

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 670 218 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
08.01.1997 Bulletin 1997/02

(51) Int Cl.⁶: **B41J 2/045, B41J 2/14**

(43) Date of publication A2:
06.09.1995 Bulletin 1995/36

(21) Application number: **95301259.8**

(22) Date of filing: **27.02.1995**

(84) Designated Contracting States:
DE GB IT

(30) Priority: **03.03.1994 JP 59872/94**
20.01.1995 JP 6845/95

(71) Applicant: **FUJITSU LIMITED**
Kawasaki-shi, Kanagawa 211 (JP)

(72) Inventors:

- **Onda, Nobuhiko, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Mikami, Tomohisa, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Nakazawa, Akira, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Kutami, Miohiori, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Suzuki, Shigeharu, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)

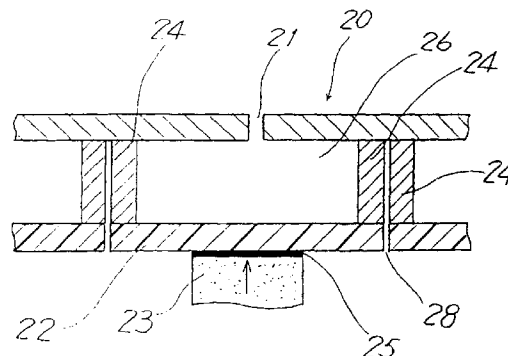
- **Yamagishi, Fumio, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Kato, Masayuki, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Koike, Shuki, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Kashioka, Junji, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Sakai, Shino, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Taniguchi, Osamu, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)
- **Soneda, Hiromitsu, c/o Fujitsu Ltd.**
Kawasaki-shi, Kanagawa, 211 (JP)

(74) Representative: **Billington, Lawrence Emlyn et al**
HASELTINE LAKE & CO
Hazlitt House
28 Southampton Buildings
Chancery Lane
London WC2A 1AT (GB)

(54) Ink jet head

(57) Disclosed is an ink jet head for jetting out an ink in a pressure chamber 26 by applying a pressure to the pressure chamber 26 for accommodating the ink. The ink jet head comprises a nozzle plate 20, including a nozzle 21 for jetting out the ink, a pressurizing plate 22 provided in parallel to the nozzle plate 20 and a wall member 24, exhibiting an elasticity, for forming the pressure chamber 26 by connecting the nozzle plate 20 to the pressurizing plate 22. The ink jet head further comprises a piezoelectric actuator 23, fixed to the pressurizing plate 22, for driving the pressurizing plate so as to deform the wall member 24.

FIG. 2



EP 0 670 218 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 95 30 1259

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)
A	PATENT ABSTRACTS OF JAPAN vol. 16, no. 487 (M-1323), 9 October 1992 & JP-A-04 179550 (A. TOMOAKI), 26 June 1992, * abstract *	1,2	B41J2/045 B41J2/14
D,A	EP-A-0 491 961 (FUJITSU LTD) * column 6, line 5 - column 7, line 24 * * figures 4A-4E *	1	
A	US-A-4 184 169 (T.F.E. TAYLOR) * the whole document *	1	
A	EP-A-0 067 948 (IBM CORP.) * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B41J
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 13 November 1996	Examiner Van den Meerschaut,G
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			

EPO FORM 1503 03.82 (P4/C01)