

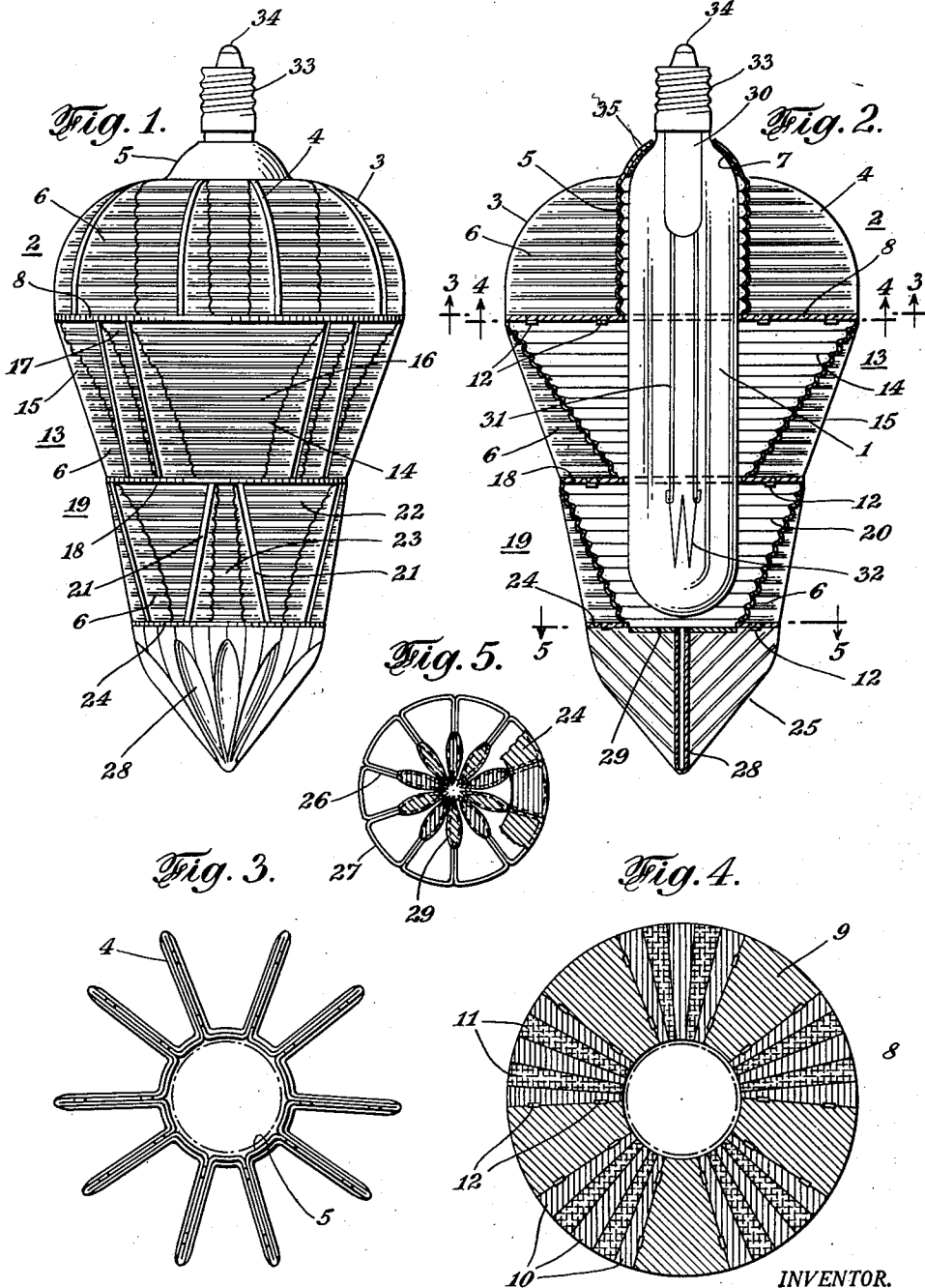
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LIGHT REFLECTING COVER FOR LAMPS

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LIGHT REFLECTING COVER FOR LAMPS

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This invention is an improved light-reflecting cover for lamps, especially an ornamental reflecting cover for incandescent bulbs used to decorate trees at Christmas time, and in other ornamental or festive ways.

An important object of my invention is to provide a reflecting cover which will impart several colors to the light which the bulb emits.

Another object is to provide a cover for an incandescent lamp bulb having surfaces on its exterior against which the colored light impinges and which are so disposed that the rays are directed outward in all directions. Thus the entire outside of the cover is fully illuminated with vari-colored light.

Other objects and advantages are made clear in the following description, and the novel features are defined in the appended claims. The drawings illustrate a preferred embodiment of the improvement, but the disclosure is for purposes of explanation only without unnecessary restriction, and changes in structural details may be adopted without deviation from the general design which characterizes the invention.

Figure 1 is a side elevation of an improved light-reflecting cover for an incandescent lamp bulb according to my invention.

Figure 2 is a longitudinal section thereof.

Figure 3 is a section on line 3-3 of Figure 2, seen in the direction of the arrows.

Figure 4 is a section on line 4-4 of Figure 2, and

Figure 5 is a bottom section at the tip of the cover taken on line 5-5 in Fig. 2.

The evacuated bulb, of glass or other transparent substance, of an incandescent lamp is shown at 1, and the cover 2 envelops the bulb fully; the bulb projecting at one end to enable it to be attached to an ordinary fixture so that it can be supplied with electric current as required. The cover is made of several sections, the largest of which indicated by the numeral 3 is at one end. This section has a body with ribs or fins 4, extending outward from a central sleeve 5; and both the ribs and the sleeve have transverse flutings or corrugations or other projections 6 over their outside surfaces. The sleeve 5 encircles the bulb 1, and its outer extremity is contracted to engage the shoulder of the bulb adjacent the threaded neck or base which engages the socket of the fixture in which it is mounted. Between the shoulder of the bulb 1 and the contracted end of the sleeve 5 is a non-inflammable packing 7. The entire section is constructed of paper or cardboard bent or

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doubled to produce two layers wherever necessary to locate the ribs 4; which preferably have the form of equidistant quadrants with their edges curving away from the contracted end of the sleeve 5 and in the direction of the long axis of the cover. The corrugations 6 are all covered with bright metal foil so that rays of light falling thereon will be reflected and distributed in different directions. In the construction of the section 3, the two layers of the ribs 4 can be joined together by glue or other means, and of course other material than cardboard can be utilized, such as bent corrugated metal with a bright surface to form the cover 2. When cardboard is employed the metal foil on the outside is very thin; and if desired bright and lustrous metal paint can be employed to cover the ribs 4 and sleeve 5 between the ribs.

The radiating or wide edges of the ribs 4 at the inner end of the sleeve 5 are attached to a transparent disk 8 of plastic or other material, having an aperture at the center for the bulb 1. This disk comprises wide sector shaped parts 9 that are green; and between the parts 9, which are shown as five in number, but may be more or fewer, spaced equidistant from one another, are portions consisting of radiating strips 10 of a red or reddish purple color, with strips 11 orange in color between them. Other combinations of color can of course be adopted. The red strips are three in number for example, and the orange strips two. The disk 9 is in one piece and has projections or studs 12 in two circular rows to penetrate the adjacent wide ends of the ribs 4 and fix the sleeve 5 in central position thereon.

Also fitted to the disk 8 and held by glue or other means is a hollow section 13 shaped like the frustum of a cone, with its wider end abutting the disk 8 around the rim thereof. This section or member 13 also has transverse corrugations or other projections 14 inside and out, all covered with bright metal foil or metal paint. The larger end of the member 13 fits around the outer projections 12 on the disk 8. Obviously, when the bulb is illuminated, rays of light are reflected from the inside corrugations 14 of the section 13, and pass out through the windows consisting of the colored parts 9, 10 and 11 of the disk 8, and brilliant optical effects in different colors appear on all the outside surfaces of the section 2.

The body of the section 13 also has ribs or fins 15 on its exterior, extending lengthwise of the cover from the larger end at the disk 8 to the smaller end. These ribs mark off on the mem-

ber 13 wide and narrow outside areas 16 and 17, respectively, and the outside surfaces of these areas and the ribs are also provided with corrugations or the like 6, covered as before with bright metal foil or metal paint. At the smaller end of the member 13 is a ring 18, which extends outward beyond the rim of the smaller end but is of smaller diameter than the disk 8. This ring is also transparent, and has portions or strips of the same color and arrangement as the portions 9, 10 and 11 of the disk 8. The adjacent ends of the ribs 15 abut the ring 18. These ribs have the shape of triangles with their apexes at the disk 8 and their bases at the ring 18. Their outer edges converge towards the ring 18, so that the areas 16 and 17 taper away from the disk 8. The ring 18 also has studs or projections 12, disposed so as to penetrate the adjacent ends of the ribs 15. The bulb 1 projects through the narrow end of the section 13. The outer edges of the ribs 15 are at an angle to the long axis of the cover 2.

Attached to the other face of the ring 18 is a second frusto-conical section having a body 19. The wider end of this section is as large as the ring 18 and abuts and is secured to this ring 18 along the circumference thereof. It also has corrugations 6 or the like inside and outside ribs or fins 21, which are triangular in shape with their apexes at the ring 18. Their surfaces and the outside of the section 19 are corrugated, and all the outside corrugations 20 of the section 19 and corrugations 6 of ribs 21 are again covered with foil or metal paint. The bulb 1 extends also into the section 19 through the ring 18, and light rays therefrom are reflected from the inside of the section 19 through the windows consisting of the colored portions of the ring 18 and produce optical effects in the same colors on the ribs 15 and the portions or areas of the member 13 between them.

The areas 16 and 17 between the ribs 15 on the section 13 are of unequal size, the former being the larger, and these areas contract from the disk 8 towards the ring 18. Similarly the ribs 21 divide the outer surface of the member 19 into larger and smaller areas 22 and 23. The ribs 21 begin at the middle of the areas 16 of the section 13, and diverge from the ring 18. At the bases of the ribs 21 is a transparent ring 24, made of portions alternately green and red in color, this ring 24 being attached to the base of a pointed terminal section or tip 25. Light from the bulb 1 is reflected from the inside of the tip, also corrugated inside, and passes through the ring 24, and illuminates the outer surfaces of the member 19.

The areas 16 and 23 contract toward the ring 18, and the areas 17 and 22 widen in the same direction. The areas 16 and 17 alternate in order around the cover 2 and so do the areas 21 and 23.

The tip 25 is conical in shape, with inside ribs 26 connected by curved portions 27 at their outer ends. The tip can also be made of bent sheet material, doubled where necessary to produce the ribs 26, and the ring 24 also has studs 12 to penetrate the bases of the ribs 21. The two layers making the ribs can be separated or sprung apart to leave open outside spaces 28. The larger end of the tip carries petal shaped strips 29, that can be purplish in color and lie in the plane of the ring 24, being secured to the radiating edges or bases of the ribs 29. Rays of light from the bulb 1 passing through the strips 29 are tinged accordingly. The inner surfaces of the tip are also covered with bright foil or metal paint, and

light reflected therefrom passes through the windows afforded by the ring 24 and produces vari-colored optical effects on the outside of the member 19 and ribs 21.

Thus, when the bulb 1 is illuminated, the whole exterior of the cover shines brightly with combinations of colors produced by the disk 8, rings 18 and 24, and the strips 29.

The bulb 1 has a glass shank 30 in which are embedded at one end the conductors 31, with the filament 32 at the other. One terminal is the threaded neck 33, the other is indicated at 34. The contracted end of the sleeve 5 adjacent the neck 33 is indicated at 35. While the cover is illustrated as having four sections, the construction is not limited to this number, as more or fewer sections can be selected.

Having described my invention, what I believe to be new is:

1. A reflecting lamp cover comprising hollow sections disposed in axial alinement, each section having an opaque body with one end joining an adjacent end of the body of another section, a window having colored transparent panes extending radially with respect to said alinement axis in between said body sections at each of said joining ends, and longitudinal fins on the exterior of said sections, one of said sections at one end of the cover having the form of a pointed cap with inside fins and longitudinal openings in its sides and transparent colored elements inside at the end of each fin.

2. A reflecting lamp cover comprising hollow sections disposed in axial alinement, each section having an opaque body with one end joining an adjacent end of the body of another section, a window having colored transparent panes extending radially with respect to said alinement axis at each of said joining ends, and longitudinal fins on the exterior of said sections, one of said sections at one end having a central cylindrical sleeve and sector shaped fins on the outside of the sleeve with edges curving from one end of the sleeve to the other.

3. A reflecting lamp cover comprising a plurality of hollow sections disposed in axial alinement, a first of said sections terminating one end of the cover having a sleeve of opaque light reflecting material and opaque light reflecting fins radially extending from said sleeve in longitudinal planes, a second of said sections having a wall portion in the form of a frustum opaque structure, said frustum having a wide end adjacent said first section a spaced radial distance from said sleeve, a colored light transmitting pane substantially spanning the radial space between said frustum wide end and said sleeve, and a light reflecting surface extending over an interior side of said frustum positioned for projecting light rays from a source within the cover through said colored pane for reflection from exterior surfaces of said sleeve and fins.

4. The reflecting lamp cover defined in claim 3 including a third hollow section having a wall portion in the form of a second frustum opaque structure, a wide end of said second frustum being adjacent the narrow end of said first frustum and radially spaced therefrom, a second colored light transmitting pane substantially spanning the radial space between said first and second frusta, a light reflecting surface extending over an interior side of said second frustum and over an exterior side of said first frustum positioned for projecting light rays from said source within the cover through said colored

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pane for reflection from said first frustum exterior surface.

5. A reflecting lamp cover comprising a plurality of hollow sections having tubular opaque wall portions disposed in axial alinement forming an elongated interior chamber for housing a light source, each of said tubular wall portions having a narrow end adjacent a relatively wide end of the adjoining section spaced radially therefrom, a colored light transmitting pane substantially spanning the radial space between each of said adjacent narrow and wide ends, and light reflecting surfaces extending over the exterior and interior sides of said wall portions, said tubular wall portions and colored light transmitting panes being so constructed and arranged that light rays from the light source within the chamber are reflected from the interior side of the wall portion of one of the sections directed through one of said panes for modifying the color of the light and the modified rays are reflected from the exterior side of an adjacent wall portion as an ornamental display.

6. The reflecting lamp cover defined in claim 5 including light reflecting fins radially extending exteriorly from said wall portions in longitudinal planes.

7. The reflecting lamp cover defined in claim 5 including light reflecting fins radially extending exteriorly from said wall portions in longitudinal planes, said exterior sides of said wall portions and said fins being formed with corrugations transverse the path of said modified light rays.

8. The reflecting lamp cover defined in claim 5 in which said colored panes are sectionalized into different colors for producing a variegated multi-color effect.

9. A reflecting lamp cover comprising hollow sections disposed in axial alignment, each section having an opaque body with a narrow end of one joining an adjacent relatively wide end of the body of another section and spaced

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radially therefrom, a window having colored transparent panes extending radially with respect to said alignment axis in between said body sections at each of said joining ends spanning the radial space between each of said adjacent narrow and wide section ends, and longitudinal fins on the exterior of said sections, said fins tapering and having their wider ends abutting said windows.

10. A reflecting lamp cover comprising hollow sections disposed in axial alignment, each section having an opaque body with a narrow end of one joining an adjacent relatively wide end of the body of another section and spaced radially therefrom, a window having colored transparent panes extending radially with respect to said alignment axis in between said body sections at each of said joining ends spanning the radial space between each of said adjacent narrow and wide section ends, and longitudinal fins of the exterior of said sections, at least one of said sections between the opposite ends of the cover having the form of a truncated cone.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,043,009	Hoffman	Oct. 29, 1912
1,200,487	Grimm	Oct. 10, 1916
1,541,952	Heller et al.	June 16, 1925
1,646,045	Van Alen	Oct. 18, 1927
1,861,604	Loring	June 7, 1932
2,042,905	McCluskey	June 2, 1936
2,136,780	Berwick	Nov. 15, 1938
2,199,434	Koonz	May 7, 1940
2,316,589	Iwanowicz	Apr. 13, 1943
2,435,786	Klosek	Feb. 10, 1948
2,448,906	Munao et al.	Sept. 7, 1948

FOREIGN PATENTS

Number	Country	Date
397,048	Great Britain	Aug. 17, 1933