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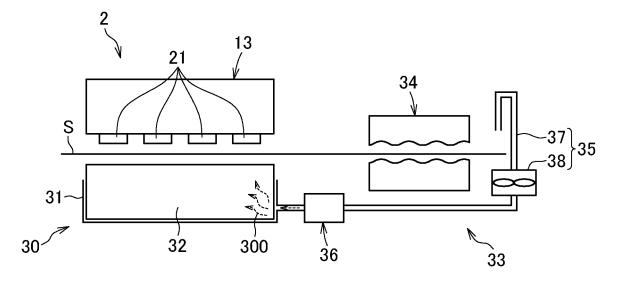
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(54) LIQUID COLLECTION DEVICE AND LIQUID DISCHARGE APPARATUS

(57) A liquid collection device (30) includes a collection container (31), an absorber (32), and a solvent supplier (33). The collection container (31) collects liquid discharged from a liquid discharger (21). The absorber (32)

absorbs the liquid collected in the collection container (31). The solvent supplier (33) supplies a solvent component of the liquid discharged from the liquid discharger (21) to the absorber (32).

FIG. 8



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EUROPEAN SEARCH REPORT

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	DOCUMENTS CONSIDER				
Category	Citation of document with indic of relevant passage		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)	
x	EP 0 714 775 B1 (CANC 13 March 2002 (2002-0		1,8	INV. B41J2/165	
A	* the whole document	•	2-4	54102/103	
x	JP 2008 179118 A (SEI 7 August 2008 (2008-0 * the whole document)8 – 07)	1,8		
x	US 2007/146407 A1 (HI 28 June 2007 (2007-06 * the whole document	5–28)	1,8		
A	JP 2006 095774 A (FUI 13 April 2006 (2006-0 * the whole document	04-13)	1		
A	US 2006/164485 A1 (MC 27 July 2006 (2006-07 * the whole document	·-27)) 1		
	JP 2014 133321 A (МІМ 24 July 2014 (2014-07	•	1-5	TECHNICAL FIELDS SEARCHED (IPC)	
	* the whole document	•		В41Ј	
A	US 2004/183879 A1 (NE 23 September 2004 (20 * the whole document	1-5			
A	JP 2011 016301 A (CAN 27 January 2011 (2011 * the whole document	-01-27)	1-5		
	The present search report has bee	en drawn up for all claims			
	Place of search Munich	Date of completion of the search 29 March 2023	На	Examiner rtmann, Mathias	
X : part Y : part	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another ument of the same category	E : earlier patent of after the filing	d in the application	olished on, or n	



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	CLAIMS INCURRING FEES
	The present European patent application comprised at the time of filing claims for which payment was due.
10	Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
15	No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.
20	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:
25	
	see sheet B
30	
	All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
35	As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
10	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:
45	None of the further search fees have been paid within the fixed time limit. The present European search
50	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: 1-5, 8
55	The present supplementary 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 (Rule 164 (1) EPC).



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:
10	1. claims: 1-5, 8
	1st invention (searched): solvent recovery from printed sheet
15	2. claims: 6, 7
	2nd invention (not searched): solvent recovery from different collection mechanism
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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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.

29-03-2023

10			Patent document ed in search report		Publication date		Patent family member(s)		Publication date
		EP	0714775	В1	13-03-2002	EP US	071 4 775 6007177		05-06-1996 28-12-1999
15		JP	2008179118	A	07-08-2008	NON			
		US	2007146407	A1	28-06-2007	NON			
00		JP	2006095774	A	13-04-2006	NON	E		
20		US	2006164485	A1	27-07-2006	AT	552977	т	15-04-2012
						CN	101119849		06-02-2008
						EP	1846244		24-10-2007
						JP	4834001		07-12-2011
						JP	2008528324	A	31-07-2008
25						KR	20070100814	A	11-10-2007
						US	2006164485	A1	27-07-2006
						WO	2006081310	A2	03-08-2006
30		JP	2014133321	A	24-07-2014	NON	E 		
		US	2004183879	A1	23-09-2004	AT	445503	T	15-10-2009
						CN	1519112	A	11-08-2004
						EP	1442892	A1	04-08-2004
						JP	2004230709	A	19-08-2004
35						US 	2004183879		23-09-2004
		JP	2011016301	A	27-01-2011				26-03-2014
						JP 	2011016301 	A 	27-01-2011
40									
45									
50									
	0459								
<i>EE</i>	FORM P0459								
55	요 [

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