

E. H. JONES.

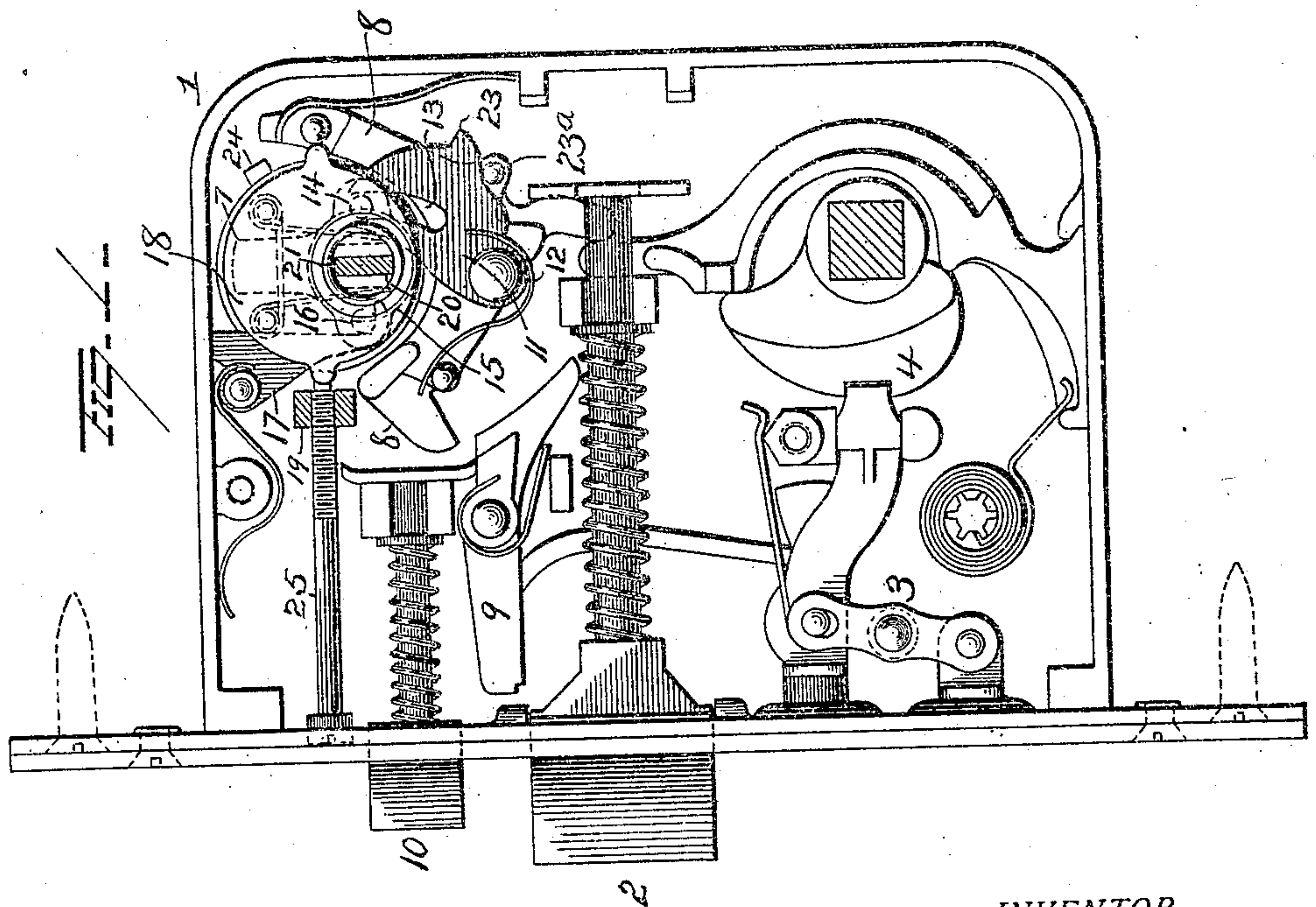
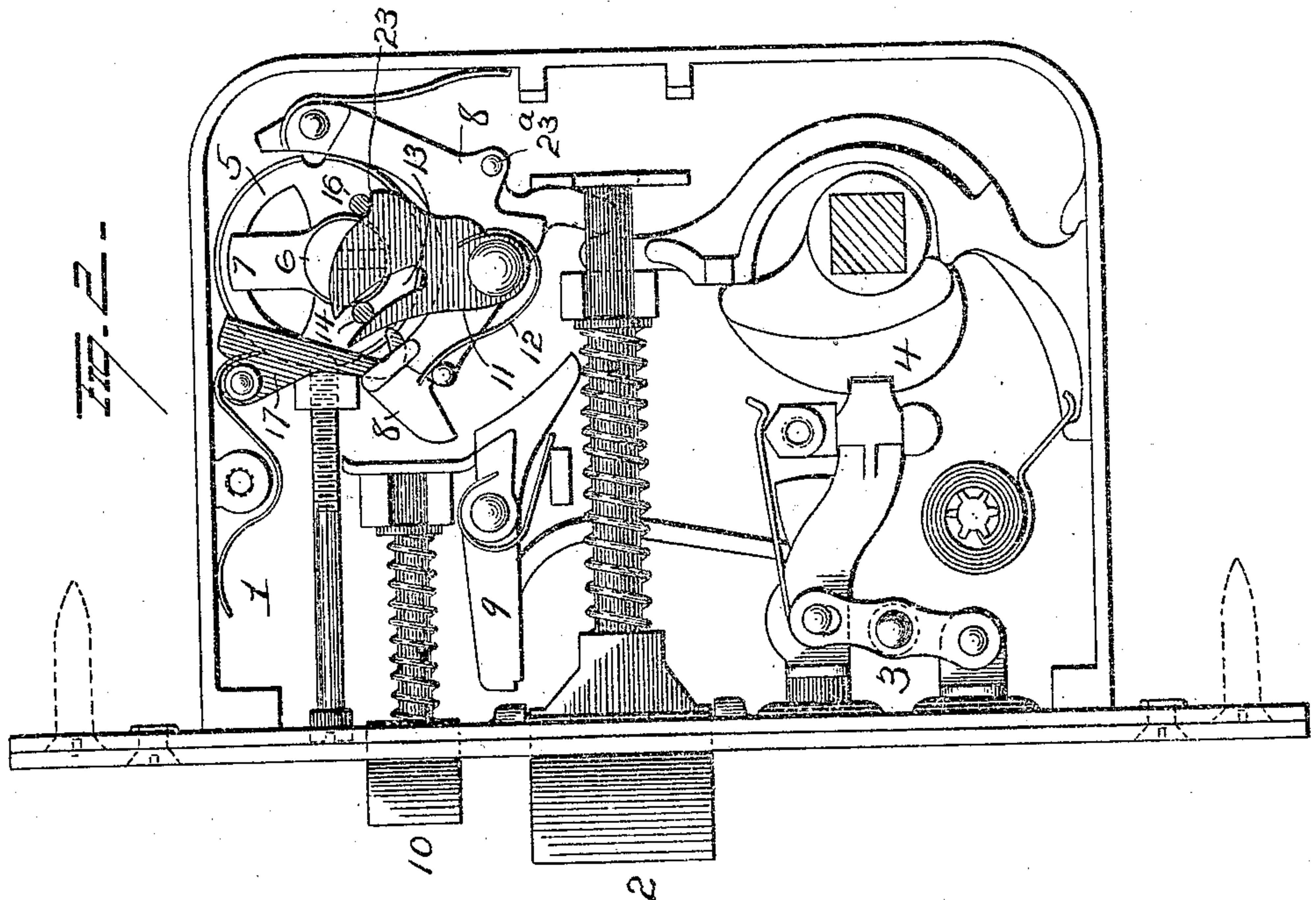
LOCK.

APPLICATION FILED MAY 10, 1909.

Patented Apr. 26, 1910.

2 SHEETS—SHEET 1.

956,361.



WITNESSES

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G. J. Downing

INVENTOR

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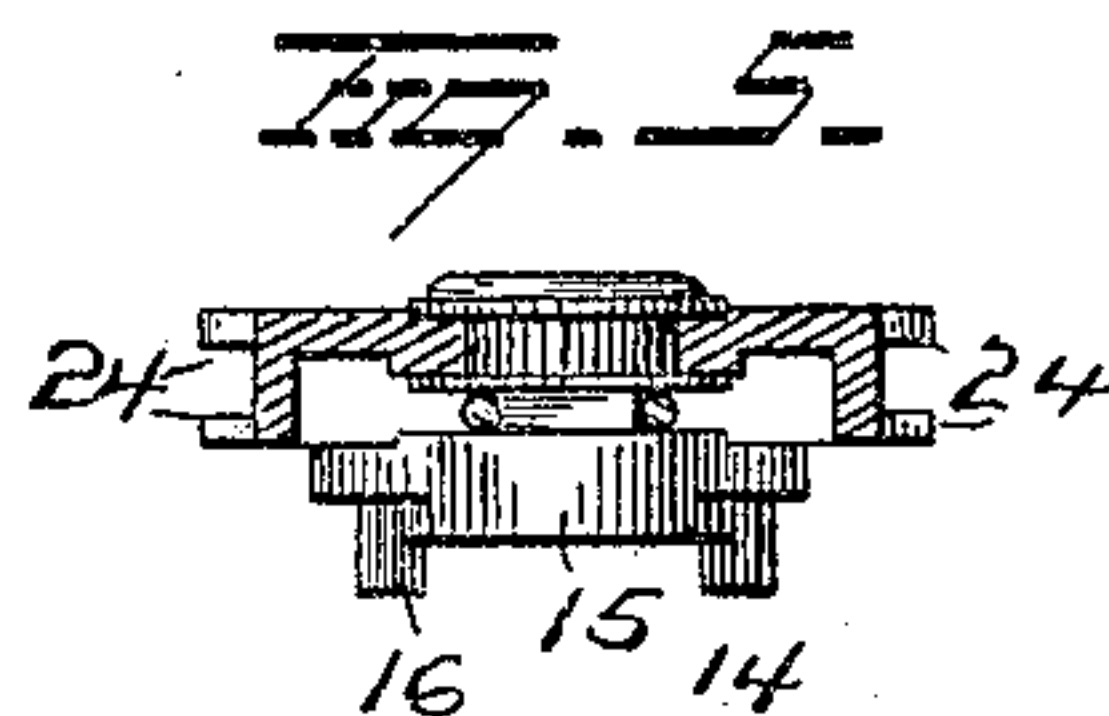
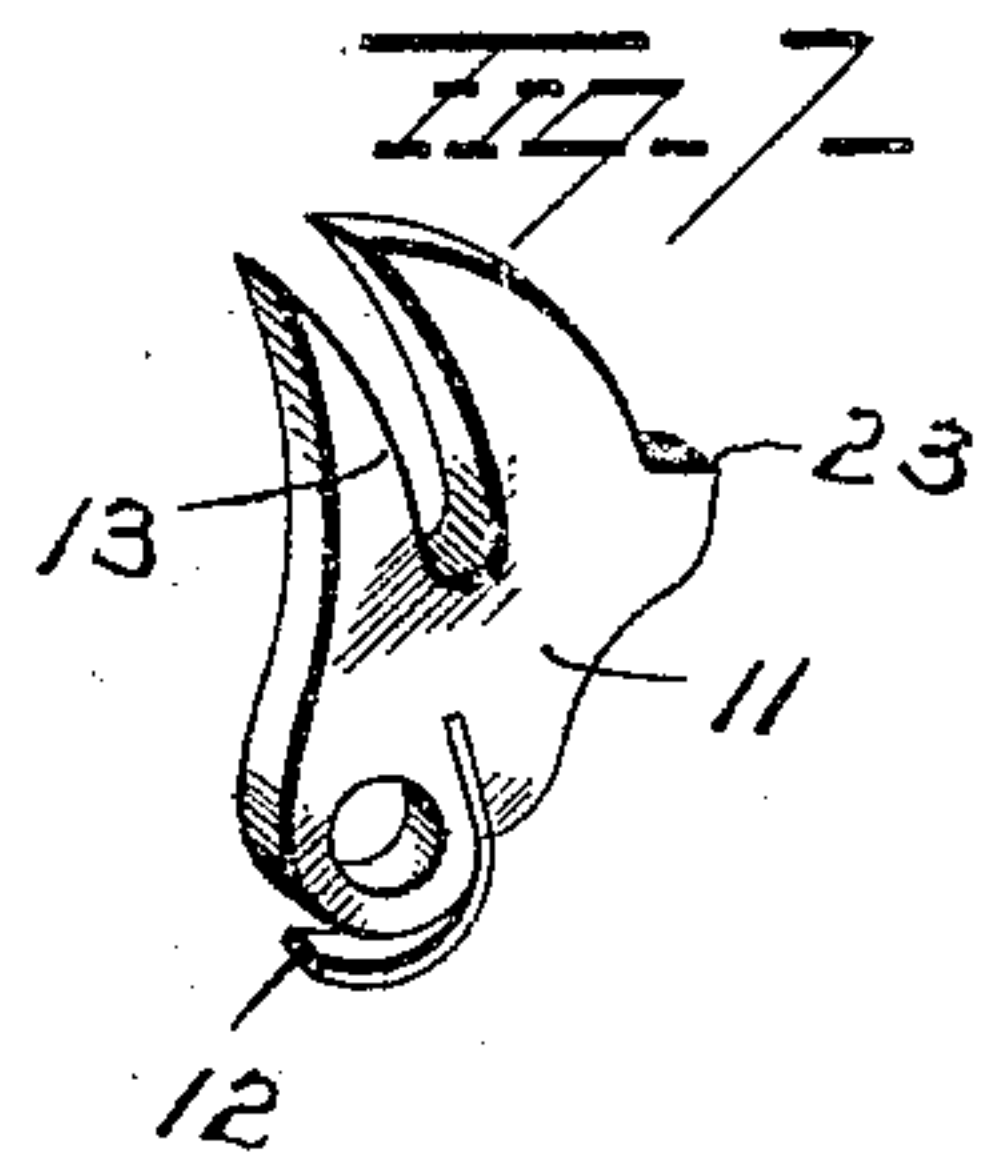
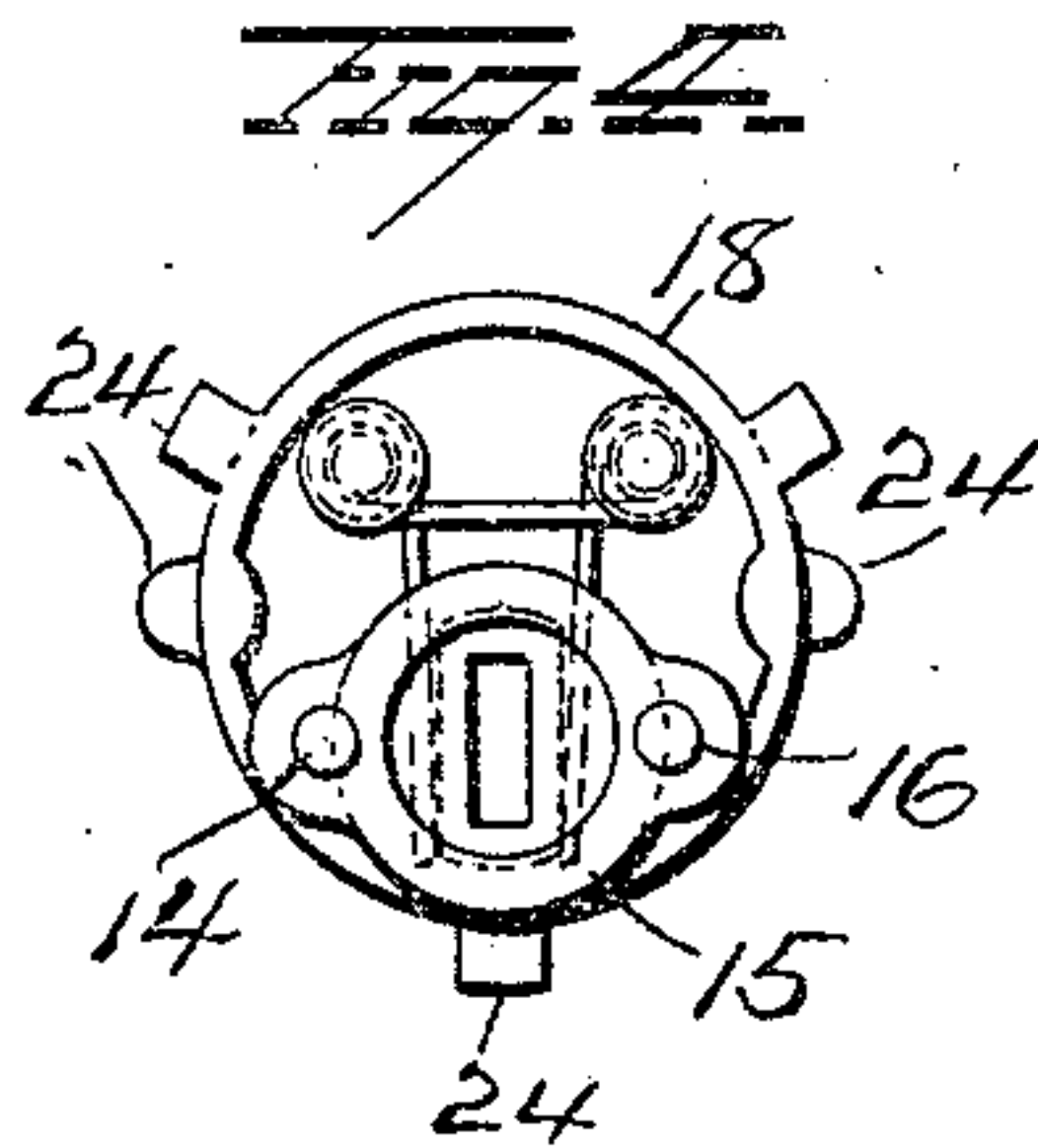
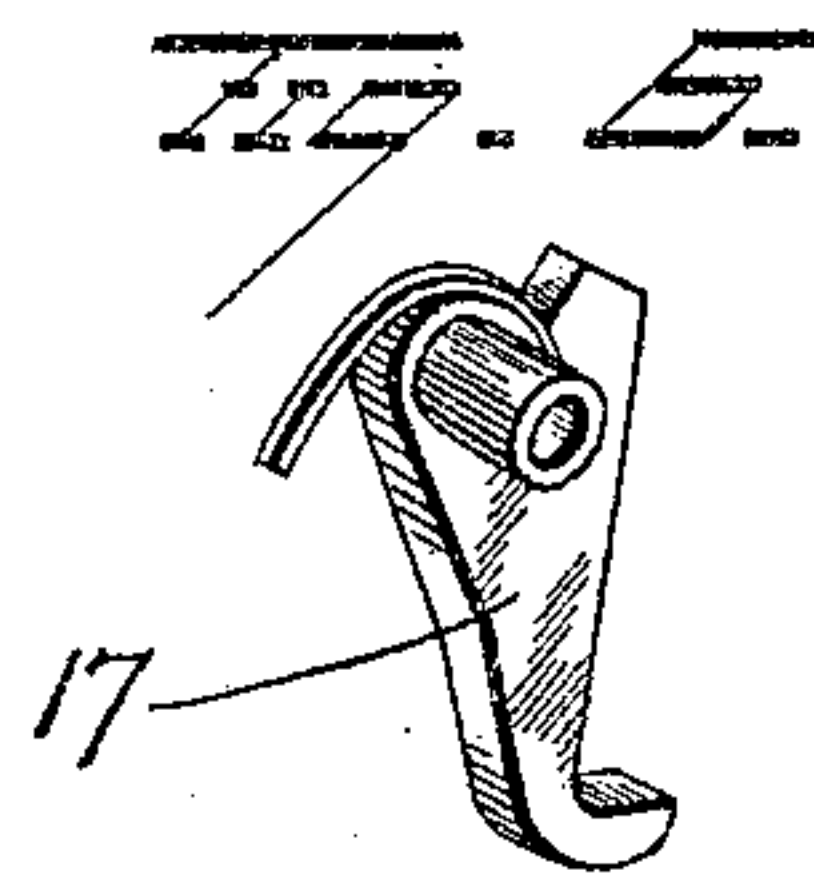
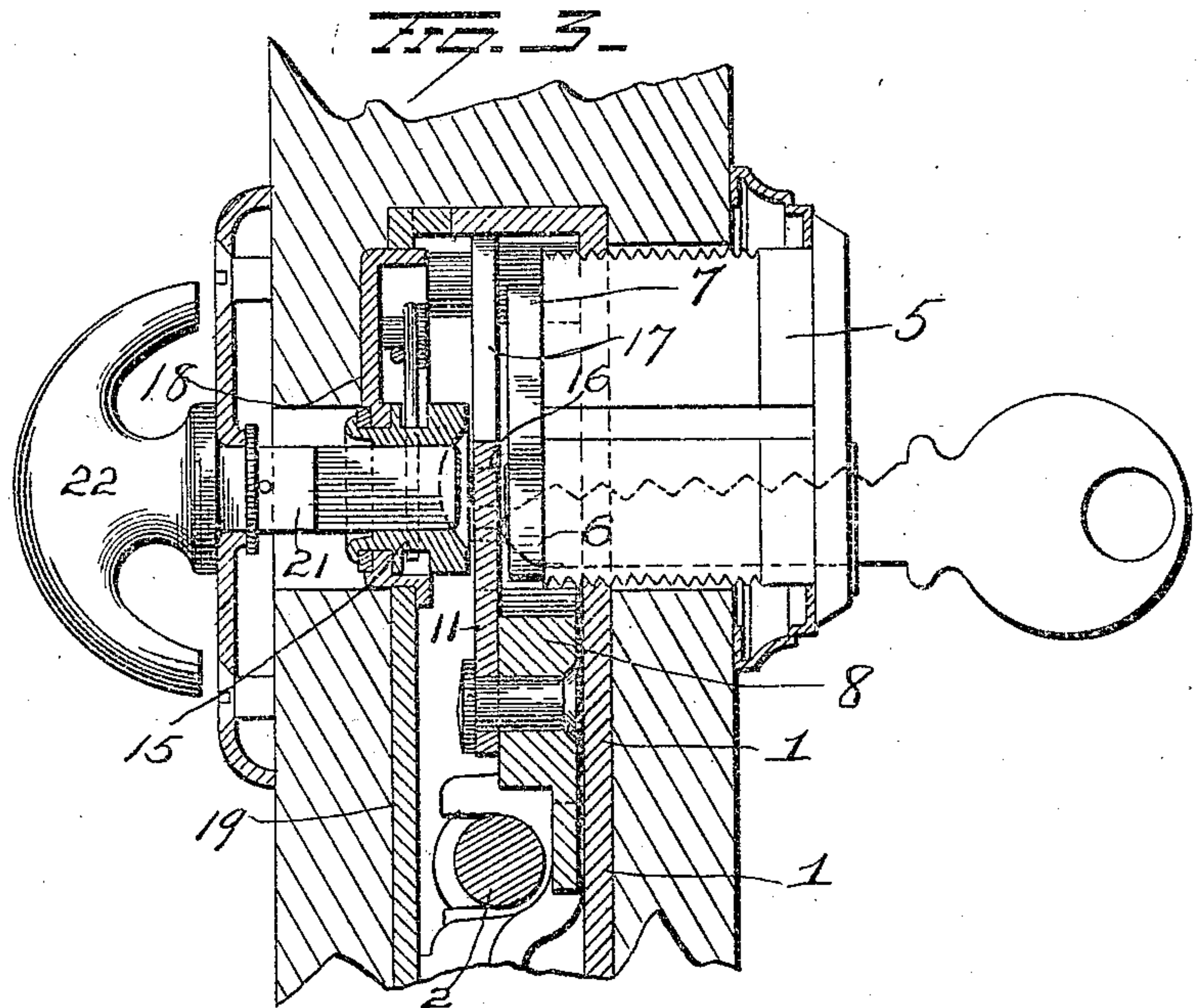
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

ELLIS H. JONES, OF STAMFORD, CONNECTICUT, ASSIGNOR TO THE YALE & TOWNE
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LOCK.

956,361.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed May 10, 1909. Serial No. 495,031.

To all whom it may concern:

Be it known that I, ELLIS H. JONES, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain
5 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
10 and use the same.

My invention relates to an improvement in locks particularly adapted for use in hotels, the object being to provide means whereby when the key guard, which is actuated from the inside, is set to guard the
15 key slot, no key but the guest's or emergency key can be fully inserted or turned in the lock, thus preventing the maids, and others holding pass keys from disturbing the guests
20 by their efforts to retract the bolt.

With this and other ends in view my invention consists in the parts and combinations of parts as will be more fully explained and pointed out in the claims.

25 I have shown and will describe my improvement applied to a lock having a single latch bolt adapted to be retracted by inner and outer knobs and by a pin tumbler lock, and also provided with stop work mechanism for deadlocking the outer knob, whereby
30 when the outer knob is deadlocked, the door can be opened from the outside only by a key, but I would have it understood that I do not confine its application to such a lock,
35 but claim broadly means operable from the inner side of the door for preventing the complete insertion of a key in a cylinder or pin tumbler lock.

40 In the accompanying drawings, Figure 1 is a view in elevation of the lock with the removable plate removed, the hub of the thumb piece being shown in its proper position, and the path of the key unobstructed. Fig. 2 is a similar view showing the curtain
45 moved into the path of the key. Fig. 3 is a view in section, and Figs. 4, 5, 6 and 7 are views in detail of the several parts.

1 represents the lock case, and 2 the combined lock and latch bolt. This bolt is actuated in the usual manner, by inner and
50 outer knobs, stop mechanism 3 of the usual kind, being employed for dogging the roll back 4 of the outer knob, and thus preventing the latch bolt from being retracted from

the outer side of the door except by the use
55 of a key.

5 is a cylinder or pin tumbler lock, the revolving plug 6 of which is provided on its inner end with a cam 7, which actuates the bolt 2 through the medium of the lever 8, 60 the latter also being of the usual construction.

9 is the spring actuated dogging lever, normally held out of the path of the bolt 2 by the auxiliary bolt 10, and moved into the
65 path of the bolt by its spring. When the door is open, and the auxiliary bolt projected, the cross head on the inner end of the stem of the auxiliary bolt rests in contact with the rear end of the dogging lever 70 9, and holds the latter out of contact with the rear end of the head of the bolt. When however the door is closed and the auxiliary bolt is held in its retracted position by its contact with the strike plate or keeper, the
75 spring connected with the dogging lever moves the latter to its position in rear of the bolt and thus dogs the latter, hence when the outer knob is deadlocked by the stop mechanism, the bolt can be retracted from the
80 outside only by the use of key mechanism acting on the lever 8.

The parts thus far described are old and in general use.

In hotel locks of this kind the lock may be
85 opened by the guest's key, maid's key, master key and emergency key. The guest's key opens a single lock; the maid's key opens a series of locks, as for instance all the locks
90 on a floor; the master key may operate all the locks and the emergency key all the locks.

My improvement is designed to prevent the lock when the door is closed and the outer knob deadlocked, from being actuated by any but the guest's or emergency key, 95 and to accomplish this, I make the maid's and master keys (and any other keys other than the guest's and emergency keys) longer than the guest's and emergency keys, so that when inserted in the plug 6 of the pin
100 tumbler lock, they project beyond the cam 7, and I provide means, movable into the plane of the key slot in the plug, and in the path of movement of the longer keys, thus preventing the latter from being pushed in
105 sufficiently far to actuate the lock. This key blocking mechanism comprises a curtain 11 pivoted to the lever 8, which as before ex-

plained is actuated by the cam 7 on the plug 6. This curtain is normally held out of the plane of the key slot in plug 6 by the spring 12, and is provided with a curved slot 13, in which a lug 14 integral with or fixed to the hub 15 rests. This hub is also provided with a second lug 16 which normally rests in the hooked end of the lever 17, which latter prevents the hub from rotating except in one direction. This hub is revolvably mounted in the disk 18 which is removably secured within an opening in the face plate 19 of the lock case, and is provided with a slot 20 in which the end of the shank 21 of the thumb piece or knob 22 rests, so that when the latter is turned the hub 15 will be turned also. The slot 13 in the curtain 11 is eccentric to the axis of the hub 15, so that when the hub is turned by the thumb piece 22, the lug 14, moving against the wall of the slot 20, turns the curtain 11 up to a position in rear of the key hole in the plug 6, and sufficiently close to the inner end thereof to prevent the complete entrance of the longer keys, thus preventing the latter from properly registering with the pin or other tumbler of the lock, and absolutely preventing the rotation of the key. The hook lever 17 is spring pressed and lies in the path of movement of the curtain 11, and as the latter is moved to its position to block the entrance of the longer keys, its end coming in contact with the hooked end of the lever, simply forces the latter forwardly out of the path of the lugs on the hub. As the thumb piece is turned, and the curtain raised to its blocking position, the lug 16, which normally rests on the hook of lever 17, will be turned a half revolution until it engages the shoulder 23 on the curtain, thus locking the latter in its position to block the entrance of the longer keys. If a shorter key, such as the guest's or emergency key be introduced and the plug 6 turned, the cam 7 moving in contact with the bolt actuating lever 8, moves the latter on its axis, and as the curtain 11 is mounted on this lever, it will be carried below the lug 16, and as it leaves the lug, its spring 12 moves it back to its normal position against the shoulder 23^a on the lever 8, in which position it is out of the path of all the keys. After the key slot has been blocked by the curtain, any key that will retract the bolt, will also restore the curtain to its normal position out of the path of the key. The curtain may also be removed from the path of the key by the thumb piece 22 on the inner side of the lock, hence it follows that after the door has been unlocked from the inside and closed, as when the guest leaves the room, the lock may be operated by any of the keys of the series. The removable disk 18 carrying the hub 15 is provided with lugs 24 overlapping the opposite side of the

plate, but so arranged that the disk may be removed and inserted in place, and is held or locked in position by the screw 25, which extends out through the face plate of the lock.

It is evident that many slight changes might be resorted to in the relative arrangement of parts herein shown and described without departing from the spirit and scope of my invention, hence I would have it understood that I do not wish to confine myself to the exact construction and arrangement of parts shown and described, but

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

1. In a lock, the combination with a bolt, and key actuated mechanism for actuating said bolt, the said key mechanism having a single key slot therein, of a device for blocking the passage of a key through said slot, and means operable only from the inner side of the door for moving said blocking device into the path of the key slot.

2. In a lock, the combination with a bolt and key operated device for actuating the bolt, the said key operated device having but a single key slot, of a device for blocking the passage of a key through said slot, means operable only from the inner side of the door for moving said blocking device into its operative position, and two keys of different lengths, the shorter one of which will actuate the lock to retract the bolt when the key slot thereof is blocked, and which also by its retraction of the bolt restores the blocking device to its inoperative position.

3. In a lock the combination with a bolt and key operated device for actuating the bolt, the said key operated device having but one key slot therein, of a device for blocking the key slot, and two keys one of which is adapted when the door is locked to be engaged by the said blocking device and be prevented from operating, and the other adapted to enter and actuate the lock.

4. In a lock the combination with a bolt and key lock for actuating same, the said key lock having a single key slot therein, of a blocking device located adjacent the end of the key slot and movable into and out of the plane of said slot, and two keys of different lengths, the shorter one of which will actuate the lock when the key slot thereof is blocked.

5. In a lock, the combination with a bolt, and a key lock operable from the outside for actuating same the said key lock having but one key slot, of a blocking device located adjacent the inner end of said key slot and movable into and out of the path of same, and means operable from the inner side only for moving said blocking device into the path of the key slot.

6. In a lock, the combination with a bolt

and a key lock for actuating same, of a blocking device located adjacent the inner end of the key slot and movable into and out of the plane of said slot, means on the inner side of the door for moving said blocking device, and keys, one of which is constructed to enter the key slot without contacting with the blocking device, whereby the lock may be unlocked by said key when the key slot is blocked against the entrance of other keys.

7. In a lock the combination with a bolt, a lever for retracting same, and key operated devices for actuating said lever, of a curtain carried by said lever, means for moving said curtain into the path of the key slot, and means for locking said curtain in its blocking position.

8. In a lock the combination with a bolt, a lever for retracting same and key operated devices for actuating said lever, of a curtain carried by the lever and a hub for moving the curtain and for holding it in the path of the key slot in the lock.

9. In a lock, the combination with a bolt, a lever for retracting same and key operated devices for actuating said lever, of a curtain movably mounted on the lever, means on the inside of the door for moving the curtain into the plane of the key slot, means for limiting the movement of said curtain moving means and means for holding the curtain in the path of the key slot.

10. In a lock the combination with a bolt, bolt actuating lever and key actuated means for operating said lever, of a curtain pivoted to said lever and provided with a slot, and a hub actuated from the inner side of the door and having a lug resting in said slot, whereby when the hub is turned in one direction, the curtain will be moved into the plane of the key slot.

11. The combination with a key lock and a lever actuated thereby, of a curtain carried by said lever and provided with a slot and a shoulder, and a hub having two lugs one which moves in the slot and the other engages the shoulder on the curtain and holds the latter in a position to block the key slot in the lock.

12. In a lock the combination with a bolt, a pin tumbler lock, and means whereby the bolt may be retracted by the pin tumbler lock, of means operable from the inner side only of the door and movable into the plane of the key slot in the pin tumbler lock for preventing the complete insertion of a key in said pin tumbler lock.

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

ELLIS H. JONES.

Witnesses:

W. H. TAYLOR,
CHARLES E. VAIL.