

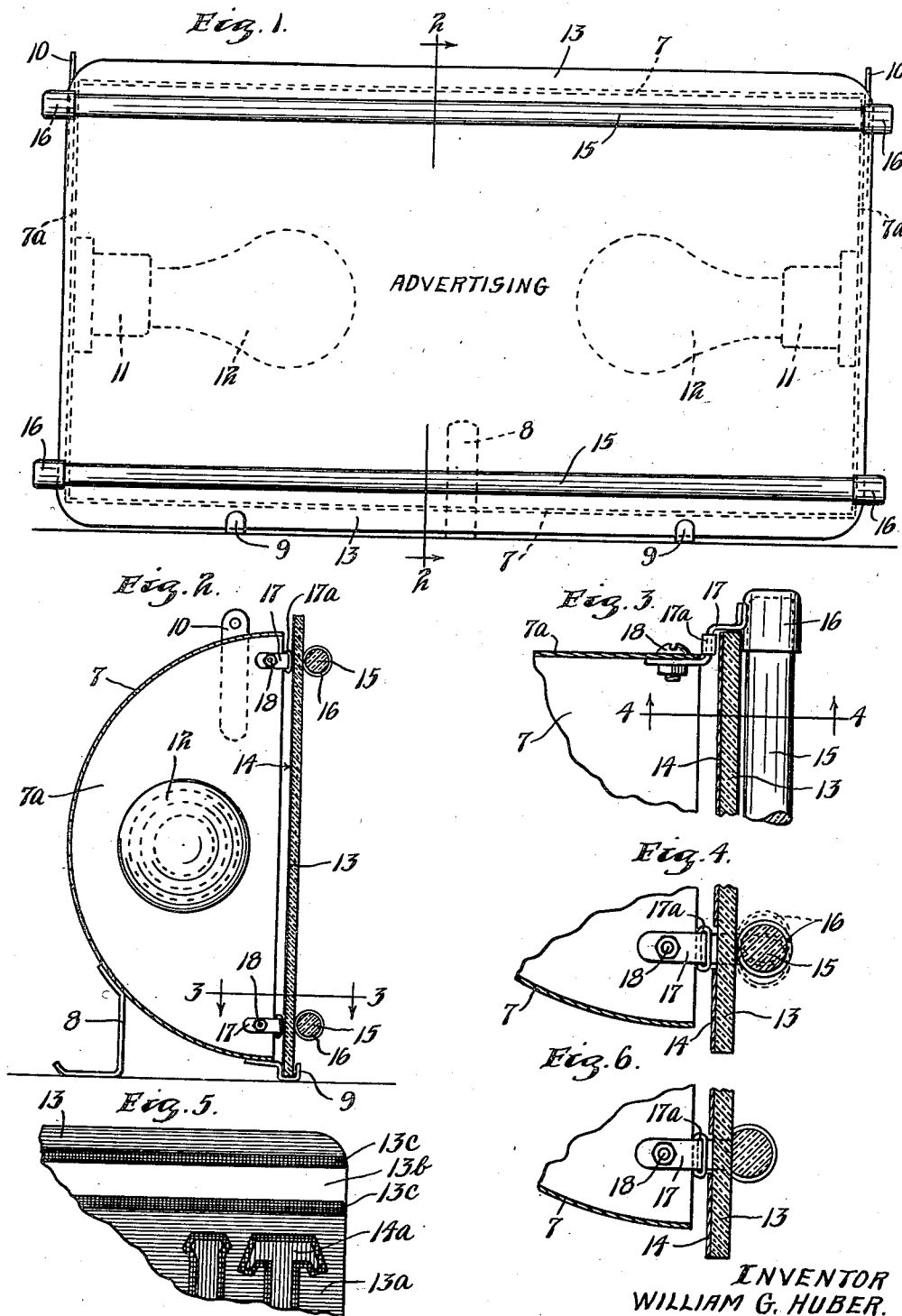
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ILLUMINATED SIGN

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ILLUMINATED SIGN

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This invention relates to luminous signs, and more specifically to a construction, some luminous features of which simulate in appearance the effects produced from that class of signs known as "neon" which employ tubes containing rarified gases.

It is an object of my present invention to provide a novel and attractive sign having certain luminous effects simulating "neon" tubes and capable of manufacture at relatively low cost.

It is a further object to provide a sign of the class above referred to, wherein a luminous display panel may be readily replaced to change copy, and wherein the sign is effective and ornate when not illuminated.

More specifically, it is an object to provide a luminous sign of simple and inexpensive construction utilizing an integral panel constructed of transparent material such as glass and having portions of said panel coated or otherwise treated to be rendered relatively opaque, while leaving display portions which are colored to represent characters or display features, and having also certain narrow portions of the glass or other material left transparent or highly translucent to emit the maximum amount of light, whereby colored rods or strips may be superimposed over said narrow, transparent portions to refract the light emitted and simulate the appearance of "neon" tubes when the sign is illuminated.

Another object is the provision in such a structure of an adjustable mounting for the said glass rods or strips to enable the same to be disposed, regardless of the height at which the sign is mounted, so that light will be refracted in line with the eyes of an observer.

These and other objects and advantages will be more apparent from the following description made in connection with the accompanying drawing, wherein like reference characters refer to similar parts throughout the several views, and in which:

Fig. 1 is a front elevation of an embodiment of my invention;

Fig. 2 is a cross section taken on the line 2—2 of Fig. 1;

Fig. 3 is a fragmentary horizontal section on a somewhat larger scale, taken on the line 3—3 of Fig. 2;

Fig. 4 is a fragmentary cross section taken on the line 4—4 of Fig. 3, showing the adjustable mounting for the refractive rod;

Fig. 5 is a fragmentary plan view of a corner of one of the panels used with my construction, and

Fig. 6 is a view similar to Fig. 4, showing a somewhat different construction of refractive rod which may be used.

The embodiment of my invention illustrated is a compact luminous sign well adapted to inside store use on counters, shelves and the like, although it will, of course, be understood that the principles of my invention are applicable to signs of all types.

The sign illustrated includes a reflector casing or shell 7, as shown, of semi-cylindrical shape having a central supporting leg 8 at the rear thereof and a pair of panel receiving and supporting elements 9 secured to the lower forward edge of the casing. A pair of upstanding ears 10 may, if desired, be secured to the ends 7a of casing 7 at the top thereof to permit the sign to be suspended or secured by flexible members. As shown, electrical sockets 11 are mounted on the ends 7a of the casing and electrically connected with an electrical service cord, not shown. Electric lamp bulbs 12 are mounted in the sockets and disposed symmetrically within the interior of the casing 7.

I provide a specially constructed integral sign panel suitably mounted at the front of the shell or casing 7 and which in cooperation with refractory characters or elements later to be described and the emission of light, produces luminous effects resembling those of the vapor tube signs known as "neon." My sign panel 13 is constructed from a plate of transparent material such as glass, transparent Celluloid, or the like, and has the body portion 13a thereof coated or otherwise constructed to render that portion relatively opaque, although not necessarily completely opaque as in some instances some slight transmission is desirable. A coating 14 greatly exaggerated in thickness in Figs. 3 and 4 and applied by screening, photolithograph or other method may be utilized to provide the relatively opaque background or body, although any other method may be used. Display symbols or characters such as the letters 14a are left uncovered by the opaque coating 14, and coatings of colored translucent material are printed or painted across such portions, permitting these characters and symbols to be rendered conspicuous and luminous when the lamps 12 are illuminated within the casing. My panel 13 is further provided with uncoated or thinly coated, highly translucent, narrow portions 13b which may be in the form of narrow straight zones, curves or characters, and through which bright light is emitted. The uncoated or highly translucent portions or zones 13b

may be defined by two completely opaque marginal zones or portions 13c, formed preferably by heavy coatings and concentrating the intensity of light through portions 13b.

Superimposed over the narrow transparent portions or zones 13b and on the outer vertical wall of the panel 13 are rods or strips 15 preferably colored and constructed of material such as solid colored glass or colored plastics having high refractory qualities. The rods or strips 15 are of slightly greater width or diameter than the narrow zones 13b and are disposed either in very close relation to the outer side of the panel or flush against the panel and the narrow zones, as clearly shown in the drawing. It is, of course, to be understood that tubes constructed of colored glass or uncolored transparent tubes or rods brightly coated with colored material may be used in place of the solid rods, all within the scope of my invention.

The refractive rods 15 in the embodiment shown in addition to having the important luminous functions previously described also act in cooperation with adjustable brackets as means for detachably retaining the panel 13 in proper operative position at the front of the reflector casing 7. In the embodiment shown two straight rods 15 are used extending horizontally across the outer side of the panel adjacent the top and bottom and having thimbles 16 slipped over the outer ends thereof, which thimbles are connected by bent arms or brackets 17 with the ends 7a of the reflector casing. It will be noted that connection of the bracket 17 is made on a nutted pivot bolt 18 in order that the brackets and consequently the ends of the rods may be adjusted slightly to shift the rods vertically in order that they may be properly set with respect to the narrow, transparent zones 13b of the panel to cause refraction of light to be on the line of vision of the observers, regardless of the height at which the sign is mounted. Thus, if the sign is disposed above the level of the observer's eyes, rods 15 will be lowered slightly to cause proper refraction for that level. If the sign is disposed lower than the eyes, the rods will be slightly raised accordingly. There is, of course, sufficient friction between the brackets 17 and ends of the casing to retain the rods in an adjusted position.

It will further be noted that the adjustable brackets or arms 17 have their outer portions offset, leaving a perpendicular portion disposed parallel to the thimble 16 which is covered with a rubber or other compressible cushioning sleeve 17a, this sleeve engaging the back of the panel while the front of the panel is guided by the thimble 16 or the rods themselves in the form shown in Fig. 6. Thus, from an inspection of the drawing, particularly Fig. 2, it will be apparent that the removable panels 13 may be slidably received between the rods and the cushioning sleeve 17a in the angulated portions of brackets 17.

In Fig. 6, instead of the cheaper solid rods of circular cross section, a rod having a flatted surface which is disposed flush against the panel is utilized.

In Fig. 5 a fragment of a panel having a background 13a is shown, this background being relatively opaque but permitting transmission of some light. Here it is desirable to define the uncoated narrow zone 13b by two completely opaque parallel zones 13c.

It will, of course, be understood that not only straight rods but strips or rods curved in the

shape of figures, letters or other emblems may be utilized in cooperation with a source of light and transparent narrow light omitting sections of the panel, all within the scope of my invention.

The sign, it will be noted, has an attractive appearance when not illuminated, the characters being readily visible on the panel, and the colored glass rods being ornate.

With "neon" signs, of course, the glass tubing and colorless, inert gas contained therein certainly could not be considered ornamental.

My sign, when illuminated, gives the general luminous effect through the refraction in the glass rods of "neon" signs, although it does not give as bright or intense a light. The intensity of the light from "neon" signs has been objected to, particularly in signs used within buildings.

My signs have the further advantage, of course, of great economy as contrasted with "neon," does not require the transformers, switches and other expensive equipment necessitated in "neon" construction.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the parts without departing from the scope of my invention.

What is claimed is:

1. In a luminous sign, a reflector casing having an open front and having a source of light therein, a sign panel mounted across the front of said casing and having relatively opaque portions and having a narrow, transparent portion defined by a part of said opaque portion for emitting concentrated light through said panel, a colored rod having refractive properties shaped to conform to said transparent panel portion, brackets secured to the front portion of said casing having attachment elements at their outer ends for engaging said rod to support the same in substantial alignment with and in front of said narrow transparent display portion, said brackets including swingably adjustable arms, and means for clamping said arms in various angularly adjusted positions to vary slightly the superimposed position of said rod relative to said narrow transparent portion.

2. In a luminous sign, a reflector casing having an open front and provided with a conventional electric lamp therein, a removable sign panel mounted across the front of said casing and constructed from an integral piece of transparent material having refractive qualities, said panel having the greater portion of one surface covered with relatively opaque material, leaving however display characters, said display characters being covered at one side of said panel with translucent coloring material, said panel further having a narrow portion thereof uncovered and transparent to emit light rays from within said casing, a colored translucent rod having refractive properties shaped to conform in shape to said narrow transparent portion of said panel, and means connected with the front portion of said casing for supporting said rod in alignment with said narrow transparent portion of said panel and superimposed outwardly thereover and in front thereof to cause light emitted through said portion to be refracted by said rod and to pass therethrough, illuminating said rod.

3. In a luminous sign, a reflector casing having an open front and provided with a source of light therein, a pair of widely spaced, translucent rods disposed forwardly of said reflector casing and substantially lying in a plane extend-

ing parallel with the front of said casing and spaced some distance therefrom, brackets secured to the front of said casing and having attachment elements at their outer end for supporting said rods in said specified relationship with said casing, a detachable sign panel mounted between the front of said casing and said rods, said rods engaging the front of said panel to retain said panel against outward displacement,

and means for engaging the rear of said panel to prevent rearward displacement thereof, said panel being slidable between said means and said rods for removal or replacement, said panel having transparent portions conforming in shape to and disposed directly behind said rods for emission of light to said rods from said casing whereby said rods will be illuminated.

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