Aug. 31, 1926. 1,598,408

A. F. WEISE

KEY OPERATED SWITCH

Filed August 6, 1923

Fig. 1.

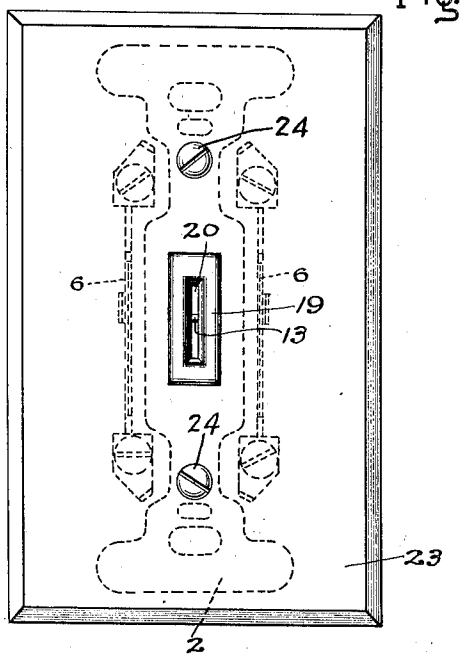


Fig. 2.

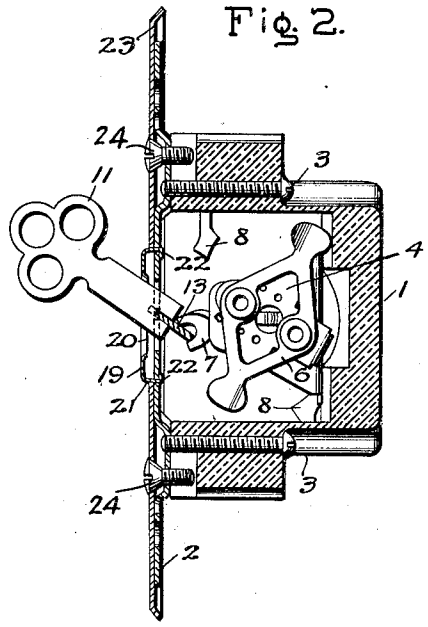
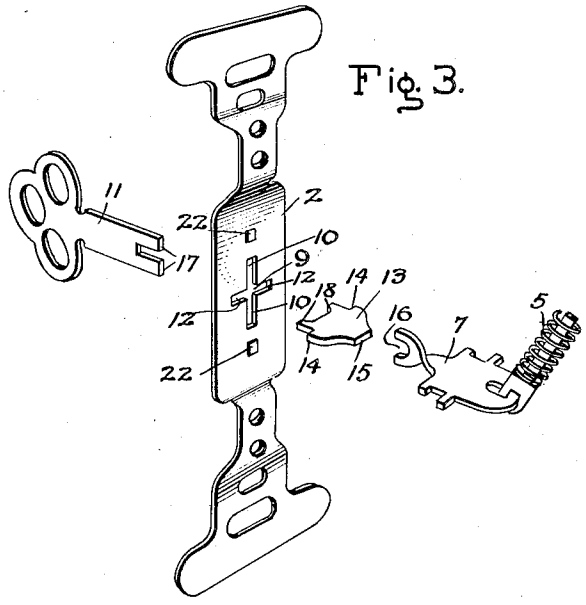


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT F. WEISE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

KEY-OPERATED SWITCH.

Application filed August 6, 1923. Serial No. 655,891.

The present invention relates to electric switches, and more especially to the type of switches used on house lighting circuits.

The object of my invention is to provide an improved switch operable only by means of a properly designed key, which shall be of simple and hardy construction and which may be manufactured at moderate cost.

One embodiment of the invention is shown in the accompanying drawing, in which Fig. 1 is a front elevation of a flush wall switch; Fig. 2 is a vertical central section thereof with the operating key shown in position, and Fig. 3 is a perspective view of the principal parts shown detached.

The insulating base 1 is made of porcelain and of the usual box shape, over the open side of which is a bridge piece 2 secured by screws 3 passing through holes in the end walls of the base and engaging tapped holes in the end portions of the bridge piece. The switch mechanism 4 is of the well known tumbler type having an operating spring 5 adapted to be moved at its outer end back and forth across the pivotal axis of the pole piece 6 by a rocking or toggle lever 7 whereby they are caused to move with a snap action into and out of engagement with the stationary contacts 8.

The bridge piece 2 is provided at its center with a cruciate slot 9, the longitudinal portions 10 of which are for the reception of the operating key 11, and the transverse portions 12 of which are for the reception of a sheet metal key block 13 and between the sides of which it has limited pivotal movement. The key block 13 has end shoulders 14 adapted to engage the inner side of the bridge piece and limit the outward movement of the block and the inner end 15 of the block 13 is adapted to engage a U-shaped notch 16 in the outer end of the toggle lever 7 as shown in Figs. 2 and 3.

The key 11 is of sheet metal with two legs 17 at its free end adapted when in operative position to straddle the outer edge of the key block 13 so that they move together when the key is rocked back and forth and ensuring the movement of the toggle lever 7.

In order to insure against displacement of the key block from the transverse portions of the slot 9, it is provided on its outer edge with short projections 18 which extend slightly beyond the front side of the bridge piece 2. The bridge piece 2 is provided with a raised escutcheon plate 19 of oblong rectangular shape with a longitudinal key slot 20 and a marginal flange 21 with holding lugs 22 on the end portions which pass through apertures in the bridge piece and are clinched over the inside thereof.

The enclosure or flush wall plate 23 is of usual construction with an oblong rectangular central aperture through which the escutcheon plate 19 projects slightly, as shown in Fig. 2. Set screws 24 tapped into the bridge piece 2 serve to detachably hold the enclosure plate in position.

While I have shown and described the best form of the invention known to me, I do not desire to be restricted thereto.

What I claim as new and desire to secure by Letters Patent of the United States, is:—

1. A key operated switch comprising a switch mechanism provided with a rock lever, a bridge piece over said mechanism provided with a cruciate slot, and a key block pivoted transversely in the slot of said bridge piece and operatively engaging said rock lever.

2. A key operated switch comprising a switch mechanism provided with a rock lever, a sheet metal key block operatively engaging said rock lever, and a key having legs adapted to straddle the outer edge of said block.

3. In a key operated switch, the combination of a bridge piece provided with a narrow key slot, a sheet metal key block pivoted on said bridge piece transversely of said slot, and a bifurcated key adapted to enter said narrow slot and straddle the outer edge of said key block.

4. In a key operated switch, the combination of a switch mechanism, enclosure means therefor, a bridge piece located over said mechanism within said enclosure and provided with a key slot, a key hole escutcheon mounted on said bridge piece over the slot therein and extending outside said enclosure, and a key block pivotally mounted on said bridge piece within said escutcheon and in operative engagement with said switch mechanism.

In witness whereof, I have hereunto set my hand this first day of August, 1923.

ALBERT F. WEISE.