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SWITCH CONNECTION FOR ELECTRIC LAMPS.

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Fig. 4.

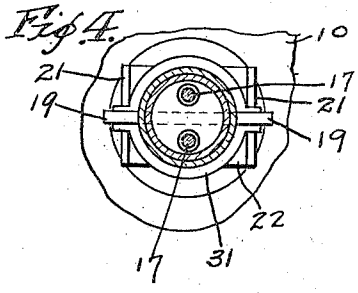
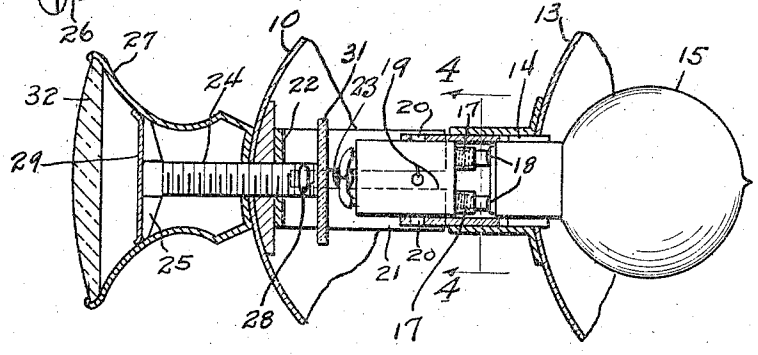


Fig. 1.

Fig. 3.

Fig. 2.



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SWITCH CONNECTION FOR ELECTRIC LAMPS.

1,226,193. Specification of Letters Patent. Patented May 15, 1917.

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To all whom it may concern:

Be it known that I, CHARLES L. DE MARTIN, a citizen of the United States, and a resident of Connersville, county of Fayette, and State of Indiana, have invented a certain new and useful Switch Connection for Electric Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

This invention relates to means for obtaining a suitable electric switch control for electric search lights or spot lights and is adapted to be used especially on spot lights when it is desired to have the switch control independent of the wiring.

In the common construction of such lamps the wires are introduced through the switch mechanism and handle, which makes it inconvenient to operate, and wears out the insulation on the wiring. The construction as hereafter set forth is especially adapted to avoid this trouble and form a switch construction which can be operated without undue wearing of the insulation on the wires. Also considerable advantage is obtained in the operation of the switch as it is much easier and simpler to operate than the ordinary switches now in use, and the construction is such that there will be no danger of short circuits or of the mechanism breaking.

The full nature of this invention will be understood by the accompanying drawings and the following description and claims:

Figure 1 is a central vertical cross section through the lamp with the contact broken. Fig. 2 is a central vertical section through the switch mechanism with the contact made. Fig. 3 is a perspective view of a portion of the switch mechanism. Fig. 4 is a cross section on line 4—4 of Fig. 2.

In the drawings there is shown a shell of a lamp 10, having a rim 11 and a lens 12 secured therein, a reflector 13 secured within said rim through which a socket 14 extends which carries a lamp 15, said lamp having pins in its socket for engaging recesses therein. This much of the construction is of the ordinary type of electric search light.

There is a removable insert 16 adapted to turn in the socket 14 having spring contact pins 17 of ordinary construction extending from the inner end thereof so as to engage the stem of the lamp 15 and make contact with the contact points 18 thereon, when in a given position. This much of the construction is of the ordinary type of electric switch connection which is well-known in the art. The pins 19 screw into the opposite sides of said removable insert so as to extend radially outward therefrom through the slot 20 in the socket 14 and between the prongs 21 of the switch member 22, whereby said switch member, engaging said pins will operate the removable insert. The electric wire or cord 23 enters the shell of the lamp on the lower side as shown in Fig. 1 and is connected through the removable insert to the contact pins 17 so that when the switch member 22 is turned a quarter revolution the removable insert is turned by means of pins 19 which move the contact points on bulb into engagement with the points 18 as shown in Fig. 2.

In order to operate the switch member 22 there is a screw 24 having a head 25 with recesses 26 on opposite sides thereof. The head 25 wedges against the curved sides of the switch handle 27 and the screw 24 extends through the shell and screws into the switch 22 which is held in fixed relation thereto by a cotter pin 28 which extends through a hole in the screw and between the prongs 21. For securing the head of said screws securely to the handle there is provided a plate 29 which is punched so that it has projections 30 which extend through the recesses 26 for engaging the head 25. Said plate is secured to the handle by soldering or any other suitable means not shown so that the screw 24 is rigidly secured to the handle so that it practically forms a part thereof.

For preventing a short circuit occurring between wires 23 and the member 22 of the screw 24 there is provided an insulating disk 31 which has ends projecting between the prongs 21 which hold it in position between the end of the screw and electric wires.

In making or breaking contact the handle 27 is simply turned a quarter revolution to the left or right as the case may be and as has been set forth. The construction is such that the wires 23 are independent of the outer portion of the switch so that the insulation thereon will not become so worn and the connections loosened or broken so easily, while at the same time a reflecting

mirror 32 may be secured by suitable means to the end of the switch handle if desired.

The invention claimed is:

1. An electric switch connection including a socket, a lamp secured in said socket, having a contact point thereon, a removable insert in said socket, a contact on said insert in position to engage the contact on said lamp, a switch member adapted to engage and operate said removable insert, a lamp casing, an external switch handle, and means rigidly secured to said handle and extending through said casing for engaging and operating said switch member so as to make and break contact when said handle is operated.

2. An electric switch connection including a socket, a lamp secured in said socket, having double contact points, a removable insert in said socket, contacts on said insert adapted to engage said lamp, outwardly extending pins in said insert, a switch member adapted to engage said pins, a lamp casing, an external switch handle, and means rigidly secured to said handle and extending through said casing for engaging and operating said switch member so as to make and break contact with said contact points when said handle is operated.

3. An electric switch connection including a socket, a lamp in said socket having double contact points, means for making and breaking contact with said points, a switch member having a bifurcated arm adapted to engage said means, and a switch handle adapted to be rigidly secured to said member whereby said member will operate so as to make and break said contact when said handle is turned.

4. An electric switch connection including a socket, a lamp in said socket having double contact points, means for engaging and disengaging said contact points, a switch member having a bifurcated arm adapted to engage said means, a lamp casing, a switch handle on the outside of said casing, a screw secured to said handle and extending inwardly through said casing, and a pin extending through said screw and between the bifurcated portions of said member for causing the operation thereof for making and breaking contact with said lamp.

5. An electric switch connection including a socket, a lamp in said socket having a double contact thereon, means for making and breaking contact therewith, a switch member adapted to engage said means, a lamp casing, a switch handle on the outside of said casing, a screw having an enlarged head adapted to wedge in said handle, said screw extending through said casing and engaging said means, recesses on said head, and a disk adapted to be secured thereon having inwardly projecting portions for engaging said recesses so as to secure said screw within said handle.

6. An electric switch connection including a lamp socket, a removable insert, means in said insert for making contact with said lamp, a lamp casing and external handle, a switch member secured to said handle, and a pin screwed into said insert adapted to be engaged by said member for operating said insert.

In witness whereof, I have hereunto affixed my signature.

CHARLES L. DE MARTIN.