

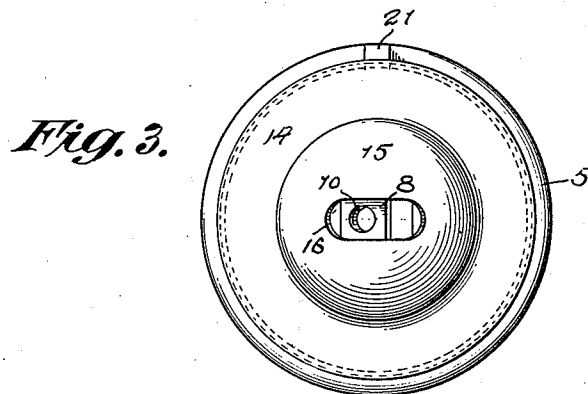
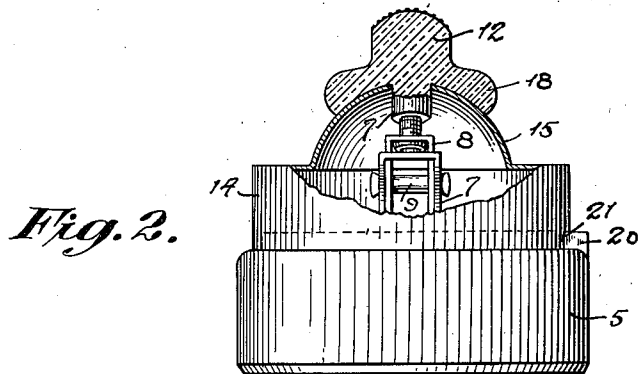
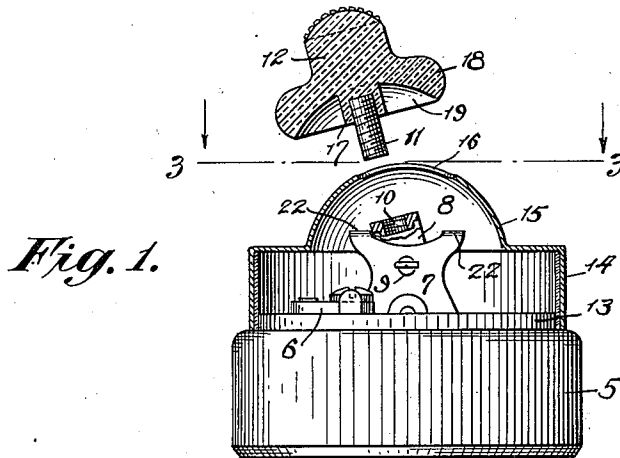
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1,493,413

C. E. ANDERSON

ELECTRIC SWITCH

Filed Nov. 26, 1919



Inventor

CARL ERIC ANDERSON
By his Attorneys

Harmon and Harmon

UNITED STATES PATENT OFFICE.

CARL ERIC ANDERSON, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BRYANT ELECTRIC COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ELECTRIC SWITCH.

Application filed November 26, 1919. Serial No. 340,746.

To all whom it may concern:

Be it known that I, CARL ERIC ANDERSON, a citizen of the United States of America, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

My invention relates to electric switches, and particularly to surface switches, the object of my invention being to provide a casing and actuating mechanism projecting therethrough, but affording a substantially water-tight joint therewith.

In the accompanying drawings—

Fig. 1 is a broken side elevation of a switch in which my invention is embodied in one form, showing the switch-operating button detailed;

Fig. 2 is a similar view at right angles to Fig. 1 and with the button assembled;

Fig. 3 is a plan view on 3—3 Fig. 1, with the button detached.

It is often necessary to mount a surface switch in a position in which it is exposed to stray drops of water which are apt to cause trouble if they find their way into the interior of the switch. Porch switches are of this type, as are also switches arranged in laundries or mounted in electrically operated washing machines, etc. By the present invention I have provided a switch with a casing and switch-operating button designed to afford a substantially water-tight joint so that the switch may be utilized with safety in such positions.

As illustrated, the fitting comprises an insulating base 5 upon which is mounted the wire terminals, of which one, 6, is shown, and the cooperating switch terminals (not shown). The toggle switch mechanism, with all the details of which my invention is not concerned, is carried by a frame 7, in which the actuating rocker 8 is pivoted at 9. The rocker is of U-shape, and the bridge strap which connects the legs of the rocker, is tapped at 10 to receive the threaded stem 11 of the operating button 12.

A shoulder 13 on the base 5 centers the cover 14 thereon. The top of the cover is curved at 15 on a center coaxial with the axis of oscillation 9 of the rocker 8, and is slotted at 16 to permit the stem 11 of the switch button to enter the casing and take

into the tap 10 in the rocker. The button 12 is of insulating material, and is preferably provided with a boss 17 surrounding its stem 11 and closely fitting the slot 16. It is also provided with a flange 18 of sufficient extent to overlie the slot 16 in all positions of the switch. The inner face 19 of this flange is also curved on an arc coaxial with the center of oscillation 9 of rocker, and in assembled position is screwed down into a close fit with the curved portion 15 of the cover upon which it slides.

To so position the cover 14 that its slot 16 coincides with the arc through which the rocker moves, a lug 20 is formed on the base 5 to take into the notch 21 in the side of the cover. It is to be noted also that the extent of oscillation of the rocker is limited not by the engagement of the stem 11 on the button 12 in the slot 16, but by the cross bars 22 of the frame against which the head of the rocker 8 impinges at the opposite ends of its stroke.

When the button 12 is screwed down into engagement with the rocker 8, its flange 18 covers the slot 16 in all positions of the switch mechanism, and its bearing on the curved portion 15 not only prevents the ingress of water into the switch, but also bears the cover down hard upon the base 5 and insures a tight fit at the shoulder 13. It will further be noted that all the outer surfaces of the button, cover and base are shaped to afford a water shed in the normally horizontal position of the switch. While I have shown the stem 11 rigid with button 12, it is to be understood that a spring connection between the button and the stem may be provided, as in many of the well known types of buttons used on snap switches.

Various modifications in details of construction which do not depart from what I claim as my invention, will readily occur to those skilled in the art.

I claim—

An electric switch having an insulating base, a cup-shaped cover resting freely thereon, said cover having its upper surface shaped to form a slotted dome, a switch mechanism mounted on said base within said cover and comprising a rocker oscillating in the plane of the slot in said cover, in combination with a switch-operating thumb

piece having a screw connection with said thumb piece and serving to exclude moisture
rocker, said thumb piece having an integral and dirt from entry into the switch cham- 10
flange curved to the contour of said dome ber through said slot.
and bearing on the outer face thereof to In testimony whereof I have signed my
5 maintain the cover seated on said base, said name to this specification.
flange having an extent sufficient to obturate
the slot in the dome in all positions of the

CARL ERIC ANDERSON.