May 14, 1940. F. ILLO 2,201,093

ILLUMINATING DEVICE

Filed March 24, 1939 2 Sheets-Sheet 1

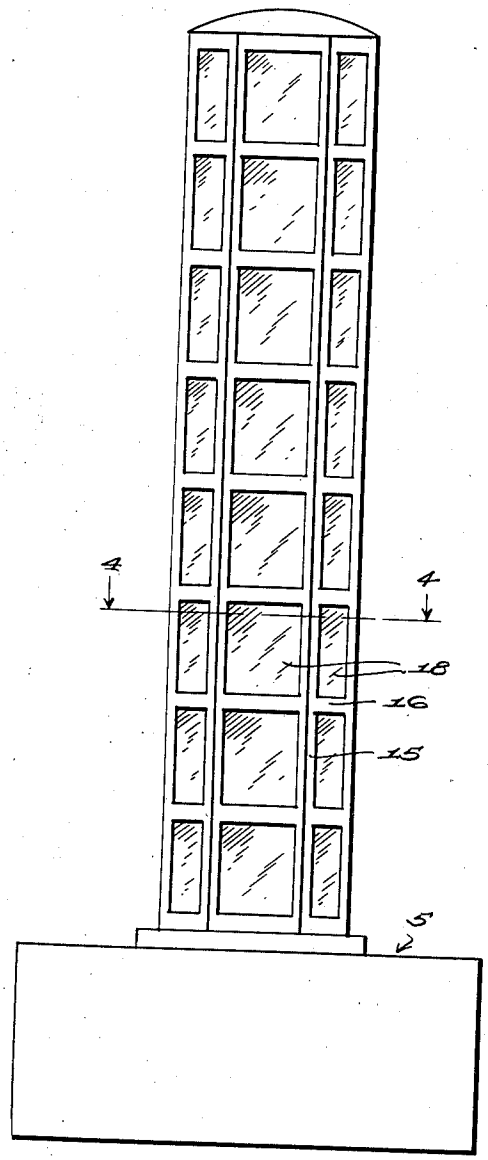

FIG. 1.

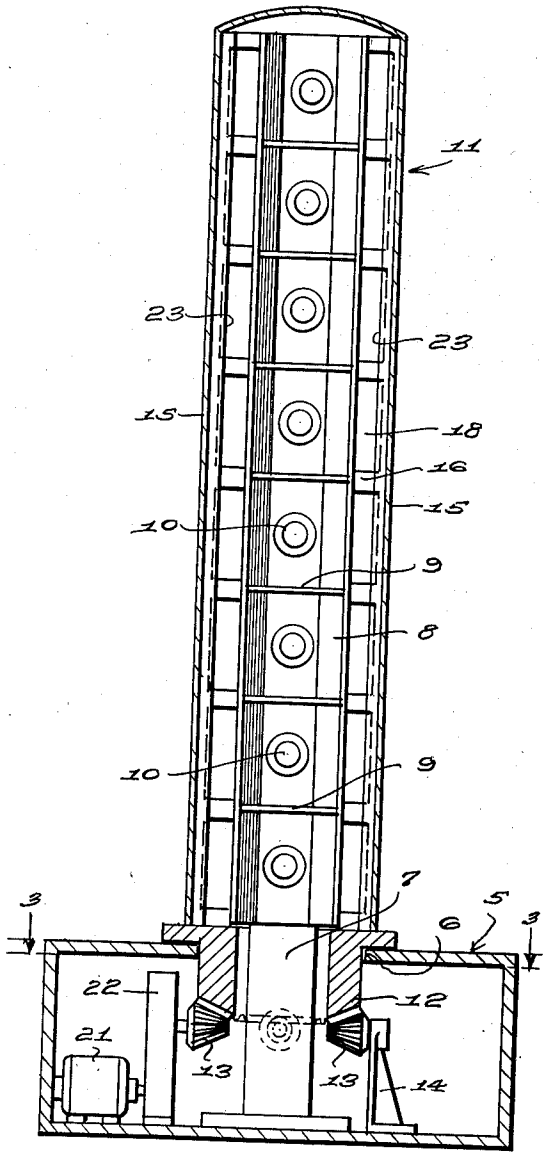

FIG. 2.

Inventor

FRANK ILLO,

By Clarence A. O'Brien and Hyman Berman

Attorneys

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Filed March 24, 1939 2 Sheets-Sheet 2

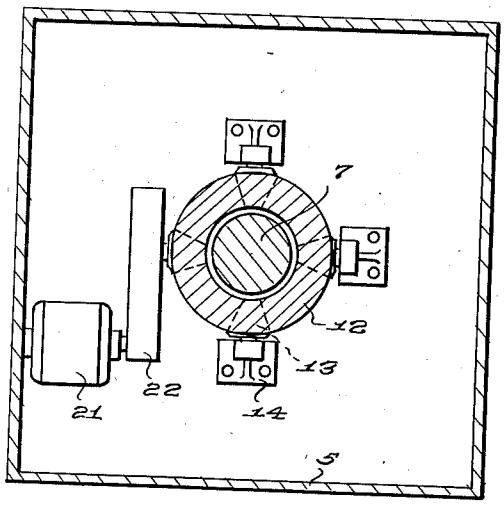

FIG. 3.

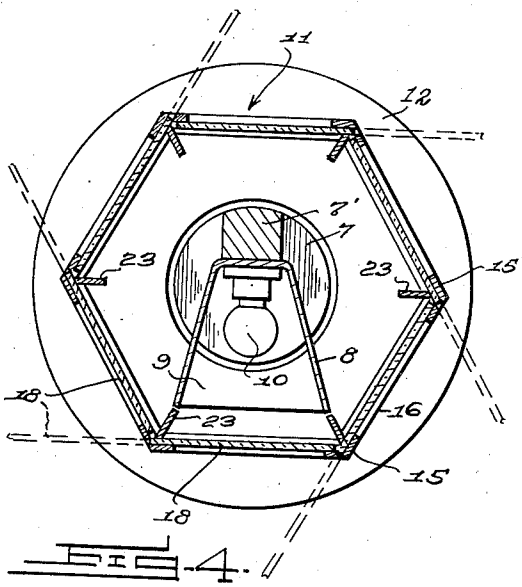

FIG. 4.

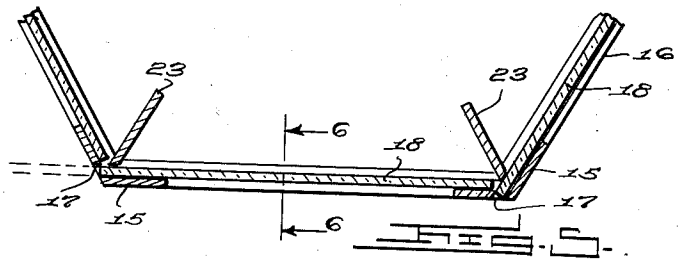

FIG. 5.

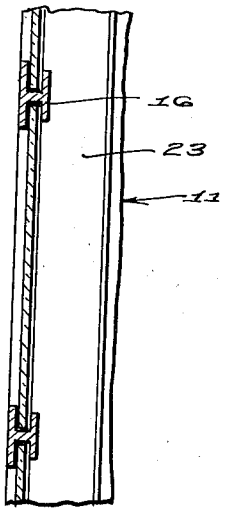

FIG. 6.

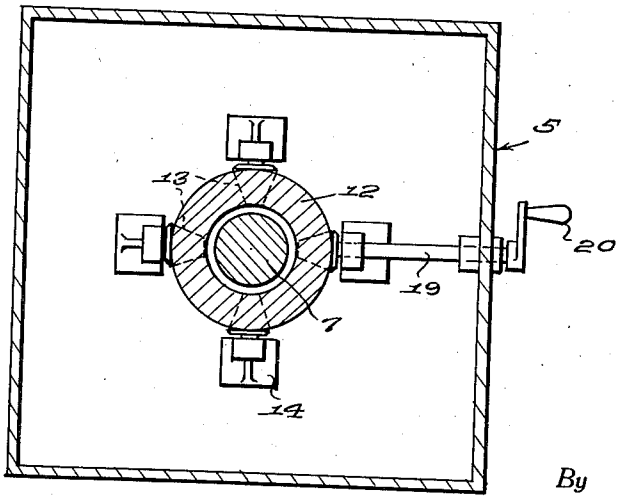

FIG. 7.

Inventor

FRANK ILLO,

By Clarence A. O'Brien and Hyman Berman

Attorneys

Patented May 14, 1940 2,201,093

UNITED STATES PATENT OFFICE

2,201,093

ILLUMINATING DEVICE

Frank Illo, New York, N. Y., assignor to Frank Illo, Jr., New York, N. Y.

Application March 24, 1939, Serial No. 263,991

2 Claims. (Cl. 240—10.1)

This invention relates to an illuminating device, and has for the primary object the provision of a device of this character which will simplify producing colored illumination wherein a plurality of different colored illuminations and the blending of colors may be easily had, thereby providing a device especially useful for stage illumination or for the illumination of show windows and similar places wherein it is desired to have a changing color illumination.

With these and other objects in view, the invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a side elevation illustrating an illuminating device constructed in accordance with my invention.

Figure 2 is a vertical sectional view illustrating the device.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a sectional view taken on the line 4—4 of Figure 1.

Figure 5 is an enlarged fragmentary transverse sectional view showing the means of removably mounting the colored panels in the device.

Figure 6 is a sectional view taken on the line 6—6 of Figure 5.

Figure 7 is a longitudinal sectional view showing a hand operated machanism for the device.

Referring in detail to the drawings, the numeral 5 indicates a base or pedestal in the form of a casing in which is provided a centrally arranged opening 6 to permit a vertically arranged post 7 to enter the casing and rest on the bottom wall thereof. Suitable fastening means may be provided between the casing and the lower end of the post. The post 7 has a reduced upper portion 7' on which the reflector is mounted and is eccentrically located to the vertical axis of the lower portion of said post.

The post supports an elongated vertically arranged reflector 8 provided with a series of spaced partitions 9 to form electric lamp compartments. Electric lamps 10 are mounted in the compartments and arranged in vertical alignment. The electric lamps are connected in any well known manner to an electric source so that said lamps may be simultaneously illuminated.

A drum 11 surrounds the post and its lower end is in the form of a ring gear 12 meshing with pinions 13 journaled on brackets 14 located within the casing. The major portion of the drum 11 is of skeleton formation to provide a series of rows of vertically arranged windows or openings. The drum 11 may be of six-sided formation as shown in Figure 4 or may have any other number of sides thereto. The rows of windows or openings are arranged in the sides. The drum 11 being of skeleton formation includes vertically and horizontally arranged strips 15 and 16. The strips 16 are provided with guide grooves while the strips 15 have slots 17. The slots 17 permit the insertion and removal of colored panels 18 in the guide grooves so that the openings or windows will be closed thereby. The panels being removable permits panels of different colors to be assembled in the rows of windows or if desired one row may have in the windows thereof panels of a certain color while the other rows of windows may have panels of different colors, that is, each row of windows will be provided with panels of one color. For instance, one row of windows may be of a red color, another row of windows an orange color and another row of windows of a blue color and so on, or, as before stated, certain rows may have panels of different colors which when illuminated will produce a blended color.

The drum 11 may be readily rotated to bring any selected row of colored panels in front of the electric lamps. The rotation of the drum may be accomplished manually by employing an extension 19 to one of the shafts of the gear 13 and the extending thereof through a wall of the casing to have applied thereto a crank handle 20. If it is desired to drive the drum 11 by power means, an electric motor 21 may be located in the casing and is connected to one of the gears 13 by a reduction gear mechanism indicated generally by the character 22 so that the drum will rotate approximately once to each six revolutions of the motor 21. When the device is employed for illuminating show windows it is preferable that it be driven by the electric motor. However, when the device is used for the illumination of stages it is preferable that the device be operated manually through the use of the crank handle 20. The device when used for stage illumination permits the illuminating color effects to be changed rapidly and at will with all of the illuminating lamps mounted within a single unit heretofore accomplished only through the employment of a plurality of spotlight devices, each of which must be adjusted and equipped with the proper colored panel.

With the present invention the colored panels

can be rearranged and varied as to location on the drum in a comparatively short period of time.

The vertical strips 15 of the drum have secured to their inner faces strips 23 which are adapted to move opposite the edges of the reflector to prevent the light rays from the electric lamp from shining through the rows of colored panels adjacent to the row of colored panels arranged directly in front of the electric lamps. However, through the arrangement of the present invention the drum may be rotated so that portions of the colored panels of two rows may be partially in front of the electric lamps so as to be illuminated thereby, thus increasing the range of varying colored illumination that may be obtained through the use of this device.

It is believed that the foregoing description, when taken in connection with the drawings will fully set forth the construction and advantages of this invention to those skilled in the art to which such a device relates, so that further detailed description will not be required.

What is claimed is:

1. In a device of the class described, a pedestal, a vertically arranged post supported by said pedestal, an elongated reflector mounted on said post and including a plurality of vertically arranged lamp compartments, electric lamps in said compartments, a drum surrounding said post and including a gear portion, pinions carried by the pedestal and engaging the gear portion of the drum for rotatably supporting the latter, means connected to one of said gears for the rotation of the drum, said drum including angularly related sides and each side including a plurality of vertically arranged windows adapted to match the lamp compartments during the rotation of the drum, said drum in the window-forming frames of the sides thereof being provided with grooves and slots to permit the insertion of colored light transmitting panels in the windows.

2. In a device of the class described, a vertical post, a reflector paralleling said post and carried thereby, illuminating means in the reflector, a drum enclosing the reflector and a portion of the post and including vertically and horizontally arranged strips forming vertical rows of windows, said horizontal strips having guide grooves to slidably receive colored light transmitting panels for closing the windows, said vertical strips having slots to permit the panels to enter and leave the grooves, and means for supporting and rotating said drum.

FRANK ILLO.