A. L. HARRIS & E. F. CASANOVA.

INCANDESCENT LAMP ATTACHING MEMBER.

APPLICATION FILED MAY 10, 1916.

1,239,005. Patented Sept. 4, 1917.

Fig. 1

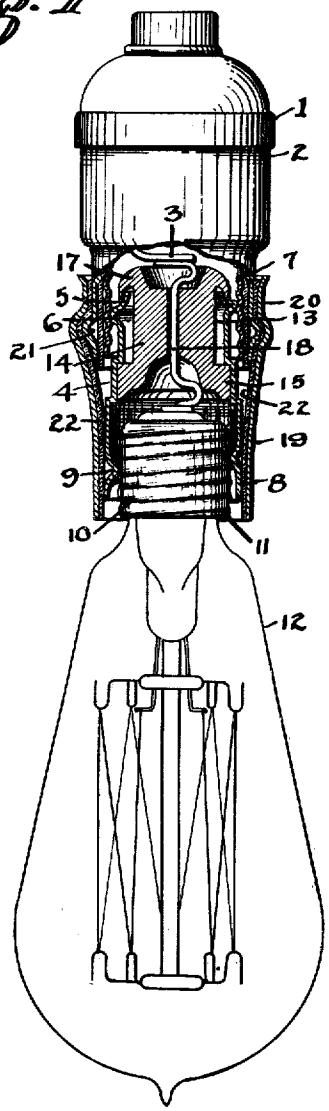


Fig. 2

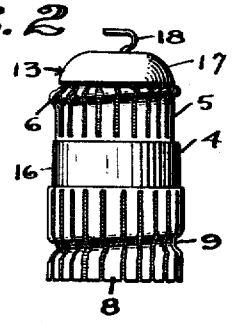


Fig. 3

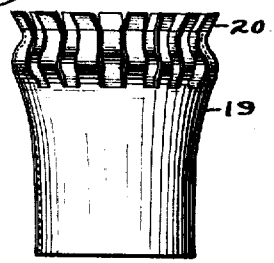
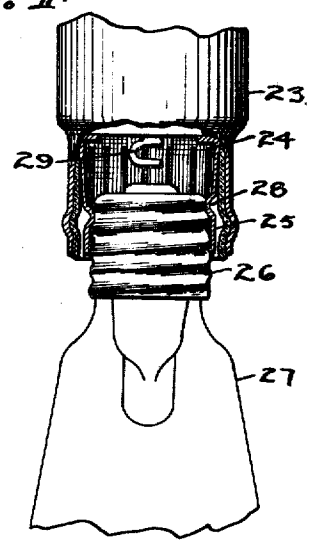


Fig. 4



WITNESSES:

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INCANDESCENT-LAMP-ATTACHING MEMBER.

1,239,005. Specification of Letters Patent. Patented Sept. 4, 1917.

Application filed May 10, 1916. Serial No. 97,173.

To all whom it may concern:

Be it known that we, ARTHUR L. HARRIS and EUGENE F. CASANOVA, citizens of the United States, and residents of the city and county of San Francisco, State of California, have made a new and useful invention—to wit, Incandescent-Lamp-Attaching Members; and we do hereby declare the following to be a full, clear, concise, and exact description of the same.

The invention relates particularly to an incandescent lamp attaching member by which an incandescent lamp may be secured to a pocket without being screwed into engagement therewith.

One of the objects of the invention is to provide an attaching member having spring fingers on one end to snap into engagement with the threaded base of an incandescent lamp and having spring fingers on the other end to fit into a socket and snap into engagement with the threaded ring thereof.

With these and other objects in view, the invention aims to provide an attaching member of this nature which shall be of extremely simple construction, cheap to manufacture, and very practical.

In this specification and the accompanying drawings, we illustrate the invention in the forms that we consider the best, but it is also to be understood that we do not limit ourselves to such forms because the said invention may be embodied in other forms, and it is also to be understood that in and by the claims following said description we desire to cover the invention in whatsoever form it may be embodied.

In the drawings:

Figure 1 is a longitudinal sectional view through the incandescent lamp attaching member showing it operatively connected to a lamp socket and to a lamp.

Fig. 2 is a side elevation of the attaching member.

Fig. 3 is a side elevation of an external sleeve which may be used in connection with the attaching member, and

Fig. 4 is a modified form of attaching member wherein one set of spring fingers have been omitted.

Referring in detail to the drawings by numerals, 1 designates as an entirety a lamp socket of standard construction having a shell or body 2 provided with a threaded ring or rim forming one terminal, the other terminal being the spring contact 3.

The incandescent lamp attaching means comprises a hollow cylindrical body or shell 4 having on one end a plurality of spring fingers 5 each of which is formed with a shoulder or enlargement 6. These shoulders are arranged to form a line of protuberances with the same pitch or inclination as the threads of the socket rim 7, so that when the fingers are snapped into engagement with the rim, they will accurately fit the threads thereof.

The other end of the shell or body 4 is constructed with a series of spring fingers 8 each having an inturned shoulder or extension 9 to snap into engagement with a thread on the base of an incandescent lamp. These shoulders 9 are arranged at an inclination or pitch corresponding to the pitch of the threads 10 on the base 11 of the standard incandescent lamp 12. It is of prime importance to have the shoulders 6 and the inturned shoulders 9 arranged in a helical curve to accurately engage the threads of the lamp base and the lamp socket, otherwise the attachment would not hold the lamp in proper axial alinement with the socket as will be readily understood.

A core 13 preferably formed of porcelain is fixed within the upper end of the shell or hollow body 4 and has a body portion 14 provided on its lower end with a base 15 which is clamped within the central imperforate portion 16 of the body 4, and is also provided with a head 17 under cut to provide a groove or channel into which the upper terminals of the spring fingers 5 extend. The fingers fit loosely within the channel of the head 17 and are allowed a limited inward and outward spring, but are held by the head from such outward movement as would tend to distort them permanently. The core carries a contact rod 18 having its upper end bent to form a spring contact for engagement with the contact 3 of the body and its lower end bent to form a spring contact for engagement with the central terminal of the lamp 12.

If desired, an external sleeve 19 may be employed to reinforce the connection formed between the lamp and the socket by the attaching member. This sleeve when used is first slipped around the lamp attaching member and when this member is pushed into engagement with the socket, the spring fingers 20 of the sleeve snap around and

into engagement with the annular bead or shoulder 21 of the socket. The sleeve carries an insulated lining 22 so that there will be no short circuiting of the current.

In using our lamp attaching member, the same may be first snapped into engagement with the threads on the base of the lamp 12 and then the other end is pushed into the threaded rim 7 of the socket far enough to form a contact with the terminal 3. It will be obvious that a very quick and firm connection may be made by the use of our connecting member and that it is in many instances highly preferable to the old form of connection which must be made by repeated rotation of the lamp.

In the form shown in Fig. 4, the lamp socket 23 is provided with an internal contact band or ring 24 having a plurality of spring fingers 25 arranged circumferentially to fit around the base of a lamp 27. These fingers are each formed with an inturned shoulder 28 to fit into the threads of the lamp and said shoulders are pitched to conform to the pitch of the lamp thread, so that a firm, stable attachment will be made. When the lamp is forced far enough into the socket to make a contact with the socket contact member 29, a circuit is established, and this circuit may be broken either by screwing the lamp outwardly in the usual manner or pulling it outwardly with sufficient force to spread the spring fingers.

From the foregoing description taken in connection with the accompanying drawings, it will be apparent that we have provided a very simple and practical means for quickly connecting a lamp to a socket and while we have shown the preferred embodiments of our invention, it is understood that we do not limit ourselves to such forms but may make such modifications as will occur from time to time and as will fall within the scope and spirit of the invention as claimed.

We claim:

1. An incandescent lamp attaching member comprising a one piece shell having spring means on one end to clamp around an incandescent lamp base and spring means on the other end to fit within a lamp socket, and means carrying a central contact and limiting the inward and outward spring of the second mentioned fingers.

2. An incandescent lamp attaching member comprising a cylindrical one piece shell having a plurality of longitudinally extending spring fingers formed on one end thereof to clamp around the base of an incandescent lamp, and having a plurality of longitudinally extending spring fingers on the other end thereof to fit within and snap into engagement with an incandescent lamp socket, and means carrying a central contact and limiting the inward and outward spring of the second mentioned fingers.

3. An incandescent lamp attaching member comprising a cylindrical one piece shell having a plurality of integral spring fingers extending longitudinally from one end thereof, a core fixed within said body and projecting beyond one end, a head formed on the projecting end of said core having a channel to receive the terminals of the spring fingers and limit their outward movement, and spring means integral on the other end of said body to clamp a lamp.

4. In combination with a lamp socket formed with an external bead, a lamp attaching member having one end removably fitted in the socket, comprising a one piece shell having integral spring fingers formed on the ends thereof and extending longitudinally therefrom, and a core within said shell having a central contact member; and a sleeve encircling said lamp attaching member in close engagement with the lamp receiving end thereof and formed with a recess to receive said bead whereby the sleeve is fixed to the socket.

In testimony whereof, we have hereunto set our hands at San Francisco, California, this 1st day of May, 1916.

ARTHUR L. HARRIS.
EUGENE F. CASANOVA.

In presence of—
RODNEY M. SMITH.