March 12, 1940. T. SUMNER 2,192,943

ELECTRICAL LIGHT SOCKET CONNECTION

Filed May 19, 1938

Fig. 1.

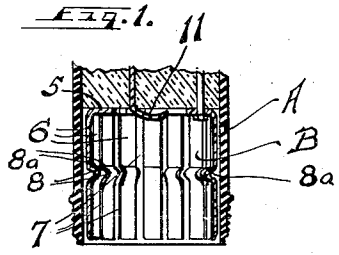



Fig. 3.

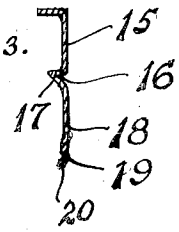



Fig. 2.

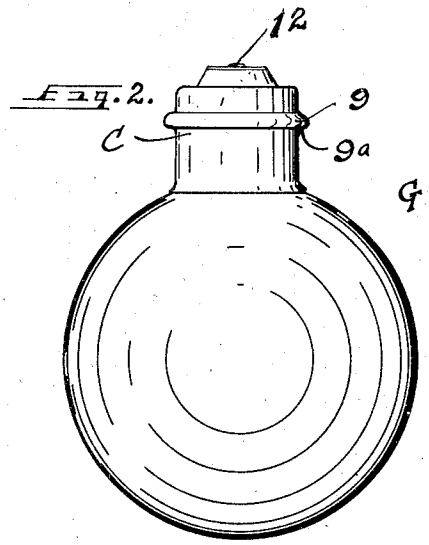



Fig. 4.

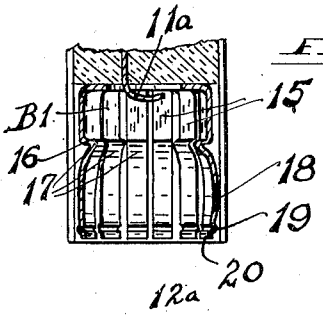
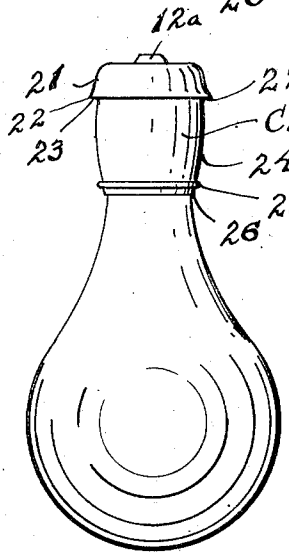



Fig. 5.




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# UNITED STATES PATENT OFFICE

2,192,943

## ELECTRICAL LIGHT SOCKET CONNECTION

Thomas Sumner, Salt Lake City, Utah

Application May 19, 1938, Serial No. 208,777

1 Claim. (Cl. 173—328)

My invention relates to electrical connections and has for its object to provide a new and highly efficient connection between light globes and their sockets which provides a globe which can be thrust directly into the socket, eliminating all threads and their corresponding expense.

A further object is to provide a new and efficient connection in which the globe base is inserted into the socket in such a manner that there will be no looseness between the globe base and socket and so that the contact between the base and socket will make a perfect electrical contact with the spring pressure of the socket holding the base rigidly against the central contact of the socket and making perfect electrical contact therethrough and holding the globe fast in the socket.

A still further object is to provide an improved manner or method of placing light globes and kindred articles in the socket connections without material danger of the globe falling out, and making a perfect fit and contact.

These and other objects I accomplish with the device illustrated in the accompanying drawing in which similar numerals and letters of reference indicate like parts throughout the several views and as described in the specification forming a part of this application and pointed out in the appended claim.

In the drawing,

Figure 1 is a vertical diametrical section of part of the socket.

Figure 2 is a side elevation of the globe and base.

Figure 3 is a section of one side of the socket showing the form thereof.

Figure 4 is a section of a modified form of the socket.

Figure 5 is a side elevation of the base for this latter type of socket.

In the drawing in which I have shown my device Figure 1 is the light socket cylindrical casing A shown made of Bakelite or other similar non-conducting material but if made of metal there will need to be a thin insulating cylinder therein to keep the socket B from engaging the casing A. The socket B is made of a circular or annular ring 5 having depending gripping finger springs 6 extending down from its entire perimeter to form a cylindrical socket having slots 7 vertically therein. This socket is composed entirely of the fingers and each finger is made with an inwardly half round segment 8 with one side a flat face, said segment being spaced down from the ring 5 sufficient distance to properly engage over and lock on an annular ring 9 of the contact base C of the light globe G. The particular form of the bent segment 8 and the form of the ring 9 are the all important features of this invention, as they must be properly spaced from the ends of the socket and base, so that when the base is inserted into the socket they will meet in a perfect union and the segment 8 of each finger is an abrupt curve with the top or inner upper side 8a formed flatter to fit into the sharply inwardly curved lower edge 9a of the ring 9 and the particular curve and shape of these members form the gripping, and holding portion of the device, and which cause the base to be forced upwardly into the socket making perfect contact with the center contact 11 of the socket by pressing the center contact 12 of the base firmly thereagainst.

In Figures 4 and 5 the form of the socket shown as B1 is modified so that each finger 15 is bent substantially at right angles to the finger 15 at 16, then bent back at a slanting angled side 17 and curved in an arc 18 to near the bottom end where each finger is formed into an abrupt small curve 19 with the end 20 extending beyond the small curve. The center contact 11a is the same as in the other views.

The base C1 is formed with the center contact 12a and with the perimeter of the base formed curved outwardly at 21 and then bent inwardly in an annular flange 22 with the face 23 substantially at right angles to the base and on an angle equal to the side 16, so that the two will fit flush, making a perfect union between the two.

Extending beyond this flange there is a curved annular area 24 ending in an annular ring 25 below which there is a short curved end 26 which terminates the plug or base. The globe is held fast in the socket in the usual manner.

The operation of either types of device shown in my drawing is as follows:

To insert a globe, the user merely pushes the base of the globe into the socket which forces the fingers outwardly expanding them until the ring on the socket passes the inwardly curved flange onto the flat top of the flange of the socket at which time the globe slides thereover and the fingers compress around the bottom side of the annular ring or flange gripping the globe firmly, safely and securely, in the socket.

To withdraw, the operator merely draws out on the globe and the fingers expand to allow it to be so withdrawn, contracting again to their original position after the globe has been withdrawn.

Having thus described my invention I desire to secure by Letters Patent and claim:

A light globe socket comprising a socket formed of an annular ring having depending fingers, each finger being bent inwardly at substantially right angles to the vertical portion and then curved out in a curved area ending in a small groove with an extended flange on the lower end of said groove.

THOMAS SUMNER.