June 20, 1933. W. A. FREELAND 1,914,562

ADVERTISING DEVICE

Filed May 8, 1930

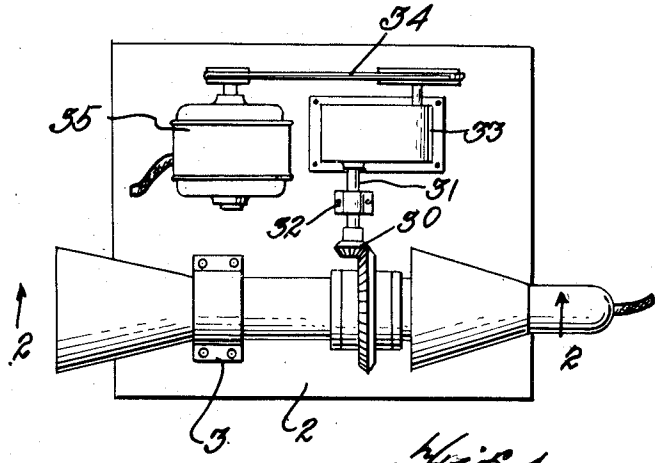

Fig. 1

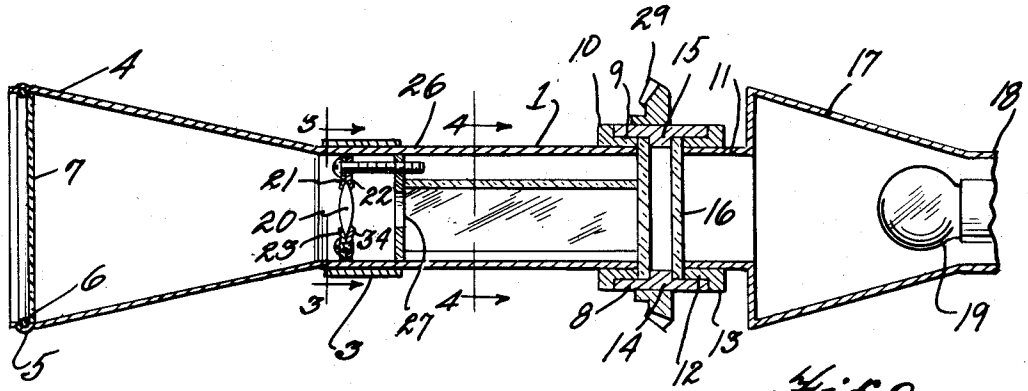

Fig. 2

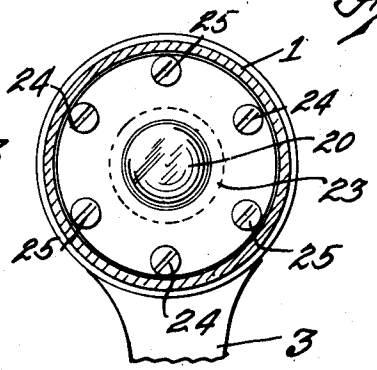

Fig. 3

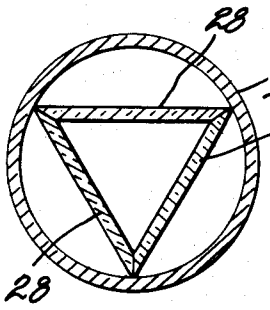

Fig. 4

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Patented June 20, 1933

1,914,562

UNITED STATES PATENT OFFICE

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ADVERTISING DEVICE

Application filed May 8, 1930. Serial No. 450,689.

This invention relates to advertising devices and more particularly to that type of device which is used to attract the attention of a passer-by to a window display.

An object of the invention is to provide an advertising device which will throw a continual changing design of multi-colors upon a frosted glass to attract attention of the passer-by.

Another object of the invention is to provide a device of this character which may be easily installed in a shop window or the like and in which it is only necessary to hook up the device to a source of electrical supply to cause the same to operate and in which the operation of the device will be continuous without the care of an attendant.

Another object of the invention is to provide an advertising device consisting of a tube like member closed at the front end with a frosted glass and a rotating compartment in the rear of the frosted pane of glass in which colored pieces of glass or celluloid may be placed and a system of mirrors in front of the compartment and a light in the rear of the same so that the light passing through the compartment will cause the reflection of the colored pieces of glass or celluloid to be cast upon the frosted pane of glass, the same acting as a screen on which the image is projected and thus attract the attention of the passer-by.

These objects and the several novel features of the invention are hereinafter more fully described and claimed and the preferred form of construction by which these objects are attained is shown in the accompanying drawing in which—

Fig. 1 is a top plan view of my improved device assembled with suitable driving mechanism.

Fig. 2 is a longitudinal sectional view taken substantially on line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a similar view taken on line 4—4 of Fig. 2.

Referring now to the drawing wherein like reference characters designate like parts throughout the several views, the device comprises a hollow cylindrical member 1 mounted upon a base 2 and secured thereto by means of the bracket 3. The tube 1, as seen in Fig. 2, is flared outwardly near its forward end as indicated at 4 and is provided at the extreme outer end with a groove 5 for receiving a circlip 6 for retaining a frosted pane of glass 7 in place in the end of the flared end 4. A transparent glass disc 8 closes the end of the tube 1 opposite to the flared end 4. It will be seen that the disc 8 is slightly larger in diameter than the outside diameter of the tube 1 and a collar 9 provided with a flange 10 is secured to the tube 1 in any suitable manner.

A second tubular member 11, the outside diameter being approximately the same as the outer diameter of the tube 1, has the collar 12 secured thereto, the same being provided with a flange 13. A ring like member 14 rides upon the collars 9 and 12 and is provided on its inner periphery and centrally from the ends with a reduced portion 15, the same acting as a spacer to space the transparent disc of glass 8 from the glass disc 16 which will be made preferably of frosted glass. The tube 11 intermediate its ends is provided with a flared portion 17 and the reduced end portion 18 having the electric light bulb 19 positioned therein. The inner face of the members 17 and 18 may be silvered to act as a reflector to cast the rays of light from the bulb 19 forwardly.

As clearly indicated in Figs. 2 and 3, the tube 1 has positioned therein the convex lens 20 carried by the discs 21 and 22 respectively. The said discs are provided on their inner periphery with flared outwardly extending portions 23 and 34, respectively for clamping the outer diameter of the lens 20 therebetween. The said discs are further provided with the screws 24 for clamping the same together while the screws 25, which are considerably longer than the screws 24, are threaded through the disc 26 secured to the inner periphery of the tube 1. It will be clearly understood that upon adjustment of the screws 25 the lens 20 will be moved toward or away from the glass disc 7 conse-

quently changing the focal point of the lens 20 in relation to the glass disc 7.

The disc 26 is provided centrally thereof with the aperture 27 and the mirrors 28 are held between the disc 26 and the glass disc 8 and as clearly indicated in Fig. 4, the said mirrors form an equa-lateral triangle, the reflecting faces of the same being upon the inside of the triangle. A beveled gear 29 is pressed or otherwise secured upon the outer periphery of the ring like member 14 and engages a pinion 30 mounted upon the shaft 31, the same being carried in the bearings 32 secured to the base 1. The shaft 31 is connected to the speed reducer 33 which may be of standard construction, the same being operatively connected by means of the belt 34 to the electric motor 35, both the motor and the speed reducer being mounted upon the base 2. When it is desired to use the device as an advertising medium suitable pieces of colored glass or celluloid may be placed between the glass discs 8 and 16 and the whole device placed in an advantageous position in the display window so that the glass disc 7 faces toward the outside of the window. The cord from the electric motor 35 will then be connected to any suitable source of current supply and the cord from the electric light 19 also connected to a suitable source of current supply. When the current is supplied to the motor the pinion 30 will be rotated at a greatly reduced speed, the same driving the gear 29 and since the gear is secured to the ring like member 14 the same will be rotated causing a movement to be imparted to the pieces of colored glass or celluloid inserted between the discs 8 and 16.

The light from the bulb 19 will be directed forward illuminating the pieces of colored glass and the mirrors 28 will pick up the reflection of the same and cast it through the lens 20 onto the frosted disc of glass 7, the same acting as a screen to catch the reflected image of the colored glass or celluloid pieces. Due to the arrangement of the mirrors in the tube 1 the design which is cast upon the frosted glass 7 will be of a kaleidoscopic nature and due to the rotation of the chamber in which the pieces of colored glass are placed and the consequent movement of the said pieces in relation to each other an infinite number of designs will be cast upon the screen 7. Although some of the designs may repeat occasionally the series of designs will never be the same thus causing a continuous change of design both in shape and color which will attract the attention of the passer-by causing him to focus his attention on the window in which the device is installed.

From the foregoing description it becomes evident that I have provided an advertising device which requires no manual operation and which will reflect a variety of designs in shape and color upon a screen and further that the device may be quickly and easily installed in a show window and which will draw the attention of the passer-by to the window.

Having thus fully described my invention, its utility and mode of operation, what I claim and desire to secure by Letters Patent of the United States is—

1. In a device of the character described, a tube having a cylindrical portion and an outwardly flared cone like portion, a translucent plate at the larger end of the last named portion, a lens adjacent the point of connection between the cylindrical and flared end portions of the tube, means for adjusting the lens along the axis of the tube, a system of mirrors in the said cylindrical portion of the tube, means for supporting the said tube from rotation, a transparent plate at the end of the cylindrical portion of the tube opposite the flared end, a translucent plate adjacent thereto providing a chamber for receiving a series of colored objects therebetween, a rotatable element having a portion extending between the said last named transparent and translucent plates for imparting movement to the objects, and a second tube having a cylindrical portion in alignment with the cylindrical portion of the first tube terminating adjacent the said second tube and having a recess, and a lamp in the said recess.

2. In a device of the character described, a pair of stationary tubes in longitudinal alignment, a series of mirrors arranged in triangular relation in the forward tube of the pair, a glass cell formed of two spaced plates positioned between adjacent ends of the tube, a revoluble element having a portion extending to between the glasses by means of which colored objects may be changed in position, a lens in the forward tube, a translucent plate at the end of the tube beyond the lens, a lamp in the other tube, and means for revolving said continuously revoluble element.

3. In a device of the character described, a pair of stationary spaced tubes in longitudinal alignment, a series of mirrors arranged in triangular relation in the forward tube of the pair, a rotatable element therebetween providing a cell containing colored objects, one wall of which is translucent and the other of which is transparent, means for rotating the said element to change the position of the colored objects, a lens in the forward tube, and a lamp in the other by means of which light is passed through the said cell and lens, and a translucent element at the end of the forward tube of the pair on which the image is projected.

In testimony whereof I sign this specification.

WALLACE A. FREELAND.