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G. AINSWORTH

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LIGHTING FIXTURE

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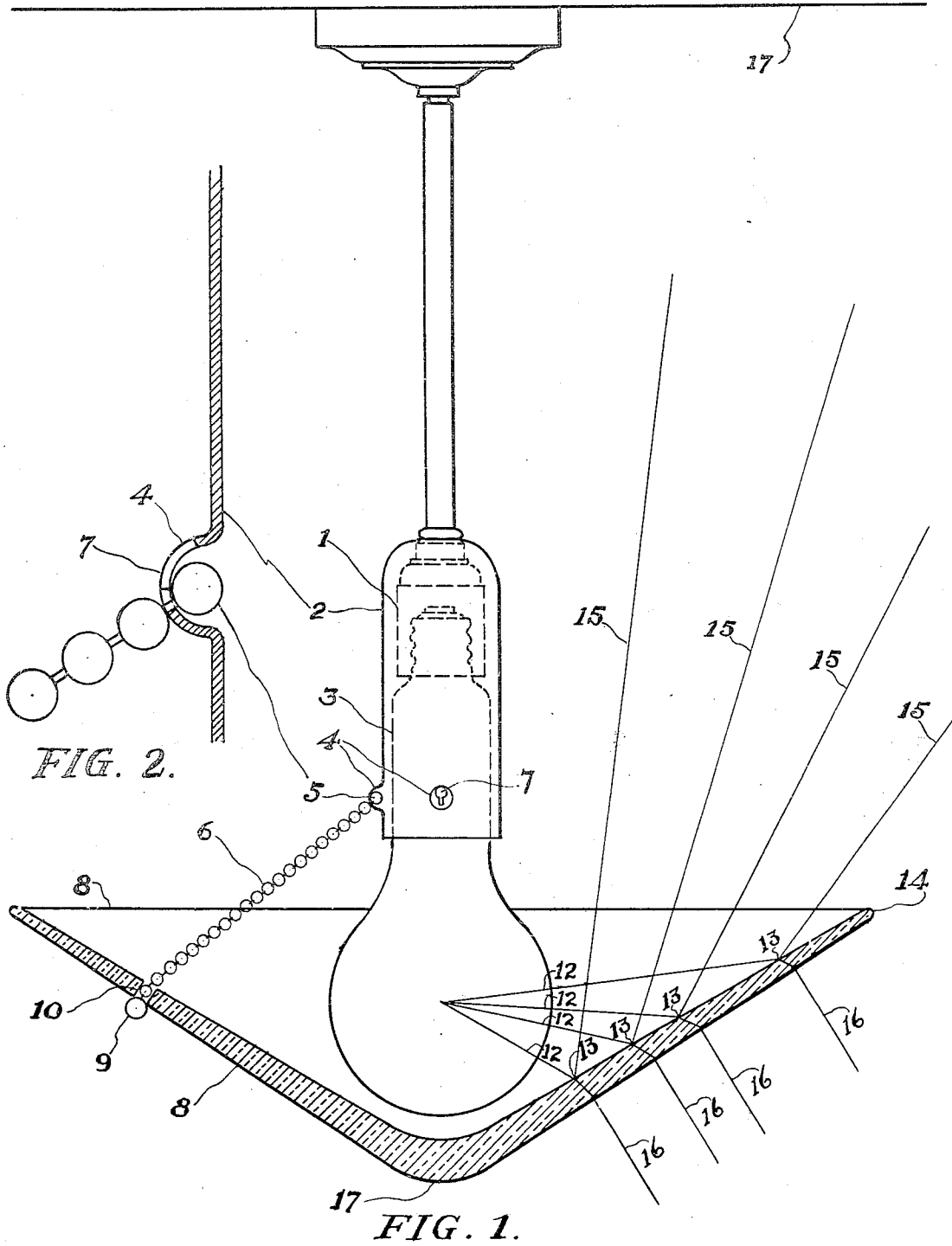


FIG. 2.

FIG. 1.

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# UNITED STATES PATENT OFFICE

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## LIGHTING FIXTURE

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6 Claims. (Cl. 240-78)

My invention relates to that class of electric lighting termed semi-indirect.

My invention has for its principal object to combine an electric lamp with a diffusing reflector of translucent material shaped like a basin which will intercept all the light that normally would be distributed downward and redirect the major portion of it over the broadest possible ceiling area above the device in order to artificially illuminate interior rooms by the most economical semi-indirect lighting system.

I obtain this result by shaping the reflecting surface of a basin constructed of diffusing glass formed to conform to a conic section so that the various rays of light impinging on the inner surface will be reflected over an ever widening area above the fixture.

A further object is to augment the reflection factor by increasing the density of the glass gradually from the perimeter to a maximum thickness at the center or bottom of the basin.

A further object is to reduce the intercepted light by employing a supporting device of the smallest possible diameter and by positioning the lamp approximately one-half inch from the bottom of the basin I am able to gain the result with a smaller and less expensive glass basin than heretofore used.

My means of accomplishing the foregoing objects may be more readily understood by having reference to the accompanying drawing which is hereunto annexed and is part of this specification, in which—

Fig. 1 is a side view of my improvement partially in section, showing the basin suspended below an electric lamp; and

Fig. 2 is an enlarged fragmentary detail showing a method of supporting the basin from a holder or socket cover which by virtue of raised bosses to receive the supports permits a smaller diameter piece of metal to be used than is commonly now adopted.

Similar reference numerals refer to similar parts throughout the entire description and drawing.

As shown in the drawing, the device comprises an electric socket 1 which is covered with a close fitting socket cover 2. This cover would require greater clearance from the neck of electric lamp 3 except for three raised bosses 4 which accommodate the end member 5 of a common bead chain or other suspension device 6 by means of perforation 7 cut in the face of the boss 4. The glass basin 8 is supported by an enlarged terminal member 9 which will not slip through the

hole 10 in the glass basin 8. The glass basin 8 is so shaped that the rays of light 12 reflected from its surface 13 point by point as they approach the perimeter 14 will ever increase the spread of reflected rays of light 15 on the ceiling 17 of the room in which the fixture is placed. The intensity of transmitted light rays 16 through the glass basin 8 is controlled by gradually increasing the density of the glass from perimeter 14 to central point 17.

It will be apparent from the foregoing description that, by my invention of making the glass basin more dense towards the bottom, either by thickening the glass or by applying a graded coating of more dense substance, I will be able to use more intense light sources close to the bottom in comparatively small glass basins and distribute the light over broad areas of ceiling without unduly brightening the outside surface of the glass basin.

It will appear from the foregoing that my invention produces an economical and desirable semi-indirect illumination by employing a smaller and consequently less costly glass basin than heretofore available. I am aware that modifications in details in construction may be made without sacrificing the principle of my invention and I therefore do not desire that it be limited otherwise than by the appended claims.

Having described my invention what I regard as new and desire to secure by Letters Patent is:

1. The combination with a light source and means including a socket for supporting the light source, of a conical-shaped basin of translucent material, a socket cover, and means interposed between the socket cover and the basin for supporting said basin in close proximity to the light source, said basin having side walls of increasing thickness from the perimeter of the basin to the center thereof, thereby to provide for obtaining a substantially uniform light intensity on the outside of the basin.

2. A semi-indirect lighting fixture comprising a light source, means including a socket for supporting the light source, a shallow cone-shaped basin of translucent material, means for supporting the basin from said supporting means whereby the bottom of the basin is positioned in close proximity to the light source, said basin increasing in thickness from the vertex to the periphery.

3. A shallow cone-shaped reflector formed of translucent material, having a thickened curved portion at its vertex, said reflector diminishing

in thickness gradually from the vertex to its perimeter.

4. In a semi-indirect lighting fixture, a shallow cone-shaped reflecting basin of translucent material the walls of which adjacent its vertex are curved, the thickness of said basin being greatest at the curved portion and gradually diminishing therefrom to its perimeter, a light source positioned in proximity to the curved portion, said curved portion and conical portions being adapted to reflect the light rays from said source di-

rectly beyond the perimeter of said basin without crossing of the reflected rays.

5. A reflector for semi-indirect lighting comprising a shallow cone-shaped body of translucent material, the thickness of the body increasing from the periphery to the vertex.

6. A reflector for semi-indirect lighting comprising a shallow cone-shaped body of translucent material, the translucency of the body increasing from the vertex to the periphery.

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