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2,094,436

ILLUMINATED SIGN

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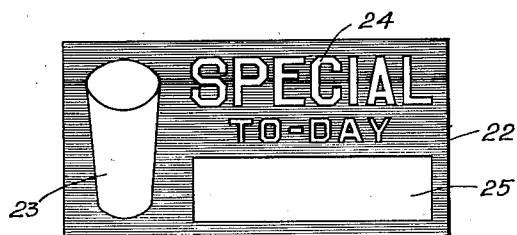


Fig. 2



Fig. 3

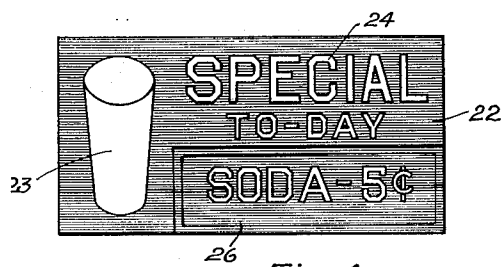


Fig. 4

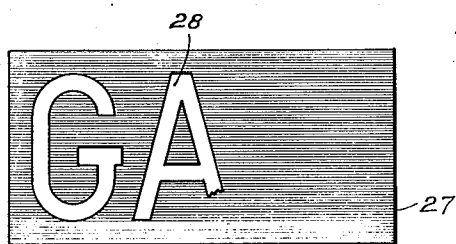


Fig. 5

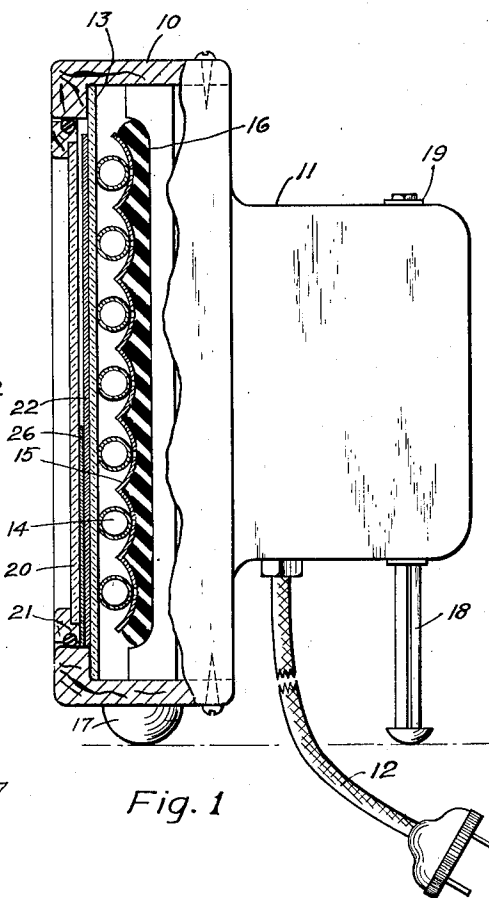


Fig. 1

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ILLUMINATED SIGN

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to Service Devices, Incorporated, New York, N. Y., a corporation of New York

Application April 30, 1935, Serial No. 19,040

8 Claims. (Cl. 40—132)

This invention relates to improvements in illuminated signs.

An object is to provide such a sign with an inexpensive transparency comprising a panel carrying the sign proper and forming a changeable sign element.

Another object is to provide such a transparency comprising a main panel having an auxiliary panel or insert that can be changed without removing the main panel from the sign casing.

A further object is to provide a panel of transparent material having a removable coating thereon adapted to be easily removed by the user so that by writing on the coating with a stick or pencil rubber, the coating can be removed to form letters, figures and the like.

Other objects are to provide a compact and efficient sign in which a gaseous tube can be used as a source of illumination for the transparent panel; to provide a sign in which the panel or transparency is protected by a cover of glass, and to provide a sign in which the various parts are assembled in compact relation so as to form a portable unit and to which an opaque coating can be applied directly to the inner glass for a purpose hereinafter described.

The invention consists substantially in the construction, combination, location and relative arrangement of parts, all as will be more fully hereinafter set forth and as shown by the accompanying drawing, and finally pointed out in the appended claims.

In the drawing:

Figure 1 is a side view, partly in section, of a sign adapted to illuminate the panels shown in the succeeding figures;

Figure 2 is a front view of the main transparent panel or sheet forming the changeable sign element;

Figure 3 is a front view of the auxiliary or insert panel or sheet for the panel, Figure 2;

Figure 4 is a front view of the panels shown in Figures 2 and 3 combined to be used in the sign, Figure 1; and

Figure 5 is a front view of a panel or sheet to form a sign element and having a removable coating, part of which has been removed.

In illuminated signs employing neon or other luminous or glow tubes as the source of light, it has been customary to make the letters, designs or figures of the sign or display out of glass tubing of suitable diameter bent to form the desired outlines. Such signs are costly and fragile, and the design thereof cannot be changed.

Attempts to form a surface or sheet of neon or other luminous gases, have been unsuccessful, as cast glass or other materials except tubing cannot be used in the present state of the art to form the surface of a sign for various technical reasons well known to those skilled in the art.

Where tubing is arranged to form a grid composed of parallel lengths of tube, unless a reflector is used back of the grid it presents a streaked effect which destroys the efficiency of the sign. Such effect coupled with the fact that such panel signs have usually been arranged with some form of permanent lettering not easily changed by the user, has prevented all forms of neon signs except those made of tubing bent to form the design, from coming into extended use.

The present invention is directed to overcoming the foregoing objections and provides a neon sign comprising a sheet or panel of neon substantially free of objectionable streaks and of uniform all-over brilliancy, provided with a changeable sign element consisting of a sheet or panel of transparent or translucent material such as glass, celluloid, cellophane or the like on which the indicia comprising the sign proper is placed. Such transparencies are arranged to be easily changed by the user, who can, if desired (by removing some of the coating on the transparencies) actually form the designs thereon without employing a sign painter to do so.

The neon grid being directly behind the transparency, the eye sees a true neon effect without any interposed mirrors, prisms, or other devices, and the effect is identical with that produced by the usual neon sign made of bent tubing except that the sign herein described can be read more easily from the side than a sign of the tubing type.

Referring to Figure 1, the numerals 10 and 11 denote the front and rear parts of a casing which encloses a suitable transformer (not shown) to one winding of which is connected the usual connecting cord and plug 12, the cord extending outwardly through a side wall of the casing.

The parts 10, 11 are secured together in any suitable manner and the front of 10 is closed by a transparent sheet, panel or pane 13 of glass or the like.

Enclosed within the casing is the illuminating element 14 preferably a gaseous tube of neon or the like. This tube is bent forward and back to form a grid, the legs of which support a reflector or reflectors 15 adapted to reflect the light from the tube forward through the glass 13.

The reflector and grid are supported by means

of rubber strips or other resilient means 16, several of which are supported within the casing in any suitable manner.

The circuit terminals of the grid 14 are connected to a winding of the transformer in any suitable manner.

Rubber feet, one of which is shown at 17, are located near the outer edge of the bottom of the casing, and a leg or foot 18 is slidably and frictionally mounted in a bushing 19 and is therein vertically adjustable to alter the angle of the face of the sign. The leg 18 passes through a wall of the casing supporting the bushing 19.

The sign as just described may be used by painting the glass 13 on either side with any desired design, letters or figures, and when the grid 14 is illuminated by connecting the plug and cord 12 to a suitable source of current, the front panel comprised of the glass 13 is illuminated, the neon grid or luminous tube 14 being visible through the clear portions of the glass 13.

However, the foregoing method of using the sign is not convenient where frequent changes are to be made in the sign. To change such a sign it must be taken out of use, the paint removed from the glass 13 and a new sign painted thereon. Such work is beyond the skill of the average user, and necessitates the expense and delay incident to getting a sign painter to do the job, although such an arrangement does enable a changeable neon sign to be produced and this specific arrangement in its broadest aspects forms the subject matter of a co-pending application, except such features thereof as are herein claimed in connection with the use of removable paint on the glass 13 and the use of auxiliary panels therewith and the protection of said glass by the glass 20. Of course the sign with painted glass 13 may be used with the panels 22, 26 and 27 hereinafter described in any combination.

An improvement over the sign just described, consists of providing the sign with a second transparent panel or glass 20 mounted in a frame 21 fitting within the casing 10 and easily removable therefrom and replaceable therein. This provides (in case the glass 13 is painted) a protective covering therefor and if 13 is not painted, an accessible space is provided between the glasses 13 and 20 in which may be placed the transparent panels hereinafter described and which form changeable sign elements which may be easily and cheaply changed as desired.

One desirable form of such elements is shown in Figure 2, wherein the numeral 22 denotes a panel of transparent or translucent celluloid, cellophane, glass or the like having thereon an opaque coating which may be a suitable ink or paint, the design 23 and lettering 24 being uncoated so that light can show therethrough.

A blank space 25 may be left on the panel 22 and over this space a second auxiliary panel 26 of the same material may be overlaid. By placing appropriate related indicia on the panels 22 and 26 and changing the latter as desired, many combination advertisements such as that shown in Figure 4, can be displayed as hereinafter described, by using only one main panel 22 and a number of auxiliaries 26.

Another improvement consists of providing a panel 27 of transparent or translucent material coated on one surface with an easily removable coating or paint. Such a coating is described in the co-pending application Serial No. 28,269, filed June 25, 1935, but any suitable material will do. This coating may be used for the glass 13 as pre-

viously referred to. By means of a lead pencil rubber or any suitable instrument this paint is removed from the panel to form designs, letters or figures as indicated at 28, Figure 5, and this panel may be used in place of 22 with 26, or alone.

The changeable sign elements 22, 26, 27 are placed within the space between the glasses 13, 20 and it will be seen they are easily changed. They may be prepared at one central point to insure uniformity of appearance and then sent by mail to the users of signs all over the country for simultaneous weekly sales of nationally advertised products and in other national sales campaigns. Their use obviates the necessity of any artistic ability on the part of the user of the sign, and they afford a simple and cheap method of making a changeable neon sign having all of the advantages of a sign of the neon tubing type without its limitations.

Although the invention has been disclosed in connection with the specific details of preferred embodiments thereof it must be understood that such details are not intended to be limitative of the invention except in so far as set forth in the accompanying claims.

What is claimed is:

1. In an illuminated sign, a casing forming a frame, a luminous tube therein, a transparent sheet fixed to said casing in front of said tube and engaging the same, resilient means in said casing urging said tube against said sheet whereby said tube may be supported jointly by said sheet and said resilient means, a removable panel of transparent material forming a sign supported on said casing in front of said sheet, and a cover of transparent material over said panel removably fitting into said frame and supported thereby.

2. In an illuminated sign, a casing forming a frame, a luminous tube therein, a transparent sheet fixed to said casing in front of said tube and engaging the same, resilient means in said casing urging said tube against said sheet whereby said tube may be supported jointly by said sheet and said resilient means, a second transparent sheet spaced apart from said first sheet supported by and fitting into said casing and removable therefrom, and a removable panel of transparent material forming a sign located between said sheets.

3. In an illuminated sign, a casing, a transparent sheet in front of said casing secured thereto, a removable panel of transparent material in front of said sheet having indicia on a part of its surface, the remaining part of said surface constituting a transparent window, a second removable panel having indicia thereon adjacent said first panel and registering with said window, means within said casing for illuminating said panels and to project light therethrough, and a transparent cover over said panels fitting into and supported by said casing and removable therefrom to permit access to said panels.

4. In an illuminated sign, a casing, a transparent sheet in the front of said casing secured thereto and supported thereby, a panel of transparent material overlying said sheet in contact therewith and adapted to be removed and replaced without disturbing said casing, said panel having a removable coating thereon whereby figures, letters and the like can be drawn by removing said coating therefrom, a second removable transparent sheet overlying said panel and supported in said casing, a luminous tube in said casing, a reflector in contact with said tube, said tube being in contact with the rear of said first

sheet whereby said tube and reflector may be disposed closely adjacent said figures or the like to illuminate the same, and resilient supporting means in said casing to press said reflector against said tube and said tube against said first sheet.

5 5. In an illuminated sign, a frame, a transparent face in said frame, a panel of transparent material overlying said face and in surface contact therewith, said panel being adapted to carry display indicia on the surface thereof, a transparent cover over said panel and removably supported in said frame, a luminous tube and reflector positioned behind said panel, said tube being in contact therewith and cooperative with
10 said reflector to present a substantially flat field of illumination through said face within a predetermined angle of vision, a rear casing adapted to close the rear of said frame and enclose said tube and reflector, a transformer supported in
15 said rear casing, and an adjustable means extending from said rear casing adapted together with said frame to support said sign and permit the face thereof to be inclined at various angles

to the surface on which the sign is supported, whereby said angle of vision may be advantageously directed.

6. In a sign, a luminous tube, a casing having a transparent front adapted to position said tube in said casing and partially support the same therein, a reflector partially supported on said tube and said casing, a transformer supported in a rearwardly extended portion of said casing, and a transparent panel adapted to carry display indicia overlying said transparent front and removably supported on said casing.

7. The sign as claimed in claim 6 wherein a resilient support is provided for the tube, said reflector and support being enclosed within said casing and supported thereby.

8. The sign as claimed in claim 4 having a second transparent panel having sign indicia thereon and overlying said first panel in contact therewith, said first panel having a wholly transparent portion underlying said second panel.

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