

No. 812,821.

PATENTED FEB. 20, 1906.

C. J. CALEY & H. G. VOIGHT.

LOCK MECHANISM.

APPLICATION FILED MAY 25, 1905.

Fig. 1.

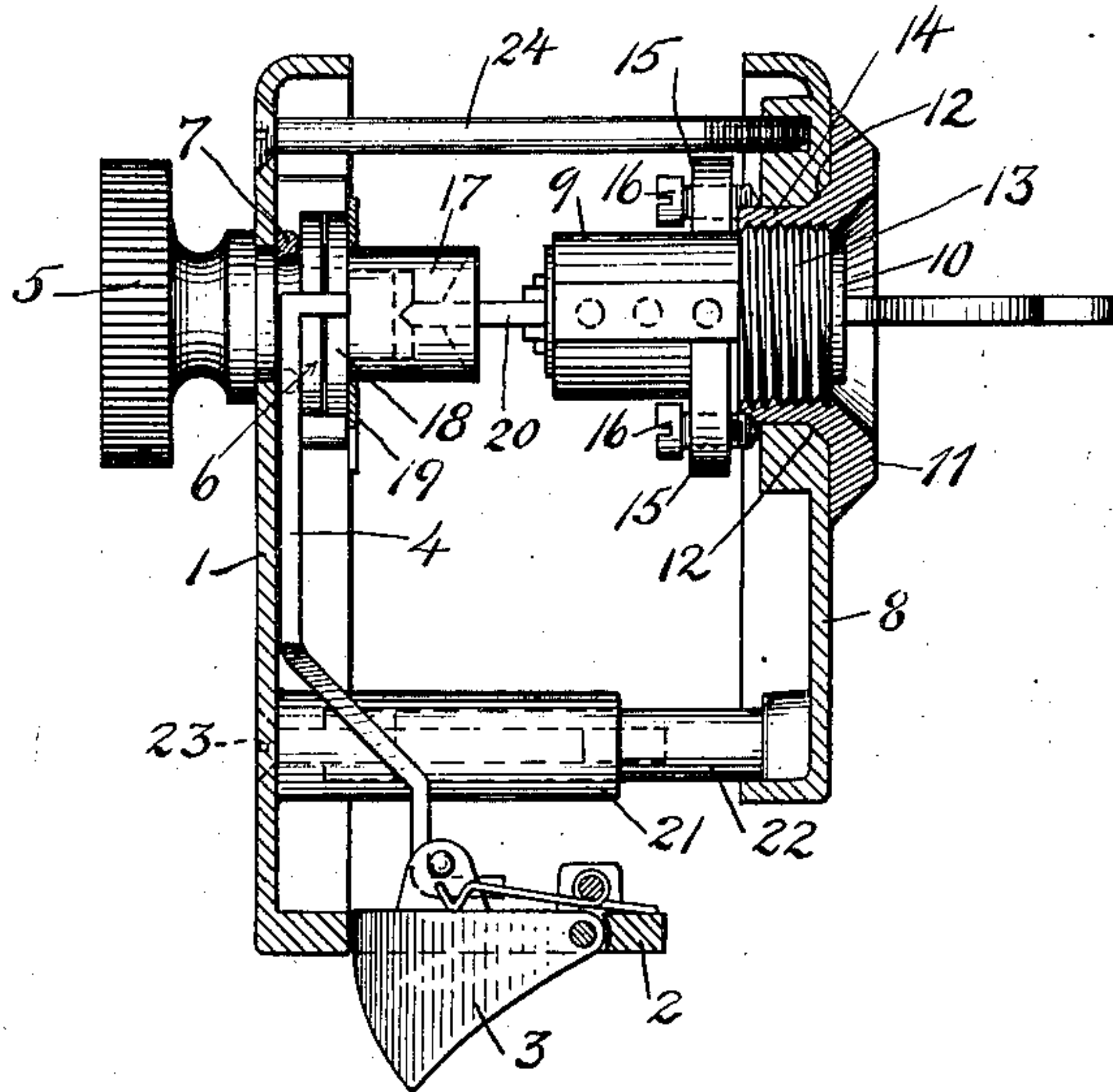


Fig. 2.

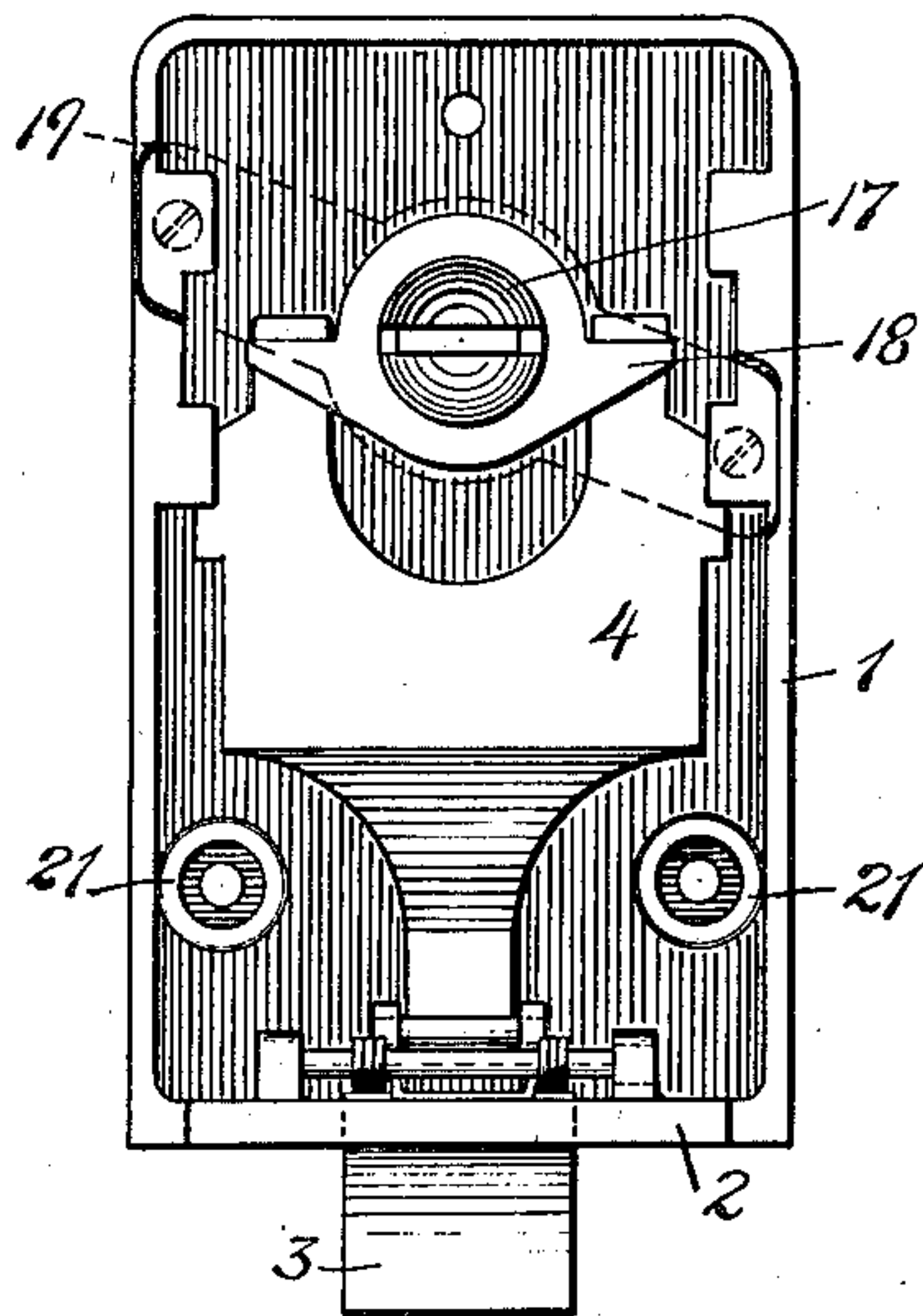


Fig. 3.

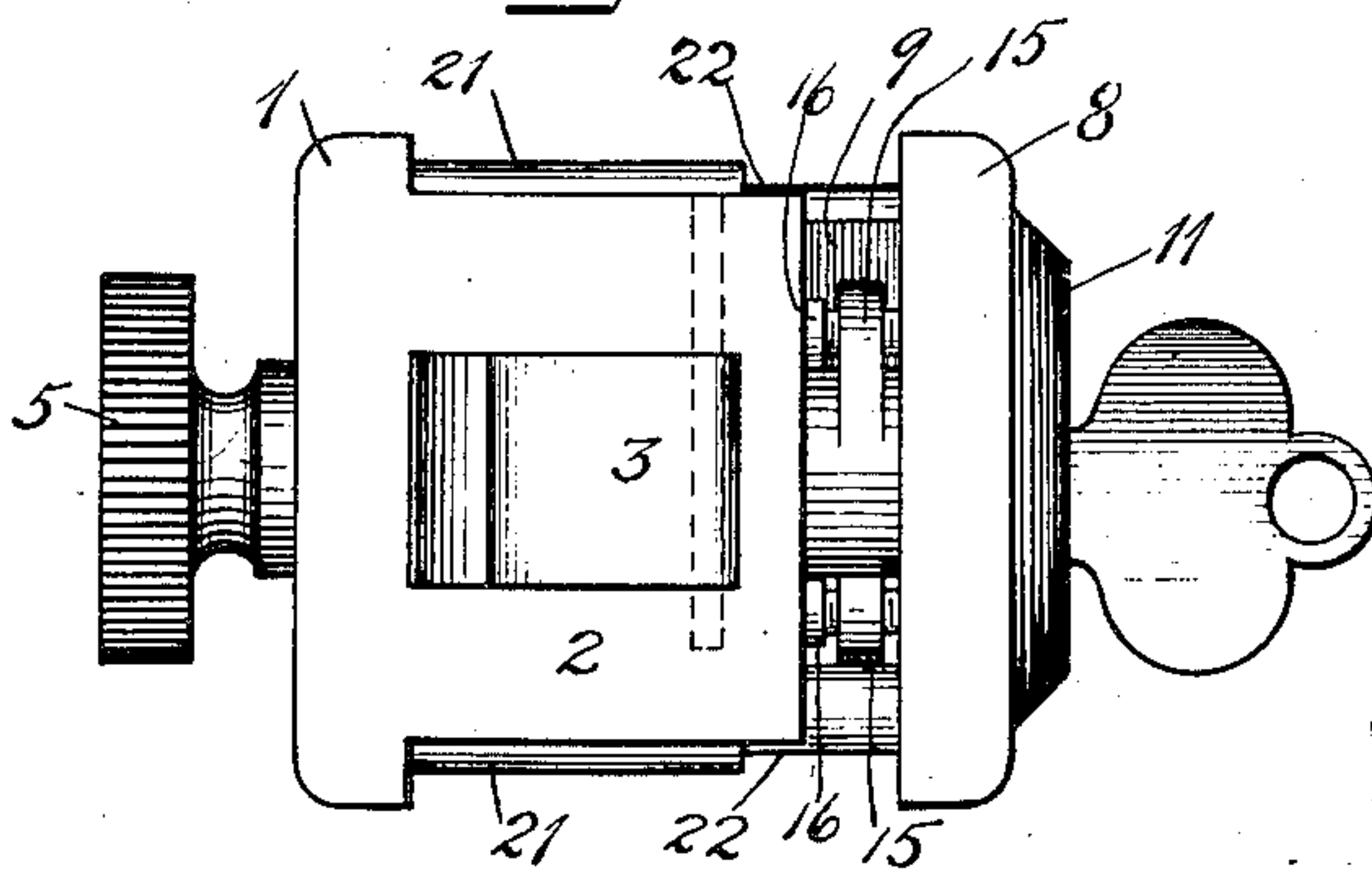


Fig. 4.

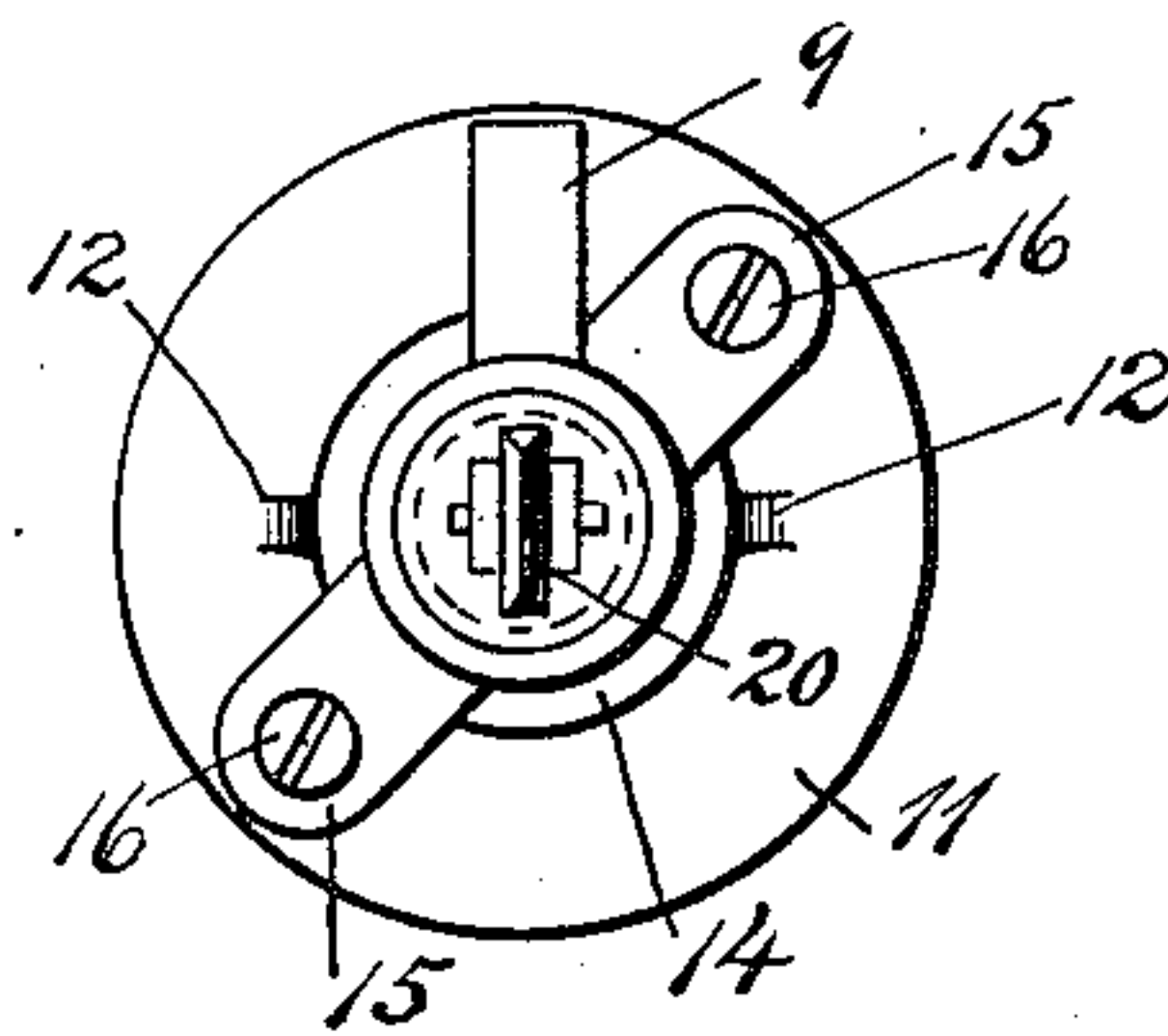
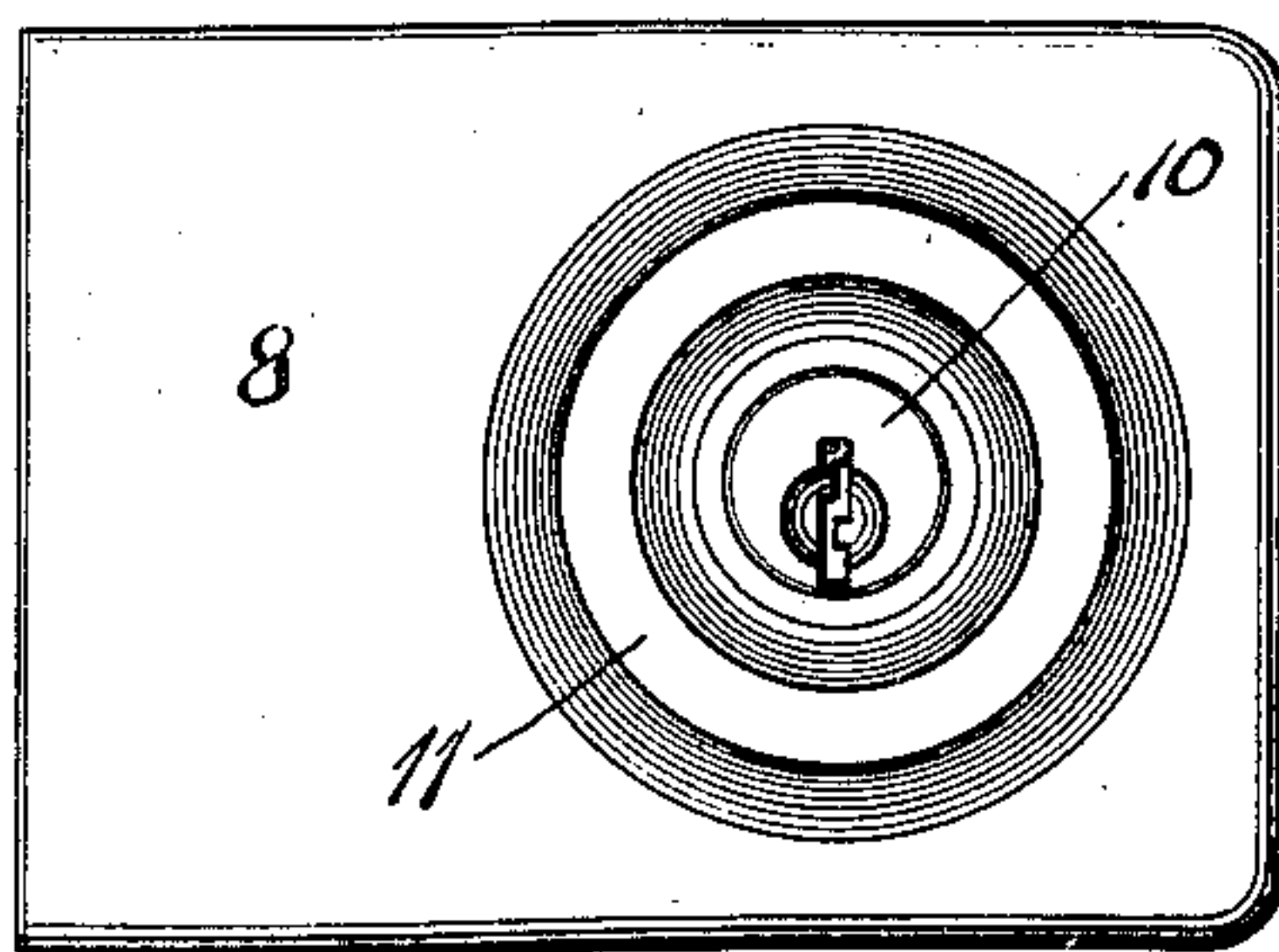


Fig. 5.



Witnesses  
G. V. Rasmussen  
K. P. Allen

Inventors  
CHARLES J. CALEY  
HENRY G. VOIGHT  
By their Attorneys  
Baileys, Birmeley & Hilditch



# UNITED STATES PATENT OFFICE.

CHARLES J. CALEY AND HENRY G. VOIGHT, OF NEW BRITAIN, CONNECTICUT, ASSIGNORS TO RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

## LOCK MECHANISM.

No. 812,821.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed May 25, 1905. Serial No. 262,173.

*To all whom it may concern:*

Be it known that we, CHARLES J. CALEY and HENRY G. VOIGHT, citizens of the United States, residing at New Britain, Connecticut, have invented certain new and useful Improvements in Lock Mechanism, of which the following is a full, clear, and exact description.

Our invention relates to improvements in lock mechanism.

The object of the invention is to provide a simple lock mechanism which may be readily applied to a door of any thickness (within reasonable limits) without disturbing the alinement or adjustment of the parts.

The invention is particularly directed to that type of lock in which the latch or bolt is operated from the inside of the door by a thumb-piece and operated from the exterior only by a key. For this purpose the bolt and bolt-actuating mechanism are all carried by a frame-plate located at the inner edge of the door, while the cylinder-lock is carried by another frame-plate located on the outside of the door, said plates being provided with mutually coöperable members for properly positioning the parts and also securely attached to the door by screws accessible from the inside frame-plate. The cylinder-lock is so constructed as to be readily applied or removed and so as to provide a centralizing device for the key.

The principles of the invention are illustrated in the accompanying single sheet of drawings.

Figure 1 is a plan view and horizontal section of mechanism involving the improvements of our invention. Fig. 2 is a view of the inside of the inner frame-plate, together with the latch-bolt and operating mechanism. Fig. 3 is a front view of the lock mechanism. Fig. 4 is an end view of the cylinder-lock mechanism. Fig. 5 is a vertical projection of the outer frame-plate.

1 is the inner frame-plate.

2 is a projecting portion thereon forming an end plate adapted to stand over the edge of the door.

3 is a latch-bolt suitably pivoted and normally pressed outward, as is customary.

4 is the latch-slide, provided with suitable guideways and stops.

5 is the inner actuating member or thumb-

piece, provided with suitable bearings in the inner frame-plate.

6 is the roll-back, operated by the thumb-piece 5 and adapted to coact with the slide 4.

7 represents a split ring seated in a groove and adapted to hold the thumb-piece in position.

8 is the outer frame-plate.

9 is the body of a cylinder-lock containing suitable pins, &c.

10 is a plug member of the cylinder-lock adapted to be turned relative to the body when the proper key is inserted.

11 is an annular plate provided with an opening with walls converging toward the plug 10.

12 12 are webs or projections carried by this plate 11 and adapted to be seated in grooves or recesses correspondingly formed in the outer frame-plate 8 for preventing the parts from rotating relatively to one another.

13 is a screw-threaded portion on the body of the cylinder-lock which is seated in a correspondingly-threaded portion of a tubular portion extending rearwardly from the plate 11.

15 15 are lugs projecting from the cylinder-body 9.

16 16 are set-screws coacting with tapped holes in lugs 15 15 and adapted to be adjusted so as to press against the inner face of the outer frame-plate 8 and draw the plate 11 securely into position, as shown in Fig. 1.

By this construction we are enabled to manufacture a suitable lock and secure it to the outer frame-plate in an economical and satisfactory manner and so that the parts cannot accidentally become displaced after they are once assembled.

17 is a shank suitably mounted on the extension of the shank of the inner knob or thumb-piece. 18 is a roll-back rotatable therewith and adapted to coact with the latch-slide 4.

19 is a keeper-plate suitably secured to the inner frame-plate 1 and adapted to hold the roll-back 18 and its shank 17 in place.

20 is a spindle carried by the plug 10 and projecting into a correspondingly-shaped opening in the shank 17. The turning of the plug 10 therefore by means of a key will rotate the shank 17 and roll-back 18 and retract the slide 4 and latch-bolt 3.



21 21 represent tubular projections carried by the inner frame-plate 1.

22 22 are posts carried by the outer frame-plate 8 and adapted to fit into the tubular members 21 21 and properly aline and position the parts.

23 represents one of a pair of screws adapted to be inserted through the inner frame-plate 1 to take into the posts 22 22 and draw the parts together. 24 is a screw for connecting the rear of the two frame-plates. All of these screws are accessible only from the inside of the door, which with the lock when applied to the door may not be interfered with from the exterior. By this peculiar construction, however, it is adapted to doors of different thicknesses.

What we claim is—

1. A lock mechanism, comprising inner and outer frame-plates adapted to be secured to the opposite sides of a door, latch-operating mechanism carried by one of said frame-plates, including two roll-backs, and a thumb-piece connected to one roll-back a cylinder-lock mechanism carried by the opposite frame-plate, means of connection between said cylinder-lock mechanism and the other roll-back and a guard-plate on the exterior of said last-mentioned frame-plate and having an opening with walls converging concentrically to the plug of said cylinder-lock.

2. In a lock mechanism, the combination of an inner frame-plate, latch-operating mechanism carried thereby, an outer frame-plate, a cylinder-lock body having a screw-threaded portion, a plug, means of connection between said plug and said latch-operating mechanism a member mounted in said outer frame-plate having a screw-threaded portion engaging with the screw-threaded portion of said cylinder-body, means for preventing rotation of said member in said outer frame-plate, and means for clamping said cylinder-body and member in place in said outer frame-plate.

3. In a lock mechanism, the combination

of inner and outer frame-plates, an operating-slide for the latch-bolt carried by the inner frame-plate, a thumb-piece mounted in said inner frame-plate and having a roll-back for coöperation with said slide, a cylinder-lock carried by said outer frame-plate in line with said thumb-piece, a shank and roll-back in line therewith adapted to coact with said slide, a spindle connection between said cylinder-lock and said shank, and means for alining and positioning said inner and outer frame-plates.

4. In a lock mechanism, inner and outer frame-plates adapted to the opposite sides of a door, an end plate carried by one of said frame-plates, a latch-bolt operable there-through, a slide carried by one of said frame-plates, a thumb-piece and roll-back for coöperating therewith, a cylinder-lock carried by the outer frame-plate, a spindle projecting therefrom in line with said thumb-piece, a roll-back controlled thereby independent of said first-mentioned roll-back and for coöperating with said latch-slide, and means for clamping said frame-plates in place.

5. In a lock mechanism, the combination of inner and outer frame-plates, a latch-bolt and operating-slide carried by one of said frame-plates, a thumb-piece carried by said inner frame-plate for operating said latch-slide, a cylinder-lock mechanism carried by the outer frame-plate with connections for operating said latch-slide, tubular members projecting from said inner frame-plate near the edge thereof, posts corresponding thereto and projecting from the outer frame-plate, screws coöperating therewith for drawing said frame-plates together, and an independent screw for drawing said frame-plates together and located at the rear of said thumb-piece and cylinder-lock.

CHARLES J. CALEY.  
HENRY G. VOIGHT.

Witnesses:

C. E. RUSSELL,  
M. S. WIARD.