R. A. ELFSTROM.

DOOR KNOB WITH ILLUMINATING MEANS.

APPLICATION FILED APR. 20, 1917.

1,331,959. Patented Feb. 24, 1920.

Fig. 1.

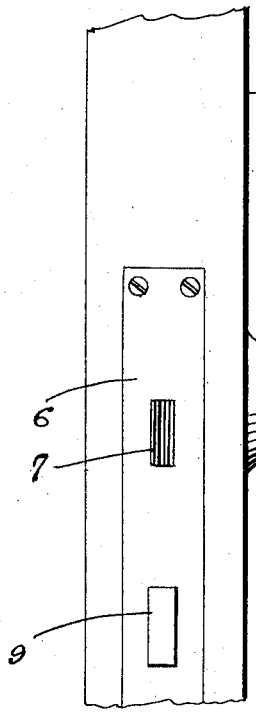
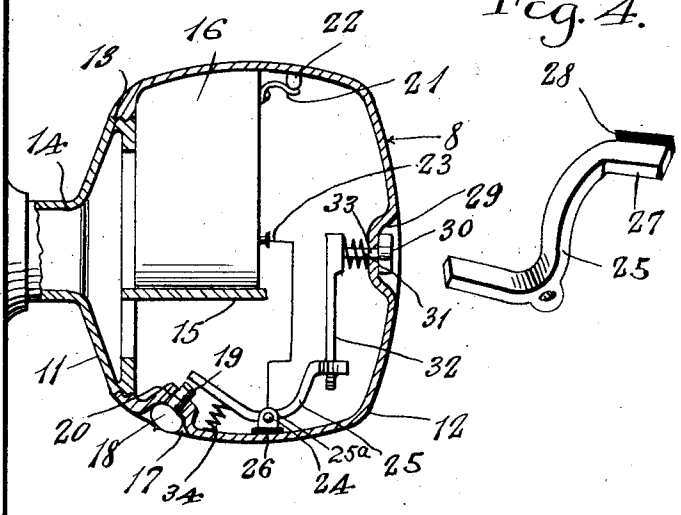


Fig. 4.



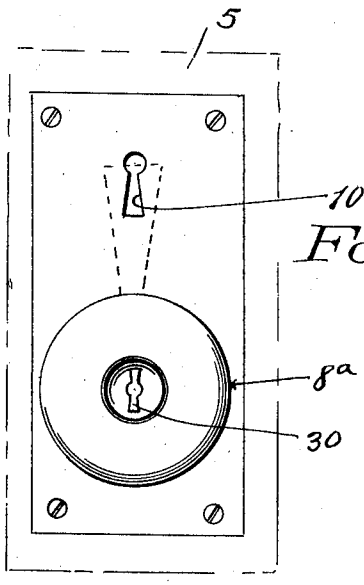


Fig. 3.

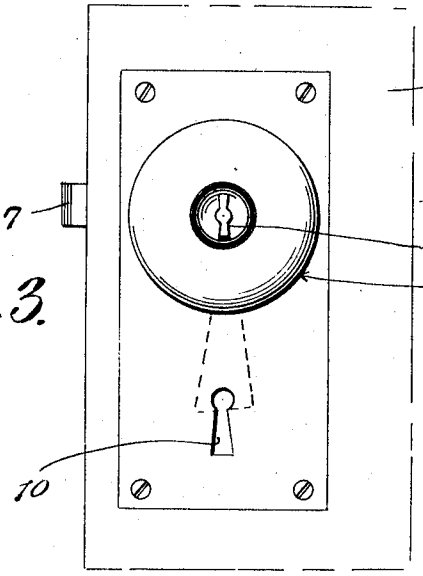


Fig. 2.

Witnesses:

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DOORKNOB WITH ILLUMINATING MEANS.

1,331,959. Specification of Letters Patent. Patented Feb. 24, 1920.

Application filed April 20, 1917. Serial No. 163,435.

To all whom it may concern:

Be it known that I, ROY A. ELFSTROM, a citizen of the United States of America, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Doorknobs with Illuminating Means; 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.

This invention has for its object to provide a door knob equipped with illuminating means to be utilized for convenience in locating the key hole of the door lock.

With this and other objects in view, the invention consists in the novel construction, combination and arrangement of parts as will be hereinafter specifically described, claimed and illustrated in the accompanying drawing, in which:

Figure 1 represents a sectional view through the improved door knob,

Fig. 2 represents a front elevation of the door knob,

Fig. 3 represents a front elevation of the door knob, showing the key hole located above the knob, and

Fig. 4 represents a perspective view of the lever of the attachment removed from the knob.

Referring to the drawing in detail, wherein similar reference numerals designate corresponding parts throughout the several views, the numeral 5 indicates a door provided with a lock 6, including the spring actuated latch bolt 7 controlled by the knob 8 and the sliding bolt 9 controlled by a key adapted to be inserted through the key hole 10.

The knob 8 is of hollow formation and includes two detachable sections 11 and 12, the adjacent terminals of which are provided with interfitting screw threads 13. One end of the section 11 is reduced and is secured in position upon the shank 14 operating the latch bolt 7, and the other section 12 is substantially semispherical.

A partition 15 is arranged in the hollow knob section 12 and constitutes a holder for the electric battery 16, which is supported therein. The portion of the knob section 12 adjacent the open end thereof is formed with a depression 17, for receiving an incandescent lamp 18, the base 19 of which is fitted in a threaded opening 20 formed in the depressed portion 17 of the knob section. One pole 21 of the electric battery 16 is engaged and electrically connected with an integral post 22 formed internally of the section 12, and one pole of the lamp 18 is connected with the pole 21 of the battery through the section 12.

The opposite pole of the battery 16 is connected by a wire 23 with a pivot pin 24 secured in a pair of upstanding ears 25^a formed internally of the section 12 and pivotally supporting a curved lever 25. One end of the lever 25 is adapted to engage the center electrode of the lamp 18 to complete the electrical circuit. An insulator 26 is interposed between the apertured ears 25^a, and the knob section 12 and the terminal of the lever 25 opposite the lamp 18 is directed angularly, as indicated at 27, and is provided with an insulator 28.

The central portion of the knob 8 is formed with a depression 29 constituting a seat for a turn key 30, carrying a key or stem 31 which projects into the knob section 12. An arm 32 is secured to the inner terminal of the stem 31, and a spring 33 is confined between the depressed portion 29 of the knob section and the arm 32 to yieldably retain the latter in adjusted position.

In use, when it is desired to locate the key hole 10, the knob 8 is turned so as to move the lamp 18 into position to direct the light rays therefrom toward the key hole. The turning key 30 is subsequently rotated so as to swing the arm 12 against the insulator 28, carried by the angular terminal of the lever 25, and moving across the insulator 28, which is disposed obliquely to the axis of the lever, the latter is tilted so as to engage the opposite terminal thereof with the center electrode of the lamp 18, thus closing the circuit from the pole 21 of the battery 16 through the knob section 12, lamp 18, lever 25, conductor 23 to the opposite pole of the battery. The frictional contact between the outer terminal of the arm 32 and the insulator 28 retains the opposite terminal of the lever in contact with the center electrode of the lamp 18, and when it is desired to extinguish the light the key 30 is returned to its normal position and the lever 28 is disengaged from the center electrode of the lamp 18 by a spring 34.

In the type of door lock illustrated in Fig. 3, the key hole 10^a is located above the knob, designated generally by the numeral 8^a.

What I claim is:—

An illuminated door knob having a hollow head, a battery and lamp in common circuit and housed within said head and each having one contact grounded upon the hollow head, and a switch included in the lamp circuit and insulated from the hollow head and consisting of a U-shaped contact element having one arm extending for engagement with the lamp and its second arm having its free end portion bent to provide a cam finger provided with a facing of insulating material upon its cam face, a stem rotatably mounted in the head and having a turning button at its outer end, and a lever arm extending from the inner end portion of the stem for engagement with the cam face of the contact arm to swing the contact arm into engagement with the light.

In testimony whereof I affix my signature in presence of two witnesses.

ROY A. ELFSTROM.

Witnesses:

EDWARD NELSON,

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