

No. 837,360.

PATENTED DEC. 4, 1906.

H. G. VOIGHT.
LOCK AND LATCH MECHANISM.
APPLICATION FILED MAR. 28, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

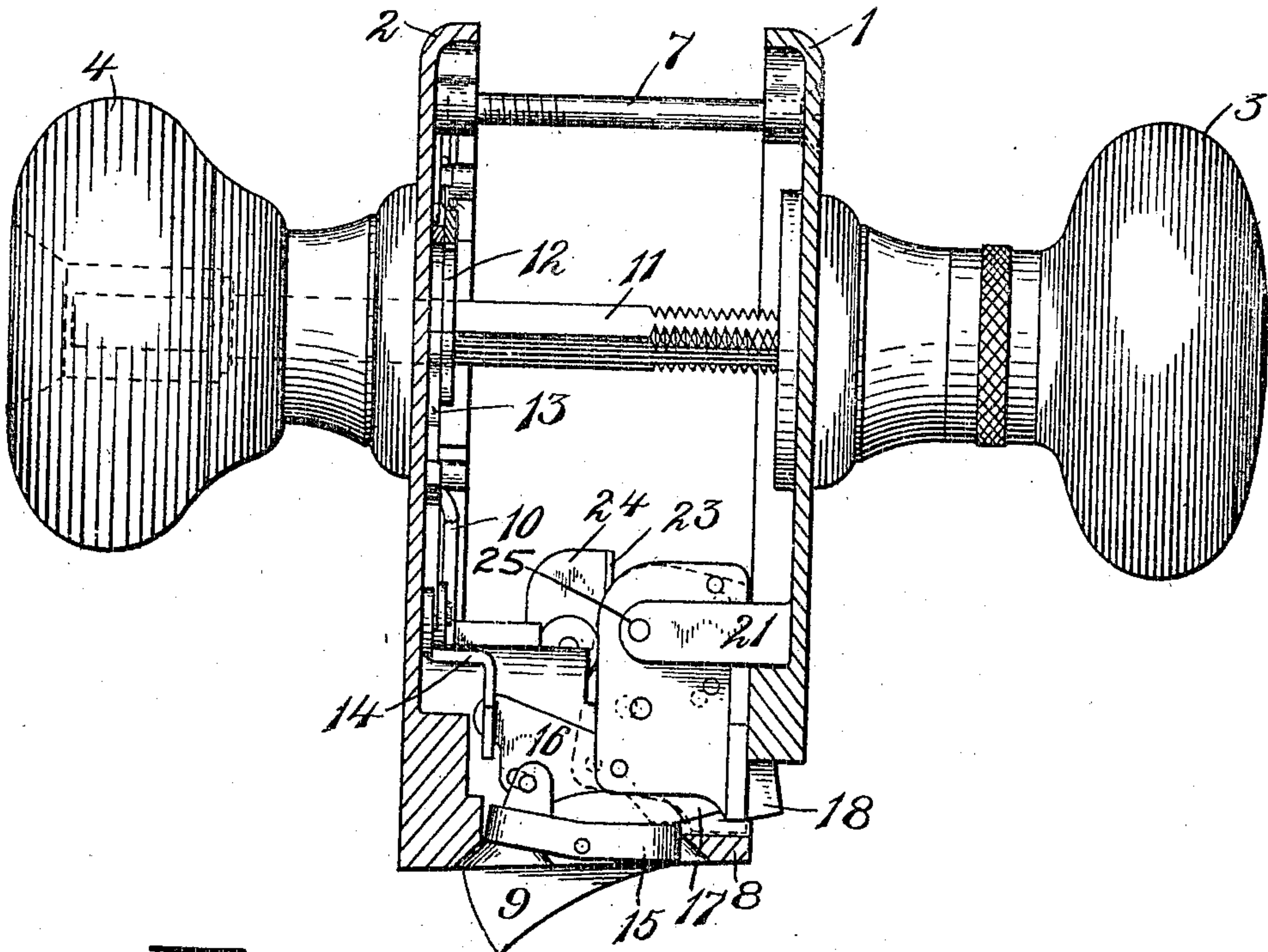
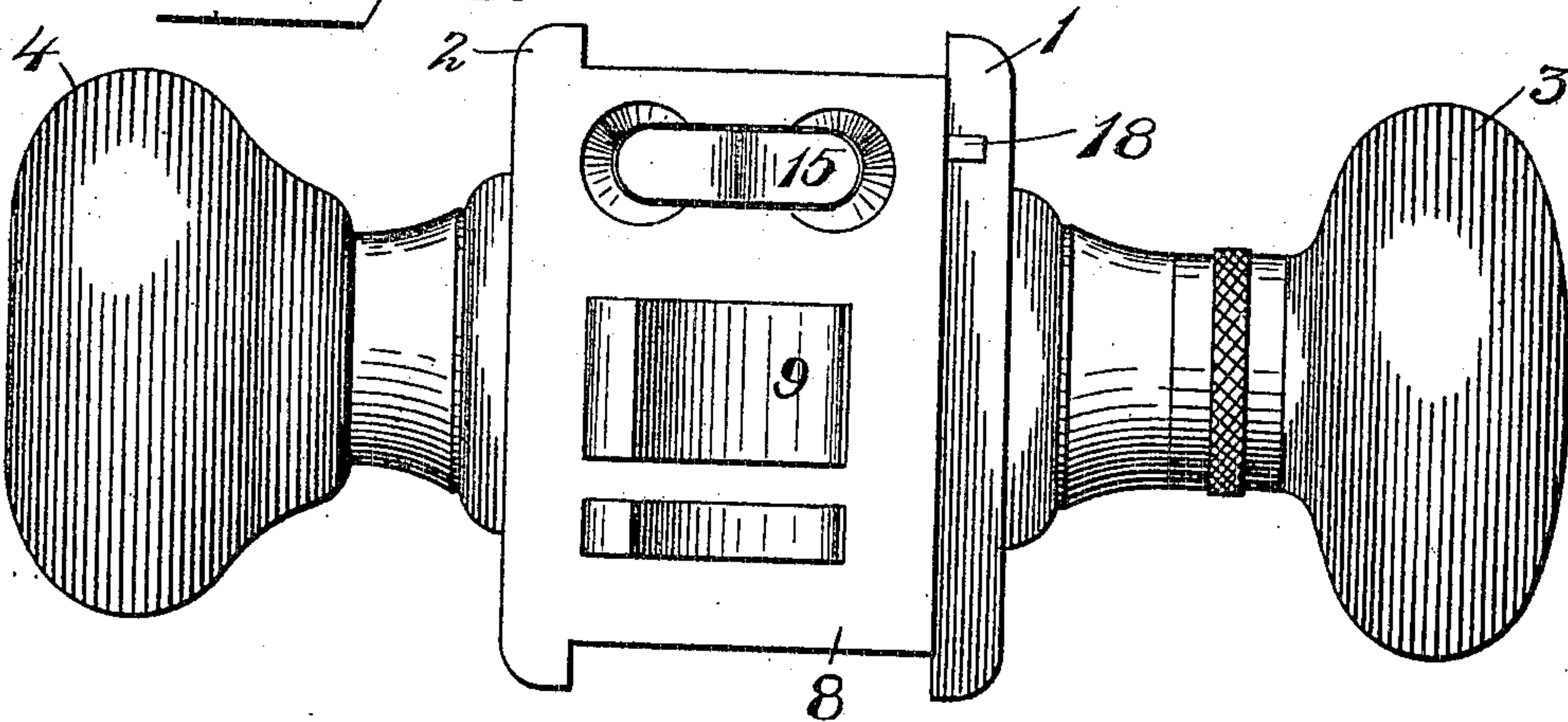


Fig. 2.



Witnesses

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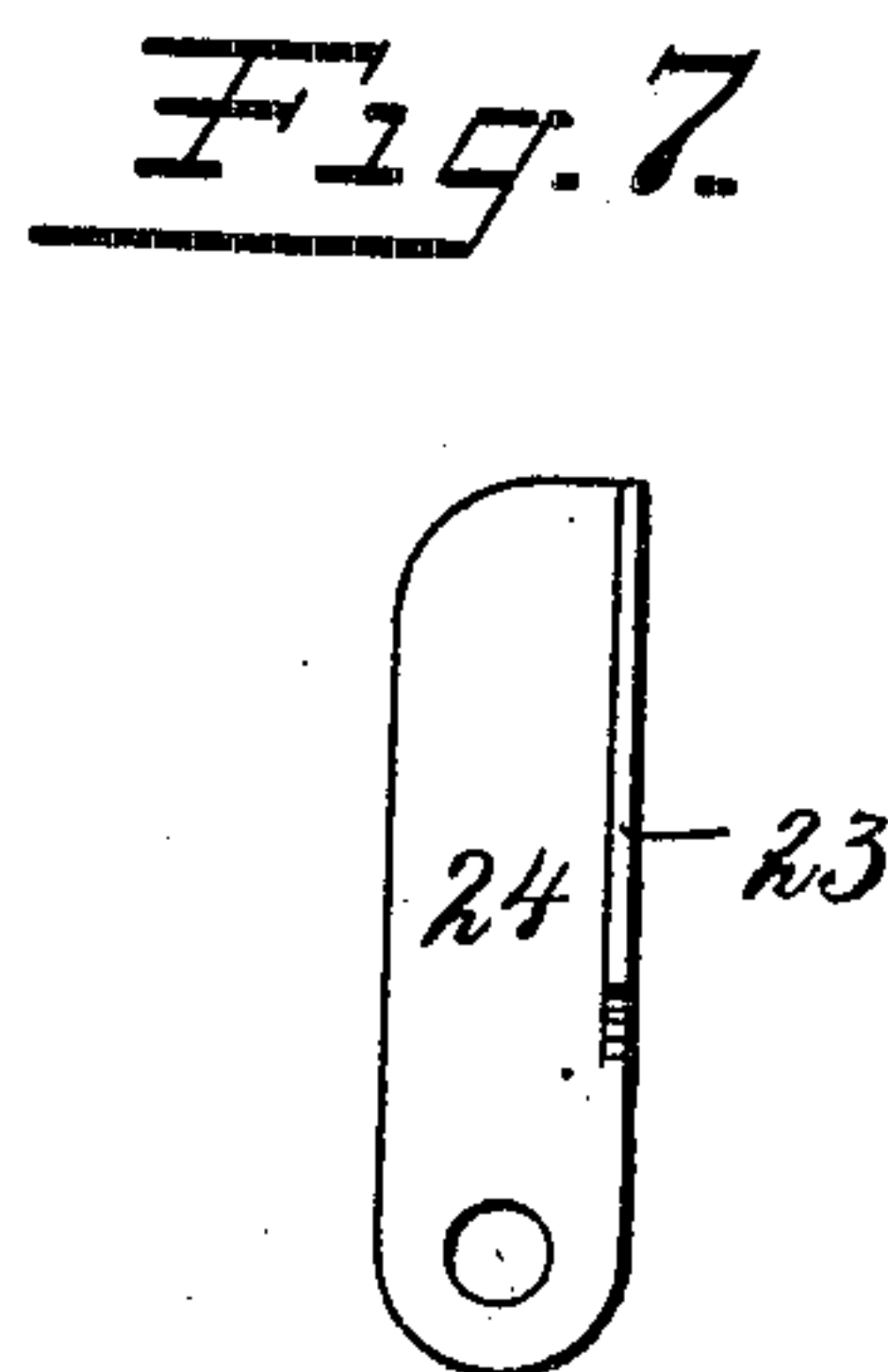
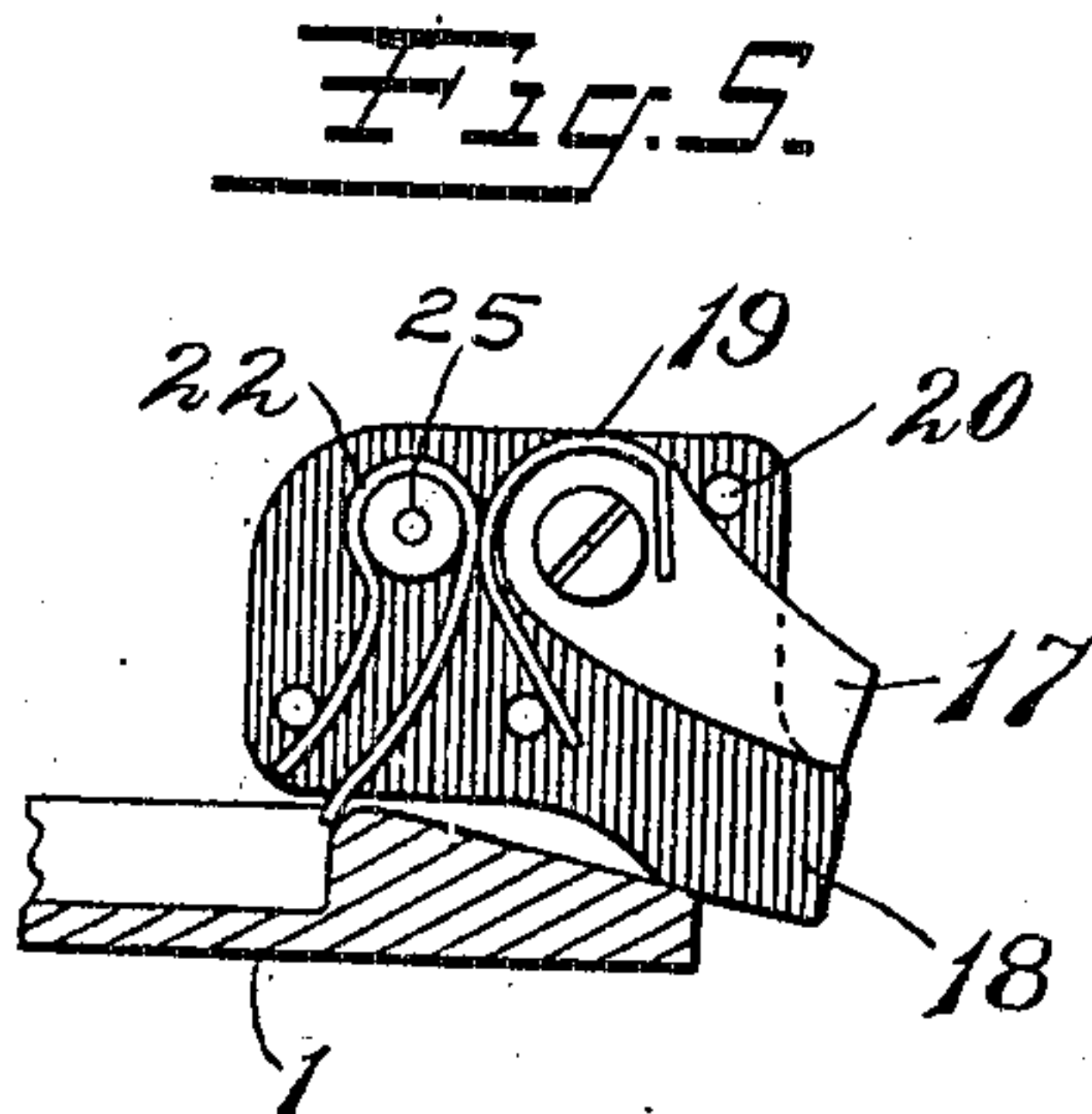
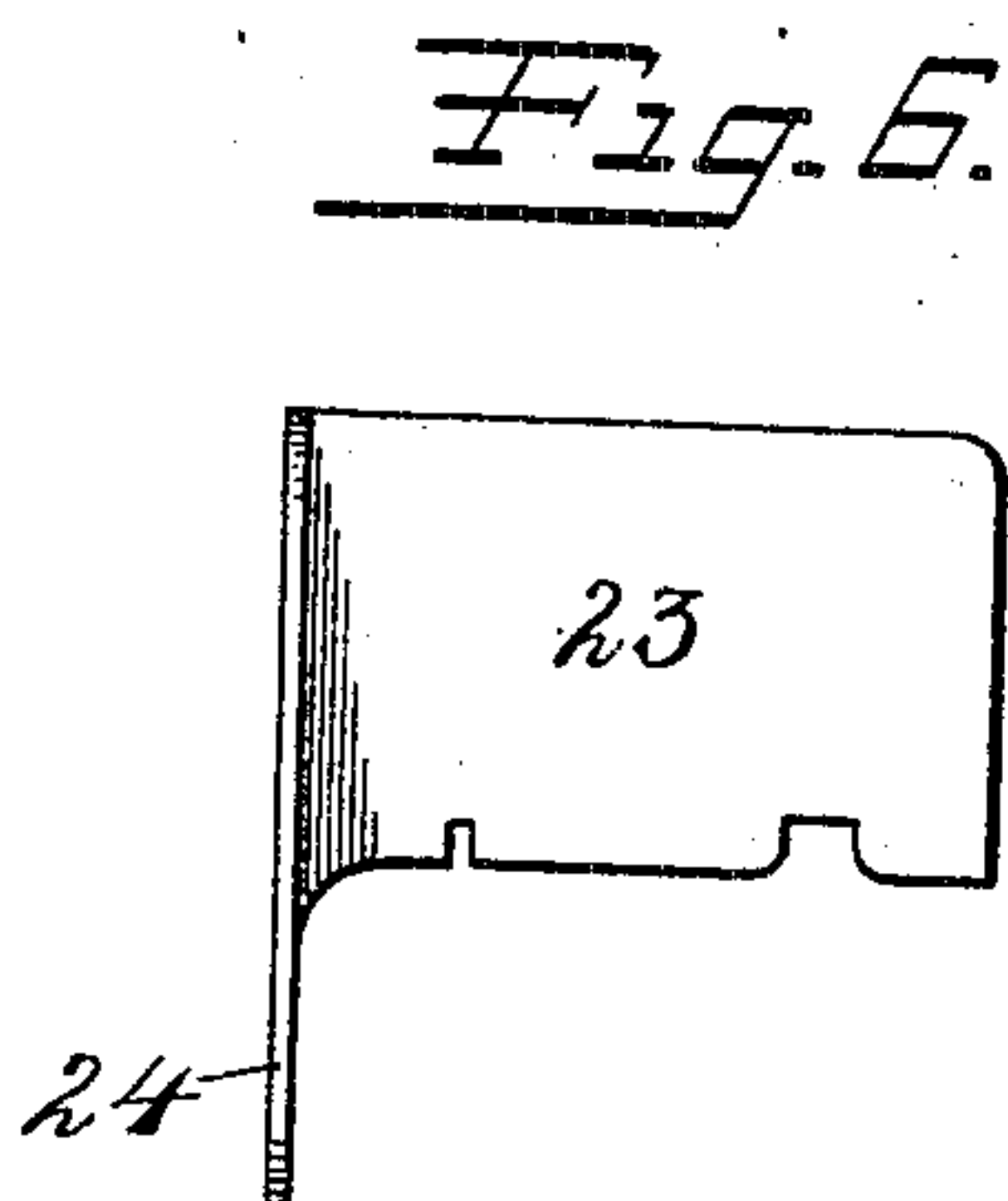
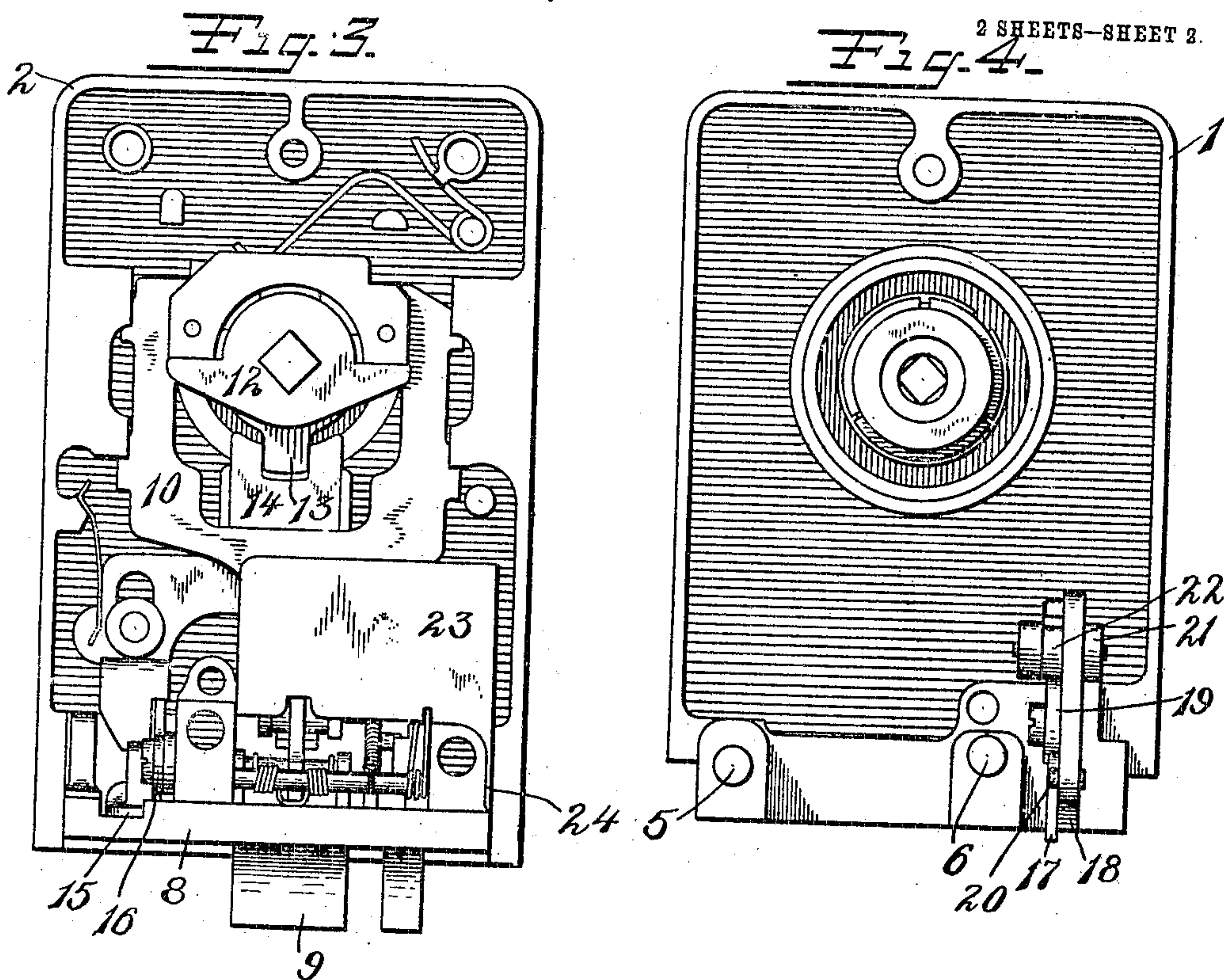
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2 SHEETS—SHEET 2.



Witnesses
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HENRY G. VOIGHT, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO
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LOCK AND LATCH MECHANISM.

No. 837,360.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed March 28, 1906. Serial No. 308,406.

To all whom it may concern:

Be it known that I, HENRY G. VOIGHT, a citizen of the United States, residing at New Britain, county of Hartford, Connecticut, have invented certain new and useful Improvements in Lock and Latch Mechanism, of which the following is a full, clear, and exact description.

My invention relates to improvements in lock and latch mechanism.

The main object of the invention is to provide a guard or safety device for the night-latch or stop-action mechanism to prevent tampering with the same when the door is closed and locked.

In my former application, Serial No. 305,757, I have shown a safety device for the night-latch mechanism of a mortise-lock. My present invention is directed more to the type of mechanism shown in my former patent, No. 790,936, of May 30, 1905. In addition to the safety device I have shown an improvement in this latter type of lock which prevents injury to the parts when the lock is being attached to the door.

The invention in its preferred form will be found illustrated in the accompanying two sheets of drawings.

Figure 1 is a horizontal section and plan view of mechanism embodying the improvements of my invention, the parts being in the position in which the night-latch is "on." Fig. 2 is a front view of the mechanism. Fig. 3 is a view of the inner side of the outer side plate with attached parts. Fig. 4 is a view of the inner side of the inner side plate with attached parts. Fig. 5 is a fragmentary view showing the under side of a safety device or guard. Figs. 6 and 7 are detail views of a device for preventing injury to the mechanism when it is being attached to a door.

The plates 1 and 2 are adapted to the opposite sides of a door and carry the knobs 3 and 4, respectively. The alinement of the plates is secured by the pins 5 and 6, which telescope in sockets in the outer side plate, and the plates may be drawn together or clamped against the sides of the door by means of screws, such as 7. The outer side plate has an extension 8, forming an end plate, through which the pivoted bolt 9 is adapted to protrude.

10 is the latch-slide, carried by the outer side plate and connected to the latch-bolt in any suitable manner.

11 is a spindle which rotates with the knob 3 and has a connection with the plug of the cylinder-lock in the outer knob, which permits of a limited rotation relative thereto.

12 is a roll-back mounted on the spindle and operatively connected with the latch-slide, so that the latch-bolt may be retracted by rotation of the inner knob or by a key in the outer knob.

13 is a roll-back carried by the outer knob-shank and operatively connected with the latch-slide, so that normally the slide may be retracted by the rotation of the outer knob.

14 is a dogging-slide, having a notch into which a projection of the roll-back 13 extends when the parts are in the position shown in the drawings.

15 is an operating member pivoted to the end plate 8 and connected to the dogging-slide 14 by means of a pivoted arm 16.

The details of the night-latch mechanism, which consists of the parts 14, 15, and 16, are more fully described in my Patent No. 790,936, before referred to.

When the parts are in the position shown in the drawings, the outer knob is dogged or blocked; but the bolt may be retracted by operation of a key in the outer knob, which retracts the slide through the medium of the spindle 11 and roll-back 12. It is possible in some instances to insert an instrument at the edge of the door and change the position of the night-latch mechanism from "on" to "off" position, so that the latch-bolt may be retracted by the ordinary rotation of the outer knob without the use of a key. To prevent this, I provide a safety device or guard. (Shown particularly in Figs. 1, 4, and 5.) 17 is a dog adapted to be moved back of one arm of the operating member 15 of the night-latch mechanism. 18 is a plate affording a support for the dog 17. 19 is a spring which holds the dog normally against the stop 20. 21 is a lug or post carried by the inner side plate and to which the operating-plate 18 is pivoted at 25. 22 is a spring which holds the operating-plate 18 in its position as shown in the drawings. When the mechanism is attached to a door, the door is

open, and the night-latch on, the parts are in the position shown in Fig. 1. When the door is closed, the operating member 18 contacts with the strike-plate or with the edge of the door-casing and is swung on its pivot so as to bring the dog 17 in the rear of the right-hand arm of the operating member 15 of the night-latch mechanism. This prevents the night-latch mechanism from being thrown to off position so long as the door remains closed. When the door is opened, the spring 22 throws the operating member 18 back into the position shown in full lines in the drawings, so that the dog 17 is thrown out of its stopping position. When the night-latch is off, the right-hand arm of course stands in the way of the dog 17. The dog, however, being yieldingly mounted, simply strikes against the arm of the night-latch operator 15 when the door is closed, the safety-operator 18 swinging into its usual position when the door is closed without injuring the parts.

This type of mechanism is adapted to be attached to a door by sawing a notch in the edge to allow for the bolt and connections between the plates and then bore holes through the door for the spindle and the clamping-screws.

23 is a guard-plate connected to the lower edge of the end plate 8 by means of a screw passing through the shank 24. This guard-plate extends inward to such a point that when the mechanism it being applied to the door the guard will strike the rear end of the notch and prevent any injury to the mechanism.

What I claim is—

1. In a lock and latch mechanism, side plates adapted to the opposite sides of a door, a bolt and night-latch mechanism carried by one side plate, and a safety device for the night-latch mechanism carried by the opposite side plate.

2. In a lock and latch mechanism, a bolt, a night-latch mechanism including a pivoted operator, and a safety device for the night-latch mechanism including a pivoted dog.

3. In a lock and latch mechanism, a pair of side plates, knobs carried thereby, a bolt carried by one side plate, operative means of connection between said knobs and said bolt, a night-latch mechanism, a safety device therefor including an operating member adapted to project laterally from one side of the mechanism.

4. In a lock and latch mechanism, a pair of side plates, knobs carried thereby, a bolt, operative means of connection between said knobs and said bolt, a night-latch mechanism, and a safety device for preventing the opera-

tion of the night-latch mechanism when the door to which the mechanism is attached is closed.

5. In a lock and latch mechanism, a pair of side plates adjustable to and from each other, a bolt, operating means therefor, night-latch mechanism carried by one side plate, and a safety device carried by the other side plate for preventing the operation of the night-latch mechanism when the door to which the mechanism is attached is closed.

6. In a lock and latch mechanism, a bolt, means for retracting said bolt, night-latch mechanism for dogging said retracting means including an operating member pivoted on a vertical axis, and a safety device for said night-latch mechanism including an operating member pivoted on a vertical axis.

7. In a lock and latch mechanism, a bolt, means for retracting said bolt, night-latch mechanism for dogging said retracting means, and a safety device for preventing the operation of the night-latch mechanism including an operating member and a spring-pressed dog carried thereby.

8. In a lock and latch mechanism, a bolt, means for retracting said bolt, night-latch mechanism for dogging said retracting means, and a safety device for preventing the operation of the night-latch mechanism including a pivoted operating member and a dog yieldingly mounted thereon.

9. In a lock and latch mechanism, a bolt, means for retracting said bolt, night-latch mechanism for dogging the retraction of said bolt, and a safety device for said night-latch mechanism including an operating member projecting laterally from one side of said mechanism.

10. In a lock and latch mechanism, a pair of side plates, a bolt carried by one side plate, means for retracting said bolt, night-latch mechanism therefor and a safety device for preventing operation of said night-latch mechanism.

11. In a lock and latch mechanism, a pair of side plates adjustable to and from each other, one of said side plates having an extension forming an end plate, a latch-bolt protruding through said end plate, means for retracting said latch-bolt, night-latch mechanism for dogging the retraction, and a safety device for said night-latch mechanism including an operating member projecting from one side of said mechanism in the rear of said end plate.

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Witnesses:

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