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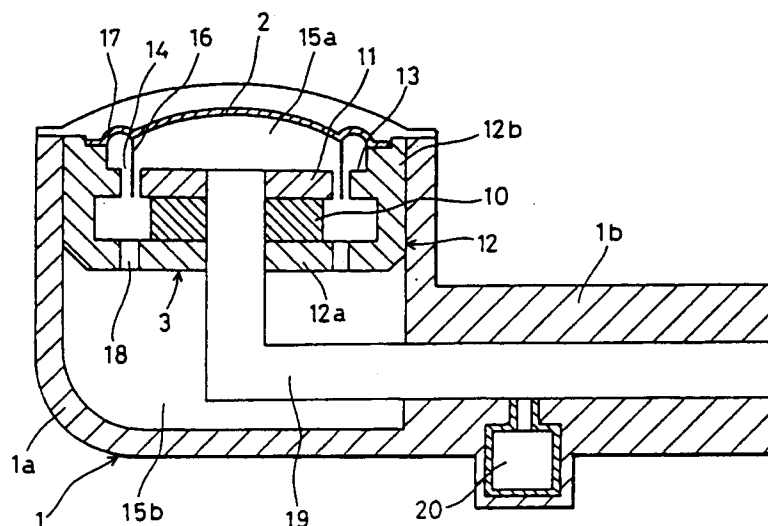
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02.12.92 Bulletin 92/49(71) Applicant: **SHARP KABUSHIKI KAISHA**
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STEINMEISTER & PARTNER
Mauerkircherstrasse 45
W-8000 München 80(DE)(54) **Headphone apparatus.**

(57) An inner-ear type headphone apparatus includes a diaphragm (2), a driving portion (3), a case (1), a duct (19), and a sound-absorbing portion (20). The driving portion (3) drives the diaphragm (2). A diaphragm backside space (15a) is formed between the diaphragm (2) and the driving portion (3). The driving portion (3) is attached to the case (1). The duct (19) conducts the diaphragm backside space (15a) to the

external space outside the case (1). The sound-absorbing portion (20) communicates with the duct (19). The sound-absorbing portion (20) absorbs sound of high frequency range emitted to the external space outside the case (1) through the duct (19). The amount of unpleasant high frequency range sound leaking outside is reduced.

FIG. 2**EP 0 448 110 A3**



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EUROPEAN SEARCH REPORT

Application Number

EP 91 10 4475

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)
X A	GB-A-2 187 361 (SONY CORPORATION) * the whole document * ---	1-4 5-9	G10K11/16 H04R1/10
Y	PATENT ABSTRACTS OF JAPAN vol. 10, no. 69 (E-389)(2126) 18 March 1986 & JP-A-60 218 998 (MATSUSHITA DENKI SANGYO K.K.) 1 November 1985 * abstract * ---	1	
Y	L.E. Kinsler et A.R. Frey, Fundamentals of Acoustics, 1962, Wiley & Sons, New York, chapter 8, Resonators and Filters, pag.186-216 ---	1	
A		2,3,6,7	
A	PATENT ABSTRACTS OF JAPAN vol. 14, no. 51 (E-881)30 January 1990 & JP-A-12 076 996 (MATSUSHITA ELECTRIC IND. CO., LTD.) 7 November 1989 * abstract * ---	1	
A	PATENT ABSTRACTS OF JAPAN vol. 3, no. 74 (E-119)26 June 1979 & JP-A-54 051 817 (SONY K.K.) 24 April 1979 * abstract * ---	1	G10K H04R
A	WO-A-8 200 543 (MOTOROLA, INC.) * the whole document * -----	1	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 SEPTEMBER 1992	Examiner BAROCCI S.
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			