Dec. 17, 1940. J. LEVY 2,225,401

ELECTRIC LIGHTED ILLUMINATING FIXTURE

Filed March 2, 1940

Fig. 1.

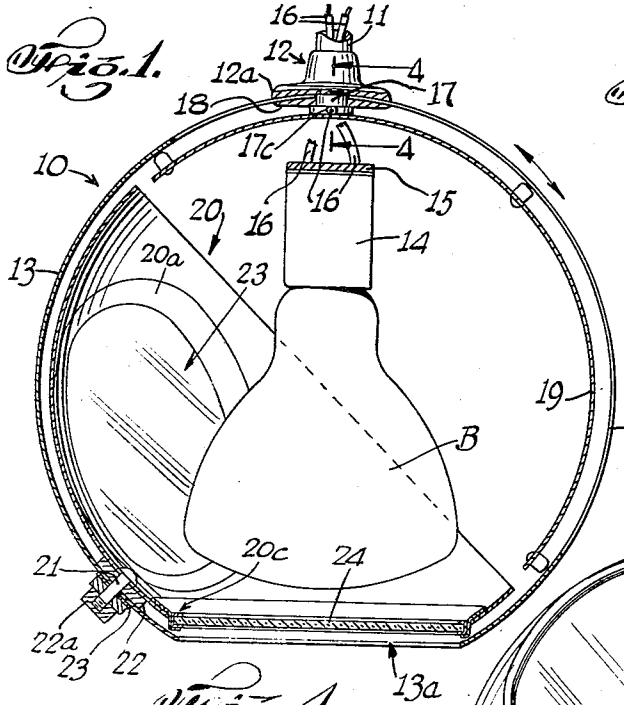


Fig. 6.

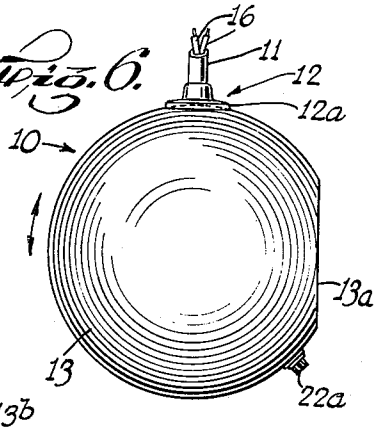


Fig. 5.

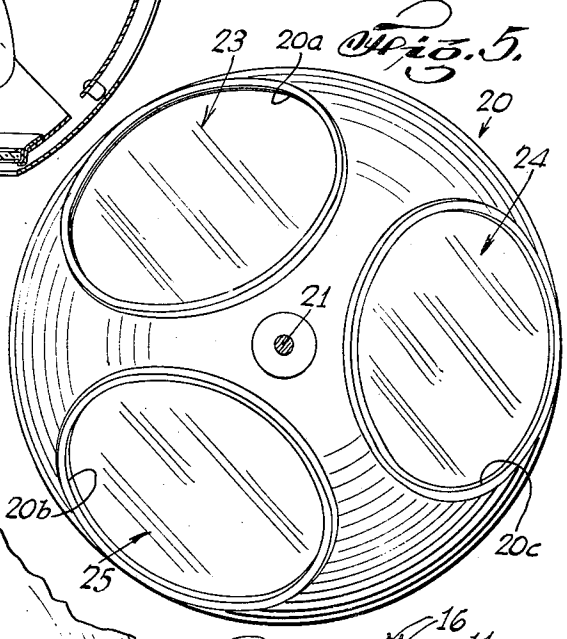


Fig. 4.

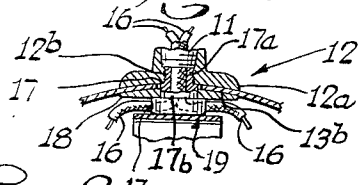


Fig. 2.

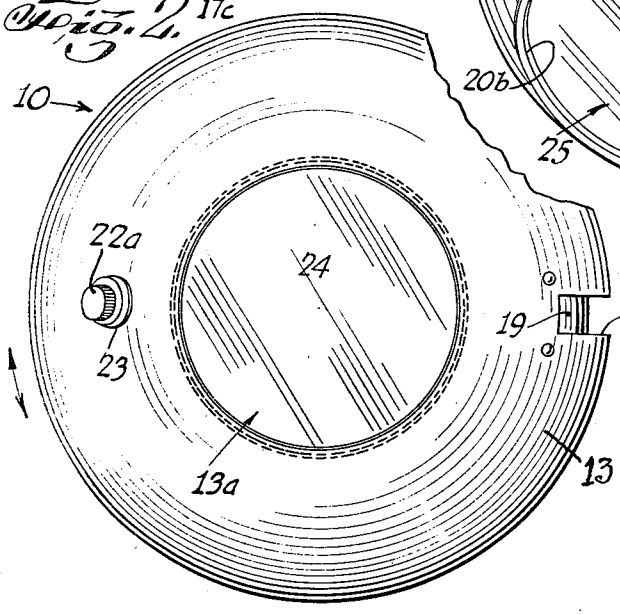
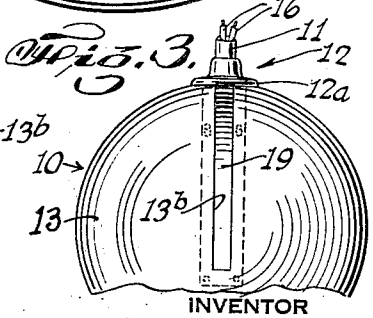


Fig. 3.



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ELECTRIC LIGHTED ILLUMINATING FIXTURE

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Application March 2, 1940, Serial No. 321,819

2 Claims. (Cl. 240—3.1)

This invention relates to the lighting fixture art and more particularly is directed to an improvement in electrically lighted illuminating fixture constructions for projecting light beams in various directions, either of a character as emitted by a source within the fixture or selectively modified in color.

Among the objects of the invention is to generally improve lighting fixture constructions of the character described, which shall comprise few and simple parts that are readily assembled and adapted to form lighting fixtures of attractive appearance, which shall be easily adjusted for projecting light beams of the same character as emitted by a light source within the fixture or as selectively modified in color and in various desired directions, which shall be inexpensive to manufacture, and which shall be practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a front elevational view, shown partially in cross-section to expose the interior structure, of an electrically lighted illuminated fixture construction embodying the invention;

Figs. 2 and 3 are fragmentary bottom and side elevational views, respectively, of the fixture construction shown in Fig. 1;

Fig. 4 is a cross-sectional view taken on line 4—4 in Fig. 1;

Fig. 5 is an exterior view of the bowl-shaped color changer removed from the fixture; and

Fig. 6 is a front elevational view of the improved fixture construction adjusted to project the light beams in a horizontal direction after being moved from the position shown in Figs. 1, 2 and 3 for projecting the light beams vertically downward.

Referring to the drawing, 10 denotes an electrically lighted illuminating fixture or unit construction embodying the invention adapted to be used for illumination in and about dwellings, show rooms, display windows and for other similar purposes, and particularly to provide selectively colored light beams in various desired directions in the manner hereinafter described.

As shown in Figs. 1, 2 and 3 the fixture or unit 10 is provided with a suitable supporting means such as a pipe or conduit 11 terminating in a swivel coupling 12, said fixture 10 being adapted to be secured through said supporting means on a ceiling or any other suitable surface such as the side walls or floor of a building (not shown) in the well understood manner. Through the swivel coupling 12, a housing, which preferably may be in the form of a spherical or globular shell casing 13, is carried. The swivel coupling 12 serves to permit adjusting for universal movement the direction of light beams projected from the fixture by means of the construction as is hereinafter described.

Said casing 13 which encloses a light source, as for example an electric incandescent bulb B has an opening 13a through which the light beams are projected from said bulb B, the latter being demountably secured in a socket receptacle 14 of any conventional construction. Said socket receptacle 14 may be rigidly secured to the casing 13 through a suitable strap or fitting 15, and is connected in electric circuit with a suitable power source (not shown) by means of conductor wires 16 which pass through the swivel coupling 12 and the conduit 11 for lighting the bulb B in the well understood manner.

The swivel coupling 12 as seen from Figs. 1 and 4 has an exterior flange member 12a which is fixedly secured to the end of the conduit 11, said flange member 12a being centrally bored to permit passage of the conductor wires 16 and being threaded at 12b to receive the screw end 17a of a hollow shouldered fitting 17. The shoulder portion 17b of said fitting 17 clampingly retains a shell portion 13b of the casing 13 between a collar or washer 18 seated on said shouldered portion 17b and the flange member 12a as shown in Fig. 4. The hollow shouldered fitting 17 is provided with suitable side openings 17c to permit the passage of the conductor wires 16 to the socket receptacle 14, as shown in Figs. 1 and 4.

The above described clamping action permits adjustment horizontally by rotation of the casing 13 between the flange member 12a and the collar 18 of 360 degrees, that is, the directions indicated by the double arrow in Fig. 2. In order that the casing 13 may be rotated vertically with respect to the coupling 12, that is, in the directions indicated by the double arrows in Figs. 1 and 6, the casing 13 is slotted as at 13b. Said slot 13b may if desired extend in length substantially 180 degrees and is of sufficient width to

serve as a slideway for permitting the fitting 17 to be adjusted and frictionally retained in any desired position therealong. Thus by providing the two adjustments in horizontal and vertical directions, the casing opening 13a may be readily located to project the light beams in various desired angular directions and has a universal movement in this respect.

A suitable light shield 19 extends the entire length of the slot or slideway 13b within the casing 13 at a spaced distance from said slideway 13b so as not to interfere with the adjustment of the casing 13 with respect to the coupling 12 and fitting 17, to prevent leakage of light from said slot 13b as shown in Figs. 1, 2 and 3.

Mounted for rotation within the casings 13 and occupying a substantial concentric position with respect thereto, a bowl-shaped or hollow hemispherical color changer 20 is provided, said changer 20 being centrally pivoted to turn with a shaft member 21, as shown in Fig. 1.

The shaft member 21 is radially disposed and passes through the casing 13 adjacent the opening 13a and is journaled in a bearing formed of a block 22 positioned between the changer 20 and the interior wall of the casing 13 and washer 23 positioned against the outer wall of the casing 13. The outer or free end of the shaft member 21 may be terminated by a knurled knob 22a by means of which the color changer 20 may be rotated within the casing 13. Carried by the color changer are a plurality of color screen holders 20a, 20b and 20c, three in the construction here shown. Each holder carries a screen which preferably is made the same size and shape as casing opening 13a and as shown in Figs. 1, 2 and 5. One of these screens 23 may be of plain uncolored glass so that when in register with casing opening 13a the projected light passing therethrough from the bulb B remains unmodified. The other screens 24 and 25 may be of any desired colored glass as, for example, amber and red, respectively.

The practice of the invention is now apparent. After constructing the fixture 10 of the assembled parts described above and shown in Figs. 1 to 5 in the drawing, and connecting the conductor wires 16 to a suitable power source (not shown) in the well understood manner, the bulb B will emit light beams downward, passing successively through the screen 23 and casing opening 13a. Since screen 23 is of uncolored glass, the light beams emitted will be unmodified. To change the direction of the projected light beam, the casing 13 may be slidably adjusted vertically along the slideway 13b as, for example, to the position shown in Fig. 6, and in addition may be rotated horizontally, thus providing a universal movement adjustment for the light beams projected through the casing opening 13a.

The slideway 13b and shield 19 although light-proof are nevertheless constructed and arranged to permit the passage of air therethrough, thus serving as a ventilating means for circulating the heated air generated by the bulb B in the casing 13.

When it is desired to change the color of said light beams while being projected in any adjusted direction, the knob 22 is simply turned for rotating the bowl color changer until one of the other screens 24 or 25 registers with the casing opening 13a. The projected light will then be modified in color corresponding to the screen effective at said casing opening 13a.

It will thus be seen that there is provided a lighting fixture in which the several objects of this invention are achieved and which are well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

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

1. In a lighting fixture construction of the character described, an electric light source, a casing for said source comprising a spherical housing portion having an opening through which light rays from said source are projected, swivelling means spaced from said opening whereby the housing may be rotatably mounted from a relatively rigid support, radially adjustable means whereby the housing may be positioned with respect to the swivelling means to selectively direct the projected light rays from said opening in various angular directions, a hemispherical shell mounted within the housing, the plane of the periphery of the shell being located at an acute angle with respect to an axis of the housing portion passing through said swivelling means, a plurality of spaced light ray coloring screens carried by said shell and located with one of said screens in an effective position covering said opening, and means extending through the exterior of the housing portion adjacent said opening and spaced from said swivelling means whereby the shell with the screens may be turned to selectively move each of said screens from an ineffective position to said effective position with respect to the opening.

2. In the fixture construction defined in claim 1 in which said radially adjustable means includes a slot provided in said housing portion, said slot extending at a spaced distance from said opening into which a portion of the swivelling means is extended, and shielding means fixedly secured within the housing portion for preventing leakage of light beams through said slot.

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