June 12, 1923.

1,458,864

J. M. UPTON

PULL ATTACHMENT FOR ELECTRIC SWITCH KEY SOCKETS

Filed Aug. 15, 1921

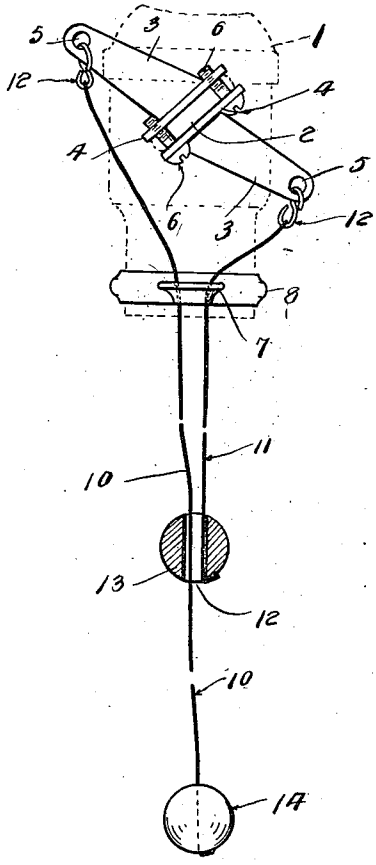


Fig-1-

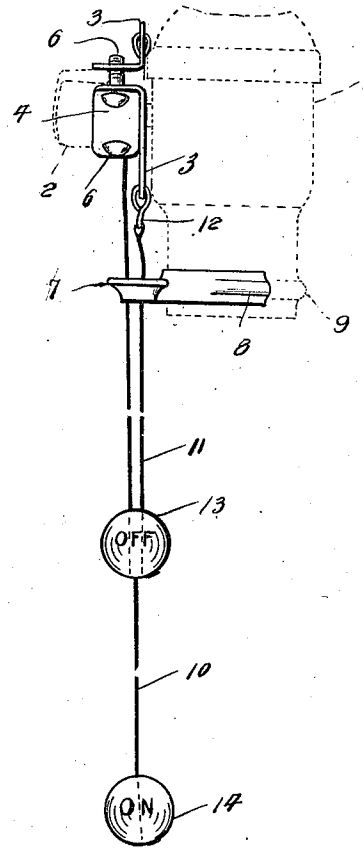


Fig-2-

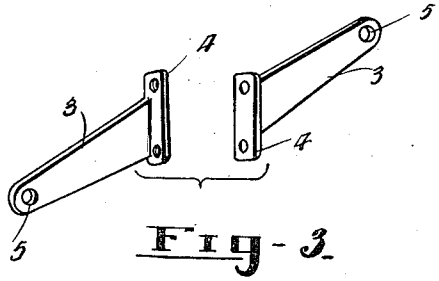


Fig-3.

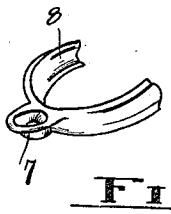


Fig-4.

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UNITED STATES PATENT OFFICE.

JOHN M. UPTON, OF LOUISVILLE, KENTUCKY.

PULL ATTACHMENT FOR ELECTRIC-SWITCH KEY SOCKETS.

Application filed August 15, 1921. Serial No. 492,296.

To all whom it may concern:

Be it known that I, JOHN M. UPTON, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in a Pull Attachment for Electric-Switch Key Sockets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Key operated switch sockets as usually provided for electric lights and electric plug in fixtures generally are not always convenient of operation or readily accessible, hence the desirability of providing a pull attachment.

The present invention relates to means capable of being readily applied to the key of any ordinary switch key socket whereby to convert the same into a pull switch socket, the attachment being such as to be repeatedly used with different sockets so that when one socket becomes disabled from any cause the attachment may be removed therefrom and applied to another socket.

One main feature of the invention is a guide to prevent movement of the key lever past center and the stopping of the same on a dead center. Another important feature resides in the peculiar formation of the key lever which is sectional, the key being clamped between the sections. A further feature is the pull connection which includes two elements, both passing through the said guide and each attached to an end of the key lever and having a grip at its lower end, one of the grips having sliding engagement with one of the pull elements which projects therebelow some distance to insure positive distinction therebetween and the avoidance of confusion in the dark.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the nature of the invention.

Referring to the accompanying drawings forming a part of the specification,

Figure 1 is an elevation of an attachment applied to the key of a switch socket, the latter being indicated by dotted lines.

Figure 2 is an edge view of the parts shown in Figure 1.

Figure 3 is a perspective view of the key lever, the parts being separated, and

Figure 4 is a perspective view of the guide and spring clamp.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The numeral 1 designates a key operated switch socket such as generally provided for electric light and electric fixtures to be plugged in. The switch operating key is designated by the numeral 2. The present invention is designed to be applied to the keys of sockets of the type herein indicated.

The attachment comprises a lever which is provided in similar or like sections between which the key 2 is clamped, the sections or parts projecting in opposite directions as clearly indicated in Figure 1. The key lever comprises the sections or arms 3 which are of similar or like formation, each having an offstanding flange 4 at its inner end and an opening 5 at its outer end. The flanges 4 have an oblique arrangement with reference to the length of the respective arms as indicated most clearly in Figure 1 and openings at opposite ends in registering position to receive screws or fastenings 6 whereby the arms or sections 3 are clamped against opposite sides of the key 2. The fastenings 6 engage the head of the key 2 upon opposite sides of the contracted portion whereby displacement of the lever as a whole is prevented.

A guide 7 is provided at one side of the socket 1 adjacent the open or receiving end thereof and is in line with the key 2. The guide 7 preferably consists of an eye which flares on the side facing the key 2. The guide 7 is carried by the socket 1 and may be attached thereto in any manner according to the application of the invention. In

the preferred construction the guide 7 is provided with a spring clamp 8 which is adapted to engage the socket 1 and retain the guide in operative position. The spring clamp 8 embraces more than one half of the socket 1 and is prevented from longitudinal displacement thereon by engaging the usual bead 9 formed near the open or receiving end of the socket. The inner side of the clamp 8 is made hollow as indicated most clearly in Figure 4 so as to receive the bead 9.

The pull connection cooperating with the key lever comprises two elements 10 and 11 which pass through the guide 7 and are connected at their upper ends to opposite ends of the key lever preferably by means of links 12 engaging the openings 5 in the outer ends of the arms 3. The pull elements 10 and 11 are preferably flexible so as to operate through the guide 7 by a running action and provide for the change of angle of the portion above the guide 7 and between it and opposite ends of the key lever. The pull elements 10 and 11 may consist of cords, wires, chains or other like flexible connecting means. A grip element 13 is attached to the lower end of the pull element 11 and slidingly engages the pull element 10 which preferably passes therethrough. The pull element 10 extends some distance below the grip 13 and is provided at its lower end with a grip 14. The grips 13 and 14 may be of any construction or of contrasting color or may bear indicia to designate when the current is off or on. When the grip 13 is drawn downward the switch key 2 is operated to turn off the current. When the grip 14 is drawn downward the switch key 2 is operated to turn on the current. The relative disposition of the grip the one above the other precludes confusion in their operation in the dark and by having the grip in line their relative position may be easily determined by passing the hand along the pull connection. The pull elements 10 and 11 by reason of their relative disposition are not liable to become entangled and the grip may be readily selected by reason of their disposition and easily operated to turn on or off the current. The disposition of the guide 7 precludes movement of the lever past the center or stopping on a dead center so that it may be readily operated by pulling upon the proper grip which is in operable position.

Having thus described the invention, what I claim is:—

1. A pull attachment for electric switch key sockets, the same comprising a sectional lever consisting of two sections adapted to be positioned one at each side of the switch key, each of said sections having a flange at its inner end adapted to engage a side of the key, adjustable fastenings connecting the flange of one section to the flange of the other section and adapted to clamp the sections to the key, said adjustable fastening providing means whereby the attachment may be applied to keys of different shapes, and pull elements having connection with the outer ends of the lever.

2. A pull attachment for electric switch key sockets, the same comprising a sectional lever consisting of two sections adapted to be positioned one at each side of the switch key, each of said sections having a flange at its inner end adapted to engage a side of the key, adjustable fastenings connecting the flange of one section to the flange of the other section and adapted to clamp the sections to the key, said adjustable fastening providing means whereby the attachment may be applied to keys of different shapes, said adjustable fastening means adapted to pass on opposite sides of the key stem and engage the inner edge of the key whereby to prevent displacement of the lever from the key, and pull elements having connection with the outer end of the lever.

3. A pull attachment for electric switch key sockets, the same comprising a lever secured to the key and projecting in opposite directions therefrom, pull elements having connection with opposite ends of the lever, and a guide positioned on the socket and receiving the pull elements and so arranged to prevent movement of the key past center or stopping with both ends on dead center, when either of the pull elements is pulled.

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

JOHN M. UPTON.

Witnesses:
RICHARD J. ZANONE,
BEN F. VOGT.