Nov. 18, 1930. E. W. KNECHTEL 1,781,727

ADVERTISING SIGN AND THE LIKE

Filed Dec. 22, 1927

FIG. 1.

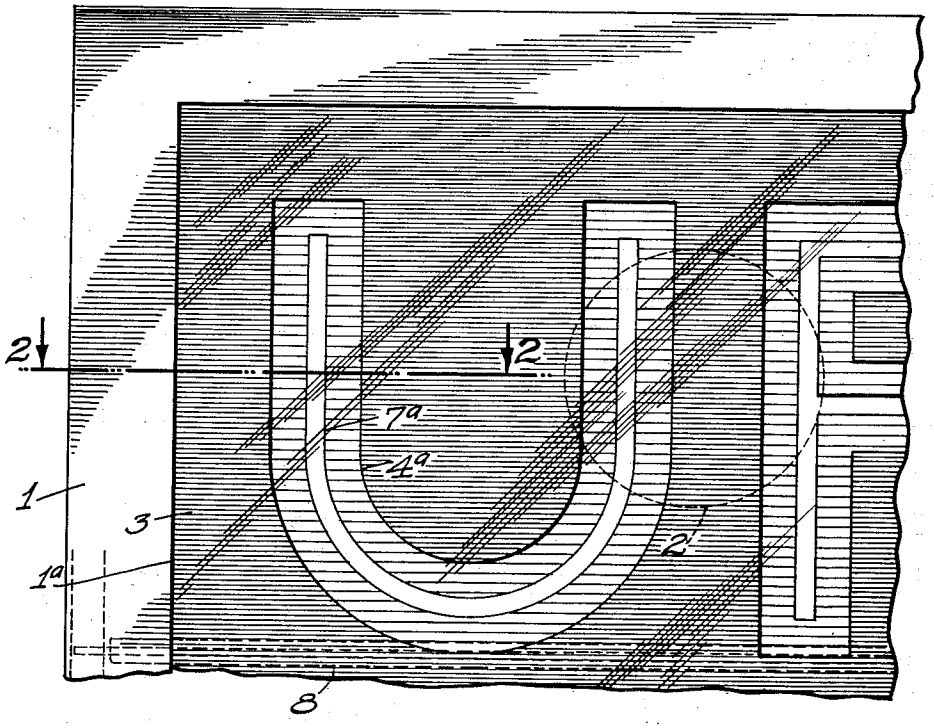


FIG. 2.

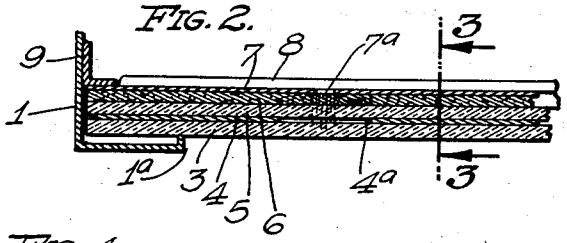


FIG. 3.

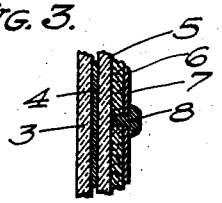


FIG. 4.

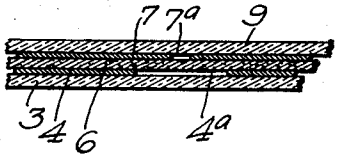
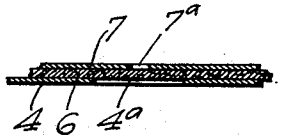


FIG. 5.



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ADVERTISING SIGN AND THE LIKE

Application filed December 22, 1927. Serial No. 241,956.

My invention relates to signs, particularly advertising signs.

The objects of my invention are: first, to provide a sign which will resemble conventional advertising signs known as neon signs, or signs in which the letters are made of illuminated tubes of various colors, or of tubes giving off light of various colors; second, to provide a sign of this class which will be considerably less expensive than the above mentioned signs and better adapted to smaller signs; third, to provide a sign of this class having narrow letters or symbols with sharp outlines closely resembling letters made from neon tubes, and which will also have a partially illuminated background or portion immediately adjacent the edges of the sharp outline of letters to represent the faintly illuminated portions of neon tubes surrounding the brightly illuminated letters formed by the neon tubes; fourth, to provide a sign of this class in which the effect of neon tube signs is effected by light passing through narrow slits in a shield or stencil in which the letters are formed and in which the faintly illuminated background is effected by dispersed light directed to either side of the narrow slits by passing through a light emitting medium, preferably of the color of neon light, which has the capacity to disperse the light in the desired manner; fifth, to provide a sign of this class in which the letters are formed by opposed shields or stencils having letters of different widths and between which is positioned a light emitting and dispersing medium giving respectively a sharp narrow outline of the letter and a sharp outline of a faintly illuminated portion surrounding the letter of sharp outline; sixth, to provide as a whole a novelly constructed sign of this class; and, seventh, to provide a sign of this class which is particularly simple of construction, durable and which will not readily deteriorate or get out of order.

With these and other objects in view, as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters thereon which form a part of this application in which:

Figure 1 is a fragmentary front elevational view of a sign showing the letters as they appear when illuminated; Fig. 2 is a fragmentary sectional view thereof taken through 2—2 of Fig. 1; Fig. 3 is a fragmentary sectional view thereof taken through 3—3 of Fig. 2; and, Figs. 4 and 5 are each sectional views similar to that shown in Fig. 2, but showing slightly modified forms of construction.

Like characters of reference refer to similar parts and portions throughout the views of the drawings.

My sign, whether of a small portable type or a large store front advertising sign, is preferably embodied in a frame or housing 1 having an open front wall or open opposite walls 1^a and in which is positioned one or a plurality of lights, lamps, or other illuminating means 2. The portion of the sign constituting the principal part of my invention is that portion covering the opening, or openings, of the housing and through which the light from the lamps 2 is directed for forming the letters or other symbols. It will be here noted that although I have shown and referred only to letters or symbol of signs, these terms are intended to signify all symbols, characters, signs, and designs which may be illustrated on signs.

The light emitting or letter forming portions of the sign consists, as illustrated in Fig. 2, of an outer glass plate 3 positioned over the opening of the housing, a shield 4 placed at the back side thereof, another glass plate 5 positioned against the inner side of the shield 4 and holding the latter in position against the plate 3, a translucent and light dispersing medium 6 positioned against the inner side of the plate 5, another shield 7 positioned against the inner side of the medium 6 and a reinforcing member 8. These members are all held together against the housing over the opening thereof by any suitable retaining means, as indicated by 9. The shields 4 and 7 may be made of any opaque material, such as black paper, black metal, or

black paint. The shield 7 may be secured by an adhesive directly to the inner side of the medium 6, or by painting the letters thereon. The shield 4 may be painted on either of the plates 3 or 5, or, if the shield is made of black paper, the same is preferably loosely positioned therebetween, or, if made of paper, the loose portions of the letters are preferably secured to the plate 5. The letters in the shields are formed by openings so as to emit light through the openings forming illuminated letters having dark backgrounds. The letters in the inner shield 7 are formed by relatively narrow slits which are preferably of the width of the illuminating portions of neon tubes, while the openings in the shield 4 are relatively wider but are directly in front of the narrow slits, as indicated, respectively by 4^a and 7^a. The light emitting and dispersing medium 6 consists of a sheet of material commercially known as "casein plastic", or which is also commonly known as Galalith, and made from casein. This substance may be made in different colors and in the shades of neon light. This medium is particularly noted for its light transmitting qualities. Applicant has found also that light passing through this substance disperses readily through the body forming a faint light or illumination beyond the portion which is directly illuminated. This substance is also translucent so that the outline of the letters formed by the slits 7^a cannot be seen from the front side unless the light is operated. Therefore, light directed from the inside toward the inner side of the shield 7 will direct light through the slit 7^a and through the medium 6 giving a relatively sharp outline of the letter in the manner and color desired. A portion of this light is dispersed through the medium giving a faintly illuminated field immediately surrounding the brightly illuminated letter. This field is of considerable width but is limited from view by the opening 4^a in the shield 4, thus giving a limited field of faintly illuminated portions immediately around the bright portions of the letter. When the medium 6 referred to is subjected to heat, the same is likely to warp, thus destroying the effect desired. In order to remedy this defect, I have provided reinforcing strips 8 which may be positioned between adjacent edges of such mediums and also against the inner sides of the portions adjacent the edges, as shown best in Fig. 3. These reinforcing strips may be secured at their ends by the retaining members 9, as shown in Fig. 2. It will be noted that instead of the reinforcing strip 8, another glass plate 9 may be positioned over the back side of the shield 7.

In the modified form of construction, I have eliminated the glass plate 5 between the shield 4 and the light dispersing medium 6, and have also provided a glass plate 9 at the inner side of the shield 7, as referred to in the last paragraph.

In the modification shown in Fig. 5, all glass plates have been dispensed with and only the shields, or stencils applied to the opposite sides of the medium 6. It will be noted that in case such a construction is desired, the shields 4 and 7 may be made of metal so as to support the medium 6 rigidly therebetween.

Though I have shown and described a particular construction, combination and arrangements of parts and portions and a particular light emitting and dispersing medium and a particular characteristic of such medium, I do not wish to be limited to the particular construction, combination and arrangement of parts and portions, nor to the particular elements described, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

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

1. In a means of the class described, a translucent light transmitting medium, an opaque shield having open letters therein positioned at one side of the medium, and another shield having corresponding letters positioned at the opposite side of the medium, the letters of the latter shield being wider than those of the first shield and positioned in front of the same.,

2. In a means of the class described, a translucent light transmitting medium, an opaque shield having open letters therein positioned at one side of the medium, and another shield having corresponding letters positioned at the opposite side of the medium, the letters of the latter shield being wider than those of the first shield and positioned centrally in front of the same.

3. In a means of the class described, a translucent light transmitting medium, a stencil having letters therein positioned at one side of the medium, and another stencil with corresponding letters therein positioned at the opposite side of the medium, the letters of the latter stencil being considerably wider than those of the first stencil and positioned opposite the same.

4. In a means of the class described, a light transmitting and dispersing medium, a shield having narrow letters therein positioned at one side of the medium and another shield having wide corresponding letters therein positioned at the opposite side of the medium with the letters of the latter positioned opposite the letters of the first shield.

5. In a means of the class described, a translucent light dispersing and light transmitting medium, a shield having narrow letters therein positioned at one side of the medium and another shield having wide corre-

sponding letters therein positioned at the opposite side of the medium with the letters of the latter positioned opposite the letters of the first shield.

6. In a means of the class described, a colored light transmitting and dispersing medium, a shield having narrow letters therein positioned at one side of the medium and another shield having wide corresponding letters therein positioned at the opposite side of the medium with the letters of the latter positioned opposite the letters of the first shield.

7. In a means of the class described, a translucent light transmitting medium, a shield having narrow letters therein positioned at one side of the medium, another shield having wide corresponding letters therein positioned at the opposite side of the medium with the letters thereof opposite the letters of the first shield, and a light transmitting plate positioned at the outer side of the second shield.

8. In a means of the class described, a translucent light transmitting medium, a shield having narrow letters therein positioned at one side of the medium, another shield having wide corresponding letters therein positioned at the opposite side of the medium with the letters thereof opposite the letters of the first shield, a light transmitting plate positioned at the outer side of the second shield, and a reinforcing means at the side of the medium at which said first shield is positioned.

9. In a means of the class described, a translucent light transmitting medium, a shield having narrow letters therein positioned at one side of the medium, another shield having wide corresponding letters therein positioned at the opposite side of the medium with the letters thereof opposite the letters of the first shield, a light transmitting plate positioned at the outer side of the second shield, and means supporting the side of the medium at which the first shield is positioned.

10. In a means of the class described, a translucent light transmitting medium, a shield having narrow letters therein positioned at the inner side of the medium, a transparent plate positioned against the opposite sides of the medium, another shield having wide letters therein corresponding to and positioned opposite the letters of the first shield.

11. In a means of the class described, a translucent light transmitting medium, a shield having narrow letters therein positioned at the inner side of the medium, a transparent plate positioned against the opposite sides of the medium, another shield having wide letters therein corresponding to and positioned opposite the letters of the first shield, and another transparent plate positioned against the outer side of the second shield.

12. In a means of the class described, a translucent light transmitting medium, a shield having narrow letters therein positioned at the inner side of the medium, a transparent plate positioned against the opposite sides of the medium, another shield having wide letters therein corresponding to and positioned opposite the letters of the first shield, another transparent plate positioned against the outer side of the second shield, and reinforcing means at the inner side of said medium.

13. In a means of the class described, a light transmitting and dispersing medium, a shield having letters therein positioned at one side of the medium, and a shield means at the opposite side of the medium, said shield means having letters of different widths from those in the shield adapted to permit dispersion of light through the medium between the edges of the corresponding letters, forming a shaded outline of the letter.

14. In a means of the class described, a translucent flexible light transmitting and light dispersing medium, shield means at the opposite sides of the medium provided with superposed letters in each at the opposite sides of the medium, and rigid supporting means at the opposite sides of said medium for supporting the same in position therebetween.

15. In a means of the class described, a translucent flexible light transmitting medium, and rigid supporting means at the opposite sides of said medium for sustaining said medium securely therebetween, the supporting means at the opposite sides of the medium having associated therewith letters of different sizes at the opposite sides of the medium, the letters at one side being superposed relative to the letters at the opposite side.

16. A composite unit for closing the display opening of an illuminated casing, said unit comprising a light transmitting sheet, means providing an opaque medium at each side of said sheet, each medium having a stencil opening therein, said openings being of similar outline and arranged in alinement, and one of said openings being greater in area than the other, and means for imparting color to light passing through the unit toward the larger of said openings.

17. The combination with a casing of a source of light arranged therein and a composite unit constituting the front wall of said casing; said unit comprising a light transmitting sheet, means providing an opaque medium at each side of said sheet, each medium having a stencil opening therein, said openings being of similar outline and arranged in alinement in the path of the rays of light from said source, the rear opening

being smaller than the other one, and means for imparting color to the rays of light passing from said source through said unit.

18. A composite unit for closing the display opening of an illuminated casing, said unit comprising a colored translucent sheet, means providing an opaque medium at each side of said sheet, each medium having a stencil opening therein, the openings being alined, and of similar outline, and one of said openings being of smaller area than the other.

19. In a sign comprising a housing with a source of light therein; a composite display unit constituting a wall of said housing arranged in front of said light; said unit comprising a translucent member, opaque means in front of said member having a stencil opening therein, opaque means in rear of said member having a stencil opening in alinement with the first mentioned opening and of similar outline but of smaller cross sectional area and means, arranged between said opaque means, for imparting color to the rays of light from said source.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 14th day of December, 1927.

EMERALD W. KNECHTEL.