

H. G. VOIGHT.
ADJUSTABLE LOCK OF THE CYLINDER TYPE.
APPLICATION FILED FEB. 15, 1908.

904,580.

Patented Nov. 24, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

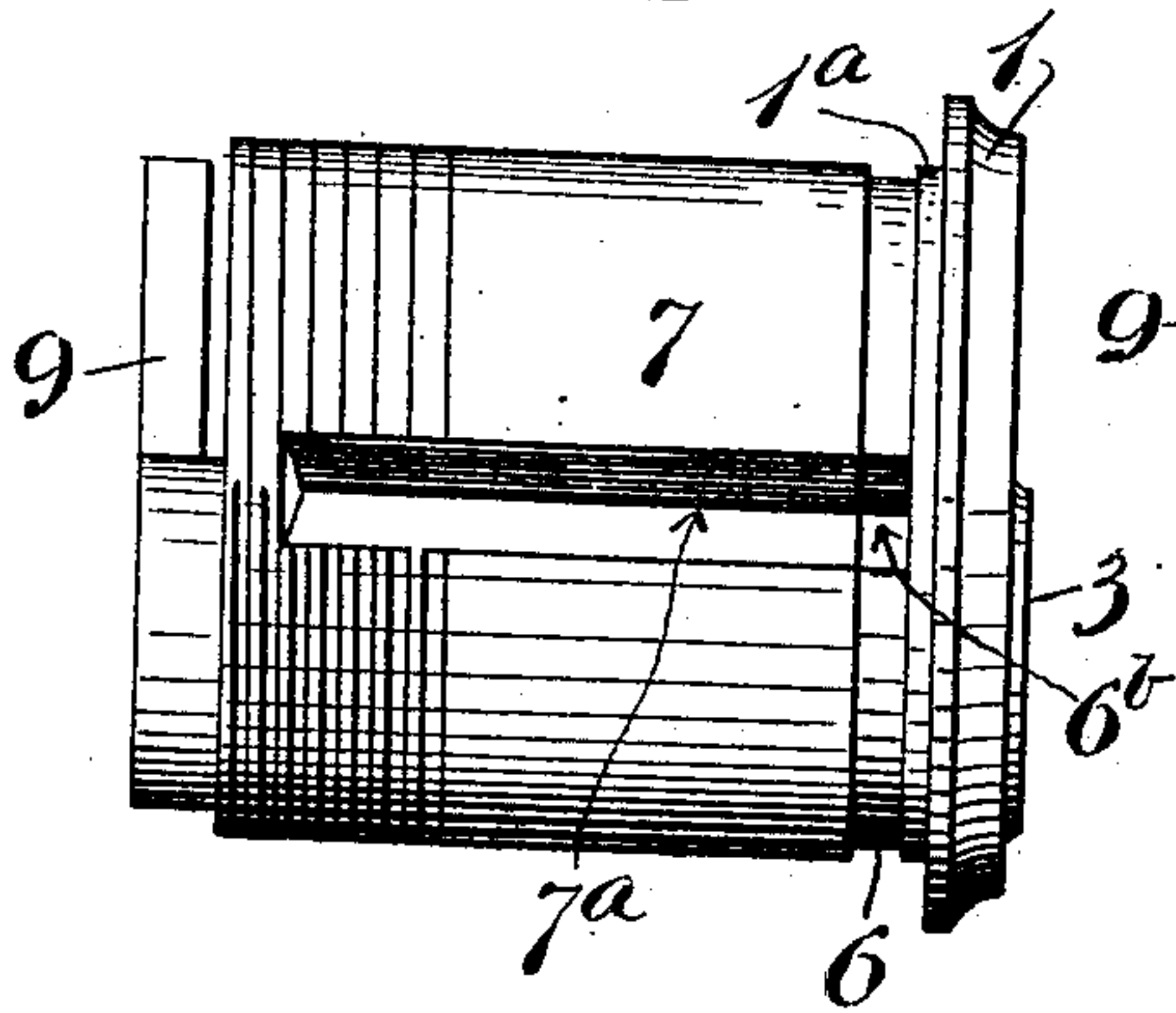


Fig. 2.

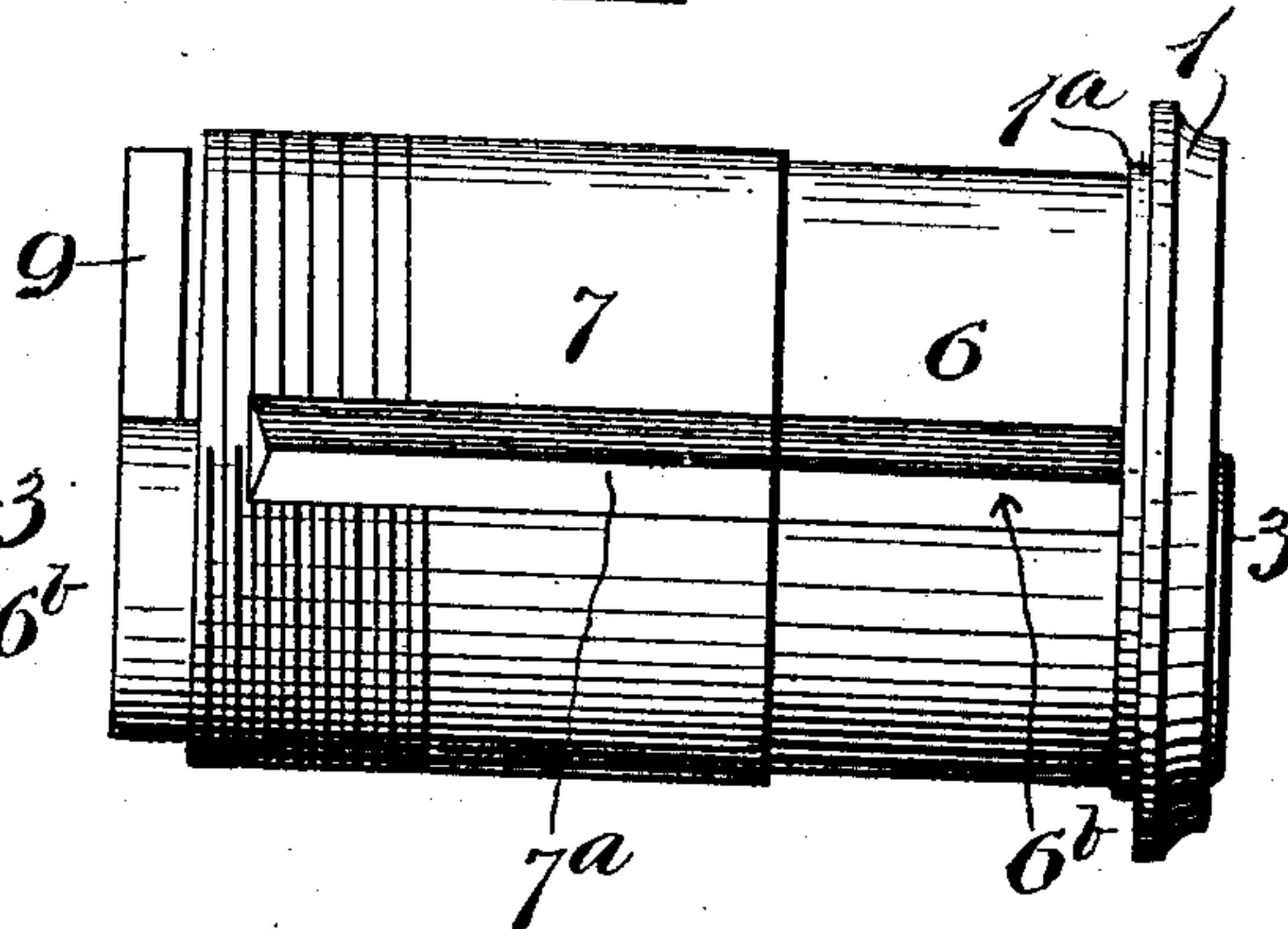


Fig. 3.

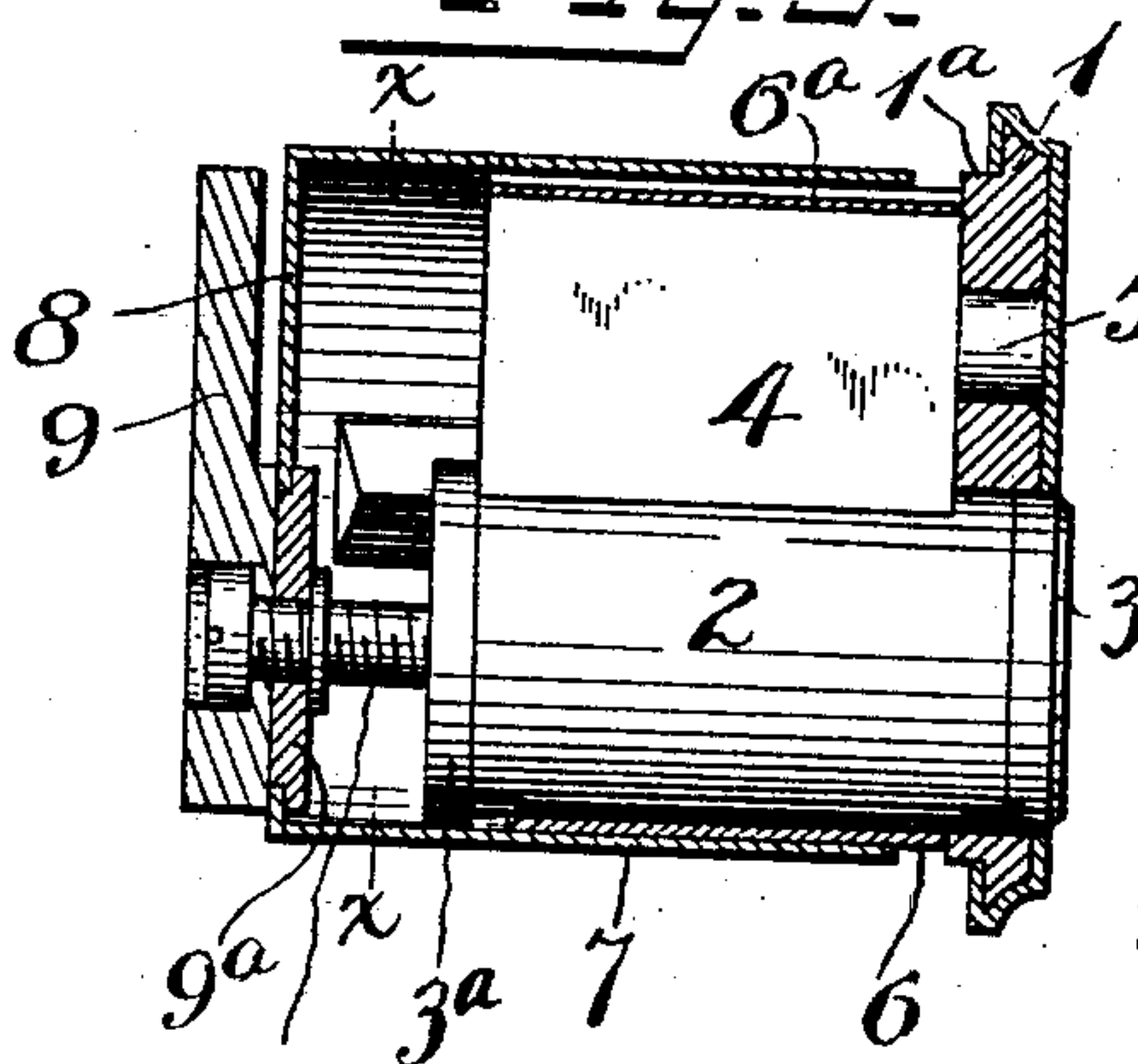
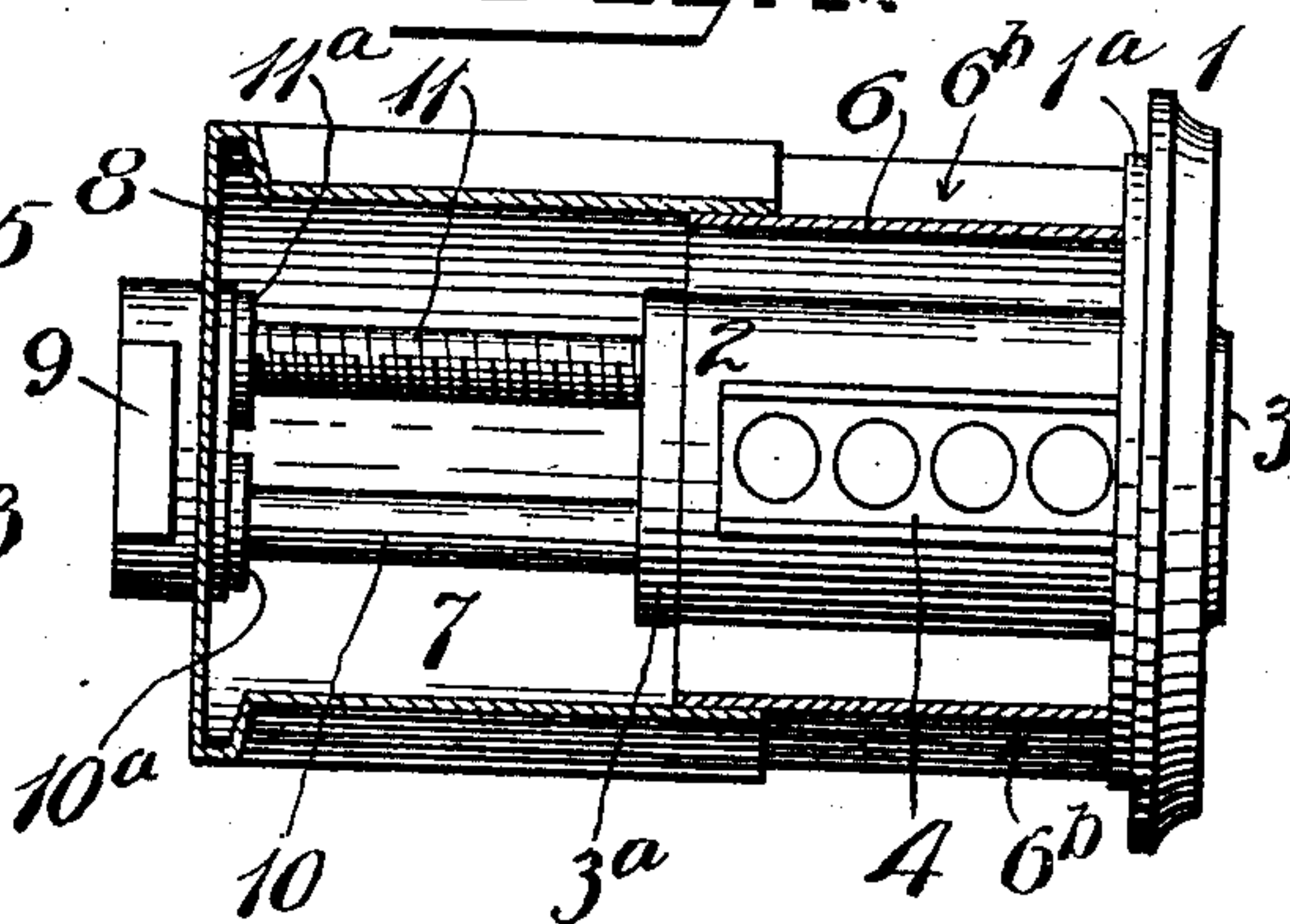


Fig. 4.



Witnesses:
Chas. A. Reed
Fred M. Dammeyer

Inventor
H. G. VOIGHT
By his Attorneys
Barclay Brown & Shute

H. G. VOIGHT.
ADJUSTABLE LOCK OF THE CYLINDER TYPE.
APPLICATION FILED FEB. 15, 1908.

904,580.

Patented Nov. 24, 1908.

2 SHEETS—SHEET 2.

Fig. 5.

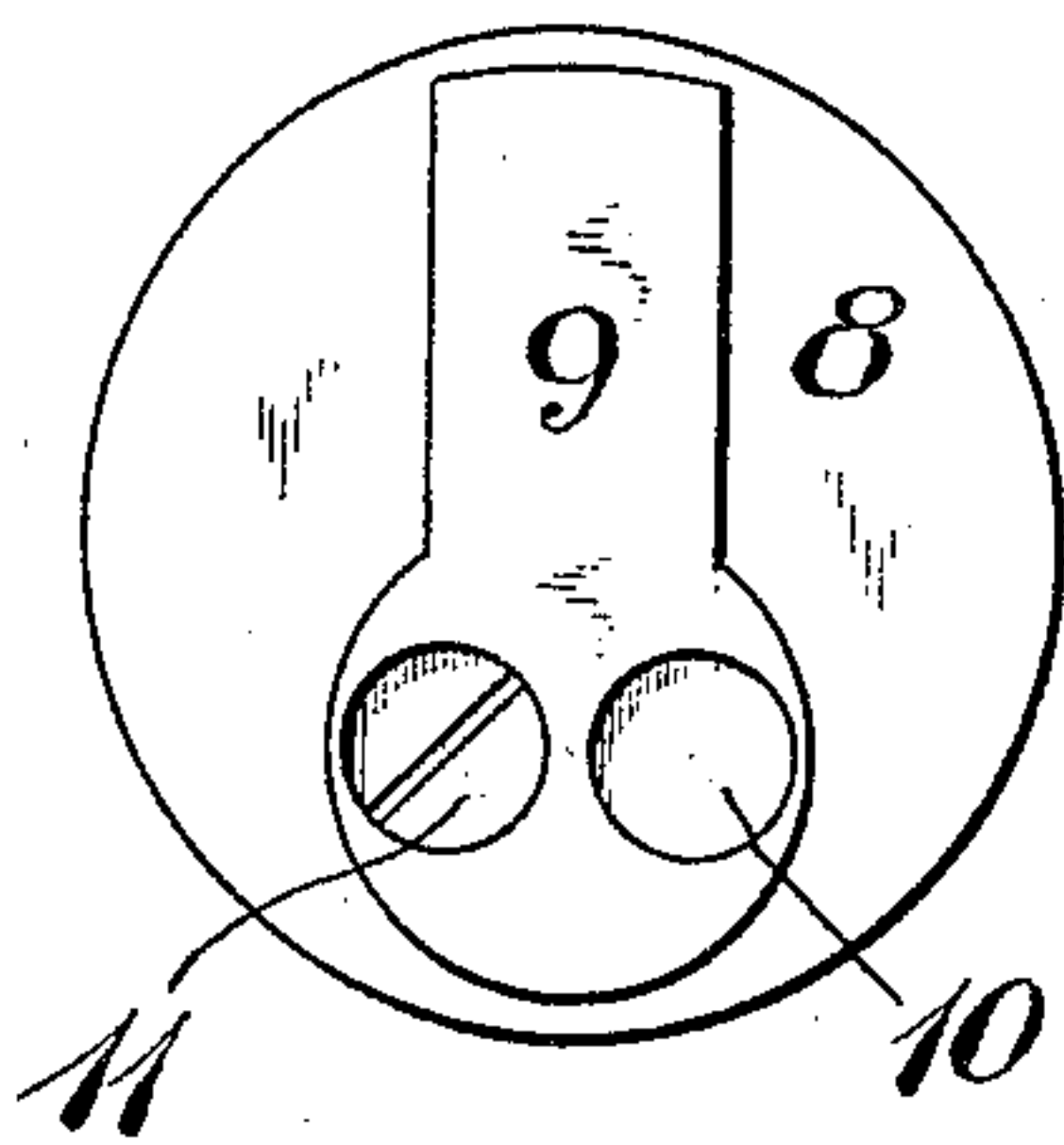


Fig. 6.

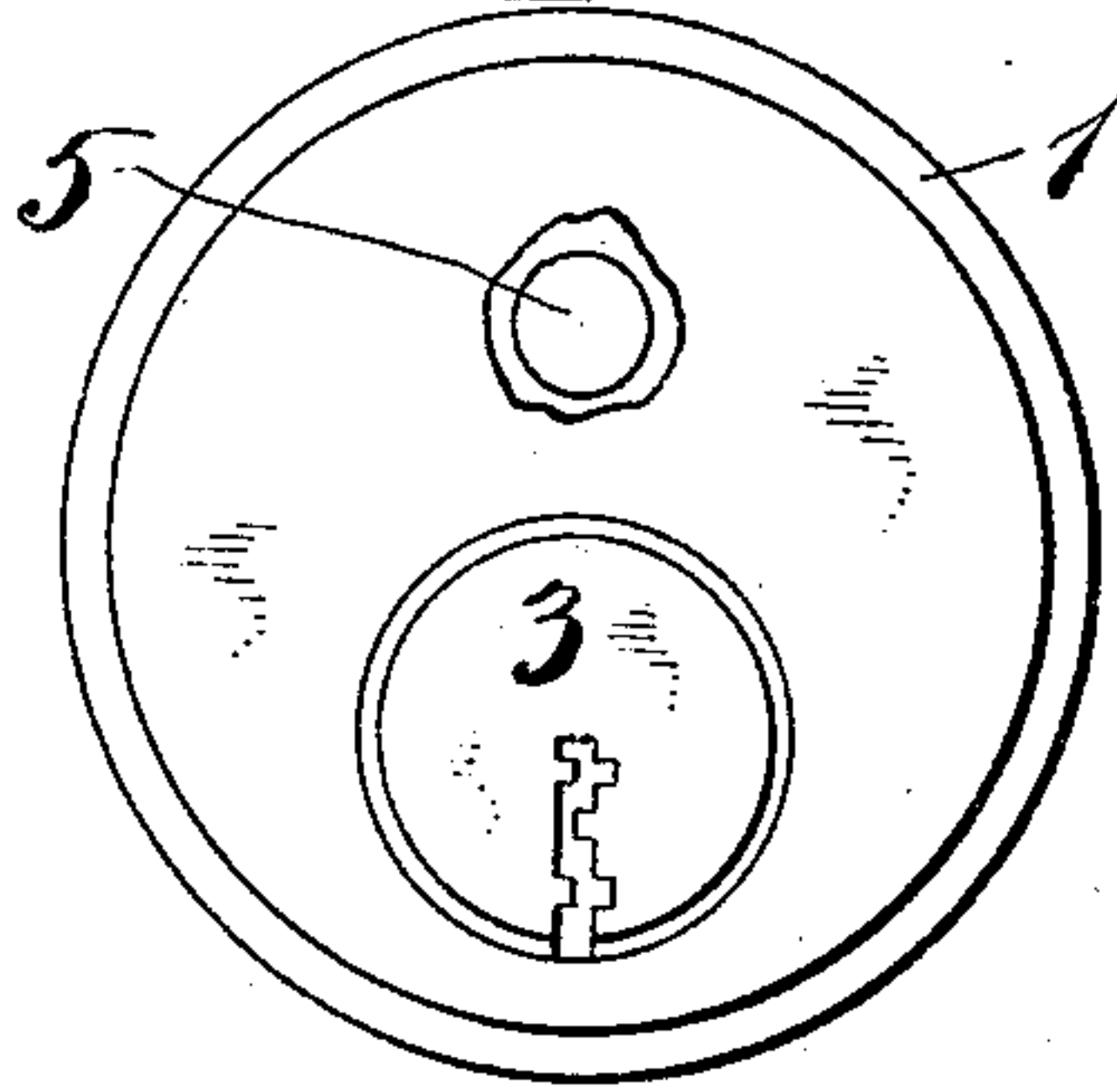


Fig. 7.

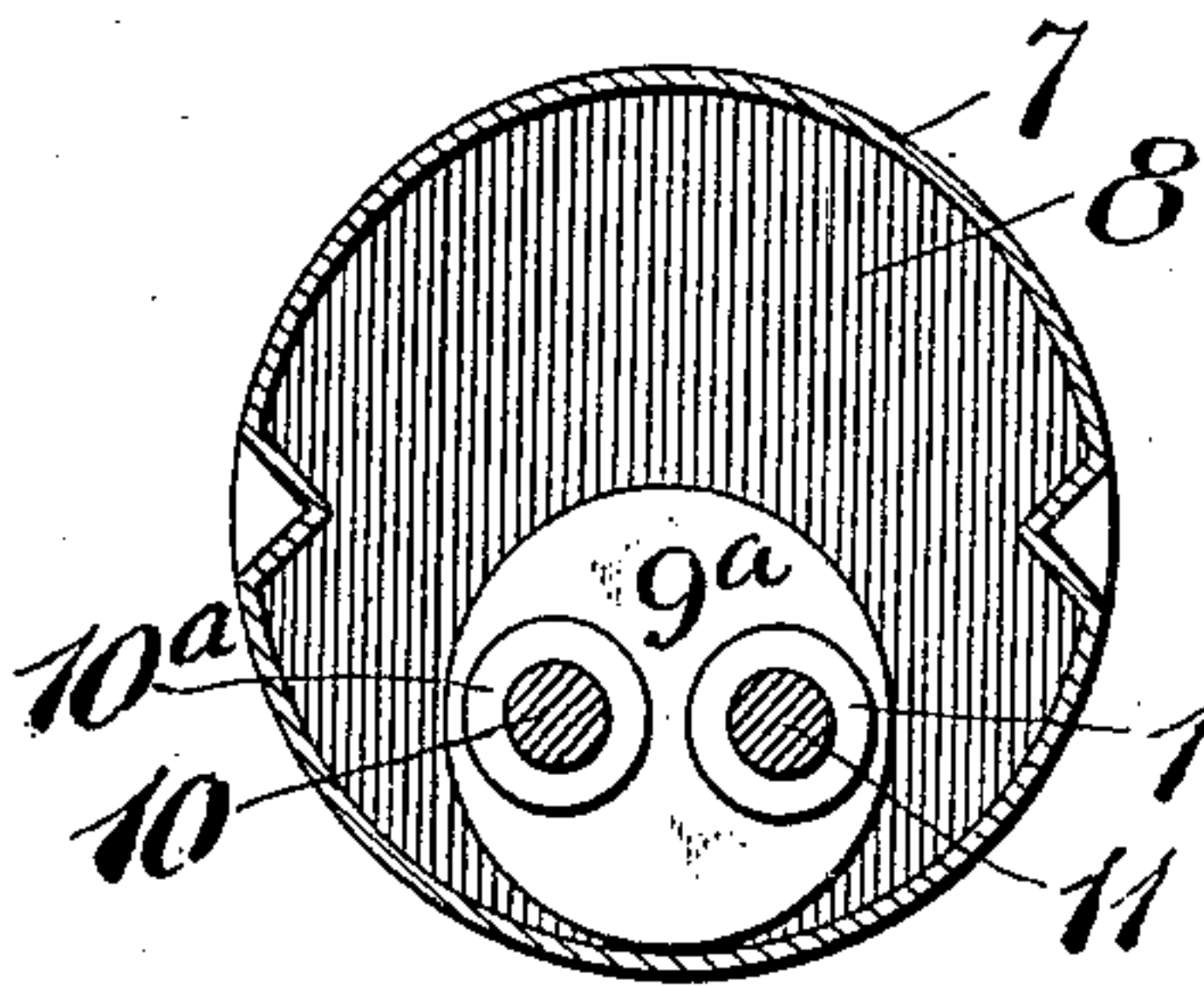


Fig. 8.

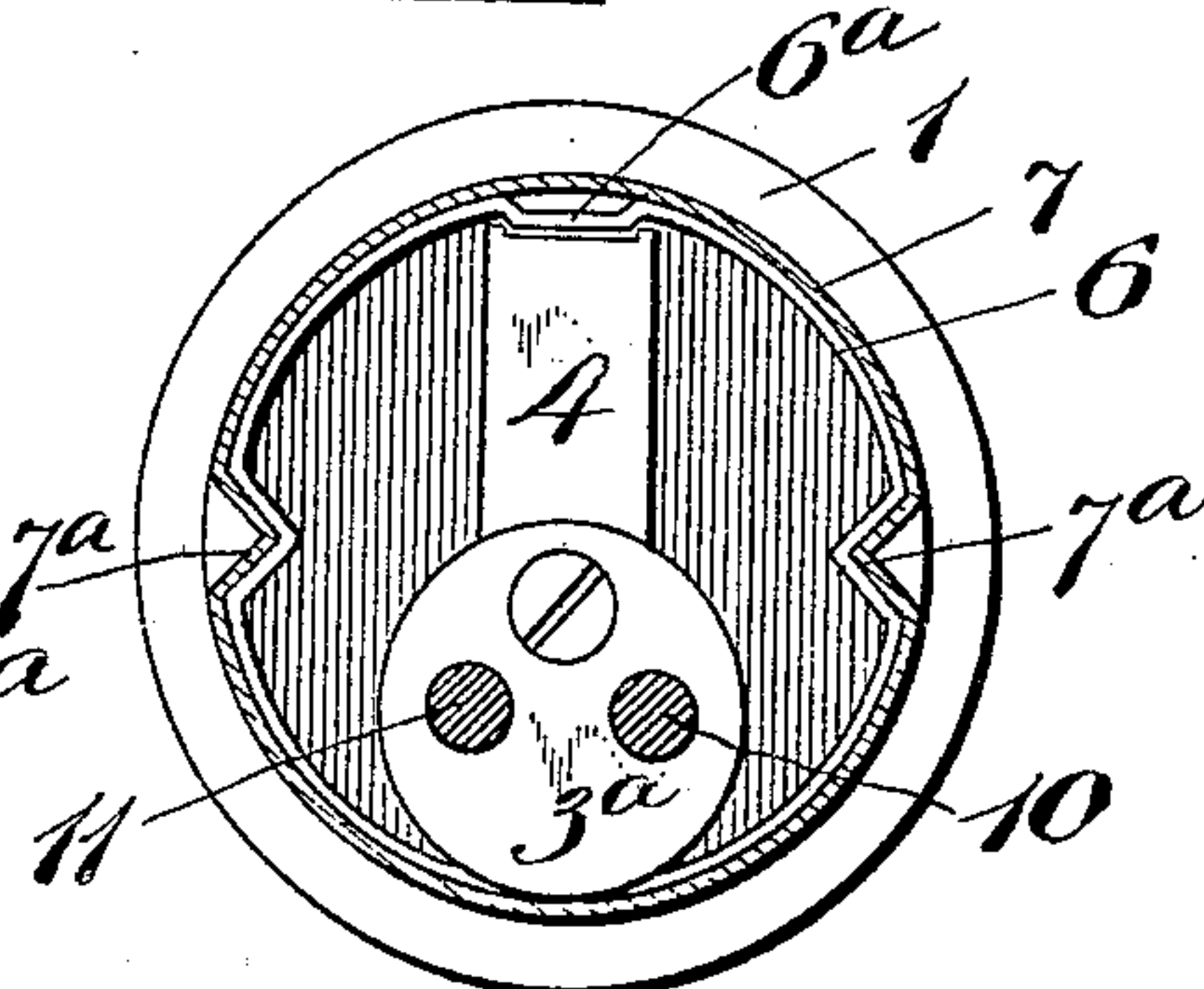


Fig. 9.

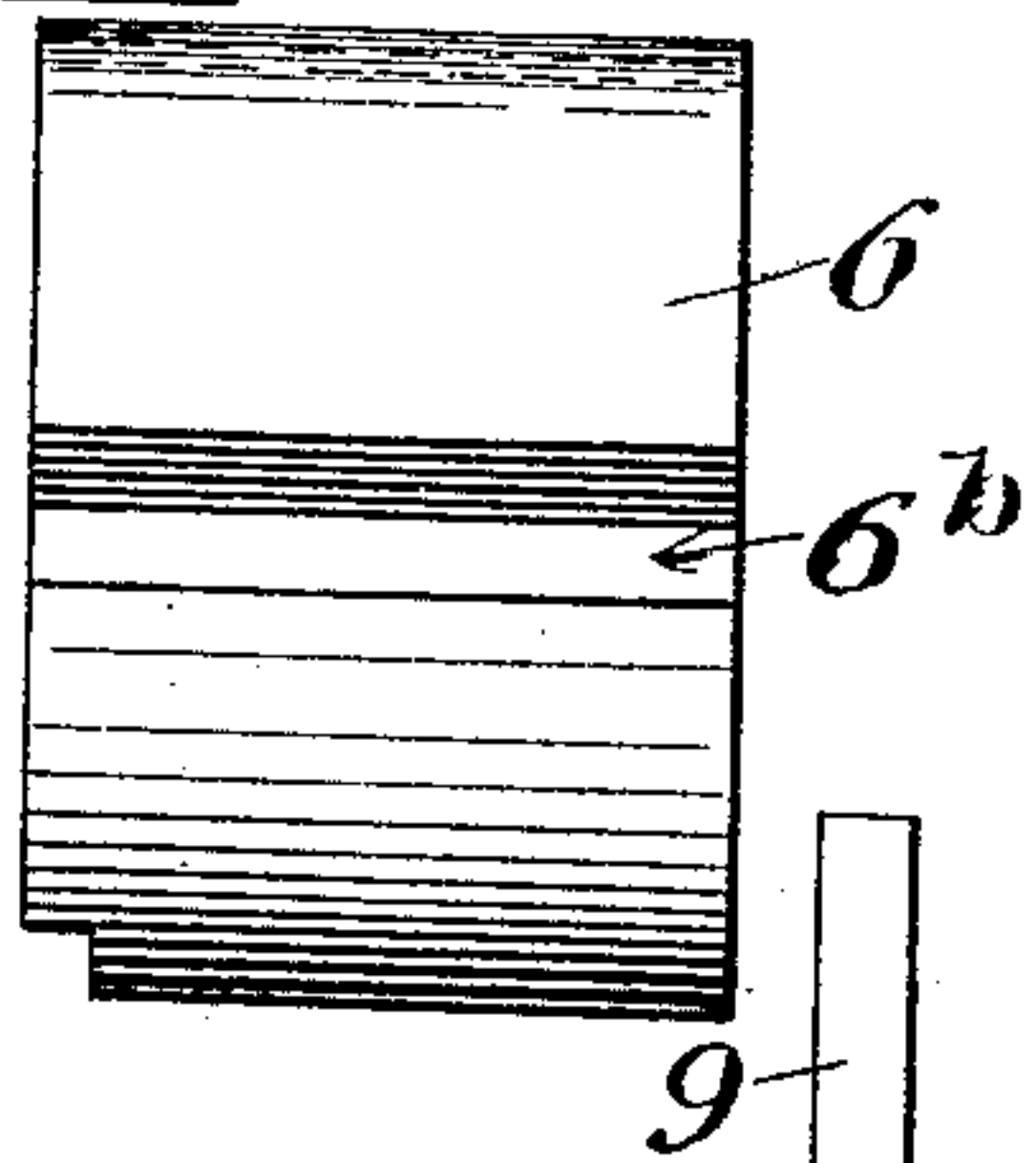


Fig. 10.

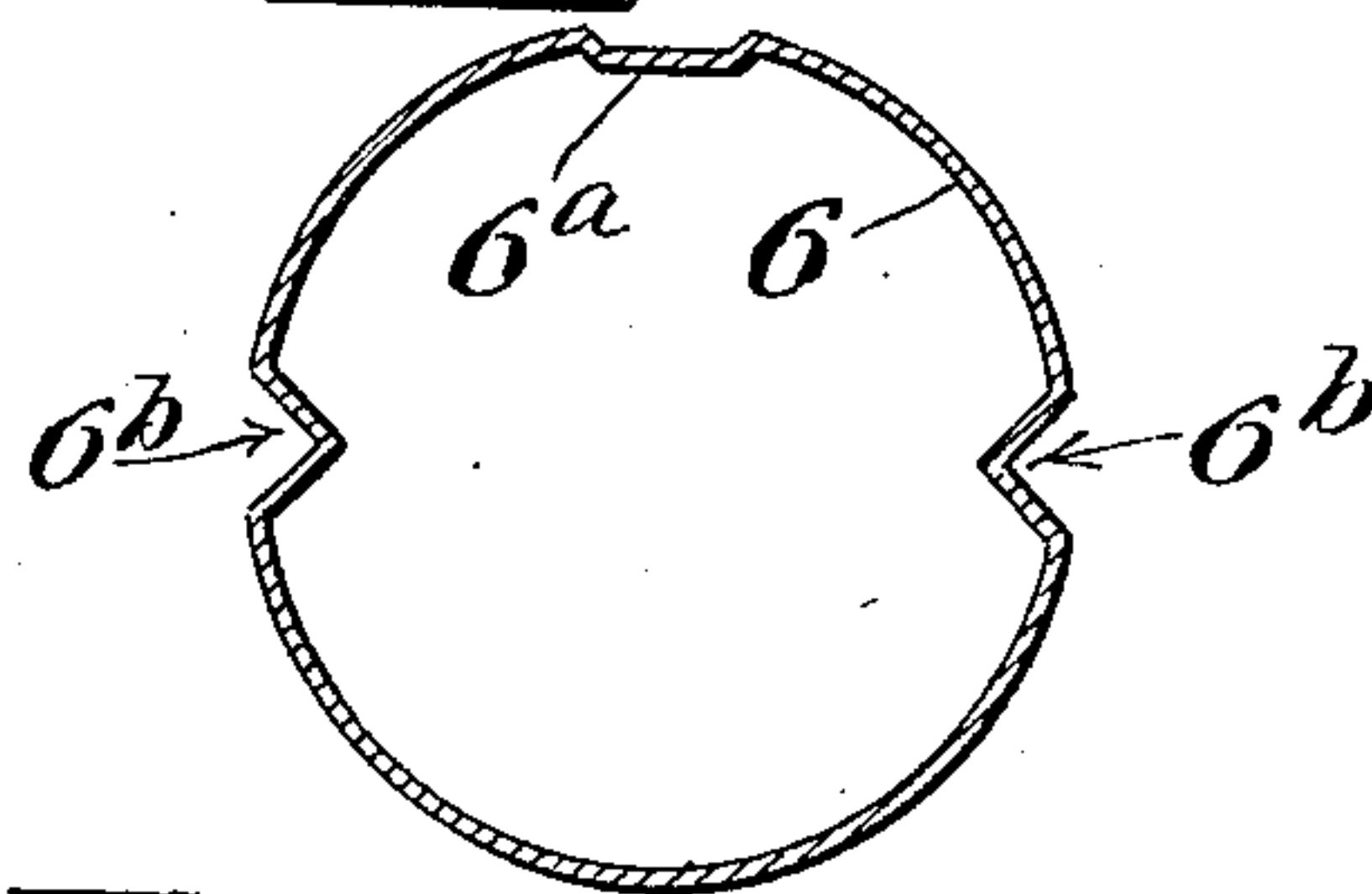


Fig. 11.



Fig. 12.



Witnesses:
Charles A. Reed
Fred M. Dammunfelser

Inventor
H. G. VOIGHT
By his Attorneys
Paul H. Brown & Ketchum

UNITED STATES PATENT OFFICE.

HENRY G. VOIGHT, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ADJUSTABLE LOCK OF THE CYLINDER TYPE.

No. 904,580.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed February 15, 1908. Serial No. 416,040.

To all whom it may concern:

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

My invention relates to improvements in cylinder locks, the object being to provide a simple, light and efficient construction without sacrificing strength, efficiency or durability.

Another object of the invention is to provide a simple and efficient means for securing adjustment, whereby the cylinder lock may be employed with locks fitted to doors of different thicknesses.

In the drawings, Figure 1 is a side elevation of the complete article, showing the parts near their minimum adjustment; Fig. 2 is a similar view showing the parts near their maximum adjustment; Fig. 3 is a vertical longitudinal section of Fig. 1, certain parts being shown in elevation; Fig. 4 is a horizontal section of Fig. 2, certain parts being shown in elevation; Fig. 5 is a rear end view; Fig. 6 is a front end view, partly broken away; Fig. 7 is a section on the plane of the line $x-x$, Fig. 3, looking to the left; Fig. 8 is a sectional view on the plane of the same line, looking to the right; Figs. 9 and 10 are respectively side and end elevations of a detail of construction; Fig. 11 is an edge view of the roll-back detached; Fig. 12 is an edge view of the roll-back holding disk detached.

1 is the face plate, of any desired construction. This plate may be provided with the usual ornamental finishing scalp, if desired (see Fig. 3).

2 is a cylinder casing.

3 is the key-plug.

4 is the tumbler casing.

5 is a rivet-like extension on the casing 4. The forward end of the tumbler casing takes a seat in the plate 1, while the extension 5 is riveted thereto so as to secure the parts 1, 2 and 4 together as a frame.

6 is a hollow cylindrical shell carried by the parts thus far described and connected thereto in any desired manner. This shell is preferably recessed at its upper side to

form a flat portion 6^a which operates as a slide to cover the upper edge of the pin tumbler casing 4, making it unnecessary to provide a separate closure for said casing to retain the tumblers therein. This shell 6 is also recessed at opposite sides, as at 6^b, for the purpose hereinafter described. The upper edge of the tumbler casing is preferably recessed, as shown in Fig. 8, to receive the part 6^a of the shell 6. By this arrangement also, when the shell 6 is in place, the independent rotation of the parts 6 and 1 is prevented.

The plug 3 is provided at its inner end with a retaining disk or washer 3^a, the diameter of which is sufficient to overstand and hold the adjacent edge of the shell 6. This cap 3^a thereby performs the double function of holding the plug 3 in the cylinder casing, and also holding the shell 6 from displacement.

7 is a second cylindrical shell telescoping with the shell 6. The sides of the shell 7 are struck in, as at 7^a 7^a, to register with and slide in the recesses 6^b of the shell 6, thus preventing independent rotation of said shell section and guiding the parts.

8 is an end plate for the shell 7.

9 is a roll-back rotatably carried by the end plate 8 and held in place in any desired manner, as by a flanged disk 9^a. Projecting forwardly from the roll-back 9 is a dowel pin 10 and a screw 11. The dowel pin 10 may be held in place by a collar 10^a swaged upon the said dowel pin and serving to hold the flanged disk 9^a in position. The adjusting screw 11 may also be provided with a collar 11^a, but this should not be fitted so tightly against the disk as to prevent the screw from being turned for adjustment. The dowel pin 10 and the screw 11 take into cavities in the end of the plug 3, one of these cavities being properly screw-threaded to receive the screw 11.

From the foregoing it will be seen that it requires merely the turning of the screw 11 to adjust the shell sections to and fro, whereby the length of the cylinder may be increased or diminished to the desired extent. By so doing, the lock may be secured to the lock case with which it is to be connected, irrespective of the thickness of the door. In this case, as in all cylinder locks, the inner

end of the cylinder portion is threaded to make engagement with the lock case. When the desired engagement has been effected, the usual set-screw (not shown) carried by the lock case, is set in to prevent the rotation of the cylinder lock, the groove 7^a receiving the nose of this set-screw.

1^a is a rearwardly projecting centering shoulder on the face plate 1. The diameter and outline of this shoulder corresponds substantially to the diameter of the adjustable shell section 7. By providing this centering shoulder, the face plate is held against lateral movement in the aperture in which the lock is inserted, which obviously must be of sufficient size to permit the shell section 7 to be passed therethrough.

It should be understood that the terms "roll-back" and "key-plug" are conventionally employed and are intended to include the substitution of equivalent devices. It should also be understood that the particular tumbler construction employed is immaterial to this invention.

What I claim is:

1. In a lock, a frame, a key-operated device therein, a hollow shell carried thereby, a second hollow shell telescopic with the first and adjustable thereon, an adjusting device for positioning one shell on the other, and means of connection between said plug and key-operated device.

2. In a cylinder lock, the combination of a frame, a key-plug therein, a hollow shell carried by said frame, a second hollow shell telescopically adjustable with the first, with means for mechanically adjusting one on the other a roll-back carried by said second shell, and a connection between said key-plug and roll-back adapted to various positions of adjustment of said shell members.

3. In a cylinder lock, the combination of a frame, a key-plug therein, a hollow shell carried by said frame, a second hollow shell adjustable telescopically with the first, a roll-back carried by said second shell, a connection between said key-plug and roll-back adapted to various positions of adjustment of said shell members, and a centering shoulder on said frame of a size and outline corresponding substantially to the size and outline of the second shell member.

4. In a cylinder lock, the combination of a frame including a cylinder casing and a tumbler casing open at the upper end, a key-plug in said cylinder casing, a hollow shell carried by said frame, part of said shell overstanding and closing the open end of said tumbler casing, a second hollow shell adjustably telescopic with the first shell, means to prevent the independent rotation of the frame and shells, a roll-back carried by said second shell, and means connecting said roll-back with said key-plug at all positions of adjustment.

5. In a lock, a frame including a cylinder casing and a tumbler casing, a key-plug in the cylinder casing, a hollow shell carried by said frame, a key-plug cap at the inner end of the key-plug cooperating to hold said shell in place, a second shell telescopically connected for longitudinal adjustment with the first-mentioned shell, a roll-back carried by the second shell, and an adjustable connection between said roll-back and key-plug.

6. In a cylinder lock, the combination of a frame, a key-actuated device carried thereby, a hollow shell carried by the frame, means for securing the same in place and preventing rotation of one of said parts relatively to the other, a second shell telescopic with the first shell, means for preventing independent rotation of said shell sections, a roll-back carried by said second shell, and means adjustably connecting said key-plug and roll-back.

7. In a lock, a frame element, a hollow shell element carried thereby and adjustable relatively thereto, a key-operated device carried by the shell element, and an adjusting device carried by one part and engaging the other for positioning said parts relatively to each other and for holding said parts in an adjusted position.

HENRY G. VOIGHT.

Witnesses:

M. S. WIARD,
HARRY E. MILES.