

Feb. 18, 1930.

W. E. PRICE

1,747,556

DECORATIVE LIGHTING

Filed Sept. 12, 1925

2 Sheets-Sheet 1

Fig. 1

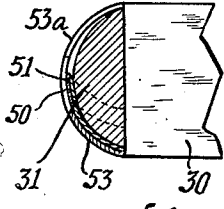
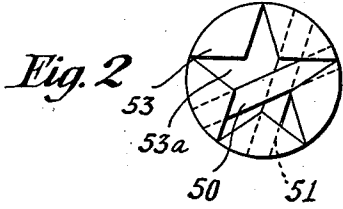
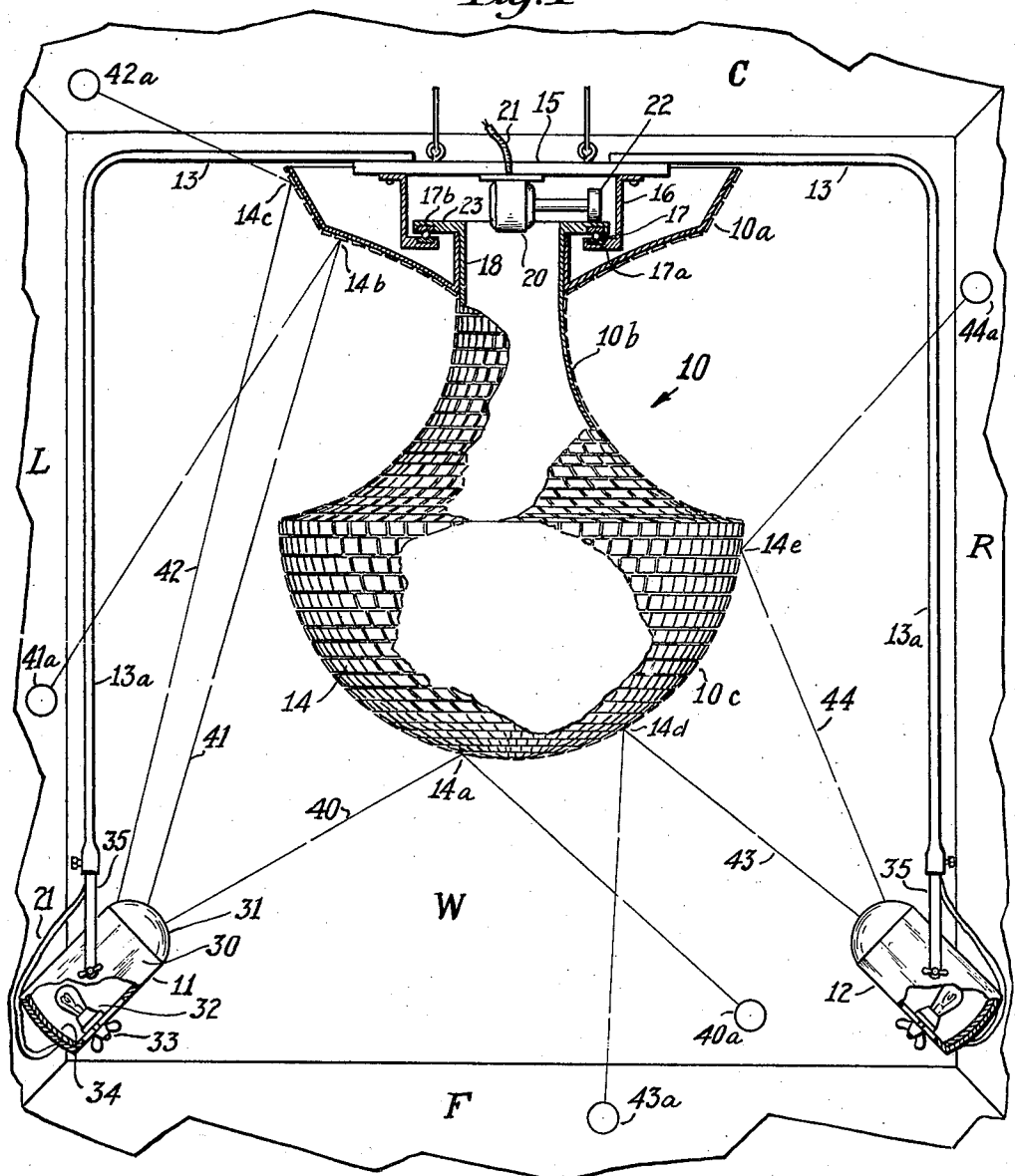


Fig. 3

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2 Sheets-Sheet 2

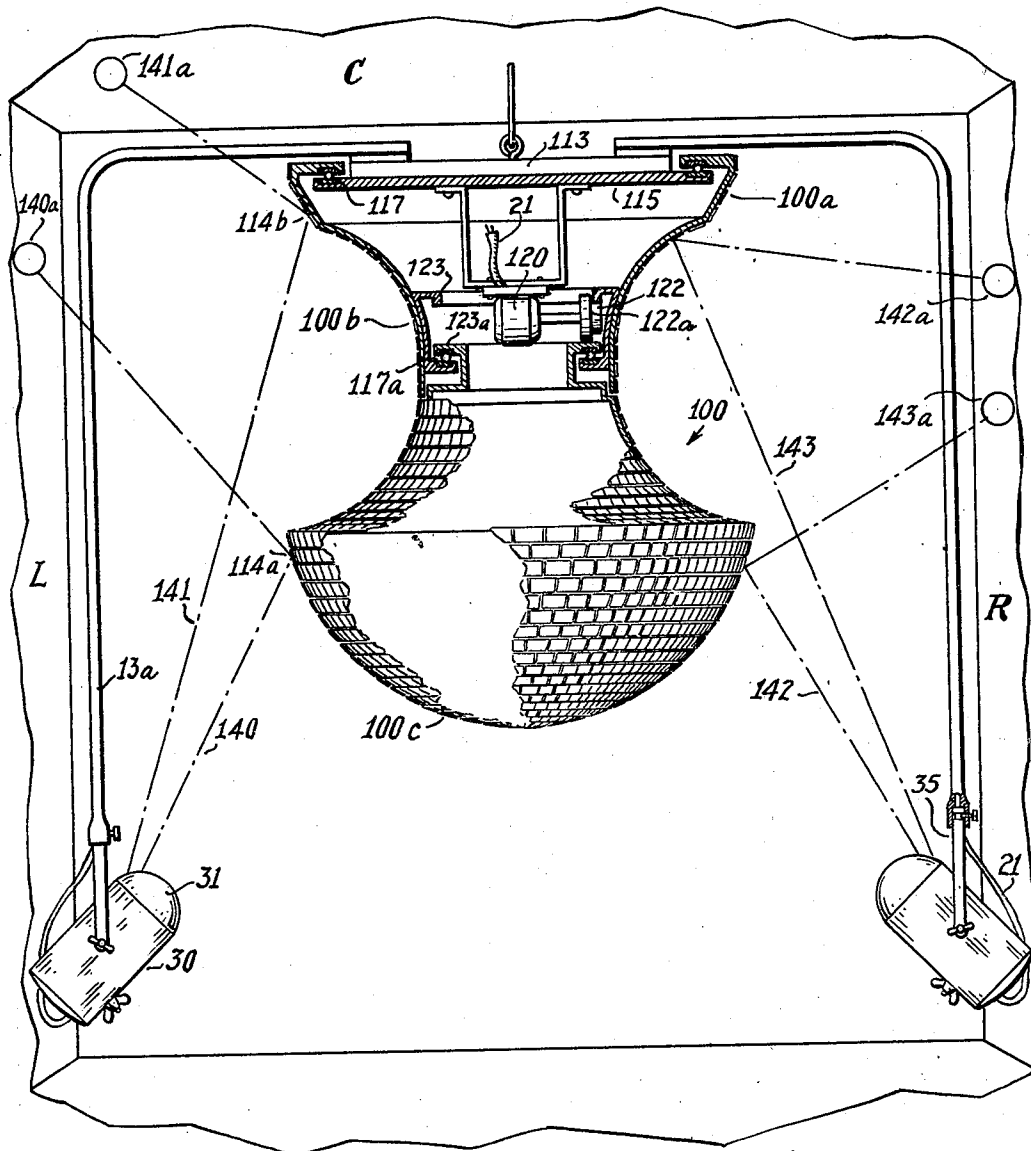


Fig. 4

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DECORATIVE LIGHTING

Application filed September 12, 1925. Serial No. 55,916.

This invention relates to decorative lighting. The object of the invention is the provision of a method and apparatus for producing novel lighting effects, adapted for theatres, ball rooms, display and other like purposes, and which include the production of a plurality of artistic moving images, spaced through the exhibition room and moving across the same along the ceiling, walls and floor thereof.

A further object of the invention is the provision of a method and apparatus of the character described, said apparatus comprising few and simple parts which operate easily by the improved method to produce a desired novel lighting effect, said apparatus being relatively cheap to construct, and practical and efficient to a high degree for the purposes described.

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, combinations 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 view showing the improved arrangement of the apparatus for producing the novel lighting effects embodying the invention, parts being broken away to show the interior construction. The path of several projected beams of light and their corresponding reflected images are shown diagrammatically;

Figs. 2 and 3 are fragmentary front and side elevational views respectively of the lens portion of a projecting lantern, arranged to produce a multi-colored, star-shaped design element, adapted to form the moving image, when projected on the reflecting chandelier; and

Fig. 4 is a view showing a modified form of the invention for producing images moving in opposite directions.

Referring in detail to the drawing, the apparatus for producing the lighting effects embodying the invention, is seen to comprise a reflecting chandelier or crystal shower 10, adapted to revolve about a vertical axis, and one or more spaced, light-projecting lanterns 11, 12, suitably supported in relatively fixed positions with respect to the chandelier.

To form a unitary structure of the apparatus, said lanterns and chandelier may be mounted on a suitably constructed supporting frame 13, as shown in Fig. 1.

The chandelier 10 may be of any desired artistic shape, such as a ball, semi-spherical, or, as shown in Fig. 1, may comprise a canopy portion 10^a, a neck 10^b depending therefrom, and a bulbous end portion 10^c, the outer surface of said chandelier portions being provided with image reflecting members or mirrors 14, artistically arranged, as, for example, in a plurality of rows.

For revolubly mounting the chandelier 10, there is provided suitable means, such as a base 15, firmly secured to the frame 13, and having a hanger member 16 adapted to carry the lower raceway portion 17^a of a horizontally disposed ball bearing 17, the chandelier 10 being supported from the upper raceway portion 17^b of said bearing by suspension means 18, suitably secured to the body of the chandelier.

A motor 20, connected to a suitable electric supply source (not shown), is mounted on the base 15 and is adapted, through suitable power transmitting means, such as a friction drive comprising a pulley 22 and disc 23, for rotating the chandelier, the pulley 22 being driven by the motor, and the disc 23 secured to the suspension means 18.

From the above description and the drawing, it is apparent that the motor 20, when in operation, may be made to revolve the chandelier 10 on the bearing 17 at any desired speed. It is to be understood that suitable speed reducing means, when required, may be incorporated into the said power transmitting means for the chandelier drive.

The lanterns 11, 12, may be of any suitable construction and, as seen from Figs. 1 and 4, each comprises a casing 30, having a front

opening normally closed by a lens 31. For the purposes herein described, a single, relatively thick, plano-convex lens will be found to give satisfactory results. Said casing has mounted therein a suitable light source, preferably in the form of an electric lamp 32, connected to the conductor wires 21, said lamp being preferably provided with adjustable means 33 for spacing the lamp 32 with respect to the lens to focus the projected light rays, and a reflector 34, positioned in the rear end of the casing for directing the light rays to the lens in the manner well understood.

Each lantern is mounted on a yoke 35, swivelly fastened to a depending arm 13^a of the frame 13 and pivotally secured to the casing 30 to permit directing the light to any of the portions of the chandelier.

To produce the novel lighting effects with the apparatus, the light rays projected from the lens of the lanterns 11; 12, are adjusted to impinge upon the mirrors 14, then the lamps 32 are focused to project scattered, definitely shaped, or partially aberrated reflected images in the form of round spots, simulating a toy balloon, on the surrounding surfaces of the room in which the apparatus is installed, as, for example, the side walls R, L, the front wall W, the floor F, and the ceiling C, and next setting the motor in motion to revolve the chandelier, thus giving motion to the said reflected images, due to the movement of the mirrors.

In Fig. 1 there is illustrated, diagrammatically, the path of a few of the projected and reflected images from the lanterns. The rays of light 40, 41 and 42 from the lantern 11 impinge on the mirrors 14^a on the end portion 10^c, and the mirrors 14^b and 14^c on the canopy portion 10^a of the chandelier respectively, and are reflected by said mirrors to show round spots 40^a, 41^a, 42^a respectively, on the front wall W, side wall L, and ceiling C respectively. Likewise, the rays of light 43 and 44 from the lantern 12 impinge on the mirrors 14^d and 14^e to show as spots 43^a and 44^a respectively on the front wall W and side wall R, respectively.

The reflected images are preferably given a variety of harmonious colors by interposing a suitable color screen in the path of the projected light rays (not shown) or by providing a plurality of colored stripes of transparent material 50 and 51 over each of the lenses to form multicolored images.

To produce various shaped images, there may be provided over the lenses a suitable mask 53, having an opening 53^a corresponding to the desired shaped image. In Figs. 2 and 3 is shown a mask adapted to produce multicolored, star-shaped images.

A modified form of the apparatus embodying the invention is shown in Fig. 4. Here the light reflecting chandelier 100 is made in two portions, the upper portion comprising

the canopy 100^a, an integrally depending neck 100^b, and the lower portion forming the bulbous end 100^c. The upper portion is revolvably mounted on a ball bearing 117, supported on a base 115 fixed to the frame 113, and the lower portion of the chandelier is revolvably mounted on a ball bearing 117^a supported by said upper portion.

A motor 120 secured to the base 115 drives friction pulley 122 which engages with discs 123 and 123^a, the disc 123 being secured to move with the upper chandelier portion and the disc 123^a with the lower portion thereof, and the driving pulley 122 being adapted to revolve the upper and lower portions of the chandelier in opposite directions.

From the above description and Fig. 4, it is apparent that the projected light rays 140 and 141 from the lantern 30, after being reflected from the mirrors 114^a and 114^b on the lower and upper chandelier portions, respectively, to form images 140^a and 141^a on the ceiling C, moving in opposite directions when the upper and lower chandelier portions are rotated by the motor. Similarly the projected light rays 142 and 143 will produce oppositely moving images 142^a and 143^a respectively on the side wall R.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved and which is 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 combination, a reflector comprising a plurality of mating sections, a light source exterior of said reflector and cooperating therewith, and means for revolving said sections simultaneously in a plurality of directions.

2. In a decorative lighting outfit of the character described, the combination with a two part reflector said parts having oppositely curved surfaces and a light source exterior of said reflector and cooperating therewith, of means for simultaneously moving said parts of the reflector in opposite directions.

3. In a decorative lighting outfit of the character described, the combination with an annular reflector comprising a plurality of mating sections and a light source exterior of said reflector cooperating with said reflector, of a single means mounted within said reflector for simultaneously moving said sections in different directions.

4. In a decorative lighting outfit of the character described, the combination of a revolving reflector and a support therefor, said reflector comprising a plurality of sections being inter-connected for relative rotation, and means suspended from said support for revolving said sections in opposite directions.

5. In a decorative lighting outfit in combination with a reflector and a light source cooperating therewith, means housed within said reflector for supporting the latter, and means suspended from said supporting means for revolving said reflector.

6. In a decorative lighting outfit of the character described, a two part reflector, and a light source cooperating therewith, the parts of said reflector being provided with spaced circular flanges and means extending between said flanges for moving said parts in opposite directions.

7. In a decorative lighting outfit, in combination with a reflector, means housed within said reflector for supporting the latter, and means suspended from said supporting means for revolving said reflector.

8. In a decorative lighting outfit of the character described, a two part reflector, the parts of said reflector being provided with spaced circular flanges, and means extending between said flanges for moving said parts in opposite directions.

In testimony whereof I affix my signature.

WILLIAM E. PRICE.

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