Sept. 2, 1930. A. COOK 1,774,636

ELECTRIC LOCK

Filed July 23, 1927

Fig. 1.

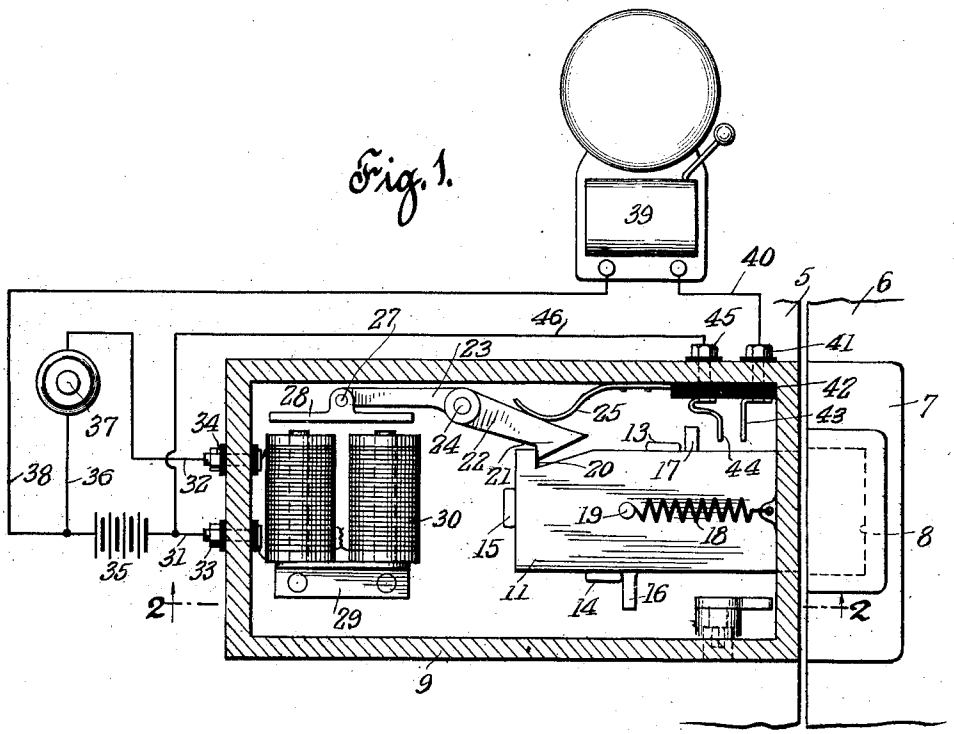
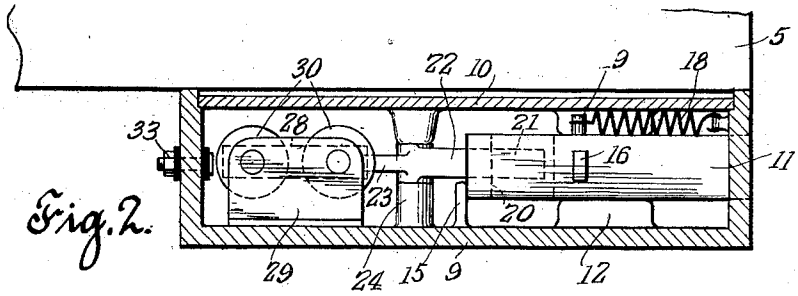


Fig. 2.



Albert Cook

INVENTOR.

BY J. M. Wilson

ATTORNEY

Patented Sept. 2, 1930 1,774,636

UNITED STATES PATENT OFFICE

ALBERT COOK, OF BROOKLYN, NEW YORK

ELECTRIC LOCK

Application filed July 23, 1927. Serial No. 207,846.

This invention relates to locks as applied to swinging doors and more particularly to a type of lock in which the bolt is releasable by electrical means remote therefrom.

One of the objects of the invention is to provide a lock which may be operated from a distance, as in cases where an intruder or thief is prevented from escape by actuation of the bolt, the bolt when moved into operative relation with its keeper, being non-retractable except by persons having a special key for that purpose.

A further feature is in the provision of an audible signal which is caused to sound conjunctively with the outward movement of the lock, such signal being placed at any point where desired.

Another object is to produce a lock containing few and simple parts not readily liable to disorganization, easy to apply and efficient in operation.

These several objects are attained by the novel construction, combination and arrangement of parts hereinafter described and shown in the accompanying drawing, forming a material part hereof, and in which:

Fig. 1 is a plan view of a lock made in accordance with the invention, showing the casing in section and the electrical elements connected therewith.

Fig. 2 is a longitudinal sectional view taken on line 2—2 of Fig. 1.

The numeral 5 represents in a general way the door or like movable element and 6 the jamb or frame of the door, the same being provided with a keeper 7 having the usual rectangular opening 8 in its raised portion adjacent the edge of the door when closed.

The lock casing is composed of an elongated rectangular box-like structure 9 provided with an inner cover plate 10, adjacent the surface of the door, as is customary with locks of similar nature.

A rectangular bolt 11 is guided by a support 12, formed on the inner wall of the casing 9 and is further guided by projections 13 and 14 at its narrow sides and a stop 15 to limit its outward movement.

Fixed on the lower narrow edge of the bolt 11 is a projecting lug 16 and a corresponding lug 17 extends from its opposite narrow side to which reference will be made later.

The bolt is adapted to move outward through an opening in one end of the casing, being drawn by a tension spring 18, one end of which is fixed to an eye at the front end of the casing, the other end of the spring being attached to a pin 19 fixed centrally in one of the wider sides of the bolts.

An angular notch 20 is formed in one of the side edges of the bolt, the same being engageable by a hook shaped detent 21 at the end of an arm 22 of a lever 23 pivoted at 24 between lugs extending in from the casing and cover, the detent being held in engaging position by a flat spring 25, thus retaining the bolt when in a retracted position.

At the opposite end of the lever, freely pivoted by a pin 27, is a swinging plate armature 28.

A bracket 29 fixed in the casing supports a pair of magnets 30, operatively arranged with reference to the armature 28, and energized by wire connections 31 and 32 passing through insulating bushings 33 and 34 in the rear wall of the casing.

The connection 31 leads from a battery 35, the opposite pole of which is connected by a wire 36 leading to a push button 37, the other pole of the button being connected to the wire 32, thus forming an electric circuit whenever the push button 37 is depressed.

A branch 38, of the wire 36, leads to an electric bell 39 positioned wherever desired, the return wire 40 of the bell being engaged with a binding screw 41 passing through an insulated block 42 on the inner side of the casing to a terminal 43 within the casing, a mating spring terminal 44 being engaged by a binding screw 45 through the insulated block 42 and is connected with a wire 46 branched from the conductor 31.

The terminal 44 is positioned and adapted to be pressed forward to make electrical contact with the mating terminal 43 by the lug 17 on the bolt as it is projected forward by

the spring 19 causing the bell 39 to sound an alarm.

From the foregoing it will be seen that upon pressing the button 37, which may be in any convenient location, the bolt will be released from its detent by the magnet and drawn forward by the pull spring 18, positively locking the door to which it is applied in a secure manner; at the same time when the bolt is moved outward, the contacts 43 and 44 cause an alarm to be given.

From the foregoing it will be seen that a simple device for this purpose has been disclosed in the preferred form of its embodiment, but it is not desired to restrict the details to the exact instruction shown, it being obvious that changes, not involving the exercise of invention, may be made without conflicting with the scope of the appended claim.

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

A lock comprising a casing and a keeper, a bolt slidable in said casing, a spring to draw the bolt into the keeper, a pair of magnets fixed in alinement with the bolt adjacent its rear end in said casing, a lever having a detent at one end to retain said bolt when retracted, said lever being pivoted in the casing at a point above and intermediate the magnets and bolt; a swinging plate armature pivoted to the opposite end of said lever adapted to be operated by said magnets, and means to make and break an electric circuit to said magnets.

In testimony whereof I have affixed my signature.

ALBERT COOK.