

Dec. 2, 1969

H. P. KELLEY, JR

3,482,087

LUMINAIRE

Filed Feb. 20, 1967

6 Sheets-Sheet 1

Fig. 1.

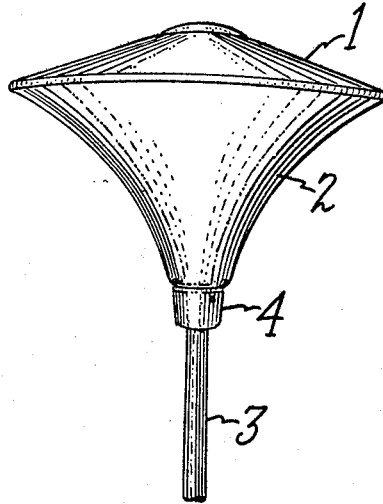
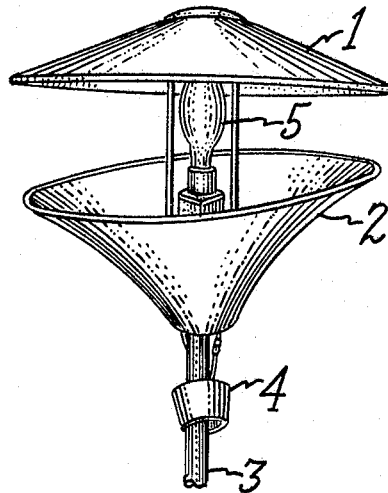


Fig. 2.



Inventor,
Harold P. Kelley, Jr.,
by Sidney Greenberg
His Attorney.

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H. P. KELLEY, JR

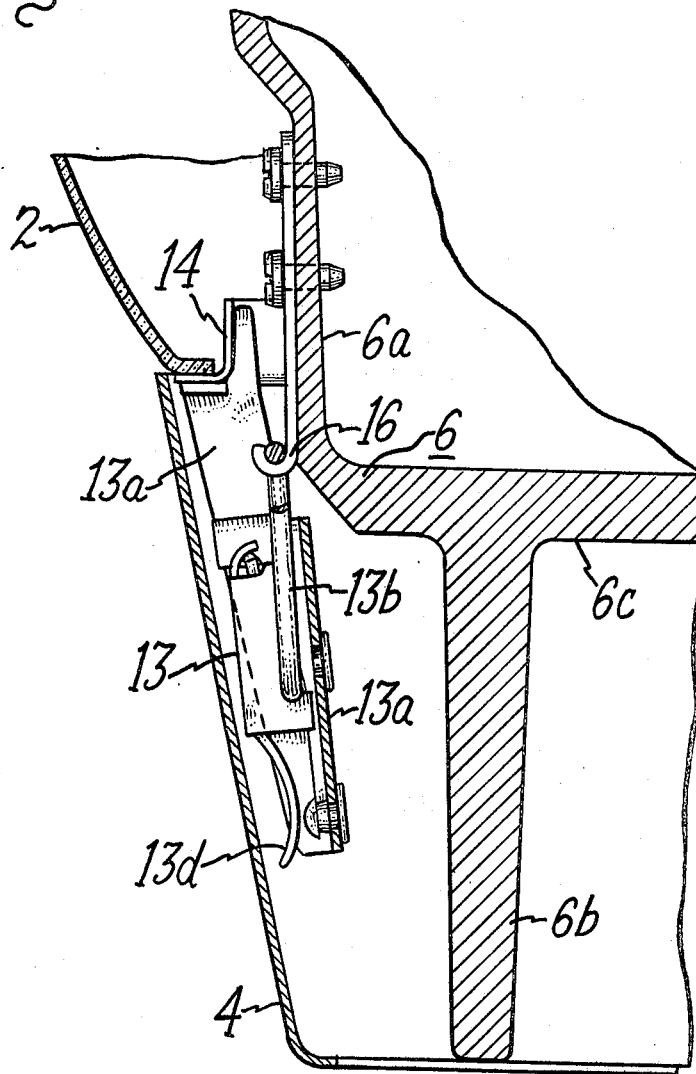
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Fig. 4.



Inventor,
Harold P. Kelley, Jr.,
by Sidney Greenberg
His Attorney.

Dec. 2, 1969

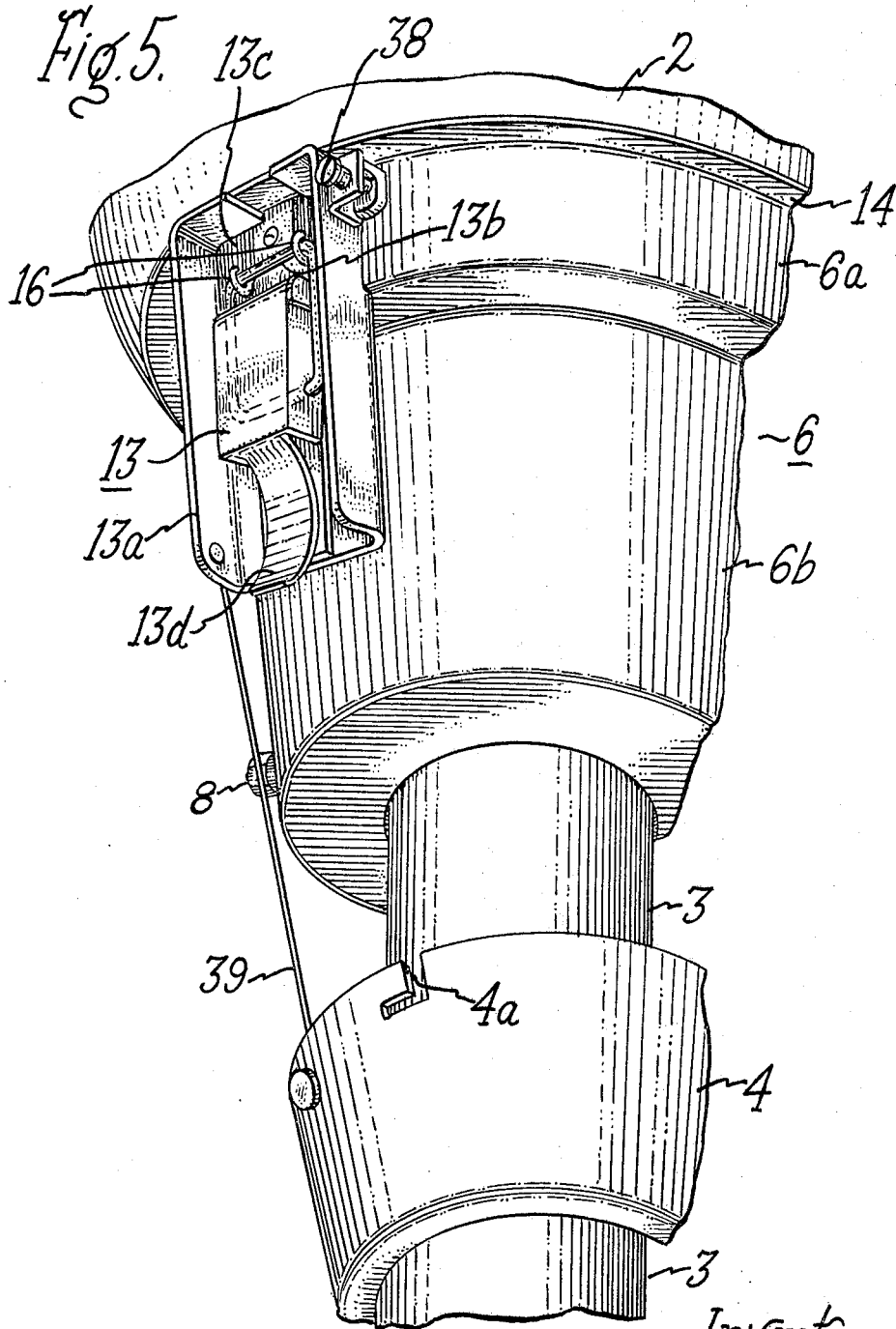
H. P. KELLEY, JR

3,482,087

LUMINAIRE

Filed Feb. 20, 1967

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Inventor,
Harold P. Kelley, Jr.,
by Sidney Greenberg
His Attorney.

Dec. 2, 1969

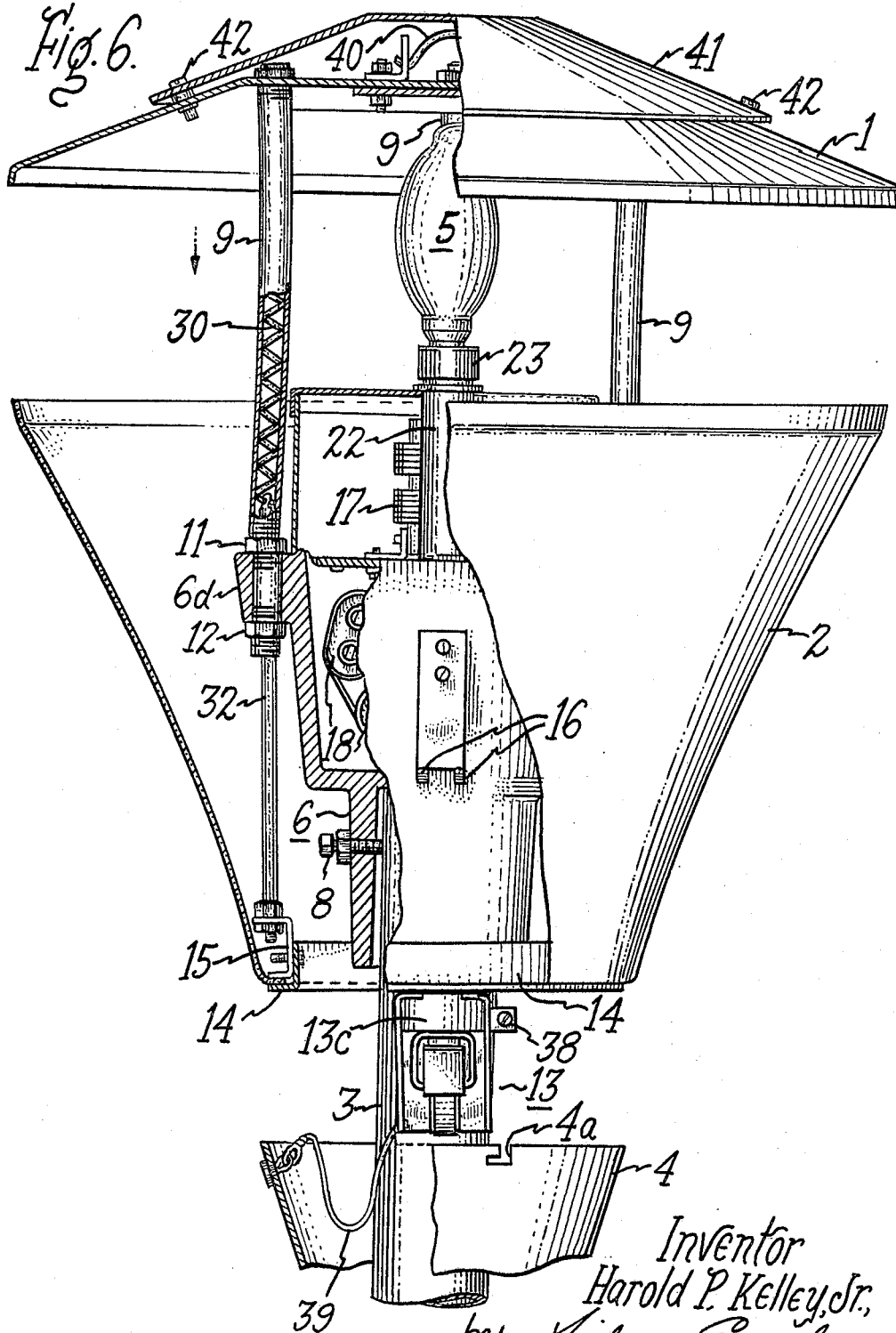
H. P. KELLEY, JR

3,482,087

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Filed Feb. 20, 1967

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Inventor
Harold P. Kelley, Jr.
by Sidney Greenberg
His Attorney.

Dec. 2, 1969

H. P. KELLEY, JR

3,482,087

LUMINAIRE

Filed Feb. 20, 1967

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Fig. 7.

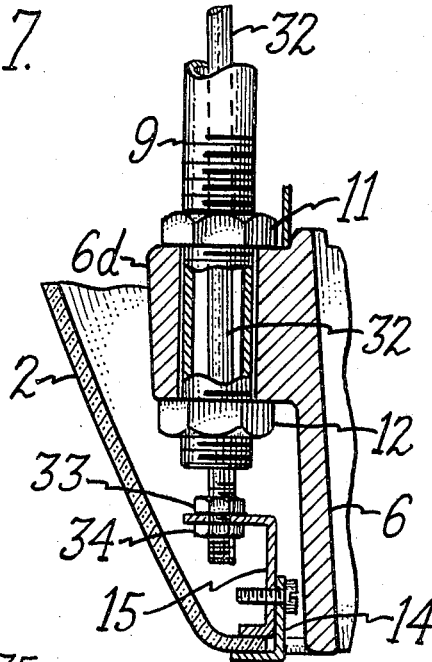
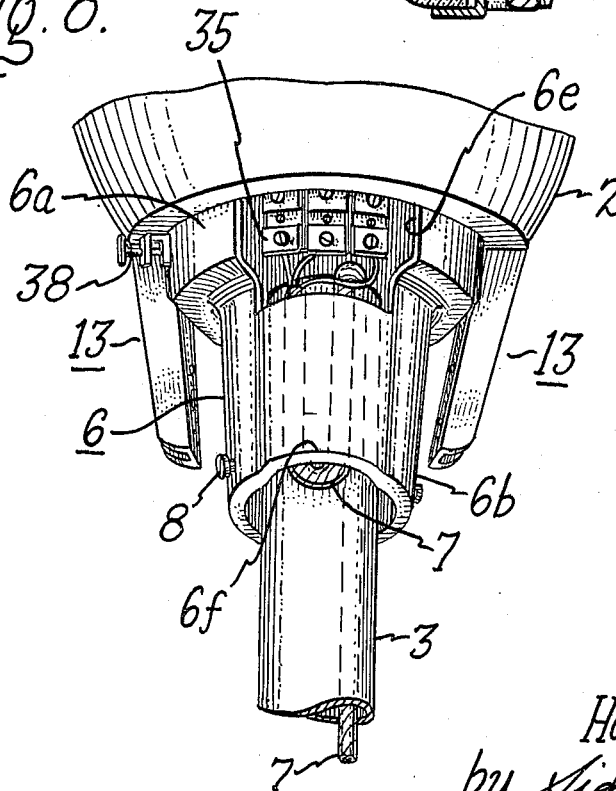


Fig. 8.



Inventor,
Harold P. Kelley, Jr.
by Sidney Greenberg
His Attorney.

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LUMINAIRE

Harold P. Kelley, Jr., Hendersonville, N.C., assignor to
General Electric Company, a corporation of New York
Filed Feb. 20, 1967, Ser. No. 617,279
Int. Cl. F21s 1/10

U.S. Cl. 240—3

5 Claims

ABSTRACT OF THE DISCLOSURE

A luminaire has a base member for mounting on top of a post. The base member has a housing portion containing electrical apparatus required for operation of the luminaire. Extending upwardly from the base member are cylindrical tubes to the tops of which is fastened a canopy. Inside the cylindrical tubes are helical coil springs which support a globe member surrounding the luminaire. A collar member fits around the base member to cover an opening which provides access to the electrical apparatus housed in the base member.

It is an object of the invention to provide a post-top luminaire which is easily disassembled to provide ready access to the interior parts for necessary maintenance of the luminaire.

It is another object of the invention to provide a luminaire of the above type having a detachable globe and means for conveniently and safely supporting the globe in detached position.

It is still another object of the invention to provide a luminaire of the above type having an improved slipfitter for mounting the luminaire on a hollow supporting post while providing for ready electrical connection between the luminaire and power supply conductors within the post.

Still another object of the invention is to provide a luminaire having the above described features while retaining a decorative appearance.

Other objects and advantages will become apparent from the following description and the appended claims.

With the above objects in view, the present invention in a preferred embodiment relates to a luminaire comprising a base member adapted to be mounted on top of a post, a globe open at top and bottom mounted on the base member, a hood overlying the globe and defining therewith an interior chamber, lamp and electrical operating means within the chamber, elongated support means securing the hood to the base member, the globe being detachably connected to the base member and movable upon detachment to a lowered position exposing the interior chamber for access to the lamp and electrical operating means, and extensible suspension means such as a helical spring connecting the globe to the hood for holding the globe in predetermined lowered position.

The invention will be better understood from the following description taken in conjunction with the accompanying drawings, in which:

FIGURE 1 is a view in elevation of a post-top luminaire in which the invention may be embodied;

FIGURE 2 is a view of the FIGURE 1 luminaire showing the globe in lowered position;

FIGURE 3 is an enlarged elevational view, partly in section, of a post-top luminaire embodying the invention showing the internal components in operative assembly;

FIGURE 3a is a detailed view of the spring suspension means of the FIGURE 3 luminaire showing the spring attachments;

FIGURE 4 is a fragmentary view in section of the lower portion of the luminaire showing the attachment of the globe with its associated collar to the slipfitter;

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FIGURE 5 is a view in perspective of the luminaire portion shown in FIGURE 4 showing the collar in lowered position and the exposed globe latch assembly;

FIGURE 6 is a view in elevation, with parts broken away, of the luminaire with the globe in partly lowered position;

FIGURE 7 is an enlarged detail view in section showing the attachment of the globe to its suspension means; and

FIGURE 8 is a front view of the luminaire terminal board and the associated slipfitter portion.

Referring now to the drawings, and more particularly to FIGURE 1, there is shown a post-top luminaire of the type in which the invention may be embodied and which comprises an opaque canopy or hood 1 and light transmitting globe 2 mounted on top of a supporting post 3, usually a pipe or similar tubular member, with a collar 4 arranged at the bottom end of globe 2. In accordance with the invention, globe 2 and its associated collar 4 are provided with attaching means, described more fully below, whereby they may be dropped down from canopy 1 along pole 3 as seen in FIGURE 2 to permit access to internally mounted lamp 5 and associated electrical operating devices for necessary re-lamping and other maintenance services.

FIGURE 3 shows the assembly of the luminaire parts and the slipfitter means for mounting the luminaire on tubular post 3. Integral base member 6 is formed with an upper housing portion 6a and a lower slipfitter portion 6b separated by a partial transverse wall 6c which serves as a stop when slipfitter 6b is slipped over the top end of post 3. Wall 6c only partially covers the open top of post 3 so as to leave an opening therein for passage of supply cable 7, as more fully described below. Screws 8 or the like, removably secure base member 6 to post 3. Canopy 1 is secured to base member 6 by three tubular supports 9 spaced 120° apart, and the canopy rests on a triangular support member 9a attached to and interconnecting support tubes 9 at their upper ends. Supports 9 are fastened at their upper ends to the canopy by nuts 10 threadably engaging the threaded outer surface of support tubes 9. At their lower ends support tubes 9 pass through channels in laterally projecting bosses 6d of base member 6 and are secured to the latter by nuts 11 and 12 which engage the threaded outer surface of tubes 9 on opposite sides of boss 6d (see FIGURE 7).

Globe 2, which is open at the top and bottom, is arranged in operative position below canopy 1 with its upper rim 2a within overlapping rim 1a of the canopy. The bottom opening of globe 2 is larger in diameter than slipfitter 6b, and the globe flares outwardly toward its top so that there is clearance between the upper portion of base member 6 and the globe to permit the globe to be lowered without hindrance. Holding globe 2 in its operative position are a pair of latches 13 secured on diametrically opposite sides of the globe. As seen in FIGURES 4 and 5, latch 13 comprises a base plate 13a which is fixedly attached to the underside of annular member 14 which extends around the inside of the lower edge and around the bottom of globe 2 and is secured to the latter by a plurality of U-shaped brackets 15 (see FIGURE 7). The latter brackets correspond in number to and are arranged directly below tubular supports 9, for reasons explained hereinafter.

Latch 13 has a pivoted bail member 13b which engages hooks 16 which are secured to base member 6 and pass through an opening 13c in latch base plate 13a. As in conventional latch devices of this type, finger lever 13d is pivoted at its upper end to latch plate 13a, so that bail 13b may be disengaged from hooks 16 by raising lever 13d, thereby unlocking globe 2 from base member 6 and permitting it to be lowered to a position

exposing the interior of the luminaire, as shown in FIGURES 2 and 6.

The internal components of the luminaire comprise ballast units such as transformer 17 and capacitors 18, the latter being suitably mounted within upper hollow housing portion 6a of base member 6, and the former being mounted on a supporting plate 19 overlying base member 6. Transformer 17 is enclosed within sleeve 20 and cover 21. Socket support 22 is surmounted by socket 23 in which lamp 5, such as a mercury vapor or other gaseous discharge lamp, is removably mounted for connection to the described electrical operating devices.

In accordance with a feature of the invention, globe 2 is provided with suspension supporting means to permit it to hang in a predetermined lowered position after being detached from its operative position. For this purpose, there is arranged in each support tube 9 a helical tension spring 30 (see FIGURE 6) secured at its upper end to the top end of support tube 9 by any suitable means, such as clip 31 (see FIGURE 3a) which is fastened to the end portion of spring 30 and hangs diametrically over the top edge of tubular support 9. The lower end of spring 30 is fastened to the top end of rod 32 slidably arranged in support tube 9 below spring 30. The lower end of rod 32 extends below the bottom of support tube 9 (see FIGURE 7) and is threadably secured by nuts 33, 34 to U-shaped bracket 15, and thereby connected to globe 2. As a result, globe 2, upon being unlatched as described above, hangs from rod 32 and associated spring 30 as it drops to its lowered position. The extent of drop is dependent on the expansion limit of spring 30, and sufficient lowering of globe 2 is provided for to enable the service man to readily reach lamp 5 and ballast units 17 and 18 for necessary maintenance of replacement.

In accordance with another feature of the invention, the electrical connecting means associated with the luminaire are made readily accessible to the user for initial installation and later service operations. As seen in FIGURES 3 and 8, base member 6 is formed with an opening 6e at one side adjacent the opening defined by transverse wall 6c. Secured within upper housing portion 6a so as to face outwardly through opening 6e is terminal board 35, which is fastened to S-shaped bracket plate 36, the latter being secured at one end to supporting plate 19. Slipfitter 6a is formed on the side adjacent to terminal board 35 with an offset wall portion 6f which is spaced from post 3 to provide a passage or wire way to accommodate electric supply cable 7. Offset wall portion 6f is wide enough circumferentially to permit cable 7 to be inserted and bent back on itself within the wire way as shown in FIGURE 8. The individual conducting leads extending from the end of cable 7 are then readily connectible to appropriate terminals on terminal board 35. The arrangement is such that with cable 7 hanging out of the top of post 3, the user can mount and fasten a luminaire on the post without damaging the cable, and can then readily make the necessary electrical connection to the terminal board. Doubling back of cable 7 within wire way 6f serves as a simple strain relief arrangement.

Collar 4 is provided below globe 2 extending around base member 6 so as to conceal slipfitter 6b and cover the opening opposite terminal board 35. Bayonet slots 4a opening on the top edge of collar 4 at diametrically opposite sides thereof co-operate with correspondingly positioned adjustable screws 38 secured to one side of each globe latch 13 (see FIGURE 5), so as to be locked into place below globe 2 in the position shown in FIGURES 1 and 3. A retaining cord 39 or the like, connecting collar 4 to latch plate 13 is provided to hold collar 4 in suspended position in disassembly of the unit as shown and described.

To the flat top surface of canopy 1 as seen in FIGURE 3 there is advantageously secured hook 40, by means of which the luminaire assembly may be lifted by suit-

able equipment for mounting and dismantling the luminaire. A cover 41 of inverted dish shape, which overlies the top central portion of canopy 1 and is secured thereto by screws 42 or the like, protects the interior of the luminaire against weather conditions and enhances the decorative appearance of the assembled luminaire.

While the present invention has been described with reference to particular embodiments thereof, it will be understood that numerous modifications may be made by those skilled in the art without actually departing from the scope of the invention. Therefore, the appended claims are intended to cover all such equivalent variations as come within the true spirit and scope of the invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A luminaire comprising, in combination, a base member adapted to be mounted on top of a post, a globe open at top and bottom mounted on said base member, a hood overlying said globe and defining therewith an interior chamber, lamp and electrical operating means within said chamber, elongated support means securing said hood to said base member, said globe being detachably connected to said base member and movable upon detachment to a lowered position exposing the interior chamber for access to said lamp and electrical operating means, extensible suspension means connecting said globe to said hood for holding said globe in predetermined lowered position, said base member formed of a lower slipfitter portion, an upper housing portion, and a transverse wall partially separating lower and upper portions and serving as a stop adapted to rest on top of a hollow supporting post, said upper housing portion containing at least a portion of said electrical operating means, said base member being formed with an opening adjacent said transverse wall for providing inter-communication between the interior of the hollow supporting post and the interior and exterior of the upper housing portion of said base member, and electrical connecting means within said upper housing portion opposite said opening, whereby said electrical connecting means is readily accessible from the exterior of said base member and to the open top of the supporting post for receiving a power supply conductor extending through the post.

2. A luminaire as defined in claim 1, said lower slipfitter portion having a radially offset wall portion adjacent said opening for providing a space between said wall portion and the supporting post for accommodating a supply conductor, whereby the supply conductor may pass from the open top of the post into said space defined by said offset wall portion and into the interior of said housing portion for connection to said electrical connecting means.

3. A luminaire as defined in claim 2, and a collar releasably attached to the bottom of said globe covering said lower slipfitter portion of said base member and said opening therein.

4. A luminaire comprising, in combination, a base member adapted to be mounted on top of a post, a globe open at top and bottom mounted on said base member, a hood overlying said globe and defining therewith an interior chamber, lamp and electrical operating means within said chamber, elongated tubular support means securing said hood to said base member, said globe being detachably connected to said base member and movable upon detachment to a lowered position exposing the interior chamber for access to said lamp and electrical operating means, and extensible suspension means connecting said globe to said hood for holding said globe in predetermined lowered position, said extensible suspension means including resilient means comprising a helical spring arranged within said tubular support means and rod means connected at one end within said tubular support means to said helical spring and at the opposite end outside said tubular support means to said globe.

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5. A luminaire comprising, in combination, a base member adapted to be mounted on top of a post, a globe open at top and bottom mounted on said base member, a hood overlying said globe and defining therewith an interior chamber, lamp and electrical operating means within said chamber, elongated support means securing said hood to said base member, said globe being detachably connected to said base member and movable upon detachment to a lowered position exposing the interior chamber for access to said lamp and electrical operating means, and extensible suspension means connecting said globe to said hood for holding said globe in predetermined lowered position, said globe resting at its bottom edge on an annular member extending around the open bottom thereof, means securing said annular member to said globe and said extensible suspension means, latch means fixed to and depending from said annular member for detachably connecting said globe to said base member, said base member having a housing portion containing electrical means therein and formed with an opening adjacent said electrical means and below said globe, and a collar releasably attached to the bottom of said globe covering said latch

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means and the portion of said base member below said globe, whereby said collar in attached position covers said opening and when detached and lowered uncovers said opening to provide access to said electrical means.

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NORTON ANSHER, Primary Examiner
MONROE H. HAYES, Assistant Examiner

U.S. Cl. X.R.

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