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J. L. JAFFE
LIGHTING FIXTURE

2,805,328

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2 Sheets-Sheet 1

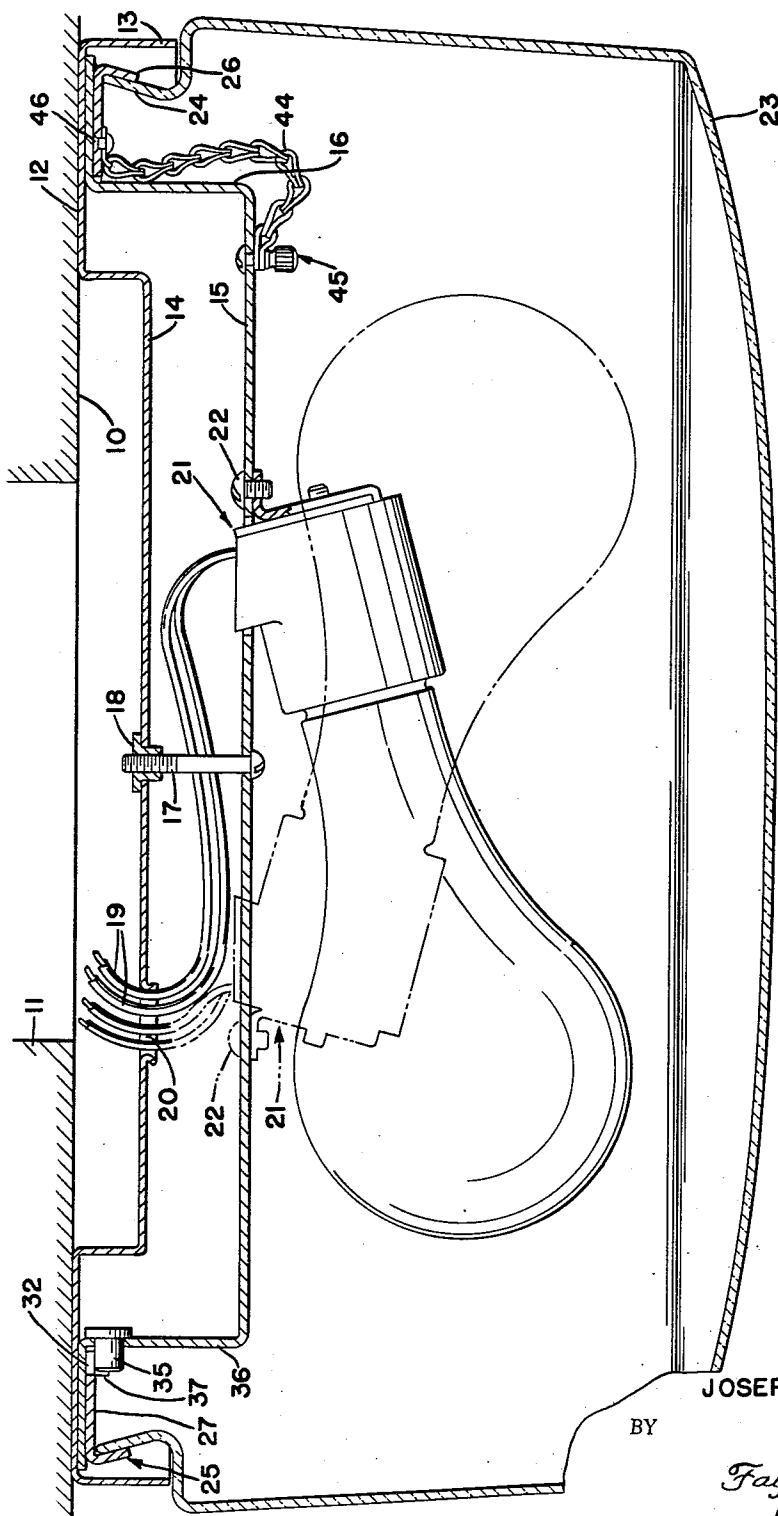


FIG. 1

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FIG. 2

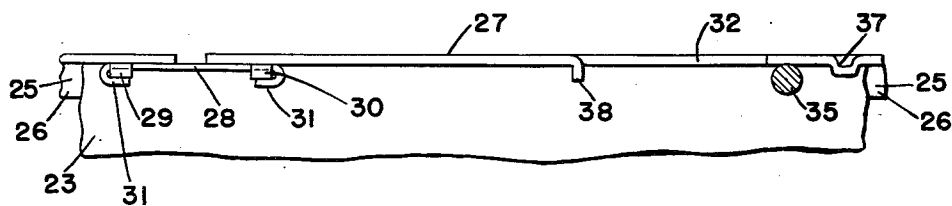
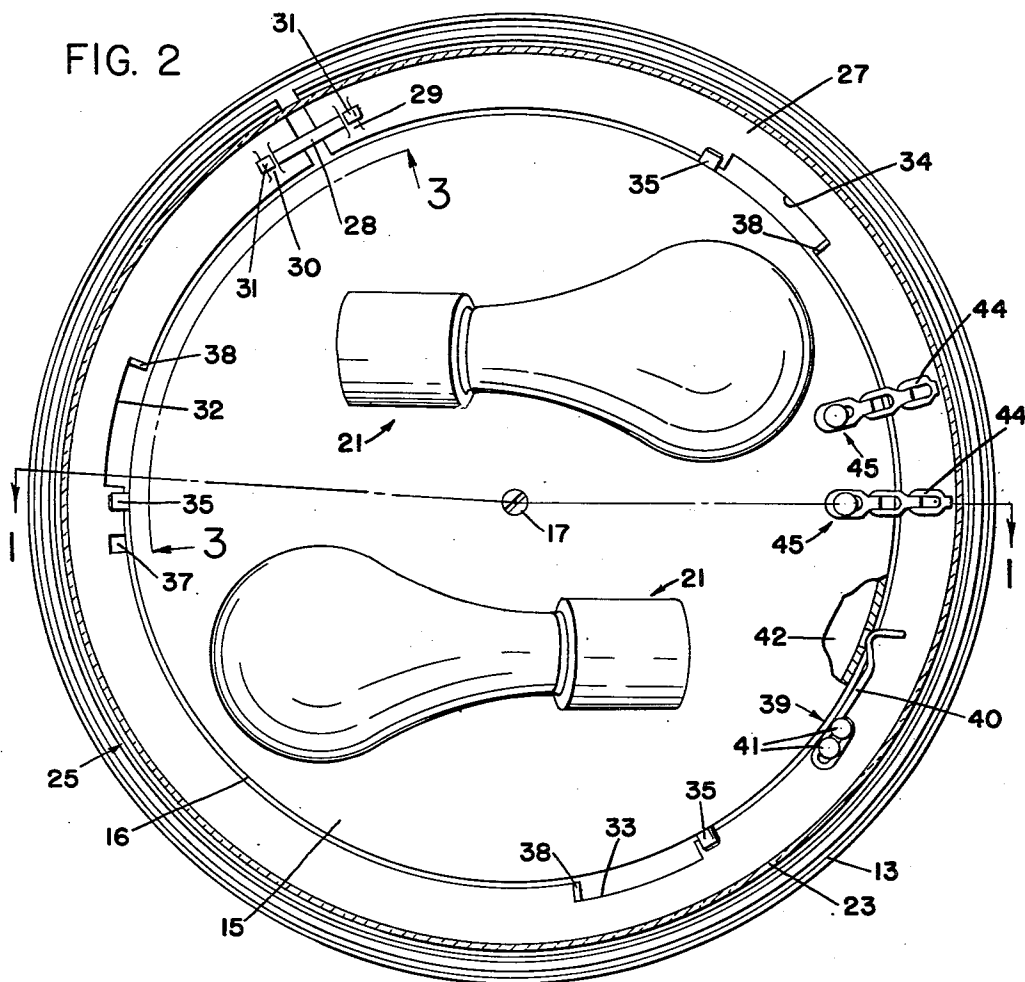


FIG. 3

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LIGHTING FIXTURE

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2 Claims. (Cl. 240—128)

This application, relating as indicated to a lighting fixture, is particularly directed to a novel type of lighting fixture for incandescent illumination. This fixture employs a globe, or glass structure, adapted to diffuse light having a generally circular-shaped edge and a metal mounting ring therefor. The metal mounting ring is particularly adapted to protect the globe in handling, to provide a convenient method for securing to the fixture and to provide a new and improved combination in a lighting fixture. This mounting ring is adapted to serve with a lowered portion of a fixture from a ceiling unit having a plurality of radially outward bayonet structures, the mounting ring having a plurality of recesses in the mounting ring adapted to mate with the bayonets. The mounting ring further has a series of projections to act as a stop against movement in either direction, together with a spring mounted structure to prevent vibration of the globe, mounting ring and lighting fixture.

In connection with this invention, it has been noted in the past that it was desirable to improve the architectural appearance of lighting fixtures so that they would have a smooth, generally cylindrical shape with an unbroken surface that could be subjected to various architectural treatments. To accomplish this older types of thumb screws and complicated latch mechanisms were impractical and, as a result, this internally directed bayonet lock structure has been developed and improved to a point where it not only protects the globe to prevent breakage in the globe but provides a structure that may easily secure the globe to the lighting fixture for ease in handling and locking.

This invention is a continuation-in-part of my application Serial No. 424,834, filed April 22, 1954, now Patent No. 2,783,368.

An object of this invention is to provide an improved lighting fixture of simplified design and construction having safety means such as a wire chain or the like between the fixture and the globe, but providing an improved construction for fragile glass globes and a means for locking said globes by bayonet locks to the lighting fixture with improved stop devices and spring vibration devices therefor.

A further object of this invention is to provide an improved connection between a globe, a mounting ring and a lighting fixture in which a bayonet structure is adapted to be secured to a thin mounting ring and in which a portion of the mounting ring is pressed downwardly to act as a stop, and in which a further portion of the mounting ring has attached thereto a spring mounted device adapted to fit within an aperture of the lighting fixture to prevent rattling of the globe and mounting ring against the lighting fixture in the event that the structure is vibrated for any reason.

Another object of this invention is to provide an improved combination in a lighting fixture and a mounting ring for a globe which incorporates improved locking components for the ring.

To the accomplishment of the foregoing and related

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ends, said invention then consists of the means herein-after fully described and particularly pointed out in the claims; the following description setting forth in detail one approved means of carrying out the invention, such disclosed means, however, constituting but one of the various ways in which the principles of the invention may be used.

In the drawings:

Fig. 1 is a cross-sectional view through this new and improved lighting fixture, taken on 1—1 of Fig. 2;

Fig. 2 is a view from below the lighting fixture, the lowered portion of the fixture, the mounting ring and the bayonet lugs adapted to move within said mounting ring; and

Fig. 3 shows a view along the line 3—3 of Fig. 2, showing the mounting ring and the stop portions on either side of the bayonet slot, the view being inverted 180°.

In the drawings, 10 shows a ceiling portion of a building, and 11 shows an aperture or other opening in the ceiling to permit the lighting fixtures and the wires to pass therethrough. 12 shows a circular-shaped lighting fixture having an external flange extending in a general direction away from the ceiling shown at 13, and a lowered portion 14 generally cylindrical in shape pressed from the center portion. A further lowered portion 15 having a substantially concentric cylindrical section shown generally at 16 concentric with said first lowered portion is secured to the mounting bracket 12 as by means of a screw element 17 fastened through an aperture in the lowered portion 14 by means of a nut or other fastening means 18. Electrical connections 19 pass through an opening 20 in the lowered portion 14 and to the various fixtures shown generally at 21, which are fastened by means of bolts 22 to the lowered portion 15.

The globe itself is shown at 23 and may be of any type of material and of any conformation for good architectural appearance. Generally the upper section of the globe near the edge of the globe as at 24 would be sloped outwardly a distance to provide a good clamping surface for the mounting ring shown at 25. The ring has a depending flange which is angulated inwardly as shown at 26 and an annular portion shown at 27 which is integral therewith. The mounting ring is secured together as by means of an annealed wire section shown at 28 which is fastened to the ends of the mounting ring through loops 29 and 30 in the mounting ring. The mounting ring is then securely clamped around the globe and bent over as, for example, at 31 to hold the mounting ring securely around the globe.

Further in connection with the mounting ring there are a plurality of circumferentially spaced apertures or indentations in the mounting ring, one of which is shown at 32, another of which is shown at 33 and the third one of which is shown at 34. The apertures are radially outward of the ring and adapted to mate with a plurality of bayonets 35 which are fixedly mounted to the vertical section 36 of the lighting fixture. The vertical section is generally cylindrical and forms a part of the lowered portion 15. Of course, this section may be of any depth as desired to accommodate the other components of the fixture. The apertures in the mounting ring permit the mounting ring to surround this lowered central portion 15, and with the mating circumferentially spaced apertures and the bayonet locks the bayonets may fit within the apertures and move underneath the mounting ring as is shown in connection with Fig. 3.

In the view as seen in connection with Fig. 3 along the line of 3—3 of Fig. 2, we wish to state that this seems to be reversed because it is taken as an upright view, not inverted, and it is looking at the mounting ring outwardly from the fixture and shows in cross-section the bayonet 35 which is attached to the fixture. The bayonet 35 is

shown beneath the mounting ring annular portion 27 in a locked position. A stop section is shown as, for example, at 37 to prevent the mounting rings from moving an excessive distance in one direction. A depressed portion of the aperture 32 acts as a stop in the opposite direction as, for example, at 38. There is a stop on each one of the apertures. A further anti-vibration device is shown as, for example, at 39 comprising a spring element 40, attached as by means of rivets 41, and a spring that may be urged radially inward into an aperture 42 in the lowered central portion 16 against the vertical cylindrical section 16. In the event that the fixture is subject to vibration, this prevents the fixture from separating or from rattling unnecessarily.

Further in connection with the mounting ring there is a safety chain device shown at 44 connected as by means of a thumb screw and loop device shown generally at 45 to the lowered central portion 15 and also by means of a rivet shown at 46 to the mounting ring. In the event that the globe is displaced, it is easily possible to have the globe slip out of a person's hand, in which case the safety chain prevents accidental breakage.

In the operation, assembly and disassembly of this lighting fixture, a globe may be attached as by means of the wire 28 so that the mounting ring is attached to the globe which provides an improved combination with the globe to prevent damage and breakage of the globe and provides a handling ring so that the mounting ring may be placed upon a hard surface and avoid breakage of the globe. It also serves as a mounting device to the fixture and provides a secure grip to the globe and at the same time a bayonet slot of a different construction. The globe is attached as by means of the safety chain 44 to the mounting ring and to the lighting fixture, and the globe is placed over the lowered central portion, and the bayonet lugs 35 are adapted to mate into the apertures 32, 33 and 34. Of course, additional apertures may be provided. If the globe is then moved, no gripping power is observed as the bayonet hits the stop member 38. If moved in the opposite direction, however, a firm grip is obtained and a further stop 37 prevents the globe from moving around too far. Of course the chain and the length of the chain somewhat limit the movement of the globe. When bayonet lugs 35 are adjacent to the stop 37, the spring member 39 moves into the aperture 42 in the lowered central portion 16 against the vertical cylindrical surface 16 and provides a natural stop and prevents rattling in the fixture.

Although the present invention has been described in connection with a few preferred embodiments thereof, variations and modifications may be resorted to by those skilled in the art without departing from the principles of the invention. All of these variations and modifications are considered to be within the true spirit and scope of the present invention as disclosed in the foregoing description and defined by the appended claims.

I claim:

1. A ceiling type lighting fixture comprising a base member adapted to be secured to a ceiling, said base member having a lowered circular portion centrally thereof and an annular portion outwardly therefrom; said annular portion having a flange at the outer surface thereof, said circular portion having a plurality of bayonet lugs projecting outwardly of said portion of the fixture, a globe, a metal band secured to said globe, said band having a mounting ring annular in shape and integral therewith inwardly of the globe, said mounting ring being just larger than the lowered circular portion of the lighting fixture, said mounting ring having a plurality of apertures from the inner edge of said mounting ring adapted to mate with the bayonet lugs on the lowered central portion, the edges of said apertures having a stop member on one side projecting inwardly of the globe and adapted to contact the bayonet lugs, said mounting ring further having a stop member spaced from the opposite end of said apertures to prevent excessive movement of the fixture and the mounting ring.
2. The lighting fixture of claim 1 in which a resiliently urged spring device is mounted on the mounting ring and in which there is an aperture on the side of said lowered central portion which is adapted to mate with said spring, whereby the fixture is locked and prevented from vibrating.

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