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(11) **EP 0 764 529 A3**

(12) **EUROPEAN PATENT APPLICATION**

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

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

(43) Date of publication A2:
26.03.1997 Bulletin 1997/13

(21) Application number: **96250175.5**

(22) Date of filing: **15.08.1996**

(84) Designated Contracting States:
DE FR GB

(30) Priority: **16.08.1995 JP 208863/95**

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(54) **Electrostatic ink-jet recording head**

(57) A recording electrode 2 is formed on a base plate 1. A cover member 4 having an ink flow path 3 therein is fixed on the base plate. Color particle is used as ink. A convex portion 12 is formed at a tip end portion of a cover member 4 on an ink ejection side. The convex portion 12 is located at a position projecting beyond a tip end portion of the base plate 1 having the recording electrode 12. An ink meniscus 8 is formed along the convex portion 12 on the cover member side. Thus, a component of an electric field tangent direction in the ink meniscus is directed in the tip end direction of the convex portion 12. The convex portion is sawtoothed to increase the electric field component. As a result, it is possible to rapidly supply the charged color particle to the tip end of the meniscus. At the same time, it is possible to carry out the recording at a high speed with high precision.

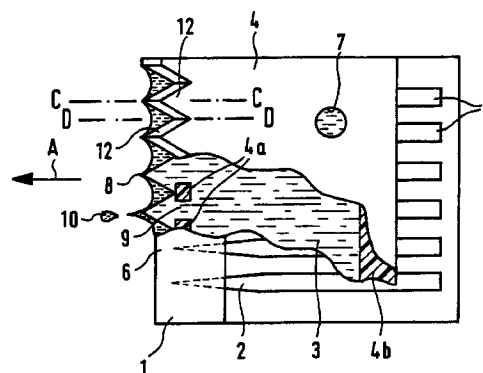


FIG. 5



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EUROPEAN SEARCH REPORT

Application Number
EP 96 25 0175

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	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		13 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			

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