

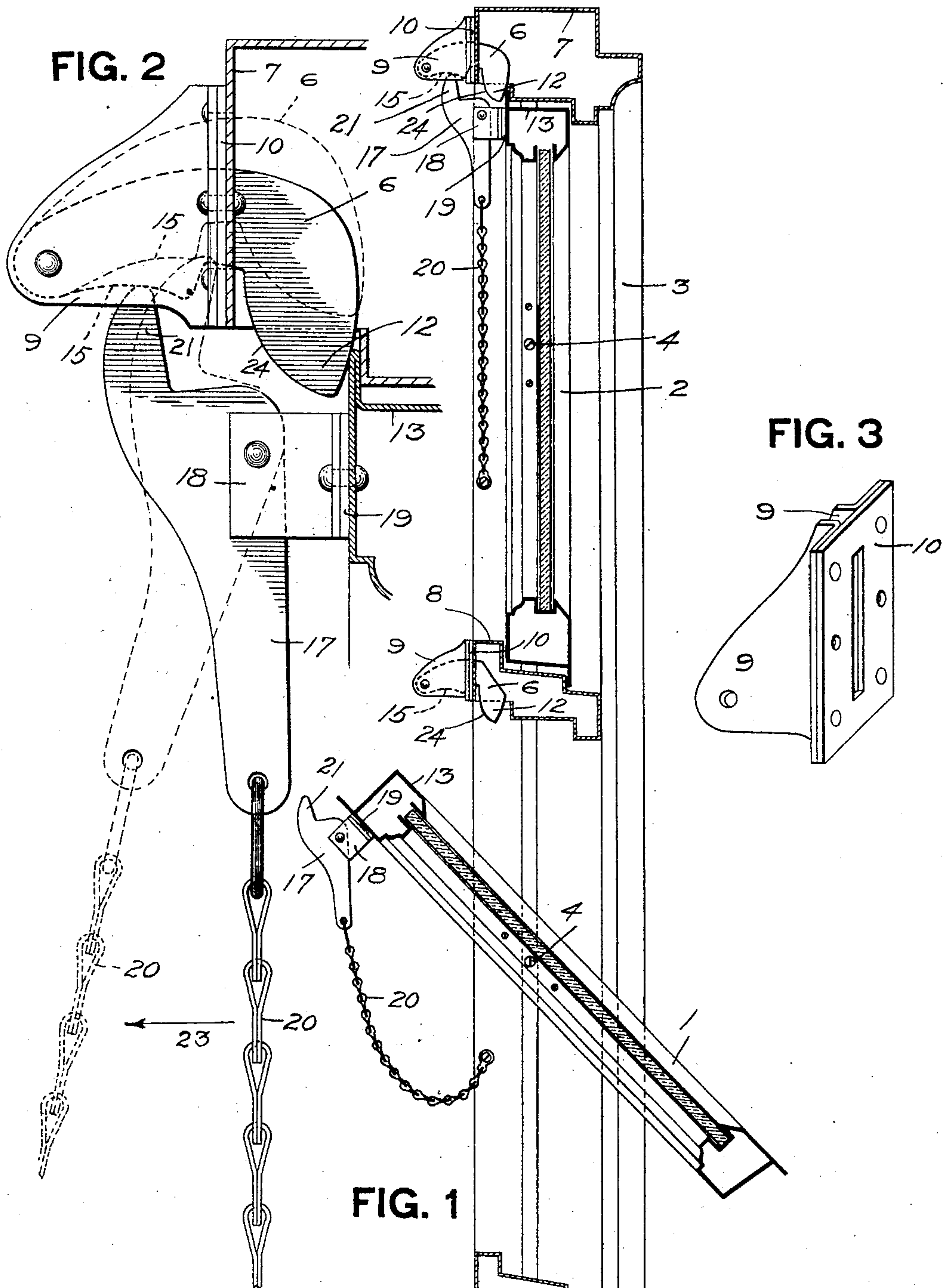
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W. H. MULLINS & W. C. HARE.

SASH LOCK.

APPLICATION FILED DEC. 28, 1904.



WITNESSES.

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WILLIAM H. MULLINS AND WILL C. HARE, OF SALEM, OHIO.

SASH-LOCK.

No. 803,302.

Specification of Letters Patent.

Patented Oct. 31, 1905.

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To all whom it may concern:

Be it known that we, WILLIAM H. MULLINS and WILL C. HARE, residents of Salem, in the county of Columbiana and State of Ohio, have
5 invented a new and useful Improvement in Sash-Locks; and we do hereby declare the following to be a full, clear, and exact description thereof.

Our invention relates to sash-locks, and
10 more especially locks for heavy windows which are mounted to swing on trunnions or pivots.

The object of our invention is to provide a lock for this character of window and means
15 for unlocking the same which will serve also to start the opening movement of the window.

In many fireproof buildings the windows are provided with metallic sashes and otherwise are very heavy. Many such windows are
20 mounted to swing on horizontal pivots or trunnions. If such heavy windows bind in their jambs or frames, it requires considerable power to start the same in their opening movements.

Our invention is intended especially for windows of the character just described; and the object is to provide a simple and strong lock for the sashes thereof and which is so arranged that the unlocking of the window will
25 also start the same in its opening movement.

To this end the invention consists, generally stated, in a lock comprising two members, one of which is a locking-dog and is mounted on the window-frame and the other being an
30 unlocking-lever mounted on the sash and adapted to engage the dog and move it out of engagement with the sash and then to come into engagement with the frame and act as a lever to start the sash in its opening movement.
40

The invention also consists in details of construction which will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a
45 vertical section through a window-frame, showing our invention applied thereto. Fig. 2 is a similar view of a portion thereof on an enlarged scale, and Fig. 3 is a perspective detail view of a portion of the sash-lock.

Our invention has been shown applied to a window having a lower sash 1 and an upper sash 2, although it will apply to a window having a single sash. These sashes are mounted in the frame 3 upon horizontal trunnions
50 or pivots 4 and in opening swing on said pivots, as indicated on the lower portion of

Fig. 1. The sashes and frames may be of the usual or any desired construction, those shown in the drawings being made of pressed sheet metal, as is now the practice with fireproof
60 constructions. This, however, forms no part of the present invention.

The sash-lock comprises a locking-dog 6, which for the upper sash is mounted on the upper portion or lintel 7 of the window-frame
65 and for the lower sash is mounted upon a cross-bar 8. This locking-dog is pivoted between a pair of ears 9, secured to a base-plate 19, which in turn is secured to the window-frame or cross-bar. The end of the dog projects through a slot in the plate 10 and projects downwardly, as at 12, to engage the
70 upper rail 13 of the sash or a suitable projection thereon. This dog on its lower edge is provided with a cam-face 15.
75

The interlocking device consists of a lever 17, pivoted between suitable ears 18, secured to a base-plate 19, which in turn is secured to the upper rail 13 of the sash. To the lower
80 end of the lever 17 is connected a suitable chain, cord, rod, or other operating means 20. The upper end of this lever is provided with a finger or projection 21, which is arranged to engage the cam-face 15 on the dog 6.

To unlock the window, the chain or cord 20
85 is pulled in the direction of the arrow 23, thus swinging the lever 17 about its pivot and causing the finger 21 to ride along the cam-face 15 on the lower edge of the dog 6. This causes the inner end of said dog to be
90 raised out of engagement with the upper rail of the window-sash, thus unlocking the latter. The upper end 21 of the lever 17 will then come against the base-plate 10 or other stationary part of the window-frame, and by
95 continuing to pull on the chain 20 this lever will act to pry the window-sash open, so that the sash will be started on its opening movement by a minimum expenditure of power. This is an important consideration, as the
100 friction which must be overcome in starting the window is sometimes quite great. After being started the window will move quite easily.

The lower face 24 of the inner end 12 of the
105 locking-dog is so curved that when the window is swung back to its closed position it will automatically raise the dog and pass beyond the same, and the latter will then by gravity fall down into place and lock the
110 window.

The sash-lock described is simple of con-

struction and can be cheaply manufactured. It not only serves as an efficient sash-lock, but also as a convenient means for starting the opening movement of the window. Various modifications in details of construction can be made without departing from the spirit of our invention.

What we claim is—

1. A lock for swinging sashes comprising a locking-dog movably mounted on the frame and arranged to engage the sash, and a releasing-lever mounted on the sash and arranged to engage the dog and move the same out of engagement with the sash.

2. A lock for swinging sashes comprising a locking-dog movably mounted on the frame and arranged to engage the sash, and a releasing-lever mounted on the sash and arranged to engage the dog and move the same out of engagement with the sash and thereafter to engage a fixed part of the frame and start the sash in its opening movement.

3. A lock for swinging sashes comprising a locking-dog movably mounted on the frame and arranged to engage the sash and provided with a cam-face, a releasing-lever pivoted to the sash and having a projection adapted to engage the cam-face on the dog and move the same out of engagement with the sash.

4. A lock for swinging sashes comprising a locking-dog movably mounted on the frame and arranged to engage the sash and provided with a cam-face, and a releasing-lever pivoted

to the sash and having a projection arranged to engage the cam-face on the dog and move the same out of engagement with the sash and then to contact with a stationary portion of the frame and start the sash in its opening movement.

5. A lock for swinging sashes comprising a member arranged to lock the sash to the frame, and a releasing-lever mounted on the sash and arranged to engage said locking member and move the same to disengage the sash from the frame, and thereafter to engage a fixed part of the frame and start the sash in its opening movement.

6. A lock for swinging sashes comprising a pair of ears secured to the frame, a locking-dog pivoted between said ears and arranged to engage the sash and provided with a cam on its lower face, a pair of ears secured to the sash, an unlocking-lever pivoted between said ears and having a projection arranged to engage the locking-dog and move the same out of engagement with the sash, and actuating means connected to said lever.

In testimony whereof we, the said WILLIAM H. MULLINS and WILL C. HARE, have hereunto set our hands.

WILLIAM H. MULLINS.
WILL C. HARE.

Witnesses:

F. W. WINTER,
ROBERT C. TOTTEN.