

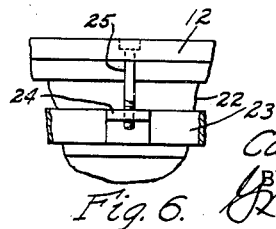
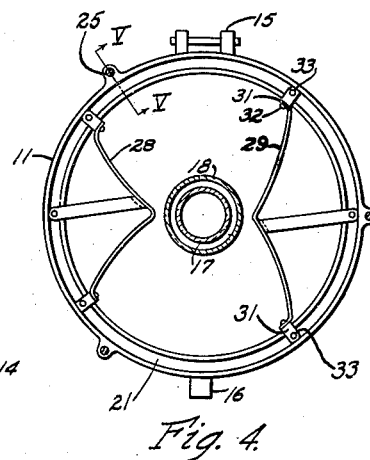
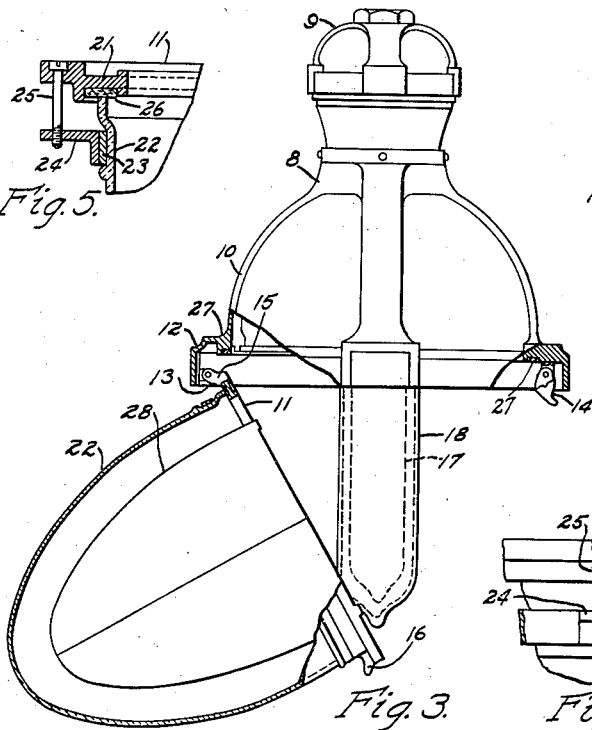
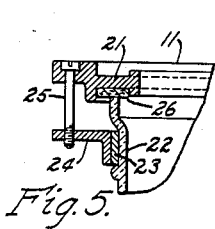
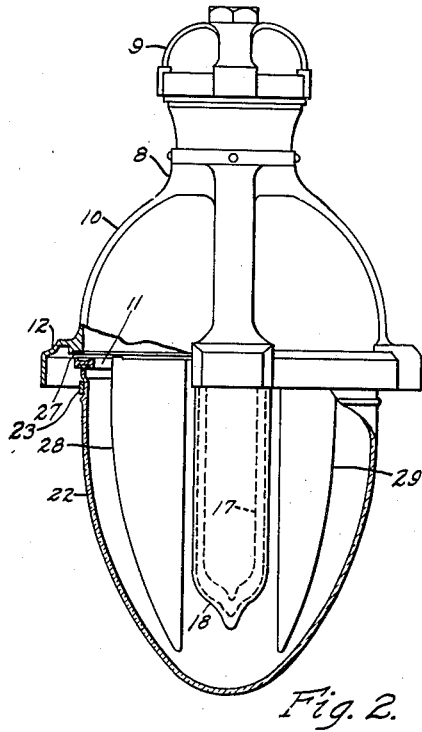
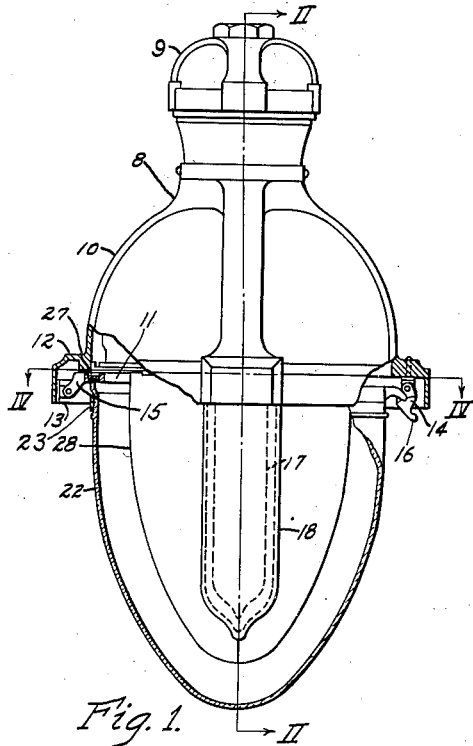
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C. F. HERBOLD

2,259,307

LIGHTING UNIT

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2,259,307

LIGHTING UNIT

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2 Claims. (Cl. 240—147)

My invention relates in general to lighting units, and in particular to enclosed type street lighting units which utilize sodium or other types of vapor discharge lamps as a source of light.

In order to effect a proper lighting of a street or highway, it is often desirable to use auxiliary reflectors, which extend downwardly within the globe of the lighting unit. Such reflectors are so placed as to direct most of the rays emitted from the light source into a relatively narrow beam which is substantially parallel with the street or highway, and permit only a relatively minor portion of the emitted light to be directed toward the "house" side, or at right angles to the street or highway.

It has been common practice to support such reflectors from the upper or hood portion of the unit, the reflecting surfaces extending into the enclosed globe and being placed adjacent to the light source.

The vapor type lamp being in most instances of substantially tubular shape and relatively long as compared to the length of Mazda lamps, requires a reflector which extends downwardly for substantially the entire length of the lamp or below the lower tip of the lamp in order to produce a proper distribution of all the emitted light.

Lighting units of the so-called "open" type, utilizing vapor lamps, such as the sodium lamp, have been used for some time for street or highway lighting. When it became desirable to adapt such sodium lamps to pendant type units provided with enclosing globes, it was found that the relatively long reflectors which were necessary to use with the vapor lamps could no longer be supported from the upper hood in fixed relation to the lamp for the reason that these reflectors when made in such lengths as are required for proper light distribution would interfere with the opening and closing movements of the globe, and also interfere with the ready replacements of lamps or repairs to the internal portion of the unit.

The object of my invention, generally stated, is to provide a practical and novel arrangement for supporting such a reflector system whereby the enclosing globe may be easily opened and which will readily permit replacement of lamps.

A more specific object of my invention is to provide for supporting such reflectors from the globe holder which supports the enclosing globe and which is pivotally supported from the hood to effect pivotal movement of the globe reflectors, and globe holder to an open position, thereby

facilitating replacement of lamps and permitting easy access to the interior of the hood portion of the lighting unit when repairs are necessary.

These and other objects of my invention will become more apparent in the description to follow taken in conjunction with the accompanying drawing in which:

Figure 1 is a front view of a preferred embodiment of my invention, partly in elevation and partly in section;

Fig. 2 is a view taken along the line II—II of Fig. 1 being partly in section and partly in elevation;

Fig. 3 is a view similar to Fig. 1 showing the globe moved to a partly opened position;

Fig. 4 is a plan view of the globe holder and reflectors taken along the line IV—IV of Fig. 1;

Fig. 5 is an enlarged sectional view taken along the line V—V of Fig. 4, and

Fig. 6 is a fragmentary view, in elevation, showing the manner in which the enclosing globe is supported on the globe holder.

Referring to Figure 1, which is a preferred form of a lighting unit embodying the principal features of my invention, a hood 8 is provided with an upper portion 9 including means for attaching the lighting unit to a bracket or any other suitable support, not shown, and a bowl-like lower portion 10 which houses the fixture and socket assembly for receiving the lamp.

To provide for pivotally supporting a globe holder 11, the lower portion 10 may be provided with a depending flange portion 12 on its lower edge which carries on its inner face a pivot support 13 and a latching member 14 which cooperate with complementary pivot and latch members 15 and 16, respectively, on the globe holder.

The light source comprises a vapor lamp 17 which is of elongated tubular shape and may be provided with an outer enclosing flask 18 which is utilized to keep the lamp 17 at a proper elevated temperature which is necessary for its operation. The lamp 17 and its associated fixture for connecting the lamp to the lighting circuit may be housed within the lower portion 10 of the hood 8 in any well known manner, not shown.

The globe holder 11, which is shown more in detail in Figs. 4, 5, and 6, is circular in shape and may be provided with a depending annular channel portion 21 on its bottom face for receiving the opening edge of any suitable enclosing globe 22. The globe 22 may be secured to the globe holder 11 by a split band member 23 provided with a plurality of outwardly ex-

tending lugs 24 which are engaged by the screws 25 extending through the rim of the globe holder 11 as shown in Figure 5. A gasket 26 may be inserted in the depending channel 21 of the globe holder 11. Likewise a gasket 27 may be fastened in any suitable manner to the bottom face of lower portion 10 of hood 8. These two gaskets are effective in making the lighting unit rain-proof.

The reflector system which I prefer to use comprises a pair of reflectors 28 and 29, each of which is provided with a pair of reflecting surfaces which terminate in substantially a line which is vertical and closely adjacent to the flask 18, as shown in Figs. 2 and 4. As hereinbefore explained, the reflectors 28 and 29 are made to extend below the lower tip of the light source 17 to effect a proper light distribution and are provided with curved outer edges which follow generally the curvature of the enclosing globe 22.

Referring now to Fig. 4, the reflectors 28 and 29 may be fastened to the inner periphery of globe holder 11 by means of a plurality of lugs 31 which may be riveted or otherwise secured to reflectors 28 and 29 and attached to the upper face of globe holder 11 by means of a plurality of screws 33 which thread into suitable openings in the upper face of the globe holder.

Since the lamp 17 and its outer flask 18 project well within the globe 22, it will be evident that reflectors 28 and 29 must be so supported on the globe holder 11 that they will not strike the flask 18 when the globe and reflectors are moved to their open position. I have attained such a result by mounting the reflectors on the globe holder at substantially right angles to the hinge member 15 and latching member 16 of the globe holder. Referring now to Fig. 3, it will be apparent that when the globe and globe holder are pivotally moved to their open position, the reflectors will move therewith in a plane which is substantially coincident with the plane of such pivotal movement. It will be evident that with such an arrangement the reflectors may be of any desired length as determined by the depth of the globe and will not interfere in any way with the opening and closing of the globe.

It will be understood that the form of reflectors which I prefer to use is exemplary only, and that other forms of reflectors which may be

supported from the globe holder may be utilized without departing from the spirit and scope of my invention.

In conclusion, it will be evident that I have provided a practical and novel type of support for reflectors which are utilized with lighting units of the enclosed type having an elongated light source.

I claim as my invention:

1. In an enclosed pendant type lighting unit, the combination of a hood, a globe ring, means for pivotally supporting said globe ring on said hood, a globe supported by said globe ring, an elongated tubular lamp extending within said globe to a point near the bottom thereof, a pair of reflectors disposed in juxtaposition within said globe, each of said reflectors being generally equal in length to the length of said lamp and comprising a pair of concave reflecting surfaces divergent from a line closely adjacent to said lamp, and means for supporting said reflectors on said globe ring substantially at right angles to said globe ring pivotal supporting means, whereby said reflectors clear said lamp when said globe ring is pivotally moved to its open position.

2. In an enclosed pendant type lighting unit, the combination of a hood, a globe ring, means for pivotally supporting said globe ring on said hood so that it may be swung to an open position, a globe supported by said globe ring, an elongated tubular lamp extending within said globe, said globe ring being of such inside diameter as to clear the lower end of the lamp when the globe ring is swung to its open position, a pair of reflectors disposed in juxtaposition within said globe, each of said reflectors being generally equal in length to the length of said tubular lamp, and comprising a pair of reflecting surfaces merging in substantially a line closely adjacent to and on opposite sides of said lamp, and means for supporting said reflectors on said globe ring in such position that the plane defined by the vertical center lines of said reflectors is displaced at substantially right angles to the vertical plane defined by the pivotal supporting means for said globe ring, whereby the globe ring and globe may be swung to the open position without interference between the lamp and reflectors.

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