

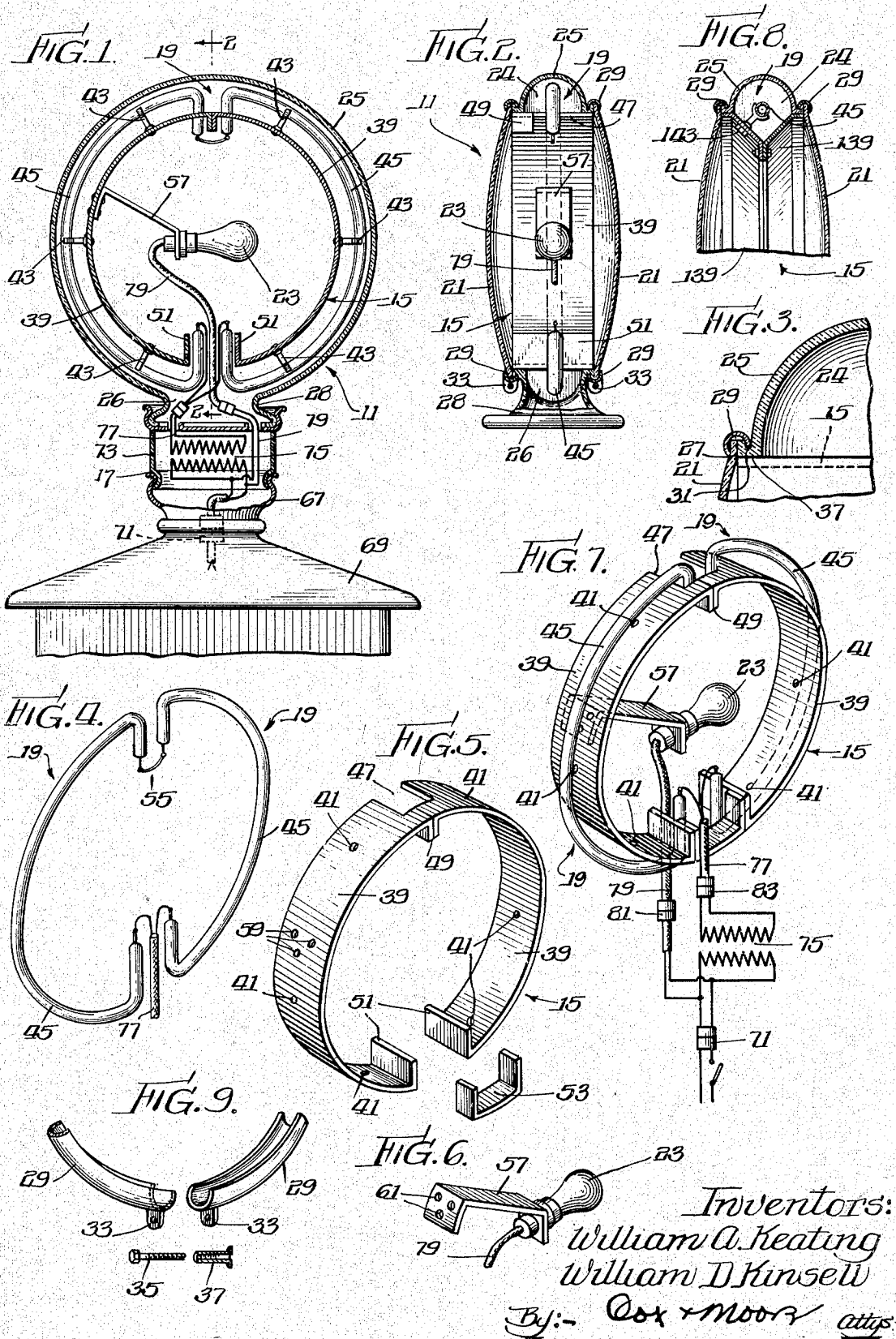
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ILLUMINATED SIGN

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ILLUMINATED SIGN

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Our invention relates in general to the art of illumination, the same having particular reference to illuminated advertising or display devices especially well adapted for outdoor use.

5 One of the important objects of our invention is to provide an illuminated display device having a readily removable or interchangeable legend clearly visible by day and adapted to be illuminated in order to render the same highly visible at night, the invention more particularly con-
10 templating a lamp shade having a portion, preferably the sign-carrying portion, arranged for illumination by means of an incandescent lamp, and other portions, preferably adjacent the sign-
15 carrying portion, arranged for illumination by means of a discharge lamp whereby novel and eye-arresting effects may be accomplished by utilizing a plurality of different kinds of light in combination in the illuminated sign; a further
20 object being to provide means, preferably a partition, within the lamp shade for preventing the light produced by each lamp from illuminating the shade portions enclosing the other; a still further object being to mount the lamps on the
25 partition.

Another object is to provide a lamp shade comprising an annular rim of translucent material and elongated discharge lamp means disposed within said rim for the purpose of illuminating the same, a further object being to provide re-
30 movable sign plates mounted on the rim together with means to seal the sign plates to the rim in order to prevent the entry into the lamp shade of foreign matter, such as dirt and atmospheric
35 moisture.

Still another important object is to provide a lamp shade having a discharge lamp mounted therein in combination with an adapter embody-
40 ing a transformer and having means to receive and support the lamp, said adapter being arranged for assembly on a standard lamp shade support so that the shade containing the dis-
45 charge lamp may be mounted on and the lamp operated from a support of standard construction.

A further object is to arrange the shade so that signs of any desired character may be mounted thereon and removed without disturbing the discharge lamp.

50 A still further object is to form a lamp shade to facilitate the removal and replacement of the discharge lamp means without materially disturbing the lamp shade or its mounting.

55 Numerous other objects, advantages, and inherent functions of the invention and devices

embodying the same will be perceived as the invention is more fully understood from the following description, which, taken together with the accompanying drawing, describes a preferred embodiment of our invention.

Referring to the drawing:

Figure 1 is a perspective view, partially in section, illustrating a lamp shade and supporting means embodying our present invention.

Figure 2 is a vertical section taken substantially along the line 2—2 in Figure 1.

Figure 3 is a fragmentary view illustrating a detail of the device shown in Figures 1 and 2.

Figures 4, 5, and 6 are perspective views of elements of the assembly shown in Figures 1 and 2.

Figure 7 is a perspective view illustrating the parts, shown in Figures 4, 5, and 6 when assembled.

Figure 8 is a sectional view illustrating a modified arrangement of the parts shown in Figure 5 and showing the relationship of said modified parts in the lamp shade.

Figure 9 is a fragmentary perspective view of parts used in the assembly shown in Figures 1 and 2.

To illustrate our invention, we have shown on the drawing a lamp shade 11, illuminating means, support means 15 for mounting the illuminating means in the lamp shade, and a mounting 17 for supporting the shade and including electrical de-
30 vices for energizing the illuminating means.

The lamp assembly is characterized by the inclusion of illuminating means, preferably a discharge lamp or lamps 19 removably mounted within the lamp shade. The assembly also in-
35 corporates sign-carrying plates or members 21 preferably removably arranged in the lamp shade in position to be illuminated by additional illuminating means preferably an incandescent lamp 23 carried within the shade for the purpose of
40 increasing the nocturnal visibility of the signs.

In order to facilitate assembly, reduce manufacturing costs, and, at the same time, provide a lamp shade containing a discharge lamp removably mounted therein so as to permit re-
45 placement of the lamp in the shade without disturbing the mounted position of the shade and thus provide a commercially feasible lamp assembly, the lamp shade preferably comprises an annular rim 25 of suitable translucent material, such as glass, the rim preferably forming an in-
50 wardly opening trough 24 adapted to receive the discharge lamps 19. The rim also is formed with an opening 26, which is or may be defined by a neck 28 whereby the shade may be mounted

on a support. The opposed side edges of the rim are preferably formed to provide annular seats 27 for the purpose of receiving the peripheral edges of the sign-carrying members which are preferably circular and outwardly curved plates of any suitable translucent material, such as glass, and on which signs of any suitable character are or may be formed in any desired fashion. The sign-carrying plates or windows 21 may, of course, be secured in place upon the rim 25 in any suitable way, but we prefer to secure the same, in readily detachable fashion, as by means of removable holding members 29 adapted to engage the contacting edges of the plates 21 and the rim 25. To this end, the rim 25 has depressions 31, preferably in the form of annular grooves arranged adjacent the seats 27, and the holding members 29 comprise preferably metallic strips of channel-shaped cross-sectional configuration adapted to be applied to the engaging edges of the plates 21 and the rim 25 with one edge of the strip seating in the groove 31 and another embracing the peripheral edge of a plate 21. The strips 29 are provided at their opposite ends with inter-engaging, preferably screw threaded means for clamping the same in plate-holding position. To this end, the strips 29 may each be provided with perforated lugs 33 adapted to receive a screw 35 and a nut 37 so that by tightening the screw in the nut, the fastening strip may be tightly clamped in position to hold the plate snugly upon the seat 27 and to substantially seal the plates upon the rim 25 thus ensuring the exclusion of dirt, moisture, and other foreign matter from the interior of the lamp shade.

The rim 25 is also formed with inwardly facing annular shoulders 37 adapted to receive and support the lamp carrying means 15, which preferably comprises annularly arranged sheet metal means having portions adapted to expand within and snugly engage the spaced apart seats 37. The mounting means 15 preferably comprise a pair of curved opaque strips 39, each of which is formed with perforations 41 for the purpose of receiving discharge lamp supports 43, which extend outwardly of the strips in position to receive discharge lamp elements 45 and support the same in spaced relationship and outwardly of the strips 39. Each of the lamps 45 is supported entirely by one of the strips and so may be assembled easily within the rim with its supporting strip when one or both of the plates 21 is removed. Each strip 39 is provided with a cutout portion 47 to permit the ends of the elements 45 to pass inwardly of the strip, and each strip, adjacent said cutout portion, is provided with flanges 49 by which the strips may be connected together. The opposite ends of the strips also are provided with inwardly extending flanges 51, and the strips are of such a length that when assembled within the rim with the flanges 49 secured together, the flanges 51 will be in spaced apart relationship when the strips 39 snugly engage upon the seat 37. To maintain the strips 39 in snug expanded engagement on the seats 37, we provide a spacing member 53 adapted for insertion between the flanges 51 after the strips have been assembled within the rim so as to maintain the spaced position of the flanges, thus holding the strips snugly on the seats 37. The ends of the elements 45, which extend through the cutout portion 47 may be painted to prevent light diffusion therethrough and are electrically connected together by means

of a conductor 55 preferably applied after the elements and their supporting strips have been assembled within the rim 25. The opposite ends of the elements 45 also extend inwardly of the strips through the space between the flanges 51 and may be connected in any suitable fashion to an external power source for the purpose of exciting the lamps 45. These ends are also preferably painted to prevent light diffusion therethrough. The supporting means 15 is preferably assembled in the rim with the spaced flanges 51 opposite the opening 26 to facilitate connection of the lamps with an external power source by means of cables passing from the interior of the lamp shade between the flanges 51 and thence through the opening 26.

It will be seen from the foregoing description that the lamps 45 may be quickly and easily assembled within the rim outwardly of the annular support 15. One of the strips 39 is formed with an inwardly extending lamp support 57, preferably comprising an arm secured at one end to the strip 39 as by means of rivets passing through perforations 59 formed in the strip and perforations 61 formed in the arm 57. The arm 57 extends to and carries the lamp 23 preferably at the approximate center of the support 15. The lamp 23 is preferably an incandescent lamp removably carried in a socket of any preferred form, which socket, in turn, is secured on the support 57 so that the lamp 23 comprises a light source within the annular support 15 and in position to provide illumination behind the sign-supporting plates or windows 21. It will be apparent, however, that a lamp of any sort, for instance a discharge lamp, may be substituted for the incandescent lamp 23 and that any type of lamp means may be substituted for the discharge illuminating means 19.

In Figure 8 of the drawing, we have shown a modified arrangement wherein the lamp support is formed as a pair of annular members 139 preferably of sheet metal, the outer edges of each ring being flanged to snugly rest upon one of the seats 37. Each ring may carry one of the lamps 45 mounted thereon by means of supports 143, and since each lamp extends through but a part of the circumference of the members 139, the same can easily be assembled in place, even though the lamps are curved on a diameter slightly larger than the diameter of the seats 37. If necessary, of course, each of the annular members 139 may be formed as a split ring adapted to be expanded within the rim 25 in a manner similar to that employed in fitting the members 39. Where the members 139 are formed as split rings, it is possible to mount both lamps on one of the members 139, the other member being merely inserted to assist in supporting the other in place, and to shield the illumination produced by the lamps 45 from entering the portion of the lamp shade behind the sign plates 21. The inner edges of the members 139 are provided with means for securing the same together after insertion in the rim 25 to thereby support the lamps in place.

In the illustrated construction, the annular support element 15 provides a shield for confining the illumination created by the lamp means 45 within the rim and for confining the illumination produced by the lamp means 23 within the space behind the sign-supporting plates 21 so that the signs are illuminated primarily by means of the lamp 23, while an attractive sign border effect is produced by the discharge illumination created within the rim 25 by the lamps 45. Since

discharge lamps may be provided to produce illumination of any desired color characteristic depending upon the gaseous conduction medium, it will be obvious that various attractive and eye-arresting border effects may be produced by selecting lamps 45 to produce light of a desired color characteristic within the rim of the lamp shade, and it is, of course, within the contemplation of our present invention to mount a plurality of lamps on each strip 39 and to provide means for intermittently or alternately energizing the lamps in order to provide for flashing and/or changing color border effects.

Lamps embodying our present invention are particularly well adapted for use in connection with the sale of products, such as gasoline, and we have therefore shown the lamp, in Figure 1 of the drawing, mounted in a receptacle 67 formed at the upper end of a gasoline dispensing pump casing 69. The receptacle 69 includes an electrical power outlet socket 71 through which electrical power from an external source may be delivered for energizing the lamps within the shade. Inasmuch as the electrical power usually available, while of sufficient voltage to operate incandescent lamps, is of insufficient voltage to operate certain forms of discharge lamps, we may utilize an adapter 73 for energizing the lamps in the shade 11. The adapter 73 preferably comprises a casing having lower portions formed for mounting the same in the support 67 and upper portions adapted to receive the neck 28 of the lamp shade. The adapter casing contains a transformer 75, the primary winding of which is adapted for detachable connection with the outlet socket 71, the secondary winding of the transformer being detachably connectable with the discharge lamps by means of a cable 77 extending through the neck of the lamp shade. The incandescent lamp 23 also is energized by means of a cable 79, which includes a detachable connection 81 and which extends through the neck 65 of the lamp shade from the primary winding of the transformer to the incandescent lamp 23.

It is thought that the invention and numerous of its attendant advantages will be understood from the foregoing description, and it is obvious that numerous changes may be made in the form, construction, and arrangement of the various parts, without departing from the spirit or scope of our invention and without sacrificing any of its attendant advantages, the form herein described being merely for the purpose of illustrating the invention, and we do not desire to limit the invention in any way to the particular construction shown.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

1. A lamp shade of translucent material comprising a portion forming a rim, having an inwardly facing seat, a support mounted on said seat, and a discharge lamp carried on said support and extending within said rim.

2. A lamp shade of translucent material, illuminating means located therein, a discharge lamp in said shade surrounding said illuminating means, and an opaque partition between said lamp and illuminating means.

3. A lamp shade of translucent material comprising a portion forming a rim having an inwardly facing seat, support means mounted on said seat, and a discharge lamp within said rim and carried on and extending outwardly of said support.

4. A lamp shade of translucent material comprising an annular portion forming a rim, having an inwardly facing annular seat, annular support means adapted to be expanded snugly within said seat, and lamp means carried by said support means.

5. A lamp shade of translucent material formed with a trough-like portion and having a seat extending at the edge of said trough-like portion, support means on said seat and extending across said trough-like portion, and a lamp mounted on said support means and extending within said trough-like portion.

6. A lamp shade of translucent material comprising a rim, a sign supporting plate secured to an edge of said rim, a lamp support extending within and supported by said rim, a lamp on said support and extending within said rim and outwardly of said sign supporting plate whereby to provide an illuminated plate border.

7. A lamp shade of translucent material comprising a rim, a sign supporting plate secured to an edge of said rim, a lamp support extending within and supported by said rim, a lamp on said support and extending within said rim and outwardly of said sign supporting plate whereby to provide an illuminated plate border, and a lamp on said support behind said plate for the purpose of illuminating signs supported thereby.

8. A lamp shade of translucent material comprising a rim portion, a sign supporting plate secured to said rim portion, a lamp supporting member comprising partition means within said rim portion substantially opposite the peripheral edge portions of said plate, lamp means carried by and on one side of said supporting member, said lamp means extending within said rim portion and outwardly of the sign supporting plate, and additional lamp means carried by and on another side of said supporting member in position behind said sign supporting plate to illuminate signs supported thereby.

9. The combination as set forth in claim 8, wherein the sign supporting plate and rim portion are formed as separate elements, and means to detachably secure the plate to the rim portion.

10. The combination as set forth in claim 8, wherein the sign supporting plate and the rim portion are formed as separate elements, and clamping means co-operatively associated with edge portions of the rim and plate for securing the same together.

11. The combination as set forth in claim 8, wherein the sign supporting plate and the rim portion are formed as separate elements, and a channel-shaped strip embracing the edges of said plate and portions of said rim for the purpose of securing the plate to the rim.

12. A lamp shade of translucent material, illuminating means located therein, a discharge lamp in said shade surrounding said illuminating means, said discharge lamp emitting light differing in color from said illuminating means, and an opaque partition between said lamp and said illuminating means.

13. A lamp shade of translucent material having an integral neck defining an opening, a discharge lamp supported within said lamp shade, means forming electrical connections extending through said opening, whereby to energize the lamp from an external electrical power source, in combination with an adapter comprising a casing, means on said casing adapted to receive the neck of the lamp shade in order to support the lamp

shade in operative position, and a transformer in said casing having a winding adapted for connection with an external source of electrical power and a winding adapted for connection with the lamp within the shade.

- 5 14. A lamp shade of translucent material, comprising an annular trough-like rim having a neck defining a peripheral opening in the rim, said rim having inwardly facing annular seats at its
10 opposed edges; a partition forming a lamp support carried by and between said seats, lamp means on said support and having portions extending outwardly of said support within said trough-like rim, sign supporting plates removably
15 secured to the opposite edges of said rim, said lamp support extending substantially opposite the peripheral edges of said plates, lamp means carried by the lamp support and extending inwardly thereof between said plates, and electrical
20 connections extending through said neck for the purpose of energizing the several lamp means from an external source of power.

15. A lamp shade having a portion forming a window and an adjacent translucent portion, a discharge lamp forming a source of illumination, and means forming an additional source of illumination within the shade, and guard means
5 within the shade isolating the window from light rays emanating from one of said sources of illumination and confining the illuminating effect of said source to said translucent portion.

16. A lamp shade having a removable portion
10 forming a window and an adjacent translucent portion, a discharge lamp within the shade opposite the translucent portion, additional illuminating means within the shade opposite the window, and a guard supported within the shade
15 and isolating the translucent portion from light rays emanating from said additional illuminating means and confining the illuminating effect of the discharge lamp to the translucent portion adjacent said window.

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