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(54) **BABY CARRIER**

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(57) **ABSTRACT**

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A baby carrier comprising a shoulder harness featuring a detachable adjustable pouch system that may be worn or alternatively fastened to a secured object for supporting an infant. The shoulder harness features retractable shoulder straps that may be used to securely extend the detachable adjustable pouch system away from wearer without having to detach the pouch or remove the infant while simultaneously allowing the wearer face to face access with the infant. The detachable adjustable pouch system may encapsulate and support an infant in a substantially upright sitting position. The detachable adjustable pouch system may be adjusted to accommodate infants of varying sizes. The weight of the infant may be incorporated as a design component of the seat portion of the pouch system.

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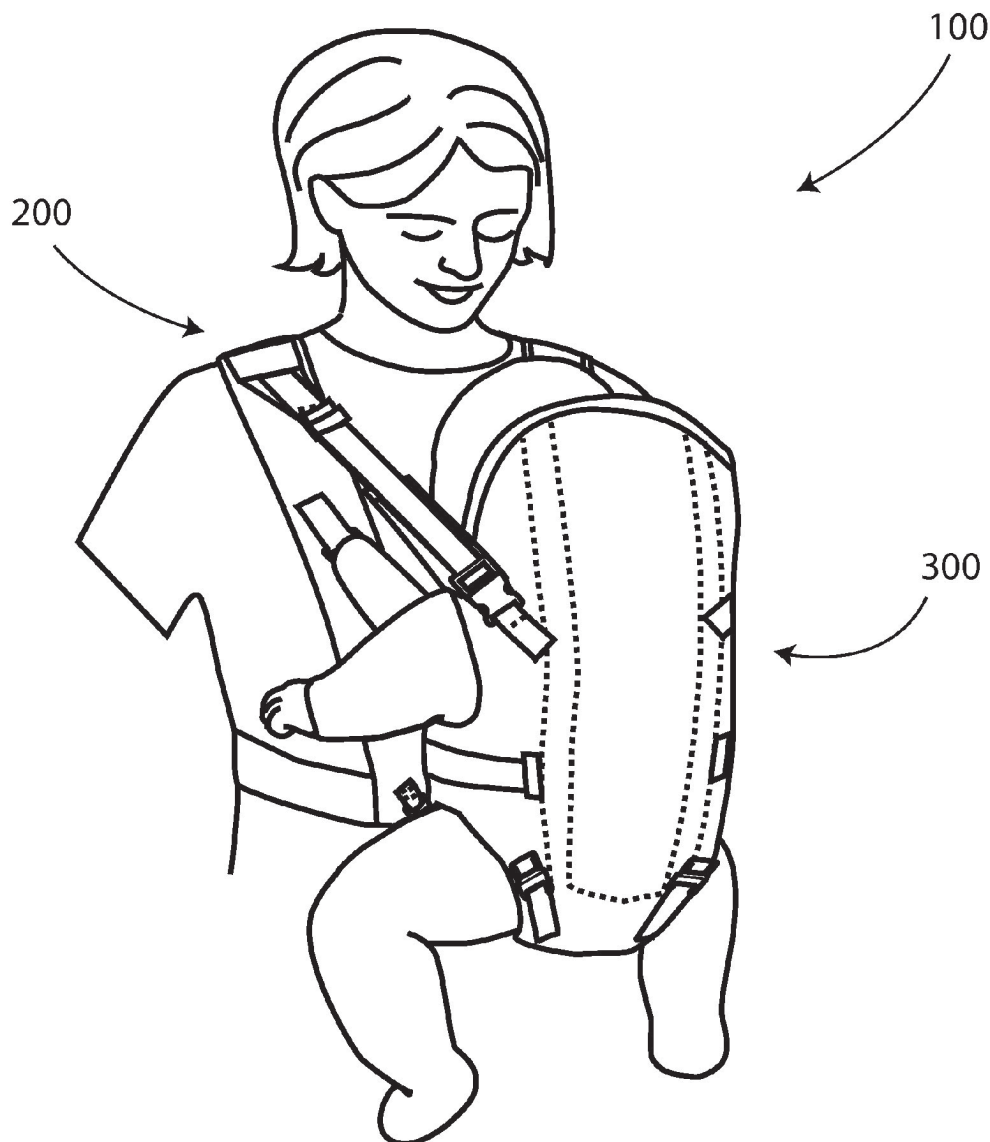


FIG. 1

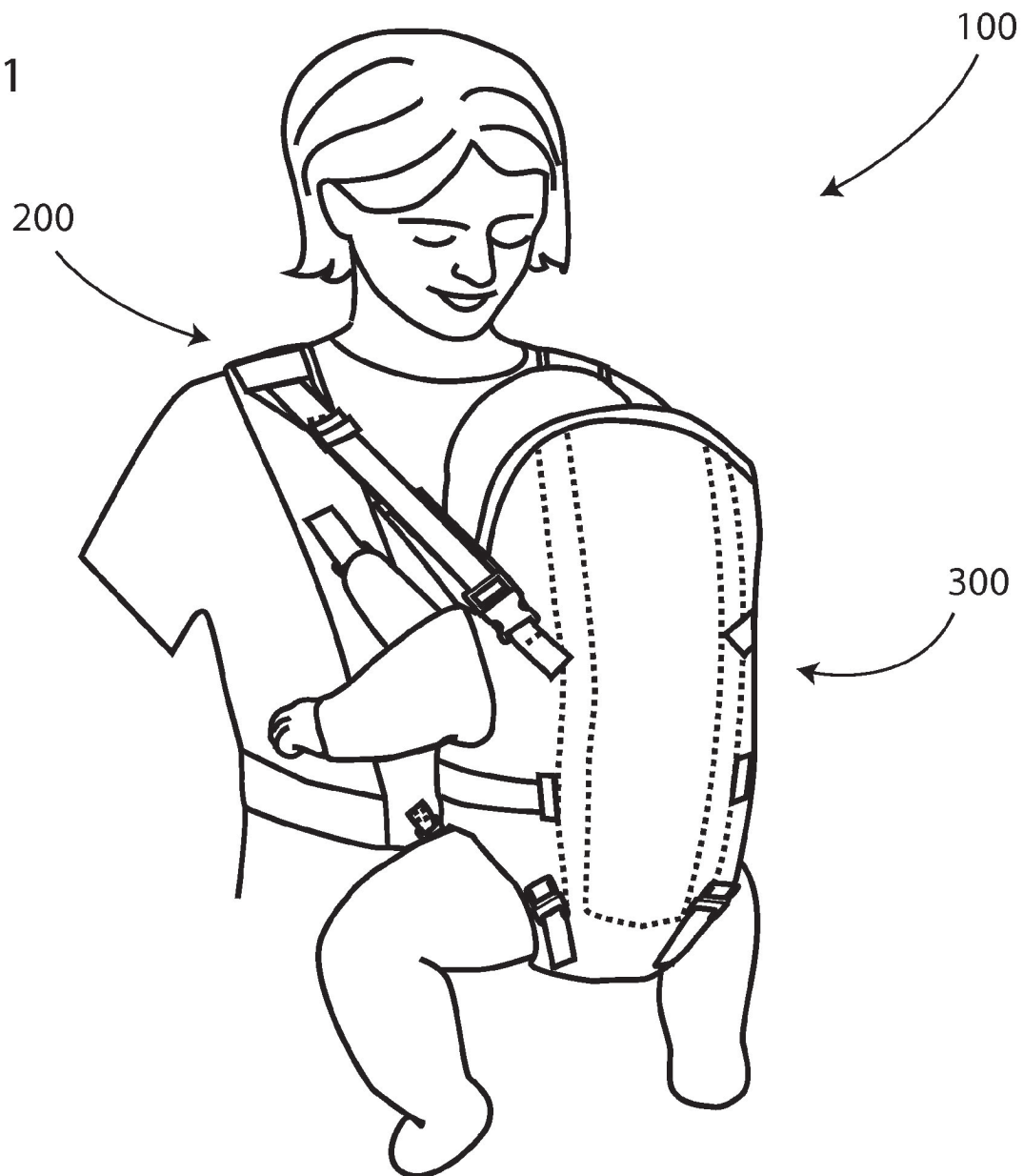


FIG. 2

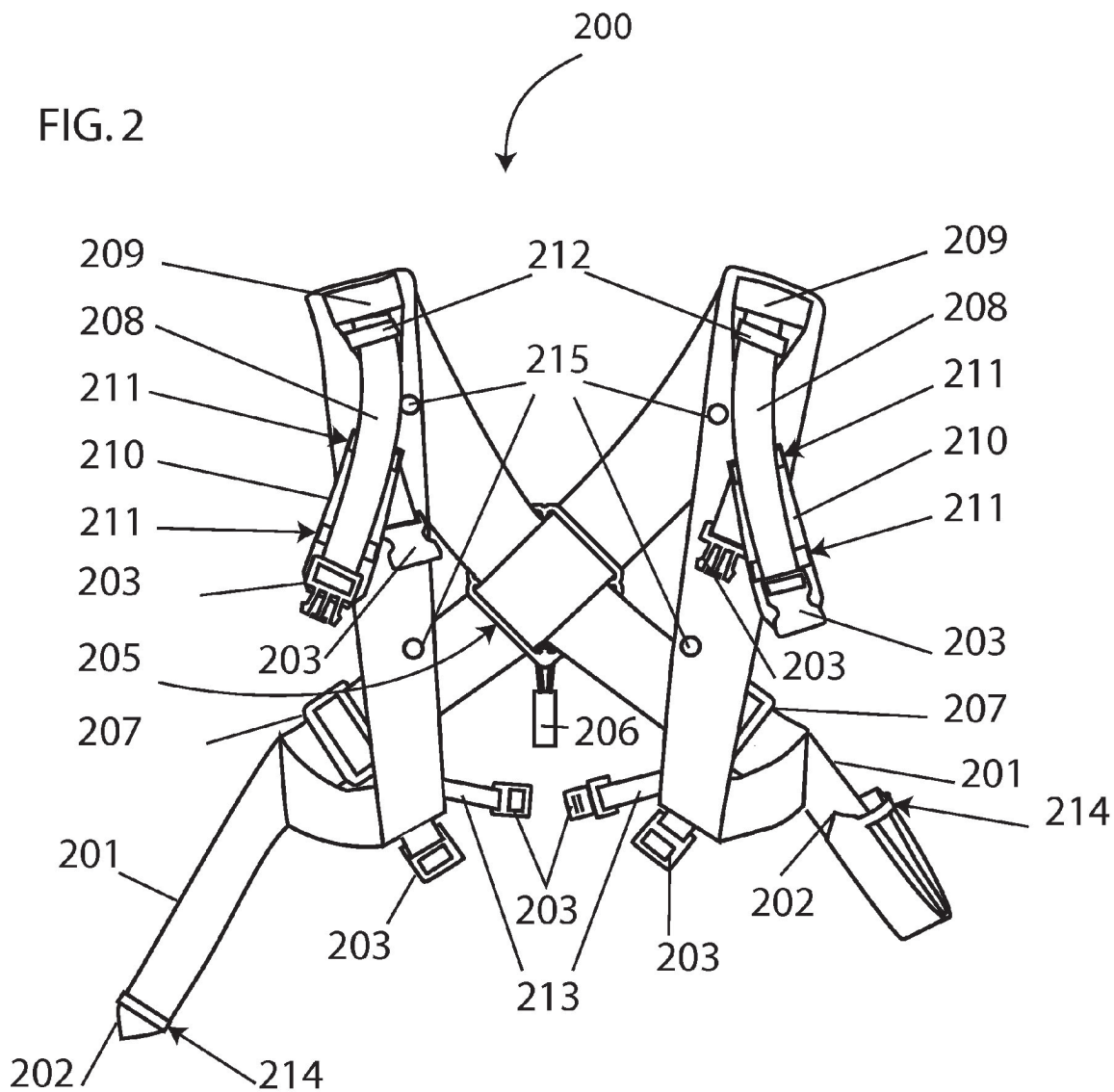


FIG. 3

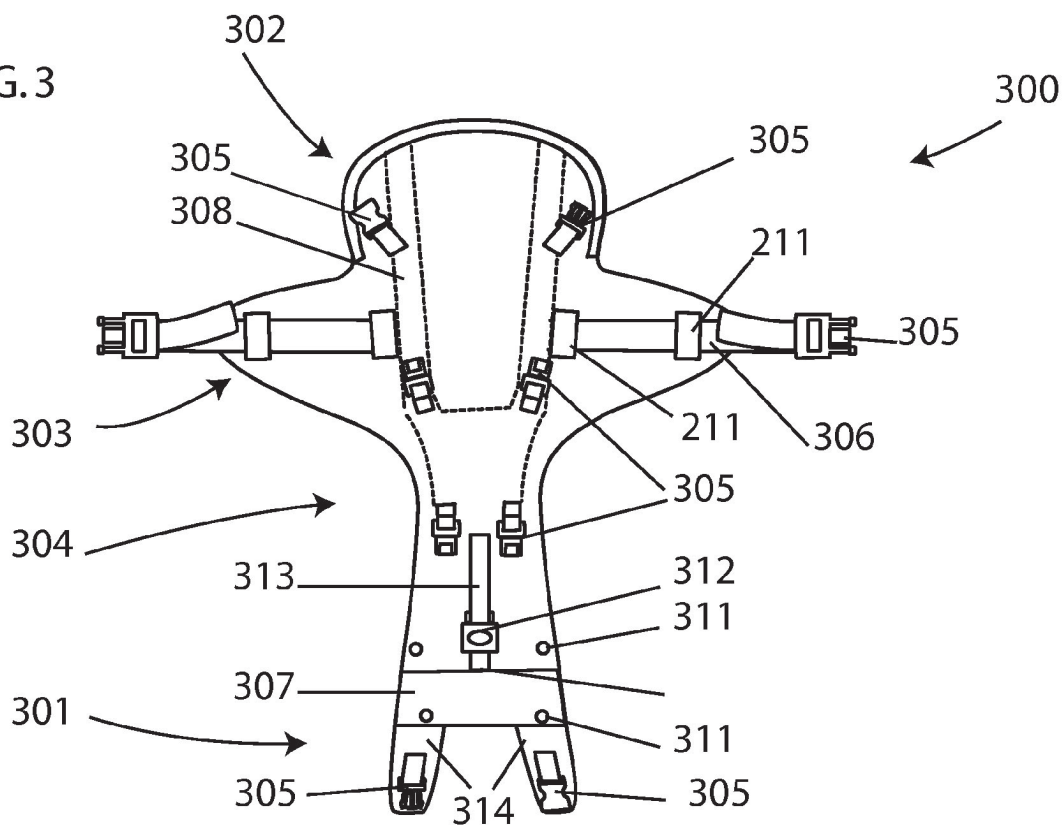


FIG. 4

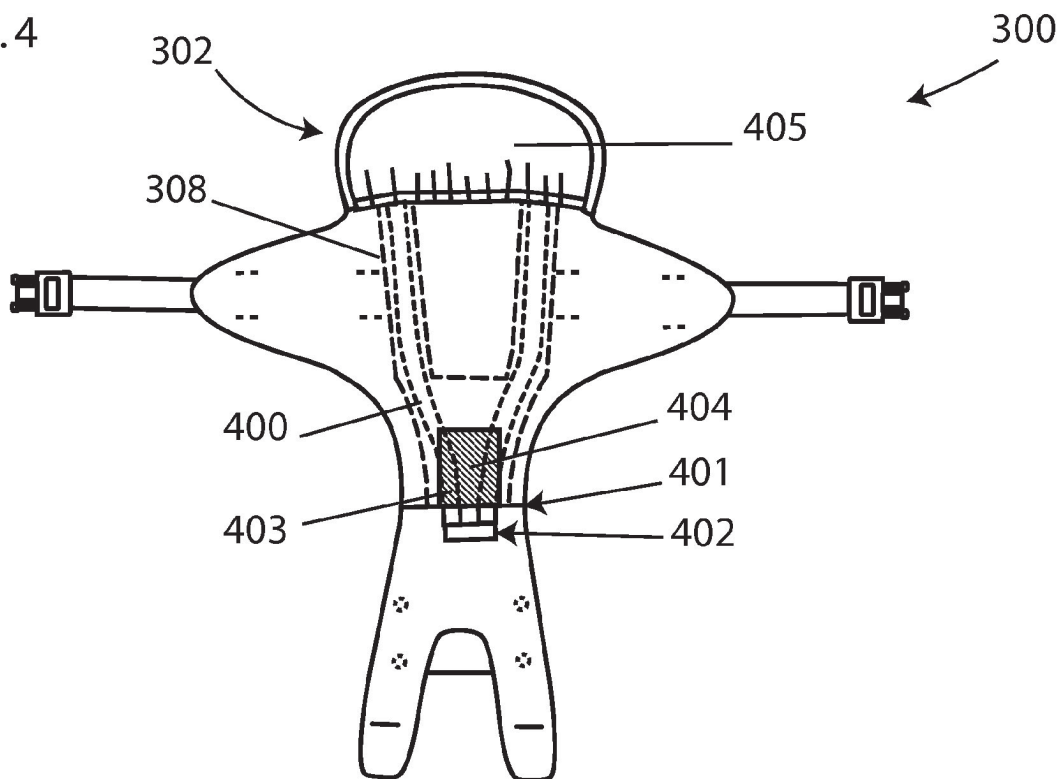


FIG. 5

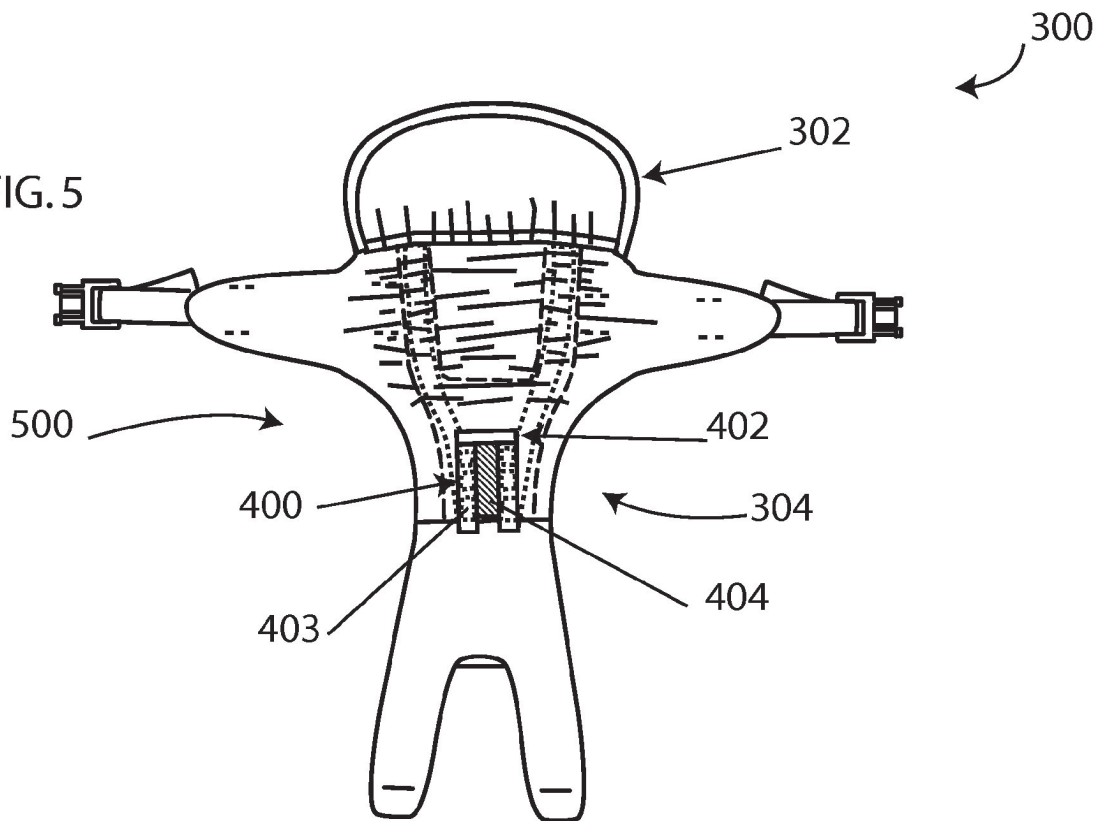
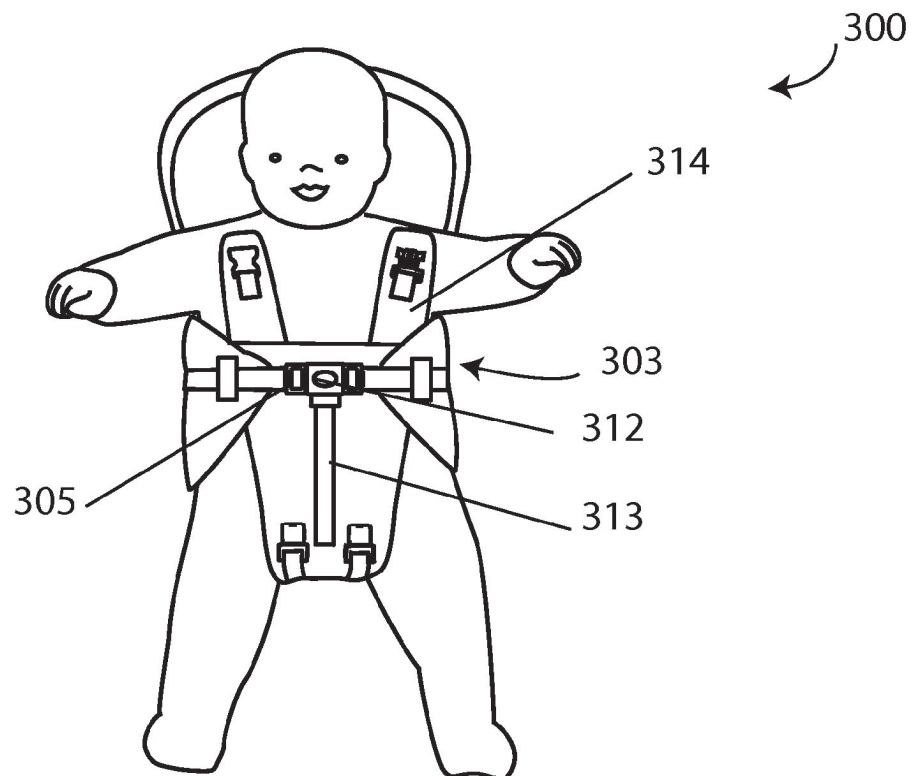
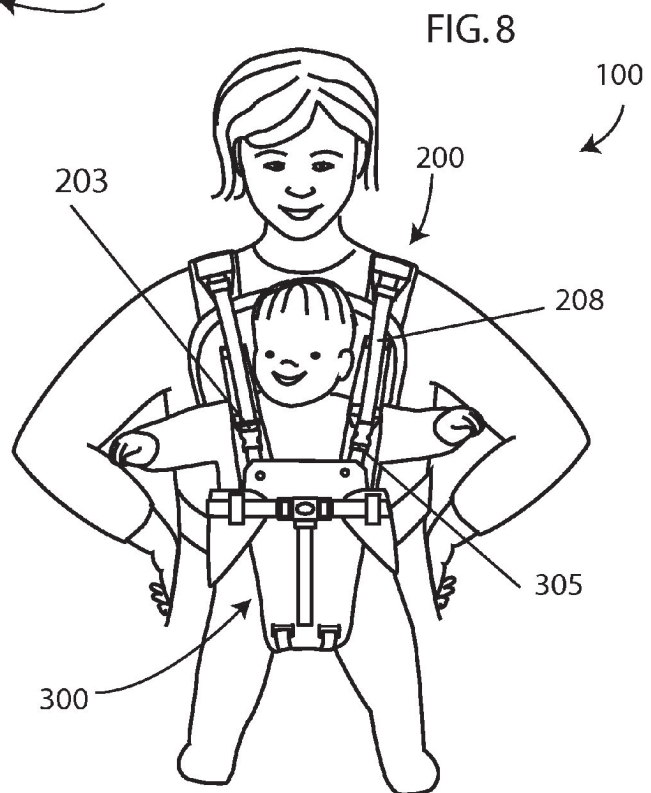
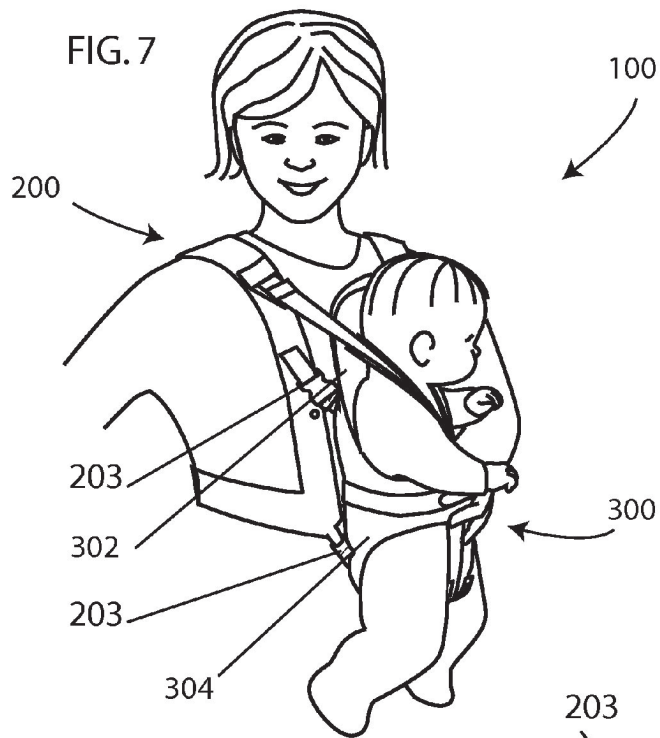


FIG. 6





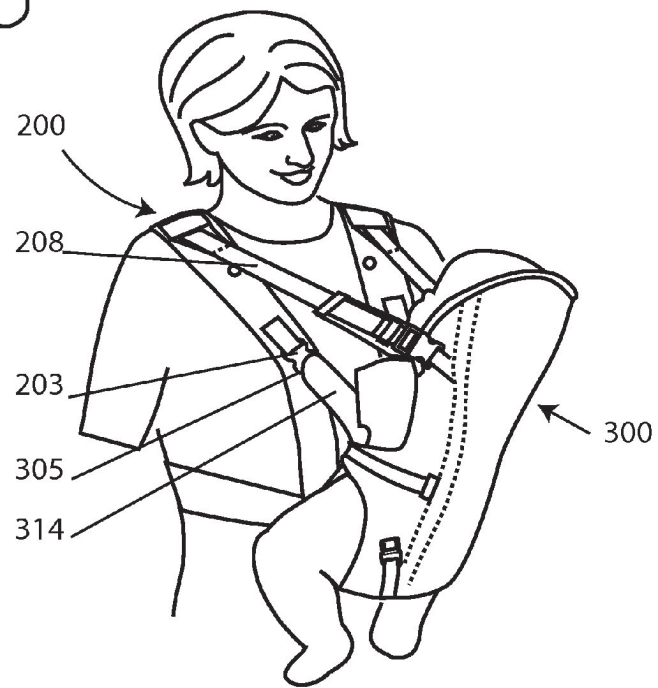
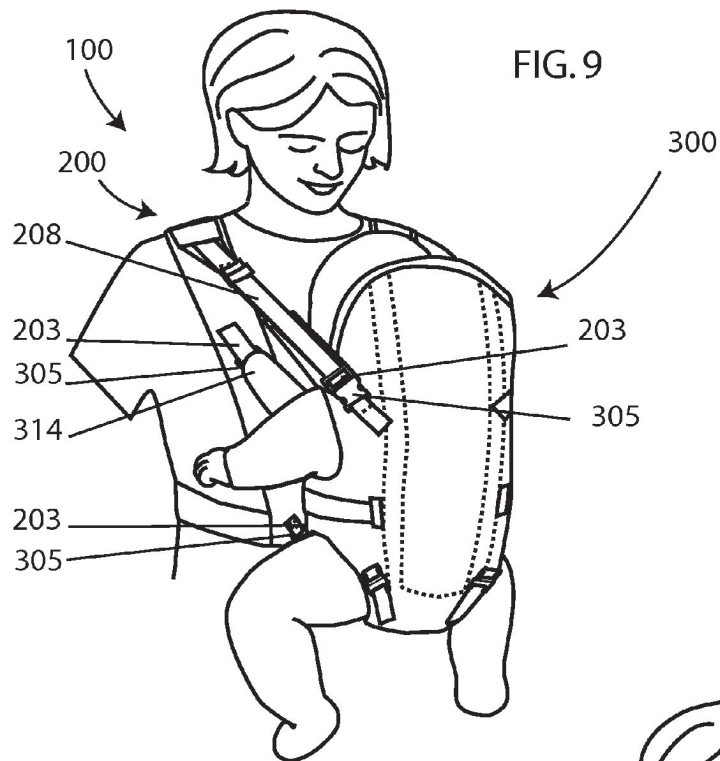
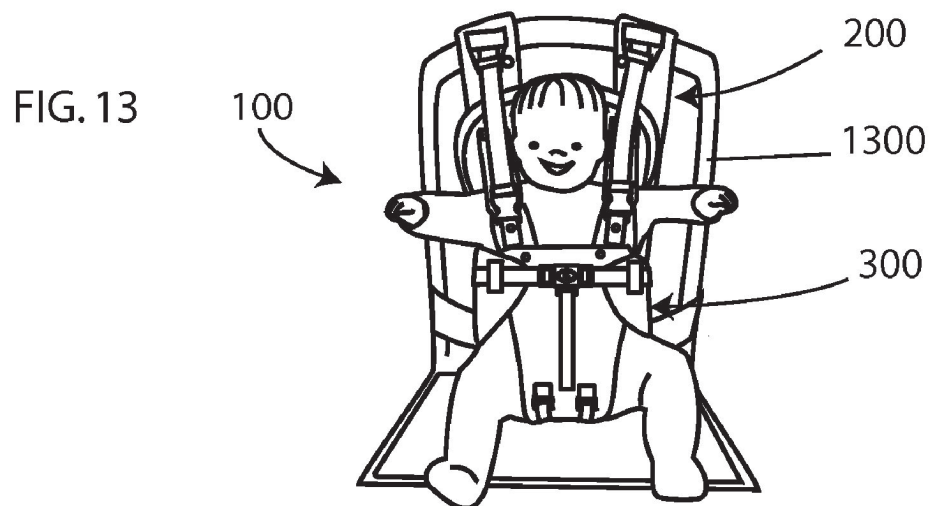
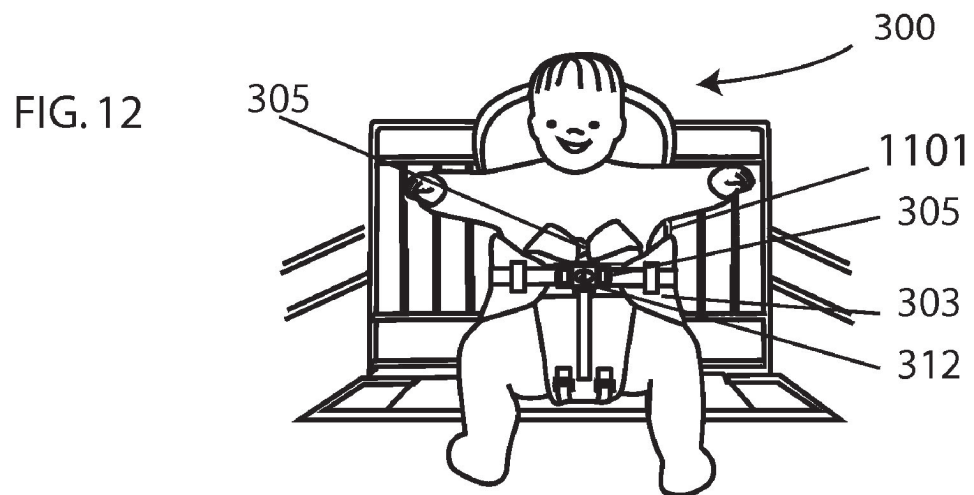
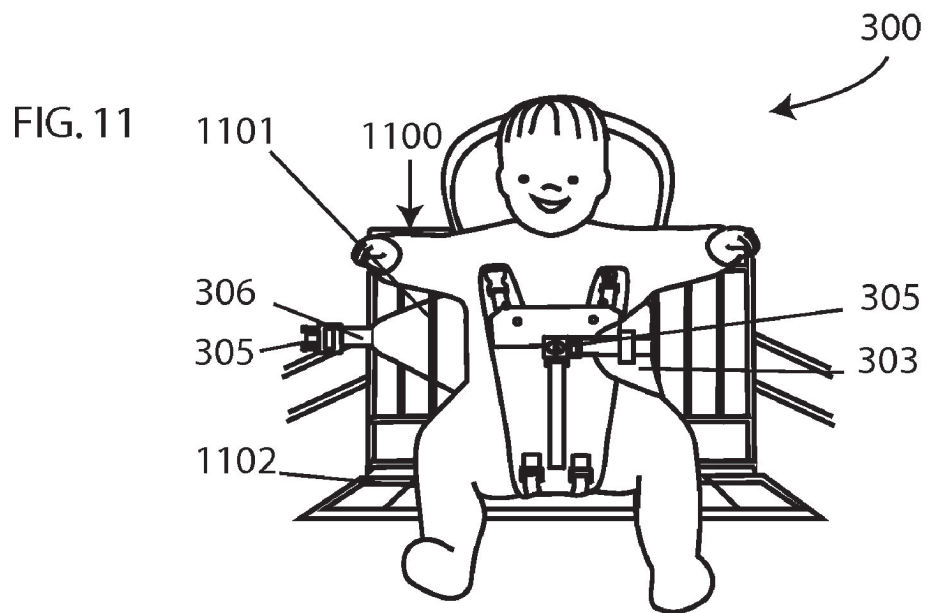


FIG. 10



BABY CARRIER

[0001] The following Non-Provisional Application is referenced back to Provisional Application Ser. No. 06597677 entitled "Baby Carrier".

BACKGROUND OF THE INVENTION

[0002] The present invention relates to an improved soft baby carrier in which an infant can be safely carried by its parent or fastened to a secure object. One of the many situations which a modern-day parent has to contend with is trying to manage everyday activities while also trying to care for their infant child. Many parents may find themselves in a predicament where they have to temporarily forego whatever activity they are currently engaged in while they tend to the needs of their little one, or vice versa. Various baby carriers have been developed over the years as a means of allowing parents to accomplish many of these activities simultaneously by providing a carrying arrangement attached to the parent that may allow the parent use of their arms to perform other activities as needed, while the infant is safely secured within the baby carrier. Soft baby carriers typically incorporate an arrangement of fabric or similar material that is formed to cradle an infant that may then be attached to the wearer. Some arrangements may be worn on the front, side or back of the torso depending on the design. Despite various improvements over the years, many soft baby carriers still lack ease of use and the ability to be adjusted quickly to accommodate infants and parents of different sizes and shapes.

[0003] U.S. Pat. No. 5,361,952 by Gold, which is herein incorporated by reference for all that it contains, discloses a soft-type baby carrier for supporting a baby in a rearwardly facing direction on the front or side torso of a wearer. The baby carrier includes an adjustable pouch shaped baby seat for supporting a baby in a substantially upright, sitting position, an adjustable waist belt and an adjustable yoke system for comfortably supporting the baby carrier about the neck of a wearer.

[0004] U.S. Pat. No. 7,070,076 by Bergkvist, which is herein incorporated by reference for all that it contains, discloses pertaining to a child-supporting shoulder harness including a flexible front piece which is connected in the harness to form a child supporting pouch. The front piece includes a length-adjustable connecting device which extends between two horizontal, mutually spaced points on the front piece, so as to enable the width of the pouch to be varied. When the width is reduced, the lateral end-parts of the front piece are deformed in a way that reduces the wedging action between the wearer's chest and the baby's head and provides a comfortable lateral head support for a sleeping baby.

BRIEF SUMMARY OF THE INVENTION

[0005] The present invention comprises an improved soft baby carrier comprising an adjustable shoulder harness featuring a detachable adjustable pouch system. The baby carrier may be worn or alternatively fastened to a secured object for supporting an infant. The detachable adjustable pouch system may also be detached from the shoulder harness and fastened to a secure object for supporting an infant.

[0006] In one aspect of the invention the adjustable shoulder harness may incorporate retractable shoulder straps disposed in the front portion of the harness that may be used to safely and securely extend the pouch system away from the wearer without having to detach the pouch or remove the infant. The retractable shoulder straps may allow the pouch system to be quickly and conveniently extended away from the wearer providing face to face interaction with the infant while also creating extra room for the infant to move. The pouch may also be retracted just as quickly into its original position once the needs of the infant are addressed or at such time that the infant is once more settled, allowing the parent to carry on with the task at hand. The detachable adjustable pouch system may form a seat for supporting an infant in a substantially upright seated position that may be adjusted to accommodate an infant of varying sizes. The pouch may be adjusted to fit an infant by utilizing a retractable drawstring system disposed in the seat portion and adjustable straps disposed in the side portions both of which may be adjusted to provide more or less depth and width for the infant. The adjustable pouch system may also incorporate the weight of the infant as a design feature of a fastening system in the seat portion.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a perspective diagram of an embodiment of a baby carrier.

[0008] FIG. 2 is a perspective diagram of an embodiment of an adjustable shoulder harness.

[0009] FIG. 3 is a perspective diagram of an embodiment of the detachable adjustable pouch system exterior.

[0010] FIG. 4 is a perspective diagram of another embodiment of the detachable adjustable pouch system interior.

[0011] FIG. 5 is a perspective diagram of another embodiment of the detachable adjustable pouch system.

[0012] FIG. 6 is a perspective diagram of another embodiment of the detachable adjustable pouch system.

[0013] FIG. 7 is another perspective diagram of an embodiment of the detachable adjustable pouch system attached to the shoulder harness.

[0014] FIG. 8 is another perspective diagram of an embodiment of the detachable adjustable pouch system attached to the shoulder harness.

[0015] FIG. 9 is another perspective diagram of an embodiment of the detachable adjustable pouch system attached to the shoulder harness.

[0016] FIG. 10 is another perspective diagram of an embodiment of the detachable adjustable pouch system attached to the shoulder harness.

[0017] FIG. 11 is a perspective of an embodiment of the detachable adjustable pouch system attached to a secure object.

[0018] FIG. 12 is another perspective of an embodiment of the detachable adjustable pouch system attached to a secure object.

[0019] FIG. 13 is a perspective diagram of an embodiment of the adjustable shoulder harness attached to the detachable adjustable pouch system attached to a secure object.

DETAILED DESCRIPTION OF THE INVENTION AND THE PREFERRED EMBODIMENT

[0020] It will be readily understood that the components of the present invention, as generally described and illustrated in

the Figures herein, may be arranged and designed in a wide variety of different configurations. Thus, the following, more detailed description of embodiments of the apparatus of the present invention, as represented in the Figures is not intended to limit the scope of the invention, as claimed, but is merely representative of various selected embodiments of the invention.

[0021] FIG. 1 discloses an embodiment of the current invention depicting a soft baby carrier 100 comprising an adjustable shoulder harness 200 and a detachable adjustable pouch system 300 in which an infant can be safely carried by its parent or fastened to a secure object. FIG. 2 discloses an embodiment of the current invention depicting an adjustable shoulder harness 200. The shoulder harness 200 may comprise an arrangement of at least two adjustable straps 201 comprising two ends 202, a front and rear portion, with a plurality of fastening fixtures 203 disposed at the front portion of said arrangement. In some embodiments the arrangement may comprise at least two adjustable straps 201 that form a figure 8-shaped arrangement. The two adjustable straps 201 may comprise thick padded fabric of substantially equal lengths. The two adjustable straps 201 may intersect through an intersection 205 that may also comprise an appendage 206 attached to the intersection 205 disposed towards the rear portion of the arrangement that may be utilized to hold the shoulder harness 200 in conformity. The thick padded fabric may serve to cushion both the wearer and the infant while the intersection 205 may assist to hold the arrangement in place, providing both fit and comfort during long periods of use. The two adjustable straps 201 may comprise buckles 207 disposed towards the rear of portion of the arrangement that are utilized to provide slack or take up any excess slack in the arrangement such that the shoulder harness 200 conforms to the torso of the wearer. The plurality of fastening fixtures 203 may be disposed generally at the front portion of the shoulder harness 200 and may comprise male or female connections selected from the group consisting of plastic domes, metal domes, plastic clips, metal clips, plastic hooks, metal hooks or combinations thereof. In a preferred embodiment the plurality of fastening fixtures 203 may comprise plastic clips that may also be configured to complement the at least one fastening fixtures of the detachable adjustable pouch system (not shown).

[0022] Also depicted are the at least two retractable shoulder straps 208 that may be disposed at the front of the adjustable shoulder harness 200 comprising separate fastening fixtures 203 at each end. In some embodiments the separate fastening fixtures 203 disposed at the end of the at least two retractable shoulder straps 208 may comprise a means to enable each end to be extended or retracted. In a preferred embodiment the at least two retractable straps 208 may comprise nylon strapping attached to a piece of fabric 209 subsequently attached in the upper portion of the adjustable shoulder harness 200. The piece of fabric 209 may be utilized to enable the at least two retractable shoulder straps 208 to withstand the effects of separating from the shoulder harness 200 after prolonged usage. The at least two retractable straps 208 may further comprise a sliding padded rectangular fabric strip 210 that may be attached using loops 211 with stops 212 forming the ends. The loops 211 may assist to keep two retractable straps 208 secure while the stops 212 may prevent the two retractable straps 208 from disconnecting from the shoulder harness 200. In some embodiments the fabric strips 210 may provide extra cushioning to prevent chaffing that

may occur to an infant when the detachable adjustable pouch system (not shown) is attached to the adjustable shoulder harness 200.

[0023] Two small fastening fixtures 203 may be configured to connect at a lower front portion of the arrangement. The two small fastening fixtures 203 may be attached to elastic straps 213 that are attached at a lower portion of the arrangement. The two smaller fastening fixtures 203 may assist the shoulder harness 200 to conform better to the torso of the wearer and provide an improved fit. The two adjustable straps 201 may further comprise ends 202 with elastic straps 214 that may be utilized to secure any extra length of strap not being utilized. In other embodiments a bib (not shown) may be attached by plastic domes 215 disposed in the front portion of the shoulder harness 200 which may correspond to the chest area of the wearer. The bib may act as a shield between the infant and the wearer and prevent stains from lodging on the wearer's clothes.

[0024] FIG. 3 discloses another embodiment of the current invention depicting the exterior of a detachable adjustable pouch system 300 comprising a front 301, back 302, side 303 and seat 304 portions. Each portion may comprise at least one fastening fixture 305. The side portions 303 may comprise retractable straps 306 with fastening fixtures 305 disposed at each end. A retractable drawstring system 308 may be disposed within the back portion 302. The pouch system 300 may comprise padded fabric in a generally T-shaped configuration. The front portion 301 of the pouch system 300 may be formed towards the bottom of the T-shaped configuration and comprise a forked portion 314 that may further comprise at least one fastening fixture 305 that complements the at least one of the plurality of fastening fixtures 203 located on the shoulder harness. The forked portion 314 may further comprise a retractable partition 307 comprising padded fabric that may be extended and attached to plastic domes 311 in an upper portion of the forked portion 314 or retracted and secured using another set of plastic domes 311 in a lower portion of the forked portion 314. The retractable partition 307 may allow the pouch to extend to provide more depth in the seat portion 304 that may also allow more leg room for a larger infant and assist to keep the shoulder straps in place. A sliding fastening fixture 312 attached to a restraining loop 313 may also be disposed on the exterior of the front portion 301. The sliding fastening fixture 312 may be adjusted to connect with the at least one fixtures 305 disposed at the ends of the retractable straps 306 disposed in the side portions 303 of the pouch system 300 to accommodate an infant and provide a better fit.

[0025] The back 302 and side 303 portions of the pouch system 300 may be formed in the upper portion of the T-shaped configuration and may comprise at least one fastening fixture 305 that complements at least one of the plurality of fastening fixtures 203 located on the adjustable shoulder harness 200. The retractable straps 306 may comprise nylon straps attached to the back 302 portion of the pouch system 300. The retractable straps 306 may also comprise fabric loops 211 that may be utilized to secure any extra length of the nylon strap not be used to secure the infant in the pouch system 300. The seat 304 portion may be formed generally in the middle of the T-shaped configuration and may comprise at least one male fastening fixture 305 disposed on the exterior of said portion. In a preferred embodiment the seat portion 304 may comprise four male fastening fixtures 305 for con-

nection with at least one of the plurality of fastening fixtures 203 of the adjustable should harness 200.

[0026] FIG. 4 discloses another embodiment depicting the interior portion of the pouch system 300 that may comprise a padded fabric that provides both comfort and warmth. The interior may be sufficiently void of any sharp or hard objects and lay substantially flat for receiving an infant. The embodiment also discloses the retractable drawstring system 308 which may further comprise retractable drawstrings 400 that may subsequently be disposed within channels that form a generally V-shaped configuration. The ends of the retractable drawstrings 400 may be attached and anchored to the back 302 portion of the pouch system 300. The channels may be formed to accommodate the retractable drawstrings 400 so they have limited movement in a selected direction. The retractable drawstrings 400 may be selected from the material consisting of string, fabric tubing, nylon strapping, or combinations thereof. The retractable drawstrings 400 may be attached at their ends to a portion of the back 302 portion of the pouch system 300 that extends to an opening 401 where a strip comprising a pull tab 402 is attached at the apex of the V-shaped configuration. The retractable drawstrings 400 may be pulled up to 10 inches in a downward direction towards the forked portion 314 of the pouch system 300 or alternatively retracted back to their original starting position. The retractable drawstrings 400 may also comprise strips of a self adhesive material 403 that begin proximate the pull tab 402 and extend up to 10 inches towards the back 302 portion. In some embodiments the self adhesive material 403 may comprise Velcro hooks. A corresponding self adhesive pad 404 may be attached to the interior seat 304 portion of the adjustable pouch system 300. In some embodiments the corresponding self adhesive pad 404 may comprise Velcro padding. The back 302 portion of the pouch system 300 may also comprise an elasticized band that forms a pocket 405 in which the pouch system 300 may be rolled and stowed away.

[0027] FIG. 5 discloses an embodiment of the detachable adjustable pouch system 300 depicting a fastening system 500 that may be utilized to adjust the depth of the pouch system 300. The fastening system 500 may comprise strips of self adhesive material 403 disposed on one side of the retractable drawstrings 400 that may be pulled and folded back towards the back 302 portion to be affixed to the self adhesive pad 404 disposed in the interior seat 304 portion of the pouch system 300. The fastening system 500 is disposed in the seat 304 portion of the pouch system 300 which may be disposed underneath the bottom of the infant and may be utilized to incorporate the weight of the infant as a component to help keep the self adhesive material 403 and the self adhesive pad 404 affixed to one another. In some embodiments the fastening system 500 may also provide an extra layer of padding in the seat 304 portion.

[0028] FIG. 6 discloses an embodiment of the baby carrier 100 depicting the adjustable pouch system 300 secured around an infant. In a preferred embodiment the pouch system 300 may comprise padded fabric in a generally T-shaped configuration with the front 301 portion being disposed towards the lower portion of the T-shaped configuration which may also comprise a forked portion 314. The forked portion 314 may be folded inwards towards the back 302 portion with the fastening fixtures 305 being disposed on the exterior of the pouch system 300. The side 303 portions may be formed in the upper portion of the T-shaped configuration and may be folded inwards to intersect with the forked portion

314. The embodiment further depicts how the T-shaped configuration may form the pouch system 300 that is utilized to support an infant. The side 303 portions may be used to wrap underneath the infants arms and around the torso while the fastening fixtures 305 disposed at each end may be configured to connect with the sliding fastening fixture 312 attached to the restraining loop 313 of the front 301 portion. In this embodiment the adjustable pouch system 300 may encapsulate and support an infant in a substantially upright sitting position that can be attached to the adjustable shoulder harness 200 or a secure object.

[0029] FIGS. 7-8 disclose an embodiment of the baby carrier 100 depicting the detachable adjustable pouch system 300 attached to the adjustable shoulder harness 200 in a forward facing position where the infant may be positioned forward facing. In this embodiment the adjustable pouch system 300 comprising the plurality of fastening fixtures 305 may be attached to the adjustable shoulder harness 200 using the at least one fastening fixtures 203. In a preferred embodiment the pouch system 300 may be attached to the adjustable shoulder harness 200 using twelve fastening fixtures which may comprise the separate fastening fixtures 203 disposed at each end of the at least two retractable shoulder straps 208 that complement two fastening fixtures 305 disposed in the forked portion 314 of the adjustable pouch system 300. Two fastening fixtures 203 disposed at the lower front portion of the adjustable shoulder harness 200 may be coupled with two fastening fixtures 305 disposed in the seat 304 portion of the pouch system 300. While two additional fastening fixtures 203 located intermediate the at least two retractable shoulder straps 208 and the lower portion of the adjustable shoulder harness 200 may be coupled with two additional fastening fixtures 305 disposed at the rear of the back 302 portion of the pouch system 300. Referring now to FIG. 8 which discloses a baby carrier 100 wherein the adjustable shoulder harness 200 comprising separate fastening fixtures 203 disposed at the end of the at least one retractable shoulder straps 208 may be coupled with the fastening fixtures 305 disposed in the forked portion 314 of the pouch system 300 in a forward facing position. In this embodiment the at least two retractable shoulder straps 208 may help to secure the upper torso area of an infant and prevent the child from falling out of the carrier.

[0030] FIGS. 9-10 disclose an embodiment of the baby carrier 100 depicting the detachable adjustable pouch system 300 attached to the adjustable shoulder harness 200 in a rearward facing position where the infant may face towards the wearer. In a preferred embodiment the pouch system 300 may be attached to the adjustable shoulder harness 200 using a combination of fastening fixtures which may comprise the separate fastening fixtures 203 disposed at each end of the at least two retractable shoulder straps 208 coupled with the at least one fastening fixtures 305 disposed in the back 302 portion of the pouch system 300. The two fastening fixtures 203 disposed at the lower front portion of the adjustable shoulder harness 200 may be coupled with two fastening fixtures 305 disposed in the front of the seat 304 portion of the pouch system 300 while two more fastening fixtures 203 located intermediate the at least two retractable shoulder straps 208 and the lower portion of the shoulder harness 200 are coupled with the at least one fastening fixtures 305 disposed in the forked portion 314 of the adjustable pouch system 300. Referring now to FIG. 9 which depicts how the at least two retractable shoulder straps 208 may allow the pouch system 300 to be extended at least 2 inches from the adjust-

able shoulder harness **200**. This may be accomplished by utilizing separate fastening fixtures **203** that comprise a means to extend or retract the at least two retractable shoulder straps **208**, wherein the means may comprise one of the following consisting of a plastic sliding loop mechanism, a metal sliding loop mechanism, an elasticized member, an adjustable Velcro strap, or combinations thereof. The means may allow the pouch system **300** to be securely extended away from wearer without having to detach said pouch system **300** or remove the infant, while simultaneously allowing the wearer face to face access with the infant. In some embodiments the retractable shoulder straps **208** may allow the wearer quick face to face access to the infant in order to tend to the infants needs as well as provide extra room for the infant to move should the need arise.

[0031] FIGS. 11-12 disclose an embodiment depicting the detachable adjustable pouch system **300** fastened to the back rest of a shopping cart **1100** being disposed atop the seat **1102** portion of the shopping cart **1100**. FIG. 11 depicts how the side **303** portions may be threaded through the metal bars **1101** of the back rest of a shopping cart **1100** using the retractable straps **306** with the at least one fastening fixtures **305** disposed at each end. FIG. 12 depicts how the at least one fastening fixtures **305** may then be connected to the sliding fastening fixture **312** disposed in the front **301** portion of the pouch system **300** such that an infant may be substantially secured. In some embodiments the fastening fixtures **305** disposed in the forked portion **314** of the pouch maybe connected together to prevent finger entrapment.

[0032] FIG. 13 discloses an embodiment of the baby carrier **100** depicting the detachable adjustable pouch system **300** attached to the adjustable shoulder harness **200** in a forward facing position where the adjustable shoulder harness **200** may be adapted to attach to a secure object such as a high backed chair **1300**. The adjustable shoulder harness **200** may be adjusted to fit securely around the back of a chair **1300** so that the pouch system **300** may be attached to support an infant.

[0033] Whereas the present invention has been described in particular relation to the drawings attached hereto, it should be understood that other and further modifications apart from those shown or suggested herein, may be made within the scope and spirit of the present invention.

What is claimed is:

1. A baby carrier comprising;
an adjustable shoulder harness comprising an arrangement of at least two adjustable straps comprising two ends, a front and rear portion, a plurality of fastening fixtures disposed at the front portion of said arrangement, at least two retractable shoulder straps disposed at the front of said arrangement comprising separate fastening fixtures that comprise a means to extend or retract said retractable shoulder straps disposed at each end,
a detachable adjustable pouch system comprising a front, back, and seat portion, each portion comprising at least one fastening fixture, the side portions comprising retractable straps with fastening fixtures disposed at each end, the front portion comprising a retractable partition, a retractable drawstring system disposed within the back and seat portions, a fastening system disposed in the seat portion.
2. The baby carrier of claim 1, wherein the arrangement comprises the at least two adjustable straps that form a figure 8-shaped arrangement.

3. The baby carrier of claim 1, wherein the at least two adjustable straps comprise thick padded fabric of substantially equal lengths.

4. The baby carrier of claim 1, wherein the at least two adjustable straps intersect through an intersection at the rear portion of the arrangement.

5. The baby carrier of claim 1, wherein the at least two adjustable straps comprise buckles disposed towards the rear portion of the arrangement.

6. The baby carrier of claim 1, wherein the plurality of fastening fixtures comprise male and female connections selected from the group consisting of plastic domes, metal domes, plastic clips, metal clips, plastic hooks, metal hooks or combinations thereof.

7. The baby carrier of claim 1, wherein at least one of the plurality of fastening fixtures of the adjustable shoulder harness is configured to complement the at least one fastening fixtures of the detachable adjustable pouch system.

8. The baby carrier of claim 1, wherein two small fastening fixtures of the adjustable shoulder harness are configured to connect at a lower front portion of the arrangement.

9. The baby carrier of claim 1, wherein the at least two retractable straps comprise nylon strapping.

10. The baby carrier of claim 1, wherein the at least two retractable straps are each disposed within the upper front portions of the adjustable shoulder harness.

11. The baby carrier of claim 1, wherein the at least two retractable straps comprise a sliding padded rectangular strip.

12. The baby carrier of claim 1, wherein the at least two retractable shoulder straps comprise a means to extend or retract the detachable adjustable pouch system at least 2 inches from the adjustable shoulder harness.

13. The baby carrier of claim 1, wherein the pouch system comprises padded fabric in a general T-shaped configuration.

14. The baby carrier of claim 1, wherein the pouch system comprises a front portion comprising a forked portion comprising the at least one fastening fixture that complements at least one of the plurality of fastening fixture located on the adjustable shoulder harness.

15. The baby carrier of claim 1, wherein the pouch system comprises a sliding fastening fixture disposed on the exterior of the front portion attached to a restraining loop.

16. The baby carrier of claim 1, wherein the pouch system comprises a back portion comprising the at least one fastening fixture that complements at least one of the plurality of fastening fixtures located on the adjustable shoulder harness.

17. The baby carrier of claim 1, wherein the pouch system comprises side portions each comprising retractable straps with fastening fixtures disposed at each end.

18. The baby carrier of claim 1, wherein the pouch system comprises at least one male fastening fixture disposed on the exterior of the seat portion.

19. The baby carrier of claim 1, wherein the adjustable pouch system comprises a retractable drawstring system comprising retractable drawstrings that form a generally V-shaped configuration disposed within channels that extend through the seat and back portions.

20. The baby carrier of claim 1, wherein the adjustable pouch system comprises a fastening system disposed in the seat portion comprising a strip of Velcro attached to the retractable drawstring system.

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