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(54) **Colour proofer with curl control means**

(57) A large format printer using web feed material is able to cope with roll fed material and sheets having residual curl by using several features :

- a anti-curl guidance counteracts the curl to feed the medium to a second transport system.
- the medium is further held flat by a vacuum system.
- During re-feeding the height of the position of the sheet having residual curl is adjusted by a moving

- pivot roller to smoothly pass over a cutting bar, the entrance of a re-feeding chamber is enlarged by lifting a retractor pivot plate by a retractor pivot to allow curled media to enter the re-feeding chamber.

Curl can also be avoided by keeping the web roll of media in a relative humid condition by restricting air flow or by using an extra humidifier.

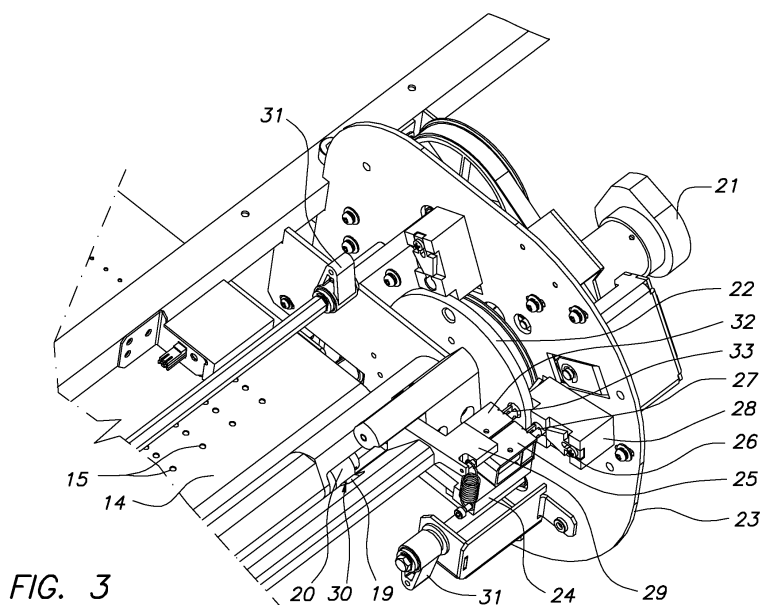


FIG. 3

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EUROPEAN SEARCH REPORT

Application Number
EP 05 10 1377

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.7)
X	US 6 210 055 B1 (CHEN ANGELA S ET AL) 3 April 2001 (2001-04-03)	1-3	B41J11/00 B41J3/60 B41J13/00
Y	* column 4, line 55 - column 5, line 14 *	4	
X	US 5 668 581 A (TSUJI ET AL) 16 September 1997 (1997-09-16)	1-3	
Y	* column 6, line 33 - line 53; figure 2 *	4	
A	US 5 883 643 A (MOK ET AL) 16 March 1999 (1999-03-16) * column 1, line 26 - line 37 *	1-4	
Y	US 6 637 328 B1 (BERRIGAN JOHN) 28 October 2003 (2003-10-28) * column 3, line 52 - line 60; figure 1 *	4	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B41J
<p>The present search report has been drawn up for all claims</p>			
Place of search		Date of completion of the search	Examiner
Munich		20 July 2005	Urbaniec, T
<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</p> <p>& : 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.

- ☐ Only part of the claims 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 claim(s):
- ☐ 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 requirements 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.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ 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 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 invention first mentioned in the claims, namely claims:



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LACK OF UNITY OF INVENTION
SHEET B

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-4

A printing apparatus with a transport belt

2. claims: 5-6

A printing apparatus with a tumbler unit having a pivot
plate at the entry slit

3. claims: 7-9

A printing apparatus with a controlled humidity medium roll
storage system

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

EP 05 10 1377

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
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20-07-2005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6210055	B1	03-04-2001	GB 2351471 A US 6079888 A	03-01-2001 27-06-2000
US 5668581	A	16-09-1997	NONE	
US 5883643	A	16-03-1999	DE 19508180 A1 WO 9628374 A1 EP 0759003 A1 JP 10500384 T	12-09-1996 19-09-1996 26-02-1997 13-01-1998
US 6637328	B1	28-10-2003	NONE	