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CEILING DIFFUSING LIGHTING FIXTURE

Filed Oct. 8, 1930

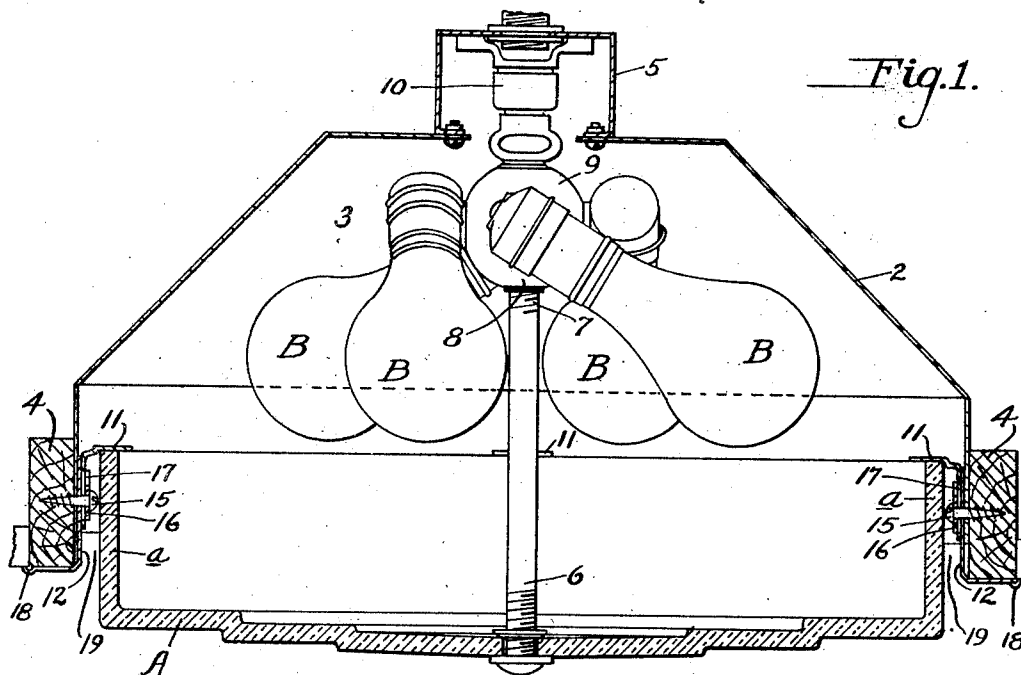


Fig. 1.

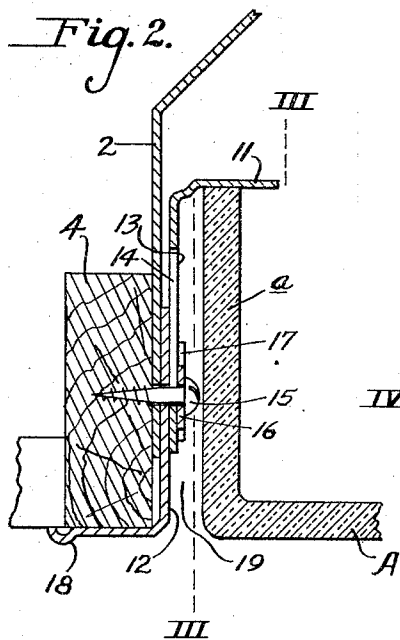


Fig. 2.

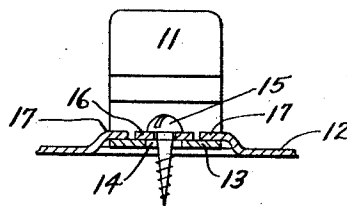


Fig. 4.

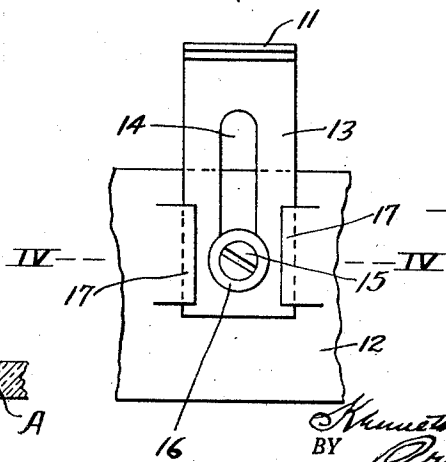


Fig. 3.

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CEILING DIFFUSING LIGHTING FIXTURE

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This invention refers to improvements in means for illumination, particularly of the interior of buildings such as stores, of the kind generally known as a ceiling diffuser.

5 The object in view is to interpose between a source of light, as a single lamp, or a cluster thereof, of a light diffusing bowl or lens, mounted below the light source within a surrounding framing or casing, and adapted for vertical adjustment, with relation to the
10 general level of the ceiling.

The light diffusing bowl, which is of glass or other suitable transparent or translucent material, may be of any suitable design either
15 circular, rectangular, or hexagonal in plan, and with any suitable covering bottom adapted for ornamental embodiment or incorporation with the ceiling, either clear, frosted or otherwise treated for transmission
20 of light rays constructed and adapted to operate in the manner more fully hereinafter described.

In the drawings illustrating one preferred embodiment of the invention:

25 Fig. 1 is a vertical sectional view through the construction showing the mounting of the diffuser;

Fig. 2 is an enlarged sectional detail view illustrating the adjustable mounting of the limiting rim for the upper edge of the bowl;

30 Fig. 3 is a detail view of the same construction on the line III—III of Fig. 2;

Fig. 4 is a cross section on the line IV—IV of Fig. 3, looking upwardly.

35 In the drawings, 2 is a sheet metal coping or casing extending upwardly above and around the main cavity 3, within which are mounted the lamps providing the desired source of light. Casing 2 as shown is fitted
40 within the beams 4 of the ceiling construction extending thereabove in truncated cone or other desired form and terminating in an upper coping 5, providing a support for the central suspension rod 6. The latter, as
45 shown, extends upwardly through a central hole in the lower transverse wall of the bowl A, and is connected at its upper end by its threaded terminal 7 within a supporting nut 8, at the lower end of a cluster socket
50 mounting 9 for lamps B.

Socket mounting 9 depends from a fixture 10 supported from the top of coping 5, as shown.

The bowl A as shown is of a depth as to its surrounding wall *a* sufficiently long to allow
55 for a considerable range of vertical adjustment, by means of the supporting rod 6, and the limiting stops or flanges 11, mounted within a surrounding cavity at variable distances above the lower plane of the ceiling.
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For providing such limitation at varying heights, either with the bowl lowered materially below the ceiling surface, or raised upwardly substantially flush therewith, as in
65 Fig. 2, for direct downward transmission of light rays, the inwardly extending flanges 11 are adjustably mounted within and against the inner casing 12, which forms an extension of the lower wall of the main casing 2.

70 For such purpose flange 11 is bent inwardly at right angles to a vertical extension 13 of the flange having an elongated slot 14, for adjustment with relation to a securing screw 15.

The latter, as shown, extends through a
75 washer 16 so that, the bowl having been removed, the several screws holding the corresponding limiting devices may be slightly loosened so as to adjust them vertically to a higher or a lower level.
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Thereafter, upon tightening the screws, the several flanges 11 will be fixedly maintained at a common level for abutting engagement against the upper edge of the wall
85 *a* of the bowl. Thus, when it is desired to lower the bowl sufficiently below the ceiling level to allow for lateral transmission of the light rays, as well as vertical rays through the bottom, the flanges 11 will be lowered
90 accordingly so that when the bowl A is replaced and supported by the central rod 6, it will be located in such relation, as in Fig. 1.

On the other hand, with the flanges elevated, the bowl may be secured upwardly with its bottom surface substantially level
95 with the ceiling surface, as in Fig. 2, or at any intermediate position.

The vertical sliding member 13 of each flange 11 is guided between opposite inwardly bent lips 17 which embrace the opposite
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edges of the adjustable flange member assisting in its vertical adjustment, and tending to maintain it in proper operative position.

The finishing plates 13 are preferably extended downwardly and laterally with an ornamental border or flange 18 surrounding the dome opening and assisting in the ornamental effect.

The diameter of the bowl A is somewhat less than the receiving surrounding space for its insertion, leaving a continuous intervening surrounding space 19, for air circulation either inwardly or outwardly, and tending to prevent accumulation of dust or other foreign matter, while also facilitating a rapid application or removal of the fixture.

In addition to the advantages noted, the bowl itself may be readily removed for cleaning or renewal, and the entire construction is comparatively simple, easy of installation and highly efficient in carrying out its intended purposes.

What I claim is:

1. In a lighting fixture, the combination with a ceiling construction having an inwardly extending frame surrounding a cavity provided with an upwardly extending interior casing secured to the frame and having a source of light mounted therein, of a lower light diffusing bowl extending upwardly into the cavity, means for securing it in position, and means movably mounted on the frame within and below the casing having an arresting abutment limiting upward adjustment of the bowl.

2. In a lighting fixture, the combination with a ceiling construction having an inwardly extending frame surrounding a cavity provided with an upwardly extending interior casing secured to the frame and having a source of light mounted therein, of a lower translucent light diffusing bowl extending upwardly into the cavity, means movably mounted on the frame within and below the casing having an arresting abutment limiting the vertical location of the bowl, and means supporting the bowl at the center.

3. In combination with the inner wall of a lamp cavity extending upwardly beyond a ceiling surface, a bowl limiting bracket having a vertically slotted screw opening and an upper inwardly extending terminal bowl-engaging flange, a securing screw extending through the slot into the cavity wall, and a translucent light diffusing bowl having a surrounding wall extending upwardly into the cavity and engaging said flange.

4. In combination with the inner wall of a lamp cavity extending upwardly beyond a ceiling surface and provided with a pair of guiding extensions, a bowl limiting bracket slidably mounted between said extensions having a vertically slotted screw opening and a terminal bowl-engaging flange, a securing screw extending through the slot into the

cavity walls, and a translucent light diffusing bowl having a surrounding wall extending upwardly into the cavity and engaging said flange.

In testimony whereof I hereunto affix my signature.

KENNETH R. CRUMPTON.

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