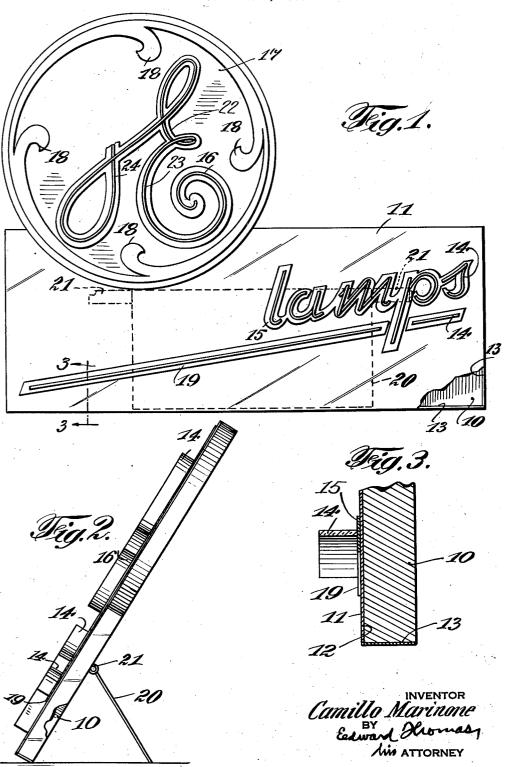
SIGN

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## UNITED STATES PATENT OFFICE

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SIGN

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5 Claims. (Cl. 40—134)

This invention relates to signs and is herein illustrated as embodied in an advertising sign suitable to stand in the windows of retail stores.

Many attempts have been made to provide signs which should be persuasive on those who read them. One successful attempt of this kind arose from the red-colored electrically operated neon sign, but that kind of sign is very expensive to build, requires skilled "servicing," and consumes electric current which is not only an item 10 of expense but necessitates a convenient "outlet" or other source of current. Other attempts to provide persuasive signs have also depended upon electric current, or have depended upon mirrors or other devices to reflect or refract bright lights. 15

According to the present invention no special source of light or power is ordinarily needed, but ordinary sunlight or even diffused daylight is utilized to produce a shining colored sign. A mercury arc lamp is highly satisfactory even to 20 produce red fluorescence.

In the form of the invention herein disclosed in some detail the important parts or features of the sign are formed of a so-called synthetic resin, such as cellulose acetate, and this resin carries, preferably incorporated within its transparent body, a suitable fluorescent material, and the light falling on adjacent parts of the base which carries the fluorescent resin parts is reflected into those parts with the result that the fluorescence is much greater than that produced by the direct illumination of the fluorescent resin parts.

As a result the fluorescent resin parts seem to glow with an added artificial light over and above the light which may prevail in their environment, thus rendering the sign persuasive in a way hitherto deemed impossible without the actual use of added artificial light. It is found that by suitable choice of fluorescent substances and of substances which assist fluorescence, various color effects may be obtained of which the most effective are usually red, yellow and green.

Other features and advantages will hereinafter appear.

In the accompanying drawing,

Figure 1 shows a sign embodying the present invention.

Figure 2 is a side view.

Figure 3 is a section on the line 3—3 of Figure 1. <sup>50</sup> The sign illustrated includes, for economy's sake, a filler or foundation plate 10 faced with a thin veneer 11, for which cellulose acetate was found satisfactory. This veneer 11 can be exceedingly thin, since it carries substantially no <sup>55</sup>

weight or strain. It may cover the front 12 of the filler plate 10 as well as its edges 13.

Upon this front veneer II are carried, though indirectly, the upstanding fluorescent letters or devices 14 shown with flat sides. To thus carry the letters 14 the veneer 11 is shown as carrying opaque double or background letters and devices 15, which are usually white so as to reflect back into the devices 14 any light which strikes the background letters 15. Where this light strikes the upstanding letters 14 it usually falls on enough of the fluorescent materials to decidedly alter the apparent color of the upstanding letters 14, perhaps because the reflected light is transmitted light, whereas the other light by which the upstanding letters 14 are viewed is mostly reflected light. Many fluorescent bodies, as is well known, present an appearance by transmitted light very different from their appearance by reflected light.

In the form shown the upstanding letters 14 are made of sheet material about 1/25 inch thick and stand slightly over 1/4 inch high. The background letters 15 have been found satisfactory as shown, when of the same breadth, viz., slightly over 1/4 inch across. Even broader background letters have been found useful.

For many purposes the best results have been obtained when the veneer 11 was black, backed with a black filler 10, and the background letters 15 were of white opaque cellulose acetate thick enough to completely hide the black veneer 11.

For some purposes some of the upstanding letters 14 may be fluorescent red transparent cellulose acetate, and other upstanding letters or devices 16 were fluorescent yellow or green.

Sometimes desired effects are obtained by substituting pale blue or another reflecting color cellulose acetate for the background letters or devices 15.

A blue veneer 17 is shown for the background of the letters 16, with flat white ornaments, 18.

The background letters may take the form of a continuous strip 19 if desired with an effect for 45 letters 14 almost equal to the background letters 15.

The sign may be readily hung, or be set up by a hinged bracket 20 which turns on a pivot 21 on the filler 10.

The cellulose acetate letters or devices 14 are easily and quickly molded in suitable sections 22, 23, 24 by immersion in hot water when shaped with the aid of metal or wood templets or tracks, and the background letters 15 are easily cut with steel rule dies.

The background letters 15 and upstanding letters 14 when made of cellulose acetate are readily secured by several of the commercial cellulose acetate cements.

It is found that a bright artificial light will 5 often give as effective a result as daylight. But the best artificial illumination is usually by a mercury arc.

Having thus described in some detail certain embodiments of the invention, what is claimed is: 10

1. A sign including upstanding thin fluorescent letters adapted to transmit some light and having flat sides, and a separate opaque white reflecting background for each of the letters adapted to cause partial but substantial illumination of the 15 letters by transmitted light.

2. A sign including a base upstanding thin fluorescent letters adapted to transmit some light and having flat sides and projecting from the base, and a separate opaque white reflecting 20 background carried on the base for each of the letters adapted to cause partial but substantial illumination of the letters by transmitted light.

3. A sign including a black base upstanding thin fluorescent letters adapted to transmit some 25

light and having flat sides and projecting from the base, and a separate opaque white reflecting background carried on the base for each of the letters adapted to cause partial but substantial illumination of the letters by transmitted light.

4. A sign including a black base, upstanding transparent thin sheet cellulose acetate letters including fluorescent material, and an opaque white reflecting background for each letter adapted to deflect light in part onto and through the acetate letters to cause partial fluorescence by transmitted light.

5. A sign including a black base, upstanding transparent thin sheet cellulose acetate letters including fluorescent material, adapted to fluoresce in one color, other upstanding transparent sheet cellulose acetate devices including fluorescent material adapted to fluoresce in another color, and an opaque white cellulose actate reflecting background for each letter and device adapted to reflect light in part onto and through the upstanding acetate to cause partial fluorescence by transmitted light.

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