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(54) MEASURING SAMPLE FOR SUIT MADE TO ORDER AND SYSTEM FOR MAKING SUIT TO ORDER

(57) A measurement sample used for custom making and a custom-making method are provided in order to provide clothes of custom size and with a proper fit when worn by a wearer. A bottom measurement sample includes a waist measurement portion capable of adjusting and measuring a waist size in a waist part, and hip cup measurement portions capable of adjusting and measuring a hip cup size in a hip part. A plurality of bottom measurement samples of varying hip sizes are prepared to select one which fits a customer's hip size for the customer to try on. The waist measurement portion and the hip cup measurement portions are used to adjust the waist size and the hip cup sizes to those of the customer, to allow the customer to try on the bottom measurement sample of custom size, and at the same time, the custom size is measured.

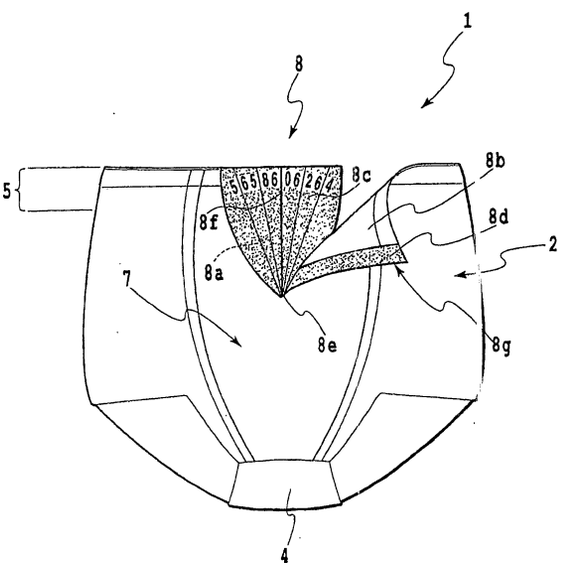

FIG.1

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Description

FIELD OF THE INVENTION

[0001] The present invention relates to a measurement sample used for custom making clothes and a custom-making method, in order to provide custom-making clothes which properly fits a wearer's body, particularly clothes having bottoms such as short girdles, long girdles, short bodysuits, long bodysuits, three-in-ones, waist nippers, and swimsuits.

BACKGROUND ART

[0002] Various types of ready-made clothes such as girdles, which require a fit and/or abody shape compensation function, are commercially available, and from among them, each wearer selects and purchases one which fits a wearer's body shape according to the purpose. A girdle includes a front body, a back body, a crotch part, and leg circumferential parts connected to crotch hems as required, and important factors for an optimum fit to a wearer are a hip size which is a circumferential length of a top of a hip part, a hip cup size which is a degree of protrusion of the hip part, and a waist size which is a circumferential length of the most constricted part of a waist.

[0003] However, for addressing all combinations of the sizes, a large number of girdles have to be prepared, which is costly. Thus, ready-made girdles commercially available are of sizes for substantial standard body shapes, and it is difficult to find a perfect fit to the wearer's body shape.

[0004] If the wearer wears any girdle which does not fit the body properly, it cannot achieve intentions such as the body-shape correction function nor provide the wearer with a proper fit but with discomfort. In particular, if the girdle is too tight, a pressure exerted on the body may cause pain with an impaired bloodstream, thereby adversely affecting the body.

[0005] Thus, a prior method has been adopted wherein girdles of several standard sizes are prepared to modify one to be of size which fits a customer (hereinafter referred to as custom size). Specifically, a girdle which approximates awearer' s body shape is selected from a plurality of girdles of standard sizes for the wearer to try on. If the girdle is large and does not fit the body in part, the part is pinched to measure a length of the pinched part, and the girdle is modified to be smaller by the length.

[0006] However, suchmodification from standard size to custom size may require expertise andmaybe susceptible to mistakes. In addition, the wearer cannot experience the wearing feel of a finished product in advance simulation. Further, if the sample is small, a degree of smallness cannot be actually measured, andmodificationhas to be performed by guesswork, which causes difficulty in proper modification.

[0007] Thus, there is a need for a custom-making method of clothes wherein a wearer can try on a measurement sample similar to a finished product in dimensions to experience an actual wearing feel, and fine dimensional adjustments can be made for body shape compensation or according to the wearer's preference.

SUMMARY OF THE INVENTION

[0008] It is an object of the present invention to provide a measurement sample used for custom making and a custom-making method, in order to provide clothes of custom size which fit a wearer's body shape.

[0009] It is another object of the present invention to provide a measurement sample used for custom making clothes and a custom-making method, in order to allow a wearer to try on a measurement sample similar to a custom size and to check for a proper fit before placing an order.

[0010] In order to achieve the above objects, the invention provides a bottom measurement sample used for custom making clothes (herein after referred to as a bottom measurement sample) including waist measurement means capable of adjusting a waist size in a waist part of a body. A customer tries on a bottommeasurement sample with the size unadjusted, and a waist size is adjusted to a customer's waist by the waist measurement means, thus a bottom measurement sample having the waist size of custom size is completed to allow the customer to experience a wearing feel of the bottom measurement sample of custom size (corresponding to the customer's size). At the same time, the adjusted waist size can be measured, thus manufacturing clothes according to the adjusted waist size can provide clothes with a waist size of custom size. The waist part is an area corresponding to a constricted part of a torso.

[0011] The waist measurement means has a function of adjusting the waist size, and a function of measuring the amount of adjustment. The function of adjusting the waist size may be realized by an aspect in which the waist part of a body member is substantially vertically cut from an upper end thereof and divided, and one divided piece and the other divided piece are detachably fastened via a coupling member. A desirable aspect for one divided piece and the other divided piece to be detachably fastened via the coupling member is that one piece is circumferentially extended to be overlaid on the other piece to fasten both pieces by the coupling member. Alternatively, coupling members may be provided on an outer surface of one divided piece and an inner surface of the other piece, the coupling member of one piece may be extended from a divided end toward the other piece, and one piece and the other piece may be coupled with a space therebetween by the extended portion. The function of measuring the amount of adjustment of the waist size may be realized by an aspect in which, for example, a plurality of graduations are circumferentially marked in parallel on one divided piece,

and measurement is made at a position where an edge of the other piece matches a graduation.

[0012] The waist measurement means may offer the function of adjusting the waist size by an aspect in which a part of the waist part of the body is pinched in a cone shape and circumferentially folded to form a folded portion, and the folded portion can be fastened to or detached from the waist part on a side on which the folded portion is overlaid. Changing the width of the fold allows adjustment of the waist size. In this case, the function of measuring the amount of adjustment of the waist size may be realized by an aspect in which, for example, graduations are circumferentially marked on the waist part on the side on which the folded portion is overlaid, and measurement is made at a coupling position (an overlaid position) of the folded portion.

[0013] The cut (or the fold) may be formed in either the front body or the back body, but the front body is preferable for easy adjustment of the size. If the cut (or the fold) is formed in a belly part on the front body or a hip part on the back body connecting to the waist part in addition to the waist part, the amount of adjustment can be increased.

[0014] As a means for fastening one piece and the other piece (or the folded portion and the waist part on the side on which the folded portion is overlaid), an appropriate coupling member can be selected from a hook-and-loop fastener, a slide fastener, a hook and eye, a snap, a button, or the like, but the hook-and-loop fastener is preferable for easy attachment/detachment and easy size adjustment.

[0015] When the hook-and-loop fastener is used for coupling one piece and the other piece, a female tape fastener (loop tape) which has numerous loop engaging elements and is relatively pleasant to touch is preferably provided on a side which touches skin when worn by a wearer. For example, there is an aspect in which when one piece and the other piece are coupled with one piece inside and the other piece outside, a female tape fastener (loop tape) is provided on an inner surface of the other piece and amale tape fastener (hook tape) which has hook engaging elements is provided on an outer surface of one piece.

[0016] The graduations are radially formed from an inner end of the cut (or the fold) as a center toward the upper end of the waist part, so that the waist size can be measured in the entire range of the cut (or the fold).

[0017] For one hip size, which is represented by a circumferential length in a horizontal direction passing a top of a hip (the thickest portion of the hip), there may often be different degrees of protrusion of the hip, that is, different hip cup sizes. A custom-making method only by the hip size cannot provide a fit to a hip shape of the customer. There are various hip cup sizes, and custom-making for a proper fit to a hip cup size of the customer is preferable.

[0018] Therefore, the invention provides a bottom measurement sample including, in a hip part of the back body, hip cup measurement means capable of adjusting a hip cup size. According to this configuration, the bottom measurement sample is applied to a customer's body to adjust the hip cup size to that of the customer. Therefore, the customer can try on the bottom measurement sample having the hip cup size of custom size, and at the same time the adjusted hip cup size can be measured.

[0019] The hip cup size is represented by [(hip size) - (circumferential length in the horizontal direction at the base of the legs)], and a shorter circumferential length in the horizontal direction at the base of the legs provides a high degree of protrusion of the hip and a larger hip cup size. The hip part includes a pair of right and left hip cup parts and a buttock part therebetween of the back body, and the hip cup part refers to an area covering a protrusion of the buttock part.

[0020] The hip cup measurement means has a function of adjusting the hip cup size, and a function of measuring the amount of adjustment. The function of adjusting the hip cup size may be realized by an aspect in which, in a crotch hem surrounded by a lower edge of the front body, a lower edge of the back body, and a side edge of a crotch part, a portion from the lower edge toward the hip cup part of the back body is cut and divided, and one divided piece and the other divided piece are detachably fastened via a coupling member.

[0021] The hip cup measurement means may offer the function of adjusting the hip cup size by an aspect in which a part of the crotch hem of the body is pinched in a cone shape and circumferentially folded to form a folded portion, and the folded portion can be fastened to or detached from the crotch hem on a side on which the folded portion is overlaid. Changing the width of the fold allows adjustment of the hip cup size. The function of measuring the amount of adjustment of the hip cup size may be realized by a configuration similar to that of the waist measurement means.

[0022] An inner end position of the cut (or the fold) is preferably lower than a hip top height. If the position is higher than the hip top height, adjustment of the hip cup size also changes the hip size. The cut (or the fold) is preferably formed toward a substantial center of the hip cup part because the cup shape of the hip cup is not likely to be broken when the hip cup is adjusted. The hip measurement means can be applied to the bottom measurement sample alone or in combination with the waist measurement means.

[0023] For a bottom measurement sample of a long girdle or the like having leg circumferential parts covering thighs attached to the crotch hems of the body, a cut (or a fold) can be formed from a leg hem at a lower end of the leg circumferential part to the hip cup part. In this case, thigh measurement means capable of adjusting a thigh size can be provided in the leg circumferential part. The leg circumferential part refers to an area covering a leg of a human body, and particularly an area corresponding to a thigh (from a base of a leg to a knee).

[0024] The thigh measurement means has a function of adjusting the thigh size, and a function of measuring the amount of adjustment. The function of adjusting the thigh size may be realized by an aspect in which a portion from the leg hem of the leg circumferential part to around the crotch hem is vertically cut and divided, and one divided piece and the other divided piece are detachably fastened via a coupling member.

[0025] The thigh measurement means may offer the function of adjusting the thigh size by an aspect in which a part of the leg circumferential part of the body is pinched in a cone shape and circumferentially folded to form a folded portion, and the folded portion can be fastened to or detached from the leg circumferential part on a side on which the folded portion is overlaid. Changing the width of the fold allows adjustment of the thigh size. The function of measuring the amount of adjustment may be realized by a configuration similar to that of the waist measurement means.

[0026] For a bottom measurement sample of a high-rise short or long girdle or the like having a torso part attached to the body, a cut (or a fold) can be formed from an upper end of the torso part to the belly part or the hip part. In this case, torso measurement means capable of adjusting a torso size can be provided in the torso part. The torso part refers to part or all of a portion between a waist and a breast, and a torso size refers to a horizontal length around the torso.

[0027] The torso measurement means has a function of adjusting the torso size, and a function of measuring the amount of adjustment. The function of adjusting the torso size may be realized by an aspect in which a portion from an upper end of the torso part of the body to the upper end of the waist part is vertically cut and divided, and one divided piece and the other divided piece are detachably fastened via a coupling member. The torso measurement means offer the function of adjusting the torso size by an aspect in which a part of the torso part of the body is pinched in a cone shape and circumferentially folded to form a folded portion, and the folded portion can be fastened to or detached from the torso part on a side on which the folded portion is overlaid. Changing the width of the fold allows adjustment of the torso size. The function of measuring the amount of adjustment may be realized by a configuration similar to that of the waist measurement means.

[0028] Further, if a top with cup parts is attached to the bottom measurement sample to form a clothes measurement sample for custom making clothes (hereinafter referred to as a clothes measurement sample), the sample can address clothes such as a bodysuit with cup parts. The top refers to clothes covering part or all of an upper body. In an aspect in which the top is attached to the bottom measurement sample, a lower end of the top and/or an upper end of the bottom measurement sample may be extended toward the bottom measurement sample and/or the top to attach the top to the bottom measurement sample directly or via the torso part covering the torso.

[0029] The top may be attached to the bottom measurement sample in a coupled manner or uncoupled manner, but attachment in the coupled manner is preferable because the wearer can experience the wearing feel of the clothes as a whole. If they are detachably coupled, various combinations of bottom measurement samples and tops can be provided to suitably address various body shapes. Therefore, the number of clothes measurement samples can be reduced.

[0030] The top includes a plurality of cup support parts of varying verge's sizes in combination with a plurality of cup parts of varying cup heights for each verge's size, and the cup parts are detachably attached to the cup support part. Since such configuration can facilitate selection of a cup support part and cup parts all of which properly fit the verge's size and cup height of a customer and allow the customer to try on a clothes measurement sample with the cup parts of custom size to check for a proper fit before placing an order, the present invention can provide clothes with a proper fit when worn by the customer. The verge's size refers to curvature of a semicircular contour on a lower edge of wearer's breast (verge's line).

[0031] The present invention can provide a measurement sample used for custom making clothes with more properly fitting cup parts by detachably combining back parts with the combination of the cup support part and the cup parts. Specifically, the sample includes a plurality of cup support parts of varying verge's sizes, a plurality of cup parts of varying cup heights for each verge's size, and a plurality of back parts with different dimensions for each cup support part, and the cup parts and the back parts are detachably attached to the cup support part.

[0032] This can provide a clothes measurement sample of custom size properly fitting a wearer's body shape as a whole including the back part dimensions which may influence the fit at the top-bust and under-bust locations, thereby providing more properly fitting clothes. In addition, the customer can try on the clothes measurement sample of custom size to check for a proper fit as a whole before placing an order. The back part dimensions are circumferential dimensions measured when a measurement sample is worn by a wearer and these dimensions can be adjusted to the wearer' s under-bust size by varying the circumferential length.

[0033] The present invention also provides a custom-making method which uses the bottom measurement sample or the clothes measurement sample as described above. The custom-making method which uses the bottom measurement sample is a custom-making method of clothes including the steps of: preparing a plurality of measurement samples of varying hip sizes; selecting a bottom measurement sample according to a hip size of a wearer for the wearer to try on; adjusting a size for a proper fit to the wearer and measuring the size; and manufacturing a finished product according to the

measured size.

[0034] Specifically, the plurality of bottom measurement samples of varying hip sizes are prepared to select a bottom measurement sample having a hip size of custom size of the wearer for the wearer to try on. Then, the waist measurement means, the hip cup measurement means, the thigh measurement means and/or the torso measurement means are used to adjust the sizes to those of the customer, to allow the customer to try on the bottom measurement sample of custom size. At the same time, the adjusted sizes can be measured.

[0035] Since this can allow the customer to try on the bottom measurement samples of custom size before placing an order, the present invention can provide clothes which fit the wearer's body shape, and a custom-making method which allows the customer to check for a proper fit in advance before placing an order. According to this method, adjustments to material stretching factors which cannot be determined only from measurements taken with a measure or modifications intended for body shape compensation can be also accomplished based on an actual wearing feel. At the same time, the customsize can be measured, and according thereto, clothes of custom size can be manufactured and provided.

[0036] The plurality of samples of varying hip sizes are simply prepared to address various body shapes by adjusting the waist or the hip cup. This reduces the number of bottom measurement samples, thus requiring little storage space to facilitate carrying. The bottom measurement sample for custom making and custom-making method can be applicable not only to on-the-premises try-on and measuring services for custom making clothes with a bottom but to on-site measuring services.

[0037] For the custom-making method using the clothes measurement sample with a combination of the top and the bottom, measurement of the bottom is made similarly to the above description. For the top, a cup support part of a proper verge's size for a wearer is selected, cup parts are detachably attached to the cup support part, and cup parts of a proper cup height for the wearer are selected. When back parts are detachably combined with the combination of the cup support part and the cup parts, the back parts are detachably attached to the cup support part to select back parts of a proper dimension for the wearer.

[0038] Combining the bottom and the top having the cup support part, the cup parts and the back parts which fit the customer's body shape allows the customer to try on the clothes measurement sample of custom size and to check for a proper fit in advance before placing an order. The custom size can be measured at the same time as try-on, and thus manufacturing products according to the size can provide clothes which fit the wearer's body shape.

[0039] The bottom measurement sample, the clothes measurement sample and the custom-making method thereof are preferable for clothes having a body shape compensation function, and are not limited to underwear (innerwear) such as girdles and may be also applicable to swimsuits and other various clothes including outerwear.

BRIEF DESCRIPTION OF THE DRAWINGS

[0040]

FIG. 1 is a front view of an embodiment of a bottom measurement sample according to the invention;
FIG. 2 is a back view of the embodiment of the bottom measurement sample according to the invention;
FIG. 3 is a front view of another embodiment of the bottom measurement sample according to the invention;
FIG. 4 is a back view of another embodiment of the bottom measurement sample according to the invention;
FIG. 5 is a perspective view of another embodiment of waist measurement means in the bottom measurement sample according to the invention;
FIG. 6 is a front view of an embodiment of a clothes measurement sample according to the invention; and
FIG. 7 is a front view of another embodiment of the clothes measurement sample according to the invention.

BEST MODE FOR CARRYING OUT THE INVENTION

[0041] Now, embodiments of the invention will be described with reference to the drawings.

[Embodiment 1]

[0042] FIG. 1 shows a bottom measurement sample 1 for a short girdle as an example of a bottom measurement sample 1 used for custom making clothes according to the invention. The bottom measurement sample 1 includes, as shown in FIGS. 1 and 2, a front body member 2, a back body member 3 and a crotch member 4, and an upper portion of a body member including the front body member 2 and the back body member 3 is a waist part 5, a lower portion than the waist part 5 of the back body member 3 is a hip part 6, and a lower portion than the waist part 5 of the front body member 2 is a belly part 7. The waist part 5 has waist measurement means 8 and the hip part 6 has hip cup measurement means 9.

[0043] The bottom measurement sample 1 is formed by the well-known art using stretchable woven fabric or non-stretchable materials so as to have a body shape compensation function such as hip up like a short girdle as an actual product.

[0044] In order to form the waist measurement means

8, as shown in FIG. 1, the waist part 5 is cut from an upper end of a front center thereof to a position of the belly part 7 corresponding to a hip top height and divided. A male tape fastener (hook tape) 8c is sewn on an outer surface of one divided piece 8a (hereinafter referred to as a lower piece) , and a female tape fastener (loop tape) 8d is sewn on an inner surface of the other divided piece 8b (hereinafter referred to as an upper piece). This allows the upper piece 8b to be detachably fastened to the lower piece 8a with the upper piece 8b overlaid on the outer surface of the lower piece 8a.

[0045] In this embodiment, the hook tape 8c is extended from a divided end of the lower piece 8a toward the upper piece 8b. Thus, fastening the loop tape 8d to the hook tape 8c at the extended portion allows coupling between the lower piece 8a and the upper piece 8b with a space therebetween, and increasing a dimension (area) of the tape fastener, particularly the hook tape 8c allows dimensional adjustment over a wide range.

[0046] In such a configuration, the upper piece 8b is overlaid on or separated from the lower piece 8a with an inner end 8e of the cut as a center to adjust the degree of overlaying, thus allowing adjustment of awaist size. The hook-and-roop fasteners 8c and 8d are preferably made of a stretchable material so as to follow stretchability of the bottom measurement sample 1.

[0047] Aplurality of graduations 8f forwaist sizemeasurement are marked on the outer surface of the hook tape 8c, and the graduations 8f are radially marked from the inner end 8e of the cut toward the upper end of the waist part 5. This allows measurement of the waist size by a coupling position of the upper piece 8b. That is, the value of a graduation 8f indicated by a position of a divided end 8g of the upper piece 8b overlaid on the hook tape 8c of the lower piece 8a is the waist size of a wearer. Thus, the wearer's waist size can be measured at the same time as the waist size is adjusted.

[0048] The hip part 6 includes a pair of right and left hip cup parts 10 and a buttock part 11 therebetween of the back body 3, and the hip cup part 10 is an area covering a protrusion of the buttock part. In order to form the hip cup measurement means 9, as shown in FIG. 2, the right and left back body members 3 each are cut from a lower edge of a crotch hem 12 toward a substantial center of the hip cup part 10 and divided. A hook tape 9c is sewn on an outer surface of one divided piece 9a (hereinafter referred to as a lower piece), and a loop tape 9d is sewn on an inner surface of the other divided piece 9b (hereinafter referred to as an upper piece). This allows the upper piece 9b to be detachably fastened to the lower piece 9a with the upper piece 9b overlaid on the outer surface of the lower piece 9a. In this embodiment, the hook tape 9c is extended from a divided end of the lower piece 9a toward the upper piece 9b. Thus, fastening the loop tape -9d to the hook tape 9c at the extended portion allows coupling between the lower piece 9a and the upper piece 9b with a space therebetween, and increasing a dimension (area) of the tape fastener, particularly the hook tape 9c allows dimensional adjustment over a wide range.

[0049] In such a configuration, the upper piece 9b is overlaid on or separated from the lower piece 9a with an inner end 9e of the cut as a center to adjust the degree of overlaying, thus allowing adjustment of a hip cup size. The tape fasteners 9a and 9b are preferably made of a stretchable material as described above.

[0050] A plurality of graduations 9f for hip cup size measurement are marked on the outer surface of the hook tape 9c, and the graduations 9f are radially marked from the inner end 9e of the cut toward the crotch hem 12. This allows measurement of the hip cup size by a coupling position of the upper piece 9b. That is, the value of a graduation 9f indicated by a position of a divided end 9g of the upper piece 9b overlaid on the hook tape 9c of the lower piece 9a is the hip cup size of a wearer. Thus, the wearer's hip cup size can be measured at the same time as the hip cup size is adjusted.

[0051] For a high-rise long bottom measurement sample with a torso part attached to the body, a torso part 13 may have a torso measurement means 14 as shown in FIG. 3.

[0052] In order to form the torso measurement means 14, the torso part 13 is substantially vertically cut from an upper end of a front center thereof and divided, and the torso measurement means 14 is preferably continuously connected to the waist measurement means 8. One divided piece (hereinafter referred to as a lower piece) 14a continuously connected to the lower piece 8a is formed, and the other divided piece (hereinafter referred to as an upper piece) 14b continuously connected to the upper piece 8b is formed. A hook tape 14c is sewn on an outer surface of the lower piece 14a, and a loop tape 14d is sewn on an inner surface of the upper piece 14b. This allows the upper piece 14b to be detachably fastened to the lower piece 14a with the upper piece 14b overlaid on the outer surface of the lower piece 14a.

[0053] In this embodiment, the hook tape 14c is extended from the lower piece 14a toward the upper piece 14b. Thus, fastening the loop tape 14d to the hook tape 14c at the extended portion allows coupling between the lower piece 14a and the upper piece 14b with a space therebetween like the waist measurement means 8.

[0054] In such a configuration, the upper piece 14b is overlaid on or separated from the lower piece 14a to adjust the degree of overlaying, thus allowing adjustment of a torso size. The tape fasteners 14c and 14d are preferably made of a stretchable material so as to follow stretchability of the bottom measurement sample 1.

[0055] A plurality of graduations 14f for torso size measurement are marked on the outer surface of the hook tape 14c. This allows measurement of the size of the torso part 13 by a coupling position of the upper piece 14b. That is, the value of a graduation 14f indicated by a position of a divided end 14g of the upper piece 14b overlaid on the hook tape 14c of the lower piece 14a is the torso size of a wearer. Thus, the wearer's tor-

so size can be measured at the same time as the torso size is adjusted.

[0056] For clothes such as a long girdle with leg circumferential parts 15 covering thighs of legs attached to the crotch hems 12, each leg circumferential part 15 may have thigh measurement means 16 as shown in FIG. 4.

[0057] In order to form the thigh measurement means 16, the leg circumferential part 15 is substantially vertically cut from a leg hem 17 to around the crotch hem 12 and divided, and the thigh measurement means 16 is preferably continuously connected to the hip cup measurement means 9. A hook tape 16c is sewn on an outer surface of one divided piece (hereinafter referred to as a lower piece) 16a, and a loop tape 16d is sewn on an inner surface of the other divided piece (hereinafter referred to as an upper piece) 16b. This allows the upper piece 16b to be detachably fastened to the lower piece 16a with the upper piece 16b overlaid on the outer surface of the lower piece 16a.

[0058] In this embodiment, the hook tape 16c is extended from the lower piece 16a toward the upper piece 16b. Thus, fastening the loop tape 16d to the hook tape 16c at the extended portion allows coupling between the lower piece 16a and the upper piece 16b with a space therebetween. Also in this case, increasing a dimension (area) of the tape fastener, particularly the hook tape 16c allows dimensional adjustment over a wide range.

[0059] In such a configuration, the upper piece 16b is overlaid on or separated from the lower piece 16a to adjust the degree of overlaying, thus allowing adjustment of a thigh size. The hook-and-roop tape fasteners 16c and 16d are preferably made of a stretchable material so as to follow stretchability of the bottom measurement sample 1.

[0060] A plurality of graduations 16f for thigh size measurement are marked on the outer surface of the hook tape 16c. This allows measurement of the thigh size by a coupling position of the upper piece 16b. That is, the value of a graduation 16f indicated by a position of a divided end 16g of the upper piece 16b overlaid on the hook tape 16c of the lower piece 16a is the thigh size of a wearer. Thus, the wearer's thigh size can be measured at the same time as the thigh size is adjusted.

[0061] The bottom measurement sample 1 may include all of the waist measurement means 8, the hip cup measurement means 9, the torso measurement means 14 and the thigh measurement means 16, or selectively include one or more measurement means according to the purpose. The graduations 8f, 9f, 14f and 16f of the measurement means 8, 9, 14 and 16 may be marked in numeric values of sizes, or stepwise ranking of sizes such as A, B and C.

[0062] In order to provide a custom-made short girdle using the bottom measurement sample 1 as configured above, bottom measurement samples 1 of various hip sizes are prepared. Among them, a bottom measurement sample 1 of a proper hip size for a wearer is selected by measuring the hip size of the wearer for the wearer to try on the bottom measurement sample with the size unadjusted. Next, the waist measurement means 8 is used to change a fastening position by the upper piece 8b being overlaid on or separated from the lower piece 8a, thus adjusting the waist size of the bottom measurement sample 1 to the waist size of the wearer. At the same time, the waist size is measured by the coupling position between the lower piece 8a and the upper piece 8b, that is, the positions of the graduation 8f and the divided end 8g of the upper piece 8b.

[0063] Likewise, the hip cup measurement means 9 is used to adjust the hip cup size of the bottom measurement sample 1 to the hip cup size of the wearer and measure the size. When the bottom measurement sample 1 has the torso part 13, the torso measurement means 14 is used, and when the bottom measurement sample 1 has the leg circumferential part 15, the thigh measurement means 16 is used to adjust the respective sizes of the torso part 13 and the leg hem 17 of the bottom measurement sample 1 and measure the sizes.

[0064] Thus, the wearer tries on the bottom measurement sample with the size unadjusted, the size is adjusted for the wearer to try on the bottom measurement sample 1 of custom size and check for a proper fit as a whole, and then the measurement is finished. Therefore, manufacturing a short girdle based on the measurement result can provide a short girdle which perfectly fits the wear's body shape and has a desirable fit.

[0065] In this embodiment, the girdle intended for body shape compensation is exemplified, but not limited to this, the invention may be also applicable to underwear such as shorts or outerwear such as pants without body shape compensation function.

[0066] For outer decorations on a short girdle or the like, its design can be changed appropriately based on a custom size obtained by the bottom measurement sample 1 to suit a wearer's preference.

[0067] The invention is not limited to the embodiment, but various modifications and changes may be made on the embodiment within the scope of the invention. For example, the waist measurement means 8 of the embodiment is configured by cutting the waist part 5 of the body to be divided, but as shown in FIG. 5, the waist measurement means may be configured by pinching a part of the waist part 5 of the body in a cone shape to form a folded portion 18 circumferentially folded. A tape fastener 21a is sewn on a folded side surface 19 of the folded portion 18 and a waist part 20 on which the folded portion 18 is overlaid so that the folded portion 18 can be fastened to or detached from the waist part 20. Changing the width of the fold of the foldedportion 18 can realize the function of adjusting the waist size. Specifically, for a smaller waist size, the waist part 20 on which the folded portion 18 is overlaid may be drawn to increase the width of the fold of the folded portion 18, and for a larger waist size, a cloth of the folded portion 18 may be shifted to the waist part 20 on which the fold-

ed portion 18 is overlaid to reduce the width of the fold. Graduations 21b are circumferentially marked on an upper end of the waist part 20 on which the folded portion 18 is overlaid to allow measurement by a coupling position (an overlaid position) to a top end 21d of the folded portion 18. The hip cup measurement means, the thigh measurement means and the torso measurement means may be similarly configured by forming a folded portion 18.

[Embodiment 2]

[0068] FIG. 6 shows a clothes measurement sample of a long bodysuit as an example of a clothes measurement sample used for custom making clothes with cup parts according to the invention. The clothes measurement sample includes a bottom measurement sample 1, a top 22 with cup parts, and a torso part 23. The bottom measurement sample 1 is similar to that according to Embodiment 1, and the description thereof will be omitted.

[0069] The torso part 23 covers a torso between the bottom measurement sample 1 and the top 22, detachably couples the bottom measurement sample 1 and the top 22, and has torso measurement means 24 which adjusts a circumferential length of the torso. A tape fastener is used as coupling means of the torso part 23 to the bottom measurement sample 1 and the top 22, but other detachable coupling means can be appropriately selected. Band-like tape fasteners 1a, 22a, 23a and 23b as coupling means are sewn on an upper end of the bottom measurement sample 1, a lower end of the top 22, and upper and lower ends of the torso part 23, respectively.

[0070] In order to form the torso measurement means 24 having a function of adjusting a size of the torso part, and a function of measuring the amount of adjustment, the torso part 23 is vertically divided at a front center thereof. A hook tape 24c is sewn on an outer surface of one divided piece (hereinafter referred to as a lower piece) 24a, and a loop tape 24d is sewn on an inner surface of the other divided piece (hereinafter referred to as an upper piece) 24b. This allows the upper piece 24b to be detachably fastened to the lower piece 24a with the upper piece 24b overlaid on the outer surface of the lower piece 24a. In this embodiment, the hook tape 24c is circumferentially extended from a divided end of the lower piece 24a. Therefore, fastening the loop tape 24d to the hook tape 24c at the extended portion allows coupling between the lower piece 24a and the upper piece 24b with a space therebetween. Thus, the upper piece 24b is overlaid on or separated from the lower piece 24a to adjust the degree of overlaying, thus offering the function of adjusting the size of the torso part.

[0071] Graduations 24f for torso size measurement are circumferentially marked on the outer surface of the hook tape 24c, and the function of measuring the size of the torso part can be offered by a coupling position of a divided end 24g of the upper piece 24b. The tape fasteners 24c and 24d are preferably made of a stretchable material so as to follow stretchability of the bottommeasurement sample

1. The size of the torso part 23 is a circumferential length of the torso.

[0072] The top 22 includes a pair of right and left cup parts 25 for covering breasts, a cup support part 26 for supporting the cup parts 25, and back parts 27 coupled to opposite sides of the cup support part 26, and the cup parts 25 and the back parts 27 can be detachably coupled to the cup support part 26.

[0073] The cup support part 26 has two cup support curve parts 28 along a verge's line on the upper edge. Coupling parts 29 for coupling to the back parts 27 are provided on opposite sides thereof. The cup support curve part 28 has a female tape fastener (loop tape) (not shown) sewn on an inner surface thereof, that is, a surface which touches the skin when worn by a wearer, to couple to the cup part 25. The coupling parts 29 have two rows of slide fasteners 29a vertically in a circumferential direction.

[0074] A curve part 30 is formed along the verge's line on a lower edge of the cup part 25 and has a male tape fastener (hook tape) 31 sewn on an outer surface thereof for engaging the female tape fastener with the cup support curve part 28. A shoulder strap 32 is fastened to an upper end of the cup part 25, and an end thereof can be coupled to the back part 27.

[0075] The back part 27 has a coupling part 33 provided with a slide fastener 33a for coupling to the slide fastener 29a of the coupling part 29 of the cup support part 26, and rear ends of the right and left back parts 27 have hook-and-eye fasteners for adjustably engaging each other on the back when worn by a wearer. A plurality of loops 34 are sewn on the upper edge of the back part 27 in the longitudinal direction, that is, in the circumferential direction, for adjustably coupling the shoulder strap 32.

[0076] One end of the shoulder strap 32 is sewn to the upper end of the cup part 25 and the other end can be coupled to any one of the loops 34 sewn to the back part 27 by means of a hook-like fixture 35 provided thereon.

[0077] In order to provide a custom-made bodysuit using the clothes measurement sample as configured above, a plurality of bottom measurement samples 1 of varying hip sizes are prepared, a plurality of torso parts 23 of varying vertical lengths are prepared, and tops 22 having cup parts 25, cup support parts 26, and back parts 27 of various sizes are prepared. Specifically, cup support parts 26 of varying verge's sizes of the cup support curve part 28, cup parts 25 of varying verge's sizes of the cup support curve part 28 and of varying cup heights for each verge's size, and back parts 27 of var-

ying circumferential lengths when worn by a wearer for each cup support part 26 are prepared.

[0078] Then, a bottom measurement sample 1, a torso part 23 and a top 22 which fit a custom size are selected. The bottom measurement sample 1 is similar to that according to Embodiment 1, and the description thereof will be omitted.

[0079] For the top 22, the cup support part 26 is applied to the wearer's verge's line to select one of a proper verge's size. Next, one of a proper cup height is selected from among the plurality of cup parts 25 available in different cup heights for the verge's size of the selected cup support part 26, then the selected cup part 25 is coupled to the cup support part 26 via the tape fastener. Then, back parts 27 which fit the wearer's body shape are selected and coupled to the cup support part 26 via the slide fasteners 29a and 33a while the position is adjusted. Lastly, the shoulder straps 32 are coupled to the loops 34 of the back parts 27 at proper locations.

[0080] The torso part 23 is applied to the wearer's torso to select one of a proper vertical length for the wearer, specifically, a proper length between the lower end of the top 22 and the bottom measurement sample 1, then the torso measurement means 24 is used to adjust the size around the torso. The bottom measurement sample 1 and the top 22 are coupled to the torso part 23 to allow the wearer to try on the clothes measurement sample of custom size and check for a proper fit as a whole, and then the measurement is finished. Therefore, manufacturing a bodysuit based on the determined clothes measurement sample can provide a bodysuit which perfectly fits the wearer's body shape and has a desirable fit.

[0081] For outer decorations on a bodysuit, its design can be changed appropriately based on a custom size obtained by the clothes measurement sample to suit a wearer's preference. The torso part 23 can be also used as a measurement sample of a waist nipper.

[0082] The invention is not limited to the embodiment, but various modifications and changes may be made on the embodiment within the scope of the invention. For example, in the embodiment, the top 22 and the bottom measurement sample 1 are coupled via the torso part 23, but as shown in FIG. 7, the lower ends of the cup support part 26 and the back part 27 may be extended so as to be overlaid on the upper end of the bottom measurement sample 1 to directly couple the top 22 to the bottom measurement sample 1. Tape fasteners are sewn on the upper end of the bottom measurement sample 1 and the lower end of the top 22, and the bottom measurement sample 1 and the top 22 are detachably coupled. The tape fasteners are used as coupling means between the bottom measurement sample 1 and the top 22, but other detachable coupling means can be appropriately selected. The top 22 and the bottom measurement sample 1 may be uncoupled.

[0083] In this case, amethod forproviding custom-made clothes such as a bodysuit is the same as described above other than the torso part 23 being unnecessary. Further, the cup support part 26 and the back part 27 of the top 22 preferably have a function of measuring a vertical length to provide clothes also having a proper vertical length. Specifically, cup parts 25 of varying verge's sizes of the cup support curve part 28 and of varying vertical lengths for each verge's size, and back parts 27 of varying circumferential lengths when worn by a wearer for each cup support part 26 and of varying vertical lengths for each circumferential length are prepared to select one which fits a custom size of a wearer.

INDUSTRIAL APPLICABILITY

[0084] As is apparent from the above descriptions, since the use of the measurement sample according to the invention facilitates providing a measurement sample which fits a body shape of a customer, and allows the customer to try on a measurement sample of custom size before placing an order, the present invention can advantageously provide clothes which fit the wearer's body shape and allow the customer to check for a proper fit in advance before placing an order.

[0085] Since the custom-making method according to the invention allows the customer to try on a measurement sample of custom size before placing an order, the present invention can provide clothes with a proper fit when worn by the customer and allow the customer to check for a proper fit in advance before placing an order. According to this custom-making method, adjustments to material stretching factors which cannot be determined only from measurements taken with a measure or modifications intended for body shape compensation can be also accomplished based on an actual wearing feel.

Claims

1. A measurement sample for custom making comprising:

hip cup measurement means provided in a hip part of a body member and capable of adjusting and measuring a hip cup size,

wherein said hip cup measurement means comprises:

one piece and the other piece of the body member formed by the hip part of said body member being divided by a cut from a crotch hem toward a hip cup;

a first coupling member provided on an outer surface of said one piece and having an extended portion extended from a divided end, and a second coupling member provided on an inner

surface of said other piece and detachably fastened to said first coupling member; and
graduations for hip cup size measurement provided on the outer surface of said first coupling member.

2. The measurement sample for custom making as claimed in claim 1, wherein said cut is formed toward a substantial center of a hip cup part, and an inner end position of said cut is lower than a hip top height.

3. The measurement sample for custom making as claimed in claim 2, wherein said graduations are radially provided from said inner end position of said cut as a center.

4. The measurement sample for custom making as claimed in claim 1, wherein said first coupling member is a male tape fastener, and said second coupling member is a female tape fastener.

5. The measurement sample for custom making as claimed in claim 1 further comprising:

waist measurement means provided in a waist part of the body member and capable of adjusting and measuring a waist size,

wherein said waist measurement means comprises:

one piece and the other piece of the body member formed by the waist part of said body member being divided by a substantially vertical cut from an upper end;
a first coupling member provided on an outer surface of said one piece and having an extended portion extended from a divided end, and a second coupling member provided on an inner surface of said other piece and detachably fastened to said first coupling member; and
graduations for waist size measurement provided on the outer surface of said first coupling member.

6. The measurement sample for custom making as claimed in claim 4, wherein said cut is formed toward a substantial center of a belly part, and an inner end position of said cut substantially corresponds to the hip top height.

7. The measurement sample for custom making as claimed in claim 6, wherein said graduations are radially provided from said inner end position of said cut as a center.

8. The measurement sample for custom making as claimed in claim 5, wherein said first coupling member is a male tape fastener, and said second coupling member is a female tape fastener.

9. The measurement sample for custom making as claimed in claim 5 further comprising:

torso measurement means provided in a torso part of the body member and capable of adjusting and measuring a torso size,

wherein said torso measurement means comprises:

one piece and the other piece of the body member formed by the torso part of said body member being divided by a substantially vertical cut from an upper end;
a first coupling member provided on an outer surface of said one piece and having an extended portion extended from a divided end, and a second coupling member provided on an inner surface of said other piece and detachably fastened to said first coupling member; and
graduations for torso size measurement provided on the outer surface of said first coupling member.

10. The measurement sample for custom making as claimed in claim 9, wherein said torso measurement means is continuously connected to said waist measurement means.

11. The measurement sample for custom making as claimed in claim 5 further comprising:

thigh measurement means provided in a thigh part of the body member and capable of adjusting and measuring a thigh size,

wherein said thigh measurement means comprises:

one piece and the other piece of the body member formed by the thigh part of said body member being divided by a substantially vertical cut from a lower end;
a first coupling member provided on an outer surface of said one piece and having an extended portion extended from a divided end, and a second coupling member provided on an inner surface of said other piece and detachably fastened to said first coupling member; and
graduations for thigh size measurement provided on the outer surface of said first coupling member.

12. The measurement sample for custom making as claimed in claim 11, wherein said thigh measure-

ment means is continuously connected to said hip cup measurement means.

13. A measurement sample for custom making, wherein a top with cup parts is attached to a bottom measurement sample as claimed in any one of claims 1 to 12.

14. The measurement sample for custom making as claimed in claim 13, wherein said top is detachably attached to said bottom measurement sample.

15. The measurement sample for custom making as claimed in claim 13, wherein said top comprises a plurality of cup support parts of varying verge's sizes in combination with a plurality of cup parts of varying cup heights for each verge's size, and the cup parts are detachably attached to the cup support part.

16. The measurement sample for custom making as claimed in claim 13, wherein said top comprises a plurality of cup support parts of varying verge's sizes, and a plurality of cup parts of varying cup heights for each verge's size, in combination with a plurality of back parts with different dimensions for each cup support part, and the cup parts and the back parts are detachably attached to the cup support part.

17. A custom-making method comprising the steps of:

preparing a plurality of measurement samples of varying hip sizes as claimed in any one of claims 1 to 16;
selecting a measurement sample according to a hip size of a wearer for the wearer to try on;
adjusting a size for a proper fit to the wearer and measuring the size; and
manufacturing a finished product according to the measured size.

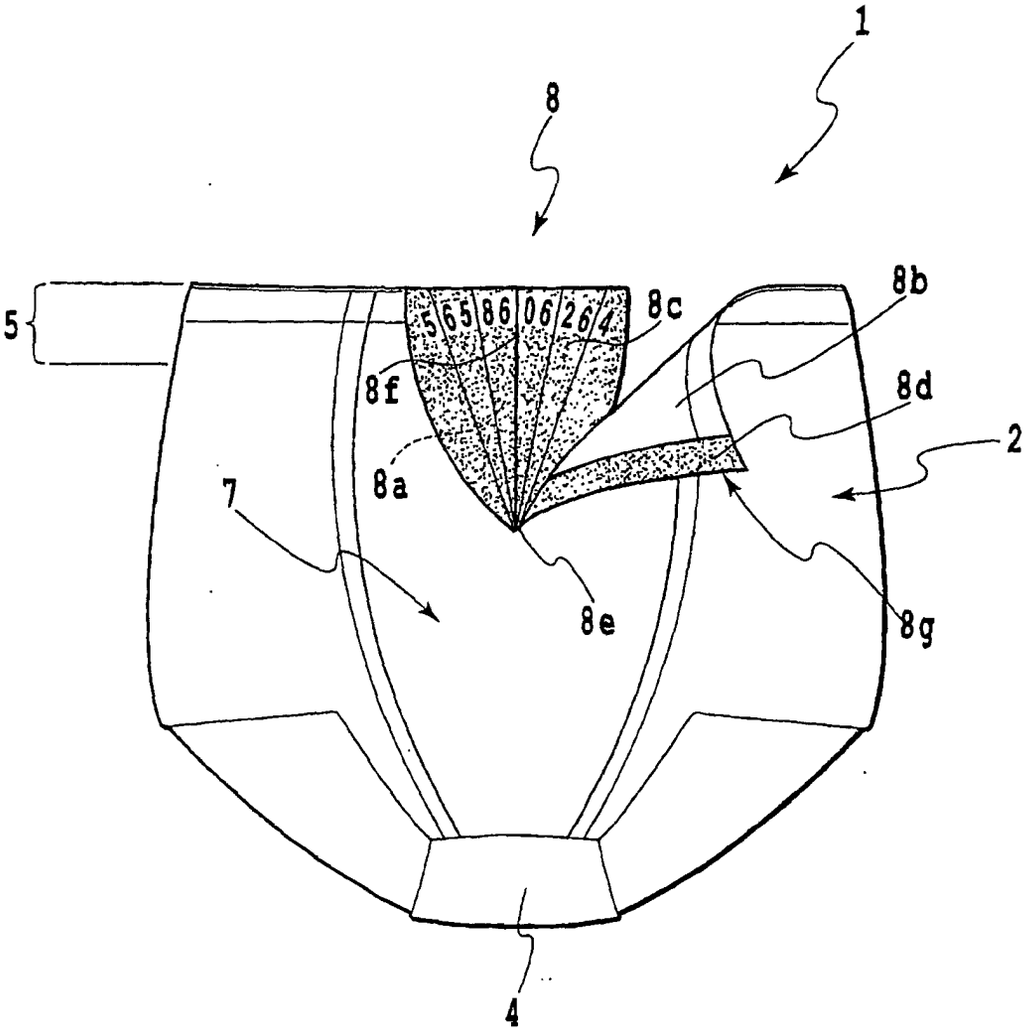

FIG.1

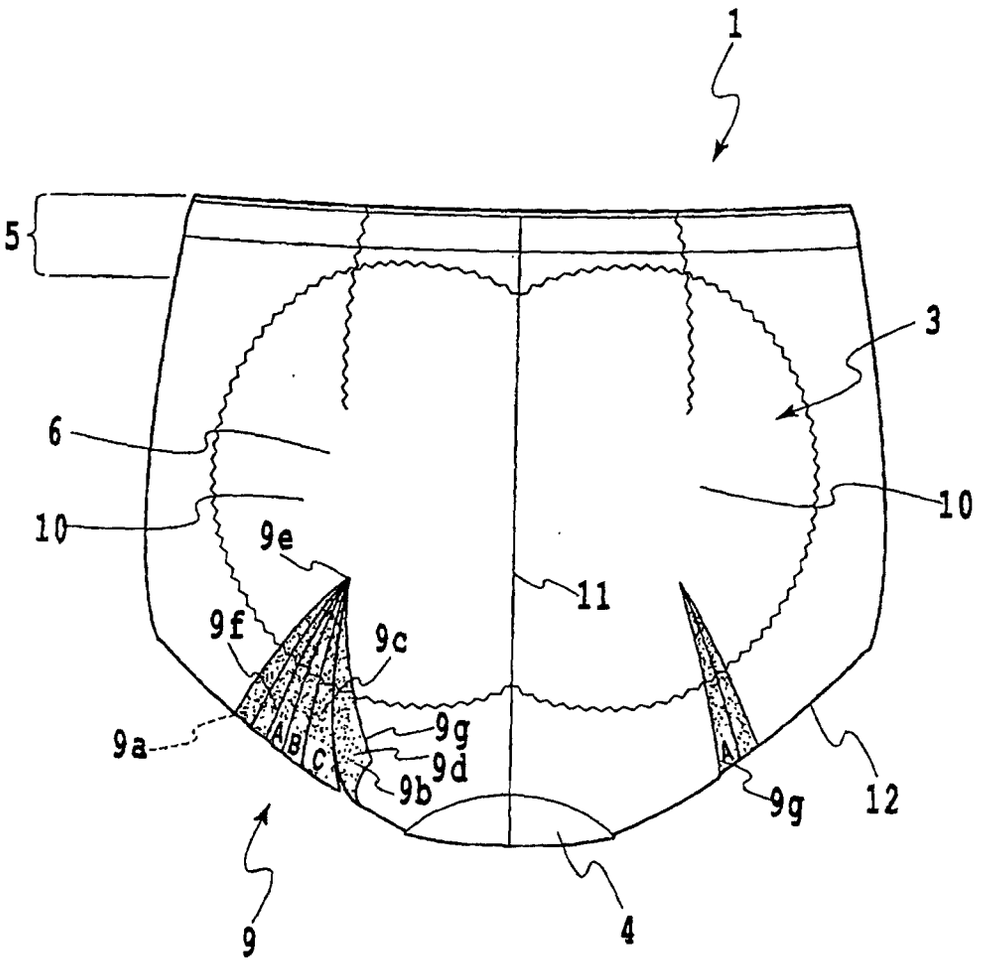

FIG.2

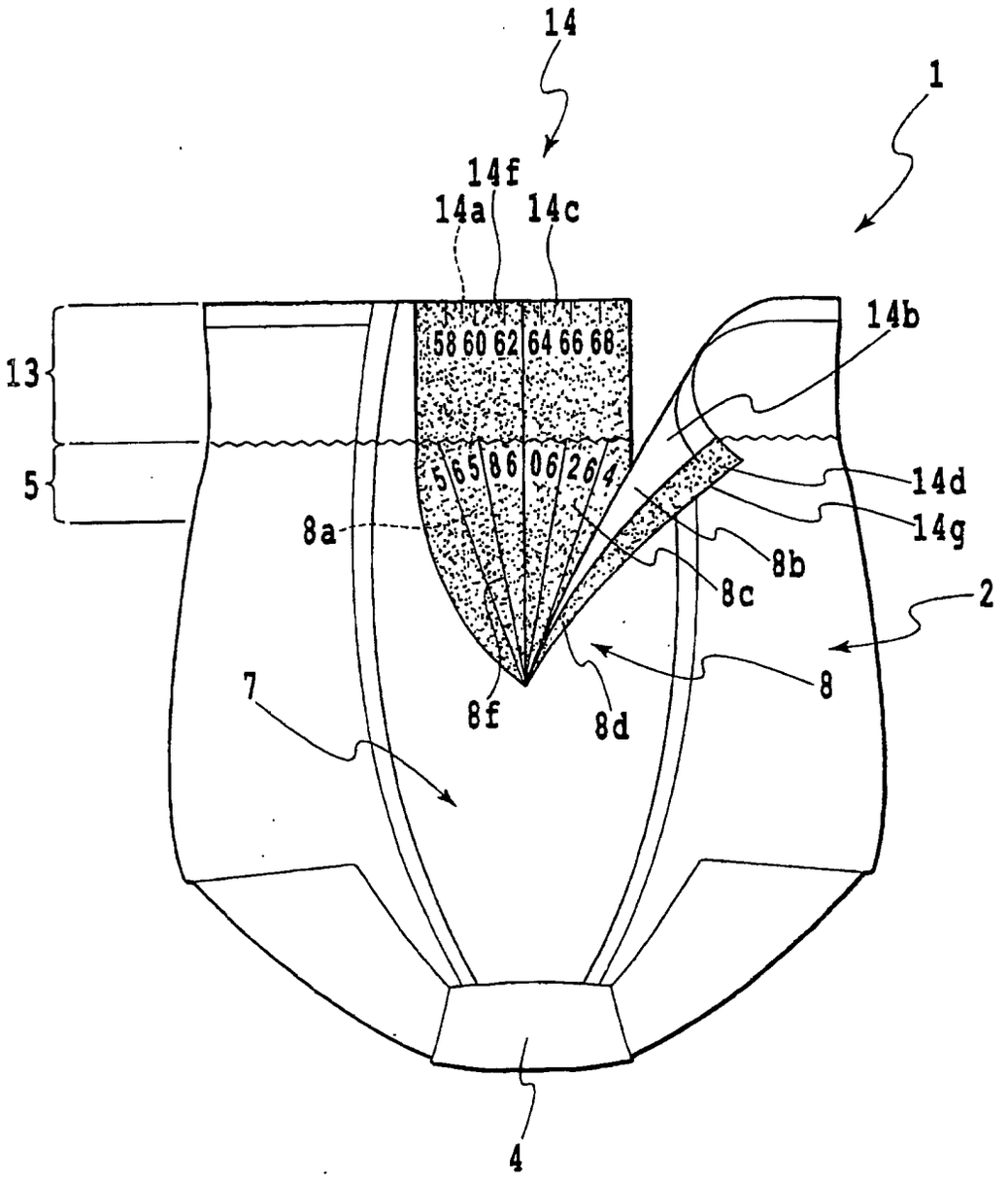
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FIG.3

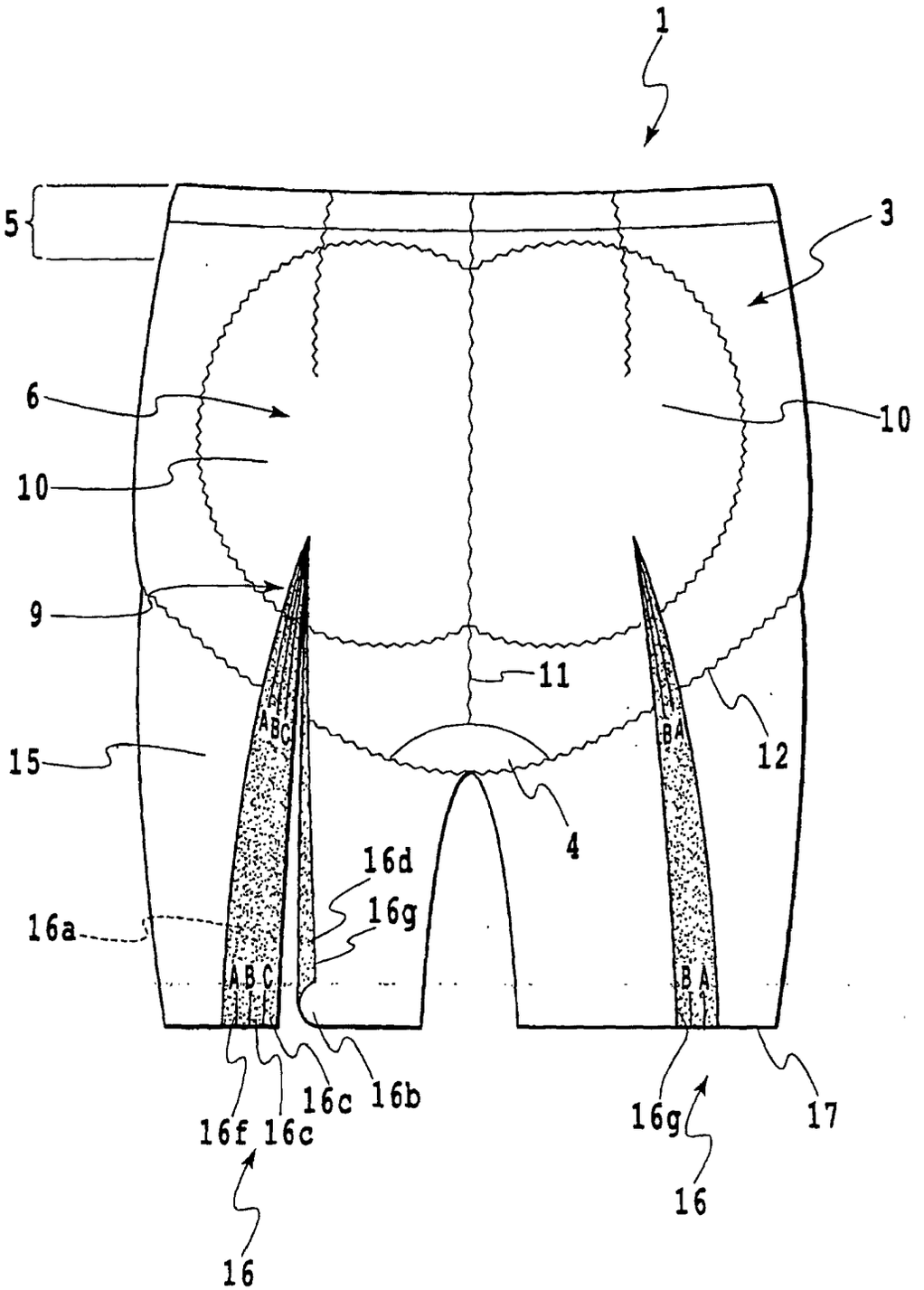

FIG.4

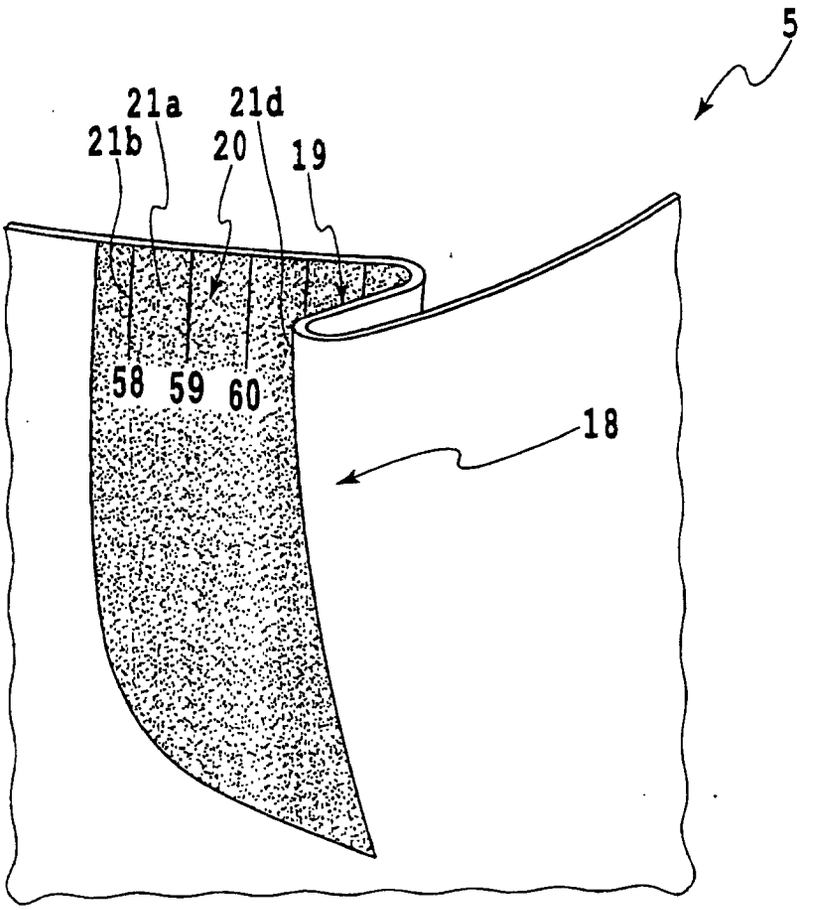

FIG.5

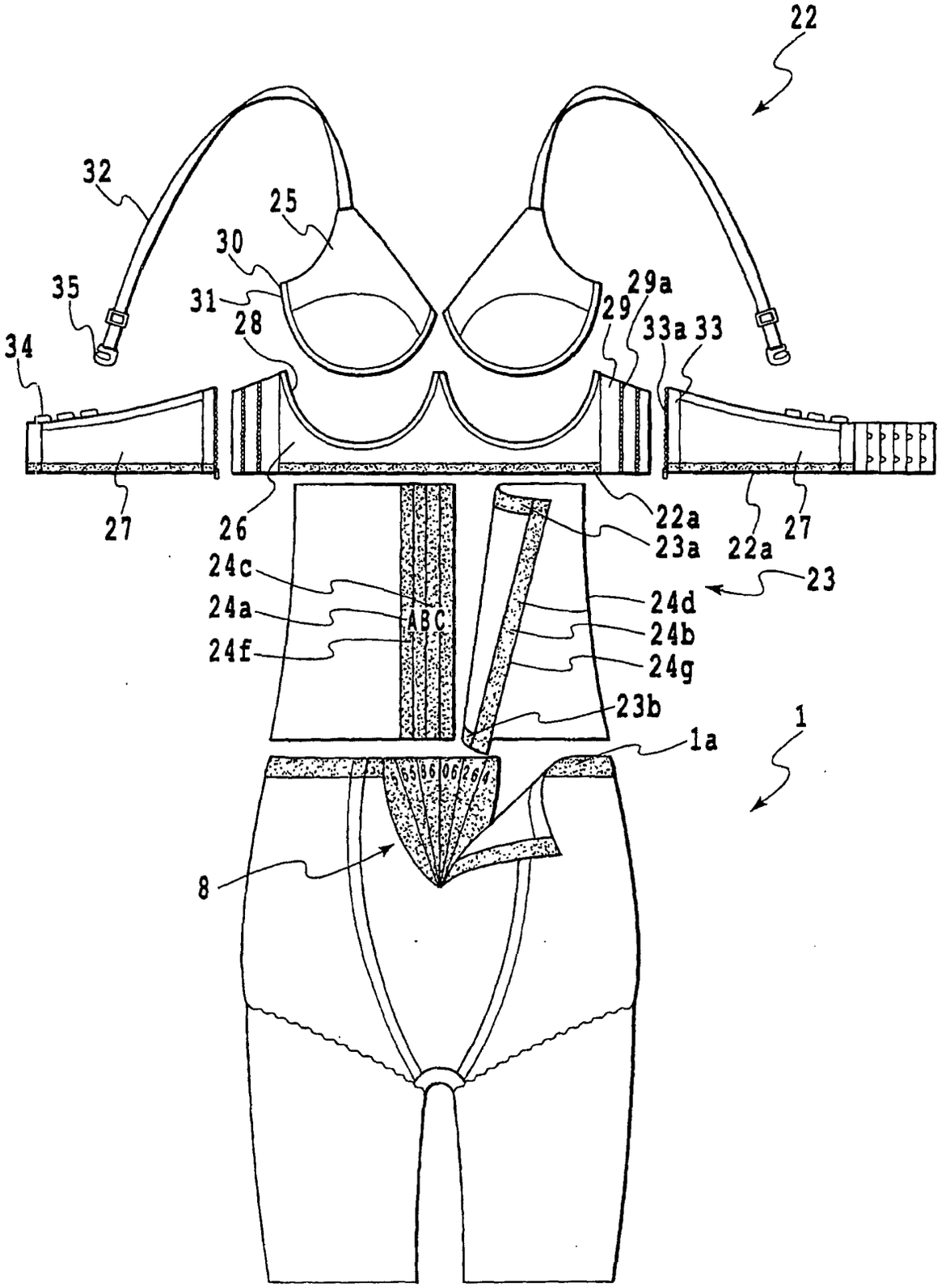
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FIG.6

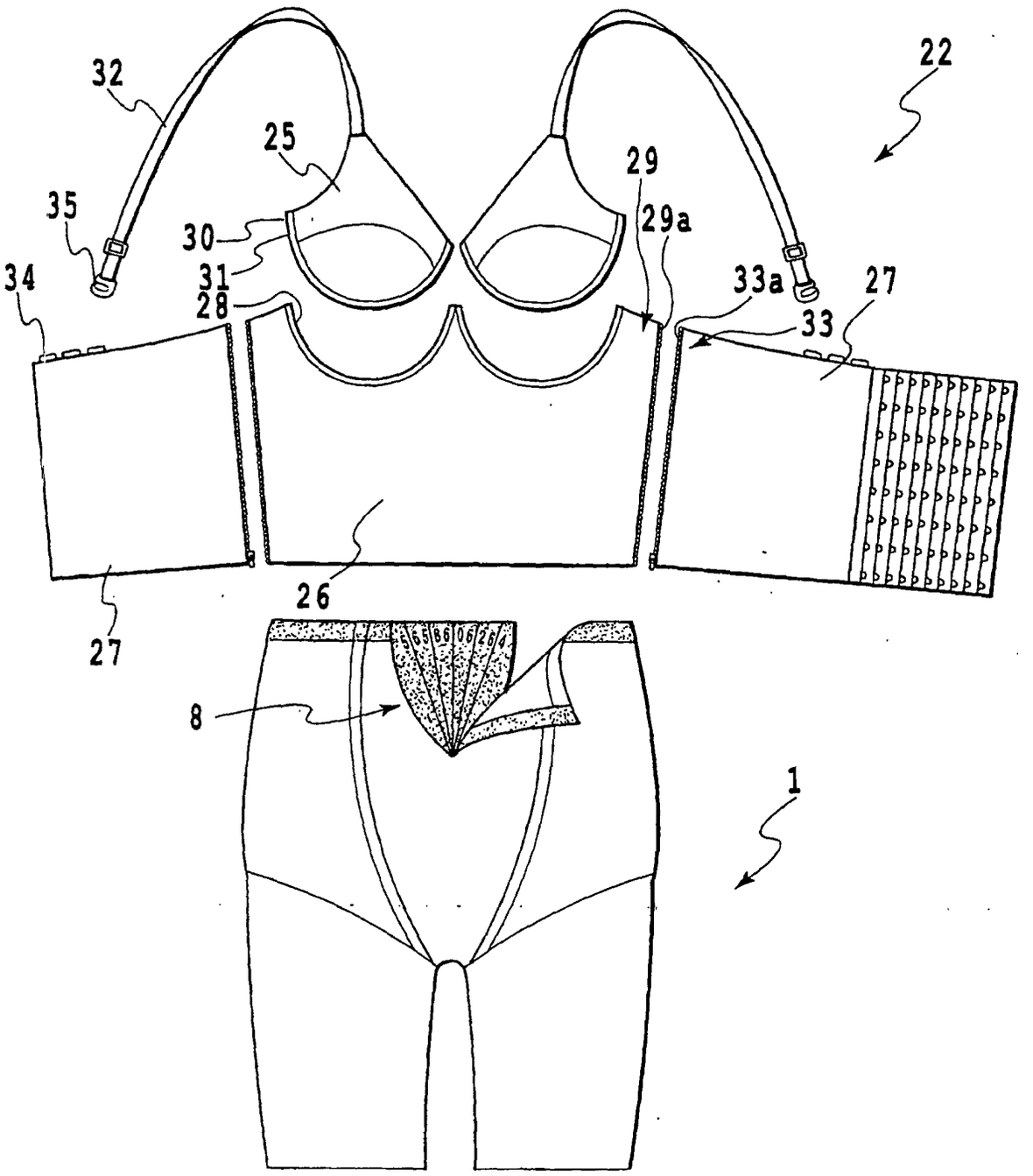

FIG.7

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/01497

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl[7] A41H1/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl[7] A41H1/06

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-1996	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 7-316909 A (Shin'ichi NEMOTO), 05 December, 1995 (05.12.95), (Family: none)	1-12 13-17
X Y	US 5548519 A (Custom Clothing Technology Corp.), 20 August, 1996 (20.08.96), & EP 722586 A & JP 09-504636 A & JP 10-046419 A	1-12 13-17
Y	JP 8-158111 A (Kabushiki Kaisha Duchess), 18 June, 1996 (18.06.96), (Family: none)	13-17
Y	JP 2000-64104 A (Wacoal Corp.), 29 February, 2000 (29.02.00), (Family: none)	15-16

[X] Further documents are listed in the continuation of Box C. [ ] See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
07 March, 2003 (07.03.03)	25 March, 2003 (25.03.03)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/01497

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 62-110901 A (Wacoal Corp.), 22 May, 1987 (22.05.87), (Family: none)	1-17

Form PCT/ISA/210 (continuation of second sheet) (July 1998)