

[54] **INTEGRAL HINGE PUSH BUTTON FOR APPLIANCE CONTROL PANEL**

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[51] Int. Cl. **A47b 96/00**

[58] Field of Search **312/257 A, 204, 213, 214, 312/311, 223; 16/DIG. 13; D26/13; 200/5 EA, 5 A, 5 B, 329, 330, 331, 338, 340, 61.62; 174/57**

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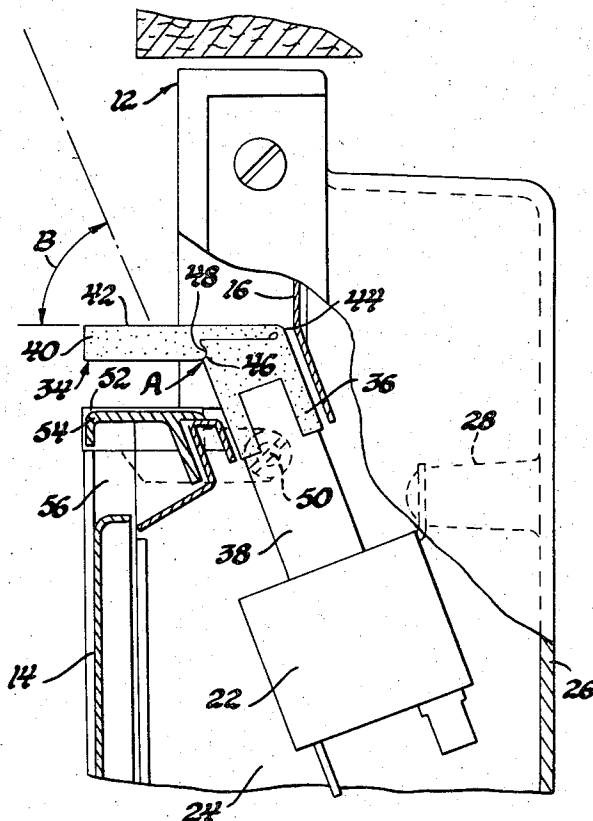
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[57] **ABSTRACT**

A switch actuating button in combination with an appliance panel is formed to permit panel removal for servicing the switch without separating the actuating button from the switch. The button has a socket portion affixed to a remote switch and an exposed and easily readable finger push portion. The finger push portion is integrally hinged to the socket portion and has an extended position with respect to the socket axis for panel removal and a generally bent-down push position which blocks panel removal. When bent down, the finger push portion snap-fastens to the socket portion.

1 Claim, 3 Drawing Figures



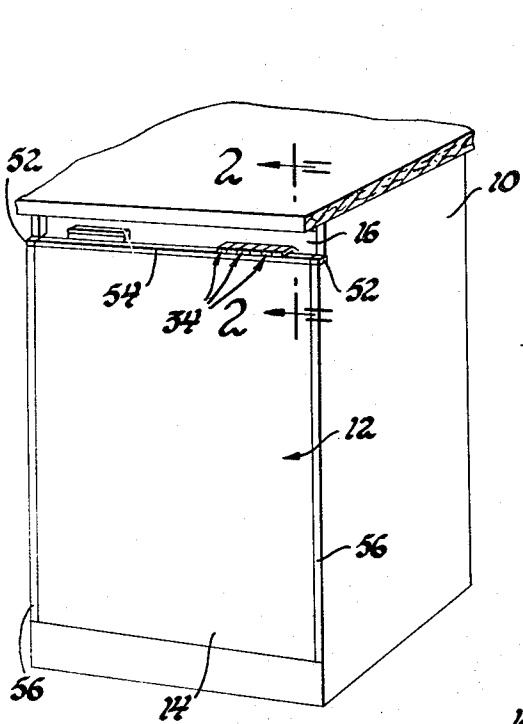


Fig. 1

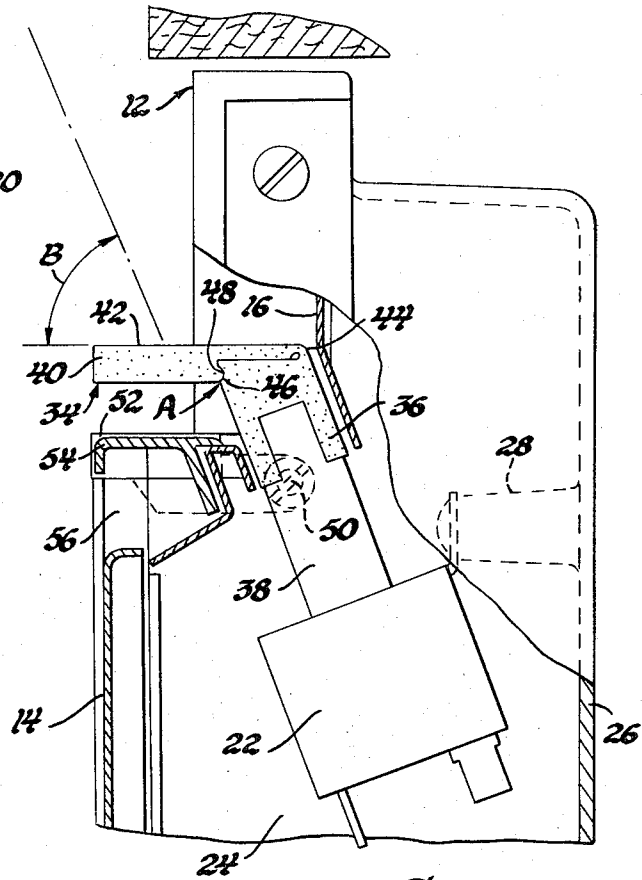


Fig. 2

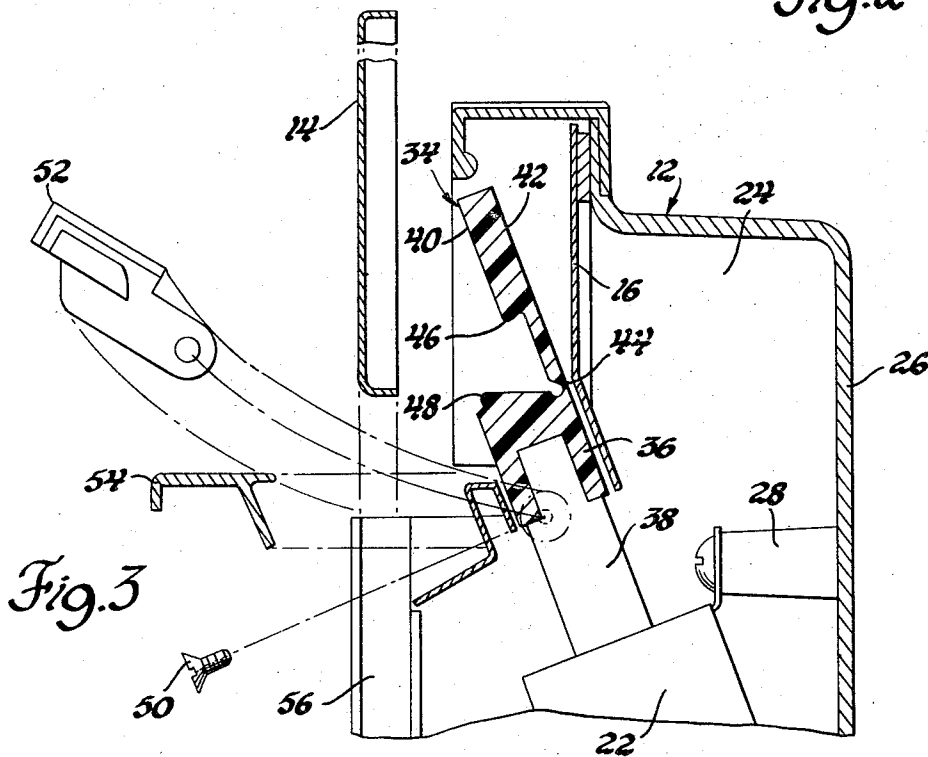


Fig. 3

INTEGRAL HINGE PUSH BUTTON FOR APPLIANCE CONTROL PANEL

This invention relates to a domestic appliance and, more particularly, to a domestic dishwasher door having a control arrangement thereon with a push button forwardly extended to provide improved control visibility for the user and integrally hinged to provide easy interchangeability of appearance panels on the door and servicing appliance parts behind the panel.

Prior art dishwashers have included interchangeable appearance panels and button controls or knobs for operating remote switches. Such appliances, however, have required the removal of the button or knob to change the panel. This invention is directed to an improved arrangement which permits a panel change without disturbing the mating fit between push button and switch.

Accordingly, it is an object of this invention to provide an improved switch actuating button in combination with a normally interfering appliance panel, said button being extendible to permit panel removal for servicing the switch or changing the panel without separating the button from the switch.

It is a refinement of the foregoing object to provide said actuating button with a socket adapted to be affixed to the switch and an exposed, indicia-carrying, finger push pad integrally hinged to the socket so that the push pad may be extended to a position which will not interfere with the panel.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings wherein a preferred embodiment of the present invention is clearly shown.

IN THE DRAWINGS:

FIG. 1 is a front perspective view of a domestic dishwasher provided with the invention;

FIG. 2 is a fragmentary side sectional view, partly in elevation, taken along line 2-2 in FIG. 1 to show the switch actuating button of this invention in interfering relationship with a removable front panel of the dishwasher; and

FIG. 3 is a view similar to FIG. 2 with parts exploded and the switch actuating button in non-interfering relationship with the panel to permit removal of the panel.

A representative general environment is shown in FIG. 1. There, a dishwasher 10 is shown provided with a dishwasher door 12. The door is comprised of a front panel 14 and escutcheon 16. Panel 14 must be removed to service components within the door such as switch 22. Prior art switching arrangements have required that a switch button be removed from the switch shaft before the front panel can be removed. In accordance with this invention, the switch 22 includes an actuating button which remains on the switch when the panel is removed.

Turning now to FIG. 2, the dishwasher door 12 is shown in section. In addition to the front panel 14, the door includes an inner door panel 26 which includes a pedestal 28 for mounting the switch 22 in a compartment 24 between the panels. In order to service components in the compartment between the outer door panel 14 and the inner door panel 26, it is necessary to remove the outer door panel 14 and sometimes the escutcheon 16. For this purpose, the switch 22 is pro-

vided with a plastic switch button 34 having a socket portion 36 adapted to interfit with shaft 38 of switch 22. The plastic used for molding the button may be nylon or Delrin. Switch button 34 also includes an exposed finger push portion 40 which may carry indicia on its flat upper surface 42 for indicating the cycle selected when the switch is actuated. The switch button is molded from a flexible plastic such that the finger push portion 40 is joined to the socket portion 36 by an integral flexible hinge portion 44. The switch button is also molded with cooperating integral latch shoulders 46, 48 adapted to interlock or snap fasten as at A when the finger push portion is pivoted to operating position through an arc B. Switch 22 may now be actuated simply by pressing down on the surface 42 of the selected push button 34.

The following procedure may be followed to service switch 22 or change front panel 14. Unfasten push portion 40 from its socket 36 as in FIG. 3. Remove screws 50 from the sides of end caps 52. Both end caps 52 and trim strip 54 retained thereby may now be removed. This uncovers the top of front panel 14. Since the push portion 40 of the switch actuator is no longer in the way, panel 14 may be lifted slidably from tracks 56 along the side of the door. The removal of panel 14 exposes the interior of the door for servicing items such as switch 22.

While the embodiment of the present invention as herein disclosed constitutes a preferred form, it is to be understood that other forms might be adopted.

What is claimed is:

1. An improved wall structure and control arrangement for a domestic appliance comprising an exposed front panel, a rear panel spaced from said front panel to form a compartment, track means slidably supporting said front panel for linear movement in the plane of said front panel between an installed position closing said compartment during normal operation of said appliance and a removed position exposing said compartment for servicing said appliance or changing said front panel, a control switch affixed in said compartment and having a shaft extending toward the outside of said compartment, a plastic switch button having a socket portion affixed to said shaft and a finger push portion exposed on the outside of said wall structure for manual manipulation of said switch from outside said compartment, said finger push portion extending into the path of linear movement of said front panel sufficiently to provide a surface expansive enough to carry control indicia for said switch during said normal operation, whereby an interfering relationship occurs between said front panel and said finger push portion during removal of said front panel, and means interconnecting said finger push portion and said socket portion to eliminate said interfering relationship when said front panel is to be removed, said interconnecting means including as additional integral portions of said switch button a flexible hinge permanently connecting said finger push portion to said socket portion and a pair of shoulders respectively on said finger push portion and said socket portion and snap-fastened together when said finger push portion is exposed for manual manipulation and in interfering relationship with said front panel, the snap-fastened shoulders being manually releasable from outside said compartment to eliminate the interfering relationship between front panel and switch button so the front panel can be removed for changing thereof or servicing said switch.

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