Sept. 15, 1953 J. A. HOWENSTINE 2,651,865

SIGN STRUCTURE

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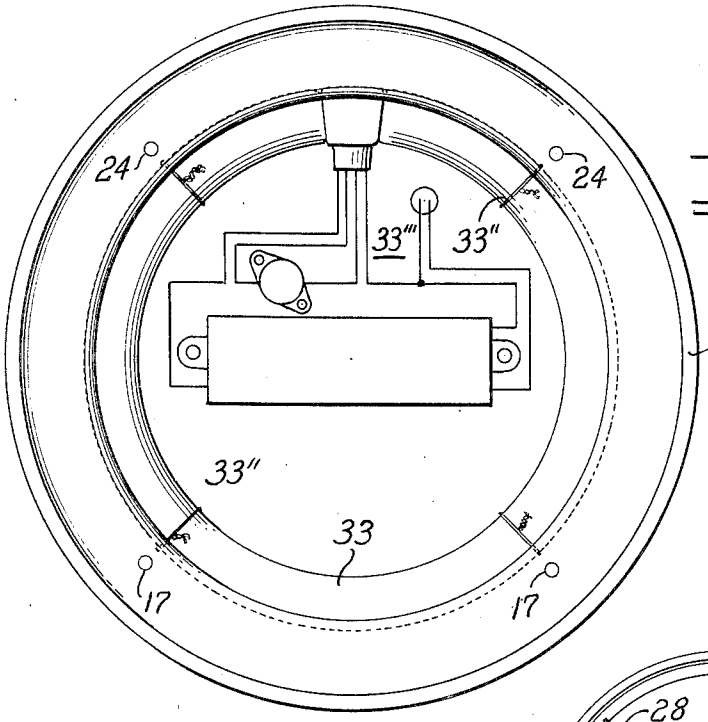


Fig. 3.

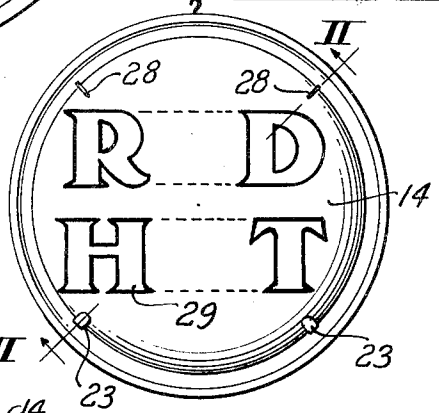


Fig. 1.

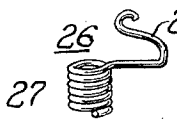


Fig. 4.

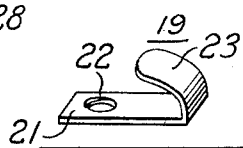


Fig. 5.

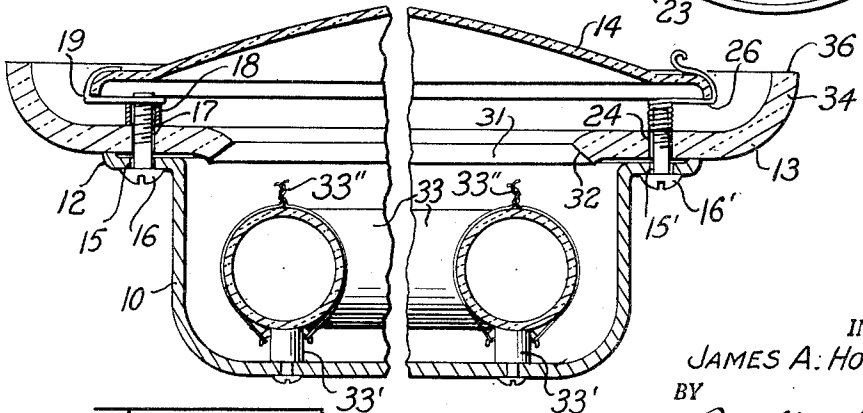


Fig. 2.

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2,651,865

SIGN STRUCTURE

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Application May 9, 1952, Serial No. 286,955

3 Claims. (Cl. 40—130)

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This invention relates to a sign having a housing and an illuminated face plate and an illuminated ring or halo surrounding the face plate and to means for attaching such illuminated face plate and halo ring to the sign housing.

An object of this invention is to provide a ring which when illuminated produces a luminous ring or halo around an illuminated face plate of a sign.

A further object of this invention is to provide an improved means for lighting a halo ring.

A further object of this invention is to provide improved means of attaching a halo ring and a face plate to the housing of a sign.

A further object of this invention is to provide an improved means for attaching the face plate of a sign to its housing, which is so constructed that said attaching means may readily release the face plate when required for servicing.

A further object of this invention is to provide a readily releasable spring biased fastening for a face plate of a sign.

The above and other objects and features of the invention will in part be apparent and will in part be obvious from the following detailed description, and the drawing, in which:

Fig. 1 is a view in front elevation showing a sign constructed in accordance with an embodiment of this invention;

Fig. 2 is a view in section taken along a line II—II in Fig. 1.

Fig. 3 is an enlarged view in front elevation showing the sign with the face plate thereof removed;

Fig. 4 is a perspective view showing a spring clip-nut, which forms a part of the sign; and

Fig. 5 is a perspective view showing a rigid clip which forms a part of the sign.

In the following detailed description and the drawing, like reference characters indicate like parts.

As indicated in Fig. 2, the sign comprises a cup-shaped backing member or housing 10. Housing 10 is formed of opaque material such as sheet metal or the like. The mouth of housing 10 is provided with an outwardly projecting border flange 12 to which a halo ring 13 and a face plate 14 are attached.

Flange 12 is provided with radially spaced pairs of apertures 15 and 15'. Apertures 15 and 15' receive bolts 16 and 16', respectively, by means of which the halo ring and face plate are connected to the housing.

Each bolt 16 projects through an opening 17

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in the halo ring and carries a spacer sleeve 18 and a rigid hook 19. Details of construction of hook 19 are shown in Fig. 5. Hook 19 includes a base portion 21 provided with a threaded opening 22. Opening 22 receives the threaded end of bolt 16, and when bolt 16 is drawn tight, spacer sleeve 18 holds the halo ring against backing member flange 12 while the base portion of hook 19 projects outwardly, as shown in Fig. 2. At the end of base portion 21, hook 19 is provided with a return bend 23 which engages an edge of the face plate. The hook 19 forms both a nut for bolt 16 and a clip for holding one edge of the face plate.

Each of the bolts 16' projects through one of the perforations 15' in body member flange 12 and through an opening 24 in halo ring 13. Each bolt 16 is threaded into an end of a spring clip 26. Details of construction of spring clip 26 are shown in Fig. 4. Spring 26 includes a coiled portion 27 in which the threaded end of bolt 16' is received. The coiled portion forms a spring-nut for bolt 16. One end of the coiled portion 27 is turned outwardly and then return bent, as indicated at 28, to form a spring biased hook. Each hook 28 engages the face plate at the side opposite one of the rigid clips 19. When it is desired to remove the face plate to make the interior of the sign accessible, spring biased hooks 28 are bent upwardly, as shown in Fig. 1, to release the upper edge of the face plate, whereupon the face plate may be removed from the sign.

The face plate is formed of suitable translucent material bearing appropriate indicia, as indicated at 29 in Fig. 1. The face plate may be of the type generally shown in my co-pending application Serial Number 254,481, filed November 2, 1951. The face plate may be formed of a methyl methacrylate resin. Indicia 29 are painted on the plate with an appropriate translucent paint.

The halo ring, as shown in Fig. 2, is a dished member having an aperture 31 in the central portion thereof. At the aperture, the dished member terminates in a face 32 which is perpendicular to a cone coaxial with the backing member and halo ring. Halo ring 13 is lighted by a circular lamp 33. As shown, lamp 33 is disposed in the cone already mentioned, so that face 32 receives light directly from lamp 33. As shown in Fig. 2, the lamp is supported on posts 33', which are attached to backing member 10. The lamp is attached to the posts by means of wires 33''. The wires extend around hooks in the posts

and are wrapped around the lamp to hold the lamp in engagement with the posts. The lamp may be of the common fluorescent type and is lighted by an appropriate electrical circuit schematically indicated at 33''' in Fig. 3.

The halo ring is formed of appropriate light piping transparent material, such as a clear methyl methacrylate resin, so that the light received by face 32 is piped through the halo ring.

The halo ring is provided with a peripheral flange 34 at its outer edge. Light is piped through the halo ring to the flange 34. The flange 34 terminates in a light-bleeding face 36. The light-bleeding face is forwardly facing and may be roughened so that light reaching face 36 illuminates face 36 to form a bright ring or halo surrounding the face plate. The lamp 33 illuminates both the face plate 14 and the light-bleeding face 36, and the sign is provided with both an illuminated face plate and an illuminated ring spaced from and surrounding the face plate, both of which are illuminated by the same lamp 33.

The sign described above and illustrated in the drawing is subject to structural modification without departing from the spirit and scope of the appended claims.

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

1. A sign which comprises an opaque cup-shaped housing having an outwardly projecting peripheral flange, a dished member of transparent light piping material secured by its base to said housing flange, said dished member having an aperture in the central portion thereof, the edge of said aperture being perpendicular to a cone coaxial with the housing and dished member, a light source in said cone so that said face receives light from said light source, a translucent face plate attached to the housing and to the dished member and overlying the aperture in the dished member to be illuminated by said light source, and a peripheral flange on the dished member terminating outboard of the face plate in a forwardly facing light-bleeding face to form an illuminated ring outboard of the face plate.

2. A sign which comprises a cup-shaped opaque housing having an outwardly projecting peripheral flange, a flat ring of transparent light-transmitting material overlying and attached to said flange, a lamp inside the housing, an annular integral flange on the inboard side of the ring, said inboard ring flange terminating in a light receiving face directed toward the lamp to receive illumination therefrom, an annular integral flange on the outboard side of the ring projecting outwardly and forwardly thereof, said last mentioned flange terminating in a forwardly facing light-bleeding face, and a transparent face plate overlying the mouth of the housing and the ring and attached thereto, the face plate being of lesser diameter than the last mentioned flange, whereby the face plate and the light-bleeding face are both illuminated by the lamp.

3. A sign in accordance with claim 2, characterized by the fact that the housing, ring and face plate are attached together by a plurality of clips spaced around the edge of the housing flange, each of said clips comprising a return bend engaging the face plate, at least one of the clips comprising a bolt projecting through openings in the housing flange and in the ring, and a helical spring mounted on the threaded end of the bolt, one end of the spring bearing on the ring to hold the ring against the flange of the housing, the other end of the spring projecting outwardly of the bolt and return bent to form a resilient clip for holding the edge of the face plate.

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