Sept. 15, 1953 J. A. HOWENSTINE 2,651,863

SIGN STRUCTURE

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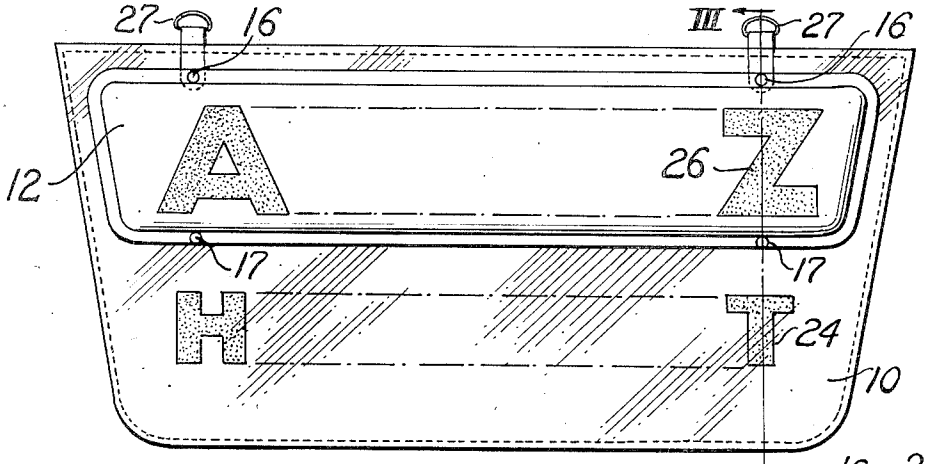


Fig. 1.

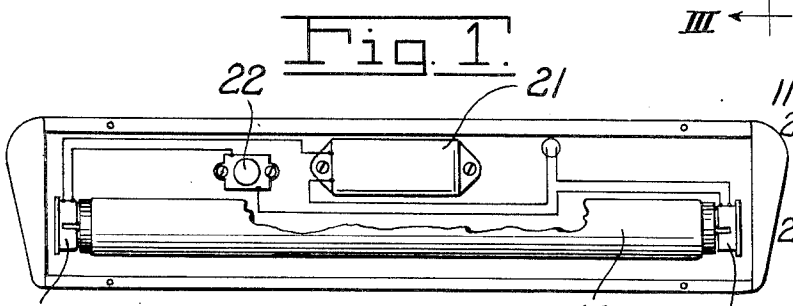


Fig. 2.

Fig. 3.

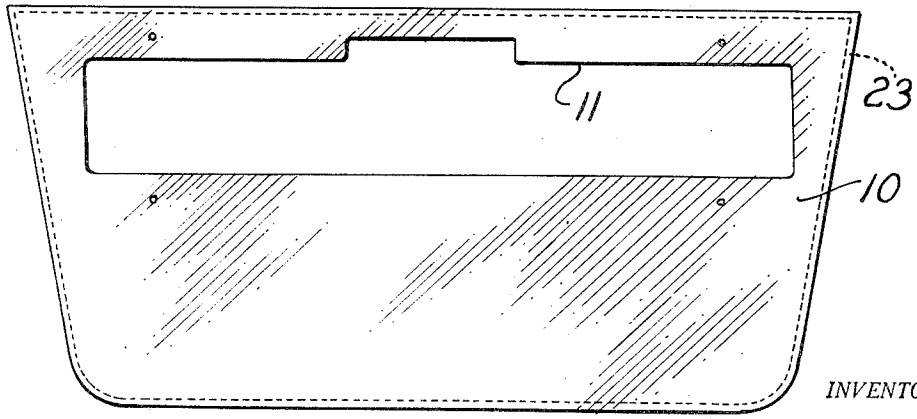


Fig. 4.

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SIGN STRUCTURE

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1 Claim. (Cl. 40—130)

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This invention relates to signs or display devices and more particularly to a device having a plastic panel provided with means for edge-lighting the border and portions within the same and for directly lighting portions within the border.

An object of this invention is to provide a sign structure having a panel so arranged that by means of a single lamp the border of the panel may be edge-lighted and portions within the border may be directly lighted thereby.

A further object of this invention is to provide a sign structure or display that comprises a flat transparent plastic panel of the type having a beveled edge border, an elongated opening in the panel, an elongated light tube in the slot and housings covering the slot and tube, one of which housings may be translucent, whereby the beveled border is edge-lighted and other portions are illuminated by piped and direct lighting.

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:

Figure 1 is a view in side elevation of a sign constructed in accordance with an embodiment of this invention;

Fig. 2 is a view in front elevation of the rear housing of the sign panel showing electrical fittings mounted thereon and showing the wiring diagram of the sign structure schematically;

Fig. 3 is a view in section taken along a line III—III in Fig. 1; and

Fig. 4 is a view in side elevation of the transparent panel of the present sign structure, the panel being shown without indicia.

As shown in Figs. 1 and 3, the sign structure includes a flat panel 10 having an elongated slot 11 therein over which are mounted hollow front and rear housings 12 and 13. Panel 10 is formed of transparent material such as the methyl methacrylate resin commonly known as "Lucite" and "Plexiglas." An elongated light tube 14, of the fluorescent type is mounted in slot or opening 11. As shown in Fig. 3, housings 12 and 13 are bolted to panel 10 by bolts 16 and 17.

Rear housing 13 forms a support for the electrical fittings of the sign structure. These fittings include lamp 14, lamp terminals and supports 19 and 20, a transformer 21 and starter 22, all of which are conventional in nature. As shown in Fig. 3, lamp 14 is centered in opening or slot 11 so that the axis of the lamp falls in the plane of panel 10. The edges of opening 11 extend perpendicularly of the panel faces so that the panel receives edge illumination from lamp 14.

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The outer or peripheral edge of panel 10 is beveled as indicated at 23. The beveled edge 23 is edge-lighted by light that is "piped" from lamp 14 through the panel 10, whereby the beveled edge glows as though coated with bright paint, thereby forming an attractive border for panel 10.

Panel 10 may be provided with appropriate indicia 24. As indicated in Fig. 3, indicia 24 are painted on the rear surface of panel 10. The indicia 24 are illuminated partly by edge illumination. The beveled edge 23 reinforces the illumination of the indicia 24 by reflecting the light impinging thereon back into the panel.

Rear housing 13 may be formed of opaque material. Front housing 12, on the other hand, is formed of translucent material, such as white pigmented methyl methacrylate resin. Additional indicia 26 are painted on the face of housing 13. The indicia 26 are directly illuminated by the lamp 14. The under side of housing 12 passes light which serves to provide direct illumination of the face of panel 10 and the indicia thereon.

The sign is adapted to hang with panel 10 in an upright position on hangers 27. Hangers 27 are carried by bolts 16. The sign can be hung from any appropriate support by means of hangers 27.

As shown in Figs. 3 and 4, the beveled edge 23 extends rearwardly and inwardly so that, when the sign is viewed from the front, the illuminated beveled edge is seen through panel 10. The beveled edge forms a decorative illuminated edge for the sign and also serves to reinforce the illumination of indicia 24 (see Fig. 3).

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

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

A sign structure comprising an upright flat panel of transparent, light-piping material, there being an elongated aperture in said panel the edges of which aperture are perpendicular to the plane of the panel, an elongated lamp in said aperture, the longitudinal axis of the lamp being in the plane of the panel, whereby light from the lamp is transmitted through edges of the aperture into the body of the panel, a hollow housing of translucent material attached to the front face of the panel to cover the lamp and close the front side of the aperture, the lower side of said housing being substantially perpendicular to the plane of the panel, there being an indicia-carrying pro-

jection on the panel below the aperture, and paint indicia on the rear face of the panel below the housing, the indicia being illuminated by light from the lamp transmitted through the panel, the front face of the panel being illuminated by light from the lower face of the housing.

JAMES A. HOWENSTINE.

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