

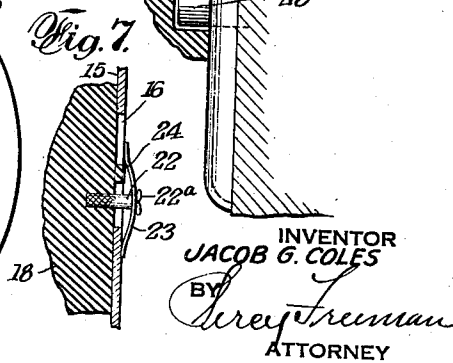
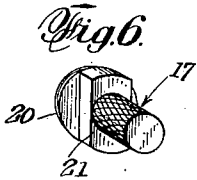
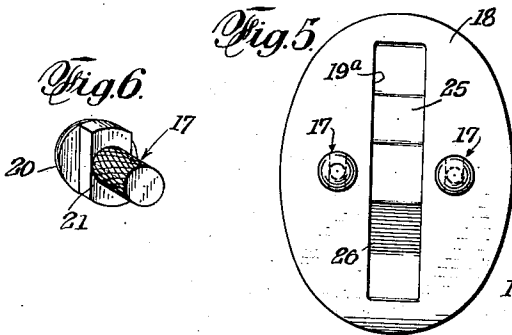
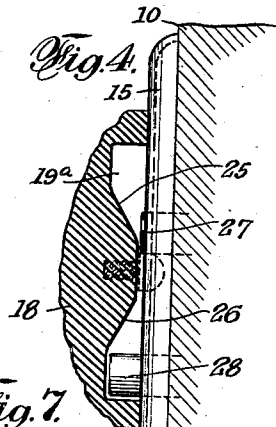
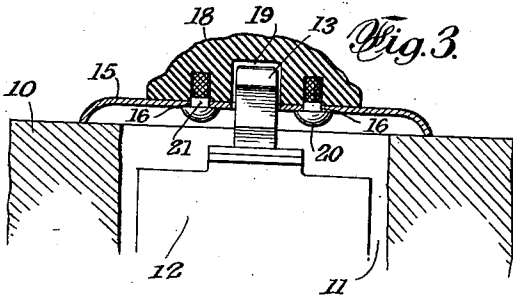
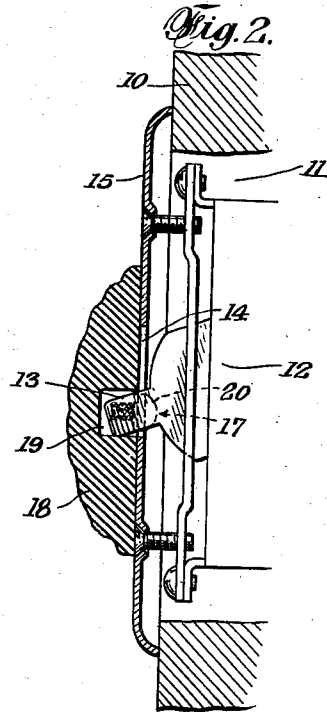
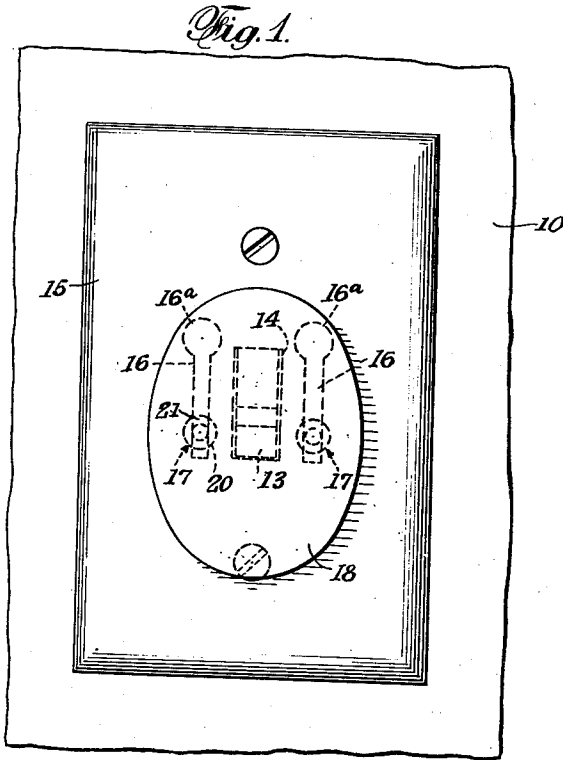
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2,172,731

ELECTRIC SWITCH MANIPULATING MEANS

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ELECTRIC SWITCH MANIPULATING MEANS

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7 Claims. (Cl. 200—153)

This invention relates to electric switches and more particularly to means for manipulating said switches.

The usual wall type of switch is provided with a toggle mechanism, operable by means of a lever protruding through a slot in an escutcheon or wall plate. These switches are designed for quick make and break, but despite that fact, sparking is quite common. It is not unusual, therefore, for a spark to jump through the mentioned slot and to shock or burn the person manipulating the mentioned lever.

The present invention therefore contemplates the provision of auxiliary means, designed to completely cover the mentioned slot, for imparting movement to the switch lever so the switch lever so the switch may be safely operated.

The invention further seeks to enhance the appearance of the exposed portions of the switch assembly by providing an ornamental auxiliary switch operating member harmonizing with the general assembly.

Another contemplated feature resides in the provision of an auxiliary switch handle which is more readily located in the dark to obviate fumbling and undue finger-marking of the switch plate and adjacent wall areas.

With the foregoing objects, features and advantages in mind and others later apparent, the invention is realized in the combination and arrangement such as is illustrated in the accompanying drawing in which preferred forms of the invention are shown and which are described in detail in the following specification.

In the drawing:

Fig. 1 is a front view of a switch assembly in which a preferred form of the invention is incorporated.

Fig. 2 is a sectional view as taken along the vertical center line of Fig. 1.

Fig. 3 is a sectional view as taken along the horizontal center line of Fig. 1.

Fig. 4 is a side view of a switch employing push buttons and incorporating means such as herein contemplated for manipulating said buttons.

Fig. 5 is a rear view of an auxiliary handle means such as shown in Fig. 4.

Fig. 6 is a perspective view to an enlarged scale of a guide stud employed in the invention.

Fig. 7 is a fragmentary vertical sectional view showing an alternate form of construction.

Referring to the drawing in greater detail and with reference to Figs. 1, 2, and 3, the wall 10, in the usual manner, is formed with a cavity 11 in which is positioned a snap or toggle switch 12

provided with an operating lever 13 arranged to protrude through a slot 14 in a cover plate 15, the latter being held in position as by means of the screws 16 engaging the switch body.

As herein contemplated, the plate 15 is preferably formed with slots 16 disposed at each side of the slot 14, said former slots being arranged to guide studs 17 carried by an auxiliary handle member 18 disposed to slide along the face of the plate 15.

The handle member 18 is preferably formed with a recess or cavity 19 which accommodates the protruding lever 13 and engages said lever for actuation of the switch when the handle member 18 is moved.

Each stud 17 is formed with a head or the like 20 having engagement with the inner surface of the plate 15 and to insure against undue rocking of the member 19, each stud is provided with an elongated keying portion 21 having slidable engagement in its respective slot 16.

When the studs 17 are to be permanently moulded into the member 18, the slots 16 may be formed with enlarged open ends 16^a so the heads 20 of the studs may be passed through said enlarged openings to effect assembly of the handle member 18 and the plate 15. This is accomplished before the plate 15 is secured into position.

From the above, it may be seen that the member 18 is limited in its movement by its engagement with the switch lever 13 and, therefore, may not become disassociated from the plate 15 while in use. It will also be seen from Fig. 1 that the slot 14 is effectively covered by the handle member 18 as are also the slots 16. Thus a safe and esthetically appealing construction of the purpose intended has been provided.

It may be desirable to provide two studs in engagement with each slot 16 to obviate rocking of the handle member 18 as can be well understood and also said studs may be driven into the body of said handle member after assembly with the plate 15. In this event, the enlarged openings 16^a may be eliminated.

If necessary, spring means may be employed to yieldably hold the handle member against the wall plate. Such an arrangement is shown in Fig. 7 wherein the handle member is provided with studs 22 projecting through the slots 16 and holding leaf springs 23 which have engagement with the inner surface of the wall plate and with the peened over heads 22^a of the studs. Anti-rotational means such as the keying projections 24 may be formed on the handle member, said

projections being spaced somewhat from the respective studs 22 and engaged in the related slot 16.

The foregoing two forms of the invention relate to the application thereof to a switch having switch lever actuating means. The invention may be also employed on switches using switch buttons. As illustrated in Figs. 4 and 5, the handle 18 may be formed with a recess 19^a in which are arranged the cam surfaces 25 and 26, each designed to engage the respective push buttons 27 and 28. Thus, in the position shown in Fig. 4, the cam 25 has depressed the push button 27 and upon movement of the handle member 18 downward, the cam 26 will engage and depress the push button 28. In this form of the invention, the stud means 17 or the stud means 22 may be selectively employed.

From the above it is readily apparent that a simple and efficacious arrangement has been provided in several forms of its embodiment. However, skilled persons may further vary the construction without departing from the spirit and scope of the invention as claimed. Hence, the prior art rather than the instant disclosure should form the basis of interpretation of the scope of the invention as defined in the following claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The combination with a switch having operating means, of a switch plate having an opening through which said operating means protrudes and having a slot at each side of said opening, an auxiliary switch operating member recessed to engage the mentioned operating means, means carried by said auxiliary member having engagement in said slots for mounting said auxiliary member on said switch plate for sliding movement.

2. The combination with a switch having operating means, of a switch plate having an opening through which said operating means protrudes and having a slot at each side of said opening, an auxiliary switch operating member recessed to engage the mentioned operating means, means carried by said auxiliary member having engagement in said slots for mounting said auxiliary member on said switch plate for sliding movement and resilient means also carried by the auxiliary member for urging said member towards said plate.

3. In a device of the character described, a switch plate having spaced parallel slots and a central opening through which a switch-oper-

ating lever may protrude, and an auxiliary switch operating member for cooperation with said lever, said member having studs passing through and engaged in said slots for mounting said operating member in slidable relation on said switch plate.

4. In a device of the character described, a switch plate having spaced parallel slots and a central opening through which a switch-operating lever may protrude, and an auxiliary switch operating member for cooperation with said lever, said member having studs passing through and engaged in said slots for mounting said operating member in slidable relation on said switch plate, said studs each being formed with a head to engage the inner surface of the plate and with a substantially rectangular portion having contact with the sides of the slot in which it is engaged.

5. An article of manufacture comprising a snap switch wall plate having a central opening and two flanking slots, and a switch operating member having studs engaged in said flanking slots and provided with a recess in alignment with said central opening in the switch plate.

6. A switch plate cover for association with a wall type switch having operating means, comprising a wall plate having an opening through which said operating means protrudes and having a keyhole slot on each side of said opening, an auxiliary switch operating member adapted to slide on the face of said plate and to obscure the opening and the slots, said member being recessed from its rear face to accommodate said operating means, studs carried by the said member and extending through said slots to guide said member, and means on the other ends of said studs to bear against the underside of said wall plate to slidably retain the member thereon.

7. A switch plate cover for association with a wall type switch having operating means, comprising a wall plate having an opening and through which said operating means protrudes and having a keyhole slot on each side of said opening, an auxiliary switch operating member adapted to slide on the face of said plate and to obscure the opening and the slots, said member being recessed from its rear face to accommodate said operating means, studs carried by said member and extending through said slots to guide said member, and heads on said studs enterable through the enlarged ends of the keyhole slots for slidable engagement against the underside of said wall plate along the narrow portion of said slots.

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