G. E. BATES.

KEYHOLE ILLUMINATING DEVICE.

APPLICATION FILED APR. 6, 1917.

1,358,926.

Patented Nov. 16, 1920.

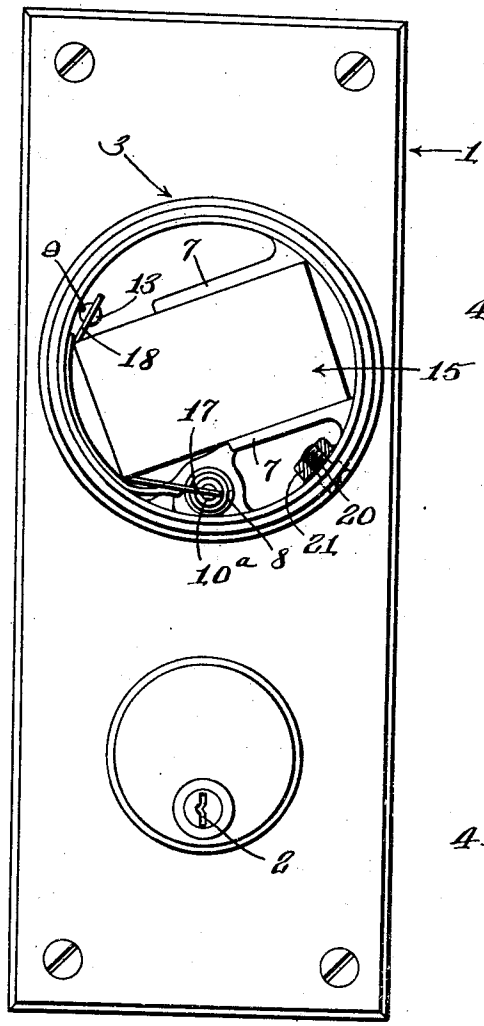


Fig. 1.

Fig. 2.

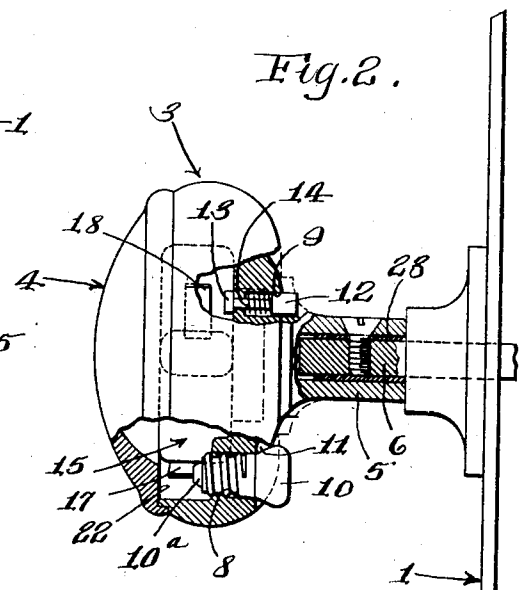


Fig. 3.

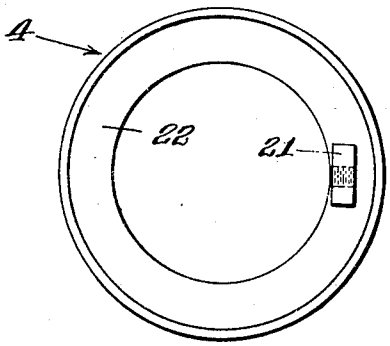
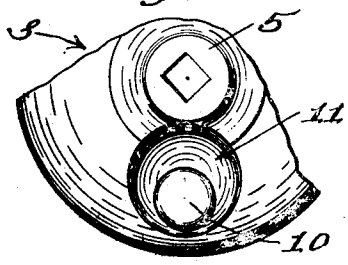


Fig. 4.



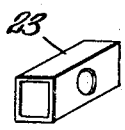


Fig. 5.

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UNITED STATES PATENT OFFICE.

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KEYHOLE-ILLUMINATING DEVICE.

1,358,926. Specification of Letters Patent. Patented Nov. 16, 1920.

Application filed April 6, 1917. Serial No. 160,147.

To all whom it may concern:

Be it known that I, GEORGE E. BATES, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Keyhole-Illuminating Device, of which the following is a specification.

This invention has for its object a key hole illuminating door knob which is particularly simple and economical in construction and highly efficient and durable in use, and it consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a front elevation of my key hole illuminating device, the cap of the door knob being removed.

Fig. 2 is a side elevation, partly in section, of parts seen in Fig. 1.

Fig. 3 is an inner face view of the cap.

Fig. 4 is a fragmentary elevation of the knob showing the reflector surface.

Fig. 5 is a detail view of the adapter used in some instances with my door knob.

This illuminating device comprises, generally, a door knob having a hollow metal body, and a battery arranged in the body, the body being formed with a lamp receiving passage or socket and a switch receiving passage opening into the interior thereof and arranged so that when the lamp is inserted in its socket and the switch is in its passage, said parts can make contact directly with the battery terminals and the circuit completed through the metal body. Hence, no terminals, wires or attachments are necessary.

1 designates the escutcheon plate having a key hole 2 therein.

3 is the door knob which includes a hollow metallic body having a removable cap 4, the body being also formed with a hub 5 mounted upon the shank 6 supported by the escutcheon plate in the usual manner.

The body 3 is formed with means for holding a battery as a pocket, in which the battery is readily placed and from which it can be easily removed. The pocket extends crosswise of the axis of the knob, and is bounded by parallel ribs or partitions 7 extending from one side of the interior of the body toward the other side and usually with a lamp passage or socket 8 therethrough and with a switch passage 9, both opening into the interior of the hollow body.

10 is the lamp having its plug located in the lamp socket 8 so that its central terminal 10^a is exposed in the interior of the hollow body 3 and its outer terminal contacts directly with the wall of said passage. In order to provide a reflector, the outer rounding face of the knob is cut away or concaved at 11 and the bulb of the lamp is located in the concavity 11.

12 is a switch, which as here shown, is a push button, it consisting of a rectilinearly slidable rod or button having its inner end 13 exposed on the interior of the hollow body 3. This button is normally pressed outwardly by a spring 14 located in the opening 9 and pressing outwardly on the button.

15 is the battery which is of the ordinary commercial type now used in common flash lights, the battery lying flatwise in the body 3 crosswise of the axes of the knob, the lamp socket and push button, and the battery at its side edges easily but firmly fit the partitions 7. Commercial batteries for flash lights have the terminals 17, 18 at one end, and in my door knob I have arranged the lamp and push button so that the batteries can be used without extra terminals or wires, or other attachments. To prevent the lamp terminals from short circuiting through the knob if it is made of metal a strip of insulation is inserted between the terminals 17, 18 and the knob.

The lamp socket 8 and the push button openings are so arranged that the central lamp terminal and push button 12 can engage the terminals 17 and 18 of the battery, and as here shown they are arranged on opposite sides of the battery pocket near the margin of the hollow body, and the battery terminals 17, 18 are bent laterally so that the battery terminal 17 will engage directly with the central terminal of the lamp, and the battery terminal 18 will be in the path of the push button 12. Thus upon depression of the push button 12 the circuit is completed through the metallic portion of the body 3 and it is unnecessary to provide the door knob with any electric terminals thus greatly simplifying the construction, and the removing of old batteries from the knob and the replacing of new batteries.

The cap 4 may be held in position in any suitable manner and as here shown, it is held in position by a screw 20 extending radially through a hole in the margin of the body 3 and into a lug 21 projecting from the cap. The cap is also provided with an annular marginal face 22 which bars upon the ends of the battery, and tends to hold the same firmly in position.

The shanks 6 of door knobs are usually made in two standard sizes and in order that my knob may be adapted for both sizes, the hub is usually formed with an opening which fits the larger size of shank, and in order that it may be mounted on the smaller size of shank it is provided with a square bushing or adapter 23 which is insertible therein.

What I claim is:

1. A door knob having a hollow metal body formed with a battery pocket extending in a direction crosswise of the axis of the knob, a lamp passage extending through the metallic body into the interior thereof on one side of the pocket, a switch passage extending through the body and opening thereinto on the opposite side of the pocket, and a battery located in the pocket and having its terminals arranged to engage the lamp plug in the first passage and the movable switch in the second passage, substantially as and for the purpose described.

2. A door knob having a hollow metal body formed with a battery pocket extending in a direction crosswise of the axis of the knob, a lamp passage extending through the metal body and opening into the interior thereof on one side of the pocket, a switch passage extending through the body and opening thereinto on the opposite side of the pocket, the lamp passage and the switch passage being arranged to permit a lamp and the switch to make contact directly with the latter terminal when in the lamp socket, substantially as and for the purpose specified.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga, and State of New York, this 27th day of March, 1917.

GEORGE E. BATES.