V. WALSH.

LIGHT DISTRIBUTER.

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1,349,241.

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Fig. 1

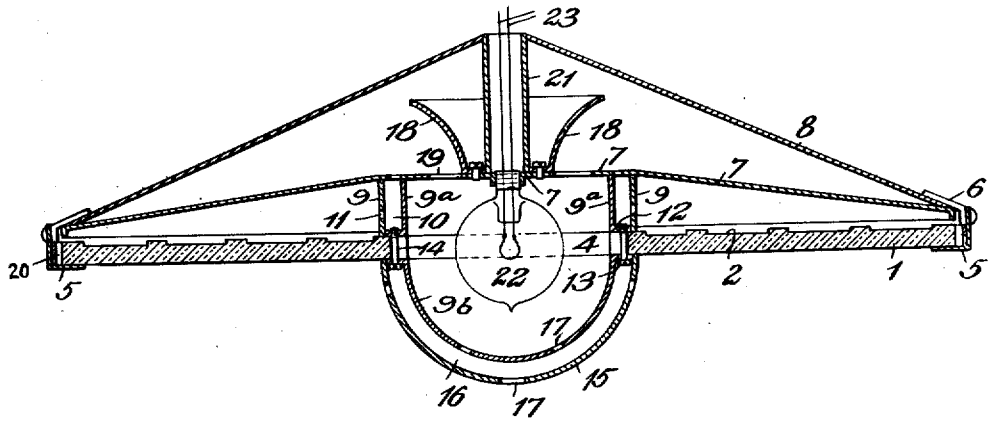
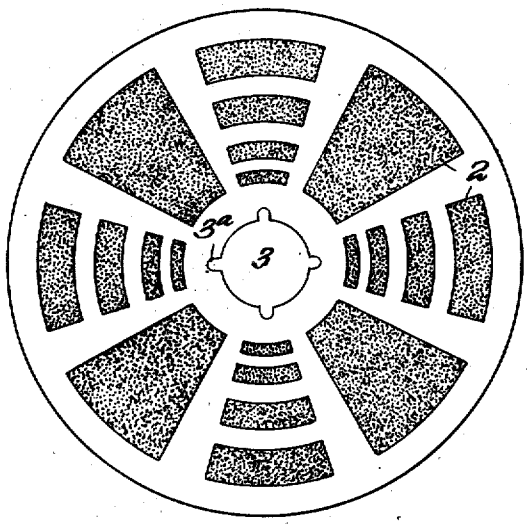


Fig. 2



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LIGHT-DISTRIBUTER.

1,349,241. Specification of Letters Patent. Patented Aug. 10, 1920.

Application filed January 4, 1919. Serial No. 269,588.

To all whom it may concern:

Be it known that I, VINCENT WALSH, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented a certain new and useful Improvement in Light Distributers, of which the following is a specification, reference being had to the accompanying drawings, which form a part of the same.

The object of my invention is to provide a device for modifying a light and to break up the rays thereof and in connection with the embodiment of my device, I have shown a certain arrangement of reflectors which are calculated to convert as much of the direct light as possible into the modified light.

Referring to the drawings:

Figure 1 is a sectional view of my device taken along the line 1—1 of Fig. 2; and

Fig. 2 is a plan view of the plate 1 shown in Fig. 1.

In the illustrated embodiment of my invention, I have provided a transparent plate 1, preferably of glass, which I have shown sand-blasted at 2. This plate is provided with an aperture or opening 3 therethrough, bordered by the inner edge 4 thereof.

The plate 1 is supported by a suitable frame, that illustrated being constituted of an annular angular ring 5, which is secured to the bracket 6 supported by the metal plate 7 and transparent plate 8. Connected to and depending from the metal plate 7 are housing sections 9, 9^a of annular shape which contain an air chamber 10 therebetween, suitable vents 11 being provided in said housing sections. The housing section 9^a is provided with a flange 12 adapted to form a bearing surface for the plate 1 when in position. A lower housing section 9^b is provided, having a flange 13 adapted to form a bearing surface for the plate 1 opposite to the bearing surface 12. Suitable bolts 14 are adapted to pass through the flanges 13 and 12 and also through the recesses 3^a of the plate 1 and thus hold the said housing, plate 1, and metal plate 7 in a unitary structure. A cap 15 is frictionally fitted over the lower housing section 9^b in such manner as to provide an air chamber 16 between the said housing and said cap, suitable vents 17 being provided to allow the escape of heat from the structure. The inside of the housing frame of sections 9^a and 9^b is preferably provided with a reflecting surface, as are also both sides of the metal plate 7. I have also provided an annular reflector 18 in line with the apertures 19 of the plate 7. 21 is a bracket secured to my device and adapted in any suitable manner to be connected to a ceiling or wall lighting outlet. In the chamber formed by the housing sections 9^a and 9^b, a lamp 22 is suspended having suitable current conduits 23 leading thereto.

It will be seen that upon the lamp 22 being lighted, rays therefrom will pass through the edges of the plate 1 and the lower reflecting surface of the plate 7 will increase the light so projected into said plate which is shed therefrom. Light from the lamp will also pass through the apertures 19 onto the reflector 18 and from said reflector to the upper reflecting surface of the plate 7 and from thence through the transparent plate 8, in this way lighting up the upper part of the room where the device is connected to a ceiling fixture and making possible different color schemes according to the color of the transparent plate used. Instead of a plate being used at 8, it is obvious of course, that other transparent material such as silk may be used. The housing sections 9, 9^a, 9^b and 15 forming the chambers 10 and 16 are preferably made of opaque material and are given suitable vents to permit the escape of heat generated by the lamp.

By the use of my device the lighting produced through the lamp 22 is projected into the plate 1 through the rim of the aperture thereof, some of the light protruding from the bottom and other light protruding from the top of said plate. The reflecting surface of the inner housing will assist this protrusion. The light protruding from the top of said plate is reflected by the reflecting surface of the under side of the frame 7, and caused to pass through the plate 1, causing a very beautiful diffused illumination. Surrounding the plate 1 I have shown a corrugated band 20 which holds the plate 1 resiliently in the ring 5.

It will be obvious to those skilled in the art that various changes may be made in the embodiment of this invention shown and described without departing from the spirit of the same. I have shown what I believe to be the best embodiment of my invention. I do not wish to be confined to the embodiment

shown, however, but what I wish to cover as my invention is set forth in the appended claims.

Claims:

1. In a light distributer, a transparent plate having an aperture through the same, an opaque housing over said aperture, a frame to support said plate and a lighting medium suitably supported and suspended in said aperture and housing, and adapted to pass rays of light into said plate through its aperture rim.

2. In a light distributer, a transparent plate having an aperture through the same, a frame to support said plate, a lighting medium suitably supported and suspended in said aperture, an opaque housing about said lighting element having suitable openings for the aperture edge of said plate and being provided with air vents therein.

3. In a light distributer, a transparent plate having an aperture through the same, a frame to support said plate, a lighting medium suitably supported and suspended in said aperture, a housing about said lighting medium having suitable openings for the aperture edge of said plate and being provided with air vents therein, a second housing placed over the first named housing, the said housings forming an air conduit therebetween, said second housing being provided with air vents.

4. In a light distributer, a transparent plate having an aperture through the same, a frame to support said plate, a lighting medium suitably supported and suspended in said aperture, an opaque housing about said lighting medium having suitable openings for the aperture edge of said plate and being provided with air vents therein, said housing also being provided with light openings, a reflector adapted to receive and project the light transmitted through said light openings, a second reflector adapted to receive and project the reflected light and a transparent screen through which the re-reflected light is passed.

5. In a light distributer, a transparent plate having an aperture through the same, a frame to support said plate, a lighting medium suitably supported and suspended in said aperture, an opaque housing about said lighting medium having suitable openings for the aperture edge of said plate and being provided with air vents therein, said housing also being provided with light openings, a reflector adapted to receive and project the light transmitted through said light openings, a second reflector adapted to receive and project the reflected light, a transparent screen through which the said re-reflected light is passed, a second housing placed over the first named housing, the said housings forming an air chamber therebetween, said second housing being provided with air vents.

6. In a light distributer, a transparent plate having an aperture through the same, a frame to support said plate, said frame being provided with reflecting surfaces on both sides, a lighting medium suitably supported and suspended in said aperture, an opaque housing about said lighting medium having suitable openings for the aperture edge of said plate and being provided with air vents therein; a second housing, the said housings forming an air conduit therebetween, said second housing being provided with air vents, said first named housing being provided with a reflector surface and also with light openings, a reflector adapted to receive and project the light transmitted through said light openings, a second reflector adapted to receive and project the reflected light, and a transparent screen through which the re-reflected light is passed.

7. In a light distributer, a transparent plate having an aperture through the same, a frame to support said plate, a lighting medium suitably supported and suspended in said aperture, and an opaque housing about said lighting medium having suitable openings for the aperture edge of said plate.

VINCENT WALSH.