March 20, 1928.

1,663,138

C. F. PARKER

SWITCH OPERATING MECHANISM

Filed Jan. 28, 1924

Fig 1.

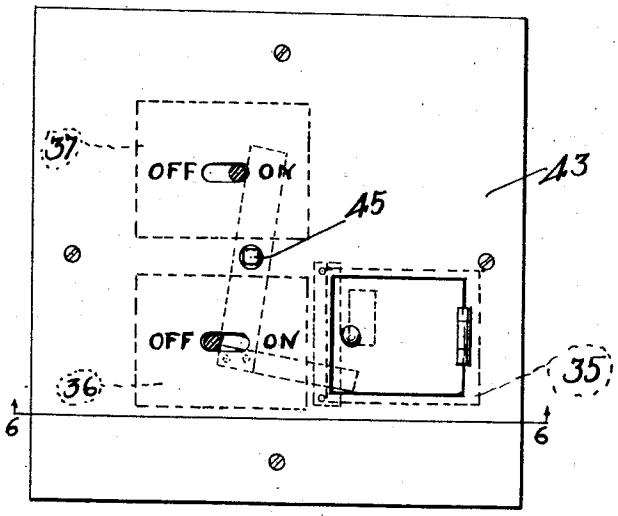


Fig 2.

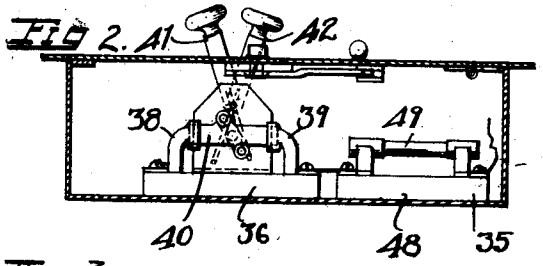
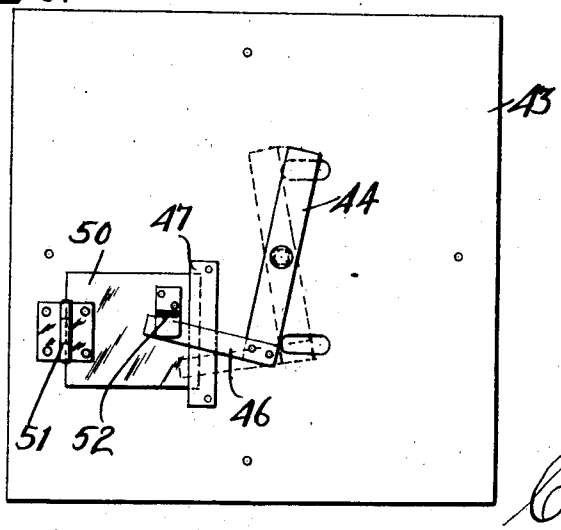


Fig 3.



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UNITED STATES PATENT OFFICE.

CHARLES F. PARKER, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO WESTERN SAFETY MANUFACTURING COMPANY, INC., A CORPORATION OF CALIFORNIA.

SWITCH-OPERATING MECHANISM.

Application filed January 28, 1924. Serial No. 688,903.

This invention relates to a switch operating mechanism and its object is to provide means whereby one of two circuits may be used at a time.

It will be understood by those skilled in the art that in many places it is necessary to use only one circuit of two circuits, because of the heavy current used and because it is not desired to put in apparatus heavy enough to supply both circuits with current at one time.

This apparatus is especially intended to operate in connection with household appliances where a stove and the water heater, or some other apparatus of that kind, is to be used, where one only is operated at a time.

The apparatus is provided with an interlocking mechanism which makes it possible to engage or disengage one switch without engaging the other.

Other objects of the invention will appear as the description proceeds.

An embodiment of the invention is shown in the accompanying drawings in which the same reference numeral is applied to the same portion throughout, but I am aware that there may be modifications thereof.

Fig. 1 is a front elevation of the switch operating mechanism, the switch operating knobs being removed therefrom.

Fig. 2 is a sectional view on the line 6—6, Fig. 1.

Fig. 3 is a view in elevation of the back of the front plate of the switch casing.

The numeral 35 indicates a shallow metal box within which the switch plugs 36 and a fuse plug 48 is installed; each switch, of which there are two, having an operating handle as indicated at 41, 42, and each switch has contact plates 38, 39, which are connected by knife blades 40, pivotally mounted to be disengaged or engaged with said contacts by the levers 41 and 42.

The front of the box is closed by the plate 43, which plate has a small door 50 through which the fuse can be replaced, secured to the front by the hinge 51. The door also has a hook 52 under which the bar 46 may pass to prevent the opening of the door when the switches are in the on position.

A plate 47 serves to prevent the door from moving inwardly further than it should. Pivotally mounted on a pin 45 is a bar 44, which bar carries another bar 46 at right angles thereto, to engage the hook 52 to prevent the door from being opened.

The pivot for supporting the bar 44, has a square head, as shown in Fig. 1, to enable it to be released from the door 50 whenever it is desired to open the latter, in which event the fuse to be replaced through said door will be disconnected as indicated by the lower words "Off" and "On" in Fig. 1, and a bar 44 also prevents more than one switch from being placed in the on position at one time.

From the construction above described, it will be seen that the upper switch may, as shown in Fig. 1, be operated to the on or off position at will, but if the lower switch is operated to the on position, it will lock the door 50, throw the upper switch to the off position, and the door can only be unlocked by shifting the upper lever or by turning the pivot 45 with a suitable key, in which event the lower switch will be thrown to the off position.

Only one fuse is shown in this instance and one door through which the fuse can be replaced, but another door could be provided and another fuse for the switch 37. The drawing shows the principle of the device.

What I claim is as follows, but modifications may be made in carrying out the invention shown in the drawings and in the above particularly described form thereof, within the purview of the invention, as defined by the annexed claim:

Switch operating mechanism comprising a casing, a cover plate for said casing, a pair of electric switches having insulating bases mounted in said casing and levers for operating said switches, a pivoted bar mounted on said cover plate and adapted to bear on said levers—whereby the closing of one switch will open the other, but the movement of said pivoted bar independently will operate but one of said switches at a time, a hinged door in said cover plate, a lug on said door adapted to be engaged by an arm on said pivoted bar to lock said door when one of said switches is closed, and means to operate said pivoted bar independently of said switch levers.

In testimony whereof I have hereunto set my hand this 31st day of December, A. D. 1923.

CHARLES F. PARKER.