(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 761 442 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
13.08.1997 Bulletin 1997/33

(43) Date of publication A2:
12.03.1997 Bulletin 1997/11

(21) Application number: **96113658.7**

(22) Date of filing: **26.08.1996**

(51) Int. Cl.[6]: **B41J 2/06**, B41J 2/14

(84) Designated Contracting States:
DE FR GB

(30) Priority: **28.08.1995 JP 218779/95**
14.09.1995 JP 236276/95

(71) Applicant: **NEC CORPORATION**
Tokyo (JP)

(72) Inventors:
- **Uematsu, Ryosuke**
  Minato-ku, Tokyo (JP)
- **Suetsugu, Junichi**
  Minato-ku, Tokyo (JP)
- **Shima, Kazuo**
  Minato-ku, Tokyo (JP)
- **Minemoto, Hitoshi**
  Minato-ku, Tokyo (JP)
- **Hagiwara, Yoshihiro**
  Minato-ku, Tokyo (JP)

(74) Representative: **Glawe, Delfs, Moll & Partner**
Patentanwälte
Postfach 26 01 62
80058 München (DE)

(54) Electrostatic ink-jet recording head having a plurality of partitions in the direction of ink ejection

(57) Recording electrodes 2 are formed on a substrate 1. A cover member 6 having a ink chamber therein is fixed onto the recording electrodes 2. Charged color particulate materials are used in the ink. Partitions 10 are formed between the tips of the recording electrodes 2 and the tip portion of the cover member 6. The tip portions of the partitions 10 are disposed so as to be located on the side of ink ejection with respect to the tip portions of the recording electrodes 2, and the tips of the partitions at a side of the substrate 1 are indented toward the tips of the recording electrodes 2. Therefore, charged toner particles quickly concentrate on ink menisci formed at the indenting portion under the partitions 10, to thereby enable stable ink supply and high-speed printing.

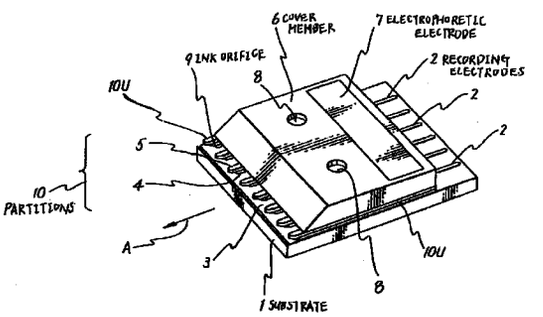

FIG. 3

EP 0 761 442 A3

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 96 11 3658

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)
D,A	WO 93 11866 A (AUSTRALIA RES LAB) 24 June 1993 * page 9, line 14 - line 31; figure 4 *	1	B41J2/06 B41J2/14
D,A	PATENT ABSTRACTS OF JAPAN vol. 010, no. 088 (M-467), 5 April 1986 & JP 60 228162 A (TOKYO DENKI KK), 13 November 1985, * abstract *	1	
A	PATENT ABSTRACTS OF JAPAN vol. 008, no. 020 (M-271), 27 January 1984 & JP 58 179663 A (NIPPON DENSHIN DENWA KOSHA), 20 October 1983, * abstract *	1	

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

B41J

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	12 June 1997	Wehr, W

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)