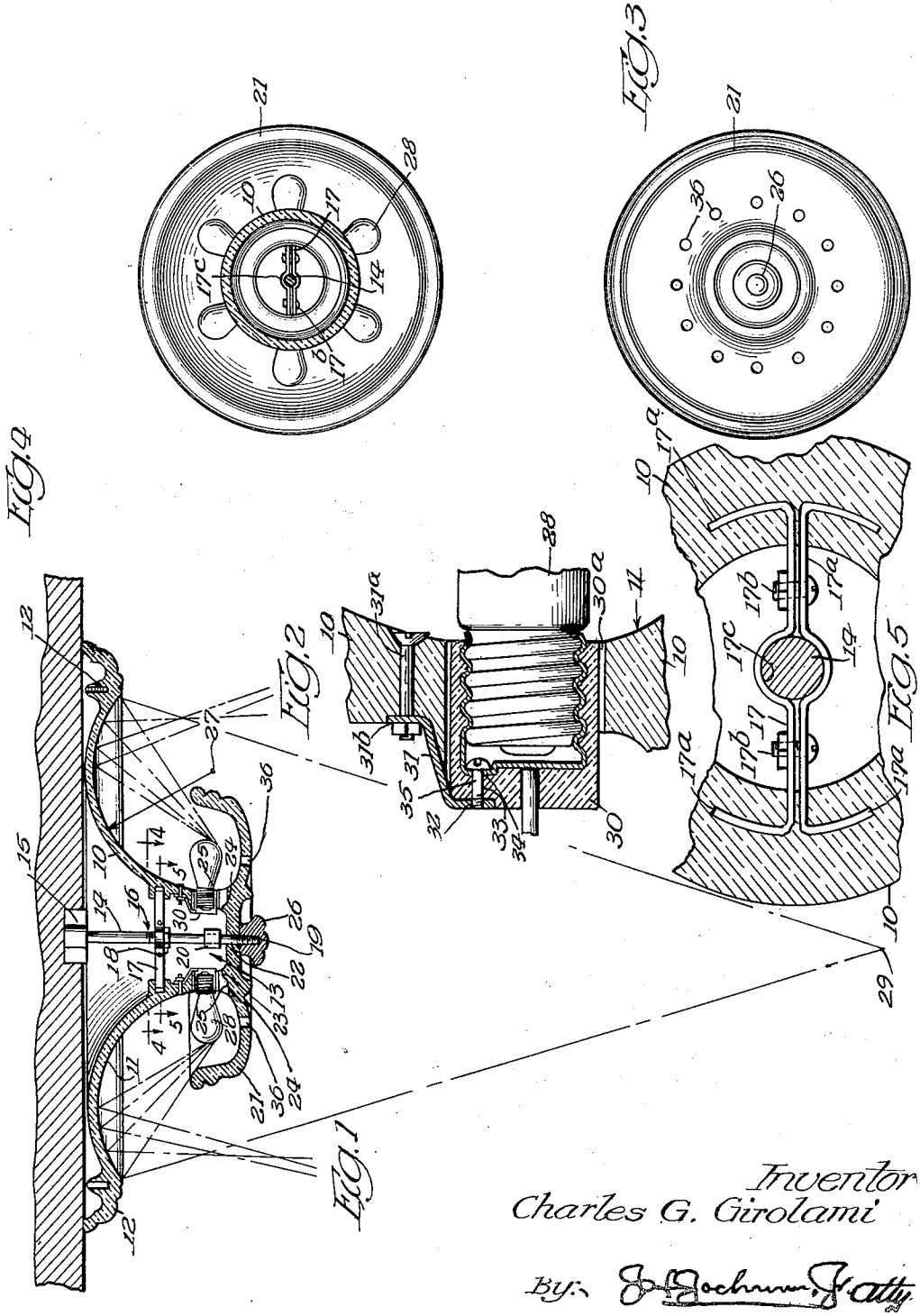
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C. G. GIROLAMI

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CEILING LIGHTING FIXTURE HAVING AN INVERTED CONICAL REFLECTOR

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Inventor

Charles G. Girolami

By: J. Jochum & Watty

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CEILING LIGHTING FIXTURE HAVING AN INVERTED CONICAL REFLECTOR

Charles G. Girolami, Chicago, Ill.

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11 Claims. (Cl. 240—78)

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This invention relates to improvements in electric lighting fixtures, of the indirect or semi-indirect type, and one of the objects of the invention is to provide a fixture of this character, which is of a simple construction and in which the number of parts is reduced to a minimum, and which will possess a pleasing and attractive appearance.

A further object is to provide an improved fixture of this character, in which the parts may be readily assembled, and which embodies opposed reflectors between which the lamps are disposed, one of which reflectors may be readily detached or separated from the other, to permit ready access to the lamps, both reflectors being supported by the same centrally disposed supporting hanger.

To the attainment of these ends, and the accomplishment of other new and useful objects as will appear, the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts, hereinafter more fully described and claimed, and shown in the accompanying drawing illustrating this invention, in which

Fig. 1 is a central vertical section of a lighting fixture constructed in accordance with the principles of this invention.

Fig. 2 is an enlarged detail sectional view, showing the manner of mounting or securing one of the lamp sockets in position.

Fig. 3 is a bottom plan view of Fig. 1.

Fig. 4 is an enlarged detail sectional view taken on line 4—4, Fig. 1.

Fig. 5 is an enlarged detail sectional view on line 5—5, Fig. 1.

The lighting fixture shown embodies a suitable shaped ceiling reflector 10, preferably circular, and preferably cone-shaped so as to spread the rays reflected from its surface 11. The reflector may be constructed of any suitable material, such as a composition having plaster of Paris as a base, which can be cast in molds given any desired curvature and surface ornamentation. If desired, in order to impart rigidity and strength thereto, suitable reinforcing means 12, such as a metallic strip or bar, may be embedded therein.

The reflector 10 is provided with a central opening 13, and is supported, preferably, by means of a hanger member 14, preferably in the form of a rod or pipe that is anchored at one end to a ceiling member 15, and is provided with screw threads 16 at its other end. This hanger member passes through an opening in a spider

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17 that extends across the opening 13, the spider being secured or anchored in position in any suitable manner, such as by having its ends 17a separated and embedded in the conical portion of the reflector 10. The spider may be formed of two separate members secured together by screws or bolts 17b, and shaped to have an opening 17c through which the hanger member 14 passes.

A nut or collar 18 is threaded upon the member 14; engages the spider 17, and holds the periphery of the reflector against the ceiling. A reduced extension 19 is secured to the member 14 in any suitable manner, such as by means of a coupling 20, and this extension projects through the opening 13, and beyond the extremity of the conical portion of the reflector or ceiling plate 10, and is provided with screw threads, for a purpose to be set forth.

The bottom portion of the reflector embodies a reflector or bowl-shaped member 21, which is also constructed of any suitable material such as a plaster, or of plaster of Paris, and is provided with a central opening 22. A wall or upwardly projecting portion 23 encompasses the opening 22, and the upper face of this wall is stepped, as at 24, to fit a similarly stepped surface 25 on the end of the conical portion of the ceiling reflector 10, so that when the lower reflector 21 is placed in position, the stepped portions 24, 25 will match, and provide a tight or smooth fit . The lower reflector 21 is held in position by means of the extension 19, passing through the opening 22. A finial 26 is screwed or otherwise attached to the end of the member or extension 19, and bears against the lower face of the reflector member 21, to hold the stepped surfaces 24, 25 in engagement. The finial may be wholly or partially recessed into the lower face of the bottom reflector 21.

The diameter of the lower reflector or bowl 21 is considerably less than the diameter of the ceiling member or reflector 10, and the surface 11 of the reflector 10 is curved, and is described on a radius struck from a point beyond the peripheral edge of the lower reflector 21, such as from the point 27, so that the rays from the lamp 28 will strike the surface 11 of the ceiling reflector beyond the peripheral edge of the lower reflector 21, to be reflected to the point 29, as indicated by the lines in Fig. 1. The lamps 28 are arranged between the reflectors, and within the lower reflector or bowl 21, and are removably held in position by means of sockets 30, to which latter the usual conductor elements are secured. These

sockets are secured in position by being attached to a band or member 31 that is disposed within the upper reflector 10, and is provided with threaded openings 32. The socket member is provided with a closed base having an opening 33 therein, which passes through the base, and through which last said opening 34a fastening device such as a screw or the like 35 passes, to engage in the respective openings 32 in the members 31, thereby securing the socket removably in position. This band or member 31 is secured in position by fastening means or bolts 31a engaging nuts 31b.

If desired, and in order to provide air circulation passages, openings 36 may be provided through the wall of the lower reflector 21. The lower reflector or bowl 21 may be of translucent material where a semi-indirect lighting system is desired, or may be of opaque material where an indirect system is employed.

The lamp sockets may be of any desired material and when placed in position in the fixture there may be provided an air circulation space 30a.

The conductor wires enter the fixture along the outside of the hanger member 14, into the space 13 and secured to the sockets 30 in the usual or any suitable manner.

While the preferred form of the invention has been herein shown and described, it is to be understood that various changes may be made in the details of construction, and in the combination and arrangement of the several parts, within the scope of the claims, without departing from the spirit of this invention.

What is claimed as new is:

1. In a lighting fixture, a ceiling reflector having an inverted substantially conical shaped portion provided with an opening through the apex of said conical portion thereby providing a downwardly facing annular surface, a supporting member carried by said portion, extending across said opening and spaced from the end of said conical portion, a lower bowl-shaped reflector having an upwardly extending annular rib centrally disposed therein and fitting against said downwardly annular surface to form a closure for said opening, a hanger member anchored at one end to the ceiling and passing through said supporting member and the lower reflector, means engaging said hanger member for supporting the reflectors and for maintaining them in assembled relation, the diameter of the lower reflector being substantially less than the diameter of the ceiling reflector member, and lamps removably supported by the ceiling reflector and disposed between the reflector members and concealed by the lower reflector member.

2. In a lighting fixture, a ceiling reflector having an inverted substantially conical shaped portion provided with an opening through the apex of said conical portion thereby providing a downwardly facing annular surface, a supporting member carried by said portion, extending across said opening and spaced from the end of said conical portion, a lower bowl-shaped reflector having an upwardly extending annular rib centrally disposed therein and fitting against said downwardly annular surface to form a closure for said opening, a hanger member anchored at one end to the ceiling and passing through said supporting member and the lower reflector, means engaging said hanger member and individual to said supporting member and said lower reflector, for supporting the reflectors and for maintaining them in assembled relation, the diameter of the lower reflector being substantially less than the diameter of the lower reflector member, and lamps removably supported by the ceiling reflector and disposed between the reflector members and concealed by the lower reflector member.

3. In a lighting fixture, a ceiling reflector having an inverted substantially conical shaped portion provided with an opening through the apex of said conical portion thereby providing a downwardly facing annular surface, a supporting member carried by said portion, extending across said opening and spaced from the end of said conical portion, a lower bowl-shaped reflector having an upwardly extending annular rib centrally disposed therein and fitting against said downwardly annular surface to form a closure for said opening, a hanger member anchored at one end to the ceiling and passing through said supporting member and the lower reflector, means engaging said hanger member for supporting the reflectors and for maintaining them in assembled relation, the diameter of the lower reflector being substantially less than the diameter of the ceiling reflector member, and lamps removably supported by the ceiling reflector and disposed between the reflector members and concealed by the lower reflector member, the contacting portions of the proximate faces of the reflector members having stepped engagement.

4. In a lighting fixture, a ceiling reflector having an inverted substantially conical shaped portion provided with an opening through the apex of said conical portion thereby providing a downwardly facing annular surface, a supporting member carried by said portion, extending across said opening and spaced from the end of said conical portion, a lower bowl-shaped reflector having an upwardly extending annular rib centrally disposed therein and fitting against said downwardly annular surface to form a closure for said opening, a hanger member anchored at one end to the ceiling and passing through said supporting member and the lower reflector, means engaging said hanger member for supporting the reflectors and for maintaining them in assembled relation, there being a space between said supporting member and the adjacent portion of the lower reflector for the reception of conductor members for the lamps, the diameter of the lower reflector being substantially less than the diameter of the ceiling reflector member, and lamps removably supported by the ceiling reflector and disposed between the reflector members and concealed by the lower reflector member.

5. In a lighting fixture, a ceiling reflector having an inverted substantially conical shaped portion provided with an opening through the apex of said conical portion thereby providing a downwardly facing annular surface, a supporting member carried by said portion, extending across said opening and spaced from the end of said conical portion, a lower bowl-shaped reflector having an upwardly extending annular rib centrally disposed therein and fitting against said downwardly annular surface to form a closure for said opening, a hanger member anchored at one end to the ceiling and passing through said supporting member and the lower reflector, means engaging said hanger member for supporting the reflectors and for maintaining them in assembled relation, the diameter of the lower reflector being substantially less than the diameter of the ceiling reflector member, lamps removably supported by the ceiling reflector and disposed between the

reflector members and concealed by the lower reflector member, and air circulation passages through the lower reflector, beyond the periphery of said conical portion of the ceiling reflector.

6. In a lighting fixture, a ceiling reflector having a central inverted conical portion provided with an opening through the apex thereof, a supporting member carried by said portion and extending across the said opening, adjacent but spaced from the end of said conical portion, a lower reflector member having an upwardly extending centrally disposed annular rib abutting against the edge of said opening to form a closure for such opening, the diameter of the lower reflector being less than the diameter of the ceiling reflector member, a hanger member anchored by one end to the ceiling and passing through said supporting member, a collar on said hanger engaging said supporting member for maintaining the ceiling reflector in position, an extension on said hanger member passing through said lower reflector, a collar adjustably connected to said extension and engaging the lower reflector member, for maintaining the reflectors in assembled relation, and lamp sockets secured on and extending in openings in the conical portion for supporting lamps in position between the reflector members.

7. In a lighting fixture, a ceiling reflector having a central inverted conical portion provided with an opening through the apex thereof, a supporting member carried by said portion and extending across the said opening, adjacent but spaced from the end of said conical portion, a lower reflector member having an upwardly extending centrally disposed annular rib abutting against the edge of said opening to form a closure for such opening, the diameter of the lower reflector being considerably less than the diameter of the ceiling reflector member, the lower face of the ceiling reflector being curved and formed by the revolution of an arc struck from a point disposed beyond the periphery of the lower reflector member, a hanger member anchored by one end to the ceiling and passing through said supporting member, a collar on said hanger engaging said supporting member for maintaining the ceiling reflector in position, an extension on said hanger member passing through said lower reflector, a collar adjustably connected to said extension and engaging the lower reflector member, for maintaining the reflectors in assembled relation, and lamp sockets secured on and extending in openings in the conical portion for supporting lamps in position between the reflector members.

8. In a lighting fixture, a ceiling reflector having a central inverted conical portion provided with an opening through the apex thereof, a supporting member carried by said portion and extending across the said opening, adjacent but spaced from the end of said conical portion, a lower reflector member having an upwardly extending centrally disposed annular rib abutting against the edge of said opening to form a closure for such opening, the diameter of the lower reflector being less than the diameter of the ceiling reflector member, a hanger member anchored by one end to the ceiling and passing through said supporting member, a collar on said hanger engaging said supporting member for maintaining the ceiling reflector in position, an extension on said hanger member passing through said lower reflector, a collar adjustably connected to said extension and engaging the lower reflector member, for maintaining the reflectors in assembled relation, and lamp sockets secured on and extending in openings in the conical portion for supporting lamps in position between the reflector members, said lower reflector being separable from the ceiling reflector, while the latter remains intact and attached to the ceiling.

9. In a lighting fixture, a ceiling reflector having a central inverted conical portion provided with an opening through the apex thereof, a supporting member carried by and extending across the said opening, adjacent but spaced from the end of said conical portion, a lower reflector member having an upwardly extending centrally disposed annular rib abutting against the edge of said opening to form a closure for such opening, the diameter of the lower reflector being less than the diameter of the ceiling reflector member, a hanger member anchored by one end to the ceiling and passing through said supporting member, a collar on said hanger engaging said supporting member for maintaining the ceiling reflector in position, an extension on said hanger member passing through said lower reflector, a collar adjustably connected to said extension and engaging the lower reflector member, for maintaining the reflectors in assembled relation, and lamp sockets secured to the wall of said conical portion and between said supporting member and the lower reflector, and freely accessible when said lower reflector is removed.

10. In a lighting fixture, a ceiling reflector having a central inverted conical portion provided with an opening through the apex thereof a supporting member carried by and extending across the said opening, adjacent but spaced from the end of said conical portion, a lower reflector member having an upwardly extending centrally disposed annular rib abutting against the edge of said opening to form a closure for such opening, the diameter of the lower reflector being less than the diameter of the ceiling reflector member, a hanger member anchored by one end to the ceiling and passing through said supporting member, a collar on said hanger engaging said supporting member for maintaining the ceiling reflector in position, an extension on said hanger member passing through said lower reflector, a collar adjustably connected to said extension and engaging the lower reflector member, for maintaining the reflectors in assembled relation, an anchor plate carried by the wall of said conical portion and adjacent a space formed between said supporting member and the end of the said conical portion, and lamp sockets disposed within said space and detachably secured to said anchor plate.

11. In a lighting fixture, a ceiling reflector having a central inverted conical portion provided with an opening through the apex thereof, a supporting member carried by said portion and extending across the said opening, adjacent but spaced from the end of said conical portion, a lower reflector member having an upwardly extending centrally disposed annular rib abutting against the edge of said opening to form a closure for such opening, the diameter of the lower reflector being less than the diameter of the ceiling reflector member, the lower face of the ceiling reflector being curved and formed by the revolution of an arc struck from a point beyond the periphery of the lower reflector member, a hanger member anchored by one end to the ceiling and passing through said supporting member, a collar on said hanger engaging said supporting member

for maintaining the ceiling reflector in position, an extension on said hanger member passing through said lower reflector, a collar adjustably connected to said extension and engaging the lower reflector member, for maintaining the reflectors in assembled relation, and lamp sockets secured on and extending in openings in the conical portion for supporting lamps in position between the reflector members.

CHARLES G. GIROLAMI.

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