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LIGHTING FIXTURE GLOBE UNIT

Filed May 31, 1957

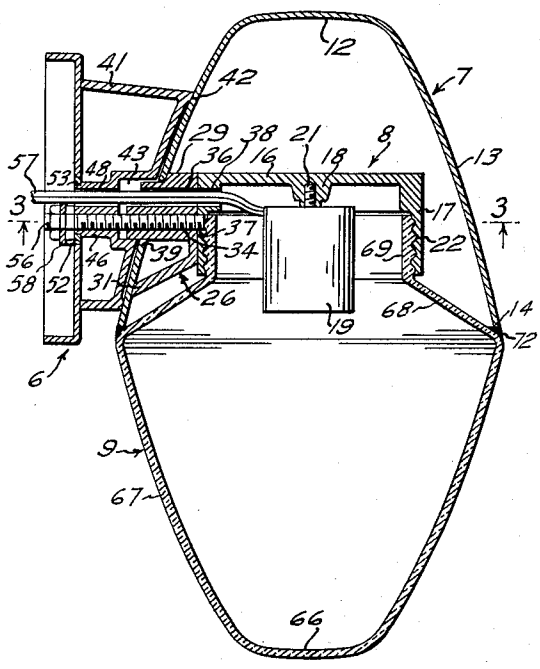


Fig. 1.

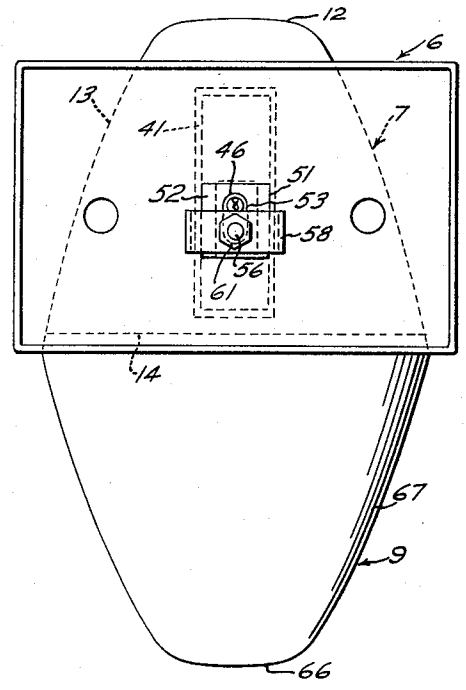


Fig. 2.

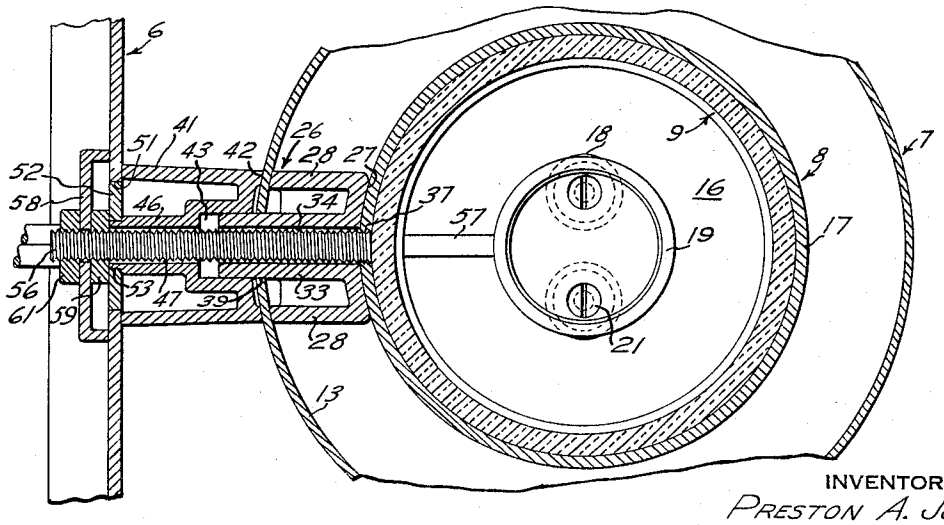


Fig. 3.

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LIGHTING FIXTURE GLOBE UNIT

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4 Claims. (Cl. 240—73)

This invention generally relates to lighting fixtures, and is more particularly directed to a wall fixture in which the lamp is enclosed by a portion of the fixture housing and by a suitable light diffusing globe.

An object of the present invention is to provide a lighting fixture incorporating an upper housing element and a lower diffuser globe formed of glass or the like in which the housing and globe provide a substantially continuous enclosure for receiving a lamp element.

Another object of this invention is to provide a fixture of the character described in which the housing contains a single internal member having a central lamp receiving socket and a concentric globe receiving socket of a size substantially less than the maximum cross sectional extent of the globe whereby the globe may be positioned relative to the housing without any direct attachment therebetween.

A further object of the invention is to provide a fixture as above described in which the housing overlies and embraces a substantial portion of the globe, yet which blends in or merges with the latter to form a smooth unobstructive appearance.

A still further object of the invention is to provide a lighting fixture as hereinabove set forth in which a novel mounting means is provided for releasably positioning an internal lamp socket member concentrically within the housing and which likewise serves for releasably attaching the housing and attached globe to a wall mounting plate or the like.

Another object of the invention is to provide a fixture in which a housing and diffuser globe have substantially identical outward appearances, and are positioned in symmetrical adjacent relationship relative to each other about a vertical and a transverse axis, and in which the globe supporting means are spaced inwardly of the housing and globe walls.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawing accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawing and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawing:

Figure 1 is a vertical cross-sectional view of the fixture of the present invention.

Figure 2 is a rear elevational view.

Figure 3 is a transverse cross-sectional view taken substantially in the plane indicated by line 3—3 of Figure 1, and on an enlarged scale.

In broad terms, the fixture of the instant invention as

illustrated in the drawing includes a wall or ceiling mounting plate 6, a downwardly directed housing unit 7 supported by the mounting plate, a light diffusing bowl or globe extending outwardly from the housing, a supporting member 8 contained within the interior of the housing and to which the globe is detachably secured, means for positioning the housing in spaced relation to the plate, means positioning the supporting member concentrically within the housing, and a lamp socket supported by the member 8. The diffuser globe 9 is made of glass or similar material and is adapted to be positioned relative to the housing so as to provide a substantially continuous and unobstructed enclosure for the lamp element (not shown).

Referring first to the housing 7, the same is made of metal, or other preferably light impervious material, and is of generally inverted frusto-conical configuration, including a generally flat top 12, and an outwardly diverging side wall 13. As will be seen, the housing in the position shown in the drawing is symmetrical about a vertical axis and the bottom end 14 of the side wall lies in a plane perpendicular to such axis.

The supporting member 8 which forms a socket is of generally cylindrical configuration and includes a top wall 16 and a depending side wall 17 and is adapted to perform a two-fold function, namely, to serve as a support for a lamp socket and for the globe. A central boss 18 provided on the wall 16 has a pair of internally threaded bores to receive a conventional lamp socket 19 by means of screws 21 or the like. When the socket 19 is positioned in the member 8, it is disposed centrally of the wall 17 and as will be presently explained likewise disposed centrally of the housing unit 7. The side wall 17 of the member 8 is internally threaded as indicated at 22 for supporting the globe 9 as will be presently explained in more detail.

In order to properly position the member 8 within the housing 7 without requiring fixed connections or any material external projections, I provide a spacer generally indicated by the number 26. This spacer has a side wall 27 which extends for substantially the entire height of the socket wall 17, and in cross section is of arcuate form so as to fit directly against such wall. From the side wall 27, the spacer is provided with a plurality of walls including opposed parallel vertical walls 28, a top wall 29 and a bottom wall 31. The walls 28, 29 and 31 terminate in edges which are cut to fit directly against the inner surface of wall 13 of the housing and the means for attaching the spacer to such wall will be hereinafter explained. In any event, it will be appreciated that with the spacer of proper width inserted between the housing wall 13 and socket wall 17, the socket member 8 may be concentrically positioned within the reflector so that it is disposed on the vertical axis thereof.

It will be noted that the spacer element 26 is provided with a central boss 33 and such boss is provided with a pair of spaced horizontal bores 34 and 36 respectively. These bores are adapted to be positioned in aligned relationship with a pair of bores provided in the side wall 17 of the socket member 8 and indicated in the drawing at 37 and 38. Since the boss 33 of the spacer extends beyond the outer edge or face thereof, a suitably formed slot 39 is provided in the housing wall 13 so as to receive such boss, the boss and opening being of complementary non-circular form so as to thus properly position the spacer relative to the housing and prevent relational displacement therebetween.

As hereinabove mentioned, the housing is adapted to

be positioned in spaced relation to the wall or ceiling mounting plate 6 and this is preferably effected by providing a second spacer element 41 intermediate such plate and the external surface of housing wall 13. This spacer 41 has a front face 42 which extends for a substantial distance along the height of wall 13 and is arcuate in cross section so as to fit snugly against the latter. The face is further provided with a recessed portion 43 which corresponds in cross-section with that of the boss 33 of the first spacer element and is adapted to receive the same so as to hold the two spacers against relative rotation. Also, extending from the recess portion towards the plate 6 is a boss 46 provided with a pair of openings 47 and 48 in alignment with the openings 34 and 36 of the first spacer element. The rearmost edges or face of the spacer 41 are substantially coplanar and are adapted to be positioned against the plate 6. Plate 6 has a generally rectangular opening 51 provided therein in which is fitted a small rectangular block 52, the latter having an aperture 53 therein of substantially the same shape and size as the end of the boss 46 of the spacer 41 so as to receive and position the same relative thereto. It will thus be clear that with the foregoing arrangement and construction, all of the parts will be held against rotation relative to the mounting plate 6.

From the foregoing description it should be understood that in assembling the unit, the socket 8 may be positioned within the housing 7, with the spacer 26 between the socket wall and the side wall of the housing and with the apertures in each in proper alignment. The boss 33 of the spacer is inserted through the opening 39 of the housing and into the recess provided in the second spacer element 41. Then, by inserting a threaded element 56 through the block 52, and the respective bores 47 and 34 of the spacer elements the same may be engaged in the threaded bore 37 of the socket wall 17, thereby rigidly positioning the same relative to the remaining portions of the attaching mechanism. The other apertures 48 and 36 which pass directly through all of the respective elements of the unit are adapted to carry wires 57 to the socket 19 in which the lamp is positioned. Thus, the spacers provide both the means of support as well as the conduit means for electrical connection. To prevent removal of the block 52 and/or accidental turning of the screw element 56, I provide a generally C-shaped clamp 58 which spans the aperture 51 and the block inserted therein. A nut 59 may be positioned on the element 56 against the block 52 which on the other side engages a portion of the boss 46, and a second nut 61 is positioned adjacent the outer surface of the clamp, and by tightening the latter nut the clamp as well as the spacer elements and housing will be positively locked together against relative movement.

As an important feature of the present invention, the socket 8 which supports the lamp socket 19 is also adapted to engage and support the diffuser globe 9. As will be seen, the main body of the globe is substantially symmetrical to the housing 7 and includes a bottom wall 66 and an upwardly and outwardly diverging side wall 67. However, instead of terminating the globe side wall at its juncture with the bottom end portion 14 of the housing side wall, wall 67 is directed radially inwardly and upwardly at a relatively sharp angle to provide an intermediate portion 68 which finally terminates in an upwardly axially extending externally threaded wall 69. This wall 69 is threadedly engaged with the threads 22 of the socket wall 17 and will thus properly maintain the diffuser globe in symmetrical relation with the housing. If desired, a suitable gasket 72 may be interposed between the juncture of the housing portion 14 and the joinder of the globe wall portions 67 and 68 so as to avoid any possibility of damage to the globe at this area. Once the globe is threaded into the socket member, the external appearance of the fixture will be a substantially unobstructed and continuous symmetrical design with the only external evidence of support being by the spacer element 41 interposed between the reflector housing 7 and the mounting plate 6, and as previously explained this element serves in not only supporting the unit but likewise providing electrical connection to the lamp socket. It will be appreciated that the unit may be readily assembled and disassembled by mere removal of the single threaded element 56 since that will release both of the spacer elements and likewise release the socket 8 from its centrally disposed position. After the globe is installed, it will be understood that the threaded wall portion thereof is completely enclosed and protected by the housing wall, and the entire socket and wiring arrangement is likewise protected from weather or other deleterious forces.

What is claimed is:

1. A lighting fixture of the type described comprising a housing having a lower edge defining downwardly directed opening, a top wall and a side wall, a light diffuser globe positioned subjacent said housing and having an upwardly directed opening, said lower edge of said housing being disposed substantially immediately adjacent an intermediate portion of said globe, an internally threaded socket member positioned entirely within said housing, a lamp socket depending from a central portion of said socket member, said globe having an upwardly extending portion encompassing and spaced radially outwardly of said lamp socket and adapted for releasable engagement with said socket member, a laterally extending spacer member positioned intermediate said socket member and said housing, means defining aligned passages through said spacer and housing for releasably securing the same together and for passing electric wires therethrough to said lamp socket.

2. Apparatus as set forth in claim 1 including a vertical mounting bracket having an opening therein, a second spacer member disposed between said housing and bracket and having a passage aligned with said first spacer member passage, said securing means including a longitudinally extending stud threadedly engaged with said socket member and passing through said aligned passages, and nut means for fastening said spacers, said socket and said housing to said supporting plate.

3. A lighting fixture including a generally symmetrical housing having top and side walls and having a bottom opening, a socket member including an axially extending wall positioned concentrically within the chamber defined thereby above the plane of said opening, a radial spacer operatively positioned between said socket member wall and the inner surface of said housing, means releasably attaching said housing, spacer and socket member together, a lamp socket secured to said socket member inwardly of the wall thereof, means defining a conduit passage through said spacer and housing and said socket member wall in communication with said lamp socket, a light diffuser globe having a medial portion positioned immediately adjacent said housing in symmetrical relationship thereto and an integral extension extending into said chamber, and means on said extension for releasably attaching said globe to said socket member wall entirely within said housing.

4. Apparatus of the character described comprising an axially extending housing having a top and side walls and a downwardly directed opening, one of said side walls having an opening, a socket member positioned concentrically within said housing and having a downwardly directed opening, a lamp socket positioned centrally within said socket member above the plane of said opening, a light diffuser globe disposed in axial alignment with said housing and having an upwardly directed opening, said globe having side walls substantially terminating adjacent the ends of said housing and having an inwardly and upwardly directed extension terminating in a threaded end portion releasably engageable with a portion of said socket member, a first spacer member posi-

tioned intermediate said housing and socket member with a portion of the spacer member extending through said opening in one side wall of the housing, a second spacer member having a recess adapted to receive said first spacer portion, threaded means for securing said spacer elements together and engageable with said socket members, and means defining aligned apertures through said spacer members adapted to carry electric wiring to said socket.

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