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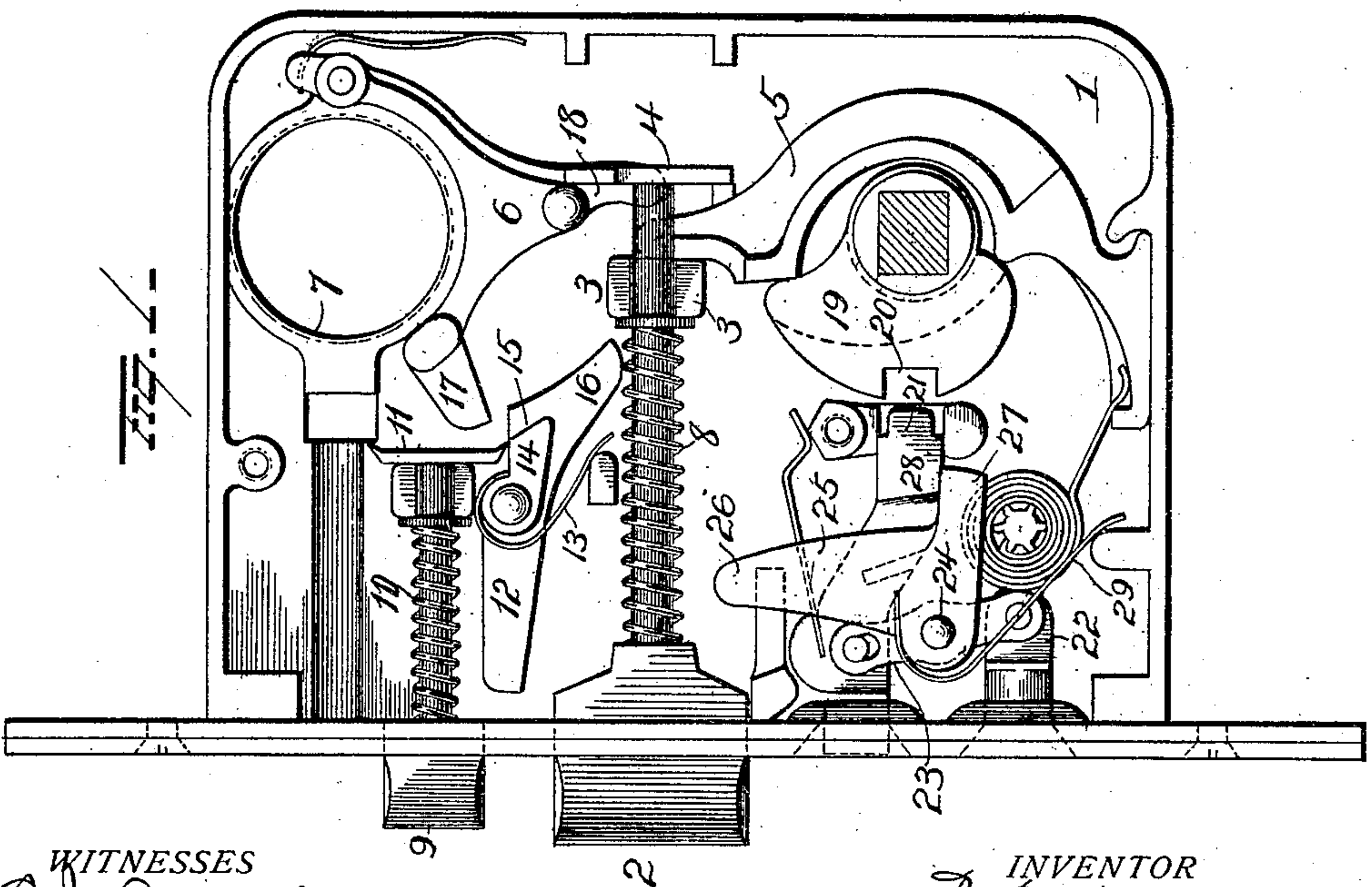
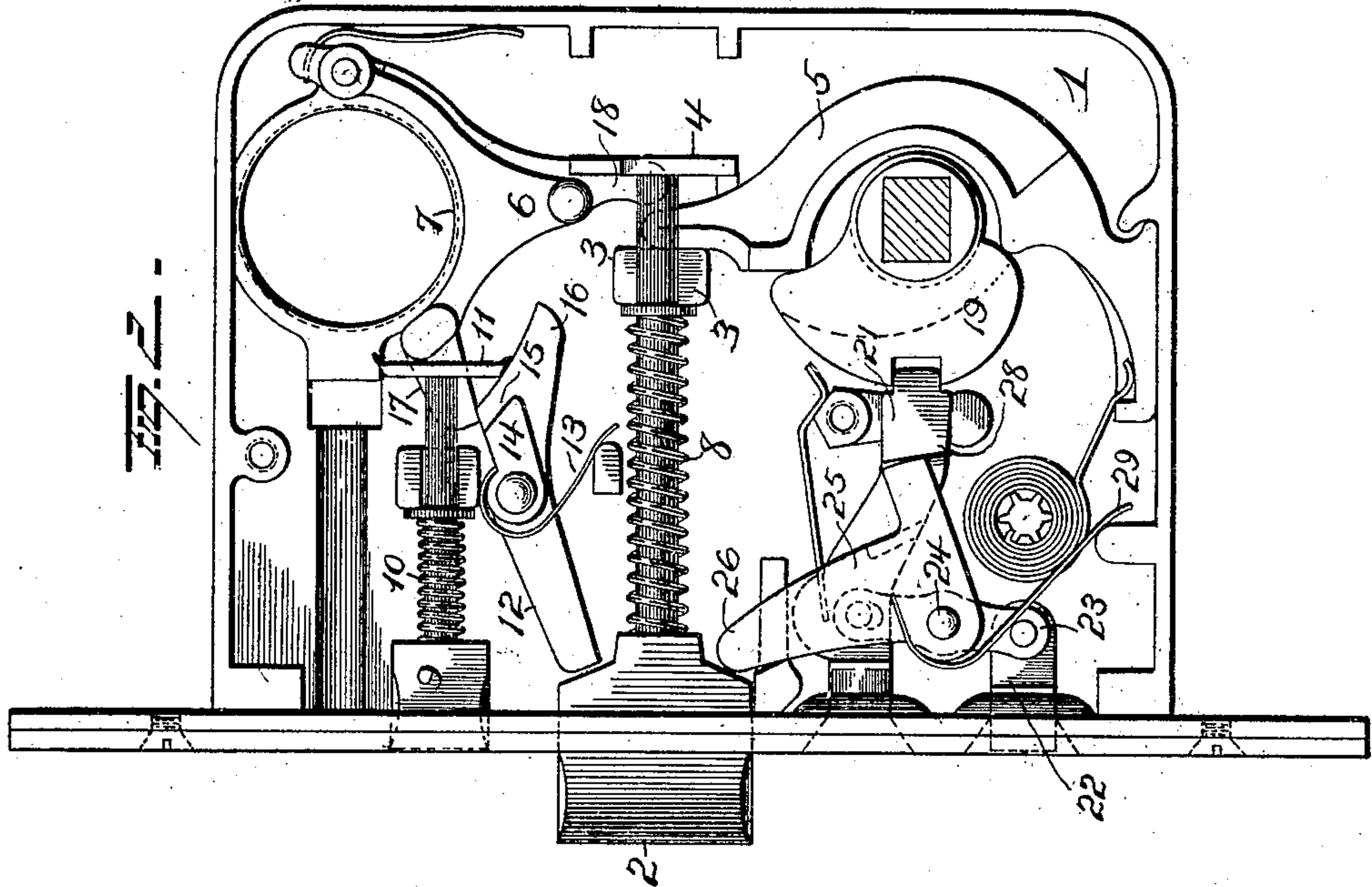
LOCK.

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956,262.

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2 SHEETS—SHEET 1.



WITNESSES

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LOCK.

956,262.

Specification of Letters Patent.

Patented Apr. 26, 1910.

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To all whom it may concern:

Be it known that I, PETER F. AUGENBRAUN, of Stamford, in the county of Fairfield and State of Connecticut, 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.

My invention relates to an improvement in locks, and particularly to locks having stop work or night latch mechanism for deadlocking the outer knob. In locks of this type the heads of the stop work or night latch mechanism project through the face plate of the lock, and they have been manipulated to release the outer knob, by a bent wire inserted between the face plate of the lock and the strike plate.

The object of this invention is to provide means for dogging this night latch mechanism, so as to absolutely prevent the necessary manipulation of the same to release the outer knob, when the door is closed, and it consists broadly in an outer knob roll back or hub, night latch mechanism, and dogging means for the night latch mechanism, the said dogging means being actuated to release the outer knob, by the inward movement of the latch bolt.

In the accompanying drawings Figure 1 is a view in elevation of the lock, the cover plate being removed, showing both bolts projected and the night latch mechanism disengaged from the roll back of the outer knob. Fig. 2 is a similar view showing the night latch mechanism deadlocking the outer roll back and the auxiliary bolt retracted, and Fig. 3 is a similar view showing the outer roll back deadlocked and the latch bolt retracted.

1 represents the lock casing and 2 the latch bolt, the stem of which is movable between the guides 3 and is provided at its rear end with the laterally projecting arms 4, engaged on one side by the lever 5 actuated by the knobs hubs or roll backs, and on the opposite side by the pivoted lever 6 actuated by a cylinder lock mechanism secured in the usual manner in the opening 7 in the case 1. The lock mechanism and knobs simply retract the bolt, while the spring 8

tends to normally hold the bolt in its projected or locking position.

9 is an auxiliary bolt normally projected by the spring 10, and provided at the inner end of its stem with an arm 11 adapted when the auxiliary bolt is projected, to rest in contact with the latch bolt dead locking lever 12 and hold the latter out of the path of the latch bolt 2. This lever 12 is pivoted to the case 1, and is provided with a spring 13 normally tending to hold the outer end of the lever 12 in close proximity to the rear face of the bolt and in the path of the latter, thus deadlocking the bolt against manipulation by any thin instrument inserted between the face plate of the lock and the strike plate. The rear end of this lever 12, or the portion thereof in rear of the pivot, is provided with a shoulder 14 adapted to be engaged by the arm 11 on the auxiliary bolt 9, when the latter is projected, and with an inclined surface 15 in rear of the shoulder adapted to be also engaged by said arm. When the auxiliary bolt is retracted, its arm 11 is moved clear of the shoulder 14 and inclined surface 15, thus permitting the spring 13 to turn the lever to a position to deadlock the latch bolt 2. This auxiliary bolt is designed to engage the strike plate, or a projection on the latter, and be held in a retracted position while the door is closed, and can only be projected when the door is open. The rear end of the lever 12 is also inclined as shown, and lies in the path of the projection 17 on lever 6, which as before explained, is actuated by the key mechanism. The end 18 of this lever 6, rests in rear of lever 5, actuated by the knobs hubs or roll backs, hence when the latter lever is actuated, it operates through lever 6 to move the dead locking lever 12 out of the path of the latch bolt 2.

The end of the lever 12 is slightly removed from the head of latch bolt 2 thus permitting of slight inward movement of the latter, before coming in contact with the dead locking lever 12. When the door is closed, arm 17 on lever 6, is in contact with the rear end of lever 12, as shown in Fig. 2, hence when lever 6 is turned, as it is by the key or knob, the arm 17 moving in contact with the rear end of dead locking lever 12 turns the latter sufficiently to release the latch bolt, and permit the latter to continue

its rearward movement. As the door opens, the outward movement of the auxiliary bolt engaging the inclined end 15 of the lever 12 continues the movement of the dead locking lever 12 and holds same out of the path of the bolt when the door is open.

The knob spindles carry roll backs, the one connected to the inner knob being free at all times to be turned, while the roll back 19 of the outer knob, is provided with a slot 20 adapted to receive the rear end of the slide 21 of the night latch mechanism. This push button or night latch mechanism comprises the slide 21, and the arm 22, connected by a rocking arm, the said slide and arm each having a head or push button projecting into openings in the face plate of the lock, and accessible only through said face plate. The slide 21 and arm 22, are connected by the rocking lever 23 pivoted to the stud 24, consequently when arm 22 is pushed in, the slide will be forced out, and when the slide is pushed in the arm will be forced out. When the slide 21 is pushed in, its rear end enters the slot in roll back 19 and locks the latter and the outer knob to which it is connected, against rotation, thus preventing the door from being opened from the outside except by the use of a key.

The push buttons of the night latch mechanism are exposed through the face plate of the lock, and in one instance at least, have been manipulated by a bent wire inserted between the face plate of the lock and the strike plate, and turned so as to engage the head of the projecting member of the night latch mechanism, thus shifting the latter and releasing the outer knob.

To prevent any manipulation of the night latch mechanism when the door is closed, I have provided the dogging lever 25. This lever is of the bell crank variety, and is pivotally mounted at its elbow on the stud 24, with one arm 26 thereof in the path of the head of latch bolt 2, and the other member 27, adjacent to the shoulder 28 on the slide 21. This lever 25 is provided with a spring 29 which tends to normally hold arm 26 in contact with the rear end of the head of latch bolt 2, hence when the arm 26 is in contact with the rear end of the bolt, an inward movement or retraction of the bolt 2 will turn lever 25 on its pivot, and move arm 27 out of the path of shoulder 28 on slide 21.

When the outer knob is deadlocked by the stop work mechanism, the arm 26 of lever 25 rests in rear of and in contact with the rear end of the head of bolt 2, and the end of arm 27 rests in front of shoulder 28 on slide 21, and positively dogs the latter against any movement.

When the door is closed, the latch bolt 2 is also dogged by its lever, hence the lever cannot be actuated to release the slide 21 by

any instrument inserted between the outer face of the bolt 2 and the strike plate.

To release the outer knob, by the withdrawal of the night latch mechanism, it is first necessary to retract the latch bolt 2 by the inner knob or by the key mechanism. This movement of the bolt 2 turns the lever 25 on its fulcrum, thus moving the arm 27 thereof out of the path of shoulder 28 on slide 21. While the bolt is thus retracted, the night latch mechanism may be manipulated to release the outer knob. When the outer knob is not locked by the slide, the end of arm 27 rests against the side of the shoulder 28, thus holding the arm 26 out of contact with, and considerably removed from the head of the bolt. With the parts in this last position, the slide 21 may be moved into a position to deadlock the latch bolt without retracting the bolt 2, but when the outer knob is dead locked, the slide can only be manipulated when the latch bolt is in its retracted position, hence when the parts are set to deadlock the outer knob, the mechanism cannot be shifted or changed to release the outer knob except by first retracting the latch bolt.

It is evident that many slight changes might be resorted to in the relative arrangement of parts 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 exact construction and arrangement of parts shown and described but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a door lock, a casing having a face plate, a bolt normally projecting through the face plate, means for retracting the bolt, manually operable night latch mechanism having a member projecting through the face plate, and means for preventing the operation of said night latch mechanism when the latter is set to dead lock the outer knob, the said preventing means having a part located in the path of movement of the bolt, whereby it is actuated to release the night latch mechanism by the bolt.

2. In a door lock, a bolt, night latch mechanism for preventing a retraction of said bolt by the outer knob, and means for deadlocking said night latch mechanism, the said deadlocking means having a part so located as to be moved by the bolt, whereby said means will be operated to release said night latch mechanism by the retraction of the bolt.

3. In a lock, the combination of a main bolt, and dogging means for the same, knob mechanism for retracting the bolt, night

latch mechanism for deadlocking the outer knob, and means for dogging said night latch mechanism the said dogging means being moved to a position to release the night latch mechanism, by the main bolt.

4. In a lock, the combination of a main bolt, dogging means for same, knobs mechanisms, a night latch mechanism, and a lever one member of which is located in a position to be engaged by the bolt and another member of which is located in the path of movement of the night latch mechanism so as to dog the same.

5. In a lock, the combination with a main bolt, knobs mechanisms and night latch mechanism for the outer knob, of a dogging lever for the night latch mechanism, the said dogging lever being engaged by the bolt during the inward move-

ment of the latter, and moved thereby to a position out of the path of the night latch mechanism and a spring constantly tending to move said dogging means into the path of the night latch mechanism.

6. In a door lock, the combination with its main bolt and outer knob mechanism, of night latch mechanism for the outer knob, and dogging means for said night latch mechanism actuated by the main bolt, to release the night latch mechanism.

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

PETER F. AUGENBRAUN.

Witnesses:

SCHUYLER MERRITT,
WILLIAM P. MOSELY.