C. D. PLATT.

LOCK ATTACHMENT FOR SNAP SWITCHES.

APPLICATION FILED FEB. 12, 1913.

1,078,693. Patented Nov. 18, 1913.

Fig. 1

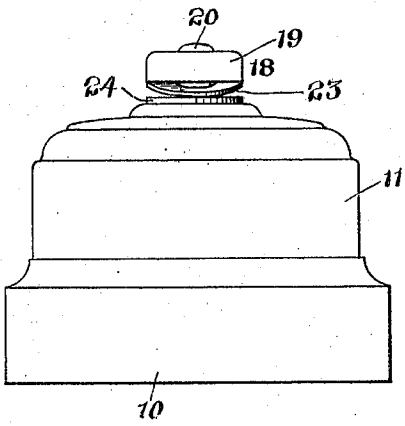


Fig. 2

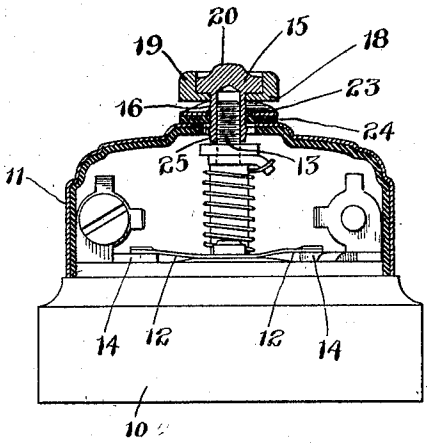


Fig. 3

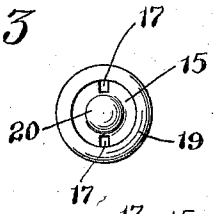


Fig. 4

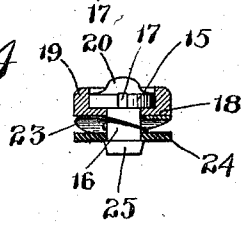


Fig. 5

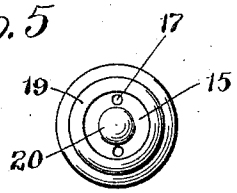


Fig. 6

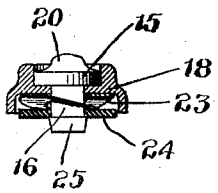


Fig. 7



WITNESSES:

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LOCK ATTACHMENT FOR SNAP-SWITCHES.

1,078,693. Specification of Letters Patent. Patented Nov. 18, 1913.

Application filed February 12, 1913. Serial No. 747,913.

To all whom it may concern:

Be it known that I, CLARENCE D. PLATT, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented an Improvement in Lock Attachments for Snap-Switches, of which the following is a specification.

This invention relates to electric snap switches and has for one object to provide a key-actuated member for operating switches of this character by which the switch may be easily operated by an authorized person to open or close the circuit, but which will be extremely difficult of manual operation by unauthorized persons.

Another object of the invention is to provide means whereby the insertion of the operating key will be facilitated, as when it is necessary to operate the switch in the dark.

With these and other objects in view I have devised a novel switch operating means which I will now describe, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation of a switch provided with operating means constructed in accordance with the invention; Fig. 2 is a vertical section thereof; Fig. 3 is a plan view and Fig. 4 a section of the operating means detached; Figs. 5 and 6 are views similar to Figs. 3 and 4, illustrating a modified form of the guard member; Fig. 7 is a detail view of the key employed for actuating the switch.

10 denotes the base and 11 the cover of an ordinary snap switch comprising a switch plate 12 operated by a spindle 13 to make and break the circuit through contacts 14. The specific form of the switch mechanism forms no part of the present invention and will not be described in detail, but may be of any usual or well known form operated by a spindle similar to the spindle 13 shown in Fig. 2. Said spindle 13 is provided with an outer threaded end to which the regular manually operated turn-button is usually attached.

15 denotes the key-actuated switch operating member forming a part of the present invention and which is provided with an internally threaded shank 16 adapted to be screwed into place on the threaded end of the switch spindle 13. The operating member 15 is preferably round in outline, is formed with a smooth surface so as to be with difficulty grasped by the fingers, and is provided with a pair of openings 17 which may be either angular, as shown in Fig. 3, or circular as shown in Fig. 5, and which are adapted for engagement by the prongs 22 of a key 21, such as that shown in Fig. 7.

18 denotes a guard member loosely mounted on the shank 16 and provided with an edge portion or flange 19 surrounding the edge of said operating member. Said edge portion 19 lies immediately adjacent the edge of said operating member and projects slightly beyond the outer face thereof. Inasmuch as the guard member 18 is loosely mounted on the shank 16, and inasmuch as the flange 19 thereon entirely surrounds and partly incloses the operating member 15, it will be seen that it will be practically impossible to turn said operating member by hand.

The operating member 15 is provided with a projecting center 20 from which the surrounding outer surface of said member is inclined outwardly and backwardly toward the edge of said member. This construction, combined with the projecting flange 19 surrounding said operating member, greatly facilitates the insertion of the key 21, since the projections 22 thereon, upon striking the outer face of said operating member, will naturally slide outwardly thereon until they are arrested by the flange 19, whereupon turning of the key will cause said projections to encounter and enter the openings 17.

23 denotes a spring washer mounted on the shank 16 beneath the guard member 18 and 24 a fiber washer interposed between the spring washer 23 and the switch cover 11. The spring washer 23 performs the double function of holding the guard member 18 in close engagement with the operating member 15 and of holding the switch cover 11 in close engagement with the base 10. The purpose of the fiber washer 24 is to prevent undue friction between the spring washer and the switch cover.

25 denotes a preferably conical enlargement or head formed on the end of the shank 16, said head being of slightly greater diameter than that of the opening in the fiber washer 24, so that when said fiber washer is forced over said head it will be retained in place on the shank 16 and serve also to retain the spring washer 24 and guard member 18 in assembled position.

As shown in Figs. 5 and 6, the guard member 18, besides being formed with the outwardly projecting flange 19, is provided with an inwardly turned flange 26 providing a recess in which the spring washer 23 and fiber washer 24 are housed and concealed.

The invention above described, as to certain of its features, is in the nature of a modification of that disclosed in an application for Letters-Patent filed by me Feb. 12, 1913 Serial No. 747,912.

Having thus described my invention I claim:

1. In a snap switch, the combination with a switch spindle, of an operating member for said spindle provided adjacent its edge with openings for engagement by a key, the outer face of said member being formed with a projecting center and with an outwardly and backwardly inclined surface surrounding said center.

2. In a snap switch, the combination with a switch spindle, of an operating member for said spindle provided adjacent its edge with openings for engagement by a key, the outer face of said member being formed with a projecting center and with an outwardly and backwardly inclined surface surrounding said center, and a flange surrounding the edge of said member and projecting beyond said outer face.

3. In a snap switch, the combination with a switch spindle, of an operating member for said spindle provided adjacent its edge with openings for engagement by a key, the outer face of said member being formed with a projecting center and with an outwardly and backwardly inclined surface surrounding said center, and a guard member loosely mounted adjacent said operating member and having an edge portion surrounding the edge of said operating member and projecting beyond the outer face thereof.

In testimony whereof I affix my signature in presence of two witnesses.

CLARENCE D. PLATT.

Witnesses:

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