

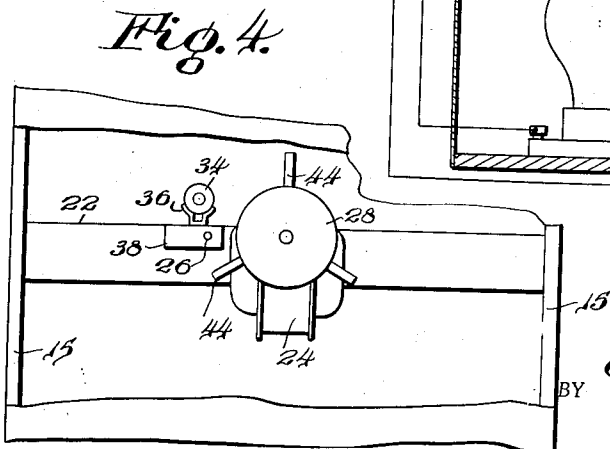
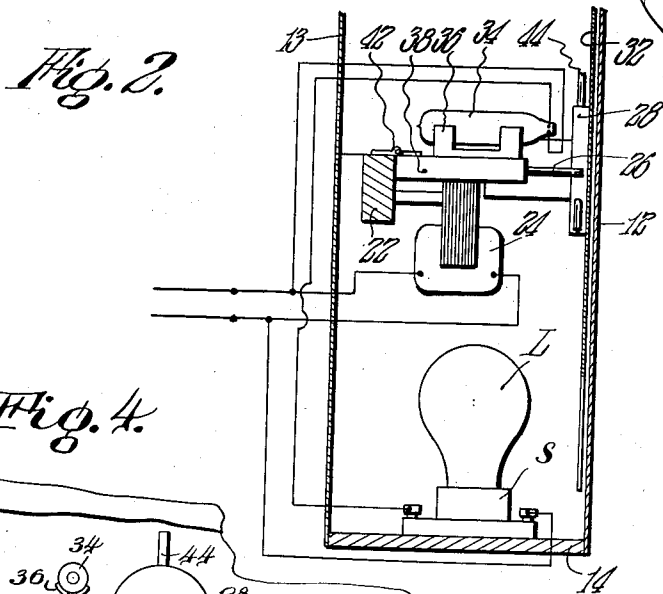
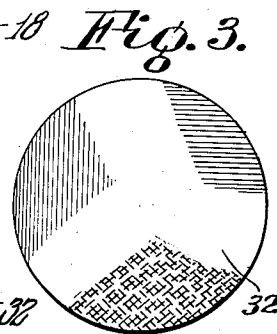
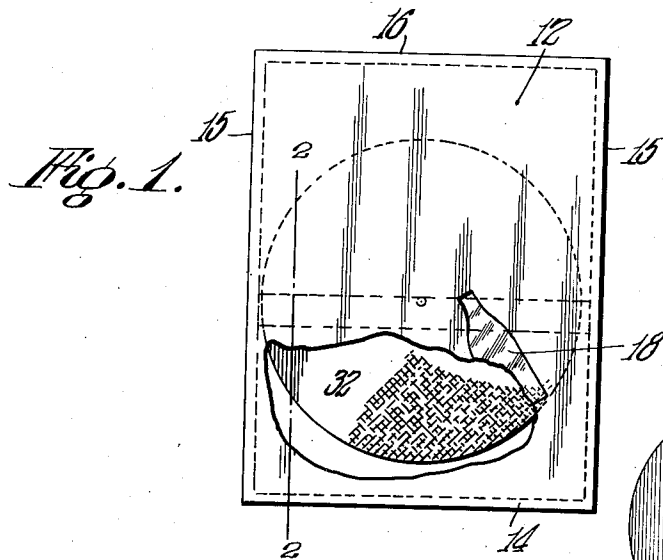
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2,210,315

ANIMATED DISPLAY DEVICE

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UNITED STATES PATENT OFFICE

2,210,315

ANIMATED DISPLAY DEVICE

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1 Claim. (Cl. 40-34)

My invention relates to improvements in an animated display device and more particularly to improvements in a device for providing the simulation of life-like motion. For instance, a representation of an object, such as a bottle, may according to this invention appear to be emptied of its contents.

It is one object of my invention to provide an ornamental display device which is adapted to imitate the natural movements in a beverage bottle as the contents thereof are added to or withdrawn from the same.

It is another object of the invention to provide a display device which will attract the attention of passersby by virtue of the novel and unique effects produced thereby.

Other prime objects include the provision of a device which will accomplish the above results and which is relatively simple in its construction, economical in its manufacture and reliable in its operation in accordance with the demands of creative display manufacturers.

It is still another object to provide an improved display device construction which is weatherproof and hence suitable for continued use out of doors.

Various other novel features, advantages and objects of my invention will be hereinafter more fully described and referred to in connection with the accompanying description, reference being had to the drawing wherein:

Fig. 1 is a front elevational view of the device of the invention with parts broken away for clearness; and

Fig. 2 is an elevational sectional view of the device on the lines 2-2 of Fig. 1.

Fig. 3 is a front elevational view of the colored area disc which is a part of the invention.

Fig. 4 is a partial front elevational view of the mechanism with the front panel and colored area disc removed therefrom.

Referring to the drawing in detail, the invention will now be fully described. Like numerals in different figures refer to like parts.

The device of the invention is generally contained within a casing having a front display panel 12, a rear wall 13, a bottom wall 14, side walls 15 and a top wall 16.

The front display panel 12 has a transparent portion or portions such as 18 through which light from the interior of the casing is permitted to pass. This transparent portion 18 is adapted to simulate an object, and in the drawing it is shown to simulate a bottle.

A supporting member 22 is disposed within the

casing, and it carries thereon an electric motor represented by 24. A shaft, which is not shown, of the motor 24 carries a disc mount 28 upon which is mounted a disc 32. The disc 32 is disposed adjacent the front panel 12 of the casing and the motor 24 rotates the disc mount 28 and the disc 32 by means of the shaft.

The disc 32 has one or more colored areas disposed thereon with the result that a color or colors may be seen to pass by the transparent portion 18 of the front panel 12. The colored areas of the disc 32 are somewhat transparent so that light may pass therethrough. The areas may be of the colors represented by the cross hatching shown in Fig. 3 and representative, for purposes of distinction, of the colors orange, blue and red.

A lamp L in a socket S is mounted within the casing and when it is energized, the light therefrom passes through the transparent colored portion or portions of the disc. The light not only passes through the transparent portions of the disc as described but also through the transparent portion 18 of the front panel when in register.

A switch device in the form of a mercury switch 34 and its carrier 36 are mounted on a base 38. The base is pivotally mounted on the support 22 by means of a hinge 42 or the like and carries a pin 26 on its free end.

Pins such as 44, one for each colored area on the disc, are spaced on the disc mount around the periphery thereof and are adapted to engage the pin 26 as the disc mount 28 and the disc 32 rotate. That is to say, as the disc mount and the disc rotate, the pin or pins 44 engage the pin 39 of the base at its forward end and lift the base upon its pivot 42 at the rearward end thereof. By such engagement, the base and the mercury switch located thereon are raised so as to make or break a circuit for purposes as will hereinafter be more fully explained.

After a pin 44 has raised the base, said pin in continued rotation of the mount releases the base so that it falls back into its normal position where it rests until a pin again raises the base in a like manner whereupon the switch again breaks the circuit.

The motor is at all times connected to the energy source except when the current supply is cut off so that the disc mount and the disc continuously rotate.

The lamp and socket and the mercury switch, however, are connected substantially as shown so

that when the circuit is interrupted by the mercury switch, the lamp does not light.

The pins 44 are arranged with reference to the colored areas so as to cut off the light as each new color area moves into position before the transparent portion.

In the drawing, I have shown but one form of my invention and it will be understood that other modifications and variations may be used with equally unique results. With reference to the drawing, the various parts of the invention having been described, the operation of the same when in assembled relation will now be more fully explained.

The disc mount and the disc may be rotated by the motor through its shaft so that the colored area or areas travel past the transparent portion of the front panel. The colored area or areas are so disposed and shaped that as the disc rotates, less and less of the colored area is seen through the transparent portion of the panel. That is to say, the colored portion or portions appear at first to fill the entire bottle and then to travel downwardly of the bottle to the point where the bottle appears to be empty. The colored area is so arranged that as the disc rotates the level of what appears to be liquid is lowered. During the time when the bottle appears to be being emptied, the light rays from the lamp is passed through the colored area of the disc and the transparent portion of the panel so as to illuminate the same. During the interval between the time when the bottle is emptied and the time when it is again filled, it is, of course, an advantage to extinguish the light. This is achieved by means of the pin or pins associated with the disc mount which trip the mercury switch and its related base so that the contact is upset and the entire light circuit is made or is broken.

While I have described the invention in great

detail and with respect to the present preferred form thereof, it is not desired to be limited thereto since changes and modifications may be made therein without departing from the spirit and scope of the invention. The invention may be embodied in other specific forms without departing from the essential characteristics thereof. The present embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claim rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claim are therefore intended to be embraced therein.

What it is desired to claim and secure by Letters Patent of the United States is:

In a display device the combination with a casing having a representation cut-out in a panel thereof, of, a light source within the casing, a disc rotatable within the casing adjacent the panel of the casing and disposed between the cut-out and said light source, a motor within the casing for rotating said disc, connections between said motor and said disc and said light source, a movable switch means in said connections, said disc having different colored relatively transparent areas disposed to traverse the cut-out as said disc rotates and the area being so shaped with relation to the cut-out that on rotation of said disc that portion of the area which is visible through the cut-out becomes progressively less, and a means associated with said disc for engaging and moving said switch means and arranged and adapted so that said switch means disconnects said light source during the interval when an area on said disc disappears and another area reappears again through the cut-out.

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