Sept. 5, 1933. J. G. LAUB 1,925,328

ILLUMINATED CHRISTMAS TREE ORNAMENT

Filed Jan. 31, 1931

Fig. 2.

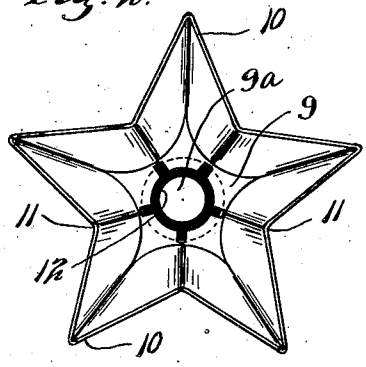


Fig. 1.

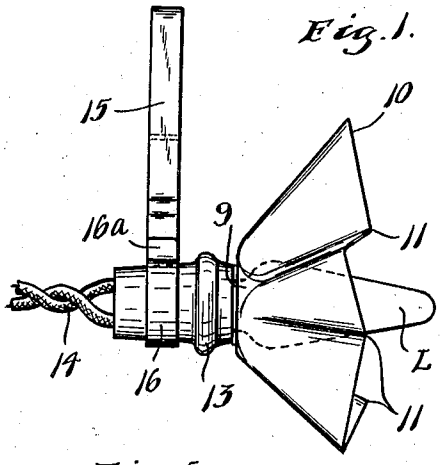


Fig. 3.

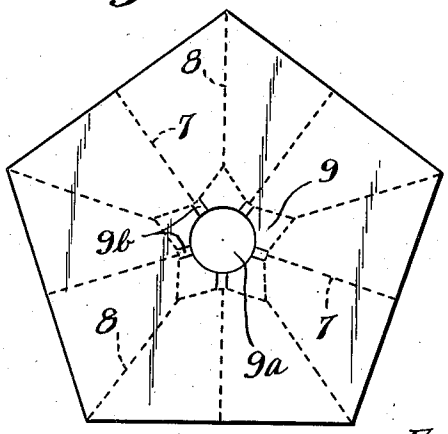


Fig. 5.

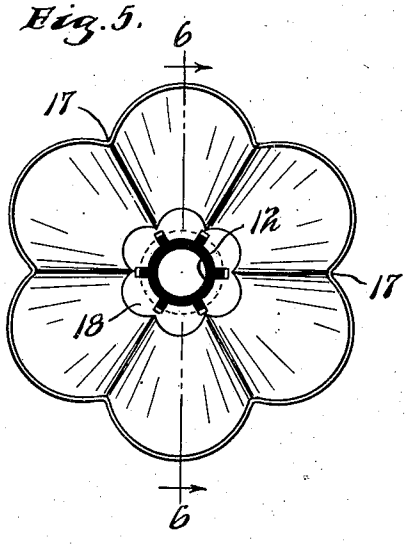


Fig. 4.

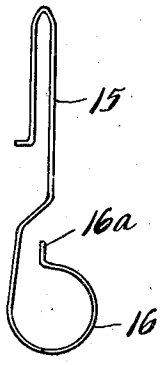


Fig. 6.

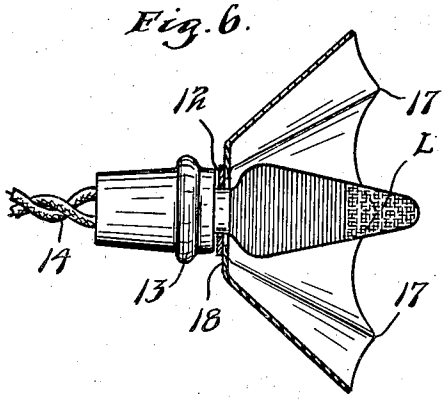
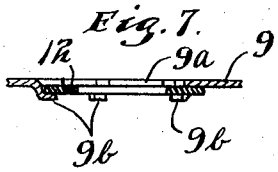


Fig. 7.



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UNITED STATES PATENT OFFICE

1,925,328

ILLUMINATED CHRISTMAS TREE ORNAMENT

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Application January 31, 1931. Serial No. 512,540

2 Claims. (Cl. 240—10)

This invention relates to illuminated ornaments of the type utilized for Christmas trees and theatrical decorations and the like, usually comprising a reflector of ornamental shape associated with a small electric lamp. Ornaments of this type have, for the most part, consisted in a flat or slightly curved reflector cut in different symmetrical shapes and mounted behind a small electric light bulb in such manner that the rays of light are diffused or radiated outwardly from the ornament. Some reflectors have been constructed with irregular surfaces, projections and depressions to intensify light rays at certain points, giving distinctive reflecting effects which make the ornament more attractive in appearance.

It is an object of my invention to provide a simple, economical and very beautiful illuminated ornament especially adapted for Christmas trees and theatrical decorations which will produce a sharply defined solid illuminated field rather than diffusing or radiating light outwardly of the reflector in the manner of Christmas tree reflectors utilized extensively at this time.

It is a further object to provide a novel combination of reflector and lamp which will produce a solid sharply defined illuminated color field, the lamp and filament thereof being merged with the color field rather than contrasting sharply with the light reflected as is the case in most illuminated Christmas tree decorations utilized at this time.

More specifically it is an object to provide a novel combination of reflector and lamp wherein the reflector is provided with a relatively deep reflecting wall associated with the focal point of a small electric lamp in such manner that the light rays, preferably colored, will be thoroughly diffused within the reflector itself to produce the sharply defined illuminated field previously described.

Another object of my invention is to provide a combination of reflector and lamp wherein a sharply defined solid field of colored light will be produced with a center which may be in the form of a contrasting light effected by coloring the outer tip of the bulb.

These and other objects and advantages of the invention will be more fully set forth in the following description made in connection with the accompanying drawing, in which like reference characters refer to similar parts throughout the several views, and in which:—

Fig. 1 is a side elevation of an embodiment of my invention including my efficient hanger bracket for supporting the reflector and electrical socket from the branches of a Christmas tree or other support;

Fig. 2 is a front elevation of the reflector shown in Fig. 1, detached;

Fig. 3 is a plan view of the blank from which my reflector is made, the dotted lines indicating where the blank is bent or folded;

Fig. 4 is a plan view of my hanger bracket;

Fig. 5 is a front elevation of a differently shaped reflector embodying my invention;

Fig. 6 is a vertical section taken on the line 6—6 of Fig. 5, and

Fig. 7 is a fragmentary cross section taken diametrically through the central portion of the reflector showing one manner in which the insulated ring or washer may be attached to the reflector proper.

In the embodiment of my invention illustrated in Figs. 1 to 3, I provide a relatively deep shell reflector in the shape of a star. The reflector is preferably bent or pressed from a single sheet of material, the blank being illustrated in Fig. 3. The sheet of metal or other material is folded alternately inwardly and outwardly along the lines 7 and 8 respectively, leaving a relatively small back portion 9 symmetrical in shape to the periphery or edge of the reflectors. The bending of the material produces a series of outwardly and forwardly extending reflecting surfaces and it will be noted that the points of the star, numbered 10 in Fig. 1, lie in a plane spaced rearwardly some distance from the plane of the points numbered 11 formed by the inward bends. This disposition of the inner and outer points of the star is essential if a sharply defined solid illuminated field is to be produced. The central portion of the back 9 of the reflector is apertured at 9*a* to accommodate the stem or sleeve of a small electric lamp L and a small insulated washer 12 of a slightly smaller internal diameter than the diameter of aperture 9*a* is suitably secured to back 9. If desired strips or flat tangs 9*b* may be formed radially in the portion of the back surrounding aperture 9*a* and these tangs may be bent to off-set position to engage and retain washer 12 against the rear surface of the back 9 as clearly shown in Figs. 2 and 7.

The lamp bulb L may be frosted or colored and has the usual threaded sleeve on its stem which engages a conventional small electrical socket 13 having connected therewith the service wires 14. The reflector is of course supported from the forward end of the socket 13 and the

bulb L and if desired the washer 12 may be of proper thickness to permit the shoulders at the inner portion of the bulb to clamp the reflector securely in place. The conventional elongated cone shaped lamps may be satisfactorily utilized with my device, the focal points thereof being disposed rearwardly or inwardly of the periphery of the reflector.

In Christmas tree decorations, usually a number of lamps L are connected in a "string" electrically connected in series. It is essential that a convenient means be provided for supporting the several ornaments from the branches of a Christmas tree or other support, and it is desirable to provide a hanger or support which may be readily attached to the electrical sockets of the lamp when said sockets are connected in series with the electric cord. To this end I have provided a hanger which may be constructed from a resilient strip of metal bent to form an upper inverted U-shaped branch-engaging clip 15 and having a split circular socket-engaging portion 16 at the lower end thereof. Portion 16 terminates in a turned extremity 16*a* which is spaced some distance from the body of the clip to permit the service wires to be passed therethrough in attaching the bracket.

In Figs. 5 and 6 a slightly different embodiment of the invention is shown, the reflector being of the general shape of a flower and bent from an integral sheet of material. The edge of the reflector is scalloped and the scalloped edges extend rearwardly relative to points 17 which represent the forward ends of the inwardly bent portions of the reflecting wall. The back 18 of the reflector is of symmetrical shape to the periphery of the reflector and is provided with an insulating washer 12 which may be secured in the manner described with reference to the form of the invention shown in Figs. 1 and 2.

When the lamp is illuminated, light from the focal point will be diffused and reflected within the shell-shaped reflector, the multiplicity of angled reflecting surfaces causing a uniform and well distributed diffusion of the light. If a colored or frosted lamp is used the entire area within the periphery of the reflector will be illuminated in the form of a solid field. The bulb and filament will not stand out in contrast to the field, but a beautiful star-shaped field will be produced in the form shown in Figs. 1 and 2, while a flower-shaped colored field will be produced with the form shown in Figs. 5 and 6. The light rays will not be radiated or diffused outside the reflector because of the construction of the shell, the reflecting surface, and the fact that the focal point of the lamp is disposed inwardly of the periphery of the reflector. By inclining the edges of the reflector rearwardly away from the outer points of the inward bends the extremities of the star points will be illuminated and the entire outline of the star will be sharply defined.

An additional effect may be obtained with my structure by coating the tip or outer projecting portion of the lamp bulb with a color which contrasts with the body portion thereof. It is of course apparent that this may be done with either of the forms illustrated in the drawing. As shown in Fig. 6, the body of the lamp bulb is colored red while the tip which is disposed forwardly of the edge of the reflector is colored yellow. Red light rays will be radiated from the lamp and will strike the series of reflecting surfaces diffusing and illuminating the entire area within the reflector shell to produce a solid red field. The yellow tip of the bulb is illuminated by the filament and produces a yellow spot disposed exteriorly of the solid red field. When viewed from the front the ornament gives the appearance of a beautiful red flower having a yellow center. It will thus be seen that with my structure many beautiful and varying effects may be created according to the shape of the shell reflector and the color combinations of the bulbs.

The ornaments may be efficiently supported by means of the hangers and are attached to the electrical sockets by slipping the cords through the open portions of the split annular member 16 and then telescoping the annular portion over the rear end of the socket. The spring clip 15 of course clamps upon a twig or branch of the Christmas tree or upon a nail or other supporting member.

My ornament is characterized by the sharply defined solid field of color produced by the combination of the bulb and shell reflector. The lamp, unless the tip is purposely colored in contrast to the body portion thereof, is merged with the colored field created when the device is illuminated.

It will, of course, be understood that various changes may be made in the form, details, proportions and arrangement of the parts, without departing from the scope of my invention, which, generally stated, consists in a device capable of carrying out the objects above set forth and in the novel parts and combinations of parts disclosed and defined in the appended claims.

What is claimed is:—

1. An ornament of the class described comprising an outwardly flaring reflector in the form of a relatively deep shell, the peripheral wall of said shell being bent on definite lines radiating from the center thereof to form deep inwardly and outwardly extending folds defining a star, said shell having a greatly diminished star-shaped back provided with a central aperture, an electric lamp bulb mounted axially within said shell, the filament of said bulb being disposed rearwardly of the peripheral edge of said shell and cooperating with the folded peripheral wall to produce a substantially solid field of light, rendering the bulb and filament substantially invisible.

2. An ornament of the class described comprising, an outwardly flaring reflector in the form of a relatively deep shell, the peripheral wall of said shell being bent on definite lines radiating from the center thereof to form inwardly and outwardly extending folds, said folds extending from the rear of said shell to the outer edge of said shell and being substantially straight, said shell having a greatly diminished flat back provided with a reflecting surface, the shape of said reflecting surface being symmetrical to the outer edge of said shell, an electric lamp bulb mounted axially within said shell, said bulb, when illuminated, cooperating with the folded peripheral wall and with said back reflecting surface to produce a substantially solid field of light, rendering the bulb and filament substantially invisible.

JOHN G. LAUB.