Aug. 13, 1935. W. F. ROSEBRAUGH ET AL 2,011,118

LUMINAIR

Filed April 21, 1934 2 Sheets-Sheet 1

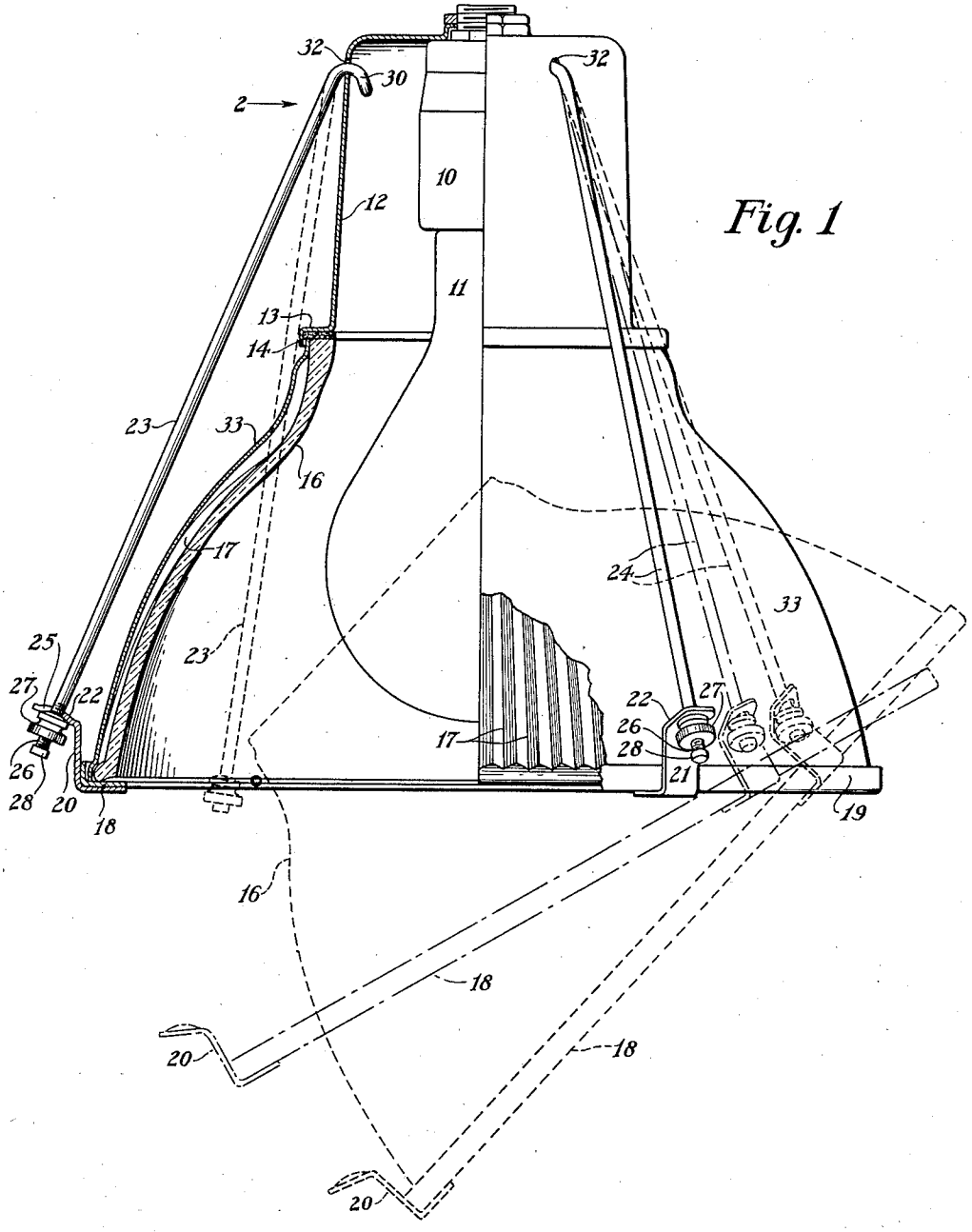


Fig. 1

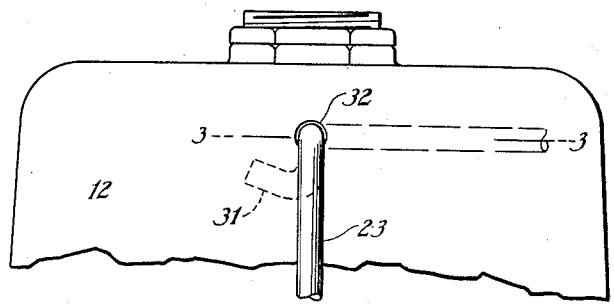
INVENTOR.
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Jules Silberman ATTORNEY.

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LUMINAIR

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Fig. 2



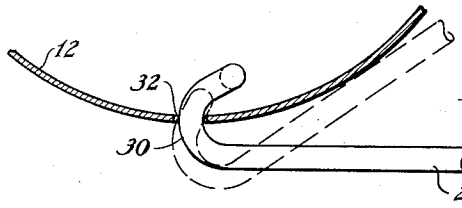
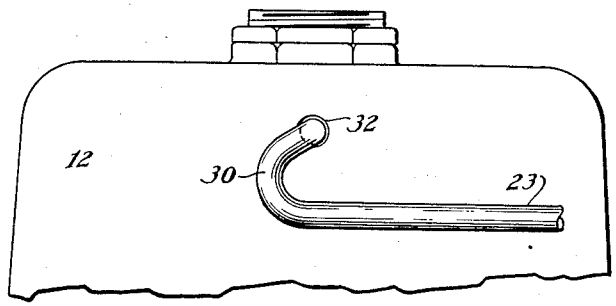


Fig. 3

Fig. 4



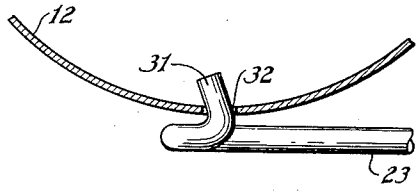


Fig. 5

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UNITED STATES PATENT OFFICE

2,011,118

LUMINAIR

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Application April 21, 1934, Serial No. 721,658

13 Claims. (Cl. 240—128)

The present invention relates to luminairs and more particularly to luminairs designed for industrial lighting and employing prismatic glass reflectors.

The present invention contemplates a luminair for this purpose, wherein the prismatic glass reflector is secured to the fitter or socket cover in such a manner that it can be installed after the electrical parts of the unit have been wired in.

According to the present invention, the luminair is provided with means to securely hold the glass reflector in place and to permit its easy removal for cleaning or replacement.

The present invention furthermore contemplates the provision of a reflector support adapted to function not only to hold the reflector in proper position for light control but to temporarily hold it in the hanging position so that it can be readily removed from that position.

The invention also contemplates an arrangement whereby the luminair is totally enclosed from above so as to prevent the accumulation of dust and dirt on the outside of the reflector and so as to protect the glass against accidental injury.

Other and further objects of the invention will appear as the description proceeds.

The accompanying drawings show, for purposes of illustrating the present invention, one of the many embodiments in which the invention may take form, it being understood that the drawings are illustrative of the invention rather than limiting the same. In these drawings:

Fig. 1 is a side elevational view with parts in section,—the full lines showing the parts in ordinary operating position, the dotted lines showing the position of the parts when the reflector and supporting ring are hanging so that the reflector may be temporarily supported for easy removal, and the dot and dash lines indicating the position of the reflector support when the reflector is removed;

Fig. 2 is a side elevational view taken in the direction of the arrow 2 of Fig. 1,—the full line position showing the supporting rod in normal position, and the dash line position showing the supporting rod turning through an angle of approximately 90° for effecting removal of the rod;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2,—the full lines showing the rod in the position corresponding with the dash lines of Fig. 2, and the dash lines showing the rod swung to the next position toward effecting removal; and

Figs. 4 and 5 are views similar to Figs. 2 and 3 showing the rod further twisted on its axis to the position from which it is removable.

In the drawings the lamp socket is indicated at 10 and the lamp bulb at 11. The socket is surrounded by a sheet metal socket cover or fitter 12 having an outwardly flanged seating portion 13 and a narrow skirt portion 14. A prismatic glass reflector is shown at 16. It has radial reflecting prisms indicated at 17 and acts to reflect the light outwardly. The lower edge of this glass reflector is received within a sheet metal ring 18 having a narrow peripheral flange indicated at 19, slightly larger than the outside diameter of the bottom of the reflector. This ring carries three lugs or straps, two of which appear at 20, 21. They are riveted or spot welded in place and are made of heavy gage, rigid material. They extend upwardly from the ring as shown in the drawings and are then bent outwardly as indicated at 22 and apertured to receive rods, two of which are indicated at 23, 24.

The strap 20 has a slot 25 which extends into the rod receiving aperture so that the rod may be removed laterally from the apertured strap. The lower ends of the rods are threaded as indicated at 26 to receive nuts or thumb screws 27 and are upset at the lower ends as indicated at 28 to prevent the removal of the nuts.

The upper ends of the rods are bent at a comparatively small radius through approximately 180°, as indicated at 30, and then bent laterally as indicated at 31. See Fig. 5. They are received in holes 32 in the wall of the socket cover.

Where some upwardly directed light is desired, the reflector is not covered but where one desires to cut off all the upwardly directed light, or where protection of the glass against dirt or breakage is necessary, a protecting shell 33 is mounted about the reflector. The lower end of this shell telescopes into the flange 19 of the ring 18 and the upper end passes up into the fitter, as indicated. The upper end of this shell may be flanged inwardly to overlie the top of the glass, if desired.

When the present fixture is to be installed, the electrician mounts the socket cover and socket on the support. The ring, reflector, and tension rods need not be mounted until later. The two tension rods which are to be employed with the unslotted lugs 21 are inserted through the apertures in these lugs, and one can then pass the hooked ends of the rods into the openings. In this procedure the end 31 of the rod is passed through the hole 32, the rod being in the position indicated in Figs. 4 and 5 of the drawings.

The rod is then twisted about an axis and swung to the dash line position of Fig. 3, then to the full line position of Fig. 3, dash line position of Fig. 2, and down to the full line position of Figs. 1 and 2.

It will be noted that in accomplishing this one is not required to move the rod above the plane of the upper part of the socket cover or fitter. This makes it possible to hook in these parts when the fitter is carried close to the ceiling or other overhead structure.

When the two rods and ring are thus supported from the fitter, they hang in the position indicated in dot and dash lines in Fig. 1, the nuts 27 having been turned down toward the lower ends of the rods. The swinging or tilting of the ring 18 is limited by reason of the rigidity of the rods 24 and their fitting into the holes in the straps 21. One can then insert the large end of the reflector and the shell (where used) into the ring 18. The flange 19 of this ring will prevent the sliding of the reflector off the ring and the ring and reflector will swing to a new position such as indicated in dotted lines in Fig. 1. The rod 23 will hang freely. One can then lift the lower edge of the ring upwardly and swing the entire reflector with or without the shield to bring its smaller upper end against the seating portion of the socket cover. The rod 23 may then be passed through the slot 25 in the lug 20. This will support the reflector in the horizontal position. A tightening up of the nuts will then completely secure the parts together.

It will therefore be seen that the reflector is rigidly but detachably secured in place, that the reflector can be temporarily supported in a suspended position, and that the fixture may be installed with all the parts completely assembled previously to installation, or the assembly may be completed after the installation of the electrical parts of the fixture.

What is claimed is:

1. A luminair comprising a pendant lamp socket, a socket cover having a downwardly facing seating portion, an annular glass reflector having a small upper end adapted to fit the seating portion of the socket cover, and a large lower end, a ring receiving the lower end of the reflector, and tension members extending between the socket cover and ring for clamping the reflector in place between the ring and socket cover.

2. A luminair comprising a pendant lamp socket, a socket cover having a downwardly facing seating portion, an annular glass reflector having a small upper end adapted to fit the seating portion of the socket cover, and a large lower end, a ring receiving the lower end of the reflector, and tension members extending between the socket cover and ring for clamping the reflector in place between the ring and socket cover, at least two of said tension members being rigid rods swingably connected to the socket cover and passing through apertured members rigidly carried by the ring, the apertures being slightly larger than the rods so that the ring has limited twisting movement about the rods.

3. A lighting fixture comprising a lamp socket, a socket cover, a ring of substantially larger diameter than the socket cover, a glass reflector having its smaller end bearing against the socket cover and its larger end received in the ring, and ring securing means comprising clamping rods secured at one end to the socket cover and provided with threaded nuts at the other end to bear on the ring.

4. A lighting fixture comprising a fixed downwardly opening socket cover having a reflector receiving seat, a downwardly and outwardly flaring reflector whose smaller end is adapted to fit the seat, a metal ring of a size to engage the edge of the reflector at its larger end, means to support the ring and reflector in a tilted position comprising two rods passing through apertured members carried by the ring swingably attached to the socket cover, and a third rod similarly secured to the socket cover and attachable to the ring for holding the ring in position to bring the smaller end of the reflector against the seat, all said rods having threaded lower ends carrying nuts whereby the reflector may be clamped in place or released.

5. In a lighting fixture, a pendant open mouthed reflector, a normally horizontal ring having a flat portion for the mouth of the reflector, and extensions to align the ring and reflector, means for supporting the ring in horizontal position with the reflector above it comprising three rods pivotally supported at their upper ends and passing through apertures in members carried by the ring, one of the rods being separable from the ring, the other two rods being non-separable from the ring whereby the ring and reflector are supported by said two rods and swing to a tilted position, the extensions preventing the reflector from sliding off the ring.

6. A lighting fixture comprising a socket cover having a peripheral seat about its open end, an open mouthed reflector having one end bearing on said seat, a ring about the mouth of the reflector, and ring securing and clamping means comprising rods having hooked upper ends extending through holes in the socket cover and threaded lower ends, nuts threaded on the rods, and apertured lugs carried by the ring through which the rods extend and against which the nuts bear.

7. A lighting fixture as claimed in claim 6, having three rods and wherein one of the rods is laterally removable from its lug, whereby the ring may hang in tilted position supported by the other two rods.

8. A lighting fixture as claimed in claim 6, having three rods and wherein one of the ends is laterally removable from its lug, whereby the ring may hang in tilted position supported by the other two rods, the ring having an annular flange engageable with the outer edge of the reflector to support the reflector when in said tilted position.

9. A lighting fixture as claimed in claim 6, wherein the ring has an annular flange about the outer edge of the mouth of the reflector, and having an opaque reflector cover extending from the socket cover into the flange.

10. In a lighting fixture, means for supporting an annular open mouthed reflector, comprising a relatively fixed member adapted to bear on the smaller end of the reflector, a relatively movable ring adapted to bear on the larger end of the reflector, a plurality of apertured lugs carried by the ring, there being a corresponding number of openings in the first member, a plurality of rods each extending through a lug and having a hook at one end entering the opening, and non-removable nuts threaded on the other ends of the rods and bearing on the lugs.

11. A reflector supporting means as claimed in claim 10, wherein one of the lugs is slotted so that the rod is laterally removable therefrom, the hooked end of this rod having portions bent in

two planes whereby the rod must be turned bodily about the opening in the first member to partially remove the hook and then revolved on its axis to withdraw the tip of the hook.

12. In a lighting fixture a socket cover having apertures in the side walls thereof, and rods having a diameter slightly less than the apertures, each rod having a hook extending through 180° and a laterally bent extension, the extension being insertable through the opening and the rod being revolvable on the extension to pass the hooked portion through the opening.

13. In a lighting fixture, a socket cover having three apertures in the side walls thereof, three rods having a diameter slightly less than the apertures, each rod having a hook extending through 180° and a lateral bent extension, the extension being insertable through the opening and the rod being revolvable on the extension to pass the hooked portion through the opening, a ring having two apertured lugs and a slotted lug, and non-removable threaded nuts on the other ends of the rods, the rods for the two apertured lugs being capable of being inserted lengthwise through the apertures in the lugs and revolvable therein when the hooked ends are being inserted into the apertures in the socket cover.

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