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LIGHTING FIXTURE

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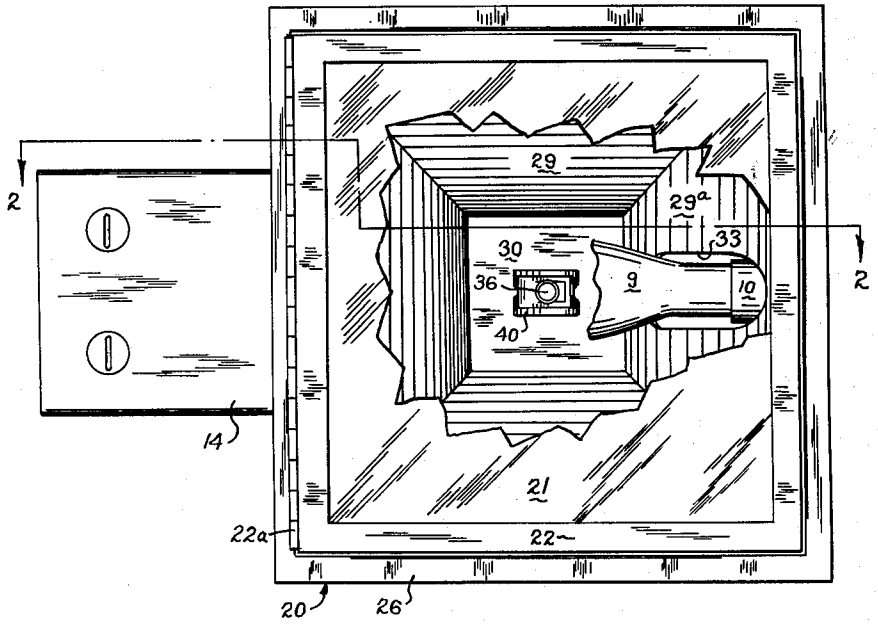


Fig. 1

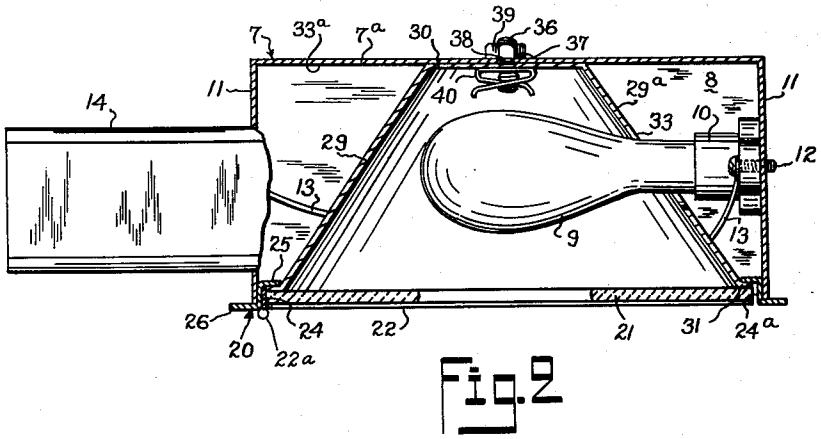


Fig. 2

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LIGHTING FIXTURE

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This invention relates to lighting fixtures and more particularly to a new and improved fixture structure of the recessed type, as referred to in the art.

A primary object of the present invention is the provision of a new and improved lighting fixture structure of the recessed type wherein the several components comprising the fixture construction are formed in such manner as to be held in an assembled operative condition by means of a single fastening means.

Another object of the present invention is the provision of a new and improved lighting fixture structure of the recessed type wherein the several components comprising the fixture construction are held together in an assembled operative condition by means of a single fastening means and further wherein said fastening means is readily removable to thus facilitate the easy dismantling of the fixture structure to thus provide for efficient cleaning, repairing and/or replacement of the aforesaid components.

Another object of the present invention is the provision of a new and improved lighting fixture structure of the recessed type wherein the several components comprising the fixture construction are resiliently held in an assembled and operative condition by means of a single fastening means and further wherein said fastening means may be removed without the need of special tools or the like thereby greatly facilitating the assembling and/or disassembling of the aforesaid fixture.

Other objects and advantages of the lighting fixture structure of the present invention will be hereinafter realized by one skilled in the art to which it pertains and upon reference to the following description of a preferred embodiment of the said lighting fixture structure and as is illustrated in the accompanying drawings forming a part of this specification and wherein:

Fig. 1 is a plan view of a recessed type lighting fixture structure embodying the concepts of the present invention and showing the single fastening means in its operative position to securely hold the several components of the fixture in their operative assembled condition; and

Fig. 2 is a side elevational view of the fixture structure of Fig. 1 shown partly in section and taken approximately along the plane as indicated by the line 2—2 of Fig. 1.

Briefly, the fixture structure of the present invention is herein embodied, merely for purposes of disclosure, in a lighting fixture referred to in the art as of the recessed type, wherein the fixture housing is normally disposed, for instance, within a ceiling or wall construction such that the reflector or lens for the same and its supporting fixture component lies substantially flush with the aforesaid surface of said ceiling and/or wall.

More particularly and with reference now directed to Figs. 1 and 2 of the accompanying drawings, there is herein shown a lighting fixture of the recessed type as having a box-like housing 7 having a base wall 7*a* integrally connected to side walls 11 projecting perpendicularly therefrom to thus define a chamber 8 into which

is disposed a conventional lighting source as is indicated by the bulb 9, the latter in turn being screwed into a suitable socket 10 which is preferably mounted on one of the aforesaid side walls 11 by any suitable fasteners such as screws 12.

A suitable source of electrical energy (not herein shown) may be connected in circuit with the aforementioned socket 10 and bulb 9 carried therein, and for this purpose, a junction box 14 is suitably fastened to the housing 7, preferably on the exterior surface of the housing side wall 11 opposite to said socket. Said junction box and housing side wall, in addition, have suitable connecting holes (not shown) which provide for the passage therebetween of electrical conductors 13. Said conductors, as best seen in Fig. 2, have their one end connected in electrical circuit to the socket 10 and their opposite ends disposed in the aforesaid junction box wherein they connect with primary electrical power conductors as will be understood.

The instant fixture structure also includes a substantially square frame-like support member 20, which is somewhat Z-shaped in section, each of its sides comprising a medial wall 24 integrally attached at its one end to an inwardly extending flange 25, and at its opposite end to an outwardly projecting shoulder 26. As best seen in Fig. 2, the aforesaid flange 25 and shoulder 26 on each side of said support member 20 are disposed in substantially parallel spaced relation to each other and are hence perpendicular to said medial wall.

The support member 20 is adapted to support a lens element 21 which is preferably constructed of a translucent glass material or the like, and which, in turn, is carried within a suitable frame 22.

The adjoining surfaces of the medial wall 24 and flange 25 of the support member 20 are disposed so as to define a recessed portion as indicated at 24*a*, the size of which is slightly greater than the width of the aforesaid frame 22 to thus enable the latter to be readily disposed therein, in a manner as will be hereinafter more fully described.

The embodiment of fixture structure herein shown, also includes a reflector element 29 which is preferably pyramidal in configuration, as indicated particularly in Fig. 2, its uppermost closed end defining a flat square apex part 30. A flange 31 is formed along the open end of said element extending completely around the periphery thereof and projecting substantially perpendicular to the axis of said element.

To assemble the above described fixture components into an integral and operative unit, the aforementioned support member 20 is placed into the open end of the housing 7, the dimensions of said member preferably being such that the outside surface of the medial wall 24 lies closely adjacent the inner surface of the housing side walls 11. The support member 20 is extended into the housing chamber 8 from said open end, until the upper face of the shoulder 26 as seen in Fig. 2 abuts against the edge of the housing side walls 11 defining the aforesaid open end. In this manner, the flange 25 on the support member 20 is disposed within the housing chamber 8 in substantial parallel spaced relation to the housing base wall 7*a*.

The reflector element 29 is then placed into the housing chamber 8, being provided with a suitable opening in its side wall 29*a* as is indicated at 33 to permit the neck of the bulb 9 to extend therethrough and into the aforesaid socket 10. The reflector element 29 is preferably of such height that when it is disposed within the housing chamber 8, as is best seen in Fig. 2, the upper surface of the peripheral flange 31 thereof overlies and abuts against the bottom facing surface of the support member flange 25, and the flat apex part 30 preferably

lies closely adjacent the inner surface **33***a* of the housing base wall **7***a*; the purpose for which will be hereinafter apparent.

The aforementioned frame **22** mounting the lens **21**, is preferably disposed centrally within the recessed portion **24***a* of the support member **20** such that it substantially closes the open end of the housing **7**. As herein shown, the frame **22** is preferably hingeably attached by suitable hinge means **22***a* at its one side to the support member as will be understood in the art, to thus enable the same to be swung about said hingeable connection thereby providing easy access into the fixture housing chamber **8** to thus permit replacement, cleaning, or the like, of the several fixture components therein.

As previously mentioned, a single fastening means is operable to securely hold the fixture components of the instant lighting fixture structure to thus form an assembled fixture construction, and for this purpose, merely for purposes of disclosure the housing base wall **7***a* centrally mounts a threaded pin **36**. As best seen in Fig. 2, said pin projects centrally through a suitable aperture **37** formed in the housing base wall **7***a* and thence into and through a communicating aperture **38** provided in the apex part **30** of the reflector element **29** to thence project into the housing chamber **8** within the confines of the aforesaid reflector element. A suitable fastener such as nut **39** may be threaded over the end of the aforesaid pin projecting exteriorily of the housing to thus prevent said pin from falling completely through said communicating apertures.

A suitable removable type of fastening means as indicated by the resilient spring-like fastener **40** may be passed over the end of pin **36** disposed within the housing chamber **8**, and pressed firmly against the adjoining surface of the reflector element apex part **30** to thus flex the latter slightly upwardly within said housing chamber, as seen in Fig. 2, whereby a slight tension or pull is experienced on the peripheral flange **31** thereby resulting in pressing the support member **20** more firmly against the edges of the housing side walls **11**. In this manner, the several components of the instant embodiment of lighting fixture are securely held in an assembled operative condition by a single fastener, which is readily removable from the pin **36** to thus enable said components to be easily separated for repair, replacement, or the like.

Having thus described one embodiment of lighting fixture embodying the inventive concepts of the present invention, it is understood that the same is susceptible to various modifications, and arrangements of parts without departing from the scope of the invention as is defined in the claims.

What we claim as our invention is:

1. A lighting fixture comprising a housing having a base wall, side walls integrally attached to said base wall and defining a housing chamber having an open end opposite said base wall, a lighting source in said chamber for connection with a source of electrical energy, a support member mounted on said housing and having shoulder means overlying the edge of said housing side walls, a flange on said support member located adjacent said end, a lens element carried in said support member and substantially closing said housing open end, a reflector element in said housing chamber surrounding said lighting source and in position to reflect light toward said lens element, flange means on said reflector element extending over a part of said support member spaced from said shoulder means to thus locate said support member flange between said flange means and said base wall, and a single fastening means connected between said housing base wall and said reflector element to thus securely hold said support member and reflector element on said housing.

2. A lighting fixture comprising a housing having a base wall, side walls integrally attached to said base wall and defining a housing chamber having an open end opposite said base wall, a lighting source in said chamber for connection with a source of electrical energy, a support member mounted on said housing and having shoulder means overlying the edge of said housing side walls, a lens element carried in said support member and substantially closing said housing open end, flange means formed on said support member and located within said housing chamber between said lens element and said base wall, a reflector element in said housing chamber surrounding said lighting source and in position to reflect light toward said lens element, a peripheral flange formed on said reflector element extending over said flange means on said support member to thus locate said flange means between said housing base wall and said peripheral flange, and a single fastening means connected between said housing base wall and said reflector element to thus securely hold said support member and reflector element on said housing.

3. A lighting fixture comprising a housing formed with a base wall and side walls defining a chamber having an open end, a lighting source carried in said housing for connection with a source of electrical energy, a support frame disposed over the open end of said housing, and hingeably carrying a lens element, said lens element being movable to a first position as to extend across and substantially close said end, a reflector element disposed in said chamber and in position to reflect light toward said lens element, means on said reflector element engaging with said support frame, said reflector element having wall means in close association with said housing base wall, pin means carried on said base wall and extending through said wall means of said reflector element, and fastening means on said pin means engaging said wall means being thus effective to retain said reflector element and lens support frame on said housing, said fastening means being accessible from within said chamber upon movement of said lens element away from said housing end and removable from said pin means to provide for the disassembly of said fixture parts.

4. A lighting fixture comprising a housing having a base wall, side walls integrally attached to said base wall and defining a housing chamber having an open end opposite said base wall, a lighting source in said chamber for connection with a source of electrical energy, a support member mounted on said housing and having shoulder means overlying the edge of said housing side walls, a lens element hingeably mounted on said support member and swingable to a first position to substantially close said housing end, flange means formed on said support member and located within said housing chamber between said lens element and said base wall, a reflector element in said housing chamber surrounding said lighting source and in position to reflect light toward said lens element, a peripheral flange formed on said reflector element extending over said flange means on said support member to thus locate said flange means between said housing base wall and said peripheral flange, said reflector element having wall means in juxtaposition to said housing base wall, pin means on said housing base wall projecting through said wall means of said reflector element, and fastening means on said pin means engaging with said wall means being effective to retain said reflector element and lens support member on said housing, said fastening means being accessible from within said chamber upon swinging said lens element away from said housing end and slidably removable from said pin means to provide for the disassembly of said fixture parts.

5. A lighting fixture comprising a housing having a base wall, side walls integrally attached to said base wall and defining a housing chamber having an open end opposite said base wall, a lighting source in said chamber for connection with a source of electrical energy, a support member mounted on said housing and having shoulder means overlying the edge of said housing side walls, a lens element hingeably mounted on said support member

and swingable to a first position to substantially close said housing end, flange means formed on said support member and located within said housing chamber between said lens element and said base wall, a reflector element in said housing chamber surrounding said lighting source and in position to reflect light toward said lens element, a peripheral flange formed on said reflector element extending over said flange means on said support member to thus locate said flange means between said housing base wall and said peripheral flange, said reflector element having wall means in juxtaposition to said housing base wall, a pin mounted on said housing base wall and projecting through said wall means of said reflector element, and a snap on fastener placed on said pin en-

gaging said wall means being thus effective to retain said lens support member and reflector element on said housing, said fastener being accessible from within said chamber upon swinging said lens element away from said housing end and slidably removable from said pin to provide for the disassembly of said fixture parts.

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