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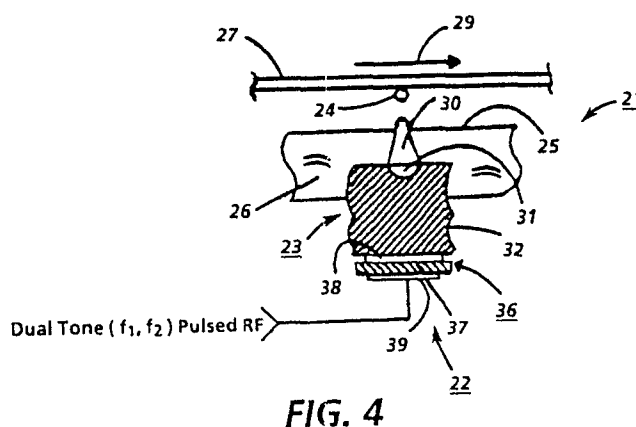
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Acoustic ink printers having reduced focusing sensitivity.

(57) To improve the tolerance of acoustic ink printers (21) to changes in their free ink surface (25) levels, provision is made for significantly reducing the effect of half wave resonances on the acoustic power density of the acoustic beam (30) or beams that are incident on the free ink surface (25) of such a printer (21), thereby reducing its focusing sensitivity. Some of the approaches that are taken to accomplish this rely upon acoustic losses to damp out the halfwave resonances and anti-resonances, while others employ multi-frequency rf voltage pulses for driving the droplet ejector (23) or ejectors so that the acoustic power perturbations caused by the half wave resonances and anti-resonances of the different frequencies tend to neutralize each other. Indeed, the use of an acoustically lossy ink (26) to dampen the half wave resonances and anti-resonances is compatible with selecting the frequency content of the acoustic radiation to neutralize them, so a combination of those two techniques can be employed, if desired, to carry out this ink printer (21).





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.5)
D,A	EP-A-0 273 664 (XEROX CORPORATION) * abstract * ---	1	B 41 J 2/015
A	DE-A-3 324 191 (RICOH CO.) * abstract * ---	2	
A	EP-A-0 234 718 (XEROX CORPORATION) * abstract * ---	1,3	
A	US-A-4 460 987 (R.H. STOKES et al.) * abstract; figures 1-6 * -----	1-6	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 41 J G 10 K
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 30-05-1990	Examiner ZOPF K
<div>CATEGORY OF CITED DOCUMENTS</div> <div>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</div> <div>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</div>			