May 30, 1950 W. P. TAYLOR 2,509,707

PHOSPHORESCENT PANEL SIGN

Filed Sept. 26, 1946

Fig. 1.

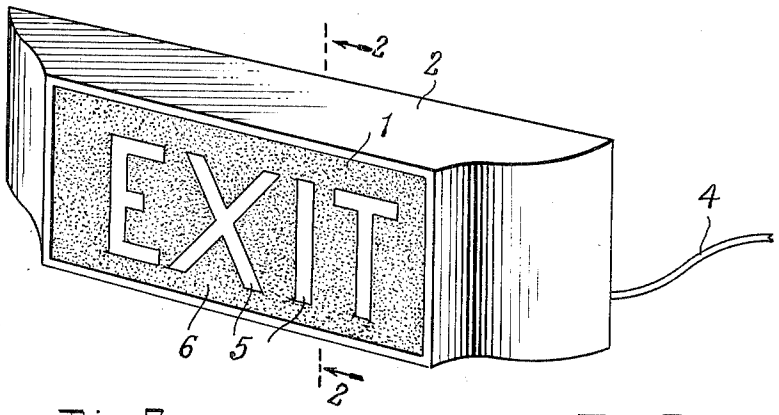


Fig. 3.

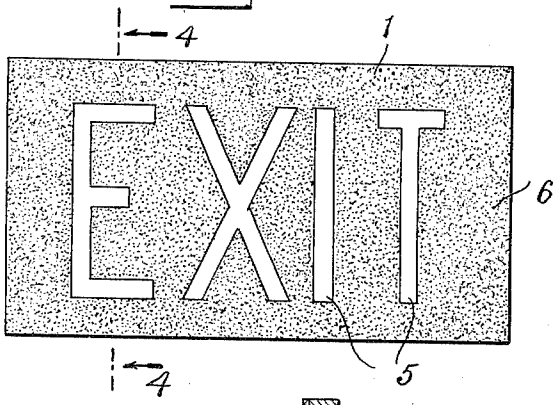


Fig. 2.

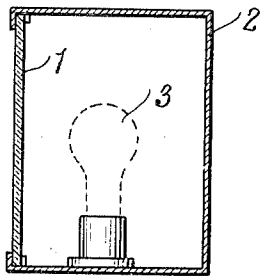
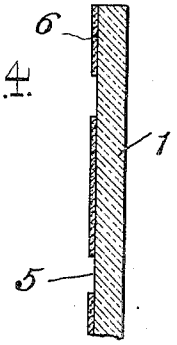


Fig. 4.



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PHOSPHORESCENT PANEL SIGN

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1 Claim. (Cl. 40—134)

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This invention relates to signs, and particularly to those of a kind intended for use in darkened theatres, or various other places where illumination is relatively poor, or under conditions where a lighting source fails.

An object of the invention is to provide a sign of this character in which a phosphorescent element is employed and which will glow to provide a readable sign in utter darkness. Another object is to provide the phosphorescent material bearing the sign in such form and of such nature that it can be used either in conjunction with a lighting means and will, under such circumstances, constitute a translucent element through which the light will be directed, or else it will, through its phosphorescent constituent serve as a readable sign in the darkness after the source of light has been cut off.

The invention has particular reference to signs used to designate exits in hotels, factories, subways, theatres, auditoriums and other places and which are ordinarily illuminated by electric lighting, and a sign of the present invention will be constructed to not only make use of such electric lighting but will also serve to designate the exits or the like even if the source of electric current is cut off.

The invention further contemplates the provision of sign material in sheet form having phosphorescent characteristics and which absorbs light during the daylight hours to thereby later glow in the dark and provide a well-illuminated and easily-read sign.

These and other objects are accomplished by the invention, a more particular description of which will hereinafter appear and be set forth in the claim appended hereto.

In the accompanying drawing, in which an illustrative embodiment of the invention is disclosed, Fig. 1 is a perspective view of a sign constructed in accordance with the invention; Fig. 2 is a sectional view on the line 2—2 of Fig. 1, looking in the direction of the arrows; Fig. 3 is a front view of the sign panel, and Fig. 4 is a sectional view on the line 4—4 of Fig 3, looking in the direction of the arrows.

With reference to the drawing, 1 indicates the panel which constitutes the body of the sign. The same is composed of a sheet of plastic material which contains, as a constituent, a phosphorescent material which when subjected to artificial or natural light for a relatively short period of time will absorb the light and will cause the panel to later glow in a phosphorescent manner for a lengthy period of time even in utter darkness.

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This panel is made in the form of a readable sign by having letters 5, or figures, or other reading matter, defined upon it by having the background of the panel between the letters coated with a suitable paint or other translucent or opague coating 6 in color different from the letters 5. It is obvious therefore, that when the panel is subjected to the action of light, the lettering 5 on the same will thereafter glow phosphorescently in the dark for a relatively long period after the light has been shut off. The coating 6 constituting the background for the lettering may be applied to either both sides or only one side of the panel between the lettering.

In the embodiment of the invention shown in the drawing, a panel 1 constructed as above described, is maintained in a suitable casing or box 2, said panel constituting the front of the box, and located within the box and behind the panel 1 is one or more electric lamps 3, said lamps being connected to a source of current in the conventional manner by means of the cord or wire cable 4.

When the lamps 3 are lighted the same will direct their rays through the letters 5 on panel 1 and as the letters 5 are translucent and the background is of contrasting color of either translucent or opaque nature, the light rays directed through the letters will result in a clearly-defined sign of easily readable character. The direction of the light rays against the lettering of the sign tends to subject this portion of the sign to the effects of light to thereby cause absorption of the light. As a result, when the current to the lamps 3 is cut off, either intentionally or accidentally, the letters 5 will glow brilliantly and phosphorescently even in total darkness for a rather protracted length of time. Thus, should current to the exit signs in a theatre or other place be cut off due to storm, fire or accident, a sign of the kind described will continue to be clearly visible and lead the audience to the exits in complete safety.

While a panel such as described is adapted for use in conjunction with an associated source of illumination, such a panel can be also used independently of a light source. That is to say, panels of this character bearing reading matter can be placed at any desired locations where they will absorb daylight during the day or other light from other lighting means with the result that they will continue to glow in total darkness. The advantages of such signs and the number of ways in which the same can be used will be readily apparent.

What I claim is:

A sign of the character described comprising, a panel in the form of a single sheet of plastic material containing a substance causing the panel to be light-absorptive and to phosphorescently glow in the darkness, lettering on the panel defined by a coating applied to at least one of the faces of the panel, said coating being applied to the panel between the lettering, said coating rendering the phosphorescency ineffective in those portions of the panel wherein the said coating is applied, the lettering being translucent, light-absorptive and phosphorescent, and a source of light behind the panel directing rays through the lettering to illuminate the same and cause absorption of the light, whereby the lettering will glow phosphorescently for a substantial period of time after the light is extinguished.

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