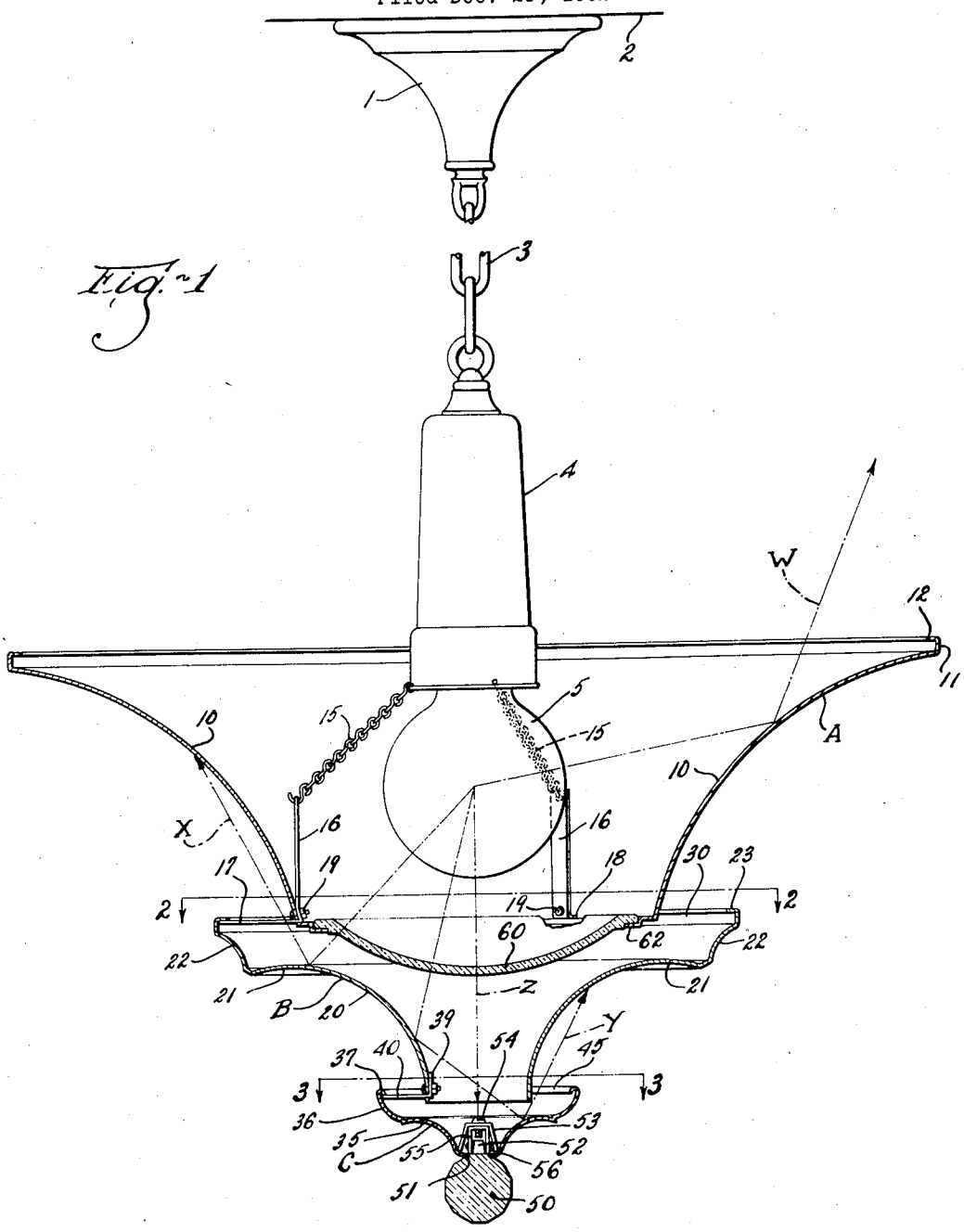
Jan. 2, 1934. G. E. GLATTHAR ET AL 1,941,469

LIGHTING FIXTURE

Filed Dec. 29, 1932 2 Sheets-Sheet 1

Fig. 1



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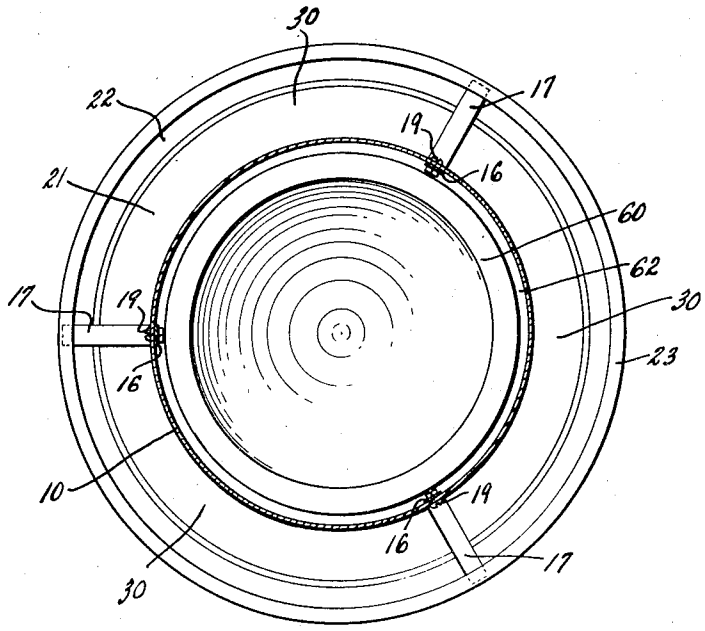


Fig. 2.

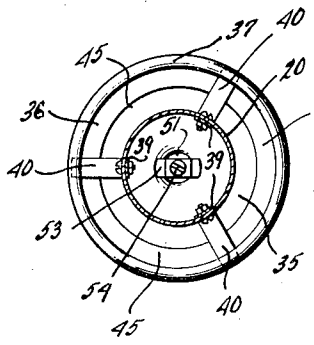


Fig. 3.

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LIGHTING FIXTURE

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Application December 29, 1932
Serial No. 649,366

7 Claims. (Cl. 240—78)

This invention relates to improvements in lighting fixtures and more particularly, in ceiling lighting fixtures of the indirect lighting type.

The general object of the present invention is the provision of an improved ceiling lighting fixture of the type specified, said fixture being of simple and inexpensive construction, of easily assembled and disassembled parts, and of particularly pleasing and attractive appearance.

A more specific object of the present invention is the provision of an improved ceiling lighting fixture of the type specified, which fixture includes an opaque main reflector and an opaque supplemental reflector, said supplemental reflector having for its purpose the illumination of the outer surface of said main reflector. Due to a colored glass disc with which the present fixture is removably provided, the illuminated outer surface of said main reflector is correspondingly colored, and by having a set of differently colored discs for selective use with the present lighting fixture, the illuminated outer surface of said main reflector can be given any desired color. With the present lighting fixture, therefore, variously colored and exceedingly beautiful lighting effects can be easily, conveniently and economically obtained, all as will more fully hereinafter appear.

In one embodiment of the present invention, namely, in the one here illustrated and described, two supplemental reflectors are used, one to illuminate the outer surface of the main reflector, as heretofore referred to, and the other to illuminate the outer surface of said first mentioned supplemental reflector. Due to the colored disc heretofore referred to, the illumination of the outer surfaces of said main reflector and said supplemental reflector is of colored character, although it is to be understood that the use of such a colored disc is not essential to the use of the present lighting fixture and hence said disc may be dispensed with, if and when desired.

As will be apparent hereinafter, a most attractive lighting fixture and most enchanting lighting effects can be provided by giving one or more of the reflectors whose outer surfaces are illuminated a shape or configuration corresponding to that of the supplemental reflector B of the fixture here illustrated and described, to-wit, a shape or configuration which includes an upwardly and outwardly flaring lower portion, an outwardly and slightly downwardly flaring intermediate portion and an upwardly and outwardly flaring ring-like top portion. Due to the lack of an upward curvature or disposition of said intermediate portion, the outer surface of the ring-like top portion of said reflector is not illuminated, with the result that a very pleasing and striking contrast is provided between the top portion of said reflector and the intermediate and lower portions thereof.

A further object of the present invention is the provision of an improved ceiling lighting fixture of the indirect lighting type, said fixture being provided at its lower end with an ornamental glass ball or the like, which ball is more or less illuminated, and in a colored manner if a colored disc is used. The provision of such an illuminated ball not only enhances the attractiveness of the present lighting fixture but it also provides a means for illuminating the outer surface of the adjacent supplemental reflector, and if said illumination is of colored character, as it usually will be, unusually beautiful lighting effects are obtained.

Further objects and features of the present invention are in part obvious and in part will appear more in detail hereinafter.

The invention will be readily understood from the following description and the accompanying illustration of one of the many possible embodiments in which the present invention may take form, it being understood that said description and said illustration are merely illustrative of the invention and do not limit the same.

In the accompanying drawings, Fig. 1 is a vertical sectional view of a lighting fixture illustrating one embodiment of the present invention; and Figs. 2 and 3 are cross-sectional views thereof on the lines 2—2, and 3—3, Fig. 1, respectively.

In the embodiment of the invention here illustrated, a canopy 1 is suitably secured to the ceiling 2 and to said canopy is suitably connected the upper end of a depending chain 3, said chain carrying at its lower end a generally cylindrical housing 4 for a suitable lamp socket (not shown) in which is removably secured a suitable lamp bulb 5.

Suitably supported from the socket housing 4 is the main reflector A of the present improved lighting fixture, said reflector being of any suitable opaque material, such as spun brass, and of any desired shape. As here shown, it is of inverted, outwardly flaring, somewhat frusto-conical shape, with an upwardly and outwardly flaring side wall 10 provided at its upper end with an upwardly extending, relatively narrow top portion 11 terminating in a short, inwardly extending annular flange 12.

The means for supporting said main reflector from the socket housing 4 comprises a plurality, say three, of circumferentially spaced chains 15 having their upper ends suitably secured to the lower end of the socket housing 4 and having their lower ends hooked or otherwise removably secured to the upper ends of the vertically disposed portions 16 of generally L-shaped supporting members, the horizontally disposed portions 17 of which members extend outwardly through suitable slots 18 in the lower end of said main reflector, said reflector lower end lying at substantially the junction of the vertically and horizontally disposed portions 16, 17 of said supporting members, as shown. To prevent said supporting members from moving inwardly relative to said main reflector, the vertically disposed portions 16 of said members are bolted at 19 or otherwise suitably secured to said reflector.

Suitably supported on the outer ends of the horizontally disposed portions 17 of said supporting members is the upper end portion of a supplemental reflector B, which reflector like the main reflector A may be of any suitable opaque material, such as spun brass, and of any desired shape. As here shown, said supplemental reflector is of inverted, outwardly flaring, somewhat frusto-conical shape with a lower portion 20 flared upwardly and outwardly, an intermediate portion 21 flared outwardly and slightly downwardly, and a generally ring-like top portion 22 flared upwardly and outwardly and terminating in a short, inwardly extending annular flange 23 which rests upon the outer ends of the horizontally disposed portions 17 of the L-shaped supporting members. In this way, both the main reflector A and the supplemental reflector B are carried by said L-shaped supporting members, all as will be readily understood.

The function of the main reflector A is, of course, to provide the main illumination by directing upwardly toward the ceiling the light rays horizontally emitted by the lamp bulb 5, one such ray being indicated by the dash-dot line W, and the function of the supplemental reflector B is to direct upwardly onto the outer surface of said main reflector some of the light rays downwardly emitted by the lamp bulb 5, one such ray being indicated by the dash-dot line X. In this way, the outer surface of said main reflector is illuminated, said reflector appearing to be of translucent, rather than opaque, material. The light rays which illuminate the outer surface of the main reflector pass, of course, from the inner reflecting surface of the supplemental reflector B upwardly through the circumferentially disposed elongated spaces 30 between the horizontally disposed portions 17 of the L-shaped supporting members and between the lower end of said main reflector A and the inwardly extending annular flange 23 of the top portion 22 of said supplemental reflector B.

In the embodiment of the invention here shown, an additional supplemental reflector, marked C, is used, the function of which is to illuminate the outer surface of the supplemental reflector B. Like said supplemental reflector B, the supplemental reflector C may be of any suitable material, such as spun brass, and of any desired shape. It is here shown as of inverted, somewhat frusto-conical shape, with a lower portion 35 flared upwardly and outwardly and an upper, slightly curved portion 36 extending upwardly and outwardly and terminating in a reversely bent or depending flange 37.

This supplemental reflector C is supported from the supplemental reflector B located thereabove, the supporting means here shown for said purpose comprising a plurality, say three, of circumferentially spaced, generally L-shaped members, each having a relatively short, vertically disposed securing portion 39 bolted, welded or otherwise suitably secured to the inner surface of the lower end of the supplemental reflector B and an outwardly extending, horizontally disposed supporting portion 40 on the outer end of which rests the reversely bent or depending flange 37 of the supplemental reflector C.

The particular means here shown for supporting the main reflector A and the supplemental reflectors B and C, as well as the means for supporting the ornamental glass ball 50 hereinafter described, form at least part of the subject matter of our copending application for a Lighting fixture, application Ser. No. 653,678, filed January 26, 1933.

As indicated by the dot-dash line Y, some of the light rays downwardly emitted by the lamp bulb 5 are directed by the inner reflecting surface of the supplemental reflector C upwardly onto the outer surface of the suplemental reflector B, with the result that said reflector surface is illuminated and said reflector is thereby caused to appear to be made of translucent material, rather than opaque material. Said rays pass, of course, from the supplemental reflector C onto the outer surface of the supplemental reflector B upwardly through the circumferentially disposed, elongated spaces 45 between the horizontally disposed portions 40 of the supporting members for said supplemental reflector C and between the lower end of said supplemental reflector B and the depending or reversely bent top flange 37 of the supplemental reflector C. Due to the lack of an upward curvature or disposition of the intermediate portion 21 of the supplemental reflector B, the outer surface of the ring-like top portion 22 of said supplemental reflector B is not illuminated, with the result that a particularly pleasing and striking contrast is provided between said top portion 22 and the intermediate and lower portions 21, 20 of said supplemental reflector, all as will be readily understood.

In the embodiment of the invention here illustrated, an ornamental glass ball 50 or the like closes the opening 51 at the lower end of the supplemental reflector C, said ball being provided with a suitable stud portion 52 extending upwardly through said reflector opening. Resting upon or otherwise suitably supported by the lower end of said supplemental reflector C, adjacent the opening 51 thereof, is a suitable metal bracket 53 shaped generally in the form of an inverted U and to said bracket is adjustably secured, such as by means of a screw 54, a correspondingly shaped bracket 55 having its lower ends suitably secured to the stud portion 52 of said ball, such as by means of a split rivet 56 or the like. By merely adjusting said screw 54, the ball 50 can be drawn upwardly into more or less rigid assembly with the supplemental reflector C, thereby avoiding the liability of said ball shaking or rattling, etc.

When the lamp bulb 5 is illuminated, some of the light rays downwardly emitted thereby, such as the one indicated by the dash-dot line Z, will pass downwardly through the opening 51 at the lower end of the supplemental reflector C and will hence illuminate the ball 50, causing it to particularly glow in a very attractive manner at the

top thereof adjacent its stud portion 52. In addition to illuminating said ball, some of the light rays passing downwardly through the opening 51 of supplemental reflector C are directed by said ball upwardly onto the outer surface of said supplemental reflector C, with the result that said reflector surface is thereby illuminated.

It will thus be seen that in the present embodiment of the invention, at least some parts of the outer surfaces of all three reflectors A, B and C are softly illuminated, with the result that said illuminated parts appear to be of some beautiful translucent material, rather than of plain opaque material, such as brass.

In order to give the illuminated outer surfaces of these three reflectors A, B and C a colored effect, and hence increase or enhance the attractiveness of the present lighting fixture, suitable colored means is so positioned below the lamp bulb 5 that the light rays downwardly emitted thereby will be forced to pass through said colored means and hence will be correspondingly colored thereby. By providing a set of such means, each of a different color, the illuminated outer surfaces of the main and supplemental reflectors can be given any desired colored effect, and with each change of colored means, a different lighting fixture is seemingly provided, all without sacrificing the main illumination afforded by the fixture or of coloring it in any way.

Each colored means as here shown comprises a simple glass disc 60 preferably supported by the main reflector A in any suitable manner. To this end, said main reflector is provided at its lower end with an inwardly extending annular flange 62, on which the marginal portion of a colored glass disc 60 is removably supported. By merely changing colored discs 60, various color effects can be easily, quickly and economically obtained, it being merely necessary to remove the particular disc being supported on the main reflector flange 62 and to position thereon a differently colored disc, all as will be readily understood. In order that the colored effects will be uniform, each of the discs 60 is preferably of such size as to completely close the lower end or mouth of the main reflector A, thereby making it necessary for all downwardly emitted light rays to pass through a disc, all as clearly shown in Figs. 1 and 2 and as will be readily understood.

To enable the present lighting fixture to be readily tilted with respect to the lamp bulb 5, to thereby enable one of the chains 15 to be disconnected from the vertically disposed portion 16 of a supporting member and thus enable a change in colored discs to be readily effected, each of said colored discs is preferably of concave form, as shown. As a result, the present fixture can be readily tilted relative to the lamp bulb 5 without the liability of said bulb and such a colored disc 60 coming into harmful contact.

Further features of the present lighting fixture will be apparent, of course, to those skilled in the art to which it relates.

What we claim is:

1. In a lighting fixture, a light source, an opaque main reflector for directing outwardly from said light source a major portion of the light rays emitted thereby, an opaque supplemental reflector having a reflecting area for directing onto the outer surface of said main reflector a minor portion of the light rays emitted by said light source, and colored means spaced from said reflecting area of said supplemental reflector and through which said minor portion of light rays pass before striking said reflecting area, whereby the light rays directed onto the outer surface of said main reflector by the reflecting area of said supplemental reflector are correspondingly colored.

2. In a lighting fixture, a light source, an opaque main reflector for directing outwardly from said light source a large portion of the light rays emitted thereby, an opaque supplemental reflector for directing onto the outer surface of said main reflector a small portion of the light rays emitted by said light source, and colored means removably mounted on said main reflector and through which said small portion of light rays pass before striking said supplemental reflector, whereby the light rays directed onto the outer surface of said main reflector by said supplemental reflector are correspondingly colored.

3. In a lighting fixture, a light source, an opaque main reflector for directing outwardly from said light source a major portion of the light rays emitted thereby, an opaque supplemental reflector for directing onto the outer surface of said main reflector a small portion of the light rays emitted by said light source, another opaque supplemental reflector for directing onto the outer surface of said first mentioned supplemental reflector a small portion of the light rays emitted by said light source, and a single colored means through which said small portions of light rays pass before striking said supplemental reflectors, whereby the light rays directed onto the outer surfaces of said main reflector and said first mentioned supplemental reflector are correspondingly colored.

4. In a lighting fixture, a light source, an opaque main reflector for directing outwardly from said light source a large portion of the light rays emitted thereby, an opaque supplemental reflector for directing onto the outer surface of said main reflector a small portion of light rays emitted by said light source, opaque supplemental reflecting means for directing onto the outer surface of said supplemental reflector a small portion of light rays emitted by said light source, one of said reflectors being provided at one end with a generally annular portion on the outer surface of which none of the above referred to light rays are directed, and colored means through which said small portions of light rays pass before striking said supplemental reflector and said supplemental reflecting means, whereby the light rays directed onto the outer surface of said main reflector and said supplemental reflector are correspondingly colored.

5. In a lighting fixture, a light source, an opaque main reflector for directing outwardly from said light source a large portion of the light rays emitted thereby, an opaque supplemental reflector for directing onto the outer surface of said main reflector a small portion of the light rays emitted by said light source, another opaque supplemental reflector for directing onto the outer surface of said first mentioned supplemental reflector a small portion of the light rays emitted by said light source, said first mentioned supplemental reflector being provided at one end with a generally annular portion on the outer surface of which none of the above referred to light rays are directed, and colored means through which said small portions of light rays pass before striking said supplemental reflectors, whereby the light rays directed onto the outer surfaces of said main reflector and said first

mentioned supplemental reflector are correspondingly colored.

6. In a lighting fixture, a light source, an opaque main reflector for directing outwardly from said light source a major portion of the light rays emitted thereby, an opaque supplemental reflector having a reflecting area for directing onto the outer surface of said main reflector a small portion of the light rays emitted by said light source, another opaque supplemental reflector having a reflecting area for directing onto the outer surface of said first mentioned supplemental reflector a small portion of the light rays emitted by said light source, and colored means through which said small portions of light rays pass before striking the reflecting areas of said supplemental reflectors, whereby the light rays directed onto the outer surfaces of said main reflector and said first mentioned supplemental reflector are correspondingly colored, said colored means being spaced from the reflecting area of said supplemental reflectors.

7. In a lighting fixture, a light source, an opaque main reflector for directing outwardly from said light source a major portion of the light rays emitted thereby, an opaque supplemental reflector having a reflecting area for directing onto the outer surface of said main reflector a small portion of the light rays emitted by said light source, another opaque supplemental reflector having a reflecting area for directing onto the outer surface of said first mentioned supplemental reflector a small portion of the light rays emitted by said light source, and a single colored means through which said small portions of light rays pass before striking the reflecting areas of said supplemental reflectors, whereby the light rays directed onto the outer surfaces of said main reflector and said first mentioned supplemental reflector are correspondingly colored, said colored means being spaced from the reflecting area of said supplemental reflectors.

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