Sept. 27, 1932. W. A. D. EVANS 1,879,147

ILLUMINATED SIGN

Filed May 13, 1930

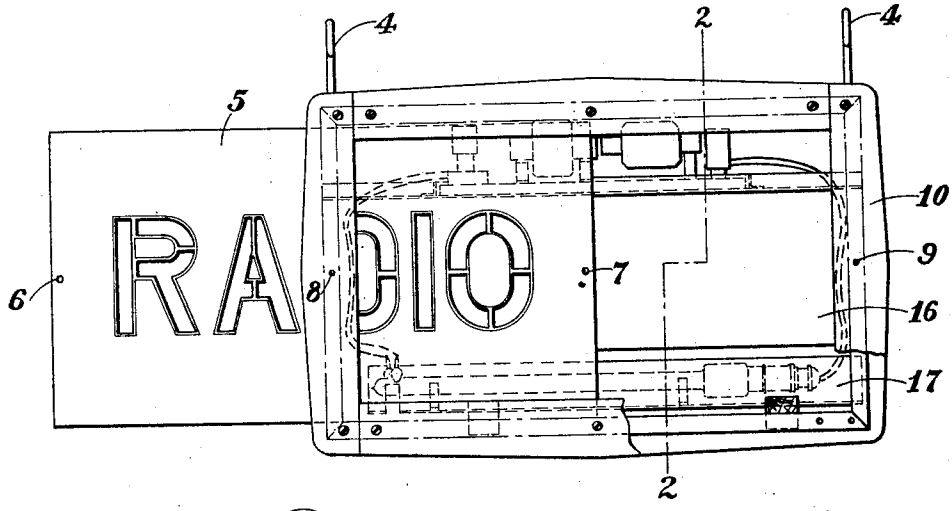


Fig. 1.

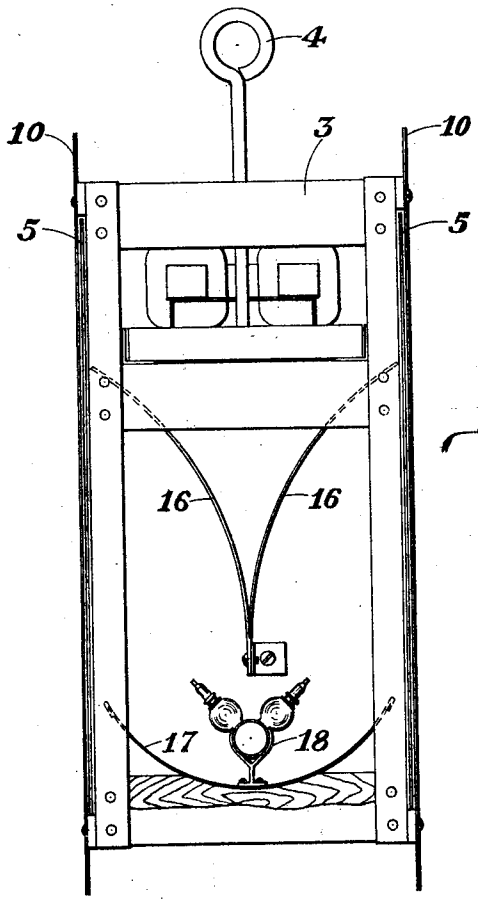


Fig. 2.

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UNITED STATES PATENT OFFICE

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ILLUMINATED SIGN

Application filed May 13, 1930. Serial No. 451,882.

The present invention relates to electric signs generally and more particularly the invention relates to signs in which an illuminated background is viewed through suitable openings in the faces of signs of the type disclosed in copending application Serial Number 448,478, filed April 30, 1930.

In the sign of the above reference the illuminated background comprises two curved baffles being in shape approximately a segment of a cylinder, curving outwardly from each other and located above a linear light source with one of their longitudinal edges located approximately in a vertical plane having therein the median line of said linear light source. The baffles are then illuminated by the direct light from the light source and by the light reflected by the interior walls of the sign.

The object of the present invention is to provide means whereby the background of such a sign is lighted more intensely and uniformly than in the sign of the foregoing reference. A further object of the invention is to provide such a sign the interior parts of which are easily accessible. A still further object of the invention is to provide such a sign in which a multiplicity of faces having various and different legends may be used. Still further objects and advantages attaching to the device and to its use and operation will be apparent from the following particular description and from the claims.

The invention attains the first of its objects by means of a suitable reflector placed below the linear light source to direct the light emitted by said source onto the curved backgrounds of the sign located above said source.

In the drawing accompanying and forming part of this specification an embodiment of the invention is shown for purposes of disclosure in which,

Fig. 1 is a side elevational view of the new and novel sign, the position of the linear light source being indicated by dotted lines, and one of the removable faces shown partly removed.

Fig. 2 is a sectional view along the line 2—2 of Fig. 1.

Like numbers denote like parts in both views of the device.

Referring to the drawing the invention comprises a substantially light tight box 3 having suspension supports 4, 4. Opaque faces 5, having suitable openings therein to form desired symbols, slide along a groove as shown in Fig. 2. When in their fixed position said sign faces are held in place by bolts through openings 6, 7 of the face 5, 5 and 8, 9 of the flanges 10, 10 as shown in Fig. 1. The sign faces are thus easily and quickly removable and yet are maintained firmly in a fixed position in said sign.

Reflector 17 is placed below the linear light source 18 to direct the light emitted by the light source 18 onto baffles 16, 16. Said reflector 17 in shape approximates a parabola and said source 18 is located approximately at the focal point thereof so that the light beams from source 18 strike the reflector and are directed vertically onto said curved baffles 16, 16 to produce a more uniform and more intense illumination thereof than it is possible to attain in such an arrangement without said reflector 17. By this invention not only the direct light from source 18 and the light reflected from the walls of box 4 and the inside of faces 5, 5 but also the light from reflector 17 strike the baffles 16, 16 so that substantially all of the light emitted by said source 18 is directed onto said baffles 16, 16 to furnish an intensely and uniformly illuminated background to be viewed from either side of the sign through openings in the faces 5, 5 thereof.

As the faces of the sign are easily removable a multiplicity of faces bearing various legends may be used in conjunction with such a sign. The new and novel feature of removable faces has many advantages as the whole interior of the sign is then easily accessible this being particularly advantageous in replacing or repairing the light source 18 or in cleaning the baffles 16, 16 of accumulations of light absorbing material.

Said baffles 16, 16 and said faces 5, 5 may have any suitable color. The baffles 16, 16 should be coated with a diffusing surface having a color which reflects the light rays emit-

ted by light source 18. To make the sign effective in daylight when the light source is not operating, said baffles and said faces should be of contrasting colors. Applicant has found that white colored baffles and black colored faces are especially suitable for use in a sign of this type when a neon lamp tube is used. When lamp tubes giving other color light distinctive to certain gases or mixtures, the said contrasting colors of the diffusing reflector and the face of the sign may be selected to suit the artistic taste of the sign user; and where desired two or more tubes 18, each of distinctive color can be mounted in the trough of the reflector to give the characteristic light radiation of the multiple light source, or said battery of lamps can be operated alternately or in such combinations as to give single and varied color light effects.

While I have shown and described a particular embodiment of the invention it will be understood that various changes, substitutions and modifications in the form and details of the device may be made by those skilled in the art without departure from the broad spirit and scope of the invention. For example, a single linear baffle may be used instead of the curved baffles 16 and the curve of the reflector 17 altered to collect and project the light radiations of the tube 18 onto the two faces of said straight baffle to the end that all of the light from said lamp 18 is projected in a light field evenly distributed onto and in front of said faces.

I claim as my invention:

1. An illuminated sign comprising a substantially light tight box having apertures constituting a legend in the face thereof, a substantially linear light source mounted within said box, a reflector having a diffusing surface for said light source within said box and visible through said apertures, and a parabolic reflector within said box to direct the light of said source in a beam to said diffusing reflector, the first named reflector having a distinctive color and the exterior face of the box having the said apertures therein having a different color.

2. An illuminated sign comprising a substantially light tight box having apertures constituting a legend in the face thereof, a substantially linear light source mounted within said box, a reflector having a diffusing surface for said light source within said box and visible through said apertures, and a parabolic reflector within said box to direct the light of said source in a beam to said diffusing reflector, the first named reflector having a white diffusing surface and the exterior face of the box having said apertures therein having a black color.

Signed at Hoboken in the county of Hudson and state of New Jersey this 12th day of May, A. D. 1930.

WILLIAM AUGUSTUS DARLING EVANS.