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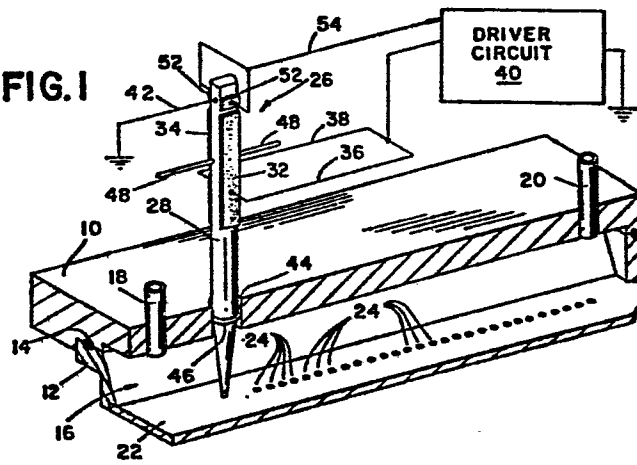
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54 **Fluid jet print head and stimulator therefor.**

57 A fluid jet print head includes an orifice plate (22) defining a plurality of orifices (24) from which fluid emerges, and a stimulator means (26) mounted in contact with the orifice plate for vibrating the orifice plate to produce a series of bending waves. The bending waves travel along the orifice plate and break up the fluid into drops of substantially uniform size and spacing. The stimulator means includes a stimulator member (28) of a length equal to an integer half wavelength of acoustic waves of a frequency f passing therethrough. The stimulator member contacts the orifice plate at one end of the member. A pair of piezoelectric crystals (32, 34) are mounted on opposite sides of the stimulator member and, when driven by an appropriate A.C. drive signal, cause acoustic waves of a frequency f to pass along the member. The member is supported at a nodal plane. The member may enter the print head manifold and contact the orifice plate internally, with a seal arrangement (46) being provided at a nodal plane along the member.

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FIG. 1





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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. 3)
Y	PATENTS ABSTRACTS OF JAPAN, vol. 5, no. 174 (M-96) [846], 10th November 1981; & JP - A - 56 101 869 (RICOH K.K.) 14-08-1981 * Whole document *	1	B 41 J 3/04
A	Idem	2, 4, 8, 9	
Y	--- US-A-3 701 476 (HOUSER) * Abstract; column 6, line 23 - column 7, line 11; figures 3, 4 *	1	
A		4	
A, D	--- US-A-3 701 998 (MATHIS) -----		TECHNICAL FIELDS SEARCHED (Int. Cl. 3) B 41 J
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 04-09-1985	Examiner LOUVION B.A.G.A.
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	