Nov. 13, 1951 A. E. OGREN 2,574,933

ORNAMENTAL WALL SWITCH

Filed April 24, 1948

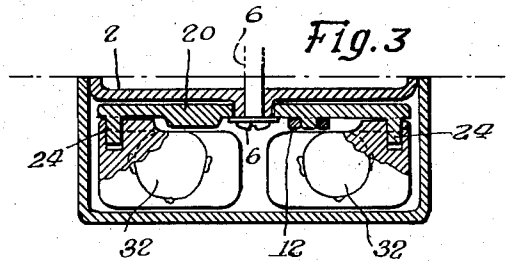


Fig. 3

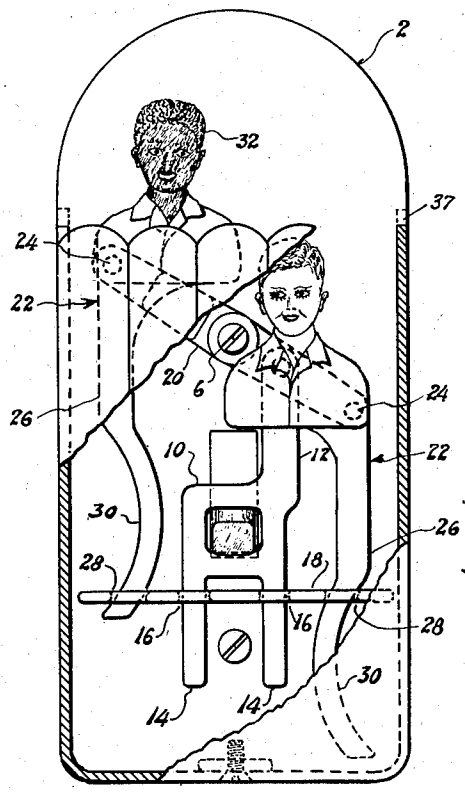


Fig. 1

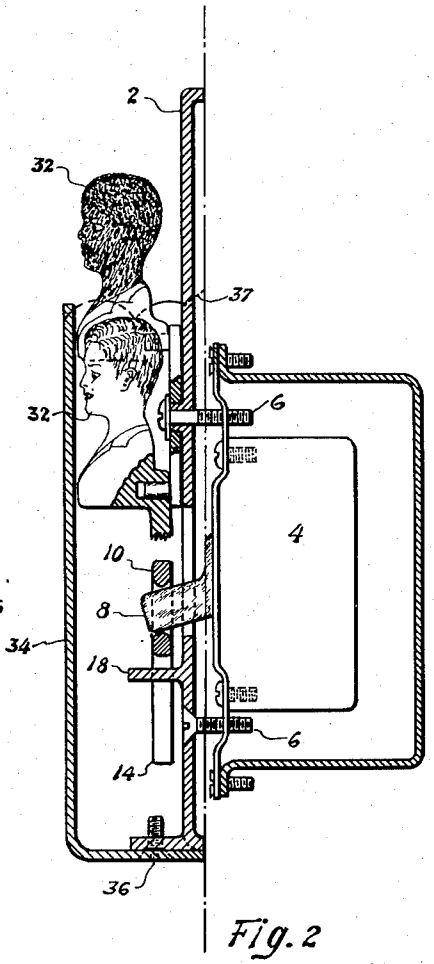


Fig. 2

INVENTOR.
AXEL E. OGREN

By: Spencer, Marzall, Johnston & Cook
Attys

Patented Nov. 13, 1951

2,574,933

UNITED STATES PATENT OFFICE

2,574,933

ORNAMENTAL WALL SWITCH

Axel E. Ogren, Chicago, Ill.

Application April 24, 1948, Serial No. 23,060

3 Claims. (Cl. 74—110)

1

This invention relates in general to a switch operating mechanism, and more particularly to a mechanism for actuating an electrical switch.

The conventional wall switch for electrical circuits suffers a number of disadvantages. The design and coloring seldom harmonize with the furnishings and decorations of the room, and, in general, present an unsightly appearance. Furthermore, the wall surface immediately surrounding the switch becomes easily soiled from accidental contact of the hand in operating the switch. Another disadvantage rests in the difficulty ordinarily encountered in locating a switch in a darkened room. In addition, the conventional switch may be unsafe in at least two respects. There is a possibility of electrical shock to the operator if the switch happens to be faulty, and secondly, the switch is subject to unintentional operation as by brushing against it in passing.

An object of this invention is to provide a means for operating an electrical switch whereby a novel actuating mechanism is employed and is enclosed in a housing which will have a pleasing appearance, and which can readily be designed to harmonize with other appointments in the room.

Another object is to provide a means for operating an electrical switch whereby ease of operation is achieved by the use of a system of fulcrumed levers.

Still another object is to provide a means whereby the actuating mechanism can be made more easily recognizable in a darkened room.

A further object is to provide a means for operating an electrical switch whereby the person operating the switch is protected from possible shock from a faulty switch. Unintentional operation of the switch, as by brushing against it, is virtually precluded in the present invention.

Other objects, advantages, capabilities, features and the like are comprehended by the invention as will appear from the following description, and as are inherently possessed by the invention.

The present invention overcomes the disadvantages noted above and achieves the stated objects, while at the same time providing a device which can be made up in innumerable ways to harmonize with its surroundings. Novelty designs may also be employed which will be suitable for a nursery, children's bedroom, bathroom, kitchen, playroom or den, as well as for outdoor use. As a specific example, the device may be so designed and decorated as indicated in

2

the drawing, to include a colored figure and a figure coated with luminous material. The figures are so arranged that the colored figure appears above the fence when the switch is in the "on" position, and at the same time the luminous figure is hidden behind the fence. Then in a reversal of positions the luminous figure appears and the colored figure disappears when the switch is in the "off" position.

Referring now to the drawing:

Fig. 1 is a vertical sectional view from the front;

Fig. 2 is a vertical sectional view from the side; and

Fig. 3 is a top sectional view.

For purposes of illustration, the invention herein has been illustrated in a particular form but it will be evident as the description proceeds that the particular form or shape of the object is not an important consideration. It should further be noted that the particular embodiment of means shown and described herein is meant to be illustrative of the many similar arrangements which will be suggested to one skilled in the art.

Referring now more particularly to Figs. 1 and 2 of the drawings, the large back plate 2 is designed to fit over a conventional wall switch 4 and is secured thereto by screws 6, 6. The switch lever 8 extends through an aperture in the back plate and fits into an opening in the actuating member 10 which has been especially designed to receive the switch lever. The actuating member 10 is in contact with the switch lever so that a movement of the actuating member 10 up or down will cause a corresponding change in position of the switch lever 8. The actuating member 10 is composed of a slotted body previously described, a connecting arm 12, and two extensions 14, 14. The extensions 14, 14 project from the body and are fitted into guide openings 16, 16, in the support member 18, which is in turn rigidly attached to the back plate 2. Thus, support and guidance are provided for the switch lever actuating member. The connecting arm 12 of the actuating member is rotatably attached to a pivoted rocker arm 20 at a point between the pivoted center and the end of the rocker arm. The rocker arm 20 is rotatably mounted by means of the screw 6 through the back plate and into the switch housing.

At the ends of the rocker arm 20 are rotatably attached the operating members generally shown at 22, 22. These members are mounted within the body of the apparatus, receiving their

support partly from the rocker arm connections, **24, 24** and partly from the guide extensions **30, 30** which pass through guide openings **28, 28** in the support member **18**. The portions **30, 30** are especially designed and arranged with respect to the support member **18** so that the vertical portions **26, 26** of the operating members **22, 22** remain in a vertical position at all points during their movement. This result is achieved by the curved design of the members **30, 30** which, as they pass through the guide openings **28, 28** in the support member **18**, cause the upper portion of the operating members to maintain a vertical position. The upper portions **32, 32** of the operating members **22, 22** may be of any suitable design to conform to the overall effect. The upper portion, only one of which is shown in Fig. 1, may be a part of a molded piece or they may be attached to the lower portion as desired. In a preferred embodiment as shown in the drawings the figures **32, 32** are molded as one piece with the remainder of the member. The figures **20, 20** are designed to fit within the cover in such a manner as to derive support from the rocker arm and the cover. The complete actuating mechanism is almost completely enclosed in a hollow cover **34** which fits over the mechanism and is secured to the back plate by the screw **36**. The upper part of the cover **34** is hooked back of the switch face plate at **37**. The cover is attached so that only one of the reversely positioned figures will be visible at a time and the other figure will be concealed within the cover.

In a preferred operation of the switch actuating device, one of the finger operated members is depressed, causing the rocker arm to rotate about its center and causing the opposite end of the rocker arm to rise and elevate the reversely positioned finger operated member attached thereto. At the same time, the movement of the rocker arm causes the attached slidably mounted actuating member to move up or down, carrying with it the switch lever and thus operating the electrical switch.

It will be understood that the mechanism may be constructed of any suitable material such as wood, metal, or plastic, or of any combination of these materials. It is preferred that the back plate be made of fireproof or fire-resistant material because of the safety specifications of the underwriters. It has been found that the device may be satisfactorily constructed of plastic throughout. Thus, I have been able to construct the device from inexpensive materials which are easily moldable into the desired shape, or may readily be stamped out of bulk material.

Changes may be made in the form, construction and arrangement of parts from that disclosed herein, as will be apparent to one skilled in the art, without in any way departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A switch operating mechanism comprising a switch actuating member having a slotted body portion, means for guiding said member in a substantially vertical path, a centrally pivoted rocker arm, means pivotally connecting said rocker arm with said switch actuating member, a pair of manually actuated reciprocating operating members, means pivotally connecting said members to opposite ends of said rocker arm, said manually actuated operating members having one end for manual actuation and an opposite end provided with a curved extension which curved extension is oppositely curved in each member with respect to the other, and guide means associated with said curved extension and adapted to cooperate therewith to maintain each of said manually actuated operating members in a vertical position during operation.

2. A switch operating mechanism as claimed in claim 1 in which the elements thereof are enclosed in a shell which hides all of the elements except the manual contact portion of one of the manually actuated reciprocating operating members.

3. A switch operating mechanism comprising a switch actuating member having a slotted body portion, means for guiding said member in a substantially vertical path, a centrally pivoted rocker arm, means pivotally connecting said rocker arm with said switch actuating member, a pair of manually actuated reciprocating operating members, means pivotally connecting said members to opposite ends of said rocker arm, said members having one end for manual actuation and an opposite end provided with a curved extension oppositely curved in each member with respect to the other, and guide means associated with said curved extension and adapted to cooperate therewith to maintain each of said manually actuated operating members in a vertical position during operation, said manually actuated reciprocating operating members being adapted for reciprocating movement whereby only one at a time of said manual contact portions is visible above an enclosing cover portion.

AXEL E. OGREN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
686,194	Ball	Nov. 5, 1901
1,058,051	Guett	Apr. 8, 1913
1,132,470	Gordon	Mar. 16, 1915
1,157,310	Klein	Oct. 19, 1915
1,232,728	Spicer	July 10, 1917
2,045,045	Moore	June 23, 1936

FOREIGN PATENTS

Number	Country	Date
384,918	Germany	May 8, 1924