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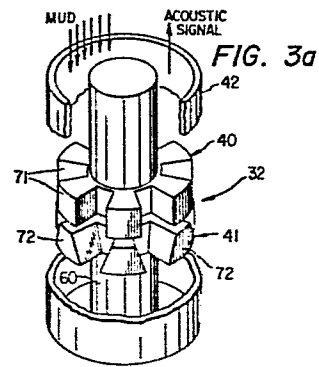
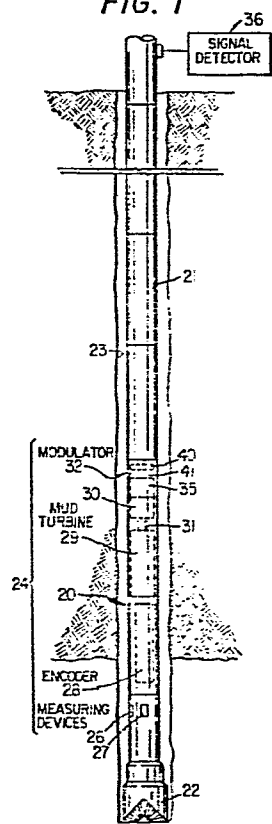
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(54) **Pressure pulse generator.**

(57) An improved acoustic signal generator (32) has rotor (41) and stator (40) elements, each having a plurality of radially-extending lobes and intervening ports relatively positioned and configured to establish fluid dynamic forces that bias the generator into an open position, thereby imparting a "stable open" characteristic to the generator. The rotor is located downstream of the stator, and rotor lobes are outwardly tapered in the downstream direction and have underlap relative to the upstream stator lobes. The invention is especially suited for use in oil industry MWD operations to communicate downhole measurement data to a well surface during drilling. In one embodiment, undercuts on the rotor lobes impart a flutter action which clears debris.

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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 4)
A	US-A-3 770 006 (SEXTON et al.) -----		E 21 B 47/12 F 16 K 3/08
			TECHNICAL FIELDS SEARCHED (Int Cl 4)
			E 21 B F 16 K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18-10-1985	Examiner BENZE W.E.
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	

