Sept. 15, 1942. C. PARADIS 2,295,863

ILLUMINATING DEVICE

Filed July 25, 1941

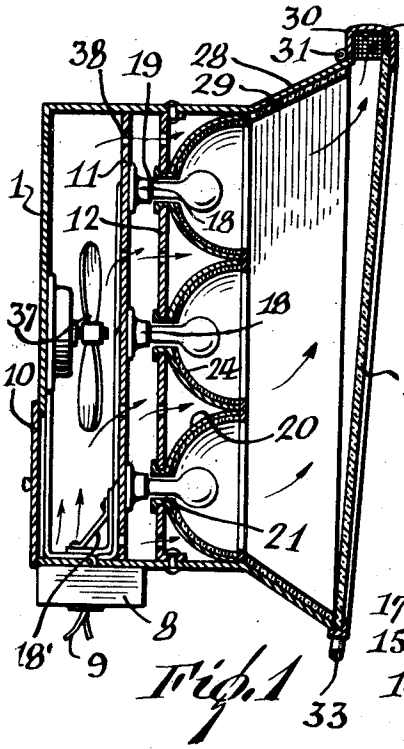


Fig. 1

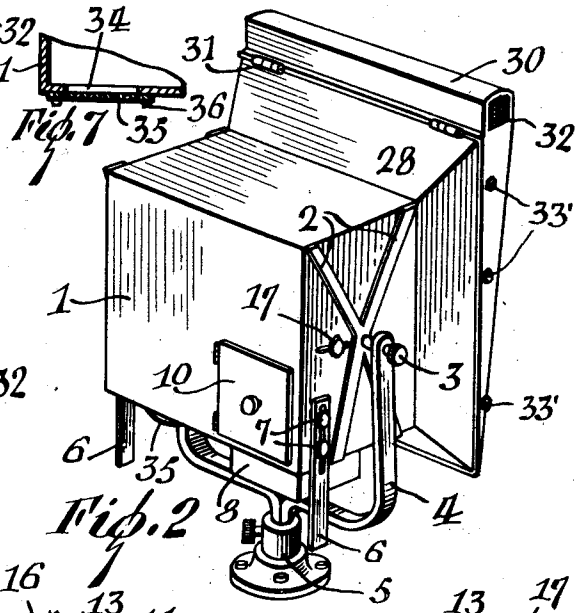


Fig. 2

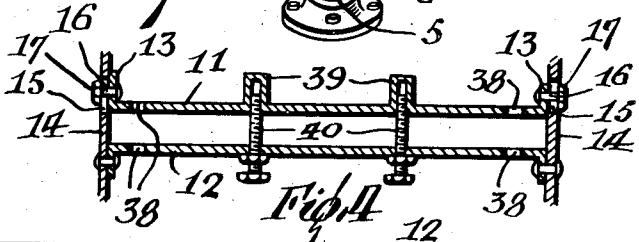


Fig. 4

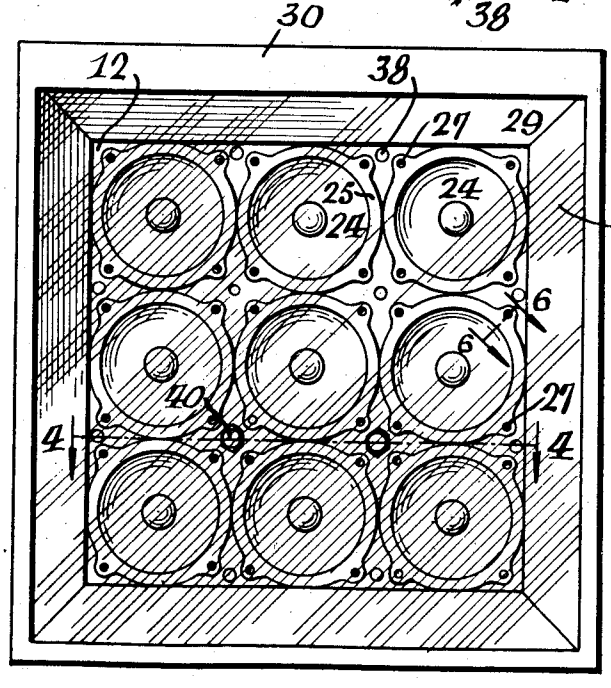


Fig. 3

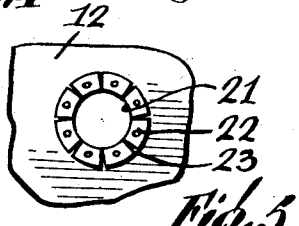


Fig. 5

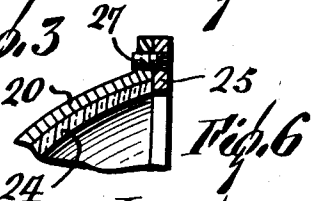


Fig. 6

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ILLUMINATING DEVICE

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2 Claims. (Cl. 240—47)

The present invention pertains to a novel illuminating device designed especially for flood lighting of various indoor and outdoor areas such as halls, factories, arenas, airports, railroad yards, athletic fields, streets and the like.

One of the objects of the invention is to provide a device of this character capable of carrying various sizes of lamps, in keeping with its various uses. Inasmuch as the lamps vary in dimensions according to wattage, it is a problem to maintain the various sizes of lamps in proper focus. Accordingly, the invention provides a means for adjusting the lamps in their reflectors.

This means consists essentially of a plate adjustably mounted in the lamp housing and carrying the lamp receptacles. The latter extend through another plate that carries the reflectors. Simple manual means are provided for shifting the first plate at will, whereby the lamps may always be positioned and focused regardless of size.

Another object of the invention is to ventilate the lamp housing in a simple and effective manner. The housing is formed with vents at front and rear, preferably located at top and bottom, and these vents are screened to prevent entrance of insects. The previously mentioned plates are also ported to permit circulation, and such circulation is induced by a fan mounted near the inlet opening.

The invention is fully disclosed by way of example in the following description and in the accompanying drawing in which:

Figure 1 is a vertical section of the device;

Figure 2 is a perspective view thereof;

Figure 3 is a front elevation;

Figure 4 is a section on the line 4—4 of Figure 3;

Figure 5 is a detail elevation of the reflector assembly plate;

Figure 6 is a detail section on the line 6—6 of Figure 3, and

Figure 7 is a detail vertical section at the bottom of the lamp housing.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

In Figure 2 the housing 1 is shown as having cross braces 2 at its vertical end walls for the purpose of carrying the horizontal pivot pins 3. These members are received in the ends of a yoke 4 fitted in an adjustable socket member 5. The latter is adapted to be secured on a suitable platform or tower. In the case of a platform of substantial area, additional support is obtained by lowering a pair of legs 6 adjustably mounted on the ends of the housing 1 by means of screws 7.

On the bottom of the housing is mounted a terminal box 8 where the power lines 9 enter. On the rear wall of the housing and directly over the terminal box is provided an access door 10.

Vertically mounted in the housing and spaced from each other are a receptacle plate 11 and a reflector plate 12. The former is formed with ear flanges 13 (Figure 4) engaging the end walls 14 of the housing. These walls are slotted horizontally at 15 to receive bolts 16 extending from the flanges 13. The outer ends of the bolts are fitted with nuts 17. Thus, the plate 11 is adjustable horizontally in the housing for a purpose that will presently be described. This plate carries lamp receptacles 18 extending through openings 19 in the plate 12 and is provided with support slide bracket 18'.

In these openings 19 are mounted reflector holders, preferably spherical, each consisting of a body or shell 20 from which extends a neck 21 into the corresponding opening 19. The free end of the neck is spun or flanged at 22 and split at 23, as shown in Figure 5, for engaging the rear surface of the wall 12 and is attached thereto by rivets or other suitable means. In each shell 20 is fitted and secured a similarly shaped reflector 24 of metal, glass or other suitable material. A retaining ring 25 (Figure 6) engages the forward edges of the reflector and shell and bears against an outward flange 26 on the latter, to which it is secured by screws 27.

The forward or open side of the housing 1 is flared at 28 and is lined with suitable reflecting material 29. A forward frame 30 is attached to the upper edge of the portion 28 by hinges 31 and carries a glass or lens 32. The upper portion of the frame 30 is formed with screened vents 32, and the lower end carries a handle 33 for lifting. Lock nuts 33' are used for fixing frame 30.

An opening 34 is formed in the bottom of the housing 1 and covered by a screen 35 held by screws 36, as shown in Figure 7. The rear wall of the housing carries an electric fan 37, with suitable electric connections thereto. The fan draws air through the opening 34 and discharges it through opening 19 and ports 38 in the walls 11 and 12. The air is driven forwardly between the reflector holders 20 to cool the same and is finally discharged through vents 32. The screens on the vents 32 and on the opening 34 prevent the entrance of insects.

Inasmuch as the device is designed for a

variety of uses and for various sizes of lamps it is desirable to maintain the lamps in proper focus regardless of size. For this reason the receptacle plate 11 is adjustably mounted as previously stated. The plate is formed with rearwardly extending tapped bosses 39, as shown in Figure 4. Screws 40 are passed rotatably through the plate 12 and threaded into the bosses 39. Thus, when the nuts 17 are loosened, the plate 11 can be adjusted by turning the screws 40. The position of the lamps in their reflectors is thereby adjusted.

Although a specific embodiment of the invention has been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention as indicated by the appended claims.

What I claim is:

1. In an illuminating device, an open front housing, a plate mounted therein and adjustable from front to rear of said housing, a reflector plate forward of the first plate, reflectors carried by said reflector plate, said reflectors and reflector plate having aligned openings, lamp receptacles carried by the first plate and adapted to extend through said openings, means for adjusting said first plate, said housing having air vents in its top and bottom at opposite sides of said plates, said plates having ports adjacent said reflectors for passage of air therethrough, and a circulating fan in said housing adapted to circulate air through said bottom vent, ports and top vent respectively.

2. In an illuminating device, an open front housing, a plate mounted therein and adjustable from front to rear of said housing, a reflector plate forward of the first plate, reflectors carried by said reflector plate, said reflectors and reflector plate having aligned openings, lamp receptacles carried by the first plate and adapted to extend through said openings, means for adjusting said first plate, a frame on the forward end of said housing, said frame having air vents in its top, said housing having air vents in its bottom at the rear of said plates, said plates having ports adjacent said reflectors for passage of air therethrough, and a circulating fan in said housing adapted to circulate air through said bottom vent, ports and top vent respectively.

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