

12

EUROPEAN PATENT APPLICATION

21 Application number: 83100729.9

51 Int. Cl.³: B 41 J 3/04

22 Date of filing: 27.01.83

30 Priority: 27.01.82 US 343288

43 Date of publication of application:
03.08.83 Bulletin 83/31

88 Date of deferred publication of search report: 18.07.84

84 Designated Contracting States:
BE DE FR GB IT NL SE

71 Applicant: TMC Company
P.O. Box 423
Wayne Pennsylvania 19087(US)

72 Inventor: Hou, Shou L.
123 Wood's Land
Radnor Pennsylvania 19087(US)

74 Representative: Bauer, Wulf, Dr.
Wolfgang-Müller-Strasse 12
D-5000 Köln 51 (Marienburg)(DE)

54 A multi-jet single head ink jet printer.

57 In a jet type printing system a plurality of ink jets are provided in line in the direction of carriage movement. The ink jets are deflected to print in a conventional manner and also pass by charging electrodes (16) which charge individual droplets as they are broken off from the jets. The charging electrodes (16) are provided with a charge to produce scanning transverse to the direction of carriage movement such that if no charge is provided, ink will be caught in a catcher (36) and returned to the ink reservoir for reuse. By interlining the lines a faster more effective printing occurs. Interlining may be done in accordance with several stated methods. An alternative provides ink jets one above the other with deflection means (34) causing deflection to occur in opposite directions so that one effectively scans up and the other scans down, this alternative preferably employing a pair of ink catchers (36) for the respective jets.

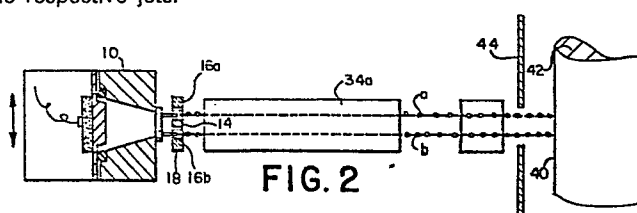


FIG. 2



European Patent
Office

EUROPEAN SEARCH REPORT

0084891

Application number

DOCUMENTS CONSIDERED TO BE RELEVANT			EP 83100729.9
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 7)
X	DE - A - 2 344 453 (IBM) * Fig. 3 *	1, 2, 4, 5, 6, 9	B 41 J 3/04
	--		
X	DE - B2 - 2 402 541 (IBM) * Fig. 5 *	1, 2, 4, 5, 6, 9	
	--		
X	US - A - 4 272 771 (FURUKAWA) * Claims; fig. 10 *	1, 2, 4, 5, 6, 9	
	--		
X	US - A - 4 194 210 (KRAUSE) * Totality *	1, 2, 4, 5, 9	
	--		
A	US - A - 4 085 409 (PARANJPE) * Abstract; fig. 1-4 *	1, 4, 5, 8, 9	TECHNICAL FIELDS SEARCHED (Int. Cl. 7)
	--		
A	US - A - 4 222 058 (GUDORF) * Totality *	3	B 41 J 3/00 G 01 D 15/00
	--		
D,A	US - A - 3 298 030 (LEWIS)		
	--		
D,A	US - A - 3 596 275 (SWEET)		

The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 06-04-1984	Examiner WITTMANN
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			