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(54) Ink cartridge and printer

(57) An ink cartridge 7 includes a cartridge main body 71 forming an ink storage chamber, an ink supply port 39 formed in a bottom section of the ink storage chamber for supplying an ink fluid stored in the ink storage chamber to a print head mounted on a carriage of a printer, and a positioning protrusion 87 projectingly provided on a front wall 73 of the cartridge main body 71. The posi-

tioning protrusion 87 fits into a positioning groove of the carriage, so that the cartridge main body 71 is positioned at a cartridge mount section of the carriage. The positioning protrusion 87 is formed integrally into a hollow bag structure where a pair of mutually-opposing plate-like sections 87a, 87b are joined together by means of an extremity joint wall 87c and a joint bottom wall 87d.

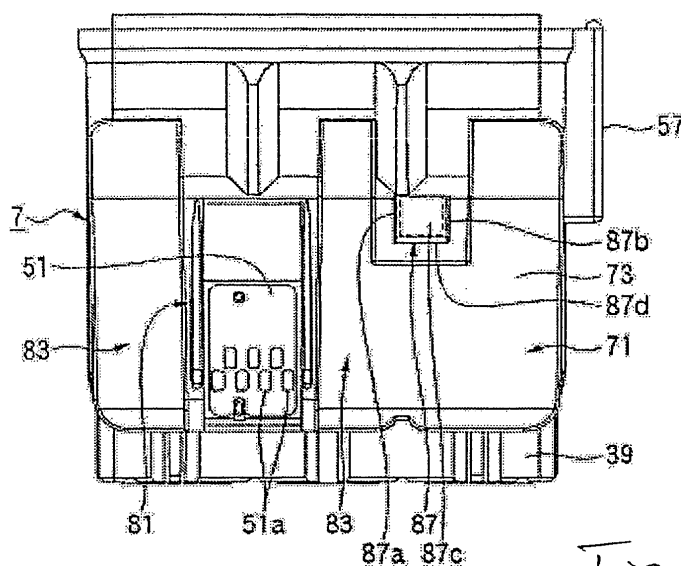


Fig. 4



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 25 6047

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	US 5 512 926 A (UCHIKATA ET AL) 30 April 1996 (1996-04-30)	1,2,4	INV. B41J2/175
Y	* column 27, lines 12-15; figure 30 *	1-4	
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Y	* figures 29a-b *	3	
Y	* paragraphs [0002], [0195] - [0200] *		
Y	US 2002/175977 A1 (HANSON LISA M ET AL) 28 November 2002 (2002-11-28) * figures 3-7 *	3	
Y	* paragraph [0034] *		
A	EP 0 993 954 A (HEWLETT-PACKARD COMPANY) 19 April 2000 (2000-04-19) * figure 1c *	1-4	TECHNICAL FIELDS SEARCHED (IPC)
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A	US 2004/145637 A1 (HWANG HYUNG-HYU ET AL) 29 July 2004 (2004-07-29) * figures 2-4,6-13 *	5-7	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 October 2006	Examiner Callan, Feargel
<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>			

5
EPO FORM 1503 03.82 (P04C01)

**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:



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

An ink cartridge comprising:

a cartridge main body forming an ink storage chamber;
 an ink supply port formed in a bottom section of the ink storage chamber for supplying an ink fluid stored in the ink storage chamber to a print head mounted on a carriage of a printer; and
 a positioning protrusion projecting from a wall of the cartridge main body, the positioning protrusion being adapted to fit into a positioning groove of the carriage so that the cartridge main body is positioned at a cartridge mount section of the carriage, wherein the positioning protrusion has a pair of plate-like sections opposing each other with a space therebetween, and a joint section which joins the plate-like members together; and
 an outer surface of one of the plate-like sections is set as a positioning surface which comes into contact with the positioning groove.

2. claims: 5-7

An ink cartridge comprising:

a cartridge main body forming an ink storage chamber;
 a porous elastic body retained in the ink storage chamber and impregnated with an ink fluid;
 an ink supply port formed in a bottom section of the ink storage chamber for supplying the ink fluid stored in the ink storage chamber to a print head of the printer;
 an elastic-body retaining rib projecting from an interior surface of a wall of the cartridge main body and retaining the porous elastic body in a compressed state;
 a recessed section which causes the interior surface of the wall, from which the elastic-body retaining rib projects, to protrude toward the inside of the ink storage chamber so that a projecting height of the elastic-body retaining rib with reference to the interior surface of the wall becomes smaller.

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

EP 05 25 6047

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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