O. E. KENNEY.

ELECTRIC SNAP SWITCH.

APPLICATION FILED JUNE 30, 1916.

1,199,992. Patented Oct. 3, 1916.

Fig. 1.

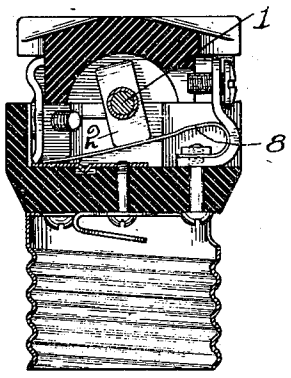


Fig. 2.

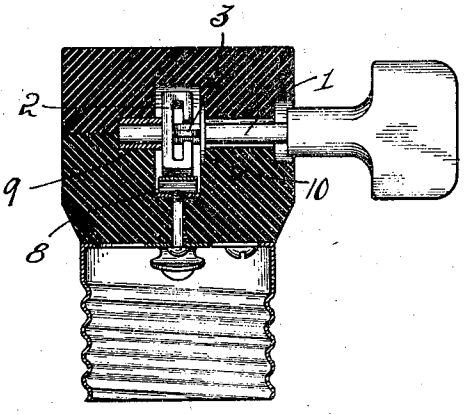


Fig. 3.

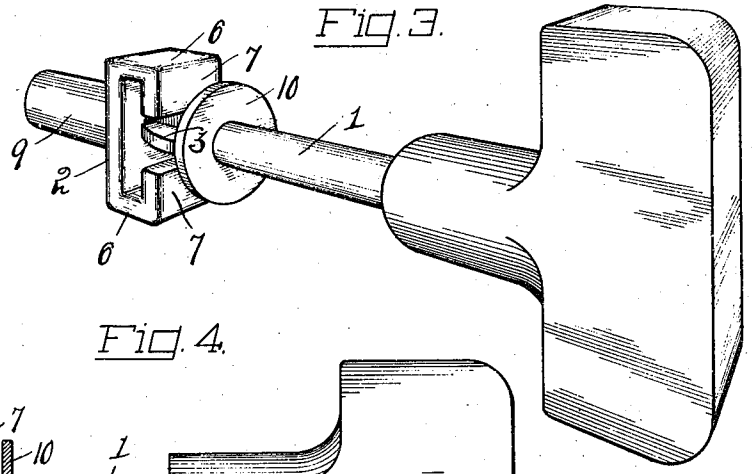
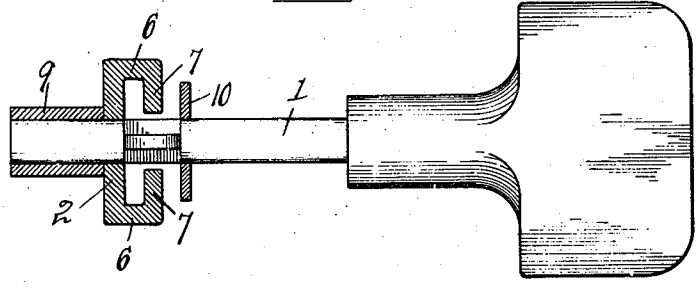


Fig. 4.



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ELECTRIC SNAP-SWITCH.

1,199,992. Specification of Letters Patent. Patented Oct. 3, 1916.

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To all whom it may concern:

Be it known that I, OWEN E. KENNEY, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a certain new and useful Electric Snap-Switch; 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, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to electric snap switches and particularly to those of the key controlled type in which a cam member is rotated to effect a making and breaking of the switch circuit.

The object of my invention is the provision in a switch of the class described of an improved cam member which is simple and cheap in its construction and capable of being easily and quickly made whereby to effect a material saving in expense, material, labor and manufacture over the cam members of this class heretofore employed.

The invention is fully described in the following specification, and while, in its broader aspect it is capable of embodiment in numerous forms, a preferred embodiment thereof is illustrated in the accompanying drawings, in which,

Figures 1 and 2 are different central vertical sections of an electric socket embodying the invention. Fig. 3 is an enlarged perspective view of an operating key having a cam member embodying the invention mounted thereon, and Fig. 4 is a side elevation of the key with the cam member and bearing parts in section.

Referring to the drawings, 1 designates a key shaft of an electric switch of the key controlled type commonly used in connection with electric sockets. It is common in this class of switches to mount a cam-member on the key shaft for limited rotary movements relative thereto to permit the contact parts to have quick circuit breaking movements even though the key be held stationary after being turned to the releasing point, as is well understood in the art.

In the present case the cam member of the switch, which member is designated 2, is mounted for free limited rotation on the shaft 1 and has its rotation relative to the shaft limited by a set of diametrically opposed lugs 3 on the shaft, coacting with the inturned ends of the leg portions of the cam-member. The shaft lugs 3 may be formed thereon in any suitable manner as for instance by pinching together or compressing portions of the shaft metal at opposite sides of its axis.

The cam-member comprises a short, narrow, flat bar or strip of metal having an opening 5 therethrough centrally of its ends and of its side edges for rotatably fitting the key shaft 1, and also having its opposite end portions bent in the same direction in parallel relation to the shaft, as shown at 6, thus forming the bar or strip in U-shape. The outer or free ends of the legs 6, 6 of the cam-member are turned inward toward the shaft 1 in parallel or substantially parallel relation to the crown portion of the member, as designated at 7, and these inwardly turned portions terminate at their free ends in adjacent relation to the shaft and in the path of rotation of the shaft lugs 3 whereby said lugs and said portions 7 coact to permit the cam member to have only limited rotary movements with respect to the shaft for the purpose well understood in the art.

The bar from which the cam member 2 is made preferably comprises a flattened wire with the edges thereof rounded so that rounded instead of sharp edges on the leg portions 6 of the member are presented to and have contact with the spring circuit bridging member 8 of the associated switch when the cam member is rotated.

9 designates a bearing sleeve and 10 a bearing collar, which are loosely mounted on the shaft 1 at opposite sides of the cam member 2 and rest in respective seats provided therefor in the switch carrying insulating body 11, as is common in switches of this type.

It wish it understood that my invention is not limited to any specific construction, arrangement or form of the parts except in so far as such limitations are specified in the claims.

Having thus described my invention what I claim as new, and desire to secure by Letters Patent, is,

1. A cam member of the class described formed in U-shape with its crown provided

with a central opening and with the free ends of its legs turned inward toward the axis of the opening.

2. In an electric switch of the class described, a rotatable control shaft having opposed lugs on a part thereof, and a cam member rotatably mounted on the shaft adjacent to said lugs, said cam member comprising bar metal formed in U-shape lengthwise thereof and having its crown provided with a central opening for rotatably receiving said shaft and also having the free ends of its legs turned inward toward the shaft and intermediate said lugs to coact therewith to limit the relative rotary movements of the cam member and shaft.

In testimony whereof, I have hereunto signed my name to this specification.

OWEN E. KENNEY.