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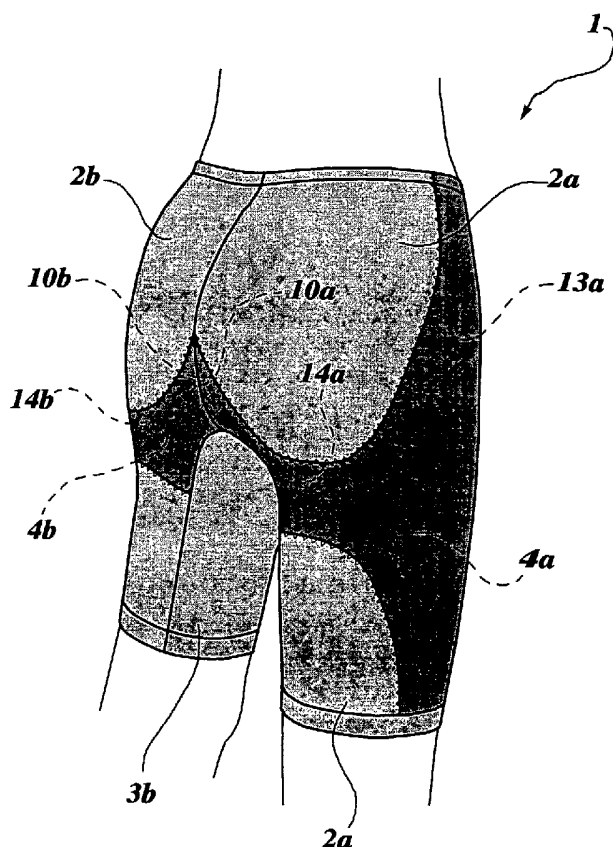
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[Continued on next page]

(54) Title: CONTROL GIRDLE WITH SHAPING ACTION



(57) Abstract: A control girdle with shaping action formed by a plurality of elastic fabric pieces sewn together, in which said fabric pieces are cut and fastened to form the girdle in such a manner that, in the circumferential direction of the girdle, they exhibit elongation which is greater than the elongation in the direction at right angles thereto.

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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations *AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW*, *ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW)*, *Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM)*, *European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB,*

*GR, IE, IT, LU, MC, NL, PT, SE, SK, TR)*, *OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

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Control girdle with shaping action

The present invention relates to an item of clothing, in particular in the form of a girdle, having a shaping action and capable of shaping and supporting the hips, buttocks and thighs.

The object of the invention is to provide a new girdle which, apart from exerting an effective shaping action, is comfortable to wear for extended periods of time during the day without being excessively constricting.

The present invention accordingly provides a control girdle with shaping action comprising a plurality of pieces of elastic fabric sewn together, characterised in that said pieces of fabric are cut from the fabric and fastened together to form the girdle in such a manner that, in the circumferential direction of the girdle (i.e. parallel to the plane of the waistline), they exhibit elongation which is greater than the elongation in the longitudinal direction of the girdle (i.e. at right angles to said first direction).

Further features and advantages of the girdle according to the invention will emerge from the following detailed description, which is provided merely by way of non-limiting example, with reference to the attached drawings, in which:

- Figure 1 is a plan view which shows the layout of the fabric pieces constituting the girdle, as obtained from a length of fabric;
- Figure 2 is an exploded perspective view showing said fabric pieces;
- Figure 3 is a partially exploded perspective view of the fabric pieces of Figures 1 and 2;

- Figure 4 is a front perspective view of the girdle as worn; and
- Figure 5 is a rear perspective view of the girdle as worn.

In the attached drawings, an entire girdle according to the invention is denoted by the reference numeral 1. The girdle preferably assumes the form of an intimate garment intended to be worn in direct contact with the skin; it is, however, understood that similar garments having the appearance of shorts for sporting activities or the like fall equally within the scope of the invention.

The girdle generally extends lengthwise from the waistline to the knee, but preferably extends from the waistline to approximately half way down the thigh.

With reference to the fabric pieces which comprise the girdle, 2a and 2b denote fabric pieces which constitute the side panels of the girdle. Said side panels extend longitudinally from the waistline to the lower longitudinal edge of the girdle. 3a and 3b denote gusset fabric pieces substantially trapezoidal in shape which, in the finished girdle, extend between the crotch region and the lower longitudinal edge of the girdle; the gusset fabric piece 3a has its longitudinal edges 5a, 6a fastened by sewing to the edges 7a and 8a of the respective side panel 2a and is positioned in the inside leg area to define the circumference of the leg; the same applies to the gusset fabric piece 3b, the edges 5b and 6b of which are fastened to the edges 7b and 8b of the side panel 2b.

Reference numerals 4a and 4b denote strengthening fabric pieces which are fastened in superimposed manner by sewing to the respective side panel fabric pieces 2a and 2b, on the inside of the girdle.

Such strengthening fabric pieces 4a, 4b are of a shape appropriately designed to give support to, control and massage those parts of the body where there are localised deposits of fatty tissue and muscle/skin slackness. In particular, a fabric piece 4a extends circumferentially between its lateral edge 9a, which is fastened in superimposed manner by sewing to the lateral edge 11a of the side panel 2a, and the lateral edge 10a is fastened in superimposed manner by sewing to the lateral edge 12a of the side panel 2a. The same applies to the strengthening fabric component 4b, which is fastened in superimposed manner to the side panel 2b.

Each strengthening fabric piece comprises a circumferentially intermediate section 13a, 13b which extends longitudinally between the waistline and the lower edge of the girdle which, in the assembled girdle, is located in the region of the hips; said intermediate region is connected to a circumferentially extending offshoot 14a, 14b, which defines a loop 15a which underlines the buttock area, such that the offshoot 14a, 14b provides support to the buttocks.

Each strengthening fabric piece 4a, 4b moreover comprises an upper offshoot 16a, 16b, which defines, with a respective intermediate region 13a, 13b, a loop 17a, 17b which is concave towards the lower edge of the girdle.

Figure 1 shows the constituent fabric pieces of the girdle, as drawn on and obtained from a length of fabric with lateral selvages indicated respectively  $C_1$  and  $C_2$ . The fabric from which the constituent pieces of the girdle are obtained is an elastic fabric exhibiting anisotropic properties of elasticity. It is preferably a runproof knitted fabric, preferably in tulle weave, preferably ribbed, which permits elongation in both directions and in particular greater elongation in the direction of the ribs (direction parallel to the selvages), than in the direction at right angles thereto.

In the example shown in Figure 1, the length of fabric from which the constituent fabric pieces of the girdle are obtained is cut from selvedge to selvedge and the fabric pieces are drawn on the length and cut therefrom, such that they exhibit, when assembled as a girdle, elongation in the circumferential direction of the girdle (i.e. parallel to the plane of the waistline) which is greater than the elongation in the direction at right angles thereto.

Especially when a ribbed fabric as defined above is used, the fabric pieces are cut with ribs which are horizontal, i.e. parallel to the plane of the waistline of the girdle. Preferably, the elongation of the fabric constituting the pieces in the assembled girdle in said circumferential direction is between 60 and 110%, while elongation in the direction at right angles thereto is between 50 and 75%, as measured by dynamometric testing using an Instron instrument in tests comprising the performance of two 4 kg elongation cycles with a test piece of dimensions 10 cm x 10 cm.

Thanks to said property, the girdle according to the invention makes it possible to avoid excessive constriction which could occur in areas, such as the waist, pelvis and thighs, of the individual wearing the girdle which vary greatly in circumference. In this manner, the entire surface of the girdle is less constricting and thus more comfortable, so ensuring that it performs its intended function, namely supporting the buttocks, slimming flabby thighs, shaping the thighs and modifying the front/rear and side profiles, as well as possible.

It is understood that the internal strengthening pieces 4a and 4b are also cut in accordance with the same principles stated above in order to provide a controlling but non-constrictive action ensuring excellent results with the greatest possible user comfort.

The fabric is preferably an elastic fabric based on polyamide (PA) and elastane (EA) fibre, such as for example fabrics known under the registered trade marks LYCRA and DORLASTAN. In one embodiment, a fabric having the following properties was used:

- composition: PA: polyamide 78%  
EA: elastane 22%
- fabric properties
  - insertions/cm (i.e. number of strokes/cm):  
64.0/70.0
  - weight g/m<sup>2</sup> 200 ± 5%
  - linear weight (g): 396 ± 5%
  - machine fineness: 28
    - wales (i.e. columns of knit loops/cm) 14.5 ± 5%.

The fabric pieces are fastened together, preferably by means of flat stitching, preferably zigzag stitching, which is very comfortable and leaves no marks on the skin.

When worn under outer clothing, the girdle according to the invention is capable of producing an immediate effect: thanks to its moderate compression and support action, it visibly and immediately slims the figure and lifts the buttocks. After continuous use, for example wearing the girdle for eight-ten hours per day over an extended period, the girdle has proved particularly effective in slimming the thighs and reshaping the buttocks and hips; these results are consolidated and stabilise progressively, becoming long-lasting over time.

Moreover, thanks to its properties, the girdle is particularly useful when used after liposuction or liposculpture, providing significant results in terms of reducing the diameters of thighs, pelvic area and buttocks and associated general reshaping of these areas.

Whereas the invention has been herein described with reference to a preferred embodiment, it is apparent that modifications with respect to said embodiment can be made without departing from the scope of the appended claims.

Thus, the length of the girdle can extend above the waistline of the wearing person and, as noted before, it can extend to the knee or even below the knee; an elastic band, extending above the waistline can be connected to the upper edge of the girdle and said elastic band can be provided with an applied strip or strips (e.g. silicone strip(s)) adhering to the skin to prevent sliding.

CLAIMS

1. A control girdle with shaping action comprising a plurality of pieces of elastic fabric sewn together, characterised in that said pieces of fabric are cut from the fabric and fastened together to form the girdle in such a manner that, in the circumferential direction of the girdle, they exhibit elongation which is greater than the elongation in the direction at right angles thereto.
2. A girdle according to claim 1, characterised in that said fabric pieces exhibit, in the direction parallel to the plane of the waistline, dynamometric elongation of 60 to 110% and, in the direction at right angles thereto, dynamometric elongation of 50 to 75%.
3. A girdle according to claim 1 or 2, characterised in that said fabric pieces comprise a ribbed tulle weave fabric and in which, in the fabric pieces assembled as a girdle, said ribs are arranged in a direction parallel to the plane of the waistline of the girdle.
4. A girdle according to any one of claims 1 to 3, characterised in that each leg of the girdle is formed by a first side panel fabric piece (2a, 2b), which extends between the waist edge and the lower longitudinal edge of the leg and by a second fabric piece (3a, 3b), which extends between the crotch region and the lower longitudinal edge of the girdle, which fabric piece is fastened laterally (5a, 6a; 5b, 6b) by sewing to said first piece or side panel (7a, 8a; 7b, 8b) in the inside leg area to define the circumference of the leg and in which said side panel piece (2a) has lateral edges (11a, 12a) which extend longitudinally between the waist edge

and the crotch fastened to the lateral edges (11b, 12b) of the corresponding side panel fabric piece (2b) defining the other leg.

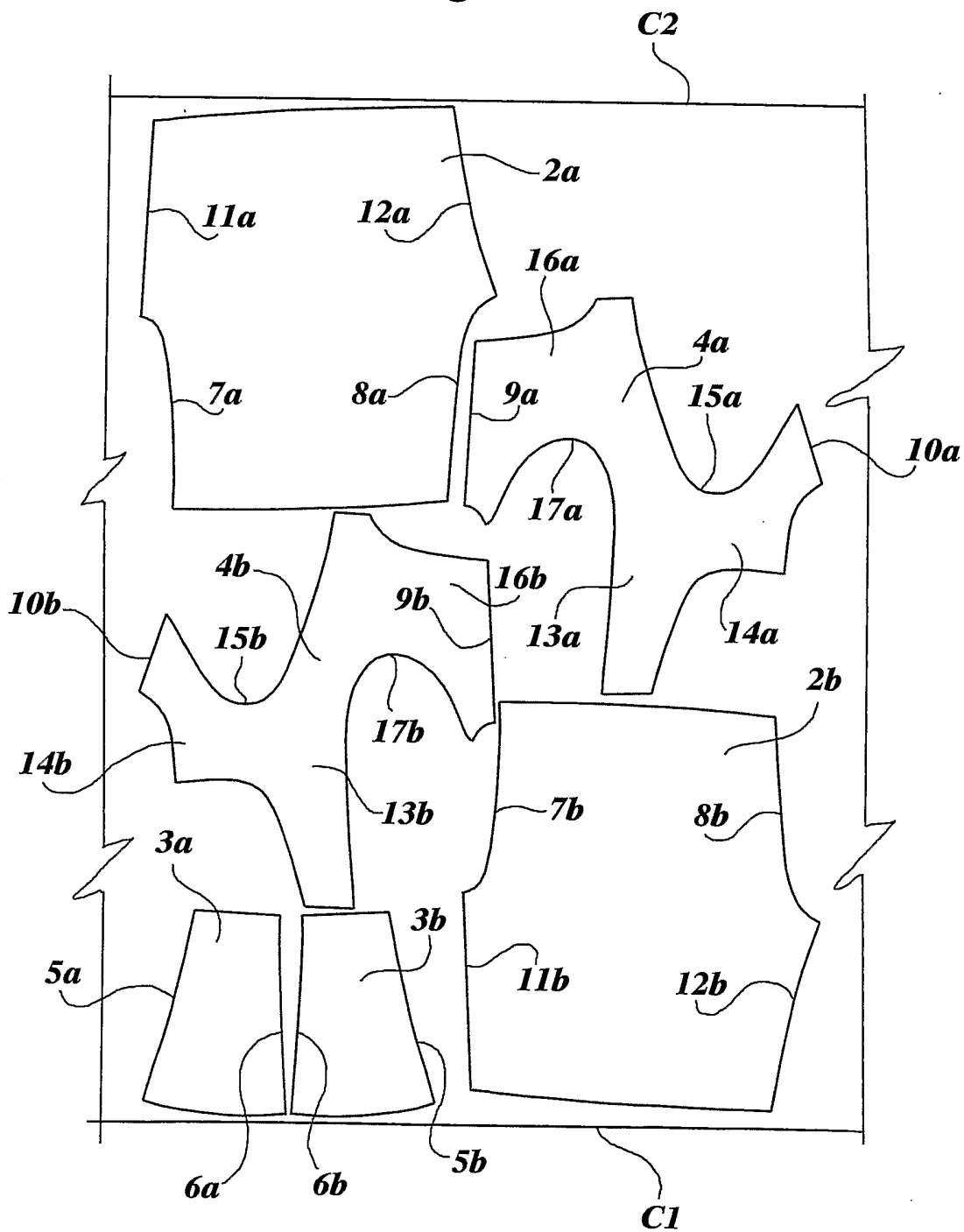
5. A girdle according to any one of claims 1 to 4, characterised in that each leg of the girdle moreover comprises a third strengthening fabric piece (4a, 4b) fastened in superimposed manner to a respective side panel piece (2a, 2b), on the inside of the girdle, said third fabric piece being shaped as a buttock supporting element.

6. A girdle according to claim 5, characterised in that each of said strengthening fabric pieces (4a, 4b) extends circumferentially between said lateral edges (11a, 8a, 12a) of the respective side panel fabric piece (2a) and exhibits an intermediate circumferential section (13a, 13b), which extends longitudinally between the waistline and the lower edge of the leg, in the region of the hips of the girdle and in which said intermediate section (13a, 13b) is connected to a first offshoot (14a, 14b), which defines a loop (15a, 15b) which extends beneath the buttocks, and a second offshoot (16a, 16b), which defines a loop (17a, 17b), which is concave towards the lower edge of the girdle.

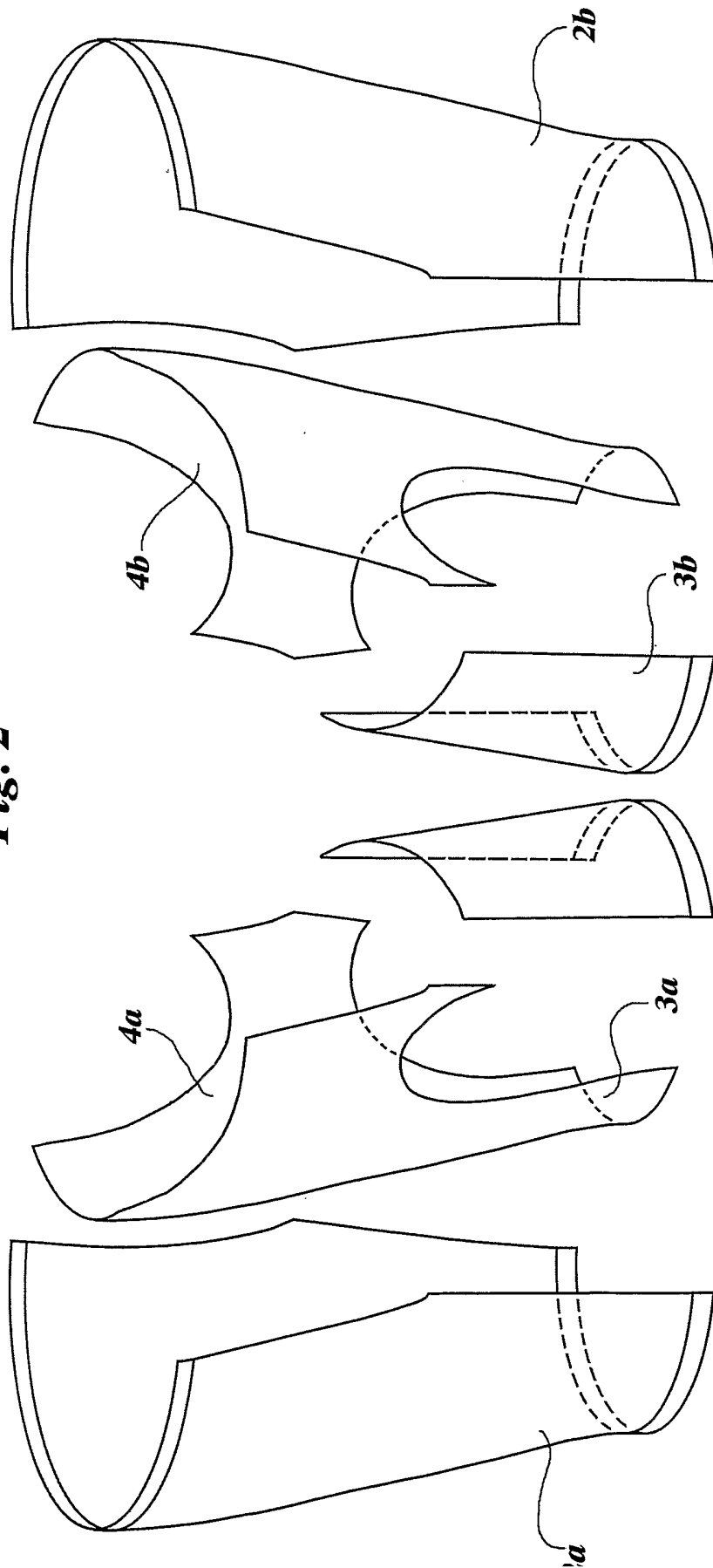
7. A girdle according to any one of the preceding claims, characterised in that the material constituting the fabric comprises polyamide and elastane.

8. A girdle according to any one of the preceding claims, characterised in that said fabric pieces constituting the girdle are sewn together using flat stitching.

**Fig. 1**

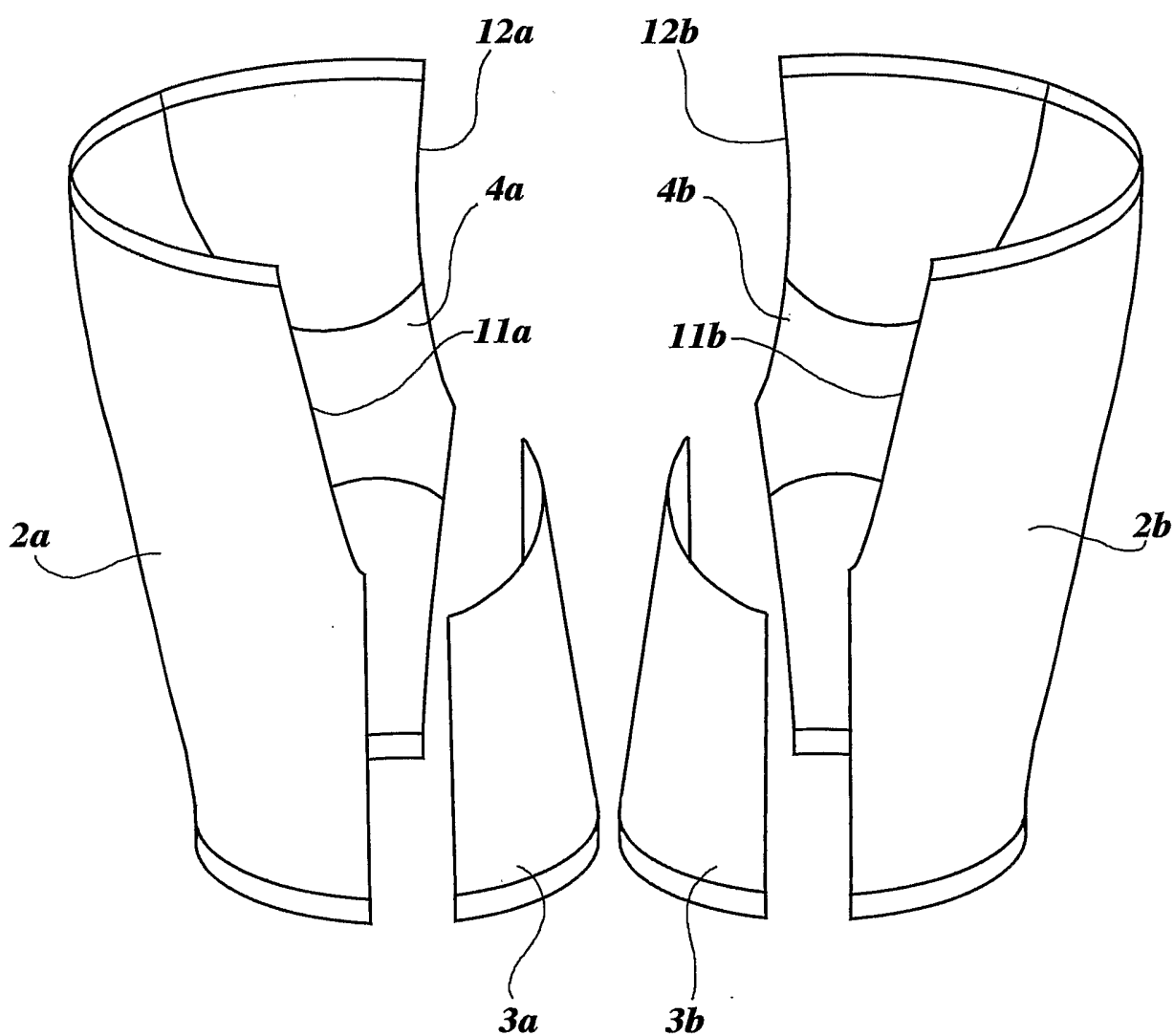


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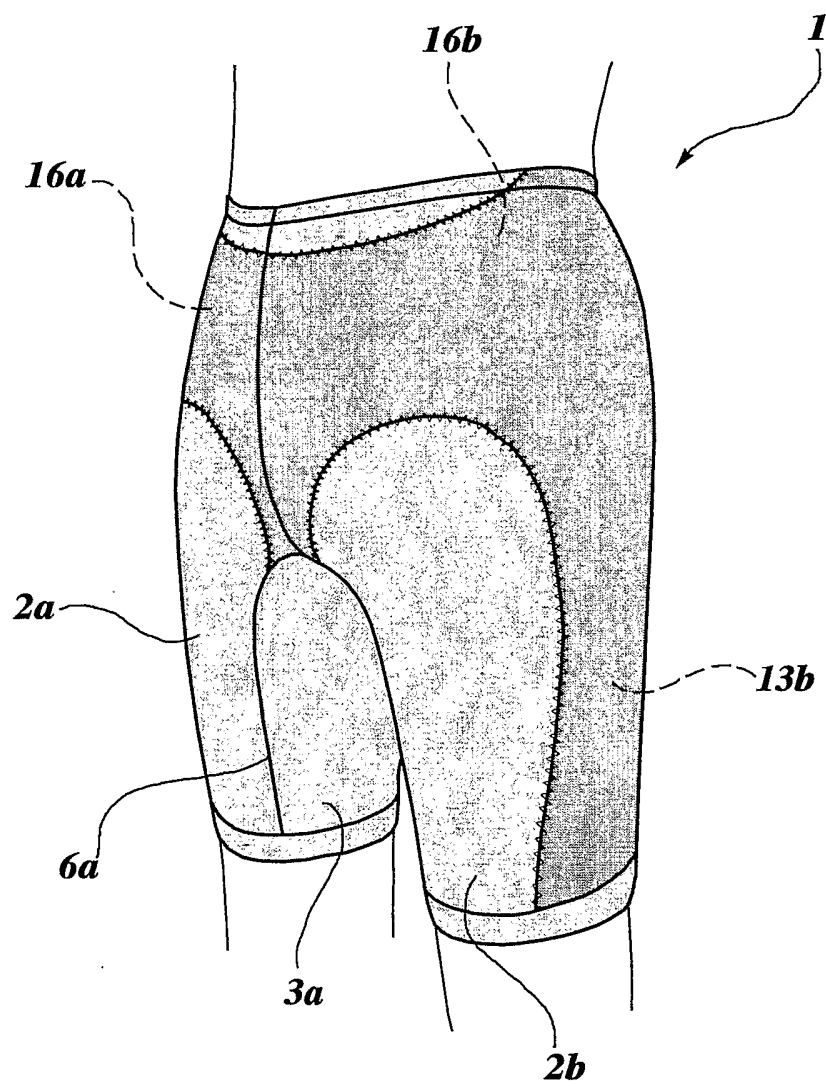


**Fig. 2**

**Fig. 3**



**Fig. 4**



**Fig. 5**

