

No. 635,449.

Patented Oct. 24, 1899.

C. E. STONE.

SASH LOCK.

(Application filed Nov. 30, 1898.)

(No Model.)

Fig. 1.

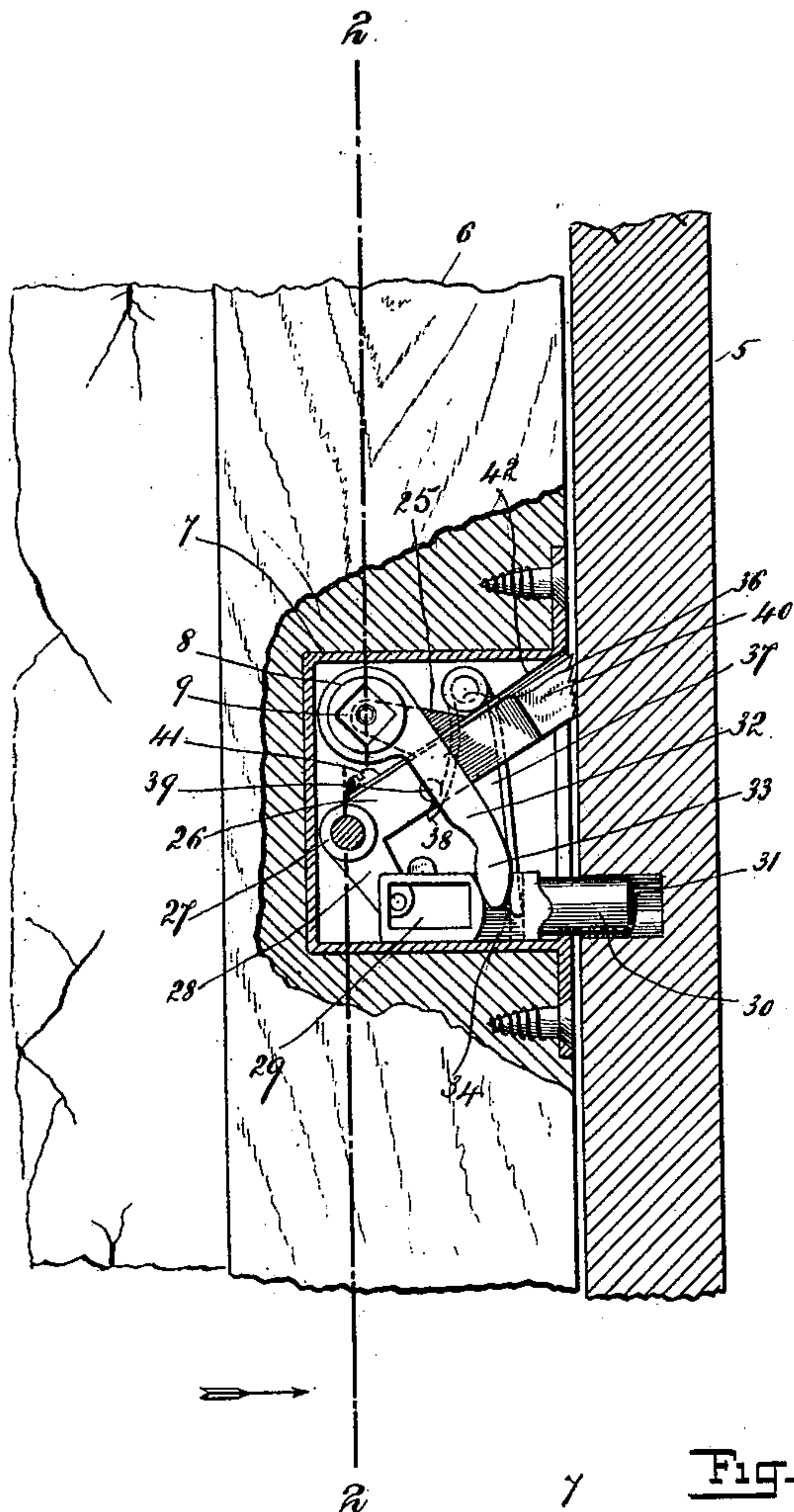


Fig. 2.

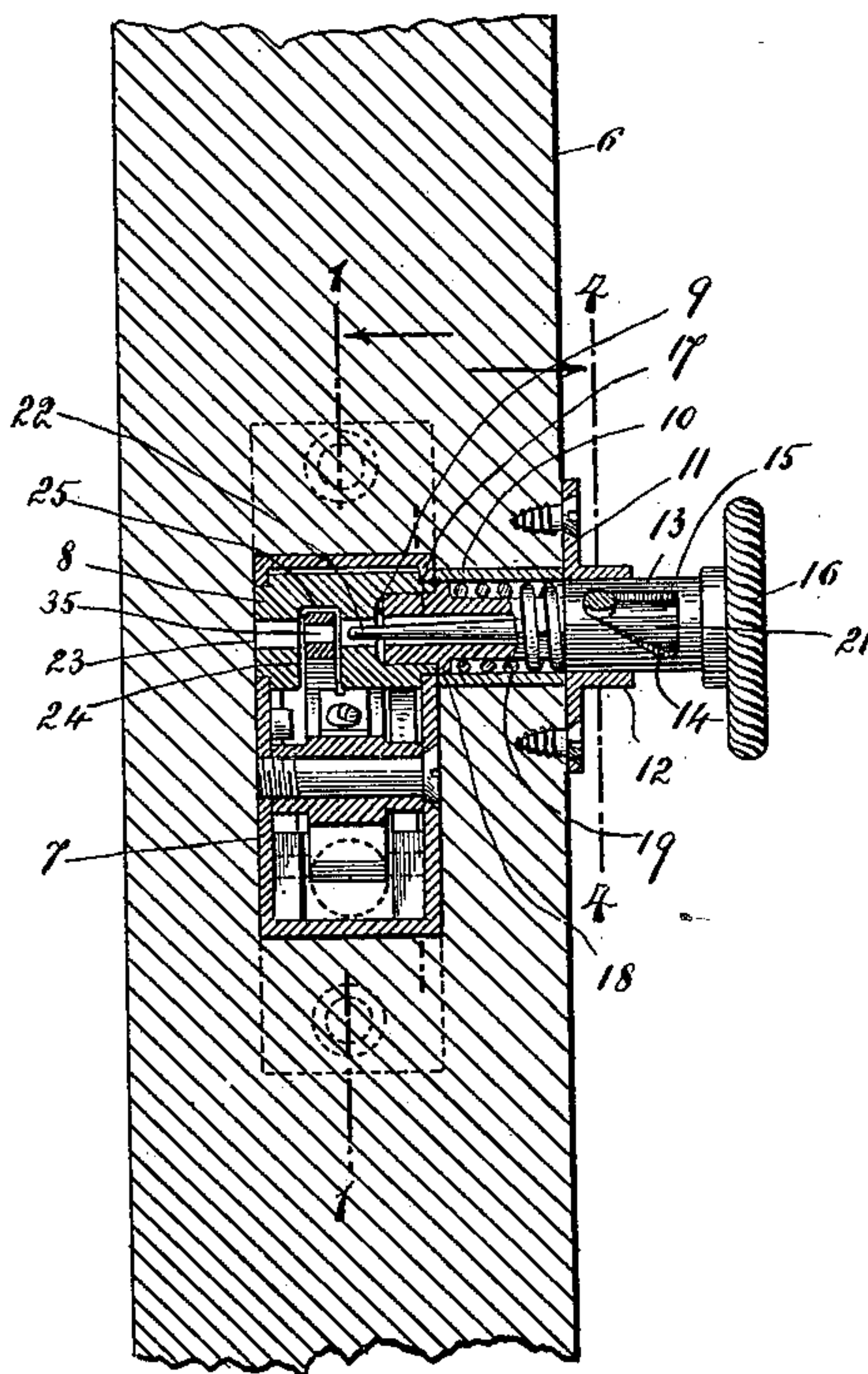


Fig. 3.

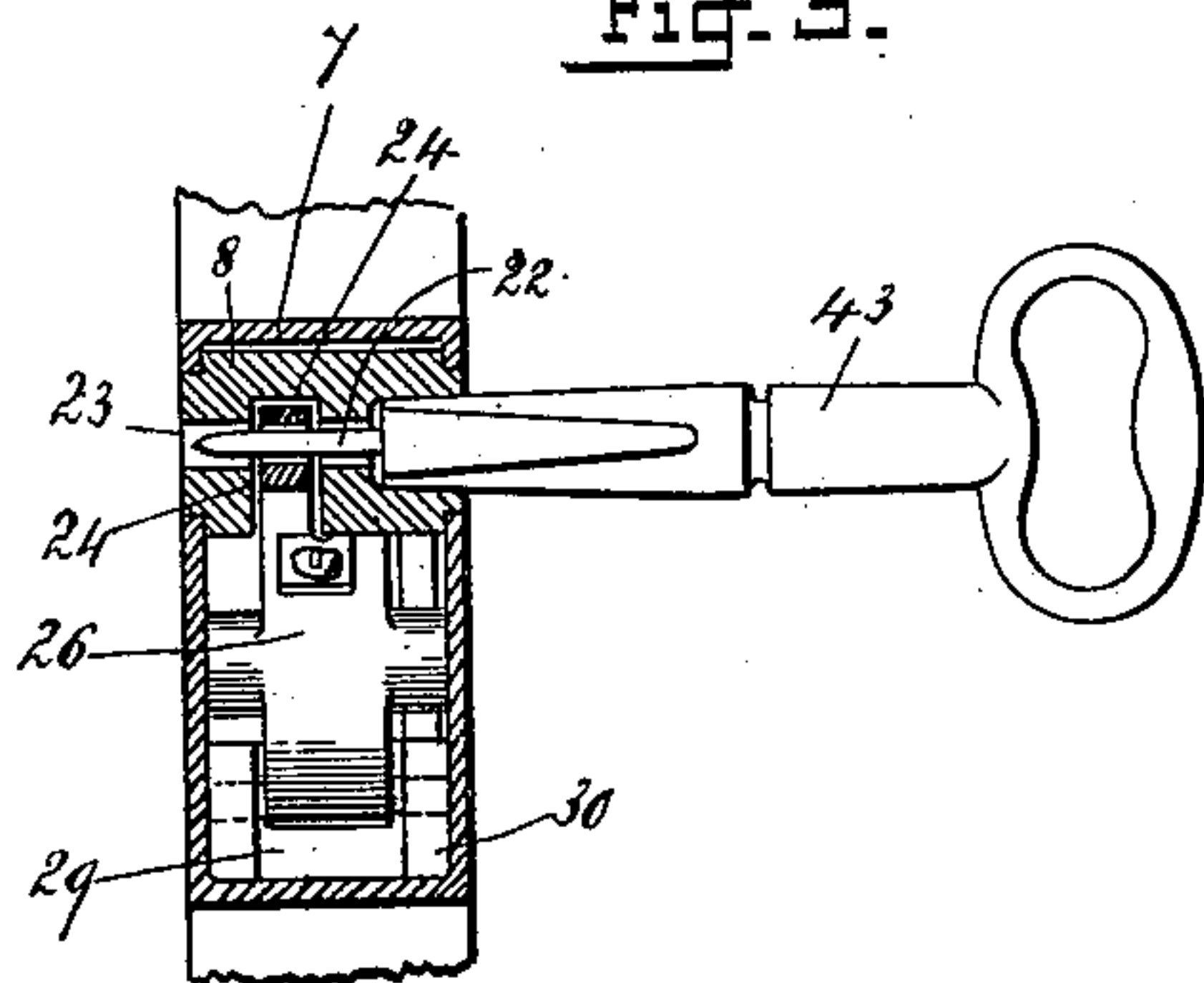
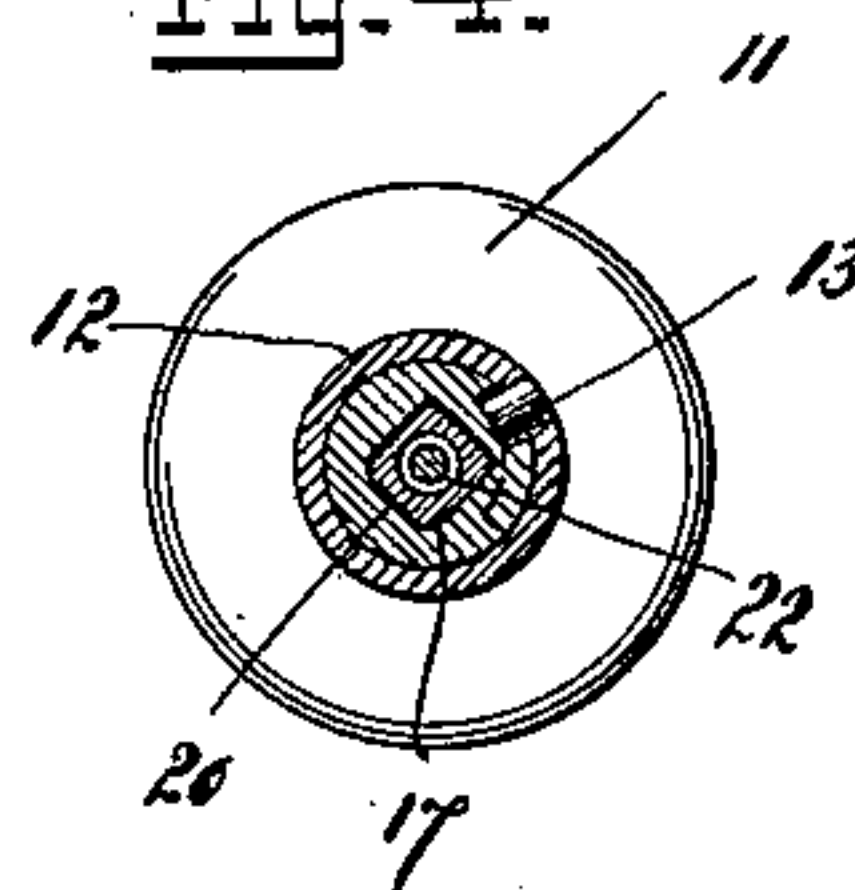


Fig. 4.



Witnesses:
Geo. W. Paylor.
J. A. Stewart.

By

Attorneys

Charles E. Stone

Inventors

Edgar Tate & Co.

UNITED STATES PATENT OFFICE.

CHARLES EDWIN STONE, OF AMESBURY, MASSACHUSETTS, ASSIGNOR OF
ONE-HALF TO BENJAMIN F. BERGH, OF SAME PLACE.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 635,449, dated October 24, 1899.

Application filed November 30, 1898. Serial No. 697,845. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDWIN STONE, a citizen of the United States, residing at Amesbury, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sash-Locks, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to sash-locks; and the object thereof is to provide an improved device of this class which is adapted to be operated by a push-button or key and by means of which a window-sash may be securely locked in the closed position or held at any desired position of adjustment for ventilation or other purposes.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in which—

Figure 1 is a sectional side view of a part of a window-frame and sash mounted therein, the section being on the line 1 1 of Fig. 2; Fig. 2, a section on the line 2 2 of Fig. 1; Fig. 3, a view similar to Fig. 2, showing a modified form of construction; and Fig. 4, a section on the line 4 4 of Fig. 2.

In the drawings forming part of this specification I have shown at 5 a part of a window-frame and at 6 a part of the sash, and in the practice of my invention I countersink in the side of the sash a casing 7, which opens outwardly in the direction of the frame and in the top of which is mounted a rotatable cylinder 8, the outer end of which is provided with an angular opening 9. A tubular casing 10 is also set into the sash in line with the cylinder 8, and secured to the front side of the sash is a plate 11, having a central tubular extension 12, which forms a continuation of the tubular casing 10, and said tubular extension is provided with an inwardly-directed pin 13, which is adapted to operate in a triangular slot or opening 14, formed in the thimble 15 of a push-button 16. I also provide a key-plug 17, provided with an angular

inner end which is adapted to enter the angular opening 9 in the cylinder 8, and said key-plug is provided with a collar 18, between which and the end of the thimble 15 of the push-button 16 is a spiral spring 19, which normally serves to force the push-button 16 outwardly and the key-plug 17 inwardly, and the outer end of said key-plug is angular in form, as shown at 20 in Fig. 4, and adapted to enter a corresponding opening formed in the inner end of the thimble 15 of the push-button 16, and the thimble 15 of the push-button 16 is provided with a central core 21, having a key-pin 22.

The rotatable cylinder 8 is provided with a small longitudinal bore 23 and with a transverse slot 24, into which passes the end of an arm 25, formed on a crank-lever 26, which is pivoted below the cylinder 8 at 27 and provided with a downwardly-directed crank 28, having a pin which moves in a longitudinal slot 29, formed in the inner end of a bolt 30, which is adapted to enter a corresponding opening 31 in the frame of the window.

Secured to or formed on the cylinder 8 is an arm 32, which projects downwardly and is provided with a head 33, which is adapted to enter a vertical opening 34 in the bolt 30, and the arm 25 is provided with a transverse perforation 35, which corresponds with the small central bore 23 in the cylinder 8.

Secured at 36 in the upper part of the casing 7 is a spring 37, which projects downwardly into the opening 34 in the bolt 30, and said spring is provided with an arm 38, which bears on a pin 39, secured to or formed on the casing 7.

The lever 26 is provided at its outer end with a head 40, having serrations or teeth which are adapted to bear on the frame of the window, and secured to the upper side of said lever at 41 is a spring 42, which is adapted to force said lever downwardly and which bears on the support of the spring 37.

The normal position of the parts when the window is locked is shown in Fig. 1. If it is desired to unlock and raise the sash, the button 16 is pushed inwardly and the key-pin 22 passes into and through the end of the arm 24 and holds the lever 26 in the raised

position. At the same time the button 16 is turned to the right. This operation turns the cylinder 8 and forces the arm 32 backwardly and withdraws the locking-bolt 30 from the sash, and the sash may then be raised, as will be readily understood. When the sash is raised, the locking-bolt 30 presses on the side of the window-frame, and said sash may be raised and lowered or adjusted to any desired extent as long as the button 16 is pushed inwardly. When the pressure on the button 16 is released, it is forced outwardly by the spring 19, and the lever 26 drops downwardly and presses on the side of the frame. The sash may now be lowered, but cannot be raised, it being understood that the sash shown and described is the lower sash.

When the lever 26 is in its highest position, as shown in Fig. 1, the key-pin may be forced into the arm 24 and the bolt 30 may be operated, and this is always the position of the parts. When the sash is locked, the spring 37 serves normally to force the locking-bolt into the position shown in Fig. 1, and the sash cannot be unlocked or raised, even from the inner side of the window, without manipulating the push-button 16.

In Fig. 3 I have shown a modification in which I substitute for the push-button and all the parts connected therewith an ordinary key 43, with which the key-pin 22 is connected, and the operation will be the same in this form of construction as that of the construction shown in Figs. 1 and 2; but it will be apparent that with this form of construction the sash can be unlocked only by a person having the key.

My improved sash-lock is simple in construction and operation and is perfectly adapted to accomplish the result for which it is intended, and it will be apparent that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A sash-lock, comprising a casing which is adapted to be set into the side of the sash, a rotatable cylinder mounted in the top of said casing, and provided with an arm, a crank-lever pivoted below said cylinder, a slidable locking-bolt mounted below said crank-lever and in operative connection therewith, said locking-bolt being adapted to be operated by the arm of said cylinder, substantially as shown and described.

2. A sash-lock, comprising a casing which is adapted to be set into the side of a sash, a rotatable cylinder mounted in the top of said casing, and provided with an arm, a crank-lever pivoted below said cylinder, a slidable locking-bolt mounted below said crank-lever and in operative connection therewith, said locking-bolt being adapted to be operated by the

arm of said cylinder, and springs for forcing said locking-bolt outwardly and said crank-lever downwardly, substantially as shown and described.

3. A sash-lock, comprising a casing which is adapted to be set into the side of the sash, a rotatable cylinder mounted in the top of said casing, and provided with an arm, a crank-lever pivoted below said cylinder, a slidable locking-bolt mounted below said crank-lever and in connection therewith, said locking-bolt being adapted to be operated by the arm of said cylinder, and springs for forcing said locking-bolt outwardly and lever downwardly, said crank and an arm which operates in a transverse slot formed in said cylinder and secured to said crank-lever and adapted to suspend the same, substantially as shown and described.

4. A sash-lock, comprising a casing which is adapted to be set into the side of the sash, a rotatable cylinder mounted in the top of said casing, and provided with an arm, a crank-lever pivoted below said cylinder, a slidable locking-bolt mounted below said crank-lever and in connection therewith, said locking-bolt being also adapted to be operated by the arm of said cylinder, and springs for forcing said locking-bolt outwardly and said lever downwardly, said crank-lever being also provided with an arm which operates in a transverse slot formed in said cylinder, said cylinder being provided with a longitudinal bore and said arm with a transverse perforation which corresponds therewith, a key-pin slidably mounted in said casing and adapted to pass through said longitudinal bore in said cylinder and said registering transverse perforation in said arm, and means for operating said cylinder and said key-pin, substantially as shown and described.

5. A sash-lock comprising a casing which is adapted to be set into the side of the sash, a rotatable cylinder mounted in said casing and provided with a longitudinal bore and a transverse slot in one side thereof, a crank-lever pivoted below said cylinder, a slidable locking-bolt mounted below said crank-lever and in connection therewith, springs for throwing the locking-bolt inwardly and the crank-lever downwardly, an arm connected with said cylinder and adapted to operate the locking-bolt, and an arm connected with said lever and projecting into the slot of the cylinder, said arm being provided with a transverse perforation and devices for turning said cylinder and for holding said arm in said slot, substantially as shown and described.

6. A sash-lock provided with a rotatable cylinder, a locking-bolt, devices connecting said cylinder and said bolt, said cylinder being provided at one end with an angular opening, a key-plug which enters said opening and a spring-operated push-button, and a key-pin connected with said push-button, and passing through said key-plug into said cylinder and

engaging said device connecting said cylinder and said bolt, substantially as shown and described.

7. In a sash-lock, the combination with a 5 rotatable cylinder provided with a transverse slot in one side thereof, and a longitudinal bore passing through said slot, of a sliding bolt, devices connecting said cylinder and said sliding bolt, a crank-lever pivoted be- 10 neath said cylinder and adapted to engage the outer end of the window, and provided with an arm adapted to enter said transverse slot in said cylinder, said arm being perforated to correspond with said bore in said cyl- 15 inder, a key-plug, one end of which enters one end of said cylinder, a spring-operated push-button provided with a thimble which receives the opposite end of said key-plug, said thimble being mounted in a tubular cas- 20 ing provided with a ratchet-pin which enters a slot formed in said thimble, and said push-button being provided with a key which passes through the key-plug into the bore of said cylinder, and through the perforation in said 25 arm, substantially as shown and described.

8. In a sash-lock, a rotatable cylinder, a crank-lever pivoted beneath said cylinder and provided with a head having serrations or 30 teeth which are adapted to bear on the sides of the window-frame, said cylinder being provided with a transverse slot in one side thereof, and a longitudinal bore passing through said slot, said crank-lever being provided with an arm adapted to enter said transverse slot 35 in said cylinder and with a perforation adapted to register with the longitudinal bore of

said cylinder, and a key-pin adapted to pass through the longitudinal bore of said plug and said registering perforation in said arm, substantially as shown and described. 40

9. In a sash-lock, the combination with a rotatable cylinder provided with a longitudinal bore and a transverse slot in one side thereof, of a sliding bolt, an arm mounted on said cylinder and adapted to operate said bolt, 45 a crank-lever pivoted beneath said cylinder and provided with a head adapted to engage the side of the window-frame, said crank-lever being adapted to operate in connection with said sliding bolt and provided with a 50 perforated arm adapted to enter the slot in said cylinder, a key-plug, one end of which enters said cylinder, a spring-operated push-button provided with a thimble which re- 55 ceives the opposite end of said key-plug, said thimble being mounted in a tubular casing provided with a radial pin which enters a slot formed in said thimble, and said push-button being provided with a key-pin which passes through the key-plug into the bore of said 60 cylinder, and is adapted to enter the perforation in the arm secured to said crank-lever, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in pres- 65 ence of the subscribing witnesses, this 21st day of November, 1898.

CHARLES EDWIN STONE.

Witnesses:

ANNIE M. WALLACE,
ALMA A. AUSTIN.