J. L. L. HALL.

ILLUMINATING DOOR KNOB.

APPLICATION FILED MAY 17, 1915.

1,291,494. Patented Jan. 14, 1919.

Fig. 1.

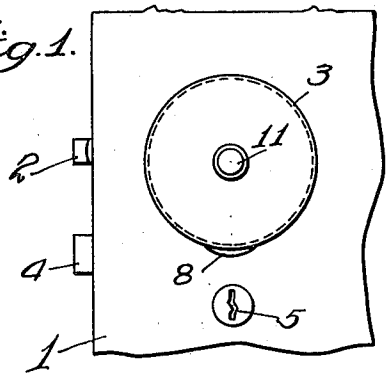


Fig. 2.

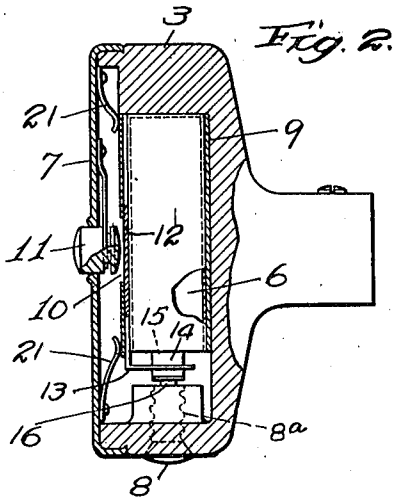


Fig. 3

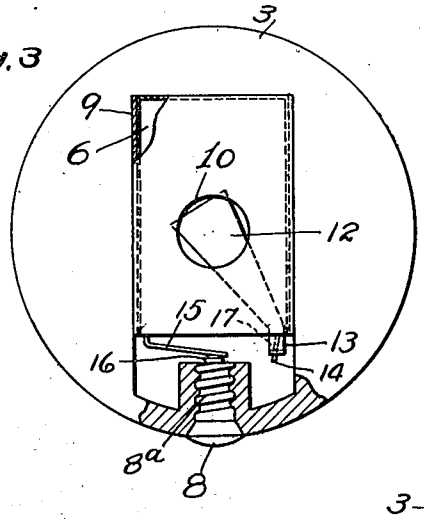


Fig. 4

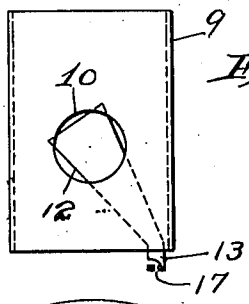


Fig. 6

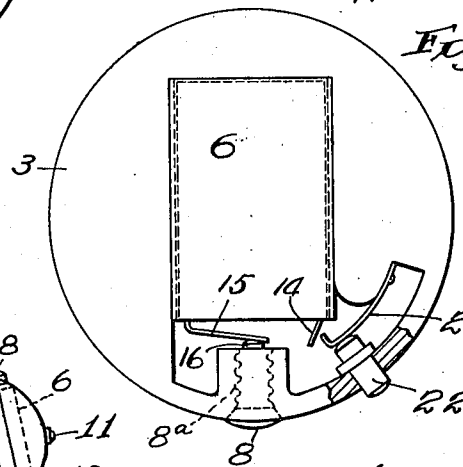
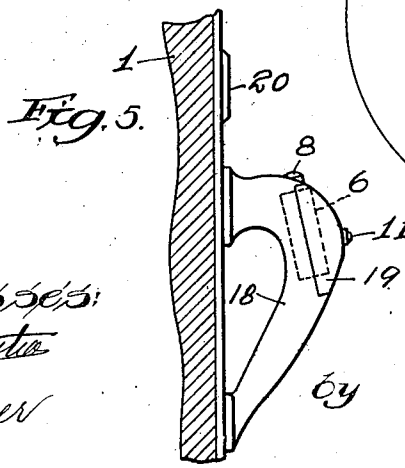


Fig. 5.



Witnesses:
C. H. Hunter
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Inventor:
John L. L. Hall.
by Parker & Carter
his Attys.

UNITED STATES PATENT OFFICE.

JOHN L. L. HALL, OF SAN DIEGO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO GEORGE A. GILBERT, OF CHICAGO, ILLINOIS.

ILLUMINATING DOOR-KNOB.

1,291,494. Specification of Letters Patent. Patented Jan. 14, 1919.

Application filed May 17, 1915. Serial No. 28,524.

To all whom it may concern:

Be it known that I, JOHN L. L. HALL, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented a certain new and useful Improvement in Illuminating Door-Knobs, of which the following is a specification.

This invention relates to improvements in illuminating door knobs, and has for its object to provide a new and improved device of this description particularly adapted to facilitate the finding of the keyhole in the dark.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a portion of a door provided with a door locking device embodying the invention;

Fig. 2 is an enlarged side view of the handle or knob of the lock in part section;

Fig. 3 is a front view of the knob shown in Fig. 2, with the cover removed showing the battery lamp and connections;

Fig. 4 is a view of the paper insulating shell for the battery;

Fig. 5 is a view showing a modified form of locking device;

Fig. 6 is a view showing a modified construction.

Like numerals refer to like parts throughout the several figures.

Referring now to the drawings, I have shown the application of my invention as applied to the locking device for any suitable door 1. This locking device may be of any desired form. In the particular construction illustrated in Fig. 1 the lock has a bolt 2, which is actuated by the knob 3 and also a bolt 4 which is actuated by a key inserted in the key-hole 5. Contained within the knob 3 is an electric battery 6, which may be inserted and removed therefrom. In the particular construction shown, the knob is provided with a removable cap 7. Connected with the knob 3, and in a position to flash a light on the key-hole, is an electric lamp 8. This lamp is preferably screwed into an opening in the knob, one filament of the lamp being connected with the shell 8^a thereof so as to be electrically connected with the metal of the knob when the lamp is in position. It will be noted that there is an internal thread associated with the opening in the casing of the knob, and that one of the contacts or terminals of the lamp is provided with a thread which engages this internal thread. This construction thus causes the casing to act as the support for the lamp, and the lamp is therefore firmly held in position in the casing itself, the strength of the casing acting to hold said lamp in position. The battery 6 is provided with an insulating shell 9, preferably of paper, the battery being preferably removably placed therein. This insulating shell is provided with an opening 10. A push button 11 is connected with the knob and is located opposite this opening 10, said push button being electrically connected with the metal of the knob. A metal conducting piece 12 has its end 13 connected with one terminal 14 of the battery, and one portion thereof is opposite the hole 10 and the push button 11, so that when the push button is pressed the terminal 14 is electrically connected with the metal of the knob. The battery 6 is itself covered with an insulating covering inside of the insulating shell 9, which insulating covering is shown partly broken away in Fig. 2 to disclose the battery 6. The piece 12 is located between the shell 9 and the insulating covering of the battery so that it is insulated from the battery except at the contact 14. The other terminal 15 of the battery is a spring terminal and is insulated from the metal of the knob and engages the contact 16 on the lamp, which is insulated from the shell 8^a and forms the other terminal of the lamp filament. The conducting piece 12 is preferably connected with the carbon terminal 14 of the battery and is provided with a groove 17 into which this carbon terminal projects. The cap 7 may be attached to the remainder of the knob in any desired manner. It is preferably arranged to snap on by spring action. In the use of the device it is only necessary to press the button 11, whereupon the light will be lighted, the light being thrown upon the key-hole so that the key can be readily inserted. After the key is inserted the knob can be turned without in any manner interfering with the light and its connections. The device is applicable to locks of various kinds and upon doors for houses, apartments, barns, garages, etc., and is particularly adapted to be used in connection with locks where the key-hole is very narrow, such as the Yale variety.

In Fig. 5 I have shown a modified con-

struction where there is no knob to the lock, the door being provided simply with a handle 18. In this case the handle is provided with a removable cap 19 and the battery is placed within the handle, the other parts being similar to those shown in Figs. 1, 2, 3 and 4. In this case the key-hole 20 is located above the handle and the lamp 8 is therefore placed at the upper end of the handle. When it is desired to remove the battery the cap or cover is removed, the old battery taken out and the new battery inserted, the carbon electrode or terminal 14 of the battery being placed in the groove 17 of the part 12. I may provide the cap 7 with two springs 21, as illustrated in Fig. 2, the springs holding the battery in position. In Fig. 6 I have shown a modified construction where the push button 22 is on the back or lower edge of the knob, there being associated with this push button a spring 23 which directly engages the terminal 14 of the battery when the push button is pressed. In this construction the push button is concealed but may be operated by those who know its location, by simply grasping the knob in the operation of turning it. The insulating shell 9 is not necessary in Fig. 6.

I claim:

1. A handle for doors, comprising a casing, an electric battery therein having two terminals at one end thereof, said casing having an opening at the periphery of said handle opposite the end of said battery carrying the two terminals, an internal thread in said opening, an electric light having an outer threaded terminal engaging said internal thread, one of the terminals of said battery directly engaging one of the terminals of the lamp, a connection between the other terminal of said battery and said lamp and a push button in said latter connection.

2. A handle for doors comprising a casing having a hollow therein, an electric battery contained within said hollow and having both of its terminals at one end thereof, a lamp projecting into the hollow of said handle in line with said battery and having one of its terminals directly engaging one of the terminals of the battery, the other terminal of said lamp in contact with said handle, an insulating shell into which the battery is received, an opening in said shell, a conducting piece located between the battery and said shell and having a portion exposed through said opening, said conducting piece insulated from the battery, the end of said conducting piece bent across the end of the battery and engaging one terminal of said battery and a push button opposite the exposed portion of said conducting piece, and electrically connected with said handle.

3. A handle for doors, comprising a movable part which may be removed to expose the interior of the handle, an electric lamp connected with said handle and having a part projecting into the hollow thereof, and another part projecting from the face of the handle, one terminal electrically connected to the handle, an electric battery in the hollow of said handle, having one terminal connected with the other terminal of said lamp, an insulating device between the movable part of the handle and the battery, an opening in said insulating device, a conducting piece having one end opposite said opening, the other end adapted to be connected with the other terminal of the battery, and a push button connected with the movable part of said handle and located opposite the hole in said insulating device, whereby, when the push button is pushed the circuit through the lamp and battery is completed through said conducting piece.

In testimony whereof, I affix my signature in the presence of two witnesses this 21st day of April, 1915.

JOHN L. L. HALL.

Witnesses:
M. DILK,
NELL CAYCE.