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(54) **Thermal ink jet printhead and method of manufacture**

(57) A thermal ink jet printhead and method of manufacture wherein an ink feed opening (31) in a thin film substrate (10) is axially aligned with a central opening in a heater resistor (24, 26) disposed on the substrate. The ink feed opening (31) is also aligned with a firing chamber (30) formed in a barrier layer (28) disposed on the substrate and above and surrounding the heater resistor (24, 26), and is further aligned with an orifice opening (34) in an orifice plate (32) disposed on the barrier

layer (28). This novel geometrical arrangement is operative to enhance the printhead ink ejection efficiency and to minimize cavitation wear on the heater resistors therein. In addition, the above axial symmetry may be provided by semi-circular heater resistors (24, 26), rectangularly shaped heater resistors (54, 56), or heater resistors of other shapes (36, 66) which are symmetrically arranged around the above firing chamber for the TIJ printhead.

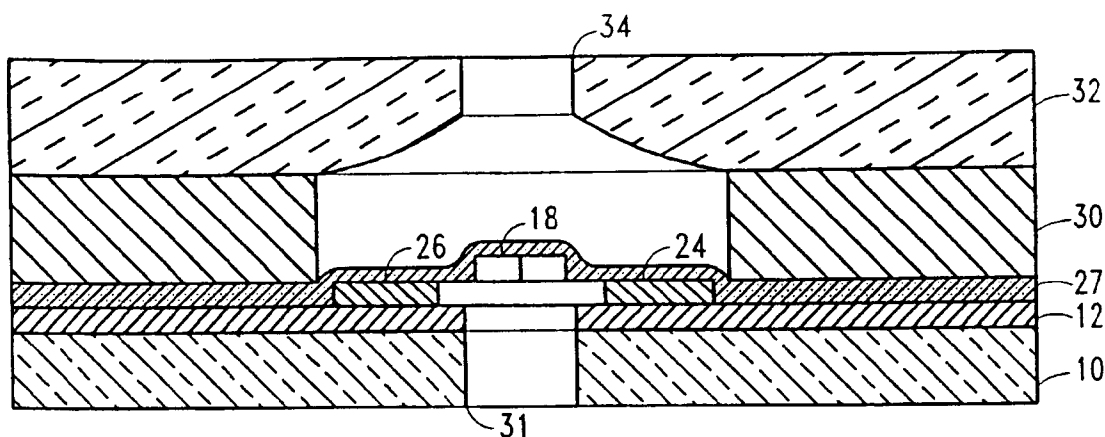


FIG. 1G.

EP 0 638 424 A3



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EUROPEAN SEARCH REPORT

Application Number
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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)
Y	EP-A-0 244 214 (HEWLETT-PACKARD COMPANY) * the whole document * ---	1-10	B41J2/16 B41J2/05
Y	US-A-4 870 433 (CAMPBELL ET AL.) * the whole document * ---	1-10	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 29 May 1996	Examiner Meulemans, J-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			

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Application Number
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