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(54) **Ink jet head cartridge with a residual-ink detector.**

(57) A device for detecting a quantity of remaining ink includes first and second electrodes (1, 2) provided in an ink supply passage (6) which connects an ink tank (8) for storing an ink to a recording head (9) for emitting the ink, and a detection means for detecting a resistance between the first and second electrodes (1, 2). The second electrode (2) is provided in the ink supply passage (6) in an area relatively close to the recording head (9), whereas the first electrode (1) is provided in the ink supply passage in an area relatively far from the recording head with the second electrode therebetween. The second electrode is maintained at the same potential as that of a substrate which constitutes the recording head and on which emission energy generating elements driven to emit the ink are disposed, whereas the first electrode is maintained at a potential different from that of the second electrode. IN consequence, the amount of remaining ink can be detected by measuring changes in the resistance between the first and second electrodes (1, 2).

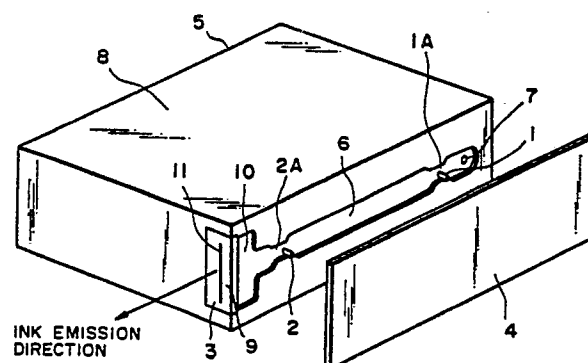


FIG. 5

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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.5)
A	FR-A-2348822 (SIEMENS) * page 2, line 34 - page 5, line 12; figures 1, 2 *	1-3	B41J2/175
A	US-A-4183029 (ISAYAMA, FUKAZAWA) * column 2, line 37 - column 3, line 68; figure 1 *	1	
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 424 (M-761)(3271) 10 November 1988, & JP-A-63 158262 (CANON) 01 July 1988, * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B41J G01D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 31 MAY 1990	Examiner HERBELET J.C.
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			