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(54) **BATH EQUIPPED WITH WATER VIBRATOR**

BADEWANNE, AUSGESTATTET MIT EINEM WASSERVIBRATOR

BAIGNOIRE EQUIPEE D'UN SYSTEME DE PULSATION DE L'EAU

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Description

FIELD OF THE INVENTION

[0001] The present invention relates to a bath equipped with a water vibrator and a therapeutic method using the same and more particularly to a bath equipped with an intra-water vibration wave generating device and a therapeutic method by using the same device wherein the water contained in a bath is caused to vibrate and flow in circulation to transmit a uniform vibration wave to the physical areas of a user so that a therapeutic effect of alleviating corpulence, pains or the like may be attained.

BACKGROUND OF THE INVENTION

[0002] The general methods for treating corpulence include the dietetic treatment in which caloric intake is restricted, the exercise therapy in which an increased physical motion is sought, the therapy for correcting physical behavior, the medicinal therapy and the like. However, these methods are associated with various problems, such as the requirement of the individual's strong willpower and patience, the requirement of allocation of special time and possible accompanying side effects.

[0003] On the other hand, there has been developed a water treating method as a kind of rehabilitating physico-therapeutics in which the water under a high pressure is ejected onto a specific part of human body in a continuous and intense tapping manner. However, this water treating method is not only time-consuming but also troublesome in use for application to various parts of the body, as it is intended only for a particular part of the body. Accordingly, there is a need for a new way of water treatment which causes a uniform vibration of the whole body and activates the metabolism in physical textures.

SUMMARY OF THE INVENTION

[0004] The present invention which was created to resolve the above-described problem has the object of providing a bath equipped with a water vibrator which causes the water contained in a bath to vibrate at a predetermined frequency and make a circulating flow by means of vibration vanes so that the whole body of a user or a patient may be uniformly shaken to result in promotion of the metabolic activity in physical textures through the effect of physical massaging action and increased blood circulation, whereby corpulence or pains may be cured in convenient and effective manner. The another object of the invention is to provide a therapeutic method by using the same arrangement.

[0005] According to the invention, there is provided with an arrangement which includes a bath for holding water in it, a vibration generating means provided on one side of the bath, a vibrating member connected to the vibration generating means, the leading end of the vibrat-

ing member extending into the inside of the bath, and a plurality of vibration vanes for causing the water contained in the bath to vibrate at a predetermined frequency and to flow in circulation, the vanes being provided at a predetermined slant angle on the vibrating member, wherein the vibrating water in circulation can transmit vibrating waves to a man in the bath over the whole surface of the body in a uniform manner to have the effect of decomposing the bodily fat or alleviating pains.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006]

Figure 1 shows a side view of a bath equipped with a water vibrator according to the present invention in cross section and

Figure 2 shows an enlarged view of a water vibrator constituting the present invention in cross section.

DETAILED DESCRIPTION ON THE INVENTION

[0007] A preferable embodiment of the present invention will be described below with reference to the accompanying drawings.

[0008] Referring to Figures 1 and 2, which shows a bath equipped with a water vibrating device according to the invention in cross section, the water vibrating device consists of a vibration generating means 10 provided on one side of the bath 2, a vibrating member 20 connected to the vibration generating means 10, whose leading end extends into the inside of the bath 2, and a plurality of vibration vanes 23 and 23' provided at a predetermined slant angle on the vibrating member 20.

[0009] The vibration generating means 10 consists of a base 19 provided laterally on the top of a bath 2, plural supporting rods 15 provided vertically in relation to the base 19, a vibrating plate 13 provided horizontally on the supporting rods 15 in movable manner in the vertical direction, buffering springs 17 arranged around the supporting rods 15 for pressing the vibrating plate 13 upward and a vibrating motor 11 provided on the vibrating plate 13. The vibrating motor 11 is so constructed as to vibrate with the operation, because it is provided on its driving shaft with an eccentric weight. Thus, the vibrating plate 13 is brought into vertical vibration by driving the vibrating motor 11, so that simultaneously the vibration member 20 extending down to the inside of the bath can be vibrated up and down as well.

[0010] The vibrating member 20 which is a vertical bar threadedly connected to the underside of the vibrating plate 13 is provided with a number of vibrating vanes 23 and 23' at the predetermined intervals to be dipped in the water in the bath 2. The vibrating vanes 23 and 23' are made of metallic or plastic strips having elasticity, and are formed to be bent at about 15° relative to the horizontal line, at the end of the substantially horizontal short section. As a matter of course, the vibrating vanes

are intended to be dipped in the water. Furthermore, out of the vibrating vanes 23 and 23', the vanes 23 positioned in the upper part are formed so that their leading tips are bent upward, while the bottom vane 23' is formed so that its leading tip is bent downward.

[0011] Thus, when the vibration generating means 10 is actuated, the vibrating vanes 23 and 23' connected thereto are brought into vibration in the vertical direction to induce waves with a predetermined wavelength in the water so that a uniform vibrating energy can be transmitted to a man in the water over the whole body. In this way, the transmittance of vibrating waves brings forth physical massaging action and enhanced blood circulation, which in turn help decompose the bodily fat or cure the pain of the affected parts by activating the metabolism through an increased supply of oxygen to intra-textures of the body. In addition, this kind of vibrating hydro-wave helps to resolve the stress and has a favorable influence on the skin health by removing the foreign matter accumulated in the skin to stimulate the circulation of blood.

[0012] According to the result of a clinical test in which a woman aged 35 with the stature of 153 cm and the weight of 62.8 kg (the degree of corpulence at 133 %) was treated by means of the bath according to the invention in such a way that the woman stayed 30 minutes a day for 15 days with the bathing water maintained at the temperature of 35 °C, it was found that the area of the fat on the abdominal wall (which corresponds to the total fat area in the abdominal wall minus the area of the fat associated with the internal organs in the abdominal wall) was reduced to 171.01 cm² after the treatment from the value of 209.68 cm² determined from the CT photograph before the treatment, whereby a reduction of 38.67 cm² or 18.4 % was realized.

[0013] It is to be understood that, while the invention was described with respect to a specific embodiment, the invention is never restricted to that embodiment and a variety of modifications and alterations would be possible to a man skilled in the art by referring to the description or drawings presented here and within the spirit of the invention and thus those modifications or alterations are to fall within the scope of the invention, which scope should be limited only by the attached claims.

Claims

1. An arrangement which includes a bath (2) for holding water in it, a vibration generating means (10) provided on one side of the bath, a vibrating member (20) connected to the vibration generating means, the leading end of the vibrating member extending into the inside of the bath, and a plurality of vibration vanes (23,23') for causing the water contained in the bath to vibrate at a predetermined frequency and to flow in circulation, the vanes being provided at a predetermined slant angle on the vibrating member, wherein the vibrating water in circulation can transmit

vibrating waves to a man in the bath.

Patentansprüche

1. Anordnung, bestehend aus eine Badewanne (2) zum Halten von Wasser in derselben, einem Schwingungserzeuger (10) auf der einen Seite der Badewanne, einem mit dem Schwingungserzeuger verbundenen Schwingungselement (20), wobei sich die die Schwingungen leitenden Enden des Schwingungselements in die Badewanne erstrecken, und mehreren Schwingungsblättern (23, 23'), die in dem in der Badewanne befindlichen Wasser Schwingungen vorgegebener Frequenz und eine Umlaufströmung erzeugen, wobei die Schwingungsblätter sich in einer vorgegebenen Neigung am Schwingungselement befinden und das schwingende Wasser in der Umlaufströmung schwingende Wellen auf den in der Badewanne Badenden übertragen kann.

Revendications

1. Dispositif comprenant une baignoire (2) destinée à contenir de l'eau, un dispositif de production de vibrations (10) sur un des côtés de la baignoire, un élément vibrant (20) relié au dispositif de production de vibrations, l'extrémité de l'élément vibrant s'étendant vers l'intérieur de la baignoire, et plusieurs pales de vibration (23, 23') engendrant une vibration de l'eau contenue dans la baignoire à une fréquence prédéterminée et un courant circulaire dans l'eau, les pales se trouvant à un angle d'inclinaison prédéterminé dans l'élément de vibration, grâce à quoi l'eau en mouvement peut transmettre des vagues vibrantes vers la personne qui prend un bain dans la baignoire.

Fig. 1

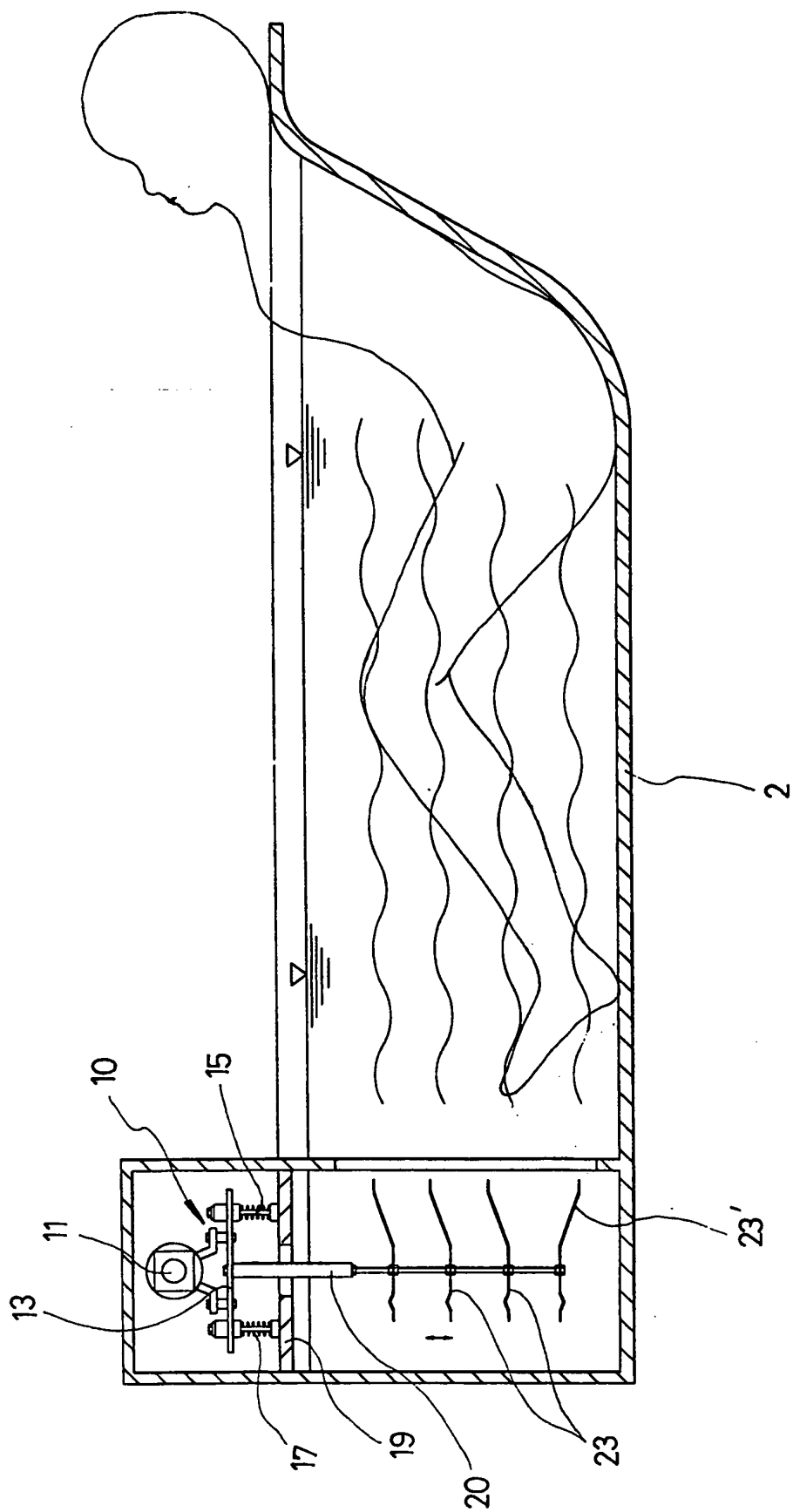


Fig. 2

