

W. H. FLETCHER.
BURGLAR ALARM.

APPLICATION FILED APR. 18, 1903.

NO MODEL.

Fig. 1.

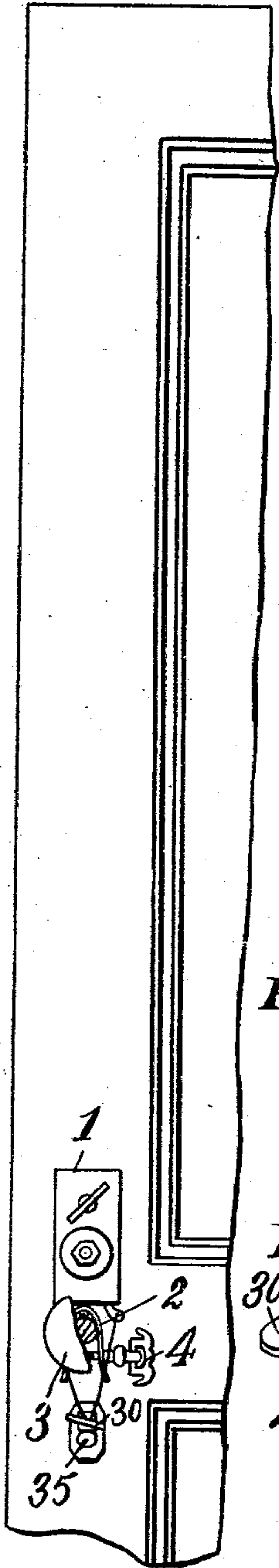


Fig. 2.

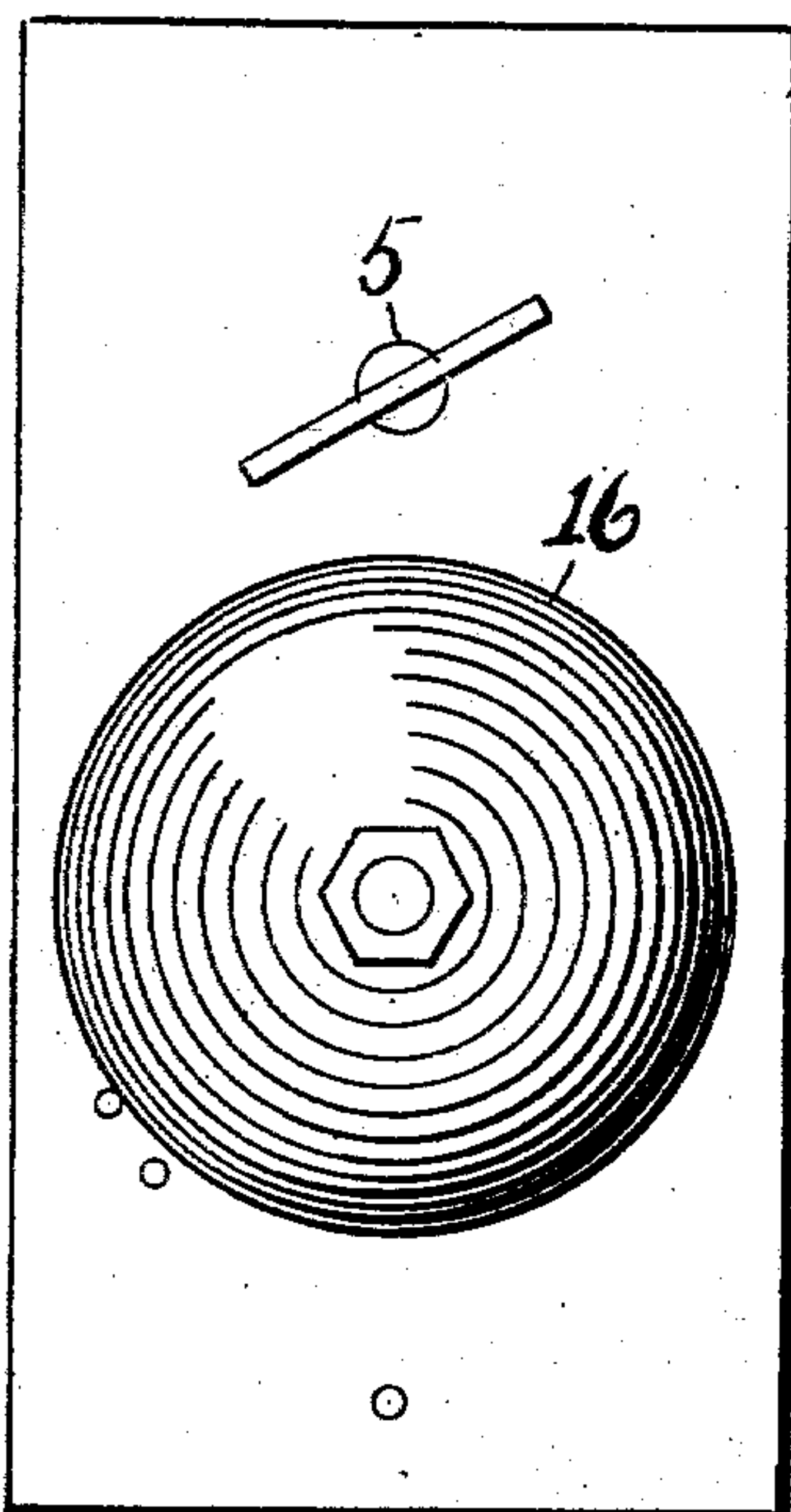


Fig. 3.

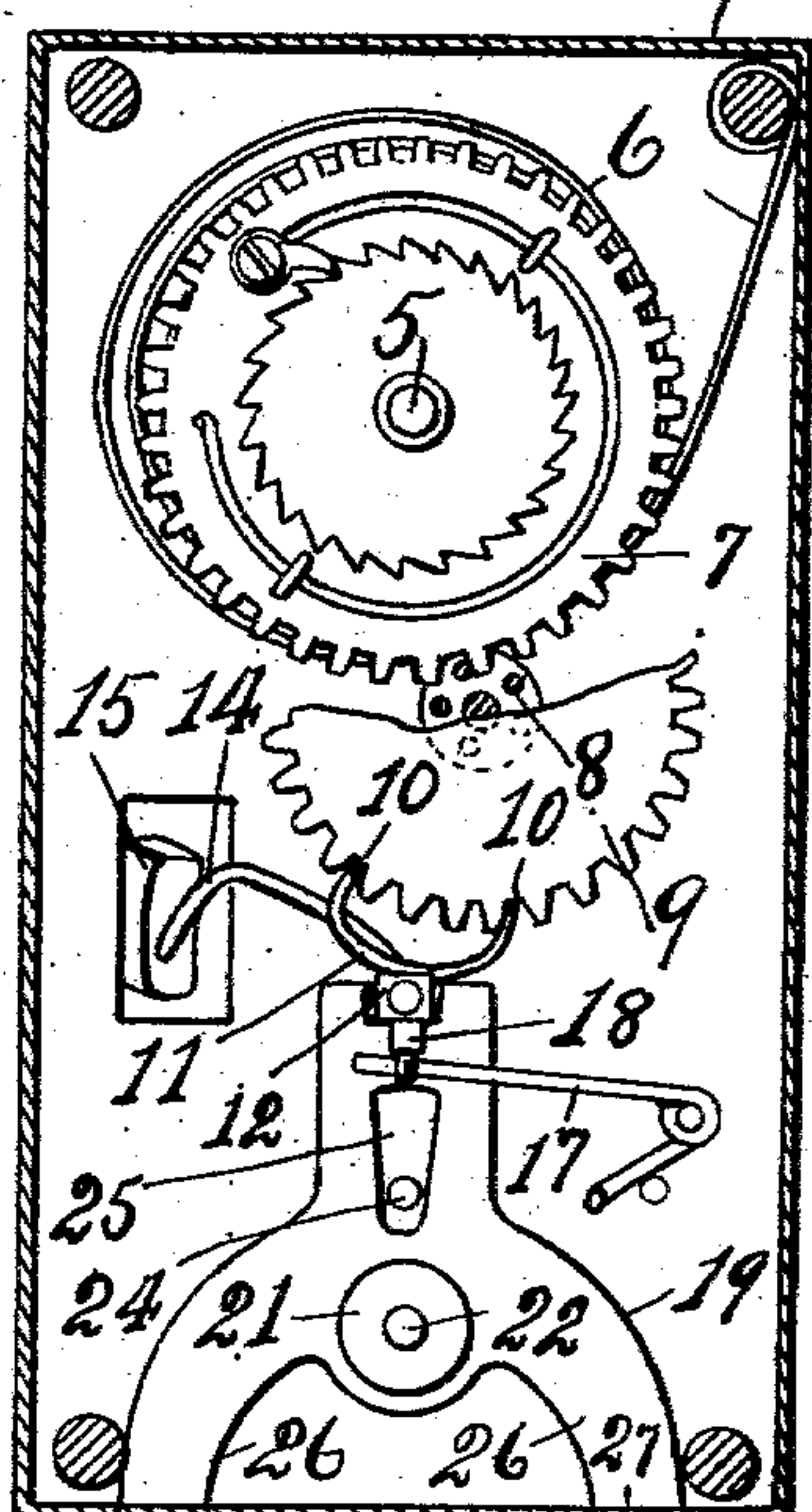


Fig. 7.

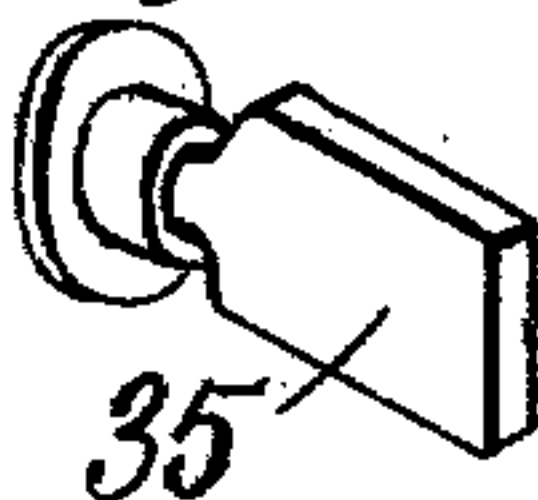


Fig. 8.

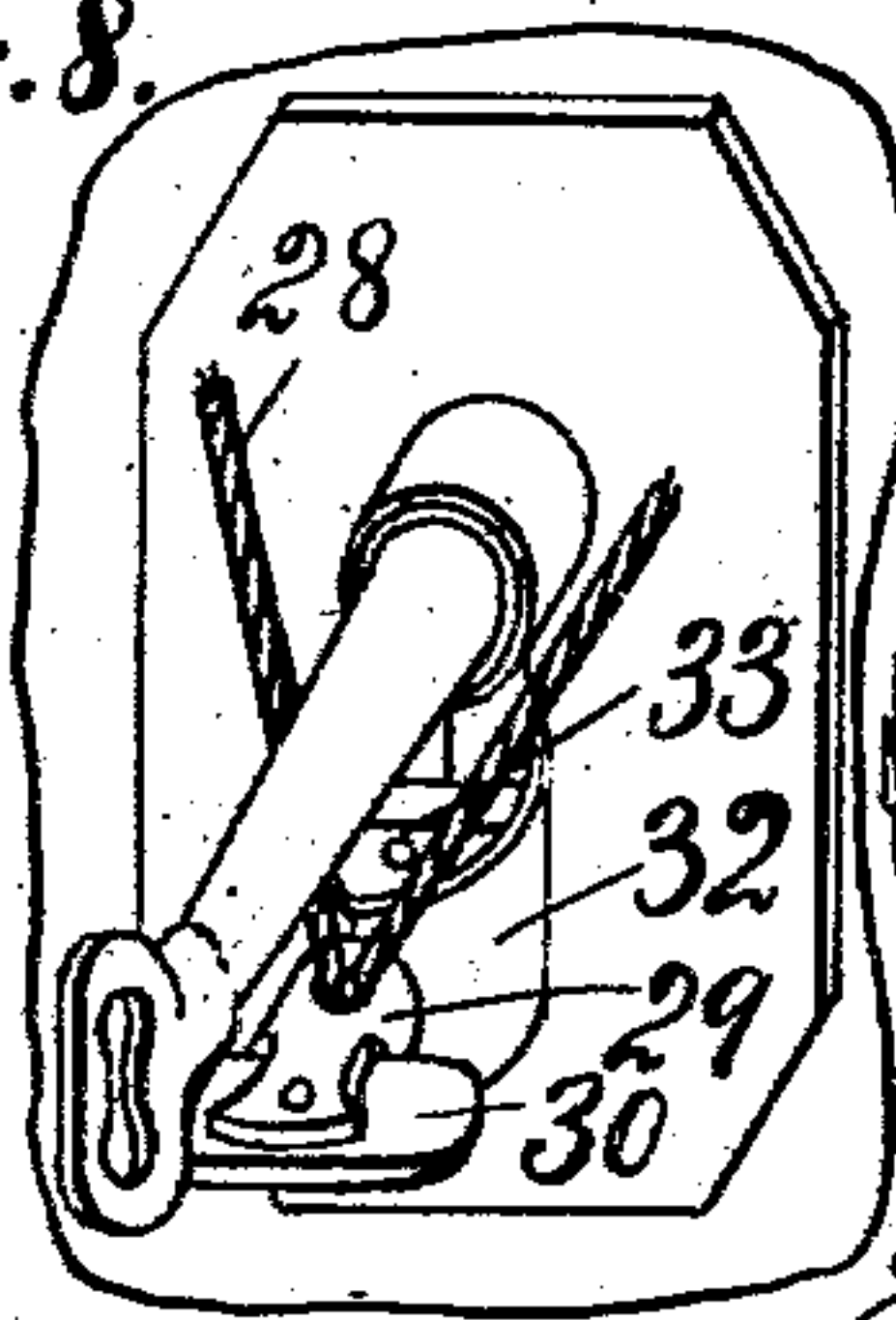


Fig. 6.

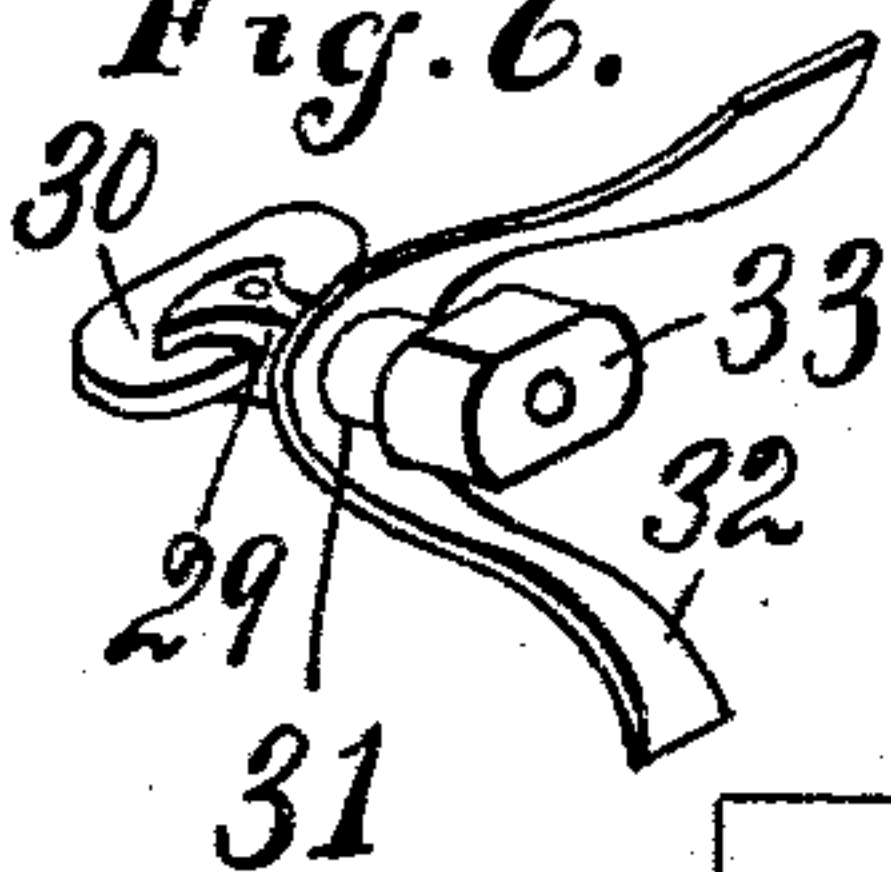


Fig. 4.

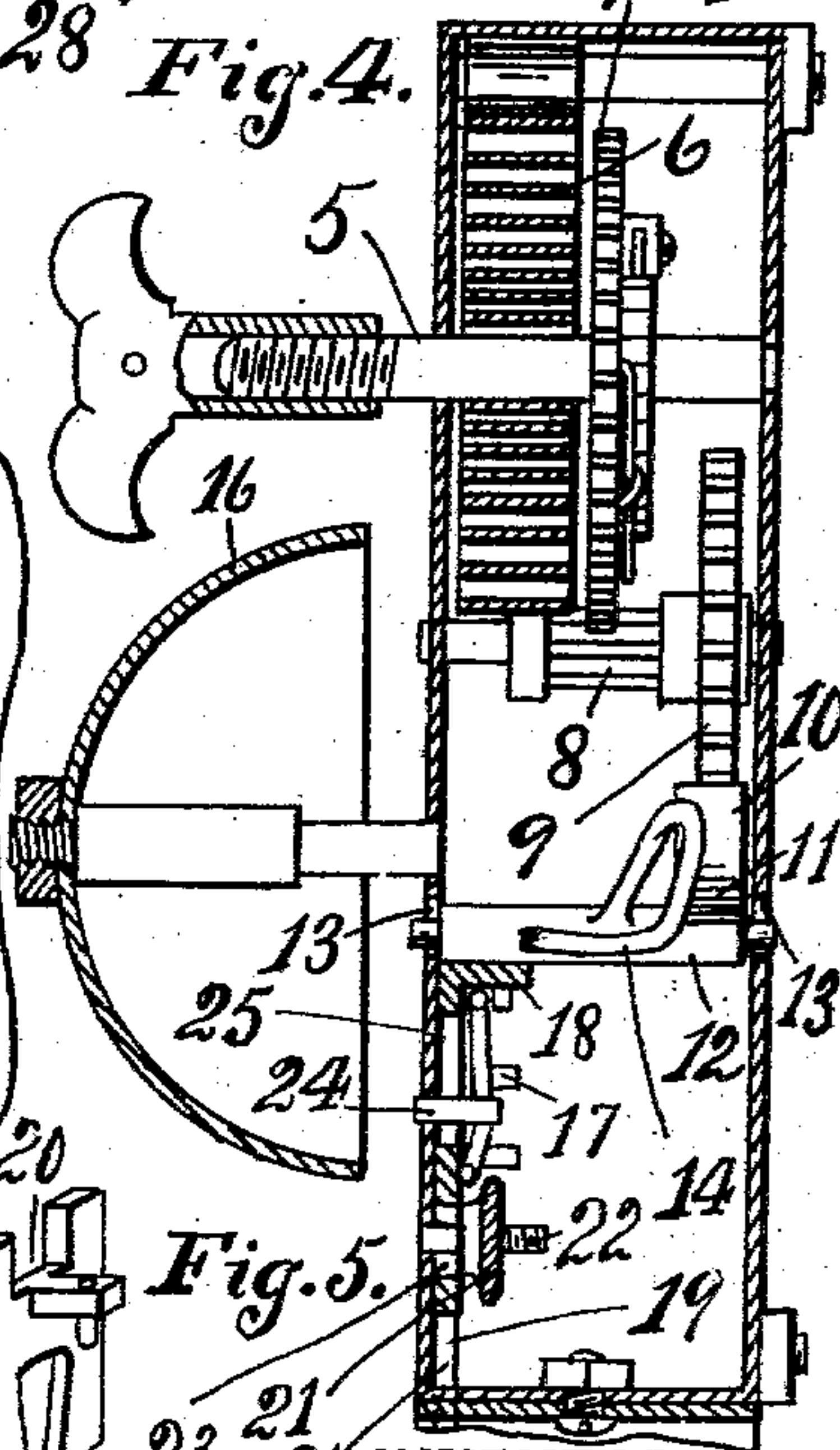
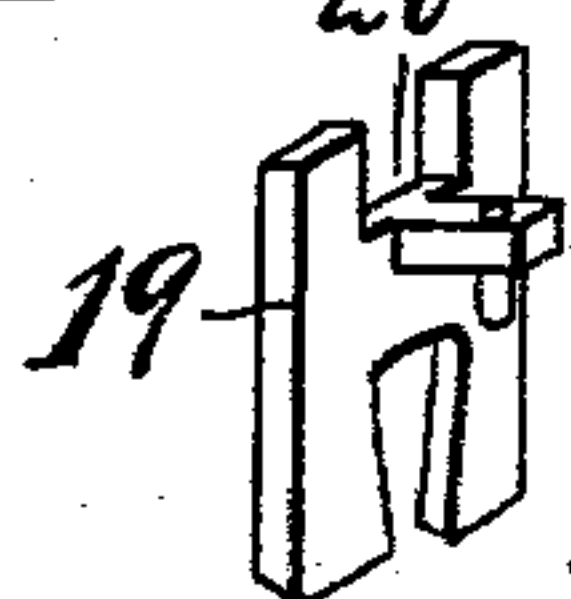


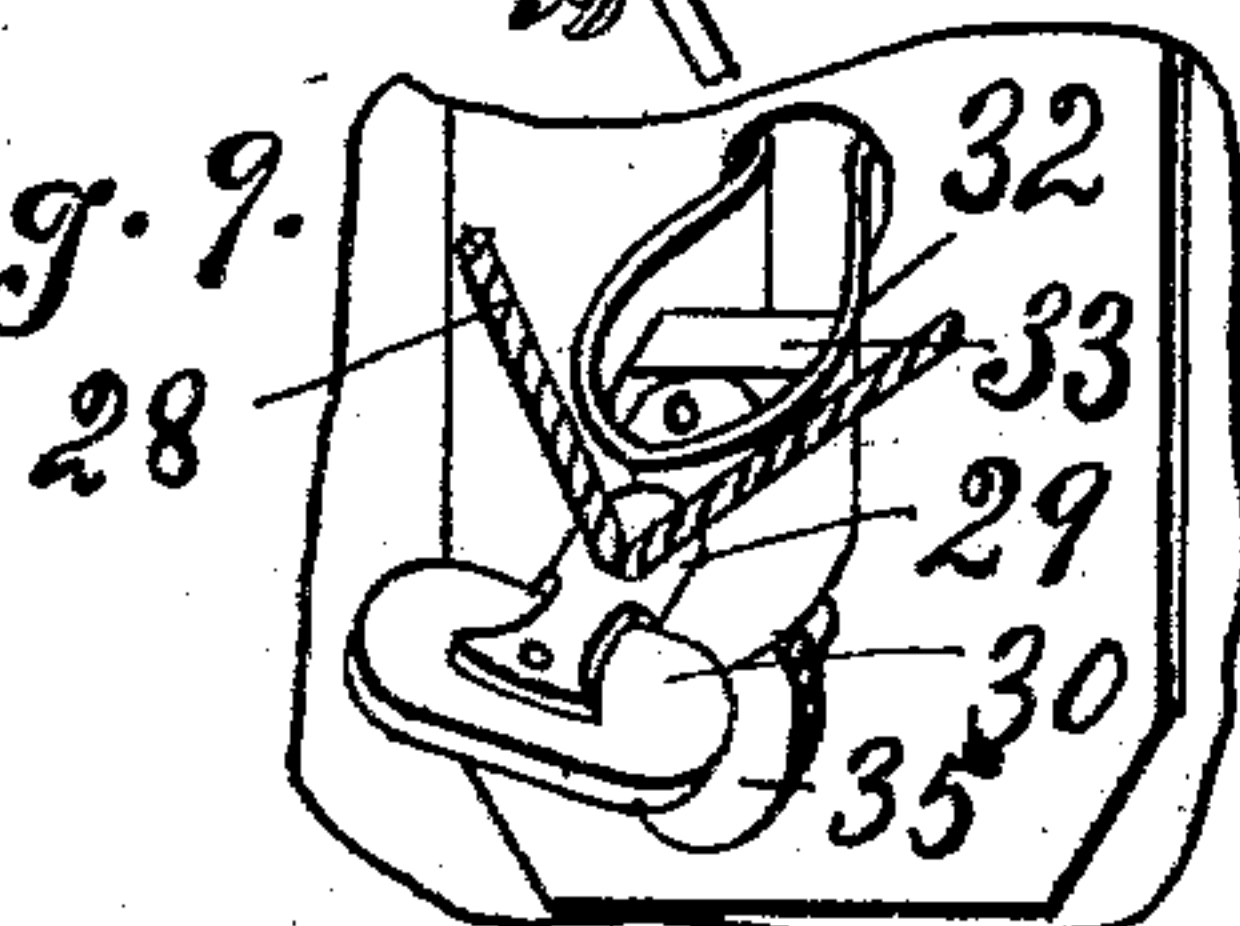
Fig. 5.



WITNESSES:

K. Lockwood-Nevins
R. B. Tuck

Fig. 9.



W. H. Fletcher
BY Francis W. Wright.
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM H. FLETCHER, OF CAPITOLA, CALIFORNIA.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 741,122, dated October 13, 1903.

Application filed April 13, 1903. Serial No. 153,257. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FLETCHER, a subject of the King of Great Britain, residing at Capitola, in the county of Santa Cruz and State of California, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification.

My invention relates to an improved burglar-alarm, the object of my invention being to provide a device of this character which shall be cheap and simple in construction, which can be readily fitted to any door and removed therefrom without defacing the door in any manner, and which shall be compact and portable, rendering it especially serviceable for travelers.

My invention therefore resides in the novel construction, combination, and arrangement of parts for the above ends hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of a portion of a door having my improved burglar-alarm attached thereto. Fig. 2 is an enlarged view of the burglar-alarm detached from the door. Fig. 3 is a rear view of the burglar-alarm, the back plate being detached. Fig. 4 is a central vertical section. Fig. 5 is a broken perspective view of the upper portion of the locking-plate. Fig. 6 is a perspective view of the anchor. Fig. 7 is a similar view of the plug. Fig. 8 is a similar view of the anchor in position beneath a key. Fig. 9 is a similar view when the plug is used.

Referring to the drawings, 1 represents the box or casing of my improved burglar-alarm, having secured at the lower end a clamp 2. Said clamp is passed around the handle 3 of the door, the ends of said clamp being drawn together by means of a screw 4, thus clamping the device firmly upon and above the handle.

In bearings in the front and rear sides of the box is a winding-stem 5, which by a common form of clockwork mechanism winds a spring 6, the inner end of said spring being attached to a large toothed wheel 7, which gears with a lantern-wheel 8, carrying thereon an escapement-wheel 9. Said escapement-wheel engages the dogs 10 of an escapement 11 on a shaft 12, pivotally mounted in the

front and rear walls of the box. The holes 13 for said escapement-shaft are enlarged vertically, as shown in Fig. 4, permitting a variation of the distance of said escapement from said wheel 9. When the escapement is pressed close to the wheel, the mainspring 6 cannot initiate the operation of the escapement by means of the wheel, the dogs 10 entering the interstices between the teeth of the wheel 9 too far to permit this to be done, although when the spring is fully wound up and the operation has been started it will be maintained by the force of the spring for a considerable time even if the escapement is close to the wheel; but if the spring has weakened to a certain extent it will only operate when the escapement and wheel are allowed to separate slightly. Said escapement carries a hammer-stem 14, passing through a hole in the front wall of the box and having a head 15, which strikes a bell 16, mounted upon said wall. Therefore when the escapement is permitted to drop away from the wheel and the spring is wound up the hammer strikes the bell repeatedly under the vibrating action of the escapement, causing it to ring. Normally said escapement is held close up against said escapement-wheel by means of a spring 17, which engages a stud 18, extending rearwardly from a locking-plate 19, resting against the rear surface of the front wall of the box, said locking-plate at the top having a partly-squared recess 20 to engage the sides of the escapement-shaft 12, which is also squared at this part. The upper face of the stud is also flat to abut against the lower flat side of the shaft. Said spring 17 normally holds said locking-plate up against said escapement-shaft; but if the plate be withdrawn against the action of the spring then said shaft 12 drops to its lowermost position permitted by the vertical elongation of the holes 13. This allows the escapement-wheel to act upon the escapement and causes the bell to ring. It is by this arrangement that the alarm is made to operate upon the turning of the handle. For this purpose said locking-plate is permitted a vertical movement, being held to the front wall in said vertical movement by means of a collar or plate 21 on a stud 22, extending from said front wall through a slot 23 in said plate, and is likewise permitted a rocking

movement, limited by a stop 24 on the front wall passing through a slot 25 in the plate, said slot 25 being enlarged or broadened at the top, as shown.

5 The locking-plate 19 is bifurcated at its lower end, the two legs 26 therefore extending through slots 27 in the bottom of the box, and to said legs are attached cords 28, which are attached to a winding-stem 29, having a
10 handle 30, said stem being passed through an aperture 31 in a U-shaped spring-plate or anchor 32, the ends of which are in use pressed together and pushed into the keyhole of the door. After said anchor 32 has
15 been so pushed in the winding-stem is wound up until the slack has been taken up in the cords 28. The sides of the spring-plate have the effect of serving as a brake on said stem 29, and for this purpose said stem is provided
20 with an oblong block 33, pressing against the inner surface of the sides of the spring-plate. When said stem 29 has been turned to wind the cords 28 and the block 33 has been left between the sides of the anchor so that the
25 longer dimension thereof is horizontal, the sides of the anchor are so spread out that the anchor cannot be easily withdrawn from the keyhole; but by giving the stem 29 another quarter-turn, so that the short dimension is
30 horizontal, it can be readily withdrawn.

When the apparatus has been placed in position as thus indicated and the spring has been wound up, any attempt to turn the handle of the door will cause the whole device,
35 which, as before stated, was secured upon said handle, to tilt to one side or the other, which will cause a downward pull upon the cord at the opposite side. One of the legs therefore of the locking-plate will be pulled
40 downward, and the locking-stud 18 and the squared recess 20 at the end of the locking-plate will be drawn away from the square portion of the escapement-stem, permitting said escapement to act. When the spring
45 has been wound to its full extent, its force will be so great that it will continue to actuate the escapement for a considerable time after the movement of the door-handle has ceased, so that any movement of the door-
50 handle, even though instantaneous, will set up a long ringing of the bell, thus awakening or notifying the inmates of the house or room that entrance is attempted and frightening away any burglar or other unauthorized person attempting to enter. After this
55 ringing has ceased there will be still sufficient force in the mainspring to repeat the ringing upon renewal of the attempt to turn the door-handle and consequent separation of the escapement-wheel and escapement. If the anchor be placed in a keyhole when the key is not in, then there is used a plug 35, (shown in Fig. 7,) which fills up the keyhole and prevents the anchor being tilted. The anchor
60 does not prevent the door being locked from the outside.

I claim—

1. A burglar-alarm comprising a casing having on its lower end a clamping device adapted to be secured upon the handle of the door whereby the casing is supported above
70 said handle and is rocked by the turning thereof, a bell, means operated by the rocking of said casing for ringing said bell, and an anchoring device depending from said casing below said handle and controlling said
75 means, substantially as described.

2. A burglar-alarm comprising a casing having on its lower end a clamping device adapted to be secured upon the handle of a door whereby the casing is supported above
80 the handle and is rocked by the turning thereof, a bell, a mainspring, an escapement adapted to be operated by said spring, and having a hammer for ringing said bell, a locking device for locking said escapement, means
85 operated by the turning of the door-handle for removing said locking device, and an anchoring device controlling said means, substantially as described.

3. A burglar-alarm comprising a casing adapted to be secured to the handle of the door to be moved by the turning thereof, a bell, a mainspring, an escapement operated thereby and having a hammer adapted to
90 ring said bell, a locking device for preventing the movement of said escapement, an anchor for insertion into the keyhole of the door, and a connection between said device and the locking device, whereby the movement of said connection upon the turning of
95 the handle withdraws said locking device, substantially as described.

4. In a device of the character described, the combination of a casing adapted to be secured to the handle of a door, a bell, a mainspring in the casing, an escapement-wheel operated thereby, an escapement operated by
105 said wheel and having a hammer for ringing the bell, said escapement having a flat portion, a locking-plate having a flat surface for resting against said flat portions, a spring for normally pressing said locking-plate against said flat portion, an anchor adapted to be inserted in the keyhole of the door, and a connection between said anchor and locking-plate whereby the turning of said casing with
110 said handle withdraws said locking-plate, substantially as described.

5. In a device of the character described, the combination of a casing adapted to be secured to the handle of a door, a bell, a mainspring in the casing, an escapement-wheel operated thereby, an escapement operated by
120 said wheel and having a hammer for ringing the bell, said escapement having a flat portion, a locking-plate having a flat surface for resting against said flat portions, a spring for normally pressing said locking-plate against said flat portion, an anchor adapted to be inserted in the keyhole of the door, the locking-plate having two legs projecting through the
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bottom of the casing and cords connecting said legs with the anchor inserted in the keyhole, substantially as described.

5 6. In a device of the character described, the combination of a casing, a bell thereon, a mainspring, an escapement operated thereby, having a hammer for ringing said bell, a locking device for locking the escapement, an anchor adapted to be inserted in the key-
10 hole of the door, a stem connected to said latter anchor, and cords connected with said stem and with the locking device and adapted to be wound up thereon until taut, substantially as described.

15 7. In a device of the character described, the combination of a casing, a bell thereon, a mainspring, an escapement operated there-

by, having a hammer for ringing said bell, a locking device for locking the escapement, an anchor adapted to be inserted in the key- 20 hole of the door, a stem connected to said latter anchor, cords connected with said stem and with the locking device and adapted to be wound up thereon until taut, and a plug for insertion in the keyhole in place of the 25 stem of the key, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

W. H. FLETCHER.

Witnesses:

FRANCIS M. WRIGHT,
R. B. TREAT.