

Europäisches Patentamt European Patent Office Office européen des brevets



(11) **EP 1 260 367 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 11.12.2002 Bulletin 2002/50

(51) Int CI.7: **B41F 31/08**

(43) Date of publication A2: **27.11.2002 Bulletin 2002/48**

(21) Application number: 02017933.9

(22) Date of filing: 19.04.1999

(84) Designated Contracting States: ES FR IT SE

(30) Priority: 17.04.1998 JP 10800098

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 99107301.6 / 0 950 521

(71) Applicant: KABUSHIKI KAISHA ISOWA Nagoya-shi, Aichi-ken (JP)

(72) Inventors:

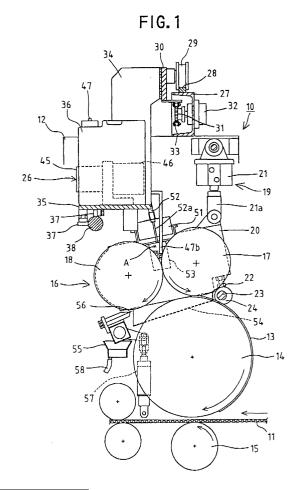
 Ishigure, Masaaki Inuyama-shi, Aichi-ken (JP)

Shoji, Morimasa
 Nagoya-shi, Aichi-ken (JP)

(74) Representative: Müller-Boré & Partner Patentanwälte
Grafinger Strasse 2
81671 München (DE)

(54) Apparatus and method for preventing ink from getting dry

(57)An apparatus for printing sheets includes a plate cylinder (14) with a printing die (13) mounted thereon and an impression cylinder (15) disposed to oppose said plate cylinder. In the apparatus, sheets are passed through a clearance between the plate cylinder and the impression cylinder to carry out printing on the sheets. The apparatus further includes an ink transfer roll (17) and means for regulating an amount of the ink transferred, so that when printing is carried out, the ink is transferred to the printing die, while at the same time the ink transferred is regulated as the ink transfer roll rotates in contact with the printing die of the plate cylinder while the regulating means contacts a surface of the ink transfer roll. The apparatus further includes an ink fountain (A) provided between the ink transfer roll and the ink regulating means along an axial direction thereof, and an ink reservoir (36) for reserving the ink which is disposed above and adjacent to the ink fountain. At least one tube body (47) is provided between the ink reservoir and the ink fountain in such a way that one open end (47b) of the tube body communicates with the ink reservoir and another open end thereof opens into the ink fountain. The apparatus further includes means (46) for transferring the ink between the ink fountain and the ink reservoir through the tube body and means (32) for reciprocally moving the ink reservoir, the tube body, and the ink transfer means unitarily along the axial direction of the ink fountain.





EUROPEAN SEARCH REPORT

Application Number

EP 02 01 7933

Category	Citation of document with indication	n, where appropriate,	Relevant	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
	of relevant passages		to claim	
A	US 5 265 535 A (ISOWA)	1	, 2	B41F31/08
	30 November 1993 (1993-1 * the whole document *	.1-30)		
	* the whole document *			
A	PATENT ABSTRACTS OF JAPA	AN 1	,2	
	vol. 1997, no. 04,		,	
	30 April 1997 (1997-04-3			
	& JP 08 336955 A (ISOWA	CORP),		
	24 December 1996 (1996-1 * abstract *	.2-24)		
	* abstract *			
				TECHNICAL FIELDS SEARCHED (Int.Ci.7)
				B41F
				D 111
	The present search report has been dra	nun un for all alaime		
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	16 October 2002	100	
				cke, J
	ATEGORY OF CITED DOCUMENTS	T : theory or principle ur E : earlier patent docum	nderlying the i ent, but publi	nvention shed on, or
Y: part	cularly relevant if taken alone cularly relevant if combined with another	after the filing date D : document cited in th	e application	
docu	ment of the same category nological background	L.: document cited for o	ther reasons	
	-written disclosure	& : member of the same		

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 02 01 7933

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

16-10-2002

Patent docume cited in search re		Publication date		Patent family member(s)	Publication date
US 5265535	А	30-11-1993	JP JP JP JP DE GB IT	2534949 B2 5193116 A 2777760 B2 5193122 A 4244058 A1 2262716 A ,B 1256252 B	18-09-1996 03-08-1993 23-07-1998 03-08-1993 01-07-1993 30-06-1993 29-11-1995
JP 08336955	A	24-12-1996	NONE		
and the same and the same and the same and		The same and sale sale sale sale sale sale sale sale			
		e Official Journal of the E			