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(54) **CARRIER WITH AN ADJUSTABLE BASE**

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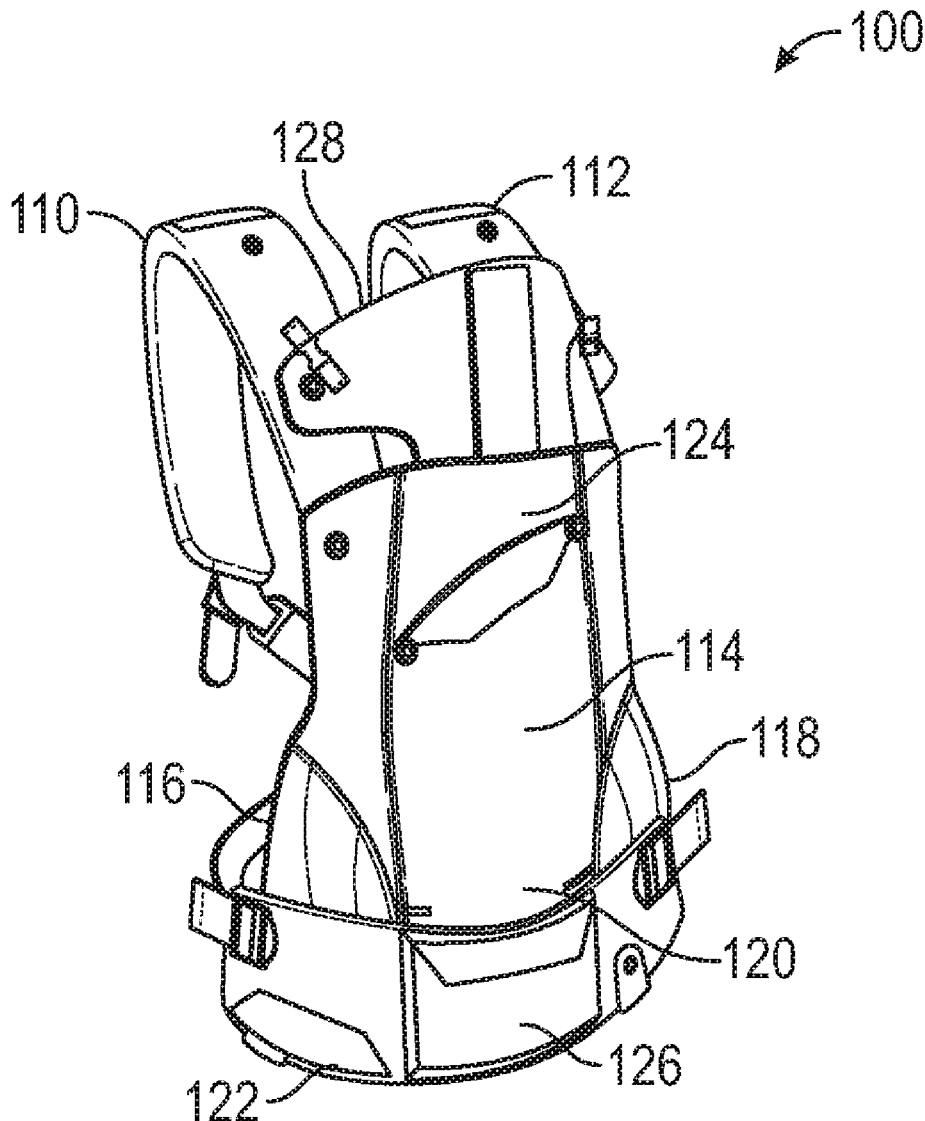
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Related U.S. Application Data

(60) Provisional application No. 62/803,078, filed on Feb. 8, 2019.

(57) **ABSTRACT**

A baby carrier is disclosed. A baby carrier may include a carrier body including at least a torso support and a seat support. The seat support may include a left leg support including left support attachment mechanisms and a right leg support including right support attachment mechanisms. The baby carrier includes a hip belt. The hip belt includes a hip belt attachment mechanisms each configured to accommodate the left support attachment mechanisms and the right support attachment mechanisms to vary a size of the seat support.



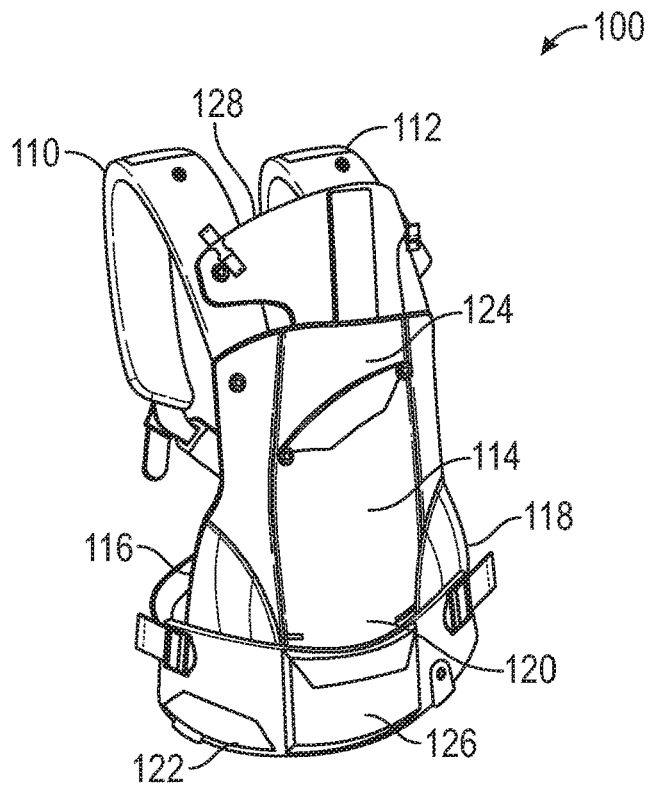


FIG. 1

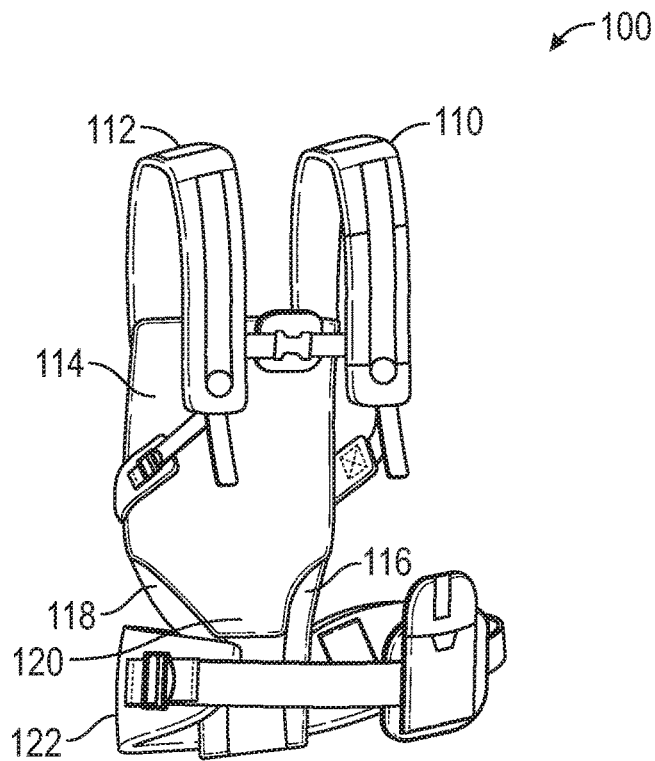
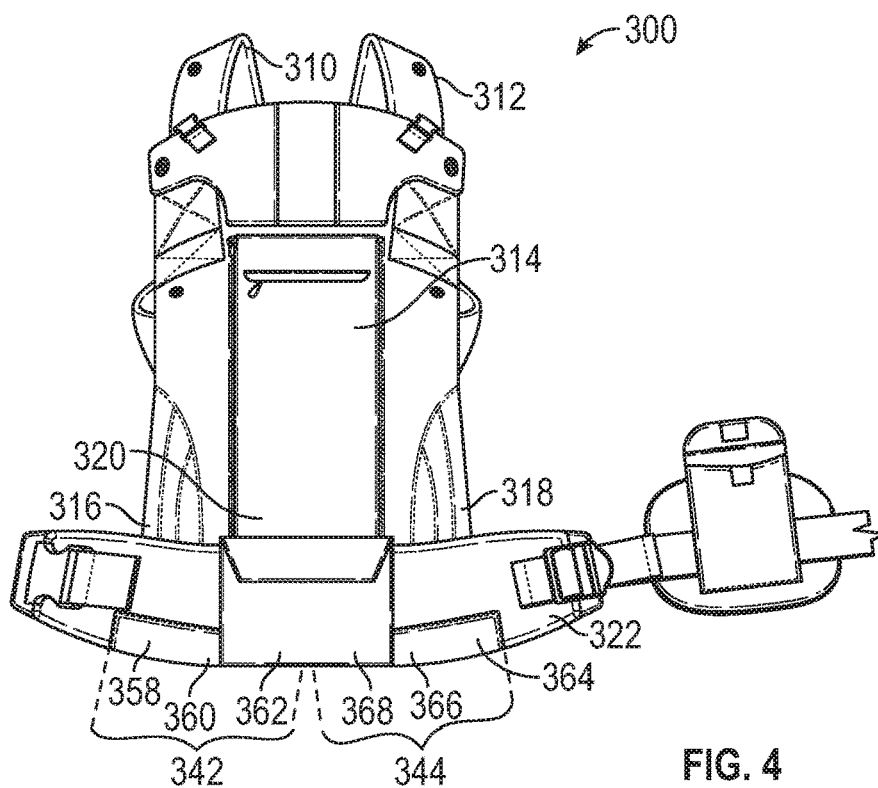
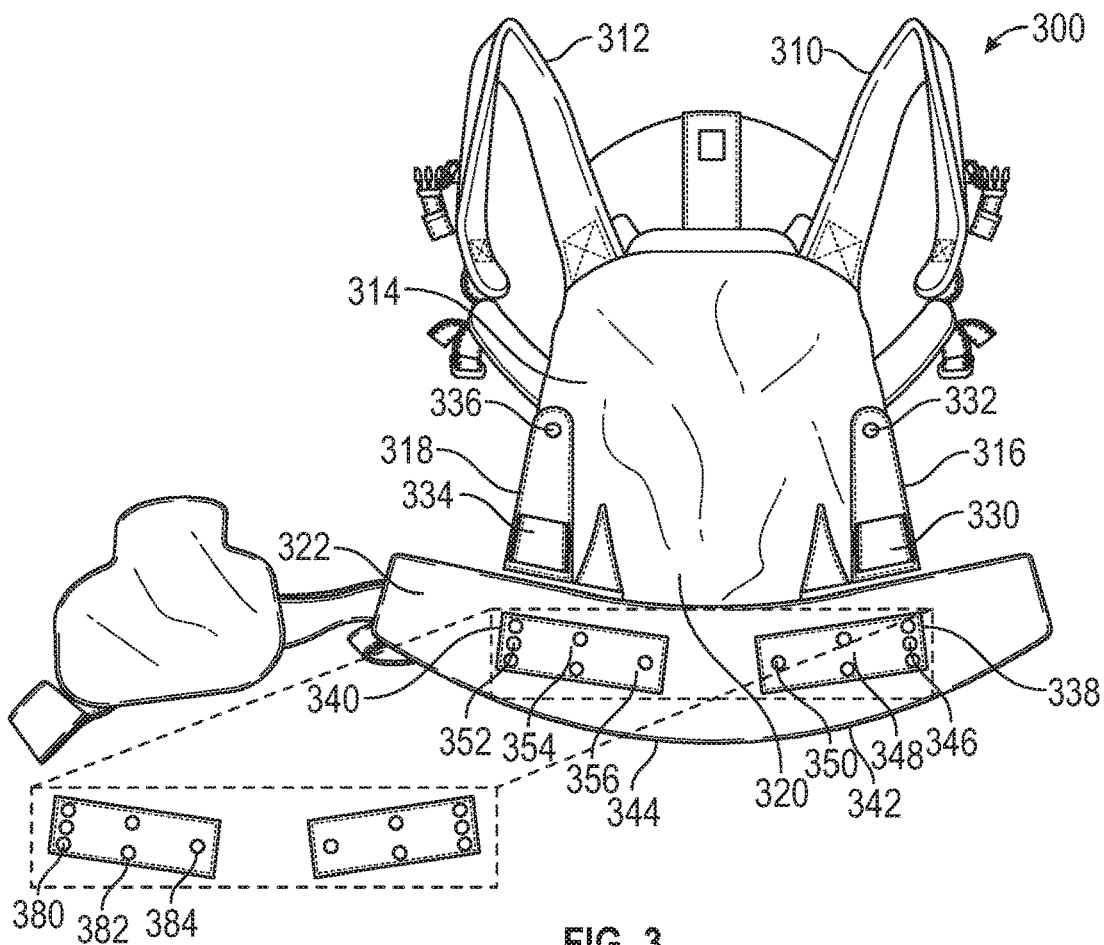


FIG. 2



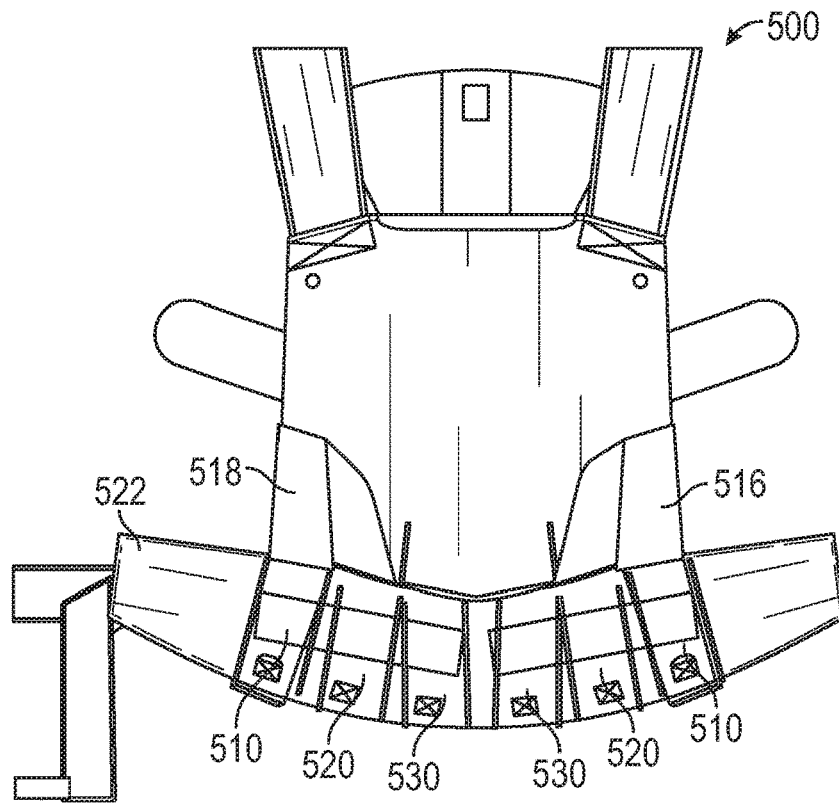


FIG. 5

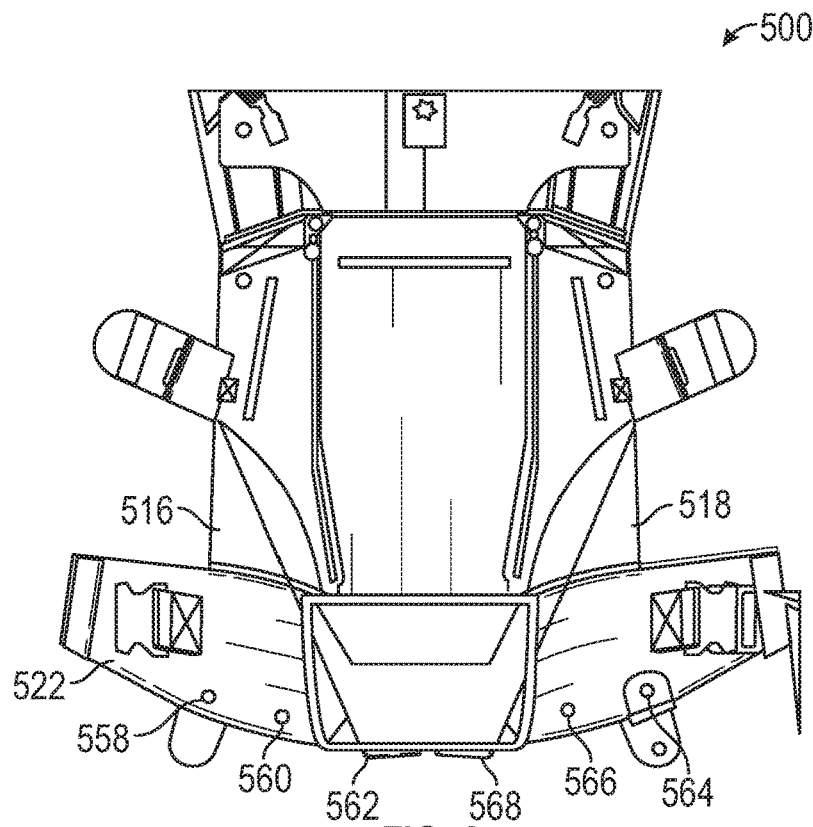


FIG. 6

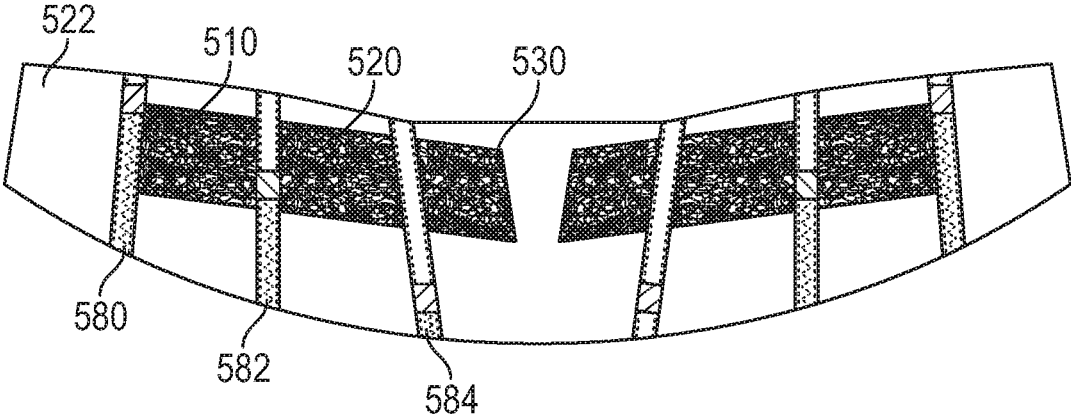


FIG. 7

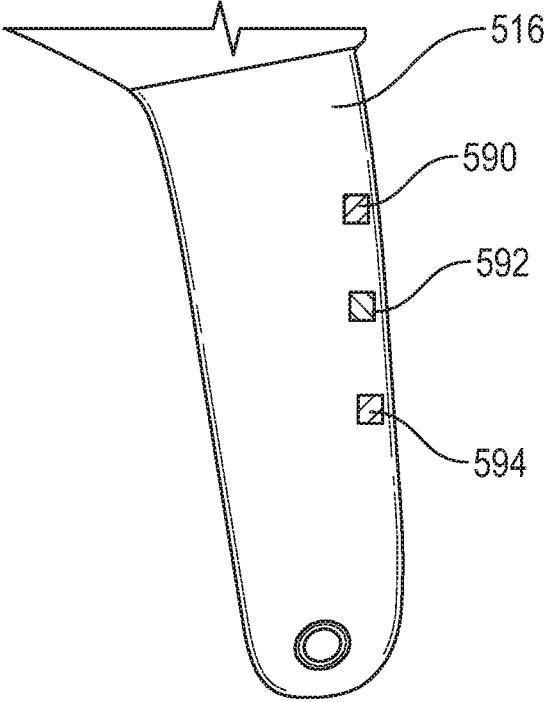


FIG. 8

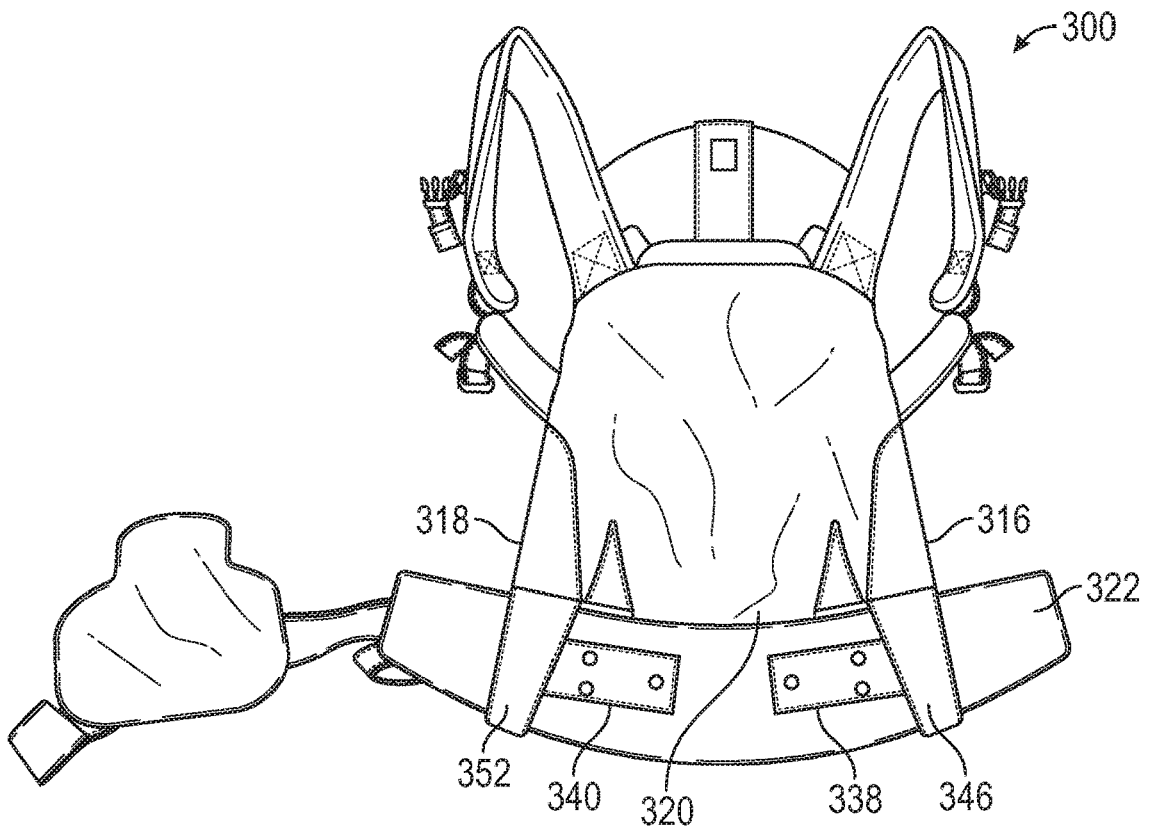


FIG. 9

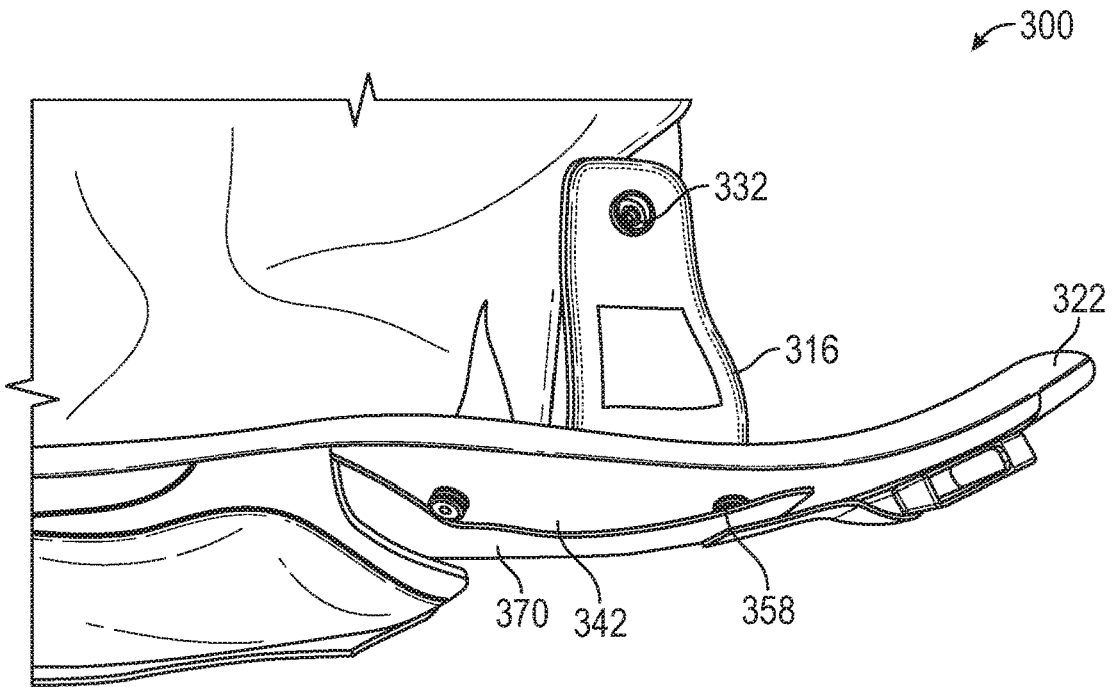


FIG. 10

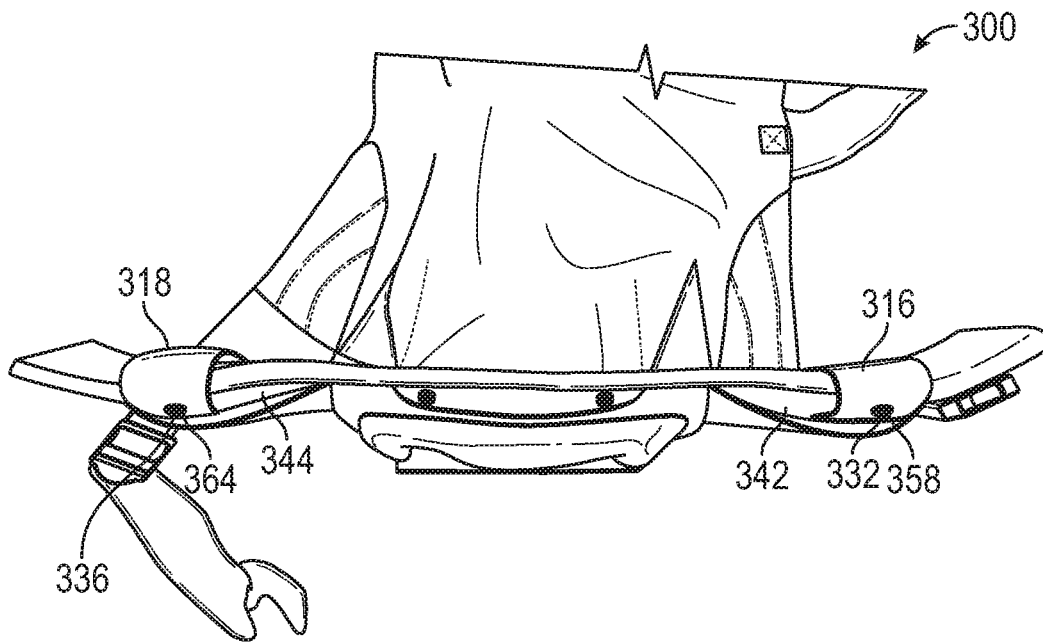


FIG. 11

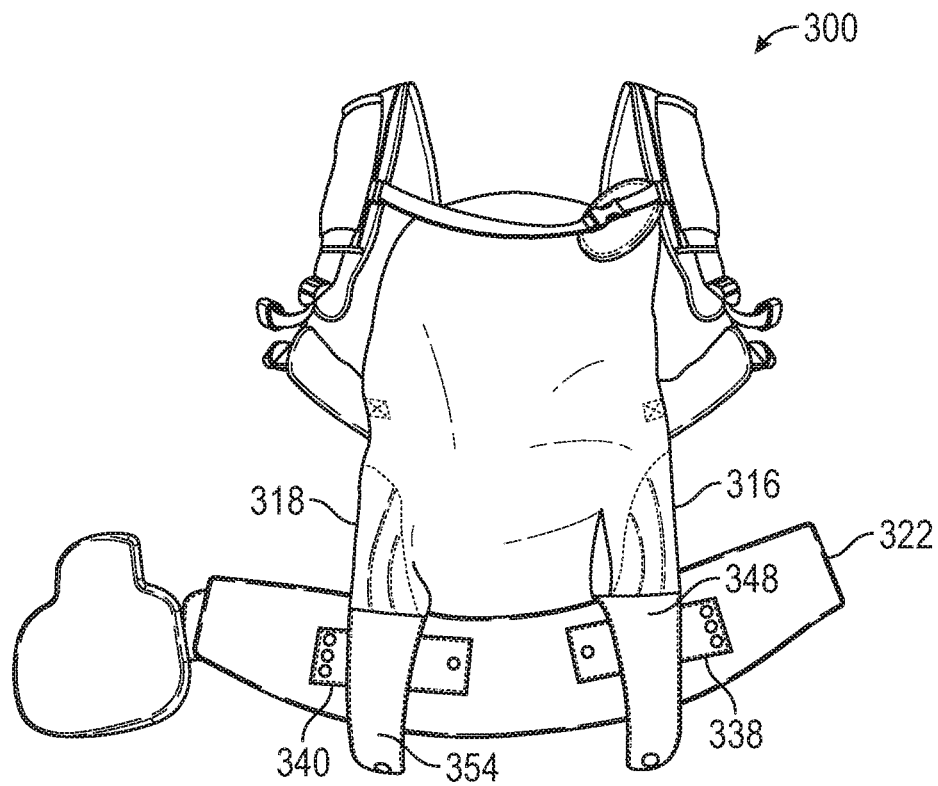


FIG. 12

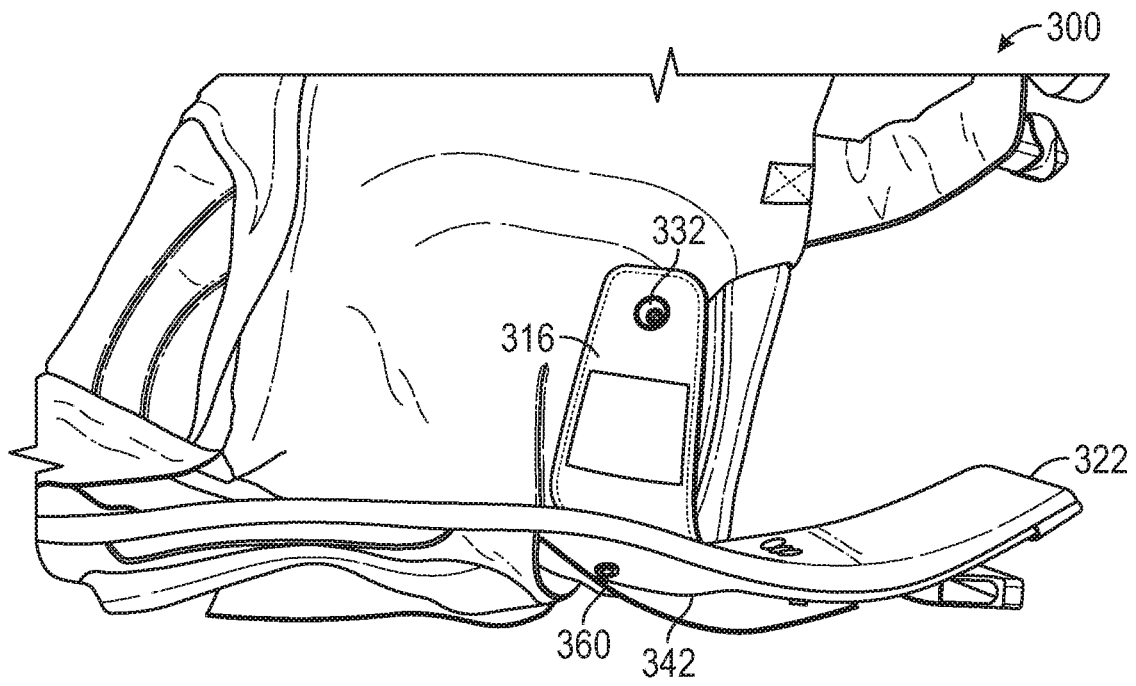


FIG. 13

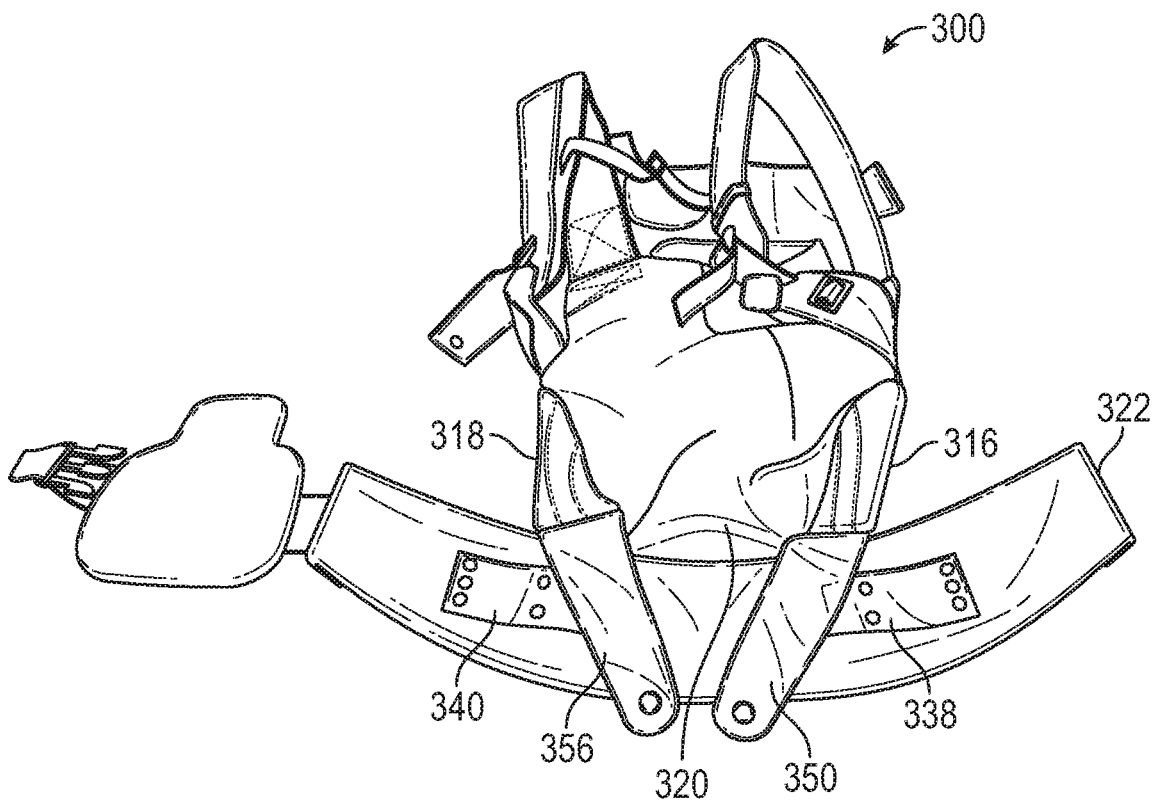


FIG. 14

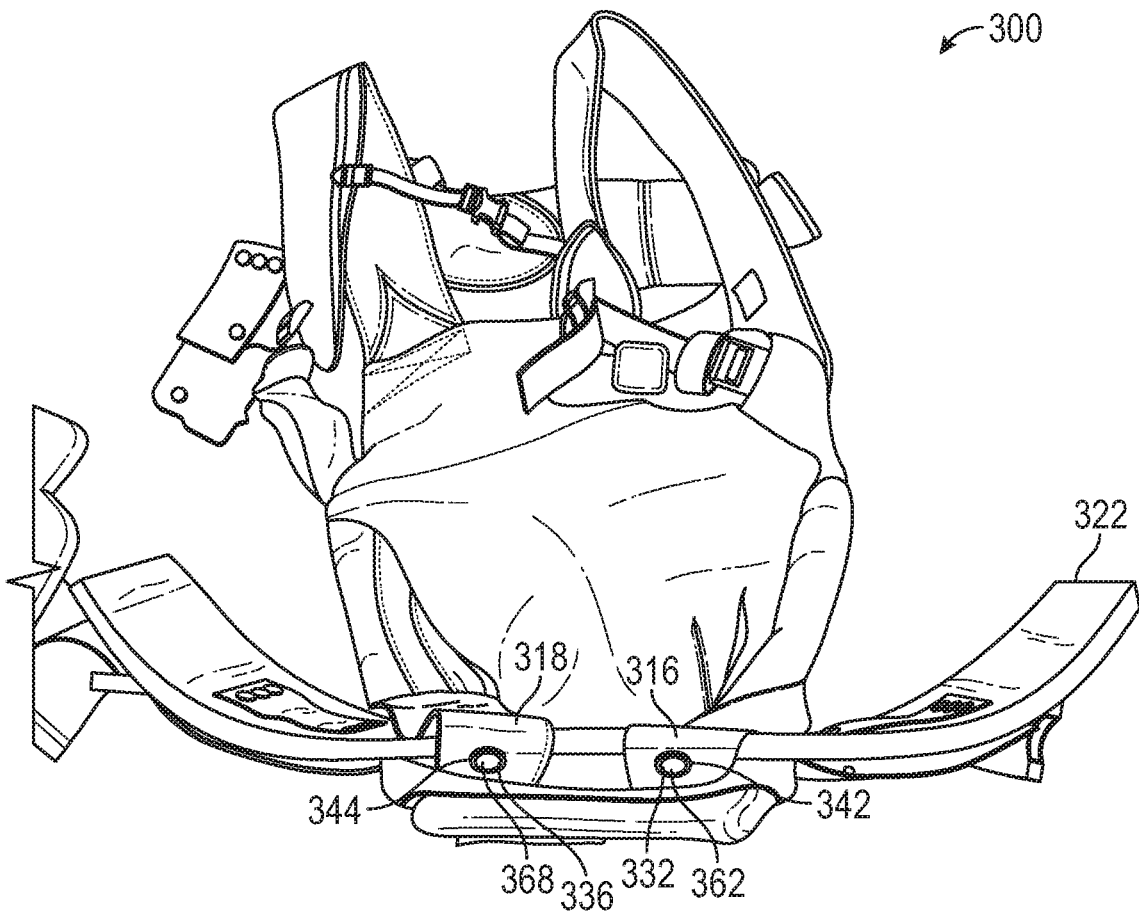


FIG. 15

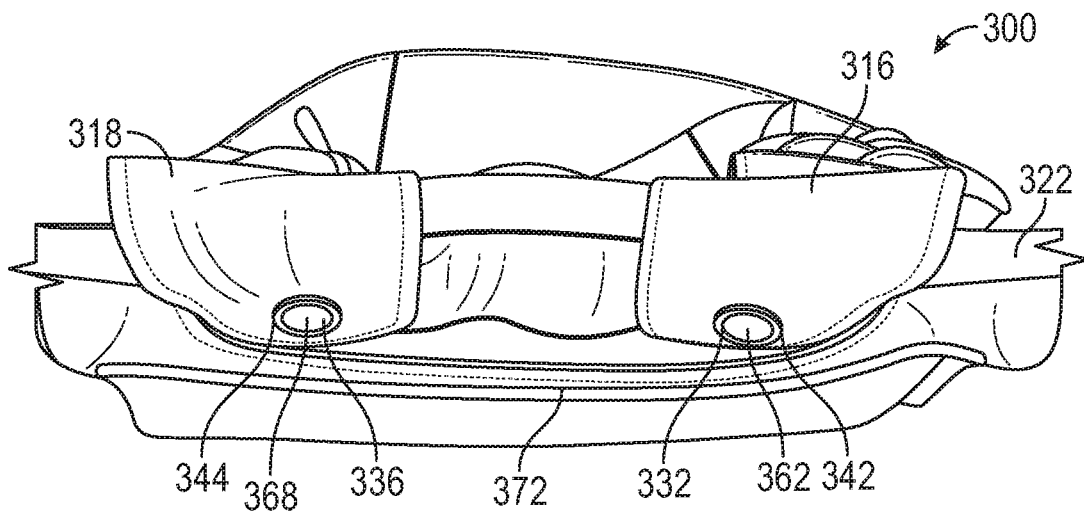


FIG. 16

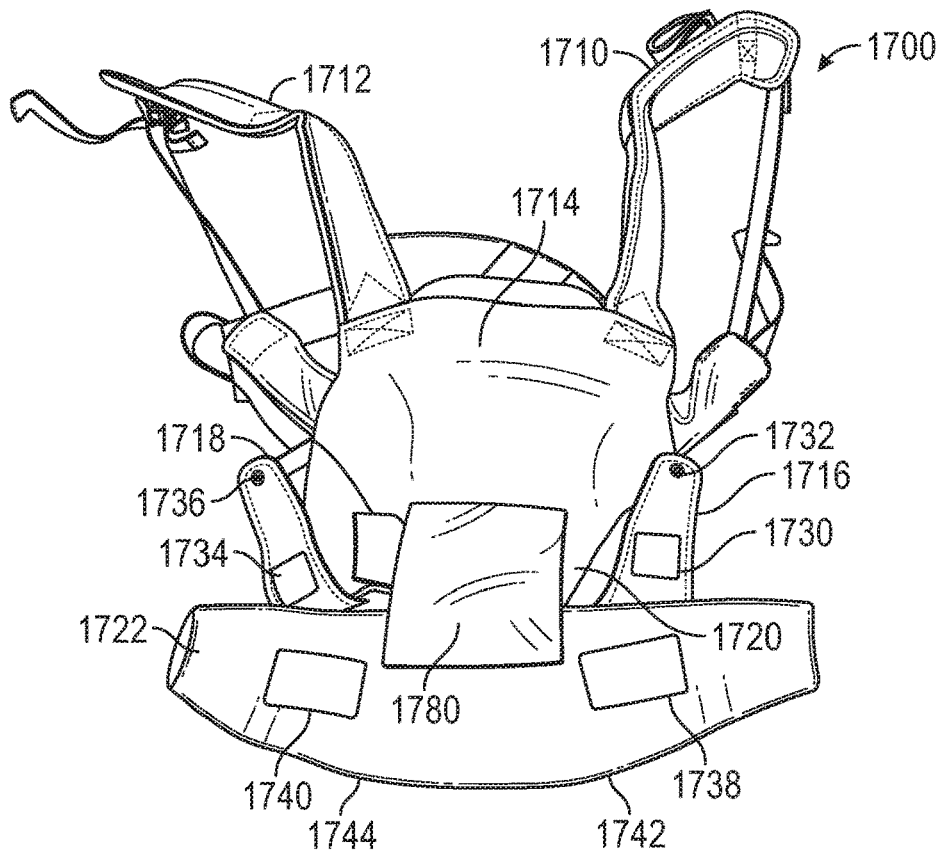


FIG. 17

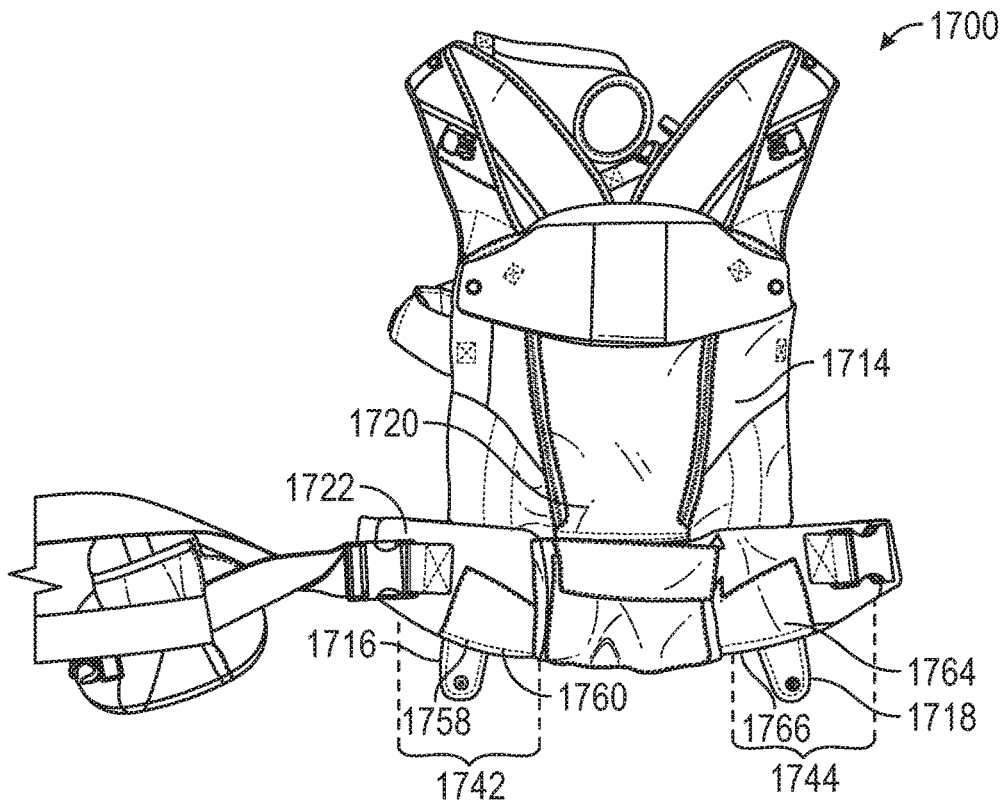


FIG. 18

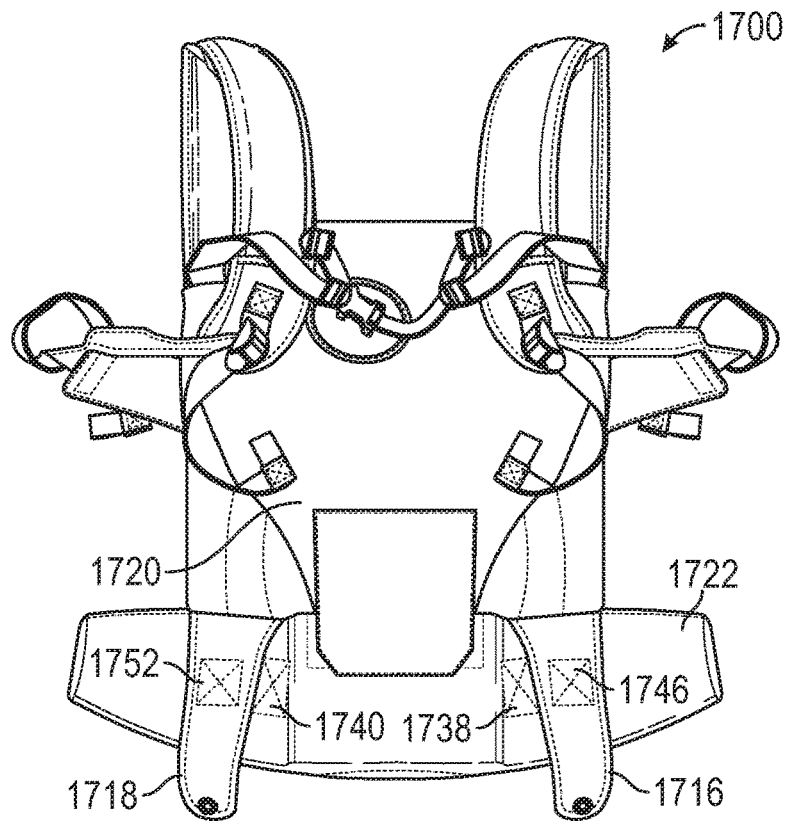


FIG. 19

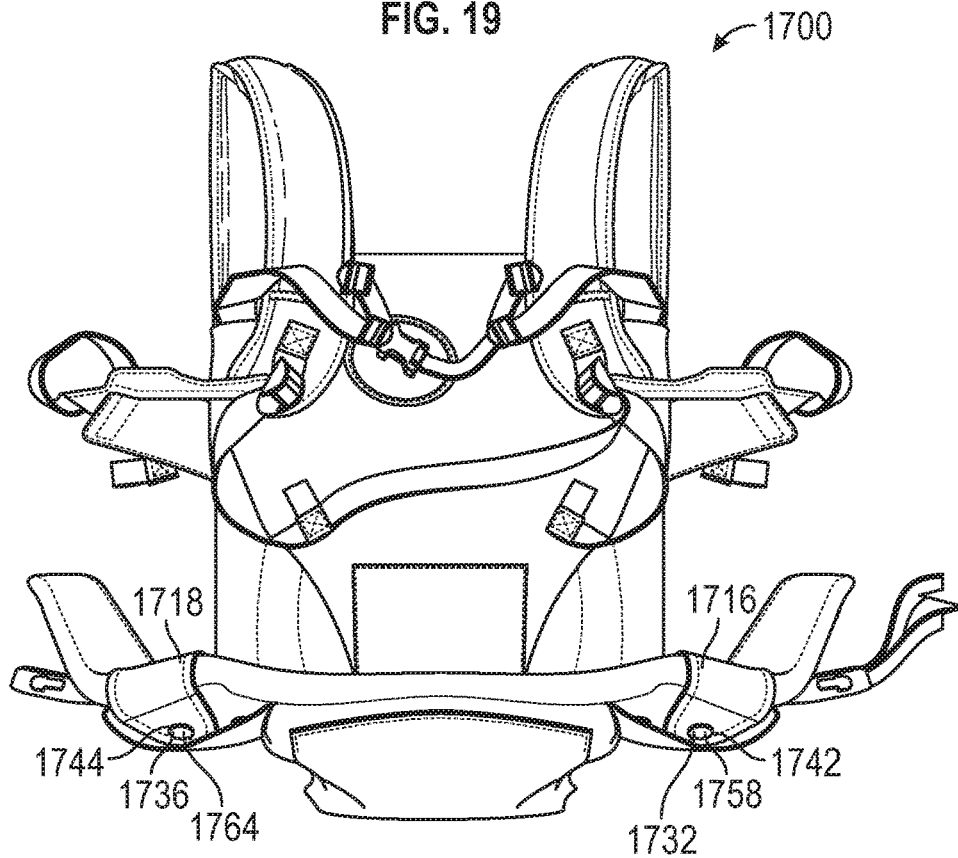


FIG. 20

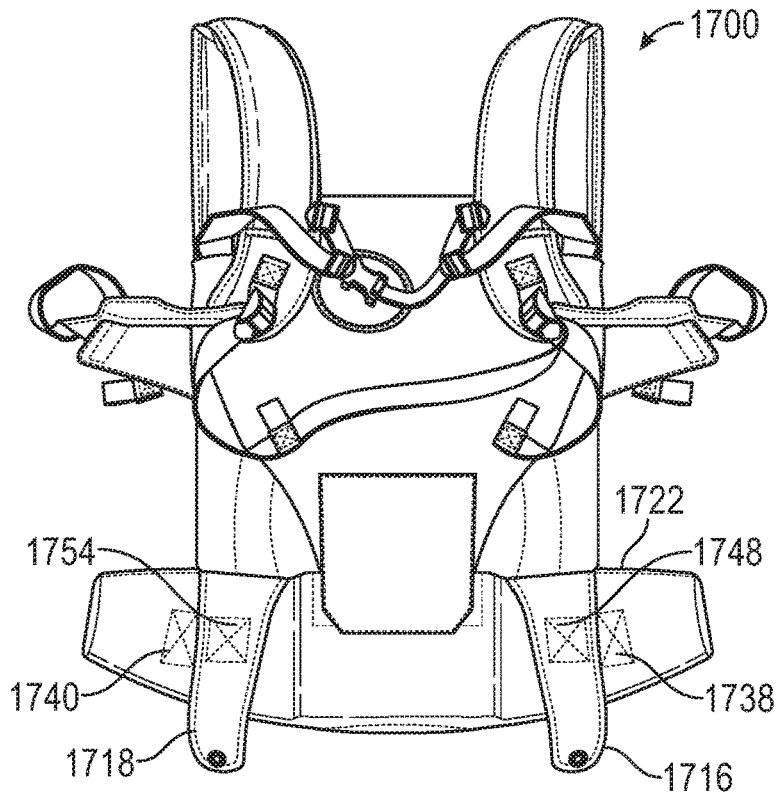


FIG. 21

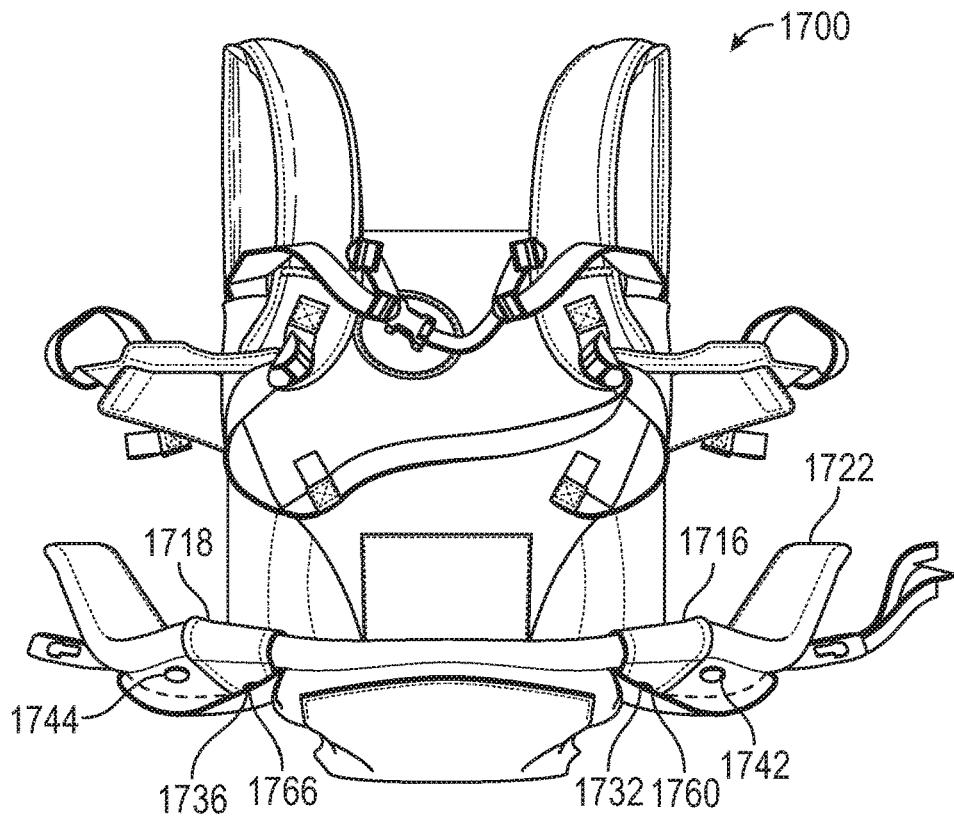


FIG. 22

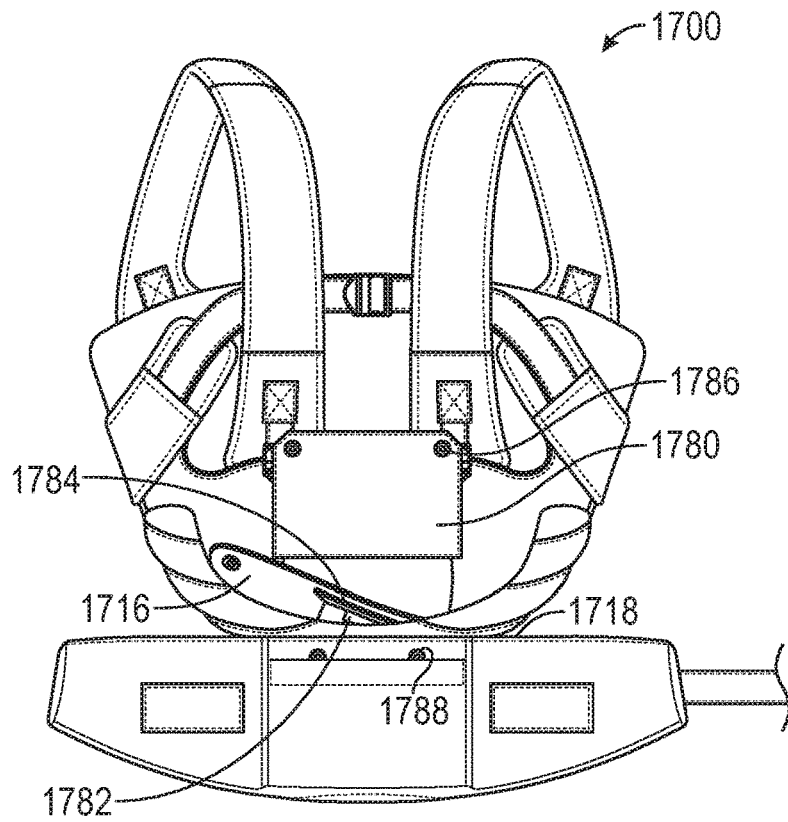


FIG. 23

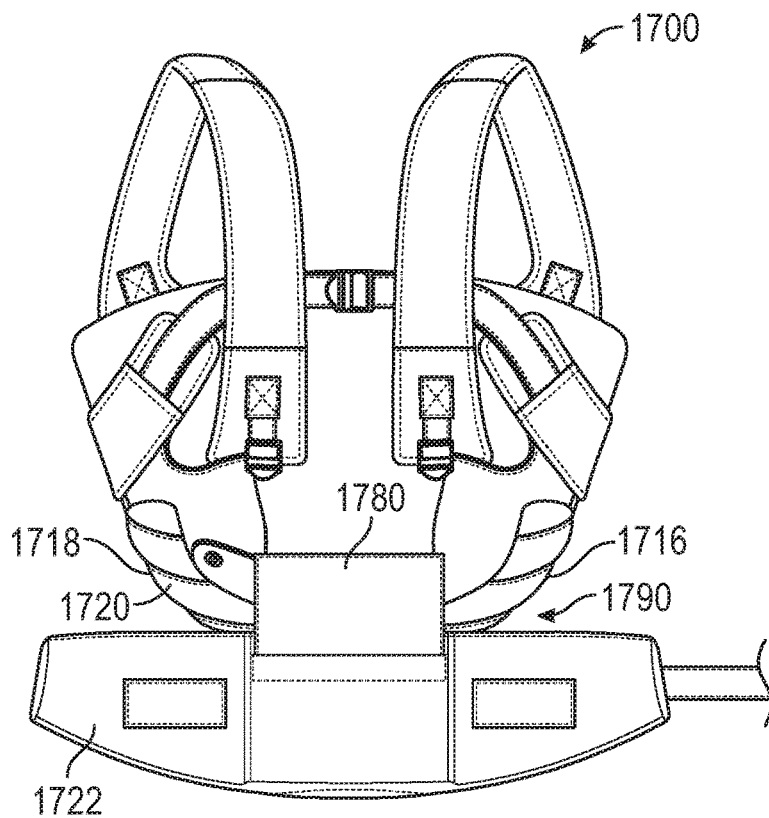


FIG. 24

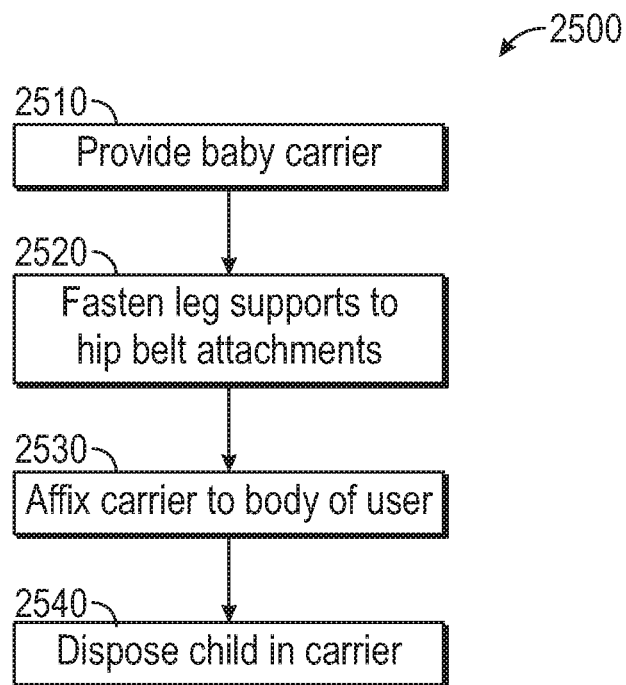


FIG. 25

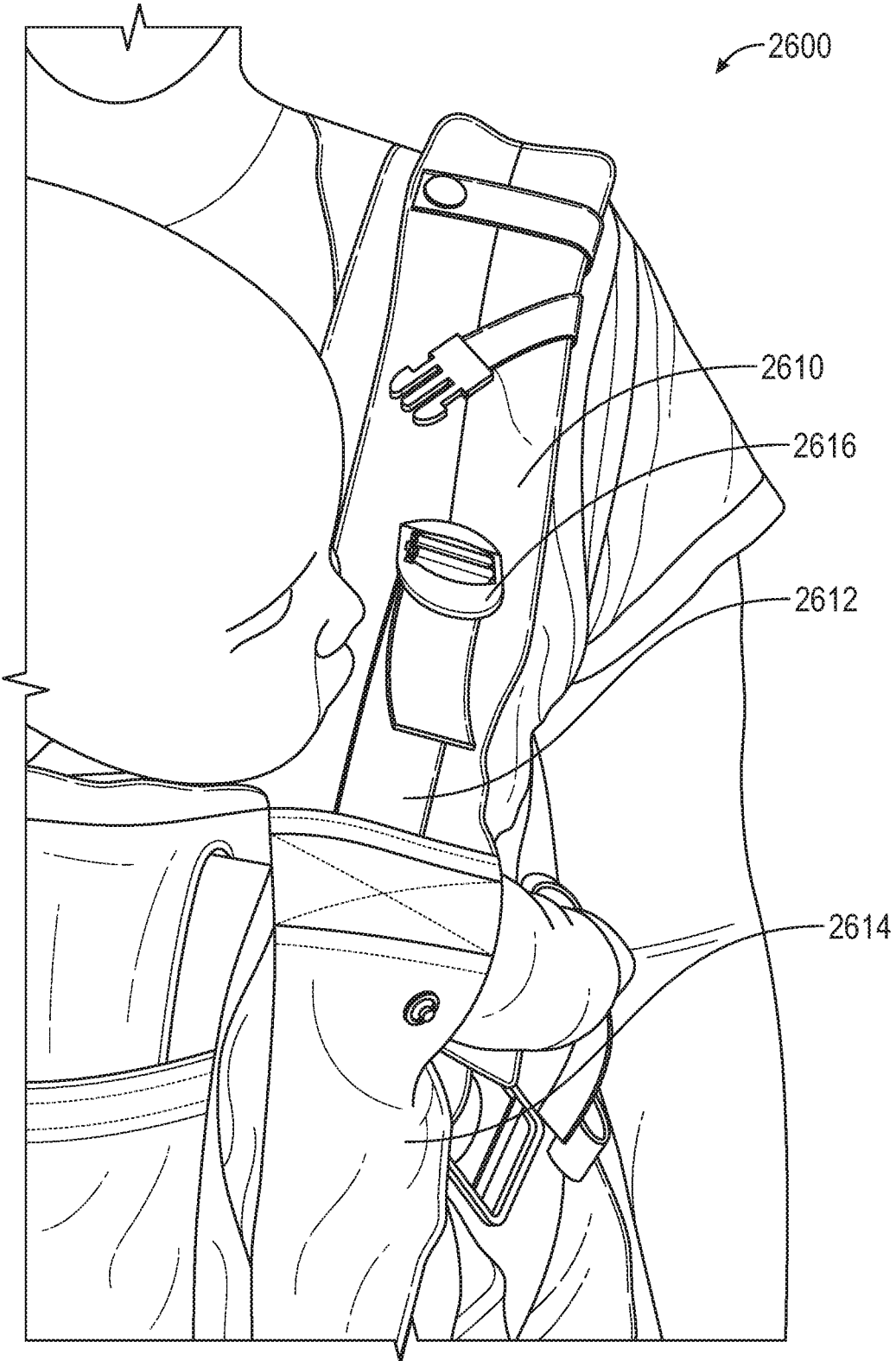


FIG. 26

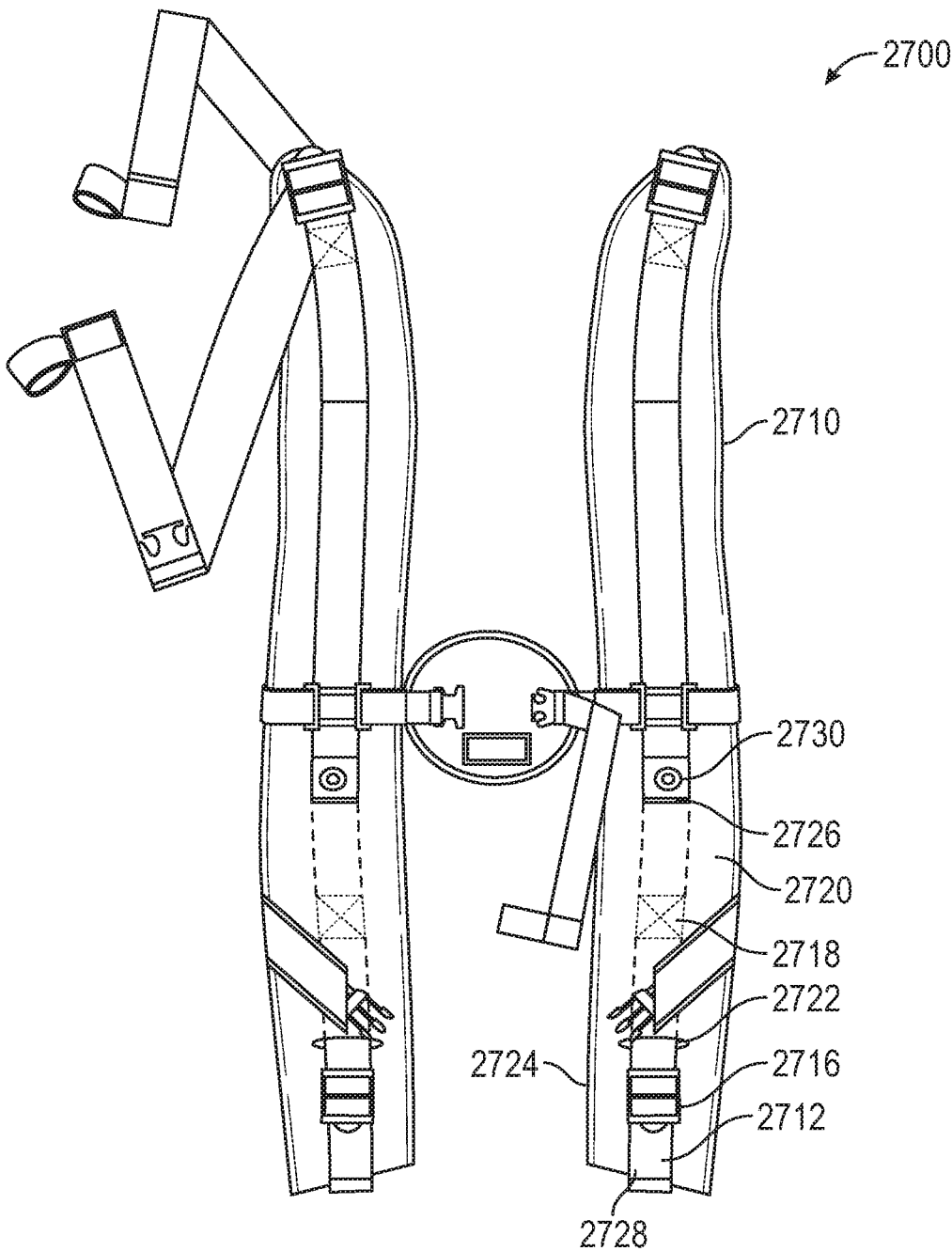


FIG. 27

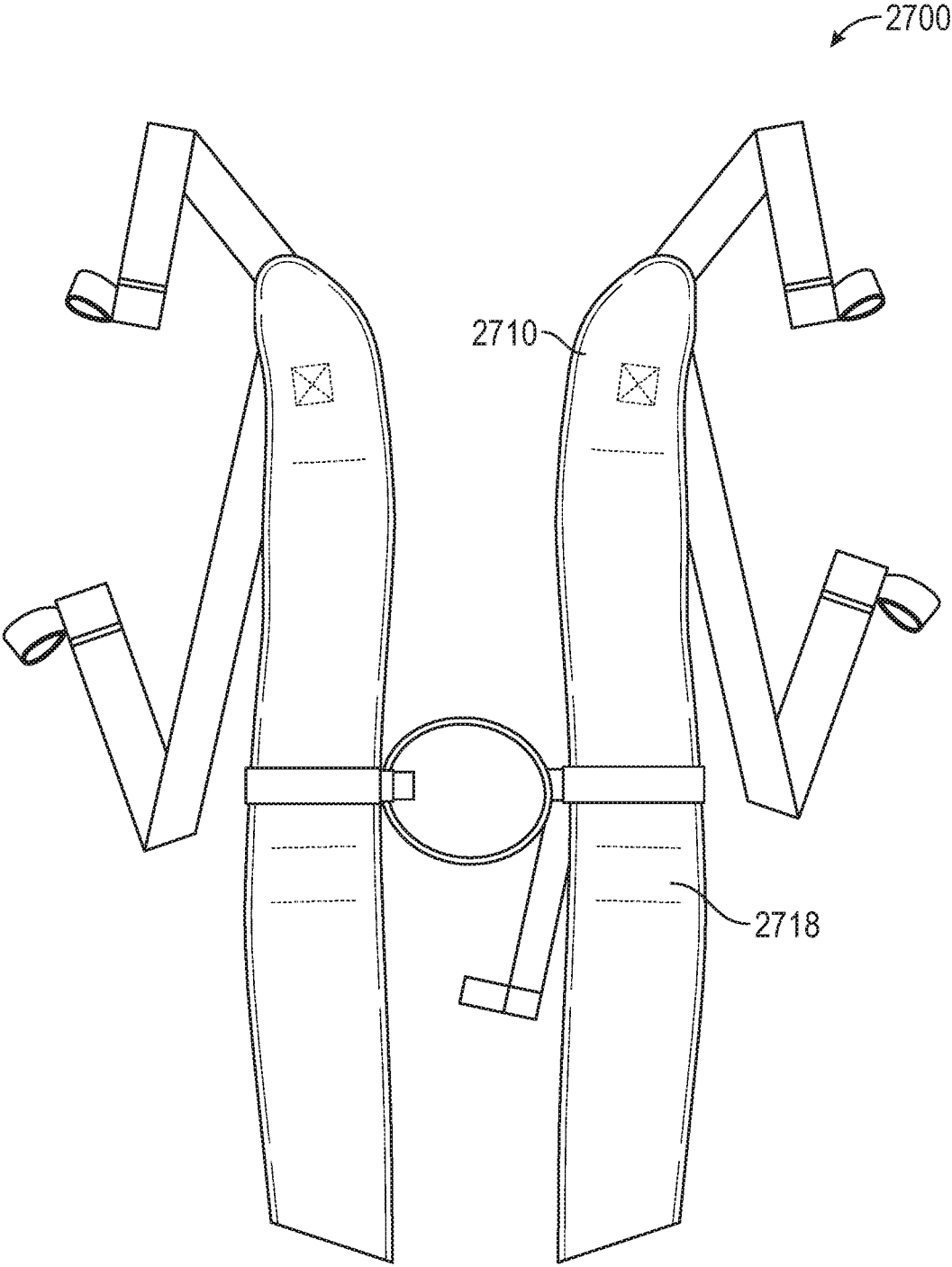


FIG. 28

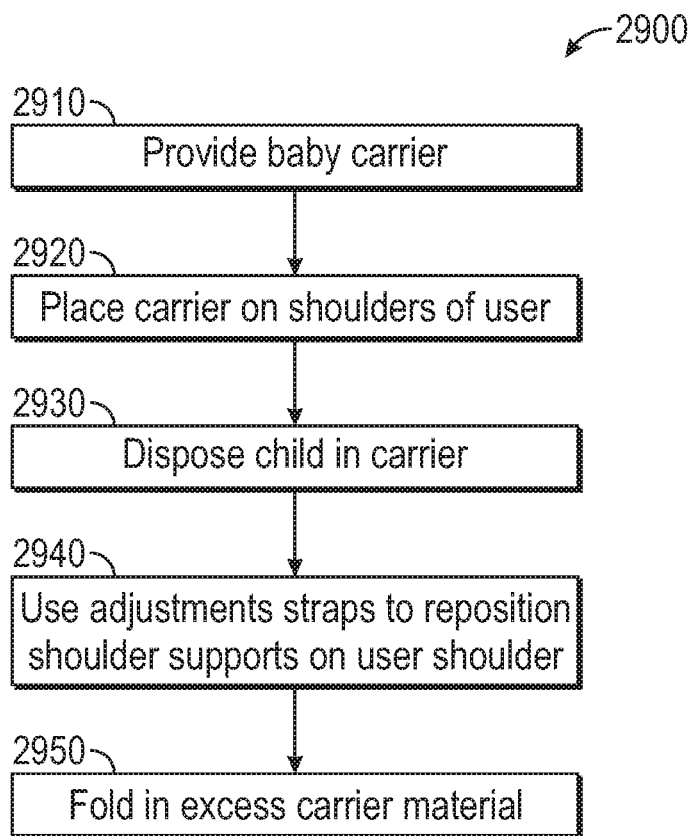


FIG. 29

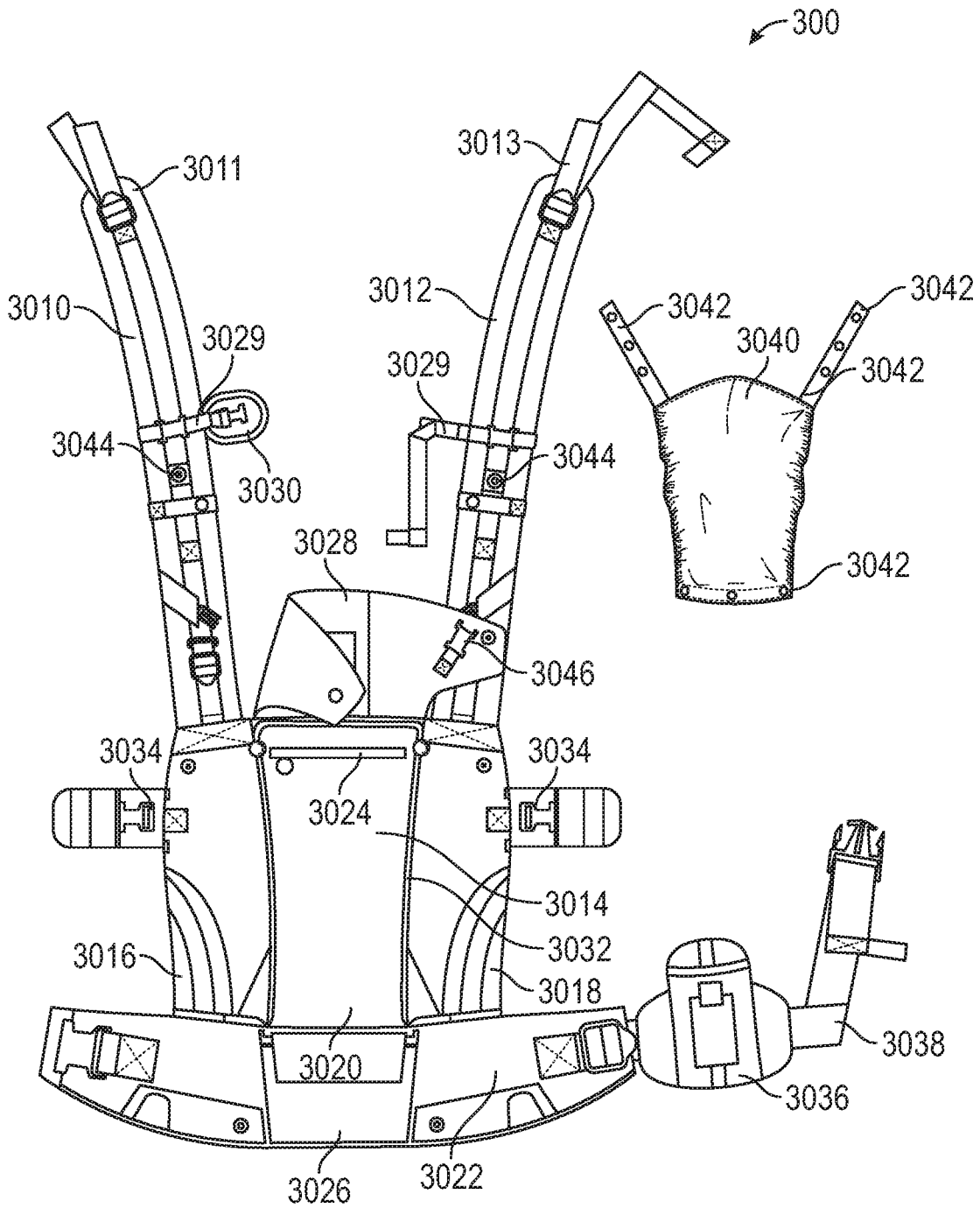


FIG. 30

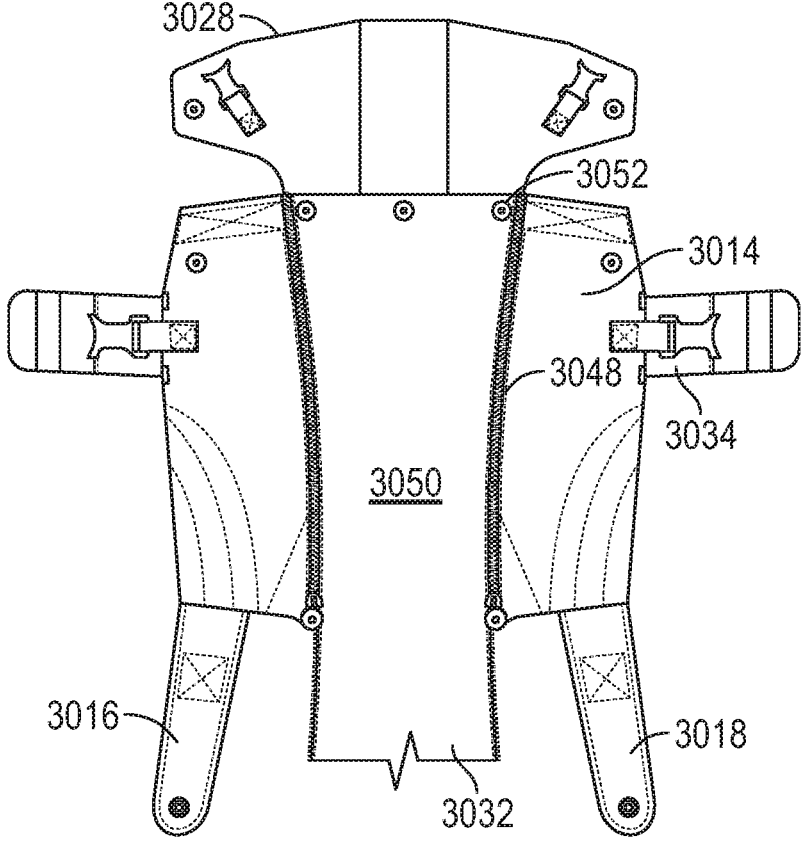


FIG. 31

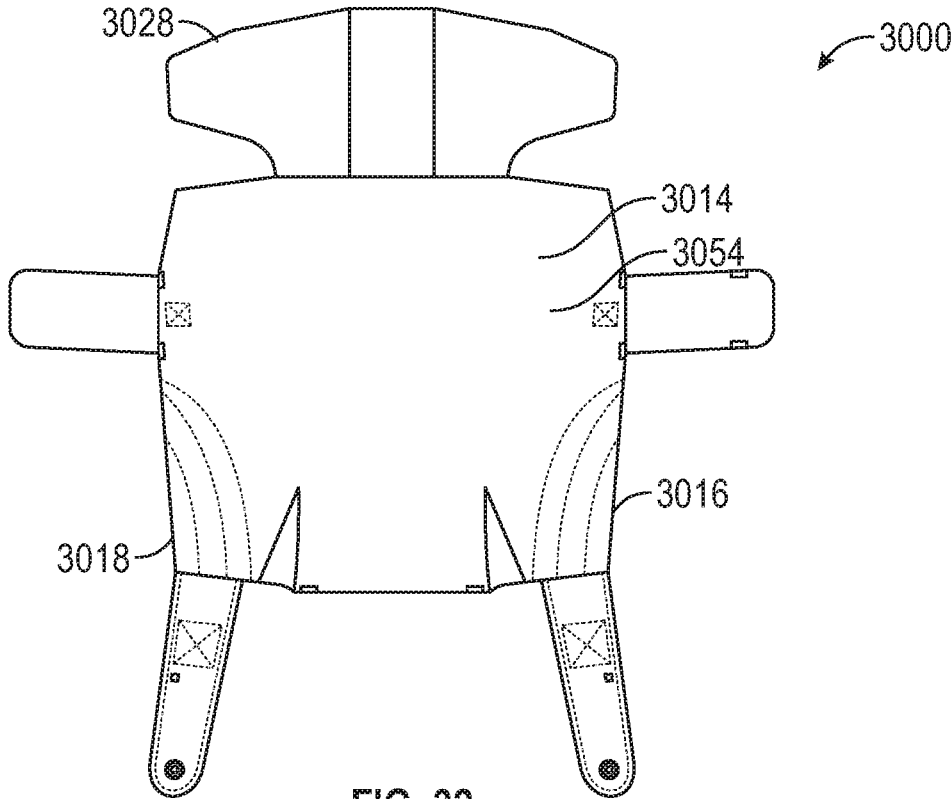


FIG. 32

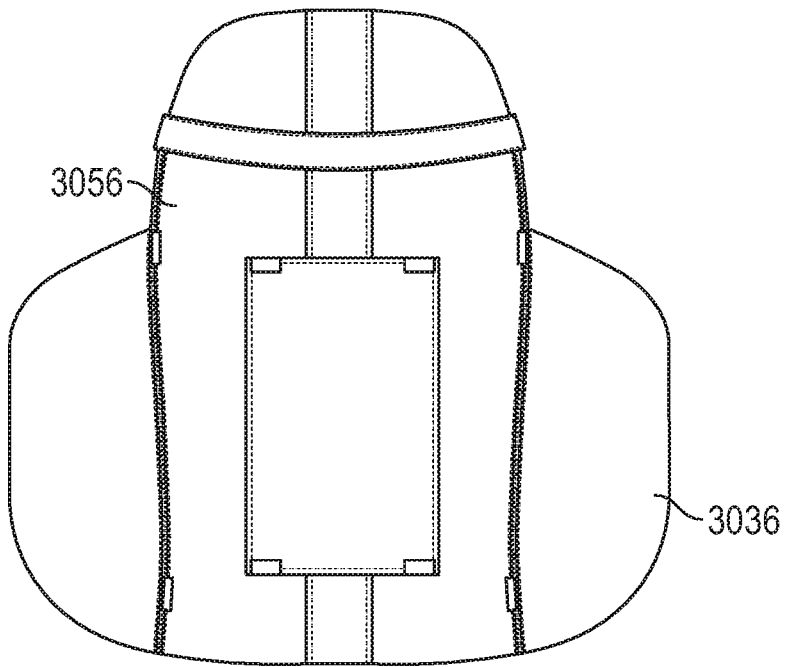


FIG. 33

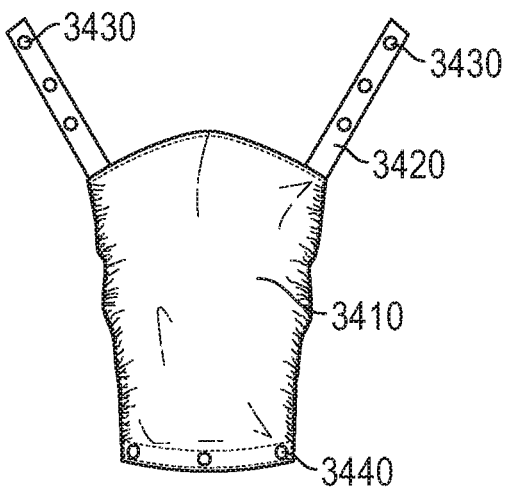
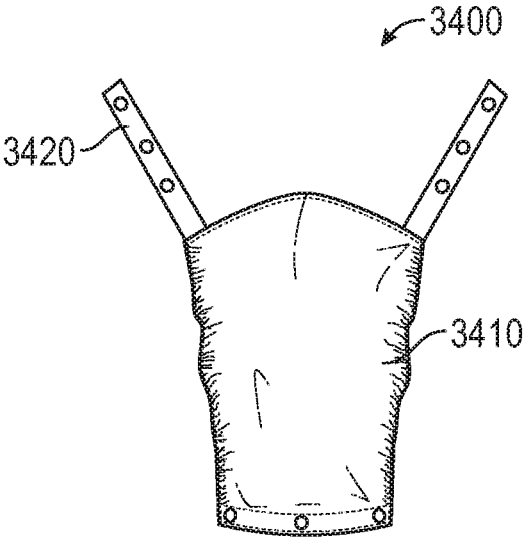
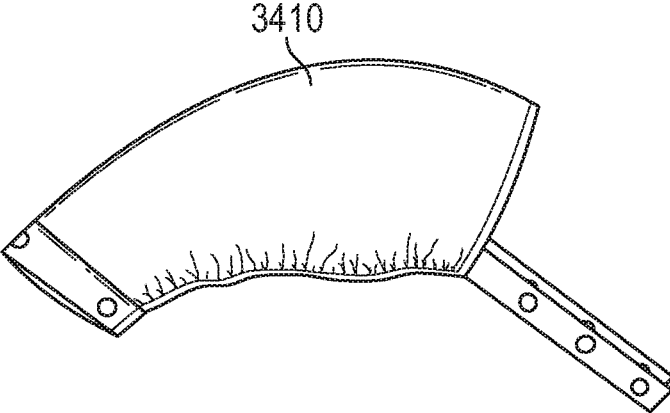


FIG. 34

CARRIER WITH AN ADJUSTABLE BASE

[0001] This application claims priority to U.S. Provisional Application No. 62/803,078, entitled "CARRIER WITH AN ADJUSTABLE BASE," filed on Feb. 8, 2019, the disclosure of which is incorporated by reference herein in its entirety.

TECHNICAL FIELD

[0002] The present disclosure relates to the field of wearable carriers, and particularly to an adjustable baby carrier for carrying a baby, small child, or animal as well as methods of using the same.

BACKGROUND

[0003] Carriers are often an essential item for adults who frequently transport babies, small children, and/or animals. Carriers may, for example, allow an adult to carry a baby while keeping both arms free. There are various types of carriers including structured front and back carriers, hip carriers, slings, wraps, and other types of carriers. Because children grow quickly, the useful life of many traditional carriers is limited. One feature that limits the life of many carriers is the width of the base and/or distance between the leg holes in a carrier. As children grow, their hip size may quickly outgrow a smaller carrier. A carrier that is easily adjustable to accommodate varying hip widths would be useful.

BRIEF SUMMARY

[0004] Adjustable baby carriers are disclosed. A baby carrier may include a carrier body. A carrier body may include at least a torso support, a seat support, and/or other elements. The seat support may include a left leg support including left support attachment mechanisms and a right leg support including right support attachment mechanisms. The carrier body may be affixed to a hip belt. The hip belt may include hip belt attachment mechanisms that are configured to accommodate the left support attachment mechanisms and the right support attachment mechanisms to vary a size of the seat support. The carrier body may also be attached to shoulder supports.

[0005] Additional features, advantages, and embodiments of the disclosure are set forth or apparent from consideration of the following detailed description, drawings and claims. Moreover, it is to be understood that both the foregoing summary of the disclosure and the following detailed description are exemplary and intended to provide further explanation without limiting the scope of the disclosure as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The foregoing and other features and advantages of the disclosure will be apparent from the following, more particular description of various exemplary embodiments, as illustrated in the accompanying drawings wherein like reference numbers generally indicate identical, functionally similar, and/or structurally similar elements. The first digits in the reference number indicate the drawing in which an element first appears.

[0007] FIG. 1 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0008] FIG. 2 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0009] FIG. 3 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0010] FIG. 4 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0011] FIG. 5 is a diagram illustrating an inward facing side of an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0012] FIG. 6 is a diagram illustrating an outward facing side of an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0013] FIG. 7 is a diagram illustrating a detail view of a hip belt of an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0014] FIG. 8 is a diagram illustrating a detail view of a leg support of an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0015] FIG. 9 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure.

[0016] FIG. 10 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure.

[0017] FIG. 11 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure.

[0018] FIG. 12 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure.

[0019] FIG. 13 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure.

[0020] FIG. 14 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure.

[0021] FIG. 15 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure.

[0022] FIG. 16 is a detail view of a leg supports attached to a hip belt in a narrow base configuration of an adjustable baby carrier according to various embodiments of the disclosure.

[0023] FIG. 17 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0024] FIG. 18 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0025] FIG. 19 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure.

[0026] FIG. 20 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure.

[0027] FIG. 21 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure.

[0028] FIG. 22 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure.

[0029] FIG. 23 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure.

[0030] FIG. 24 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure.

[0031] FIG. 25 is a flow diagram illustrating embodiments of a process to use a baby carrier.

[0032] FIG. 26 is a diagram illustrating an adjustable shoulder support of an adjustable baby carrier according to various embodiments of the disclosure.

[0033] FIG. 27 is a diagram illustrating a front side of adjustable shoulder support of a baby carrier according to various embodiments of the disclosure.

[0034] FIG. 28 is a diagram illustrating a back side of adjustable shoulder support of a baby carrier according to various embodiments of the disclosure.

[0035] FIG. 29 is a flow diagram illustrating embodiments of a process to use a baby carrier.

[0036] FIG. 30 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure.

[0037] FIG. 31 is a diagram illustrating a zip down panel of a baby carrier according to one of the various embodiments of the disclosure.

[0038] FIG. 32 is a diagram illustrating a carrier body according to one of the various embodiments of the disclosure.

[0039] FIG. 33 is a diagram illustrating a baby carrier lumbar support according to one of the various embodiments of the disclosure.

[0040] FIG. 34 is a diagram illustrating various views of a hood for a baby carrier according to one of the various embodiments of the disclosure.

DETAILED DESCRIPTION

[0041] Exemplary embodiments are discussed in detail below. While specific exemplary embodiments are discussed, it should be understood that this is done for illustration purposes only. In describing and illustrating the exemplary embodiments, specific terminology is employed for the sake of clarity. However, the embodiments are not intended to be limited to the specific terminology so selected. A person skilled in the relevant art will recognize that other components and configurations may be used without parting from the spirit and scope of the embodiments. It is to be understood that each specific element includes all technical equivalents that operate in a similar manner to accomplish a similar purpose. The examples and embodiments described herein are non-limiting examples.

[0042] All publications cited herein are hereby incorporated by reference in their entirety.

[0043] As used herein, the term “a” refers to one or more. The terms “including,” “for example,” “such as,” “e.g.,” “may be” and the like, are meant to include, but not be limited to, the listed examples.

[0044] As described and shown, a carrier is provided of the type that may be referred to as a structured front and back carrier, hip carrier, and/or other type of carrier. The carrier includes an adjustable seat support (e.g., base portion). Various configurations and methods for providing adjustability are described and shown. The carrier may be configured to provide for pre-determined arrangements and positions for base adjustments, as described and shown in

various examples. A user may change and repeat seat support and/or base portion adjustments as desired. Among other features, to provide adjustability, the carrier may include leg supports that may detachably attach to the hip belt at more than one location. In one aspect, the carrier may include a left leg support and a right leg support that attach to a hip belt of the carrier. The left and right leg supports may each attach to the hip belt in multiple locations. This may allow the leg support attachments to the hip belt to be adjustable to accommodate various hip sizes, leg widths, leg separation distances, and/or other anatomical features of the child. In certain cases, the left and right leg supports include multiple attachment mechanisms, such as snaps, VELCRO, buttons, buckles, hook and loop fasteners, hooks, and/or any other mechanism of temporary and/or removable attachment. The hip belt also includes complimentary attachment mechanisms. The hip belt may include multiple sets of attachment mechanisms complementary to the leg supports so that the leg supports may be adjusted from a narrow position, middle position, wide position, and/or other positions.

[0045] FIG. 1 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure. A baby carrier 100 is shown. The baby carrier 100 may include a structured front and back carrier, hip carrier, and/or other type of carrier. The baby carrier 100 includes a base that may be adjusted to accommodate babies and/or small children of varying hip sizes and leg widths. In the example shown, the baby carrier 100 may include left shoulder support 110, right shoulder support 112, a carrier body 114 (e.g., including a torso support), a left leg support 116, a right leg support 118, a seat support 120 (e.g., base portion), a hip belt 122, and/or other elements. The left leg support 116 and the right leg support 118 are configured to removably and/or temporarily attach to the hip belt 122 in multiple locations. The leg supports 116, 118 may attach to the hip belt 122 at multiple locations to accommodate varying hip sizes and leg sizes of the child.

[0046] In various embodiments, the carrier 100 may include carrier body pockets 124, hip belt pockets 126, neck supports 128, and/or other features. The carrier body pockets 124 and hip belt pockets 126 may be used to store a variety of items during use. The neck support 128 secures the location of the child's head during use of the carrier 100.

[0047] FIG. 2 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure. FIG. 2 includes a different perspective of the baby carrier 100 depicted in FIG. 1. During use, the shoulder supports 110, 112 pass over the left and right shoulders of an adult (not shown). The hip belt 122 is fastened around the waist of the adult. The baby carrier 100 may be worn with carrier body 114 on the back of the adult, on the front of the adult, and/or on the side of the adult depending, for example, on the user's preferred configuration.

[0048] FIG. 3 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure. A baby carrier 300 with multiple base configurations is disclosed. The embodiment described in these configurations includes three seat support configurations; though, baby carriers with additional configurations or fewer configurations are contemplated by the disclosure. The width of a seat support 320 and/or distance between leg supports 316, 318 may be adjusted. In the examples depicted, the left leg support 316 may be removably attached

to any of the first attachment points **346**, **348**, **350** and/or to any of the second attachment points **358**, **360**, **362**. The right leg support **318** may be removably attached to any of the first attachment points **352**, **354**, **356** and/or removably attached to any of the second attachment points **364**, **366**, **368**.

[0049] FIG. 3 depicts a baby carrier **300** similar to the carrier shown in FIGS. 1 and 2. A portion of the baby carrier **300** that contacts the child is shown. In the example shown, the baby carrier **300** includes one or more of a left shoulder support **310**, right shoulder strap **312**, carrier body **314**, left leg support **316**, right leg support **318**, seat support **320**, hip belt **322**, and/or other features.

[0050] A left leg support **316** may include a left first attachment mechanism **330**, a left second attachment mechanism **332**, and/or other attachment mechanisms. A right leg support **318** may include a right leg support first attachment mechanism **334**, a right leg support second attachment mechanism **336**, and/or other attachment mechanisms. The leg support attachment mechanisms **330**, **332**, **334**, **336** are configured to attach to and/or couple with first hip belt attachment mechanisms **338**, **340** and/or second hip belt attachment mechanisms **342**, **344**. The leg support attachment mechanisms **330**, **332**, **334**, **336** and hip belt attachment mechanisms **338**, **340** may include one or more of snaps, VELCRO, buttons, buckles, hook and loop fasteners, hooks, and/or any other mechanism of temporary and/or removable attachment. For example, a left hip belt first attachment mechanism **338** and a right hip belt first attachment mechanism **340** may include VELCRO (shown). A left hip belt second attachment mechanism **342** and a right hip belt second attachment mechanism **344** may include snaps on the opposite side of the hip belt (not shown in FIG. 3).

[0051] The left support first attachment mechanism **330** may be configured to attach to left hip belt first attachment mechanism **338** in multiple locations. The left hip belt first attachment mechanism **338** may include, example, an outer attachment point **346**, a middle attachment point **348**, an inner attachment point **350**, and/or other attachment points or locations. The right support first attachment mechanism **340** may be configured to attach to right hip belt first attachment mechanism **340** in multiple locations. The right hip belt first attachment mechanism **340** may include, example, an outer attachment point **352**, a middle attachment point **354**, an inner attachment point **356**, and/or other attachment points or locations. In certain cases, the first attachment mechanisms **338**, **340** are arranged along an edge of the hip belt **322**. For example, the first attachment mechanisms **338**, **340** may follow the contour of the hip belt **322**. The hip belt first attachment mechanism **338**, **340** may be hidden from view during use because, for example, they are located on a side of the hip belt **322** facing the body of the user.

[0052] In various embodiments, attachment points are associated with identifiers **380**, **382**, **384** (e.g., configuration identifiers). The identifiers **380**, **382**, **384** may include symbols, such as dots (shown), shapes, colors, textures, and/or other mechanisms. For example, a wide configuration identifier **380** may include three dots, a middle configuration identifier **382** may include two dots, and/or a narrow configuration identifier **384** may include a single dot. The identifiers **380**, **382**, **384** may guide a user to adjust the baby carrier **300** into an appropriate configuration.

[0053] In a first example widest configuration (also depicted in FIGS. 9-11), the left first attachment mechanism **330** may attach to the left outer attachment point **346** and the right first attachment mechanism **334** may attach to the right outer attachment point **352**. The left second attachment mechanism **332** may attach to a left outer attachment point (not shown) on a front side of the hip belt **322**, and the right second attachment mechanism **336** may attach to right outer attachment point (not shown). The left and right leg supports **316**, **318** may, for example, wrap around the hip belt **322**, and the left and right second attachment mechanisms **332**, **336** may attach to the outer attachment points. In this example widest configuration, the distance between the left leg support **316** and right leg support **318** may be the greatest. And the seat support **320** may be the widest and/or include the most material beneath the child in this configuration. This configuration may be suitable for larger children and/or users.

[0054] In an example middle configuration (also depicted in FIGS. 12 and 13), the left first attachment mechanism **330** may attach to the left middle attachment point **348**, and the right first attachment mechanism **334** may attach to the right middle attachment point **354**. The left second attachment mechanism **332** may attach to a left middle attachment point (not shown) on a front side of the hip belt **322**, and the right second attachment mechanism **336** may attach to right middle attachment point (not shown). The left and right leg supports **316**, **318** may, for example, wrap around the hip belt **322**, and the left and right second attachment mechanisms **332**, **336** may attach to the middle outer attachment points. This configures the seat support **320** into a middle configuration, in which the distance between the left leg support **316** and right leg support **318** may be a middle distance.

[0055] In an example narrow configuration (also depicted in FIGS. 14-16), the left first attachment mechanism **330** may attach to the left narrow attachment point **350**, and the right first attachment mechanism **334** may attach to the right narrow attachment point **356**. The left second attachment mechanism **332** may attach to a left inner attachment point (not shown) on a front side of the hip belt **322**, and the right second attachment mechanism **336** may attach to right inner attachment point (not shown). The left and right leg supports **316**, **318** may, for example, wrap around the hip belt **322**, and the left and right second attachment mechanisms **332**, **336** may attach to the narrow attachment points. This configures the seat support **320** into a narrowest configuration, in which the distance between the left leg support **316** and right leg support **318** is a shortest distance. The seat support **320** may be narrowest in this configuration. This configuration may be suitable for smaller children and/or babies.

[0056] In various embodiments, left hip belt first attachment mechanism **338** and right hip belt first attachment mechanism **340** include VELCRO. The VELCRO in certain cases includes a single strip of VELCRO. The carrier **300** may be adjusted from narrow, to middle, and/or to wide configurations by moving the left support first attachment mechanism **330** and right support first attachment to the appropriate position on the VELCRO strip.

[0057] In some embodiments, the left hip belt first attachment mechanism **338** and right hip belt first attachment mechanism **340** may include fastening mechanisms such as

a sliding rail, Velcro, hooks, hook and loop fasteners, buckles, belt loops, and/or other fastening mechanisms.

[0058] FIG. 4 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure. An outward facing portion of the baby carrier 300 is shown. In the example shown, the baby carrier 300 includes a left shoulder support 310, right shoulder strap 312, carrier body 314, left leg support 316, right leg support 318, seat support 320, hip belt 322, and/or other features.

[0059] As discussed with reference to FIG. 3, the left and right leg supports 316, 318 are configured to attach to the hip belt 322 at various locations to, for example, adjust the width of the seat support 320. The left support first attachment mechanism 330 may attach to one of the left outer attachment point 346, left middle attachment point 348, and left inner attachment point 350 to adjust the width of the seat support 320. Similarly, the right support first attachment mechanism 334 may attach to one of the right outer attachment point 352, right middle attachment point 354, and right inner attachment point 356 to adjust the width of the seat support 320. In certain cases, for each of these configurations, there is a complementary second attachment point on the hip belt 322. A left hip belt second attachment mechanism 342 may include, for example, a second outer attachment point 358, a second middle attachment point 360, and second inner attachment point 362. In certain cases, the attachment points 358, 360, 362 may include snaps. In the example shown, attachment points 358, 360, 362 may be covered by fabric to protect the attachment points 358, 360, 362 from wear, protect the baby in the carrier 300, and/or to improve aesthetics. For example, attachment points 358, 360, 362 may be located in a pocket or under a cover. A right hip belt second attachment mechanism 344 may include, for example, a second outer attachment point 364, a second middle attachment point 366, and second inner attachment point 368. The attachment points 364, 366, 368 may include snaps and/or any other attachment mechanism discussed herein or known in the art.

[0060] In a widest configuration described with reference to FIG. 3, for example, the left first attachment mechanism 330 may attach to the left outer attachment point 346 and the right first attachment mechanism 334 may attach to the right outer attachment point 352. The right and left leg supports 316, 318 are wrapped around the hip belt 322. As shown in FIG. 4 in the widest configuration, the left support second attachment mechanism 332 is attached to the second left outer attachment point 358, and the right support second attachment mechanism 336 is attached to the second right outer attachment point 364. The left leg support 316 is attached to the hip belt 322 at multiple points 346, 358, and right leg support 318 is attached to the hip belt 322 at multiple points 352, 364. In this example widest configuration, the distance the seat support 320 is the widest includes the largest distance between the leg supports 316, 318. By attaching each of the leg supports 316, 318 to the hip belt 322, the seat support 320 provides a solid foundation below the child in the carrier 300.

[0061] In a middle configuration described with reference to FIG. 3, for example, the left first attachment mechanism 330 may attach to the left middle attachment point 348 and the right first attachment mechanism 334 may attach to the right middle attachment point 354. As shown in FIG. 4 in the middle configuration, the left support second attachment mechanism 332 is attached to the second left middle attach-

ment point 360, and the right support second attachment mechanism 336 is attached to the second right middle attachment point 366. In this configuration, the left leg support 316 is attached to the hip belt 322 at multiple points 348, 360, and right leg support 318 is attached to the hip belt 322 at multiple points 354, 366.

[0062] In a narrow configuration described with reference to FIG. 3, for example, the left first attachment mechanism 330 may attach to the left inner attachment point 350 and the right first attachment mechanism 334 may attach to the right inner attachment point 356. As shown in FIG. 4 in the middle configuration, the left support second attachment mechanism 332 is attached to the second left inner attachment point 362, and the right support second attachment mechanism 336 is attached to the second right inner attachment point 368. In this configuration, the left leg support 316 is attached to the hip belt 322 at multiple points 350, 362, and right leg support 318 is attached to the hip belt 322 at multiple points 356, 368.

[0063] FIG. 5 is a diagram illustrating an inward facing side of an adjustable baby carrier according to one of the various embodiments of the disclosure. In the example shown, a baby carrier 500 includes multiple leg support position configurations 510, 520, 530. Three configurations are depicted including a widest configuration 510, which may be green, a middle configuration 520, which may be red, and a narrow configuration 530, which may be yellow. In the widest configuration 510, left leg support 516 is attached to the hip belt 522 at multiple attachment points furthest from the centerline of the carrier 500. The right leg support 518 is attached to the hip belt 522 at multiple attachment points furthest from the centerline of the carrier 500. In a middle configuration 520, the left leg support 516 and right leg support 518 are each attached to the hip belt 522 at attachment points closer to the centerline of the carrier 500. In a narrow configuration 530, the left leg support 516 and right leg support 518 are each attached to the hip belt 522 at attachment points closest to the centerline of the carrier 500.

[0064] FIG. 6 is a diagram illustrating an outward facing side of an adjustable baby carrier according to one of the various embodiments of the disclosure. In the example shown, the outward facing side of the carrier 500, for example, the side of the carrier facing away from the adult, includes multiple attachment points. The leg supports 516, 518 attach to various pairs of the attachment points, according to the desired configuration of the carrier 500. In a widest configuration, left leg support 516 attaches to the hip belt 522 at an outer attachment point 558 and/or other attachment points, and right leg support 518 attaches to the hip belt 522 at a right outer attachment point 564. In a middle configuration, left leg support 516 attaches to the hip belt 522 at a left middle attachment point 560 and/or other attachment point, and the right leg support 518 attaches to the hip belt 522 at a right middle attachment point 566 and/or other attachment point. In a narrow configuration, left leg support 516 attaches to the hip belt 522 at a left inner attachment point 562 and/or other attachment point, and the right leg support 518 attaches to the hip belt 522 at a right inner attachment point 568 and/or other attachment point.

[0065] FIG. 7 is a diagram illustrating a detail view of a hip belt of an adjustable baby carrier according to one of the various embodiments of the disclosure. In the example shown, a hip belt 522 of a baby carrier includes multiple leg

support position configurations **510**, **520**, **530**. The leg support position configurations **510**, **520**, **530** may be associated with identifiers **580**, **582**, **584** (e.g., configuration identifiers) included on a hip belt **522**. In various embodiments, attachment points are associated with identifiers **580**, **582**, **584** (e.g., configuration identifiers, indicators, etc.). The identifiers **580**, **582**, **584** may include webbing, symbols, embroidery, stitching patterns, or other indicators. In certain cases, identifiers **580**, **582**, **584** include stitched patterns of various colors, length, shapes, embroidery, and/or other features. For example, wide configuration identifiers **580** may include a stitched pattern of a longest length, middle configuration identifiers **582** may include a stitched pattern of a shorter length, and/or narrow configuration identifiers **584** may include a stitched pattern of a shortest length. Based on the varying lengths of the indicators **580**, **582**, **584**, the user may be able to adjust the carrier **500** into a proper configuration by touch. For example, the leg support may be aligned in the wide configuration **510** by touch using the wide configuration identifiers **582** as a guide (e.g., a touch point reference).

[0066] In certain cases, the wide configuration identifiers **580** may include a first color, embroidery, stitching pattern, etc., the middle configuration identifiers **582** may include a second color, embroidery, stitching pattern, etc., and the narrow configuration identifiers **584** may include a third color, embroidery, stitching pattern, etc. The colors, embroidery, stitching pattern, etc., of the identifiers **580**, **582**, **584** may be matched to colors, embroidery, stitching patterns, etc. on the leg support as discussed with reference to FIG. 8.

[0067] In some instances, the identifiers **580**, **582**, **584** may each include a different stitch pattern, shape, or other features. The identifiers **580**, **582**, **584** may guide a user to adjust the baby carrier **500** into an appropriate configuration. The wide position identifier **580** guides the user to configure the carrier into a wide configuration **510**, the middle position identifiers **582** into a middle position **520**, the narrow position identifiers **584** into a narrow position **530**, and so on.

[0068] FIG. 8 is a diagram illustrating a detail view of a leg support of an adjustable baby carrier according to one of the various embodiments of the disclosure. In the example shown, a left leg support **516** includes identifiers **590**, **592**, **594** (e.g., leg support configuration identifiers, configuration identifiers, etc.). The identifiers **590**, **592**, **594** may correspond in shape, pattern, color, embroidery, texture, and/or other attributes the configuration identifiers **580**, **582**, **584** on the hip belt **522** (as depicted, for example, in FIG. 7). For example, leg support identifier **590** may correspond to hip belt identifier **580** and may include the same or similar patterns, colors, embroidery, texture, or other indicators. The same or similar indicators guide the user to configure the left leg support **516** into the proper configuration on the hip belt **522**. In the example shown, the leg support identifier **590** may be associated with a widest configuration. In certain cases, the left leg support **516** is aligned with hip belt **522** so that the leg support identifier **590** is aligned with a portion of hip belt identifier **580**, an edge of hip belt **522**, and/or other features. The identifiers **590**, **592**, **594** guide a user to adjust the baby carrier **500** into an appropriate configuration. The wide position identifier **590** guides the user to configure the carrier into a wide configuration **510**, the middle position

identifiers **592** into a middle position **520**, the narrow position identifiers **594** into a narrow position **530**, and so on.

[0069] FIG. 9 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure. In the example shown, a baby carrier **300** is in a widest configuration. The left leg support **316** is attached to the left hip belt attachment mechanism **338** at an outermost position **346**. The right leg support **318** is attached to the right hip belt attachment mechanism **340** at an outermost position **352**. In the widest configuration, the width of the seat support **320** is larger relative to the other configurations. The width of the seat support **320** includes a distance from the left leg support **316** to the right leg support **318**.

[0070] FIG. 10 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure. In the example shown, a left leg support **316** is aligned for attachment to the hip belt **322** at a widest attachment location. The left support second attachment mechanism **332** is aligned for attachment to the hip belt second attachment mechanism **342** at an outer attachment point **358**. In the example, shown the left leg support **316** is attached to the hip belt **322** using snaps, though other attachment mechanisms could be used.

[0071] In various embodiments, attachment mechanisms on the hip belt **322** are covered or protected. In the example shown, a cover **370** includes a fabric cover. In other cases, a cover **370** could include a pocket, plastic enclosure, and the like.

[0072] FIG. 11 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure. In the example shown, the left leg support **316** and right leg support **318** are wrapped around an edge of the hip belt **322**. The left leg support **316** is attached to the left hip belt second attachment mechanism **342**. The left support second attachment mechanism **332** is attached to the hip belt second attachment mechanism **342** at an outer attachment point **358**. The right leg support **318** is attached to the right hip belt second attachment mechanism **344**. The right support second attachment mechanism **336** is attached to the hip belt second attachment mechanism **342** at an outer attachment point **364**.

[0073] FIG. 12 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure. In the example shown, a baby carrier **300** is in a medium configuration. The left leg support **316** is attached to the left hip belt attachment mechanism **338** at a middle position **348**. The right leg support **318** is attached to the right hip belt attachment mechanism **340** at a middle position **354**. In the middle configuration, the width of the seat support **320** is narrower relative to the wide configuration of FIGS. 9-11 and larger relative to the narrow configuration of FIGS. 14-17.

[0074] FIG. 13 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure. In the example shown, the left leg support **316** and right leg support **318** are wrapped around an edge of the hip belt **322**. The left leg support **316** is aligned for attachment to the hip belt **322** at a middle attachment location. The left support second attachment mechanism **332** is temporarily fastened to the hip belt second attachment mechanism **342** at a middle attachment point **360**. In the example shown, the left leg support **316** is

attached to the hip belt 322 using snaps, though other attachment mechanisms could be used. For example, the left leg support 316 may also be attached to the hip belt 322 using a sliding rail, Velcro, hooks, hook and loop fasteners, buckles, belt loops, and/or other fastening mechanisms.

[0075] FIG. 14 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure. In the example shown, a baby carrier 300 is in a narrow configuration. The left leg support 316 is attached to the left hip belt attachment mechanism 338 at an inner attachment point 350. The right leg support 318 is attached to the right hip belt attachment mechanism 340 at inner attachment point 350. In the example shown, the inner attachment points 350, 356 are identified by a single dot. In the narrow configuration depicted, the width of the seat support 320 is narrower relative to the wide configuration of FIGS. 9-11 and narrower relative to the medium configuration of FIGS. 12-13.

[0076] FIG. 15 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure. In the example shown, the left leg support 316 is attached to the left hip belt second attachment mechanism 342. The left support second attachment mechanism 332 is attached to the hip belt second attachment mechanism 342 at an inner attachment point 362. The right leg support 318 is attached to the right hip belt second attachment mechanism 344. The right support second attachment mechanism 336 is attached to the hip belt second attachment mechanism 344 at an inner attachment point 368.

[0077] FIG. 16 is a detail view of a leg supports attached to a hip belt in a narrow configuration of an adjustable baby carrier according to various embodiments of the disclosure. In the example shown, the left leg support 316 and right leg support 318 are wrapped around an edge of the hip belt 322. The left leg support 316 is attached to the left hip belt second attachment mechanism 342. The left support second attachment mechanism 332 is attached to the hip belt second attachment mechanism 342 at an inner attachment point 362. The right leg support 318 is attached to the right hip belt second attachment mechanism 344. The right support second attachment mechanism 336 is attached to the hip belt second attachment mechanism 344 at an inner attachment point 368. In the depicted example, the left leg support 316 and right leg support 318 are fastened to the hip belt 322 using snaps and/or VELCRO (not shown). Other mechanisms of removably and/or temporarily fastening the leg supports 316, 318 to the hip belt 322 may be used.

[0078] In various embodiments, attachment mechanisms on the hip belt 322 are covered or protected. In the example shown, the leg supports 316, 318 are tucked into a pocket 372. The pocket 372 protects the leg supports 316, 318 from wear during use. The pocket also protects the attachment mechanisms 342, 344 from wear during the life of the carrier 300. The pocket 372 may also protect the child's legs from contacting or rubbing on the attachment mechanisms 342, 344. Hiding the attachment mechanisms 342, 344 during use also improves the functionality of the carrier 300 by reducing the likelihood of the carrier 300 catching on objects during use.

[0079] FIG. 17 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure. In the example shown, baby carrier 1700 may include many of the same features of the baby carriers 100,

300, 500 discussed herein, with differences noted in certain cases. A portion of the baby carrier 1700 that contacts the child is shown. In the example shown, the baby carrier 1700 includes one or more of a left shoulder support 1710, right shoulder support 1712, carrier body 1714, left leg support 1716, right leg support 1718, a seat support 1720, a hip belt 1722, and/or other features.

[0080] A left leg support 1716 may include a left support first attachment mechanism 1730, a left support second attachment mechanism 1732, and/or other attachment mechanisms. A right leg support 1718 may include a right leg support first attachment mechanism 1734, a right leg support second attachment mechanism 1736, and/or other attachment mechanisms. The leg support attachment mechanisms 1730, 1732, 1734, 1736 are configured to attach to and/or couple with first hip belt attachment mechanisms 1738, 1740 and/or second hip belt attachment mechanisms 1742, 1744. The leg support attachment mechanisms 1730, 1732, 1734, 1736 and hip belt attachment mechanisms 1738, 1740 may include one or more of snaps, VELCRO, buttons, buckles, hook and loop fasteners, hooks, and/or any other mechanism of temporary and/or removable attachment. For example, a left hip belt first attachment mechanism 1738 and a right hip belt first attachment mechanism 1740 may include VELCRO (shown). A left hip belt second attachment mechanism 1742 and a right hip belt second attachment mechanism 1744 may include snaps on the opposite side of the hip belt (not shown in FIG. 17).

[0081] The left support first attachment mechanism 1730 may be configured to attach to left hip belt first attachment mechanism 1738 in multiple locations. For example, left support first attachment mechanism 1730 may attach at any point along the left hip belt first attachment mechanism 1738. The right support first attachment mechanism 1734 may similarly attach to right hip belt first attachment mechanism 1740 in multiple locations.

[0082] The various configurations of the baby carrier 1700 are discussed in detail below with reference to the appropriate figures. The wide configuration of the baby carrier 1700 may be substantively similar to the wide configuration of the baby carrier 300 discussed, for example, in FIGS. 9-11. The middle configuration of the baby carrier 1700 may be substantively similar to the middle configuration of the baby carrier 300 discussed, for example, in FIGS. 12 and 13. The narrow configuration of the baby carrier 1700 differs from the narrow configuration of baby carrier 300.

[0083] In various embodiments, in a narrow configuration the left leg support 1716 and right leg support 1718 are configured to attach to one another. In certain cases, the left support first attachment mechanism 1730 is configured to attach to the right support first attachment mechanism 1734. For example, VELCRO on the left leg support 1716 may attach to VELCRO on the right leg support 1718. Once attached, the left leg support 1716 and right leg support 1718 may be tucked under a cover 1780. In certain cases, the cover 1780 is secured to the hip belt 1722 using, for example, snaps, VELCRO, buttons, and/or other types of fasteners discussed herein or known in the art.

[0084] FIG. 18 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure. An outward facing portion of the baby carrier 1700 is shown. In the example shown, the baby carrier 1700

includes a carrier body 1714, left leg support 1716, right leg support 1718, a seat support 1720, a hip belt 1722, and/or other features.

[0085] As discussed with reference to FIG. 17, the left and right leg supports 1716, 1718 are configured to attach to the hip belt 1722 at various locations to, for example, adjust the width of the seat support 1720. The left support first attachment 1730 may attach to the first left hip belt attachment mechanism 1738 at various locations to adjust the width of the seat support 1720. Similarly, the right support first attachment 1734 may attach to the first right hip belt attachment mechanism 1740 at various locations to adjust the width of the seat support 1720. In certain cases, for each configuration, there is a complementary second attachment point on the hip belt 1722. A left hip belt second attachment mechanism 1742 may include, for example, a second outer attachment point 1758, a second middle attachment point 1760, and/or other attachment points. In certain cases, the attachment points 1758, 1760 include snaps. In the example shown, attachment points 1758, 1760 are covered by fabric to protect the attachment points 1758, 1760 from wear and to improve aesthetics. A right hip belt second attachment mechanism 1744 may include, for example, a second outer attachment point 1764, a second middle attachment point 1766, and/or other attachment points. The attachment points 1764, 1766 may include snaps and/or any other attachment mechanisms discussed herein or known in the art.

[0086] FIG. 19 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure. In the example shown, a baby carrier 1700 is in a widest configuration. The left leg support 1716 is attached to the left hip belt attachment mechanism 1738 at an outermost position 1746. The right leg support 1718 is attached to the right hip belt attachment mechanism 1740 at an outermost position 1752. In the widest configuration, the width of the seat support 1720 is larger relative to the other configurations. The width of the seat support 1720 includes a distance from the left leg support 1716 to the right leg support 1718.

[0087] FIG. 20 is a diagram illustrating an adjustable baby carrier in a wide base configuration according to various embodiments of the disclosure. In the example shown, the left leg support 1716 and right leg support 1718 are wrapped around an edge of the hip belt 1722. The left leg support 1716 is attached to the left hip belt second attachment mechanism 1742. The left support second attachment mechanism 1732 is attached to the hip belt second attachment mechanism 1742 at an outer attachment point 1758. The right leg support 1718 is attached to the right hip belt second attachment mechanism 1744. The right support second attachment mechanism 1736 is attached to the hip belt second attachment mechanism 1742 at an outer attachment point 1764.

[0088] FIG. 21 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure. In the example shown, a baby carrier 1700 is in a medium configuration. The left leg support 1716 is attached to the left hip belt attachment mechanism 1738 at a middle position 1748. The right leg support 1718 is attached to the right hip belt attachment mechanism 1740 at a middle position 1754. In the middle configuration, the width of the seat support 1720 is narrower relative to the wide configuration of FIGS. 19-20 and larger relative to the narrow configuration of FIGS. 23-24.

[0089] FIG. 22 is a diagram illustrating an adjustable baby carrier in a medium size configuration according to various embodiments of the disclosure. In the example shown, a left leg support 1716 is aligned for attachment to the hip belt 1722 at a middle attachment location. The left support second attachment mechanism 1732 is temporarily fastened to the hip belt second attachment mechanism 1742 at a middle attachment point 1760. In the example, shown the left leg support 1716 is attached to the hip belt 1722 using snaps, though other attachment mechanisms could be used. [0090] A right leg support 1718 is attached to the hip belt 1722 at a hip belt second attachment mechanism 1744. The right support second attachment mechanism 1736 is temporarily fastened to the hip belt second attachment mechanism 1744 at a middle attachment point 1766. In the example, shown the right leg support 1718 is attached to the hip belt 1722 using snaps, though other attachment mechanisms could be used.

[0091] FIG. 23 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure. In the example shown, a baby carrier 1700 is in a narrow configuration. In a narrow seat support configuration depicted, the left leg support 1716 and right leg support 1718 are removably attached to one another. In certain cases, the left support first attachment mechanism 1730 is configured to attach to the right support first attachment mechanism 1734. The left support 1716 and right support 1718 may also include attachment mechanisms specifically configured to attach to one another. The left support 1716 may include an attachment mechanism 1782 (e.g., VELCRO, snaps, buttons, etc.) that attaches to an attachment mechanism 1784 of the right leg support 1718. In the example shown a VELCRO strip on the left leg support 1716 attaches to a VELCRO strip on the right leg support 1718. The conjoined leg supports 1716, 1718 are secured and/or tucked away.

[0092] In certain cases, a cover 1780 is folded over the leg supports 1716, 1718. The leg supports 1716, 1718 may be tucked under the cover 1780. The cover 1780 may be secured to the hip belt 1722. For example, the cover 1780 may include attachment elements 1786 that removably attach to complementary attachment elements 1788 in the hip belt 1722. The attachment elements 1786, 1788 may include snaps, VELCRO, buttons, and/or other types of fasteners discussed herein or known in the art.

[0093] FIG. 24 is a diagram illustrating an adjustable baby carrier in a narrow base configuration according to various embodiments of the disclosure. In the example shown, the baby carrier 1700 is configured for a baby and/or small child with smaller hips. The leg supports 1716, 1718 are tucked under the cover 1780. The cover 1780 is secured to the hip belt 1722. In this configuration the width of the seat support 1720 may be narrowest to comfortable and safely accommodate small children and/or babies.

[0094] The adjustability of the carriers 100, 300, 500, 1700 described herein results from various attachment configurations between the leg supports 1716, 1718 and the hip belt 1722. An additional feature of the carriers 100, 300, 500, 1700 that allows for the adjustability is that the seat support 1720 is not attached to the hip belt 1722 across the entire width of the seat support 1720. There is an area of removed material 1790 (which may be triangular in shape in certain cases) that allows the seat support 1720 to be in a wide configuration (e.g., as described in FIGS. 9-11, 19-20), a

middle configuration (e.g., as described in FIGS. 12, 13, 21, and 22), and/or a narrow configuration (e.g., as described in FIGS. 14-16, 23, and 24).

[0095] In various embodiments, the baby carriers 100, 300, 500, 1700 may be reconfigured between narrow, medium, and wide base support positions to accommodate different children carried in the carrier, to adjust the carrier as a child grows, and/or for other purposes.

[0096] FIG. 25 is a flow diagram illustrating embodiments of a process to use a baby carrier. In the example shown, a baby carrier is provided 2510. The baby carrier may include one of or a combination of baby carriers 100, 300, 500, 1700 as disclosed herein. The baby carrier may include, for example, a carrier body including at least a torso support and a seat support. The seat support may include a left leg support including left support attachment mechanisms and a right leg support including right support attachment mechanisms. The left leg support and right leg support may also include attachment mechanisms to attach the left and right leg supports to one another. The baby carrier may also include a hip belt including a plurality of hip belt attachment mechanisms.

[0097] At 2520, the leg supports are fastened to the hip belt attachment mechanisms. For example, left leg support attachment mechanisms may be attached to a set of hip belt attachment mechanisms. The appropriate set of hip belt attachment mechanisms may be selected dependent on the desired configuration of the seat support—narrow configuration, medium configuration, or wide configuration. The right leg support attachment mechanisms may be attached to a set of hip belt attachment mechanisms, also selected depending on the desired configuration of the seat support.

[0098] In certain cases, the baby carrier may be adjusted into a narrow configuration by attaching the left leg support and right leg support to one another. A cover may be passed over the attached leg supports. The cover may ensure that the leg support remain attached and may soften the material beneath the child riding in the carrier.

[0099] At 2530, the baby carrier is affixed to the body of a user. For example, shoulder supports of the carrier are passed over the users shoulders. The hip belt of the baby carrier is passed around the user's waist. The baby carrier may be adjusted to fit the anatomy of the user.

[0100] At 2540, a child is disposed in the baby carrier. A child may be installed in the baby carrier by, for example, sitting the child into a seat portion (base portion) of the carrier, passing a first leg of the child through the left leg support, passing a second leg of the child through the right leg support, and/or adjusting the carrier around the child.

[0101] The baby carrier is used to transport the child. The child may be later removed from the carrier. And the carrier may be adjusted with the child removed. In certain cases, the baby carrier may be adjusted from a first configuration (e.g., narrow, medium, wide) to a second configuration (e.g., narrow, medium, wide) without removing the carrier from the adult. The child of course should be removed before adjusting the carrier. Once adjusted, a child, for example, the same child or a different child, may be disposed in the baby carrier. In this way the size of the seat support (base portion) is adjusted to accommodate different children and/or a child as it grows.

[0102] FIG. 26 is a diagram illustrating an adjustable shoulder support of an adjustable baby carrier according to various embodiments of the disclosure. In the example

shown, a baby carrier 2600 includes shoulder supports 2610, a carrier body 2614, and other elements discussed herein. The carrier body 2614 may be attached to the shoulder supports 2610. The shoulder supports 2610 may be adjustable, for example, on the adult user's shoulders. An adjustment strap 2612 (e.g., webbing) may be attached to the shoulder support 2610 and pass through an internal portion of the shoulder supports 2610. As discussed in detail below, the adjustment strap 2612 may be attached to the shoulder support 2610 by passing under an outer cover (e.g., a top fabric panel) of the shoulder support 2610. In certain cases, the adjustment strap 2612 may be housed partially inside the shoulder support 2610. The adjustment strap 2612 may be internalized between a top panel layer and bottom panel layer of the shoulder support 2610. Such a configuration may avoid excess webbing from snagging on the surrounding environment during use. Passing the adjustment strap 2612 through an interior of the shoulder support 2610 also allows for attachment of a head rest, hood, or other elements to the carrier body 2614 with interfering with the shoulder support 2610 adjustment. In traditional shoulder support adjustments, adjustment straps were entirely outside of the shoulder support and could interfere with other components of the carrier.

[0103] In certain cases, the adjustment strap 2612 may be attached to the shoulder support 2610 using stitching, such as box stitching, cross (X) stitching, and/or other stitching. The stitching may, for example, pass through multiple layers of the shoulder support 2610, foam included in the shoulder support, the adjustment strap 2612, and/or other elements. The adjustment straps 2612 may pass through an adjustment mechanism 2616, such as a ladder lock mechanism (as shown) or other types of adjustment mechanisms. The adjustment straps 2612 may be adjusted by pulling the strap through the adjustment mechanism 2616.

[0104] FIG. 27 is a diagram illustrating a front side of adjustable shoulder support of a baby carrier according to various embodiments of the disclosure. In the example shown, a baby carrier 2700 includes adjustable shoulder supports 2710. The adjustable shoulder supports 2710 are adjustable, for example, by use of adjustment straps 2712.

[0105] In certain cases, portions of the adjustment strap 2712 pass through the inside of the shoulder support 2710. In the example shown, the shoulder support 2710 includes a first opening 2722 (e.g., a lower opening), such as a slit, button hole, and/or other type of opening. The adjustment strap 2712 passes through the first opening 2722. The first opening 2722 may be located in a thin cross-section portion 2724 of the shoulder strap 2710. The thin cross-section portion 2724 of the shoulder strap 2710 may not include foam 2720. For example, the thin cross-section portion may include outer layer fabric (e.g., top panel(s) of fabric and bottom panel(s) of fabric) without foam 2720. The shoulder support 2710 may also include a second opening 2726 (e.g., an upper opening), such as a slit, button hole, and/or other type of opening. The support strap passes through the second opening 2726 and runs along the exterior of the shoulder support toward the user's back.

[0106] The adjustment strap 2712 may be attached to the shoulder support 2710 at one or more attachment points 2718. The attachment point 2718 may attach the adjustment strap 2712 to an interior portion of the shoulder support 2710. In the example shown, the adjustment strap 2712 may be attached to the shoulder support 2710 at an attachment

point 2718 in which the adjustment strap 2712 is in the interior of the shoulder support 2710 (e.g., between top panels and bottom panels of the support). In certain cases, the attachment point 2718 may include a box and cross stitch and/or any other type of attachment. The attachment point 2718 may include stitching that passes through multiple layers of the shoulder support 2710, including for example top panel fabric layers, foam layers 2720, bottom panel fabric layers, and/or other layers.

[0107] In certain cases, the adjustment strap 2712 passes through the first opening 2722, is attached to the shoulder support 2710 at an attachment point 2718, and passes out of the second opening 2726. By passing the adjustment strap 2712 through the first opening 2722 and the second opening 2726, the adjustment strap 2712 is set into the attachment point 2718 interior to the shoulder support 2710 and excess adjustment strap 2712 material is located within the shoulder support 2710. Situating the adjustment strap 2712 in the interior of the shoulder support 2710 helps to ensure that the adjustment strap 2712 does not interfere with other components of the carrier 2700, such as a hood (not shown), head rest (not shown), and/or other components. For example, a hood, head rest, and other component may be fastened to the adjustment strap 2712 at an attachment point 2730, such as a button, VELCRO, snaps, buckles, hook and loop fasteners, and hooks. As an improvement over traditional adjustment mechanisms, excess material (slack) of the adjustment strap 2712 is located in the interior of the shoulder support 2710, where it would not catch on surrounding objects and/or other components of the carrier 2700.

[0108] In various embodiments, the adjustable shoulder support 2710 is adjusted on the shoulders of the adult using the adjustment strap 2712. The adjustment straps 2712 may pass through an adjustment mechanism 2716, such as a ladder lock mechanism (as shown) or other types of adjustment mechanisms. The adjustment straps 2712 may be adjusted by pulling the strap through the adjustment mechanism 2716. The loose webbing tab 2728 of the adjustment strap 2712 may be pulled to adjust the child's position via shifting of the main body. For example, the shoulder support 2710 and/or its contact point with the user's shoulders may be moved anterior on the user by tightening the adjustment strap 2712. The shoulder support 2710 and/or its contact point with the user's shoulders may be moved posterior on the user by loosening the adjustment strap 2712. Adjusting the adjustment strap 2712 anterior or posterior may move the points of pressure between the shoulder support 2710 and the adult's shoulder.

[0109] In certain cases, when the adjustment strap 2712 is tightened, the thin cross-section portion 2724 of the shoulder support may include a fold or bunched fabric portion. For example, the thin cross-section portion 2724 of the shoulder support may fold in on itself. A user may tuck this portion in to ensure no loose fabric.

[0110] FIG. 28 is a diagram illustrating a back side of adjustable shoulder support of a baby carrier according to various embodiments of the disclosure. In the example shown, a portion of baby carrier 2700 contacting the adult's shoulders is depicted. The baby carrier 2700 includes adjustable shoulder supports 2710. The adjustable shoulder supports 2710 are adjustable by use of adjustment straps (e.g., adjustment straps 2712 of FIG. 27). As described above the adjustment straps may pass through an interior of the shoulder support 2710. The adjustment straps are attached to

the shoulder support 2710 at an attachment point 2718. In the example shown, the attachment point 2718 includes stitching through multiple layers of the shoulder support 2710.

[0111] FIG. 29 is a flow diagram illustrating embodiments of a process to use a baby carrier. In the example shown, a baby carrier is provided 2910. The baby carrier may include one of or a combination of baby carriers 100, 300, 500, 1700, 2600, 2700 as disclosed herein. The baby carrier may include, for example, a carrier body including a shoulder support and support adjustment mechanism.

[0112] At 2920, the baby carrier is affixed to the body of a user. The carrier is placed on the shoulders of the user (e.g., the adult). For example, the shoulder supports may be placed on the shoulders of the adult.

[0113] At 2930, a child is disposed in the baby carrier. A child may be installed in the baby carrier by, for example, sitting the child into a seat portion (base portion) of the carrier, passing a first leg of the child through the left leg support, passing a second leg of the child through the right leg support, and/or adjusting the carrier around the child.

[0114] At 2940, the adjustment straps are used to reposition the shoulder support on the user's shoulders. In certain cases, once all other adjustments are made on the carrier for the wearer, and once the child is secured in the carrier, adjustments are made to shift the weight distribution of the child on the adult's shoulders. Adjustment straps (e.g., adjustment straps 2712 of FIG. 27) are loosened or tightened to move the position of the shoulder supports on the user's shoulders. For example, tightening the adjustment straps by, for example, pulling on the adjustment straps through an adjustment mechanism (e.g., a ladder lock) may move anterior on the adult's shoulders the point of contact between the shoulder supports and the adult's shoulders. In certain cases, pulling the adjustment strap tabs slightly shifts the position of the full padded shoulder strap as well as slightly shifting the child's distance from the wearer simultaneously. Loosening the adjustment straps by, for example, loosening the adjustment mechanism may move the point of contact between the shoulder supports and the adult's shoulders posterior (toward the user's back). Loosening the adjustment straps may also increase the distance between the adult and child to, for example, provide additional breathability.

[0115] At 2950, any excess carrier material is tucked. In certain cases, tightening the adjustment straps results in a longer tail (or tab) of the adjustment strap. Tightening the adjustment straights may also result in portions of the carrier folding in on itself. For example, increased tension on the adjustment strap may result in folds or bunching of the material in the carrier. This folding or bunching may occur particularly in the portions of the shoulder support through which the adjustment straps pass. Tightening the adjustment strap may cause the shoulder support surrounding the strap to bunch up. Any of this excess material may be tucked in to avoid interference with surrounding objects and other portions of the carrier.

[0116] Once the carrier is properly adjusted, the baby carrier is used to transport the child. The position of the carrier on the adults shoulders may be continually adjusted using the steps disclosed herein as the child is transported to maintain the comfort of the adult and child. The child may be later removed from the carrier.

Example Baby Carriers

[0117] The following includes a description of an example baby carrier according to various embodiments of the disclosure. FIG. 30 is a diagram illustrating an adjustable baby carrier according to one of the various embodiments of the disclosure. In the example shown, the adjustable carrier 3000 includes a left shoulder support 3010, right shoulder support 3012, carrier body 3014, a left leg support 3016, a right leg support 3018, a seat support 3020, a hip belt 3022, and/or other elements. The left shoulder support 3010 and right shoulder support 3012 may include a sternum strap 3029, which allows adjustment of the width between the shoulder straps 3010, 3012, the placement of the shoulder straps 3010, 3012 on the user's shoulders, and other aspects of the configuration of the baby carrier 3000. The sternum strap 3029 may include a sternum strap pad 3030. The left shoulder support 3010 may include a left shoulder strap 3011. The right shoulder support 3012 may include a right shoulder strap 3013. The left and right shoulder straps 3011, 3013 are used to adjust the shoulder supports 3010, 3012 on the user. In certain cases, the left and right shoulder straps 3011, 3013 are attached to and configured to adjust the left and right shoulder supports 3010, 3012 using the techniques described with reference to FIGS. 26-29.

[0118] In various embodiments, the carrier body 3014 includes carrier body pockets 3024, a zip down panel 3032, side body elements 3034, and/or other components. In some embodiments, the carrier body pockets 3024 are set into the zip down panel 3032 of the carrier body 3014. The carrier body pockets 3024 may include single needle edge stitching (SNES) along the edges. A folded zipper cover may be set into the top and sides of the carrier body pockets 3024.

[0119] According to some embodiments, the side body elements 3034 include a turned construction. The side body elements 3034 may be set into the carrier body 3014 with a half inch or other suitable allowance. The side body elements 3034 may include a one inch webbing loop with buckle sewn into the center. The webbing loop may be sewn into the center with a double rotation SNES. The webbing loop may be affixed to the carrier body 3014 with a single needle box and cross stitch. The side body elements 3034 may include elastic set into the panel seam and affixed to side body elements 3034 with single needle topstitch (SNTS) at the top and bottom. The side body elements 3034 may include a single layer batting fill and may be set into the seams with a turn-back opening.

[0120] In certain cases, the headrest 3028 is attached to the carrier body 3014. For example, the headrest 3028 may be attached to the carrier body 3014 using buttons, snaps, Velcro, and/or any other appropriate attachment mechanisms. The headrest 3028 may include multiple piece construction. For example, the headrest 3028 may include a two-piece turned construction, with a single layer of foam in the center set with single needle topstitch (SNTS) on both sides of the foam, single layer interlining inside ends with attachments (e.g., snaps) through all layers, and a single layer interlining inside ends with snaps through all layers. The headrest 3028 may be set into the carrier body 3014 with, for example, a half inch or other suitable seam allowance. In certain cases, the headrest 3028 includes headrest webbing 3046 with a buckle configured to attach to complementary buckles on the shoulder supports 3010, 3012.

[0121] In some embodiments, the hip belt 3022 (e.g., waist belt) includes hip belt pockets 3026, a lumbar support 3036,

hip belt adjustment straps 3038, and/or other components. The lumbar support 3036 may include pockets for storing various items. In certain cases, the hip belt attachment straps 3038 are attached to and adjusted on the hip belt 3022 using the techniques disclosed in FIGS. 26-29. For example, the hip belt attachment straps 3038 may be attached internal to the hip belt 3022.

[0122] In some embodiments, a hood (e.g., as described in FIG. 34) is attached to the baby carrier 3000. The hood may include hood attachment mechanism, such as snaps, buttons, Velcro, hooks, and the like. The hood attachment mechanisms may be attached, for example, at hood attachment points 3044 on shoulder supports 3010, 3012. In certain cases, the shoulder strap 3011, 3013 techniques described with reference to FIGS. 26-29 may accommodate the attachment of hood. As described, for example, with reference to FIGS. 26-29, the shoulder straps 3011, 3013 may attach in an internal portion of the shoulder supports 3010, 3012, reducing the likelihood of interference with the attachment between the hood attachment mechanisms and the attachment points 3044 on the shoulder supports 3010, 3012.

[0123] FIG. 31 is a diagram illustrating a zip down panel of a baby carrier according to one of the various embodiments of the disclosure. In the example shown, a carrier body 3014 includes a zip down panel 3032, side body elements 3034, left leg support 3016, right leg support 3018, and/or other elements. The zip down panel 3032 may be affixed to the carrier body 3014 with an attachment mechanism 3048, such as zippers, buttons, Velcro, and/or any other attachment mechanisms. The zip down panel 3032 may include a multiple layer construction, such as a two-ply set with zipper tape along the edges. The zip down panel 3032 may include SNES along the edges. The zip down panel 3032 when zipped may cover a zip down panel mesh layer 3050. The zip down panel mesh layer 3050 may include a mesh layer set into the carrier body 3014. In certain cases, the zip down panel 3032 may be configured into an open (e.g., unzipped position) as shown. The unzipped configuration may, for example, increase the ventilation and/or breathability of the carrier body 3014 by, for example, removing the cover on the zip down panel mesh layer 3050.

[0124] In some embodiments, the headrest 3028 may be attached to the carrier body 3014 at one or more headrest attachment points 3052. The headrest attachment points 3052 may include, for example, snaps set through the zip down panel mesh layer 3050. The headrest attachment points 3052 may include a single layer interlining.

[0125] FIG. 32 is a diagram illustrating a carrier body according to one of the various embodiments of the disclosure. In the example shown, a back side of baby carrier 3000 includes a carrier body 3014, left leg support 3016, right leg support 3018, a headrest 3028, and/or other features. The back side (e.g., a portion making contact with the adult and/or child) may include mesh 3054. A mesh 3054 may increase breathability of the baby carrier 3000.

[0126] FIG. 33 is a diagram illustrating a baby carrier lumbar support according to one of the various embodiments of the disclosure. The lumbar support 3036 may include a multiple layer construction of fabric, foam, and/or other materials. A first layer may include grosgrain and polyethylene (PE) board with SNES. A one ply fabric cover may be centered over the grosgrain fabric panel with Bartack stitching at one more corners to strengthen the panel. In certain cases, the stitching may not extend through the PE board. In

some embodiments, a lumbar support **3036** includes a pocket **3056**, which may be used to store various items. The pocket **3056** may include one or more fabric layers stitched to the lumbar support **3036**. The pocket **3056** may include Bartack stitching at corners to strengthen the attachment of the pocket **3056** to the lumbar support **3036**. In some cases, the pocket **3056** may include elastic along the opening between the pocket **3056** and the lumbar support **3036**.

[0127] FIG. 34 is a diagram illustrating various views of a hood for a baby carrier according to one of the various embodiments of the disclosure. In the example, a hood includes a hood body **3410**, hood attachment straps **3420**, hood attachment mechanisms **3430**, **3440**, and/or other elements. The hood body **3410** may include a multiple layer fabric construction. In one example, the hood body **3410** includes a two-piece turned construction with quarter inch SNTS tops and sides. Elastic may be set into the sides of the hood body **3410**. A topset web layer may be pass through all layers with a box and cross stitch.

[0128] The hood **3400** may include hood attachment straps **3420**. The hood attachment straps **3420** may include multiple layers. For example, the hood attachment straps **3420** may include a two piece turned construction with SNES top and sides. The attachment straps **3420** may be set into the hood body **3410** with a one inch seam allowance. The attachment straps may include hood attachment mechanisms **3430**, such as snaps, buttons, Velcro, hooks and the like. Hood attachment mechanisms **3440** may also be installed in the hood body. The hood attachment mechanisms **3430**, **3440** may be attached, for example, at hood attachment points on the carrier body (e.g., hood attachment points **3044** on shoulder supports **3010**, **3012** as depicted in FIG. 30).

[0129] As described herein, the adjustments of the position of the carrier on the shoulders of the user may alter the load distribution on the user and position of the child relative to the user. By altering the load distribution and positioning of the child, the carrier can be used comfortably for extended periods of time. The shoulder support adjustment mechanisms described herein pass the adjustment strap material through the interior of the shoulder support. This ensures that the adjustment strap material does not interfere with (get caught on) surrounding objects or other components of the carrier during use.

[0130] As described herein, the adjustments between configurations of the base portion of the carrier may result in different spacing between the leg supports (e.g., leg straps). This spacing may include a distance between the leg supports at a location and/or along the length of the supports. The spacing may also include a width of the base support portion of the baby carrier. When the leg supports are attached to the hip belt, the spacing may be set, and consequently, the leg supports may be drawn closer together or farther apart depending upon the position. Based upon the position of the leg supports, because the leg supports are attached to the seat support and/or torso portion of the baby carrier, the leg straps may cause the seat support (e.g., the portion of the baby carrier under the baby's hips) to be smaller or larger. This may be a result of the leg support positioning widening or narrowing the seat support. For example, in a wider configuration, the leg supports increase the amount (surface area) of material below the baby's hips. In narrower position, the leg supports are drawn towards one another and/or folded over one another. By folding the leg supports over one another and/or tucking the leg supports

together the area of the seat support may be decreased. As a result, in one configuration the leg straps are positioned on the hip belt to have a first spacing, which is the smallest spacing relative to the other positions. In another configuration the leg straps are positioned on the hip belt to have a second spacing, which may be a larger spacing than the first spacing. In another configuration the leg straps are positioned on the belt to have a third spacing, which may be a larger spacing than both the first and second spacing. The second spacing may be larger than the first spacing and smaller than the second spacing. The spacing may result in the baby's legs being positioned either farther apart or closer together when riding in the baby carrier.

[0131] In various embodiments, the leg supports are attached to the hip belt using multiple fastening mechanisms. The leg supports may be attached to the hip belt using a first type of the fastening mechanism at one location of the hip belt, a second type of the fastening mechanism at another location of the hip belt, and/or additional fastening mechanisms at additional locations. In one example, each of the leg supports is attached to the hip belt using VELCRO on one side of the hip belt, snaps on different side of the hip belt, and/or other fasteners to a different location of the hip belt. In certain cases, portions of the leg support may wrap around and/or pass through the hip belt to further secure the adjustable leg support to the hip belt. In one example, the leg supports attach to the front of the hip belt at a set of locations wrap around the bottom of the hip belt and attach to the hip belt again at a second set of locations.

[0132] Various exemplary embodiments of a baby carrier are described herein, including baby carriers **100**, **300**, **500**, **1700**, **2600**, **2700**. For brevity and to avoid unnecessary repetition, elements similar to multiple baby carrier designs may not be discussed in full detail in the description for each design. It would be apparent to one of ordinary skill in the art that features of the various baby carrier designs described herein may be interchangeable across the multiple baby carrier designs.

[0133] Only exemplary embodiments of the present disclosure and but a few examples of its versatility are shown and described in the disclosure. It is to be understood that the present disclosure is capable of use in various other combinations and environments and is capable of changes or modifications within the scope of the inventive concept as expressed herein.

[0134] Although the foregoing description is directed to certain embodiments of the disclosure, it is noted that other variations and modifications will be apparent to those skilled in the art, and may be made without departing from the spirit or scope of the disclosure. Moreover, features described in connection with one embodiment of the disclosure may be used in conjunction with other embodiments, even if not explicitly stated above.

What is claimed is:

1. A baby carrier comprising:
 - a carrier body including at least a torso support and a seat support, the seat support including a left leg support comprising a plurality of left support attachment mechanisms and a right leg support comprising a plurality of right support attachment mechanisms; and
 - a hip belt including a plurality of hip belt attachment mechanisms each of which are configured to removably couple with at least one of the left support attachment

- mechanisms and at least one of the right support attachment mechanisms to vary a size of the seat support.
2. The baby carrier of claim 1, wherein the hip belt attachment mechanisms removably couple with the left support attachment mechanisms and the right support attachment mechanisms to configure the seat support into one of a narrow configuration, a medium configuration, and a wide configuration.
3. The baby carrier of claim 1, wherein the hip belt attachment mechanisms include:
- a first pair of hip belt attachment points positioned so that attachment to the first pair of hip belt attachment points configures the seat support in a narrow configuration;
 - a second pair of hip belt attachments points positioned so that attachment to the second pair of hip belt attachment points configures the seat support in a middle configuration; and
 - a third pair of hip belt attachment points positioned so that attachment to the third pair of hip belt attachment points configures the seat support in a wide configuration.
4. The baby carrier of claim 1, wherein the left support attachment mechanisms and the right support attachment mechanisms each include at least two different types of attachment mechanisms.
5. The baby carrier of claim 1, wherein the left support attachment mechanisms include VELCRO and snaps and the right support attachment mechanisms include VELCRO and snaps.
6. The baby carrier of claim 5, wherein the plurality of hip belt attachment mechanisms comprise a plurality of pairs of attaching mechanisms each including VELCRO and snaps.
7. The baby carrier of claim 1, wherein the left leg support and right leg support wrap around the hip belt during use.
8. The baby carrier of claim 1, wherein:
- a first set of left support attachment mechanisms are located on a first side of the hip belt and a second set of the left support attachment mechanisms are located on a second side of the hip belt; and
 - a first set of right support attachment mechanisms are located on the first side of the hip belt and a second set of the right support attachment mechanisms are located on the second side of the hip belt.
9. The baby carrier of claim 8, wherein:
- the left leg support is configured to attach to one of the first set of left support attachment mechanisms wrap around the hip belt and attach to one of the second set of left support attachment mechanisms; and
 - the right leg support is configured to attach to one of the first set of right support attachment mechanisms wrap around the hip belt and attach to one of the second set of right support attachment mechanisms.
10. The baby carrier of claim 1, wherein the left support attachment mechanisms include at least two different types of attachment mechanisms and the right support attachment mechanisms include at least two different types of attachment mechanisms.
11. The baby carrier of claim 1, wherein the left leg support and the right leg support are configured to removably attach to one another.
12. The baby carrier of claim 11, wherein the left leg support and the right leg support are attached to one another when the baby carrier is in a narrow configuration.
13. The baby carrier of claim 12, wherein the carrier body further comprises a cover that encloses the left leg support and right leg support when the baby carrier is in a narrow configuration.
14. The baby carrier of claim 1, wherein the left leg support and the right leg support are configured to removably attach to one another using one more of VELCRO, snaps, buttons, buckles, hook and loop fasteners, and hooks.
15. The baby carrier of claim 1, wherein at least one of the hip belt attachment mechanisms includes identifiers to denote one or more of a wide configuration, medium configuration, and narrow configuration.
16. The baby carrier of claim 15, wherein the identifiers include one or more of symbols, shapes, colors, and textures.
17. The baby carrier of claim 1, wherein at least one of the hip belt attachment mechanisms is enclosed by a cover.
18. The baby carrier of claim 1, wherein the seat support is configured to be adjusted between one of a narrow configuration, a medium configuration, and a wide configuration while being worn by a user.
19. The baby carrier of claim 1, wherein at least a portion of the hip belt attachment mechanisms are hidden from view during use.
20. The baby carrier of claim 1, wherein at least a portion of the hip belt attachment mechanisms are located under a cover or in a pocket.
21. The baby carrier of claim 1, wherein at least a portion of the hip belt attachment mechanisms are located along a base of the hip belt.
22. A method of using a baby carrier comprising:
- providing a baby carrier including at least:
 - a torso support,
 - a seat support, the seat support including a left leg support comprising a plurality of left support attachment mechanisms and a right leg support comprising a plurality of right support attachment mechanisms, and
 - a hip belt including a plurality of hip belt attachment mechanisms;
 - fastening the left support attachment mechanisms to a first set of the hip belt attachment mechanisms to accommodate anatomical features of a child;
 - fastening the right support attachment mechanisms to a second set of the hip belt attachment mechanisms to accommodate the anatomical features of the child;
 - affixing the baby carrier to a user; and
 - disposing the child in the carrier body by passing a first leg of the child through the left leg support and a second leg of the child through the right leg support.
23. The method of claim 22, wherein first set of the hip belt attachment mechanisms and second set of hip belt attachment mechanisms include hip belt mechanisms corresponding to one of a wide configuration, medium configuration, and narrow configuration.
24. The method of claim 22, further comprising the steps of:
- fastening one or more of the left support attachment mechanisms to one or more of the right support attachment mechanisms; and

disposing at least a portion of the left leg support and the right leg support under a cover affixed to the carrier body.

25. The method of claim **22**, further comprising the steps of:

removing the child from the carrier body; and
adjusting the baby carrier between one of a narrow configuration, a medium configuration, and a wide configuration.

26. The method of claim **25**, wherein the adjusting step comprises:

fastening the left support attachment mechanisms to a third set of the hip belt attachment mechanisms; and
fastening the right support attachment mechanisms to a fourth set of the hip belt attachment mechanisms to accommodate the anatomical features of the child.

27. A baby carrier comprising:

a carrier body;
at least one shoulder support attached to the carrier body;
and

at least one adjustment strap attached to and passing through an internal portion of the shoulder support, the at least one adjustment strap configured to adjust a position of the shoulder support on a shoulder of a user.

28. The baby carrier of claim **27**, wherein the adjustment strap is attached to the shoulder support in the internal portion of the shoulder support.

29. The baby carrier of claim **27**, wherein the adjustment strap is attached to the shoulder support using stitching through one or more of a top fabric panel, foam panel, and bottom fabric panel of the shoulder support.

30. The baby carrier of claim **27**, wherein the adjustment strap is attached to the shoulder support using one or more of a box stitch and a cross stitch.

31. The baby carrier of claim **27**, wherein the adjustment strap passes through one or more buttonholes in the shoulder support.

32. The baby carrier of claim **27**, wherein the adjustment strap is configured to adjust a position of the shoulder strap on the shoulder of the user by tightening or loosening the adjustment strap.

33. The baby carrier of claim **32**, wherein tightening the adjustment strap moves a position of the shoulder strap anterior on the shoulder of the user.

34. The baby carrier of claim **32**, wherein loosening the adjustment strap moves a position of the shoulder strap posterior on the shoulder of the user.

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