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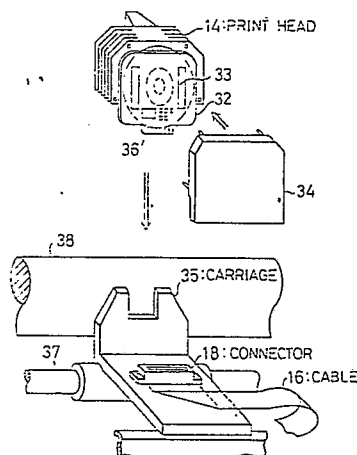
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54 **A printer having a print head with an S/P converter and a driving circuit.**

57 In a printer, a serial-to-parallel converter (27) and a driving circuit (30) are mounted in the print head (14) which is detachable from a carriage (35) for spacing movement. Serial printing information from a control circuit (19) is transmitted through a cable to the serial-to-parallel converter (27) and converted into parallel printing information, and used to control the driving circuit (30).

FIG. 6





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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. 4)
D,X	PATENT ABSTRACTS OF JAPAN, vol. 10, no. 114 (M-473)[2171], 26th April 1986; & JP-A-60 242 087 (OKI DENKI KOGYO K.K.) 02-12-1985 * Abstract * ---	1-4	B 41 J 3/10
A	PATENT ABSTRACTS OF JAPAN, vol. 10, no. 100 (M-470)[2157], 16th April 1986; & JP-A-60 236 782 (NIPPON DENKI K.K.) 25-11-1985 * Abstract * ---	1-3,7	
A	PATENT ABSTRACTS OF JAPAN, vol. 7, no. 283 (M-263)[1428], 16th December 1983; & JP-A-58 158 268 (TOKYO SHIBAURA DENKI K.K.) 20-09-1983 * Abstract * ---	1-4	
A	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 19, no. 8, January 1977, pages 2986-2987, New York, US; T.A. BRESKI et al.: "Multielement print head" * Whole document * ---	1,5,6	TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
A	PATENT ABSTRACTS OF JAPAN, vol. 10, no. 342 (M-536)[2398], 19th November 1986; & JP-A-61 143 170 (NEC CORP.) 30-06-1986 * Abstract * ---	1,5,6	B 41 J
A,P	GB-A-2 197 105 (BROTHER) * Page 3, line 42 - page 4, line 10; figures 1,2 * -----	1-4,7	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27-09-1989	Examiner ADAM E.M.P.
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			