Oct. 9, 1928. 1,687,165

H. E. LEPPERT

ELECTRIC SWITCH BOX

Filed July 11, 1925

Fig. 1.

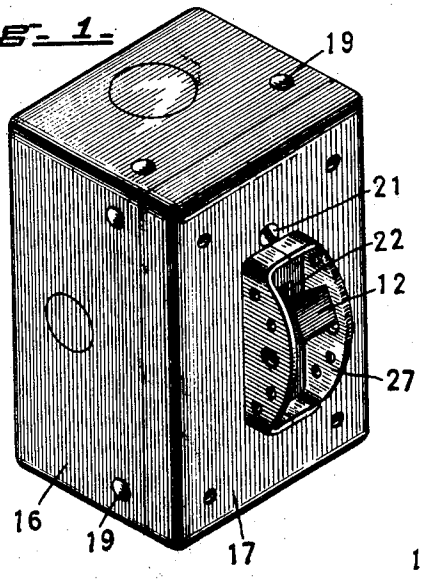


Fig. 2.

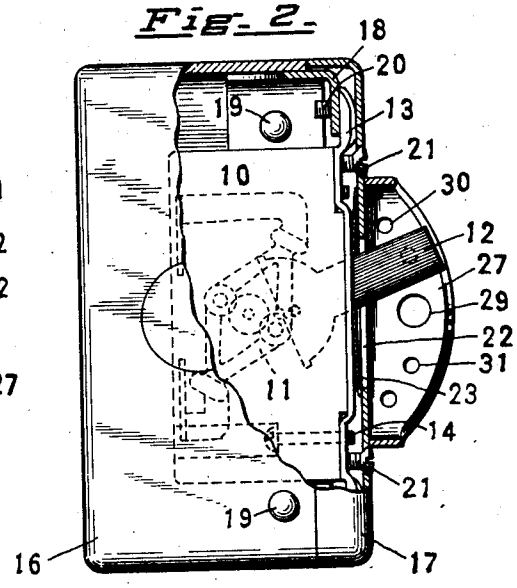


Fig. 3.

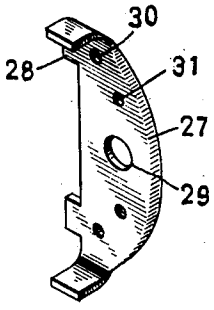


Fig. 5.

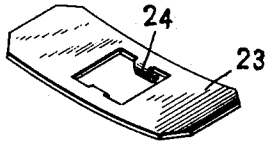


Fig. 4.

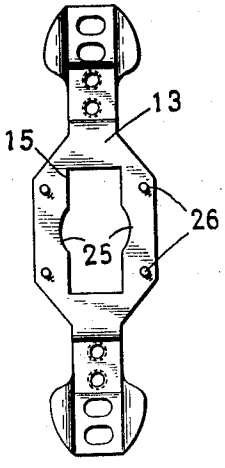


Fig. 6.

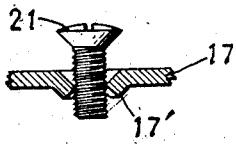
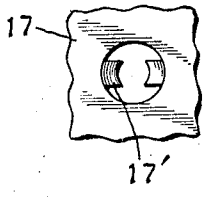


Fig. 7.



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UNITED STATES PATENT OFFICE.

HENRY E. LEPPERT, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE TRUMBULL ELECTRIC MANUFACTURING COMPANY, OF PLAINVILLE, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ELECTRIC-SWITCH BOX.

Application filed July 11, 1925. Serial No. 42,935.

My invention relates particularly to what is sometimes called a receptacle or box for snap switches of the lever or toggle type.

The main object is to provide a construction for guarding and protecting the operating lever or handle.

Another object is to provide means for locking or holding the switch handle in position so as to prevent it from being operated.

In the preferred form the box is provided with means for supporting the switch and an external guard for the operating lever. This guard is provided with means for receiving the shackle of a padlock or a sealing wire.

Fig. 1 is a perspective view of a switch box embodying one form of my invention.

Fig. 2 is a side view and longitudinal section of the same.

Fig. 3 is a perspective view of one-half of the guard member.

Fig. 4 is a front view of the operating yoke for the switch box.

Fig. 5 is a perspective view of a slide which cooperates with the handle of the switch.

Figs. 6 and 7 are details of a screw seat.

In the drawing I have shown insulating block 10 carrying any suitable form of switch mechanism 11 provided with an operating toggle member or lever 12 for opening and closing the circuit with a snap action, as is customary in switches of this type. A yoke 13 may be secured to the body 10 in the usual manner, as, for instance by one or more screws 14, and the yoke is provided with an opening 15 in which the handle 12 may be oscillated.

The switch box consists of a body 16 and cover 17. The box body may be provided with brackets such as 18 secured in the opposite ends, for instance, by rivets, 19. The yoke 13 may be secured to the brackets 18 by screws 20. The cover of the box may be held in place by screws 21 which seat in the yoke 13. For convenience in holding the screws 21 to the cover plate, I provide inwardly directed lugs 17′, the edges of which serve as segments of screw threads. These are formed by blanking the face plate 17 but do not require a threading operation.

The cover of the box is provided with a slot 22 for the handle 12. I also prefer to provide a slide 23 which is mounted on the handle 12 between the yoke 13 and the front or cover plate 17 so that the slot 22 will always be closed whether the handle is up or down, as viewed in Fig. 2. This slide 23 is preferably arched and springy so that it is held against the yoke 13. The slide 23 is provided with inwardly projecting hooks 24 adapted to be inserted through the notches 25 in the yoke 13 when the handle 12 is in the central position. The yoke may be provided with projections 26 for guiding the slide 23.

The guard or protective housing for the operating handle or lever 12 in the form shown is made up of two members 27, such as shown in Fig. 3. Each of these is provided with one or more lugs 28 adapted to be inserted into slots in the cover and riveted in position so as to form a channel in which the lever 12 may be oscillated. It will be seen that this channel forms a guide for the finger or for any instrument or construction by means of which the switch is to be operated. On the other hand the side walls of the guard prevent accidental contact with the handle and accidental operation of the switch. The sides of the guard may be provided with openings, such as 29, 30, and 31 through which locking or sealing means (not shown) may be inserted for the purpose of holding the handle of the switch either in the on position or in the off position, as may be desired.

When it is desired to have access to the switch the cover may be removed by simply loosening the screws 21 without entirely removing them, and the screws will be held by the lugs 17′.

I claim:

1. A snap switch having a sheet metal face plate, an operating lever extending through said face plate and a projecting channel-like sheet metal guard for said lever having lugs near each end of each side extending through said face plate and riveted thereto, said guard projecting from said face plate around said lever and forming a finger guide channel only slightly wider than said lever and substantially housing said lever in all its operating positions.

2. A snap switch having a face plate, an operating lever extending through said face plate and a channel-like guard for said lever projecting from said face plate around said lever and substantially housing said lever in

its operative positions, said guard having a perforation approximately in the center of each side to receive a locking member in the path of movement of said lever.

3. In a snap switch a face plate with a slot therein, switch mechanism mounted back of said face plate and including an oscillating operating finger lever the end of which projects outwardly through the slot in said plate and a guard member having finger-guide flanges secured to said face plate and projecting edgewise outwardly therefrom on opposite sides of said slot, the channel between the walls of said flanges being of substantially the width of the end of a finger and only slightly wider than the end of said lever to provide a limited finger guide, with room enough between the end of the lever and the guard to admit the tip of one finger, the outer edges of said flange being shaped to conform to the path of movement of the outer end of said lever and guard the end of the lever throughout its movement.

4. An electric switch sheet metal face plate having a slot for an operating lever and having sheet metal guard flanges on opposite sides thereof spaced apart from each other but near enough together to provide a finger guide channel, at least one of said flanges having an opening in position to receive means for locking the switch lever in a predetermined position.

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