

(No Model.)

C. H. LA BELLE.  
LOCK.

No. 529,348.

Patented Nov. 13, 1894.

Fig. 1.

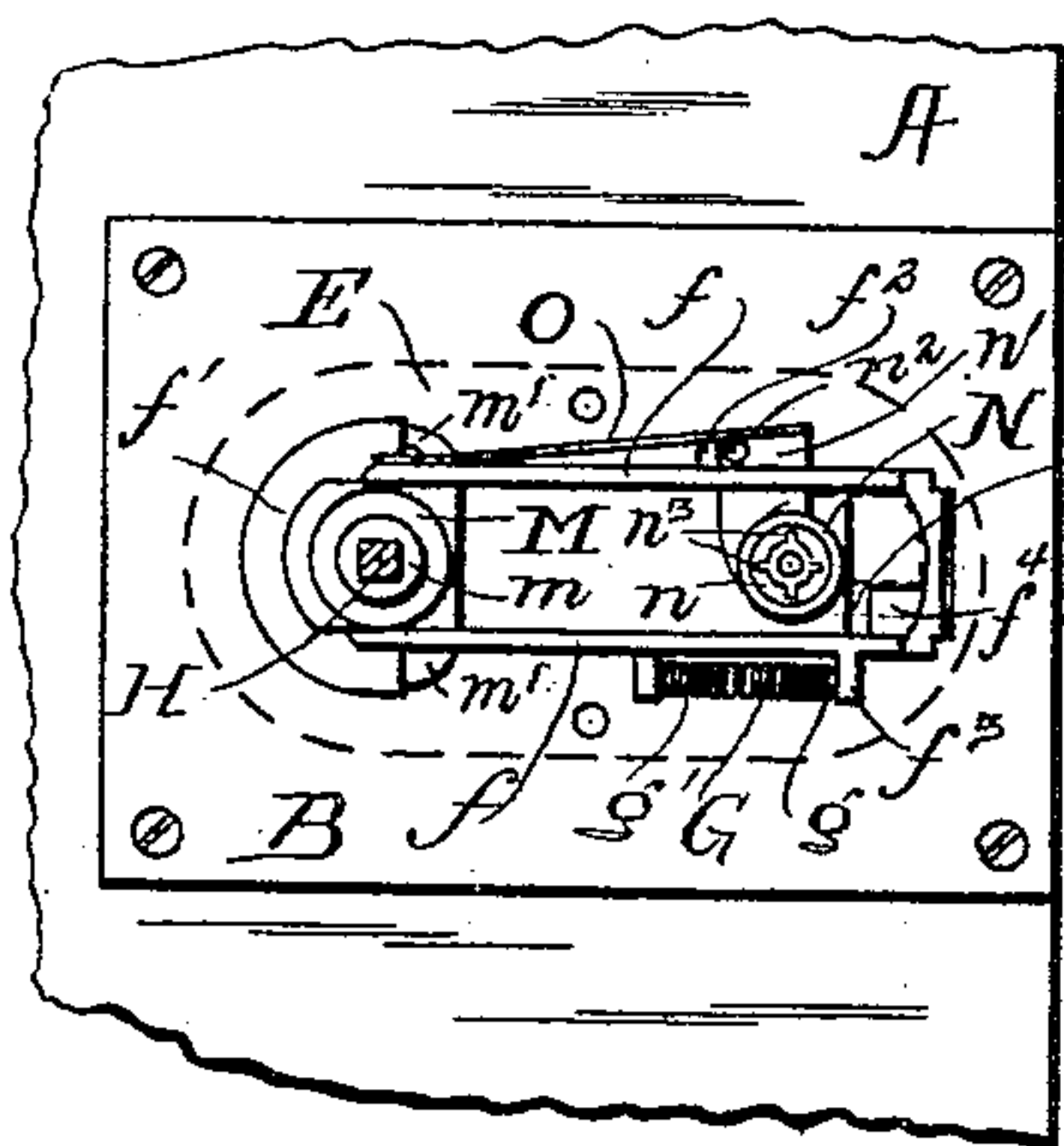


Fig. 2.

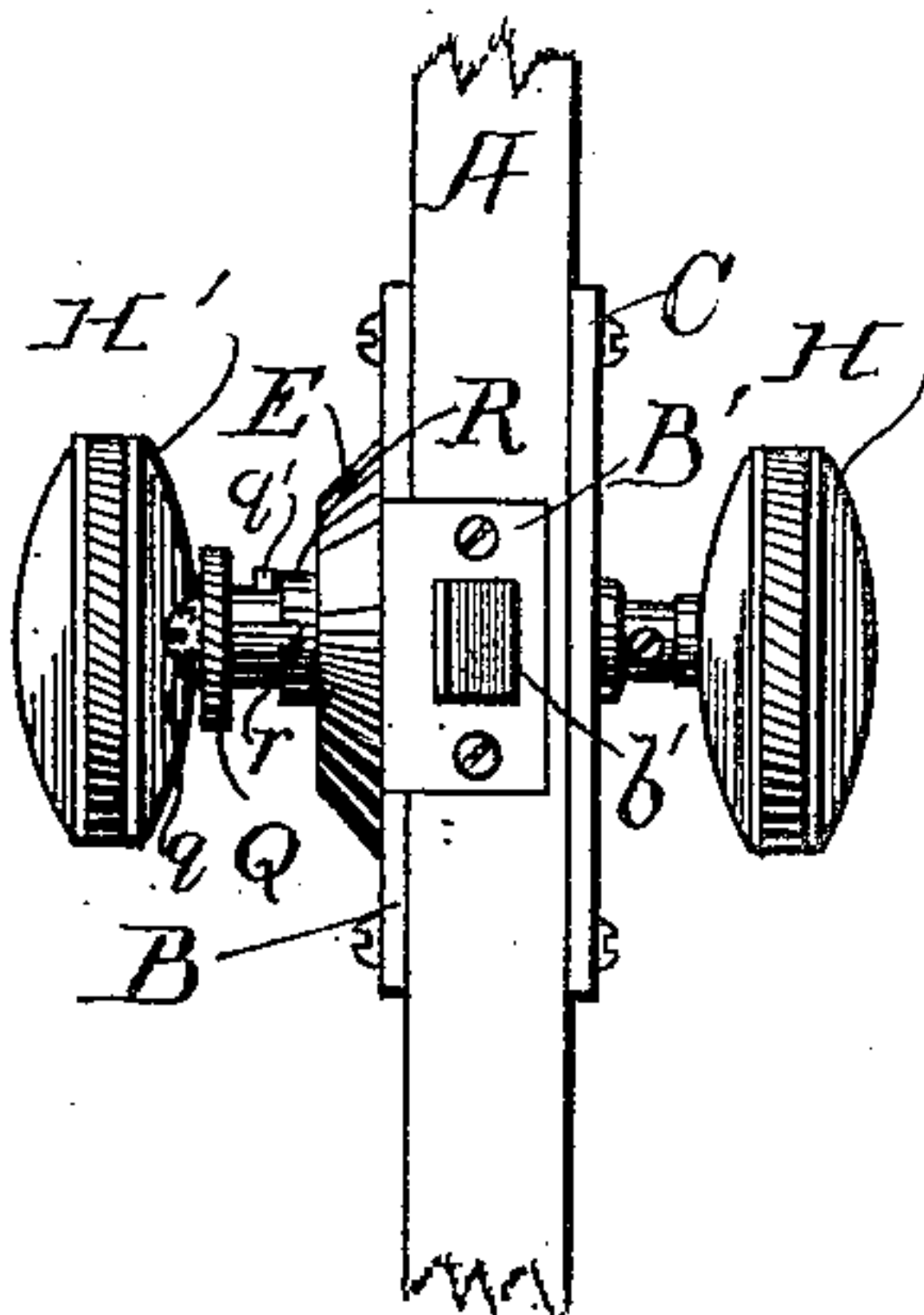


Fig. 3.

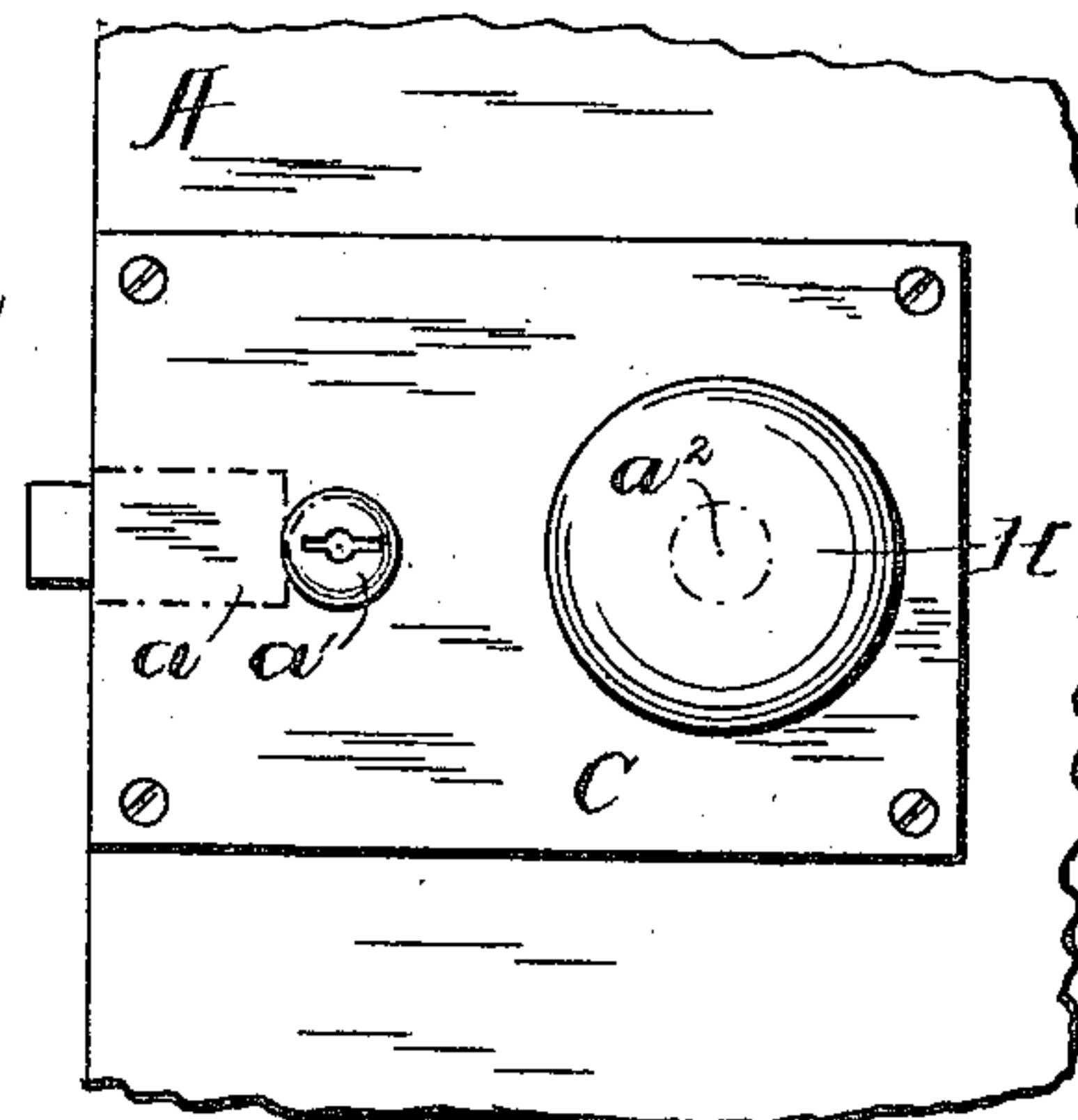


Fig. 4.

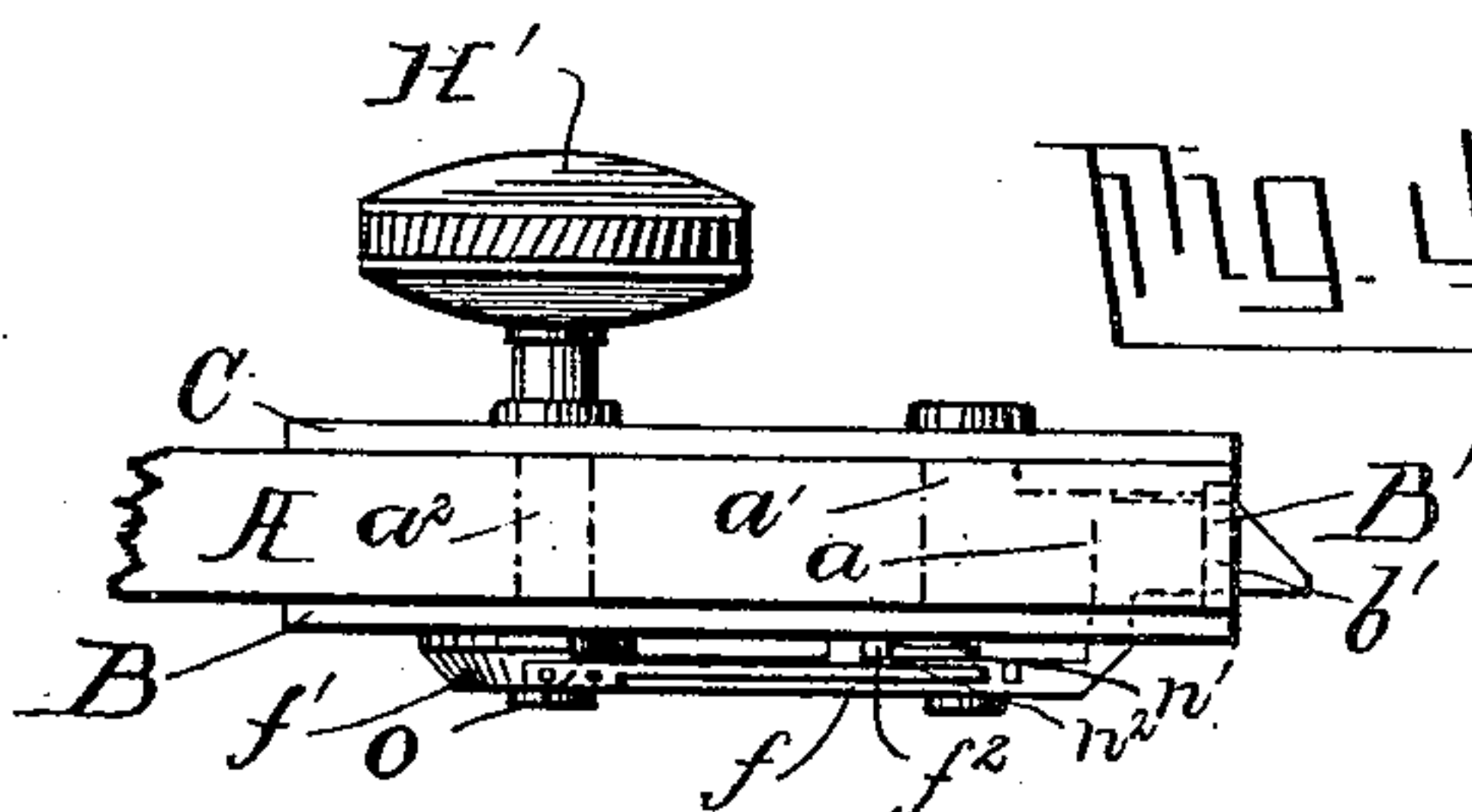


Fig. 5.

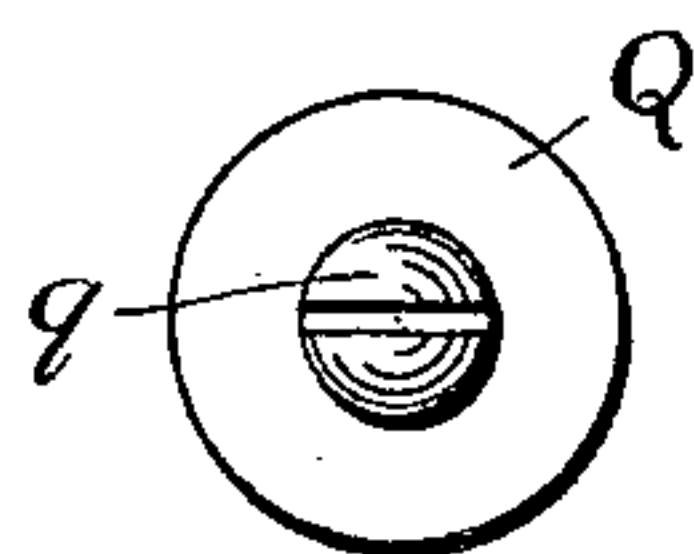
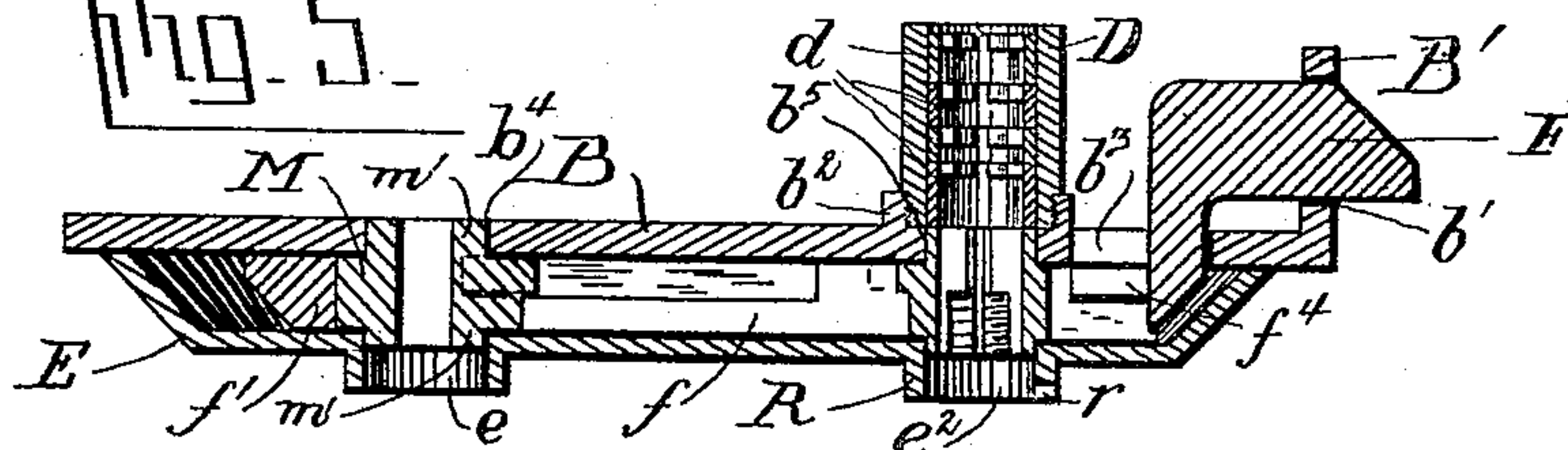


Fig. 6.

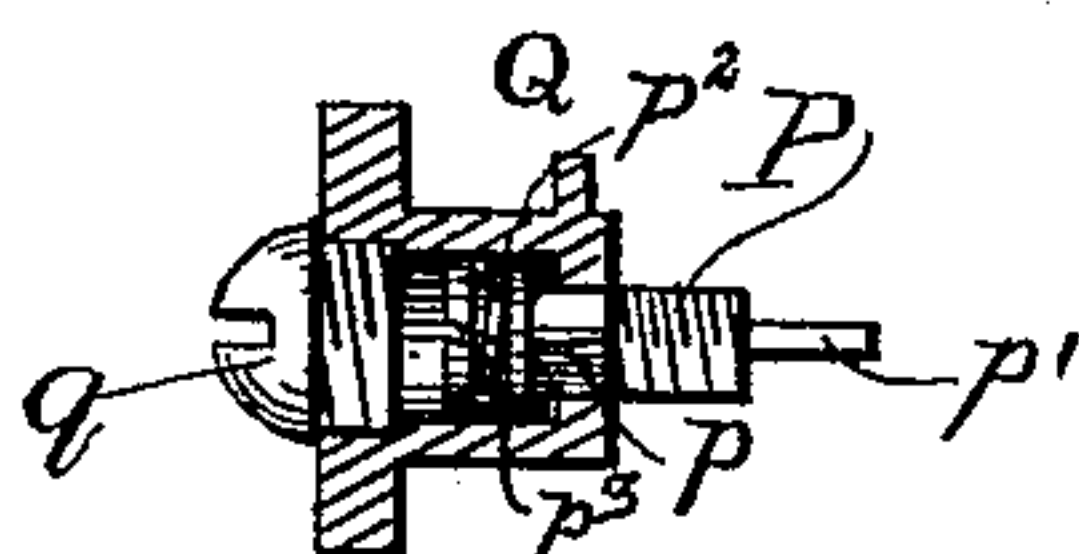


Fig. 7.

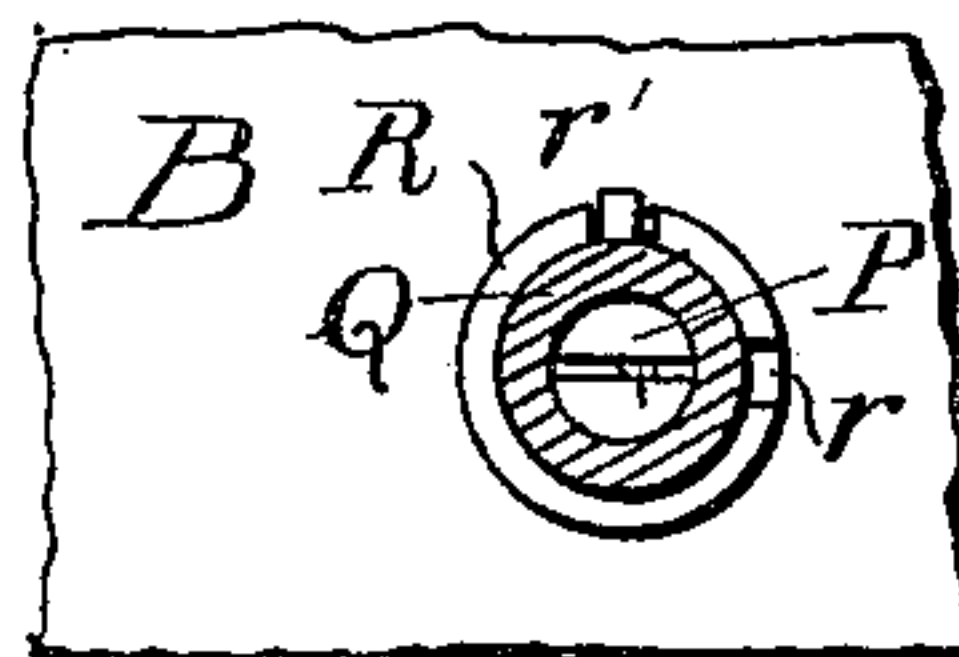


Fig. 8.

Witnesses  
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Inventor  
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his Attorney



# UNITED STATES PATENT OFFICE.

CHARLES HENRY LA BELLE, OF SALT LAKE CITY, UTAH TERRITORY.

## LOCK.

SPECIFICATION forming part of Letters Patent No. 529,348, dated November 13, 1894.

Application filed May 24, 1894. Serial No. 512,334. (No model.)

*To all whom it may concern.*

Be it known that I, CHARLES HENRY LA BELLE, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake, Territory of Utah, have invented certain new and useful Improvements in Locks, of which the following is a description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to improvements in locks, and more particularly to locks to be applied to house doors.

Primarily, my object is to provide a lock which requires, in order to be placed in position, very little cutting away of the door, while another object is to improve generally upon the construction of locks by simplifying as much as possible the arrangement of the various parts, and to this end my invention consists in the various matters hereinafter described and claimed.

The accompanying drawings illustrate my invention, and of these Figure 1 is a side elevation of a portion of a door to which is applied my lock mechanism, the casing inclosing said mechanism being removed and shown in dotted lines. Fig. 2 is a front elevation of a portion of said door. Fig. 3 is a side elevation showing the side other than that shown in Fig. 1. Fig. 4 is a top plan view. Fig. 5 is a sectional plan. Fig. 6 is a front view of the thumb nut. Fig. 7 is a sectional side elevation of the same. Fig. 8 is a front view of the thumb nut taken just in front of the screw P shown in Fig. 7.

In the drawings A represents a portion of a door having therein the recess  $a$  and extending therethrough the openings  $a'$ ,  $a^2$ . Fitting upon one side of the door is a face plate B provided with an angle portion B' which covers the recess  $a$  in the door, and has therein the usual opening  $b'$  for the passage of the locking bolt. Upon the inner side of the face B is a threaded seat  $b^2$ , and upon this fits a cylinder D within which are contained stationary tumblers  $d$  as shown in Fig. 5; this cylinder when in position passing through the opening  $a'$  in the door. Upon the opposite side of the door is a second face plate C having openings which register with the openings  $a'$ ,  $a^2$ .

In order to avoid cutting away a portion of the door for the reception of the lock as is now customary, and at the same time to place the locking bolt in such a position that it will enter the side of the door casing, a shell E containing the locking mechanism is secured upon the plate B by means of screws entering from the inside of said plate, and the locking bolt F is bent to pass through an opening  $b^3$  in the plate B, and also through the opening  $b'$  in the angle plate B', the opening  $b^3$  as well as the recess  $a$  being large enough to permit the necessary play of the bolts.

Referring to the arrangement of the parts of the locking mechanism grooves  $e$  are formed in the inner side of the shell E and in these slide the sides  $f$ ,  $f$  of the frame of the bolt F, the rear of said sides being connected by a raised block  $f'$ , the front of which is raised above the sides  $f$ ,  $f$  as shown. Upon one of the sides of the frame is a shoulder  $f^2$  while upon the other side is a plate  $f^3$  from which extends a pin  $g$  between which and a corresponding pin  $g'$  upon the face plate B fits a spring G serving to force the bolt F outward. Suitable means must, of course, be provided for reciprocating the bolt F, and in the present instance such means are provided that the lock may either be operated by an ordinary door knob, or may be employed as a night latch to be opened by a key; suitable other means being provided for securing the locking bolt against movement when it is so desired. To accomplish these purposes, the usual spindle H, carrying the knobs H', H' extend through the opening  $a^2$ , and has fitted upon it a cylindrical block M provided with reduced ends  $m$ ,  $m$  fitting in suitable openings  $e'$  and  $b^4$  upon the shell and face plate respectively. It is around this block that the block  $f'$  fits, and upon said block M are arms  $m^2$  which bear against the raised portions of block  $f'$ . Thus a turning of the door knob will force one or the other of the arms  $m'$  against the block  $f'$  and will in this way withdraw the bolt.

To provide for using the lock as a night latch, a second cylindrical block N having the reduced portions  $n$   $n$  is placed between the sides  $f$ ,  $f$ , said ends fitting in an opening  $e^2$  in the shell E, and the opening  $b^4$  made in



the plate B at the point of the threaded seat  
 b. Extending from the block N is a dog  $n'$ ,  
 carrying a pin  $n^2$ , while suitably held in the  
 shell E is a leaf spring O bearing upon the  
 5 pin  $n^2$  and tending to normally hold the dog  
 in the position shown in Fig. 1, further down-  
 ward movement being prevented by said dog  
 coming in contact with the lug  $f^4$  of the bolt  
 F. It will be noticed that in this lowermost  
 10 position the dog rests against a portion of the  
 bolt and thus prevents any movement of the  
 same. Slots  $n^3$  in the block N register with  
 corresponding slots in the tumblers in cylin-  
 der D, so that a key inserted through said  
 15 cylinder will enter said slots  $n^3$ , and when  
 turned will raise the dog  $n'$  which, coming in  
 contact with the shoulder  $f^2$ , will withdraw  
 the bolt, the spring O, however, forcing the  
 dog into its locking position as soon as press-  
 20 ure upon the key is released.

It will further be found advantageous to  
 provide means for holding the dog  $n'$  immov-  
 ably in either its raised or lowered position,  
 and in order to accomplish this as well as to  
 25 afford a construction by which the bolt may  
 be operated from the inside of the house in-  
 dependently of the knob, a screw P engages  
 the block N, its reduced ends  $p'$  passing  
 through said block, forming a seat for the  
 30 key, while upon an angular portion of said  
 screw fits a thumb nut Q, the chamber of said  
 nut containing the screw P being closed by a  
 threaded cap  $q$ .

About the opening  $e^2$  is a boss R provided  
 35 with notches  $v, v'$ , while upon the thumb nut  
 Q is a lug  $q'$  adapted to engage with said  
 notches. Said thumb nut has sufficient play  
 upon the screw P to allow the lug  $q'$  to be  
 withdrawn from the notches  $v, v'$ , the thumb  
 40 nut being held in its inner or outer position  
 by means of a snap spring  $p^2$ , fitting in a re-  
 cess  $p^3$  upon the screw P, and bearing against  
 the wall of the chamber in the thumb nut Q.  
 As will be seen from Fig. 4, the notches in

the boss R, the lug  $q'$  and the dog  $n'$  are all 45  
 so placed that when the lug is one notch the  
 dog is in its lower position, while when it is  
 in the other notch, the dog is in its raised po-  
 sition. It will thus be seen that when the  
 lug is withdrawn from the notches the dog is 50  
 normally held down, but may be operated to  
 withdraw the bolt by means of the key. When  
 the lug is engaging with the notch  $v'$ , the  
 bolt is locked in its lower position and can-  
 not be withdrawn by the key, and when the 55  
 lug is in the notch  $v$  the dog is raised and the  
 bolt may be withdrawn either by means of the  
 knobs or key, it being possible at all times to  
 operate the bolt by the thumb nut Q.

Having now described my invention, what 60  
 I claim, and desire to secure by Letters Pat-  
 ent, is—

1. A lock comprising a casing, a bolt having  
 a frame comprising a front and sides, a dog  
 pivoted between said sides to lie against the 65  
 front of the frame and thus secure the bolt  
 against movement, a shoulder upon said  
 frame with which the dog is adapted to en-  
 gage to move the bolt, and means for turning  
 said dog upon its pivot; substantially as de- 70  
 scribed.

2. A lock comprising a casing, a bolt having  
 a frame comprising a front and sides, a dog  
 pivoted between said sides to lie against the  
 front of the frame and thus secure the bolt 75  
 against movement, a spring normally holding  
 said dog in this securing position, a shoulder  
 upon said frame with which the dog is adapted  
 to engage to move the bolt, and means for  
 turning said dog upon its pivot; substantially 80  
 as described.

In testimony whereof I affix my signature in  
 presence of two witnesses.

CHARLES HENRY LA BELLE.

Witnesses:

JOSEPH DEDERICKS,

CHARLES D. JOHNSON,