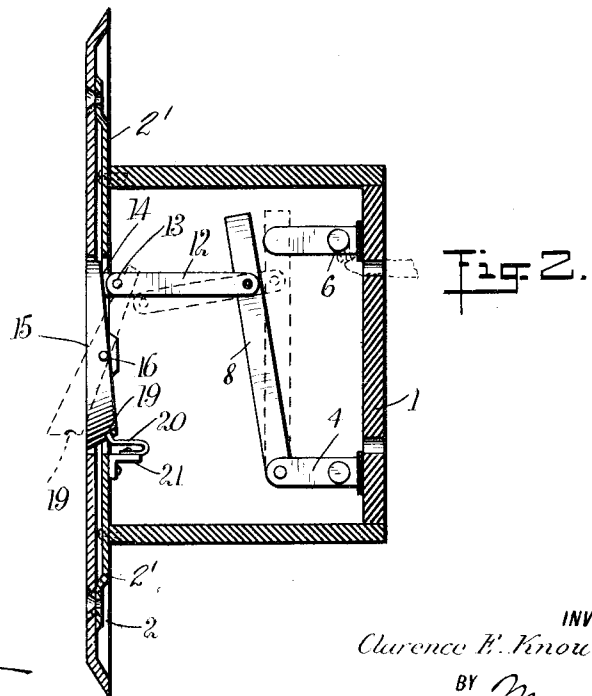
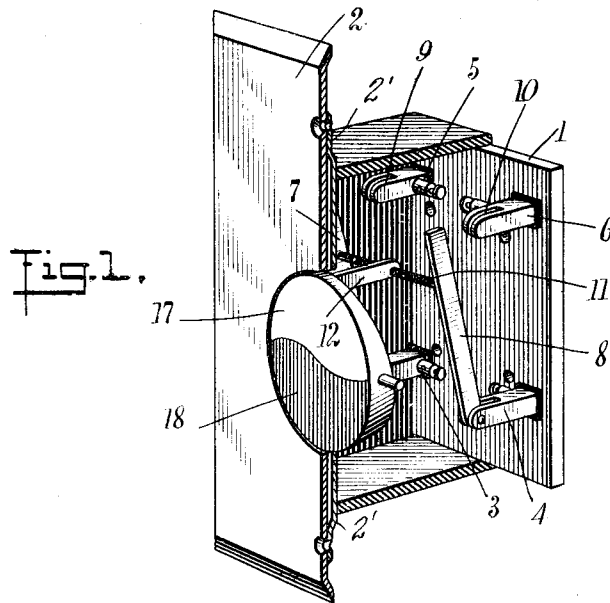


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ELECTRIC SWITCH.
APPLICATION FILED MAY 31, 1912.

1,050,740.

Patented Jan. 14, 1913.



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CLARENCE E. KNOWLTON, OF ROCHESTER, MINNESOTA.

ELECTRIC SWITCH.

1,050,740.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Application filed May 31, 1912. Serial No. 700,652.

To all whom it may concern:

Be it known that I, CLARENCE E. KNOWLTON, a citizen of the United States, and a resident of Rochester, in the county of Olmsted and State of Minnesota, have invented a new and Improved Electric Switch, of which the following is a full, clear, and exact description.

This invention relates to improvements in electric switches, and particularly to the push button type of switch, and has for an object to provide an improved structure which will not present a projecting member when the current is turned off.

Another object of the invention is to provide a switch formed with an operating member designed to be flush with the plate or wall when the current is turned off, and also formed with means for switching on and off the current without making an appreciable noise, the same including a structure involving the use of one or more knives entering bifurcated posts.

In carrying out the objects of the invention, a box of any desired kind is provided, having a face plate of any desired or usual structure secured in position in the usual manner. Arranged in the top of the box is a pivotally mounted button or plate connected with a link, which in turn is connected with one or more knife switches arranged in the box and adapted to open when the button is flush with the face plate. When it is desired to turn on the current, one side of the button is depressed so that part of the button will be tilted outwardly from the plate. In turning off the current a reverse movement is caused which will result in the button becoming flush with the face plate.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the views.

Figure 1 is a fragmentary perspective view showing an embodiment of the invention; and Fig. 2 is a longitudinal vertical section through an embodiment of the invention, the operating parts being shown in elevation.

Referring to the accompanying drawings by numerals, 1 indicates a box formed of porcelain, iron or any other desired material, to which a face plate 2 is secured by screws

or other means. Arranged in the box 1 are posts 3, 4, 5, and 6, all insulated from the box 1 in any desired manner. Pivotally connected to the posts 3 and 4 are knives 7 and 8 designed to be moved into the slots 9 and 10 in the posts 5 and 6 when it is desired to close the switch. The knives 7 and 8 are connected by a bar 11 of insulating material which has pivotally connected therewith a link 12. The link 12 is pivotally connected at 13 with a lug 14 extending from the bottom of a button or tiltable plate 15. The button 15 is pivotally mounted on the bar 2' by suitable journals 16, the bar 2' being secured to the box 1 by any suitable means, as for instance screws. Part of the button 15 is provided with a white surface 17, and part with a black surface 18, to indicate if the current is turned on or off. When it is desired to turn the current on the white portion is depressed, which will move the parts to the dotted position shown in Fig. 2. When moved to this position it will be observed that the knives 7 and 8 are in engagement with the posts 5 and 6, and that one edge of the button 15 is tilted outward. When it is desired to switch off the current, the black portion of the button 15 is depressed so that the button assumes the position shown in full lines in the drawings. This will result in the raising of the knives 7 and 8 out of contact with the posts 5 and 6 and also result in causing the button 15 to become flush with the plate 2. By this construction and arrangement it will be observed that when the light is turned out no projections are presented for accidental engagement and also it will be noticed that by the use of the knives 7 and 8 a push button structure is presented which will not have the usual snap found in the ordinary push button structure on the market, but will be comparatively noiseless.

In order to positively hold the locking button 15 in position flush with the plate 2 the button is provided with a notch 19 designed to be engaged by a spring 20 supported by any desired means, as for instance brackets 21. When the switch is turned on the button leaves the spring 20, but when the switch is turned off the button moves downward until the spring 20 snaps into the notch 22, whereupon further movement is resisted.

Having thus described my invention I

claim as new and desire to secure by Letters Patent:—

1. In a switch of the class described, the combination with a switch structure and a
5 face plate, of a button adapted to remain flush with the face plate when the switch structure is in an open condition, said button comprising a plate, journal members for
10 tiltable supporting said plate, and means for connecting the plate with said switch structure whereby when said plate is tilted to one position on its journals said switch structure
15 will be closed and when moved back to its original position the switch structure will be open.

2. In an electric switch, a housing including a face plate, said face plate being formed with an aperture extending therethrough, a
20 button arranged in said face plate, means for pivotally connecting said button to said face plate, knife switch structure arranged in said housing, and a link connecting the knife switch structure with
25 one edge of said button, the link being so arranged that when said knives are in their open position said button will be flush

with said face plate and when said button is tilted said knives will be in their closed position.

3. In an electric switch of the class described, a housing, a knife switch structure arranged in said housing, a link pivotally
30 connected with the knife of said knife switch structure, a pivotally mounted button connected with said link in such a manner
35 as to remain flush with the outer edge of said housing when said knife is in an open position and to be positioned at an angle to the outer face of said housing when
40 said knife is in a closed position, said pivotally mounted button being formed with a notch at one edge, and a spring catch adapted to fit into said notch for positively but
45 resiliently holding said button flush with the outer face of said housing.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLARENCE E. KNOWLTON.

Witnesses:

GEO. B. DOTY,
LILLIAN KRUGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."