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(54) Hand massaging device

(57) A glove-shaped massaging device for massaging the palm and the fingers of the hand having a thumb portion, a finger portion, and a palm portion. The thumb portion, the finger portion, and the palm portion form a massaging area. Massaging elements are set on terminal ends of the thumb portion and the finger portions, and are also set on the palm portion. The massage elements can be inflatable air bags or rollers. A bracket may link two rollers and the rollers may be driven by an electrical motor. Insulation or isolation layers may be arranged between the massage element and the massaging area.

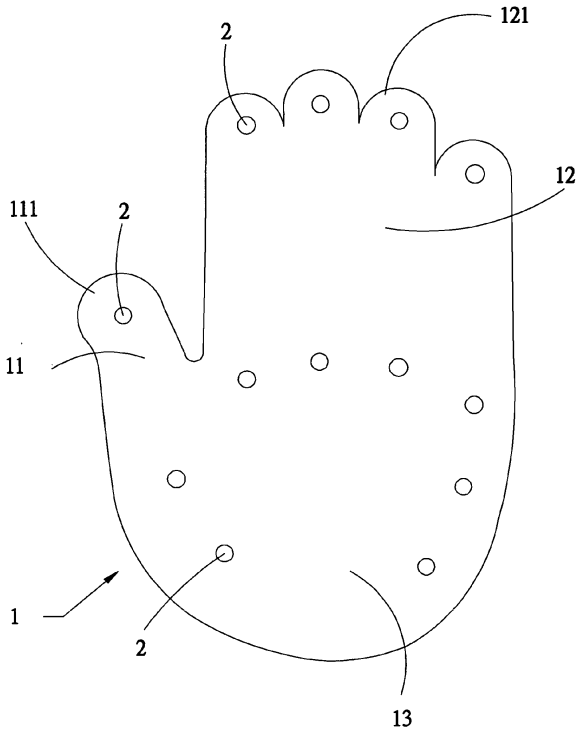

Fig 2

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Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] This invention is about a massaging device, and in particular, relates to a device for the palm.

2. Description of Related Art

[0002] As shown in FIG. 1, generally speaking, the tips of the fingers of a person's palms often have poor blood circulation; therefore, a palm massage machine exists for older people or those with low metabolism who are prone to symptoms of poor blood circulation conditions. As usual, and in fact, a proper massage can improve blood circulation and other symptoms but the effectiveness of these methods can be improved.

[0003] There are no massage products related to the fitness of the peripheral nerves of the limbs on the market. Therefore, for a general user to obtain an effective nerve massage of the peripheral limbs, there are certain difficulties to overcome. To resolve this issue, it is necessary to design an appropriate device to facilitate improvements in the related symptoms of users.

SUMMARY OF THE INVENTION

[0004] A palm massaging device comprises:

a palm-shaped device comprising:

an end of thumb part;
an end of fingers part; and
a palm part. Connections are in contrast with the end of the thumb potion and the end of the fingers part, respectively, forming a glove shape and the thumb part, the fingers potion and the palm potion forming a massaging area.

[0005] The massaging elements are set at the end of the thumb part, the end of the fingers part, and the palm part.

[0006] The end of thumb massage element is set up, the end of the fingers potion is set up with many massaging elements and the connections with the palm part, the thumb potion and the fingers potion are set up as a massage element.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007]

FIG. 1 is a diagram of the end of a palm.
FIG. 2 is a diagram of a first preferred embodiment of the invention.
FIG. 3 is a diagram of a cross-section of an inflatable balloon of an embodiment massage device of the invention;
FIG. 4 shows an embodiment internal motor of a roller massage device of the invention;
FIG. 5 is a side view of an embodiment roller massage of an internal drive motor of a massage device of the invention;
FIG. 6 shows a link of a roller massage device and external motor drive components of an embodiment massage device;
FIG. 7 shows a link of a roller massage device and external motor drive components of an embodiment massage device; and
FIG. 8 is a cross-sectional view of an insulation layer of an embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0008] Related to the patent features and technical content of this invention we will be able to clearly show in the detailed descriptions as follows that refer to three preferred embodiments of the invention.

[0009] As shown in FIG. 2, a first preferred embodiment of the invention comprises a palm-shaped device 1 and a plurality of massaging elements 2.

[0010] The palm-shaped device 1 is made of a soft material having a sleeve-like structure for wrapping a user's palm. The palm-shaped device 1 includes a thumb portion 11, a fingers portion 12, a palm portion 13, and an isolation layer 10. Also, the thumb portion 11and the fingers portion 12 are connected with the palm portion 13 respectively to form a glove shape. Therefore, the thumb portion 11, the fingers portion 12 and the palm portion 13 together form a massaging area, and the isolation layer 10 is used for insulating the user's palm from the palm portion 13. Preferably, when the user utilizes the palm-shaped device 1, the user's thumb is inserted into the massaging space of the thumb portion 11. The rest of the user's fingers can be inserted into the massaging space of the fingers portion 12 and the user's palm can be inserted into the massaging space of the palm portion 13.

[0011] These massaging elements 2 are evenly distributed in the thumb portion 11, the fingers portion 12 and the palm portion 13 between them. An end 111 of the thumb portion 11 is provided with a massaging element 2. All ends 121 of the fingers portion 12 are provided with four massaging elements 2. The end 111 of the thumb portion 11 and the end 121 of the fingers portion 12 are respectively connected to a terminal distal from the other terminals of the palm portion 13. The palm potion 13 is provided with at least one massaging element 2.

[0012] Preferably, there are massaging elements 2 disposed on the palm portion 13, and the massaging elements 2 are arranged peripherally and adjacent to the connections between the palm portion 13, the thumb portion 11 and the fingers portion 12.

[0013] With reference to FIG. 3, in this preferred em-

bodiment, after the user's palm is inserted into the palm-shaped equipment 1, the isolation layer 10 contacts the back side of the user's palm with a first surface 901, and the isolation layer 10 contacts the user's palm with a second surface 902. In this preferred embodiment, each massaging element 2 is an inflatable airbag 21 located on the first surface 901 or the second surface 902. When the user's palm is placed in the massaging space and each airbag 21 is inflated, the inflated airbags 21 create messaging pressure to the corresponding positions on the palm. After a predetermined period of time, every airbag 21 is deflated, and the messaging pressure is released. Therefore, with various repeated inflation/deflation combinations of the airbags 21, different massaging effects can be generated for the user's palm.

[0014] Preferably, there are more protruding particles on each inflatable airbag 21 located on the second surface 902. Accordingly, these protruding particles can increase the massage effect, and comfort for the user.

[0015] Furthermore, there are various inflation methods for the airbags 21; for example, the airbags 21 located on the first surface 901 are inflated and the airbags 21 located on the second surface 902 are deflated at the same time. When the airbags 21 located on the first surface 901 are inflated to saturation, the airbags 21 located on the second surface 902 are completely deflated. When the airbags 21 located on the first surface 901 start to deflate and the airbags 21 located on the second surface 902 start to inflate at the same time. The motions repeat in this cycle to simulate the action of palm kneading which increases the massaging effect.

[0016] In addition, in this preferred embodiment, the airbags 21 located on the second surface 902 can be detachable from the palm-shaped equipment 1 for replacement.

[0017] Between a second preferred embodiment of this invention and the first preferred embodiment, a difference is as follows. Please refer to FIG. 4; each massaging element 2 located on the second surface 902 is a massaging roller 22. The massaging roller 22 includes a first roller 221, a second roller 222, and a bracket 223 connected to the first roller 221 and the second roller 222. Both surfaces of the first roller 221 and the second roller 222 have a plurality of protruding particles 220. Therefore, when the massaging roller 22 is disposed between the second surface 902 and an isolation layer 10 parallel with the palm, the first roller 221 and the second roller 222 roll between the second surface 902 and the isolation layer 10. When the user's palm is placed at the massaging area, the massage results are apparent.

[0018] Please refer to at FIG. 4 and 5 together; the first roller 221 and the second roller 222 have an internal motor 200 respectively. Or, as shown in FIG. 6 and 7, a linkage element 290 (such as a tracking belt) connects the first roller 221 and the second roller 222 together. The linkage components 290 drive the first roller 221 and the second roller 222 by connecting to an external motor (not shown). Preferably, each protruding particle 220 is a small steel ball and disposed on the surface of the first roller 221 and the second roller 222, and each protruding particle 220 is slidable within a small range.

[0019] In addition, in this preferred embodiment example, the massaging roller 22 is detachable from the palm-shaped device for replacement.

[0020] Between a second preferred embodiment of this invention and the first preferred embodiment, a difference is as follows. Please refer to FIG. 8. The third preferred embodiment further comprises a heat insulation layer 19 between the massaging space and the isolation layer 10. For example, when the airbags 21 are inflated, they can also be heated between the heat insulation layer 19 and the isolation layer 10. Therefore, the user's palms are massaged and kept at a steady temperature at the same time to increase comfort.

[0021] Preferably, the insulation layer 19 is made of a thin and light material, so heat can be passed appropriately to the user's palm, and will not affect the massaging effect. In other words, the protruding particles 220 on the airbag 21 or the first roller 221 and the second roller 222 are still efficient to provide a massaging effect.

[0022] As above, the present invention can perform various types of massaging of the end user's palm, but can also be heated in order to increase the comfort of the massage. Therefore, the ultimate purpose of the present invention can be achieved.

[0023] While the invention has been described in terms of preferred embodiments, those skilled in this field will recognize that the invention can be operated with modifications within the spirit and scope of the appended claims.

Claims

1. A palm massaging device, comprising:

a palm-shaped equipment comprising:

an end of thumb part;
an end of fingers part; and
a palm part; wherein the end of the thumb portion and the end of the fingers portion are coupled together to form a glove shape, and the thumb portion, the fingers portion and the palm portion form a massaging area, and massaging elements are set at the end of the thumb portion, the ends of each fingers portion, and in the palm portion;

wherein the end of the thumb massage element and the end of the fingers portion are configured with massaging elements and connections with the palm portion, the thumb portion and the fingers portion are configured as a massage element.

2. The palm massaging device of claim 1, wherein a massage element located on the palm portion is a massage roller, the massage roller comprising a first roller, a second roller and a bracket linked to the first roller and the second roller.

3. The palm massaging device of claim 2, wherein the first roller and the second roller are driven by an internal motor to cause the first roller and the second roller to scroll.

4. The palm massaging device of claim 2, wherein the massage roller further comprises a link element to link the first roller and the second roller.

5. The palm massaging device of claim 2, wherein an isolation layer is disposed between the massage element and the massaging area.

6. The palm massaging device of claim 5, wherein an insulation layer is disposed between the isolation layer and the massaging area.

7. The palm massaging device of claim 1, wherein each massage element is an airbag and each airbag is inflatable.

8. The palm massaging device of claim 7, wherein an isolation layer is between the massage element and the massaging area.

9. The palm massaging device of claim 8, wherein an insulation layer is between the isolation layer and the massaging area.

10. The palm massaging device of claim 1, wherein massaging elements disposed on the palm-shaped equipment are detachable.

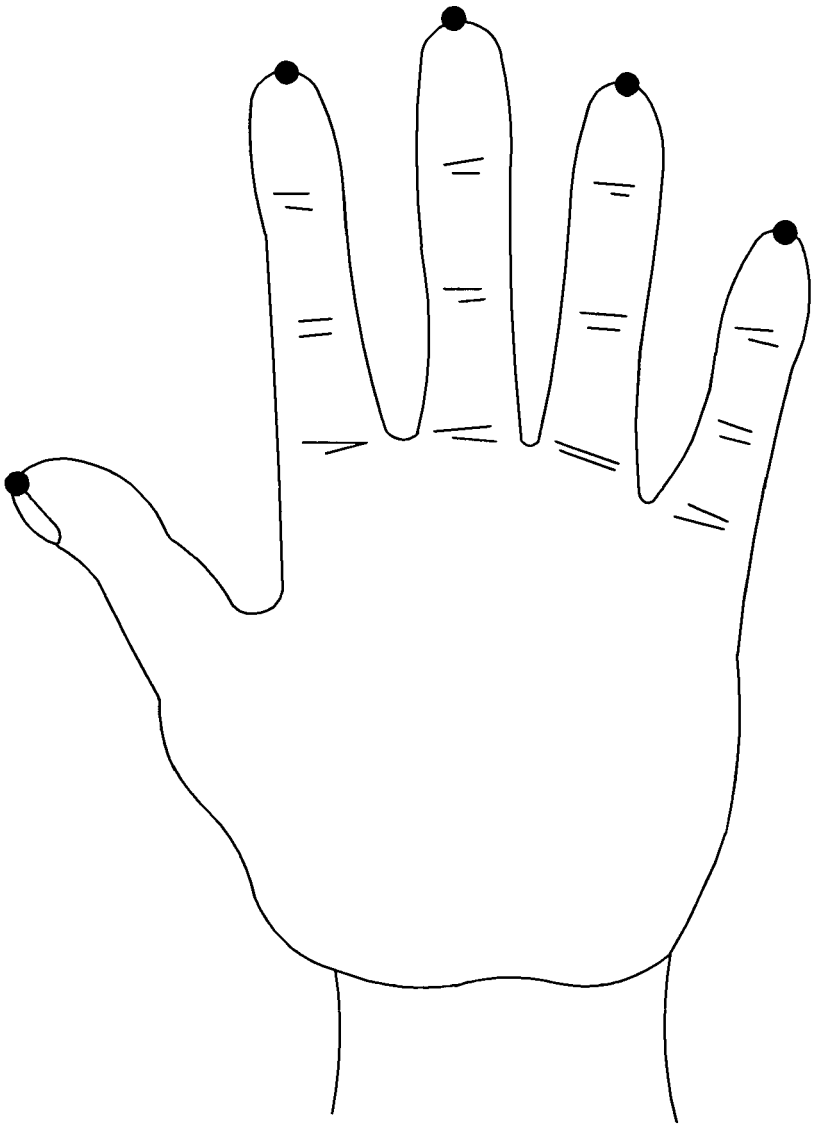

Fig 1

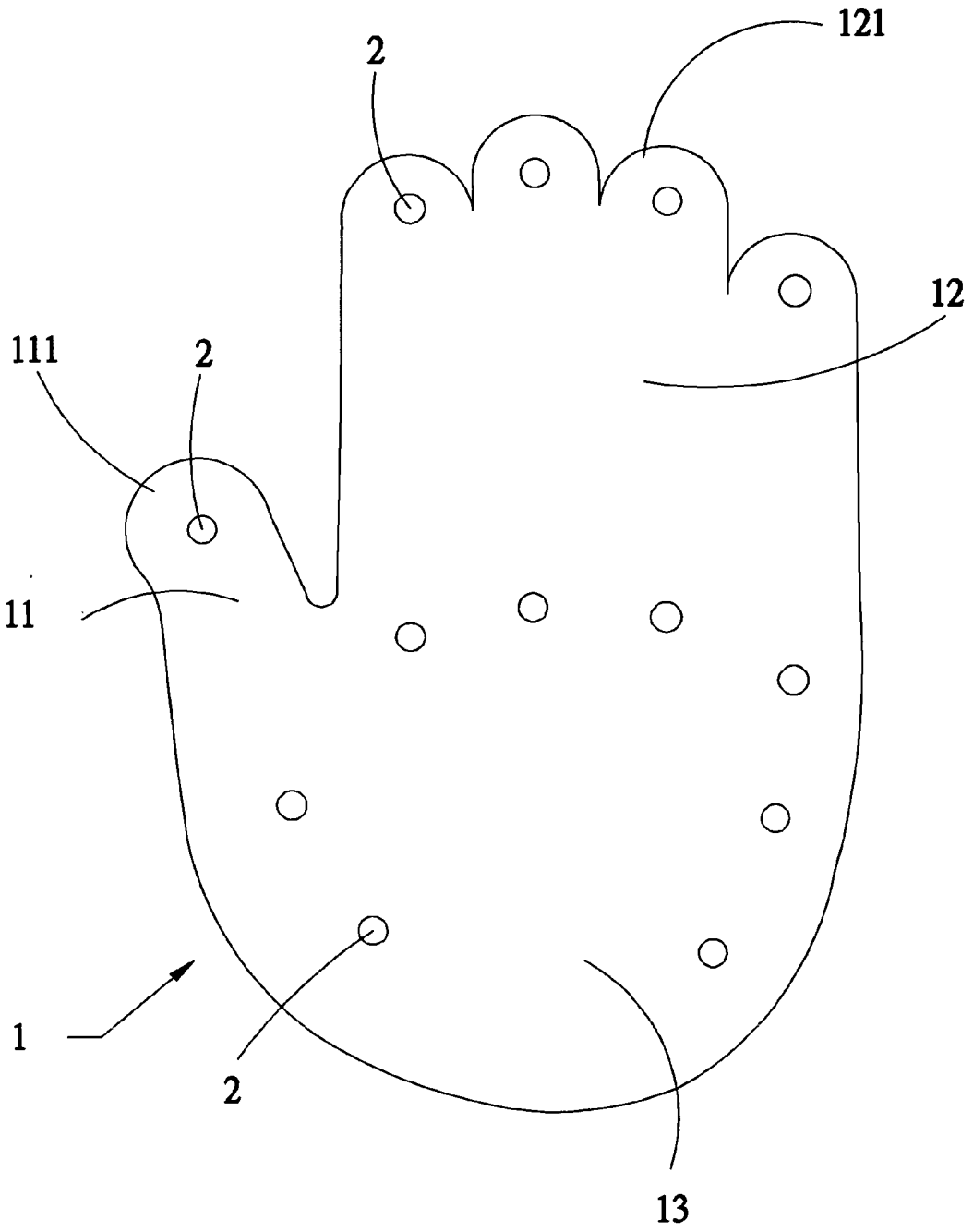

Fig 2

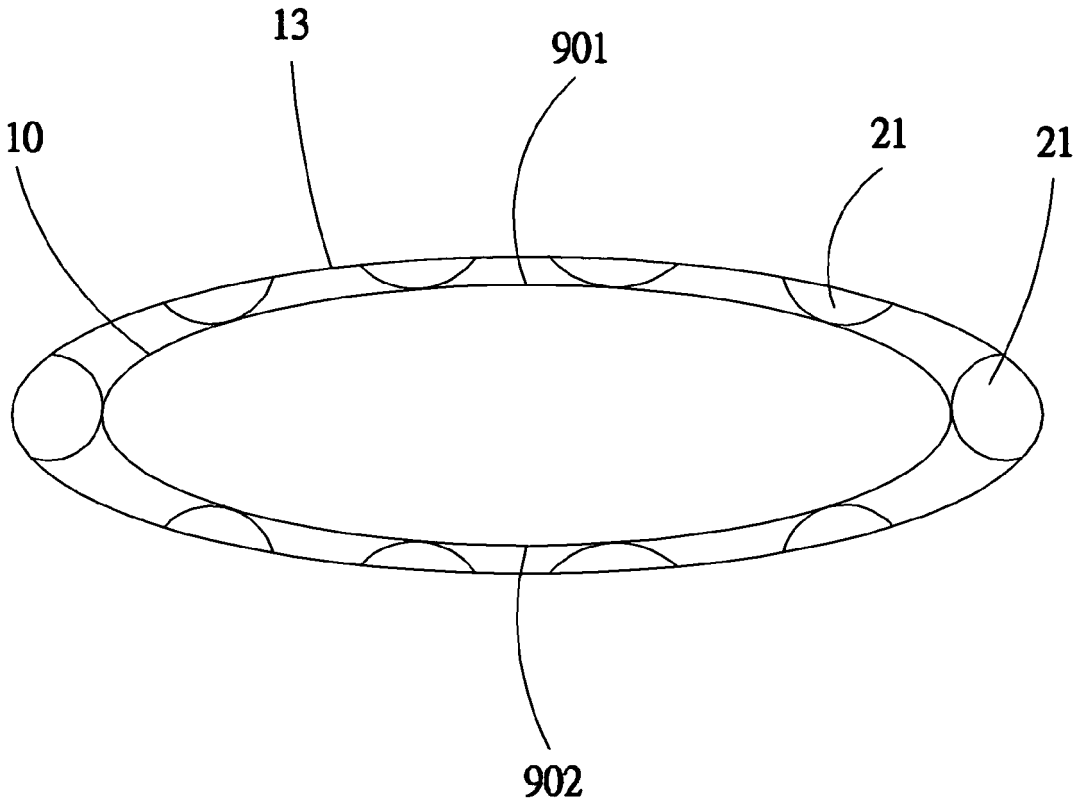

Fig3

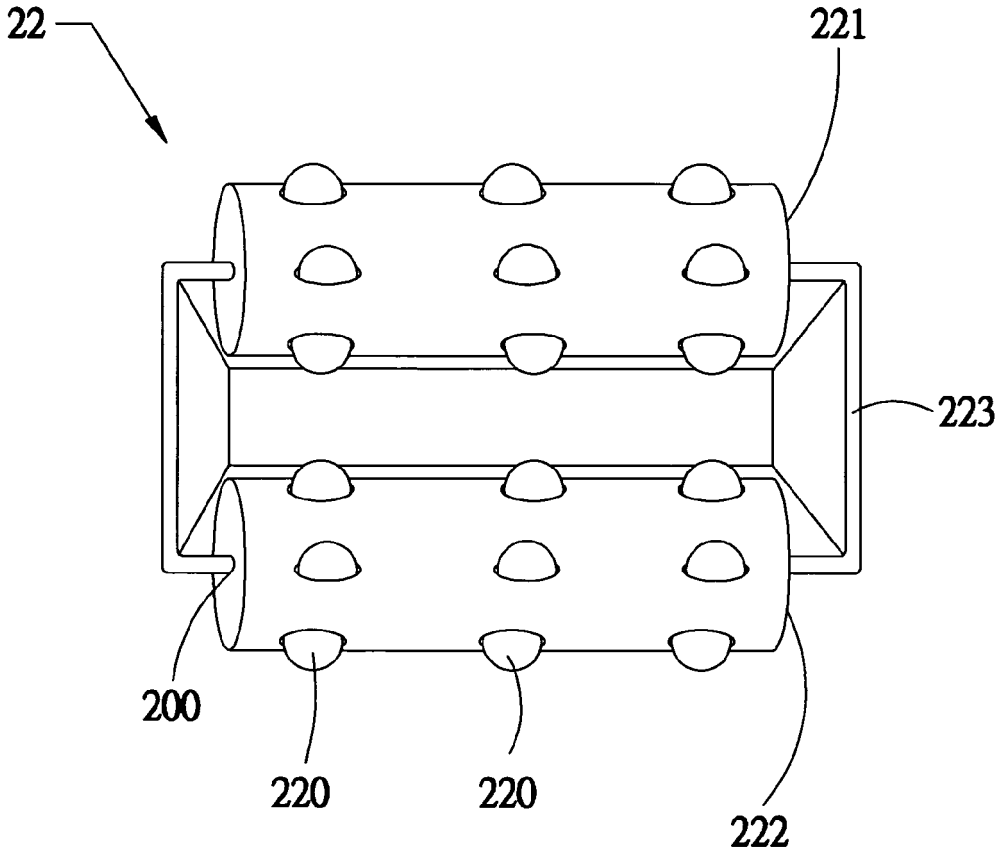

Fig 4

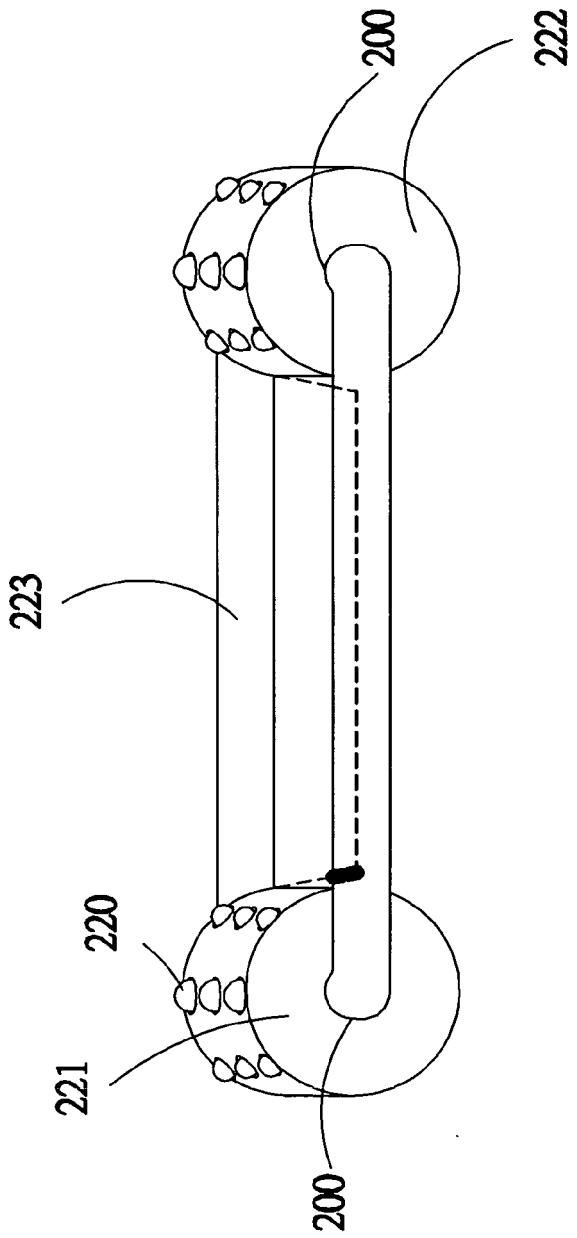

Fig 5

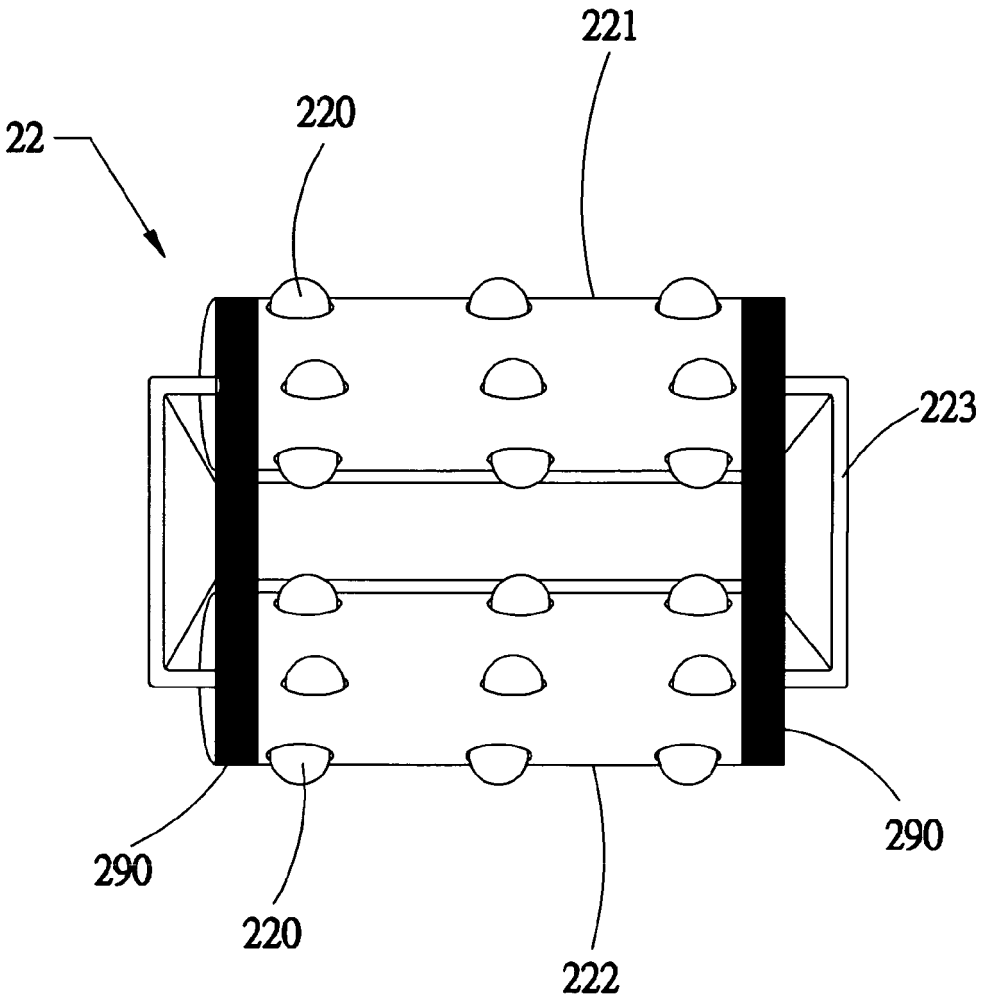

Fig 6

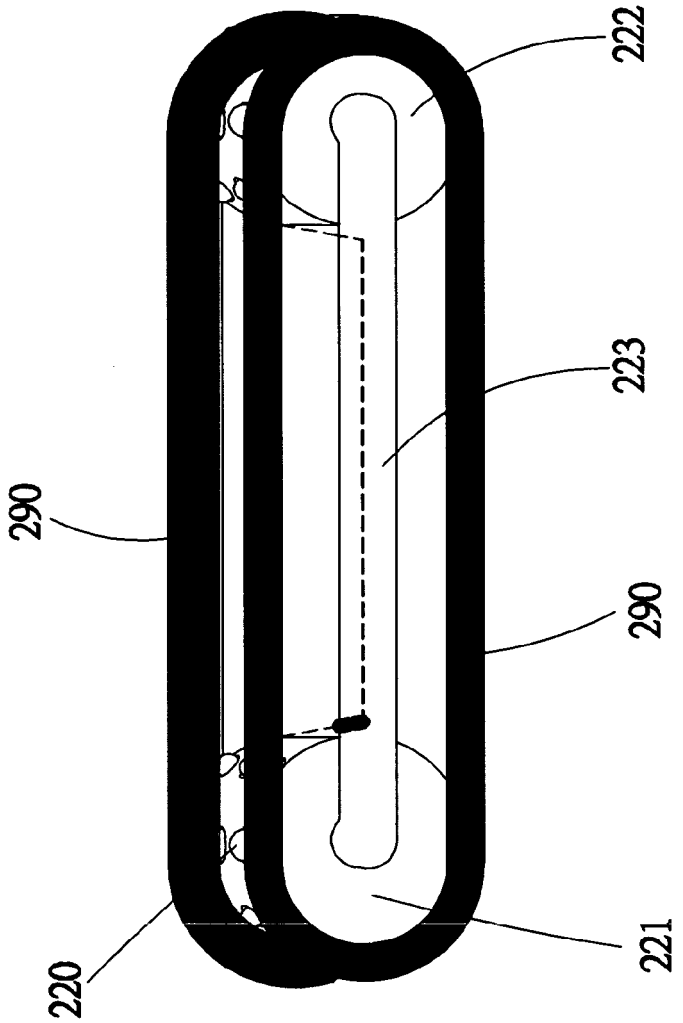

Fig 7

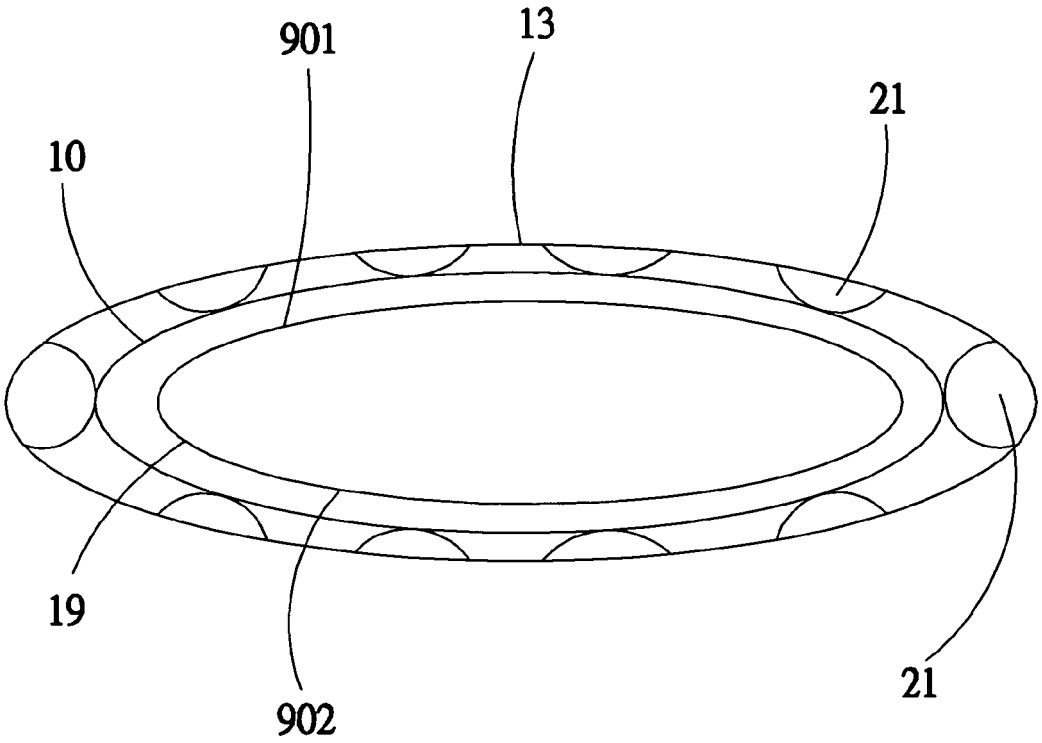

Fig 8

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EUROPEAN SEARCH REPORT

Application Number
EP 12 25 0002

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	CN 2 353 363 Y (CHEN BINGUAN [CN]) 15 December 1999 (1999-12-15) * the whole document *	1	INV. A61H15/00 A61H9/00 A41D19/00
X	US 2008/216207 A1 (TSAI SHEN-HAI [TW]) 11 September 2008 (2008-09-11) * paragraphs [0009], [0010]; figure 3 *	1	
Y	US 2010/016768 A1 (LIU JUNG-JEN [TW]) 21 January 2010 (2010-01-21) * paragraph [0026]; figure 1 *	1,10	
X	CN 1 214 904 A (DONG DONGSHENG [CN]) 28 April 1999 (1999-04-28) * the whole document *	1,2	
Y	WO 2010/033055 A1 (HANDMEDIC HB [SE]; LUNDBORG GOERAN [SE]) 25 March 2010 (2010-03-25) * page 5 - pages 13-15; figure 1 *	1-6,10	
Y	US 7 238 163 B1 (FRIED SCOTT [US] ET AL) 3 July 2007 (2007-07-03) * the whole document *	2-6	TECHNICAL FIELDS SEARCHED (IPC) A61H A41D

1 ~~The present search report has been drawn up for all claims~~

Place of search	Date of completion of the search	Examiner
Munich	5 July 2012	Schut, Timen

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

EPO FORM 1503 03.82 (P04C01)

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Application Number
EP 12 25 0002

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-6, 10

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 12 25 0002

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-6, 10

   Massaging glove for massaging the palm and the fingers of the hand having massage elements constituted as rollers.

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2. claims: 1, 7-10

   Massaging glove for massaging the palm and the fingers of the hand having massage elements constituted as inflatable airbags.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 12 25 0002

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
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05-07-2012

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WO 2010033055 A1	25-03-2010	NONE	
US 7238163 B1	03-07-2007	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82