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(71) Applicant: **TEUCO GUZZINI S.p.A. 62010 Montelupone (IT)** 

(72) Inventor: Guzzini, Mauro 62019 Recanati (IT)

(74) Representative: Cerbaro, Elena et al Studio Torta S.r.l. Via Viotti, 9 10121 Torino (IT)

#### (54) A pool with removable headrests

(57) A pool (1) consisting of a tub (2), one or more headrests (3) and reversible fastening means (8, 13) adapted to reversibly fasten the headrest (3) to the tub (2). The reversible fastening means comprise at least

one first magnetic element (8) inserted within the headrest (3), and a plurality of second magnetic elements (12) fixed to the tub (2) by means of a fastening structure (12) and cooperating with the magnetic element (8) on the opposite part of the wall (4) of the tub (2).

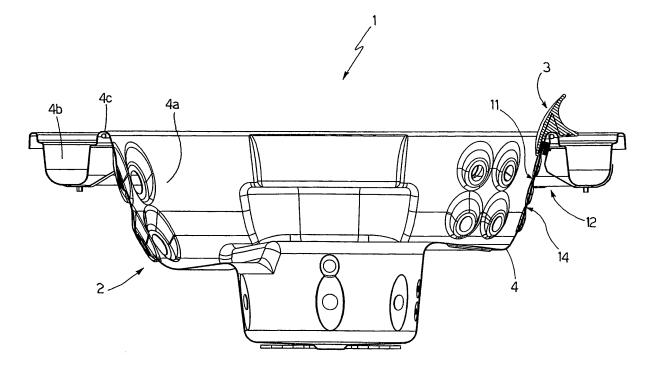


Fig.2

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**[0001]** The present invention relates to a pool with removable headrests capable of being positioned as desired in different points of the tub.

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**[0002]** Pools, in particular whirlpool baths, in which the tub is shaped so as to allow the use by several people at the same time, have existed far-back. Usually, they are four- or six-place pools arranged so that the users may sit down within the tub.

**[0003]** Pools in which a headrest is made in correspondence to the seating portion have been made in order to increase comfort. Solutions in which the headrests may be removed have been manufactured in order to make the pool more versatile. Such solutions necessarily comprise removable fastening means for fastening and releasing the headrest to and from the pool.

**[0004]** The removable fastening means generally used show a series of disadvantages deriving from the presence of holes in which water may enter and be deposited with obvious problems concerning hygiene, or of parts protruding from the pool itself, with obvious problems concerning safety that this implies.

**[0005]** Purpose of the present invention is to make a pool supplied of a headrest, whose fastening does not imply the disadvantages of the prior art, and in which the possibility of modifying the position of the headrests themselves is provided.

**[0006]** According to the present invention, there is provided a pool comprising a tub, one or more headrests and reversible fastening means adapted to reversibly fasten said headrest to said tub; said pool being characterised in that said reversible fastening means comprise at least one first magnetic element connected to said headrest near one of its fastening surfaces, and a plurality of second magnetic elements connected to said tub and arranged so as to constitute a plurality of possible positioning points of said headrest.

**[0007]** The following example is provided by way of non-limitative illustration for a better understanding of the invention with the aid of the figures in the accompanying drawing, in which:

figure 1 is a perspective top view of a preferred embodiment of the pool according to the present invention:

figure 2 is a sectional view of the pool in figure 1; figure 3 is a sectional view of the headrest of the pool in figure 1;

figure 4 is a top view of a component for the poolheadrest fastening of the pool in figure 1; and figure 5 is a sectional view taken along line V-V in figure 4.

**[0008]** In figure 1, numeral 1 indicates a preferred embodiment of the pool according to the present invention as a whole.

[0009] Pool 1 comprises a tub 2 and a headrest 3,

which is reversibly fastened to tub 2.

**[0010]** As shown in figures 1 and 2, tub 2 comprises a water containing wall 4 shaped so as to define a central portion 4a adapted to host the people and in which seat positions are obtained, and a circular-shaped peripheral portion 4b defining a water recovery channel separated from central portion 4a by a rounded edge portion 4c.

**[0011]** As shown in figure 3, headrest 3 comprises a metal core 5 and a polyurethane coating 6. Metal core 5 comprises a plate 7 folded into several parts and its end portion 7a on which at least one magnet 8 is fixed.

**[0012]** Headrest 3 shows a slightly convex resting surface 9 on which the user rests his or her head, and a concave coupling surface 10, which in use is coupled to the rounded edge portion 4c of wall 4. End portion 7a of plate 7 is arranged near coupling surface 10 so as to allow magnet 8 to exert its magnetic fastening function without the excessive interposition of coating material 6. In particular, as shown in figure 2, end portion 7a, which carries magnet 8 in use, faces an internal surface 11 of wall 4.

**[0013]** Pool 1 comprises a fastening structure 12 shown in figures 4 and 5, which comprises, in turn, a plurality of magnets 13 each of which is adapted to singularly cooperate with magnet 8 of headrest 3 in order to obtain the fastening to tub 2.

**[0014]** As shown in figure 2, fastening structure 12 is arranged on an external surface 14 of wall 4. Specifically, fastening structure 12 comprises a supporting ring 15 accommodated in the concavity corresponding to edge portion 4c, and a plurality of fixing elements 16 radially extending from ring 15 each of which is fixed to wall 4 at its peripheral portion 4b.

**[0015]** As shown in the enlargement in figure 5, each of the fixing elements 16 is essentially arched-shaped and comprises a bushing 17 arranged at the vertex of the curvature and adapted to accommodate a fixing rafter to tub 2. Each of the magnets 13 is fixed to a corresponding fixing element 16 near a welding point thereof to ring 15, so as to be arranged at magnet 8 of headrest 3 and cooperate therewith through wall 4 of tub 2, thus ensuring the fastening of headrest 3 itself to tub 2.

**[0016]** In order words, while magnet 8 of headrest 3 is arranged against internal surface 11 of wall 4, magnets 13 are connected to tub 2 and are arranged against external surface 14 of wall 4 at magnets 8 themselves.

**[0017]** As it may be apparent from the preceding description, the pool of the present invention offers the advantage of providing headrests which are reversibly fastened to the tub without the fastening means implying the disadvantages of the known art. Indeed, neither on the external surface of the headrest, nor on the internal wall of the tub are there any fastening means, which may respectively operate through a layer of the coating and through the wall of the tub using magnetic attraction. Such a technical feature unquestionably offers further enormous advantages from an aesthetic point of view as well as overcoming the disadvantages of the known art.

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**[0018]** Furthermore, a plurality of magnets fixed to the tub may be provided in the pool of the present invention, which translates into a plurality of possible positions which may be assumed by the headrest and the further possibility of using several headrests at the same time.

**Claims** 

1. A pool (1) comprising a tub (2), one or more headrests (3) and reversible fastening means (8, 13) adapted to reversibly fasten said headrest (3) to said tub (2); said pool being characterised in that said reversible fastening means comprise at least one magnetic element (8) connected to said headrest (3) and a plurality of second magnetic elements (12) connected to said tub (2) and arranged so as to cooperate with said first magnetic element (8) and to constitute a plurality of possible positioning points of said headrest (3).

2. A pool according to claim 1, characterised in that said first magnetic element (8) is accommodated within said headrest (3) near one of its coupling surfaces (10).

**3.** A pool according to claim 2, **characterised in that** said headrest (3) comprises a metal core (5) on which said magnetic element (8) is fixed.

**4.** A pool according to one of the preceding claims, characterised in that said first magnetic element (8) and said plurality of magnetic elements (13) are arranged on opposite parts of a wall (4) of the tub (2).

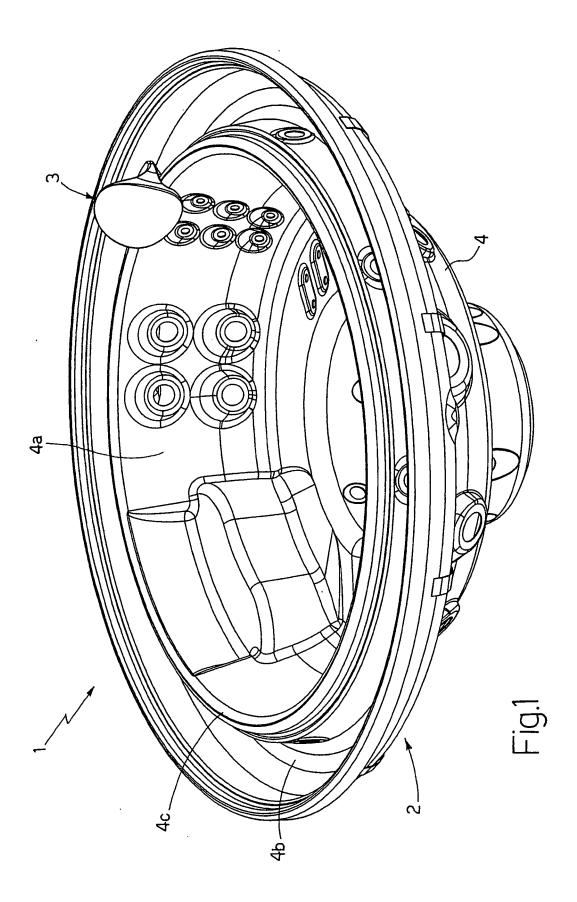
**5.** A pool according to claim 4, **characterised in that** said plurality of second magnetic elements (13) is arranged on an external surface (14) of said wall (4).

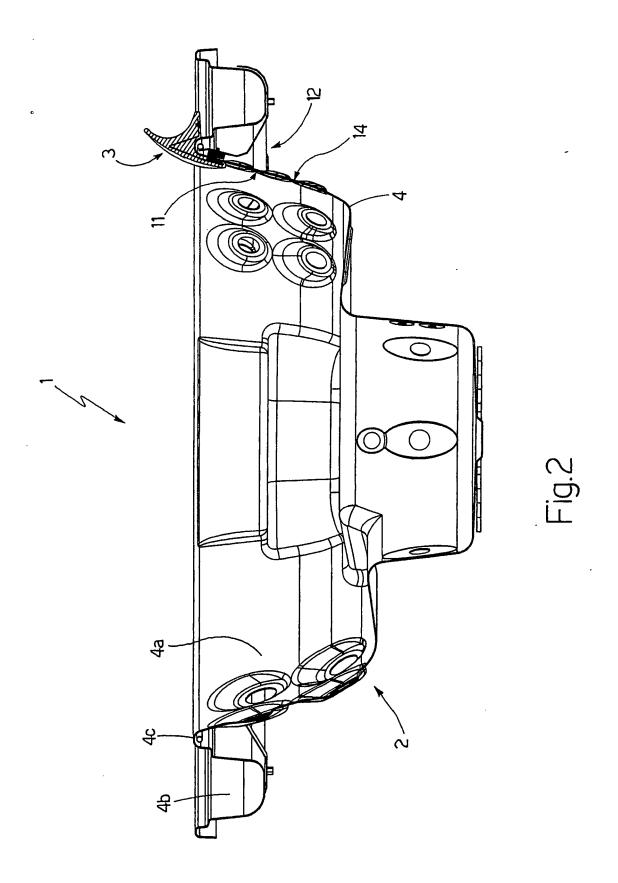
6. A pool according to claim 5, characterised in that it comprises a fastening structure (12) arranged on said external surface (14) of the wall (4) and comprising a ring (15) accommodated in a seat obtained in said wall (4) and a plurality of fixing elements (16) radially extending from the ring (15); each of said fixing elements (16) being fixed to said wall (4) and carrying a corresponding second magnetic element (13).

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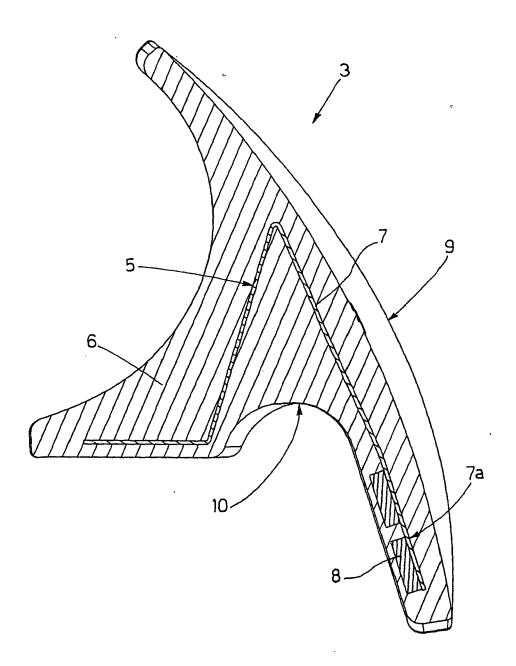
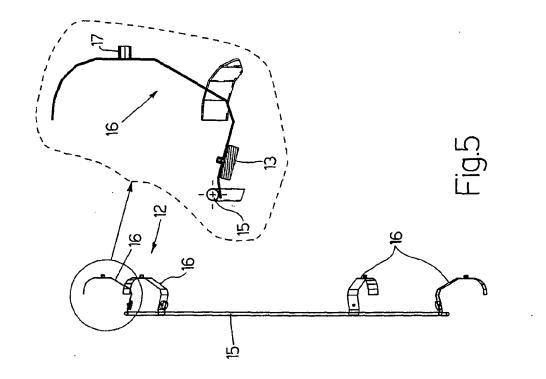
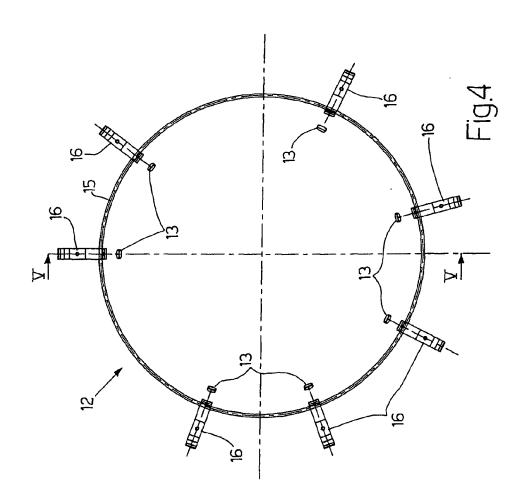


Fig.3







## **EUROPEAN SEARCH REPORT**

Application Number EP 06 42 5762

J	DOCUMENTS CONSIDER	ED TO BE RELEVANT			
Category	Citation of document with indica of relevant passages		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)	
X	US 2005/172394 A1 (CI [CA] ET AL) 11 August * paragraph [0031] - * paragraph [0039] - figures *	2005 (2005-08-11) paragraph [0036] *	1-5	INV. A47K3/12	
1	US 6 575 892 B1 (LAUT 10 June 2003 (2003-06 * column 3, line 40 - * column 3, line 60 - * column 4, line 26	-10) line 47 * column 4, line 15 *	1		
				TECHNICAL FIELDS SEARCHED (IPC)  A47K A61H	
	The present search report has been	n drawn up for all claims			
	Place of search	Date of completion of the search	<u> </u>	Examiner	
The Hague		13 April 2007	Fordham, Alan		
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		E : earlier patent doc after the filing dat D : document cited in L : document cited fo	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filling date D: document oited in the application L: document oited for other reasons  8: member of the same patent family, corresponding		

#### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 06 42 5762

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

13-04-2007

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US 2005172394	A1	11-08-2005	NONE	
US 6575892	B1	10-06-2003	NONE	
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