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(54) Title: SWADDLING DEVICE

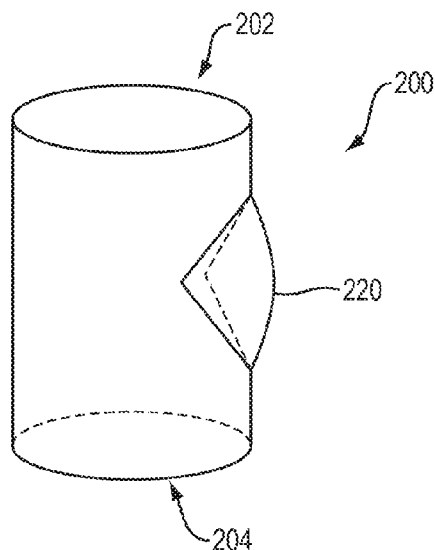


FIG. 2

(57) Abstract: Devices and methods for swaddling of an infant are provided. A swaddling device includes a fabric sleeve (100, 800) having a first opening (102, 802) and a second opening (104, 804), the fabric sleeve (100, 800) comprising a breathable, four-way stretch material configured to conform to an infant's body while restraining limb movement of the infant.



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SWADDLING DEVICE

RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Application No. 62/317,763, filed on 4-Apr-2016. The entire teachings of the above application(s) are incorporated herein by reference.

BACKGROUND

[0002] Swaddling is a process by which an infant is wrapped snugly in a blanket or garment with the purpose of preventing or limiting limb movements of the infant. Swaddling is typically performed to soothe the infant and prevent the infant from being disturbed by its own startle reflex. Swaddling is also regarded as an effective technique to promote sleep in infants.

SUMMARY OF THE INVENTION

[0003] The present invention is generally directed to devices and methods for swaddling an infant.

[0004] In some embodiments, a swaddling device includes a fabric sleeve having a first opening and a second opening. The fabric sleeve can comprise, for example, a breathable, four-way stretch material configured to conform to an infant's body while restraining limb movement of the infant. In addition, in some embodiments one or any combination of the following applies: (a) the fabric sleeve further includes a protruding region configured to conform to a backside of the infant; (b) the fabric sleeve is a breathable, four-way stretch material, *e.g.*, comprising a blend of polyamide yarn and elastomer fiber, wherein the material comprises a polyamide yarn content of about 80% to about 90%, optionally wherein the polyamide yarn is nylon and the elastomer fiber is at least one of spandex and Lycra®; (c) the breathable, four-way stretch material comprises a nylon content of about 80% to about 90% and a spandex content of about 10% to about 20%; (d) the breathable, four-way stretch material comprises a warp-knit material; (e) the

breathable, four-way stretch material comprises a powernet material; (f) the breathable, four-way stretch material has a stretch capacity of about 30%; (g) a diameter of the first and second openings is of about 10 cm to about 30 cm, optionally about 15 cm to about 25 cm; (i) a length of the cylindrical fabric shell is of about 45 cm to about 70 cm, optionally about 50 cm to about 65 cm; and (k) the device further comprises a secondary fabric overlying the cylindrical fabric shell.

[0005] In some embodiments, a method of swaddling an infant includes positioning the infant within a fabric sleeve having a first opening and a second opening. The fabric sleeve can comprise, for example, a breathable, four-way stretch material configured to conform to an infant's body while restraining limb movement of the infant. Positioning the infant within the fabric sleeve includes pulling the first opening of the sleeve up over a body portion of the infant. Further, in some embodiments one or any combination of the following applies: (a) positioning the infant includes positioning the backside of the infant into a protruding portion of the fabric sleeve such that legs of the infant are bent up and out from its body; (b) the method further comprises twisting or folding excess fabric of the sleeve extending from the body portion of the infant and tucking the twisted or folded excess fabric; and (c) the method further comprising placing an overwrap about the cylindrical fabric shell.

[0006] In other embodiments, a garment for an infant includes a fabric sleeve comprising a breathable, four-way stretch material configured to conform to an infant's body while restraining limb movement of the infant and an overwrap configured to be worn over the fabric sleeve.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The foregoing will be apparent from the following more particular description of example embodiments of the invention, as illustrated in the accompanying drawings in which like reference characters refer to the same parts throughout the different views. The drawings are not necessarily to scale, emphasis instead being placed upon illustrating embodiments of the present invention.

[0008] FIGS. 1A and 1B are perspective views of a swaddling device according to embodiments of the present invention, with (A) a continuous fabric shell, and (B) a seamed fabric shell. .

[0009] FIG. 2 is a perspective view of a swaddling device according to another embodiment of the present invention.

[0010] FIGS. 3A-3B are illustrations of application of the swaddling device of FIG. 1 to an infant, depicting (A) the swaddling device being pulled up onto the infant through a first opening, and (B).final placement of the swaddling device on the infant.

[0011] FIG. 4 is an illustration of application of the swaddling device of FIG. 2 to an infant.

[0012] FIG. 5 is a photograph of a swaddling device according to an embodiment of the present invention.

[0013] FIG. 6 is a photograph of a wrapped swaddling device according to an embodiment of the present invention.

[0014] FIGS. 7A-7C are photographs of a swaddling device according to embodiments of the present invention, depicting (A) internal stitching, (B) external stitching, and (C) completed stitching of a swaddling device.

[0015] FIG. 8 is a perspective view of a swaddling device according to another embodiment of the invention.

[0016] FIG. 9 is an elevational view of the swaddling device of FIG. 8.

[0017] FIG. 10 is a pattern for the swaddling device of FIGS. 8 and 9.

DETAILED DESCRIPTION OF THE INVENTION

[0018] A description of example embodiments of the invention follows.

[0019] Swaddling an infant with a blanket is a complicated process requiring several steps of folding the blanket over and around portions of the infant's body. Flailing limbs of the infant can make swaddling even more difficult and more likely for the swaddling to be performed incorrectly. When not swaddled correctly, infants are prone to breaking out of the applied blankets. To provide more secure swaddling of infants, specialty garments can be used. Some garments can involve placing the extremities of the infant (i.e., arms, legs) into designated sleeves or extensions of the garment and/or manipulation of several fasteners (e.g. straps, snaps, buttons, zippers, buckles, hook-and-eye closures, etc.) located in or on the garment. However, similar to blanket-swaddling methods, some specialized garments can also involve complicated and time-intensive application procedures.

In addition, some specialized swaddling blankets can be insufficiently attractive for some applications, e.g., for situations where a caretaker or professional wishes to, for example, photograph the infant.

[0020] An additional shortcoming of some blanket-swaddling methods and specialized swaddling garments is that access to the infant is limited once the infant has been swaddled. For example, to change a diaper or reposition an arm or leg of the infant, the blanket or garment must be completely or entirely undone, after which point the caretaker or professional must go through the process of reswaddling the infant.

[0021] Accordingly, some embodiments of the present invention are directed to devices and methods for swaddling an infant that are easy to apply and that provide for easy access to the infant. Additionally, some embodiments of the present invention are effective in preventing infants from breaking out of the swaddling device, while permitting for ergonomically correct placement of the infant's extremities.

[0022] In one embodiment, a swaddling device is a fabric shell 100 having a substantially cylindrical shape, as illustrated in FIGS. 1A-1B. The cylindrical fabric shell 100, alternatively referred to as a cylindrical fabric sleeve, has a first opening 102 and a second opening 104. The fabric shell comprises a breathable, four-way stretch material configured to conform to an infant's body while compressing against the infant to restrain limb movement (FIG. 5). In some embodiments, the material may be more stretchable (e.g., elastic) along one direction or dimension than along another. For example, in the case of an approximately cylindrical shell having an long axis running down the center of the cylinder, there can be defined two directions: a radial direction (running along the shell surface in a plane perpendicular to the axis) and an axial direction (running along the shell surface parallel to the long axis). The material can be more elastic in the radial direction than the axial direction, e.g., by a factor of approximately 1.5, 2, 5, 10, or 100, or vice versa. In some embodiments, the elasticity in more directions is approximately the same. In some embodiments, the stretchable material is a two way stretch material, and in other embodiments it is a four way stretch material.

[0023] The cylindrical fabric shell 100 can be formed from a continuous, tubular piece of fabric 106, as illustrated in FIG. 1A. Alternatively, the cylindrical fabric shell 100 can be formed from discrete panels of fabric that are stitched together. For example, as shown in FIG. 1B, a first fabric panel 108 and a second fabric panel 110 are joined at seams 108, 112. While two fabric panels are illustrated in FIG. 1B, a cylindrical fabric shell 100 can be formed from any number of panels (e.g., 2, 3, 4, or 5 panels of fabric). Additionally, particularly, where multiple panels are included in a swaddling device, ridges may form at seams (e.g., seams 112, 114) causing the cylindrical fabric shell to potentially have a cross-sectional shape that is not perfectly circular.

[0024] As used herein, the term “cylindrical” with respect to cylindrical fabric shells/sleeves includes shells/sleeves having substantially cylindrical or tubular shapes notwithstanding any ridging due to seams, fabric irregularities, or the like. It should be appreciated that other shapes can be used. For example, a shell can comprise an elongated hollow shape, having a central axis through the hollow shape. Axial sections of the shape can be closed loops, for example, circles, ellipses, eccentric circles, etc., and these loops can be either uniform or different in type or dimension along the length of the central axis. For example, if the loops are circles and are of uniform diameter along the length of the central axis, then a cylinder will result. If the loops are circles and the diameter varies smoothly, the shape could be, for example, a frustum. A variety of conic sections can be used. In some embodiments the opening of one end is larger than the opening of the other end, e.g., by about 10%, 25%, 50% or 100%. In some embodiments, the shell has a bulge or constriction in a central portion of the shell, e.g., an hourglass shape (constriction), or the converse (bulge). As the shell materials can be deformable, it should be appreciated that the shapes can be described by reference to shapes that the material is capable of forming (e.g., in an unstretched condition wherein the material is positioned to maximize symmetry (e.g., point group symmetry) of the shell. It should be further appreciated that shells can be described as being “approximately” another shape, meaning, for example, that the shape deviates from an ideal shape by less than a certain degree, e.g., less than 5%, 10%, 25%, 50%, as can be calculated,

for example, as an average percent deviation from ideal over a dimension, e.g., average percent deviation of shell radius from ideal over the length of the shell axis.

[0025] As used herein, the term sleeve means a shell, including, without limitation a hollow cylinder, hollow frustum, hollow approximate cylinder, hollow approximate frustum, and can be open, for example, on one or two ends.

[0026] In another embodiment a swaddling device is a cylindrical fabric shell 200 that includes a protruding region 220 located between a first opening 202 and a second opening 204. The protruding region 220 is configured to conform to a backside of an infant to provide additional area in the cylindrical fabric shell to accommodate the positioning of the legs and feet of the infant at approximately the same level as the back and buttocks (FIG. 4). The positioning of the legs and feet of the infant such that they are bent up and out from its body mimics the normal position of a fetus in the womb and can help prevent hip dysplasia. Some conventional swaddling techniques and garments restrict infants' legs in extended positions, which can increase the risk of hip dysplasia and/or dislocation. Protruding region 220 advantageously provides additional area for the backside of an infant, such that the legs and feet of the infant can be properly placed and restricted in the cylindrical fabric shell 200. Protruding region 220 can be formed from the same breathable, four-way stretch material as the remainder of cylindrical fabric shell 200. Alternatively, protruding region 220 can be formed from a material that is different from that of the remainder of cylindrical fabric shell 200 (e.g., a material having more or less stretch). Alternatively, in lieu of region 220 protruding from the cylinder, fabric in the underlying region can be made of a material that is more readily deformable, e.g., requires less force to deform.

[0027] A swaddling device including a protruding region can also be formed from a continuous piece of fabric, as illustrated in FIGS 8-10. A perspective view of a fabric shell 800 including a protruding region 820 is shown in FIG. 8. Fabric shell 800 can be formed, for example, from a single continuous piece of fabric 801 having the pattern illustrated in FIG. 10. The piece of fabric 801 is substantially rectangular in shape with two curved regions 803, 805, each curved region located on one edge of fabric 801.

[0028] During assembly, the fabric piece 801 can be sewn or stitched along each edge, as illustrated in FIG. 9. For example, a single seam 812 can extend down the length L of the fabric shell 800, joining those edges including curved regions 803, 805 together. Optionally, the top and bottom edges of fabric shell 800 can also include, respectively, seams 816 and 818, to provide finished edges.

[0029] Any seams included a cylindrical fabric shell can be flat seams to prevent irritation to a wearer of the device. Seam 812 can be, for example, a flat stitch, such as a flat zig zag multistitch, as illustrated in FIGS. 7A-7B. To maintain elasticity as well as provide durability, stitching of seam 812 can be formed from nylon thread. In particular, wooly nylon thread can be used to provide stretch and comfort. Alternatively, or in addition, the thread can be embroidery thread for added durability.

[0030] Top seam 816 and bottom seam 818 can also be flat seams. To provide maximum stretch at either opening 802, 804 of fabric shell 800, seams 816 and 818 can be serged seams, as illustrated in FIGS. 7A-7B. Top seam 816 and bottom seam 818 can also be formed from wooly nylon thread. FIG. 7C illustrates a swaddling device, such as device 800, with stitched edges.

[0031] Swaddling devices of the present invention comprise breathable, four-way stretch material. The material is capable of stretching sufficiently such that the device may be placed onto an infant and conform to the infant's body, while also providing a sufficient amount of compression to restrain limb movement of the infant.

[0032] In one embodiment of the invention, the breathable, four-way stretch material comprises a blend of polyamide yarn and elastomer fiber. Examples of polyamide yarns include nylon, capron, dederon, silon, and perlon. Polyamide yarns are typically durable, lightweight, and naturally resistant to mold. Examples of elastomer fiber include spandex and Lycra® (Du Pont, Wilmington, DE). Elastomer fibers provide stretch and recovery to the fabric. The four-way stretch material can comprise a polyamide yarn content of about 70% to about 90%. A remaining amount (e.g., about 10% to about 30%) of the content of the material can be elastomer fiber, and, optionally, other material(s), such as cotton gauze to provide a more pleasant feel to a wearer of the fabric. In a particular embodiment, the

breathable four-way stretch material comprises a nylon content of about 80% to about 90% and a spandex or Lycra® content of about 10% to about 20%.

[0033] The breathable four-way stretch material can be a warp-knit fabric, such as tricot, powernet, satinet, weftlock, and the like. Warp-knit fabrics, in addition to being stretchable and supportive, are resistant to runs and relatively easy to sew. In a particular embodiment, the breathable four-way stretch material is a powernet fabric, such as, for example Shaper Power Net high density mesh fabric. Powernet fabric is a warp-knit fabric that typically comprises about 10% to about 20% elastomer fiber (e.g., spandex or Lycra) and about 80% to about 90% polyamide yarn (e.g., nylon). In a particular embodiment the powernet fabric comprises 20% spandex and 80% nylon. Powernet fabric has high elastic and compressive properties. Additionally, powernet fabric is highly breathable, hypoallergenic, antimicrobial, and durable. Due to its high breathability, the fabric minimizes the risk of skin irritations and helps maintain the feeling of fresh/dry skin.

[0034] In one embodiment the breathable, four-way stretch material has a stretch capacity of about 20% to about 40%, or of about 25% to about 35%. In a particular embodiment, the breathable, four-way stretch material has a stretch capacity of about 30% (e.g., 28.5%, 29%, 29.5%, 30%, 30.5%, 31%, 31.5%).

[0035] Swaddling devices of the present invention are configured to be placed on an infant. Typically, swaddling devices will be placed on infants of about 0 months to about 3 months of age, although some infants may be swaddled at ages greater than 3 months old (e.g., 4 months, 5 months, or 6 months old).

[0036] In one embodiment, a cylindrical shell 100, 800 has a length L and a diameter D (FIG. 1A) that are sized to accommodate an infant. The length L can be of about 45 cm to about 70 cm, or of about 50 cm to about 65 cm. In particular embodiments, the length L is about 52 cm or about 20.5 inches (e.g., 50 cm, 51 cm, 52 cm, 53 cm, or 54 cm), or about 62 cm or about 24.5 inches (e.g., 60 cm, 61 cm, 62 cm, 63 cm, or 64 cm). The length L can be great enough such that there is excess fabric after placement of the swaddling device onto an infant (FIG. 3B). Excess fabric extending downwards from the swaddled infant can prevent the infant from kicking out of the second opening 104. The diameter D can be of about 10 cm to about 30 cm, or of about 15 cm to about 25 cm. In particular embodiments, the

diameter D is about 15 cm or about 6" (e.g., 14.5 cm, 15 cm, 15.5 cm), or about 18 cm or about 7" (e.g., 17.5 cm, 18 cm, 18.5 cm), or about 23 cm or about 9" (e.g., 22.5 cm, 23 cm, 23.5 cm). Ranges for length L and diameter D refer to unstretched cylindrical shells, that is, cylindrical shells not containing an infant.

[0037] In further embodiments, swaddlers of the present invention are sized based on the age and/or weight of the infant. Example lengths and dimensions of swaddling devices are provided in Table 1.

Table 1. Example dimensions of swaddling devices based on age weight of an infant

Age (mo)	Weight (lb)	Length (L)	Diameter (D)
0-1	6 lbs or less	20.5" (52.1 cm)	6" (15.2 cm)
1-2	6 – 10 lbs	20.5" (52.1 cm)	7" (17.8 cm)
2-3	10 – 15 lbs	24.5" (62.2 cm)	9" (22.9 cm)

[0038] Swaddling devices of the present invention can be easily placed onto an infant, for example, by stretching the fabric up and over the body of the infant. As illustrated in FIGS. 3A-3B, an infant is positioned within a cylindrical fabric shell by pulling the first opening 102 of the shell up over a body portion 140 of the infant. An edge of the cylindrical fabric shell (e.g., the edge at opening 102) can be placed at approximately neck or shoulder level, such that the arms of the infant are restrained, while the head of the infant remains exposed. Excess fabric 130 can extend down from the bottom of the swaddled infant. Such excess fabric can, optionally, be twisted or folded and/or tucked behind the swaddled infant or tucked up into itself at the body portion 140. In some embodiments at least about 6 inches or about 15 cm of fabric extends down from a swaddled infant to provide enough length to prevent the infant from kicking out from the device.

[0039] Legs and feet of an infant can be appropriately positioned within swaddling devices of the present invention. For example, as shown in FIG. 4, a backside of the infant can be placed into the protruding region 220, 820 of a cylindrical shell 200, 800. Protruding region 220, 820 can provide about 0.5" (1.2 cm) to about 2" (5.1 cm), or about 1" (2.5 cm) of additional width to the device. For

example, as shown in FIGS. 8 and 9, a device 800 can have a diameter D_P at the protrusion that is wider than diameter D at openings 802, 804. Diameters D and D_P can differ by, for example, about 0.5" (1.2 cm) to about 3" (7.6cm), or of about 1" (2.5 cm). Similarly, a width W_P at the protrusion can be wider than width W of the sleeve 800. For example, a fabric pattern can provide for a difference between W_P and W of about 0.5" (1.2 cm) to about 3" (7.6cm), or of about 1" (2.5 cm). As shown in FIG. 10, a width W_P' can be greater than W_P by 1" (2.5 cm) to about 6" (15.2 cm), or of about 2" (5 cm). Further, W' can be sized accordingly to provide openings of a certain dimension, such as those dimensions presented in Table 1.

[0040] Depending upon the age, weight, and relative size of the infant to a swaddling device, a protruding region 220 may not be necessary for proper placement of the infant's legs and feet in the device. Nonetheless, protruding region 220 can be included for ease of application of the device to the infant, even if there is adequate space in a cylindrical shell 200 without a protruding region 220 to place the infant. Protruding region 220 may also serve as a reminder to a person applying a swaddling device to an infant to ensure that the infant's legs and feet are properly bent up and out from its body.

[0041] FIG. 5 is a photograph illustrating a swaddling device 500 worn by an infant.

[0042] In another embodiment of the present invention, an overwrap is placed about the cylindrical fabric shell of a swaddling device 500, as shown in the photograph of FIG. 6. Overwrap 600 can be a separate piece of fabric from swaddling device 500 that is placed about the cylindrical fabric shell. Alternatively, an overwrap 600, can be integrated with a swaddling device 500, forming an integrated garment for an infant. For example, an overwrap can be sewn or otherwise affixed to a cylindrical fabric shell. Overwrap 600 can be included to provide additional warmth to the infant and/or to provide an aesthetically pleasing appearance.

[0043] Embodiments of the present invention are particularly useful for applications involving photography. Swaddling an infant can be helpful to calm and soothe a baby during a photography session, and also enable a photographer to obtain photos of the infant while it is in a peaceful state. However, as previously

described, blanket-swaddling methods can be difficult and time-intensive to apply, and some infants can easily escape from their swaddling. As such, swaddling an infant with a blanket is often impractical in a photography setting. Additionally, some specialized swaddling garments can be unattractive and cumbersome, and are thus also unfit for use in a photography setting. Some embodiments of the present invention advantageously allow an infant to be easily swaddled for a photography session, while also allowing for the easy application and removal of one or more decorative overwraps. As the overwraps are applied and/or removed, the infant remains swaddled in the cylindrical shell of the swaddling device. The bottom opening (e.g., opening 104, 204) also allows easy access to reposition the infant's feet or check the infant's diaper without requiring full removal of the swaddling device.

[0044] A method of swaddling an infant for a photograph session can include, applying a swaddling device to the infant and applying or fastening an overwrap over the swaddling device. The method can further include removing the overwrap without removing the swaddling device, and applying a different, second overwrap.

[0045] Overwraps can be applied to swaddling devices and fastened by a variety of means. For example, the overwrap can be fasted by snaps, ties, hook-and-loop closures, buttons, hooks, safety pins, garment or toupee tape, zippers, or the like. Alternatively the overwrap can be maintained in place over the swaddling device by surface tension between the sleeve fabric and the overwrap fabric.

[0046] In some embodiments, the overwrap is permanently or semi permanently attached to the sleeve. In some embodiments, the sleeve itself is decorated or patterned in an attractive manner. Customization, e.g., with embroidery, can be applied to either the sleeve or the overwrap, e.g., with the infant's name, or with pictures, animals, cartoon characters, icons, patterns, and the like.

[0047] In another embodiment, a kit comprises a swaddling device and one or more overwraps. The kit can further include permanent or reusable fasteners for affixing the one or more overwraps to the swaddling device.

[0048] In some embodiments, a photographer places an infant in a sleeve, adds a first overwrap, and takes photographs. The photographer can then remove the first overwrap, add a second overwrap without removing the sleeve from the infant, and

then takes additional photographs. If the infant requires a diaper change during the photo session, in some embodiments, the diaper can be changed without removing the sleeve from the infant.

[0049] Embodiments of the present invention are also useful for typical, everyday swaddling of an infant, for example, at home. Flexible cylindrical shells of swaddling devices of the present invention can be dyed various colors or patterns to provide a stand-alone garment for an infant. Alternatively, or in addition, a second layer of fabric (e.g., an overwrap 600) can be included on the device. For example a second layer of material can be applied to the cylindrical shell to provide additional warmth for the infant or to provide a particular look, color, or texture. The second layer of material can be any material (e.g., cotton, wool, polyester, or any other wearable fabric). The second layer of material can be sewn to the cylindrical shell, for example, at seams located about the perimeter of openings 102, 104, or along other seams (e.g., seams 112, 114) of the garment.

[0050] In another embodiment, swaddling devices of the present invention can be used during nursing. By providing secure swaddling of an infant during nursing such that the infant's hands and arms do not become unswaddled, nursing can be performed without, for example, the infant disengaging a nipple shield.

[0051] The teachings of all patents, published applications and references cited herein are incorporated by reference in their entirety.

[0052] While this invention has been particularly shown and described with references to example embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the scope of the invention encompassed by the appended claims.

CLAIMS

What is claimed is:

1. A swaddling device comprising a fabric sleeve having a first opening and a second opening, the fabric sleeve comprising a four-way stretch material configured to conform to an infant's body while restraining limb movement of the infant.
2. The device of Claim 1, wherein the fabric sleeve includes a protruding region configured to conform to a backside of the infant.
3. The device of Claim 1, wherein the fabric sleeve is a breathable, four-way stretch material comprises a blend of polyamide yarn and elastomer fiber, wherein the material comprises a polyamide yarn content of about 80% to about 90%.
4. The device of Claim 3, wherein the polyamide yarn is nylon and the elastomer fiber is at least one of spandex and Lycra®.
5. The device of Claim 1, wherein the breathable, four-way stretch material comprises a nylon content of about 80% to about 90% and a spandex content of about 10% to about 20%.
6. The device of Claim 1, wherein the breathable, four-way stretch material is a warp-knit material.
7. The device of Claim 1, wherein the breathable, four-way stretch material is a powernet material.
8. The device of Claim 1, wherein the breathable, four-way stretch material has a stretch capacity of about 30%.
9. The device of Claim 1, wherein a diameter of the first and second openings is of about 10 cm to about 30 cm.

10. The device of Claim 1, wherein a diameter of the first and second openings is of about 15 cm to about 25 cm.
11. The device of Claim 1, wherein a length of the fabric sleeve is of about 45 cm to about 70 cm.
12. The device of Claim 1, wherein a length of the fabric sleeve is of about 50 cm to about 65 cm.
13. The device of Claim 1, further comprising a secondary fabric overlying the fabric sleeve.
14. A method of swaddling an infant comprising:
 - positioning the infant within a fabric sleeve having a first opening and a second opening, the fabric sleeve comprising a breathable, four-way stretch material configured to conform to an infant's body while restraining limb movement of the infant, wherein positioning the infant within the fabric sleeve includes pulling the first opening of the shell up over a body portion of the infant.
15. The method of Claim 14, wherein positioning the infant includes positioning the backside of the infant into a protruding portion of the fabric sleeve such that legs of the infant are bent up and out from its body.
16. The method of Claim 14, further comprising twisting or folding excess fabric of the sleeve extending from the body portion of the infant and tucking the twisted or folded excess fabric.
17. The method of Claim 14, further comprising placing an overwrap about the fabric sleeve.
18. A garment for an infant, comprising:
 - a fabric sleeve having a first opening and a second opening, the fabric sleeve comprising a breathable, four-way stretch material configured to conform to an infant's body while restraining limb movement of the infant.;
 - and

an overwrap configured to be worn over the fabric sleeve.

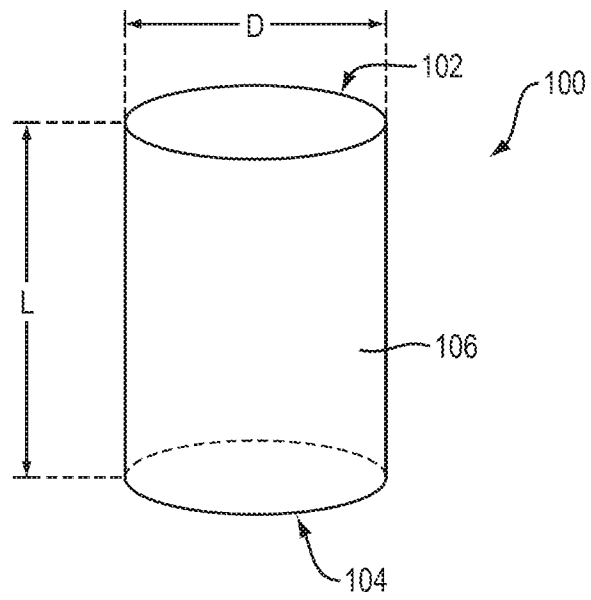


FIG. 1A

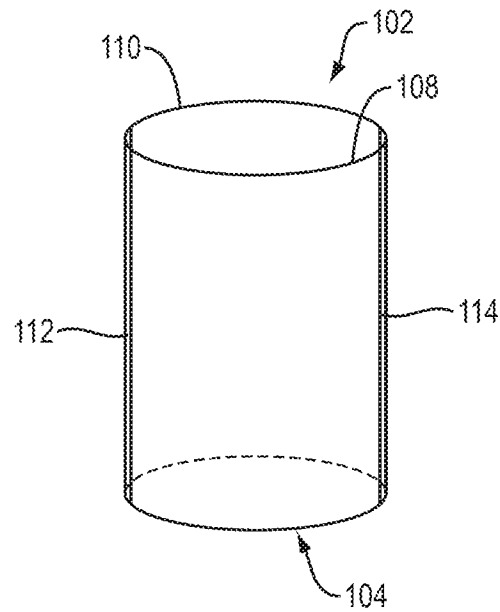


FIG. 1B

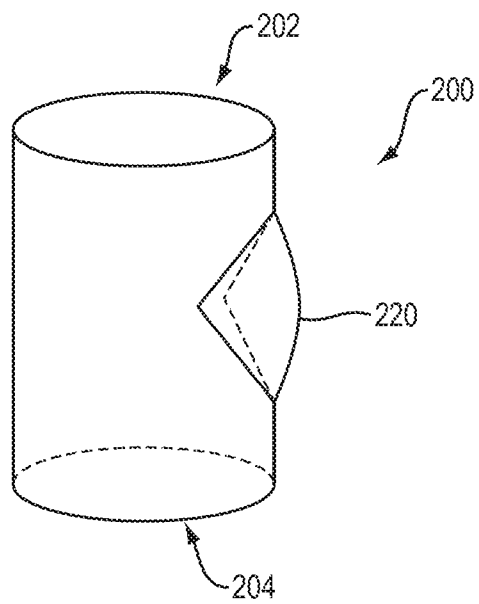


FIG. 2

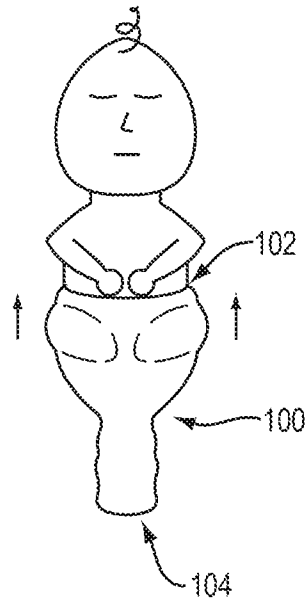


FIG. 3A

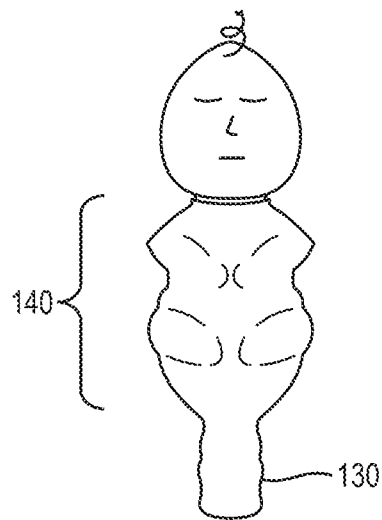


FIG. 3B

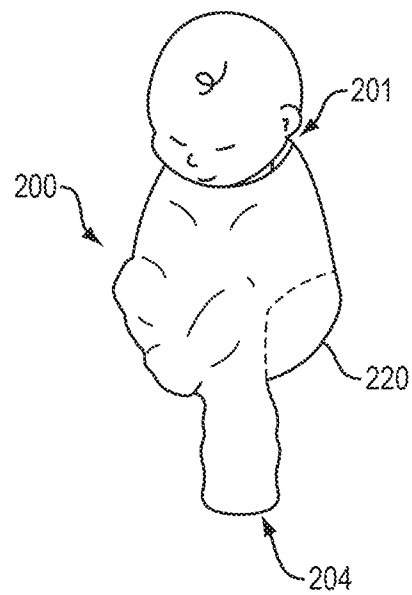


FIG. 4



FIG. 5



FIG. 6



FIG. 7A



FIG. 7B

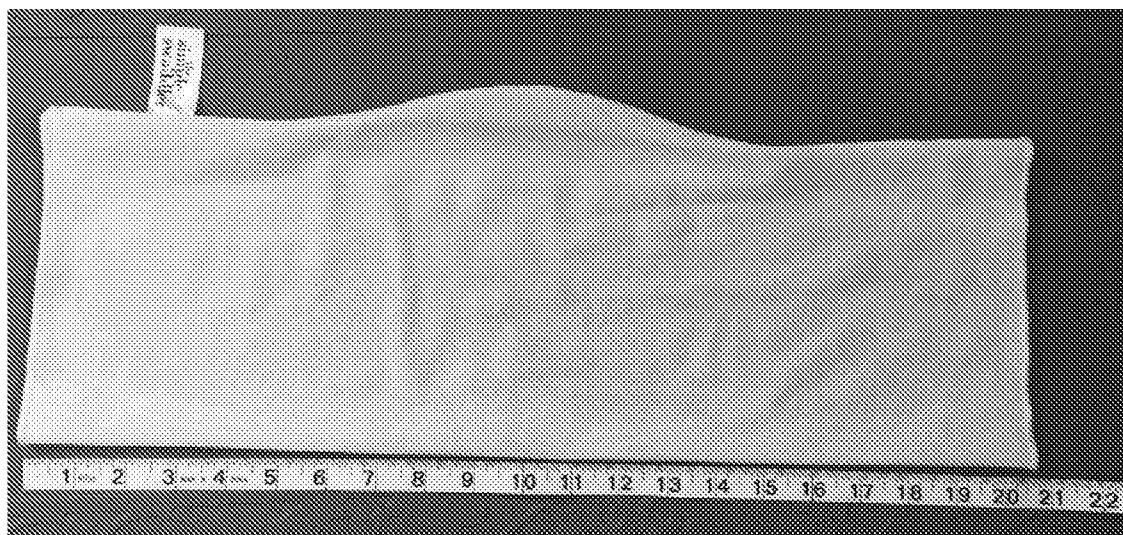


FIG. 7C

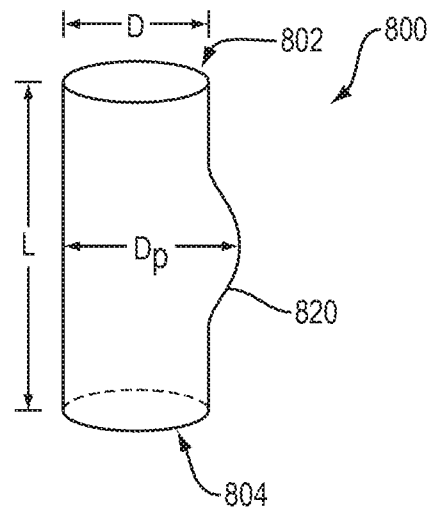


FIG. 8

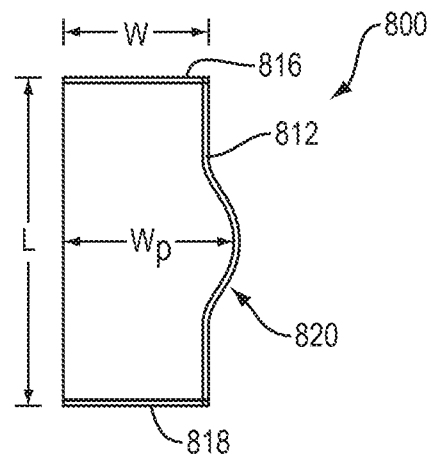


FIG. 9

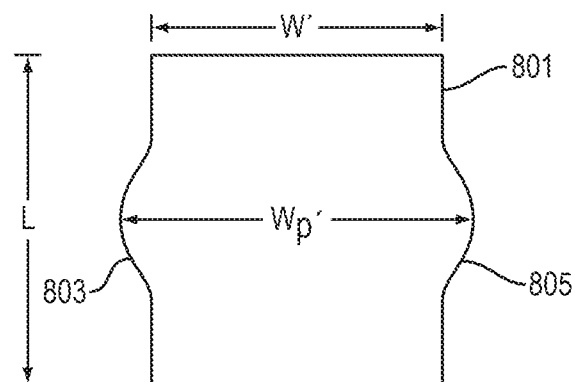


FIG. 10

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2016/043418

A. CLASSIFICATION OF SUBJECT MATTER

INV. A41B13/06 A41D11/00
ADD.

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)

A41B A41D

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

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

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2013/139290 A1 (BARSKI KAREN H [US]) 6 June 2013 (2013-06-06) paragraph [0047]; figures 1-3 -----	1-18
X	GB 2 499 911 A (SACK ALINA [AU]) 4 September 2013 (2013-09-04) page 3, line 17; figures 1-3 page 8, line 5 - line 11 -----	1-18
X	US 2009/282599 A1 (COMERFORD BRITTANY [US]) 19 November 2009 (2009-11-19) figure 1 -----	1-18
X	AU 2010 100 905 A4 (COOK MELANIE) 16 September 2010 (2010-09-16) figure 1 -----	1-18



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

25 November 2016

Date of mailing of the international search report

06/12/2016

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Authorized officer

van Voorst, Frank

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2016/043418

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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			US 2013227786 A1 05-09-2013

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AU 2010100905	A4	16-09-2010	NONE
