May 10, 1927. 1,627,631

W. G. CHIZLETT

ELECTRIC LAMP SOCKET

Filed July 23, 1926

Fig. 1.

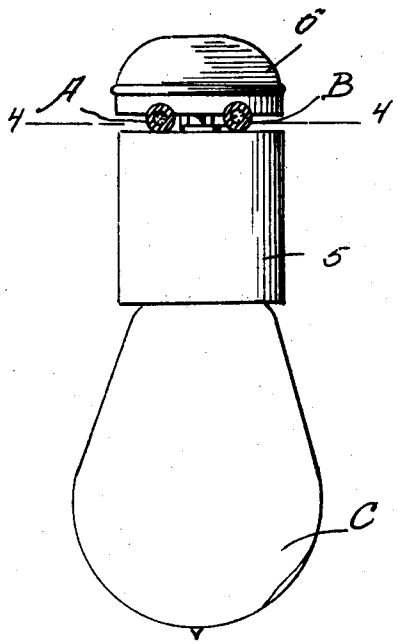


Fig. 2.

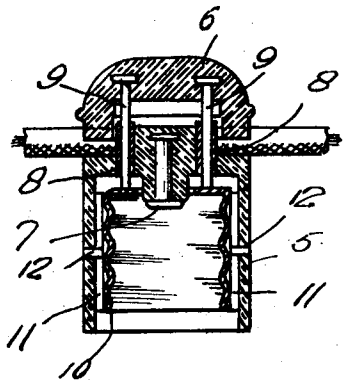


Fig. 3.

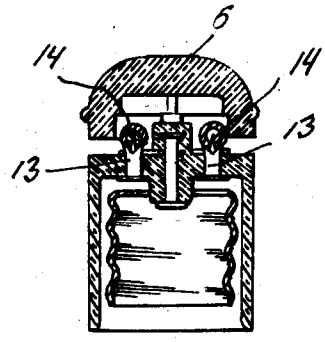


Fig. 4.

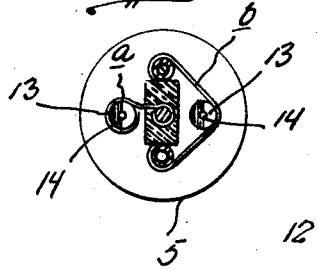
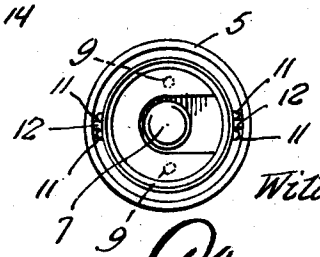


Fig. 5.



Inventor
William G. Chizlett,
By Clarence A. O'Brien
Attorney

Patented May 10, 1927. 1,627,631

UNITED STATES PATENT OFFICE.

WILLIAM GEORGE CHIZLETT, OF OROVILLE, CALIFORNIA.

ELECTRIC-LAMP SOCKET.

Application filed July 23, 1926. Serial No. 124,415.

This invention relates to sockets for incandescent electric lamps and has for its primary object the provision of a device of this character that is constructed for quick attachment to a pair of electric current conducting wires without necesitating the removal of the insulation therefrom and without necessitating the permanent attachment of the socket to the wires. The invention is especially useful in bazaar and out-door work, or at any point where it is desired to string a number of incandescent bulbs in any desired spaced relation, and this without requiring any great difficulty or any unusual skill on the part of the party hanging the lights.

An additional object of the invention is to provide a socket of the aforementioned character that is so constructed that when the bulb is screwed thereinto, the socket is rigidly bound upon the conducting wires, and this in such a manner as to prevent the accidental breaking of the circuit between the conducting wires and the bulb within the socket.

Other objects will become apparent as the nature of the invention will be better understood, the same comprising the novel form, combination, and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing wherein like numerals indicate like parts throughout the several views:

Figure 1 is a view in side elevation of a socket constructed in accordance with the present invention, the same being disclosed in actual use.

Figure 2 is a detail vertical section of the socket when arranged upon a pair of electric conducting wires, the bulb being removed from the socket.

Figure 3 is a similar view disclosing the socket prior to the insertion of the bulb therein and before the socket has been firmly clamped upon the wires.

Figure 4 is a detail longitudinal section taken substantially upon the line 4—4 of Figure 1 for more clearly disclosing the wiring connection between the various contacts of the socket, and

Figure 5 is a bottom plan view of the socket, per se.

Now having particular reference to the drawing wherein is disclosed the most preferred embodiment of the present invention with which I am at this time familiar, 5 designates a socket member per se, and 6 the clamping cap or head member thereof. The socket 5 is of circular formation, and is of suitable non-conducting material. Stationarily arranged in the upper closed end of this socket member is a central vertical contact pin 7 that projects into the socket member as clearly disclosed in both Figures 2 and 3. Arranged through metallic sleeves 8—8 at opposite sides of the central contact pin 7 are vertically slidable elongated pins 9—9, the lower ends of which extend into the socket member 5, while the upper ends thereof projects considerably beyond the top wall of said socket member as per Figure 2. Secured to the lower ends of these pins 9—9 within the socket 5 is a lamp bulb plug receiving shell 10 formed with the usual threads complementary to the threads upon the bulb plug, as is obvious. This shell 10 is arranged in concentric spaced relation with the interior of the socket member 5 and is formed at diametrically opposed sides with vertical guide channels 11—11 within which extend the inner ends of lateral lugs or pins 12—12 arranged at diametrically opposed points at the side wall of the socket member for preventing the turning of the shell within said socket member.

The upper projecting ends of the elongated pins 9—9 are molded within the cap 6 which is also of suitable insulating material, the same being formed at its lower side with spaced transversely extending channels at the opposite sides of the vertical pins 9—9 for receiving the top sides of a pair of insulated electric wires A, B, when the cap 6 is forced downwardly upon the top of the socket member 5 for binding said wires therebetween.

Intermediate the vertical pins 9—9 and at opposite sides of the center contact pin 7 within the top wall of the socket member 5 are split metallic rivets 13—13 the upper ends of which project through the top side of the socket member and are formed with insulation piercing points 14—14.

In actual use, the cap 6 is slid outwardly of the socket member 5 to its limit of movement, after which the wires A and B may be arranged between the cap and the socket member over the piercing pins 14—14 of the split rivet 13—13. The electric bulb C is

then threaded within the shell 10, and obviously by turning the same within the shell, the extreme inner end of the bulb plug will contact with the central contact pin 7 and a continued turning movement will draw the shell 10 downwardly for forcing the cap 6 toward the socket member for firmly binding the wires A and B therebetween, which will cause the pins 14—14 to engage the wires within the insulated covering. It is of course to be understood that the contact of the contact shell of the electric bulb is longer than the shell 10, in order to permit the proper sliding movement of the shell 10 within the socket.

The central contact pin 7 is connected to one of the rivets 13 by an electric wire *a*, while the other rivet 13 is electrically connected to the metallic guide sleeves 8—8 of the elongated pins 9—9 by a single wire *b*. Obviously, when the bulb C is arranged with the socket in a manner as hereinbefore described, the circuit will be completed from one wire to the shell 10 to the bulb plug shell into the filament back out of the filament through the central contact of the bulb plug, then through the contact pin 7 to the other wire in an obvious manner.

It will thus be seen that I have provided a highly novel, simple and efficient form of electric lamp socket that is well adapted for all the purposes heretofore designated, and even though I have herein shown and described the same as consisting of certain detail structural elements it is nevertheless to be understood that some changes may be made without affecting the spirit and scope of the appended claims.

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

1. In an electric lamp socket for attachment to a pair of spaced conducting wires, a socket member, a cap movably associated with said socket member and between which the wires are to be disposed, an electric bulb securing shell slidable within the socket member and operatively connected to the cap for drawing the cap toward the socket member when a bulb is inserted in the shell, means for piercing the wire, and means for completing the circuits between the wires and the bulb disposed in the shell.

2. In an electric lamp socket for attachment to a pair of spaced conducting wires, a socket member closed at its upper end, a cap movably associated with the socket member and between which the wires are to be disposed, an electric bulb receiving shell slidably arranged within the socket, cooperating means between the shell and the socket member for preventing the rotation of the shell within the socket member, vertically extending pins slidable through the closed upper end of the socket member, the upper ends of said pins being secured to the cap, the lower ends of the pins being secured to the shell, a central contact arranged in the closed upper end of the socket member, said shell and the cap member adapted to move downwardly when the contact end of the electric bulb is in engagement with the lower end of the contact pin and said bulb is turned, whereby the wires are clamped between the socket member and the cap, means for piercing the wires, and means for completing the circuit between the wires when the same are pierced and the bulb disposed within the shell.

3. In an electric lamp socket for attachment to a pair of spaced conducting wires, a socket member closed at its upper end, a cap member movably associated with said socket member and between which the wires are to be disposed, a contact pin centrally mounted in the closed upper end of the socket member, an electric lamp receiving shell adapted for slidable movement within the socket member, cooperating pins and slots associated with the socket member and shell for preventing the rotation of the shell, a pair of vertically extending pins slidable through the closed upper end of the socket member, the upper ends of the pins being secured to the cap member, the lower ends of the pins being secured to the shell whereby said cap member is forced downwardly for clamping the wires between the socket member and the cap when an electric lamp is inserted in the shell and the inner end thereof engages the contact pin and the bulb is further rotated to force the shell downwardly in the socket member, means for piercing the wires, and means for completing the circuit between the wires and the lamp when the wires are pierced and the bulb is disposed within the shell.

In testimony whereof I affix my signature.

WILLIAM GEORGE CHIZLETT.