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(11) Publication number:

0 525 648 A3

(12)

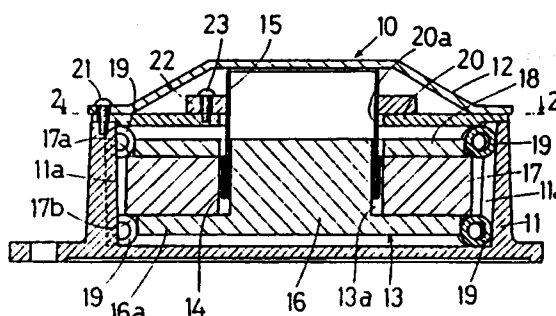
EUROPEAN PATENT APPLICATION(21) Application number: **92112610.8**(51) Int. Cl.⁵: **A61H 1/00, A61H 23/02, H04R 11/02**(22) Date of filing: **23.07.92**(30) Priority: **25.07.91 JP 66250/91 U**(43) Date of publication of application:
03.02.93 Bulletin 93/05(84) Designated Contracting States:
DE FR GB(88) Date of deferred publication of the search report:
14.04.93 Bulletin 93/15(71) Applicant: **KABUSHIKI KAISHA NIPPON MEMORIAL**
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W-8000 München 40 (DE)(54) **Vibrator for producing a body-felt vibration.**

(57) A vibrator (10) for producing a sensible vibration synchronized with an electric signal which drives a speaker includes a casing (11) having plural concavities (11b) provided in an inner wall thereof, a cylinder (15), a coil (14) wound around the cylinder (15), a magnetic pole (13) having an annular gap (13a) of such a required breadth as to have the coil (14) inserted therein without contacting with the magnetic pole (13), and rubber elastic bodies (19).

The rubber elastic bodies (19) are securely provided among the concavities (11b) and a periphery of the magnetic pole (13).

The cylinder (15) is fixed in the casing (11) so that the coil (14) can be inserted into the annular breadth (13a) without contacting with the magnetic pole (13). The concavities (11b) can be selected, the concavities in which the rubber elastic bodies (19) are to be disposed, according to positions of attachment of the vibrator (10) to a seat and the like to cause an effective vibration.

FIG. 1

**EP 0 525 648 A3**



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EUROPEAN SEARCH REPORT

Application Number

EP 92 11 2610

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)
A,D	US-A-4 495 638 (YAMADA) * column 2, line 44 - column 3, line 26; figures 1,2 * ---	1	A61H1/00 A61H23/02 H04R11/02
A	DE-A-3 735 134 (PIONEER ELECTRONIC CORP.) * column 5, line 52 - line 62; figures 1-3,8 * ---	1	
A	WO-A-8 602 508 (TELEFONAKTIEBOLAGET L M ERICSSON) * abstract; figures * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A61H H04R
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 02 FEBRUARY 1993	Examiner Mark Jones
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			