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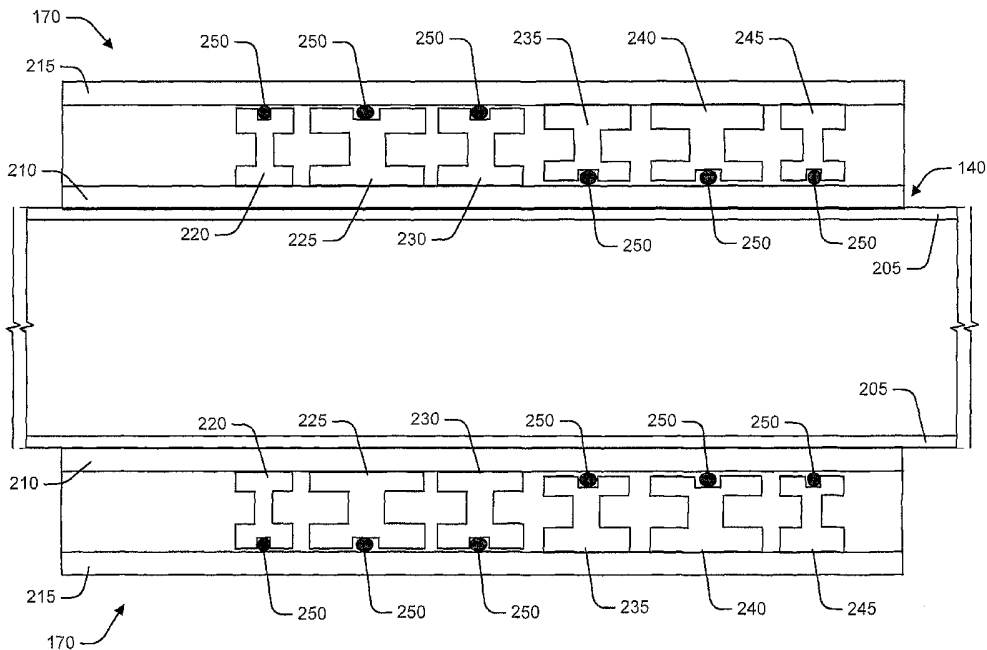
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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: LOW FREQUENCY ACOUSTIC ATTENUATOR



(57) Abstract: An attenuation apparatus, system, and method are disclosed. The attenuator is attached to a pipe and includes a housing that includes an inner sleeve and an outer sleeve. The attenuator includes one or more masses, to resonate when exposed to waves including acoustic frequency components.

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/18565

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **G01V 1/04(2006.01)**

USPC: 181/106,121
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 181/102, 105, 106, 111, 112, 119, 121, 122; 367/35, 165, 188

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,564,899 B1 (ARIAN et al.) 20 May 2003 (20.05.2003), entire document.	1-5, 9-12, 16, 17, 20-25, 30-35, 39, 40, 43-50 and 53-55 ----- 6-8, 13, 14, 18, 19, 26-29, 36, 37, 41, 42, 51 and 52
Y	US 6,615,949 B1 (EGEREV et al.) 9 September 2003 (09.09.2003), entire document.	6-8 -----
A		15 and 38

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 20 July 2006 (20.07.2006)	Date of mailing of the international search report 16 AUG 2006
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INTERNATIONAL SEARCH REPORT

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y --- A	US 2003/0106739 A1 (ARIAN et al.) 12 June 2003 (12.06.2003), entire document.	13, 14, 27-29, 36 and 37 ----- 15 and 38
Y --- A	US 5,189,642 A (DONOHO et al.) 23 February 1993 (23.02.1993), entire document.	18, 19, 41, 42, 51 and 52 ----- 15 and 38
Y --- A	US 6,588,267 B1 (BRADLEY) 8 July 2003 (08.07.2003), entire document.	26 ----- 15 and 38

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST: US-PGPUB; USPAT; USOCR; EPO; JPO

Search terms: noise, sound, acoustic, frequency, vibrat\$4, attenuat\$4, attenuator, o-ring, "o ring", drillstring, drill, string, viscous, silicon, silicone, piston, dampen, absorb\$4, absorp\$4