No. 850,495. PATENTED APR. 16, 1907.

W. SCHUCH.

SASH LOCK.

APPLICATION FILED AUG. 22, 1906.

3 SHEETS—SHEET 1.

FIG. 2

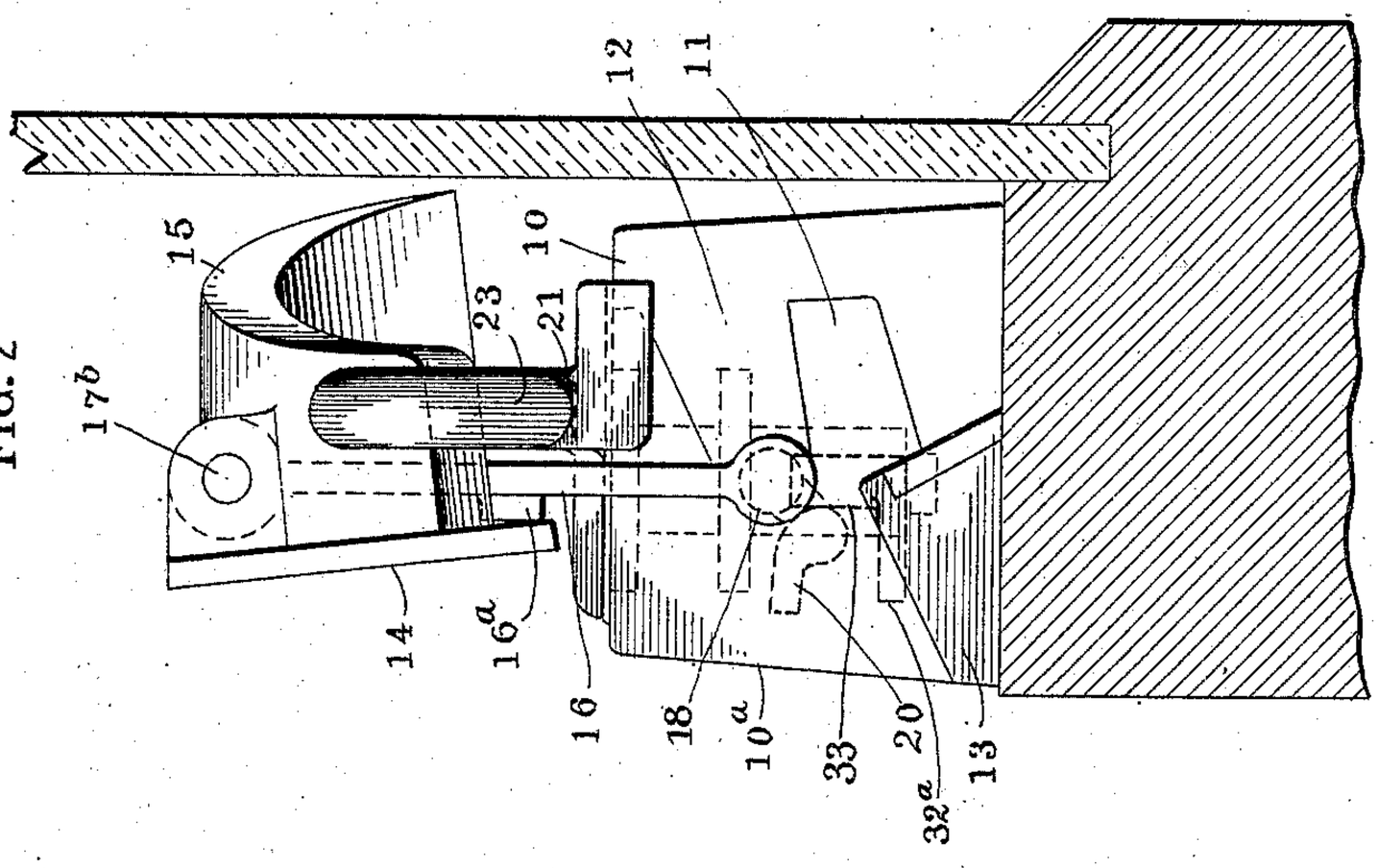
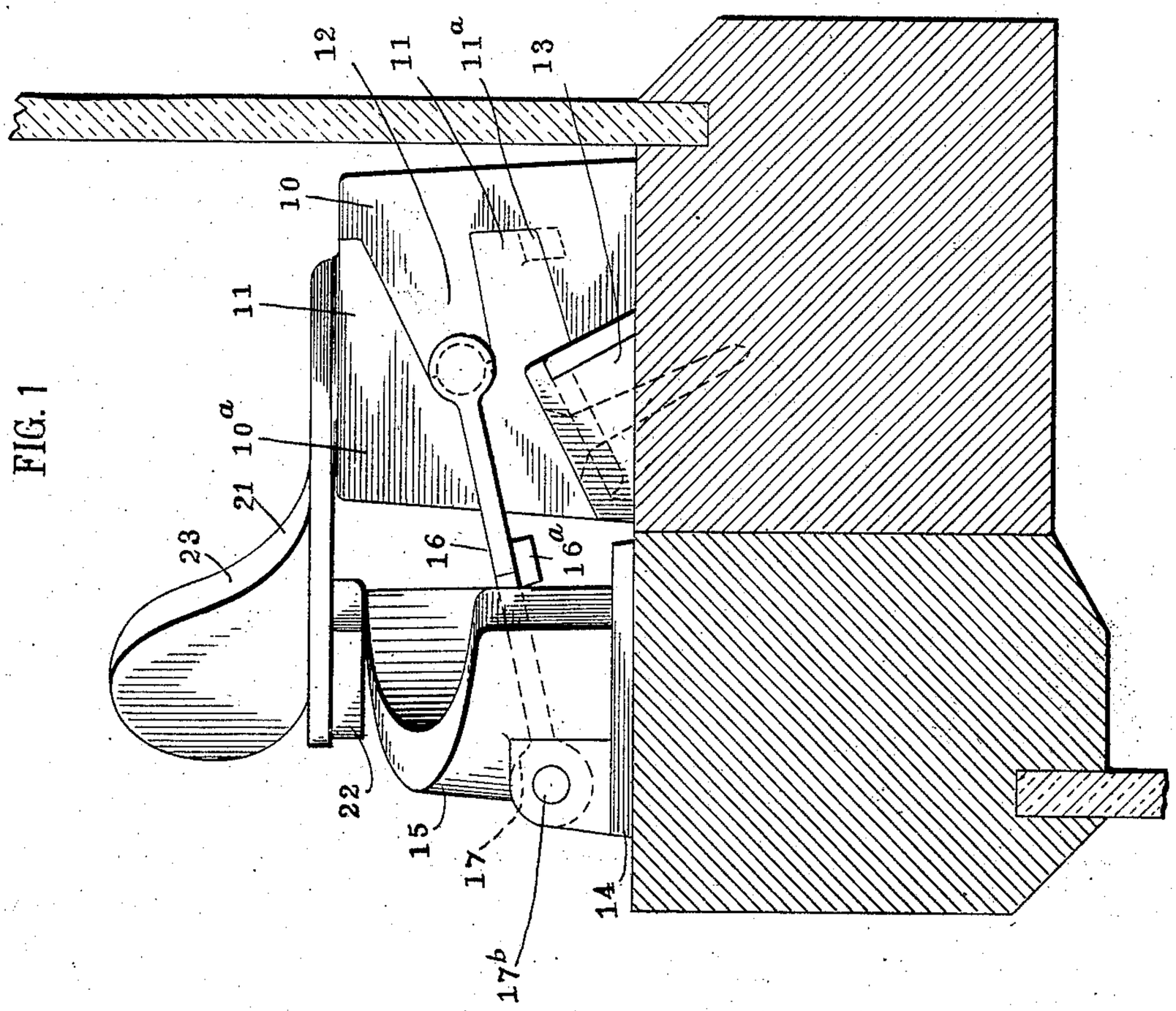


FIG. 1



WITNESSES

Max B. A. Doring

Frank L. Stubbs.

INVENTOR

William Schuch

BY

W. B. Hutchinson,

ATTORNEY

No. 850,495. PATENTED APR. 16, 1907.

W. SCHUCH.

SASH LOCK.

APPLICATION FILED AUG. 22, 1906.

3 SHEETS—SHEET 2.

FIG. 3

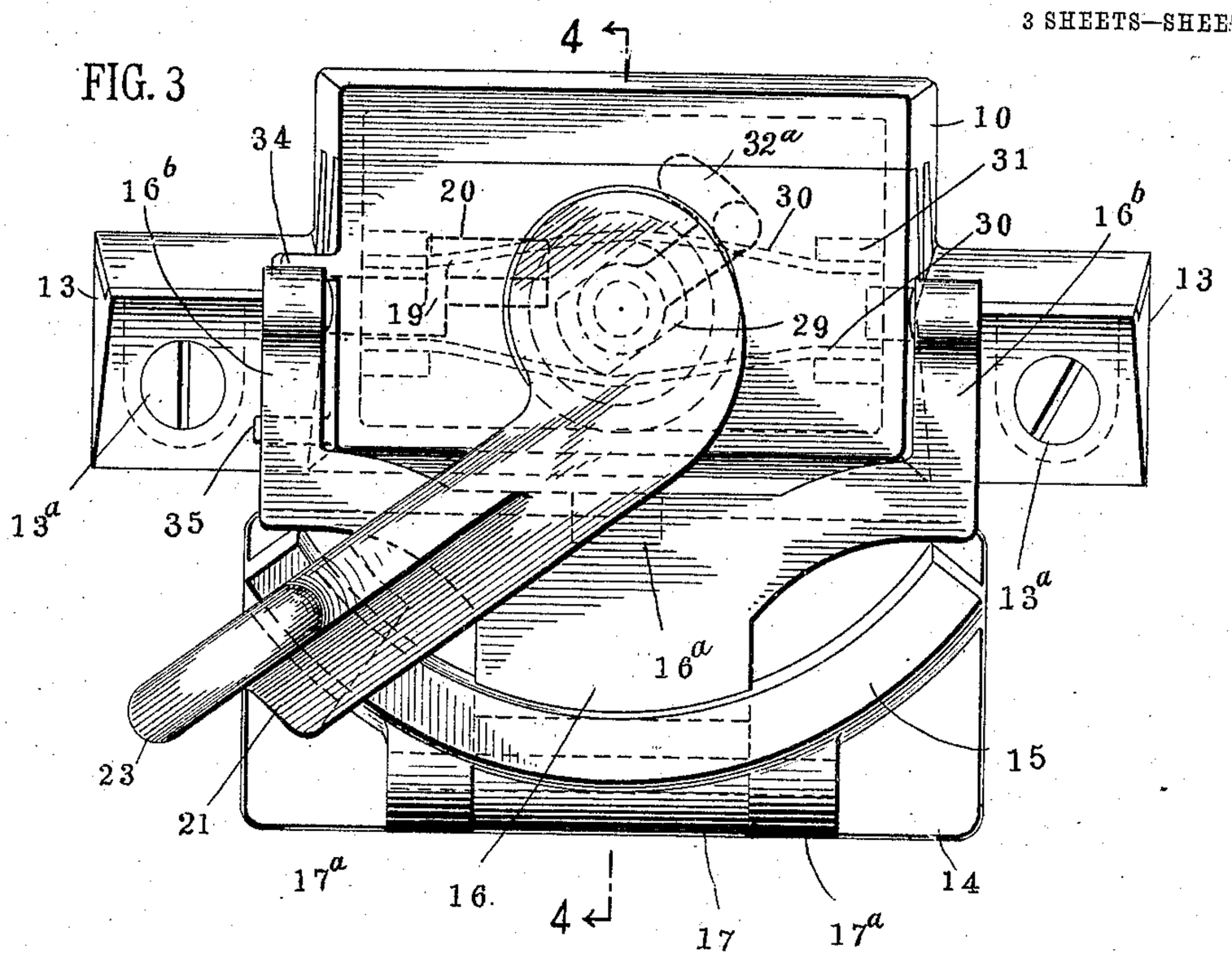
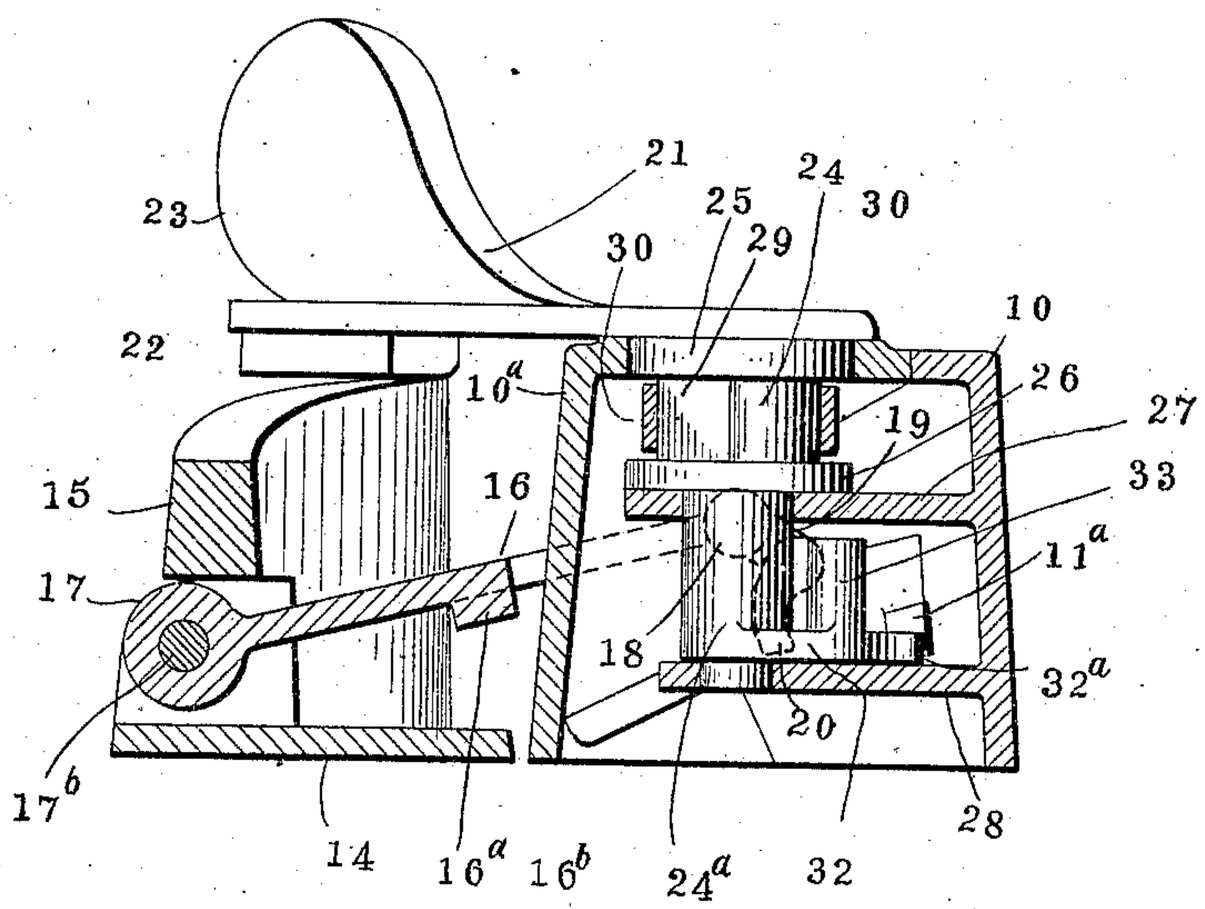


FIG. 4



WITNESSES

Max B. A. Doring.

Frank L. Stubbs.

INVENTOR

William Schuch

BY

W. B. Hutchinson.

ATTORNEY

No. 850,495. PATENTED APR. 16, 1907.

W. SCHUCH.

SASH LOCK.

APPLICATION FILED AUG. 22, 1906.

3 SHEETS—SHEET 3.

FIG. 5

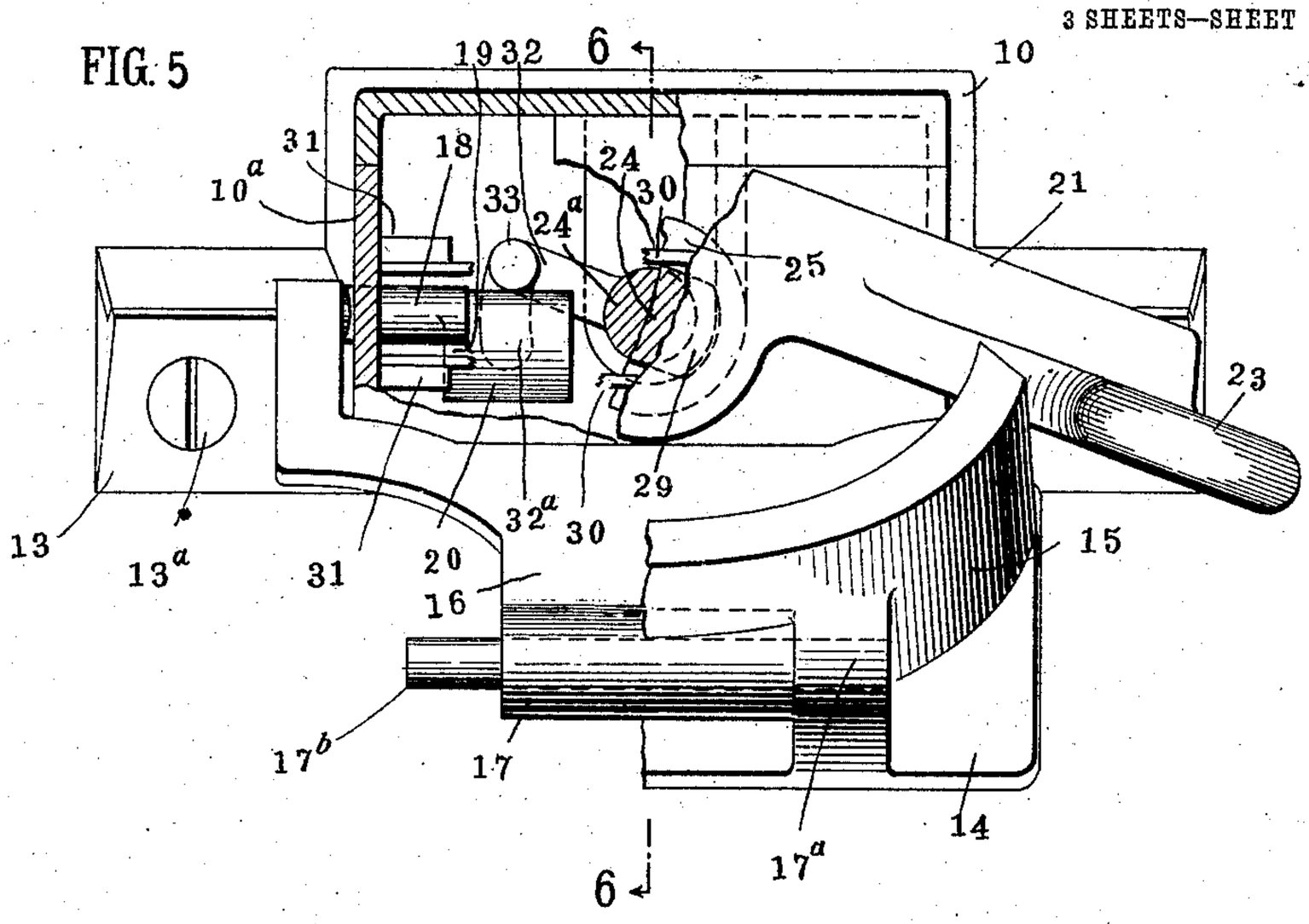
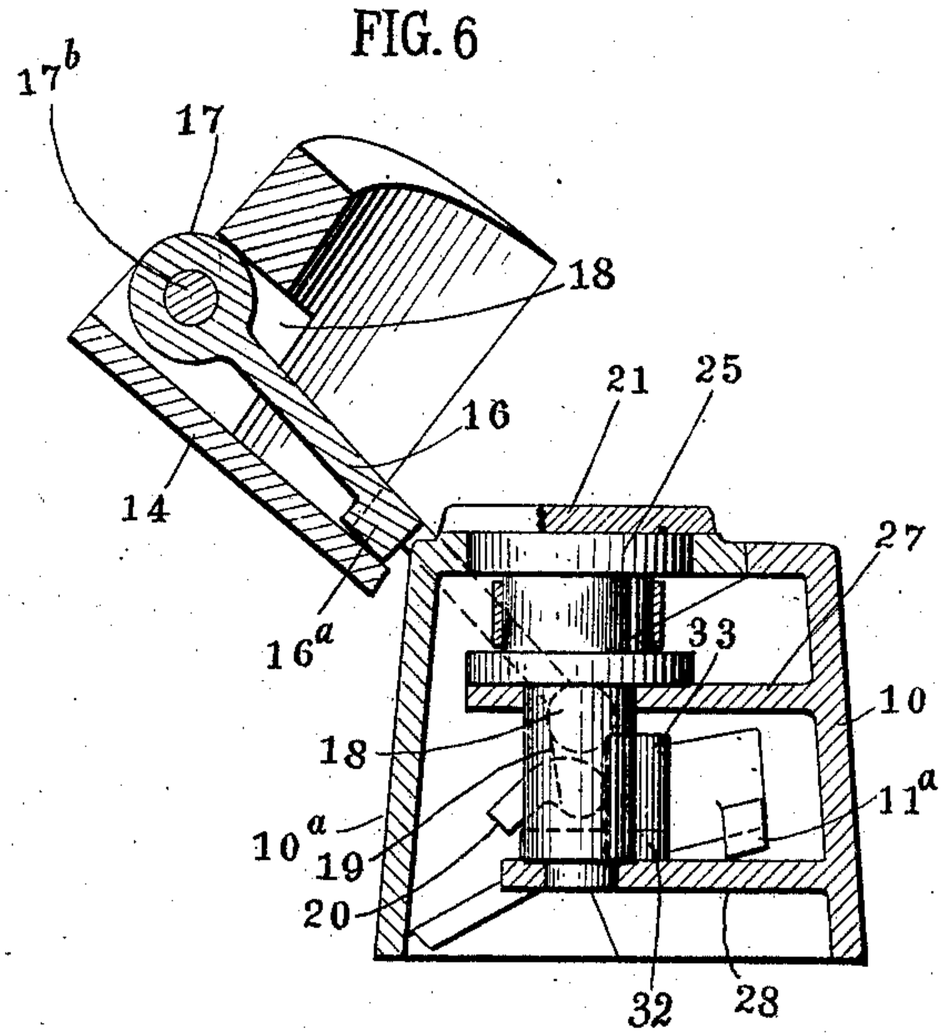


FIG. 6



WITNESSES

Max B. A. Doring.

Frank L. Stubbs.

INVENTOR

William Schuch

BY

W. B. Hutchinson.

ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM SCHUCH, OF WEST HOBOKEN, NEW JERSEY, ASSIGNOR OF ONE-HALF TO GEORGE H. HYDE, OF NEW YORK, N. Y.

SASH-LOCK.

No. 850,495. Specification of Letters Patent. Patented April 16, 1907.

Application filed August 22, 1906. Serial No. 331,560.

To all whom it may concern:

Be it known that I, WILLIAM SCHUCH, of West Hoboken, county of Hudson, State of New Jersey, have invented a new and Improved Sash-Lock, of which the following is a full, clear, and exact description.

My invention relates to improvements in sash-locks, such as are used to fasten window-sashes; and the object of my invention is to produce a lock of this character which is particularly efficient and easily operated and which is constructed in such a way that one member is applied to one of the sash-rails, while the other when not in use swings upward entirely free of the opposite sash-rail, but when in use presses firmly downward upon the opposite sash, thus securely locking it.

To this end my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

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

Figure 1 is an end elevation of the sash-lock, showing the parts in locked position and applied to the meeting-rails of two sashes. Fig. 2 is an end view of the sash-lock with the foot-piece turned up into unlocked position. Fig. 3 is a plan view of the invention. Fig. 4 is a cross-section on the line 4 4 of Fig. 3 with the parts in locked position. Fig. 5 is a broken plan view with parts removed and with parts in section, showing the sash-lock unfastened and partially open; and Fig. 6 is a cross-section on the line 6 6 of Fig. 5.

The sash-lock is provided with two principal members, one of which is adapted to be secured to the outer sash-rail, and this comprises a two-part box or casing 10 10^a, the parts having interlocking fingers 11 and 12 at the ends and having also projecting end lugs 13, which are likewise in two parts, as shown, and which are inclined on top to receive fastening-screws 13^a. The object of making the casing in two parts is to provide for easily assembling the structure and getting the working parts in proper place.

To prevent end movements of the parts 10 10^a, they have on the inner side overlapping lugs 11^a.

The second member comprises a flat plate or foot-piece 14, which is adapted to fit snugly upon the top of the second sash-rail, as shown in Fig. 1, and this foot-piece carries an inclined and elevated rail or track 15, which forms a cam-track and enables the foot-piece to be snugly pressed upon its sash-rail. The foot-piece 14, forming the second member, is connected to the first member or casing by a swinging arm 16, which has a stop 16^a on the under side to prevent the foot-piece from swinging too far and striking the glass, as shown clearly in Fig. 2. This swinging arm 16 has one end formed into a knuckle 17, which projects through a cut-away part of the track 15, and is pivoted between the ears 17^a on the foot-piece 14 by a pin 17^b. (See Figs. 1 and 4.) The opposite end of the swinging arm 16 is forked, as shown at 16^b, and the members are fast to the trunnions 18, which are pivoted in the ends of the box or casing 10 10^a. The trunnions 18 have each depending cranks 19, which have curved extensions 20, and the object of this peculiar form of crank comprising the parts 19 and 20 (shown in Fig. 4) is to engage certain other parts operated by the finger-lever 21, so that the foot-piece 14 may be operated, all of which will be described below.

The finger-lever 21 is journaled so as to swing on the top of the casing 10 10^a and so as to overlap the cam-track 15, and it has a thickened portion 22, which engages the top of the cam-track, and a finger-piece 23, by which it can be easily moved. The finger-lever is fast on a vertical shaft 24, which has a collar 25 at the top turning in the top of the casing 10 10^a, (see Fig. 4,) and a second collar 26 on the shaft 24 turns on the top of a ledge 27, which extends inward from the part 10 of the casing. The shaft 24 has an extension 24^a beneath, which is slightly eccentric to the part 24 and which is journaled in a second ledge 28 of the casing. On the part 24^a of the shaft is a generally L-shaped crank comprising parts 32 and 32^a, (best shown in Figs. 4 and 5,) and these have at the elbow a vertical extension 33, as shown in the same figures. The shaft 24 also carries an oblong extension 29 on the sides, which is rounded at the ends, and this extension or broken collar

is pressed on opposite sides by the flat springs 30, which are held between the lugs 31, (see Fig. 3,) and the pressure of the springs on the broken collar 29 tends to hold the lever 21 in either open or closed position, as the case may be.

When the lever is turned to the right to unlock the device, the shaft 24ª is turned and the end portion 32ª of the foot-crank of the shaft strikes the part 20 of the crank 19 of the trunnion 18, and the continued movement causes the knuckle or raised portion 33 to strike the part 19, and so the turning of the trunnion 18 is continued until the arm 16 and the foot-piece 14 are swung up to the position shown in Fig. 2. The stop 34 (see Fig. 3) prevents the parts from turning too far, and the stop 35 in the path of one of the forks 16ᵇ prevents the parts from moving too far in the opposite direction.

When the finger-lever 21 is turned to the left, the opposite movement takes place to that described above, the foot-piece 14 is released so as to swing down upon the second sash, and the pressure of the finger-piece on the cam-track 15 squeezes the foot-piece firmly to place and securely locks the sash-rails. It will be observed in this connection that the swinging arm 16 while affording the connecting-link between the two members of the locking combination is also in such a position that it prevents a knife or other instrument from being thrust up between the sash-rails so as to engage the finger-lever 21.

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

1. A sash-lock, comprising a member adapted for attachment to a sash-rail, a second member unattached to, but adapted to fit against the second sash-rail, and a finger-lever supported on the first member and connected to the swinging member, which causes the said member to engage the said rail and be placed in the path of the lever and to lift the swinging member from the second rail when the finger-lever is withdrawn.

2. A sash-lock, comprising a member adapted to be attached to one of the sash-rails, a second member unattached to but adapted to fit against the second rail, a finger-lever pivoted on the first-mentioned member, and an operative connection between the finger-lever and the swinging member whereby the swinging member is thrown in the path of the lever when the lever is moved to lock the sashes, and moved away from the second sash-rail when the lever is withdrawn.

3. A sash-lock, comprising a casing adapted for attachment to a sash-rail, a foot-piece unattached to but adapted to fit flatwise against the top of the second sash-rail, a finger-lever on the casing, and mechanism within the casing operated by the finger-lever and pivotally connected to the foot-piece so as to swing the latter into and out of the path of the second sash-rail.

4. A sash-lock, comprising a member adapted for attachment to a sash-rail, a finger-lever on said member, a swinging arm hung on said member and operated from the finger-lever, and a foot-piece carried by the said arm and adapted to extend against the top of the second sash-rail, the said foot-piece having an inclined track thereon to engage the finger-lever.

5. A sash-lock, comprising a casing adapted for attachment to a sash-rail, a finger-lever on the casing, a swinging arm extending through the wall of the casing, an operative connection between the finger-lever and the swinging arm, and a foot-piece pivoted to the swinging arm and constructed to clamp down snug against the top of the second sash-rail.

6. A sash-lock, comprising a casing adapted for attachment to a sash-rail, a finger-lever mounted on the casing, a shaft extending into the casing and operated by the finger-lever, a swinging arm mounted on the casing and operated from the aforesaid shaft, and a foot-piece carried by the swinging arm and adapted to swing into the path of the second sash-rail, the said foot-piece having an inclined track formed to engage the finger-lever.

7. A sash-lock, comprising a member adapted for attachment to a sash-rail, a finger-lever pivoted on the member and adapted to swing over the second sash-rail, a foot-piece adapted to contact with the second sash-rail and having an inclined track thereon to engage the finger-lever, and a swinging arm connecting the foot-piece to the first member.

8. A sash-lock, comprising a casing adapted for attachment to a sash-rail, a swinging arm pivoted on the casing and adapted to extend over the second sash-rail, said arm having cranks extending into the casing, a foot-piece pivoted on the swinging arm and adapted to strike the top of the second sash-rail, a finger-lever on the casing operatively connected with the cranks to turn them, and a locking connection between the finger-lever and the foot-piece.

9. A sash-lock, comprising a member adapted for attachment to a sash-rail, a foot-piece forming the second member and adapted to swing against the top of the second sash-rail, a lever pivoted on the first member and adapted to swing into locking engagement with the foot-piece, a swinging arm or support connecting the foot-piece and the first member and arranged between the finger-lever and the sash-rails, and means for operating the swinging arm by movement of the finger-lever.

10. A sash-lock, comprising a casing

adapted for attachment to a sash-rail, a finger-lever pivoted on the casing, a shaft turned by the finger-lever and extending downward into the casing, said shaft having a crank thereon, a swinging arm pivoted on the casing and having a crank extending into the path of the first-mentioned crank, a foot-piece carried by the swinging arm and adapted to strike the top of the second sash-rail, and a locking engagement between the foot-piece and the finger-lever.

WILLIAM SCHUCH.

Witnesses:
PETER KOEHL, Jr.,
JOHN C. LAVAGGI.