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(54) **WALL-MOUNTED DISPENSER FOR LIQUID SOAP AND THE LIKE**

(57) Wall-mounted dispenser (1) for liquid soap or the like, which comprises a bracket (11) adapted to be fixed to a wall (2), the bracket (11) comprising a cantilevered support (12) for supporting a refill (3), the cantilevered support (12) being passed through by the mouth (31) of the refill and comprising means (14, 15) for keeping the refill hung on the bracket (11) on the side of the mouth (31); the dispenser (1) comprises an actuation lever (5) which is pivoted on the bracket (11) and which can oscillate above the cantilevered support (12), the lever (5) being directly accessible to a user and being connectable to the actuator (41) of an offtake pump (4) associated with the refill (3), so as to dispense a dose of the contents of the refill through an oscillation of the lever (5) toward the cantilevered support (12).

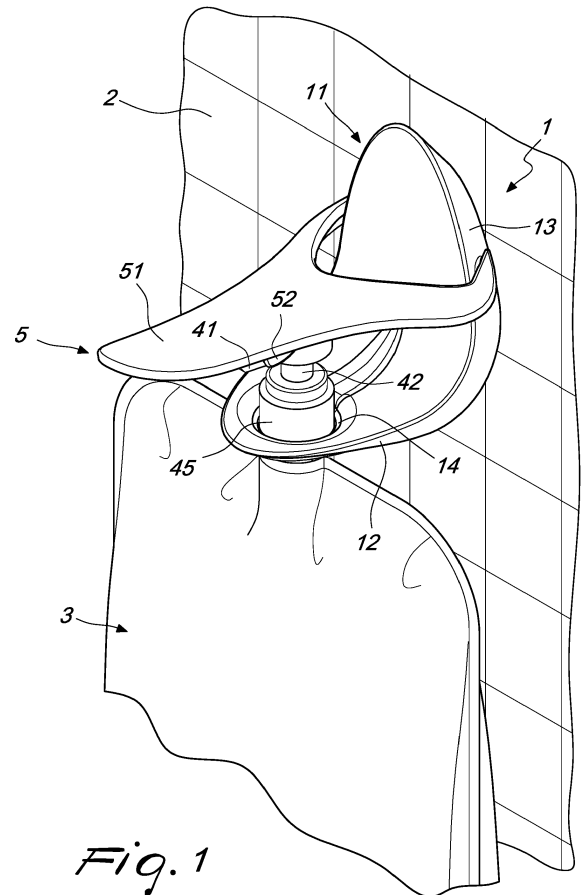


Fig. 1

EP 3 420 869 A1

Description

[0001] The present invention relates to a wall-mounted dispenser for liquid soap or similar substances in liquid or cream form, such as detergents and sanitizers.

[0002] Currently dispensers for liquid soap are known which can be fixed to a wall and which have a substantially closed casing, inside which a refill of liquid soap, supplied in the form of a bottle or a flexible pouch, is positioned.

[0003] A characteristic of such dispensers is that the refill needs to be installed with the mouth downward, and this can make the installation of the refill inconvenient, since the overturning causes the outflow of the liquid from the mouth when the stopper is removed.

[0004] Also, the fact that the casing is completely closed and must therefore be opened in order to be able to replace the exhausted refill makes the practicality of such dispensers inconvenient. Moreover, such a closed configuration of the casing entails a considerable use of plastic for its manufacture.

[0005] Furthermore, with conventional dispensers it is difficult to dispense soap on the hands when these are dirty and/or wet and the user does not want to use them to press the button or the lever that dispenses the soap from the dispenser.

[0006] Conventional dispensers also have a spout for the outflow of soap which, in the long term, can become clogged with solid residues of soap that need to be removed by way of suitable washing.

[0007] The aim of the present invention is to provide a wall-mounted dispenser for liquid soap or similar liquids which is capable of improving the known art in one or more of the above mentioned aspects.

[0008] Within this aim, an object of the invention is to provide a wall-mounted dispenser that facilitates the installation of the refill.

[0009] Another object of the invention is to provide a wall-mounted dispenser that reduces the consumption of plastic for its manufacture.

[0010] A further object of the invention is to provide a wall-mounted dispenser that makes it possible to avoid using the hands to dispense the liquid.

[0011] Furthermore, another object of the present invention is to overcome the drawbacks of the known art in an alternative manner to any existing solutions.

[0012] Another object of the invention is to provide a wall-mounted dispenser that is highly reliable, easy to implement and low cost.

[0013] This aim and these and other objects which will become better apparent hereinafter are achieved by a dispenser according to claim 1, optionally provided with one or more of the characteristics of the dependent claims.

[0014] Further characteristics and advantages of the invention will become better apparent from the detailed description that follows of a preferred, but not exclusive, embodiment of the dispenser according to the invention,

which is illustrated by way of non-limiting example in the accompanying drawings, wherein:

- Figure 1 is a perspective view of the dispenser according to the invention;
- Figure 2 is a side view of the dispenser of the previous figure;
- Figure 3 shows the installation of a refill on the dispenser of the previous figures.

[0015] With reference to the figures, the wall-mounted dispenser according to the invention, generally designated by the reference numeral 1, comprises a bracket 11 which is adapted to be fixed to a wall 2 and is made, for example, of a polymeric material such as polycarbonate.

[0016] The bracket 11 is preferably substantially L-shaped and can be fixed to the wall 2 by way of a vertical portion 13 thereof, which can comprise eyelets that can be passed through by screws or nails and/or engagement seats for the heads of screws or nails.

[0017] The bracket 11 comprises a cantilevered support 12 which protrudes transversely with respect to the vertical portion 13. The cantilevered support 12 is adapted to support a refill 3 and, in particular, it can be passed through by the mouth of a refill 3 of liquid soap or of other substances in liquid or cream form, such as detergents or sanitizers. The refill 3 is preferably a flexible pouch, for example a doypack, and is provided with a rigid spout-like mouth 31 which is connectable to a pump 4 for drawing out the liquid or cream substance contained in the pouch.

[0018] The offtake pump 4 is conventional per se and comprises an actuator 41 through which the substance pumped from the refill 3 exits, a piston-stem 42 which is associated with the actuator 41 and which ends in a liquid accumulator 43, a dip tube 44 and a stopper 45 which is passed through by the piston-stem 42.

[0019] The stopper 45 can be an internally-threaded bell, as in the case shown, and in any case it is adapted to be fixed preferably removably to the mouth 31 of the refill, for example by way of a threaded coupling as in the case shown in the drawings.

[0020] According to an aspect of the invention, the cantilevered support 12 comprises means for keeping the refill 3 hung on the bracket 11 at the end with the mouth 31. These means for keeping the refill 3 hung preferably comprise a through opening 14 which can be passed through by the mouth 31 of the refill, as in the case shown, and by one end of the offtake pump 4, for example by the accumulator 43 and by the dip tube 44.

[0021] The gap of the opening 14 advantageously has a diameter that is smaller than the diameter of the stopper 45 at the lower edge 46 of the latter, so that the edge 46 can be rested on the peripheral edge 15 of the opening 14 and enable the refill 3 to remain hung on the bracket 11 through the coupling between the mouth 31 and the offtake pump 4 and the resting of the latter on the peripheral edge 15 of the opening 14.

[0022] Optionally, the mouth 31 of the refill 3 can comprise a radial protrusion 32 which enables the peripheral edge 15 of the opening 14 to be clamped between the lower edge 46 of the stopper 45 and the radial protrusion 32 of the mouth 31, thus stabilizing the fixing of the refill 3 on the dispenser 1.

[0023] In an alternative embodiment, not shown, the means for keeping the refill 3 hung on the bracket 11 on the side of the mouth 31 comprise a recess on the rim of the cantilevered support 12, for example a C-shaped peripheral recess, into which the mouth 31 of the refill 3 can be radially fitted and fixed therein either by clamping between the radial protrusion 32 of the mouth 31 and the lower edge 46 of the stopper 45 of the offtake pump 4, or by mechanical interference, for example, between the peripheral edge of such recess and that of the mouth 31.

[0024] In another embodiment, not shown, the means for keeping the refill 3 hung on the bracket 11 can be hooks, onto which adapted eyelets provided beside the mouth of the refill can be coupled, for example along the upper rim of the flexible pouch that constitutes the container of the refill 3.

[0025] Also according to the invention, the dispenser 1 further comprises an actuation lever 5 which is pivoted on the bracket 11, in particular on the vertical portion 13 of the bracket, and can oscillate above the cantilevered support 12.

[0026] The fulcrum of the lever 5 is preferably at one end of the lever 5 and protrudes transversely from the vertical portion 13 of the bracket so as to be superimposed on the opening 14, while remaining spaced apart from it, during the normal use of the dispenser 1.

[0027] The lever can be associated with the actuator 41 of the offtake pump 4 of the refill 3, so as to dispense a dose of the contents of said refill by way of an oscillation of the lever 5 toward said cantilevered support.

[0028] The coupling with the actuator 41 can be obtained by way of tabs 52 which protrude below the lever and are adapted to be engaged from below with the nozzle of the actuator 41 in order to make the actuator 41 integral with the oscillations of the lever 5.

[0029] The lever 5 is directly accessible to a user and advantageously comprises a concavity 51 that is directed away from the cantilevered support 12 of the refill, so as to provide an ergonomic surface that can be pressed with the user's forearm without, therefore, using the hands.

[0030] Operation of the dispenser according to the invention is evident from the foregoing description.

[0031] In particular, when a refill of liquid soap or of another liquid or cream substance needs to be installed, the lever 5 is raised and the mouth 31 of the refill 3, after being opened, is fitted from below into the opening 14 of the bracket 11, while the offtake pump 4 with the corresponding dip tube 44 is fitted from above the opening 14 into the mouth 31.

[0032] Then the stopper 45 is screwed onto the mouth 31 and the refill 3 remains hung by virtue of the resting of the stopper 45 on the rim of the opening 14.

[0033] Finally the lever 5 is lowered so as to make it integral with the actuator 41 of the pump 4 and to press it when the lever is pressed by the user.

[0034] In practice it has been found that the invention fully achieves the intended aim and objects by providing a wall-mounted dispenser that is substantially open, which thus facilitates installation of the refill and requires much less plastic for its manufacture than conventional, closed dispensers.

[0035] By using a lever that can oscillate above the support of the refill, a user can dispense the liquid in the refill using his/her forearm, thus avoiding using the hands, which may be dirty or wet.

[0036] The invention, thus conceived, is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims. Moreover, all the details may be substituted by other, technically equivalent elements.

[0037] In practice, the materials used, as well as the contingent shapes and dimensions, may be any according to the requirements and to the state of the art.

[0038] The disclosures in Italian Utility Model Application No. 202017000071429 from which this application claims priority are incorporated herein by reference.

[0039] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A wall-mounted dispenser (1) for liquid soap or similar substances in liquid or cream form, which comprises a bracket (11) adapted to be fixed to a wall (2), said bracket (11) comprising a cantilevered support (12) for supporting a refill (3), **characterized in that** said cantilevered support (12) can be passed through by the mouth (31) of the refill and comprises means (14, 15) for keeping said refill hung on the bracket (11) on the side of the mouth (31), and **in that** said dispenser (1) comprises an actuation lever (5) which is pivoted on said bracket (11) and which can oscillate above said cantilevered support (12), said lever (5) being directly accessible to a user and being connectable to the actuator (41) of an offtake pump (4) associated with said refill (3), so as to dispense a dose of the contents of said refill through an oscillation of said lever (5) toward said cantilevered support (12).
2. The dispenser according to claim 1, wherein said means for keeping said refill hung on the bracket comprise a through opening (14) or a recess on the peripheral region of the cantilevered support, it being

possible for said mouth (31) of the refill and/or one end (43, 44) of said offtake pump to pass through said opening or said recess.

- 3. The dispenser according to claim 2, wherein said offtake pump (4) comprises a stopper (45) which is passed through by a piston-stem (42) of said actuator (41) and which can be fixed, preferably removably, to said mouth (31), said stopper (45) or said mouth (31) having a diameter greater than the diameter of said opening (14) or recess, so as to keep said refill hung by way of resting an edge (46, 32) of said stopper (45) or of said mouth (31) on a peripheral edge (15) of said opening (14) or recess. 5
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- 4. The dispenser according to claim 3, wherein said edge of said stopper is the lower edge (46) of said stopper (45). 15
- 5. The dispenser according to claim 3, wherein said edge of said mouth is a radial protrusion (32) of said mouth or associated with said mouth. 20
- 6. The dispenser according to one or more of claims 2-5, wherein said lever (5) is pivoted on said bracket (11) at one end of said lever and protrudes transversely from said bracket so as to be superimposed on, while remaining spaced apart from, said opening or recess during the use of said dispenser. 25
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- 7. The dispenser according to one or more of the preceding claims, wherein said bracket has a substantially L-shaped profile and comprises a vertical portion (13) which can be fixed to said wall (2) and from which said cantilevered support (12) protrudes transversely. 35
- 8. The dispenser according to one or more of the preceding claims, wherein said lever comprises an ergonomic concavity (51) facing in the opposite direction from said cantilevered support (12). 40

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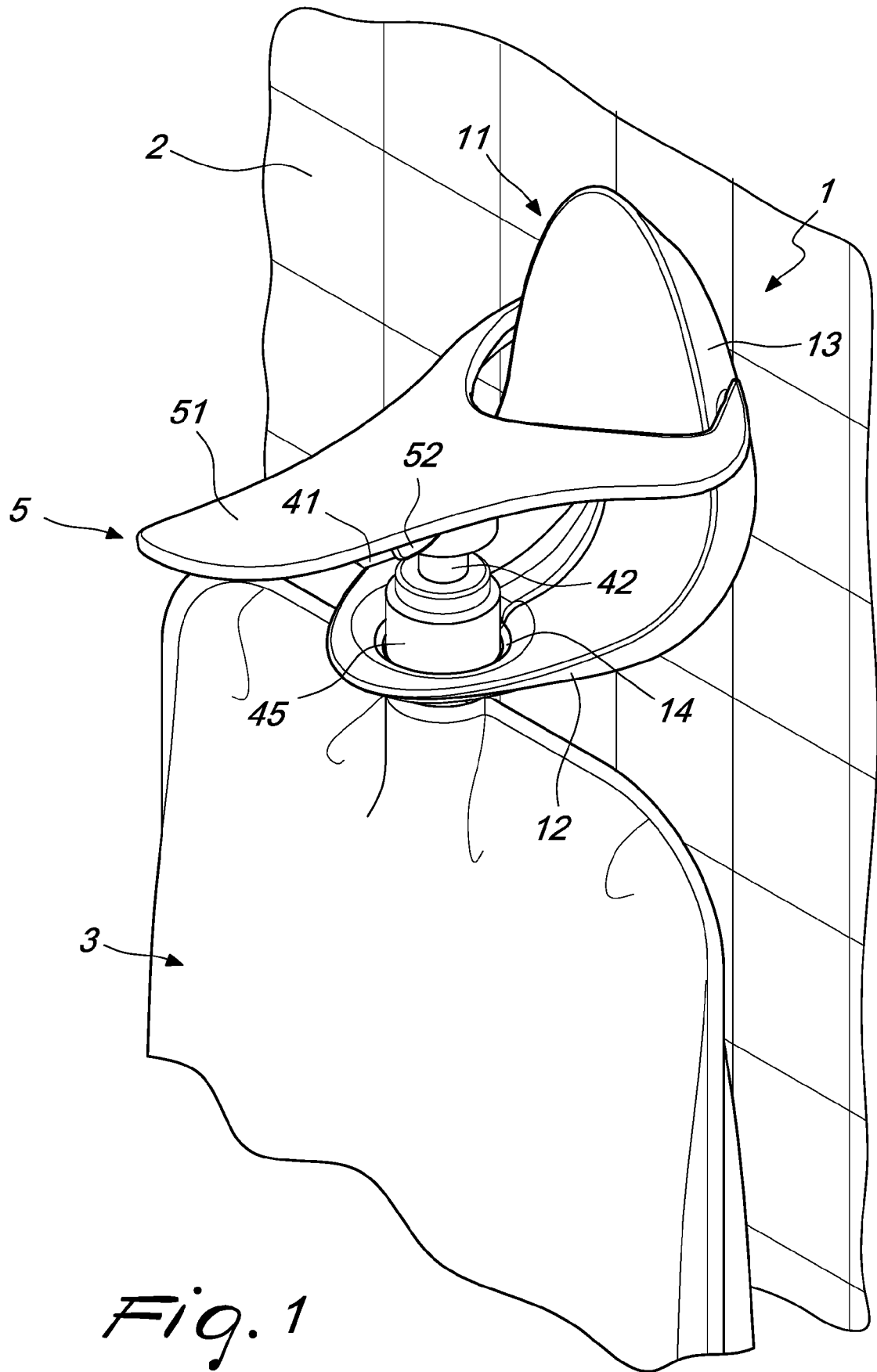


Fig. 1

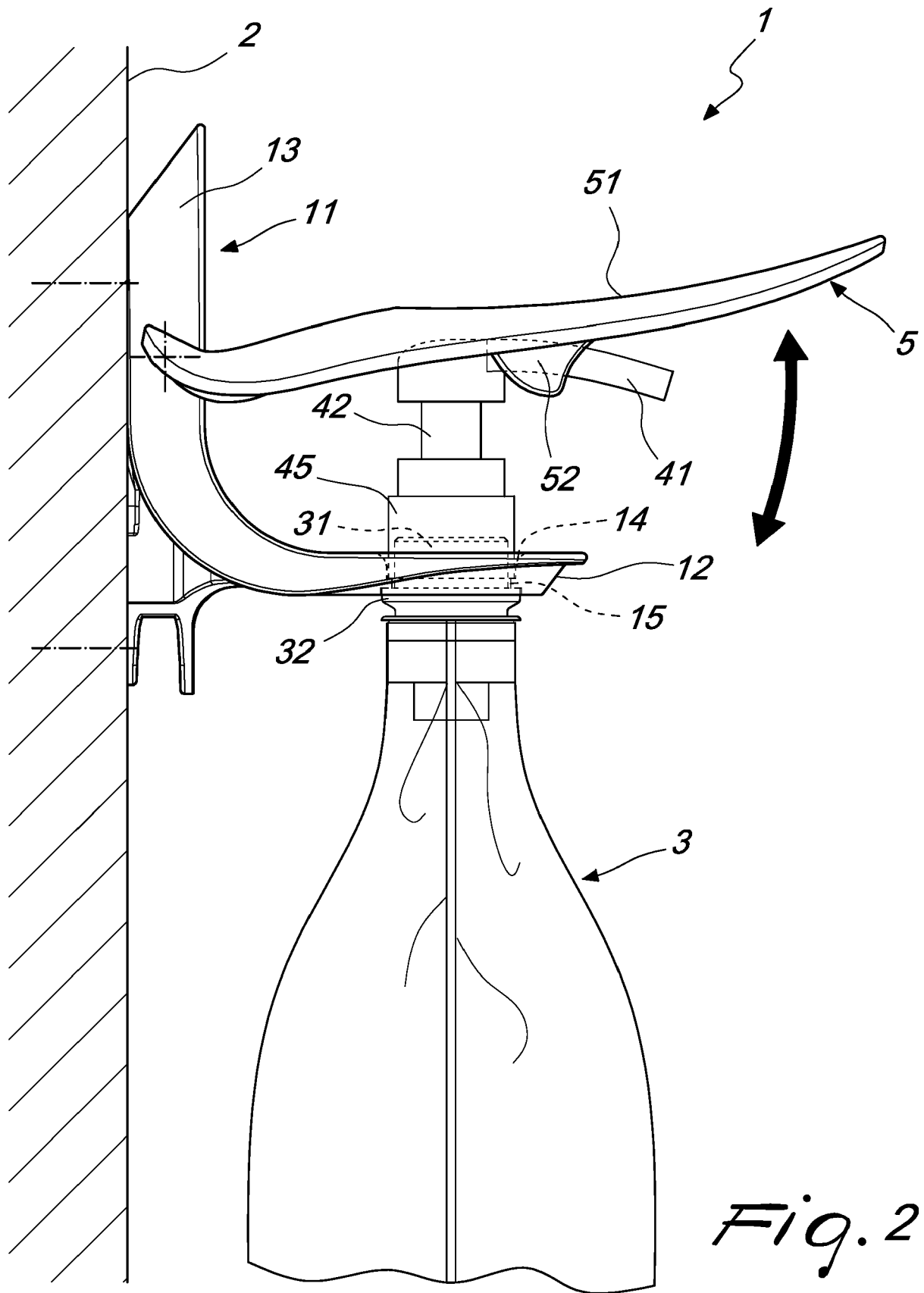


Fig. 2



EUROPEAN SEARCH REPORT

Application Number
EP 18 17 8944

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP 2002 153393 A (OHINATA KAZUHIRO) 28 May 2002 (2002-05-28) * abstract; figures 1-4 * -----	1-8	INV. A47K5/12 A47L13/512
X	US 2017/105584 A1 (OPHARDT HEINER [CH] ET AL) 20 April 2017 (2017-04-20) * figures 7,8,14-20 * -----	1-7	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47K A47L A47G
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 5 November 2018	Examiner Zuurveld, Gerben
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 18 17 8944

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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05-11-2018

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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- IT 202017000071429 [0038]