

WL/BMC/A 5853 GB

Title: "Electric Switches"

Description of Invention

This invention is concerned with improvements relating to electric switches, particularly of the kind (hereinafter referred to as being of the kind specified) comprising a housing, contact mechanism in the housing, and a rocker mounted in a cavity or recess (hereinafter referred to simply as a recess for convenience) in the housing for limited pivotal movement between two positions; movement of the rocker between said positions causing operation of the switch mechanism.

A conventional switch of the kind specified is moulded primarily of plastics material. There is, however, some dissatisfaction of this, particularly from an aesthetic point, and attempts have been made to provide a switch of the kind specified with a more pleasing appearance. Such attempts have included the provision on the housing and surrounding the rocker recess, of a face plate of (e.g.) copper or brass.

According to this invention there is provided a switch of the kind specified, comprising a clip-on cover member for the rocker. The cover member desirably comprises metal, conveniently of thin-wall section, and provides the rocker with a highly pleasing appearance.

By virtue of the cover member being clipped onto the rocker, the cover member may be retained a sufficient distance from the contact mechanism to be unaffected thereby, in particular by arcing, as would otherwise require the cover member to be earthed.

This permits assembly of the cover member and the rocker to be provided by automatically-operating machinery, and hence does not unduly add to the cost of the switch.

Advantageously the cover member comprises an operating face, which in use will be engaged by finger pressure to actuate the switch, and side walls extending from the operating face on at least two sides, said walls comprising catch means engageable with the rocker to allow the cover member to be clipped onto the rocker, such an operation conveniently involving some resilient deformation of the side walls and/or the catch means.

Preferably the size of the rocker and the cover member, in relation to the recess, is such that outward deformation of the side walls and/or the catch means as would be required to detach the cover member from the rocker is prevented by the adjacent side walls of the rocker recess. In this manner assembly of the rocker and cover member thereon into the recess is readily permitted, but separation of the cover member from the rocker whilst the rocker remains as part of the switch mechanism is resisted.

There will now be given a detailed description, to be read with reference to the accompanying drawings, of an electric switch which is a preferred embodiment of this invention, having been selected for the purposes of illustrating the invention by way of example.

In the accompanying drawing:-

FIGURE 1 is a transverse sectional view of a rocker member of the electric switch;

FIGURE 2 is a transverse sectional view of a cover member for the rocker member;

FIGURE 3 is a transverse sectional view showing the cover member assembled on the rocker member;

FIGURE 4 is a side elevational view of the assembled rocker and cover member; and

FIGURE 5 is a longitudinal sectional view of the assembly shown in Figure 4.

The electric switch which is the preferred embodiment of this invention is an electric switch of the kind specified, comprising a housing 6 (part only of which is shown in Figure 3), contact mechanism (not shown) in the housing, and a rocker assembly 8 mounted in a recess 10 of the housing, the rocker assembly being capable of limited pivotal movement within the recess 10 between two positions, movement of the rocker between said positions actuating the contact mechanism of the switch to turn the switch on or off.

The rocker assembly comprises a rocker member 12 (Figure 1) of generally conventional construction, comprising interior catch members 14 enabling the rocker to be snap-fitted onto a dolly operating member (not shown), and shoulders 16 to limit pivotal movement of the rocker assembly within the housing 6.

The rocker assembly 8 also comprises a cover member 20, conveniently

pressed from thin-walled sheet material, such as copper, provided with a generally flat operating face 22, from which side walls extend.

Two opposite side walls 23 are provided with detents 24, 24 which are so located as to enable the cover member to be snap-fitted over the rocker member 12, with the detent members 24 engaging behind shoulders 26 formed in the rocker member (Figure 1), such movement of the detent members behind the shoulders 26 involving some resilient outward deformation of said walls of the cover member.

Thereafter the assembly of rocker member and cover member may be pressed into the recess 10, and the catches 14 engage with the dolly operating member in a conventional manner.

Preferably the clearance between the side walls of the rocker assembly and the recess 10 is insufficient to allow, whilst the rocker member is retained as part of the switch mechanism, separation of the cover member 20 from the rocker member. In other words, the clearance X between the side walls 23 and the sides of the recess 10 is insufficient to allow adequate outward deformation of the side walls of the cover member 20, as is necessary to allow the detents 24 to become disengaged from the shoulders 26.

In this manner a switch of the kind specified may be provided with a rocker having a metallic finish such as brass or any other convenient material, providing a pleasing appearance with no undue electrical safety problems.

By the use of the invention above described, a decorative cover, such as of metal, may be provided much more conveniently than by the use of conventional means, such as adhesive, metal or plastics rivetting, or deformation of a portion of the rocker cover, or the provision of "ears"; it is virtually impossible to remove the cover, despite the relatively unsubstantial nature of its attachment, by attempting to lever or prise out the cover after installation; the provision of an installation which is double insulated automatically provides a saving in either the complexity of the components or the number of components, and no earthing of the cover is required.



CLAIMS

1. A switch of the kind specified, comprising a clip-on cover member for the rocker, the cover member comprising an operating face and side walls extending from the operating face on at least two sides, said walls comprising catch means engageable with the rocker to allow the cover member to be clipped onto the rocker, the size of the rocker and the cover member, in relation to the recess, being such that outward deformation of the side walls and/or the catch means as would be required to detach the cover member from the rocker is prevented by the adjacent side walls of the rocker recess.
 2. A switch according to Claim 1 wherein the cover member is on thin-walled metal section.
 3. A switch according to one of Claims 1 and 2, wherein clipping of the cover member onto the rocker involves some resilient deformation of the side walls and/or the catch means.
 4. A switch of the kind specified, constructed and arranged substantially as hereinbefore described with reference to the accompanying drawings.
 5. A method of providing a switch of the kind specified with a cover member for the rocker, when carried out substantially as hereinbefore described with reference to the accompanying drawings.
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