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(54) **Adaptive control of print head to medium distance in ink-jet printers.**

(57) In order to optimize print quality, it is desirable to minimize the distance between a inkjet printhead (26) and the medium (90) that is being printed on. On the other hand, large dense areas of ink such as typically occurs in high quality color graphics will cause buckling of the print medium, and will be scraped and smeared by the printhead as the ink is applied unless a greater distance is maintained between the printhead and the nominal location of the print medium than is desirable for optimal quality of black on white text. Color inkjet printers (10) commonly employ a plurality of print cartridges (22), usually either two or four, mounted in the printer carriage (20) to produce a full spectrum of colors. It is therefore advantageous if at least the black print cartridge is closer to the print medium when printing text than is at least the color cartridge when printing color graphics. Accordingly, a pen carriage with adjustable printhead-to-medium spacing (44, 115, Fig 8) is disclosed. A controller (120) tells the printer to decrease the printhead-to-medium spacing when text printing is being performed and to increase the printhead-to-medium spacing when printing color graphics and/or large dense area, based on the current print mode, the type of ink being used and/or the density of the ink being deposited, to thereby enable at least the black printhead to be as close to the medium as possible during the printing of black on white text, so that the print quality of conventional text will be optimized.

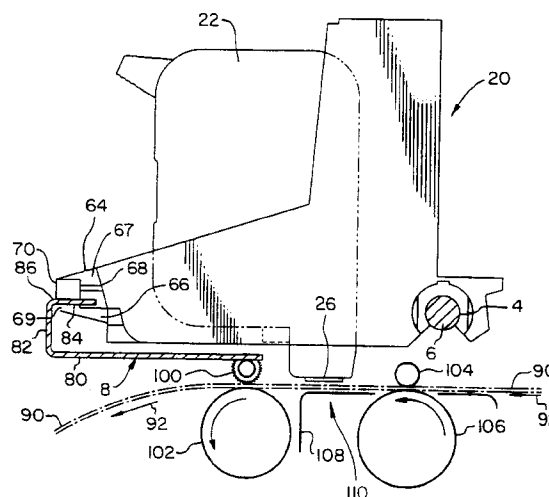


FIG. 4



European Patent
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EUROPEAN SEARCH REPORT

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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.6)
A	EP-A-0 519 682 (TEKTRONIX INC.) * the whole document *	1-13	B41J25/308
A	EP-A-0 334 548 (HEWLETT-PACKARD CY.) * the whole document *	1-13	
E	EP-A-0 623 474 (HEWLETT-PACKARD CY.) * the whole document *	1-13	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) B41J
Place of search THE HAGUE		Date of completion of the search 28 September 1995	Examiner Van den Meerschaut, G
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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