



**EUROPEAN PATENT APPLICATION**


 Application number: **89830169.2**



 Int. Cl.<sup>5</sup>: **A61H 33/02**


 Date of filing: **19.04.89**


The title of the invention has been amended  
 (Guidelines for Examination in the EPO, A-III,  
 7.3).


 Applicant: **ACQUACHIARA SRL**  
**Via Icaro 14**  
**Savignano sul Rubicone (Forli)(IT)**



 Date of publication of application:  
**24.10.90 Bulletin 90/43**


 Inventor: **Massimo, Venturi**  
**via Pasolini 16**  
**Longiano (Forli)(IT)**

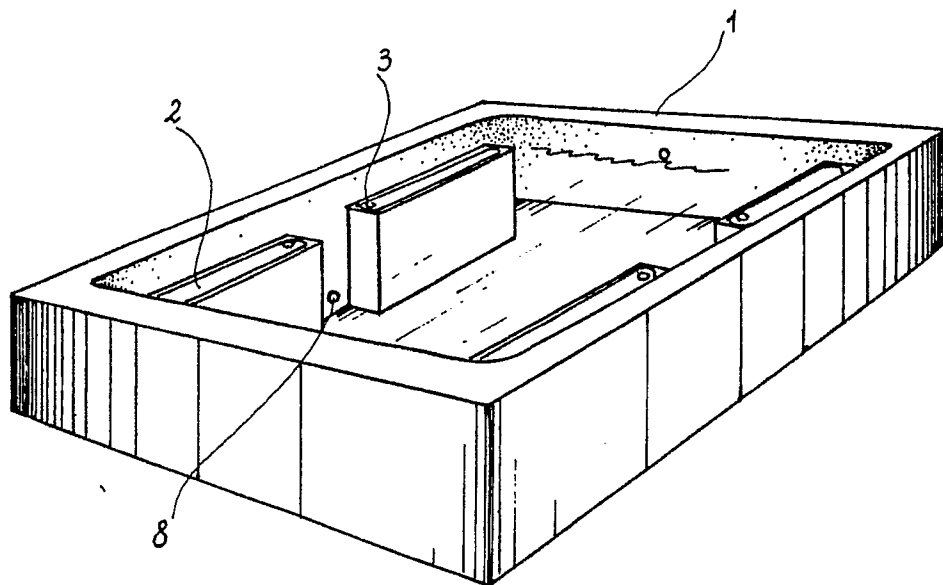

 Designated Contracting States:  
**AT BE CH DE ES FR GB GR IT LI LU NL SE**


 Representative: **Sassatelli, Franco T., Dr.**  
**c/o INIP via Ruggi 5**  
**I-40137 Bologna(IT)**


**Coin-operated hydro-massage apparatus.**


 A hydro-massage device in a basin (2) containing a liquid, the level of which coincides with that of small overflow ducts (2) fitted with outlet openings (3), which can be activated by means of a coin-operated appliance (4) which starts a hydraulic pump (5) with a motor assembly (6). The machine in op-

eration takes the water from the tank through a duct (7), from an inlet (8) and mixes it with air drawn from a second duct (9). This water-air mixture enters the tank as a continuous jet through openings (12), giving rise to a vorticity effect which performs the hydro-massage on an immersed body.



*FIG. 1*

**EP 0 393 295 A1**

The invention refers to an operational compartment with a tank for hydro-massages, on either one or more persons, to start by means of coin slot machine allowing the public use. The means introduces the concept of a group treatment by adopting a new conception unit, to use particularly in public and private enterprises for bathing, physiotherapeutic centres as well as in places for free time such as clubs or others.

At present tanks equipped in different ways or to prepare for hydro-massages are used, but these ones are means for exclusive private home use as well as for only one person, in which the generated turbulence effect gives limited benefits in connection with the modest room in which these massages are performed, requiring a high water squander as well as the presence of a tank for that specific purpose; all these conditions strongly limit the use of such tanks. Moreover, it is to take into consideration that at present there is the tendency of periodically displacing one's abode for more or less prolonged holidays, on the conventional weekends and also towards places to spend one's free time, such as gymnasiums or other; in all these situations, where there is a particular exigency of submitting oneself to this hydro-massage treatment and there is no possibility of availing himself of.

The invention device allows to obviate to this deficiency by carrying out a new kind of highly trustworthy operative compartment which can be used either singularly or by a group of persons, such as for instance a family, thus becoming a device for therapeutic treatment and a pastime subject as well. Furthermore, the invention device restricts the hydric consumption by getting impurity disposal that have been brought to the surface by the natural effect of the turbulence through overflow blowdowns in the upper sides. This allows to avoid to empty the tank after each treatment and, nevertheless, to have the right quantity of liquid for immediate new use. In this way, an economy management can be obtained and the continuity of the treatment times is assured.

The machine is foreseen with the tank 1, containing the liquid up to a level corresponding to the overflow canals 2 with discharges 3, and can be activated by means of a coin slot device 4 which starts the hydraulic pump 5 with motor assembly 6. This pump draws the water from the tank through mouth 8, by means of duct 7, and the air from duct 9 with four openings 10 carries out its mixing. This air-water mixture is then sent in a jet into the tank by means of duct 11 through the mouths 12 and gives rise to a vorticity effect which acts the hydro-massage on the immersed body. The time for carrying out the treatment can be established in advance with a timer 13 foreseen on the control panel 14, while the water input into the tank 1 is

automatically foreseen. The liquid reaches the tank through duct 15 and is disinfected by means of the pump 16, with motor assembly 17 which draws the sanitizer from the deliverer 18. For the automatic activation of liquid supply in order to start the initial filling of the tank, before activating the coin slot device, the electrovalve 20 is activated by means of key 19 which controls the liquid input into the duct 15 by means of mouth 21. In connection with starting the coin device, the electrovalve 22 subsequently controls automatically the inlet of a certain quantity of water in order to steadily keep the tank filled and to allow the water change.

An execution form of the unit, for the contemporary immersion of four persons at the highest, is illustrated in a merely indicative way in the drawings of tables 1 and 2. With reference to these tables, fig. 1 is the perspective view of the tank in order to show the overflow grooves on the tank sides. Fig. 2 is the view of the whole compartment to make evident the plumbing. Fig. 3 is the view of the other side of the same plumbing. Fig. 4 is the view of the disinfection device.

The executing, the shapes the sizes, the compartments and anything else in order may be foreseen in different ways.

## Claims

1) Slot machine for hydro-massages, characterized by the fact that a tank is foreseen, containing sanitizer, the level of which is determined by upper overflow small side canals (2) fitted with discharges (3) and which can be started by means of a coin slot device (4) which activated a hydraulic pump (5) with motor assembly (6). This pump draws water from the tank (1), by means of a duct (7) from a mouth (8), and air through another duct (9) from four openings (10), and continuously carries out mixing and re-inputs into same tank. The above water-air mixture then gets out in a continuous jet through duct (11) and mouths (12) thus generating a vorticity effect in the tank, which carries out a hydro-massage action on the body of bodies immersed. This turbulence also lets the impurities continuously appear that get out from the discharging device (3) by means of additional deliveries of water into the tank during the treatment. This enables to keep the liquid at a constant level inside the tank, and also without impurities, thus arranging the tank for further use.

2) Slot machine for hydro-massages, as per claim 1), characterized by the fact that the liquid automatically arrives into the tank (1) through ducts (15) and is disinfected by means of a pump (16), with motor assembly (17), which takes the sanitizer from a deliverer (18).

3) Slot machine for hydro-massages, as per claim 1), characterized by the fact that for initially filling the tank (1), the electrovalve (20) is activated, by means of a key (19), which controls the liquid input from a duct (15) by means of an entry mouth (21). 5

4) Slot machine for hydro-massages, as per claim 1), characterized by the fact that for delivering an additional quantity of liquid for the specific use, the electrovalve (22) automatically controls the inlet of new water which, consequently, causes the impurities outlet through the relevant discharge bores (3). 10

5) Slot machine for hydro-massages, as per claim 1), characterized by the fact that the tank (1) alternatively can be used as a mini-swimming pool with hydro-massage. 15

20

25

30

35

40

45

50

55

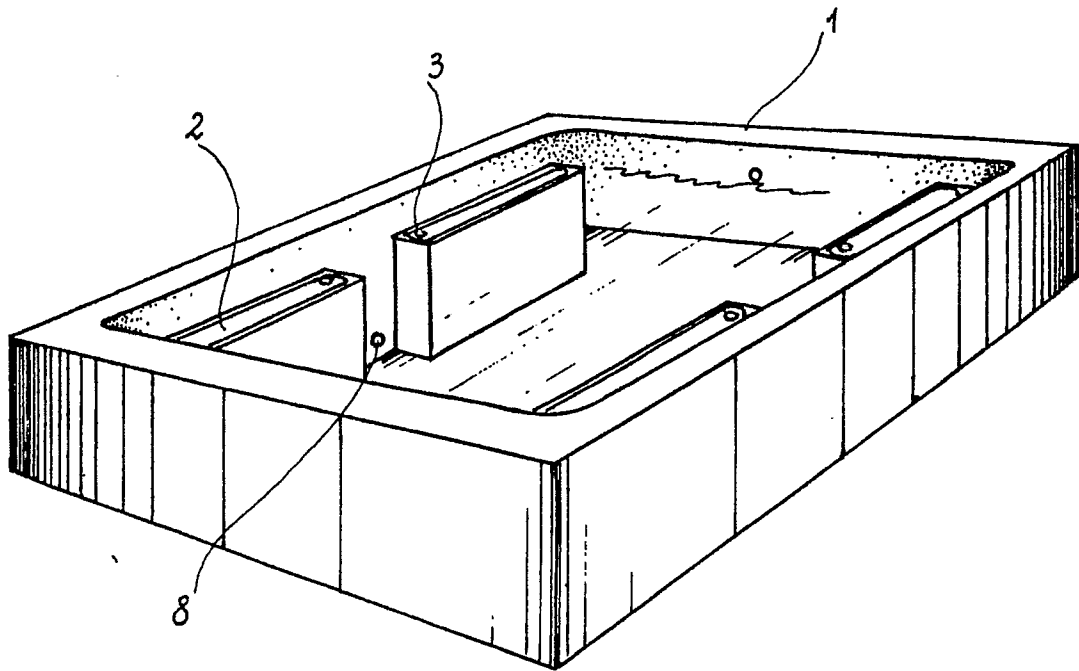


FIG. 1

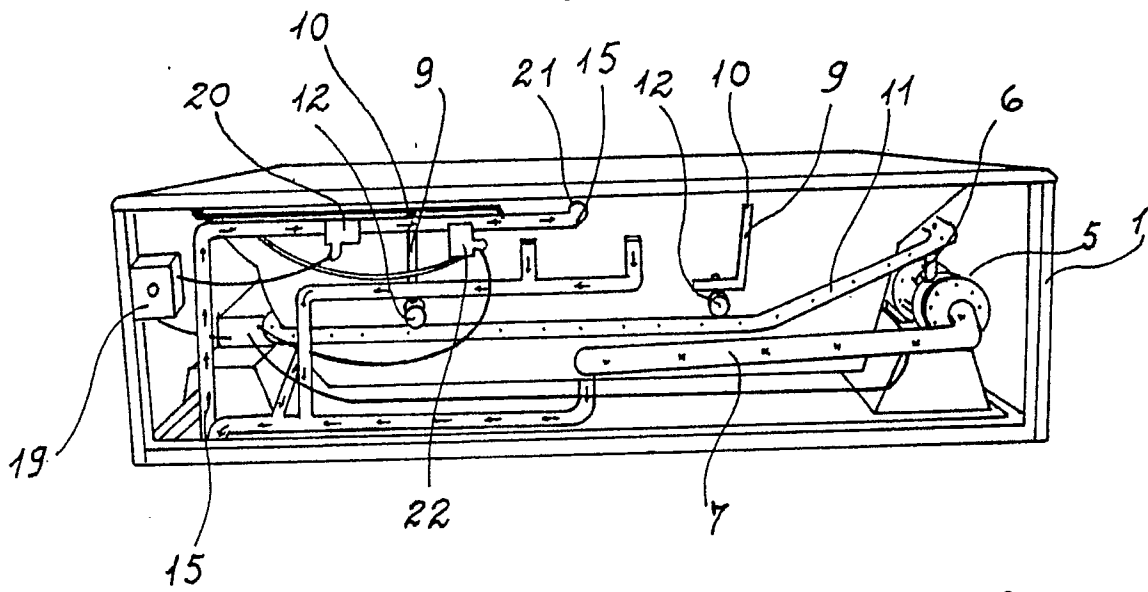


FIG. 2

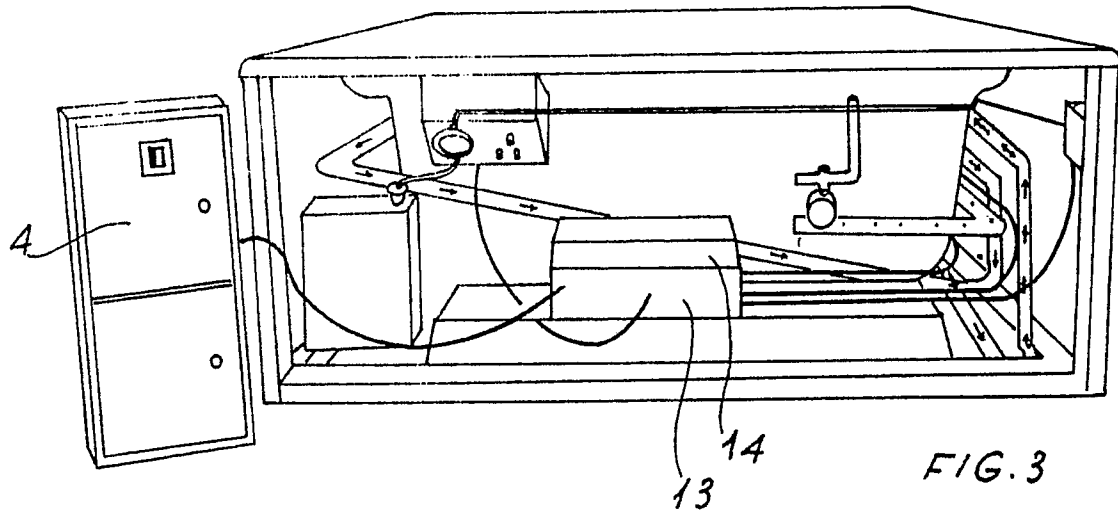


FIG. 3

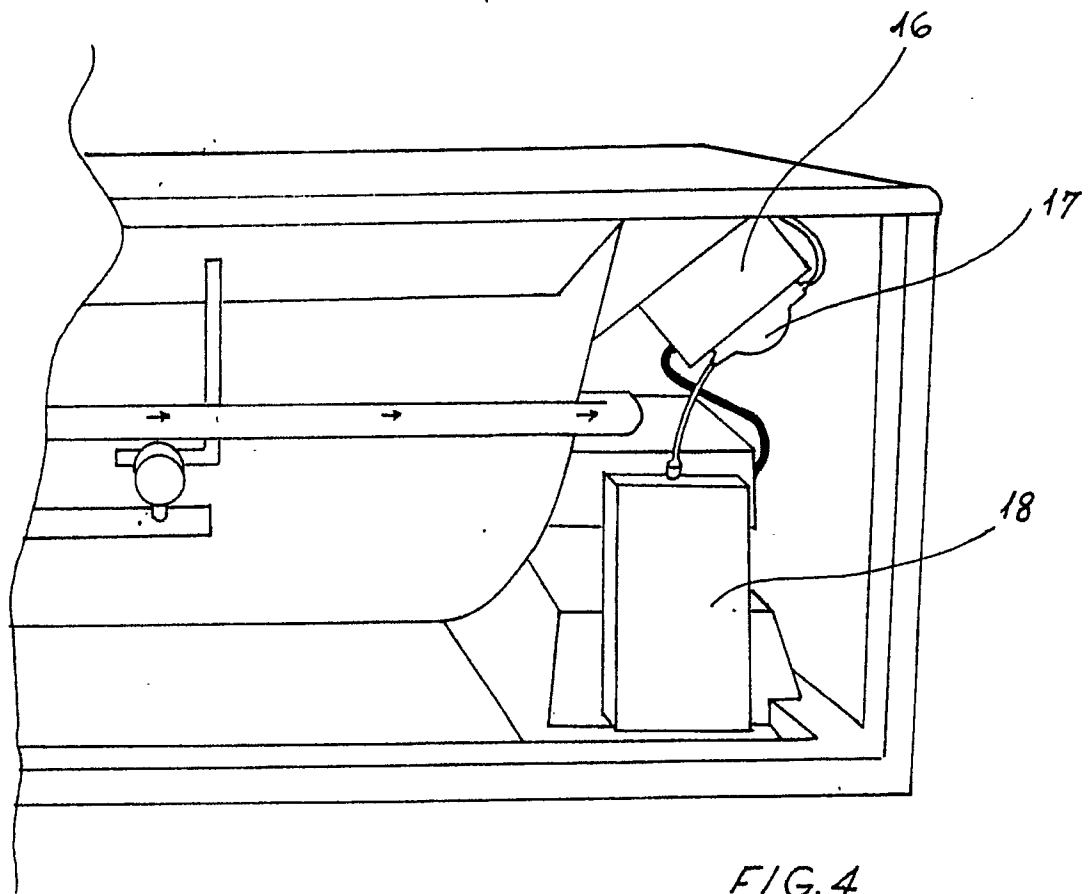


FIG. 4



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	DE-A-3 639 905 (CORVINUS & ROTH GmbH) * Figures; column 4, lines 45-60; column 5, lines 42-55 *	1,2	A 61 H 33/02
A	DE-A-2 618 592 (H. LEHMANN) * Page 1, claim 2 *	1	
A	US-A-3 616 923 (E. HALEY) * Abstract; figure *	1	
A	EP-A-0 108 272 (E. HOESCH et al.) * Figures 1,2; page 9, lines 12-20; page 10, claim 1; page 11, claim 6 *	1	
A	EP-A-0 215 514 (TEUCO GUZZINI S.r.L.) * Column 2, line 48 - column 3, line 6; column 3, lines 31-39 *	1,2	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A 61 H G 07 F E 04 H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 30-11-1989	Examiner VEREECKE A.
CATEGORY OF CITED DOCUMENTS		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	
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			