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(54) **Drop generator for long array ink jet printer**

(57) A drop generator for use in an ink jet printer is capable of stimulating long ink jet arrays at high operating frequencies. The drop generator comprises a substantially uniform cross section for a central portion and two end sections with different cross sections. The end sections have features to adjust a resonant frequency of the end sections to match that of the central portion.

In particular, these features comprise cuts on a top of the drop generator. The drop generator utilizes multi-lobed radial bending modes for vibration of an array of orifices, and the vibrational modes are driven by at least two rows of transducers which extend substantially the length of the drop generator. The transducers are placed consistent with a lobe structure of an operational radial bending mode.

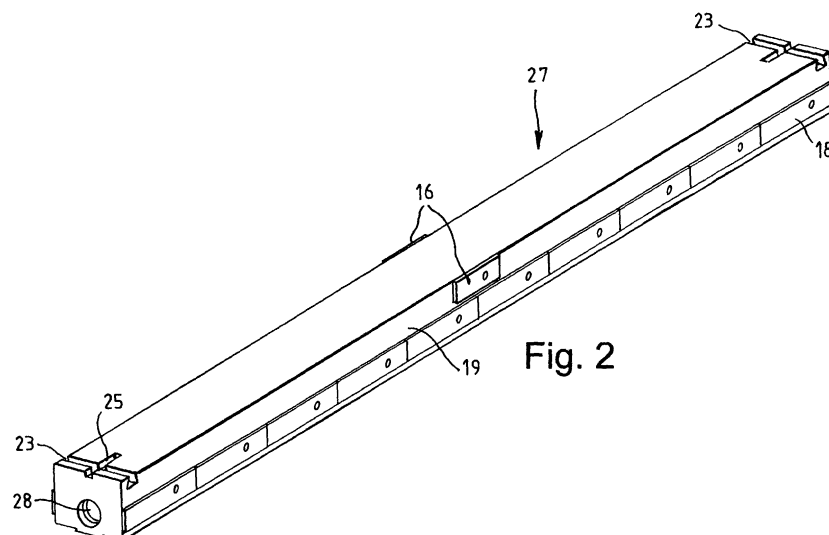


Fig. 2



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 99 30 9513

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
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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 13 February 2001	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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**ANNEX TO THE EUROPEAN SEARCH REPORT
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