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TUBULAR CONTAINER HOLDER FOR SHOWER HEAD

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FIG. 1.

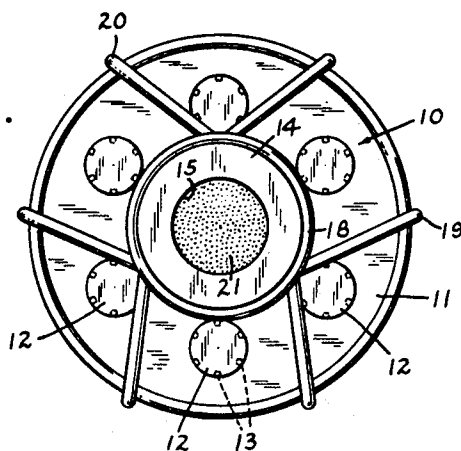
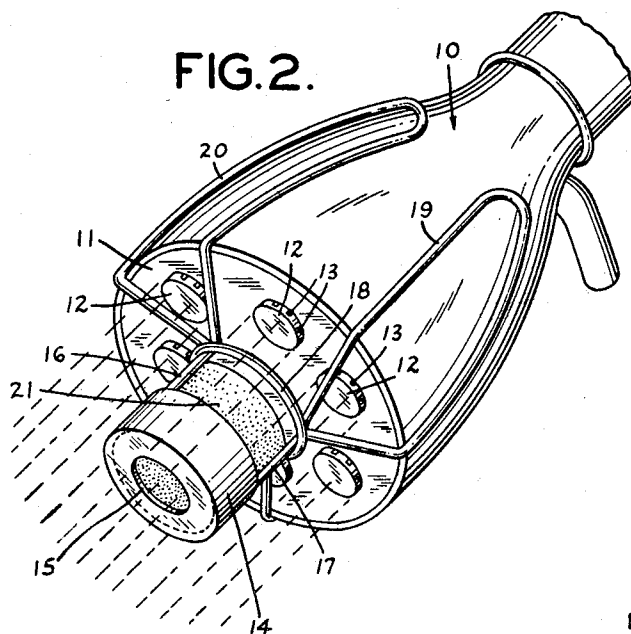


FIG. 2.



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3,180,579 TUBULAR CONTAINER HOLDER FOR SHOWER HEAD

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This invention relates to attachments for bath shower heads, spray nozzles and the like for holding a water-treating composition, for example, a water softening body oil and perfuming composition, a medicinal composition or a product containing a combination of such compositions.

Devices have been proposed heretofore for holding a composition for treating water discharged from a shower head, to perfume or to add to the water a medicinal material. Such prior devices usually include a bag formed of a porous textile material or a container having a plurality of small holes therein disposed below the shower head and adapted to receive a granular or powdered water-treating composition. In theory, the prior devices are suitable for the intended purpose, but in fact they are impractical and unsatisfactory. Inasmuch as the water-treating materials of necessity must be water-soluble, they are partially dissolved and partially softened by contact with the water and hence tend to cake in the perforated or bag-like device with the result that they clog the perforations or the pores and prevent the water from passing through the holder. The holder and its contents thus become ineffective to treat water after a very short period of use, even though a comparatively large proportion of the water-treating material may remain in the holder.

In accordance with the present invention, a holder is provided for receiving a cake or pellet of water-treating material and holding it in a position such that the water from a shower head or spray nozzle can come in direct contact with the cake or pellet, gradually dissolve its exposed surface, and mix it with the water to treat the water.

More particularly, the holder includes an open-ended container for the cake or pellet constructed and arranged to enable the water discharged from the spray head or nozzle to flow over the cake or pellet and around the container and through the container when the pellet or cake has been substantially depleted. Inasmuch as the container of the holder does not have any small perforations therein which might be clogged by the softened water-treating material, efficient and complete utilization of the pellet or cake is assured.

For a better understanding of the present invention, reference may be had to the accompanying drawing, in which

FIGURE 1 is an end elevational view of a shower head having a holder attached thereto of the type embodying the present invention; and

FIGURE 2 is a perspective view of the shower head and the holder embodying the present invention.

A known form or type of shower head is shown in the drawing for purposes of illustration. It will be understood that the holder embodying the present invention may be used with other shapes and forms of shower or spray heads than that shown in the drawing. As illustrated, the shower head 10 is of a generally conical shape having a flat end 11 provided with a plurality of small protrusions 12, each provided with a plurality of perforations 13 through which the water issues in a series of streams providing a spray-like shower.

The holder for water-treating composition embodying the present invention includes a generally cylindrical cup-shaped member 14 having a large opening 15 in its bottom. The cup-like container 14 is connected as by brazing, soldering, welding or the like to a plurality of wire or rod-like supporting elements 16, 17, etc. disposed around its periphery, these rods being joined radially together by

means of a retaining ring 18 spaced from the upper edge of the cup-like container 14. The rod-like ends may be bent to form skeleton-like fingers 19, 20, etc. which are adapted to grip the shower head 10 to retain the container 14 thereon in spaced relation to the protuberances 12 on the shower head. The fingers 19 and 20 may be of any desired configuration depending upon the type of shower head to which the holder is to be attached, and they may be formed of a deformable wire or other material to enable the fingers to be adjusted to securely grip shower heads of different shapes and sizes.

A solid cake or pellet 21 of a water-treating composition is received in the container 14. If the device is to be used in a hard water area, the pellet 21 may be composed largely of water-softening reagents of well-known types, such as, for example, soda ash, sal soda, sodium silicate, or mixtures of the same in combination with other inert filler materials, detergents, perfuming and coloring agents, or the like. If desired, a slow-dissolving synthetic detergent may be included in the pellet and it may include medicinal or disinfectant preparations. In any event, the pellet 21 should dissolve at a relatively slow rate so that the shower may be used a number of times before the pellet requires replacement. The pellet is of such size that a substantial proportion of the used cake or pellet projects toward the shower head 10 from the container 14 so that it is directly in the path of the water issuing from the openings 13 in the shower head. The water impinging on the exposed end and sides of the pellet dissolves the surface of the pellet and mixes it with the sprays to perform its intended function. As the material is dissolved, the pellet shrinks in length and transverse dimension, but regardless of the extent to which it is worn away, a surface or several surfaces of the cake or pellet are always exposed to the water sprays, and consequently the water with the dissolved portion of the cake will be discharged even out of the upper end of the cup into the path of the spray so that the dissolved material will mingle with the water. When the pellet becomes sufficiently small due to dissolution and erosion, its center may be worn through and in that event, water can then pass through the cake or pellet out of the opening 15 until all of the material is dissolved. At this time, a replacement pellet may be inserted in the container 14 for continued use of the attachment.

In a typical holder, the cup 14 may be formed of metal or plastic suitably plated or otherwise treated to render it attractive in appearance. The rods 17 of the fingers 19, 20, etc. formed from the rod may also be formed of metal and may be provided with a covering of soft rubber or the like to prevent scratching the shower head. If desired, the entire attachment may be formed of a metal or other suitably strong or reinforced plastic to render it resistant to damage by impact or the like. The cup or container 14 in a typical unit may have an internal diameter between about 1¼ and 1½ inches, and the opening 15 in the end of the container may be on the order of ½ to ¾ inch in diameter to render it essentially non-clogging.

It will be understood that the holder is susceptible to modification in dimensions and in shape to render it usable with various types of shower heads or sprays and, accordingly, the forms of the invention disclosed herein should be considered as illustrative.

I claim:

1. A holder for compositions for treating water discharged from a shower head comprising a tubular container having an open upper end, an inwardly projecting flange forming an opening adjacent to the other end of said container, said flange engaging and supporting a solid cake of a water-treating composition in said container with one end of said cake exposed at the open upper end

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of said container and said cake closing said opening, and resilient finger members secured to said container for engaging a shower head and supporting said container in the path of water discharged from said shower head, with said upper end of said container in spaced relation to and opposing said shower head.

2. A holder for compositions for treating water discharged from a shower head comprising a tubular container having open opposite ends, a flange adjacent to one end of said container, a cake of a water-treating composition in said container engaging said flange and closing one end of said container, said cake having an end portion exposed at the other end of said container, a plurality of resilient fingers fixed to said container and extending beyond said other end of said container for detachably engaging a shower head and supporting said con-

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tainer and said end portion of said cake in spaced opposed relation to said shower head.

3. The holder set forth in claim 2 in which at least the surfaces of said resilient fingers comprise a rubbery material.

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