H. D'OLIER, Jr.

VENTILATING STRUCTURE FOR ELECTRIC LAMPS.

APPLICATION FILED OCT. 30, 1917.

1,267,749. Patented May 28, 1918.

FIG. 1.

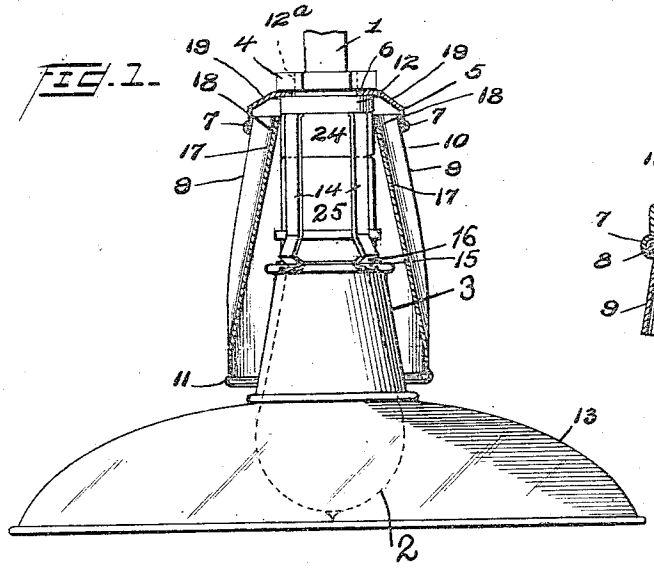


FIG. 2.

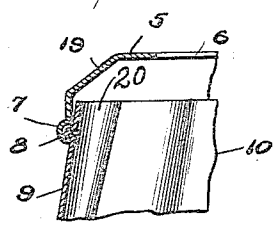


FIG. 2a.

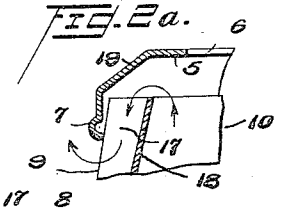


FIG. 3.

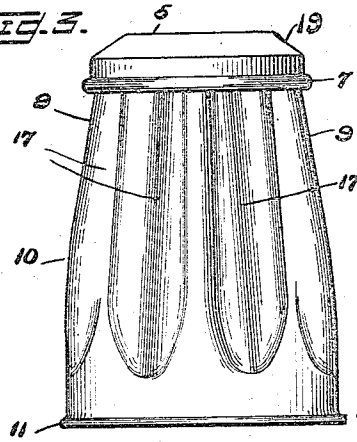


FIG. 4.

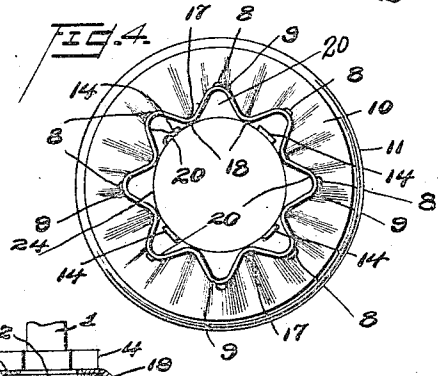
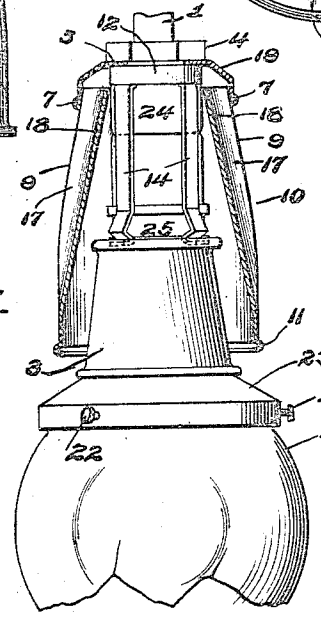


FIG. 5.



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VENTILATING STRUCTURE FOR ELECTRIC LAMPS.

1,267,749. Specification of Letters Patent. Patented May 28, 1918.

Continuation in part of application Serial No. 95,217, filed May 3, 1916. This application filed October 30, 1917. Serial No. 199,226.

To all whom it may concern:

Be it known that I, HENRY D'OLIER, Jr., a citizen of the United States, residing in Bridgeport, county of Fairfield, and State of Connecticut, have invented a new and useful Ventilating Structure for Electric Lamps, of which the following is a specification.

My invention relates to structure for mounting or carrying an electric lamp, particularly a high powered incandescent electric lamp.

It is the object of my invention to provide a structure whereby an electric lamp is suitably mounted in association with means for procuring ventilation and weather proofing, and particularly when the structure involves a lamp shade or reflector or a globe or glassware supporting member.

To these ends I have devised structure of the character hereinafter described and claimed.

For an illustration of some of the various forms my invention may take, reference is to be had to the accompanying drawing, in which:

Figure 1 is a vertical sectional view, parts in elevation, of structure embodying my invention.

Fig. 2 is a fragmentary sectional view, on enlarged scale, showing the cap attached to the hood.

Fig. 2ª is a fragmentary sectional view similar to Fig. 2 but in a different plane.

Fig. 3 is a side elevational view, on enlarged scale, of the cap and hood.

Fig. 4 is a top plan view of the hood.

Fig. 5 is a vertical sectional view, some parts in elevation, involving a member for supporting a glass globe or other glassware or the like.

Referring to Figs. 1 to 4 inclusive, 1 is a pipe or conduit through which extend the insulated electric wires or conductors connecting with the hereinafter mentioned lamp socket. This pipe is screw threaded at its lower end into the metallic member 12, upon which is supported an incandescent lamp socket of any suitable structure, that herein shown as an example being of the character described in my prior Patent No. 1,228,003. The lamp socket is a two-part socket consisting of the upper porcelain member 24 and the lower porcelain member 25, the latter having, as well understood in the art, the lamp engaging terminals receiving and contacting with the terminals of the incandescent lamp 2. The arms 14, inturned at their upper ends and held between the members 12 and 24, extend downwardly and have at their lower ends the indentations 16, which receive the flange or inturned edge 15 on the neck or extension 3 of the shade or reflector 13. It will be understood, however, that when the neck or extension 3 is absent, the shade or reflector 13 will be directly engaged in the indentations 16.

Screw threaded on the neck 12ª of the member 12 is the nut 4, between which and the member 12 is confined the sheet metal cap 5 having the central perforation 6 through which the neck 12ª extends. The cap 5 has a bead or channel 7 into which are sprung the projections 8 on the external ribs 9 of the sheet metal hood member 10, terminating at its lower end in a bead 11.

The hood member 10 may be formed of a cylindrical sheet metal tube and suitably fluted or crimped, as shown, to form the ribs 9 with external grooves or channels 17 formed between them, the innermost boundary wall of the grooves being the inner ribs 18 between which are the internal grooves 20, the ribs and grooves preferably tapering inwardly toward the top of the hood member to smaller diameter, as indicated.

It is preferred that the inner ribs 18 at their upper ends lie close to or in contact with the side of the socket member 24, or close to or in contact with the side of the member 12 to hold or lock the hood member 10 in engaging position with the cap 5.

The cap 5 has a conical portion 19, whereby the cap is spaced from the upper edge of the hood member 10, whereby ventilating passages are formed from within the hood over its edge to the exterior grooves 17, air passing as indicated by the arrows, Fig. 2ª.

The reflector or shade 13, or the extension 3, surrounds but is spaced from the lamp 2 and the lower end of the socket structure, whereby air heated by the lamp passes upwardly from within the shade or reflector 13 and the neck or extension 3 around the lamp and its socket into the interior of the hood member 10 to the upper end thereof,

then passes from the internal grooves 20 over the upper edge of the hood member 10 into the external grooves 17 to the outer atmosphere. This produces a desirable ventilating effect preventing undue rise in temperature of the entire structure.

The hood member 10 is also spaced from the lamp socket structure and from the shade or reflector 13 and from the neck 3, with the further effect that air is drawn upwardly through the interspace into the hood, but from a region outside of the reflector or shade or extension 3. The hot air rising from the lamp through the space between the reflector or the neck and the lamp and its socket draws up air from the outside of the reflector, and the combined streams of air pass upwardly and over the upper edge of the hood member 10 and downwardly through the external grooves.

By this structure dual ventilation is procured.

And a further cooling effect is due to the ribbed or fluted structure of the hood by conduction through the walls of the hood from the inside to the outside thereof.

In Fig. 5 the stucture is similar to that above described, except that in place of a shade or reflector, a glass or other globe 21 incloses the electric lamp and is supported by the screws 22 in well known manner in a suitable holder 23, which may be directly engaged by the arms 14, or which may be provided with a neck or extension 3, as illustrated, which is supported by the arms 14 or otherwise upon the lamp socket or its support.

In this instance again the hood member 10 stands away from or is spaced from the holder or its neck 3, and air passes upwardly into and through the hood member and over the upper edge thereof, as above described, the air comprising two streams, one from within the globe 21 through the holder 23 and neck 3 through the upper open end thereof into the hood, and also through the outer space between the hood and the holder or its neck 3.

The hood member 10 is preferably supported at its one end only, as in the illustrated example of my invention. By such construction the hood member is required to carry no weight other than its own, and the reflector member or the like is supported independently of the hood member by the lamp socket structure.

This application is in part a continuation of my prior application Serial Number 95,217, filed May 3, 1916.

What I claim is:

1. Electric lamp ventilating structure comprising a cap, a hood member having longitudinally extending inner and outer ribs forming internal and external grooves, a flange on said cap, said hood secured to said flange at said outer ribs, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood over the end thereof into said external grooves.

2. Electric lamp ventilating structure comprising a cap, a hood member longitudinally fluted to form internal and external grooves and ribs, said ribs tapering inwardly to said cap, a flange on said cap, said hood member secured to said flange within the same at said external ribs, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood over the end thereof into said external grooves.

3. Electric lamp ventilating structure comprising a cap, a circumferential bead thereon, a hood member longitudinally fluted to form internal and external ribs, projections on said external ribs engaging in said bead, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood over the end thereof into grooves between said external ribs.

4. The combination with a lamp socket member, of a cap supported in fixed relation with respect thereto, a hood member longitudinally fluted to form internal and external ribs, a flange on said cap, said hood attached to said cap by engagement of said external ribs within said flange, said internal ribs engaging said lamp socket member, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood over the end thereof into grooves between said external ribs.

5. The combination with a lamp socket member, of longitudinally extending arms attached to said lamp socket member, a shade or reflector member supported by said arms, a hood member longitudinally fluted to form internal and external ribs, a cap upon which said hood member is secured at its external ribs, said arms lying between said internal ribs, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood member over the end thereof into grooves between said external ribs.

6. The combination with a lamp socket member, of a cap, a hood member longitudinally fluted to form internal and external ribs, said hood member secured to said cap at said external ribs, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood over the end thereof into grooves between said external ribs, a shade or reflector member carried by said lamp socket member and spaced therefrom to form passages into said hood member, said hood member spaced at its ends opposite said cap from said shade

or reflector member to form a passage into said hood between said hood member and the exterior of said shade or reflector member.

7. The combination with a lamp socket member, of a cap, a hood member inclosing said socket member and longitudinally fluted to form internal and external ribs, said hood member attached at its one end to said cap at said external ribs, a shade or reflector member forming a passage communicating with the interior of said hood, said hood spaced at its end opposite said cap from said shade or reflector member to form a passage into said hood outside of said shade or reflector member, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood member over the end thereof into grooves between said external ribs.

8. The combination with a lamp socket member, of a cap supported in fixed relation with respect thereto, a hood member having external ribs between which are formed grooves extending to the end of said hood member, said hood member supported by said cap, a shade or reflector member supported in fixed relation with respect to said lamp socket member and spaced therefrom to form a passage from within said shade or reflector member into said hood member, said hood member spaced at its end opposite said cap from said shade or reflector member to form a passage into said hood outside of said shade or reflector member, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood member over the end thereof into said grooves.

9. The combination with a lamp socket member, of a cap, a hood member inclosing said socket member and longitudinally fluted to form internal and external ribs, said hood member attached at its one end only to said cap, a shade or reflector member spaced from the free end of said hood, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood member over the end thereof into grooves between said external ribs.

10. The combination with a lamp socket member, of a cap supported in fixed relation with respect thereto, a hood member inclosing said socket member and longitudinally fluted to form internal and external ribs, said hood supported at its one end only by engagement of said external ribs with said cap, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood over the end thereof into grooves between said external ribs, a shade or reflector member supported upon said lamp socket member, the free end of said hood member spaced from said shade or reflector member, whereby a passage is formed into said hood outside of said shade or reflector member.

11. The combination with a lamp socket member, of a cap, a hood member longitudinally fluted to form internal and external ribs, said hood member secured to said cap at said external ribs, said cap spaced from the end of said hood member, whereby ventilating passages are formed from within said hood over the end thereof into grooves between said external ribs, a shade or reflector member having an extension, said hood member spaced at its end opposite said cap from said shade or reflector member and inclosing said lamp socket member and said extension.

In testimony whereof I have hereunto affixed my signature this 29th day of October, 1917.

HENRY D'OLIER, JR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."