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E. F. GUTH

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GLOBE FOR LIGHTING FIXTURES

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Fig. 1

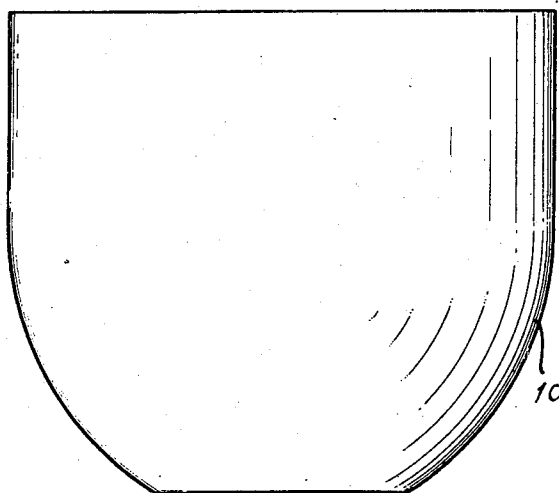
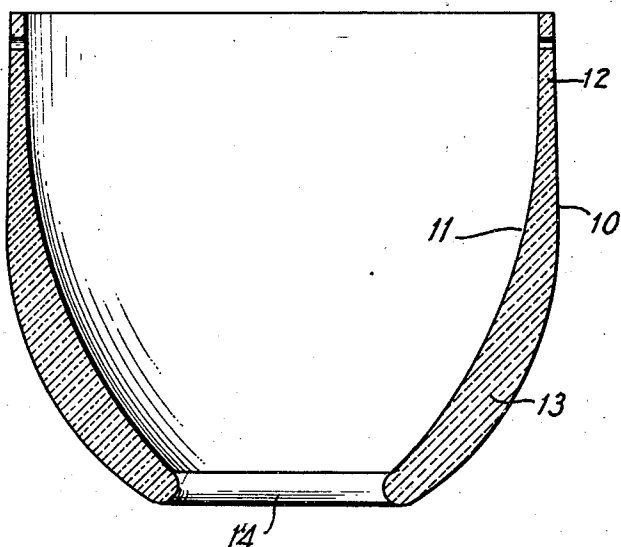


Fig. 2



Edwin F. Guth
Inventor

By *Dodson & Roe*
Attorneys

UNITED STATES PATENT OFFICE

EDWIN F. GUTH, OF ST. LOUIS, MISSOURI

GLOBE FOR LIGHTING FIXTURES

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My invention relates to the electrical art and particularly to illumination in which bowls, or globes are used to diffuse and re-direct light rays emanating from a lamp.

Scientific tests and demonstrations have disclosed the advisability of having as even a distribution of what is termed brightness over the entire globe surface as is possible for it reduces eye strain and provides a more even and efficient distribution and diffusion of light and my principal object in this invention is to so construct a globe that it will have a substantially even degree of brightness over its entire surface.

Another object of my invention is to produce a globe in which the inner surface will have only a slight and an even curvature from its greater diameter to the base thereof and at the same time will have a large opening in the center so as to cause the inner surface thereof to be easy of access from the base of the globe and also to permit of stronger and more concentrated light rays being delivered immediately below the globe to the working plane.

My invention consists of certain details of construction hereinafter set forth, pointed out in my claim and illustrated in the accompanying drawings in which—

Figure 1 shows a side elevation view of my improved globe; and

Figure 2 shows a sectional view of the same. Similar reference numerals refer to similar parts throughout the entire description.

Referring to the accompanying drawings, the reference numeral 10 is used to indicate the outer surface of my globe and 11 the inner surface thereof. As shown the upper portion of the globe is formed of a relatively thin wall, as shown at 12, while the lower portion, as shown at 13, is relatively thick, the globe wall being of substantially even thickness until it begins to curve inwardly toward the orifice in the base thereof. From this approximate point the inner surface 11 does not curve inwardly to the same degree as does the outer surface 10, thus causing the wall of the globe from this point downwardly to grow gradually thicker, and also

causing the inner surface to be much more straight, relatively, than it otherwise would be. As the inner wall is smooth, usually being glazed to function as a good reflector, dust and dirt will not easily adhere thereto, and as there is not a sufficient incline, centrally, to form a resting place for dust and dirt it will, when it contacts the said inner surface, fall through the opening 14, which I have caused to be much larger than the ordinary openings in the base of globes.

It will be noted my globe is more or less of a shield for the sides of a lamp which it is designed to surround, the shield curving slightly inwardly at its base and being of greater thickness at the curving portion and having a larger central opening in its base. In a globe surrounding a lamp, it is the part directly in a horizontal line with the filament of the lamp and the inwardly curving bottom which is nearer to the lamp filament, and further this portion of the globe receives the light rays impinging thereon at a more direct angle from the filament than do the other portions of the globe. The result is that the light rays impinging more directly on the globe surface than do other light rays produce a greater degree of brightness on the outer surface of the globe. By my construction this injurious effect is eliminated and the entire outer surface of the globe presents an even degree of brightness, for the globe being thickened at points of more direct contact of the rays from the lamp filament compensates for that portion of the globe where the rays impinge at a greater angle from the filament.

Having described my invention, what I claim and desire to secure by Letters Patent of the United States, is:

A globe for lighting fixtures, having an upper portion, cylindrical in cross section, and a lower portion which extends downwardly therefrom and then curves inwardly to an orifice in the central portion of the bottom of said globe, the wall of said lower portion varying in thickness from a point adjacent the lower edge of said upper cylindrical portion to a point at the edge of said central orifice, the greatest thickness of

said wall being at a point approximately
midway between said extreme points, the
inner surface of said globe being continu-
ously concave in vertical section from the
5 point of termination of said cylindrical por-
tion.

EDWIN F. GUTH.

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