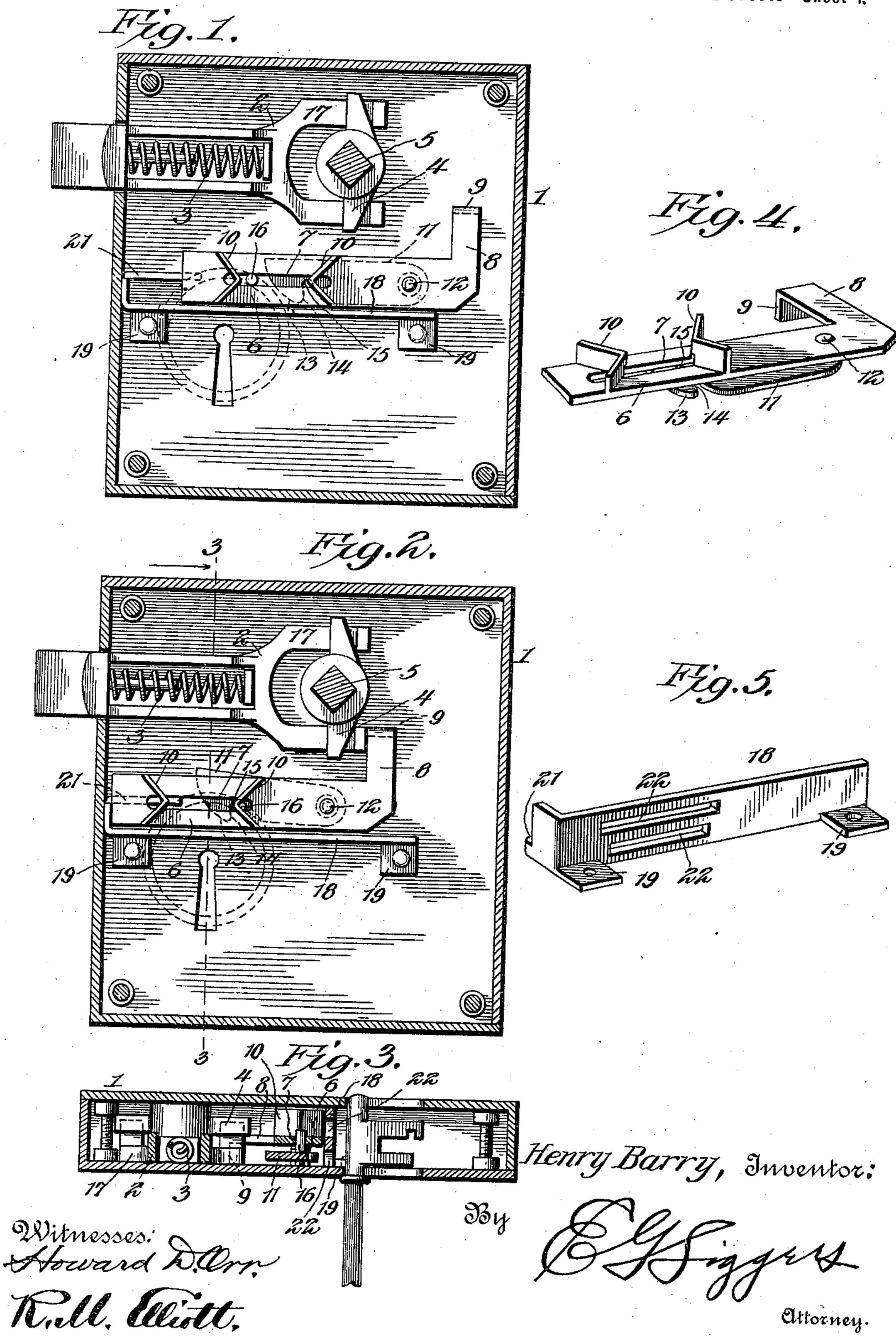
H. BARRY.

LOCK.
(Application filed June 12, 1901.)

(No Model.)

2 Sheets—Sheet I.

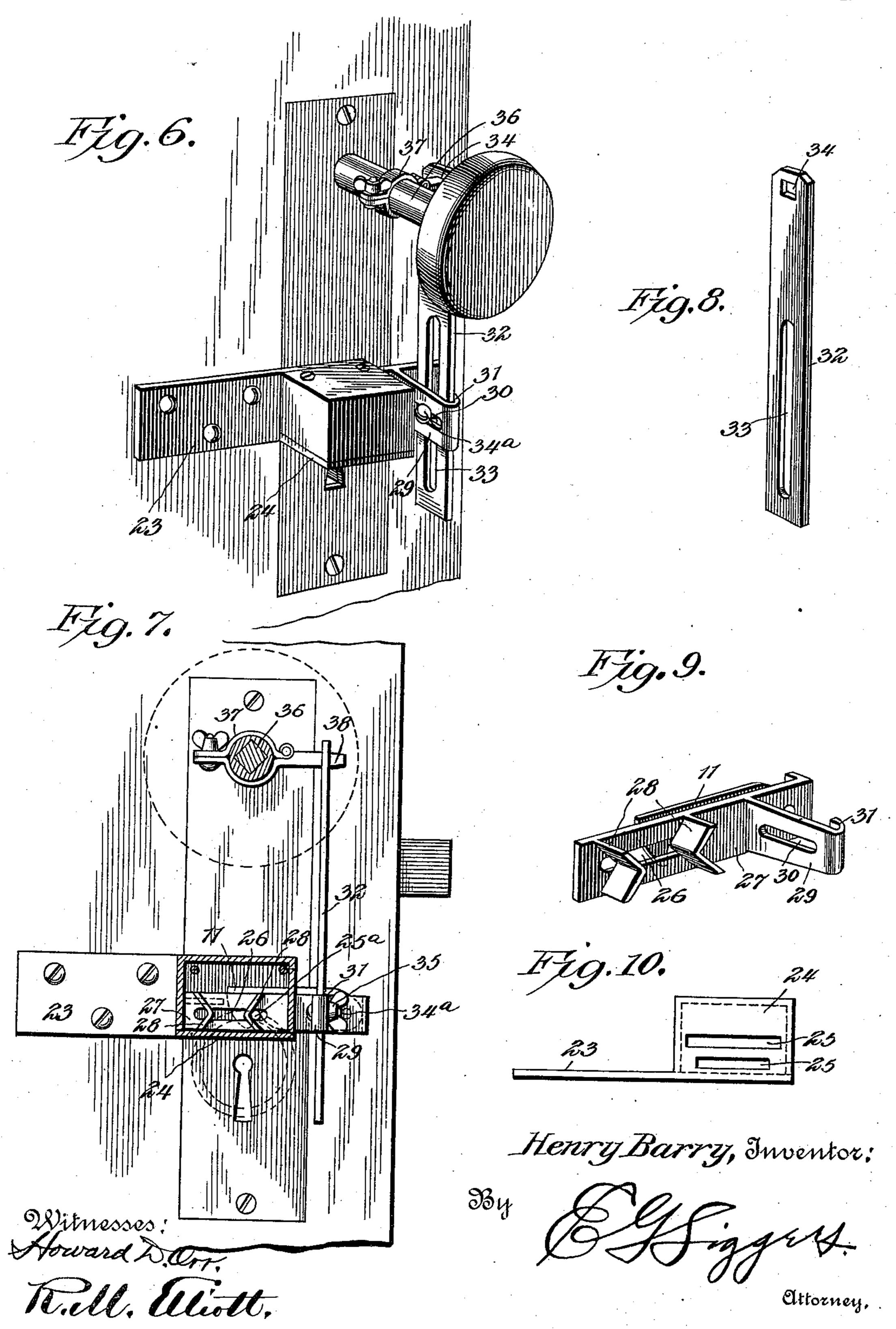


H. BARRY. LOCK.

(Application filed June 12, 1901.)

(No Model.)

2 Sheets—Sheet 2.



United States Patent Office.

HENRY BARRY, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO GEORGE EBERHARD, OF SAN FRANCISCO, CALIFORNIA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 687,175, dated November 19, 1901.

Application filed June 12, 1901. Serial No. 64,282. (No model.)

To all whom it may concern:

Be it known that I, HENRY BARRY, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Lock, of which the following is a specification.

This invention relates to locks, and more particularly that class of locks wherein the latch-bolt is held against retraction, thereby effecting locking without projecting the locking-bolt into engagement with the keeper.

The object of the present invention is to provide a simple and effective means which may be applied to a door-lock of the ordinary construction, which in use will be thoroughly effective for locking the knob against turning, so that should a person have a key that would fit the lock to throw the lock-bolt the adjustable locking means employed would remain undisturbed, so that the door could not be opened.

In the two forms of embodiment of my invention herein illustrated while the device is shown as differently applied and coöperating with the knob the generic and underlying feature is common to both—that is to say, the locking of the knob against turning.

Where the improvement is combined with 30 an ordinary door-lock, the usual locking bolt and tumblers may be dispensed with, as for reasons that will hereinafter appear the latch-bolt subserves the double function of a latch and a lock. If it be preferred, how-35 ever, to employ the locking bolt and tumblers, these may be retained without interfering with the device of the present invention. Instead of combining the device with a lock the same may be combined with a door ad-40 jacent to the knob and when in the latter form may be sold as an article of manufacture and may be carried by traveling men and be readily attached to the door of a hotel, so that in the event of the lock proper being 45 picked the door would still be securely held from being opened.

In the accompanying drawings, forming a part of the specification, and in which like numerals of reference indicate corresponding parts, I have illustrated two forms of embodiment of my invention, the one being shown

applied directly to a lock and the other to the door, it being understood that I do not limit myself to the exact manner of arrangement and construction shown, and in the drawings 55 Figure 1 is a view in plan, exhibiting a lock provided with my improvements, the attachment being in unlocked position with relation to the latch. Fig. 2 is a similar view with the attachment in locked position with 60 relation to the latch. Fig. 3 is a transverse section taken on the line 3 3 of Fig. 2. Fig. 4 is a detached detail view in perspective of the attachment removed from the lock. Fig. 5 is a similar view of the key-ward plate. 65 Fig. 6 is a view in perspective, exhibiting a modified form of the device as coacting with a door-knob. Fig. 7 is a view in front elevation, partly in section, clearly exhibiting certain parts not seen in Fig. 6. Fig. 8 is a per- 70 spective view of a plate for operatively connecting the device and the knob-shank. Fig. 9 is a perspective detail view of the device removed from the lock-casing. Fig. 10 is a bottom plan view exhibiting that part of the 75 casing through which the wards of the key project.

Referring to the drawings and to Figs. 1, 2, 3, and 4 thereof, 1 designates the lock-casing of an ordinary door-lock; 2, the latch-bolt; 3, 80 the actuating-spring therefor; 4, the latch-throw, and 5 the knob-shank. As these parts may be of the ordinary or any preferred construction, detailed description of them is deemed unnecessary. As shown in these figures, the bolt and tumblers usually employed are omitted, as they form no part of the present invention; but it is to be understood that they may be employed with a lock to which the device of the present invention is attached 90 without interfering with the device of the invention

vention.

The knob-locking means shown in the figures referred to comprises a plate 6, provided with a longitudinal slot 7 and at one end with 95 an offset or arm 8, extending at right angles to the length of the plate, the arm by preference having its outer end downturned, as shown at 9, to bear upon the lock-plate, thereby to hold the plate 6 out of contact with the 100 lock-plate. At each end of the recess 7 there is secured a shoulder 10, to be engaged by key-

wards, the shoulders being shown herein as angular with the apices oppositely disposed. These shoulders may be integral with the plate 6 or be secured thereto in any suitable man-5 ner, as by riveting, soldering, or both. Pivoted on the back of the plate 6 is a catch 11, the same being held associated with the plate, near the offset 8, by a rivet or screw 12. The free or swinging end of the catch is provided ro with a rounded face 13, terminating in a shoulder 14, the recess 15, adjacent to the shoulder, being shown in this instance as rounded or semicircular; but it may be otherwise shaped and still be within the scope of 15 the invention. The shoulder 14 is to engage a pin 16, rigid with the back-plate of the lock and projecting through the slot 7, by which means when the plate 6 has been projected toward the latch end of the latch-bolt this 20 shoulder will engage with the pin, and thereby securely lock the plate 6 against backward movement. When the plate is in this position, the arm or offset 8 is back of one of the arms of the tailpiece 17 of the latch-lock, as 25 shown in Fig. 2, so that the latch-bolt will be securely locked against rearward movement. Secured transversely of the lock-plate is a

wall 18, which may be secured to the lock-plate in any manner or be cast integral there30 with, the wall in this instance being shown as secured to the plate by ears 19, through which pass rivets for effecting a stable juncture between the parts. The wall at one end is bent at right angles to its length and then inward to present a guide 21, lying parallel with the wall, this arm being reduced in width to present a bearing of a height equal to the toe 9 on the arm 8, so that the plate 6 by coaction between the toe 9 with the lock-plate and with the guide 21, will be held in proper operative position with relation to the lock-plate.

The wall 18 is provided with two or more longitudinal slots 22, these to be entered by 45 the wards of the key-bit to move the plate 6 out of engagement with the latch-bolt. As here shown, there are but two of these slots, one being for the admission of the ward of the key-bit to engage with the shoulders 10 on 50 the plate and the other for the admission of the ward of the key-bit to engage the rounded face 13 of the catch, the latter ward being longer than that engaging the shoulders, so that before pressure is applied to the shoul-55 ders to force the plate back the catch will have been lifted, and thus leave the plate free to be moved. In this instance I have shown but one catch, and therefore but one slot 22; but it is to be understood that the in-60 vention is not to be limited to the employment of only one of the catches 11, as a plurality of these may be employed in the same manner as the tumblers in an ordinary lock, thereby, as will be obvious, increasing the 65 difficulty of picking the lock. The catch 11 or catches, as the case may be, are gravity-controlled, this arrangement being adapted to

simplify the construction of the device and to render it certain of operation, and to accomplish this result it will only be necessary 70 to make the juncture between the catch and its pivot 12 of such loose character as will always insure dropping of the latch when released by the key.

The operation of this form of my device will 75 be obvious. Suppose a person desires to leave his room and wishes to secure the door against being opened in his absence. To accomplish this result, it will only be necessary to insert a key through the usual keyhole and turn it 80 to cause the plate 6 to be projected to bring the offset or arm 8 back of the tailpiece of the latch-bolt, as shown in Fig. 2, the shoulder of the catch 11 being then in engagement with the pin 16. Now should a person other than 85 the occupant attempt to enter the room the first impulse will be to turn the knob and, finding that this is securely locked, will attempt to gain entrance by throwing the lockbolt back. Even if the door is locked in the 90 usual manner and the lock-bolt is thrown back from its keeper it will be still securely locked. To apply this device to an ordinary lock, it will be seen that it will only be required to provide the sliding plate with its 95 catch, secure the wall 18 in position in the lock, provide the pin 16, and then have a key made to fit the device. The manner of construction of the lock is so simple as not to add to the material cost of its production, so that 100 it will readily appeal to householders in general on account of its great simplicity of construction and thorough efficiency in use.

The same idea may be carried into effect on a door without changing the construction of 105 the lock. To effect this result, a plate 23 is provided, which is secured to the inside of the door—that is, on the side of the door within a chamber—and is provided with a wall 24, formed with two or more slots 25, that per- 110 form the same function as do the slots 22. (Shown in Figs. 1 to 5.) The plate 23 is provided with a pin 25°, to be engaged by a slot 26 in a sliding plate 27, the latter having adjacent to each end of the slot 26 a shoulder or 115 abutment 28, subserving the same function as the shoulders 10, before described in connection with the other figures. One end of the plate 27 carries an offset 29, extending at right angles to the length of the plate, the 120 offset being provided with a slot 30 and with an overturned flanged upper end 31. Associated with the offset and engaging the overturned flange 31 is a plate 32, having a longitudinal slot 33 and opening 34, the slot 33 125 to extend at right angles to the slot 30 and the two slots to be engaged by a bolt 34a, carrying a nut 35, thereby to hold the two parts in adjusted position with relation to each other. The plate 32 has adjustment at right 130 angles to the length of the offset 29 and also parallel with its length, so as to permit proper adjustment of the plate 32 with the offset 29. Secured upon the knob-shoulder 36 is a band

37, held in place thereon, as by being clamped or screwed, the clamp being provided with a finger 38 to engage with the opening 34 of the plate 32. It is to be understood that the catch 5 11, similar in all respects to that shown in Figs. 1 and 2, is combined with a plate 27 and operates in the same manner. In applying this second form of embodiment of my invention to a door the plate 25 is secured contiguro ous to the keyhole with the parts in the position shown in Fig. 6. When the plate 27 is in the position shown in Fig. 6, the arm on the knob-shoulder will be out of engagement 15 the knob will be free to rotate in the usual manner. If a person desires to leave the room, the key is inserted in the lock and the plate 27 is moved toward the finger 38, causing this to enter and project through the 20 opening 34 of the plate 32, and thus securely lock the knob-shank against turning, the end of the finger being tapered or reduced, as at 39, to insure proper entry of the finger 38 into the openings 34 when the plate is moved. 25 Now should a person attempt to turn the knob it will be securely fastened against turning and will remain so until the key is inserted in the keyhole and the catch-bearing plate moved to one side in a manner al-30 ready described.

The second form of the embodiment of my invention can be sold as an article of manufacture and will recommend itself particularly to traveling men, who can readily attach 35 it to the door of their room, it being only necessary to screw the plate in position above the keyhole and attach the band around the knobshoulder in a manner that will be obvious. To permit proper coaction between the plate 40 34 and the finger 39, the adjustment between the plate 32 and the offset 29, as described, is

provided.

In the arrangement herein shown the ordinary lock-bolt is dispensed with and the at-45 tachment made to constitute the lock; but it is to be understood, as pointed out, that the usual lock-bolt may be retained in the lock. When such arrangement is employed, the key will have two sets of wards arranged one be-50 hind the other, one set of wards—say the first for throwing the ordinary lock-bolt and the other for operating the knob attachment. To effect this, it will only be necessary to make the key-shank somewhat longer than usual 55 and arrange the stop-shoulder back of the second set of wards.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will 60 be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from 65 the spirit or sacrificing any of the advantages of the invention.

What I claim is—

1. In a device of the class described, the combination with a ward-plate having a pair of slots, of a slidable member working longi- 70 tudinally of the slots and provided with opposite laterally-projected shoulders, and knoblocking means, and means for locking the slidable member, the shoulders and said locking means being accessible through the slots 75

in the ward-plate.

2. The combination with a lock-casing provided with a rigid projection, of a key-operated slotted slide to straddle the said projecwith the opening 34 of the plate 32, so that I tion and having means for engaging a part 80 of the knob mechanism, a pivoted catch carried by one side of the slide and provided with a toe or projection, shoulders or abutments carried by the other side of the slide, and a wall or plate arranged adjacent to the slide 85 and provided with a plurality of slots through which pass the wards of the key, one ward to raise the pivoted catch out of engagement with the projection and the other ward to engage with the shoulders to move the plate into 9c or out of engagement with the knob mechanism.

> 3. A device for holding a door-knob against turning, comprising a key-operated slide provided with a slot to straddle the projection 95 on the lock-plate, and provided with means for engaging a part of the knob mechanism to hold the same against turning, a pivoted catch carried by one side of the plate, angular-shaped shoulders carried by the other side 100 of the plate, and a wall arranged adjacent to the slide and provided with a plurality of slots through which pass the key-wards to permit the same to throw the pivoted catch out of engagement with the projection on the lock- 105 plate and to move the slide to and from the

knob mechanism.

4. A device for holding a door-knob against turning, comprising a plate attached to a door and carrying a rigid projection, a slidable 110 member having a slot to straddle the projection, a pivoted catch carried by one side of the slide, shoulders carried by the opposite side of the slide, a slotted arm carried by the slide and extending at right angles to its 115 length, and a plate adjustably connected with the arm, and provided at its upper end with an opening, in combination with a knob provided with a finger to engage with the opening in the plate when the same is moved into 120 engagement therewith by a key coacting with the sliding plate.

5. The combination with the shank of a knob, of a finger or projection detachably connected therewith, a plate having an open- 125 ing normally out of engagement with the finger, and mechanism for moving the plate to and from the finger, thereby alternately to

lock and release the knob.

6. The combination with a sliding plate and 130 means for locking the same at the desired position substantially as described, of an arm

adjustably connected with the plate, and adapted to move into and out of engagement

with a projection upon a knob-shank.

7. In a device of the character described, an endwise-slidable member having a longitudinal slot, key-engaging shoulders carried by one side of the member and at opposite ends of the slot, a fixed guide projected through the slot, a locking-latch pivoted to the opposite side of the member and having its free hooked end working transversely of the slot and intermediate of the key-engaging shoulders to engage the guide and lock the slidable member, and knob-locking means projected laterally from the slidable member.

8. In a device of the character described

8. In a device of the character described, the combination with a casing having a slot-

ted ward-plate, a movable locking member mounted adjacent to the ward-plate, and provided with opposite key-engaging shoulders 20 projected transversely of the slot portion of the ward-plate, door-knob-locking means carried by the movable member, and means for locking the movable member, said means lying across the slotted portion of the ward-25 plate so as to be accessible by a key.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in

the presence of two witnesses.

HENRY BARRY.

Witnesses:

GEO. ANDERSON, GEO. EBERHARD.