Title: ARRANGEMENT OF A WASHING-UP LIQUID BOTTLE OR THE LIKE

Abstract: The invention relates to an arrangement of a washing-up agent bottle or the like, consisting of a compressible container (2) and of a dosage device (4) located at the upper portion (3) of the container (2) and permitting shutting thereof. The dosage device (4) has an opening (5) leading to a bowl-shaped dipping basin (6) in the upper portion (3). The opening (5) can be closed by a lid (9) covering it. The upper portion (3) has a wall portion (10) defining the dipping basin (6) and comprising a collar (12) which defines the dipping basin (6) and pivotably supports the lid (9) which, when in its closed position, does sealingly contact the collar (12) and keeps the opening (5) closed with the aid of a bead (14) projecting from its bottom side, when hook means (19, 20) located at the end portion (15) of the lid (9) have by a snapping action been received in recesses (21, 22) in the upper portion (3) of the container (2).
Arrangement of a washing-up liquid bottle or the like

The present invention relates to the design of a washing-up liquid bottle or the like, consisting of a compressible container and of a dosage member located at the upper end of the bottle and permitting closure of the container.

A difference between the washing-up liquid bottle according to the present invention and bottles now available in the market is that the former includes both a dosage device and a dipping basin. In contrast to the prior art bottles the new one can, when a small amount of dishes is to be washed up, be left on the zinc unit without any need to lift it up thanks to the possibility to, by a slight compression of the bottle, fill the dipping basin at the top of the bottle with the desired volume of washing-up agent. The presence there of the liquid makes it possible conveniently to wash up e.g. a coffee cup or a butter knife by simply dipping a dishbrush somewhat into the liquid and then washing the article in question. Another disadvantage of the above-mentioned, prior art washing-up bottles resides in that it is difficult exactly to select the proper amount of the agent by simply directing the spout towards the washing-up bowl and then to squeeze. In those cases the amount of the agent often becomes too high which is detrimental for both environmental and economical reasons. A prior art dosage bottle of a similar type is disclosed in US 3,921,860. It includes a pipe for the agent which is to be pumped up to the dipping basin and to be used for cleaning the teats of animals. In that case the pipe is located inside the dipping basin proper.

The object of the present invention is to provide an arrangement of a washing-up agent bottle of the type mentioned above at which the drawbacks from which the prior art bottles are suffering have been eliminated. The features characterizing the invention are set out in the subsequent claims.
Thanks to the invention there has now been provided a washing-up agent bottle which in an excellent manner satisfies the requirements and, at the same time, is both cheap and simple to manufacture. The mode of operation of the bottle according to the invention can be summarized in the following way. One does first compress the bottle somewhat in order to fill the dipping basin to the level desired as determined by the washing-up work to be performed. One does then either use the dipping basin of the bottle to handle smaller amounts of articles to be washed up or one does, using the dipping basin as a dosage instrument, pour the correct amount of the liquid into the water in e.g. the washing-up bowl or zinc to be used in the actual situation. In this way one does prevent use of an unnecessarily high amount of washing-up agent and corresponding environmental effects.

According to the invention the dipping basin is designed in a very suitable way permitting a predetermined amount of water and washing agent to be mixed therein with a simultaneous stirring by use of a dish-brush, resulting in a suitable mixing ratio agent-water without the presence of any pipes for supplying the agent which could prevent such stirring. According to the invention this has been solved in such a way that the delivery pump tube is entirely enclosed in the lateral wall of the dipping basin. Further, the lid of the dosage device has been given such a shape that it can be folded away from the dipping basin when opened. This protects the lid from being smeared by the dish-brush which could make it difficult to close the lid so that it covers the delivery opening of the bottle. In addition thereto the amount of material required in the manufacturing process is reduced as compared with the larger lids covering all of the dosage basins, e.g. as shown in the above-mentioned US patent specification.

Two preferred embodiments of the invention will now be described, reference being made to the accompanying drawing.
Fig. 1 is a diagrammatic perspective view showing a first embodiment of the invention and illustrating a washing-up agent bottle in its closed position,

Fig. 2 is a diagrammatic perspective view illustrating an alternative embodiment wherein the lid of the bottle is in a closing position above the dosage member,

Fig. 3 shows the bottle in fig. 2 with its lid open,

Fig. 4 is a diagrammatic perspective view of the upper portion of the bottle illustrated in Figs. 2 and 3,

Fig. 5 does, on a magnified scale and in a cross-sectional view, show the dosage device and its lid,

Fig. 6 is a perspective view illustrating how the dipping basin of the bottle can be used for mixing e.g. washing up agent and water.

As has been shown more in detail in Figs. 1-3, the washing-up agent bottle 1 does, according to two illustrated, preferred embodiments of the invention, consist of a compressible container 2 and of a dosage device 3, located at the upper portion 3 of the container 2 and adapted to close the container which, in addition to the two shapes illustrated in Figs. 1 and 2, may assume any suitable shape, such as square, ovale, hexagonal etc.

The dosage device 4 has an opening 5 leading to a bowl-shaped dipping basin 6 in the upper portion 3. The dipping basin 6 is intended to receive a predetermined amount of a washing-up agent or the like, said amount being readable on a scale or graduation 7 on the lateral wall of the basin 6. In the embodiment shown in Figs. 2-6 the dipping basin 6 has a shape adapted to the shape of a dish-brush 16 or the like.
The dosage opening 5 is, in a way which is known per se and more closely illustrated in Fig. 2, connected to a pipe 17 extending downwards into the interior of the container 2 for the purpose of feeding up a washing agent or the like to the dipping basin 6 upon compression of the container 2. The opening 5 can be closed by means of a lid 9. As shown more in detail in Figs. 4 and 5, lid 9 is bent at an angle and by means of a hinge 18 pivotably mounted at a lateral portion 10 of the dipping basin 6 forming a spout 11 and an oppositely located collar 12 which both defines the basin 6 and supports the lid 9. In its closed position lid 9 is in sealing contact with the collar 12 and, at the same time, its free, angled portion 13, having a bead 14 projecting therefrom, does press against and close the opening 5 when hook means 19, 20 have by a snapping action been received in recesses 21, 22 at both sides of the opening 5. This is attained thanks to the fact that the collar 12, at least below the contact surface of lid 9, is curved in the special way shown whereby the dosage opening 5 can be securely closed by exertion of an extra pressure against the end portion 15 of lid 9 when hook means 19, 20 are during the snapping movement, received in their recesses 21,22. In order to facilitate the opening of lid 9 its end portion 15 may be provided with a handle 23.

In the example shown lid 9 is flush-mounted in the collar 12 thereby creating a continuous contour for the bowl-shaped portion of the bottle 1 in the position which lid 9 assumes when closed. Lid 9 may also on its bottom surface 26 have guide means 24,25 cooperating with recesses 27,28 in the collar 12.

The mode of operation of the bottle according to the present invention is as follows. As appears from figs. 1 and 3 a washing-up agent or some other liquid is by pumping or compression manually fed up to the dipping basin 6 when lid 9 has been opened. With the aid of graduation 7 it is possible exactly to determine the amount of liquid which has been
supplied. That liquid can then be mixed with water or with some other liquid in the dipping basin which in that case also serves as a mixing basin. The ready-mixed liquid can then via the spout 11 be poured out from the basin 6 since, thanks the design of the lid 9, the dosage device 4, now closed, does efficiently prevent the liquid remaining in the container 2 from pouring or leaking out.

The chief field of use of the container 2 is in connection with washing-up agents but, naturally, it can also be used with other liquids which are to be dosed and/or mixed whereupon the liquid can be poured out of the basin 6, if desired.
Claims

1. A bottle for a washing-up liquid or the like consisting of a compressible container (2) and a dosage device (4) located at the upper portion (3) thereof, arranged to close the container and having an opening (5) leading to a bowl-shaped dipping basin (6) adapted to receive a predetermined amount of a washing-up agent or the like, said opening (5), which communicates with a pipe (17) extending downwards into the interior of the container (2), can be closed by means of a lid (9) arranged above it, characterized therein that said upper portion (3) exhibits a wall portion (10) with a collar (12) defining said dipping basin (6) and pivotally supports said lid (9) which, when in its closed position, sealingly contacts said collar (12) and is pressed against the opening (5) so as to close it by means of a bead (14) projecting from its bottom side, following that hook means (19, 20), located in the end portion (15) of the lid (9), have by a snapping action engaged recesses (21, 22) in said upper portion (3) of the container (2).

2. A bottle according to claim 1, characterized in that the collar (12) is curved, at least below the contact surface of lid (9) which has an angled shape matching said curvature of collar (12).

3. A bottle according to claim 1, characterized in that the wall portion (10) opposite the collar (12) has a supply spout (11).

4. A bottle according to claim 1, characterized in that shape of the bowl-like dipping basin (6) is adapted to cooperate with the shape of a dish-brush or the like (16).

5. A bottle according to claim 1, characterized in that
the bowl-shaped dipping basin (6) has a graduation (7) indicating the volume of the washing-up agent received therein.

6. A bottle according to claim 1, characterized in that the lid (9) is flush-mounted in the collar (12).
# INTERNATIONAL SEARCH REPORT

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC7:** B65D 47/08, G01F 11/28  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

**IPC7:** B65D, G01F  
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## WPI, EPDOC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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* Further documents are listed in the continuation of Box C.  
* See patent family annex.

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