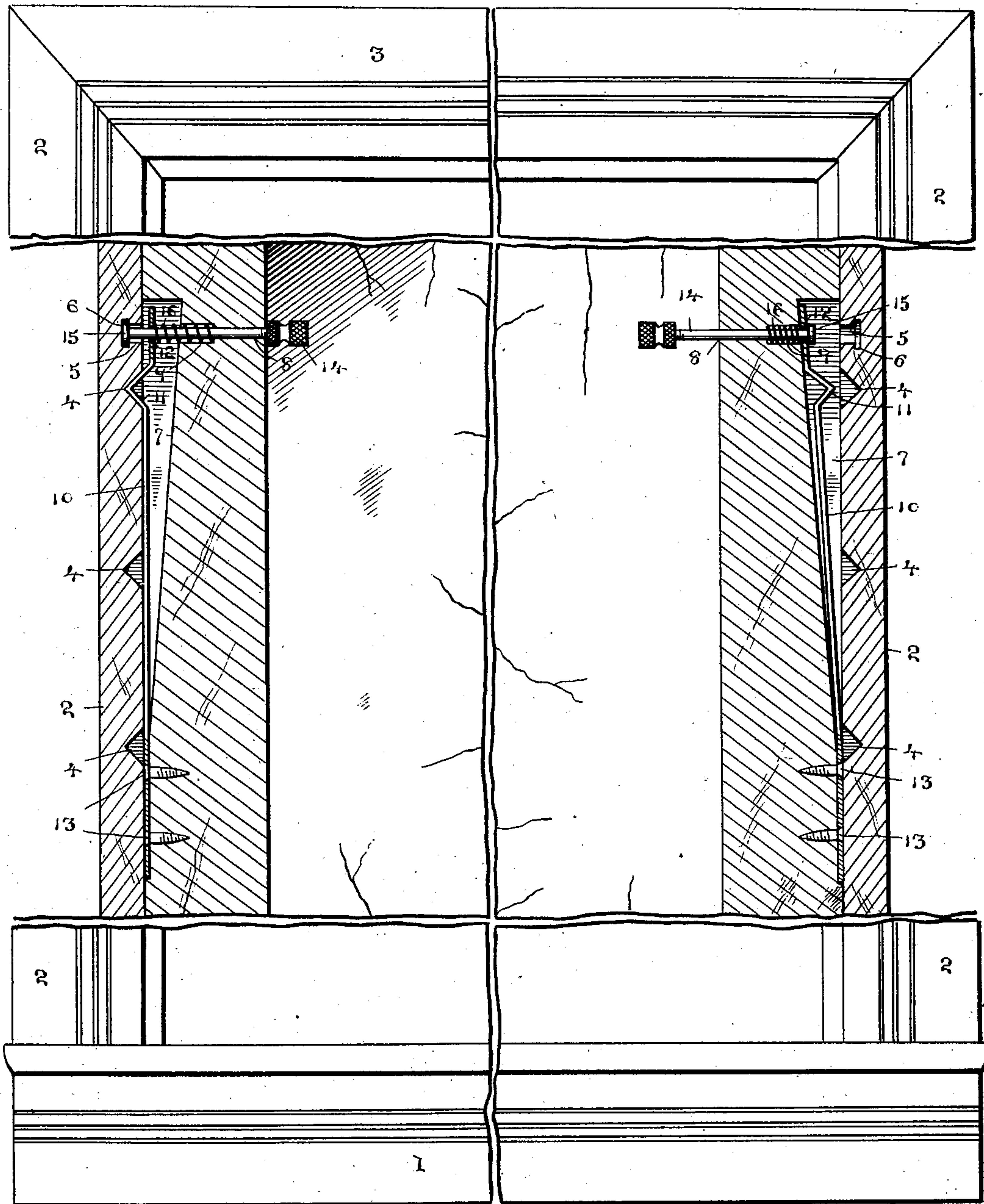
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O. E. HOWE.

SASH HOLDER AND LOCK.

APPLICATION FILED APR. 20, 1903.

NO MODEL.



Inventor

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SASH HOLDER AND LOCK.

SPECIFICATION forming part of Letters Patent No. 754,452, dated March 15, 1904.

Application filed April 20, 1903. Serial No. 153,494. (No model.)

To all whom it may concern:

Be it known that I, ORWIN E. HOWE, a citizen of the United States, residing at Washington city, in the District of Columbia, have invented certain new and useful Improvements in Sash Holders and Locks, of which the following is a specification.

My invention relates to improvements in sash holders and locks; and the object is to provide a device of the kind named and for the purpose stated which is simple in construction, readily applied, certain in action, and efficient in attaining the purposes of maintaining the sash at any desired point and of locking it against movement. The device also is intended to prevent the sash from shaking or rattling.

It may be stated that the device may be applied and adapted to any ordinary window of common construction and arrangement, the cord-grooves in the sash being utilized as seats for the holding-springs and notches being made in the faces of the sash-grooves in the stiles of the window-frame.

The invention embodies a holding-spring, an auxiliary spring to insure the engagement of the holding-spring, and a pin or bolt for holding and to lock the sash closed or in any other positions to which it may be moved.

I have fully and clearly illustrated my invention in the annexed drawing, to be taken as a part of this specification, and wherein is shown a window-frame partly in broken vertical and horizontal sections and showing the sash and stiles in vertical section.

Reference being had to the drawing, 1 designates the base or lower window-sill, 2 2 the stiles, and 3 the top rail or piece. These may all be of any well-known make and style and of any dimensions to form the window-space required or desired.

In instances where the device is applied to use on sash provided with the usual cord-grooves it may be attached by securing the lower portion of the holding-spring to the sash just below the cord-knot socket and leaving the body of the spring extend upward free to act in the cord-groove; but when the spring is to be applied to sash without the cord-grooves the sashes are made with seats in the

edges to provide space for the action of the holding-springs, as will be hereinafter specified.

In the sash-channels of the stiles of the frame between the guide cleats or ribs are made notches 4, disposed at proper intervals, as shown, in which the crimp or bend of the holding-spring engages to hold the sash in the position to which it may be moved, and at opposite points in the stiles are formed sockets 5 5, having annular or oval grooves 6 at their bases, wherein the heads of the locking-bolts engage when pushed inward to lock the sash against movement. The sockets 5 are located at points which will, as indicated in the drawing, permit the sash to be locked at the limits of their movement; but it is apparent that similarly-located sockets may be provided at other points and the sash thus be locked in different positions.

In the side rails of the sash are formed seats 7, which gradually deepen from their lower ends to the upper ends, as shown, to provide the requisite space for the movement of the holding-springs. Transversely through the side rails of the sash adjacent to the upper ends of the seats 7 are formed passages 8, which are in alinement with the sockets 5 in the stiles of the frame. The inner portions of the passages are enlarged for a distance, as at 9, for a purpose hereinafter stated.

10 designates the sash-holding springs arranged and secured to the outer-edge faces of the side rails of the sash. These springs consist, preferably, of flat pieces of spring metal of suitable length and strength to suit the purposes and are formed with crimps or bent projections 11, adapted to engage in the notches 4 and hold the sash in the position to which it may have been raised. In the upper end portions of each holding-spring is an aperture 12, through which the locking-bolt loosely slides. The springs are secured in position by any suitable fastenings, as by screws 13, projected through their lower end portions, as shown, and are arranged with their bodies overlying the seats or recesses 7.

14 designates the locking-bolts slidably disposed in the passages 8 and constitute means for disengaging the holding-springs from the

notches in the stiles in case it becomes necessary and also to lock the sash in position to which it may be moved or lock it when moved clear down or the upper sash when moved to its upper limit. These locking-bolts are provided with suitable detachable finger-holds on their outer ends and at their inner ends are formed with an annular or oval shoulder 15, which when the bolt is pushed home in the socket 5 moves down by the weight of the sash or by turning the locking-bolt half round and engages in the annular or oval groove 6, and thus locks the bolt against accidental displacement or outward movements. On the locking-bolts within the sockets 9 are arranged expanding springs 16, having one end lodged in the socket and the other bearing against the holding-spring, as seen in the drawing. These springs 16 act only to assist the force of the holding-springs to insure their engagement with the notches 4, and they do not have any effect or action upon the locking-bolts, which pass loosely through them.

It will be readily perceived from the foregoing description, taken in connection with the illustration, that the device is readily applied in place, that it will act to hold the sash in desired position, will prevent the sash from rattling or shaking, that owing to the removable or detachable interengagement of the holding-springs with the notches 4 the sash may be moved up or down without manipulation of the springs. It will also be perceived that the locking-bolts keep the holding-springs from lateral displacement in their movements and also maintain the springs 16 in alignment with the movements of the parts associated at this point.

The operation is apparent, the parts or elements being assembled and secured as shown in the drawing, wherein the illustration on the left shows the locking-spring in engagement and locking-bolt projected into the socket in locking position. In this condition of the parts all that is necessary to do preliminary to lifting or lowering the sash is to pull the locking-bolts outward until the inner end is free from the socket, and then the sash may be moved freely, and it will be held at any point desired by the bent projections of the holding-springs entering the notches in the

stiles. The locking-bolts may be placed by removing the heads and then passing them through the springs and sash-rails and then replacing the heads.

The device is applicable to all kinds of windows wherein the sash moves vertically, such as the usual house-windows and car-windows.

Having thus described my invention, what I claim is—

1. The combination of a window-frame formed with notches in the sash-channels and locking-sockets, the window-sash, springs secured to the sash and formed with projections to engage the said notches, and locking-bolts passed loosely through the side rails of the sash and the free ends of the springs and arranged to engage in the said locking-sockets.

2. The combination of a window-frame formed with notches in the sash-channels and locking-sockets having annular or oval grooves in their bases, the window-sash formed with seats in the edges of the side rails, holding-springs secured in the said seats and formed with projections to engage in the said notches, locking-bolts passed loosely through the side rails of the sash and free ends of the springs and formed with heads on their inner ends to engage in the locking-sockets and the annular or oval grooves at the base thereof.

3. The combination of a window-frame formed with notches in the sash-channels and locking-sockets having annular or oval grooves in their bases, the window-sash formed with seats in the edges of the side rails, holding-springs secured in the said seats and formed with projections to engage in the said notches, locking-bolts passed loosely through the side rails of the sash and the free ends of the springs and formed with heads on their inner ends to engage in the locking-sockets and the annular or oval grooves at the base thereof, expansive springs mounted loosely on the locking-bolts and arranged to bear against the holding-springs.

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

ORWIN E. HOWE.

Witnesses:

I. M. FALLON,
M. T. MILLER.