No. 701,966. Patented June 10, 1902.

J. H. THORNTON.

SASH LOCK.

(Application filed July 12, 1901.)

(No Model.)

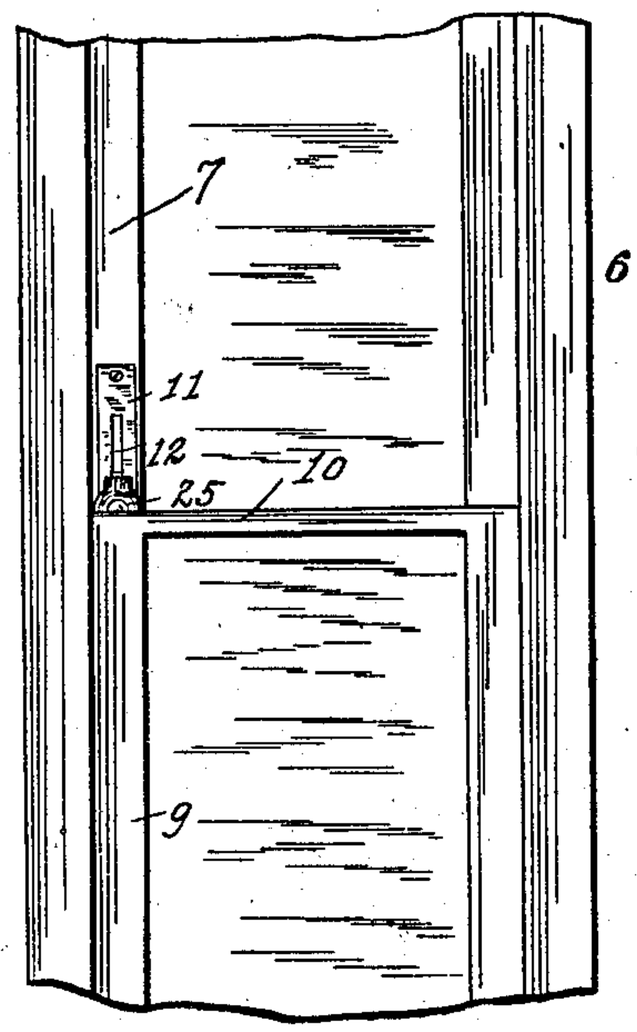

Fig. 1.

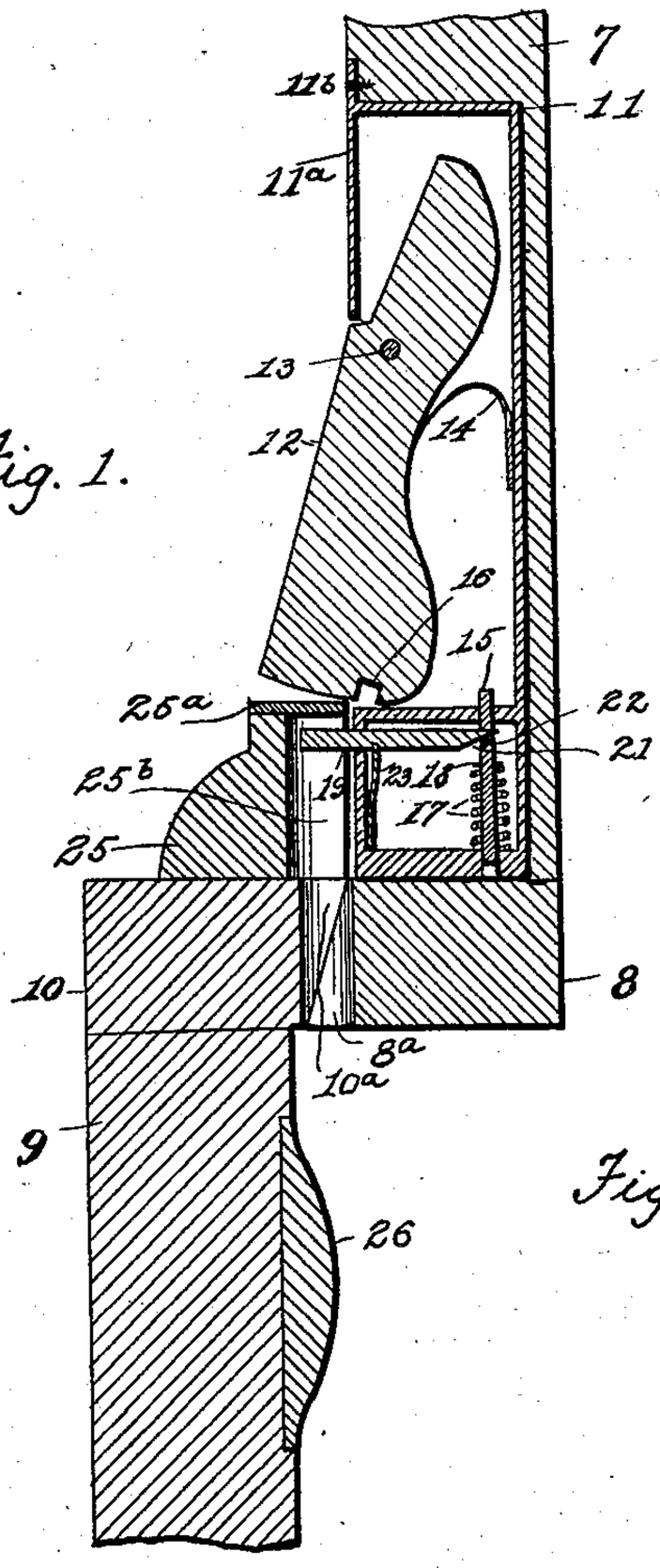

Fig. 2.

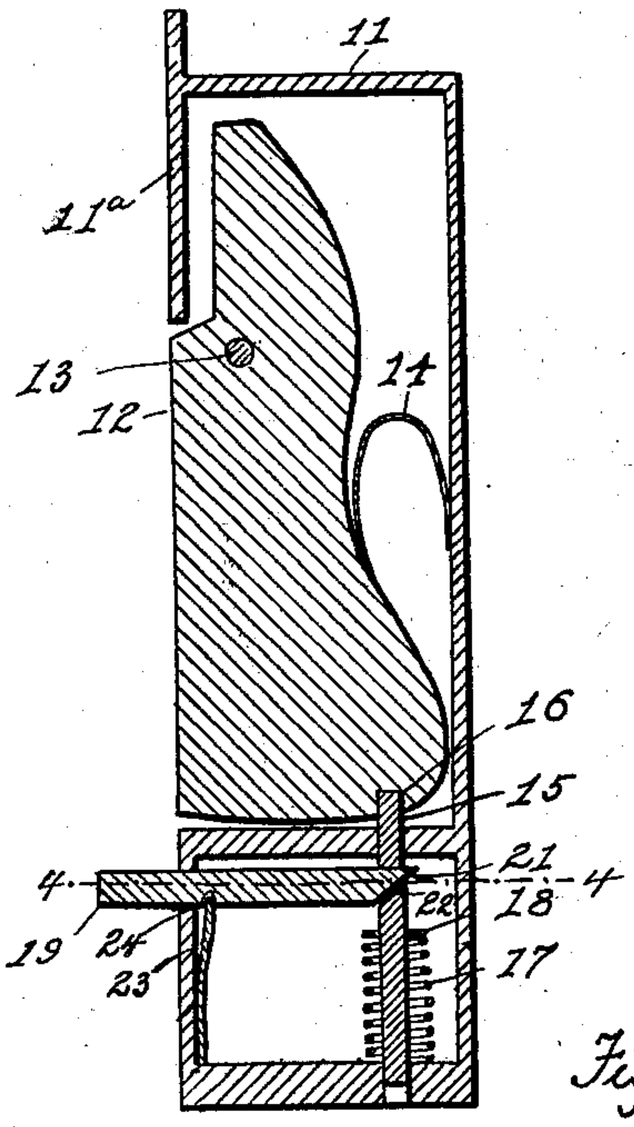

Fig. 3.

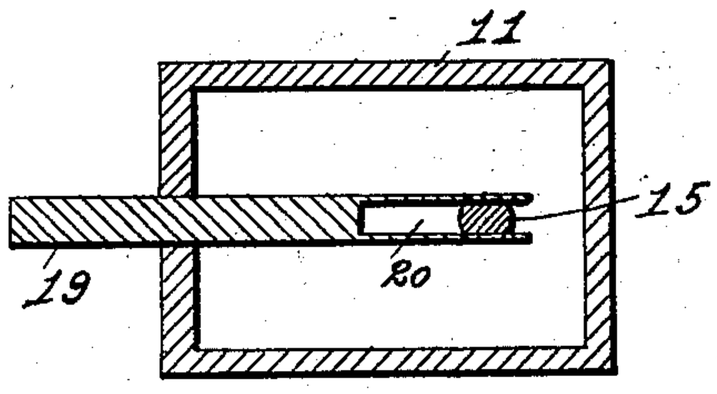

Fig. 4.

WITNESSES:

O. E. Murray.

F. A. Barrod.

INVENTOR

James H. Thornton

BY

Milo B. Stevens & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES H. THORNTON, OF EVANSTON, ILLINOIS.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 701,966, dated June 10, 1902.

Application filed July 12, 1901. Serial No. 68,030. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. THORNTON, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sash-Locks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in sash-locks. Its object is to provide an improved sash-lock which will automatically lock the sashes of a window when they are closed.

A further object is to provide an improved sash-lock by which the sashes may be locked when partly open.

The invention is hereinafter described, and is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a window, partly broken away, showing my invention applied thereto. Fig. 2 is a vertical section of the same. Fig. 3 is a longitudinal or vertical section of the lock detached, on a larger scale. Fig. 4 is a cross-section on the line 4 4 of Fig. 3.

Referring more particularly to the drawings, the side of the window-frame is indicated at 6. The stile of the upper sash is indicated at 7 and the lower rail thereof at 8. The stile of the lower sash is indicated at 9 and the upper rail thereof at 10.

A vertical mortise in the stile 7 of the upper sash contains the lock-proper, comprising a casing 11, seated in the mortise and secured to the stile by screws 11^b, the outer face 11^a of the casing being flush with the face of the stile, and a tumbler or latch 12, which is pivoted to the casing by a pin 13. The latch extends vertically and is pivoted to swing forwardly or outwardly beyond the face of the casing. Behind the latch within the casing is a flat spring 14, held between the latch and the casing, which spring acts to normally throw the latch out. The latch is adapted to be retained within the casing to avoid engagement with the lower sash by means of the vertically-extending yielding bolt 15, the head of which is adapted to enter the socket 16 in the lower end of the latch when it is pressed back into the casing. The spiral spring 17 is wound around the bolt and is retained thereon between the pin 18 and the bottom of the casing and serves to yieldingly force the bolt upward to engagement with the latch. The push-pin 19, extending without the casing, is adapted to force the bolt out of engagement with the latch. The inner end of the push-pin is bifurcated, as at 20, and the bifurcated portions are beveled on their lower sides or edges, as shown at 21. The bolt 15 is cut away on each side, so as to pass between the bifurcated portions of the push-pin, as shown in Fig. 4, whereby shoulders 22 are formed, which bear against the bevel of the push-pin, so that when the pin is pushed in the bolt is forced downwardly against the tension of the spring 17 and the latch 12 is released. A flat spring 23 is secured within the casing and engages in a notch 24 in the push-pin, acting to normally force the pin outward.

Upon the top rail of the lower sash is mounted a block 25, faced by a metal plate 25^a to resist wear, and this block is adapted to be engaged by the latch when the sashes are locked.

To the outer face of the stile 9 of the lower sash is secured a beveled rib 26, which is adapted to slidingly contact with the push-pin 19 whenever the lower sash is raised or the upper sash lowered. The action of this rib is to force the pin 19 inwardly and to release the latch. The rail 8 has a vertical recess or groove 8^a to allow the passage of the rib 26, and the rail 10 has a groove 10^a to allow the passage of the pin 19 during the relative movements of the sashes.

In operation when the sashes are closed the parts are in the position shown in Fig. 2. When the lower sash is to be raised, the catch 12 is pressed in by hand until it is flush with the face of the casing, when it will be engaged and retained by the head of the bolt 15, as shown in Fig. 3. This permits the sashes to be moved, when the rib 26 will come in contact with the pin 19 and force the same in, causing the bolt 15 to be released from the latch and permitting the latter to be sprung outwardly into sliding contact with the outer

face of the stile of the lower sash, in which position it remains until the sashes are closed, when it swings outwardly above the head of the block 25, thereby effectually locking the sashes. It will be seen that whenever the window is opened the latch is automatically released and is in position to engage the lower sash whenever the sashes are closed again, the result being that whenever the sashes are closed they are locked and known to be locked by the fact of being closed. When it is desired to lock the sashes in a partly-open position, as to lower the upper sash for ventilation, the latch is pushed in slightly, enough to avoid the block 25, but not enough to allow the bolt 15 to enter the socket 16, and so retained by the finger until the lower end of the latch passes below the plate 25^a. The latch will then engage the top of the rail 10 in the recess 25^b, formed in the inner face of the block 25 for that purpose.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

In a sash-lock, in combination with a window frame and sashes, a casing in the upper sash, a locking-latch pivoted therein, a spring to project the latch to engage the lower sash, a yielding bolt to engage the latch and retain the same when retracted, a push-pin to actuate the bolt to release the latch, and a rib on the stile of the lower sash adapted to strike and pass the push-pin in either direction when either sash is moved and thereby disengage the bolt and release the latch.

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

JAMES H. THORNTON.

Witnesses:
NELLIE FELTSKOG,
HARRY G. BATCHELOR.