Oct. 25, 1938. E. I. CLEMENCE 2,134,356

REFLECTOR ORNAMENT FOR LIGHT BULBS

Filed June 5, 1936

Fig. 2.

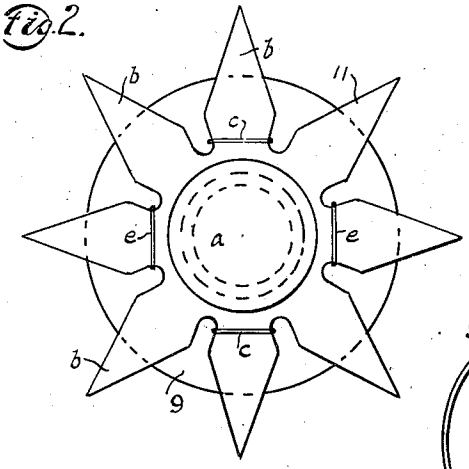


Fig. 3.

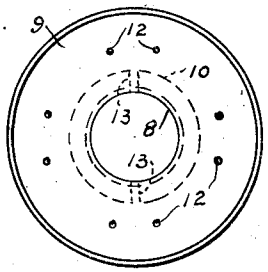


Fig. 1.

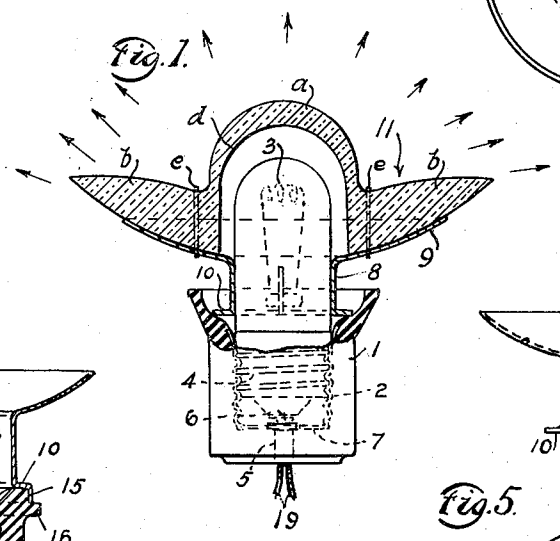


Fig. 4.

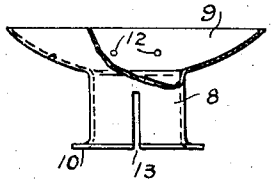


Fig. 6.

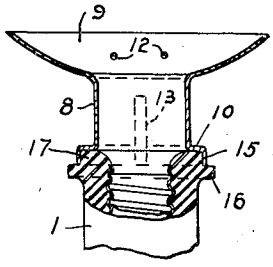
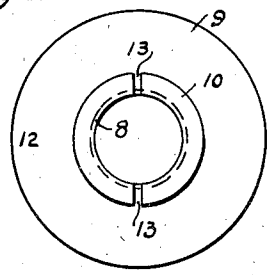


Fig. 5.



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UNITED STATES PATENT OFFICE

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REFLECTOR ORNAMENT FOR LIGHT BULBS

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Application June 5, 1936, Serial No. 83,615

14 Claims. (Cl. 240—10)

The present invention relates to electric lighting systems and has particular reference to systems of the Christmas tree or decorative type, wherein light bulbs, which are usually miniature and mounted in special small sockets, are connected in series in one line. The husks are connected in permanent plural relation in the single line, which is provided with a base plug or switch, for connection with the electric current supply circuit.

Miniature lamps or bulbs have heretofore been colored, and practice has developed whereby simple or elaborate reflecting or translucent ornaments, which may also be made of colored glass, and of conventional or appropriate design are provided on the lamps.

According to the present improvements, as one point of advantage, an ornament made up of glass of suitable color and design may have affixed thereto in any desired manner a springable clip, preferably of metal, whereby the ornament may be mounted upon a standard socket or high bulb, so that, when the filament of the bulb becomes worn out, the bulb and ornament may be removed for replacement of the bulb, when the ornament may again be attached.

A further advantage of the present construction resides in the provision of a seal which cooperates with the socket and bulb in such manner as to guard against the possibility of accidental short circuiting, which has heretofore occurred through the use of tinsel or conductive material commonly used in this type of decoration.

The foregoing and other advantages will be apprehended as the description proceeds, and it will be obvious that modifications may be made in the structure herein shown without departing from the spirit hereof or the scope of the appended claims.

In the drawing,

Fig. 1 is an enlarged vertical sectional view, partly in side elevation, of a socket having standard features, and a miniature bulb, whereon an ornament is mounted;

Fig. 2 is a top plan view of the structure shown in Fig. 1;

Fig. 3 is a top plan view of a reflector;

Fig. 4 is a partly sectioned side elevational view of the reflector shown in Fig. 3;

Fig. 5 is a view of the bottom of the reflector; and

Fig. 6 is a view showing a reflector and socket mounting modified over those shown in Fig. 1.

As shown in Fig. 1, the socket member 1, which is dielectric, and molded from plastic material, such as a phenolic condensation compound, is provided with a threaded metallic socket thimble 2, for engaging the threaded ferrule 4 of the light bulb having a filament 3. On the lower end of the bulb is a contact member 6, which conductively engages with a centrally located contact disc 7, to which one terminal of wiring 19, 19 is connected, the other terminal of said wiring being arranged to metallically connect with the metal of the ferrule 2 of the socket.

The wiring 19 passes through a recess 5 in the lower end of the socket, and this socket and the light bulb may be of substantially standard construction.

One form of the ornament, which may be constructed in different designs, and of a selected color, is generally denoted at 11, Figs. 1 and 2. As here shown, the ornament may be of a conventional flower design, consisting of a central portion *a*, from which may radiate a plurality of petals or rays *b*. These petals, preferably constructed of glass, may all be of the same color, as herein indicated, but both these petals and said central portion, also preferably constructed of glass, may be vari-colored.

In the form of the ornament shown in Fig. 1, said central portion is provided with a recess at *d*, which receives therein the filament end of the bulb 3. This recess and filament construction is arranged to secure the fullest effect of the light from the bulb within the interior of the central glass portion of the ornament.

A reflector is shown with a flared portion 9, wherein the ornament is mounted, and this portion is disposed well below the filament of the bulb so as to permit of full reflection of light from said flared portion through the material of the ornament. As in Fig. 1, part of the light rays pass directly from the filament, through the ornament, in all directions beyond the reflector, and part of the rays received first on the reflector are also reflected therefrom directly through the ornament, thus affording a further feature of advantage.

The reflector, as shown in Figs. 3 and 4, is preferably made of a single piece of thin sheet metal, which may be nickel plated; or it may be made of polished aluminum. The bowl of this reflector, as shown, is provided with a reduced cylindrical neck portion 8, which is turned outwardly as at 10, to form a stop flange, and this flange normally rests upon the upper edge portion of the socket 1, so as to act as a protective cover for the bulb thereat, and also a closure between the socket and bulb at the metal connections thereof. As

at present shown, the top part of the socket 1 may be slightly flared outwardly, to provide a convenient seat for the flange 10, Fig. 1.

The neck 8 snugly surrounds the bulb and is provided with equally spaced longitudinal slots 13, 13, which cause the neck portion to become somewhat yieldable, so as to resiliently grip the bulb 3 and hold the reflector with its ornament in operative position on the socket.

Of the many ways in which the ornament may be affixed to the reflector, one form is shown in Figs. 2–4, wherein the reflector bowl is provided with spaced pairs of apertures 12, through which fine wires are passed and formed into loops *e*, which are tied around certain of the petals *b*, as below the flange 9, to hold the ornament to the reflector.

Other forms of unifying the ornament and the reflector may be used, and in Fig. 6 there is shown a slightly modified form of reflector attachment, in which the flanged neck 8 is provided with a channeled flange, the downwardly turned flange member 15 of which engages about the perimeter 17 of the socket 1. On this socket is provided an annular ledge 16, whereon the lower edge face of the flange 15 rests. In this modification the socket portions 16, 17 become the means on which the reflector is clamped, the slots 13 being also passed through the flanges 10 and 15, to render them resilient. Thus, the bulb, in this modification, may not be used as the sole reflector and ornament supporting means.

Having thus described my invention, I claim:

1. An attachment for an electric light bulb having a cylindrical position, comprising a glass member including a continuous annular portion and having radiant portions extending therefrom, and a tubular metal attaching member cooperating in fixed relation with the first member, said attaching member having a radially extending flange providing means for supporting said radiant portions and having opposed resilient portions for frictionally embracing the bulb.

2. An ornamental attachment for an electric light bulb comprising a glass cap for covering the end of the bulb at the filament thereof, said bulb having a cylindrical portion below the cap, a tubular metal member for embracing the bulb below the cap, an annular flange flaring outwardly from the top of said member and having a reflecting surface thereon, and radiant glass members extending from the base of said cap and resting on said surface.

3. A device adapted for attachment to an electric light bulb including a glass member having therein a recess for receiving one end of a bulb outside the filament thereof, a tubular metal neck having opposed resilient portions frictionally embracing the bulb below said member, an integral annular flange flaring outwardly from the top of said neck and having a reflecting surface thereon, said surface being below the filament, spaced glass members extending from the bottom of the first member and resting on said surface, and means attaching certain of the spaced members to said flange.

4. A device adapted for attachment to a miniature electric light bulb including a glass cap of a predetermined color for fitting over one end of the bulb at the filament thereof, a tubular metal neck having opposed resilient portions for frictionally embracing the bulb below the filament, an integral bowl-like flange extending from the top of said neck and having on its concave surface a reflector, spaced radiant glass arms of a predetermined color extending from the base of said cap and resting on said surface, and means attaching certain of said arms to said flange.

5. As a new article of manufacture, a device including a tubular metal neck having opposed resilient portions for embracing an electric light bulb below the filament thereof, a bowl-like integral flange extending from the top of said neck and having on its concave side a reflecting surface, said flange having pairs of apertures therein, and a flower-like glass ornament of a predetermined color having a central cap portion for fitting over the aforesaid filament, said ornament having petal-like glass arms extending from the cap and resting on said surface, certain of said arms having portions thereof disposed between pairs of the respective apertures, and wiring passed around said portions and through the associated apertures, whereby to fasten the ornament to said flange.

6. The combination with a miniature electric light bulb having a metallic sleeve and a dielectric socket having a metal sleeve cooperating with the first sleeve, of an ornamental glass member having a cap covering the bulb at the filament end thereof, a tubular metal neck having a longitudinally split lower portion resiliently embracing the tube below said end, said neck having its top portion supporting said member, and an annular flange extending from said lower portion and resting on the socket thereat, said flange being spaced from said sleeves and providing a protective cover therefor.

7. In combination with a miniature electric light bulb having a threaded contact sleeve, and a dielectric socket member having a threaded contact sleeve cooperating with the first sleeve, a glass ornament including radiant arms and having a central cap covering the bulb at the filament end thereof, said arms being extended from the base of the cap, a tubular longitudinally split metal neck frictionally embracing the bulb below said end, said neck having at the top thereof an outwardly flared flange, means attaching certain of said arms to said flange, and an annular flange extending from the lower portion of said neck and being spaced from the adjacent parts of said sleeves to provide a protective covering therefor, said latter flange being rested on the top portion of said member.

8. In combination with a miniature electric light bulb of the class described comprising a threaded contact sleeve, and a dielectric socket section having a threaded contact sleeve cooperating with the first sleeve, said section having an outwardly flared top and providing an annular seat thereat above its sleeve; an ornamental glass member having a central hollow portion covering the bulb at the filament end thereof, spaced arms extending from the lower part of said portion and being inclined upward and outwardly therefrom; a tubular metal neck resiliently embracing the bulb between said member and the socket section; said neck having extending from the top thereof an upwardly and outwardly disposed flange, said flange having on the upper side thereof a reflecting surface whereon said arms rest; means attaching certain of said arms to the flange; and another flange extending from the lower part of said neck and being disposed on the seat of said section, said latter flange being spaced from the adjacent parts of said sleeves whereby to provide a protective covering therefor.

9. In combination with a miniature electric light bulb having a threaded metal sleeve mem-

ber and a dielectric socket section having a threaded metal thimble member cooperating with the first member; a glass ornament of a predetermined color having a central cap covering the bulb at its filament, spaced glass rays of a predetermined color extending outwardly from the lower part of the cap; a tubular metal neck having longitudinal slots in its lower end to provide resilient gripping means, said neck being disposed outside of the bulb below the filament, said lower end being supportingly engaged on the top of the socket section whereby to cover said members thereat; said neck having extending outwardly from its top end an annular flange the top face of which provides a reflector, and means attaching certain of said rays to said reflector.

10. A decorative glass cap adapted to encircle the luminous end of a lamp bulb, said cap having glass radiants extending from its band, and means for attaching said cap to the bulb, said means having a flared sheet metal flange engaging the base portions of said radiants and the edge of the band thereat, and a tubular neck extending from said flange and adapted to entirely cover the other end of the bulb in holding relation therewith.

11. A decorative glass cap having its crown adapted to encircle the luminous end of an electric light bulb, said bulb having a cylindrical body, the band of the cap being over the body at said end; glass radiants extending from said band; and means for attaching the cap to the bulb, said means having a flared sheet metal flange forming a seat for the base portions of the radiants, and a tubular neck extending from said flange for grippingly embracing the other end of said body.

12. A glass cap having radiant portions on its band and adapted to cover the light emitting end of an electric light bulb, and a metal tube covering the other end of the bulb and having a flange forming a support and reflector for said portions.

13. An ornamental device for use with a cylindrical electric light bulb having an outer light emitting end and an inner end attachable to a socket, comprising a glass cap having its crown portion formed to cover said outer end in spaced relation therewith, radiant glass members extending from the band of the caps; a sheet metal tube having a part frictionally engaging the inner end of said bulb, and a flange extending radially from the outer end of said tube and providing supporting means for said members, said tube having its inner end closely engaged against the socket.

14. An ornamental device for use with an electric light bulb and a socket, comprising a glass flower-like cap covering the top luminous end of the bulb and spaced therefrom; a sheet metal tube closely embracing the base end of the bulb and engaging the socket thereat, said tube having at its top end an outwardly and upwardly inclined flange on the inner part of which the band of the cap rests; and upwardly and outwardly inclined petals extending from said band and resting on the outer part of said flange.

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