Aug. 3, 1943. S. O. FERGUSON 2,325,758

WATER HEAD DEVICE

Filed Aug. 18, 1941

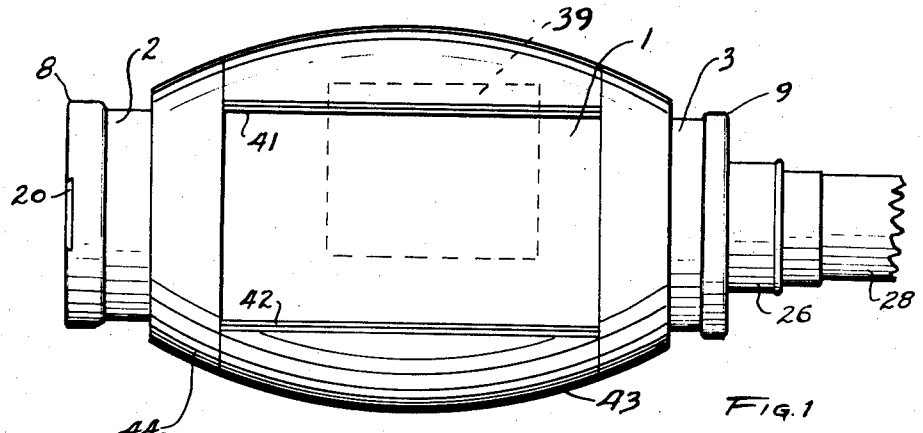


FIG. 1

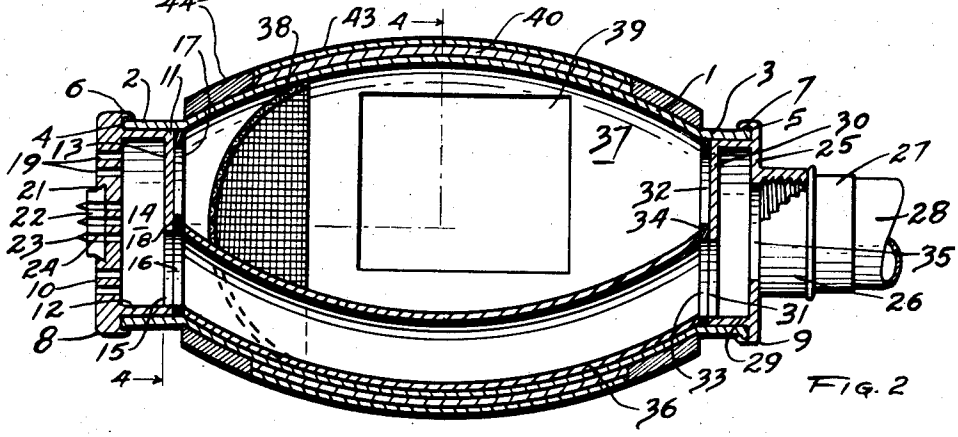


FIG. 2

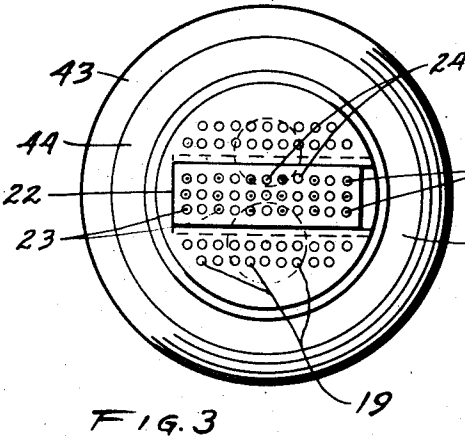


FIG. 3

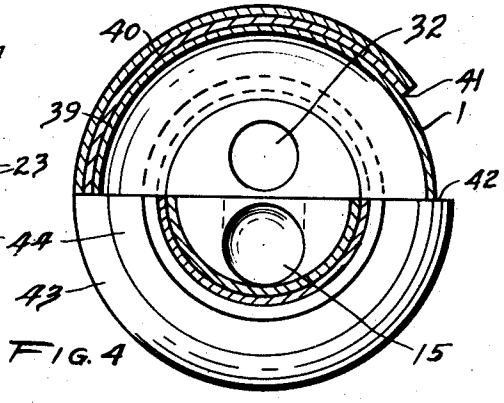


FIG. 4

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WATERHEAD DEVICE

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2 Claims. (Cl. 15—129)

This invention relates to a device for washing purposes and especially for soaping and rinsing dishes. The device, however, may be employed for a great number of uses; for instance as the shower head in a shower bath and also can be used as a washer for automobiles and windows.

The device has two compartments, one a soap compartment, and the other, a passage for clear clean water. Valve means are provided to control the direction of the water through the device; that is, guide the hot or cold water either through the soap compartment or the clear water passage. Means are provided to avoid mixing the water in the two compartments, and also for preventing the soap from being pushed through the water outlet as pieces or chunks of soap. The device is adapted to efficiently use any kind of soap whether it is in large or small pieces such as in cake form or flake or chip form.

One of the principal objects of this invention is to present a cleaning device that is simple and sturdy in construction, highly efficient and economical to manufacture.

Another object is to provide a washing and/or cleaning device that soaps the article to be cleaned as well as supply clean water to wash away the soap and dirt, and which also has a brush to loosen hard and sticky stuff on the article.

Other objects, advantages and features of my invention will appear from the accompanying drawing, the subjoined detailed description, the preamble of these specifications, and the appended claims.

Applicant is about to illustrate and describe one of the forms of her invention in order to teach one how to make, use and vent the same, but it is to be understood that the drawings and description thereof are not to limit the invention in any sense whatsoever, except as limited by the appended claims.

In the drawing:

Fig. 1 shows the invention in side elevational view with the brush removed.

Fig. 2 is a longitudinal cross section of the device with the brush in place.

Fig. 3 is a front elevational view of the face of the device.

Fig. 4 is a section taken substantially along the line 4—4 of Fig. 2.

The reference character 1 indicates the main shell or container of the washing device having end extensions 2 and 3 which are preferably integral with the main shell. The main shell is shown as having a barrel or keg configuration with cylindrical extensions, but it is to be understood that the general form of the invention may be of various shapes, the shape depending much upon the manner in which it is to be used.

The very edges of the extensions 2 and 3 have short turned-up flanges or beads 4 and 5 respectively which are adapted to engage the annular grooves 6 and 7 respectively of the spun or turned down flanges at the edges of the valve elements 8 and 9 respectively. When these elements are once clamped to their respective extensions, they can not be accidentally removed and hence will always remain in their proper place for the purposes to be later revealed.

The front cap, or valve element 8 is one integral piece and comprises the disc 10 and the cylindrical cup 11 having the side 12 and bottom 13 which provides a chamber 14 at the rear of the disc 10. The bottom has a relatively large circular opening 15 which is designed to register with either circular opening 16 or 17 of a fixed partition or disc plate 18. This plate has its edges cemented or otherwise fixed to the extension 2. The valve element 8 is constructed to rotate within the extension 2, therefore, the annular bead 4 and flange 6 are not coupled together tight but, are sufficiently snug to avoid accidental turning of the element in the extension.

A plurality of holes 19 are provided in the spray disc and also a dove tailed groove 20 adapted to receive the dove tailed base 21 of the brush element 22. This forms a slide arrangement so that any one of a number of brushes can be removably attached to the face of the spray head. In this particular showing, the brush has rubber projections 23. A plurality of holes 24 are provided in the brush base so that water can freely pass therethrough.

At the other end of the washing device is the valve element 9 having the disc plate 25 with a threaded coupling extension 26 for the threaded male end of the coupler 27 of the flexible hose 28. This hose, when the device is used for washing dishes, would be connected to the hot water faucet at the kitchen sink. Should the device be used as the shower head of a shower bath, the coupler 26 would be directly connected with the overhead ball joined nipple of the shower bath plumbing.

This valve element also has an integral cup, the side wall of this cup being indicated by the numeral 29, and the bottom wall by 30. The bottom wall is provided with the relatively large

circular opening 31 which is adapted to be shifted so as to register with either the circular opening 32 or 33 of the disc plate 34. This plate being cemented or otherwise fixed to the inner wall of the extension 3. The valve element 9 is adapted to be turned in the manner stated for the valve element 8. A large opening 35 is provided in the disc 25 so that water is free to pass from the hose 28, through the opening 35 and either one of openings 32 or 33 depending upon the position of the opening 31 of the valve element.

A curved circular pipe 36 follows the wall of the shell 1 and connects the openings 16 and 33. Over this pipe and around some is a large chamber 37 which is the compartment wherein the cake of soap or other cleansing substance, not shown, is situated, or soap flakes or soap powder in the event same is used. To prevent small pieces of soap, or the cake of soap from contacting the outlet opening 17 and thus blocking same, a curved wire screen 38 is employed. This screen has the general shape of a half sphere, the ends thereof being cemented or otherwise fixed to the inner wall of the shell 1, a portion being cut away to accommodate the pipe 36. This screen allows ample room for the water to pass therethrough even though the cake of soap is laying against it.

A rectangular opening 39 is provided in the wall of the shell 1 so that soap or some other cleansing substance can be placed into the chamber 37. This opening is closed by a curved door or sheet 40 which is configurated to snugly fit the outer surface of the shell 1. The door does not entirely surround the shell as it has the ends 41 and 42, see Figs. 1 and 4, so that these ends can be spread apart when the door is placed onto the shell, therefore, the door should be made of springy material such as thin spring steel. There should be enough friction and tightness between the door and shell to prevent water leaking through the opening 39. A thin layer of graphite might be placed between the door and shell. When the opening between the door ends 41 and 42 are in register with the opening 39, a cake of soap can be easily placed within the chamber 37. The opening 39 is opened and closed by sliding the door 40 around the surface of the shell 1.

To avoid burns to the hands of the user, insulation 43 is cemented or otherwise fixed to the outer surface of the door 40, and similar insulation 44 provided to cover the outer surface of the shell between the slidable door 40 and the extensions 2 and 3. Any suitable insulation may be employed such as cork, water proofed insulating fabrics, rubber, etc.

The entire device may be made of plastics and little if any metal used since metals at this time is not readily available for many non-defense purposes. The brush may be entirely all rubber. The base thereof may be hard rubber and the projections of soft rubber. For some kinds of cleaning, the base of the brush may be wood or plastics, and the projections of stiff hair bristles.

Although this invention relates principally to the use of cleansing substances, it is also within the purview of this invention that medicines, water softeners, colorings, etc., may be used instead of soap in the chamber 37.

Having thus described my invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A washing device comprising a barrel shaped container having a soap compartment and a water duct passing therethrough, valve means at both ends of the container, said means having exterior operating annular rings so that the valves can be rotarily shifted to open or close their ports, coupling means attached to one valve means for connection to a supply of water, and a hollow spray head attached to and integral with the other valve means, said valves allowing water to pass through either the duct or the soap compartment.

2. A washing device comprising a barrel shaped container having a soap compartment and a water duct passing therethrough, valve means at both ends of the container, said means having exterior operating annular rings so that the valves can be rotarily shifted to open or close their ports, coupling means attached to one valve means for connection to a supply of water, and a hollow spray head attached to and integral with the other valve means, said valves allowing water to pass through either the duct or the soap compartment, a chamber in the valve means at the spray head, an opening into the soap compartment and a door for closing the opening, insulation covering the door and other parts of the device for the purposes described.

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