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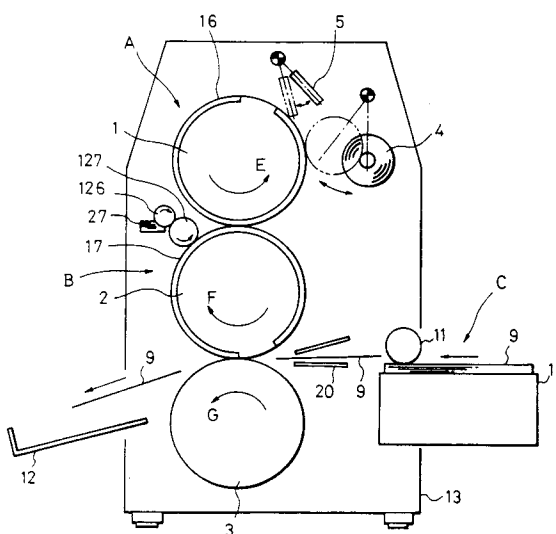
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DE FR GB(88) Date of deferred publication of the search report:
25.08.93 Bulletin 93/34(71) Applicant: **CANON KABUSHIKI KAISHA**
30-2, 3-chome, Shimomaruko, Ohta-ku
Tokyo(JP)(72) Inventor: **Yanagi, Haruyuki, c/o CANON****KABUSHIKI KAISHA****3-30-2 Shimomaruko****Ohta-ku, Tokyo 146(JP)**Inventor: **Kohmura, Noboru, c/o CANON****KABUSHIKI KAISHA****3-30-2 Shimomaruko****Ohta-ku, Tokyo 146(JP)**Inventor: **Okamura, Yoshitaka, c/o CANON****KABUSHIKI KAISHA****3-30-2 Shimomaruko****Ohta-ku, Tokyo 146(JP)**(74) Representative: **Tiedtke, Harro, Dipl.-Ing. et al**
Patentanwaltsbüro, Tiedtke-Bühling-Kinne &
Partner, Bavariaring 4
D-80336 München (DE)(54) **Image recording apparatus and method having an efficient ink supply means.**

(57) An image recording apparatus includes a printing plate (17) having an image area and an ink supply device (1) for supplying ink to the printing plate (17). The ink is supplied within a range almost corresponding to the image area by the ink supply device (1).

FIG. 1





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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.5)
X	EP-A-0 292 938 (CANON) * page 4, line 31 - page 8, line 35 * * page 11, line 3 - line 9; figures 1-6 *	1, 13	B41J2/33 B41J2/005
A	---	2, 3, 7, 8, 14, 15	
A	US-A-4 614 950 (ITO) * column 3, line 17 - column 4, line 24 * * column 12, line 55 - column 15, line 11; figures 2, 8, 9 *	1-3, 7, 8, 13-15	
A	--- PATENT ABSTRACTS OF JAPAN vol. 11, no. 111 (M-578)(2558) 8 April 1987 & JP-A-61 255 871 (SEIKO) 13 November 1986 * abstract *	1-3, 13-15	
A	--- PATENT ABSTRACTS OF JAPAN vol. 5, no. 166 (M-93)(838) 23 October 1981 & JP-A-56 089 967 (SHINKO DENKI) 21 July 1981 * abstract *	1-3, 13-15	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	--- WO-A-9 010 542 (FUJITSU) * abstract; figures 2-5, 10, 13-15 * & EP-A-0 437 612 (FUJITSU) * page 4, line 49 - page 6, line 49; figures 2-5, 10, 13-15 * * page 8, line 1 - line 12 * * page 8, line 45 - page 10, line 23 *	1-3, 13-15 1-3, 13-15	B41J
A	--- EP-A-0 254 420 (CANON) --- -/--		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 09 JUNE 1993	Examiner ADAM E.M.P.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			



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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:

See sheet -B-

- ☒ 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 respect 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:



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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.5)
A	EP-A-0 325 803 (OKI) * column 3, line 5 - column 5, line 37; figures 1-3 *	9,19	
A	--- PATENT ABSTRACTS OF JAPAN vol. 5, no. 107 (P-70)11 July 1981 & JP-A-56 048 632 (FUJI PHOTO FILM) 1 May 1981 * abstract *	9,19	
A	--- PATENT ABSTRACTS OF JAPAN vol. 9, no. 161 (P-370)5 July 1985 & JP-A-60 035 734 (FUJI SHASHIN FILM) 23 February 1985 * abstract *	9,19	
A	--- PATENT ABSTRACTS OF JAPAN vol. 6, no. 242 (M-175)30 January 1982 & JP-A-57 140 185 (KONISHIROKU) 30 August 1982 * abstract *	9,19	
A	--- US-A-4 423 681 (SMITH) * column 3, line 60 - column 4, line 15; figures 1,2 *	10,20	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	--- PATENT ABSTRACTS OF JAPAN vol. 8, no. 68 (P-264)30 March 1984 & JP-A-58 214 159 (DAINIPPON INSATSU) 13 December 1983 * abstract *	10,11, 20,21	
A	--- PATENT ABSTRACTS OF JAPAN vol. 7, no. 24 (M-189)29 January 1983 & JP-A-57 178 796 (DAINIPPON INSATSU) 4 November 1982 * abstract *	10,20	
--- -/--			
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 09 JUNE 1993	Examiner ADAM E.M.P.
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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A	PATENT ABSTRACTS OF JAPAN vol. 13, no. 473 (M-884)26 October 1989 & JP-A-11 86 338 (CANON) 25 July 1989 * abstract *	12,22	
A	--- PATENT ABSTRACTS OF JAPAN vol. 13, no. 519 (M-895)(3867) 20 November 1989 & JP-A-12 09 155 (SEIKO EPSON) 22 August 1989 * abstract *	12,22	
A	--- PATENT ABSTRACTS OF JAPAN vol. 7, no. 79 (M-204)31 March 1983 & JP-A-58 005 295 (RICOH) 12 January 1983 * abstract *	12,22	
A	--- US-A-4 855 763 (KAN)		
A	--- US-A-4 462 035 (KOTO)		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
The present search report has been drawn up for all claims			
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LACK OF UNITY OF INVENTION A POSTERIORI

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 1-8,13,18 : Ink supply means structure;
Holes formed in an ink pass sheet;
Method of forming the holes and
ink supply.
2. Claims 9-11,19-21 : Printing plate structure and image
recording method using same.
3. Claims 12,22 : Ink features, printing plate, voltage
application between ink supply
means and printing plate, and image
recording method using same.