Aug. 18, 1942. D. WOLFSON 2,293,185

ILLUMINATED DISPLAY DEVICE

Filed Aug. 1, 1940

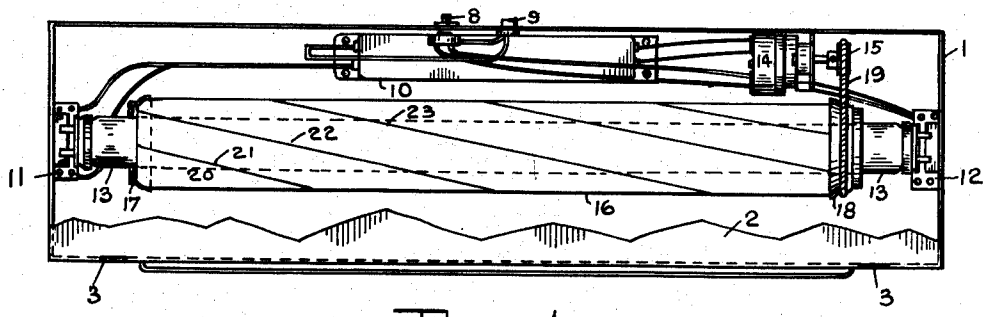


Fig-1

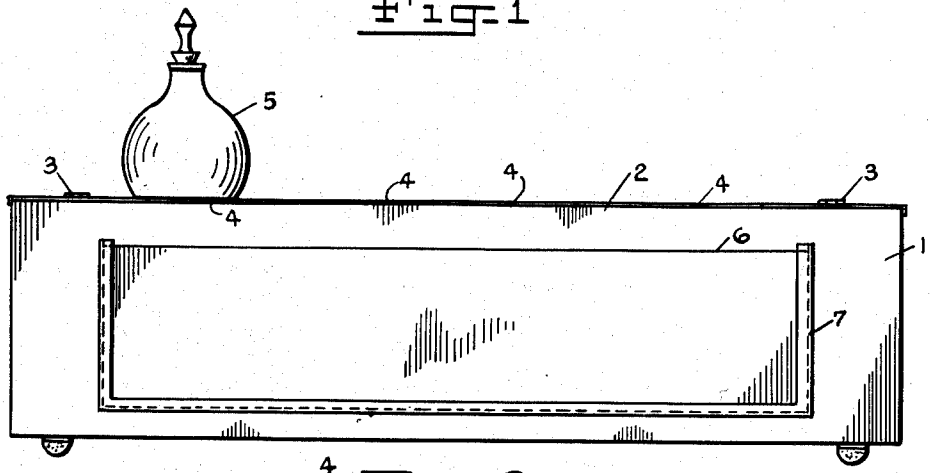


Fig-2

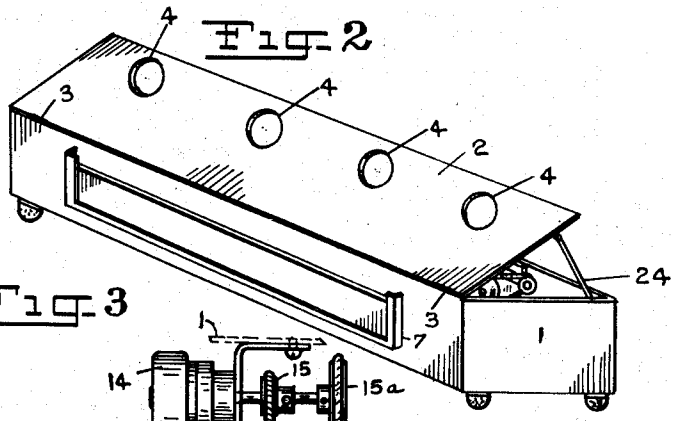


Fig-3

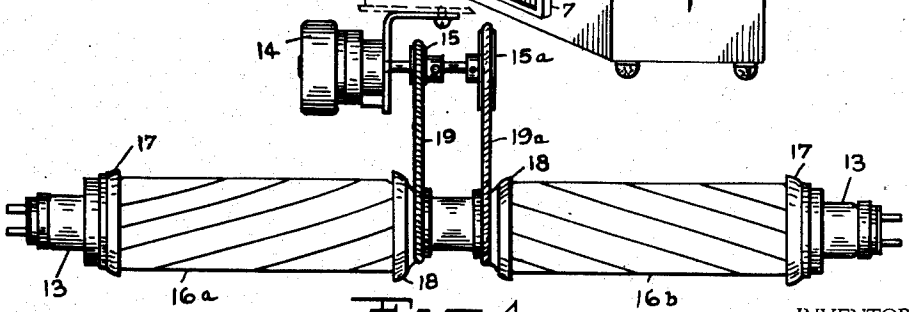


Fig-4

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UNITED STATES PATENT OFFICE

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ILLUMINATED DISPLAY DEVICE

David Wolfson, Far Rockaway, N. Y.

Application August 1, 1940, Serial No. 349,070

5 Claims. (Cl. 240—10.1)

The improvements relate to a display apparatus for producing varying colors and shades of colors upon any type of merchandise or other articles that it is desired to show to the public.

Heretofore cumbersome mechanism has been employed to give color blending effect to merchandise on display, involving sets of lights, gears, bearings, and fans for cooling the lights when they are restricted by being enclosed in a box or projector. The present invention, however, solves these problems by utilizing a minimum of equipment and producing a maximum of efficiency and color variation.

Referring to the drawing,

Fig. 1 is a plan view of a display apparatus with the cover removed, embodying the improvements;

Fig. 2 is a front elevation of the display box showing merchandise in place for lighting;

Fig. 3 is a perspective of an alternate method of using the display apparatus; and

Fig. 4 is a plan of a modification showing the lighting and drive mechanism.

1 is the box or housing within which the mechanism operates. 2 is the top of the box which is hinged at 3 and has openings 4 to allow the light to shine through on the merchandise 5 placed above the holes 4. The front of the box has a rectangular opening 6 which has affixed on three sides an angle strip 7 into which may be dropped any type of partially translucent material containing advertising or other reading matter. Run through the box 1 at the rear is an electric switch 8 and an electrical inlet 9. Positioned within the box are a transformer 10, electrical plug contacts 11 and 12, a cold lighting element 13, which runs the length of the box from the plug 11 to the plug 12. It will be here noted that a change of lighting elements may be quickly accomplished by merely lifting the lighting element 13 from the sockets 11 and 12 and inserting a new one in its place, as the sockets 11 and 12 are open at the top.

At the rear of the box 1 and at one end is located a small geared motor 14 with a pulley 15 on its shaft. Journaled on the lighting element 13 and using it as a bearing is the cylinder 16 which has at its ends metal collars 17 and 18 fitting loosely around the lighting element allowing free and easy rotation of the cylinder 16 thereon. The collar 18 is grooved at its inner end to receive the elastic pulley belt 19 which passes around 18 and around the motor pulley 15. The cylinder 16 is made of transparent or translucent material and has impressed or painted on it vari-colored strips 20, 21, 22 and 23 which are formed in spirals.

The operation of the display device is as follows:

The switch 8 is thrown, this lights up the element 13 and starts the motor 14. Through the pulley wheel 15 and pulley belt 19 passing over the grooved collar 18 the colored cylinder 16 is slowly revolved, the merchandise to be displayed having been previously set or being now set over the holes of the hinged top 2. The light therefore passes from the lighting element 13 through the cylinder 16 and out through the holes 4 and is cast upon the merchandise. Due to the spiraling of the different strips of color 20, 21, 22 and 23 on the cylinder 16 one end of the box 1 will be showing one color while the other end shows a different color and all in between the two will be a blend of colors which are slowly changing.

Fig. 3 shows the hinged lid 2 lifted slightly and held in place by the brace 24 so that the light is reflected from the bottom of the lid 2 directly onto merchandise placed behind the box. In this use the openings of the cover may be closed in a suitable manner.

In Fig. 4 we see a modification in which the cylinder has been divided into two sections 16*a* and 16*b* and to the pulley wheel 15 has been added a pulley wheel 15*a* of a greater diameter together with an additional pulley belt 19*a*. The purpose of this is to produce blends of color which vary infinitely the same hues and shades obtainable thereby being varied as the cylinders 16 and 16*a* will not rotate at the same speed due to the different diameters of the pulleys 15 and 15*a*.

What I claim is:

1. In a lighting display device of the type described, a translucent cylinder and means for rotating the same, tubular means for producing light, said tubular means being within said cylinder and said cylinder being rotatably supported thereon, and means for directing light through said cylinder and on articles to be displayed, said illuminating tube projecting beyond the ends of said cylinder.

2. In a lighting display device of the type described, a translucent cylinder and means for rotating the same, tubular means for producing light, said tubular means being within said cylinder and said cylinder being rotatably supported thereon, and means for directing light through said cylinder and on articles to be displayed, said illuminating tube projecting beyond

the ends of said cylinder said cylinder having direct bearing thereon.

3. In a lighting display device of the type described, a translucent cylinder and means for rotating the same, tubular means for producing light, said tubular means being within said cylinder and said cylinder being rotatably supported thereon, and means for directing light through said cylinder and on articles to be displayed, said illuminating tube projecting beyond the ends of said cylinder and projecting light beyond the ends thereof.

4. In a device of the character described an attenuated illuminating tube providing a source of light, a plurality of light transmitting cylinders journaled thereon and means for rotating said cylinders at different speeds, said cylinders having vari-colored spirate translucent strips thereon.

5. In a device of the character described an attenuated illuminating tube providing a source of light, a plurality of light transmitting cylinders journaled thereon and means for rotating said cylinders at different speeds from a common source of power, said cylinders having colored translucent zones thereon.

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