

628,990.

Patented July 18, 1899.

C. G. PERKINS.
KEY SOCKET.

(Application filed Feb. 13, 1899.)

No Model.)

Fig. 1

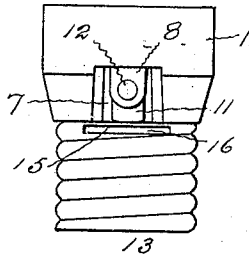


Fig. 2

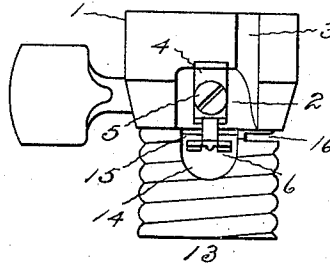


Fig. 3

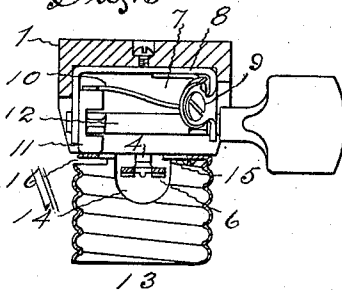


Fig. 4

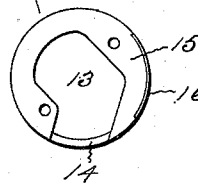
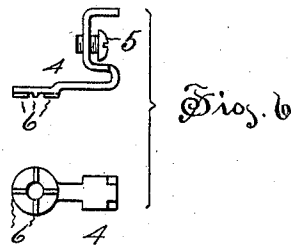
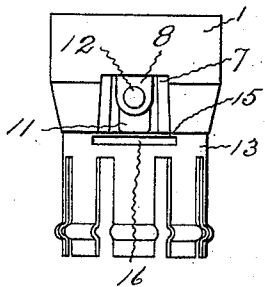


Fig. 5



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UNITED STATES PATENT OFFICE.

CHARLES G. PERKINS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE PERKINS ELECTRIC SWITCH MANUFACTURING COMPANY, OF SAME PLACE.

KEY-SOCKET.

SPECIFICATION forming part of Letters Patent No. 628,990, dated July 18, 1899.

Application filed February 13, 1899. Serial No. 705,429. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. PERKINS, 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 Key-Sockets, of which the following is a specification.

This invention relates to those sockets which have bushings provided with threads or with spring-fingers for retaining incandescent lamps and which have switch-blocks that are adapted to be engaged with the bushings for completing the circuits through the sockets.

The object of the invention is to so form the contacts engaged by the switch-block when the circuit is closed that they may be readily adjusted in order that the key shall turn easily for opening or closing the circuit and cause such an engagement of the parts that all danger of heating will be eliminated when the circuit is closed and such a separation of the parts that sparking will be minimized when the circuit is opened.

The embodiment of the invention illustrated by the accompanying drawings has a block of insulating material with a conducting-sleeve secured to one side. Binding-posts for the attachment of circuit-wires are fastened to the insulating material in separate recesses. One post is connected with a contact that extends to the center of the bushing, while the other post is connected with a frame that supports the key-spindle which bears the switch-block. A spring-finger is connected with the spindle-supporting frame for engaging and throwing the switch-block, which in closing the circuit makes contact with the inturned upper end of the sleeve, which has such a slot in its side wall that the point of contact of the sleeve with the switch-block will be somewhat elastic.

Figure 1 of the drawings is a view of one side of a socket embodying the invention with the exterior shell removed. Fig. 2 is a view of another side of the same socket. Fig. 3 is a longitudinal section of this socket. Fig. 4 is a plan of the sleeve used with this socket. Fig. 5 is a side view of a socket embodying the invention, which has a sleeve provided with spring-fingers inside of a sleeve provided with a thread for holding the lamp; and Fig.

6 shows a side and an end view of one of the contacts used in the sockets represented.

The exterior shell for the socket is not illustrated, as it forms no part of the present invention. Any approved design of shell made of any suitable material may be employed for inclosing the parts.

The block of insulation 1, which is preferably porcelain, has a recess 2 on one side and a wire-groove 3, leading across the edge to this recess. In the recess and secured in a common manner to the under face of the insulation is a conducting-plate 4. This plate is provided with a binding-screw 5 for the attachment of the end of one of the circuit-wires, which may be led through the groove 3. The lower part of this contact is extended inwardly below the center of the insulation, and the inner end is preferably provided with depressions 6, which are adapted to engage notches in the plate or other conducting part on the end of the lamp-base, so as to prevent the lamp from turning and loosening the junction between the contacts.

The insulation has a recess 7, and secured in this by common means is a frame 8. Connected with this frame is a part with a binding-screw 9 for the attachment of the end of the other of the circuit-wires, and also connected with the frame is a spring-finger 10, that engages the switch-block 11. The switch-block is loosely borne by the key-spindle 12, which is held in perforations made through the ends of the frame 8.

The sleeve 13 may be provided with a screw-thread, as shown in Fig. 1, for receiving and holding a threaded lamp-base, or may have spring-fingers, as shown in Fig. 5, for receiving and holding a beaded lamp-base. An opening 14 is made through one side of this shell for the passage of the inner end of the contact-plate 4, and the upper end of the shell has an inturned flange 15 except where the opening 14 is made. The screws for securing the shell to the insulation pass through this flange, and the lower end of the switch-block makes contact with the upper face of the flange when the circuit is closed.

A slot 16 is made through the side wall of the shell near the upper end, beneath the part of the flange engaged by the switch-block, so

that the flange at this locality is unsupported along its edge, and therefore has considerable spring. With this provision the portion of the flange where the switch-block makes contact can, by a screw-driver or other tool, be bent up at any time, so as to insure close contact with the end of the switch-block. The slotting of the side wall in this manner allows this close contact, as the flange yields sufficiently for the rectangular switch-block to be turned freely. With this construction the spindle may be held in perforations in the ends of the frame that fit the spindle, so that the spindle does not have a movement sideways—that is, longitudinally of the socket. With the sleeve formed in this manner close contact is always insured, for the flanged end of the shell yields and then returns when the switch-block is turned and does not become permanently set below the reach of the block. The depressions on the face of the central contact will engage with indentations on the end of a lamp-base and prevent a lamp-base which has been screwed into the socket, so as to make a tight contact, from unscrewing and loosening the contact.

I claim as my invention—

1. In a key-socket, in combination, an in-

ulating-block, a bushing having a flanged end that has no support along a portion of the upper corner of the shell secured to the insulation, a key-spindle rotarily supported by the insulation, and a switch-block mounted upon the spindle and adapted to alternately make and break connection with the flanged end of the shell at the locality where the flange is separated from the side wall of the shell, substantially as specified.

2. In a key-socket, in combination, an insulating-block, a bushing having a flanged end with a portion of the flange separated by a slot from the side wall of a shell, a key-spindle rotarily supported by the insulation, and a switch-block mounted upon the spindle and adapted to alternately make and break connection with the flanged end of the shell adjacent to the slot, substantially as specified.

3. A conducting-bushing for a key-socket having a flanged end with a slit through a portion of the side wall adjacent to the flange whereby a portion of the flange is rendered elastic, substantially as specified.

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