

No. 817,567.

PATENTED APR. 10, 1906.

M. F. HUTCHISON.
LOCK.

APPLICATION FILED SEPT. 7, 1904.

Fig. 1.

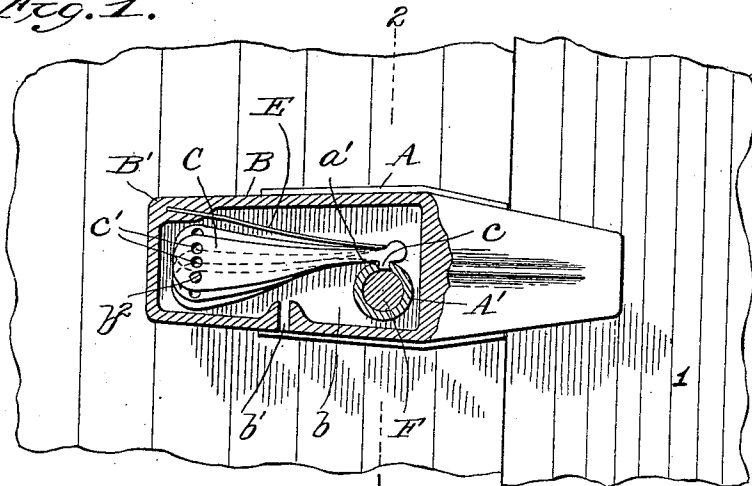


Fig. 5.

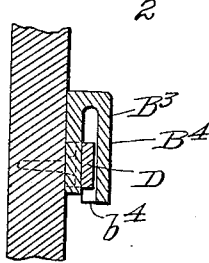


Fig. 2.

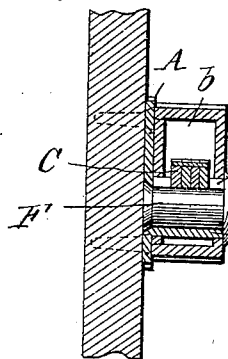


Fig. 6.

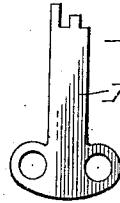


Fig. 3.

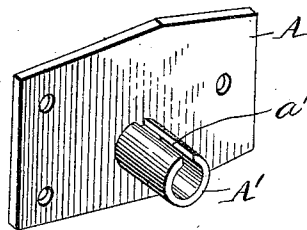
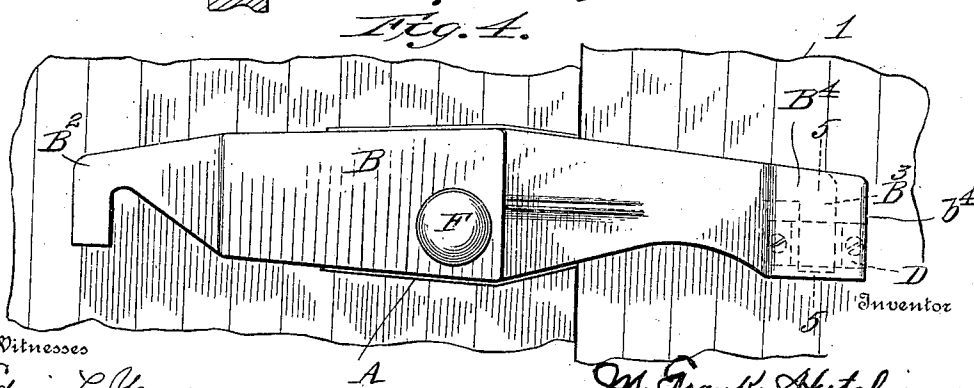


Fig. 4.



Witnesses

Edwin L. Jewell
Flora Pierce

By

M. Frank Hutchison
Chas. E. Randon
his Attorney

UNITED STATES PATENT OFFICE.

MAURICE FRANK HUTCHISON, OF FLORIS, VIRGINIA, ASSIGNOR OF ONE-FOURTH TO CHARLES E. RIORDON, OF WASHINGTON, DISTRICT OF COLUMBIA.

LOCK.

No. 817,567.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed September 7, 1904. Serial No. 223,621.

To all whom it may concern:

Be it known that I, MAURICE FRANK HUTCHISON, a citizen of the United States, residing at Floris, in the county of Fairfax and State of Virginia, have invented certain new and useful Improvements in Locks, of which the following is a full, clear, and exact specification.

This invention relates to that class of devices designed to prevent the swinging open of the doors of stables, outhouses, cupboards, &c., commonly controlled by "buttons" or "turn-buttons," and also to provide in the same device a substantial lock for said doors.

In many instances it is desirable and even necessary to positively lock the door ordinarily held closed by a turn-button, and this is usually accomplished by the employment of an independent lock to be used when it is desired that free entrance through the door shall not be had—as for instance, during the night.

One object of my invention is to provide a turn-button that may be set to turn freely to permit opening of a door or may be locked to hold the door in a closed position until a proper key is used to unlock the button and permit its movement to release the door.

Another object of the invention is to adapt such door-buttons for controlling the opening of sliding and double-swing doors.

Another object of the invention is to produce an inexpensive device embodying a button and a lock (which I shall hereinafter term a "button-lock") wherein the device may be used as a mere button to be moved at will to release a door or as a lock requiring the use of a key to move it from in front of the guarded door.

A further object of the invention is to produce a button-lock having identical tumblers formed by a single die and so constructed and arranged with the button body or casing as to be operated as a whole only by a key having properly-cut wards corresponding to the number of tumblers used, thus providing for many combinations of the tumblers.

With these and other objects in view the invention consists in the matters to be hereinafter described in detail and then particularly set forth in the claims at the end of this description.

Referring to the accompanying drawings,

forming a part of this specification, and in which similar characters of reference are used to indicate corresponding parts in each of the several views, Figure 1 is a view, partly in section, of my improvement attached to the side of a building. Fig. 2 is a cross-section on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the back or anchor plate removed. Fig. 4 is a view of a modification for use on double-swing or sliding doors. Fig. 5 is a sectional view on the line 5 5 of Fig. 4, and Fig. 6 is a view of one form of key that may be used in operating the lock.

My button-lock embodies a plate A to be secured to a door-jamb or to one of a pair of sliding doors, and which I shall hereinafter term the "anchor-plate," to which is rigidly attached or formed therewith to project at right angles therefrom a tubular post A', having a longitudinal slot a'. Said post A' serves as the journal or pivot on which the button is to turn to hold a door or release it.

The button proper comprises an elongated frame or body B, pivoted at about its center on the tubular post A' and provided on its inner side facing the anchor-plate with a recess b, extending from one end of the frame or body B to include the post, as clearly shown, a keyhole or slot b' being formed in one edge wall of the body about midway of the recess. Projecting into the recess b, near that end remote from the post A', is a pivot-pin b², on which is fulcrumed a plurality of tumblers C, (four in the instance shown,) identical in configuration, being the product of a single die, each provided at one end with a projection or toe c, adapted to engage the slot a' of the post A', and at the other end with a series of perforations c', gaged to fit and turn freely upon the pivot-pin b², projecting across the recess b. From this construction it will be seen that many combinations or changes may be made in mounting the tumblers to accord with the wards of a key K to be used in lifting the toes c of the tumblers from the slot a' of the slotted post A' to permit the rotation of the frame or body B thereon.

The anchor-plate A is so shaped and proportioned that the screws, bolts, or rivets attaching it to a door or door-jamb or other object will be concealed and inaccessible when the button-lock is in locked position, thus preventing tampering; but when the button-

lock is turned to release a door the screws or other fastenings are exposed to manipulation for insertion or removal.

To prevent the button end of the button-lock from being accidentally moved when used simply as a button from in front of the door being guarded, there may be provided between the back plate B' of the body B a leaf-spring shaped to engage a projection or stud on the anchor-plate. Other means, if desired, may also be provided for this purpose.

From the construction so far described it will be apparent that when the button-lock is in the position shown in Fig. 1 the door 1 will be held closed. On releasing the tumblers from the slotted post the body of the lock may be turned on its pivot (post A') and moved from in front of the door 1, thus releasing it. When shut, on further rotating the frame B on its pivot its other or non-locking end will be moved across the door; but as the toes of the tumblers C now travel in contact with the unbroken surface of the tubular post A' the movement thereof is practically unrestricted and may be moved to guard or release the door.

An obvious modification of my button-lock is illustrated in Figs. 4 and 5, wherein it is shown as adapted for double-swing doors and for sliding doors. In these figures the frame or lock A is shown as provided at each end with a hook B² B³, adapted to engage a staple or keeper D on the moving door. The operation is the same as already described, except that the hooks B² B³, engaging the keeper D, will prevent opening of the guarded door, whether it be a swing-door, a sliding door, or a double-swing door, as will be apparent. In the event of securing the keeper D to a door 1 for engagement with a hook B² or B³ of the button-lock, as shown, it will be expedient to so construct the hooks as to avoid possibility of tampering with the securing-screws of the keepers while the hooks are inlocked or guarding position. To this end I prefer to shape the hooked ends of the body as shown in Figs. 4 and 5, wherein an integral hood B⁴ overhangs the engaging tongue of the button, said hood terminating at its outer end in a guard b⁴, overlying the outer fastening-screw of the keeper. The inner fastening-screw of the keeper will of course be concealed and protected by the body of the button-lock. In ordinary use—say on a stable or pantry-door—the anchor-plate will be fixed and the slot of the pivot-pin will be at the upper side thereof. Under these conditions it is not necessary that a spring or springs be used to force the tumblers into engagement with the slot of the pivot-post A', although I may so use the same; but in cases where my button-lock is to be used on portable articles, as shipping cans, cases or boxes, which are liable to be turned on one side, or upside down, so that

the slot of the post is not uppermost and the tumblers cannot engage it by gravity, a spring or springs will be essential. To this end I have provided springs E, secured at one end within the recess of the frame or body and bearing at the free end on the free ends of the tumblers, as shown. As herein shown, the anchor-plate A and body B are secured together by means of a bolt or rivet F, passing through the tubular post and swaged up or headed at the inner end thereof; but it will be understood that the post itself may be the connecting means, and it is also obvious that the post may be solid and provided with a longitudinal groove or channel to receive the toes of the tumblers, also that the slot of the post need not extend longitudinally the entire length thereof, but a slot or openings provided to receive the locking ends of the various tumblers.

In the hooked form shown in Figs. 4 and 5 my device is well adapted for use as a hasp-lock, and so used the anchor-plate may be dispensed with and the post A' be secured to the leaf of the hasp, as will be well understood.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A lock embodying the functions of a lock and of a turn-button, comprising an anchor-plate having a grooved post, and a recessed button pivoted between its ends on said post and provided with tumblers for automatically engaging the groove of the post.

2. A lock comprising an anchor-plate, a slotted post projecting at right angles therefrom and a button revoluble on said post and provided with spring-pressed tumblers adapted to engage the slot thereof.

3. A lock comprising a plate having a slotted post and a recessed button pivoted between its ends upon said post and provided with tumblers adapted to engage the slot thereof.

4. A lock comprising a plate having a slotted post, and a recessed button pivoted between its ends upon said post and provided with spring-pressed tumblers adapted to engage the slot thereof.

5. A lock comprising a plate having a slotted post, a button pivoted on said post having a recess provided with a pivot-pin and tumblers within the recess, each provided at one end with a toe and at the other end with a plurality of apertures adapted to engage the pivot-pin of the recess.

6. A lock comprising a plate having a slotted post, a button pivoted between its ends on said post and having hooks at its ends to engage a keeper; said button being recessed and provided with tumblers to engage the slot of the post.

7. A lock comprising a plate having a slot-

ted post, a button pivoted between its ends on said post and having hooded hooks at its ends to engage a keeper; said button being recessed and provided with tumblers to engage the slot of the post.

8. In combination with a door-casing and a door provided with a keeper, a lock comprising a plate secured to the casing and provided with a slotted post, a button pivoted between its ends on said post and having hooked ends to engage said keeper; said button being recessed and provided with tumblers to engage the slot of the post.

9. In combination with a door-casing and

a door provided with a keeper, a lock comprising a plate secured to the casing and provided with a slotted post, a button pivoted on said post and having hooded hooked ends to engage said keeper; said button being recessed and provided with tumblers to engage the slot of the post.

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

MAURICE FRANK HUTCHISON.

Witnesses:

CHAS. E. RIORDON,
WILLIAM S. ODELL.