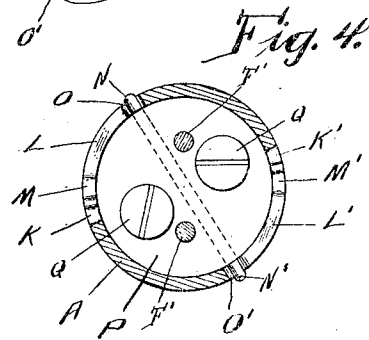
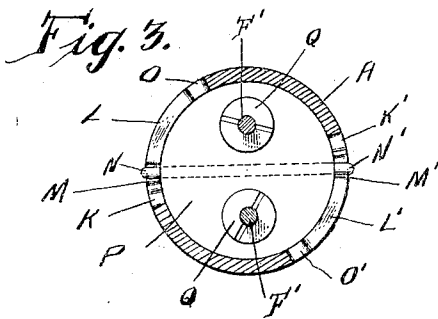
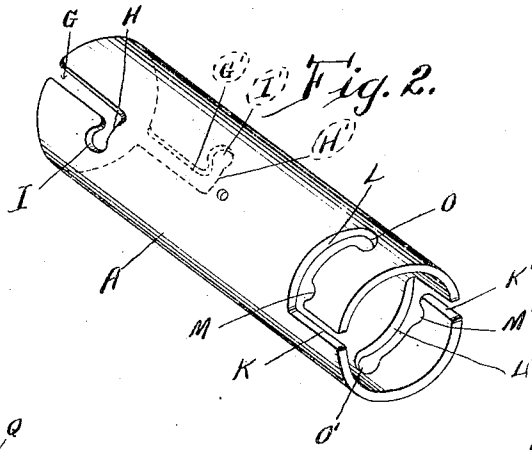
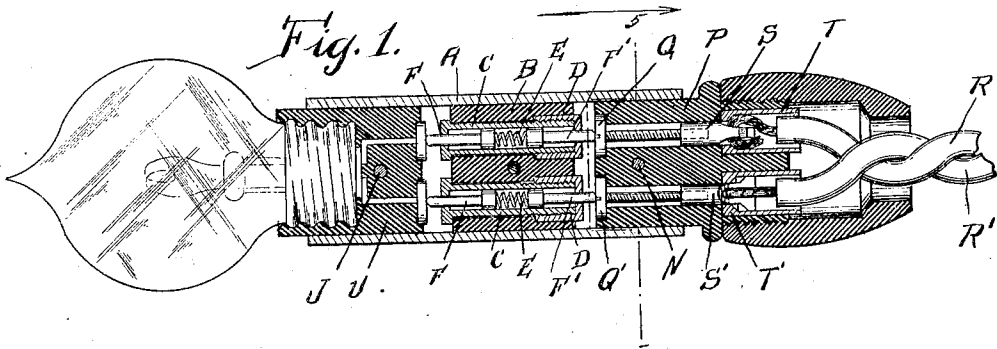


G. C. KNAUFF.
 SOCKET FOR ELECTRIC LAMPS.
 APPLICATION FILED OCT. 16, 1911.

1,021,195.

Patented Mar. 26, 1912.



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UNITED STATES PATENT OFFICE.

GEORGE C. KNAUFF, OF CHICAGO, ILLINOIS.

SOCKET FOR ELECTRIC LAMPS.

1,021,195.

Specification of Letters Patent.

Patented Mar. 26, 1912.

Application filed October 16, 1911. Serial No. 655,049.

To all whom it may concern:

Be it known that I, GEORGE C. KNAUFF, a citizen of the United States, residing at the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Sockets for Electric Lamps, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to sockets for electric lamps, and particularly to the miniature sockets as used in connection with lights for automobiles. It has been customary heretofore to control such lamps either by separate switches or by inserting and removing the terminal plugs through which the wires enter the sockets of the lamps.

The object of my invention is to provide a simple and inexpensive means of throwing the parts of the socket into or out of electrical connection without removing the terminal plug from the socket, and of constructing a socket which will insure good electrical connections for its various parts regardless of little irregularities in their size and shape. I attain these objects by the construction illustrated on the accompanying drawing, in which—

Figure 1 is a longitudinal section of the socket; Fig. 2 is a perspective view of the casing which forms part of the said socket; Fig. 3 is a section on the lines 5-5 with the plug in the position shown in Fig. 1, and Fig. 4 is a similar section with the plug rotated a quarter turn so as to disconnect the lamp from the wires.

In the preferred form of my invention A is a cylindrical casing, preferably of nicked brass. Mounted near the center of this casing is an insulating body B, preferably of hard rubber, provided with two bores parallel to the axis of the insulating body. Into each of these bores a brass cylinder C is slipped and held in place by a cap D screwed to the same. Within each cylinder is a spiral brass spring E, pressing at both ends against plungers F F' which project through the two ends of the brass cylinder. One end of the casing A has two parallel longitudinal slots G G' diametrically opposite each other. These slots G G' terminate in continuations H H' extending circumferentially part way around the casing; these continuations ending in enlarged notches

I I'. These circumferential slots serve as bayonet catches for projections J on the lamp base U. When the lamp is in place, the pressure of the springs E E against the plungers F F presses these plungers against contacts on the lamp base U. In doing so it tends to slide the lamp base out of the casing, thereby forcing the projections J J into the notches I, which notches prevent the lamp from turning in the casing if it should be subjected to jarring. At the other end of the casing similar longitudinal slots K K' and circumferential continuations of the same L L' lead to notches M M', thereby forming passageways for projections N N' on a terminal plug P adapted to be inserted in the casing A at the end opposite the lamp. These projections N N' are held in the notches M M' by the pressure of the spring actuated by plungers F F' on the terminal plug when the latter is in operative position for carrying current to the plungers F F' and through them to the lamp. The circumferential slots L L' are continued past the notches M M' for approximately a quarter of the circumference, ending in similar notches O O'. By turning the plug so that the projections N N' rest in the notches O O', the plungers F F' are brought opposite insulating parts of the plug P, as shown in Fig. 4, thereby switching the lamp out of the circuit. Turning the plug back so that the projections N N' on it engage with the notches M M', brings the terminal screws Q Q' of the plug opposite the plungers F F' as shown in Fig. 3, thus connecting the lamp into the circuit again. In this way the lamp can be turned off and on without removing and again inserting the plug and without the need of a separate switch.

To insure a good electrical connection between the wires R R' and the terminals Q Q' of the plug, I preferably make the terminal screws Q Q' serve as tightening members for drawing screw-eyes S S' into the tapering sockets T T'. With this construction the end of the wire T is first hooked into the eye of the screw-eye S and the screw member is then tightened, thereby compressing the wire between the screw-eye and the socket, as described in my application of even date for a patent on a terminal for electric wires, Serial Number 655,048.

While I have shown and described the preferred form of my invention, I do not

wish to be limited to the exact forms shown, as various modifications may be made without departing from the spirit of my invention.

5 What I claim as new and desire to cover by Letters Patent is—

1. In a socket for electric lamps, an insulating body, a casing for the same extended beyond said insulating body at both ends, 10 a pair of parallel bores extending through the said insulating body lengthwise of the casing, each of said bores having a spring-actuated plunger projecting from each end of its bore, means for securing a lamp at 15 one end of the casing in such relation to the insulating body that the lamp terminals will contact with the plungers at one end of the said insulating body, and means for securing a wire-terminal plug to the other end of 20 the casing, the said plug being rotatable so as to bring its terminals into or out of contact with the plungers at that end of the insulating body.

2. In a socket for electric lamps, a cylindrical casing having means at one end for interlocking with the base of a lamp and means at the other end for interlocking with a terminal plug for a pair of wires, in combination with a pair of compressible contact members insulating from each other 30 and from the casing, each of the said contact members being adapted to contact at its opposite ends with a lamp terminal and a

plug terminal respectively, the said terminal plug being rotatable so as to bring the plug 35 terminals out of contact with said compressible contacts when the plug is rotated.

3. In a socket for electric lamps, a plug of insulating material, a pair of contacts carried thereby, means for securing the ends 40 of two wires to these contacts respectively, a slotted cylindrical casing having one end adapted to receive the said plug, the said plug interlocking with the slots in the said casing so as to allow said plug to be held in 45 either one of two positions, substantially at right angles to each other, the said cylinder having slots at the other end adapted to interlock with projections on the base of a lamp, in combination with a pair of com- 50 pressible contact members mounted within the casing, one end of the said contact members contacting with the terminals of the lamp base, and the other end of the said contact members contacting with the in- 55 sulating body of the plug or with the terminals of the plug, according as the plug is in either one of two positions between which it is rotatable.

In witness whereof I have hereunto set 60 my hand, this fifth day of October 1911, in the presence of two subscribing witnesses.

GEORGE C. KNAUFF.

Witnesses:

M. MENDELSON,
A. S. PHILLIPS.

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