

(No Model.)

J. S. GIBBS.

TURN BUTTON FOR ELECTRICAL SWITCHES.

No. 578,695.

Patented Mar. 9, 1897.

Fig. 1.

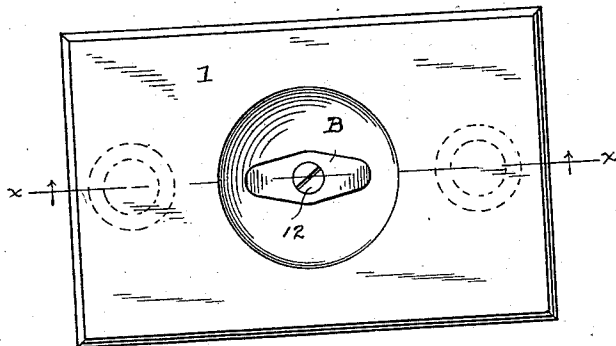


Fig. 2.

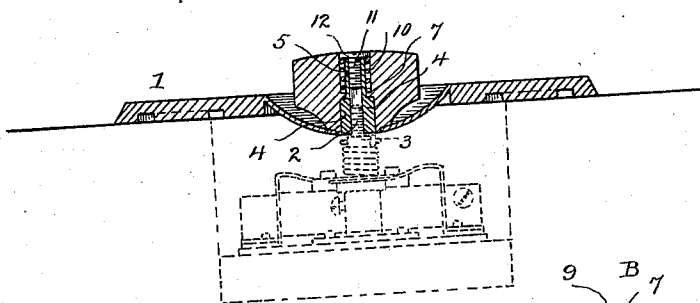


Fig. 3.

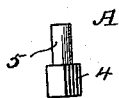


Fig. 5.

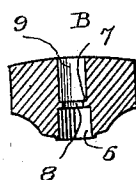
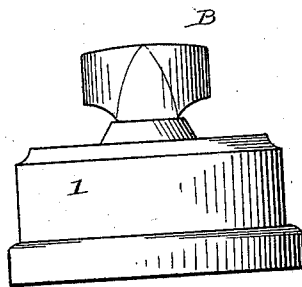


Fig. 4.

WITNESSES

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TURN-BUTTON FOR ELECTRICAL SWITCHES.

SPECIFICATION forming part of Letters Patent No. 578,695, dated March 9, 1897.

Application filed January 6, 1897. Serial No. 618,142. (No model.)

To all whom it may concern:

Be it known that I, JACOB S. GIBBS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Turn-Buttons for Electrical Switches; 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.

My invention relates to electrical switches, and has for its object to provide means for retaining the casings, flush plates, &c., by which the mechanism of the switch is covered in place without in any way changing the construction of the switch mechanism or adding to the parts of the switch. With this end in view I have devised the novel handle or key for electrical switches, of which the following description, in connection with the accompanying drawings, is a specification, reference-characters being used to designate the several parts.

Figure 1 is a plan view of a flush plate, showing the application thereto of my novel handle or key; Fig. 2, a section on the line $x x$ in Fig. 1, illustrating the construction and operation of my novel handle or key, the position of the switch proper being indicated by dotted lines; Fig. 3, an elevation of the spindle-head detached; Fig. 4, a section of the handle or key detached, and Fig. 5 is an elevation illustrating the use of my novel handle or key in retaining the cover of an ordinary outside switch in place.

1 denotes the flush plate or cover of an electrical switch, and 2 the spindle of the switch, which is screw-threaded at its upper end, as at 3. As the mechanism of the switch proper has nothing to do with my present invention, I shall not describe the same in detail, it being obvious that my invention is applicable to any ordinary or preferred form of switch.

A denotes the spindle-head, the lower portion of which is angular in cross-section, as at 4, and the upper portion of which is reduced and rounded, as at 5. The angular portion of the spindle-head is provided with an internal screw-thread which engages thread

3 upon the spindle and therefore becomes a part of the switch-spindle.

B denotes the handle or key, which is provided with an angular socket 6 to receive the angular portion 4 of the spindle-head, a shoulder 7 above the angular socket, an opening 8, through which the rounded portion of the spindle-head passes, and above opening 8 an opening 9, which also receives the rounded portion 5 of the spindle-head, and a spring 10, which rests upon the shoulder and surrounds the reduced rounded portion 5. The upper end of said spring bears against the head 12 of a screw 11, which engages a threaded opening in the upper end of rounded portion 5 of the spindle-head, head 12 of said screw lying within opening 9, as clearly shown in Fig. 2, and confining the spring between it and shoulder 7.

It will be seen from Fig. 2 that the action of the spring against shoulder 7 must necessarily force the handle or key down upon the flush plate or cover, thereby retaining said flush plate or cover in place and rendering other means of fastening unnecessary.

Having thus described my invention, I claim—

1. The combination with the spindle of an electric switch, of a turn-button or key fitted to said spindle and adapted to rotate it, said button or key being also mounted to have a limited movement in the direction of the axis of said spindle, and a spring confined within said button or key and between suitable abutments to yieldingly press the button or key against the cover or face-plate of the switch.

2. The combination with the spindle of an electric switch having an angular portion and a reduced outer portion adjacent thereto, of a turn-button or key fitted to the angular portion of the spindle to rotate it and having an internal shoulder, and a spring located in the key and around the reduced portion of the spindle and bearing against the shoulder of the key, and means connected with the spindle for retaining the outer end of the spring in position.

3. The combination with a spindle-head having an angular portion and a rounded portion, of a handle or key having an angular

recess to receive the angular portion of the spindle-head, an opening 8 surrounded by a shoulder and an opening 9, the rounded portion of the spindle-head lying in openings 8 and 9, a spring surrounding the rounded portion of the spindle-head and bearing upon the shoulder and a screw engaging the upper end of the spindle-head and having a head lying within opening 9 against which the other end of the spring bears, the normal action of the

spring being to press the handle or key downward on the spindle-head, substantially as described, for the purpose set forth.

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

JACOB S. GIBBS.

Witnesses:

FREDERICK W. DAVIS,
WM. H. DEMING.