

No. 607,381.

Patented July 12, 1898.

J. D. KING & M. A. BURNS.

KEY FASTENER.

(Application filed Aug. 9, 1897.)

(No Model.)

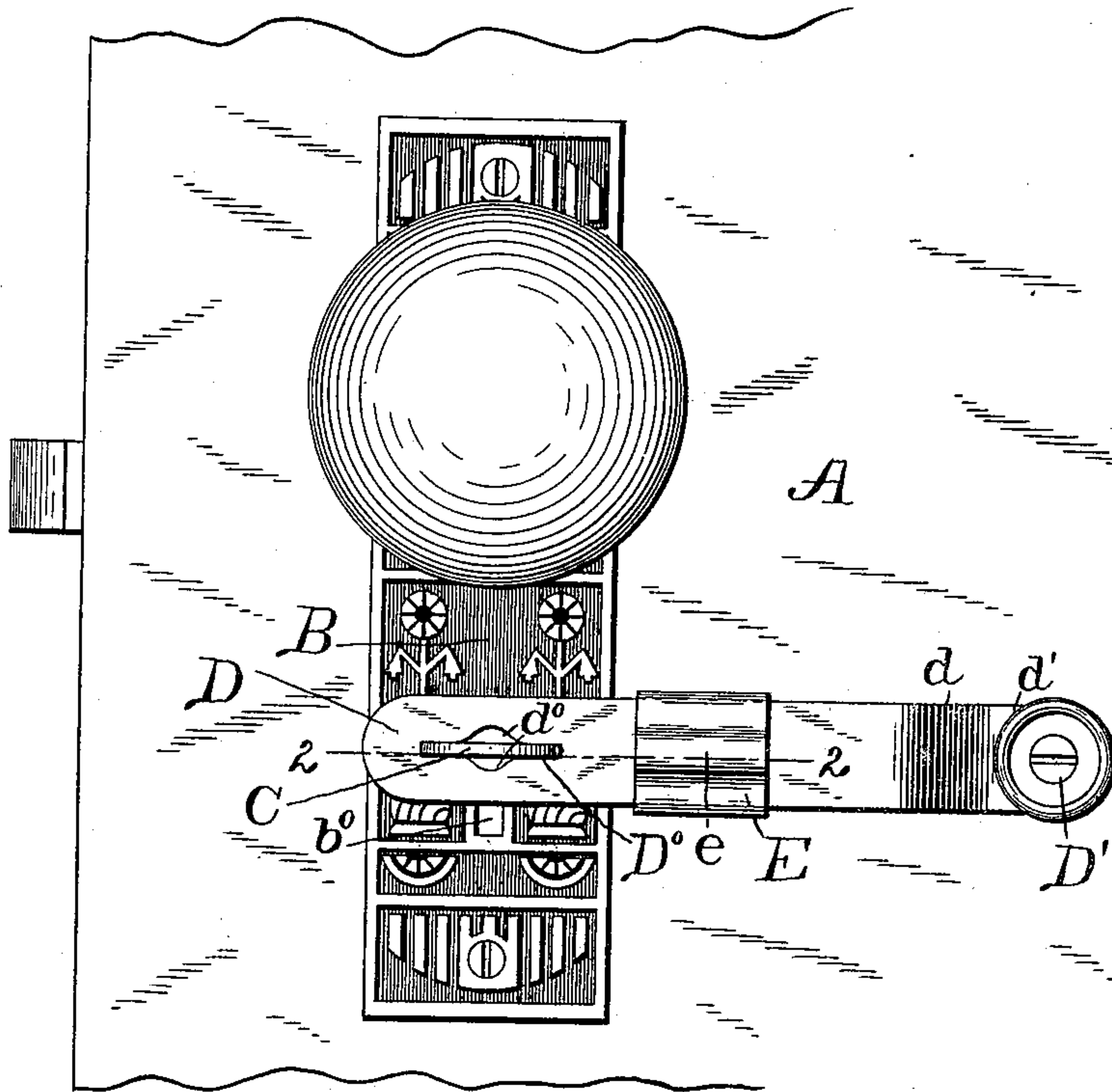
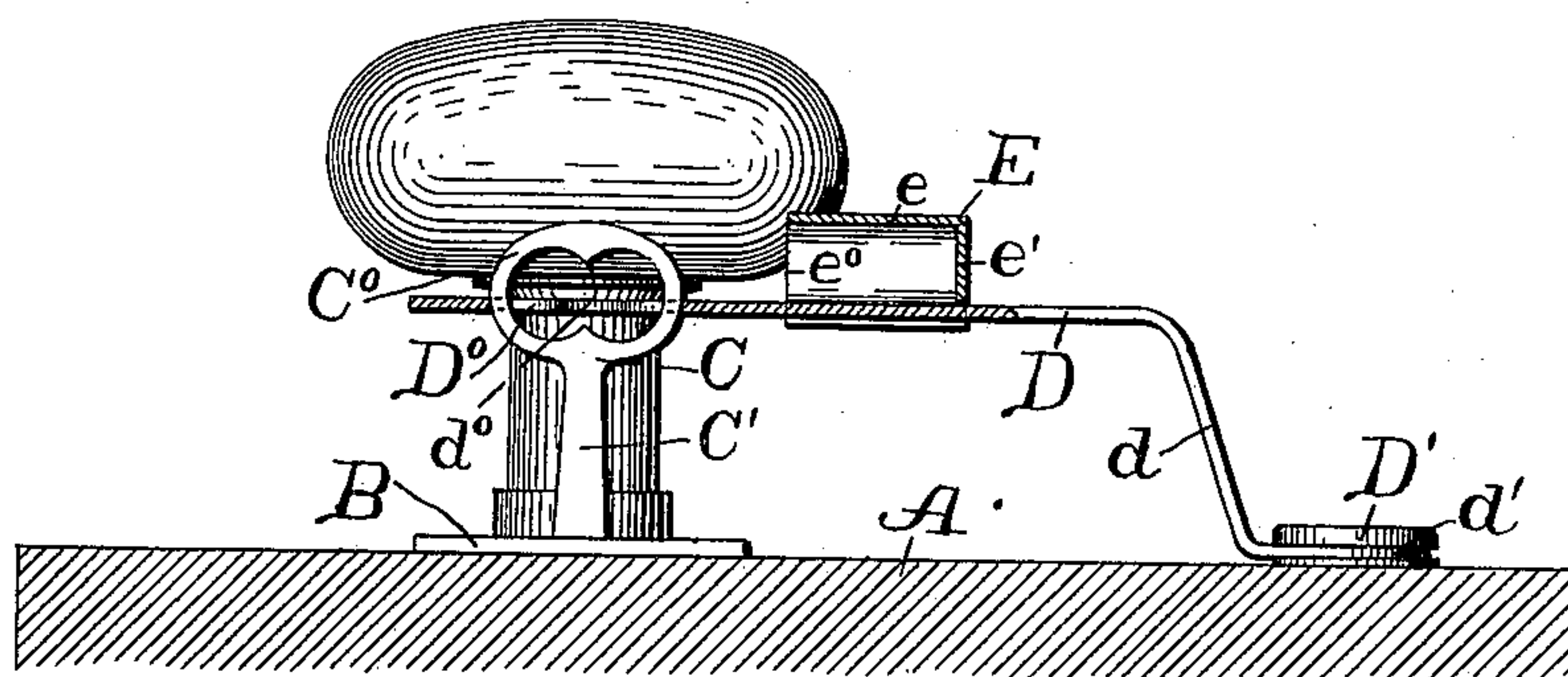
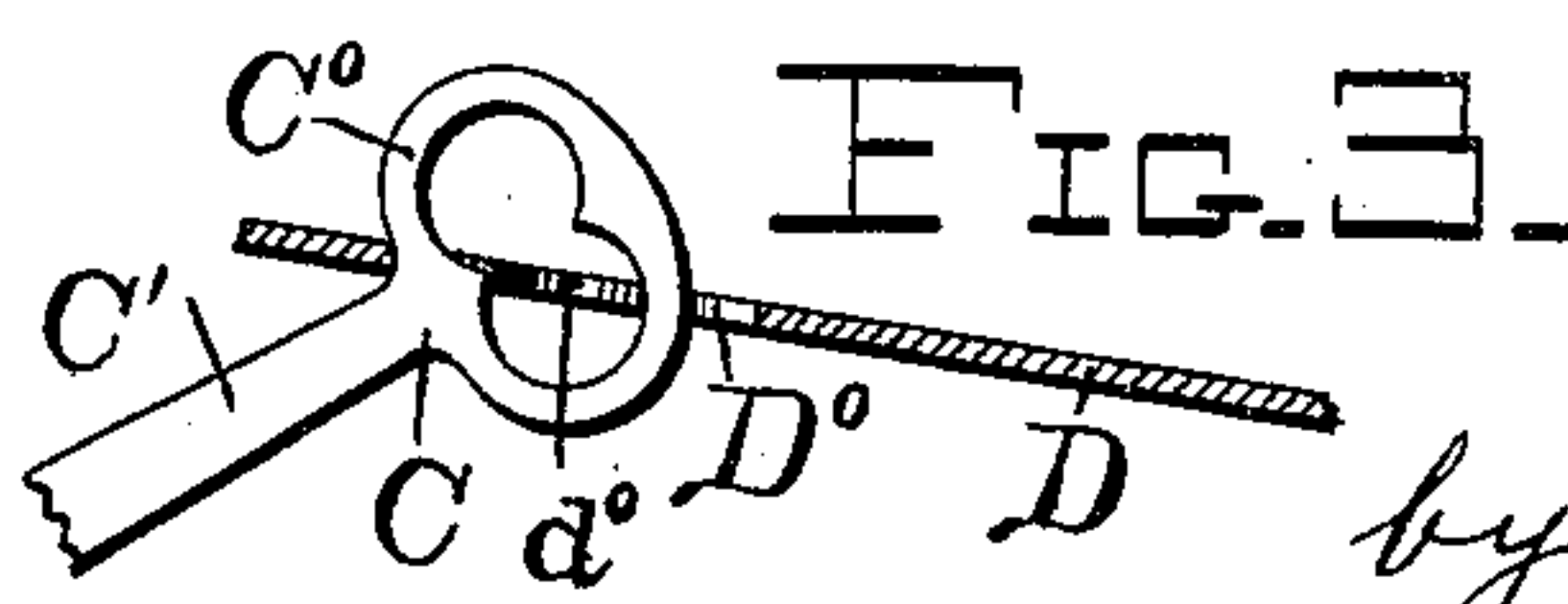


FIG. 1.

FIG. 2.



Witnesses  
D. H. Blakelock.  
John C. Wilson.



Inventors  
J. D. King and  
M. A. Burns.  
by Wilkinson & Fisher.  
Attorneys.



# UNITED STATES PATENT OFFICE.

JOSEPH D. KING AND MATTHEW A. BURNS, OF MENOMINEE, MICHIGAN.

## KEY-FASTENER.

SPECIFICATION forming part of Letters Patent No. 607,381, dated July 12, 1898.

Application filed August 9, 1897. Serial No. 647,599. (No model.)

*To all whom it may concern:*

Be it known that we, JOSEPH D. KING and MATTHEW A. BURNS, citizens of the United States, residing at Menominee, in the county of Menominee and State of Michigan, have invented certain new and useful Improvements in Key-Fasteners; and we 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.

Our invention relates to improvements in key-holders, and particularly to such devices as are fixed upon a door in proximity to the lock thereof and are adapted to engage the key while the latter is in the lock in such a manner as to hold said key against being forced out of the lock from the opposite side of the door, as is possible with ordinary door-locks where no extraneous means is provided for preventing such removal.

Our invention will be understood by reference to the accompanying drawings, wherein the same parts are indicated by the same letters throughout the several views.

Figure 1 represents a side elevation of a portion of the inner side of a door in the region of the lock and showing our improved key-holder in position thereon, but in such position as to allow the key to be turned from the inner side of the door. Fig. 2 represents a section taken on the line 2 2 in Fig. 1; and Fig. 3 represents a partial detail view illustrating the manner in which the key may be removed from or inserted into the lock while the key-holder is in position upon the door, as shown in Figs. 1 and 2.

In Figs. 1 and 2, A represents the door, provided with any well-known form of lock, of which B represents the outer plate, provided with keyhole  $b^{\circ}$ .

C represents the key, having shank  $C'$  and elliptical ring or bow  $C^{\circ}$ , as are found in door-keys of ordinary construction.

D represents a comparatively thin flat spring-arm rigidly secured at one end  $d'$  upon the side of the door by means of a suitable screw  $D'$  or its equivalent. The spring-arm D is turned upward along a portion  $d$  adjacent to the end  $d'$ , and then extends across, over, and above the keyhole  $b^{\circ}$ . In the portion of said spring-arm D immediately oppo-

site the keyhole  $d^{\circ}$  is formed a slot  $D^{\circ}$ , not quite long enough to allow the passage of the ring or bow  $C^{\circ}$  of the key when presented straight, as seen in Fig. 2, but long enough to allow the passage of the said ring or bow when the key is presented at an angle with the ring edgewise, as shown in Fig. 3. The sides of the slot  $D^{\circ}$  in the spring-arm D are cut away midway the length of said slot, as shown at  $d^{\circ} d^{\circ}$ , to allow the shank or stem  $C'$  of the key to turn in said slot; but the ends of the said slot are but slightly wider than the thickness of the ring or bow of the key.

The tension on the spring-arm D is so regulated that the said arm will exert a slight outward pull on the key when the latter is in the lock and turned crosswise thereof, as shown in Figs. 1 and 2, so that in order to turn the key it will be necessary to press the end of the spring-arm inward slightly to release the ring or bow from the slot. This tension upon the spring-arm D would ordinarily cause the said arm alone to prevent the turning of the key in the lock from the outside; but we prefer to use a sliding guard E (shown in Figs. 1 and 2) to render it absolutely impossible to force the key out of the lock from the outside. This slide fits over the edges of the spring-arm D and has a narrow arched portion  $e$ , which is hollow and fits over the ring of the key when in position for locking the key. The forward end of this sliding guard is open, as at  $e^{\circ}$ , and the rear end is closed, as at  $e'$  in Fig. 2. The rear end  $e'$  being closed renders it impossible to slide the guard past the ring of the key when the latter is in position.

It will be seen that the key cannot be removed from the lock either from the inside or outside of the door while the sliding guard E incloses the ring or bow of the key.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. A key-fastener comprising a flat spring-arm fixed at one end to the door and having a straight integral portion extending over the keyhole at some distance therefrom, and provided with a longitudinal slot therethrough slightly shorter in length than the transverse length of the elliptical ring or bow of the key, said slot being immediately opposite the keyhole and at an angle to the length of said ring



or bow of the key when the latter is in position to be inserted or withdrawn, the parts being so proportioned and arranged that the key cannot be inserted or withdrawn without bending the spring-arm, so that when the door is locked the spring-arm will press against the ring or bow of the key and hold it fast in the lock, substantially as described.

2. A key-fastener, comprising a flat spring-arm fixed at one end upon the door and having a straight integral portion sprung outwardly therefrom and extending over the keyhole, and having a longitudinal slot there-through at an angle to the length of the keyhole, said slot being slightly shorter than the greatest length of the elliptical ring or bow of the key; and the tension on said spring tending to hold the latter in engagement with the said ring or bow of the key when the latter is at an angle in the lock, substantially as described.

3. A key-fastener, comprising a flat spring-arm fixed at one end upon the door and having a straight integral portion of uniform width sprung outwardly therefrom and extending over the keyhole, said straight integral portion having a longitudinal slot there-through at an angle to the length of the keyhole, said slot being slightly shorter than the greatest length of the elliptical ring or bow of the key; and a sliding guard mounted upon said spring and adapted to be moved over and to inclose the ring or bow of the key when the same is engaged in said slot, substantially as described.

4. In a key-fastener, the combination with a spring-arm fixed at one end upon the door and having a straight integral portion of uni-

form width sprung outwardly therefrom and extending over the keyhole, said straight portion having a longitudinal slot therethrough at an angle to the length of the keyhole, said slot being slightly shorter than the greatest length of the elliptical ring or bow of the key, the tension on said spring tending to hold the latter in engagement with the said ring or bow of the key; of a sliding hollow guard mounted upon said spring-arm, and adapted to be moved over said slot and to inclose the ring or bow of the key when the latter is engaged in said slot, substantially as described.

5. In a key-fastener, the combination with a spring-arm having one end fixed upon the door and having a straight integral portion bent outwardly from the surface of the door and extending over the keyhole; said straight portion having a longitudinal slot there-through at an angle to the length of the keyhole, said slot being slightly shorter than the greatest length of the elliptical ring or bow of the key, and being sufficiently enlarged midway of its length to allow the stem of the key to turn therein; of a sliding hollow guard mounted upon said spring-arm and adapted to be moved along said arm over said slot, and to inclose the ring or bow of the key while the latter is engaged in said slot, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH D. KING.  
MATTHEW A. BURNS.

Witnesses:

L. D. EASTMAN,  
E. A. CANFIELD.