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2,000,985

LIGHT MODIFYING DEVICE

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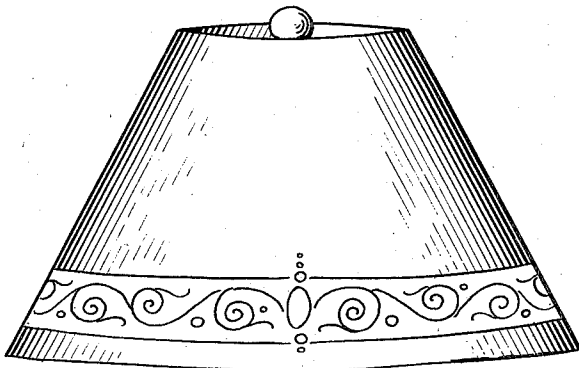


Fig. 1

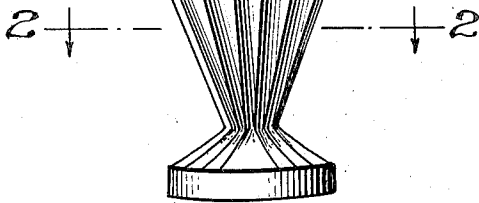


Fig. 2

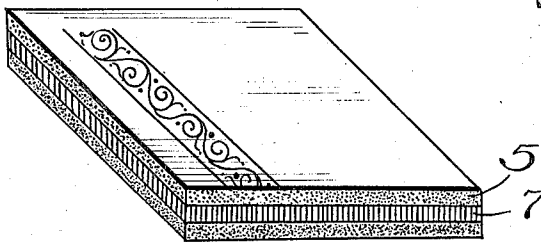
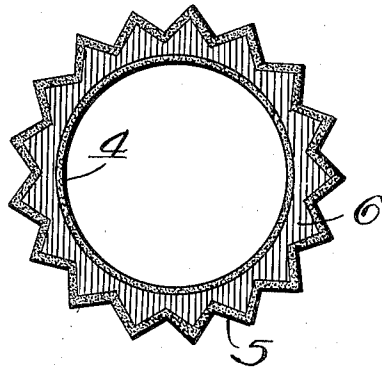


Fig. 3

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LIGHT MODIFYING DEVICE

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Application April 30, 1934, Serial No. 723,071

3 Claims. (Cl. 240—2.25)

Our present invention relates to improvements in light modifying devices for use with decorative lamps, or illuminating devices, and has special reference to the use with such lamps or illuminating devices of substances, such as calcium sulphide, or the like, which, when exposed to light, are so energized that they will continue to glow or emit a radiance some time after the light has been turned off or removed.

We are aware that such substances have heretofore been employed in connection with lamps, or illuminating devices, but, so far as we are aware, when so employed have only served to secure the resulting radiance after the lamp or illuminating device has been put out.

It has been our object to employ such substances for the purpose of modifying and altering the character of the light when the lamp is functioning, and further to so employ the luminous material as to alter the character of light or luminosity which it normally gives forth.

We have been able to accomplish our object by compounding the material, calcium sulphide, or a similarly acting substance, with a suitable carrier body, such as varnish or lacquer, and also with a pigment having color characteristics so that we are enabled to change the appearance of the light which the lamp radiates when functioning and also to change the effect or appearance which the color would have if not employed with the luminous material when the light is lit or functioning. After the light is turned off the reaction between the pigment and the luminous material is such that the character of the luminosity given off by the luminous material is different from what it would be without the pigment. In this way we have been able to produce a warmer, softer effulgence comparable with moonlight of much more pleasing effect than the ordinary luminosity secured from such substances which is generally of an unnatural and deathly quality.

The combined action of the light and the luminous material appears to effect an appreciable absorption of the light rays so as to reduce the intensity thereof and at the same time to impart some degree of opalescence thereto, and this effect is further modified by the presence of the pigment chosen. When the light is turned off the reaction of the luminous material and pigment produces a glow differing both from the color of the pigment and the ordinary glow of the effulgent material.

We have attained the foregoing objects in con-

nection with such a lamp as illustrated in the accompanying drawing, in which—

Fig. 1 is an elevation of a lamp and shade embodying our invention;

Fig. 2 is a horizontal section, to an enlarged scale, through the body of the lamp on line 2—2 of Fig. 1; and

Fig. 3 is a fragmental portion of the shade in which the thickness of the pigments and shade material proper are shown upon an exaggerated scale for clearness.

Similar reference characters refer to similar parts throughout the respective views.

While our present invention may be, and probably is, applicable to radio-active materials, we prefer to employ materials in which the persistent luminosity is generated by exposure to light because with the present state of knowledge with respect to radio-active materials there appears to be considerable possible danger in connection with their use in association with pigments.

In Figs. 2 and 3 we have shown both inside layers 4 and outside layers 5 employed with both the body 6 of the lamp and the shade material 7. The layers 4 and 5 are composed of a carrier material, such as varnish or lacquer, or the like, in which is mixed the luminous material and the pigment in such proportions as to secure a translucent, as distinguished from a transparent layer on the one hand, or an opaque layer on the other hand. The body 6 of the lamp is of glass or ceramic material of such thinness as to be either transparent or translucent, and the body 7 of the shade is of a fabric or material which also is either transparent or translucent. The same effects may generally be secured by using a single layer of luminous and colored material, which may be desirable in particular instances, but if the illumination from the lamp is intense and brilliant, both inside and outside layers may be used to advantage.

Having described our invention what we claim as new and desire to secure by Letters Patent is:

1. In combination with a lamp, a shade therefor capable of transmitting a portion of the light, said shade having a layer thereon consisting of a light transmitting body or carrier in which is mixed and held a light reflecting pigment and an element capable of being energized so as to become a light source in itself, said pigment and said element being present in said body in proportions to render said layer translucent with respect to the radiated light.

2. In combination with a lamp comprising a lamp body capable of transmitting a portion of

the light, a shade therefor, said shade and said lamp body having a layer thereon consisting of a light transmitting body or carrier in which is mixed and held a light reflecting pigment and an element capable of being energized so as to become a light source in itself, said pigment and said element being present in said body in proportions to render said layer translucent with respect to the radiated light.

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transmitting body disposed in the path of radiation from said source, said body being provided with a layer consisting of a light transmitting carrier, a light reflecting pigment and an element capable of radiating light independently of said light source, said pigment and said independent light radiating element being proportioned so as to secure the translucency of said layer.

10 3. In combination with a light source, a light

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