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(71) Applicant:
**SEIKO EPSON CORPORATION
Tokyo 163 (JP)**

(72) Inventor:
**Nishioka, Atsushi,
c/o Seiko Epson Corporation
Suwa-shi, Nagano-ken 392 (JP)**

(74) Representative:
**Hoffmann, Eckart, Dipl.-Ing.
Patentanwalt,
Bahnhofstrasse 103
82166 Gräfelfing (DE)**

(54) **Tube pump and ink-jet recording device using it**

(57) A tube pump for use in an ink-jet recording device comprises: a rotor plate (104) mounted for rotation about a first axis, a flexible tube (103) adapted to be inserted in an ink path of said recording device, a tube guide (106A) having an arcuate shape concentric to said first axis, part of said tube being mounted on the tube guide, a lever (107) pivotally mounted on said rotor plate (104) about a pivot axis parallel to said first axis, a roller (105) mounted on the lever for rotation about a second axis parallel to but radially displaced from said first axis, and urging means (108) urging the lever toward the circumference of said rotor plate. The roller (105) is shiftable relative to the lever between a first position and a second position wherein, in the second position, the second axis is closer to the first axis than in said first position. When the rotor plate is rotated in one direction and the roller is turned to a location inside the angular range of said arcuate tube guide (106A), it is moved to its first position and elastically pressed against said tube (103) backed by said tube guide so as to close the tube. When the rotor plate is rotated in the opposite direction the roller is moved to the second position and the pressure on the tube is relieved.

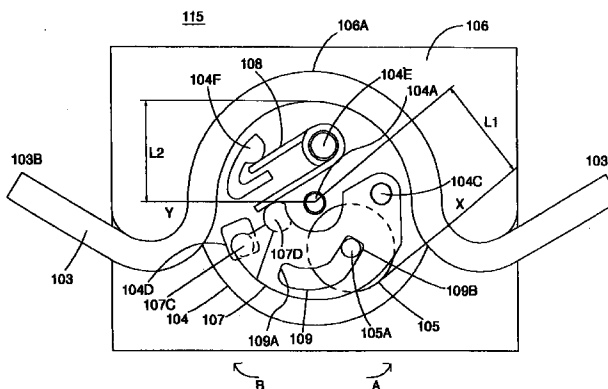


FIG. 2

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EUROPEAN SEARCH REPORT

Application Number
EP 97 11 1766

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Y,D	PATENT ABSTRACTS OF JAPAN vol. 95, no. 1, 28 February 1995 & JP 06 286158 A (SEIKO EPSON CORP), 11 October 1994 * abstract *	1-5,7,8, 10	B41J2/175 B41J2/165 F04B43/12
Y	US 2 314 281 A (KNOTT) 16 March 1943 * page 1, right-hand column, line 15 - page 2, right-hand column, line 39; figures 1-6 *	1-5,7,8, 10	
A	FR 2 722 139 A (SEIKO EPSON CORPORATION) 12 January 1996 * page 14, line 20 - page 20, line 9; figures 13A-19 *	1-10	
A	PATENT ABSTRACTS OF JAPAN vol. 95, no. 11, 26 December 1995 & JP 07 217541 A (FUMITO KUMATSU), 15 August 1995 * abstract *	1	
A	US 3 737 256 A (DE VRIES) 5 June 1973 * column 1, line 47 - column 3, line 4; figures 1-5 *	1	
A	US 2 696 173 A (JENSEN) 7 December 1954 * column 2, line 11 - column 5, line 11; figures 1-4 *	1	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 October 1998	Examiner Rivero, C
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