

[54] SOAP RECEPTACLE AND DISPENSING DEVICE

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[57] **ABSTRACT**

A soap receptacle and dispensing device is disclosed herein. The device has a hollow, flexible permeable body having a plurality of openings permitting water to enter and exit therefrom. A soap entry port is provided whereby pieces of soap may be placed inside the device. Means are provided for holding a relatively small amount of water within the body so that soap which has been placed therein is maintained in a partially dissolved or jelled state for an elongated period of time.

[56] **References Cited**

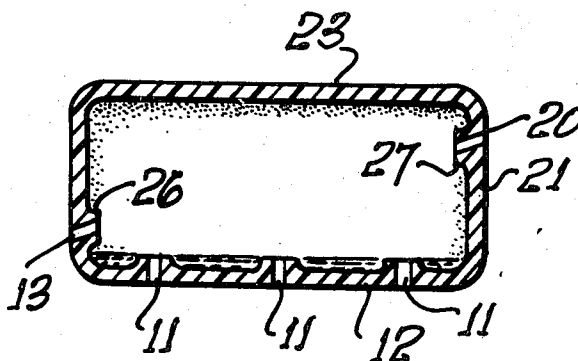
UNITED STATES PATENTS

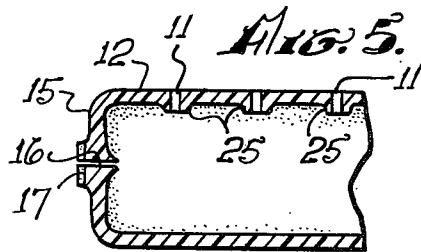
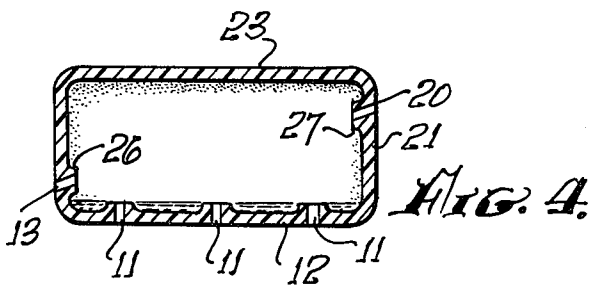
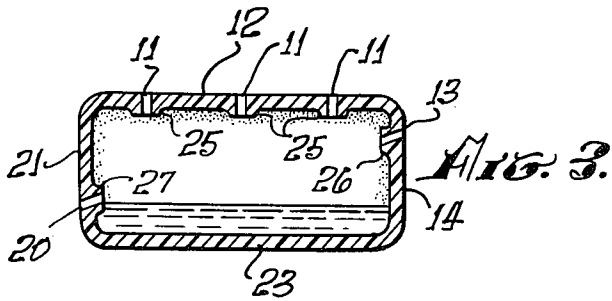
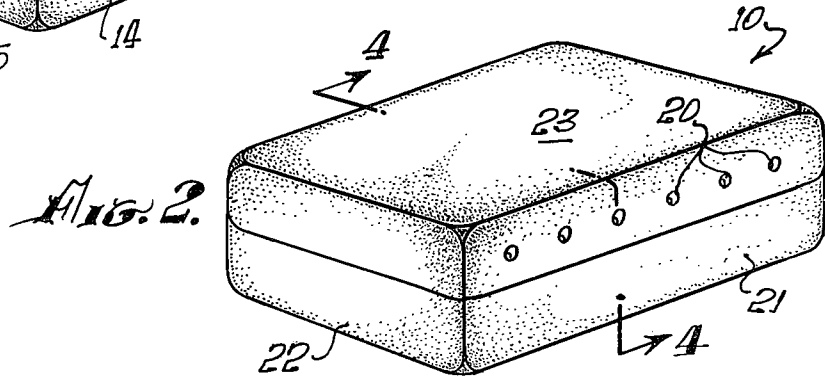
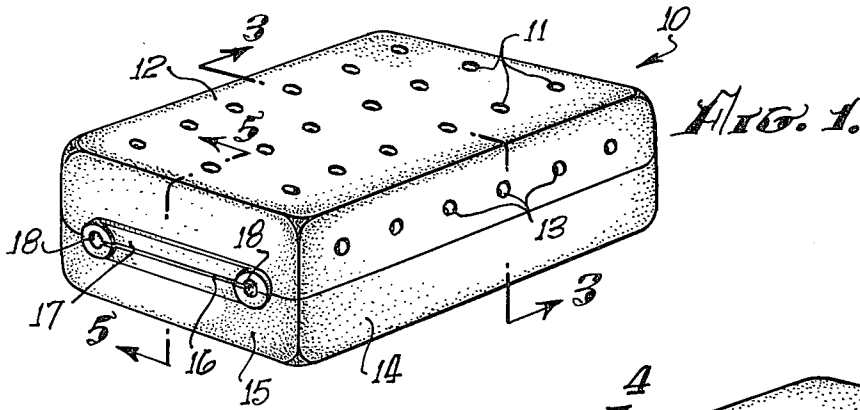
1,478,392	12/1923	Kearney	401/40
2,167,841	8/1939	Hertzberg	401/40 X
3,208,640	9/1965	Paulson	222/478 X
3,318,487	5/1967	Edwards	222/565 X

FOREIGN PATENTS OR APPLICATIONS

1,952,033	4/1971	Germany	222/565
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6 Claims, 5 Drawing Figures





SOAP RECEPTACLE AND DISPENSING DEVICE

BACKGROUND OF THE INVENTION

The field of the invention is soap dispensing devices and more particularly relates to devices useful for utilizing small bits and pieces of soap which are left over from conventional bars of soap.

Devices useful for holding a bar of soap or scraps of soap have been known and such devices have typically a roughened outer surface and function as a combined scrubbing and soap dispensing device. Examples of such devices include U.S. Pat. Nos. 1,418,019; 1,469,917 and 3,426,464. Such devices although useful for some purposes have not found wide acceptance as a replacement for the common conventional bar of soap because of their roughened exterior surface. Furthermore, the soap within such devices tends to dry out in a short period of time and thus it was difficult to obtain a soapy solution from such devices. Furthermore, devices made from sponge rubber tend to plug up or become caked with soap and thus become impermeable.

SUMMARY OF THE INVENTION

The present invention is for a soap receptacle and dispensing device having a hollow, flexible permeable body which permits water to enter and a soap solution to exit therefrom. The body has a soap entry port which permits bits and pieces of soap including small bars of soap to be placed within the body and further has means for closure so that such bits and pieces of soap remain within the body. Means are provided for holding sufficient water within the body to maintain a portion of the soap which has been placed therein in a partially dissolved or jelled state thereby facilitating the use of the device as a replacement for a conventional bar of soap. A particularly useful means for holding a portion of water within the device comprises a raised wall surrounding the interior opening of each hole which passes through the body of the device. These inner walls not only serve to hold water within the device but also help to break up and dissolve the bits and pieces of soap within the device because they tend to form a roughened inner surface. The result is a device which holds soap in an easily dissolved and broken up condition and yet which has openings which readily drain free and do not become plugged in the manner of sponge rubber or fabric devices. A particularly useful material from which the device may be fabricated is flexible poly vinyl chloride. The device when made in the shape of an ordinary soap bar can be used in much the same manner as a conventional bar and yet retains an attractive outer surface and is capable of using bits and pieces of soap which would otherwise be discarded.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a device embodying the present invention.

FIG. 2 is a perspective view of the device of FIG. 1.

FIG. 3 is a cross sectional view taken along line 3—3 of FIG. 1.

FIG. 4 is a cross sectional view taken along line 4—4 of FIG. 2.

FIG. 5 is a partial cross sectional view taken along line 5—5 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Turning now to FIG. 1, there is shown a soap receptacle and dispensing device which has the outer shape of a conventional bar of soap and is indicated by reference character 10. The device may be fabricated from any flexible material which is resistant to water and to soap. Although the device may be made from rubber, polyethylene or other flexible plastic, it has been found that flexible poly vinyl chloride is a particularly useful material for the device of the present invention. A plurality of openings 11 are located in the upper surface 12 of device 10. Six openings 13 are provided in side 14 of the device. End 15 contains elongated slot 16 which is shown in cross sectional view in FIG. 5. The slot has a reinforced outer enlargement 17 and further contains stress relief openings 18 at each end.

The reverse side of the device of FIG. 1 is shown in perspective view in FIG. 2. Six openings 20 are located in side 21 but both end face 22 and bottom surface 23 are without openings.

The device is shown in cross sectional view in FIG. 3 where the construction of the openings is shown in more detail. Each opening has a wall or dike located within the device. For instance, each opening 11 has a wall 25, each opening 13 has a wall 26 and each opening 20 has a wall 27. As long as the openings in the side are spaced from the upper surface or the bottom surface it is not essential that these side openings contain such walls or dikes.

The function of these walls or dikes are shown more clearly in FIG. 4 where the device as oriented in FIG. 2 is depicted. A level of water 30 is maintained by the walls 25 and thus the device does not tend to drain completely dry upon standing. This water level performs an important function in that bits or pieces of soap are maintained in a partially dissolved or jelled condition so that a soap solution is quickly and easily formed by squeezing the bar and emitting additional water through the openings. If the device tended to drain dry after use, then it would take a longer time to form a soap solution within. It is believed that these walls or dikes 25 further help to break up and thus to dissolve soap by a friction or rubbing action because they tend to form a roughened inner surface for the device.

The slot or opening 16 is shown in cross sectional view in FIG. 5. This opening is operated by squeezing sides 14 and 21 towards one another and tends to close because of the elastic or flexible nature of the material from which the device is fabricated. The ends of the device surrounding slot 16 are enlarged or thickened so that the device tends to stay in a closed position.

It can be seen that the device is operated by placing one or more pieces of soap through slot 16 and placing the device under a stream of water. Although the device can be made to work with freshly added dry soap it has been discovered that if the soap is permitted to stand in the water that is retained within the device that a soap solution is far more easily obtained.

Although the device may be made in shapes other than that shown, the size of an ordinary bar of soap, namely, about 3½ inches long by 2 inches wide and 1 inch high forms a particularly useful device. While the openings in the drawing are shown as cylindrical openings, they may be formed in other shapes or designs as

long as they are not so large that pieces of soap pass readily therethrough. It has been found that openings having about 1/8 inch in diameter are particularly satisfactory. The number of openings shown in the drawings, namely, 18 holes in the upper surface and 6 holes in each side surface has been shown to provide an ideal amount of water flow. A far greater number of openings tends to permit the soap within the device to dry out too readily and to permit too much soap solution from leaving the device. Fewer holes tends to cause to little soap solution to leave the device, thus making it hard to use.

The device is most readily fabricated by slush molding or rotocasting techniques utilizing a fusible or curable plastic such as polyethylene or poly vinyl chloride. The poly vinyl chloride may be in the form of a dry fusible resin or in the form of a plastisol. The device can also be formed by injection molding techniques. The device could further be formed in two separate halves and heat sealed or glued or otherwise attached to form a hollow device.

The use of one water impermeable face has been found to create a particularly useful device in that the amount of water flowing through the device in use is not so great as to cause the soap therein to be dispensed too rapidly. Furthermore, the impermeable face if placed in the downward direction tends to hold water within the device. The openings within the side of the device are useful to prevent too great a level of water from being held within. The side openings are preferably located as shown in the drawings, that is, displaced from the center line so that the level of water is kept at a relatively low level within the device.

The present embodiments of this invention are thus to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description. All changes which come within the meaning and range of equivalency of the claims therefore

are intended to be embraced therein.

I claim:

1. A soap receptacle for holding pieces of solid soap and dispensing a soap solution, said receptacle being of the type having a hollow, flexible, permeable body which permits water to enter and a soap solution to exit wherein the improvement comprises:

a flexible, hollow plastic body having an outer surface in the shape of a common bar of soap having two identical parallel faces joined by two elongated rectangular end surfaces and two elongated rectangular side surfaces, said body having a plurality of openings having a width of about 1/8 inch there-through;

a soap entry port, sufficient in size to permit the passage of solid pieces of soap into said body, said port having means for closing to prevent any solid soap placed within said body from exiting therethrough; and

means comprising a wall completely surrounding the inwardly directed entrance of each of said openings in said parallel surfaces for holding sufficient water within said body to maintain a portion of solid soap placed therein in a partially dissolved state for at least one day.

2. The receptacle of claim 1 wherein said body is formed from poly vinyl chloride.

3. The receptacle of claim 1 wherein one of said parallel faces is water impermeable and the second of said parallel faces is water permeable.

4. The receptacle of claim 1 wherein said body is formed from flexible poly vinyl chloride.

5. The receptacle of claim 1 wherein said water permeable face has 18 of said openings.

6. The receptacle of claim 1 wherein said faces have an outside diameter of about 3 1/2 inches by 2 inches and the outer surfaces thereof are spaced about 1 inch apart.

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