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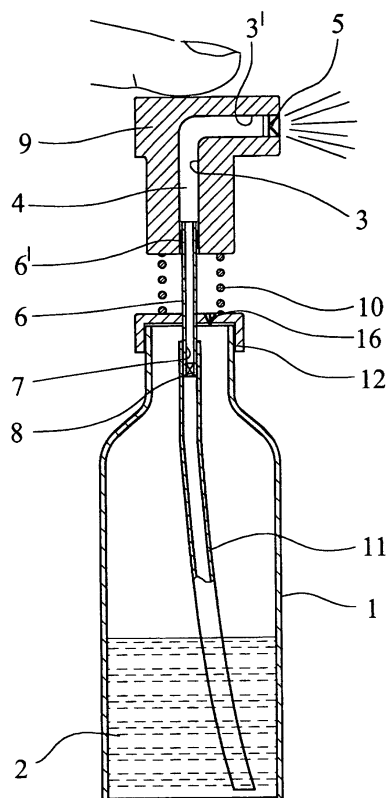
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(54) **Finger operated spray pump**

(57) A finger operated spray pump comprises a liquid reservoir (1) intended to contain a supply of liquid (2), a cylinder (3) connected at one end to an atomiser (5) and intended to contain a portion of liquid from the reservoir (1), a part of which is to be ejected through the atomiser (5), a piston (6) sealingly mounted within the cylinder (3) and movable within and relative to the cylinder (3) in a spray stroke a passageway means (7) connecting the cylinder (3) with the supply of liquid (2) in the liquid reservoir (1), a one way valve means (8) at the passageway means (7) allowing a flow of liquid only from the supply of liquid (2) into the cylinder (3), and a finger operated actuator (9) displaceable by finger pressure relative to the liquid reservoir (1) in the spray stroke. Here the outer diameter of the piston (6) and the corresponding inner diameter of the cylinder (3) is between about 0,5 mm and about 4,0 mm the nozzle-diameter of the atomiser (5) is between 15 µm and 150 µm the operating pressure within the cylinder (3) during the spray stroke with average finger force is between 10 bar and 400 bar preferably between about 50 bar and about 100 bar, and the atomiser (5), the cylinder (3), the piston (6) and the one way valve means (8) are manufactured from materials and in a way to withstand the elevated operating pressure.



**Fig. 1**

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# EUROPEAN SEARCH REPORT

Application Number  
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 3 June 2004	Examiner Eberwein, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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 &amp; : member of the same patent family, corresponding document</p>			

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