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(11) **EP 0 774 355 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
19.11.1997 Bulletin 1997/47

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

(43) Date of publication A2:
21.05.1997 Bulletin 1997/21

(21) Application number: **97101749.6**

(22) Date of filing: **10.02.1994**

(84) Designated Contracting States:
DE GB SE

(30) Priority: **10.02.1993 JP 22571/93**

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
94300968.8 / 0 611 154

(60) Divisional application:
97114689.9
97114688.1

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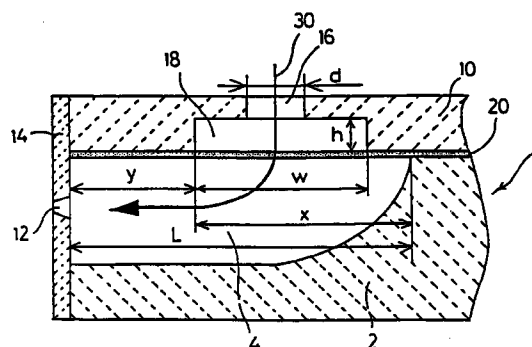
Remarks:

Divisional application 97114688.1 filed on 25/08/97.

(54) **Ink jet apparatus**

(57) An ink jet apparatus includes a plurality of ink chambers (4) each having a front end and a rear end, a manifold (18) provided to introduce ink into each ink chamber (4) with a front side surface on a side near the front end of each ink chamber (4), and a nozzle provided at the front end of each ink chamber (4). Ink is jetted from the nozzle by applying pressure to the ink contained in each ink chamber (4). A position of the manifold (18) is such that a distance between the front side surface of the manifold (18) and the rear end of each ink chamber is set to 0.2mm or more, and a distance between the front side surface of the manifold (18) and the nozzle is set to 3mm or more. Accordingly, pressure necessary for jetting ink droplets can be maintained for a relatively long period of time. Therefore, the ink can be smoothly introduced from the manifold (18) into each ink chamber (4), thereby improving print quality.

Fig.14



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EUROPEAN SEARCH REPORT

Application Number
EP 97 10 1749

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	EP 0 364 136 A (AM INT) 18 April 1990 * abstract * * column 5, line 55 - column 7, line 8; figures 2,3 * * column 4, line 41 - column 5, line 1 * ---	1,2,10, 11,13-16	B41J2/14 B41J2/045
A	EP 0 522 814 A (TOKYO ELECTRIC CO LTD) 13 January 1993 * abstract; claims 1-3; figures 2,3,11 * ---	1,2,10, 11,14-16	
A	EP 0 513 971 A (TOKYO ELECTRIC CO LTD) 19 November 1992 * abstract * * page 7, line 10-32; claims 1,2 * * page 6, line 17-24 * ---	1,16	
A,D	US 4 887 100 A (MICHAELIS A JOHN ET AL) 12 December 1989 * abstract; figures 1A,2A * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B41J
Place of search BERLIN Date of completion of the search 30 April 1997 Examiner Nielsen, M 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 (P04C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

☒ LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1,2,10-16 wherein certain distances are defined.
2. Claim 3 wherein a certain area is defined.
3. Claims 4,5 wherein a certain roughness is defined.
4. Claim 6 wherein a certain size is aimed at.
5. Claims 7,8 wherein a certain relationship between sectional areas is defined.
6. Claim 9 wherein a certain depth is aimed at.

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respects of which search fees have been paid,

namely claims:

- ☒ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.

namely claims: 1, 2, 10-16