Nov. 8, 1932. G. W. HAIRE 1,886,542

LANTERN

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Fig. 2

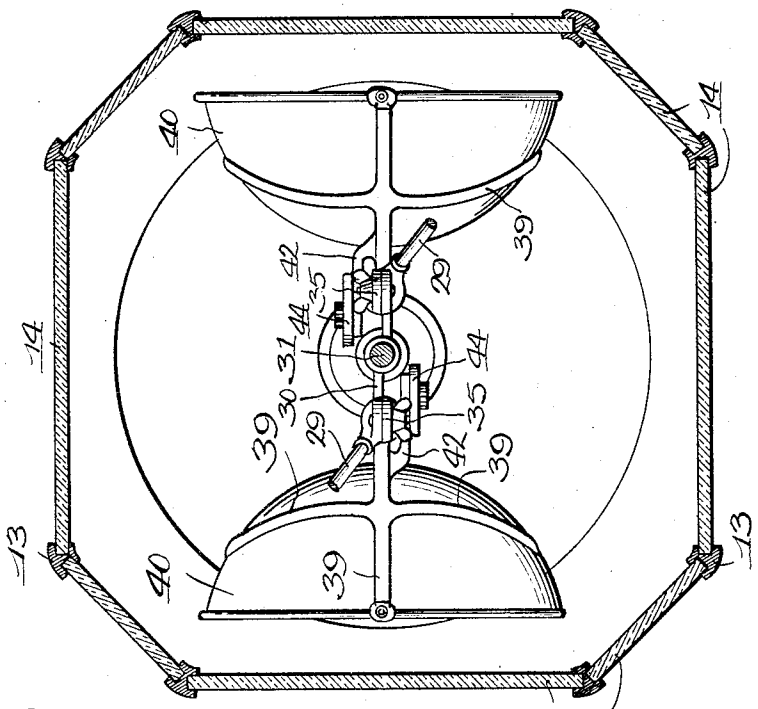
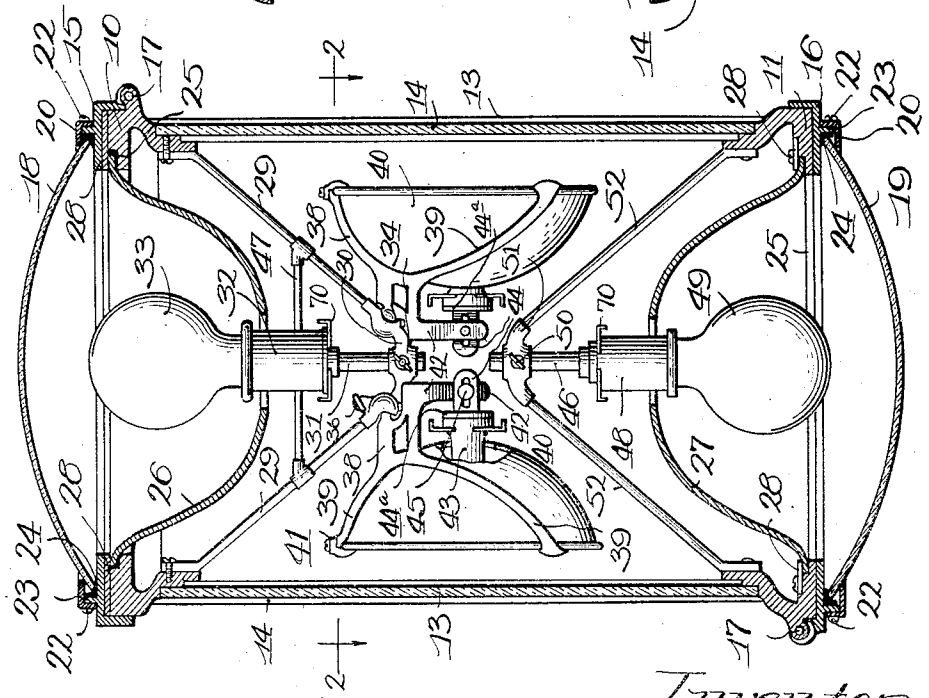


Fig. 1



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Fig. 5

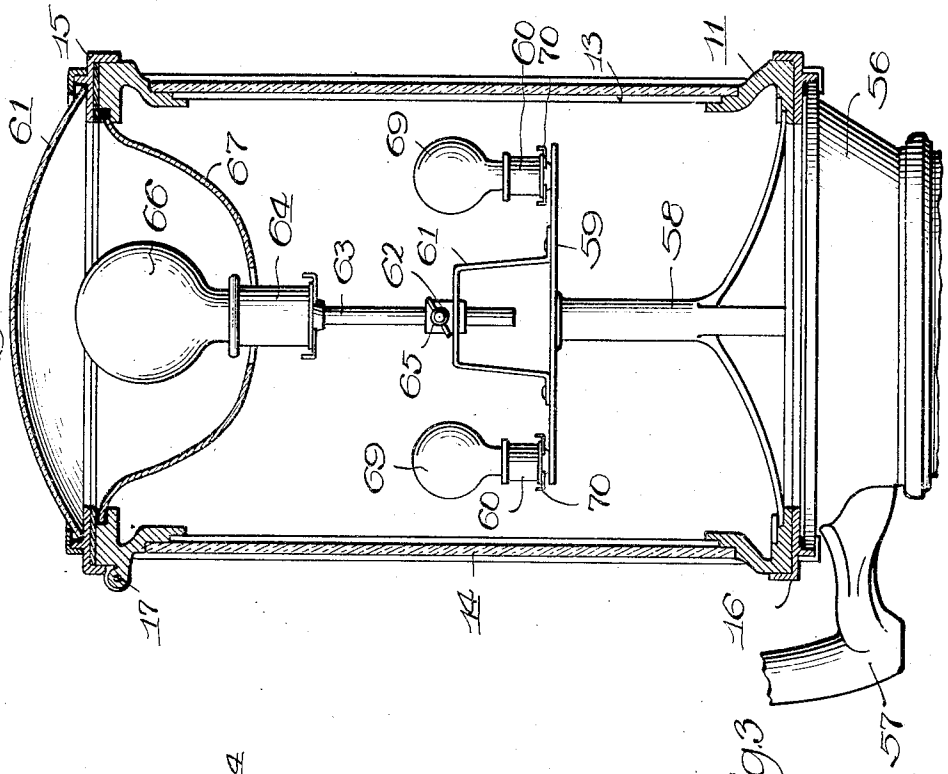


Fig. 3

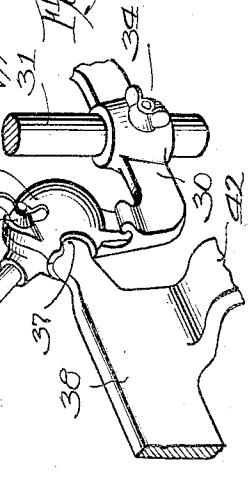
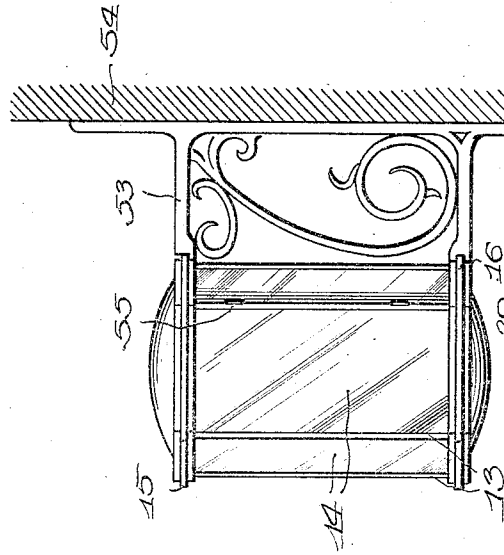


Fig. 4



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Patented Nov. 8, 1932

1,886,542

UNITED STATES PATENT OFFICE

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LANTERN

Application filed March 16, 1931. Serial No. 522,875.

This invention relates to improvements in lanterns.

One object of the invention is to provide an ornamental lantern adapted to be secured to, or adjacent, the side of a building for flood lighting purposes in either vertical or lateral directions or both if desired.

Another object of the invention is to provide a lantern adapted to be used for flood or other lighting, having lamps which are arranged for convenient adjustment with reference to reflectors to permit the casting of light in the form of concentrated beams, or more diffused light for producing a desired light and shadow effect on the wall of a building. Other objects relate to various features of construction and arrangement of parts which will be apparent from a consideration of the following specification and accompanying drawings wherein:

Fig. 1 is vertical sectional view of a lantern embodying the present improvements.

Fig. 2 is an enlarged horizontal sectional view thereof, taken on line 2—2 of Fig. 1.

Fig. 3 is a perspective view of a lamp and reflector adjustable supporting device.

Fig. 4 is a side elevation of an ornamental lantern made in accordance with the present invention.

Fig. 5 is a vertical sectional view through a lamp casing illustrating a modified form of lamp supporting structure.

In the drawings a lantern casing is shown which has a frame comprising upper and lower rings 10 and 11 respectively, which are united by means of vertical ribs 13. The frame thus formed is provided with glass panels 14. The rings 10 may be of any suitable shape, depending on the design of the lantern and in the form shown they are octagonal, alternate panels preferably being smaller than the remaining panels so that through certain of the latter light can be directed without obstruction by the ribs 13.

In the form of the invention shown in Figs. 1 to 4, the rings 10 and 11 have rims 15 and 16 respectively, secured thereto, preferably by hinges 17 and suitable locks or hasps, not shown. These rims 15 and 16 carry lens 18 and 19 which are secured thereto by members 20, 21 respectively. The members 20, 21 are secured by screws 22 to vertical flanges 23 of the rims. Suitable cushioning material 24 such as asbestos, may be employed between the edges of the lens and the respective rims. The rims 10 and 11 have annular channels 25 within which seat the edges of reflectors 26, 27 which may be held in place by clips 28.

Secured to any suitable portion of the lantern frame, such as to the upper rim 10, is a lamp and reflector supporting structure which, in the form shown, comprises two arms 29 which may be threaded into the ends of the transverse member 30. The central portion of the member 30 is recessed for receiving the rod 31 to which is secured the lamp socket 32. A lamp 33 carried by the socket 32 can be adjusted vertically with reference to the reflector 26 by loosening the setscrew 34. By varying the position of the lamp 33 with reference to the reflector the light emitted can be varied from a beam or pencil of light, as when the lamp is in the focal center of the reflector, or a more diffused light can be provided by positioning the lamp away from the focal center.

Adjacent each end of the member 30 a hemispherical socket is provided which cooperates with the detachable hemispherical socket member 35, as shown in Fig. 3. A setscrew or other tightening device 36 may be employed for tightening the two socket members upon a ball 37 which is carried by the reflector supporting bracket 38. The bracket 38 in the form shown has three arms 39, which engage and support the reflector 40. One of the arms, such as the upper one, may have its end formed as a separate detachable member 41, to enable the reflector to be inserted or removed conveniently from the arms 39. The bracket 38 is also provided with a depending arm 42, to which is secured a lamp socket 43. This socket is provided with a slotted extension member 44 through which slot passes a setscrew 45 which enables the socket to be adjusted with respect to the reflector 40. The brackets 38 which carry the reflectors and also the sockets 43 are supported by the ball and socket

connections above described and can be adjusted in any direction within limits.

This universal adjustment of the reflector and the lamp carried by the socket, together with the independent adjustment of the lamp with reference to the reflector, permits the light to be thrown through the adjacent glass panel of the lantern casing at the desired angle, and also permits the casting of the light in a concentrated beam, or light of a more diffused character.

As will be seen in Fig. 3, the arm 42 is offset from the vertical plane of the bracket 38. One of said brackets is offset in one direction and the other in the opposite direction whereby when the brackets are tilted downwardly about the ball and socket connection, the arms 42 are not obstructed in their movement by either the rod 31 or rod 46, which latter are disposed in the longitudinal axis of the lamp structure.

The members 44 are disposed at right angles to the arm 44*a* to which the sockets 43 are attached in position centrally of the respective reflectors 40. The two arms 29 are shown connected by a cross bracing 47 to render the structure more rigid.

The rod 46 is adjustably secured in position by a setscrew 50 carried by the union 51 which connects the upper ends of supporting members 52, which may be secured to the lower ring 11, as shown in Fig. 1.

The lantern is provided preferably with a supporting bracket 53 by means of which it may be secured to the side of the building 54.

It will be apparent that the lantern may be used for flood lighting portions of the building above the lantern as well as of portions below the same.

The intermediate lamps can be adjusted to cast light through the glass panels upon portions of the building or adjusted for other illuminating purposes for working out the desired lighting effect. The lamps 33 and 49 are readily assessible by opening the hinged rims at the ends of the lantern. One or more of the glass panels 14 are also preferably hinged as illustrated at 55 to provide ready access to the interior of the lantern for adjusting the various lamps or the reflectors 38.

In the form of the invention shown in Fig. 5 a lantern casing similar to that shown in Fig. 1 may be employed but in this form of invention the lantern is supported by a suitable horizontal base 56 to which may be secured a bracket 57, by means of which the latern may be secured to the side of the building.

The lower ring 11 supports a standard 58 to which is secured a cross arm 59 near the ends of which are positioned lamp sockets 60. Additional cross arms for supporting additional sockets may, of course, be provided. An inverted U-shaped member 61 is also secured to the cross-arm 59 and carries a recessed boss 62 through which passes a rod 63 to the upper end of which is secured a lamp socket 64. The boss 62 is provided with a setscrew 65 for retaining the rod 63 in any position of vertical adjustment. The lamp 66 is thus adjustable with reference to the reflector 67, for varying the character of light emitted vertically from the lantern through the lens 68.

The lamps 69 carried by the socket 60, illuminate the interior of the lantern beneath the reflector 67 and are designed for lighting up the adjacent portion of the building or for general illumination, whereas the lamp 66 is for vertical flood lighting purposes. The wiring for the lamps is not shown but wire connectors for the various sockets are indicated at 70.

Although I have shown and described certain features of my improvements for the purpose of illustration, I do not wish to be restricted specifically to such forms except as so limited by the appended claims.

I claim:

1. A lantern comprising upper and lower rings, vertical ribs connecting with the rings to form frames for glass panels for the side walls of said lantern, glass panels in said frames, a horizontally disposed, stationary, concave reflector supported by said upper ring, a cover rim adapted to be secured to said ring, a lens carried by said cover rim, a bracket in the interior of said lantern for supporting one or more lamps for illumination through said panels, and a vertically adjustable lamp support carried by said bracket for supporting a lamp between said reflector and lens for vertical flood lighting.

2. A lantern comprising a casing having a reflector adjacent one end thereof, glass panels in the sides of said casing, lamp supporting means in said casing, a lamp supported by said means in adjustable relation with respect to said reflector, a pair of supporting brackets adjustably secured to said supporting means, a reflector carried by each of said brackets, and a lamp socket for each of said reflectors, said sockets being adjustable on said brackets to permit of the adjustment of said lamps with reference to the respective reflectors.

3. A lantern comprising a casing having reflectors at opposite ends thereof, said casing having glass panels in its side walls, lamp supporting means disposed between said reflectors, lamp sockets supported by said means for adjustment with reference to the respective reflectors for flood lighting above and below said casing, a pair of brackets adjustably supported by said supporting means, a reflector carried by each bracket for reflecting light through said glass panels, and a lamp socket adjustably secured to each bracket to permit the adjustment of the

lamps thereof with reference to the respective reflectors.

4. A lantern comprising a structure having upper and lower rings and inter-connecting ribs forming frames for glass panels, a rim hinged to each of said rings, a lens carried by each rim, a reflector adjacent each end of said structure and secured to the respective rims, a lamp between each of said reflectors and adjacent lens for vertical flood lighting purposes, means secured to said structure to permit of the adjustment of each lamp with reference to its reflector, and a second pair of lamps for emitting light through panels on opposite sides of the lantern.

5. A lantern comprising a frame having glass panels in the sides thereof, a support secured to said frame, a pair of reflectors supporting brackets, reflectors carried thereby for directing light through said side panels, means for securing said brackets adjustably to said support, said means each comprising cooperating ball and socket members permitting universal adjustment of said brackets, and a lamp socket adjustably secured to each bracket whereby a lamp carried thereby can be adjusted with reference to the focal point of the respective reflector.

6. A lantern comprising a frame having glass panels in the side thereof forming a casing, a lens at the upper and lower ends of said casing, a reflector adjacent each lens, lamp adjusting supporting means between said reflectors, a lamp supported thereby in operative relation with respect to each of said reflectors for illumination through said lenses, and additional lamps and reflectors also adjustably supported by said means for illumination through said panels.

7. A lantern comprising a frame having glass panels in the sides and a lens at the upper and lower ends, a stationary reflector adjacent each of said ends, a lamp for each of said reflectors for emitting light through the respective lens, additional reflectors for reflecting light through said panels, lamps therefor, and means secured to said frame for adjustably supporting all said lamps and said last named reflectors.

8. A lantern comprising a frame having glass side walls, a supporting member secured to said frame, said member being provided with one of a pair of complemental universal adjusting elements, a bracket provided with the other of said pair of complemental adjusting members for securing said bracket to said supporting member, a reflector carried by said bracket for reflecting light through one of said side walls, and a lamp socket adjustably secured to said bracket for adjusting a lamp relatively to said reflector independently of said other adjusting means.

9. A lantern comprising a frame having glass side walls and glass enclosures for the ends thereof, a reflector supported by said frame adjacent each end for directing light vertically through said end enclosures, intermediate reflectors for directing light through said side walls, a lamp for each of said reflectors, and supporting means intermediate said reflectors for supporting each of said lamps for adjustment with respect to its respective reflector and permitting the universal adjustment of said intermediate reflectors.

10. A lantern adapted to be secured adjacent a wall of a building comprising a frame having glass side walls and end enclosures, a lamp at each end adapted to emit light through said end enclosures for vertical illumination of the building, additional lamps for emitting light through said glass side walls for lateral illumination of said building, reflectors for each of said lamps, and means for adjusting said lamps with reference to the focal centers of the respective reflectors for varying the light beams.

In testimony whereof, I have subscribed my name.

GEORGE W. HAIRE.