



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
04.08.2010 Bulletin 2010/31

(51) Int Cl.:
A47K 7/02 (2006.01)

(21) Application number: **10152518.6**

(22) Date of filing: **03.02.2010**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA RS

(71) Applicant: **JOYinCARE Group B.V.**
9698 TA Wedde (NL)

(72) Inventor: **Huizinga, Jozef**
9698 TA, Wedde (NL)

(74) Representative: **Hatzmann, Martin**
Vereenigde
Johan de Wittlaan 7
2517 JR Den Haag (NL)

(30) Priority: **03.02.2009 NL 2002488**

(54) **Multi-sided washcloth**

(57) A washcloth (1) comprising at least three cloth parts (I-IV), which cloth parts are mutually connected for

forming an internal hand receiving space (6), and wherein each cloth part provides an external work surface (I'-IV')..

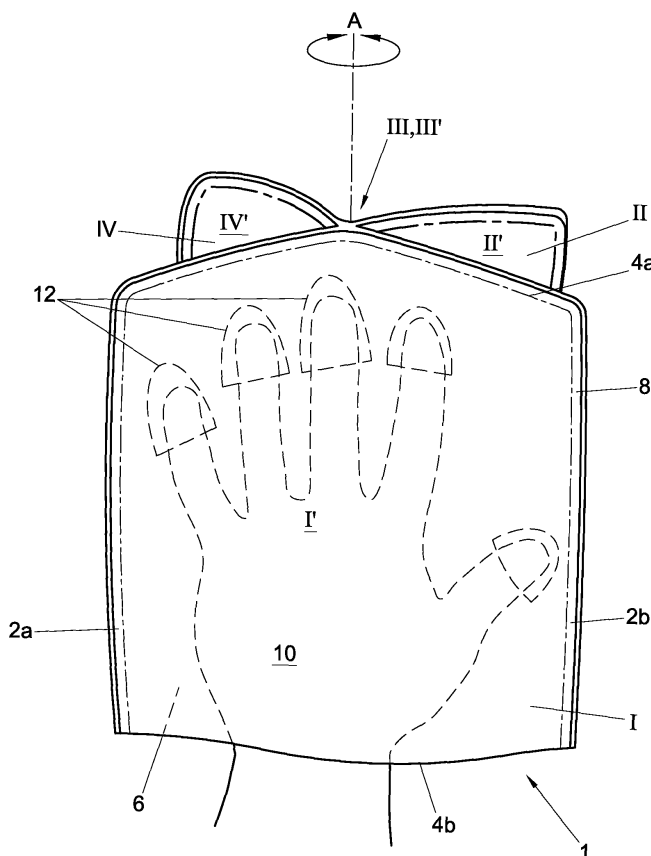


FIG. 2

Description

[0001] In, for example, hospitals and nursing homes, the washing of infirm, often bedridden persons by care providers is part of everyday care. In a great many care institutions, washing is still done with the aid of wash-bowls, water, soap, towels and normal washcloths. Such a traditional washing not only takes relatively much time, but is also an intensive job for both the care provider and the care recipient. For a care provider, a traditional washing normally means performing three or four operations: soaping, rinsing, drying and possibly applying a skin care lotion. At the same time, such a washing is experienced by many care recipients as fatiguing or painful, for instance because they need to assume specific, uncomfortable positions for a prolonged time to make washing possible.

[0002] For some years now, applicant has marketed impregnated washcloths that are suitable for use in such a washing. With the aid of the impregnated washcloths, the washing process is limited to one operation instead of the above-mentioned three or four. By many care recipients a washing with these washcloths is experienced as pleasantly refreshing, and moreover as less of a strain. A washing takes less long and in addition a care recipient does not need to be turned over as often and/or lie on his or her side as long, which is sometimes painful. Consequently, it also entails a lesser physical strain on the care provider, who needs to lift less and needs to make fewer movements.

[0003] A washing of the body requires multiple washcloths. Statistically, this concerns an average 4.6 washcloths per washing. Practically, this means for a care provider that per washing he needs to take off a used washcloth about four times, each time to put on a clean specimen. For a care recipient this basically means that during the time the care provider is changing washcloths, he needs to wait in a possibly unpleasant or straining position for washing to be resumed. It will be clear that changing washcloths does not promote the efficiency of the washing process, nor does it benefit the comfort of the care recipient.

[0004] The object of the present invention is therefore to provide a washcloth that further improves the efficiency of the washing process.

[0005] To this end, the present invention provides a washcloth comprising at least three cloth parts, which cloth parts are mutually connected for forming an internal hand receiving space, and wherein each cloth part provides an external work surface.

[0006] The washcloth according to the present invention comprises, unlike known washcloths, not two but at least three work surfaces. While known washcloths have only a front and a back, the washcloth according to the present invention has at least three sides, side surfaces or work surfaces which are capable of being separately brought into contact with a surface to be washed/treated. The work surfaces are situated - in use - substantially

around a hand inserted into the hand receiving space (with the hand extending in line with the forearm, hence around a direction in which the forearm extends). When it is desired to use another work surface, the hand, without being taken out of the washcloth, can be rotated relative to the washcloth in order to position the desired work surface in front of the hand surface (i.e., the palm of the hand). The washcloth according to the present invention hence offers more work surfaces than known washcloths. Jointly, they provide for an enlargement of the total work surface of the washcloth compared with known washcloths, and this while each separate work surface can be deployed easily and fast. Moreover, the fit of the washcloth, compared with known washcloths, has not diminished as a result of the surface enlargement.

[0007] Reverting to the above-described health care practice, it may be established that in a situation where currently four known washcloths are used per washing, it could suffice to use, for example, two four-sided washcloths according to the present invention. In that case, during a washing, a washcloth thus needs to be replaced only once instead of three times. In this way, a shortening of a complete washing can be realized, with an attendant reduced strain on both care recipient and care provider.

[0008] It is noted that the term 'washcloth' in this text, and in particular also in the appended claims, is used as a generic designation, i.e., as a designation of a group of objects having common features. The term 'washcloth' is not intended to mean an aid merely suitable for use in the activity of 'washing'. Besides being used for washing the human or animal body, a washcloth according to the present invention can also be used, for example, in cleaning/treating vehicles, such as cars and mobile homes, and furniture, such as couches, etc. It should also be noted that the cloth parts of the washcloth may be manufactured jointly as one whole, or may be separate cloths or cloth parts united into a whole.

[0009] The cloth parts may be manufactured from numerous materials, such as, for example, viscose, optionally supplemented, for strengthening, with nylon or other synthetics; from (woven) cloth of wool, linen or cotton; from (synthetic) fiber or felt cloth, or from paper. Also, it is possible - to improve the fit - that one or more cloth parts are wholly or partly manufactured from stretch fabric, where the elasticity of the fabric provides for comfortable clamping of the hand inserted into the hand receiving space.

[0010] According to a further elaboration of the invention, the work surface provided by a cloth part (i.e., the work surface provided by at least one of the cloth parts, and preferably the working surface provided by each of the cloth parts) is approximately equal to the surface of a flat hand receivable in the hand receiving space.

[0011] For easy handling of the washcloth, a cloth part, of which an outer surface coincides wholly or at least largely with the associated work surface, has approximately the size of a flat hand. A smaller cloth part/work surface can render handling of the washcloth more diffi-

cult because the flat hand cannot be brought wholly behind the work surface, which may be uncomfortable as well, whereas a larger work surface without supplemental measures may be difficult to control. This is because the cloth part/work surface is not rigid, so that, on the one hand, it can easily follow the contours of an object to be treated, but, on the other hand, needs to be pushed against the surface of that object at several points to make sufficient contact. A flat hand may be understood to mean, depending on the design and intended use of the washcloth, both a stretched hand with fingers and thumb spread and a stretched hand with fingers and thumb held together. The surface of the flat hand may be approximated by the surface of a circumscribed rectangle matching the hand. For a hand with fingers held together, this approximation basically corresponds to the actual hand surface, whereas for a hand with fingers spread, also the space between the spread fingers of a hand may be regarded as part of the surface of the hand. For determining the manageable work surface of a cloth part, this is a useful approximation, since a hand with fingers spread can cover a cloth part with a larger surface than the actual hand surface, and can use it in a controlled manner.

[0012] According to a further elaboration of the invention, each of the cloth parts comprises a first longitudinal edge and a second longitudinal edge, and for each cloth part the first longitudinal edge of the cloth part is connected with the second longitudinal edge of a first neighboring cloth part, while the second longitudinal edge of the cloth part is connected with the first longitudinal edge of a second neighboring cloth part. According to a further aspect, each of the cloth parts comprises furthermore a first transversal edge and a second transversal edge, wherein the first transversal edge of a cloth part is connected over a first length part thereof with the first transversal edge of the first neighboring cloth part with which the cloth part is connected at its first longitudinal edge, wherein the first transversal edge of the cloth part is connected over a second length part thereof with the first transversal edge of the second neighboring cloth part with which the cloth part is connected at its second longitudinal edge; and wherein the second transversal edges of the cloth parts jointly define an opening to the hand receiving space.

[0013] With the aid of three or more cloth parts, in a simple and economical manner a functional washcloth can be created. Starting from, for example, three separate, identical cloth parts I, II, and III, this can be illustrated as follows. Let us assume that the cloth parts are at least approximately rectangular, so that two opposite edges of each cloth part can be regarded as a first and a second longitudinal edge, respectively. By presently connecting the first longitudinal edge of cloth part I with the second longitudinal edge of cloth part II, and connecting the first longitudinal edge of cloth part II with the second longitudinal edge of cloth part III, while the first longitudinal edge of cloth part III is connected with the still free second

longitudinal edge of cloth part I, a sleeve is obtained. The sleeve is preferably closed at one end for user convenience of the washcloth, and for preventing unnecessary direct contact between a hand inserted into the washcloth and the surface of an object to be treated. The other end of the sleeve will serve as opening to the hand receiving space. The sleeve end to be closed off can be closed off by connecting a first transversal edge of cloth part I over approximately a half of the length thereof with, on the one hand, the first transversal edge of cloth part II, and, on the other hand, the first transversal edge of cloth part III. Further, also the first transversal edge of cloth part II needs to be similarly connected with the first transversal edge of cloth part III.

[0014] It will be clear that although the mutual connection of cloth parts has been described above by way of example in relation to a three-sided washcloth with identical, rectangular cloth parts, it equally applies (by analogy) to washcloths having more than three sides and/or non-identical, rectangular or non-rectangular cloth parts. When use is made of non-rectangular cloth parts, the longitudinal and transversal edges may not be straight but curved. Consequently, the longitudinal edge of a cloth part can then merge without an acute angle into a transversal edge, or vice versa. The edges or edge parts of such cloth parts are to be named by analogy with the rectangular cloth part.

[0015] According to a further elaboration of the invention, a cloth part is connected along a longitudinal edge with another cloth part in such a way that the work surfaces of the two cloth parts face away from each other at the location of the connection.

[0016] As the work surfaces can fulfill distinguishable functions, the washcloth is preferably so manufactured that each of the work surfaces can simply be brought exclusively into contact with the surface of an object to be treated. To this end, the cloth parts may be connected along their longitudinal edges with each other on the inner or back side, so that the respective work surfaces at the location of the connection face away from each other. According to a further aspect of the invention, the longitudinal connections between different cloth parts may furthermore be strengthened and/or stiffened, for example, by means of a woven-in flexible frame or with the aid of fiber-reinforced seams, in order to ensure that the work surfaces of the cloth parts preserve their mutual back-sided orientation during use.

[0017] The above-mentioned and other features and advantages of the invention will be elucidated in the following on the basis of a few exemplary embodiments and drawing figures.

Brief description of the drawing

[0018]

Fig. 1 is a schematic perspective view of a first exemplary embodiment of a washcloth according to

the present invention, in which the washcloth is composed of three cloth parts;

Fig. 2 is a schematic perspective view of a second exemplary embodiment of a washcloth according to the present invention, in which the washcloth is composed of four cloth parts; and

Fig. 3 is a schematic perspective view of a third exemplary embodiment of a washcloth according to the present invention, in which the washcloth composed of three cloth parts comprises a thumb receiving space supplemental to a hand receiving space.

[0019] In the drawing figures, corresponding or comparable parts are designated with the same reference characters.

Detailed description of the drawing

[0020] Fig. 1 shows, in perspective view, a first exemplary embodiment of a washcloth 1 according to the present invention. The washcloth 1 is composed of three cloth parts I, II and III.

[0021] In the orientation of the washcloth 1 as shown, the work surface I' provided by the first cloth part I is visible in its entirety. Of the work surface II', provided by the second cloth part II, a portion can be seen, and the work surface III' of the third cloth part III - like the third cloth part III itself - is not visible in the figure because in the view shown it is situated on the rear side of the washcloth 1.

[0022] In the first exemplary embodiment of Fig. 1, the cloth parts I, II, III are identical, and the washcloth 1 as a whole may possibly have triple rotational symmetry around the axis A. The following explanation on cloth part I therefore applies *mutatis mutandis* also to the cloth parts II and III. Cloth part I comprises a first longitudinal edge 2a (the left-hand side edge), a second longitudinal edge 2b (the right-hand side edge), a first transversal edge 4a (the upper edge) and a second transversal edge 4b (the lower edge). As can be derived from Fig. 1, the second longitudinal edge 2b of cloth part I is connected with the first longitudinal edge of cloth part II, the second longitudinal edge of cloth part II is connected with the first longitudinal edge of cloth part III, and the second longitudinal edge of cloth part III is connected with the first longitudinal edge 2a of cloth part I. Also, the first transversal edge 4a of cloth part I is connected over approximately a half of the length of the edge with the first transversal edge of neighboring cloth part III (on the left in Fig. 1), with which cloth part I is connected over the first longitudinal 2a edge. The other half of the first transversal edge 4a of cloth part I is connected with the first transversal edge of neighboring cloth part II (on the right in Fig. 1), with which cloth part I is connected along the second longitudinal edge 2b. Thus connected, the cloth parts I, II and III include a hand receiving space 6. The second transversal edges of the cloth parts I, II, III jointly define an opening to this hand receiving space 6.

[0023] The connections between the edges of the cloth parts I, II, III can be effected in different manners, for example, by means of gluing, welding, or with the aid of a stitching 8 as shown in Fig. 1. In the case where the cloth parts I, II, III are jointly manufactured in one whole, the connection between the longitudinal edges may already exist. Nonetheless, it may even then be desirable for the longitudinal edges of adjacent cloth parts to be connected such that the work surfaces of adjacent cloth parts at the location of the connection face away from each other. What is thus accomplished is that a work surface can exclusively be brought into contact with a surface to be treated, hence without an adjacent work surface, at least partly, unintentionally making also contact with this surface as a result of the fact that the angle between the two work surfaces at the location of the longitudinal connection is not acute, but obtuse. Additionally, the cloth parts I, II and III can be made of somewhat more rugged and/or thicker design at the connection between the longitudinal edges, in order to strengthen the structure of the separation between adjacent cloth parts. This can also help prevent unintended contact between two work surfaces of adjacent cloth parts on the one hand and a surface to be treated on the other.

[0024] The cloth parts I, II, III may be manufactured of the same material, such as, for example, cotton or paper, but this is not requisite. The cloth parts may furthermore consist of multiple layers, with the different layers possibly fulfilling a different function. Thus, it may be desirable, for example, that a hand to be received in the hand receiving space 6 be screened from contact with dirt to be taken up in the work surface of a cloth part. To this end, the respective cloth part may then be, for example, of two-layered design, where behind a layer providing the (external) work surface a more inward layer, impermeable to the dirt, is provided. This layer may be manufactured, for example, from a polyamide plastic, or consist of a layer of another base material that has been plasticized. The cloth parts I, II, III may be of the same shape - for example, rectangular, when unfolded in the two-dimensional plane - so that the washcloth 1 is manufactured from three substantially identical cloth parts. The advantage of such a washcloth is that the number of different parts to be manufactured for the production of the washcloth is very limited. Moreover, rectangular cloth parts are simple to manufacture. As a result, production of the washcloth can take place economically.

[0025] The work surfaces I', II', III' of the respective cloth parts I, II, and III can have distinguishable functions. These distinguishable functions can be prepared during the production of the washcloth 1, for example, through the choice of the materials from which the cloth parts I, II, III are manufactured, or by giving the several work surfaces I', II', III' a different pretreatment. Thus, the cloth part I may be manufactured, for example, from a relatively coarse fabric, so that the work surface I' obtains a scrub function, or from a layer of moisture-absorbing material in order to impart a drying function to the work surface I'.

In another embodiment, the cloth parts I and II, or at least the work surfaces I', II' thereof, may, for example, be impregnated with a particular fluid, such as, for example, a cleaning lotion, while the third cloth part III, or at least the work surface III' thereof, may be of dry design. In the latter case, the washcloth would thus have two cleaning surfaces I', II' and one drying surface III'.

[0026] Fig. 2 shows in a schematic perspective view a second exemplary embodiment of the washcloth according to the present invention. The washcloth in Fig. 2, in contrast to the first exemplary embodiment in Fig. 1, comprises not three but four cloth parts I-IV, and as many external work surfaces I'-IV'. The construction of the washcloth in terms of longitudinal and transversal edges is *mutatis mutandis* the same as that of the washcloth from Fig. 1.

[0027] In clarification, Fig. 2 shows a hand 10 received in the hand receiving space 6. In order to improve control of the hand 10 received in the hand receiving space 6 over the work surface I', the associated cloth part I is provided on an inner side with a number of finger pockets 12. These are understood to be pockets, small straps, etc., provided on the inner surface of the cloth part I for taking up one or more fingers or - as in Fig. 2 - fingertips. In the presence of multiple finger pockets, they are preferably provided relative to each other at points matching the geometry of a hand. By inserting the fingers or fingertips in these pockets, or between the inner surface of the respective cloth part and the straps, respectively, the fingers are fixed with respect to the cloth part I. As a result, the cloth part/work surface I, I' cannot easily shift relative to the hand when, for instance, between the work surface I' and an object to be treated friction occurs that is greater than the friction between the surface of the hand 10 and the inner surface of the cloth part I.

[0028] Fig. 3 shows for a washcloth 1 with three work surfaces I'-III' how the last-mentioned effect can be accomplished in an alternative manner. In the third exemplary embodiment of the washcloth 1 shown in Fig. 3, each cloth part I-III is shaped such that upon connection of the longitudinal edges 2a, 2b of the different cloth parts, supplemental to the hand receiving space 6, a thumb receiving space 14 is formed. As with a mitten, here too, the thumb receiving space 14 projects outwards. It is to be noted that the work surfaces I'-III' of the washcloth 1 from Fig. 3 - unlike those of known two-sides washcloths having only one thumb receiving space - can all be brought opposite the hand surface of both a left and a right hand inserted into the hand receiving space 6. In contrast with known washcloths of this kind, it is therefore not necessary, when it is wished to use another work surface, to change the washcloth from one hand to the other.

[0029] It is to be noted that the present invention is not limited to washcloths having only one thumb receiving space, as shown in Fig. 3. Washcloths similar to a glove, with three or more sides *and* separate receiving spaces for the fingers of a hand, are equally possible. To be

considered here are, for example, a three-sided washcloth, whose cloth parts are each of five-fingered design. Each two neighboring cloth parts then define, for example, two finger receiving spaces, while a receiving space for the middle finger is formed by the three cloth parts jointly. For the sake of clarity, it is to be mentioned that the first transversal edge of each cloth part in such a design is not rectilinear but curved, and extends along the finger-shaped contours of a respective cloth part.

[0030] Although the present invention has been elucidated in the foregoing on the basis of a few exemplary embodiments, it is to be noted that the invention is not limited to these exemplary embodiments. By a skilled person, different adaptations and modifications may be made to the exemplary embodiments discussed, without thereby departing from the spirit and the scope of the invention as laid down in the appended claims. In particular, different above-described exemplary embodiments, or features thereof, may be combined into new embodiments.

List of elements

[0031]

- | | |
|--------|--------------------------|
| 1 | Washcloth |
| 2a | First longitudinal edge |
| 2b | Second longitudinal edge |
| 4a | First transversal edge |
| 4b | Second transversal edge |
| 6 | Hand receiving space |
| 8 | Stitching |
| 10 | Hand |
| 12 | Finger pocket |
| 14 | Thumb receiving space |
| I-IV | Cloth parts |
| I'-IV' | Work surfaces |
| A | Axis of symmetry |

Claims

1. A washcloth (1) comprising at least three cloth parts (I-IV), which cloth parts are mutually connected for forming an internal hand receiving space (6), and wherein each cloth part provides an external work surface (I'-IV').
2. A washcloth according to claim 1, wherein the work surface provided by a said cloth part is approximately equal to the surface of a flat hand receivable in the hand receiving space.
3. A washcloth according to any one of claims 1-2, wherein each of the cloth parts comprises a first longitudinal edge (2a) and a second longitudinal edge

- (2b), and wherein for each said cloth part
- the first longitudinal edge of said cloth part is connected with the second longitudinal edge of a first neighboring cloth part; and
 - the second longitudinal edge of said cloth part is connected with the first longitudinal edge of a second neighboring cloth part.
4. A washcloth according to claim 3, wherein each of the cloth parts comprises a first transversal edge (4a) and a second transversal edge (4b), and
- wherein the first transversal edge of a said cloth part is connected over a first length part thereof with the first transversal edge of the first neighboring cloth part with which said cloth part is connected at its first longitudinal edge;
 - wherein the first transversal edge of said cloth part is connected over a second length part thereof with the first transversal edge of the second neighboring cloth part with which said cloth part is connected at its second longitudinal edge; and wherein
 - the second transversal edges of the cloth parts jointly define an opening to the hand receiving space.
5. A washcloth according to claim 3 or 4, wherein a cloth part is connected along a longitudinal edge with another cloth part, such that the work surfaces of the two cloth parts face away from each other at the connection.
6. A washcloth according to any one of claims 1-5, wherein the at least three cloth parts are identical in shape.
7. A washcloth according to claim 6, wherein the at least three cloth parts - laid out in a two-dimensional plane - are substantially rectangular.
8. A washcloth according to any one of claims 1-7, wherein at least one of the cloth parts is manufactured from a woven or a fiber cloth.
9. A washcloth according to any one of claims 1-8, wherein at least one of the cloth parts is manufactured from paper, cotton or a synthetic fiber.
10. A washcloth according to any one of claims 1-9, wherein at least one cloth part is impregnated.
11. A washcloth according to any one of claims 1-10, wherein at least one cloth part is provided on an inner side with at least one finger pocket (12).
12. A washcloth according to at least claim 3, wherein
- at least two cloth parts, which are connected with each other at a respective first (2a) and second (2b) longitudinal edge, are shaped such that they include a thumb receiving space (14) communicating with the hand receiving space (6).
13. A washcloth according to at least claim 3, wherein at least two cloth parts, which are connected with each other at a respective first (2a) and second (2b) longitudinal edge, are shaped such that they include at least two finger receiving spaces communicating with the hand receiving space (6).
14. A washcloth according to claim 13, wherein each of the at least three cloth parts is of five-fingered shape, and wherein each pair of neighboring cloth parts include at least two finger receiving spaces.
15. A washcloth according to any one of claims 1-14, wherein, during use, each of the work surfaces (I'-IV') is capable of being separately brought into contact with a surface to be treated through pressure of a substantially flat hand received in the hand receiving space (6), and wherein the work surface to be used for treatment is selectable by rotating the washcloth (1) around the hand inserted in the hand receiving space (6) in order to position the desired work surface at least partly in front of an inner side of the hand comprising the palm of the hand.

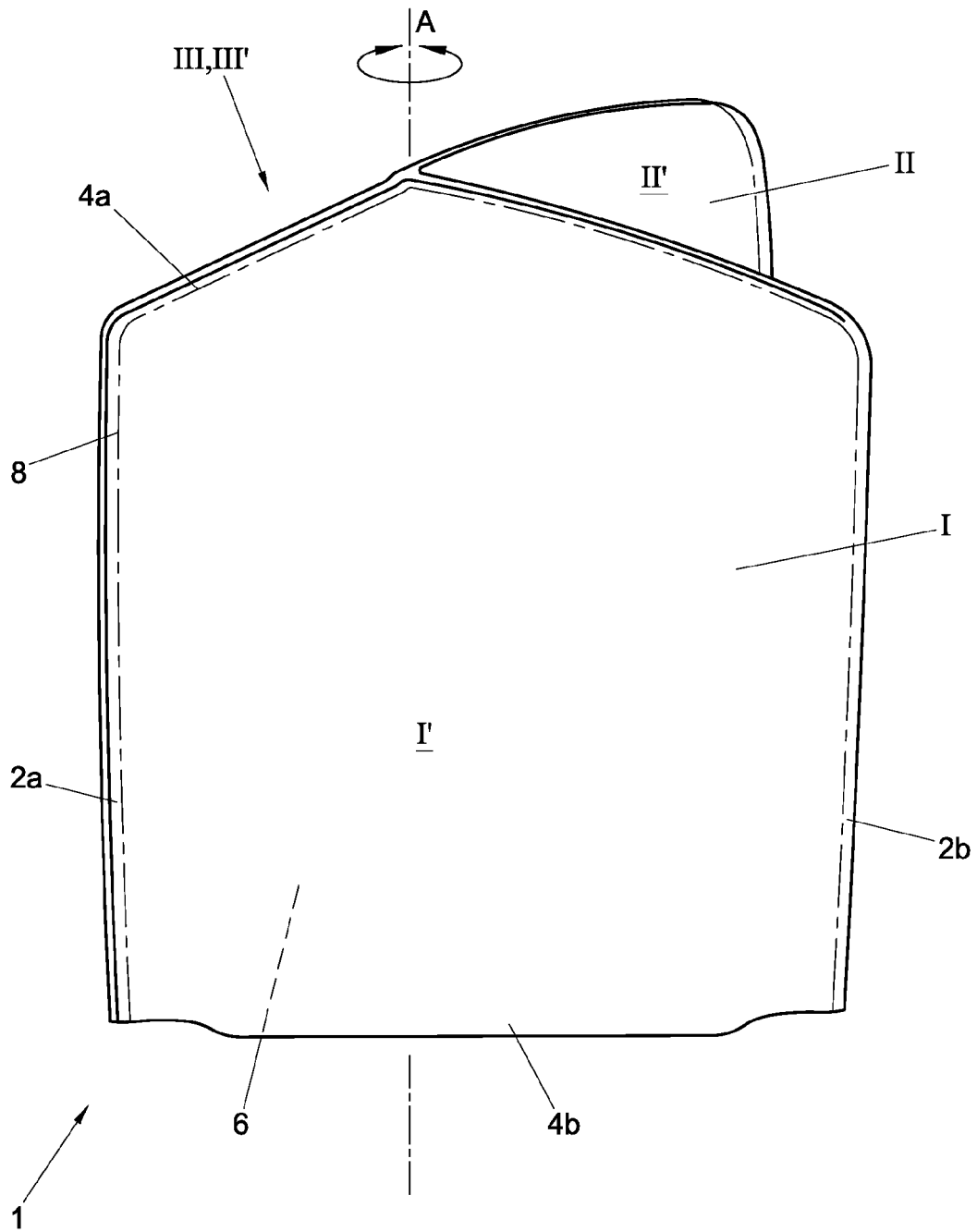


FIG. 1

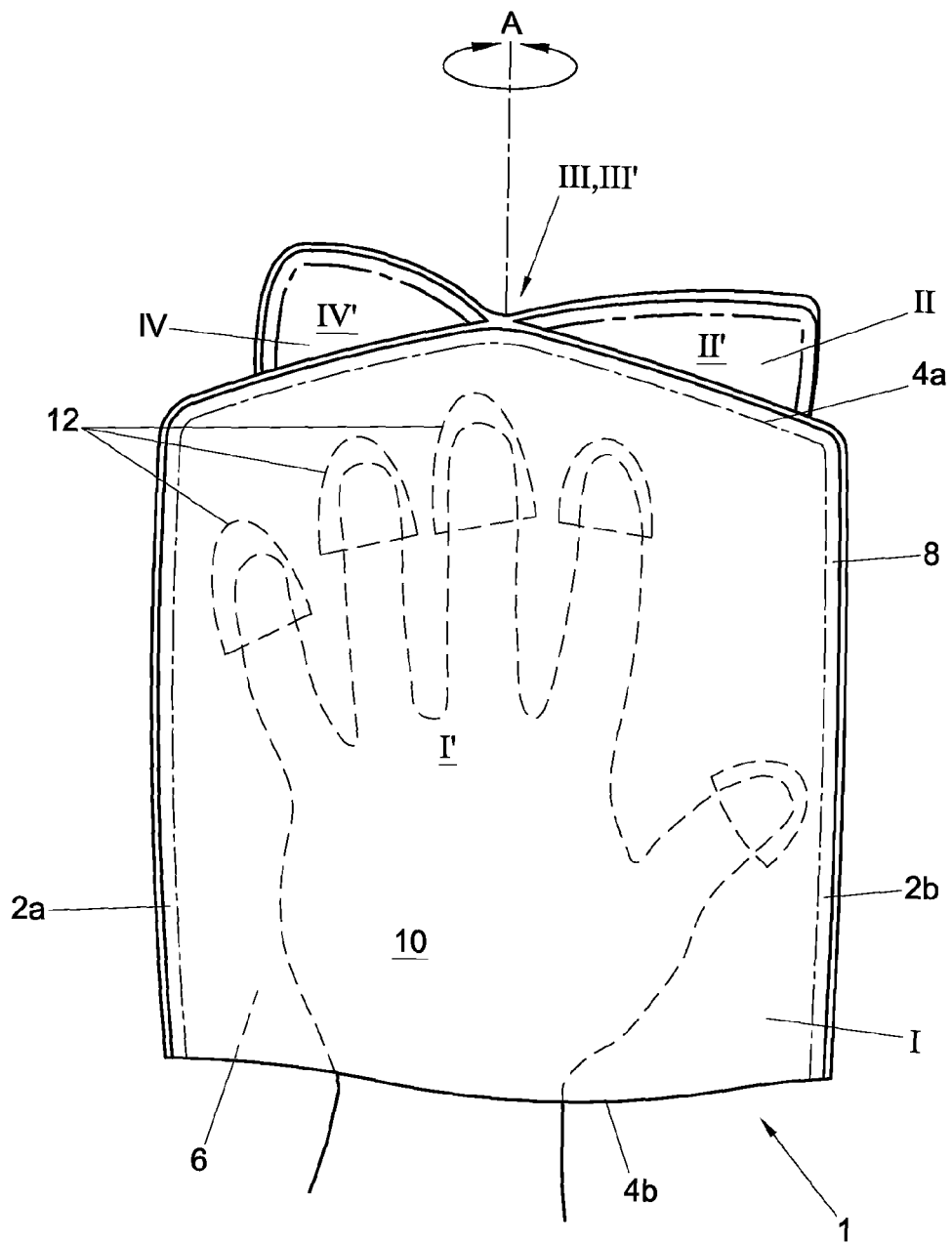


FIG. 2

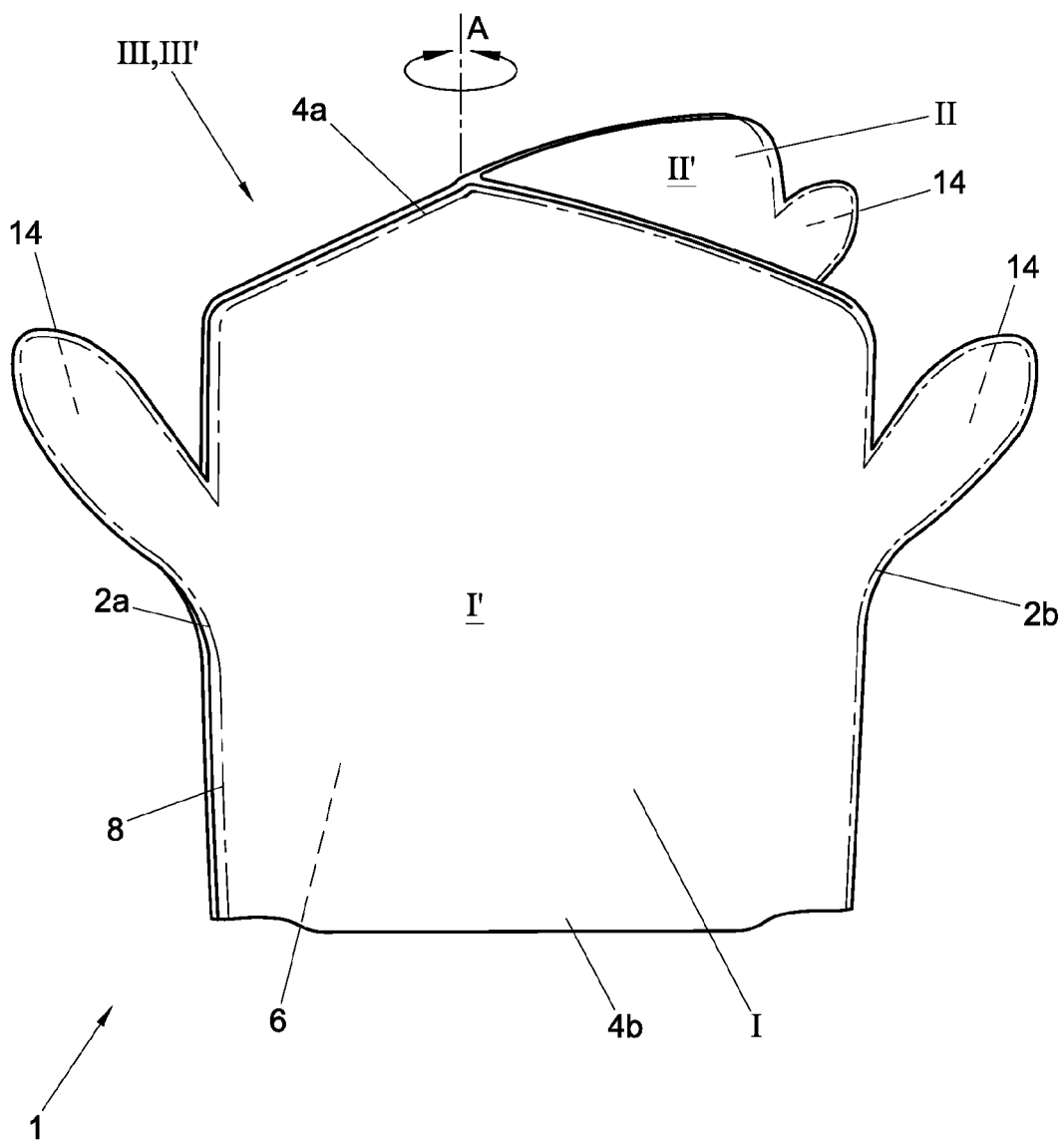


FIG. 3



EUROPEAN SEARCH REPORT

Application Number
EP 10 15 2518

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2006/218736 A1 (OBERSTADT JAYNE A [US] ET AL) 5 October 2006 (2006-10-05)	1-3, 8-13, 15	INV. A47K7/02
Y	* pages 6,9; figures *	5	
Y	----- AU 279 463 B1 (HARDIE RUBBER COMPANY PTY. LTD.) 6 July 1967 (1967-07-06)	5	
A	* the whole document *	1	
A	----- US 2005/111897 A1 (PRESNIAKOV ALEXANDER [US]) 26 May 2005 (2005-05-26)	1,8-10	
	* the whole document *		
A	----- WO 03/092464 A1 (CHOI WON-CHEOL [KR]) 13 November 2003 (2003-11-13)	1	
	* the whole document *		
A	----- US 5 900 068 A (THOMAS GEORGE H [US]) 4 May 1999 (1999-05-04)	1	
	* the whole document *		
A	----- US 5 915 869 A (AGOSTO MELINA A [US] ET AL) 29 June 1999 (1999-06-29)	1	TECHNICAL FIELDS SEARCHED (IPC)
	* the whole document *		A47K A47L
A	----- DE 20 2004 019455 U1 (FREGNANI MARA [IT]) 17 February 2005 (2005-02-17)	1	
	* the whole document *		

The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 May 2010	Examiner Fordham, Alan
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

 7
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 15 2518

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-05-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2006218736 A1	05-10-2006	WO 2006107469 A1	12-10-2006
-----	-----	-----	-----
AU 279463 B1	06-07-1967	NONE	
-----	-----	-----	-----
US 2005111897 A1	26-05-2005	NONE	
-----	-----	-----	-----
WO 03092464 A1	13-11-2003	AU 2003222497 A1	17-11-2003
		CN 2624809 Y	14-07-2004
-----	-----	-----	-----
US 5900068 A	04-05-1999	NONE	
-----	-----	-----	-----
US 5915869 A	29-06-1999	NONE	
-----	-----	-----	-----
DE 202004019455 U1	17-02-2005	ES 1059076 U	01-03-2005
		FR 2863510 A3	17-06-2005
-----	-----	-----	-----