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#### (54) Adjustable shaping brassiere

(57) An adjustable shaping brassiere (1, 2, 3A, 3B, 4) includes two sacs (11, 12, 41, 42, 71, 72, 73, 74), a passage (3, 23, 33, 43) and a first device (5, 25, 35, 45). The two sacs (11, 12, 41, 42, 71, 72, 73, 74) are filled with a fluid. The first device (5, 25, 35, 45) includes one of a pump (5, 35, 45) and a fluid nozzle (25). The passage

(3, 23, 33, 43) is disposed between and communicates the two sacs (11, 12, 41, 42, 71, 72, 73, 74) so as to allow the fluid to flow between the two sacs (11, 12, 41, 42, 71, 72, 73, 74) through the passage (3, 23, 33, 43). The first device (5, 25, 35, 45) is connected with the passage (3, 23, 33, 43) so as to fill the fluid into the two sacs (11, 12, 41, 42, 71, 72, 73, 74).

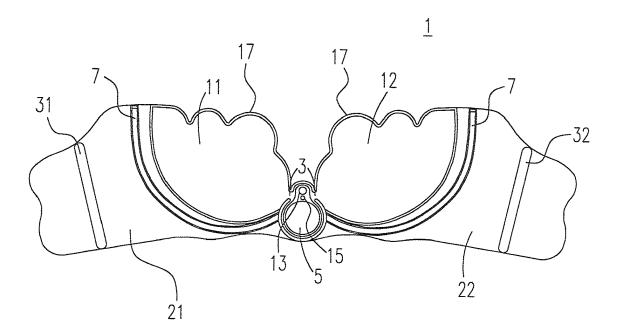


Fig. 1

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[0001] The application claims the benefit of Taiwan Patent Application No. 100212464, filed on July 7, 2011, at the Taiwan Intellectual Property Office, the disclosures of which are incorporated herein in their entirety by reference.

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[0002] The present invention relates to bra, especially to an adjustable shaping brassiere able to provide the visual effects of enlarging and balancing the breasts.

[0003] Currently the brassiere worn by the women can provide the function of adjusting the shape of the breasts besides the traditional functions of health, good looking, hygiene and comfort. For those women with small breasts, the brassiere may need to provide the visual effect of enlarging the breasts.

[0004] According to the Taiwan utility model patent with the patent number of M278250 and tile "A structure for an Inflatable Bra", it is disclosed that the lower portions of two cups of the brassiere are connected with two shaping air sacs according to the curvature figures of the women's breasts. Each of the shaping air sacs has an air inlet where the inflation unit is set. The air can be filled by using an external handheld inflation device. After the two air sacs in the two cups have been filled with air, the inflation device can be removed, and the inflation unit can return to an airtightly closed condition. There is a tube between the two shaping air sacs in the two cups of the brassiere to balance the air between the two shaping air sacs. This brassiere for the woman can provide the functions of figure shaping, firming and uplifting.

[0005] In the Taiwan utility model patent with the patent number of M263001, it is disclosed that there is a connection passage between two sacs in two cups of bra. When two breasts have different sizes, some of the water or air inside the sacs will be squeezed from one sac to the other sac through the connection passage so that two breasts look equal in the sizes from the appearances. [0006] However, there still exists some inconvenience in the usage by applying the above prior art. For overcoming the mentioned shortcomings existing in the conventional techniques, a novel technical design is provided in the present invention with the advantages of convenience for the user and capability of providing the visual effects of uplift, balance and enlargement of the breasts. [0007] Accordingly, the present invention relates to an adjustable shaping brassiere for a user having a body and a breast. The adjustable shaping brassiere comprises two sacs filled with a fluid and a first device disposed between the two sacs to fill the fluid into the two sacs. The first device includes one of a pump and a fluid nozzle. [0008] In accordance with one aspect of the present invention, an adjustable shaping brassiere is provided. The brassiere includes two sacs, a passage and a pump. The two sacs are filled with a fluid. The passage is disposed between and communicates the two sacs so as to allow the fluid to flow between the two sacs through

the passage. The pump is connected with the passage

so as to fill the fluid into the two sacs.

[0009] In accordance with another aspect of the present invention, an adjustable shaping brassiere is provided. The brassiere includes two sacs, a passage and a fluid nozzle. The two sacs are filled with a fluid. The passage is disposed between and communicates the two sacs so as to allow the fluid to flow between the two sacs through the passage. The fluid nozzle is connected with the passage to fill the fluid into the two sacs.

[0010] In accordance with a further aspect of the present invention, an adjustable shaping brassiere is provided. The brassiere includes two sacs and two shaping pieces. The two sacs are filled with a fluid, wherein each of the two sacs has an upper edge. The two shaping pieces are respectively structured on the two sacs, wherein each of the shaping pieces has the lower edge respectively attached to each of the sacs to force the upper edge of the each sacs tilting an angle towards the user so that the upper edges of the two sacs move close to the breasts of the user.

[0011] The above objects and advantages of the present invention will become more readily apparent to those ordinarily skilled in the art after reviewing the following detailed descriptions and accompanying drawings, in which:

[0012] Fig. 1 is the schematic diagram showing a front view of a brassiere in an embodiment of the present in-

[0013] Fig. 2 is the schematic diagram showing a front view of a brassiere in another embodiment of the present invention;

[0014] Fig. 3A is the schematic diagram showing a front view of a brassiere before shaping pieces are attached in the other embodiment of the present invention; [0015] Fig. 3B is the schematic diagram showing a front view of the brassiere after the shaping pieces are fixed in the embodiment of Fig. 3A;

[0016] Fig. 4A is the schematic diagram showing a front view of a brassiere with additional flank pieces before being adhered in an embodiment of the present invention; and

[0017] Fig. 4B is the schematic diagram showing a front view of the brassiere of Fig. 4A after the additional flank pieces adhere thereto.

45 [0018] The present invention will now be described more specifically with reference to the following embodiments. It is to be noted that the following descriptions of preferred embodiments of this invention are presented herein for the purposes of illustration and description only; it is not intended to be exhaustive or to be limited to the precise form disclosed.

[0019] Please refer to Fig. 1, which is the schematic diagram showing a front view of a brassiere in an embodiment of the present invention. As shown in Fig. 1, the brassiere 1 includes two sacs 11 and 12, a passage 3 and a pump 5. The sacs 11 and 12 correspond to two breasts of a woman, and are designed to support the lower portions and/or outer portions of the breasts so that

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the breasts can be uplifted and/or squeezed inwards to generate the visual effect of breast enlargement. The passage 3 is disposed between and communicates the two sacs 11 and 12 so that the fluid inside the two sacs 11 and 12 can flow therebetween through the passage 3. Therefore, when two breasts do not have the same size, the smaller breast occupies smaller space, and more fluid will flow into the sac, with which the smaller breast is contact, so that the pressures in the two sacs can reach balance. In such conditions, the sac contacted with the smaller breast contains more fluid; while the sac contacted with the larger breast contains less fluid, and accordingly the two breasts wearing the brassiere 1 look equal in the sizes from the appearances, even though the two breasts actually have different sizes.

[0020] The fluid inside the sacs 11 and 12 can be gas or liquid, and the liquid can be water or oil. The pump 5 in the brassiere 1 is fixed to and connected with the passage 3, and disposed between the two sacs 11 and 12 to fill the fluid thereinto. In this embodiment, the fluid is gas. The pump 5 can be a press pump, e.g. the inflation/ ventilation device with air pad disclosed in the Taiwan utility model patent with the patent number M341790. As shown in Fig. 1, the pump 5 includes a fluid inlet valve 15, i.e. air inlet valve, and a fluid outlet valve 13, i.e. air outlet valve, to control the air inflation and ventilation in this embodiment. The user can press the pump 5 to inflate the two sacs 11 and 12. The inflated volume can be adequately adjusted depending on the requirements of the user so as to reach the visual effects of uplift, balance and enlargement of the breasts.

[0021] In this embodiment, the pump 5 is fixed to and connected to the brassiere 1, so the adjustable shaping brassiere 1 can be conveniently adjusted and used for instant inflation or ventilation based on the practical need. Since the pump 5 is designed to be disposed in the concave space between the two sacs 11 and 12, i.e. between two cups, the existence of the pump 5 cannot be recognized from the appearances after wearing the dress, and only good looking visual effect is displayed. Furthermore, the user would not have any uncomfortable feeling caused by the squeeze from the pump 5. The material of the pump 5 can be selected from the material with low density, e.g. plastics, rubbers, carbon fibers, aluminum alloy, etc. In addition, the compact size is preferably designed for the pump 5 so as to avoid any possible squeeze from the pump to the user's body due to the large dimensions.

**[0022]** As shown in Fig. 1, the brassiere 1 can optionally contain a supporting frame 7 made by metal or plastics and disposed on the lower edges and/or outer edges of the two sacs 11 and 12 to fix and to reinforce the two sacs 11 and 12.

**[0023]** As shown in Fig. 1, the brassiere 1 can further optionally include two flank pieces 21 and 22, basically flexible flank pieces, respectively connected with the outer edges of the two sacs 11 and 12. Each of the two flank pieces 21 and 22 has a surface applied with an adhesive

so as to adhere the two flank pieces 21 and 22 onto the user's body, i.e. the places near the two breasts and below the two armpits on the user's body. In such a situation, the user can wear a backless dress, and the brassiere cannot be seen from the back of the user. Certainly, for the reinforcement or other concerns, the two flexible flank pieces 21 and 22 can optionally extend to the back of the user, or the shoulder straps or back straps can be optionally attached to the bra.

**[0024]** The two flank pieces 21 and 22 can optionally include hard pieces 31 and 32, respectively attached thereon to avoid the flank pieces 21 and 22 from being curled and self-adhered.

**[0025]** In additions, for the concern of good looking, pieces of fabric or lace can be sewn or adhered to the outer surfaces of the two sacs 11 and 12 of the brassiere 1 to beautify the appearance of the brassiere 1 and to promote the quality feeling.

[0026] As shown in Fig. 1, the upper edges of the two sacs 11 and 12 of the brassiere 1 can be optionally designed to include petal-shape parts 17 to reduce the thickness of the upper edges of the two sacs 11 and 12. Besides, a film can be optionally disposed on the lower edges of the petal-shape parts 17 to beautify the concave curve of the petal-shape parts 17.

[0027] Please refer to Fig. 2, which shows a front view of a brassiere in another embodiment of the present invention. As shown in Fig. 2, the adjustable shaping brassiere 2 includes two sacs 41 and 42, a passage 23 and a fluid nozzle 25, i.e. a gas nozzle in this embodiment. Similarly, the two sacs 41 and 42 correspond to two breasts of a woman, and are designed to support the lower portions and/or outer portions of the breasts so that the breasts can be uplifted and/or squeezed inwards to generate the visual effect of breast enlargement. A passage 23 is disposed between and communicates the two sacs 41 and 42 so that the fluid inside the two sacs 41 and 42 can flow therebetween through the passage 23. Therefore, similarly as the description for the above embodiment, the design of the present embodiment allows the two breasts with different sizes to look equal in the sizes.

[0028] Similarly, the fluid inside the sacs 41 and 42 can be gas or liquid, and the liquid can be water or oil. The fluid nozzle 25, e.g. air nozzle, in the brassiere 2 is fixed to and connected with the passage 23, and disposed between the two sacs 41 and 42 to fill the fluid thereinto. In this embodiment, the fluid is gas. The fluid nozzle 25 can be connected with an external inflation device or an air pump (or liquid pump) to fill the fluid, e.g. gas or liquid, into the sacs 41 and 42. The inflated or filled volume can be adequately adjusted depending on the requirements of the user so as to reach the visual effects of uplift, balance and enlargement of the breasts.

**[0029]** In this embodiment, since the fluid nozzle 25 is designed to be disposed in the concave space between the two sacs 41 and 42, i.e. between two cups, the existence of the fluid nozzle 25 cannot be recognized from

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the appearance after wearing the dress, and only good looking visual effect is displayed. Furthermore, the user would not have any uncomfortable feeling caused by the squeeze from the fluid nozzle 25.

**[0030]** As shown in Fig. 2, the brassiere 2 can optionally contain a supporting frame 27 made by metal or plastics and disposed on the lower edges and/or outer edges of the two sacs 41 and 42 to fix and to reinforce the two sacs 41 and 42.

[0031] As shown in Fig. 2, the brassiere 2 can further optionally include two flank pieces 51 and 52, basically flexible flank pieces, respectively connected with the outer edges of the two sacs 41 and 42. Each of the two flank pieces 51 and 52 has a surface applied with an adhesive so as to adhere the two flank pieces 51 and 52 onto the user's body, i.e. the places near the two breasts and below the two armpits on the user's body. In such a situation, the user can wear a backless dress, and the brassiere cannot be seen from the back of the user. Certainly, for the reinforcement or other concerns, the two flexible flank pieces 51 and 52 can optionally extend to the back of the user, or the shoulder straps or back straps can be optionally attached to the bra.

**[0032]** Similarly, the two flank pieces 51 and 52 can optionally include hard pieces 61 and 62, respectively, attached thereon to avoid the flank pieces 51 and 52 from being curled and self-adhered.

**[0033]** In additions, for the concern of good looking, pieces of fabric or lace can be sewn or adhered to the outer surfaces of the two sacs 41 and 42 of the brassiere 2 to beautify the appearance of the brassiere 2 and to promote the quality feeling.

**[0034]** As shown in Fig. 2, the upper edges of the two sacs 41 and 42 of the brassiere 2 can be optionally designed to include petal-shape parts 37 to reduce the thickness of the upper edges of the two sacs 41 and 42. Besides, a film can be optionally disposed on the lower edge of the petal-shape parts 37 to beautify the concave curve of the petal-shape parts 37.

[0035] Fig. 3A shows a front view of a brassiere before shaping pieces are attached in the other embodiment of the present invention. As shown in Fig. 3A, the brassiere 3A includes two sacs 71 and 72 and two shaping pieces 81 and 82. For clarity, the shaping pieces 81 and 82 shown in Fig. 3A have not been sewn or adhered to the sacs 71 and 72, respectively. Fig. 3B shows a front view of the brassiere after the shaping pieces are fixed in the embodiment of Fig. 3A. For clarity, the locations of the shaping pieces 81 and 82 after being fixed to the sacs 71 and 72 are shown by the shaded area in Fig. 3B. As shown in Fig. 3B, the brassiere 3B includes the sacs 71 and 72 and the shaping pieces 81 and 82, the lower edges of which are fixed to the sacs 71 and 72, respectively. As shown in Fig. 3A, the lower edges of the shaping pieces 81 and 82 have slight curve shapes close to a linear shape. Thus, when the lower edges of the shaping pieces 81 and 82 are fixed to the sacs 71 and 72 by the methods of sewing, glue adhering, thermal forming, etc., the shaping pieces 81 and 82 will tilt an angle towards the breasts of the user so that the upper edges of the sacs will move close to the breasts of the user to display a shape close to a hemispheric shape.

[0036] The volume of the fluid filled into the sacs 71 and 72 can be adequately adjusted based on the requirements of the user so as to reach the visual effects of uplift, balance and enlargement of the breasts. In this embodiment, the sacs 71 and 72 can be hermetical sacs  $filled \ with \ the \ fluid, e.g. \ air, water, oil, etc., and \ then \ sealed$ during the manufacturing processes. Besides, the sacs can be designed to be connected with a pump or a fluid nozzle, and can be filled with the fluid or discharged whenever it is required. As shown in Figs. 3A and 3B, the passage 33 can be optionally disposed between the sacs 71 and 72, so that the fluid inside the sacs 71 and 72 can flow therebetween through the passage 33. The pump 35 is connected with the passage 33 for filling the fluid and discharging. Since the pump 35 is designed to be disposed in the concave space between the two sacs 71 and 72, the existence of the pump 35 cannot be recognized from the appearance after wearing the dress, and only good looking visual effect is displayed. Certainly, the pump 35 can be designed to be disposed on other place of the sacs 71 and 72 based on the practical requirements.

[0037] Similarly, in this embodiment, the brassiere 3A or 3B can further optionally include two flank pieces 91 and 92, basically flexible flank pieces, respectively connected with the outer edges of the two sacs 71 and 72. Each of the two flank pieces 91 and 92 has a surface applied with an adhesive so as to adhere the two flank pieces 91 and 92 onto the user's body, i.e. the places near the two breasts and below the two armpits on the user's body. In such a situation, the user can wear a backless dress, and the brassiere cannot be seen from the back of the user. Certainly, for the reinforcement or other concerns, the two flank pieces 91 and 92 can optionally extend to the back of the user, or the shoulder straps or back straps can be optionally attached to the bra.

**[0038]** Similarly, the two flank pieces 91 and 92 can optionally include hard pieces 93 and 94, respectively, attached thereon to avoid the flank pieces 91 and 92 from being curled and self-adhered.

**[0039]** In additions, for the concern of good looking, pieces of fabric or lace can be sewn or adhered to the outer surfaces of the two sacs 71 and 72 of the brassiere 3A or 3B to beautify the appearance of the brassiere 3A or 3B and to promote the quality feeling.

**[0040]** Fig. 4A shows a front view of a brassiere with additional flank pieces before being adhered in an embodiment of the present invention. As shown in Fig. 4A, the brassiere 4 include two sacs 73 and 74, a pump 45, a passage 43, two flexible flank pieces 83 and 84, and two additional flank pieces 85 and 86. The pump 45 is disposed between the two sacs 73 and 74 to fill the fluid into the two sacs 73 and 74. The passage 43 is disposed

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between and communicates the two sacs 73 and 74 so as to allow the fluid to flow between the two sacs 73 and 74 through the passage 43. The two flexible flank pieces 83 and 84 are respectively connected with the outer edges of the two sacs 73 and 74, and are designed to be shorter than those in Figs. 1, 2, 3A and 3B for short-time adherence. The additional flank pieces 85 and 86 can be separately provided from the main body of the brassiere 4 and have the surfaces applied with adhesive for adhering and peeling.

[0041] When wearing the adjustable shaping brassiere 4 by attaching the flexible flank pieces 83 and 84 onto the body, the user may feel a little tense around the skin where the flexible flank pieces 83 and 84 adhere to after pressing the pump 45 to fill the gas into the sacs 73 and 74. Therefore, the flexible flank pieces 83 and 84 are designed to be short for easy detachment and then reattachment to relieve the tense feeling of the skin after filling gas into the sacs 73 and 74. After then, the additional flank pieces 85 and 86 can optionally adhere onto the flexible flank pieces 83 and 84 and the body as shown in Fig. 4B, which illustrates a front view of the brassiere of Fig. 4A after the additional flank pieces 85 and 86 adhere thereto, for long-time adherence to provide strong adherence and to avoid any unintentional detachment of the brassiere 4 from the body.

**[0042]** Some embodiments of the present invention are described in the followings.

[0043] 1. An adjustable shaping brassiere includes two sacs, a passage and a pump. The two sacs are filled with a fluid. The passage is disposed between and communicates the two sacs so as to allow the fluid to flow between the two sacs through the passage. The pump is connected with the passage so as to fill the fluid into the two sacs.

**[0044]** 2. In an adjustable shaping brassiere of the embodiment 1, the fluid comprises one of a gas and a liquid, the pump includes a fluid inlet valve and a fluid outlet valve, and the pump is a press pump.

**[0045]** 3. An adjustable shaping brassiere includes two sacs, a passage and a fluid nozzle. The two sacs are filled with a fluid. The passage is disposed between and communicates the two sacs so as to allow the fluid to flow between the two sacs through the passage. The fluid nozzle is connected with the passage to fill the fluid into the two sacs.

**[0046]** 4. In an adjustable shaping brassiere of any one of the preceding embodiments, each of the two sacs has a lower edge and an outer edge, and the adjustable shaping brassiere comprises a supporting frame disposed on the lower edges and the outer edges of the two sacs so as to fix the two sacs, wherein the supporting frame includes one selected from a group consisting of a metal, an alloy and a plastic.

**[0047]** 5. In an adjustable shaping brassiere of any one of the preceding embodiments, each of the two sacs has an outer edge, the adjustable shaping brassiere comprises two flexible flank pieces respectively connected with

the outer edges of the two sacs, each of the two flexible flank pieces has a surface applied with an adhesive so as to adhere the two flexible flank pieces onto a user's body, and each of the two flexible flank pieces includes a hard piece attached therein to avoid the each flexible flank piece from being curled and self-adhered.

**[0048]** 6. In an adjustable shaping brassiere of any one of the preceding embodiments, the petal-shape part has a lower boundary, the adjustable shaping brassiere further comprises a film disposed in the lower boundary of the petal-shape part, and the film includes one selected from a group consisting of a plastic film, a rubber film and a leather film.

[0049] 7. In an adjustable shaping brassiere of any one of the preceding embodiments, the fluid comprises one of a gas and a liquid, and the fluid nozzle is connected with a fluid-filling device to fill the fluid into the two sacs. [0050] 8. An adjustable shaping brassiere for a user having breasts includes two sacs and two shaping pieces, wherein each of the two sacs has an upper edge, the two sacs are filled with a fluid, the two shaping pieces are respectively disposed on the two sacs, and each of the shaping pieces has a lower edge respectively attached to each of the sacs to force the upper edge of the each sacs tilting an angle towards the user so that the upper edges of the two sacs move close to the breasts of the user.

**[0051]** 9. An adjustable shaping brassiere of any one of the preceding embodiments further includes one of a pump and a fluid nozzle so as to fill the fluid into the two sacs.

**[0052]** 10. An adjustable shaping brassiere of any one of the preceding embodiments further includes a passage and one of a pump and a fluid nozzle so as to fill the fluid into the two sacs, wherein the passage is disposed between and communicates the two sacs to allow the fluid to flow between the two sacs through the passage.

[0053] 11. In an adjustable shaping brassiere of any one of the preceding embodiments, each of the two sacs has a lower edge and an outer edger, and the adjustable shaping brassiere further comprises a supporting frame and two flexible flank pieces, wherein the supporting frame is disposed on the lower edges and the outer edges of the two sacs so as to fix the two sacs, and includes one selected from a group consisting of a metal, an alloy and a plastic, and each of the two flexible flank pieces has a surface applied with an adhesive so as to adhere the two flexible flank pieces onto a user's body, and includes a hard piece attached therein to avoid the flexible flank piece from being curled and self-adhered.

**[0054]** 12. An adjustable shaping brassiere of any one of the preceding embodiments further includes at least one of a fabric and a lace attached to the two sacs, wherein the upper edge of the each sac has a thickness and includes a petal-shape part to reduce the thickness of the upper edge of the each sac.

[0055] 13. In an adjustable shaping brassiere of any

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one of the preceding embodiments, the fluid comprises one of a gas and a liquid, and the liquid includes one selected from a group consisting of a water, an oil and a combination thereof.

[0056] While the invention has been described in terms of what is presently considered to be the most practical and preferred embodiments, it is to be understood that the invention needs not be limited to the disclosed embodiments. On the contrary, it is intended to cover various modifications and similar arrangements included within the scope of the appended claims which are to be accorded with the broadest interpretation so as to encompass all such modifications and similar structures.

#### Claims

1. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) for a user having a body and a breast, characterized by comprising:

> two sacs (11, 12, 41, 42, 71, 72, 73, 74) filled with a fluid; and a first device (5, 25, 35, 45) disposed between the two sacs (11, 12, 41, 42, 71, 72, 73, 74) to fill the fluid into the two sacs (11, 12, 41, 42, 71, 72, 73, 74), wherein the first device (5, 25, 35, 45) includes one of a pump (5, 35, 45) and a fluid nozzle (25).

- 2. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of Claim 1, characterized by further comprising a passage (3, 23, 33, 43) disposed between and communicating the two sacs (11, 12, 41, 42, 71, 72, 73, 74) so as to allow the fluid to flow between the two sacs (11, 12, 41, 42, 71, 72, 73, 74) through the passage (3, 23, 33, 43), wherein the first device (5, 25, 35) is connected with the passage (3, 23, 33, 43).
- 3. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of 40 Claim 1 or 2, characterized in that each of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) has a lower edge and an outer edge, the adjustable shaping brassiere (1, 2, 3A, 3B, 4) comprises a supporting frame (7, 27) disposed on the lower edges and the outer edges of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) so as to fix the two sacs (11, 12, 41, 42, 71, 72, 73, 74), and the supporting frame (7, 27) includes one selected from a group consisting of a metal, an alloy and a plastic.
- 4. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of one of the Claims 1 to 3, characterized in that:

each of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) has an outer edge;

the adjustable shaping brassiere (1, 2, 3A, 3B, 4) comprises two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) respectively connected with the outer edges of the two sacs (11, 12, 41, 42, 71, 72, 73, 74);

each of the two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) has a surface applied with an adhesive so as to adhere the two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) onto the body of the user; and

each of the two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) includes a hard piece (31, 32, 61, 62, 93, 94) attached therein to avoid the each flexible flank piece (21, 22, 51, 52, 83, 84, 91, 92) from being curled and self-adhered.

- 5. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of Claim 4, characterized by further comprising two additional flank pieces (85, 86), each of which has a surface applied with an adhesive to allow the additional flank pieces (85, 86) to adhere onto the flexible 20 flank pieces (21, 22, 51, 52, 83, 84, 91, 92) and the body.
  - 6. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of one of the Claims 1 to 5, characterized by further comprising at least one of a fabric and a lace attached to the two sacs (11, 12, 41, 42, 71, 72, 73, 74), wherein each of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) has an upper edge having a thickness and including a petal-shape part (17, 37) so as to reduce the thickness of the upper edge of the each sac (11, 12, 41, 42, 71, 72, 73, 74).
  - 7. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of one of the Claims 1 to 6, characterized by further comprising a shaping piece (81, 82) having a lower edge, wherein each of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) has an upper edge, and the lower edge of the shaping piece (81, 82) is attached to at least one of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) to force the upper edge of the sac (11, 12, 41, 42, 71, 72, 73, 74) to tilt an angle towards the user so that the upper edge of the sac (11, 12, 41, 42, 71, 72, 73, 74) moves close to the breast.
- 45 8. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of one of the Claims 1 to 7, characterized in that:

the fluid comprises one of a gas and a liquid, wherein the liquid includes one selected from a group consisting of a water, an oil and a combination thereof; and

when the first device (5, 25, 35, 45) is the pump (5, 35, 45), the pump (5, 35, 45) includes a fluid inlet valve (15) and a fluid outlet valve (13), and the pump (5, 35, 45) is a press pump (5, 35, 45).

9. An adjustable shaping brassiere (1, 2, 3A, 3B, 4) of one of the Claims 1 to 7, characterized in that the

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fluid comprises one of a gas and a liquid, and when the first device (5, 25, 35, 45) is the fluid nozzle (25), the fluid nozzle (25) is connected with a fluid-filling device to fill the fluid into the two sacs (11, 12, 41, 42, 71, 72, 73, 74).

**10.** A method for manufacturing an adjustable shaping brassiere (1, 2, 3A, 3B, 4) for a user having a body and a breast, **characterized by** comprising steps of:

providing two sacs (11, 12, 41, 42, 71, 72, 73, 74) to be filled with a fluid; and disposing a first device (5, 25, 35, 45) between the two sacs (11, 12, 41, 42, 71, 72, 73, 74) so as to fill the fluid into the two sacs (11, 12, 41, 42, 71, 72, 73, 74) to form the adjustable shaping brassiere (1, 2, 3A, 3B, 4), wherein the first device (5, 25, 35, 45) includes one of a pump (5, 35, 45) and a fluid nozzle (25).

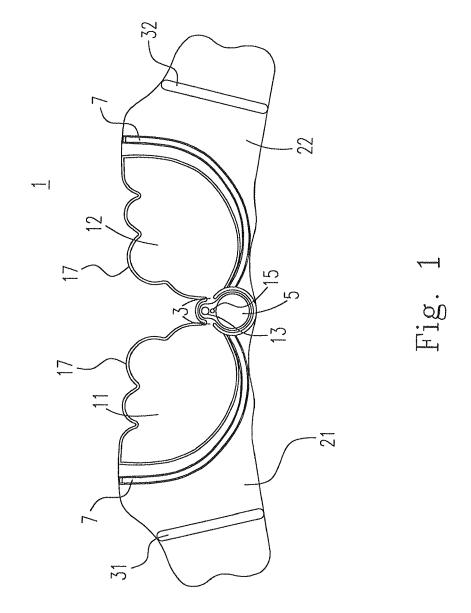
- 11. A method of Claim 10, characterized by further comprising a step of forming a passage (3, 23, 33, 43) disposed between and communicating the two sacs (11, 12, 41, 42, 71, 72, 73, 74) so as to allow the fluid to flow between the two sacs (11, 12, 41, 42, 71, 72, 73, 74) through the passage (3, 23, 33, 43), wherein the first device (5, 25, 35, 45) is connected with the passage (3, 23, 33, 43).
- 12. A method of Claim 10 or 11, characterized in that each of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) has an outer edge, and the method further comprises a step of disposing two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) respectively connected with the outer edges of the two sacs (11, 12, 41, 42, 71, 72, 73, 74), wherein:

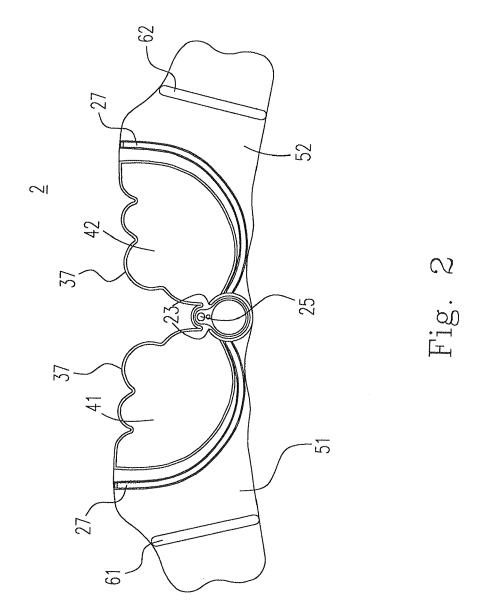
each of the two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) has a surface applied with an adhesive so as to adhere the two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) onto the body of the user; and each of the two flexible flank pieces (21, 22, 51, 52, 83, 84, 91, 92) includes a hard piece (31, 32, 61, 62, 93, 94) attached therein to avoid the each flexible flank piece (21, 22, 51, 52, 83, 84, 91, 92) from being curled and self-adhered.

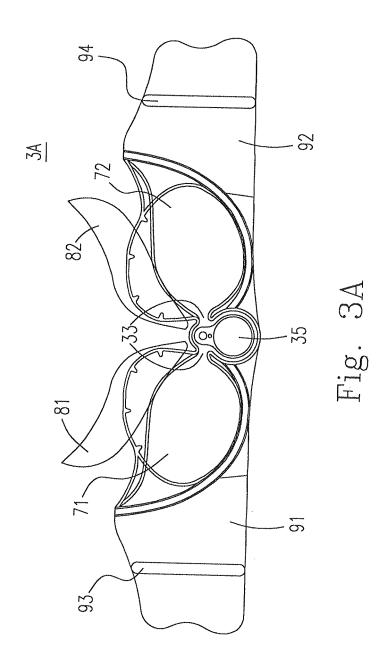
13. A method of one of the Claims 10 to 12, **characterized by** further comprising a step of disposing at least one of a fabric and a lace attached to the two sacs (11, 12, 41, 42, 71, 72, 73, 74), wherein each of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) has an upper edge having a thickness and including a petal-shape part (17, 37) so as to reduce the thickness of the upper edge of the each sac (11, 12, 41, 42, 71, 72, 73, 74).

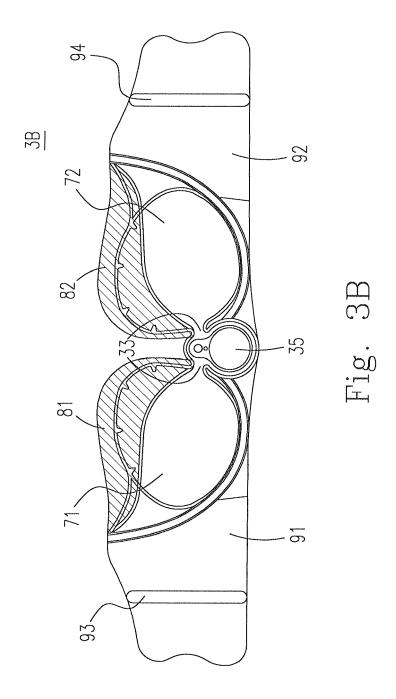
- **14.** A method of one of the Claims 10 to 13, **characterized by** further comprising a step of disposing a shaping piece (81, 82) having a lower edge onto the adjustable shaping brassiere (1, 2, 3A, 3B, 4), wherein each of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) has an upper edge, and the lower edge of the shaping piece (81, 82) is attached to at least one of the two sacs (11, 12, 41, 42, 71, 72, 73, 74) to force the upper edge of the sac (11, 12, 41, 42, 71, 72, 73, 74) to tilt an angle towards the user so that the upper edge of the sac (11, 12, 41, 42, 71, 72, 73, 74) moves close to the breast.
- 15. A method of one of the Claims 10 to 14, characterized in that:

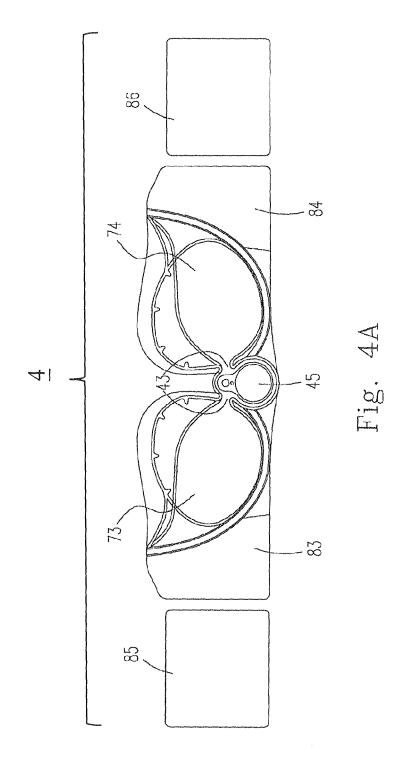
the fluid comprises one of a gas and a liquid; and when the first device (5, 25, 35, 45) is the pump (5, 35, 45), the pump (5, 35, 45) includes a fluid inlet valve (15) and a fluid outlet valve (13), and the pump (5, 35, 45) is a press pump (5, 35, 45).

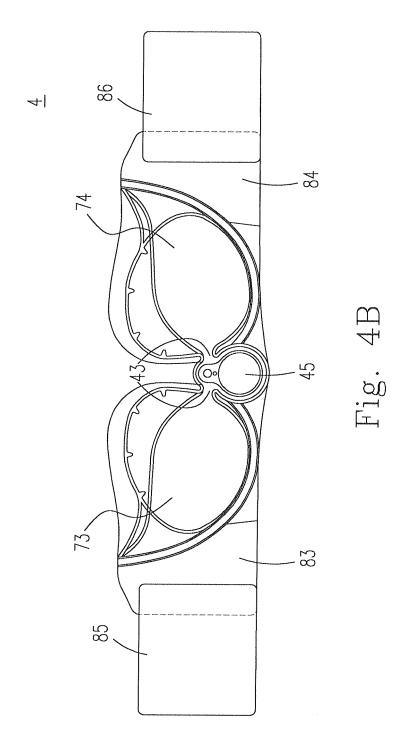














## **EUROPEAN SEARCH REPORT**

Application Number EP 11 18 4447

Category	Citation of document with in	ndication, where appropriate,	Relevant	CLASSIFICATION OF THE
Category	of relevant pass		to claim	APPLICATION (IPC)
Х	US 2011/065358 A1 ( 17 March 2011 (2011	FLEETON GARTH [AU]) -03-17)	1-3, 6-11, 13-15	INV. A41C3/10
Υ	* paragraphs [0029] *	, [0031]; figures 1,4	4,5,12	
Х	AL) 8 October 2002	 ILWELL FRED W [US] ET (2002-10-08)	1-3, 6-11,15	
A	* column 3, line 46 figures 1-3 *	- column 6, line 8;	4,5,12	
Х	AL) 10 November 199	 HBAZIAN KHACHIK [US] ET 8 (1998-11-10) column 4, line 25;	1,2, 9-11,15	
Х	JP 11 247006 A (KOI 14 September 1999 ( * abstract; figure	1999-09-14)	1,2, 9-11,15	
Υ	US 2006/228989 A1 (AL) 12 October 2006 * paragraph [0013];		4,5,12	TECHNICAL FIELDS SEARCHED (IPC)
	The present search report has been drawn up for all claims			
	Place of search	Date of completion of the search	1	Examiner
	The Hague	18 October 2012	Souza, Jennifer	
C	ATEGORY OF CITED DOCUMENTS	T : theory or principl		
X : part Y : part docu	cularly relevant if taken alone cularly relevant if combined with anot ment of the same category	E : earlier patent do after the filing da	cument, but pub te n the application	lished on, or
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## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 11 18 4447

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.

18-10-2012

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2011065358	A1	17-03-2011	AU US WO	2009240786 2011065358 2009129574	A1	29-10-200 17-03-201 29-10-200
US 6461221	B1	08-10-2002	AU AU NZ US WO	1787102 2002217871 526346 6461221 0243515	B2 A B1	11-06-200 05-08-200 24-09-200 08-10-200 06-06-200
US 5833515	Α	10-11-1998	NONE			
JP 11247006	Α	14-09-1999	NONE			
US 2006228989	A1	12-10-2006	NONE			

FORM P0459

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

## EP 2 543 266 A1

#### REFERENCES CITED IN THE DESCRIPTION

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#### Patent documents cited in the description

- TW 100212464 [0001]
- TW M278250 [0004]

- TW M263001 [0005]
- TW M341790 [0020]