Jan. 8, 1963 D. W. HARLING 3,072,783

LUMINAIRE

Filed Oct. 5, 1959

2 Sheets-Sheet 1

Fig. 1

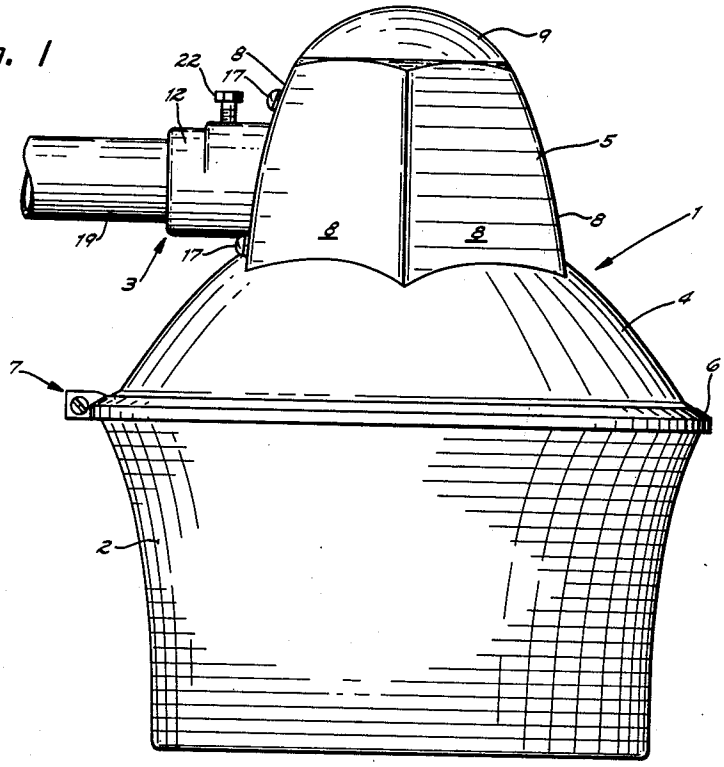
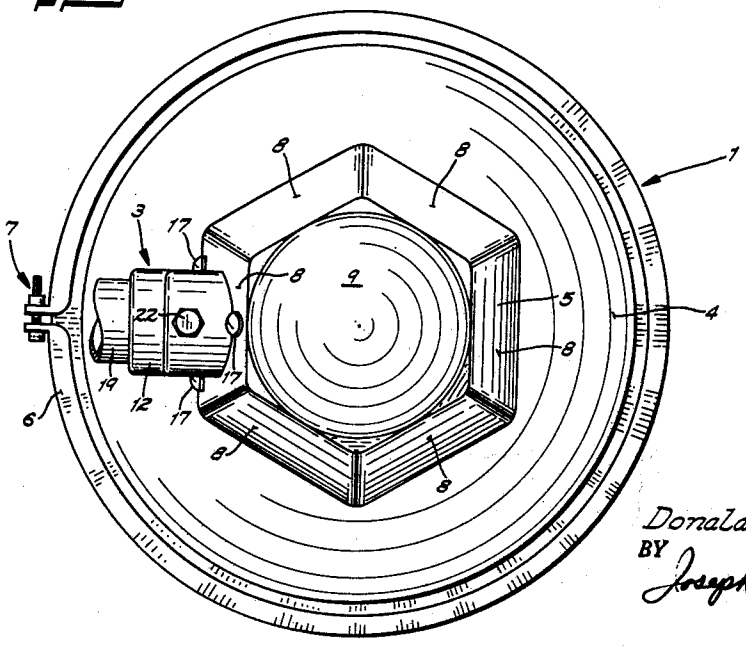


Fig. 2



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Fig. 3

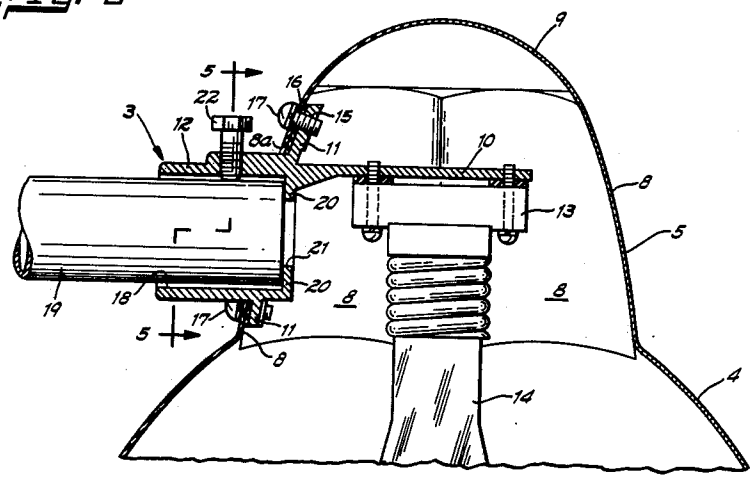


Fig. 5

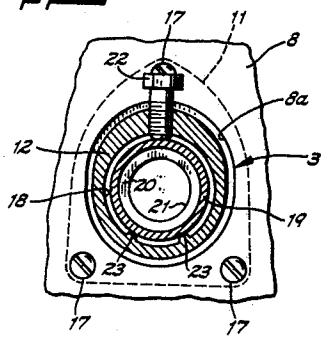


Fig. 6

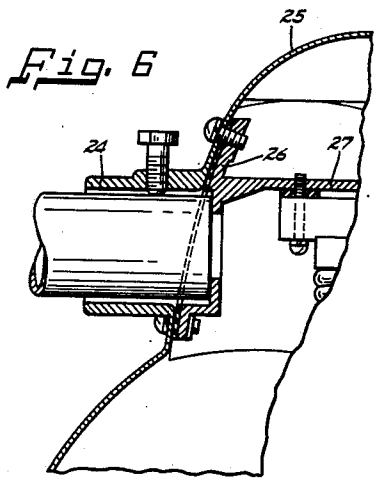
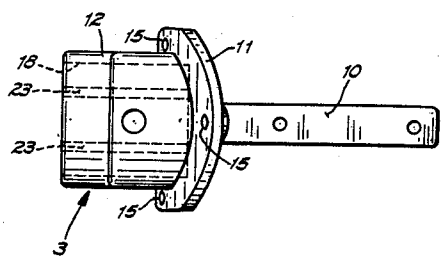


Fig. 4



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3,072,783

LUMINAIRE

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5 Claims. (Cl. 240—25)

This invention relates to a new and improved luminaire and more particularly relates to an improved housing and mounting means for a luminaire.

A luminaire is generally provided with a housing to enclose the electrical connections and light source thereof to afford protection from the elements and further to reflect light onto the area to be illuminated. Heretofore, this housing has consisted of separate reflector and hood members. The hood is usually provided with integral slip fitter means for mounting the luminaire in its operating position and internal integral lugs for the attachment and support of a light socket. A light refractor is generally provided and is connected to the reflector member for controlling the light emitting from the light source to produce a controlled light pattern.

These prior art structures were disadvantageous in that additional connecting means was necessary to join the separate hood and reflector members. The additional connecting means usually took the form of an external spring type latch. The spring type latches, being exposed, detracted from the overall appearance of the luminaire and were subject to corrosion which affected the dependability and ease of their operation.

Another disadvantageous feature of these prior art luminaires was that it was necessary to perform a number of machining operations on the internal integral mounting lugs prior to attachment of the light socket. The mounting lugs being disposed within a deep hood member, the machining thereof was difficult and cumbersome. Further, having to assemble the light socket within the deep hood was also cumbersome.

My invention contemplates the elimination of these shortcomings of the prior art by the provision of a luminaire having a housing comprising integral hood and reflector portions, thereby eliminating the need for separate connecting means; and further, a luminaire having a separate one-piece mounting means that may be readily machined independent of the hood and reflector and to which a light socket may be assembled prior to assembly to the luminaire housing.

Accordingly, it is an object of my invention to provide an aesthetically pleasing luminaire having a minimum of component parts.

Another object of my invention is to provide a luminaire comprising readily machineable and easily assembled component parts.

I will now specifically describe my invention in relation to a preferred embodiment thereof so that these and additional objects and advantages thereof will become apparent. In the following description, reference will be made to the drawings in which:

FIG. 1 is a side view of a luminaire embodying my invention;

FIG. 2 is a top view of the luminaire;

FIG. 3 is a partial side view of the luminaire with portions of the hood broken away;

FIG. 4 is a top view of the one-piece mounting means;

FIG. 5 is a cross sectional view taken along lines 5—5 of FIG. 3;

FIG. 6 illustrates an alternative embodiment of my invention.

The luminaire of FIG. 1 comprises a housing 1, a light refractor 2, and detachable mounting means 3. The housing 1 includes attached reflector and hood portions

4 and 5 respectively. The reflector portion 4 and hood portion 5 are preferably integral, as shown in FIG. 1, thereby eliminating the need for the usual spring latch connecting means of the prior art.

The light refractor 2 is connected to the reflector 4 preferably by a V-band 6, located at the juncture of the reflector 4 and the refractor 2, and tightening means 7 which draws the V-band 6 tightly about that juncture.

The hood 5 preferably has plurality of relatively flat or substantially planar side portions 8 which give it a generally hexagonal horizontal cross section. The hexagonal shape of the hood portion 5 blends well with the dished or semi-spherical shape of the reflector 4 to give the overall luminaire a very aesthetically pleasing appearance. In addition, the planar surfaces 8 provide a good mounting surface for attachment of the mounting means 3, as will be discussed more fully hereinafter. The uppermost portion 9 of the hood 5 is preferably generally spherical in shape, that is, so fabricated as to be readily removable for accommodation of photoelectric controls (not shown) which may be used to operate the luminaire.

Referring now to FIG. 3 of the drawings, mounting means 3 of my luminaire is preferably a separate one-piece subassembly and performs the dual function of connecting the luminaire in its operating position and supporting a light source within the luminaire. Mounting means 3 includes a flange portion 11 disposed intermediate its ends. Extending laterally from one side of the flange 11 is light socket attachment means consisting of a mounting lug 10 and extending laterally from the opposite side of the flange 11 and through an opening 8*a* of one of the side portions 8 is slip fitter means 12. The mounting lug 10 is adapted to receive and support a light socket 13 to which is connected a suitable light source 14. Light source 14 may be an incandescent lamp or a mercury vapor lamp. When a mercury vapor lamp is used the height of the hood 5 is increased to accommodate the ballasts which are necessary for their operation.

The flange 11 is of a configuration to conform with the interior face of the hood 5 and is provided with three threaded holes 15. The threaded holes 15 are so disposed as to mate with three clearance holes 16 which are provided in the hood portion 5. Suitable fastening means, such as machine screws 17, are used to releasably connect the mounting means 3 to the hood 5. When so secured, the flange 11 is disposed within the hood 5 and the aesthetically pleasing exterior of the luminaire is not impaired.

The mounting means 3 constitutes an independent part of the luminaire and is separate from the housing 1. Mechining of the mounting lug 10 may be readily performed and assembly of light socket 13 thereto may be completed prior to attachment of mounting means 3 to the housing 1.

As was stated above, hood 5 is preferably of hexagonal shape, however, it may take any suitable form as long as the flange 11 of mounting means 3 can be formed to a configuration compatible with the inner surface of the hood 5 for attachment thereto. One example of an alternative form of the hood 5 is, it could have a generally semi-spherical form. However, it is preferred to provide at least one substantially planar side portion 8 to facilitate mounting and to simplify the structure of the mounting means 3.

The slip fitter means 12 is provided with an opening 18 which is adapted to receive a suitable luminaire support member 19 to support the luminaire in its normal operating position. The inner end of opening 18 is provided with a bearing surface 20 which acts as a stop for the support member 19. Bearing surface 20 is also provided with an opening 21 through which electrical leads (not

shown) are passed for connection to and electrical energization of the light source **14**.

Suitable fastening means, such as a set screw **22**, is provided in the slip fitter means **12** to engage and secure the luminaire to the support member **19**. Disposed in the opening **18** are a pair of circumferentially spaced apart raised rib portions **23** which provide a seat for the support member **19**. The ribs **23** are disposed diametrically opposite to the set screw **22** and hence a 3-point clamping action is provided to securely hold the luminaire to the support member **19**. This particular feature is best illustrated in FIG. 5.

In FIG. 6, an alternative embodiment of my invention is illustrated. For clarity and convenience only a portion of the luminaire is shown, the balance of this embodiment being identical to that already discussed. In this embodiment slip fitter means **24** is integral with hood portion **25** and the flange portion **26** and mounting lug **27** form a separate and distinct component part. Here too, since the portions to be contained within the hood **25** form a separate and distinct part of the luminaire, the machining thereof and assembly thereto of the light socket is greatly facilitated, as compared to prior art structures. In addition, the flange **26** is again disposed within the hood **25** and the aesthetically pleasing appearance of the luminaire is retained.

Although I have discussed my invention with respect to specific embodiments thereof, I realize that modifications and alternative embodiments thereof will become readily apparent to those skilled in the art. Therefore, it is intended in the appended claims to cover all modification and embodiments as are within the true spirit and scope of my invention.

What I claim is:

1. A luminaire having a hood portion and a reflector portion affixed to said hood portion, an elongate supporting member having an end disposed adjacent said luminaire, light refracting means connected to said reflector, an aperture formed in the side of said hood portion, the margins of said aperture being spaced from said end of the supporting member mounting means affixed to said hood portion adjacent said aperture and including a first portion extending generally exteriorly of said hood portion for engagement with said supporting member, said mounting means also including lug means extending integrally from said first portion and through said opening, and a light source mounted on said lug means.

2. A luminaire having a hood portion and a reflector portion disposed on the lower end of said hood portion, an elongate supporting member having an end disposed adjacent said luminaire, light refracting means connected to said reflector portion, an aperture formed in said hood portion, the margin of said aperture being adjacent to and spaced from said end of the supporting member, slipfitting means constructed and arranged to mount said luminaire on said elongate supporting member, said slipfitter means being affixed to said hood portion adjacent said aperture and extending externally of said hood portion, lug means extending integrally from said slipfitting means and through said opening internally of said hood portion, and a light source mounted on said lug means, said slipfitting means having a recess for telescopically receiving said supporting structure, a pair of circumferentially spaced rib portions formed in said recess, fastening means disposed diametrically opposite to said rib portions to provide a stable three point gripping action relative to said support means.

3. A luminaire having a hood portion and a reflector portion, an elongate supporting member having an end disposed adjacent said hood portion, said portions being differently contoured and formed from a single piece of material, said hood portion having a generally inverted cup shaped configuration terminating in its lower end in the upper end of the reflector portion, said hood portion also having an aperture formed therein and whose margin is adjacent to and spaced from said end of the supporting member, said reflector portion flaring outwardly from the lower terminus of said hood portion, a slipfitter for mounting said luminaire on said supporting member, said slipfitter having a mounting portion for engagement with said supporting member, a lug portion extending integrally from one end of said mounting portion, said lug portion including means for releasably securing a light source thereto, and attachment means at the juncture of said portions for affixing said slipfitter to said hood portion with said lug portion extending into the interior thereof through said aperture, whereby said hood and reflector may be formed without integral means for mounting them on said supporting member and without integral means for supporting a light source therein.

4. A luminaire, an elongate supporting member, said luminaire comprising a hood formed of relatively thin material, a reflector attached to said hood and forming therewith a housing, an aperture formed in said hood and having its margin disposed adjacent the end of said support member and spaced therefrom, and mounting means detachably connected to said housing adjacent said aperture and including a first portion extending externally of said housing to engage the end of said support member for mounting said housing thereon, said mounting means also including a second portion extending internally of said housing and through said aperture and including means for detachably mounting a light socket thereon, whereby said hood portion may be formed without integral means for mounting it on said support member and without integral means for mounting a light source therein.

5. A luminaire having a hood portion and a reflector portion, an elongate supporting member having an end disposed adjacent said hood portion, light refracting means connected to said reflector portion, an aperture formed in said hood portion whose margin is adjacent to and spaced from said end of the supporting member, mounting means engaging said hood portion adjacent said aperture and including slipfitting means extending externally of said housing for attachment to said supporting member, said mounting means also including lug means extending interiorly of said housing, and a light source mounted on said lug means, whereby said hood portion may be formed without integral means for mounting it to said support member and without integral means for supporting a light source therein.

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