

C. J. KLEIN.

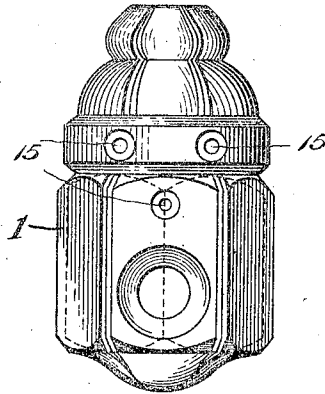
SNAP SWITCH.

APPLICATION FILED FEB. 20, 1908. RENEWED JULY 30, 1910.

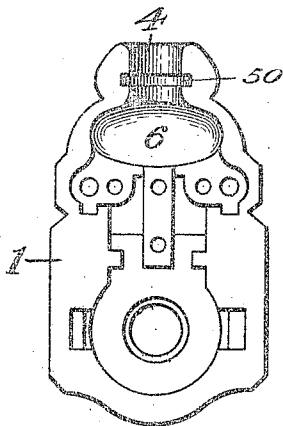
987,239.

Patented Mar. 21, 1911.

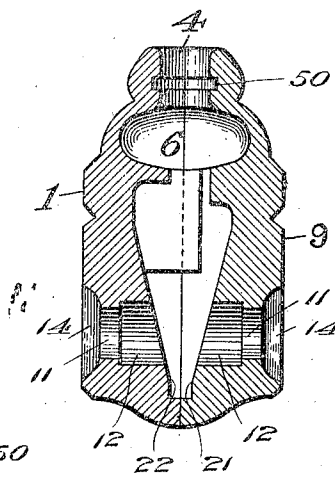
*Fig. 1*



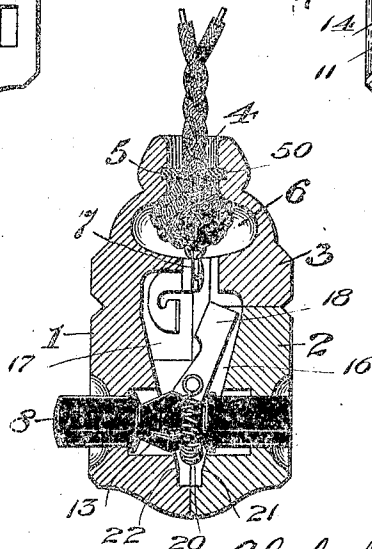
*Fig. 3*



*Fig. 4*



*Fig. 2*



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# UNITED STATES PATENT OFFICE

CHARLES JULIUS KLEIN, OF NEW YORK, N. Y.

## SNAP-SWITCH.

987,239.

Specification of Letters Patent.

Patented Mar. 21, 1911.

Application filed February 20, 1908, Serial No. 416,935. Renewed July 30, 1910. Serial No. 574,686.

*To all whom it may concern:*

Be it known that I, CHARLES J. KLEIN, a citizen of the United States, and resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Snap-Switches, of which the following is a specification.

This invention relates to sockets or casings for electric switches and other devices of similar nature.

The object of this invention is to provide a socket in which the switch mechanism may be readily mounted in such a manner as to be easily manipulated and also to provide for connecting and disconnecting the wires to the terminals.

In carrying out my invention I provide a socket composed of a number of sections so arranged that when the same are assembled a simple and compact casing is provided in which the switch may be mounted in such a manner that the same is protected from injury and at the same time a simple and compact construction is provided. The sections of the socket are so arranged as to be readily removable so that the wire connections may be made to the terminals of the switch without disturbing the latter or the switch mechanism itself may be readily removed for the purpose of repairs, etc.

In the device as illustrated and described in this application I have shown a socket adapted to be used with a switch of the pendant type operated by push buttons, from the exterior of the socket. Provision is also made for supporting the same from the cord, all of which will be described more fully hereinafter.

In the drawings like parts have been given similar reference numbers in the several views.

Figure 1 is a side elevation of the socket. Fig. 2 is a sectional view of the socket shown in Fig. 1 showing the interior construction and arrangement of the sections with the switch parts mounted therein. Fig. 3 is a view of one of the socket sections. Fig. 4 is a section view of an arrangement with two half sections.

In the construction shown in Fig. 2 the socket is divided into three sections, as shown at 1, 2 and 3, so that when assembled as shown an opening 4 is provided at the upper end through which the cord passes, a portion of the wall of the opening being car-

ried by each of the two upper sections. A washer 5 may be provided and held at this end of the socket. The purpose of this washer is to provide for the use of a socket with cords of different sizes and a hole in washer of a size to allow the required cord to pass therethrough is provided.

A knot is formed in the cord near its lower end which is inclosed in the recess 6 when the cord is in position and from this knot the socket is supported. The wire leads in the cord are attached to the line terminals 7 of the switch, which may be of any suitable construction. In the switch as shown the operation is effected by pressing the button 8 causing the switch blade to open or close the circuit in the usual manner. The push button 8 is supported and guided in straight passageways 11, which extend transversely to the longitudinal axis of the socket and are in alinement with each other. These connect with recessed portions 12 which receive the cam 13 of the push button. Mouths 14 are also provided at the ends of the passageways to permit pushing the button home. Screws (not shown) passing through aperture 15 secure the sections together. As illustrated, the sections are provided with abutting faces extending lengthwise of the socket, each of two of the sections carrying a portion of the wall forming the opening for the cord. Each section is also provided with recesses 16, 17, the recess 16 receiving the switch blade 18 and the recess 17 receiving the fixed switch contacts secured to the line terminals. The parts are thus readily accessible. The operating member with its push button and the switch operating mechanism carried thereby are simultaneously and conjointly removable, by merely taking out one of the sections and removing the push button member. The two lower sections of the socket in the forms illustrated are each provided with recesses to receive the spring 20, the walls 21 and 22 of the recesses forming shoulders to hold the spring stationary.

It will be noted that the line terminals and switch clips are mounted in the socket section 1 and in order to connect or disconnect the wires from the line terminals 7 it is only necessary to remove the section 3 of the socket which renders the line terminals readily accessible without disturbing the switch mechanism or exposing the same to injury. In case it is desired to get at the switch mechanism it is only necessary to remove the sec-

tion 2 of the socket which renders the switch operating parts readily accessible and renders it a simple matter to remove or repair the same without disturbing the line connections.

In the construction shown in Fig. 4, the socket is formed in two parts instead of three as shown in Fig. 2. In this construction the sections 1 and 9 may be easily separated rendering the switch mechanism and line terminals readily accessible. This construction has certain advantages rendering it desirable for certain types of switch mechanism. It will also be noted that the construction lends itself to many uses in connection with devices of this character and also that the same may be modified to adapt it to various uses to which such devices may be put without departing from the spirit and scope of my invention.

What I claim is:

1. A switch socket comprising a plurality of sections forming the casing of the switch, each section provided with a straight passageway extending transversely to the longitudinal axis of the socket, said passageways being in alinement and constructed to support and guide a reciprocating member carrying a push button, and one of said sections carrying the switch contacts.

2. A switch socket comprising a plurality of sections, said sections being provided with abutting faces extending lengthwise of the socket, each of two of said sections carrying a portion of the wall of the opening for the cord, means for securing a washer between said wall portions, and each of two of said sections provided with a straight passageway extending transversely to the socket for supporting and guiding a reciprocating push button.

3. A switch socket comprising a plurality of sections arranged, when assembled to contain the switch mechanism, each of two of said sections being formed with a recess to inclose the knot in the cord, said last named sections each carrying a portion of the wall of the opening for the cord, means for securing a washer between the wall portions of the opening and a straight passageway extending transversely of the socket for supporting and guiding a push button.

4. A switch socket comprising a plurality of sections arranged when assembled to contain the switch mechanism, each of two of said sections being formed with a recess to inclose the knot in the cord, said last named sections each carrying a portion of the wall of the opening for the cord, means for securing a washer between the wall portions of the opening, means for securing switch contacts to one of said sections and a straight passageway extending transversely of the socket for supporting and guiding a push button.

5. A switch socket divided centrally into two sections and one of said sections being subdivided transversely, two of said sections carrying the wall of an opening for the lamp cord, said sections being also provided with apertures which receive the securing means for securing the sections together.

6. A switch socket comprising a plurality of sections, one side of said socket being formed of one section and the other side of two sections, the abutting faces of the two last named sections extending transversely to the face of the first named section, two or more of said sections being provided with apertures to receive screws to secure the sections together and switch contacts carried by one of said sections.

7. A sectional pendant switch socket comprising a plurality of sections forming the casing of the switch, each section provided with a straight passageway extending transversely to the axis of the socket, said passageways being in alinement and constructed to support and guide a reciprocating member carrying a push button, each of said sections being also provided, inside of the socket, with a recess with which said passageway communicates.

8. In an electric switch, the combination of a switch socket made in sections forming the casing of the switch, one of said sections carrying a switch contact, another section being provided with a guide way which guides an operating member carrying a push button, and a switch operating mechanism carried by said operating member, the member and switch operating mechanism being simultaneously removable and freely disconnectible from the switch contact.

9. A sectional switch socket, each of the sections being provided with recessed portions, said recessed portions forming inclosing chambers for the parts when the sections are assembled, one recess being provided for the knot of the cord, another for the fixed switch contacts, another for the movable part of the switch mechanism and another forming shoulders to prevent the movement of the resilient member of the switch mechanism.

10. In an electric switch the combination of a switch socket whose casing is made in sections, one of said sections carrying one or more switch contacts with which the line terminals may be connected, guideways arranged in sections of the socket, a removable reciprocating push button located in said guideways and confined between the sections, said push button carrying the switch-operating members, the parts being so constructed and arranged that the entire push button and switch-operating members may be simultaneously and conjointly removed by taking apart the socket sections, thus freeing the push button from the guideways.

11. In an electric switch the combination of a switch socket made in sections, one of said sections carrying one or more switch contacts with which the line terminals may be connected, guideways arranged in sections of the socket, a removable reciprocating push button, located in said guideways and confined between the sections, said push button carrying the switch operating members and the switch blade, the parts being so constructed and arranged that the entire push button, switch-operating members and switch blade may be simultaneously and conjointly removed by taking apart the socket sections, thus freeing the push button from the guideways.

12. In an electric switch, the combination of a switch socket made in sections, one of said sections carrying one or more switch

contacts with which the line may be connected, guideways arranged in sections of the socket, a removable reciprocating push button located in said guideways and confined between the sections, said push button carrying a cam, a spring engaging the cam and a switch point, the parts being so constructed and arranged that the push button, cam, spring and switch point may be simultaneously and conjointly removed, by taking apart the socket sections, thus freeing the push button from the guideways.

Signed at city of New York in the county of New York and State of New York this Feb. 14 1908.

CHARLES JULIUS KLEIN.

Witnesses:

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