



(11) **EP 2 161 134 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
28.04.2010 Bulletin 2010/17

(51) Int Cl.:
B41J 2/175^(2006.01)

(43) Date of publication A2:
10.03.2010 Bulletin 2010/10

(21) Application number: **09179890.0**

(22) Date of filing: **28.02.2008**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
 HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT
 RO SE SI SK TR**

Designated Extension States:
AL BA MK RS

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
08003699.9 / 2 045 079

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(54) Ink cartridge, set of ink cartridges, and ink cartridge determination system

(57) An ink cartridge includes a first signal blocking portion, a second signal blocking portion, and a third signal blocking portion. The first signal blocking portion is configured to either prevent a first signal from passing therethrough or to alter a path of the first signal when the first signal blocking portion receives the first signal, the second signal blocking portion is configured to either prevent a second signal from passing therethrough or to alter a path of the second signal when the second signal blocking portion receives the second signal, and the third signal blocking portion is configured to either prevent the second signal from passing therethrough or to alter a path of the second signal when the third signal blocking portion receives the second signal.

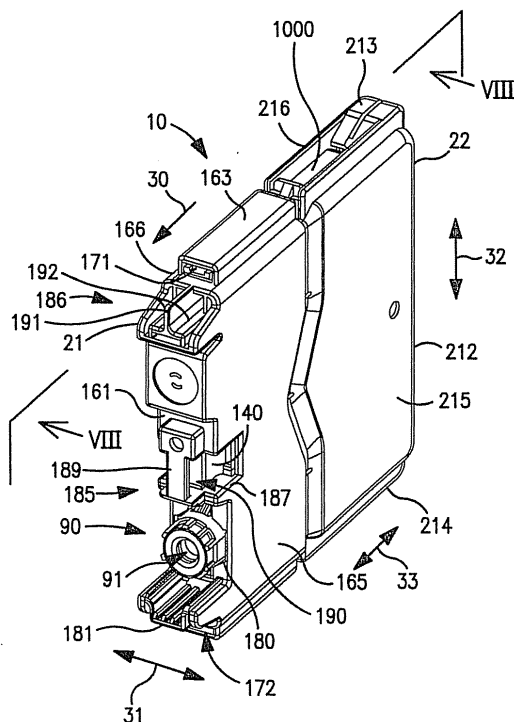


FIG. 2(a)

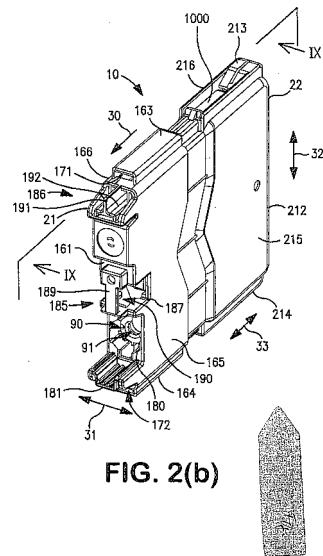


FIG. 2(b)

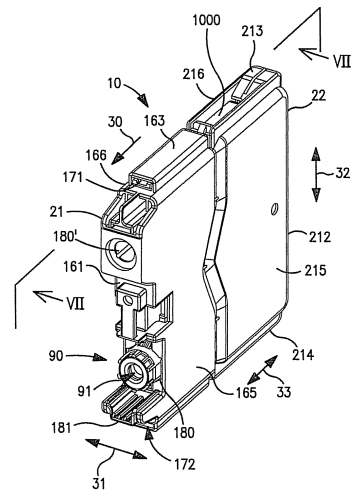


FIG. 2(c)

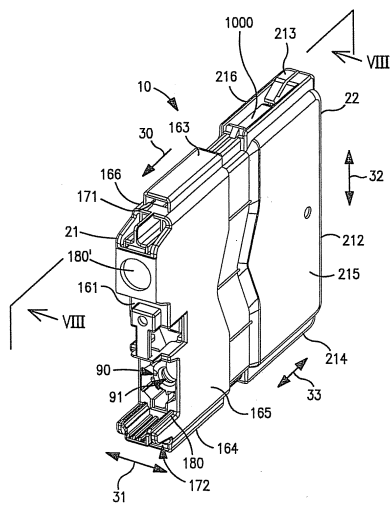


FIG. 2(d)



EUROPEAN SEARCH REPORT

Application Number
EP 09 17 9890

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 772 270 A (BROTHER IND LTD [JP]) 11 April 2007 (2007-04-11) * paragraph [0140]; figure 14 * * paragraphs [0152], [0158]; figure 18 * * paragraph [0251] - paragraph [0252] * * paragraph [0312] - paragraph [0313]; figure 42 *	1-9	INV. B41J2/175
X	EP 1 826 009 A2 (BROTHER IND LTD [JP]) 29 August 2007 (2007-08-29) * paragraph [0072]; figures 3, 4, 9b, 11 *	1-9	
X	US 7 188 939 B1 (SASAKI TOYONORI [JP]) 13 March 2007 (2007-03-13) * the whole document *	1-9	
X	EP 1 839 871 A (BROTHER IND LTD [JP]) 3 October 2007 (2007-10-03) * paragraph [0032] - paragraph [0036]; figure 3 * * paragraph [0064] - paragraph [0065]; figure 9 *	1-9	
X	EP 1 839 873 A (BROTHER IND LTD [JP]) 3 October 2007 (2007-10-03) * abstract; figure 3 *	1	TECHNICAL FIELDS SEARCHED (IPC) B41J
X	EP 1 792 736 A (BROTHER IND LTD [JP]) 6 June 2007 (2007-06-06) * abstract; figures 14,16 *	1	
X	US 2007/229615 A1 (HATTORI SHINGO [JP] ET AL) 4 October 2007 (2007-10-04) * paragraph [0030] - paragraph [0032]; figure 1 *	1	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 17 March 2010	Examiner Adam, Emmanuel
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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EPO FORM 1503 03.82 (P04C01)

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

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The members are as contained in the European Patent Office EDP file on
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17-03-2010

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1772270	A	11-04-2007	DE 602006000459 T2	08-01-2009
			WO 2007037536 A1	05-04-2007
			US 2007070146 A1	29-03-2007

EP 1826009	A2	29-08-2007	AT 365108 T	15-07-2007
			AT 405429 T	15-09-2008
			AT 454270 T	15-01-2010
			CN 1663801 A	07-09-2005
			DE 202005021209 U1	21-06-2007
			DE 202005021768 U1	12-11-2009
			DE 202005021805 U1	04-03-2010
			DE 602005001410 T2	07-02-2008
			EP 1570994 A1	07-09-2005
			EP 1780026 A2	02-05-2007
			ES 2287825 T3	16-12-2007
			ES 2312147 T3	16-02-2009
			US 2005195225 A1	08-09-2005

US 7188939	B1	13-03-2007	US 7226155 B1	05-06-2007
			US 2007229616 A1	04-10-2007

EP 1839871	A	03-10-2007	AT 420770 T	15-01-2009
			CN 101258034 A	03-09-2008
			JP 4400590 B2	20-01-2010
			JP 2007268793 A	18-10-2007
			WO 2007116546 A1	18-10-2007

EP 1839873	A	03-10-2007	CN 101015992 A	15-08-2007
			DE 602006000196 T2	14-08-2008
			JP 2007261051 A	11-10-2007

EP 1792736	A	06-06-2007	NONE	

US 2007229615	A1	04-10-2007	NONE	
