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(54) **ILLUMINATED LIQUID SOAP DISPENSER**

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(76) Inventor: **Mary Kay Bitton**, Westlake Village,
CA (US)

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Correspondence Address:
CROCKETT & CROCKETT
24012 CALLE DE LA PLATA
SUITE 400
LAGUNA HILLS, CA 92653 (US)

(57) **ABSTRACT**

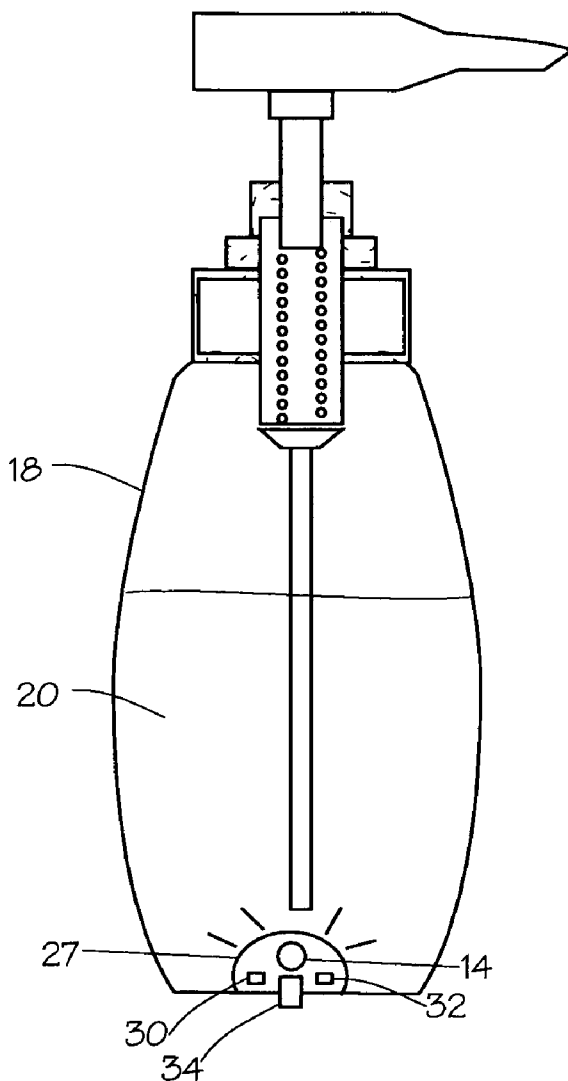
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Related U.S. Application Data

(63) Continuation-in-part of application No. 10/923,137,
filed on Aug. 19, 2004, now abandoned.

An illuminator for illuminating liquid transparent or opaque liquid containers. The container is either positioned on top of the illuminator and receives illumination from the illuminator in order to light up the container or else contains the illuminator entirely inside the container. Once illuminated, the container can serve as a decorative piece within any room within which it is contained. The container can also serve as a light source in any dark room.



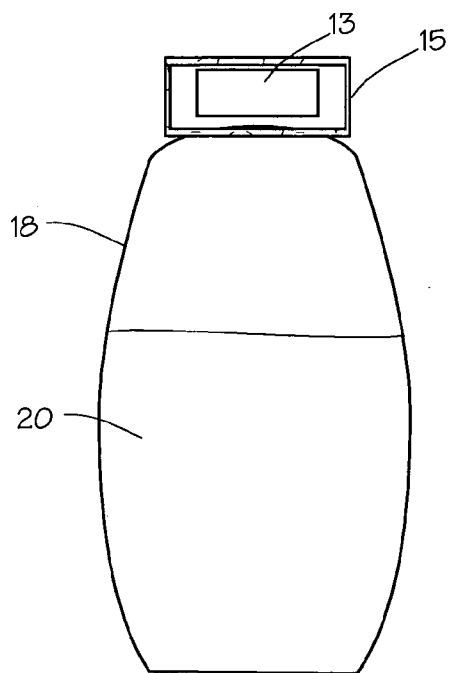


Fig. 2

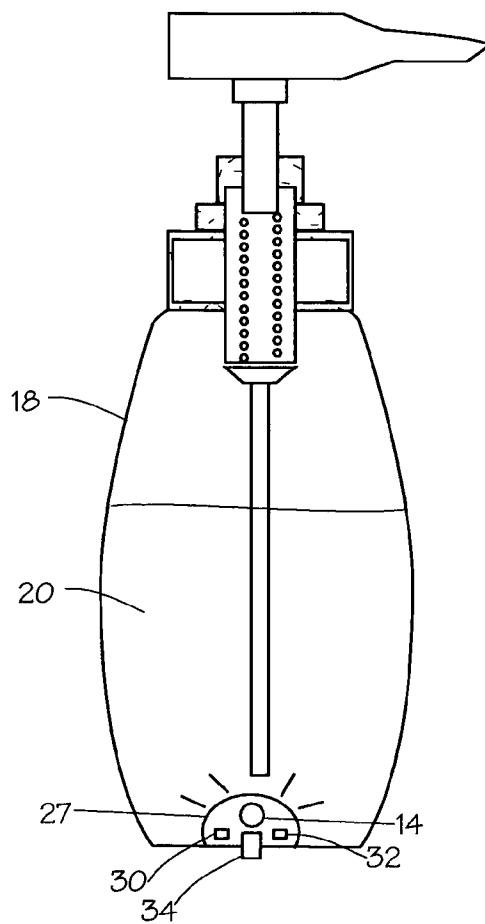


Fig. 1

Fig. 3a

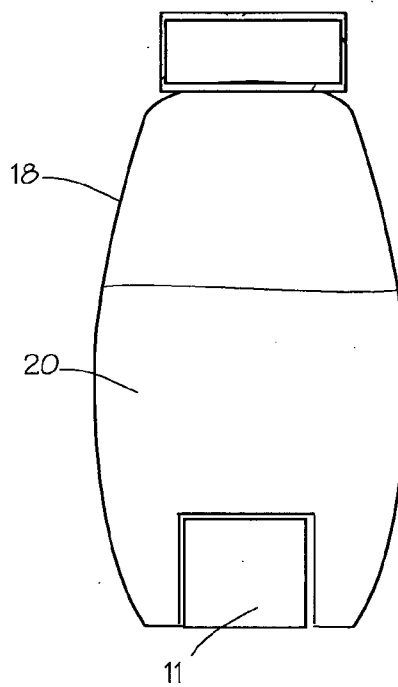
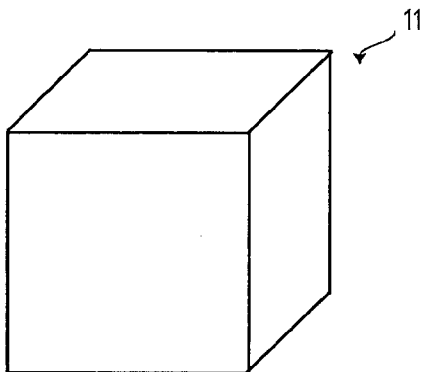


Fig. 3b

Fig. 4a

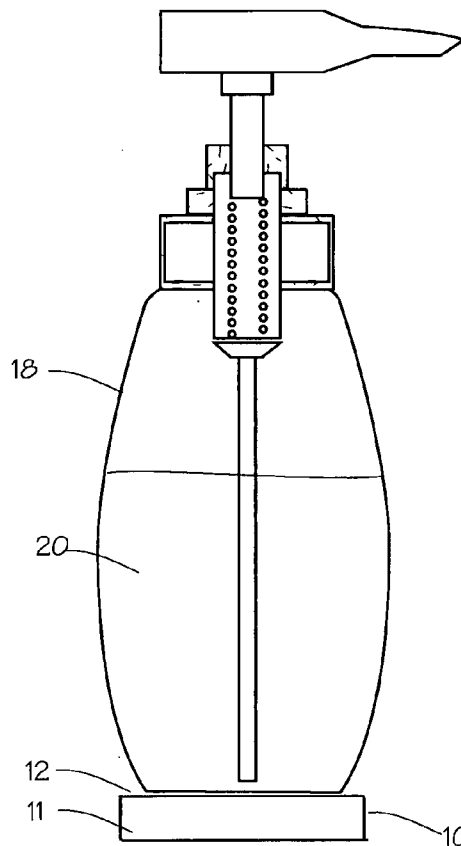
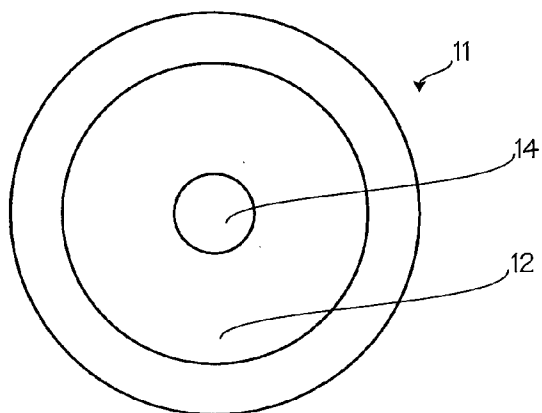


Fig. 4b

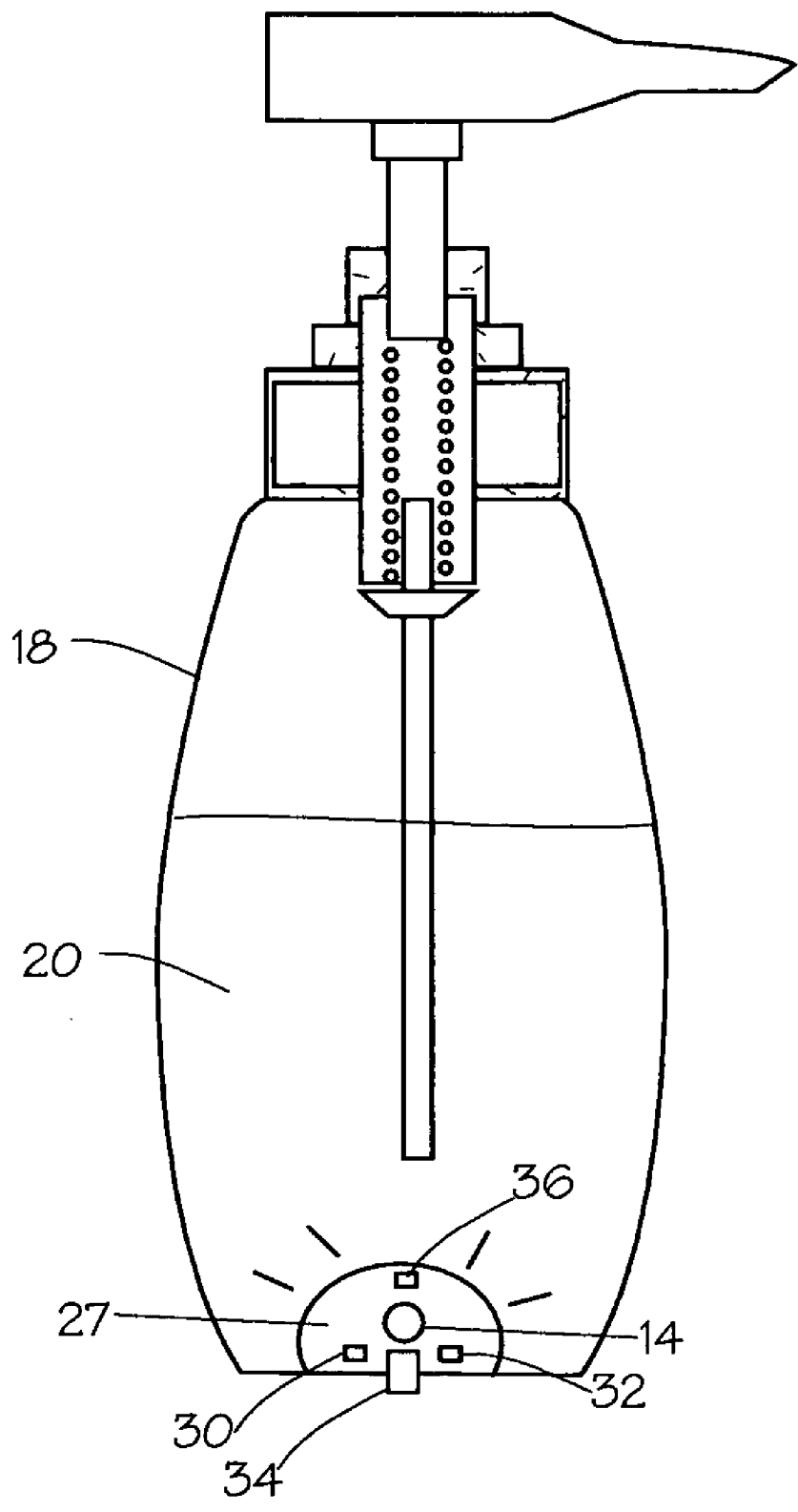


Fig. 5

ILLUMINATED LIQUID SOAP DISPENSER

[0001] This application is a continuation in part of U.S. application Ser. No. 10/923,137 filed Aug. 19, 2004.

FIELD OF THE INVENTIONS

[0002] The inventions described below relate to illuminators of liquid soap containers or other transparent or opaque liquid containers.

BACKGROUND OF THE INVENTIONS

[0003] Liquid soap comes in variously styled containers. The containers can vary in size and dimensions depending on where the liquid soap is to be used. Kitchen soap containers are generally of larger dimensions in order to contain a greater volume of soap. Bathroom soap containers are often smaller because they are not used as frequently and require smaller portions at each use. Additionally, they are often of a more stylized configuration because they can be prominently displayed in the bathroom.

[0004] The soap container is usually stored or displayed on any conventional bathroom or kitchen storage location where it lays unmoved until used. The container is often displayed in a place on the counter that can be observed prominently from many different locations in the room.

[0005] New and inventive ways to display the soap containers is always being sought. In addition, although the market for liquid soap and its associated containers is large, continued sales volume depends on innovative designs, and marketing techniques for disposable liquid soap containers. Thus, complimentary devices for use with disposable liquid soap containers are needed.

SUMMARY

[0006] The devices and methods described below provide for an illuminator for liquid soap containers or other transparent or opaque liquid containers. The container can be sized and dimensioned of any configuration preferable to the user. The container may be positioned on top of the illuminator that is capable of supporting the container. The illuminated container may also contain a light source that is embedded within the container at any desirable location. For example, the light source may be embedded on either the top or bottom of the container. The illuminator provides any color or colors of light that are aesthetically pleasing in order to illuminate the soap container. Once illuminated, the container can serve as a decorative piece within any room in which it is contained. Also, if contained within a soap dispenser, the illuminator can serve as a scheme to entice children to use the soap and wash their hands. Alternatively, the illuminated container can serve the purpose of providing a night light source in a dark room. For example, the container can illuminate a dark bathroom where a person may enter in the middle of the night.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a bottle with a light source in the bottom;

[0008] FIG. 2 is a bottle with a light source in the cap;

[0009] FIG. 3a illustrates a cube shaped illuminator;

[0010] FIG. 3b illustrates a cube shaped illuminator positioned in the bottom of the container;

[0011] FIG. 4a illustrates a disc shaped illuminator;

[0012] FIG. 4b illustrates a container positioned on a disc shaped illuminator; and

[0013] FIG. 5 illustrates a configuration with an alternative activator for the illuminator.

DETAILED DESCRIPTION OF THE INVENTIONS

[0014] FIG. 1 is a container with an illuminator 14 built into the bottom of the container 18. In this configuration, the light source is contained within the bottom portion of the container. The light source is contained on the bottom portion of the container and is separated from the liquid 20 by a waterproof divider 27. The container is illuminated by the light source. The container can be translucent or merely opaque so that at least a small amount of light can pass through the container and illuminate the container.

[0015] The illuminator 14 contains a battery 30, at least one LED 32 and a switch 34. The battery 30 is operably connected to the LED and serves as the energizing source for illuminating the LED. The switch 34 is operably connected to the LED 32 to control the application of electrical power to the LED. At least a portion of the switch 34 is disposed outside of the transparent container for access by the user.

[0016] FIG. 2 is a bottle with a light source in the cap. In this configuration, the illuminator or light source 13 is contained within the cap 15 of the bottle or container 18.

[0017] FIG. 3a is a cube shaped illuminator. The outer casing of the illuminator 11 is clear, which allows for light to pass through and illuminate the container. The entire illuminator housing 11 is capable of being contained entirely within a container.

[0018] FIG. 3b illustrates the cube shaped illuminator positioned in the bottom of the container 18. The container is capable of sustaining the entire cube shaped illuminator 11 either within the container or else within a recessed portion in the bottom of the container.

[0019] FIG. 4a is a disc shaped illuminator capable of sustaining a container. The illuminator 11 is comprised of a housing with a top platform surface having an opening for light to pass through the housing, a bottom base surface, side surfaces, and a light source contained within the housing. The housing has a top flat platform surface 12 capable of containing a liquid soap dispenser. The housing also has a bottom base surface adapted for positioning on a display surface. The housing can be comprised of any type of material that is capable of sustaining the weight of the container. The top platform surface 12 has an opening 14 that allows for illumination of the housing through the opening. The container is releasably secured or positioned on top of the illuminator housing.

[0020] FIG. 4b illustrates a container positioned on a disc shaped illuminator. The bottom surface of the container is releasably secured to the top platform surface 12 of the illuminator. The illuminator housing is capable of sustaining the weight of the container along with any soap contained within the container. The container 18 has a discharge end for release and discharge of the liquid within the container by a user. The container can be entirely transparent or translucent.

[0021] Alternatively, the container may be merely opaque to allow for only a small amount of light to pass through the container. The container contains liquid 20 that can be any color. When the light source is activated, the light passes through the opening of the top platform surface and into the liquid container. Once the light source is transmitted through the container, it illuminates the container.

[0022] FIG. 5 illustrates a configuration with an alternative activator for the illuminator. The illuminator 14 contains the battery 30, one LED 32 and a switch 34. Additionally, either a photo sensor or motion sensor 36 is contained for activation of the illuminator. When the switch is turned on, the illuminator is lighted once the activator senses either motion or light.

[0023] The light source can be illuminated by any standard illumination method where multiple uses are required. For example, the light source can be an electronic circuit incorporated into a circuit board, a switch LED, battery operated LED, motion activated LED, mechanically activated LED, rotatably activated LED, chemi-luminescent light source, a battery supplying electrical current to a light emitting diode, or a low voltage bulb. Where the light source is a simple electric circuit, the circuit can have any conventional battery power a simple LED to provide the light source within the housing. Any LED used within the housing should be a low power consumption LED to maximize the life of the LED and to avoid overheating. The light source emits a light bright enough to shine through the opening in the top surface of the illuminator housing. The light then passes through the opening into the container so that the container is illuminated.

[0024] In use, a user places the illuminating dispenser on a desired surface. The user engages a switch that is disposed at least partially outside the container and accessible by the user. Once the switch has been engaged, the switch energizes the illuminator to illuminate the container and the liquid contained within the container. The illuminator can be disengaged and the illuminator turned off once the user no longer desires illumination. The illuminator can be an LED and battery operably connected to the LED for energizing the LED. Alternatively, a motion activated or photosensor LED can be used. The motion activated LED is operably connected to the battery and can be activated by the user with the switch to engage the LED when motion is detected. The photosensor LED is activated when the switch is turned on and the lights are off.

[0025] Thus, while the preferred embodiments of the devices and methods have been described in reference to the environment in which they were developed, they are merely illustrative of the principles of the inventions. The illuminator may be useful for soap dispensers as well as perfume dispensers. Other embodiments and configurations may be

devised without departing from the spirit of the inventions and the scope of the appended claims.

We claim:

- 1. An illuminating dispenser comprising:

- a transparent container defining a dispensing volume; liquid contained within the dispensing volume; and

- illumination means contained within the dispensing volume for illuminating the dispenser comprising an LED, a battery operably connected to the LED for energizing the LED and a switch operably connected to the LED to control the application of electrical power to the LED wherein at least a portion of the switch is contained outside of the transparent container.

- 2. The illuminating dispenser of claim 1 wherein the liquid contained within the dispensing volume is liquid soap.

- 3. The illuminating dispenser of claim 1 further comprising a motion sensor.

- 4. The illuminating dispenser of claim 1 further comprising a photosensor.

- 5. An illuminating dispenser comprising:

- a transparent container defining a dispensing volume; liquid soap contained within the dispensing volume; and

- illumination means contained within the dispensing volume for illuminating the soap comprising an LED, a battery operably connected to the LED for energizing the LED and a switch operably connected to the LED to control the application of electrical power to the LED wherein at least a portion of the switch is disposed outside of the transparent container.

- 6. The container of claim 5 further comprising a motion sensor.

- 7. The illuminating dispenser of claim 5 further comprising a photosensor.

- 8. A method of illuminating a room comprising the following steps:

- providing an illuminating dispenser comprising a transparent container defining a dispensing volume; a liquid contained within the dispensing volume; and illumination means contained within the dispensing volume for illuminating the dispenser comprising an LED, a battery operably connected to the LED for energizing the LED and a switch operably connected to the LED to control the application of electrical power to the LED wherein at least a portion of the switch is disposed outside of the transparent container; and

- engaging the illumination dispenser via the external switch to illuminate the dispenser.

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