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(54) INFANT SLEEP BAG, APPARATUS AND SWADDLE

KINDERSCHLAFSACK, VORRICHTUNG UND WICKEL

TURBULETTE POUR BÉBÉ, APPAREIL ET LANGE DE BÉBÉ

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Description

TECHNICAL FIELD

[0001] The present invention relates, in general, to an infant sleep apparatus, and more particularly, although not exclusively to infant sleep bags and swaddles.

BACKGROUND

[0002] Baby sleep or sleeping bags, and more generally infant and child sleeping bags, are a convenient and safe alternative to traditional blankets, and are typically recognised as safer alternatives compared to more traditional bedding as they prevent an infant's head from getting covered by bedding. In addition, they prevent the infant from kicking off bedding and waking up because they are cold for example.

[0003] Swaddling can be used to wrap an infant for warmth and security, and can prevent an infant baby from being disturbed by their own startle reflex. However, if an infant is swaddled too tightly there is a risk of overheating and/or a risk of hip dysplasia for example.

[0004] Document US 2013/139290 A1 discloses an infant sleep bag of the prior art.

SUMMARY

[0005] According to the invention, there is provided an infant sleep bag according to claim 1. An upper region of the main body can be composed of a material with a relatively higher thermal rating than the material of a lower region of the bag and/or is composed of multiple layers of material.

[0006] Each layer can be composed of the same material or wherein at least one of the multiple layers is composed of a different material to the other layers. The main body can include a portion with an air-permeable covering material. The main body can be narrower at a neck end than the opposite end whereby, in use, to allow freedom of leg movement.

[0007] The main body can include front and back portions to define an interior region for accommodating the infant. The front portion can include a closure mechanism extending from a neck opening of the main bag to a lower region of the front portion.

[0008] The closure mechanism can include one of a zip and/or poppers. The closure mechanism can extend over the front of an upper region of the main body, across the restrictive/swaddling zone defined by the upper region, and extend around the side of the main body/side seam of a lower region. The closure mechanism can follow a curved, sinuous or straight route over the front of an upper region of the main body. The closure mechanism can be a two-way zip. The arm closure mechanisms can include one of a zip or poppers or other suitable closure to enable the arm openings to be opened and closed as desired. The back portion can include one or more

openings to receive, in use, a harness or strap, whereby to enable an infant to be secured whilst in situ in the sleep bag to a seat or other device upon which the harness or strap is mounted. At least one of the front and back portions of the bag can be composed of multiple sections. Respective ones of the sections can be so profiled as to define a cavity within the lower region of the bag forming the interior region whereby to enable free movement of the legs of an infant in multiple directions. The multiple sections can be joined together using seams.

[0009] Respective arm hole openings include closure mechanisms provided on flaps or wings that are integral with the main body of the bag or otherwise attached thereto. The flaps or wings can be folded over from back to front and vice versa. The flaps or wings are attached or integral with the rear of the bag and can be folded over to engage with the front, whereby to enable the arm hole openings to be closed whilst also ensuring that, whilst the openings are open, the closure mechanism does not come into contact with an infant or their arms. The closure mechanisms are provided on the flaps or wings and suitable corresponding closure means are provided on the front of the bag to engage with the closure mechanisms. The closure mechanisms can be male or female popper portions and the closure means can be corresponding female or male popper portions.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] Embodiments will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 is a schematic representation of an infant sleep bag according to an example;

Figure 2a is a schematic representation of the front of an infant sleep bag according to an example;

Figure 2b is a schematic representation of the back of an infant sleep bag according to an example;

Figure 3 is a schematic representation of an infant in an infant sleep bag in an open configuration according to an example;

Figure 4 is a schematic representation of an infant in an infant sleep bag in a closed configuration according to an example;

Figure 5 is a schematic representation of an arm hole opening according to an example; and

Figure 6 is a side view of a bag according to an example.

DESCRIPTION

[0011] Example embodiments are described below in sufficient detail to enable those of ordinary skill in the art to embody and implement the systems and processes herein described. It is important to understand that embodiments can be provided in many alternate forms and should not be construed as limited to the examples set forth herein.

[0012] Accordingly, while embodiments can be modified in various ways and take on various alternative forms, specific embodiments thereof are shown in the drawings and described in detail below as examples. There is no intent to limit to the particular forms disclosed. On the contrary, all modifications, equivalents, and alternatives falling within the scope of the appended claims should be included. Elements of the example embodiments are consistently denoted by the same reference numerals throughout the drawings and detailed description where appropriate.

[0013] The terminology used herein to describe embodiments is not intended to limit the scope. The articles "a," "an," and "the" are singular in that they have a single referent, however the use of the singular form in the present document should not preclude the presence of more than one referent. In other words, elements referred to in the singular can number one or more, unless the context clearly indicates otherwise. It will be further understood that the terms "comprises," "comprising," "includes," and/or "including," when used herein, specify the presence of stated features, items, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, items, steps, operations, elements, components, and/or groups thereof.

[0014] Unless otherwise defined, all terms (including technical and scientific terms) used herein are to be interpreted as is customary in the art. It will be further understood that terms in common usage should also be interpreted as is customary in the relevant art and not in an idealized or overly formal sense unless expressly so defined herein.

[0015] Figure 1 is a schematic representation of an infant sleep bag according to an example. An infant sleep bag 100, swaddle or apparatus for swaddling an infant, comprises a main body 101 to receive the torso and legs of an infant. The main body 101 includes arm hole openings 103, 105 arranged on either side of the main body 101. The openings 103, 105 include respective arm closure mechanisms 102, 104 to allow each arm hole opening 103, 105 to be in an open configuration in which the arms of an infant can pass through the arm hole openings, or a closed configuration in which the arms of an infant are maintained within the sleep bag 100. Each arm hole opening can be independently open or closed and can also be in a partially open configuration in which the opening is not fully open, whereby to enable warm air to be vented from the arm hole opening or openings for

example. In this configuration, the partial opening may be configured to be too small to enable an infant to pass their arm through. As such a hybrid swaddle/sleep bag is provided that offers infants, such as newborn babies for example, the benefits of swaddling but without the risks of wrapping too tightly. For example, the risk of hip dysplasia is reduced/minimised, as is the risk associated with over heating for example.

[0016] An upper region 107 of the main body 101 can be composed of a material with a relatively higher thermal rating than the material of a lower region 109 of the bag. The material used for the upper region of the main body can be the same material that is used for the lower region 109 of the main body of the bag, or may be a different material or fabric. In an example, a multiple (e.g. double) layer of material can be provided in region 107, with a single layer (or fewer layers) of the same or a different material or fabric used for region 109. In an example, an upper region 107 may be composed of multiple layers of fabrics, which may be the same fabric or which may be respective different types of fabric. For example, an inner layer may use a brushed cotton type fabric, or similar, an outer layer may be formed from cotton, whilst one or more intermediate layers between the inner and outer layers may use cotton, brushed cotton, bamboo and so on. The different layers can be so selected to provide the desired thermal and/or cocooning/swaddling and/or protective characteristics. For example, an outer layer can use a fabric that is hard wearing or that has an elastic property, whereby to increase a swaddling effect. An inner fabric can use a soft and warm fabric such as brushed cotton for example, which may also be elastic or have elastic or stretch characteristics. Intermediate layers, if present, can use materials or fabrics which impart a desired thermal and/or elastic characteristic for the bag, such as brushed cotton, bamboo fabric and so on.

[0017] Alternatively, different types or thicknesses of the same material may be used. The boundary between region 107 and 109 can be situated at any desired location. For example, region 107 may comprise substantially the top half of the bag 100, with the lower region 109 comprising substantially the bottom half of the bag 100. Other alternatives are possible. For example, the top region 107 may comprise substantially the top one quarter or third of the bag 100 with the bottom region 109 comprising the remainder, and so on. The choice of material and location of the regions can be selected in dependence on the climate in which the bag 100 is to be used. For example, in colder climates a higher thermal rating of material can be used for either or both regions compared to a material selected for a relatively warmer climate and/or a portion of the bag with a higher thermal rating can define a larger proportion of the bag and so on. In an example, the bag 100 can be made from one material with no deviation in the thermal rating or material used. That is, there can be one region in an example.

[0018] In an example, an upper region 107 of the bag can be lined and/or fabricated from a material that is dif-

ferent to the rest of the bag. For example, the upper region can be lined and/or fabricated from a material to provide extra stability and/or result in a more restrictive environment for an infant in the bag. This can have a cocooning effect, akin to swaddling, that is known to settle and comfort infants. A lining can be used to reduce the internal space of the bag at the upper region. Alternatively, or in addition to a lining, a material such as an elasticated or 'stretchy' material can be used. Accordingly, the upper region 107 can provide a tighter fit for an infant compared to the rest of the bag.

[0019] The upper region 107 can be 'bagged out', that is, where all edges are enclosed. A flap 127 can be provided to house a zip pull so as to prevent injury or discomfort, and a closed end single slider zip can be used as will be described in more detail below.

[0020] The lower region 109 of the bag can be flared, such as depicted. This effectively provides a pouch at the lower region which enables freedom of movement for an infant in this region. Particularly, the lower region can enable freedom of movement of an infant's legs, which can reduce the occurrence of problems such as hip dysplasia for example. Seams 115, 117 can be provided to provide more room in the lower region 109. A travel opening 221 can be provided as will be explained in more detail below.

[0021] In an example, the main body 101 can include a portion with an air-permeable covering material, whereby to enable venting of warm air for example. The main body 101 can be narrower at a neck end 111 than the opposite end 113 whereby, in use, to allow freedom of leg movement of an infant within the bag. Alternatively, the main body 101 can be more restrictive width-wise along its length.

[0022] In the example of figure 1, the arm hole openings 103, 105 can be closed using poppers (such as Nickel free poppers for example), which are placed in a side seam on respective ones of the openings. The arm hole openings are 'bagged out' into the shoulder and side seams of the bag whereby to form wings that can be folded over back to front and vice-versa depending on the configuration of the opening as is described in more detail below with reference to figure 5. According to the invention, the closing mechanism for the arm hole openings, such as poppers, are arranged on the bag and on a wing so that, when not in use, they can therefore be folded back out of the way of the arm hole opening so as not to cause injury or discomfort. That is, when folded back, the two halves of respective ones of the poppers (for example) will project outwardly and away from the bag. The same considerations apply to other forms of closure, such as a zip or hook and loop fastening for example.

[0023] Referring to figures 2a and 2b, which are schematic representations of the front and back of an infant sleep bag according to an example, the main body 101 includes front 201 and back 203 portions which join together to define an interior region for accommodating an

infant. The front portion 201 can include a closure mechanism 205 extending from a neck opening 207 of the main bag to a lower region 209 of the front portion 201. The closure mechanism 205 can include one of a zip, as mentioned above, or poppers for example, or a combination of the two.

[0024] The closure mechanism 205 can extend around the bag 100. For example, with reference to figure 2a, a closure 205, such as a zip for example can extend from the neck opening of the bag and around the side of the bag, such as to a point A, or thereabouts (that is, the exact location of the point of termination is not intended to be limited to that depicted - rather, the location is indicative of the position for a suitable end point of a closure mechanism, such as a zip). In an example, the closure extends over the front of the upper region from the neck area to the intersection between the upper and lower regions (for example point B in figure 2a). Accordingly, the closure extends over the front of the bag across the restrictive/swaddling zone defined by the upper region and extends around the side of the bag/side seam (B to A for example) of the lower, voluminous, region of the bag.

[0025] The path taken by closure 205 from the neck region to reach the edge of the bag (B) as shown in figure 2a may be straight or curved. For example, as the closure 205 traverses the top region of the bag towards the side seam, it can follow a curved path which may be quite pronounced (such as depicted by dotted line 230). In this way, when the closure 205 is open the front portion of the bag can effectively be folded over to expose an infant, which can be useful for the purposes of changing nappies/clothing and so on. The position of the closure 205 means it does not interfere with the arm hole openings.

[0026] In an example, the closure 205 can be a two-way zip which enables access from the top and/or bottom. Accordingly, and with reference to figure 2a for example, the zip can be opened from point A around to the opposite side of the bag, such as up to point B for example, thereby enabling the lower region of the bag to be opened without interfering with the top region (swaddling zone). Thus an infant may remain swaddled for example, whilst the bottom region is opened to allow for changing and so on.

[0027] A suitable fabric chin/face guard 218 may be provided to protect an infant from a zip of other closure mechanism when part of such a mechanism is in a position in which it could contact the infant.

[0028] As depicted in figure 2a, a closure mechanism 205 can enable the front portion of the bag to be opened relative to the back to enable infant changing. For example, to change an infant's nappy or clothing, the closure mechanism 205 can be opened so that the front portion of the bag can be moved to enable easy access to the infant without having to completely remove the bag. That is, the front part can be opened and 'flapped over' to enable easy access to an infant within the bag.

[0029] As shown in the figures, such as figure 1 for example, seams 115, 117 can be provided on a lower

portion 109 of the bag. The seams can be arranged to extend substantially vertically from the bottom of the lower region 109 of the bag to the intersection 119 between the upper 107 and lower 109 regions of the bag.

[0030] In an example, seams 115, 117 are shaped/curved. That is, the seams are profiled so as to create more volume in the lower region 109 of the bag. This allows the infant's legs to be in the natural position which is with the hips bent up like they were when baby was born, with room for the legs to move freely. The seams allow for space for the legs-not just allowing width, but also height for the knees.

[0031] In an example, a lower portion 109 of a bag can be composed of different sections 121, 123, 125 that are joined using the seams 115, 117. Accordingly, the sections can be so profiled as to enable the lower portion 109 to form a voluminous cavity within which the legs of an infant can freely move. Such movement can be width ways as well as in height (such as in and out of the page with reference to figure 1 for example). In this connection, figure 6 is a side view of a bag according to an example. As can be seen, the lower region 109 of the bag defines a cavity that has a relatively larger volume than the upper region 107 of the bag. The rear of the lower region of the bag may be provided with similar seams/sections as shown with respect to the front of the lower region 109, or may be a single section, or two sections joined together along the centre of the back of the bag and so on. As such, sections 123, 125 as depicted in figure 1 may form part of the back of the lower region of the bag. That is, these sections may extend around the back of the bag, and be joined in the centre region of the rear of the bag, or joined to any one or more intermediate rear sections (similarly to the way in which the sections are joined at the front by way of the intermediate section 121).

[0032] According to the invention, arm closure mechanisms 211, 213 are provided on flaps 212, 214 that are integral with the main body of the bag or otherwise attached thereto, for example by being sewed to arm openings. The closure mechanisms 211, 213 can include one of a zip or poppers or other suitable closure to enable the arm openings to be opened and closed as desired. According to the invention, the closure mechanisms 211, 213 enable the arm openings to be temporarily provided in an open or closed configuration. That is, closure mechanisms 211, 213 enable the arm opening to be opened or closed as desired, and are suitably robust to prevent accidental opening or closing by an infant or by rubbing of the closure mechanisms 211, 213 against other items such as a bed or cot for example.

[0033] According to the invention, the flaps or wings 212, 214 can fold over from back to front and vice versa. That is, the flaps are attached or integral with the rear 203 of the bag and are folded over to engage with the front 201 whereby to enable the arm openings to be closed whilst also ensuring that, whilst the opening are open, the closure (e.g. poppers) do not come into contact with the infant or their arms. That is, when in an open

configuration, the flaps or wings, when folded, are so arranged as to maintain the poppers folded behind the bag. In this connection, the portions 250, 251 as depicted in figures 2a, 2b can be connected (e.g. sewn) to the rear 203 of the bag to form a 'pocket' or pouch that is biased or configured to stay in the position in which it has been folded (i.e. open or closed) similarly to, for example, the internal flap portion on a pillow case or a hood on a coat. That is, because the wings or flaps are connected at points 250 and 251 they will stay folded back in an open configuration and folded frontways when in a closed configuration.

[0034] According to the invention, closure mechanisms 211, 213 are situated on the flaps 212, 214 and suitable corresponding closure means are provided on the front of the bag to engage with the closure mechanisms 211, 213. For example, in the case of poppers, male or female popper portions can be provided on flaps 212, 214, with corresponding female or male portions, as appropriate, being provided on the front portion 201 whereby to enable the portions to engage when a closed configuration of the bag is desired. In an example not forming part of the invention, the flaps 212, 214, or similar, can be provided on the front portion 201 instead as will be appreciated.

[0035] The back portion 203 can include one or more openings 219 to receive, in use, a harness or strap, whereby to enable an infant to be secured whilst in situ in the sleep bag to a seat or other device upon which the harness or strap is mounted. A similar opening 221 can be provided on the front portion 201 to enable part of a harness or strap to be passed through the entirety of the bag. A chin guard 218 can be provided to shield the infant's chin from a zip or similar 205. In an example, the bag may be devoid of openings 219, 221.

[0036] Figure 3 is a schematic representation of an infant in an infant sleep bag in an open configuration according to an example. Arms 301, 303 of the infant can be seen to pass through the arm openings 305, 307. Closure mechanisms 309, 311 are provided. These engage with corresponding closure mechanisms on flaps 313, 315, which are not visible as they are obscured by the flaps or wings 313, 315, which are folded back in the open configuration of figure 3. In the example of figure 3 poppers are used, although it will be appreciated that any other suitable means may be used such as zips for example. Any number of poppers may be used as desired.

[0037] Figure 4 is a schematic representation of an infant in an infant sleep bag in a closed configuration according to an example. Arms of the infant are maintained within the main body 401 of the bag 400. The infant can therefore be swaddled. Flaps 403, 405 are shown in a closed configuration, and male/female parts of the poppers are brought together and fastened so as to close the openings.

[0038] In the example of figure 4, the arm hole openings of the bag are in a closed configuration in which fasteners, such as the poppers and so on described

above are used to close (substantially, partially or completely) the arm hole openings of the bag. Accordingly, an infant in the bag can have their arms confined within an upper region of the bag 400. This can have the effect of swaddling an infant, such their arms are confined in an upper region, which, as described above can be lined and/or fabricated from a material to provide extra stability and/or result in a more restrictive environment for an infant in the bag, with the legs (broadly speaking the lower half) of the infant being free to move within the bounds of the lower region of the bag, which is flared and/or more spacious than the upper region. A bag as depicted in figure 4 can therefore function as a hybrid swaddle/sleep bag, in which the top of the infant is swaddled, or confined, or partially restricted from moving, and in which the lower part of the infant, such as the at least the infant's legs can move more freely.

[0039] Figure 5 is a schematic representation of a portion of an arm hole opening of an infant sleep bag according to an example. Figure 5 shows one arm hole opening, but of course it will be appreciated that two such openings with corresponding features as described with reference to figure 5 are provided for an infant sleep bag according to an example.

[0040] An opening 605 through which an infant's arm can pass is depicted. A front part 601 and rear part 603 of the opening 605 are depicted. The front and rear parts can be flaps or wings of material that can be folded together to close the opening using closures 601a-c and 603a-c. In the example of figure 6, the closures are poppers, and with the opening 605 in an open configuration as shown, closures 601a-c are arranged on top of part 601 and are thus visible in the example shown, and closures 603a-c are underneath the part 603 and are thus hidden from view (and are thus depicted in broken line).

[0041] To close the opening 605 the parts 601 and 603 are brought together such that the closures 601a-c and 603a-c can engage and be fastened together. For example, part 603 can be folded over on itself so that closures 603a-c are visible and part 601 can then be placed over the top of part 603 so that the corresponding closures of part 601 engage with the closures of part 603. With the opening 605 in an open configuration, having closures 603a-c arranged in the manner depicted means that the closures will not come into contact with an infant's arm and will not therefore cause discomfort or injury.

[0042] A closure mechanism for the opening 605 can be a zip or hook and loop fastenings for example, and the use of poppers as depicted with reference to figure 5 is not intended to be limiting.

[0043] The words infant and child are used interchangeably herein, and the use of one over the other is not intended to be limiting. Furthermore, the use of sleep or sleeping bag is also used interchangeably, and again the use of one term over the other is not intended to be limiting.

[0044] As used herein, the term tog relates to a unit of measurement of the warmth or thermal resistance of a

fabric or material in question. Typically, the higher the tog rating, the warmer (more thermally insulating) the material or fabric.

Claims

1. An infant sleep bag (100, 300, 400), comprising:

a main body (101, 401) to receive the torso and legs of an infant, the main body including arm hole openings (103, 105, 215, 217, 305, 307, 605) arranged on either side of the main body (101, 401) and including respective arm closure mechanisms (102, 104) to allow the arm hole openings (103, 105, 215, 217, 305, 307, 605) to be in an open configuration in which the arms of an infant can pass through the arm hole openings (103, 105, 215, 217, 305, 307, 605), or a closed configuration in which the arms of an infant are maintained within the sleep bag, wherein the arm closure mechanisms (102, 104) comprise closure mechanisms (211, 213, 603a-c) provided on flaps or wings (212, 214, 603) that are integral or attached with the rear (203) of the sleep bag, and corresponding closure mechanisms (601a-c) on the front (201) of the main body of the sleep bag, wherein when the arm hole openings (103, 105, 605) are in the closed configuration, the flaps or wings (212, 214, 603) are folded over to enable the closure mechanisms (211, 213, 603a-c) provided on the flaps or wings (212, 214, 603) to engage with the corresponding closure mechanisms on the front (201) of the main body (101, 401), wherein when the arm hole openings (103, 105, 605) are in the open configuration, the flaps or wings (212, 214, 603) are folded back over themselves to maintain the closure mechanisms (211, 213, 603a-c) provided on the flaps or wings (212, 214, 603) behind the main body (101, 401) such that they do not come into contact with an infant or their arms, and wherein the flaps or wings (212, 214, 603) are biased or configured to stay in the position in which they have been folded.

2. An infant sleep bag (100, 300, 400) as claimed in claim 1, wherein the main body (101, 401) includes a portion with an air-permeable covering material.

3. An infant sleep bag (100, 300, 400) as claimed in any preceding claim, wherein the main body (101, 401) is narrower at a neck end than the opposite end whereby, in use, to allow freedom of leg movement.

4. An infant sleep bag (100, 300, 400) as claimed in

any preceding claim, wherein the front portion (201) of the main body (101, 401) includes a closure mechanism (205) extending from a neck opening (207) of the main bag to a lower region (109, 209) of the front portion (201).

5. An infant sleep bag (100, 300, 400) as claimed in claim 4, wherein the closure mechanism (205) extends over the front of an upper region (107) of the main body (101, 401), across a restrictive/swaddling zone defined by the upper region (107), and extends around the side of the main body/side seam of a lower region.
6. An infant sleep bag (100, 300, 400) as claimed in claim 5, wherein the closure mechanism (205) follows a curved, sinuous or straight route over the front of an upper region (107) of the main body (101, 401).
7. An infant sleep bag (100, 300, 400) as claimed in any preceding claim, wherein the arm hole openings (103, 105, 215, 217, 305, 307, 605) can be in a partially open configuration whereby to enable warm air to be vented and be too small to enable an infant to pass their arm through.
8. An infant sleep bag (100, 300, 400) as claimed in any preceding claim, wherein the upper region (107) of the main body (101, 401) is lined and/or fabricated from a material to provide extra stability.
9. An infant sleep bag (100, 300, 400) as claimed in any preceding claim, wherein the upper region (107) of the main body (101, 401) comprises an outer layer of a fabric that is hardwearing or has an elastic property.

Patentansprüche

1. Säuglingsschlafsack (100, 300, 400), umfassend:

einen Hauptkörper (101, 401) zur Aufnahme des Rumpfes und der Beine eines Säuglings, wobei der Hauptkörper Armlochöffnungen (103, 105, 215, 217, 305, 307, 605) enthält, die auf beiden Seiten des Hauptkörpers (101, 401) angeordnet sind und jeweilige Armverschlussmechanismen (102, 104) enthalten, um zu ermöglichen, dass die Armlochöffnungen (103, 105, 215, 217, 305, 307, 605) in einer offenen Konfiguration, in der die Arme eines Säuglings die Armlochöffnungen (103, 105, 215, 217, 305, 307, 605) durchqueren können, oder einer geschlossenen Konfiguration, in der die Arme eines Säuglings im Schlafsack gehalten werden, vorliegen, wobei die Armverschlussmechanismen (102, 104) Verschlussmechanismen (211, 213, 603a-

c), die an Klappen oder Flügeln (212, 214, 603) bereitgestellt sind, die einstückig mit der Rückseite (203) des Schlafsacks oder mit dieser verbunden sind; und entsprechende Verschlussmechanismen (601a-c) an der Vorderseite (201) des Hauptkörpers des Schlafsacks umfassen, wobei, wenn die Armlochöffnungen (103, 105, 605) in der geschlossenen Konfiguration sind, die Klappen oder Flügel (212, 214, 603) umgeklappt sind, um zu ermöglichen, dass die Verschlussmechanismen (211, 213, 603a-c), die an den Klappen oder Flügeln (212, 214, 603) bereitgestellt sind, mit den entsprechenden Verschlussmechanismen an der Vorderseite (201) des Hauptkörpers (101, 401) in Eingriff kommen; wobei, wenn die Armlochöffnungen (103, 105, 605) in der offenen Konfiguration sind, die Klappen oder Flügel (212, 214, 603) über sich selbst zurückgeklappt sind, um die Verschlussmechanismen (211, 213, 603a-c), die an den Klappen oder Flügeln (212, 214, 603) bereitgestellt sind, hinter dem Hauptkörper (101, 401) zu halten, so dass sie nicht mit einem Säugling oder seinen Armen in Kontakt kommen, und wobei die Klappen oder Flügel (212, 214, 603) vorgespannt oder konfiguriert sind, um in der Position zu bleiben, in der sie gefaltet wurden.

2. Säuglingsschlafsack (100, 300, 400) nach Anspruch 1, wobei der Hauptkörper (101, 401) einen Abschnitt mit einem luftdurchlässigen Abdeckmaterial enthält.
3. Säuglingsschlafsack (100, 300, 400) nach einem der vorhergehenden Ansprüche, wobei der Hauptkörper (101, 401) an einem Halsende schmaler ist als am gegenüberliegenden Ende, wodurch im Gebrauch die Bewegungsfreiheit der Beine ermöglicht wird.
4. Säuglingsschlafsack (100, 300, 400) nach einem der vorhergehenden Ansprüche, wobei der vordere Abschnitt (201) des Hauptkörpers (101, 401) einen Verschlussmechanismus (205) enthält, der sich von einer Halsöffnung (207) des Hauptsacks aus zu einem unteren Bereich (109, 209) des vorderen Abschnitts (201) erstreckt.
5. Säuglingsschlafsack (100, 300, 400) nach Anspruch 4, wobei sich der Verschlussmechanismus (205) über die Vorderseite eines oberen Bereichs (107) des Hauptkörpers (101, 401) über eine einengende/Wicklungs-Zone erstreckt, die durch den oberen Bereich (107) definiert ist, und sich um die Seite des Hauptkörpers/der Seitennaht eines unteren Bereichs erstreckt.
6. Säuglingsschlafsack (100, 300, 400) nach Anspruch

5, wobei der Verschlussmechanismus (205) einem gekrümmten, gewundenen oder geraden Weg über die Vorderseite eines oberen Bereichs (107) des Hauptkörpers (101, 401) folgt.

7. Säuglingsschlafsack (100, 300, 400) nach einem der vorhergehenden Ansprüche, wobei die Armlochöffnungen (103, 105, 215, 217, 305, 307, 605) in einer teilweise offenen Konfiguration vorliegen können, wodurch ermöglicht wird, dass warme Luft entlüftet wird, und zu klein sein können, um einem Säugling zu ermöglichen, seinen Arm hindurchzuführen. 10
8. Säuglingsschlafsack (100, 300, 400) nach einem der vorhergehenden Ansprüche, wobei der obere Bereich (107) des Hauptkörpers (101, 401) ausgekleidet und/oder aus einem Material hergestellt ist, um zusätzliche Stabilität bereitzustellen. 15
9. Säuglingsschlafsack (100, 300, 400) nach einem der vorhergehenden Ansprüche, wobei der obere Bereich (107) des Hauptkörpers (101, 401) eine äußere Schicht eines Gewebes umfasst, das strapazierfähig ist oder eine elastische Eigenschaft aufweist. 20

Revendications

1. Turbulette pour bébé (100, 300, 400), comprenant : 30
 - un corps principal (101, 401) pour recevoir le torse et les jambes d'un bébé, le corps principal comprenant des ouvertures de passage de bras (103, 105, 215, 217, 305, 307, 605) agencées de chaque côté du corps principal (101, 401) et comprenant des mécanismes de fermeture de bras respectifs (102, 104) pour permettre aux ouvertures de passage de bras (103, 105, 215, 217, 305, 307, 605) d'être dans une configuration ouverte dans laquelle les bras d'un bébé peuvent passer à travers les ouvertures de passage de bras (103, 105, 215, 217, 305, 307, 605), ou une configuration fermée dans laquelle les bras d'un bébé sont maintenus à l'intérieur de la turbulette, 45
 - lesdits mécanismes de fermeture de bras (102, 104) comprenant des mécanismes de fermeture (211, 213, 603a-c) disposés sur des rabats ou des ailes (212, 214, 603) qui sont intégrés ou attachés à l'arrière (203) de la turbulette, et des 50
 - mécanismes de fermeture correspondants (601a-c) à l'avant (201) du corps principal de la turbulette,
 - lorsque les ouvertures de passage de bras (103, 105, 605) sont dans la configuration fermée, lesdits rabats ou ailes (212, 214, 603) étant repliés pour permettre aux mécanismes de fermeture (211, 213, 603a-c) disposés sur les rabats ou 55

ailes (212, 214, 603) de se mettre en prise avec les mécanismes de fermeture correspondants sur l'avant (201) du corps principal (101, 401), lorsque les ouvertures de passage de bras (103, 105, 605) sont dans la configuration ouverte, lesdits rabats ou ailes (212, 214, 603) étant repliés sur eux-mêmes pour maintenir les mécanismes de fermeture (211, 213, 603a-c) disposés sur les rabats ou ailes (212, 214, 603) derrière le corps principal (101, 401) de sorte qu'ils ne viennent pas en contact avec un bébé ou ses bras, et lesdits rabats ou ailes (212, 214, 603) étant sollicités ou configurés pour rester dans la position dans laquelle ils ont été repliés.

2. Turbulette pour bébé (100, 300, 400) selon la revendication 1, ledit corps principal (101, 401) comprenant une partie avec un matériau de revêtement perméable à l'air.
3. Turbulette pour bébé (100, 300, 400) selon l'une quelconque des revendications précédentes, ledit corps principal (101, 401) étant plus étroit au niveau d'une extrémité de cou qu'au niveau de l'extrémité opposée, moyennant quoi, lors de l'utilisation, une liberté de mouvement des jambes est permise.
4. Turbulette pour bébé (100, 300, 400) selon l'une quelconque des revendications précédentes, ladite partie avant (201) du corps principal (101, 401) comprenant un mécanisme de fermeture (205) s'étendant à partir d'une ouverture de cou (207) du sac principal jusqu'à une zone inférieure (109, 209) de la partie avant (201).
5. Turbulette pour bébé (100, 300, 400) selon la revendication 4, ledit mécanisme de fermeture (205) s'étendant sur l'avant d'une région supérieure (107) du corps principal (101, 401), à travers une zone de restriction/d'emballage définie par la région supérieure (107), et s'étendant autour du côté du corps principal/de la couture latérale d'une région inférieure.
6. Turbulette pour bébé (100, 300, 400) selon la revendication 5, ledit mécanisme de fermeture (205) suivant une trajectoire incurvée, sinueuse ou droite sur l'avant d'une région supérieure (107) du corps principal (101, 401).
7. Turbulette pour bébé (100, 300, 400) selon l'une quelconque des revendications précédentes, lesdites ouvertures de passage de bras (103, 105, 215, 217, 305, 307, 605) pouvant être dans une configuration partiellement ouverte, ce qui permet à l'air chaud d'être ventilé, et être trop petites pour qu'un bébé puisse passer son bras à travers.

8. Turbulette pour bébé (100, 300, 400) selon l'une quelconque des revendications précédentes, ladite région supérieure (107) du corps principal (101, 401) étant doublée et/ou fabriquée à partir d'un matériau pour conférer une stabilité supplémentaire. 5
9. Turbulette pour bébé (100, 300, 400) selon l'une quelconque des revendications précédentes, ladite région supérieure (107) du corps principal (101, 401) comprenant une couche externe d'un tissu qui est résistant à l'usure ou qui possède une propriété élastique. 10

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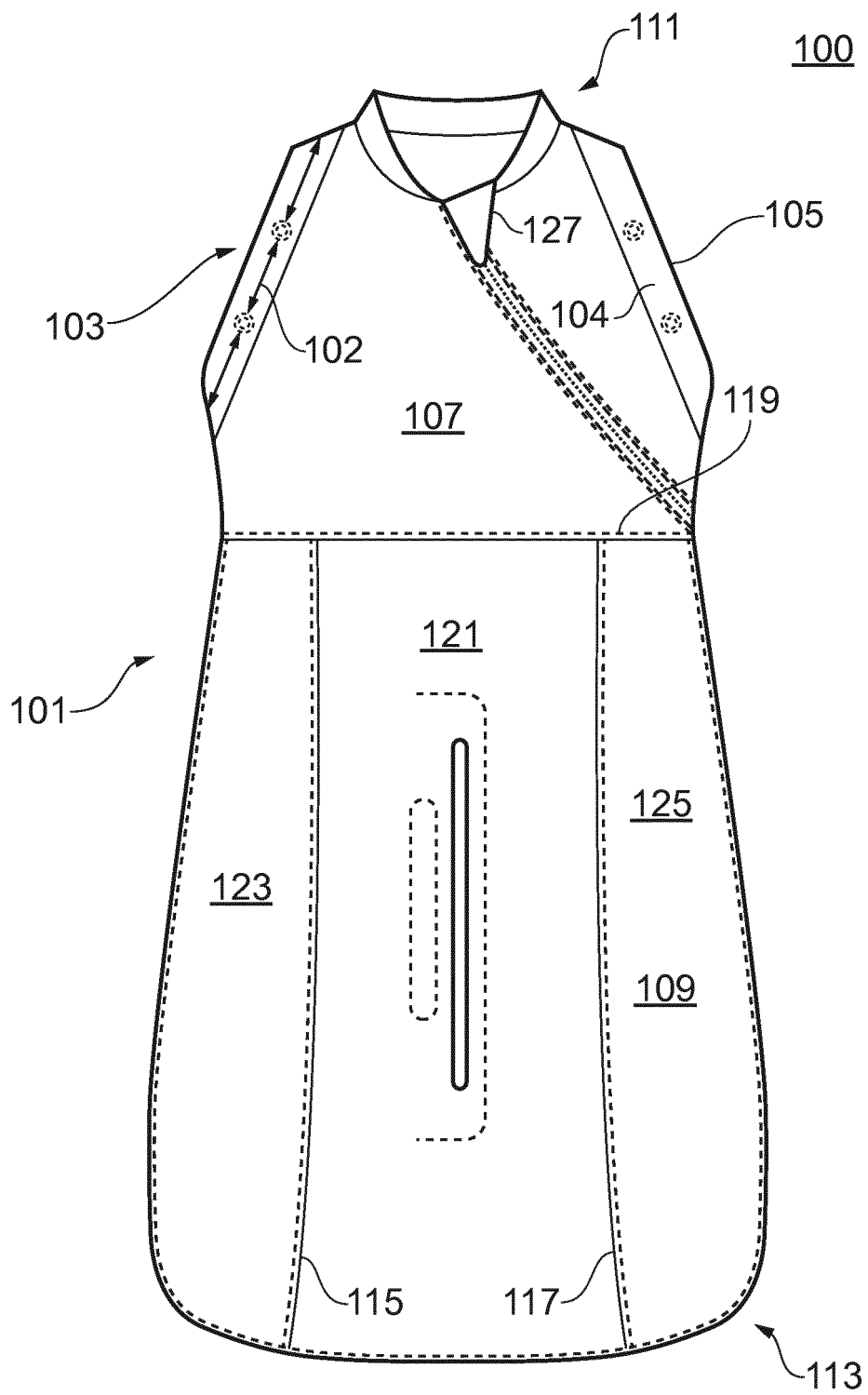


FIG. 1

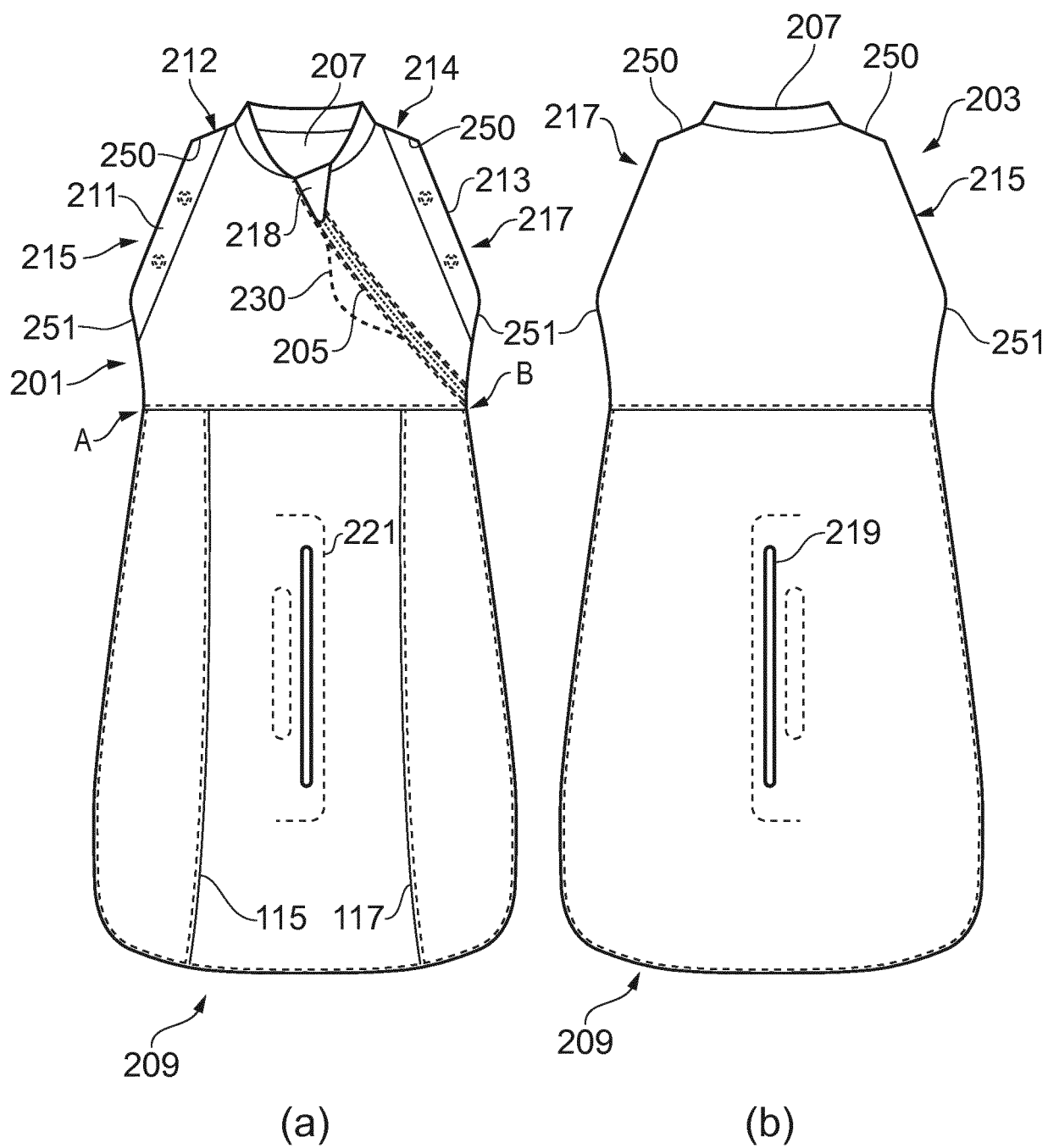
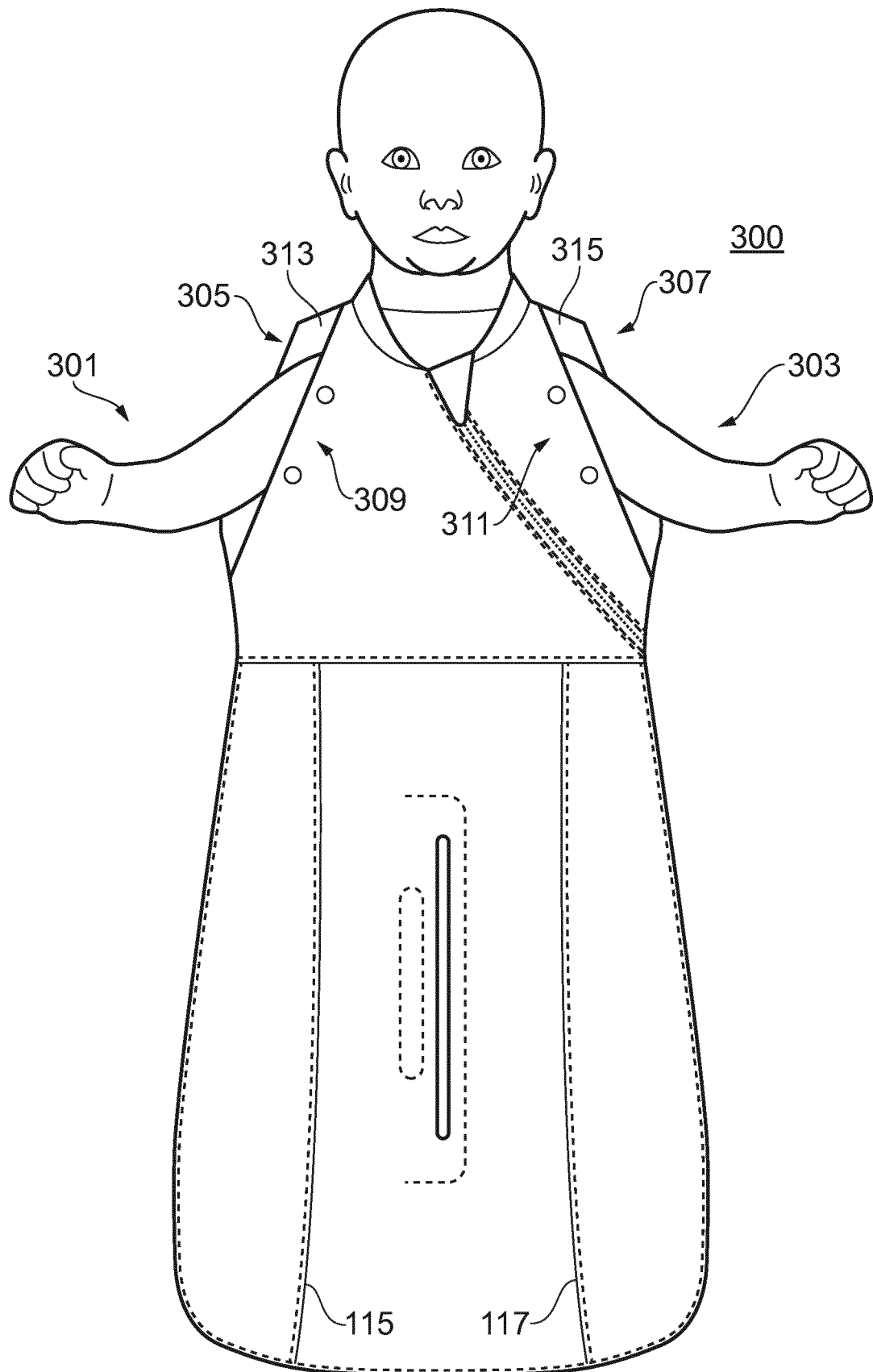
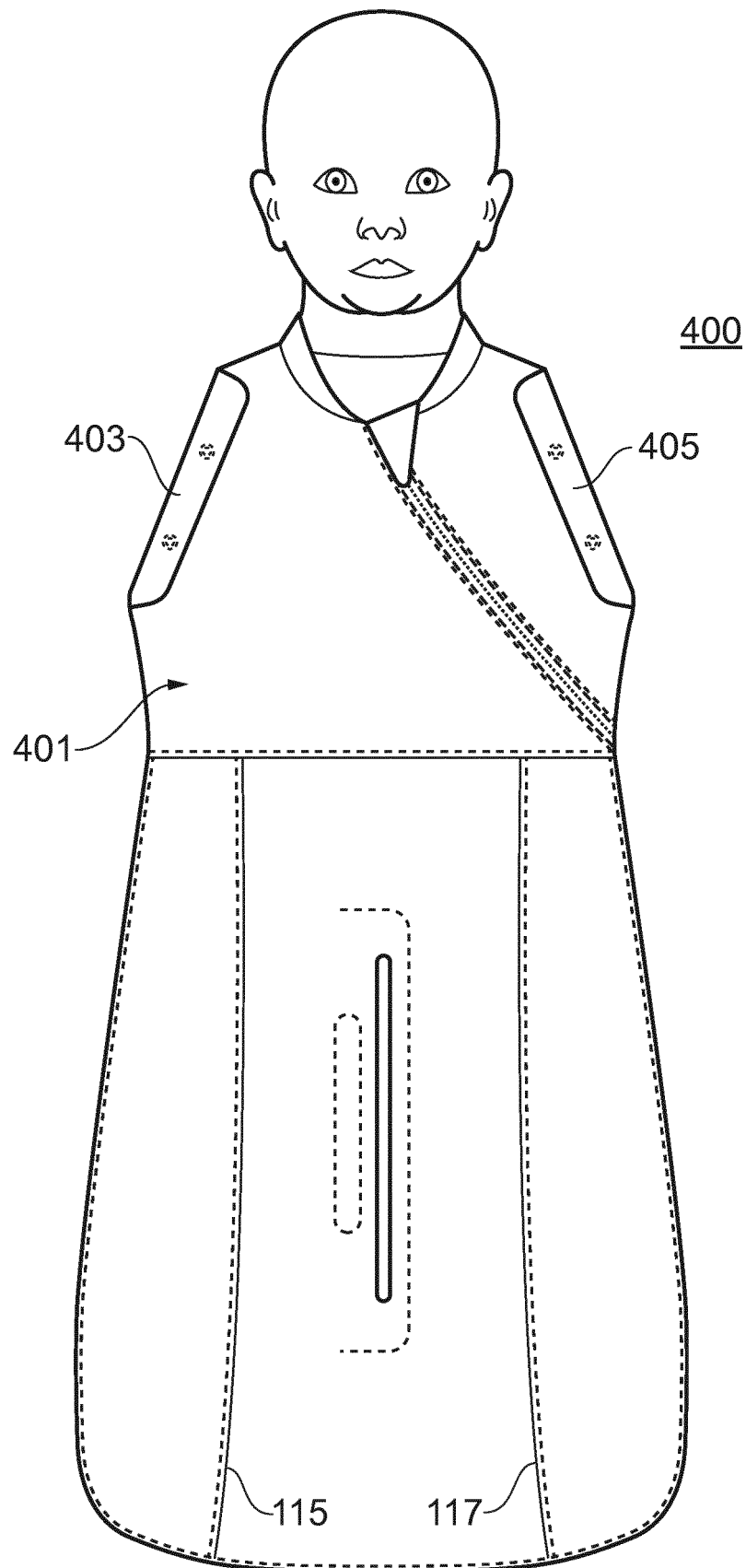


FIG. 2





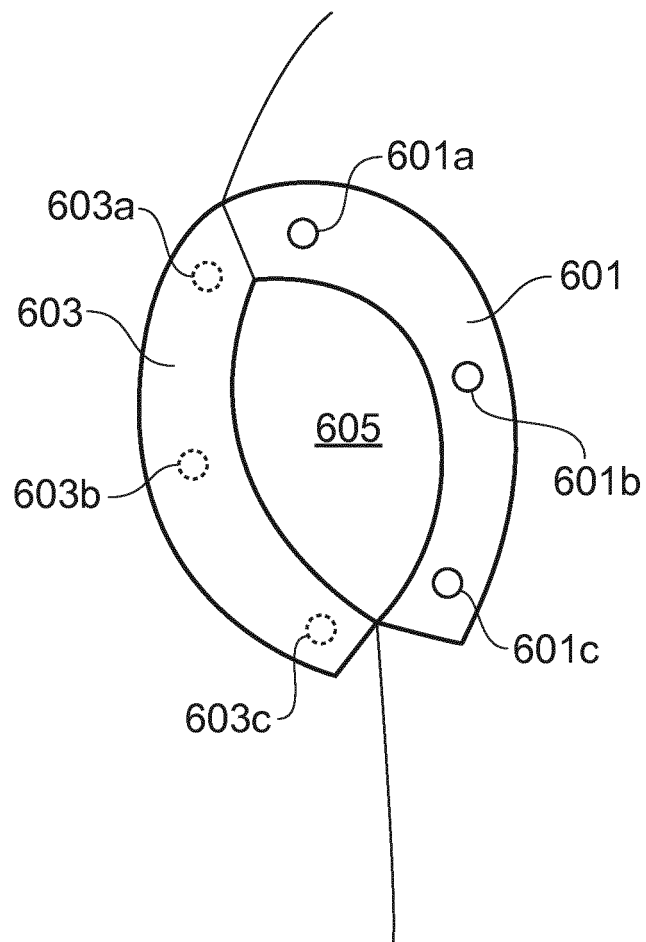


FIG. 5

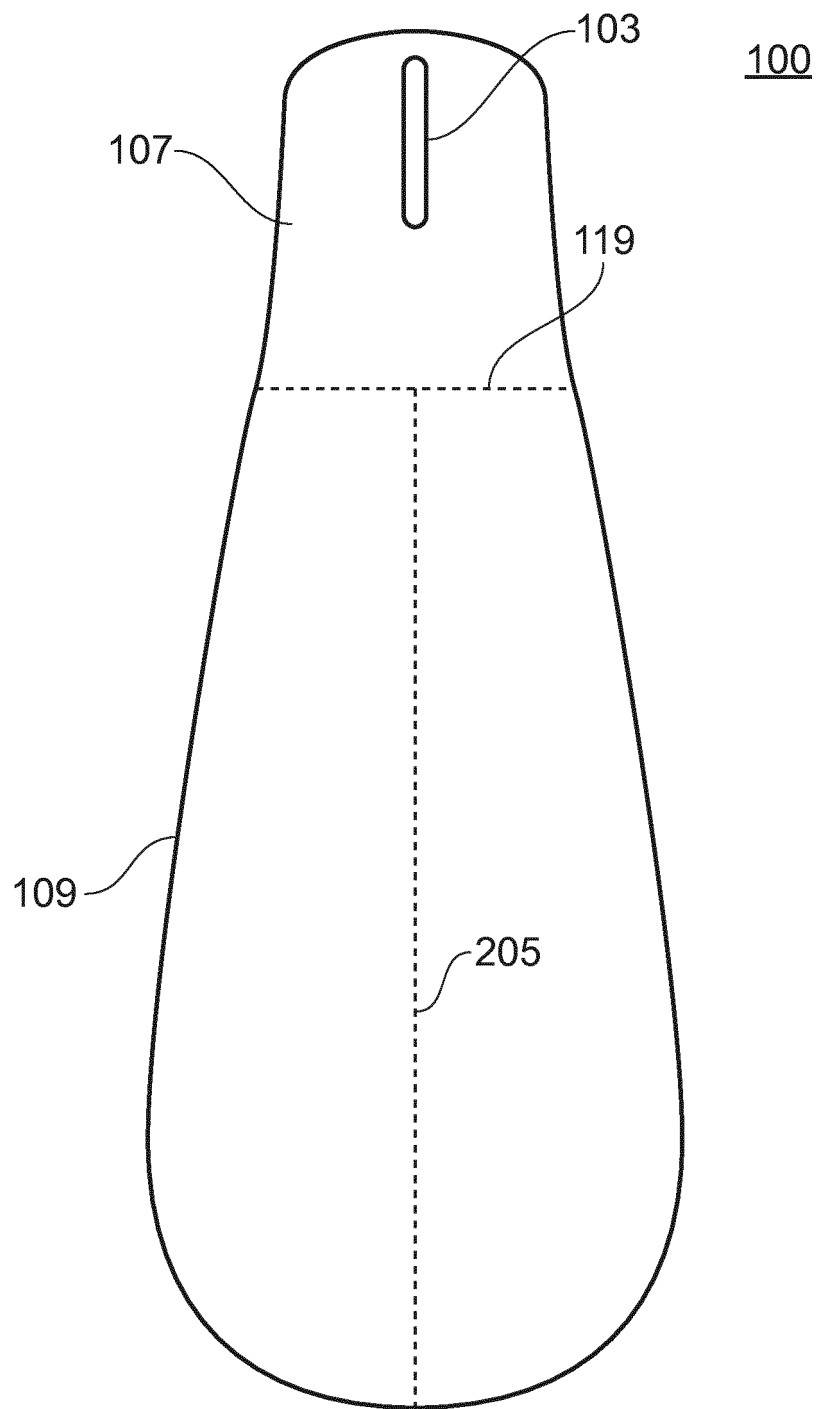


FIG. 6

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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