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DOORKNOB WITH ILLUMINATING MEANS

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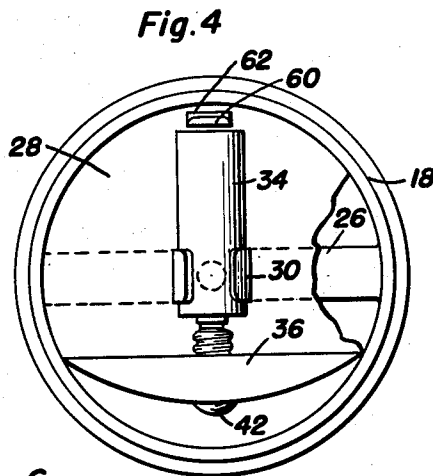
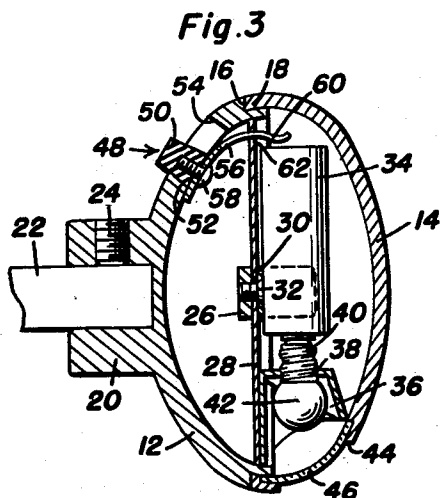
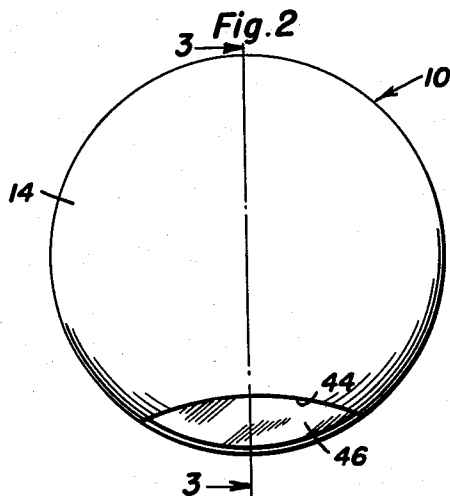
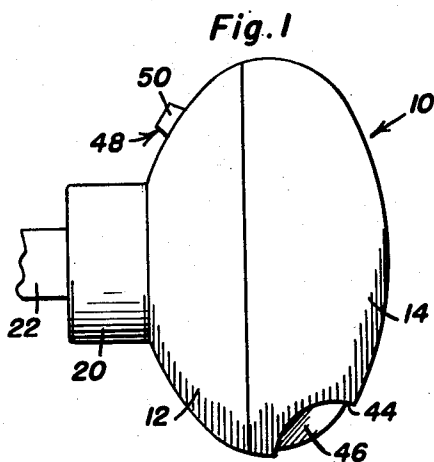


Fig. 5

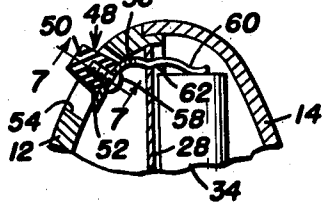


Fig. 6

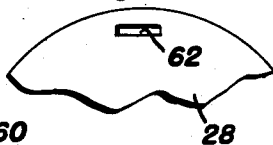
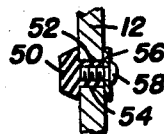


Fig. 7



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DOORKNOB WITH ILLUMINATING MEANS

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4 Claims. (Cl. 240—2.13)

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This invention relates to new and useful improvements in handles and the primary object of the present invention is to provide a door knob or handle with an illuminating means whereby the lock of the door or the interior of room areas adjacent the door may be illuminated in a convenient manner.

Another important object of the present invention is to provide a door knob or handle, of hollow construction, and having an opening therein through which light rays will be directed by a self-contained illuminating means supported within the hollow handle construction.

A further object of the present invention is to provide a door knob of the aforementioned character involving a manually actuated sliding switch having a resilient arm that is slidably guided and flexed into circuit closing position as the switch is manually moved to its circuit closing position.

A still further aim of the present invention is to provide a door knob or handle with an illuminating means that is simple and practical in construction, strong and reliable in use, efficient and durable in operation, neat and attractive in appearance, relatively inexpensive to manufacture, and otherwise well adapted to the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view of the present invention attached to the knob spindle;

Figure 2 is a front elevational view of Figure 1;

Figure 3 is a vertical sectional view taken substantially on the plane of section line 3—3 of Figure 2;

Figure 4 is an elevational view of the inner half of the knob with the cover or front half removed and with part of the partition wall broken away to show its holding bar;

Figure 5 is a fragmentary view of Figure 3 and showing the switch moved to its circuit closed position;

Figure 6 is a fragmentary elevational view of the upper portion of the partition wall used in the invention; and,

Figure 7 is a detail sectional view taken substantially on the plane of section line 7—7 of Figure 5.

Referring now to the drawings in detail, wherein for the purpose of illustration, there is dis-

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closed a preferred embodiment of the present invention, the numeral 10 represents the door knob or handle, generally, that includes inner and outer concavo-convex body forming members 12 and 14. A peripheral edge of the member 12 is formed with a peripheral recess 16 that accommodates the peripheral edge 18 of the member 14 in order to retain the members 12 and 14 assembled in the form of a hand grip or knob, as illustrated best in Figures 1 and 3 of the drawings.

Member 12 is integrally formed at its central portion with a socket 20 that accommodates the outer end of the knob spindle 22. A set screw 24 receivably engaged in an aperture provided in the socket 20, engages the spindle 22 and retains the knob 10 upon its operating shaft 22.

A substantially horizontal cross bar 26 is terminally fixed to the inner periphery of the member 12 or integrally formed with the member 12.

A circular partition wall 28 is disposed in front of and engages the cross bar 26. A U-shaped resilient clip 30 is secured at its web portion to the central portion of the wall 28 and the cross bar 26 by fastener 32 and yielding grips and supports in a substantially vertical position, a battery 34.

A reflector 36 is suitably secured to the lower portion of the wall 28 and is formed with a central internally threaded aperture 38 that receivably engages the base 40 of a lamp bulb 42. The base 40 contacts the terminal of the battery 34 and the lamp bulb registers with or opposes an opening 44 in the lower portion of the member 14 in which there is suitably mounted a transparent window element 46.

A switch 48 is slidably carried by the member 12 and includes a slidable operating button 50 having its reduced portion 52 slidably received in a slot 54 provided in the member 12. One end of an arcuate resilient contact or conductive arm 56 is secured to the reduced inner end 52 of the button 50 by a fastener 58 and the inner end of the spring arm is connected to and contacts the inner periphery of the member 12. The outer free end 60 of the arm 56 extends through a slot 62 in the wall 28 above the base of the battery 34. Due to the curvature of the arm 56 and the width of the slot 62, as the button 50 is moved toward the upper edge of the slot 54, the slot 62 will function as a cam to flex the arm 56 and cause the free end 60 thereof to bend against the base of the battery 34 and thereby complete the circuit to the lamp bulb 42.

Obviously, the reflector 36 could be discarded under certain conditions with the member 14

made of transparent material or translucent material in order to permit light rays to pass there-through.

Not only will the present handle and its illuminating means effectively illuminate the lock of a door, but will also provide a means for illuminating a room area on opposite sides of a door, so that articles within the various room areas may be conveniently observed.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in the art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. As an article of manufacture, a hollow door handle having an opening therein, a reflector supported in the handle in registry with said opening, a lamp bulb supported by the reflector and having a central terminal and a base terminal, a battery in the handle having a base terminal and a central terminal contacting the central terminal of the lamp bulb to connect the lamp bulb in circuit with said battery, and a circuit grounding member slidably carried by said handle and electrically connected to the handle for selectively engaging and releasing the base terminal of the battery to close and open the circuit, said grounding member including a spring arm for retaining the grounding member engaged with the base terminal of the battery, said arm being resilient and arcuate, and a partition wall within the handle having a slot therein slidably receiving the arm and having an edge forming a cam means for flexing the arm during sliding thereof into engagement with the base terminal of the battery, the base terminal of the lamp bulb being electrically connected in said circuit to complete the same.

2. As an article of manufacture, a doorknob comprising a pair of hollow concavo-convex body-forming members each having a peripheral edge, said peripheral edges being releasably engaged one with the other to retain the body-forming members connected together, a partition wall carried within one of the members, a reflector supported on the wall and extending into the interior of the other of said members, said other of said members having a window opening therein in registry with the reflector, a lamp bulb supported by the reflector for directing light rays through the opening and having a central terminal and a base terminal, a U-shaped clip secured to the wall above the reflector, a battery yieldingly held by the clip and having a base terminal and a central terminal engaging the central terminal of the lamp bulb to connect said lamp bulb and battery in circuit, and a slidable switch including a button slidably carried by said one of said members for closing the circuit and a resilient contact arm electrically connected to the said one of said members, said wall hav-

ing a slot therein slidably receiving the arm and flexing the same against the base terminal of the battery as the switch is slid to its closing position, the base terminal of the lamp bulb being in contact with and electrically connected to the reflector to complete the circuit.

3. A doorknob with illuminating means comprising inner and outer concavo-convex members each having a peripheral edge, said peripheral edges being engaged with each other to retain the members in the shape of a knob, a bar having its ends fixedly attached to the inner periphery of the inner member, a wall within the inner member in front of the bar, a U-shaped clip secured to the wall and the bar, a battery held by the clip in a substantially vertical position and having a base terminal and a central terminal, a reflector attached to the lower portion of the wall under the battery and having an aperture therein in registry with the central terminal of the battery, a lamp bulb having a base terminal threaded in the opening and a central contact electrically connected to the central terminal of the battery to connect said lamp bulb in circuit with said battery, said outer member having an opening in registry with the lamp bulb, and a grounding arm slidably carried by the inner member and movable into circuit closing engagement with the base terminal of the battery, the base terminal of the lamp bulb being in contact with and electrically connected to the reflector to complete the circuit.

4. A doorknob comprising a hollow body member having an opening therein, a partition in said body member having a slot therein, a battery mounted on said partition and having a base terminal and a central terminal, a lamp bulb having a base terminal and a central terminal contacting the central terminal of the battery to connect the lamp bulb in circuit with said battery, a reflector on said partition having the base terminal of the lamp bulb in contact therewith and electrically connected thereto, a switch button slidably received in the opening and having an enlarged head engaging the outer periphery of said member, and a resilient circuit grounding arm secured to the button and engaging the inner periphery of said member on opposite sides of the opening to retain the button in the opening and ground the circuit to said member, said arm extending through the slot and across the base terminal of the battery to be flexed into engagement therewith by camming action against one edge of the slot as the button is slid in the opening.

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