

C. J. KLEIN.

ELECTRIC SWITCH CASING.

APPLICATION FILED DEC. 8, 1913. RENEWED JUNE 25, 1917.

1,254,812.

Patented Jan. 29, 1918.

Fig. 1.

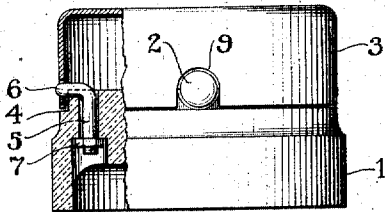


Fig. 2.

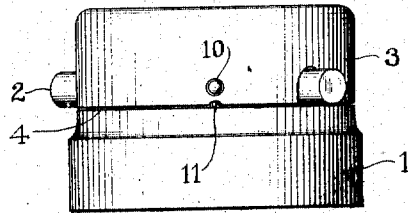


Fig. 3.

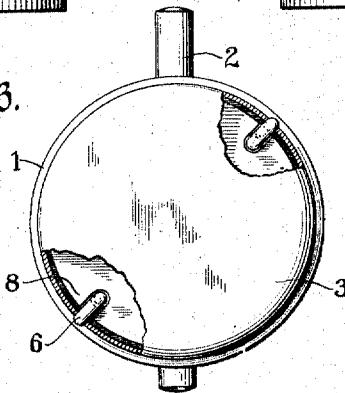


Fig. 4.

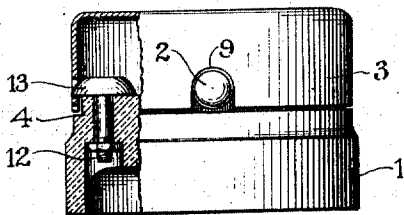


Fig. 5.

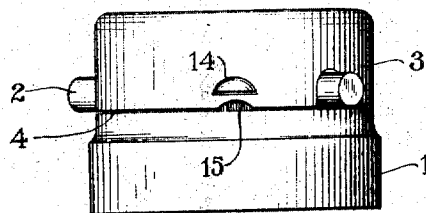
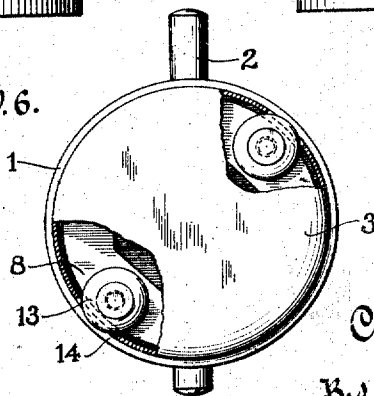


Fig. 6.



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UNITED STATES PATENT OFFICE.

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ELECTRIC-SWITCH CASING.

1,254,812.

Specification of Letters Patent.

Patented Jan. 29, 1918.

Application filed December 8, 1913, Serial No. 805,291. Renewed June 25, 1917. Serial No. 176,925.

To all whom it may concern:

Be it known that I, CHARLES J. KLEIN, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Electric - Switch Casings, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to casings for switches and the like, and more particularly to improved means for securing covers to surface switch bases.

One of the objects of the invention is to provide improved means for fastening a resilient cover upon a switch base. Further objects will be pointed out hereinafter.

In order that the invention may be more clearly understood, I have illustrated two embodiments thereof in the accompanying drawing. It is to be understood, however, that various additional modifications are possible without departing from the spirit of the invention or the scope of the appended claims.

In the drawing,

Figure 1 is a side view of a switch base with a cover mounted thereon, the parts being partially broken away to show one set of the latching means.

Fig. 2 is a side perspective at an angle to Fig. 1.

Fig. 3 is a top view partially broken away to show the relative arrangement of the latching means.

Figs. 4, 5 and 6 are similar views of a modified form of latching means.

A base 1, of porcelain or other suitable material, has a switch mechanism mounted thereon with a reciprocative push bar 2 extending across the same. A resilient cover 3 of conventional design incloses the switch mechanism and rests upon an annular shoulder 4 of the base.

The base is provided on opposite sides with bolts 5 having angular heads 6. The shanks of these bolts are threaded to receive nuts 7 countersunk in the under face of the base. The heads 6 of the bolts form lugs extending radially outwardly and parallel to the flat surface of the base and rest upon an annular wall 8 of the latter. On opposite sides of the cover 3 are marginal slots 9 adapted to fit over the reciprocating push

bar 2 of the switch mechanism. Small circular openings 10 are also provided in the cover on opposite sides spaced from its margin and from the slots 9 to register with the bolts 5 in the base. Marginal notches 11 are cut in opposite sides of the cover in vertical alinement with the openings 10 to facilitate the attachment of the cover to the base.

The cover is mounted upon the base by direct attachment when the slots 9 register with the push bar 2 and the marginal notches 11 rest upon the lugs 5. Further straight pressure upon the cover forces the side walls of the latter to yield outwardly so that the metal above the marginal notches 11 slips over the beveled ends of the bolt heads 6 until the lower edges of the openings pass the tips of the bolts and the cover snaps to its normal circular shape with the lugs 5 fitting within the openings 10. The cover is thus locked against separation and relative rotation. Removal of the same is readily obtained, however, by radial compression of the sides of the cover at right angles to the openings 10. Such compression causes the side walls of the cover to assume an elliptical shape whereby the walls about the openings 10 are expanded and released from engagement with the lugs 5. The rim of the cover intermediate the openings 10 is spaced from the annular wall 8 of the base so that the same is free to move inwardly under the radial compression described.

In the embodiment of the device shown in Figs. 4, 5 and 6 the base is provided on opposite sides with bolts 12 having circular beveled heads 13. The cover designed for use with this base has segmental openings 14 on opposite sides correspondingly located to the bolts 12. These openings are slightly spaced from the cover margin and have their straight sides parallel to and toward the edge. Guide notches 15 are also cut into the edge of the cover directly below the openings 14. The manner of attachment and release of the cover and base is similar to that already described. In the two forms of the device illustrated the unyielding lugs are fixed on the base and concealed by the resilient cover when the latter is in place.

What I claim as new and desire to secure by Letters Patent is:

1. In a surface switch of the character de-

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scribed, in combination, an insulating supporting base, an inclosing cover to rest thereon, a switch mechanism mounted on said base within said cover and having an operating member extending through the latter and means for detachably locking said cover to said base independently of said switch operating lever, said means comprising oppositely disposed recesses in the walls of said cover and correspondingly located rigid lugs secured to said base and fitting into said recesses when said cover is positioned on said base, said cover intermediate said recesses having radial play with respect to said base whereby the same is compressible at points removed from said recesses to release it from said lugs.

2. In a device of the character described, in combination, a surface having a switch thereon, a cover to be mounted on said surface and to inclose said switch, and latching means for said surface and cover comprising a plurality of beveled lugs on one and a plurality of correspondingly located shoulders on the other, said cover intermediate said latching means having radial play with respect to said surface, whereby the same is compressible at such points to release said latching means.

3. In a device of the character described, in combination, a circular switch base having oppositely disposed rigid lugs protruding therefrom and a resilient cover to be mounted on said base and encircle said lugs, the extremities of said lugs being bent outwardly at substantially right angles to form hooks, said cover having oppositely disposed marginal slots adapted to receive the reciprocating push bar of an inclosed switch mechanism and also having oppositely disposed openings spaced from its margin and from said slots, the extremities of said lugs being adapted to coact with the sides of said

openings to lock said base and cover together, said cover intermediate said openings being free to move inwardly over said base whereby the sides of said openings may be withdrawn from engagement with said lugs to release said cover.

4. In a device of the character described, in combination, a circular base having an annular shoulder, a switch mechanism on said base, having a reciprocating operating member, a resilient cover to inclose said switch mechanism and abut said annular shoulder of said base, and latching means to releasably lock said cover to said base, said means comprising oppositely disposed beveled shoulders on said base and correspondingly located recesses in said cover, the sides of said cover intermediate said recesses having radial play with respect to said base whereby said cover may be compressed at points removed from said recesses to release the sides of the latter from said shoulders.

5. In a device of the character described, in combination, a circular base having an annular shoulder, a switch mechanism on said base, having a reciprocating operating member, a resilient cover to inclose said switch mechanism and abut said annular shoulder on said base, and latching means to releasably lock said cover to said base, said means comprising a plurality of rigid beveled shoulders on said base and correspondingly located recesses in said cover, the edge of said cover in line with said recesses being notched to facilitate attachment of said cover to said base.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

CHARLES J. KLEIN.

Witnesses:

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F. H. HUBBARD.