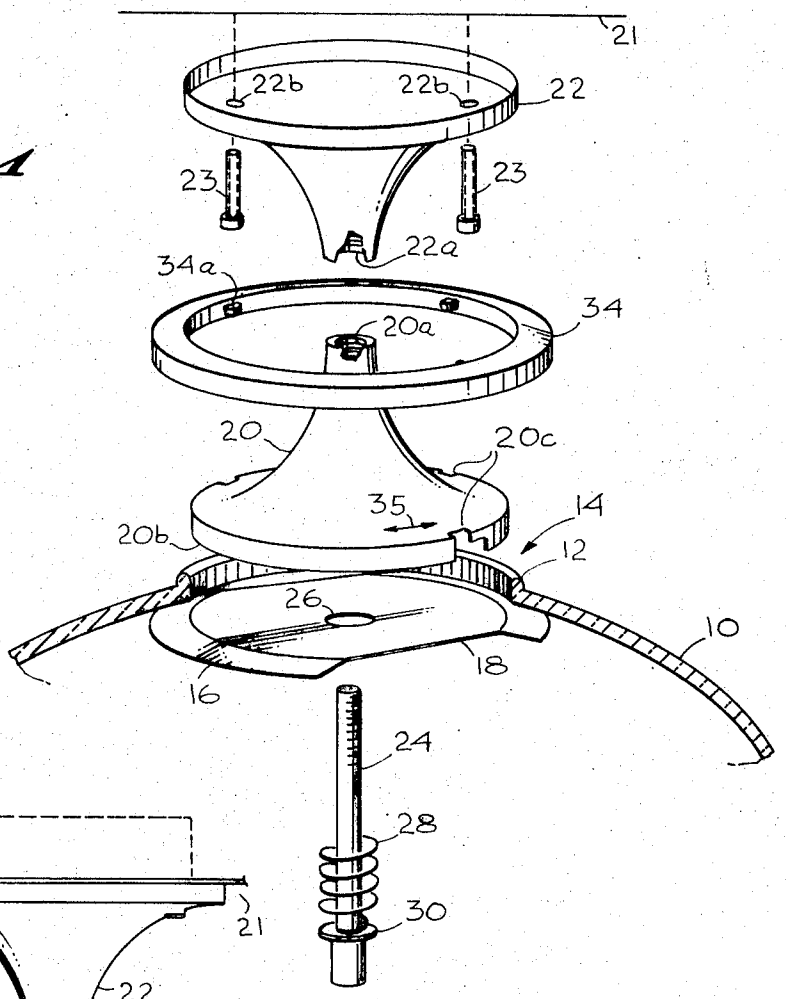
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FIXTURE HOLDING ASSEMBLY

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Fig. 1



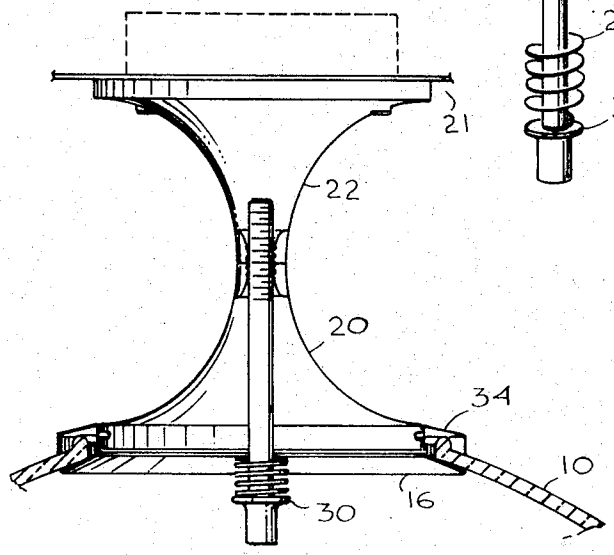


Fig. 2

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FIXTURE HOLDING ASSEMBLY

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ABSTRACT OF THE DISCLOSURE

A fixture holding assembly, consisting of a cover plate which is fixedly supported by a surface, with respect to which the fixture is to be held. The assembly includes a support plate which has dimensions enabling it to be disposed within the fixture through an opening thereof. A biasing arrangement is utilized to urge the support plate and the fixture supported thereon towards the cover plate. A retaining ring, over the cover plate, which has perturbations, is lockable in slots defined in the cover plate. As a result, the fixture is held between the retaining ring on the outside of the fixture and the support plate within it.

This invention relates to a fixture assembly and more particularly to an assembly for holding a fixture such as a ball globe light fixture.

A light fixture, such as a ball globe, is generally held about a light bulb by some fastening arrangement or assembly, which permits the temporary removal of the globe when the bulb has to be replaced. Since the primary purpose of the fixture is to produce an esthetic effect, it is desirable that the fastening assembly be as inconspicuous as possible. However, it need be easily operable when the globe is to be removed, as well as mechanically sound so that the globe is safely held in its respective position.

Accordingly, it is an object of the present invention to provide a novel fixture holding assembly.

Another object is the provision of a simple assembly for holding a fixture in a fixed position such as over a light source.

A further object is to provide an assembly for holding a globe light fixture about a light bulb positioned therein. The assembly is particularly adapted for the convenient removal and replacement of the globe.

Still another object of the invention is the provision of a new and relatively inexpensive assembly for holding a light fixture such as a ball globe in a fixed position, the fixture being easily removable from and replaceable in its position.

These and other objects of the invention are achieved by providing a support plate which is disposable into the ball globe through the opening thereof. The support plate has shoulders which engage at least a portion of the inside surface of the globe near the lip of the opening thereof. The support plate is spring biased to press against the base of a cone-shaped ball globe cover. A retaining ring fits over the flared out base of the cone-shaped globe cover. In one embodiment of the invention, the ring has protrusions or bumps on the inside diameter thereof which are lockable in suitable cutouts or slots in the lip or periphery of the base of the globe cover. By locking the ring about the periphery of the globe cover, the globe is firmly held between the ring which presses on the exterior surface thereof near its opening and the support plate, biased against the base of the globe cover, which supports the globe about its interior surface near its opening. The globe cover is attachable to the ceiling or an appropriate ceiling canopy or to a side wall mount by a suitable metal pipe, threaded through the vertex thereof.

The novel features that are considered characteristic

of this invention are set forth with particularity in the appended claims. The invention itself both as to its organization and method of operation, as well as additional objects and advantages thereof, will best be understood from the following description when read in connection with the accompanying drawings, in which:

FIGURE 1 is an exploded isometric view of the assembly of the present invention; and

FIGURE 2 is a cross-sectional side view of the assembly.

Attention is now directed to FIGURES 1 and 2. FIGURE 1 is an exploded isometric view of the light fixture holding assembly of the present invention, while FIGURE 2 is a cross-sectional side view thereof. In the figures, there is also shown a partial view of a ball globe **10** having a lip **12** about its opening **14**. Within the globe **10** is disposed a support plate or globe holder **16** comprising part of the light fixture holding assembly. As seen from the figure, the plate **16** is a flat disc with an angled apron. The disc which is truncated to form two parallel sides, only one of which is numbered by numeral **18** as shown in FIGURE 1, has an exterior diameter which is greater than the diameter of the opening **14** of globe **10**. On the other hand, the spacing between sides **18** is less than the opening diameter so that the disc may be disposed within the globe **10**, supporting the interior surface of the globe near the lip **12** on its gently curved surface.

The support plate **16** is associated with a globe cover plate **20** which in FIGURE 1 is shown comprising a cone-shaped member with an internally threaded vertex **20***a*. The cover plate **20** may be attached to a ceiling **21** or any other surface through a canopy **22** which is also cone-shaped with an internally threaded vertex **22***a*. The canopy may be fastened to the ceiling or wall through openings **22***b* by means of screws **23**, into an electrical outlet box, or any other conventional means. The cover plate on the other hand is fastened to the canopy by means of an externally threaded metal pipe **24** which is threaded through both vertexes.

The metal pipe **24** also extends through an opening **26** in the support plate **16**. A biasing spring **28** is wound about the pipe **24**, having one end mounted on a bead **30** on the pipe **24**. The other end of the spring **28**, which is maintained in compression presses against the support plate **16** urging it to be in contact with the base **20***b* of cone-shaped cover plate **20**. The diameter of the spring **28** may vary from a smaller size near bead **30** to a larger size near plate **20**.

The light fixture holding assembly of the present invention further includes a retaining ring **34** with an interior diameter at least equal to the exterior diameter of the base of cover plate **20** so as to be locked thereabout. In the embodiment shown in FIGURE 1, the ring has a plurality of protrusions or bumps **34***a* which are meshable in suitable locking cutouts or slots **20***c* at the periphery or lip of the base of cover plate **20**. The bumps **34***a* are positioned in slots **20***c* so that the bottom side of the ring **34** is in contact with the exterior surface of the globe **10** about the lip **12** thereof. Then the ring is turned to its locked position as indicated by arrow **35**. Thus the ring remains coupled about the base of cover plate **20**, pressing down on the globe **10**, while the support plate **16** disposed therein presses the globe upwards towards the base of cover plate **20**. As a result, the globe is securely held in position between the locked ring and the spring biased support plate.

From the foregoing, it should be appreciated that in the novel assembly of the present invention, the globe **10** is held between the cover plate locked ring **34** and the spring biased support plate **16** rather than by various threaded screws as in the case in conventional fixture

holders. The use of the spring biased support base conveniently adapts the use of the present assembly with globes of different thicknesses.

The globe held by the assembly of the present invention is easily removable merely by unlocking the ring 34, pulling down on the globe and thereby disengaging the cover plate from the support plate which results in added spring compression and then extracting the support plate from the globe by tilting the globe thereabout. Replacement of a globe is accomplished by a reversed operational procedure.

The use of the hollow metal pipe 24 which extends through the canopy 22, cover plate 20, and support plate 16, is most advantageous since wires (not shown) from the electrical outlet box in the ceiling or wall may be passed therethrough to an appropriate electrical outlet to which a bulb may be attached within the ball globe 10.

There has accordingly been shown and described herein a novel holding assembly for a light fixture such as a ball globe. The assembly includes a support member disposable within the globe. The support member is spring biased against a globe cover member about which a retaining ring is lockable so that a globe supported by the support member is held or locked in position between the spring biased support member and the retaining ring. It is appreciated that those familiar with the art may make modifications in the specific arrangements herebefore described without departing from the true spirit of the invention. Therefore, all such modifications and/or equivalents are deemed to fall within the scope of the invention as claimed in the appended claims.

What is claimed is:

1. An assembly for use in combination with a fixture defining an opening and having a lip about the periphery thereof to hold said fixture with respect to a surface, said assembly comprising:

a cover plate;

a support member for fixedly positioning said cover plate with respect to said surface;

a support plate disposed within said fixture through the opening thereof for supporting at least a portion of the fixture lip thereon;

biasing means urging said support plate and said fixture supported thereby toward said cover plate; and

retaining means releasably locked to said cover plate and engaging said fixture about the exterior of its lip at the opening thereof whereby said fixture is held between said retaining means locked to said cover plate and said support plate urged by said biasing means toward said cover plate.

2. The assembly defined in claim 1 wherein said opening is substantially circular and the support plate is disc-shaped with two sides thereof truncated, the diameter of said disc-shaped support plate being greater than the diameter of the opening of said fixture and the spacing between the two sides of said cover plate is less than said opening diameter, to enable the disposition of said support plate within said fixture.

3. The assembly defined in claim 2 wherein said retaining means comprises a ring with an inside diameter which is at least equal to the opening diameter, and having a plurality of locking perturbations at the inside surface thereof and said cover plate defines a plurality of locking slots at the exterior surface thereof whereby said ring is lockable to said cover plate with the perturbations in said locking slots, with the ring engaging the exterior of said fixture about the opening thereof, with the interior surface

of said fixture about the opening being urged toward said cover plate by said support plate.

4. An assembly in combination with a globe-like fixture for holding the fixture with respect to a selected surface comprising:

a globe-like fixture defining an opening with a lip about the periphery thereof;

a circular cone-shaped cover plate having an internally threaded truncated vertex;

a support plate disposed within said fixture through the opening thereof for supporting said fixture about the internal surface thereof adjacent said opening;

spring bias urging said support plate against the base of said cover plate and further urging said fixture supported by said support plate toward said cover plate;

a threaded fastening member for fixedly holding said cover plate with respect to said selected surface; and

retaining means releasably locked to said cover plate and engaging said globe-like fixture about the exterior surface thereof near said opening, whereby said fixture is held between the retaining means and the support plate disposed therein.

5. The assembly defined in claim 4 wherein the opening of said fixture is circular, and said support plate is disc-shaped with two truncated sides, the diameter of said support plate being greater than the opening diameter and the spacing between said sides being less than the opening diameter for disposing said support plate within said fixture through the opening thereof.

6. The assembly defined in claim 5 wherein said disc-shaped support plate defines a central opening said threaded fastening member comprising an externally threaded pipe extending through said cover plate and the central opening of said support plate, said bias means being fastened to said pipe for biasing said support plate to the base of said cover plate.

7. The assembly defined in claim 6 wherein said cover plate defines a plurality of locking slots about the exterior of the periphery of the base thereof, and said retaining means comprises a ring with a plurality of protrusions about its internal diameter, said protrusions being releasably lockable in said slots for locking the ring about the periphery of the base of said cover plate.

8. The assembly defined in claim 7 wherein said assembly further includes a cone-shaped canopy having an internally threaded truncated vertex, means for fastening said canopy to said surface, said threaded pipe extending from the vertex of said cover plate being threadable through the vertex of said canopy for supporting said cover plate thereto.

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