

No. 834,097.

PATENTED OCT. 23, 1906.

C. S. WRAY.
SASH LOCK.

APPLICATION FILED MAR. 15, 1906.

Fig. 1

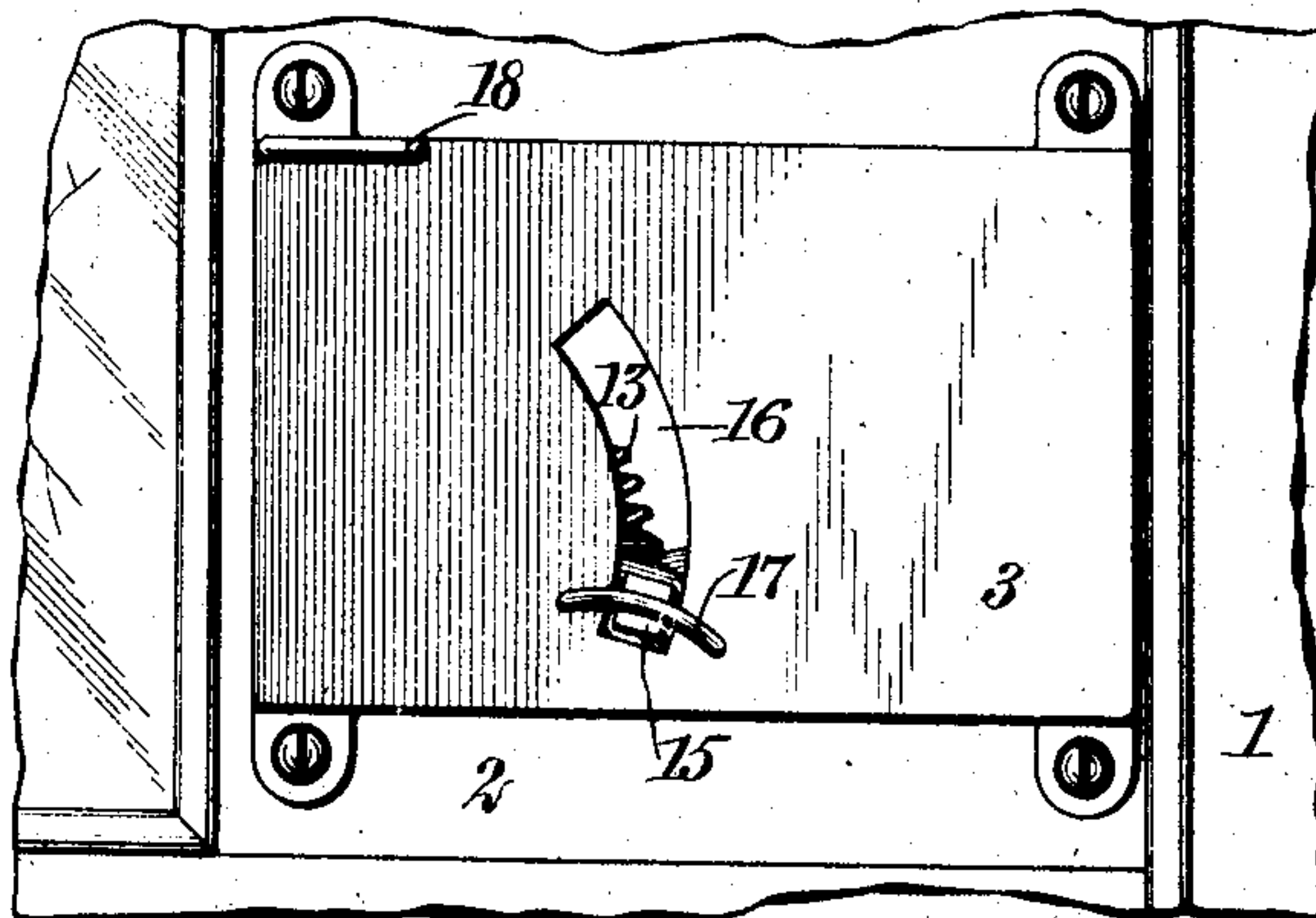
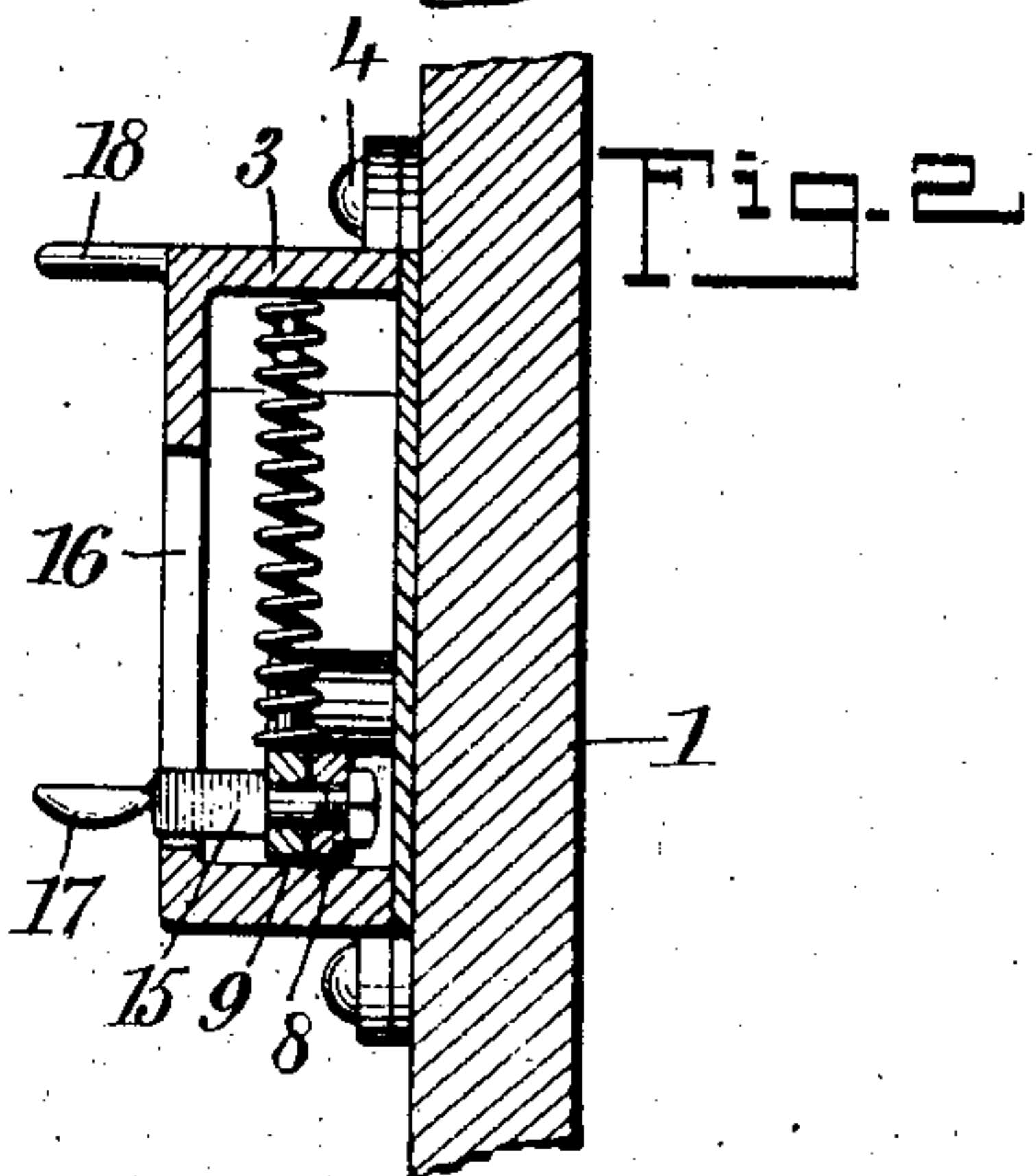
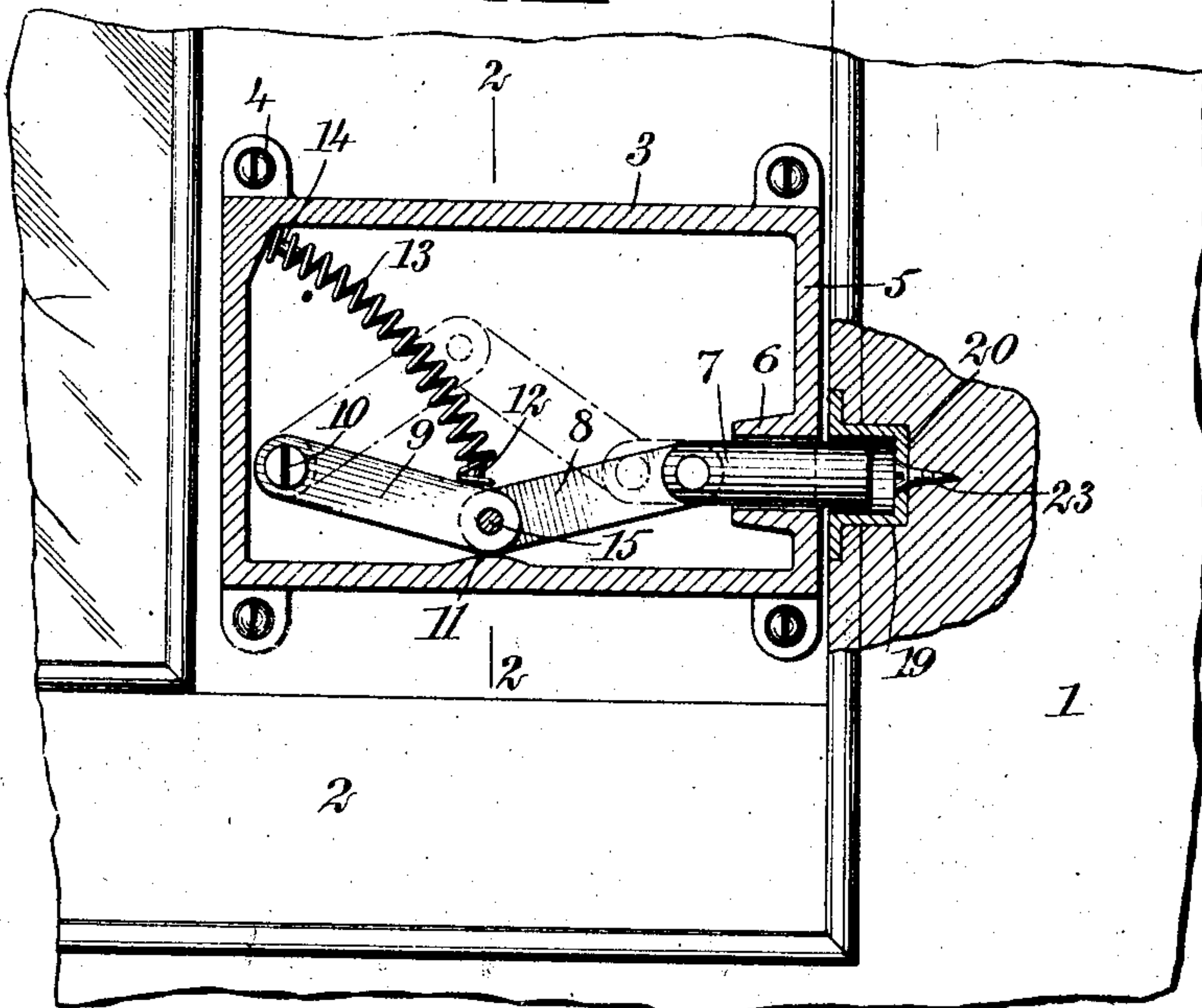


Fig. 3

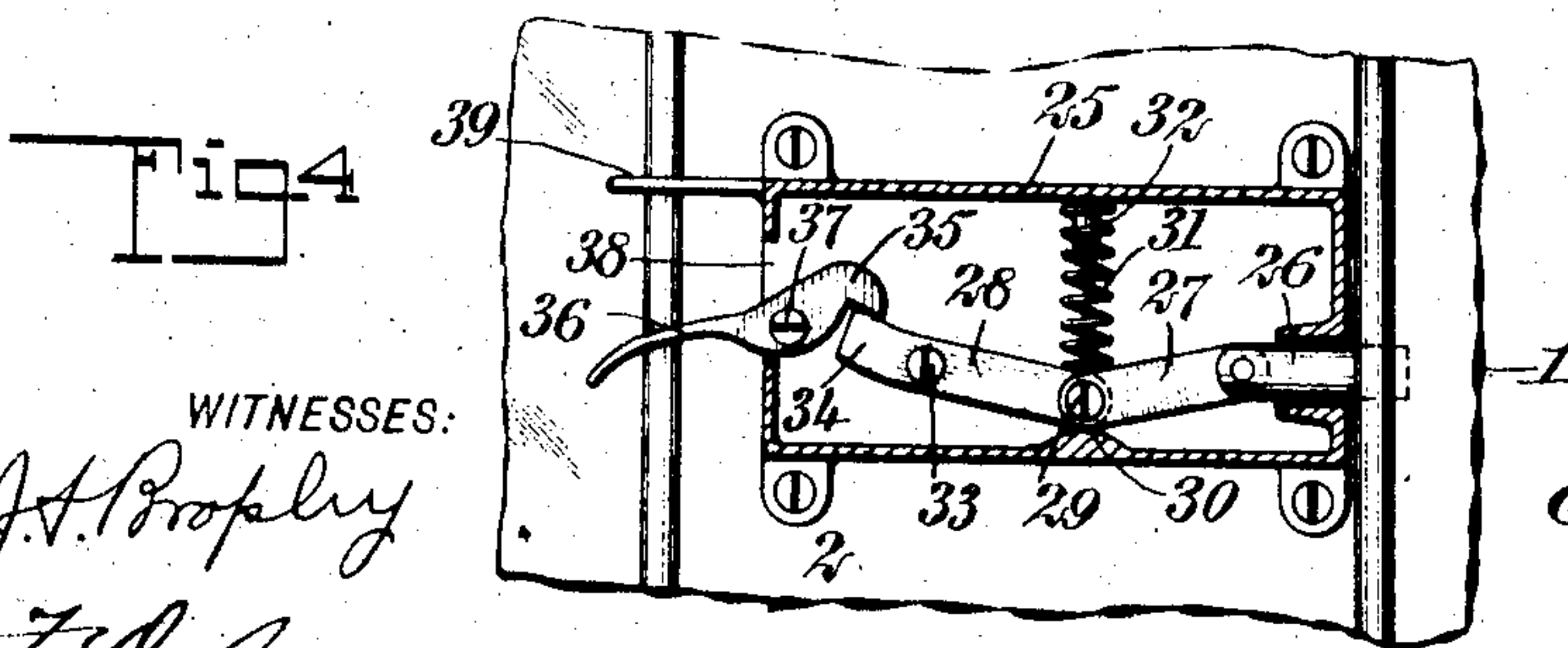
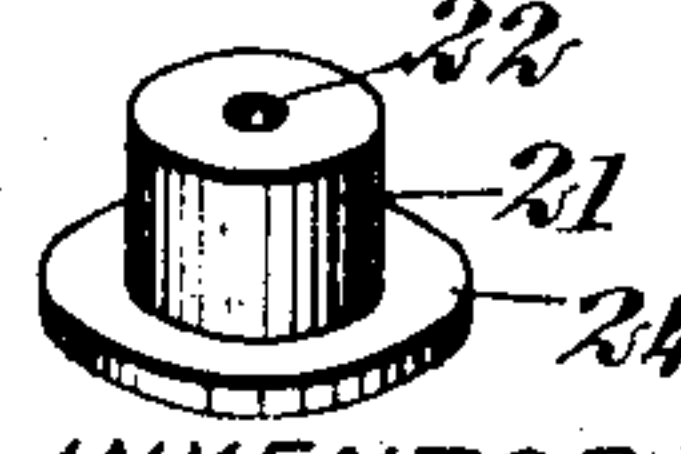


Fig. 5



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CHARLES S. WRAY, OF HIGHLAND MILLS, NEW YORK.

SASH-LOCK.

No. 834,097.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed March 15, 1906; Serial No. 306,136.

To all whom it may concern:

Be it known that I, CHARLES S. WRAY, a citizen of the United States, and a resident of Highland Mills, in the county of Orange and State of New York, have invented a new and Improved Sash-Lock, of which the following is a full, clear, and exact description.

This invention relates to sash-locks such as are used on sliding sashes for locking the same to the window-casement.

The object of the invention is to produce a sash-lock of simple construction which will not become inefficient from wear under constant use.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation showing a portion of a window-casement and the corner of a sash, the sash-lock being represented in cross-section, together with a portion of the window-casement. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1. Fig. 3 is an elevation showing the outer side of the lock and adjacent portions of the sash and casement. Fig. 4 is a view somewhat similar to Fig. 1, but showing a modified construction of the lock; and Fig. 5 is a perspective showing a thimble or keeper which is adapted to be set into the face of the casement.

Referring more particularly to the parts, 1 represents the casement in which the sash 2 is adapted to slide vertically in the usual manner. At a suitable point on the sash 2 the case 3 of the lock is attached by means of screws 4. This case 3 has the rectangular form shown, and the wall 5 thereof, which is disposed near the face of the casement 1, is provided with an opening 6, within which there is mounted a slidable bolt 7. To the inner extremity of this bolt 7, which projects into the interior of the case 3, a link 8 is pivotally attached, and this link attaches at its other extremity to a link 9, which link 9 is attached by means of a pivot-screw 10, to the side of the case 3, as indicated. The said pivot-screw 10 is substantially in alinement with the longitudinal axis of the bolt 7. Just beneath the point of connection of the links 8 and 9 the bottom wall of the case 3 is pro-

vided with a slightly-raised projection or boss 11, and against this boss the links normally rest, as shown in Fig. 1. The link 9 is preferably provided on its upper edge with a pin 12, which projects upwardly and serves as a retainer for a helical spring 13 of arcuate form, the upper extremity of which spring is held in position by means of a downwardly-projecting pin 14, which is mounted in the upper corner of the case 3, above the pivot-screw 10, as shown. The links 8 and 9 are connected by a pin 15, which projects outwardly from the case 3 through a curved slot 16, as indicated in Fig. 3, the said pin being provided with a curved thumb-piece 17. On the outer face of the case, as shown in Fig. 3, preferably at the upper edge and at the extremity remote from the bolt, an outwardly-projecting ear 18 is formed, which constitutes a rest for the finger when the thumb is being applied to the thumb-piece or wing 17, as will be readily understood. With this construction it should be readily understood that by forcing the thumb-piece 17 upwardly the links 8 and 9 may be made to assume the position in which they are shown in dotted lines in Fig. 1, this operation being accompanied by a withdrawal of the bolt 7 into the interior of the case.

At suitable points in the casement 1 I provide recesses such as the recess 19, (shown in Fig. 1,) in which a keeper or thimble 20 is held, as shown. The form of this keeper is very clearly shown in Fig. 5. It consists of a cup-shaped body 21, having a countersunk opening 22 formed in the bottom thereof to receive a fastening-screw 23, the outer edge of the said body being provided with a laterally-projecting flange 24, which is countersunk in the outer face of the casement, as shown. The bolt 7 is adapted to engage the keeper, as indicated in Fig. 1, at which time the window is evidently locked against being opened or shut.

Anticipating that in some instances the sash-lock will be applied where clearance must be allowed for the movement of a second sash or shutter, I may adopt an arrangement such as that shown in Fig. 4. Referring especially to this figure, the case 25 of the lock is of elongated rectangular form, as shown, and is provided with a bolt 26, connected to links 27 and 28, said links being connected by a pin or screw 29 and at their joint being normally held against a boss 30,

similar to the boss 11, against which the links are normally pressed by a helical spring 31 of the form shown, the upper extremity of said spring being held in position by a pin 32, which projects down from the upper wall of the case, as indicated. The link 28 beyond its pivot-point 33 projects so as to form a toe 34, and this toe is adapted to be engaged by a catch 35, formed at the extremity of the finger-lever 36, said finger-lever being pivoted at 37 and projecting through an opening 38 in the rear wall of the case. Evidently by pressing upwardly on the finger-lever 36 the catch 35 will be depressed so as to raise the joint connection between the links 27 and 28, withdrawing the bolt 26, as will be readily understood. In order to facilitate the upward movement of the lever 36, the case 25 is provided near its upper edge with a laterally-projecting finger-piece 39. The connection between the links constitutes a toggle-joint.

Attention is called to the fact that when the joint connection between the links in both forms of the lock is in engagement with the wall of the case, as described, the pivotal connection between the links is below the center line connecting the bolt 7 with the pivot connection of the remote link—that is, the links are in an unaligned relation to each other. From this arrangement any force operating directly upon the bolt to force the same inwardly would be resisted by the case; and, furthermore, whatever be the wear upon the bolt it will always maintain substantially the position in which it is held when the case is first applied to the sash.

Especial attention is called to the keeper 20 and particularly to the fact that this keeper may be applied readily, by means of a single screw, in the manner described. The opening in the cup 21 is sufficiently large to enable the screw-driver to be applied readily, and any force which tended to rotate the keeper could not displace it. In other words, the keeper has an axis of symmetry which is also the axis of the bolt.

Special attention is called to the fact that it is impossible to open the lock except in the manner described. This is considered a marked advantage, as the bolt cannot be forced inwardly by a tool thrust under it.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. A sash-lock having a slidable bolt, a link pivotally attached thereto, a second link having a fixed pivot-point and having a joint connection with said first link, means for normally holding said joint connection displaced laterally with respect to the line joining the remote ends of said links; a member constituting a stop to limit the movement of said joint whereby said bolt is locked against opening by a force acting directly thereupon, and means for moving said joint connection toward and beyond said line to withdraw said bolt.

2. In a sash-lock, in combination, a case, a bolt slidably mounted therein, a link pivotally attached to said bolt, a second link having a fixed pivot-point and having a joint connection with said first link, a spring normally holding said joint connection displaced laterally with respect to the line joining the remote ends of said links and against the side of said case whereby said bolt is locked against opening by a force acting directly thereupon, and means for moving said joint connection toward and beyond said line to withdraw said bolt.

3. In a sash-lock, in combination, a case having a projection on the inner face thereof, a bolt slidably mounted in said case, a link pivotally attached to said bolt, a second link having a fixed pivot-point and having a joint connection with said first link, one of said links having a projecting pin near said joint connection, an arcuate spring engaging said projection and said pin and normally holding said joint connection displaced laterally with respect to the line joining the remote ends of said links and against the side of said case whereby said bolt is locked against withdrawal by a force acting directly thereupon, and means for moving said joint connection toward and beyond said line to withdraw said bolt.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES S. WRAY.

Witnesses:

F. D. AMMEN,
JNO. M. RITTER.