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(54) **Dosage pump**

(57) A dosage pump, of the type comprising a hollow body (11) which is adapted to be interposed between pipe portions of a hydraulic circuit and is provided internally with a rotating element (12) provided with vanes, which rotates as a consequence of the flowing fluid and is associated with means (13) for transmission and speed reduction and with means (14) for converting the rotary motion into reciprocating rectilinear motion, which in turn are connected to means (15) for drawing and pumping the liquid to be dosed, the latter means being provided, inside a container (16) for the liquid which is fixed to the hollow body (11), by an injection stem (17) which is moved by the motion conversion means (14) so as to enter and exit with its end (18) from a dosage chamber (19), which on the opposite side with respect to the entry side for the injection stem (17) is closed by a flow control element (20), which is pushed closed by elastic means (21); the chamber (19) is connected to the inside of the container (16) on the side of the stem (17) and to a channel (22) for connection to a tube (23) for the rise of the dosed liquid on the side of the flow control element (20) toward the hollow body (11). The chamber (19) and the connection channel (22) are formed in a single body (24), inside which the flow control element (20) with its elastic closure means (21) is also fitted.

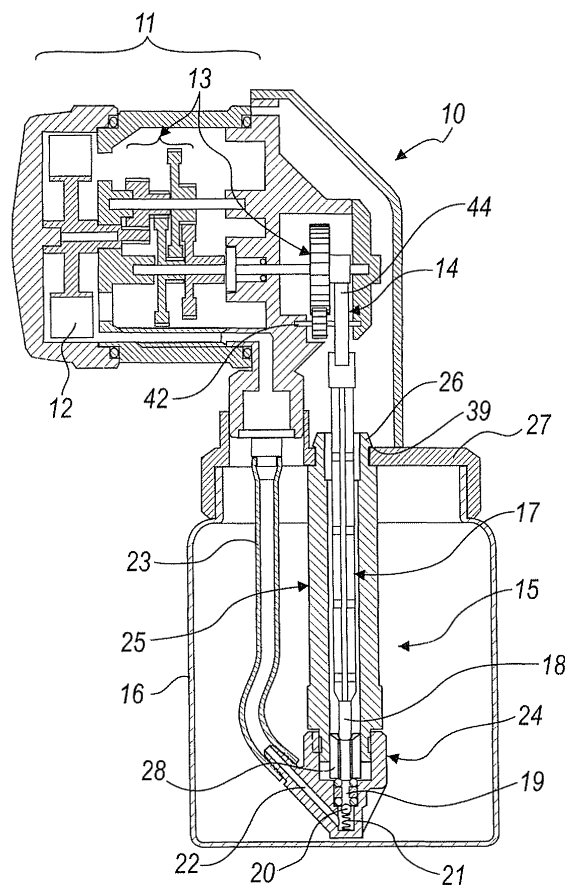


Fig. 1



EUROPEAN SEARCH REPORT

Application Number
EP 07 10 2387

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	GB 1 395 206 A (LANG APPARATEBAU GMBH) 21 May 1975 (1975-05-21) * figure 1 * * sentences 85-114 * -----	1,5,8,9	INV. F04B13/00 F04B17/00
A	US 3 549 048 A (GOODMAN CHARLES R) 22 December 1970 (1970-12-22) * abstract; figures 1,2 * * column 2, lines 6-21 * -----	1,9	
A	US 3 821 963 A (OLSON R ET AL) 2 July 1974 (1974-07-02) * figure 1 * * column 1, lines 5-9 * * column 2, lines 54-64 * * column 3, lines 4-29 * -----	1,9	
A	US 4 321 938 A (SILLER RUDI) 30 March 1982 (1982-03-30) * figures * * column 2, lines 63-68 * * column 3, lines 45-48 * * column 3, line 67 - column 4, line 26 * -----	1,3,5,9	TECHNICAL FIELDS SEARCHED (IPC) F04B
A	EP 0 029 979 A (LANG APPARATEBAU GMBH [DE]) 10 June 1981 (1981-06-10) * page 1, lines 2-8 * * page 4, lines 11-21 * * claim 4; figures * -----	2,7,10, 11	
A	FR 2 429 463 A (POLLARD JEAN AUGUSTIN [FR] POLLARD JEAN AUGUSTIN) 18 January 1980 (1980-01-18) * figure 2 * * page 3, lines 26-36 * -----	10,11	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 June 2009	Examiner Richmond, Robin
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 07 10 2387

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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22-06-2009

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
GB 1395206	A	21-05-1975	AT	364543 B	27-10-1981
			BE	791997 A1	28-05-1973
			CH	548540 A	30-04-1974
			DE	2159247 A1	07-06-1973
			DK	143912 B	26-10-1981
			FR	2163159 A5	20-07-1973
			IT	971269 B	30-04-1974
			NL	7214834 A	04-06-1973

US 3549048	A	22-12-1970	NONE		

US 3821963	A	02-07-1974	NONE		

US 4321938	A	30-03-1982	DE	2927617 A1	08-01-1981
			EP	0022179 A1	14-01-1981
			JP	56014916 A	13-02-1981

EP 0029979	A	10-06-1981	DE	2948582 A1	04-06-1981

FR 2429463	A	18-01-1980	NONE		
