United States Patent

[11] **3,623,638**

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[54] **LIQUID DISPENSER FOR SHOWER BATH**
3 Claims, 9 Drawing Figs.

[52] **U.S. Cl.** **222/78,** 222/133, 222/181, 239/314
[51] **Int. Cl.** **B67d 3/00**
[50] **Field of Search** 222/133, 420, 422, 291, 380, 544, 545, 554, 78, 181; 239/306, 314, 379, 282, 418, 420, 543, 304, 310; 248/311, 224, 79; D23/35, 36; D33/30

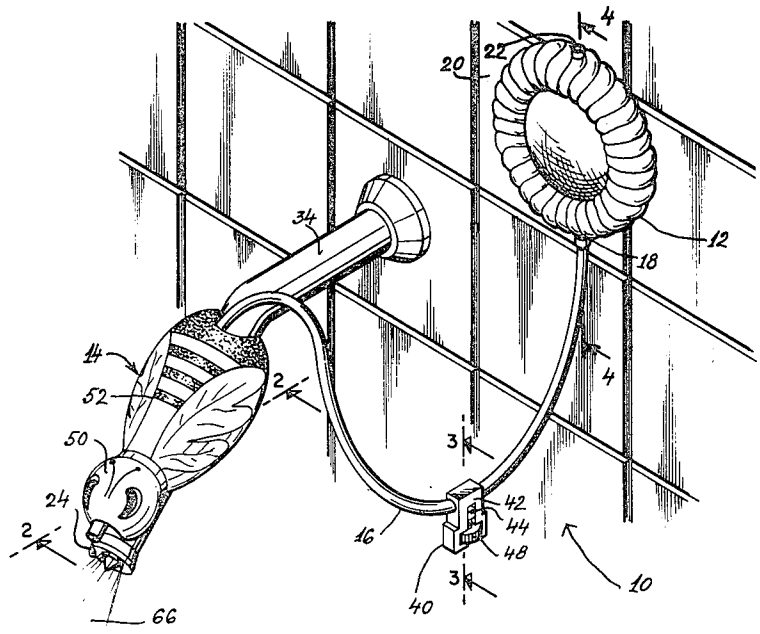
[56] **References Cited**

UNITED STATES PATENTS

847,014	3/1907	Lee	248/311 X
2,592,053	4/1952	Megla	248/79
2,922,248	1/1960	Kocsi	248/224
3,083,915	4/1963	Gravel	239/379 X
3,198,437	8/1965	Faglie	222/545 X
3,409,230	11/1968	Elkema	239/314

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ABSTRACT: An assembly for discharging liquid into a water shower spray includes a flat, circular container mountable removably on a bathroom wall, a flexible tube connected to the container, a manually operable valve on the tube, and an elongated flexible shell which clamps on a shower fixture. The tube extends through the shell and is secured therein. The tube has a liquid discharging end supported by shell just above the shower spray.



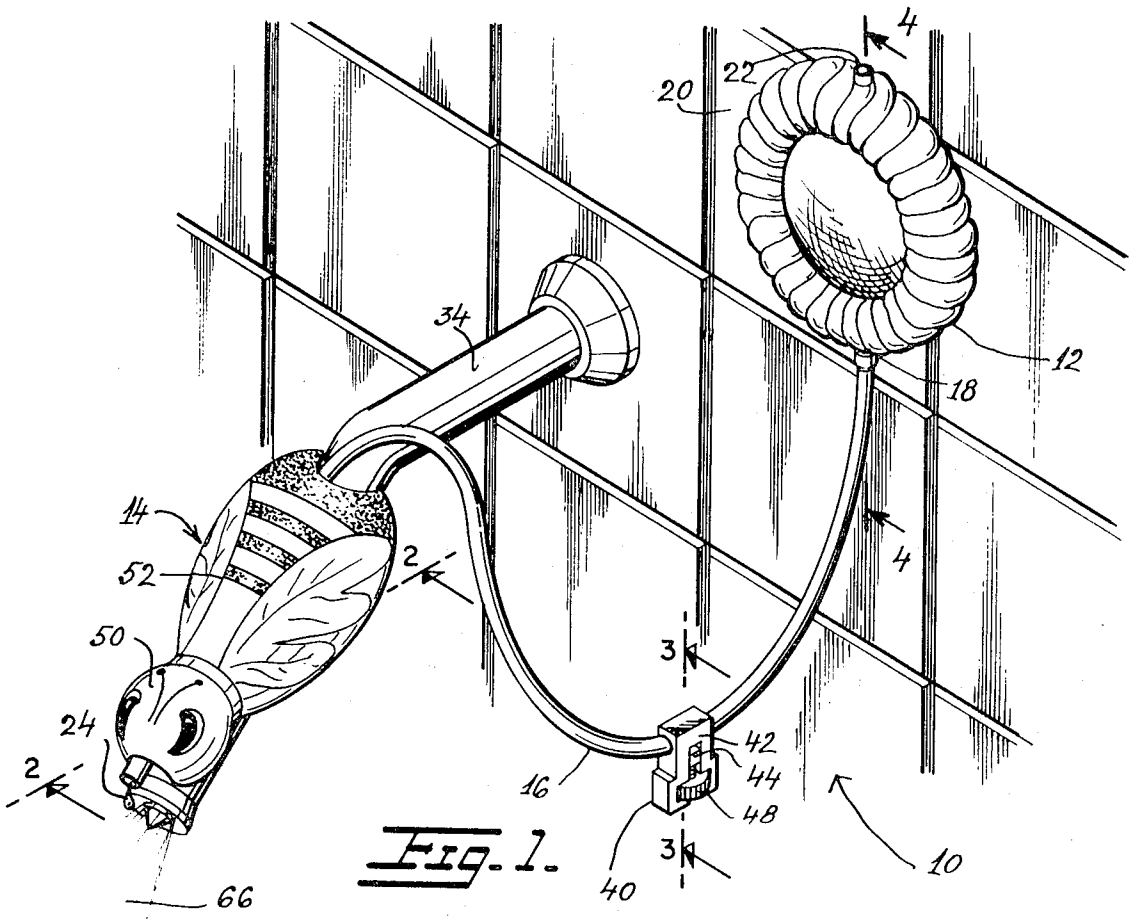


Fig. 1.

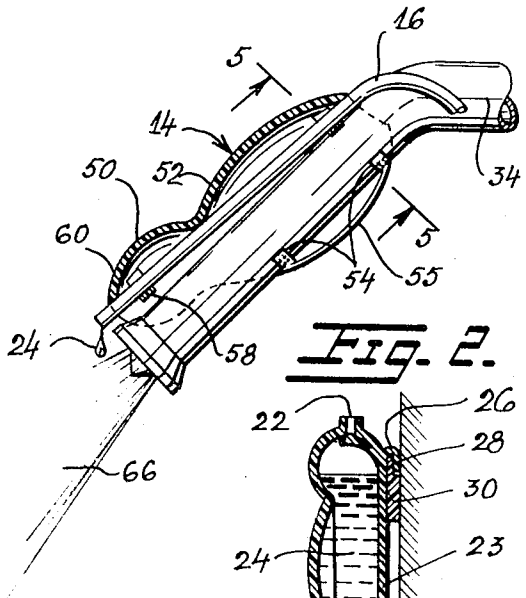


Fig. 2.

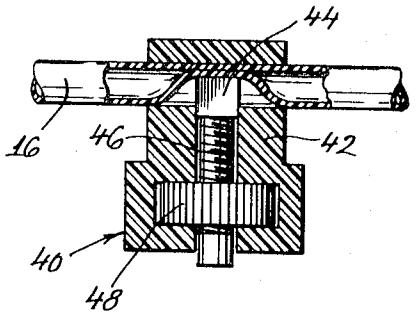


Fig. 3.

Fig. 4.

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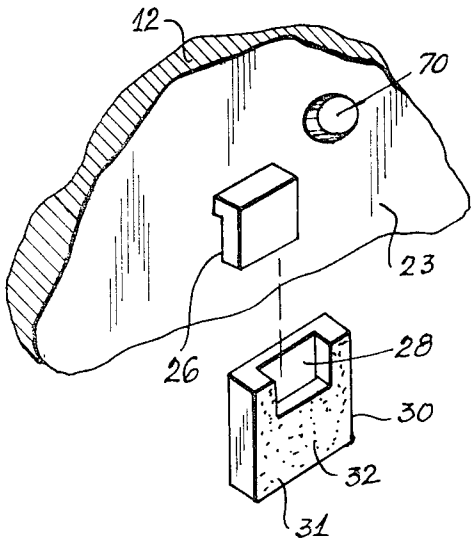


FIG. 9.

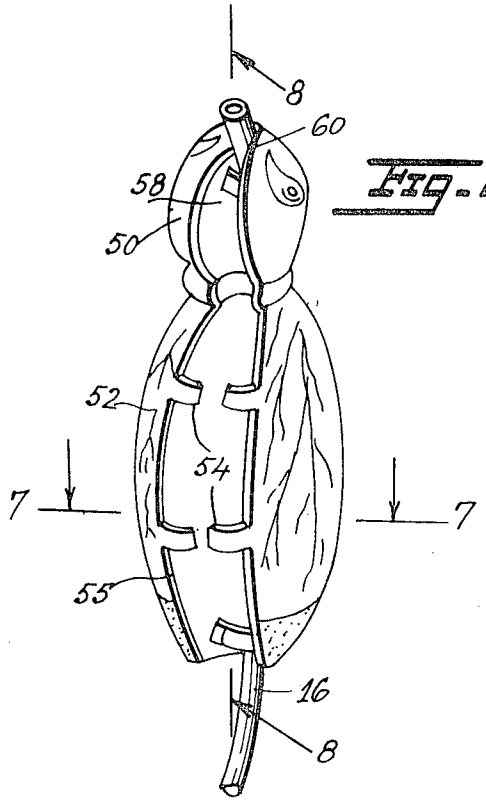


FIG. 6.

FIG. 7.

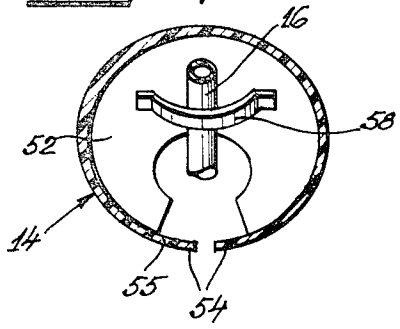
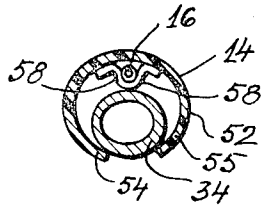


FIG. 5.



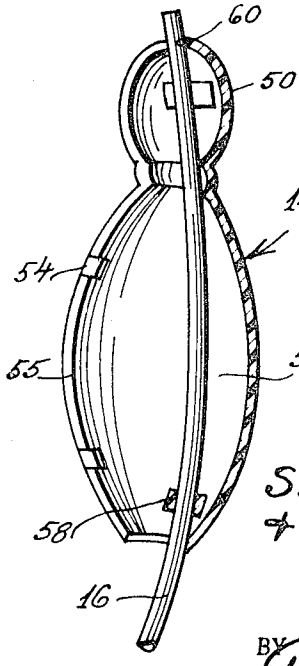


FIG. 8.

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LIQUID DISPENSER FOR SHOWER BATH

This invention concerns a device attachable to a shower bath fixture for dispensing a liquid into the shower spray.

Dispensers of liquid soap have heretofore been known which are installed near sinks in washrooms and bathrooms for use by a person washing himself. The user generally operates a valve to dispense a small quantity of liquid soap. There is no direct association or connection with the water faucets of the sink.

The present invention involves a device which will automatically dispense liquid soap, bath oil, eau de cologne or other liquid directly into a water spray emitted from a head of a shower fixture. The device includes a shell made of flexible plastic material which encircles and clamps on a shower fixture and supports a liquid dispensing tube. Another part of the assembly serves as a container of liquid to be dispensed. This container is flat and circular for mounting on the wall of a bathroom. The dispensing tube is connected to the liquid container. A valve is mounted on the tube for controlling the rate of liquid discharge and for shutting off the supply of liquid.

The invention has as a principal object provision of convenient means for dispensing a liquid into a shower spray emitted from a bathroom shower fixture.

Another object is to provide a small, attractive assembly of tube, clamp and liquid container for use in dispensing the liquid.

Other and further objects and advantages of the invention will become apparent from the following detailed description taken together with the drawings, wherein:

FIG. 1 is a perspective view of a liquid dispensing assembly embodying the invention;

FIG. 2 is a longitudinal sectional view of the tube supporting shell taken on line 2—2 of FIG. 1;

FIG. 3 is an enlarged sectional view taken through a valve of the assembly on line 3—3 of FIG. 1;

FIG. 4 is a vertical sectional view taken on line 4—4 of FIG. 1, through a liquid container forming part of the assembly;

FIG. 5 is a cross-sectional view taken on line 5—5 of FIG. 2;

FIG. 6 is an enlarged rear perspective view of the tube supporting part of the assembly;

FIG. 7 is a cross-sectional view taken on line 7—7 of FIG. 6;

FIG. 8 is a vertical sectional view taken on line 8—8 of FIG. 6;

FIG. 9 is an exploded perspective view on an enlarged scale showing a bracket support for the liquid container and part of the liquid container.

Referring to the drawings, there is shown an assembly **10** including a liquid container **12** and clamp part **14**. A flexible liquid dispensing tube **16** extends between container **12** and part **14**. The tube is secured at one end on a nipple **18** at the bottom of the container as best shown in FIG. **4**. The container is generally round with a flat back, and is vertically disposed on wall **20** of a bathroom. An air hole **22** is provided at the top of the container to admit air. The container is filled with a suitable liquid **24** such as bath oil, cologne, soap or the like. On flat back **23** of the container is an integral hook **26** best shown in FIGS. **2** and **9**. This hook fits removably into a rectangular recess **28** formed on the back of a bracket **30**. The bracket has a flat rear wall **31** which can be secured by a suitable adhesive **32** to the bathroom wall **20**. The container is supported in an elevated position above shower pipe and head fixture **34** with tube **16** extending downwardly from the bottom of the container as clearly shown in FIG. **1**.

A valve **40** is adjustably mounted on the tube **16**. This valve includes a block **42** through which the tube **16** extends. In the block is a movable rectangular core **44**. The core is formed at the upper end of threaded bolt **46** engaged in a nut **48**. The nut is rotatable in the block to advance or retract the bolt and core. The core can be advanced to compress the tube to restrict flow of liquid therethrough or to stop liquid flow completely.

The other end of the tube **16** extends through the rear end of flexible clamp part **14**. This part as clearly shown in FIG. **1** may have the attractive form of a simulated body of a bumble bee. The clamp part **14** is a flexible plastic shell having a narrower rather spherical forward end portion **50** and larger elongated end portion **52**. Spaced flexible fingers **54** extend circumferentially toward each other at rear edges **55** of portion **52** as clearly shown in FIGS. **6**, **7** and **8** to engage under fixture **34**. Tube **16** is engaged in clips **58** secured near opposite inside ends of the clamp part **14**. The tube extends longitudinally through the shell and emerges at opening **60** from which liquid **24** drips into the shower spray **66** as clearly shown in FIGS. **1** and **2**. The shell can be spread laterally to engage on fixture **34**.

By the arrangement described, liquid soap or any desired fragrance can be added to the water spray **66**. Liquid **24** may be a germicidal or medicinal fluid. Regardless of the type of liquid employed it will be conveniently dispensed at a drop at a time into the shower spray to perform its desired function.

The container **12** may be flat and circular to simulate a head of a flower as shown in FIG. **1**. The clamp part **14** may resemble the body of a bumble bee as already mentioned. All parts may be attractively colored. The assembly may be made entirely of plastic parts. They can be molded, extruded or otherwise formed by mass production plastic machinery at low cost. The parts of the assembly are easy to mount on the wall and easy to remove for cleaning or replacement. A removable plug **70** as seen in FIG. **9** can be provided at the back of the container for refiling it. Alternatively the container may be arranged for one-time use without a filler plug, so that the container can be discarded after the liquid contents are dispensed.

The assembly constitutes a bathroom appliance or accessory which meets a long felt need for an inexpensive, attractive, convenient device to dispense liquid into a shower spray in a bathroom.

What is claimed is:

1. An assembly for dispensing a liquid into a water shower spray emitted from a shower pipe and head fixture projecting from a wall in a bathroom, comprising a container for said liquid mountable on said wall, a clamp body in the form of an elongated flexible shell which is spreadable to be fitted longitudinally over the fixture to encircle the same but readily releasable therefrom, clips provided inside the shell at the opposite ends thereof for engaging and supporting the tube, said clamp body extending over the forward end of the fixture and said tube being clipped within the body to extend further over the fixture so as to emit drops of the liquid into the spray delivered from the spray head, and a manually adjustable valve carried on the tube for controlling the rate of flow of the fluid through the tube from the container.

2. An assembly for dispensing a liquid into a water shower spray as defined in claim **1**, said container having a flat back disposable adjacent said wall and a hook integral with the flat back extending outwardly thereover, a bracket adapted to be mounted upon the wall and having a recess for receiving said hook, said container having an opening on the top thereof for emitting air and a nipple at the bottom thereof, said tube releasably secured to the container nipple for passing liquid from the container to the tube, and a plugged refill opening on the back of the container for refilling the container.

3. An assembly for dispensing a liquid into a water shower spray as defined in claim **2**, said flexible shell body simulating the body of a bumble bee with its head at the forward end adjacent to the end of the tube emitting the liquid and said container being circular in form and shaped to appear as a flower blossom.

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