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(54) **BRASSIERE FOR CONTAINING DRESSINGS AND/OR FOR CORRECTING ASYMMETRIES**

BÜSTENHALTER FÜR AUFLAGEN UND/ODER ZUR KORREKTUR VON ASYMMETRIEN

SOUTIEN-GORGE DESTINÉ À CONTENIR DES PANSEMENTS ET/OU À CORRIGER DES ASYMÉTRIES

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Description

[0001] The present invention relates to a brassiere containing dressings and/or correcting temporary dysmorphiae.

[0002] Several operations of mammary surgery or breast medical treatments generally determine a permanent or temporary asymmetry, between volume, shape and/or general sizes of the two mammas, in some cases even linked to the presence of bulky dressings.

[0003] These asymmetries in particular occur in case of:

- tissue deficits consequent to ablative surgery operations of the mammary region during the breast reconstruction (post-quadrantectomy, reconstruction with tissue expansion procedure, reconstructive procedures with lipofilling), or
- encumbrances due to the post-quadrantectomy dressings or those needed to keep and consolidate the result obtained after the nipple surgery (nipple reconstruction after mastectomy, procedures for correcting the introflexed nipple).

[0004] Due to such asymmetries, the patient experiences huge inconveniences, of psychological and social nature, above all linked to the impossibility of adopting an underwear allowing to dissimulate the asymmetries themselves, however without interfering with possible ongoing treatments. In fact, it is to be noted that inappropriate underwear articles not only may not result however satisfying from an aesthetical point of view, but above all they may have a negative impact on the above-mentioned treatments, thus compromising for example the dressings' efficiency and/or implying the application of unsuitable stresses on mamma(s).

[0005] An additional difficulty takes place then in case the asymmetries can vary with time.

[0006] US 5,395,280 discloses a surgical brassiere having a first pocket with an opening for receiving a front breast prosthesis and a second pocket with an opening for receiving a side prosthesis.

[0007] The technical problem placed and solved by the present invention is to provide a female underwear apt to cover the mammary region, in particular a brassiere, corset or the like, allowing to meet to the above-mentioned needs and to obviate the above illustrated drawbacks of the known art.

[0008] Such problem is solved by an underwear according to claim 1.

[0009] Preferred features of the present invention are present in the claims depending from the same.

[0010] The present invention provides some important advantages. The main advantage consists in the fact that it allows dissimulating asymmetries, which can even vary with time, of the mammary region, allowing to act in a simple way onto the volume of the underwear cups so as to modify it as a consequence of the volumetric defect

(asymmetry) to be corrected, at the same time allowing, if necessary, the correct positioning and keeping in place of the dressing of the operated mamma or nipple so as not to exert compressions onto the tissues.

[0011] Furthermore, the invention allows sustaining the counter-side healthy mamma in an efficient way, so as to guarantee a normal wearability to allow keeping privacy with respect to the subjected operation.

[0012] The invention even results to be extremely versatile with respect to the type of asymmetry to be corrected.

[0013] Other advantages, features and application modes of the present invention will result evident from the following detailed description of some embodiments, shown by way of example and not for limitative purpose. The figures of the enclosed drawings will be referred to, wherein:

- Figure 1 shows a perspective view of an embodiment of a brassiere according to the present invention; and

- Figure 1A shows a view in longitudinal section of the brassiere of Figure 1, performed according to the line A-A of this last figure.

[0014] With reference to Figures 1 and 1A, a brassiere according to a preferred embodiment of the invention is designated as a whole with 1.

[0015] The brassiere 1 has a conventional structure as a whole, in the sense that it includes a first and a second cup-like member, respectively 21 and 22, each one apt to contain a respective mamma and towered above by a respective shoulder band, or shoulder strap, 31, 32. Furthermore, laterally to the cup-like members 21 and 22 two chest bands depart, respectively 41 and 42.

[0016] Preferably, the shoulder straps 31 and 32 can be adjusted and moved so as to be worn in traditional way onto the shoulders or laced to the neck or even crossed behind the back in order to allow wearability even with dresses with necklines of American type.

[0017] The just described members 31, 32 and 41, 42 are however well known and then they will not be further described.

[0018] Preferably, the brassiere 1 has front opening means 10 arranged between the two cup-like members 21 and 22, in order to ease the opening/closing procedures which could result to be difficult due to post-surgical pain.

[0019] The invention mainly relates to the manufacturing of the above-mentioned cup-like members 21 and 22.

[0020] In particular, each cup-like member 21, 22 has a substantially multi-layered shell-like structure, in particular formed by:

- a first outer layer 201, pre-shaped according to an outwardly convex shape so as to define a seat or recess 203 for receiving the respective mamma; and

- a second elastically deformable inner layer 202, apt to arrange adjacent to the subject body and to conform to the local morphology thereof.

[0021] Preferably, the inner layer 202 is made of breathable and extensible elastic fibres, for example one or more of the materials known with the trade names of spandex, lycra®, lycra soft®, elastan, Tactel®, Weftlock or other, in order to allow supporting the healthy breast and keeping the possible dressing in the seat without constricting.

[0022] The outer layer 201 does not have seams and it is made of natural or synthetic tissue, for example cotton, elastan, polyamide, nylon, tactel, microfibrés, spandex, polyester or other, and it has no inserts made of metallic material in order not to exert any compression onto the mammary region.

[0023] The shape of each cup-like member 21, 22 is so as to be similar to the one of a usual brassiere wholly containing the mamma, so as not to reveal the presence of dressings or shape and volume asymmetries even below light dresses.

[0024] The two layers 201 and 202 are made integral at a prevailing portion of its own periphery or perimeter, however an access opening 204 of a pocket-like seat 200, defined between the two layers 201 and 202, remains at such peripheries or perimeters. Such opening 204 is preferably placed at an outer side portion of the respective cup-like member 21, 22 and it can even result to be able to be selectively closed, for example by means of velcro or equivalent reversible closing means.

[0025] The brassiere 1 of the present embodiment then, for each cup-like member 21, 22, comprises a respective removable filling members, or padding 5, and in particular apt to be removably received in a respective pocket-like seat 200. In the present configuration, which is symmetrical, the two filling members 5 are interchangeable, in the sense that each one thereof can be received indifferently in one of the two pocket-like seats 200.

[0026] Preferably, each filling member 5 is made of a light, breathable, smooth synthetic material, which does not favour the heat stagnation and which does not compress, for example one or more of the known materials such as Vlies, polyurethane, latex, foam rubber or other. In such way, the member 5 does not exert pressure onto the tissues, it does not weigh and it does not favour the occurrence of cutaneous irritations.

[0027] Preferably, the filling member 5 has a thickness within a range of about 0.5-1.0 cm. However, the number of filling members 5 provided with the brassiere 1 can vary from one to a plurality, and not necessarily all filling members of such plurality result to have an equal shape and/or volume.

[0028] In fact, the function of each filling member is to allow a volume modulation of a cup-like member to allow compensating possible reductions or increases in the counter-lateral mamma volume or dissimulating shape anomalies of the mamma housed in the cup-like member

associated to the filling member itself. For example, a filling member 5 can be arranged at the cup-like member 21 or 22 covering the mamma with minor volume. This can be the operated mamma in case of total or partial mastectomy or the healthy mamma in case of presence of cumbersome dressings on the counter-lateral mamma.

[0029] As mentioned above, the whole construction is so that each filling member 5 can be easily inserted/taken off through the opening 204, so as to make the brassiere 1 useful for the surgery of the right, left or bilateral breast.

[0030] Furthermore, preferably each filling member 5 results to be easy to be shaped for example through cut with scissors or the like, so as to be able to shaped according to the specific needs of the subject wearing the brassiere. For example, a filling member 5 can be shaped so as to compensate the tissue defect result of the mamma demolishing surgery. In such case, in fact, the mamma has a temporary deficit of shape and/or volume which is variable during the whole reconstructive procedure and which often requests some months to be completed. The brassiere 1 allows the patient to dissimulate the asymmetry variable with time in shape and volume of the ill side, in order to obtain the same objective of natural aspect of the mammary region. Such result, indeed, can be obtained by shaping, if necessary, the filling member 5 so as to reduce with time the volume thereof proportionally to the mamma volume increase due to the reconstruction.

[0031] Then, at this point it will be better appreciated that the brassiere 1 is an effective post-operative medical device at all effects.

[0032] Based upon an embodiment variant, it can be provided under the form of a kit incorporating a main brassier body and a plurality of filling members associated thereto, in case having different shapes and/or volumes to adapt to the needs of different patients and/or of a same patient in different treatment phases.

[0033] Each filling member has means for connecting in a reversible way to the corresponding pocket-like seat, this latter in turn having corresponding complementary connection means. Such reversible connection means, for example, can be implemented under the shape of complementary strips made of Velcro® in case provided shielded by an adhesive band which can be selectively removed upon use.

[0034] Some additional specific application example of the brassiere 1 will be now shown. The brassiere 1 finds a first application after the nipple corrective and reconstructive surgery. After the surgical procedure, in order to sustain the neo-nipple reconstructed after a mastectomy, or after the operation for correcting the introflexed nipple, in order to allow to keep in seat the acquired projection, it is necessary to sustain the nipple with voluminous dressings, for about three weeks. The brassiere 1 allows shaping the filling member 5 related to the healthy mamma in a way adequate to the encumbrance shown by the dressing. This, together with the

pre-shaped structure of the outer layer 201, allows keeping the dressing in seat, supporting the healthy mamma and obtaining a normal wearability, even if with a temporary increased mammary aspect.

[0035] The same brassiere 1 finds a second application after demolishing surgery of the mammas with programmed immediate or deferred reconstruction, by using the tissue expansion procedure. With this procedure an empty tissue expander is inserted into the seat subjected to mastectomy, which expander is progressively filled-up with a physiological solution in outpatient sessions, thus extending the tissues standing above too. Once reached a volume similar to that of the counter-lateral mamma, or a satisfying volume in case of bilateral reconstructions, the tissue expander full of physiological solution is replaced by a definitive mammary prostheses. Therefore, the mastectomized side is initially flattened and then it can vary upon increasing the expander volume: consequently a continuous volume variation between the two mammas takes place, which can be easily compensated by taking out the brassiere padding from the not-operated breast side and by varying the padding volume from the side subjected to the volume increase.

[0036] A third application is used after quadrantectomy operations, that is after the segmental removal of one single quadrant of the mammary cone, with consequent shape and volume asymmetry. With the brassiere 1 in a first moment it is possible facilitating to position and keep correctly the dressings of the operated side by guaranteeing at the same time to sustain the healthy breast, thus allowing the patient to keep a wearability so as to dissimulate the subjected operation. In a second time, during the reconstructive procedure with lipofilling, that is reintegration of the mammary tissue removed by pathology with autologous adipic tissue, it is possible to shape and re-model the padding from the operated side, by making it lighter gradually as the reconstruction proceeds until obtaining a shape and volume symmetry between the two sides so as to allow the wearability of a common brassiere.

[0037] The present invention has been so far described with reference to preferred embodiments. It is to be meant that other embodiments belonging to the same inventive core can exist, as defined by the protective scope of the herebelow reported claims.

Claims

1. A female underwear (1) being a post-operative medical device, apt to cover the mammary region and comprising:
 - a pair of cup-like members (21, 22), each one apt to contain a respective mamma and, in turn, having a first outer layer (201), having no seams, pre-shaped according to an outwardly convex shape so as to define a recess (203) for receiving

one mamma and a second elastically deformable inner layer (202), the latter apt to be arranged adjacent to the subject's body and to conform to the local morphology, the whole arrangement being so that between said two layers (201, 202) a pocket-like seat remains (200); and
 - at least a filling member (5), apt to be removably received in said pocket-like seat (200), to allow a volume modulation of said cup-like member to allow compensating possible volume changes of the mamma housed in said cup-like member,

which underwear (1) is a brassiere which is apt to correct asymmetries between the two mammas, wherein said pocket-like seat (200) has an access opening (204) arranged at a side portion of the respective cup-like member (21, 22), said opening (204) results to be reclosable in a reversible way, each filling member having means for connecting in a reversible way to the corresponding pocket-like seat, the pocket-like seat having corresponding complementary connection means.

2. The underwear (1) according to claim 1, wherein said second inner layer (202) is made of a breathable material.
3. The underwear (1) according to anyone of the preceding claims, wherein said filling member (5) is made of a breathable material.
4. The underwear (1) according to anyone of the preceding claims, wherein said filling member (5) is made of a material which can be shaped easily.
5. The underwear (1) according to anyone of the preceding claims, comprising a plurality of filling members (5) each one apt to be removably received in said pocket-like seat (200).

Patentansprüche

1. Damenunterwäsche (1), die zu einer postoperativen medizinischen Vorrichtung gehört, die geeignet ist den Brustbereich zu bedecken und umfasst:
 - ein Paar körbchenartige Teile (21, 22), von denen jedes geeignet ist eine entsprechende Brust zu bergen und der Reihe nach umfasst: eine erste äußere Schicht (201), die über keine Nähte verfügt, und gemäß einer nach außen konvexen Form geformt ist, um so eine Mulde (203) zur Aufnahme einer Brust zu definieren, und eine zweite elastisch verformbare innere Schicht (202), wobei die letztere geeignet ist an den Kör-

per der Patientin angrenzend angeordnet zu werden und sich der lokalen Morphologie anzupassen, wobei die ganze Anordnung so ist, dass zwischen den beiden Schichten (201, 202) ein taschenartiger Sitz verbleibt (200); und

- mindestens ein Füllungsteil (5), das geeignet ist entfernbar in dem taschenartigen Sitz (200) aufgenommen zu werden, um eine Volumenmodulation des körbchenartigen Teils zur Ermöglichung einer Kompensation möglicher Volumenänderungen der Brust, die in dem körbchenartigen Teil untergebracht ist, zu erlauben,

wobei die Unterwäsche (1) ein Büstenhalter ist, der geeignet ist Asymmetrien zwischen den beiden Brüsten zu korrigieren,

wobei der taschenartige Sitz (200) über eine Zugangsöffnung (204) verfügt, die bei einem Seitenteil des entsprechenden körbchenartigen Teils (21, 22) angeordnet ist, wobei die Öffnung (204) geeignet ist in einer reversiblen Art und Weise wiederverschließbar zu sein, wobei jedes Füllungsteil über Mittel zur reversiblen Verbindung mit dem entsprechenden taschenartigen Sitz verfügt, wobei der taschenartige Sitz über entsprechende komplementäre Verbindungsmittel verfügt.

2. Unterwäsche (1) gemäß Anspruch 1, wobei die zweite innere Schicht (202) aus einem atmungsaktiven Material besteht.

3. Unterwäsche (1) gemäß einem der vorangehenden Ansprüche, wobei das Füllungsteil (5) aus einem atmungsaktiven Material besteht.

4. Unterwäsche (1) gemäß einem der vorangehenden Ansprüche, wobei das Füllungsteil (5) aus einem Material besteht, das sich leicht formen lässt.

5. Unterwäsche (1) gemäß einem der vorangehenden Ansprüche, die eine Mehrzahl von Füllungsteilen (5) umfasst, von denen jedes geeignet ist entfernbar in dem taschenartigen Sitz (200) aufgenommen zu werden.

Revendications

1. Sous-vêtement féminin (1) qui est un dispositif médical postopératoire, apte à recouvrir la région mammaire et comprenant :

- une paire d'éléments en forme de coupe (21, 22), chacun apte à contenir un sein respectif et, à son tour, ayant une première couche externe (201), sans couture, préformée selon une forme convexe vers l'extérieur afin de définir un évidement (203) pour recevoir un sein et une seconde

couche interne élastiquement déformable (202), cette dernière étant apte à être agencée de manière adjacente au corps de la patiente et se conformer à la morphologie locale, la totalité de l'agencement étant tel, qu'entre lesdites deux couches (201, 202), il reste un siège en forme de poche (200) ; et

- au moins un élément de remplissage (5) apte à être reçu de manière amovible dans ledit siège en forme de poche (200), pour permettre une modulation de volume dudit élément en forme de coupe pour permettre la compensation des éventuels changements de volume du sein logé dans ledit élément en forme de coupe,

lequel sous-vêtement (1) est un soutien-gorge qui est apte à corriger les asymétries entre deux seins, dans lequel :

ledit siège en forme de poche (200) a une ouverture d'accès (204) agencée au niveau d'une partie latérale de l'élément en forme de coupe (21, 22) respectif, ladite ouverture (204) s'avère être refermable d'une manière réversible, chaque élément de remplissage ayant des moyens pour se raccorder, d'une manière réversible, au siège en forme de poche correspondant, le siège en forme de poche ayant des moyens de raccordement complémentaires correspondants.

2. Sous-vêtement (1) selon la revendication 1, dans lequel ladite seconde couche interne (202) est réalisée avec un matériau perméable à l'air.

3. Sous-vêtement (1) selon l'une quelconque des revendications précédentes, dans lequel ledit élément de remplissage (5) est réalisé avec un matériau perméable à l'air.

4. Sous-vêtement (1) selon l'une quelconque des revendications précédentes, dans lequel ledit élément de remplissage (5) est réalisé avec un matériau qui peut être facilement formé.

5. Sous-vêtement (1) selon l'une quelconque des revendications précédentes, comprenant une pluralité d'éléments de remplissage (5), chacun apte à être reçu de manière amovible dans ledit siège en forme de poche (200).

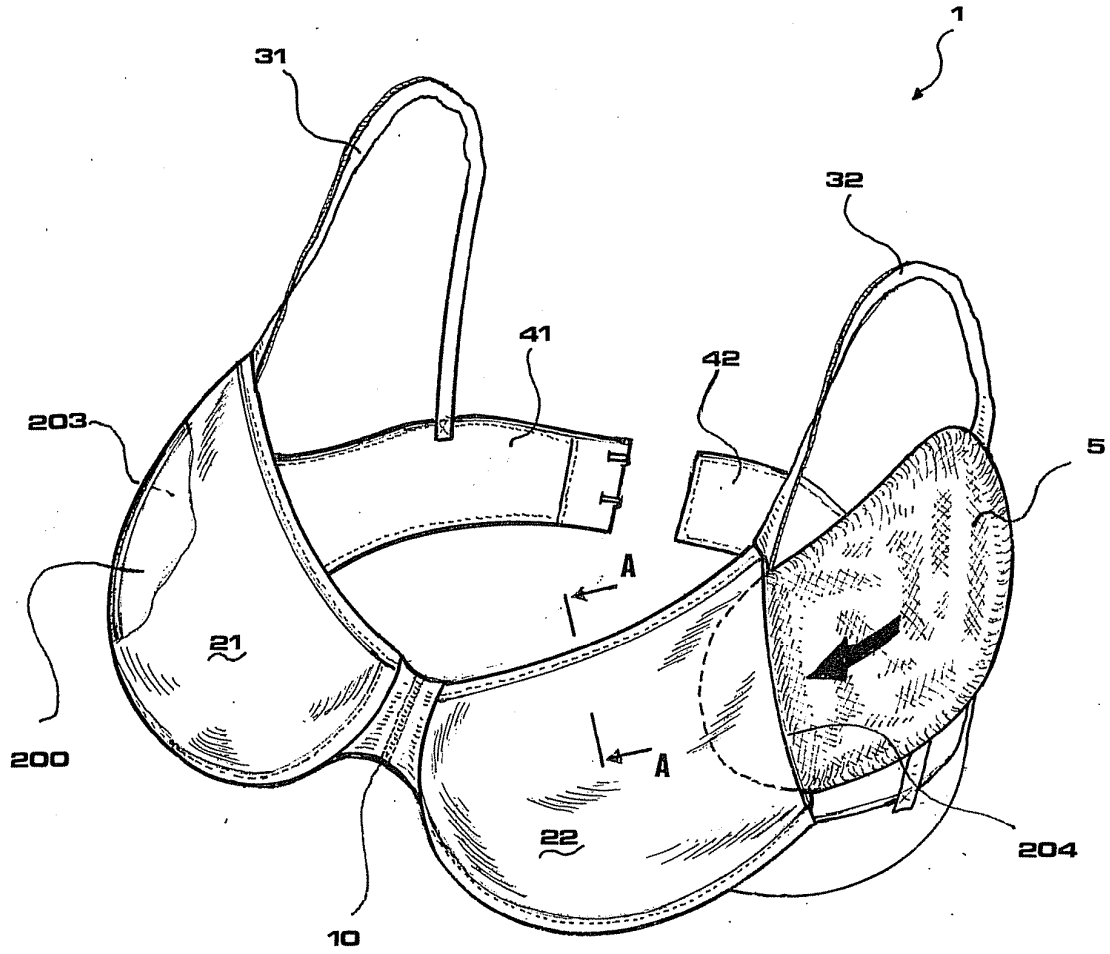


Fig.1

A-A

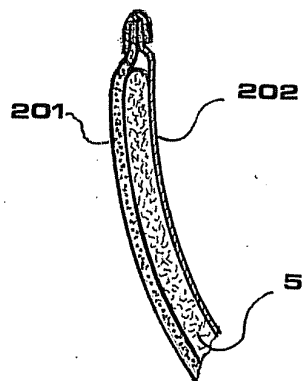


Fig.1a

REFERENCES CITED IN THE DESCRIPTION

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