(No Model.)

T. CHURCHILL.

LOCK.

No. 576,028. Patented Jan. 26, 1897.

Fig. 1.

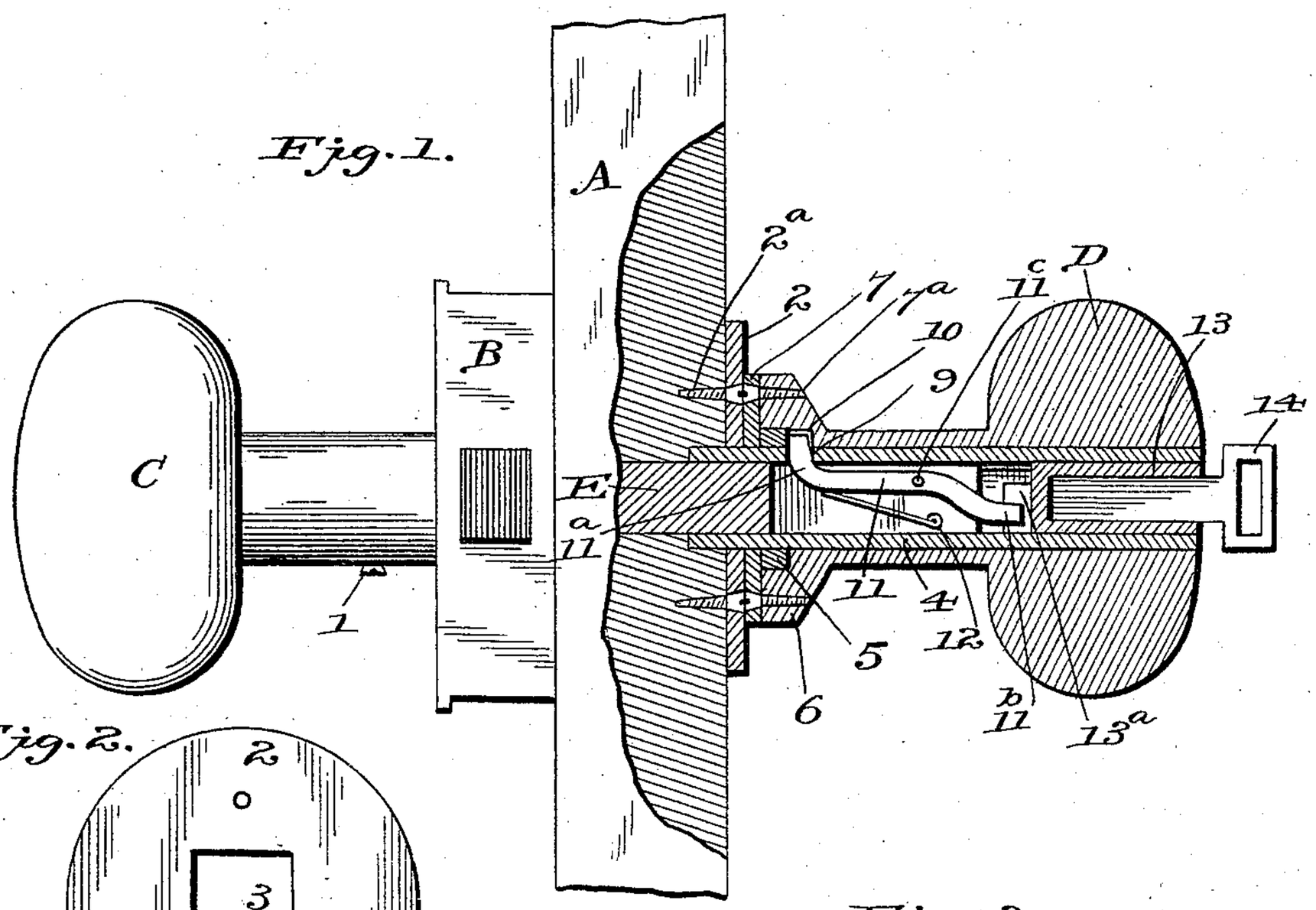


Fig. 2.

Fig. 3.

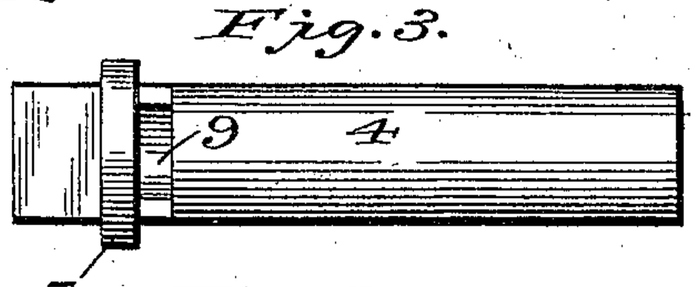


Fig. 4.

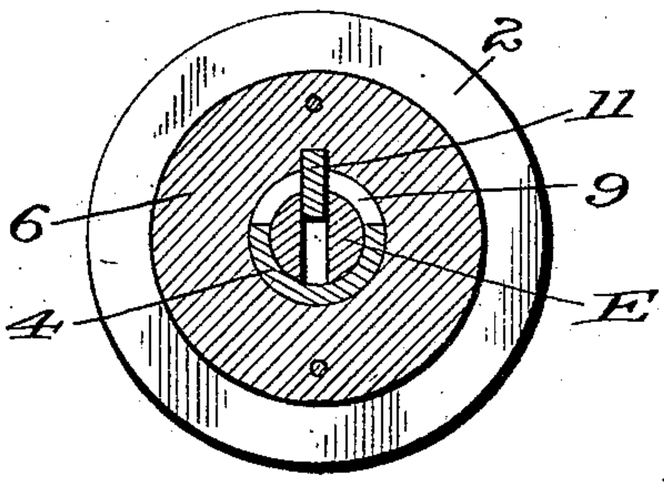


Fig. 5.

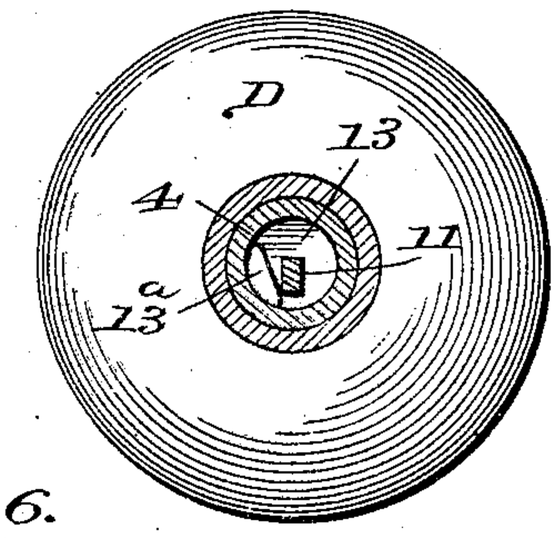
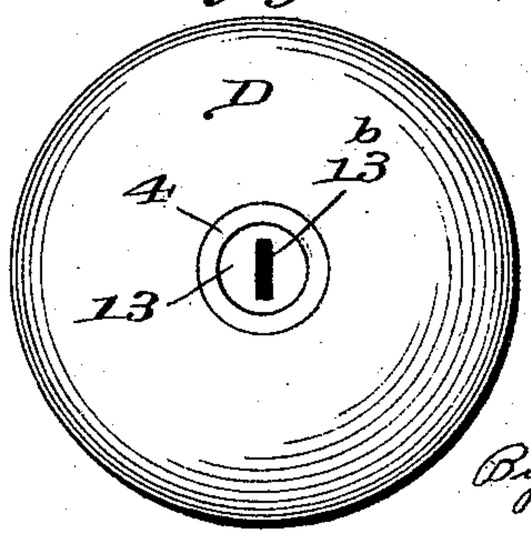


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS CHURCHILL, OF HALLSBOROUGH, VIRGINIA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 576,028, dated January 26, 1897.

Application filed May 7, 1896. Serial No. 590,510. (No model.)

To all whom it may concern.

Be it known that I, THOMAS CHURCHILL, a subject of the Queen of Great Britain, residing at Hallsborough, in the county of Chesterfield and State of Virginia, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to door-locks and door-knobs for operating the same.

My object is to provide a door-knob adapted for manipulation to open the lock or which may be adjusted so that the lock cannot be opened by turning the knob.

Having the foregoing object in view, the present invention consists of a door-lock comprising certain improved features and novel combination of parts, appearing more fully hereinafter.

In the accompanying drawings, Figure 1 is a sectional side elevation of the invention; Fig. 2, a detail view of a certain plate; Fig. 3, a view of the stationary spindle; Fig. 4, a cross-section; Fig. 5, a second cross-section; Fig. 6, an end view of the outer door-knob.

A designates a door; B, the lock; C, the inside door-knob; D, the outside door-knob, and E the spindle that connects the door-knobs and actuates the lock.

The inner door-knob C is of ordinary construction, being provided with the usual fastening-screw 1.

A plate 2, having a square central opening 3, is secured to the outside of the door by screws 2^a. A hollow stationary spindle 4, having a square end which passes through the opening 3 and is secured into the door, affords a bearing for door-knob D. This spindle is provided with an enlarged collar 5, which fits into the base-flange 6 of the door-knob. A plate 7, free to turn with the door-knob, is secured to the base-flange by screws 7^a. Means are thus provided for preventing displacement of this door-knob.

The spindle 4 is provided with an elongated slot 9, affording communication between the groove and the face of the spindle. The base-flange is also provided with a recess 10 in alinement with slot 9.

A locking-lever 11, having a curved catch end 11^a lying loosely in slot 9 and a tripping end 11^b projecting over the end of the spindle E, is pivoted to the latter spindle at 11^c. A spring 12 tends to force the catch end of the lever upward.

The numeral 13 designates a key-cylinder which is adapted for rotation within the stationary spindle. This cylinder is provided with a flat lug 13^a, adapted to lift the tripping end of the locking-lever when the key-cylinder is turned. The cylinder is also provided with a key-slot 13^b, adapted to receive a key 14.

Ordinarily the catch end of the locking-lever is held out of engagement with the recess in the door-knob as the tripping end 11^b is held raised by the lug 13^a. When the key is inserted, however, and the key-cylinder turned to allow the tripping end of the locking-lever to lower and the knob turned when the catch end comes into register with the recess in the knob, it springs thereinto, so that the spindle E can be turned with the knob. After the lock has been operated before removing the key the key-cylinder is turned back again, so that lug 13^a and end 11^b engage, and the catch of the locking-lever is drawn out of the knob, so the latter can move freely. The key is then removed, and the lock cannot be reopened without inserting the key.

Having thus described the invention, what is claimed as new is—

1. The combination with a lock, of a rotatable spindle for operating said lock, a stationary spindle in which the rotatable spindle is adapted to turn, a door-knob loose on the stationary spindle, a locking-lever pivoted to the rotatable spindle and having a portion projecting through the stationary spindle and adapted for engagement with the door-knob, and means for operating said locking-lever.

2. The combination with a lock, of a rotatable spindle for operating said lock, a stationary spindle loosely encircling the rotatable spindle, a door-knob loose on the stationary spindle, a locking-lever pivoted to the rotatable spindle, a spring which normally exerts a tendency to engage the locking-lever with the door-knob, and a key-cylinder re-

ceived in the stationary spindle and adapted to actuate the locking-lever.

3. The combination with a lock, of a rotatable spindle for operating said lock, a stationary spindle loosely encircling the rotatable spindle being provided with a slot, a door-knob adapted to freely turn on the stationary spindle and having a notch or recess, a spring-pressed locking-lever pivoted to the rotatable spindle, and a rotatable key-cylinder located in the stationary spindle which is provided with a cam adapted to engage with the locking-lever.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THOMAS CHURCHILL.

Witnesses:
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