Feb. 22, 1949. H. E. BOHL 2,462,714

CIRCULAR-LINE FLUORESCENT LIGHTING FIXTURE

Filed Dec. 6, 1945

Fig. 1

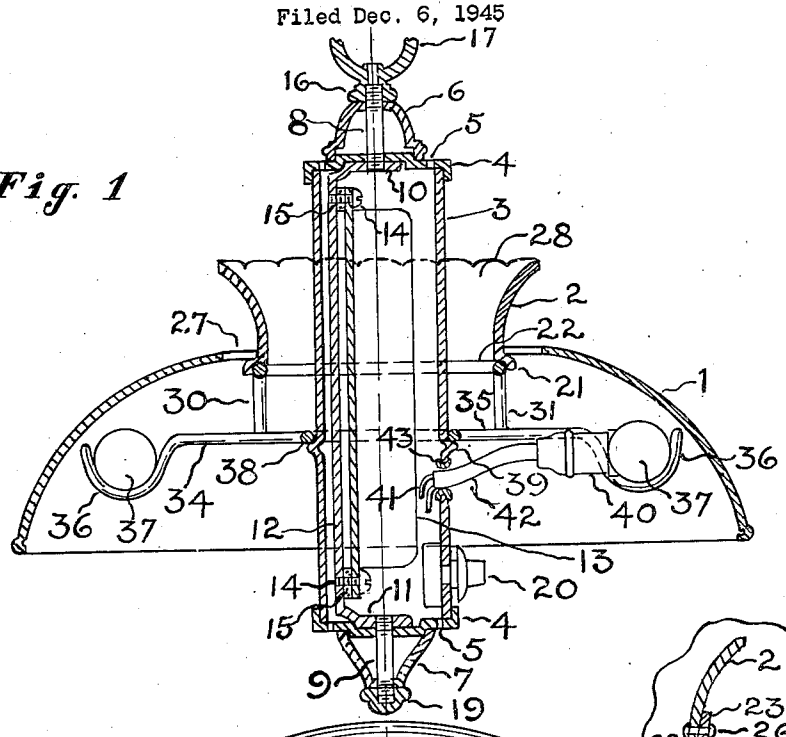
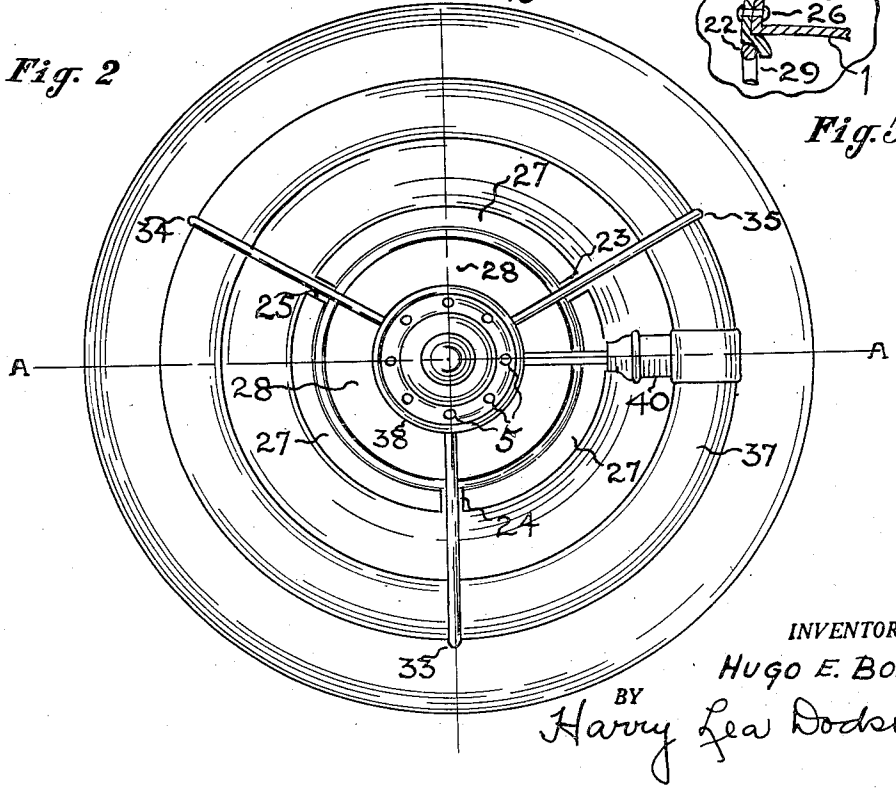


Fig. 2



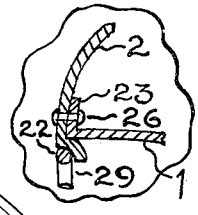


Fig. 3

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CIRCULAR-LINE FLUORESCENT LIGHTING FIXTURE

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5 Claims. (Cl. 240—51.12)

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My invention relates to that class of lighting fixtures employing fluorescent lights. It has been known to the industry that notwithstanding the efficiency and desirability of fluorescent lighting it does not lend itself to ornamental design. As a consequence its use has been largely restricted to commercial installations.

Recently, however, there has been developed a circular fluorescent lamp. This because of its shape lends itself readily to ornamental designs which are suitable for lighting the interior of homes.

My invention has for its principal object to construct a luminaire in which the ballast is placed centrical of the fixture. The lamp is supported by a spider, carried by the casing in which the ballast is housed. The central portion of the shade is spaced from the ballast housing and this has the effect of directing a halo of light to the ceiling. The remainder of the light rays are reflected downwardly. In this manner I am able to attain an even and soft distribution of light, on the ceiling but the maximum of light is directed downwardly.

A further object of my invention is to locate the switch at a position which will make it easy for the user to turn the light on and off.

A further object of my invention is to provide means for carrying the wires from the socket to the starting switch.

A further object of my invention is to provide a combination support which will carry both the reflector and the lamp without the necessity of any tools to attach it to the depending ballast housing.

By means of accomplishing the foregoing objects may be more fully comprehended by having reference to the accompanying drawings which are hereunto annexed and are a part of this application, in which:

Fig. 1 is a vertical sectional view of the luminaire embodying my invention;

Fig. 2 is a view of the same looking upwardly from the bottom, and

Fig. 3 is a fragmentary detail view.

Similar reference numerals refer to similar parts throughout the specification.

As shown in the drawings the luminarie consists of a reflector 1, as shown it is of inverted bowl shape, which has an upwardly extending portion or crown 2. This reflector surrounds the ballast housing 3, which is preferably circular in form and is closed at its upper and lower ends by ventilating caps 4. These caps are provided with a plurality of apertures 5, for ventilation. The upper cap has an upwardly extending portion 6, which lends itself readily to ornamentation. The lower cap 7, which is mounted at the bottom of the ballast housing 3 is of slightly different configuration. The two caps are held in place by nipples 8 and 9, the inner ends of which are screwed into the ends 10 and 11 of a strap 12, which forms a support for the ballast 13, which is fastened to the strap 12 by screws 14. Insulating washers 15 being provided to insulate the ballast from the strap 12.

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A finial 16 is mounted on the outer end of the nipple 8, and has a loop 17, cast integral therewith to which is attached a chain (not shown). A bottom knob 19 is mounted on the outer end of nipple 9, thus serving to support not only the ballast but the fixture itself.

The cylindrical housing 3 which houses the ballast extends upwardly beyond the reflector 1, and its upper portion 2, and down below the plane of the bottom of the reflector 1. A switch 20, is mounted in this ballast housing, adjacent its lower end thus affording means for convenient manipulation thereof to turn the light on and off.

The top portion of the reflector is formed with a circumferential curved flange 21, which is fitted to and coincides with a ring 22, and rests thereon. The main portion of the reflector is secured to the upper portion by means of three lugs 23, 24, and 25, which preferably extend from the edge of the opening in the center of the reflector and are bent upwardly. They are preferably secured to the top portion of the reflector by means of rivets 26, or in any other suitable or convenient manner, as clearly seen in Fig. 3.

It will thus be seen that the lower portion of the reflector is separated from the upper portion by means of a space forming arcurate apertures, and the upper portion of crown 2 is separated from the ballast housing 3 by a space 28.

The wire ring 22, is carried by three downwardly depending arms 29, 30, and 31, which rest upon three radially extending arms 33, 34, and 35, the outer ends of which are bent into a semicircular form as at 36. The circular fluorescent lamp 37 rests on these arms as clearly seen in Fig. 1. The arms 33, 34 and 35, extend outwardly from an inner ring 38, which is fitted to and coincides with the outer surface of the ballast housing 3. This ring rests upon a circumferential bead 39 formed on the wall of said housing. This bead may be spun or rolled in the wall of the ballast housing. It will be apparent from this that no machine work is involved, nor are there

any tools required to fit the lamp and supporting spider to the ballast housing.

While I have described specifically a bead formed on the outer surface of the ballast housing, obviously any other means may be provided which will support the inner ring 38 of the spider.

A socket 40, is provided to connect the wires 41 to the lamp 37. These wires are carried by a flexible tube 42 which extends from the socket 39 to the lower portion of the ballast housing 3. A grommet 43, may be provided to protect the flexible housing from contact with the wall of the ballast housing 3.

While I have described with some degree of particularity specific details of construction, I do not desire to be understood as limiting myself to such specific details except where they are embodied in the hereinafter appended claims.

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

1. In a fluorescent lighting fixture, the combination of a central member adapted to receive a fluorescent lamp transformer, a circular fluorescent lamp connected therewith, means to form a complete electrical circuit, and a reflector assembly comprising a downwardly reflecting canopy having arcuate apertures surrounding an upwardly extending crown adapted to reflect light from said apertures in a generally horizontal direction, and means embracing said central member which supports said lamp together with said reflector assembly above said lamp.

2. In a fluorescent lighting fixture, the combination of a central member adapted to receive a fluorescent lamp transformer, a circular fluorescent lamp connected therewith, means to form a complete electrical circuit and a reflector assembly comprising a downwardly reflecting canopy having arcuate apertures surrounding an upwardly extending crown, said crown fixedly attached to said canopy, said crown adapted to reflect direct light rays, and means on said crown to engage supporting means embracing said cylindrical member which supports said lamp.

3. In a fluorescent lighting fixture, the combination of a central member adapted to receive a fluorescent lamp transformer, a circular fluorescent lamp connected therewith, means to form a complete electrical circuit and a reflector assembly comprising a downwardly reflecting canopy having arcuate apertures surrounding an upwardly extending crown, said crown being spaced from said central member and adapted to allow light to pass through the center thereof and to reflect light from said apertures, and means embracing said central member which supports said lamp and said reflector assembly above said lamp.

4. In a fluorescent lighting fixture, the combination of a central member adapted to receive a fluorescent lamp transformer, heat releasing slots in said member, a starting switch in said member, a circular fluorescent lamp connected with said transformer and said starting switch to form a complete electrical circuit, and a reflector assembly comprising a downwardly reflecting canopy having arcuate apertures surrounding an upwardly extending crown adapted to reflect light from said apertures in a generally horizontal direction, and means embracing said central member which supports said lamps and said reflector assembly above said lamp.

5. In a fluorescent lighting fixture, the combination of a central vertically elongated member adapted to receive a fluorescent lamp transformer, a circular fluorescent lamp connected therewith, means to form a complete electrical circuit, and a reflector assembly comprising an open downwardly opening centrally apertured canopy positioned above said lamp, there being a crown fixedly attached to said canopy and filling said aperture arcuate apertures in said canopy surrounding the base of said crown, said crown adapted to reflect light passing through said apertures in a generally horizontal direction while freely permitting upwardly passing light through its center, and means embracing said central member which supports said lamp and said reflector assembly above said lamp.

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