

May 9, 1961

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2,983,813

SEALED PENDANT LIGHTING DEVICE

Filed Jan. 28, 1959

2 Sheets-Sheet 1

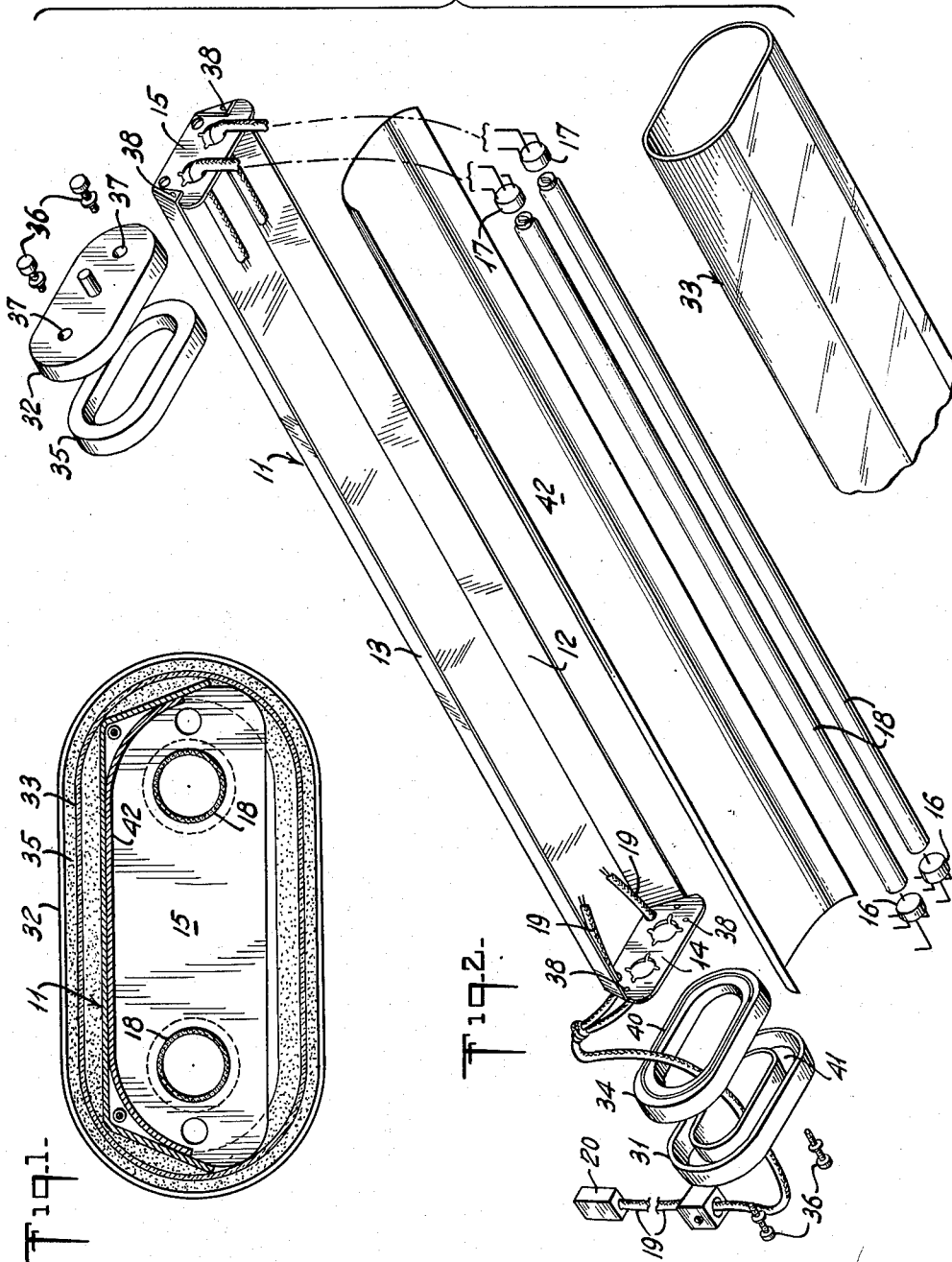


Fig. 1.

Fig. 2.

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Fig. 3.

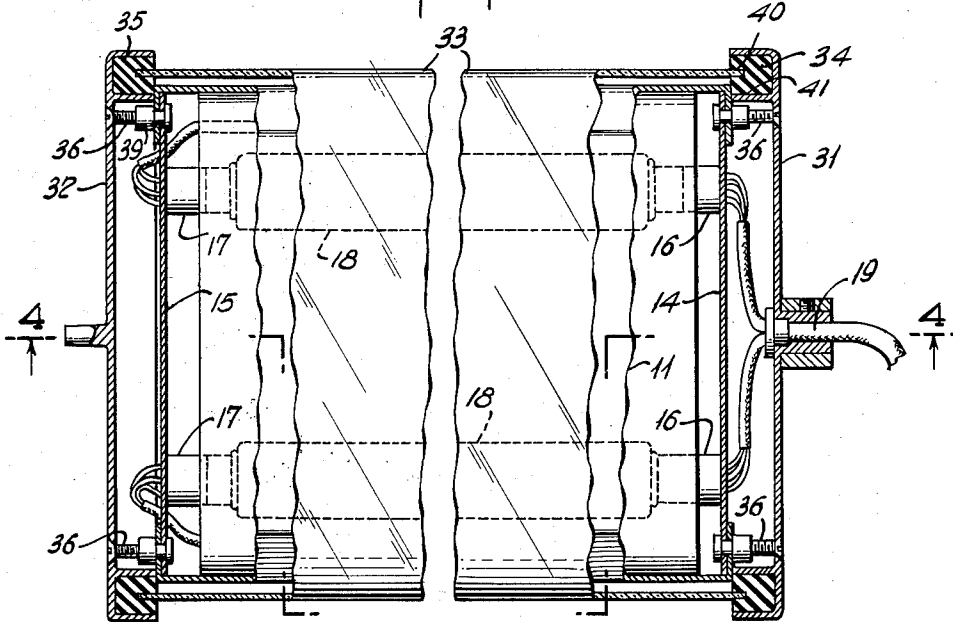


Fig. 4.

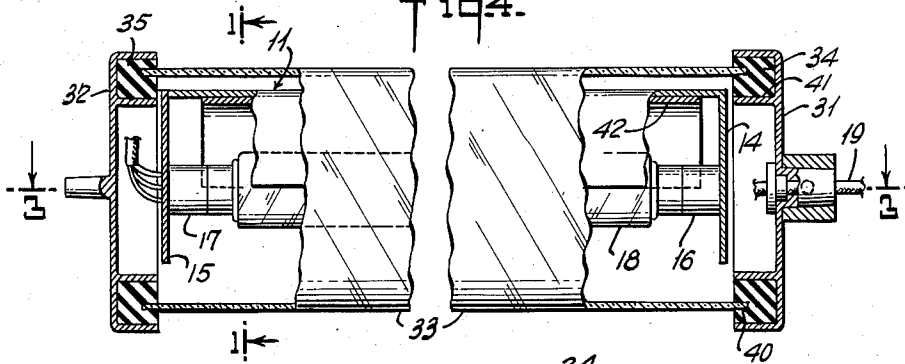


Fig. 5.

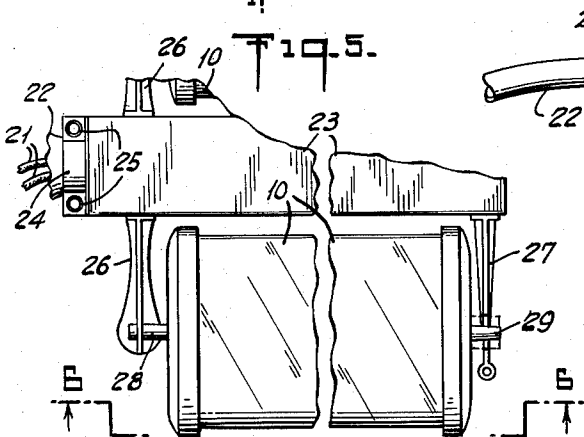
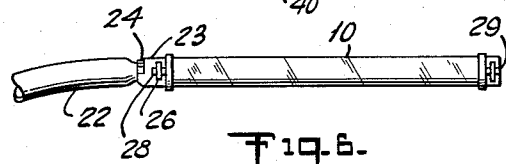


Fig. 6.



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2,983,813

SEALED PENDANT LIGHTING DEVICE

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2 Claims. (Cl. 240—25)

This invention relates to devices for use in lighting of roadways and other horizontal surface areas to be illuminated from a light source spaced therefrom. Such devices, being spaced substantially above the surface to be illuminated, require a light source of substantial intensity, attracting insects and foreign matter hazardous to the operation and efficiency of the devices. These disadvantages, present in prior devices, are obviated in the device of the invention due to novel structural features thereof and new combination of parts defining a self-contained and sealed unit.

Examples of practical devices embodying the invention are described below and in the accompanying drawings; the invention is not limited thereto, but covers all other forms coming within the scope or purview of the disclosure herein.

In the drawings, wherein like reference numbers indicate like parts:

Fig. 1 is a transverse sectional view of a device embodying the invention, taken at line 1—1 of Fig. 4,

Fig. 2 is an exploded, perspective view of parts of said device,

Fig. 3 is a fragmentary, horizontal sectional view of said device assembled, taken at line 3—3 of Fig. 4,

Fig. 4 is a vertical, partly fragmentary, sectional view thereof, taken at line 4—4 of Fig. 3,

Fig. 5 is a fragmentary plan view of said device assembled and shown pendantly suspended from a horizontal support, and

Fig. 6 is a fragmentary, side elevational view thereof, taken at line 6—6 of Fig. 5.

As shown in the drawings, the device of this invention comprises a sealed light unit 10 (Fig. 5) having an elongated frame member 11 (Fig. 2) comprising a pair of side plates 12, 13 and a pair of end plates 14, 15 extending from an intermediate base and forming a generally elongated channeled frame, in which the end plates are disposed and prevented from being bent out of normally upstanding or upright relation beneath the base, as by corner portions of the side plates bent thereof, as viewed in Figure 2, said frame being of greater width than height. Means such as sockets 16, 17 are provided, secured to the end plates by suitable means (not shown) for supporting the lighting units 18 between the end plates. Suitable wiring 19 (Fig. 3) connects said units with a power source by means of a connector plug 20 (Fig. 2) or the like. Said power source may, for example, be in the form of a cable 21 (Fig. 5) passing through a shaft or standard 22 to which a horizontal bar 23 of the device of this invention is secured (Figs. 5 and 6) as by

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clamp 24 and bolts 25, said bar having spaced arms 26, 27 (Fig. 5) apertured to receive the end bosses 28, 29 of the lighting device 10 to dispose said device horizontally pendant at a desired elevation from and substantially parallel to the surface to be illuminated thereby.

End caps 31, 32 (Figs. 2 and 4) are provided, proportioned to overlie the end plates 14, 15 of frame 11 and telescopically engage a light permeable shell member 33, gaskets 34, 35 proportioned to fit intermediate the ends of shell member 33 and the end caps 31, 32, being used to seal the assembly. The shell member, gaskets and end caps are preferably of oval transverse outline, as shown (Fig. 2) in the drawings. Means are provided, engaging the end caps 31, 32 and frame 11, for drawing said caps toward each other to thereby compress the gaskets on the ends of the shell member and hold the shell member tightly in position, sealing the lighting device. For that purpose threaded members 36 such as bolts (Fig. 2) are passed through apertures 37 in the end caps 31, 32 and engage complementarily threaded portions 38 in the overlapped corner portions of the side plates and/or the end plates 14 and 15 of the frame 11, or engage internally threaded sockets 39 (Fig. 3) secured to the end plates 14, 15 of the frame 11. The members 36 may have generally cylindrical heads, as illustrated in Figure 2, or said heads may be generally frustoconical for countersinking and grooved for the reception of a screwdriver, as viewed in Figure 3. Other suitable means may be used for the purpose.

The gaskets 34, 35 may be provided (Fig. 2) with recesses 40 to facilitate positioning the ends of the light permeable shell member 33 thereon and intermediate end caps 31, 32 on threading the members 36 into the end plates 14, 15 of the frame as above described. The end caps 31, 32 may be provided with channeled portions 41 (Figs. 2, 3) to facilitate positioning the gaskets thereon on assembly of the parts. A reflector plate 42 may be positioned in the frame 11 above the light units 18 therein on assembly of the device, to reflect the light downwardly from the lighting device 10 and onto the surface to be illuminated thereby.

Pursuant to the invention, the device may be secured to a standard or other structural support 22 to extend axially, horizontally pendantly therefrom (Fig. 6) at a substantial elevation from and substantially parallel to the surface to be illuminated.

The frame 23 may be provided with a second pair of arms 26, 27 extending from the opposite side thereof (Fig. 5) for holding a second lighting device 10.

The drawings are exemplary of several forms of the invention—it being understood that the invention may be embodied in other forms, as will become apparent from the description herein. Such other forms, coming within the scope of the appended claims, shall be deemed to be within the spirit and purview of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A lighting device comprising an elongated frame including an intermediate base, a pair of side plates extending continuously from one end to the other of said base, and a pair of end plates forming a generally elongated channel, in which corner portions of the side plates are bent to overlap the end plates, wherein the end plates serve to support lighting means between said side and end

plates, a light-permeable shell member enveloping said frame, end caps overlying the end plates of said frame, telescopically closing the shell member and in which the ends thereof fit, gaskets between the ends of said shell member and said caps, members secured to and connecting the overlapped corner portions of the side plates and end plates, and other members passing through apertures in the end caps and secured to said end plates to compress the gaskets on the ends of the shell member and hold the latter in position to seal the device.

2. A lighting device as recited in claim 1, wherein the members connecting the overlapped corner portions of the side plates and end plates are threaded, and wherein

said other members are secured to the end plates through said threaded members.

References Cited in the file of this patent

UNITED STATES PATENTS

| | | |
|-----------|----------|---------------|
| 1,404,154 | Lee | Jan. 17, 1922 |
| 2,321,099 | Naysmith | June 8, 1943 |
| 2,382,538 | Billar | Aug. 14, 1945 |
| 2,489,686 | Suter | Nov. 29, 1949 |

FOREIGN PATENTS

| | | |
|-----------|--------|--------------|
| 1,039,658 | France | May 20, 1953 |
|-----------|--------|--------------|