

W. CURLETT.

LOCK.

APPLICATION FILED JUNE 16, 1909. RENEWED OCT. 3, 1910.

976,784.

Patented Nov. 22, 1910.

2 SHEETS—SHEET 1.

Fig. 2.

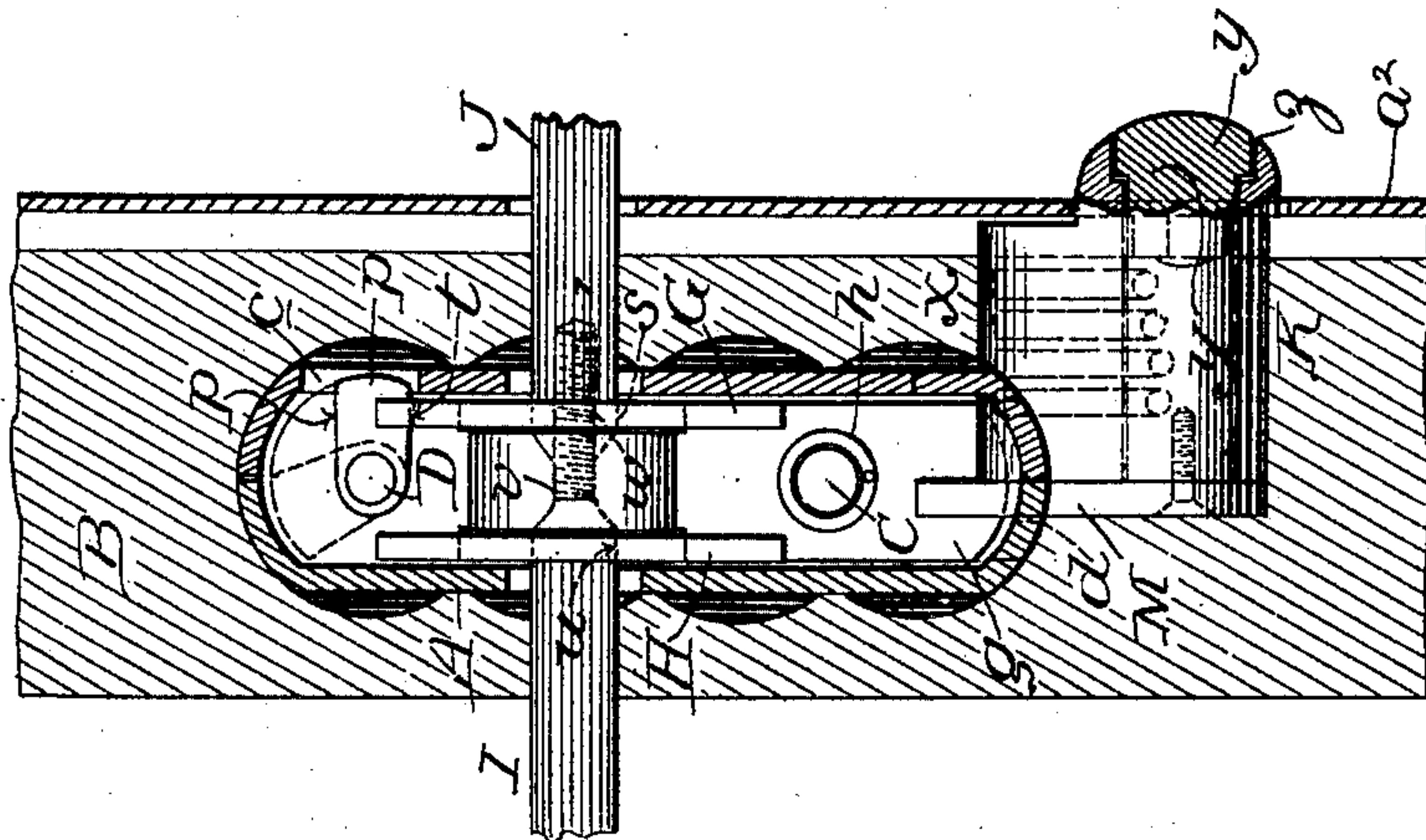
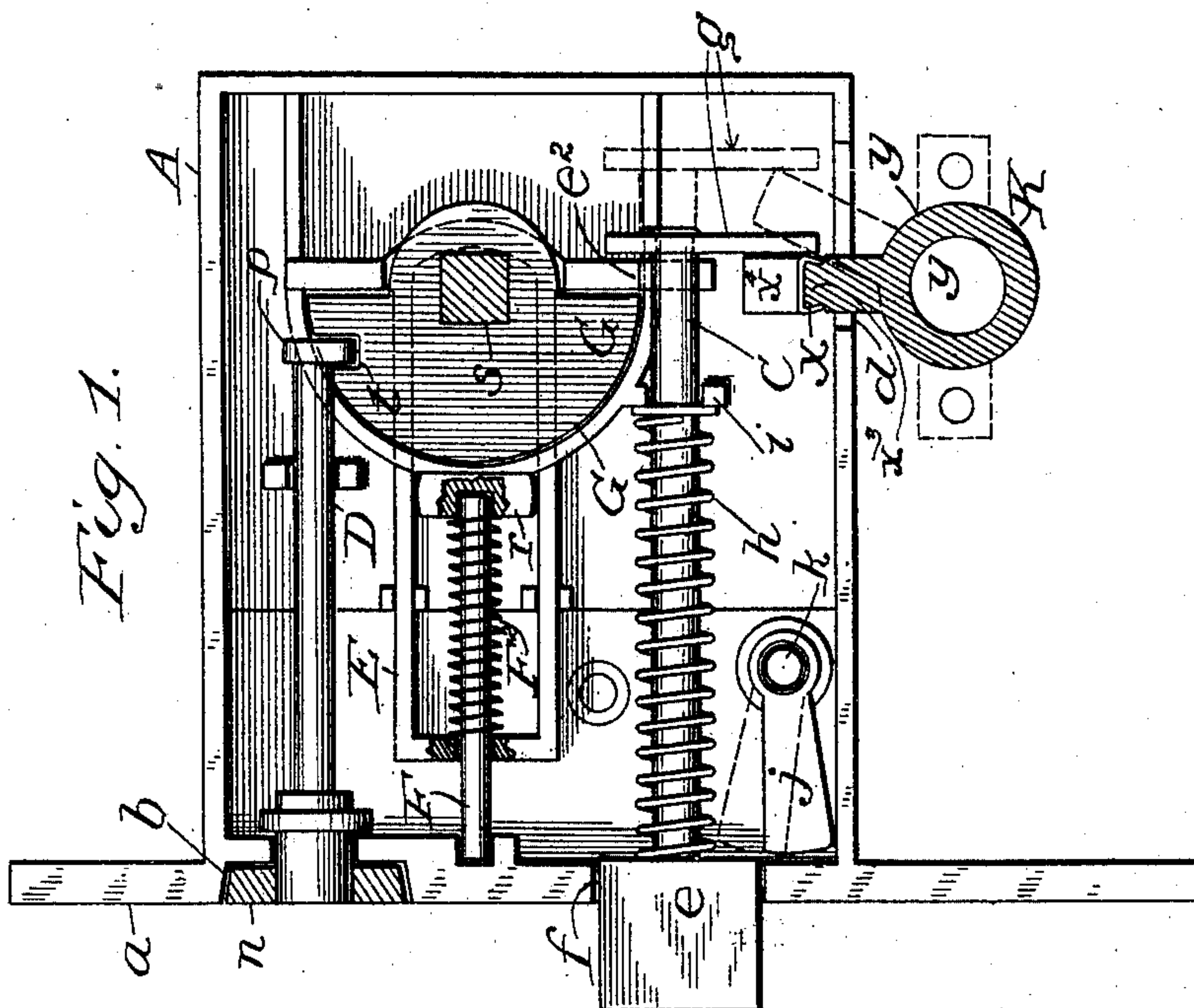


Fig. 1.



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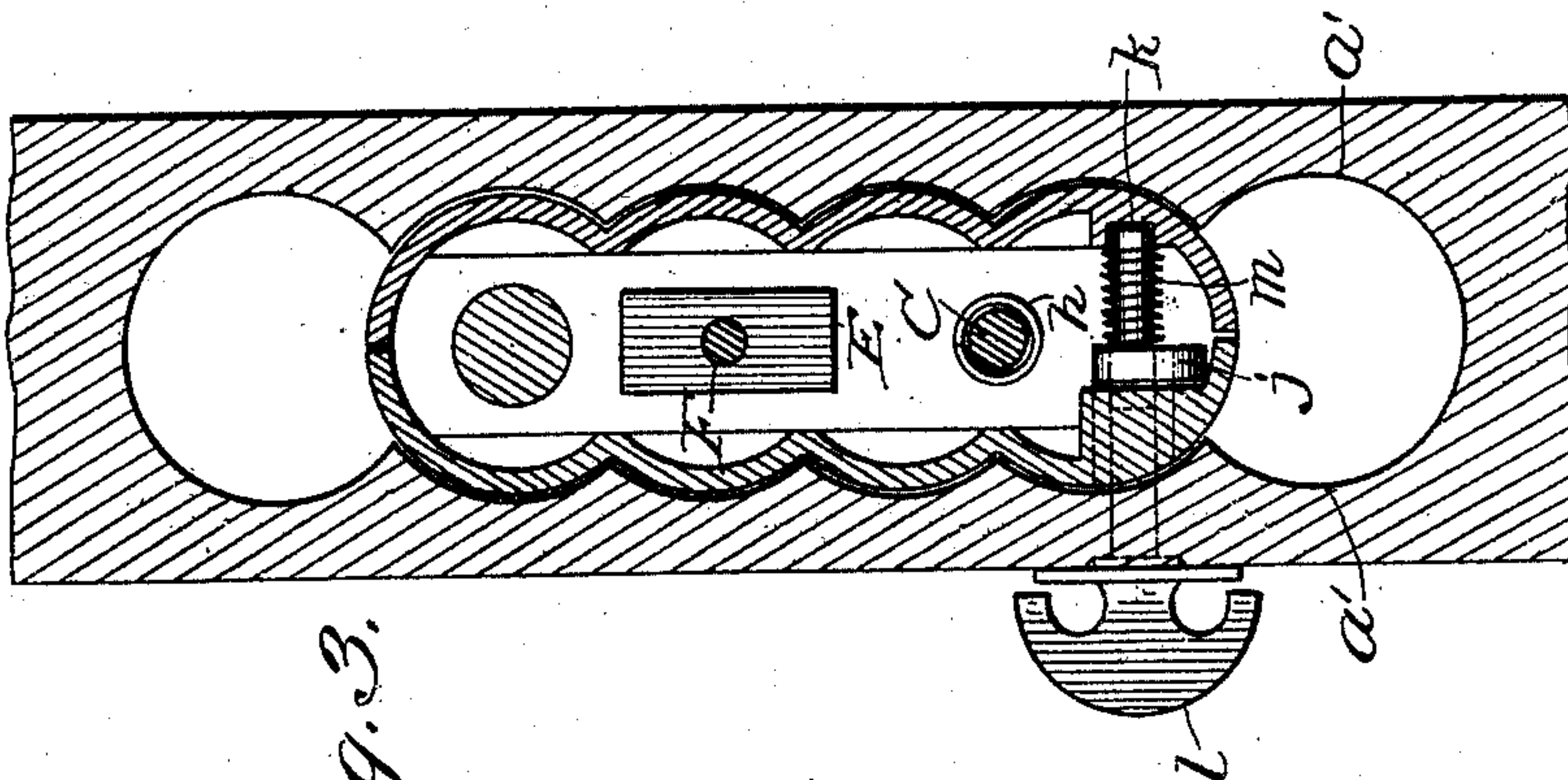
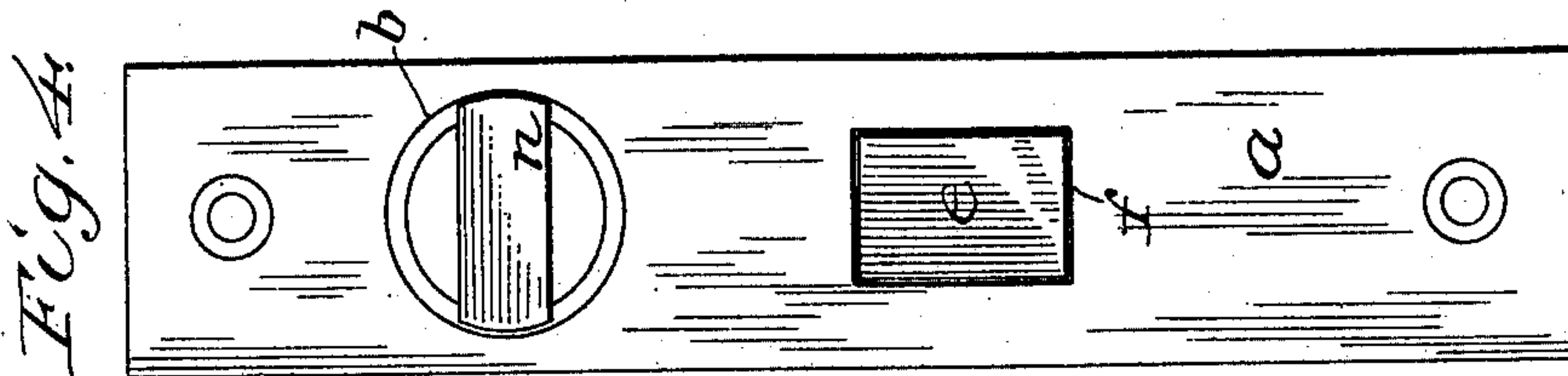
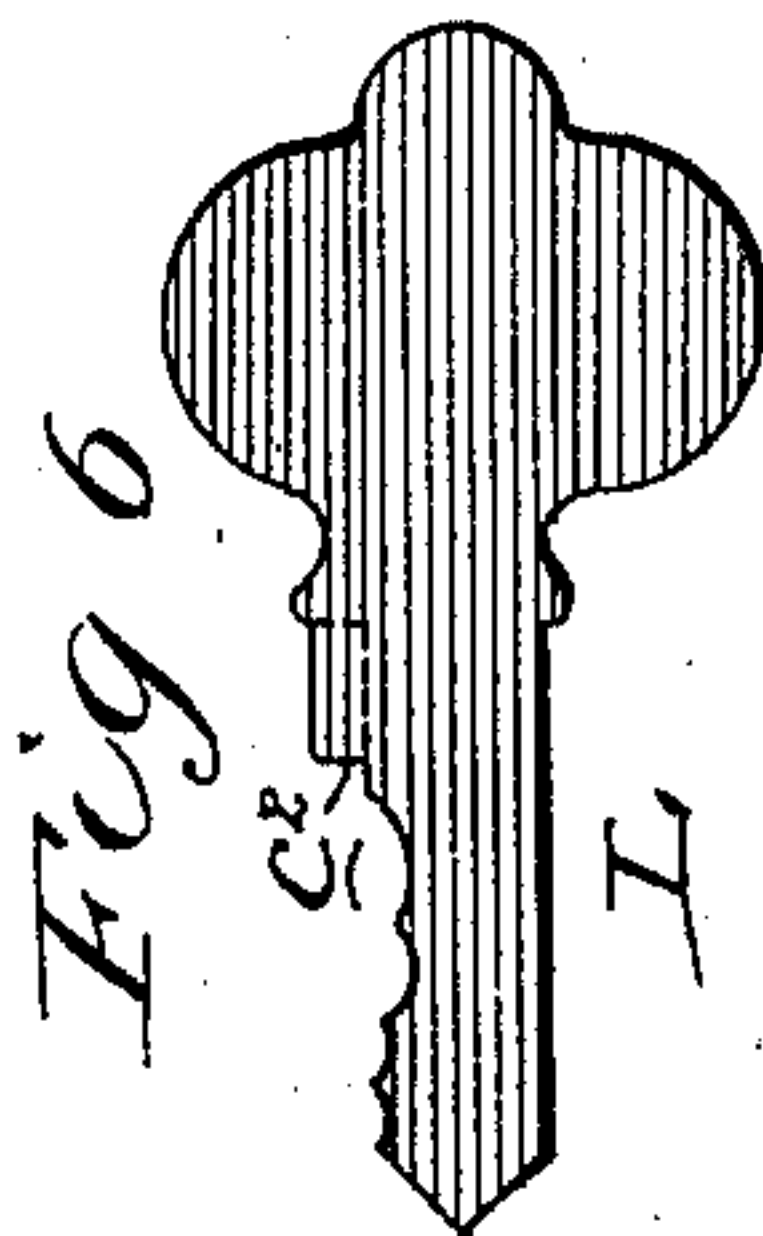
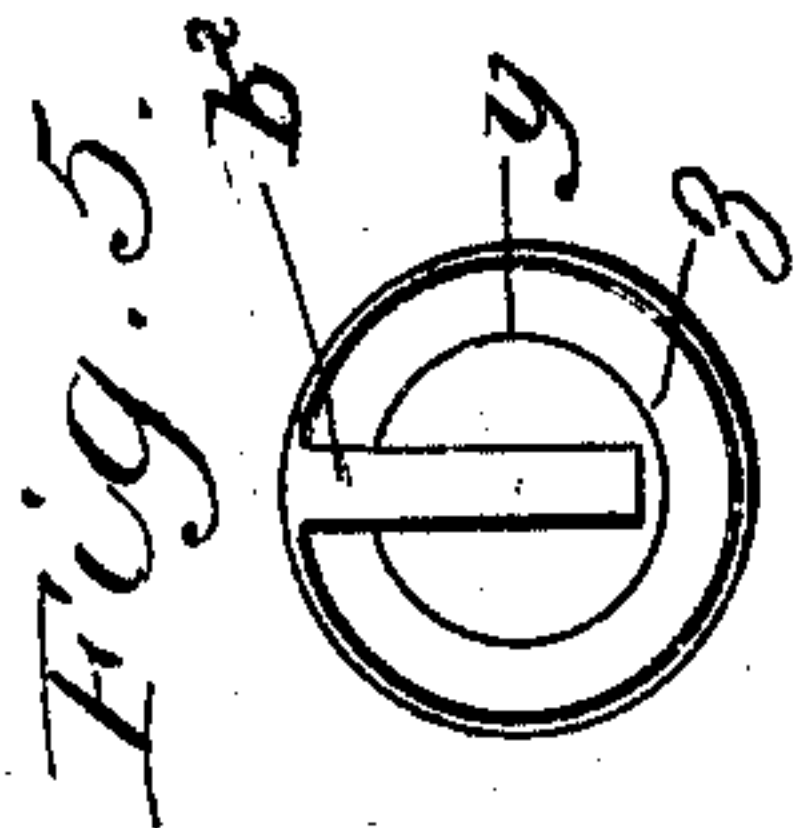
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

WILLIAM CURLETT, OF SAN FRANCISCO, CALIFORNIA.

## LOCK.

976,784.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed June 16, 1909, Serial No. 502,414. Renewed October 3, 1910. Serial No. 585,157.

*To all whom it may concern:*

Be it known that I, WILLIAM CURLETT, citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Locks, of which the following is a specification.

My invention relates to locks such as are designed more particularly for use in office and street doors of dwellings; and it consists in the peculiar and advantageous lock hereinafter described and definitely pointed out in the claims appended.

In the drawings, accompanying and forming part of this specification: Figure 1 is a longitudinal vertical section of the lock constituting the best practical embodiment of my invention that I have as yet devised. Fig. 2 is a transverse section showing the lock properly positioned in a door and also showing certain parts in elevation. Fig. 3 is a transverse section taken in a plane adjacent the front plate of the lock. Fig. 4 is an elevation showing the said front plate. Fig. 5 is an elevation of the outer end of the lock proper comprised in my improvements. Fig. 6 is a side elevation showing the key adapted to be used in the said lock proper.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is the casing adapted to contain the major portion of my improvements. The said casing is preferably of the form in cross-section illustrated in Figs. 2 and 3, this being advantageous inasmuch as the casing can be set in place by simply boring four holes in the door B; no other tool than an auger being necessary to the placing of the casing except a cutting tool to provide a recess for the front plate *a* of the casing when said front plate is of the configuration illustrated in Fig. 4. In this connection attention is directed to the fact that when the front plate is made of the shape illustrated by full lines in Fig. 3 and designated *a'*, the recess to receive the front plate may be formed by boring upper and lower comparatively shallow holes above and below the four holes before mentioned. In its face, the front plate of the casing is provided with a circular depression *b*, Figs. 1 and 4, and by reference to Fig. 2 it will be understood that an opening *c* is formed in the upper portion of the outer side wall of the

casing, while in Fig. 1 and Fig. 2 is shown an opening *d* in the bottom wall of the casing.

C is a slidable bolt suitably guided in the casing and having an enlarged forward portion *e* guided in an opening *f* of the front plate. In addition to said enlargement *e* the bolt is provided with a depending portion *g*, and is surrounded by a coiled spring *h*, the latter being interposed between the enlargement *e* and the guide lettered *i* and having for its office to normally hold the bolt in and return the same to the position shown in Fig. 1.

For enabling a person at the inner side of the door to secure the bolt C in its advanced position, I prefer to provide a swinging latch *j*, Figs. 1 and 3. The said latch *j* is carried by a spindle *k* to which is also fixed an exposed thumb-piece *l*, and for the purpose of preventing too free movement of the latch, a coiled spring *m* is arranged about the spindle *k* and interposed between the casing and one side of the latch so as to exert yielding pressure against the latter. When the latch *j* is in the position shown by full lines in Fig. 1, it obviously will not interfere with retraction of the bolt C, but when said latch is moved into the position shown by dotted lines in said figure, it will preclude retraction of the bolt by any of the devices hereinafter described.

D is a longitudinal rock-shaft journaled in the upper portion of the casing A. The said rock-shaft is provided at its forward end with a finger-piece *n*, disposed and movable in the depression *b*; and at its rear end said shaft has an angularly disposed arm *p* arranged in transverse alinement with the before-mentioned opening *c*. The opening *c* permits of the arm *p* being moved into the position shown in Fig. 2 at the outer side of the lock, and in this connection it will be noted that because of there being no opening like *c* in the inner side wall of the lock casing, the arm *p* cannot be moved into a corresponding position at the inner side of the lock.

E is an open frame slidable longitudinally in suitable guides in casing A and also slidable on a longitudinal rod F interposed between and supported by the front plate *a* and a fixed transverse bar *r*.

F<sup>2</sup> is a coiled spring mounted on the rod F and interposed between the fixed cross-bar *r* and the forward end of the frame E,



in order to return the said frame to and yielding hold the same in the position shown in Fig. 1.

G is a longitudinally-swinging or revolvable disk arranged in the casing, adjacent the outer side wall thereof, and having an angular aperture  $s$  and also having a peripheral notch  $t$ , the latter to receive the arm  $p$ , as shown in Fig. 2.

H is a longitudinally-swinging or revolvable disk arranged in the casing adjacent the inner side wall thereof and having an angular aperture  $u$ , alined with the aperture  $s$  of disk G, and I and J are knob-spindle sections of angular form in cross-section. One of the said sections is provided with a threaded stem  $v$  and the other with a threaded socket  $w$ , and hence it will be manifest that either section is adapted to turn independently of the other, for a purpose hereinafter set forth.

K is the lock-proper which is, by preference, generally of the conventional construction illustrated—i. e., comprises among other things a casing  $x$  and a cylinder  $y$  therein; the casing  $x$  having a portion  $x^3$  of dovetail form, and a portion  $x^4$  of sheet-metal pressed into connection with the portion  $x^3$ . The casing  $x$  is arranged transversely of the door and has a flanged end portion  $z$  arranged against and fixed to the escutcheon plate  $a^2$ . In accordance with my invention, an open-end kerf  $b^2$  is provided in the flanged portion  $z$  of casing  $x$ , Fig. 5, in order to facilitate the placing of the key L in the kerf of the cylinder  $y$ ; also, the key L is provided with a shoulder  $c^2$  designed to bring up against an abutment in the rotatable cylinder and serve as a stop. I would also have it understood that in accordance with my invention the inner end of the cylinder  $y$  has fixed to it an arm M that extends at a right angle to the cylinder and through the opening  $d$  in the casing A and occupies a position in front of the before mentioned depending portion  $g$  of the bolt C. From this it follows that when the proper key L is inserted in the lock proper and turned, the arm M, by acting against the depending portion  $g$ , will retract the bolt C and unlock the door.

The longitudinally slidable frame E is provided with a depending portion  $e^2$  which is halved and passes under the bolt C, and is arranged in front of the bolt portion  $g$ , so that when the frame E is moved rearwardly, the bolt C will be retracted. It will also be understood that portions of the frame E are disposed back of the disks G and H, and consequently when the said disks are turned through the medium of the spindle sections I and J, the disks will operate to force the frame E rearwardly and through the portion  $e^2$  of the frame retract the bolt C.

It will be understood from the foregoing

that when the arm  $p$  of the rock-shaft D is in the position shown by dotted lines in Fig. 2, the bolt C may be retracted by turning either of the spindle sections I or J. When, however, the said arm  $p$  is in the position shown by full lines in Fig. 2, the bolt C may be retracted by a person at the inner side of the door through the medium of the spindle section I, the disk H and the frame E, but cannot be retracted by a person at the outer side of the door through the spindle section J, disk G and frame E. In fact when the arm  $p$  is positioned as shown by full lines in Fig. 2, the bolt can only be retracted by a person at the outer side of the door through the medium of the key L appropriate to the lock-proper K; the said key being used to rock the cylinder  $z$  and arm M so as to enable the latter to push the depending portion  $g$  and consequently the bolt backwardly.

Obviously when a person at the inner side of the door positions the latch  $j$ , as shown by dotted lines in Fig. 1, the bolt C cannot be retracted through any of the devices described; and it will be noted in this connection that the latch  $j$  cannot be tampered with by a person at the outer side of the door.

The construction herein illustrated and described constitutes the best practical embodiment of my invention of which I am cognizant, but it is obvious that in the future practice of the invention changes in the form, construction and relative arrangement of parts may be made within the scope of my invention as defined by the claims appended.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. In a device of the kind described, the combination of a casing having a fixed transverse bar and also having side walls one of which is provided with an opening and the other of which is imperforate at the point opposite said opening, a rod interposed between and supported by the front of the casing and said transverse bar, spindle sections movable independently of each other, a disk on each of said sections; the disk adjacent the said opening in the casing wall having a notch in its edge, a longitudinal rock-shaft journaled in the casing and having a finger-piece and also having an arm adapted to enter the opening in the casing wall and the notch in the adjacent disk and also adapted to be stopped by the opposite casing wall, a bolt having an enlargement on its rear portion, a spring for pressing said bolt forward, a frame movable longitudinally on the said rod and having portions disposed back of the disks and also having a portion disposed in front of the enlargement on the bolt, and a coiled spring



surrounding the longitudinal rod and interposed between the said transverse bar and the forward portion of the frame.

2. In a device of the kind described, the combination of a casing having side walls one of which is provided with an opening and the other of which is imperforate at the point opposite said opening, spindle sections movable independently of each other, a disk on each of said sections; the disk adjacent the said opening in the casing wall having a notch in its edge, means movable by the disks, and a longitudinal rock-shaft

journaled in the casing and having a finger-piece and also having an arm adapted to enter the opening in the casing wall and the notch in the adjacent disk and also adapted to be stopped by the opposite casing wall. 15

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 20

WILLIAM CURLETT.

Witnesses:

ALECK E. CURLETT,  
EDITH W. BURNHAM.