ABSTRACT

A carrier for a baby or infant, especially for use in water, includes an adjustable shoulder strap system for wearing by an adult, which has a lower front terminus; and a basket seat for seating the baby/infant, attached to the shoulder strap system above its lower front terminus. A headrest may be attached to the carrier, notably through the shoulder strap system and the basket seat. The shoulder strap system can employ a criss-cross shoulder strap arrangement through an adjusting member, which can evenly distribute the weight of the baby/infant across the adult and provide for secure positioning of the baby/infant in water, and the shoulder straps and basket seat can be adjustable. An end of each shoulder strap may be releasably attachable to the basket seat, and provide for side entry by the adult. Various activities can be carried out with a child carried in the carrier, even water aerobics.
FIG. 1
BABIY/INFANT CARRIER FOR WATER USE

[0001] This claims benefits under 35 USC 119(e) of U.S. provisional patent application No. 60/523,618 filed on Nov. 20, 2003 A.D. The complete specification of that application is incorporated herein by reference.

BACKGROUND TO THE INVENTION

[0002] I. Field
[0003] The present invention concerns a baby/infant carrier, for use in and around water.
[0004] II. Art
[0005] Parents continually worry about the safety of their children in water and at the same time do not want them to fear the water. In particular, it is very risky to take a wiggly, slippery baby/infant into water while being held in someone’s hands. It also is hard for parents, who have more than one child in the pool at one time, to properly tend their baby/infant in the water thus.

[0006] In addressing these issues, certain baby carriers for use in water have been developed.
[0007] These, however, are not without their drawbacks. For instance, known carriers of this type may be useful only for larger, stronger babies.

[0008] As well, other front-position baby carriers known on the market, especially those not designed for water-use, carry the baby very high on the adult, around the chest region. If such a carrier would be employed in an aquatic environment, for the carried baby to experience the water necessitates the adult going into deep water, which may be uncomfortable or dangerous.

[0009] It would be desirable to improve upon the foregoing art, and ameliorate if not overcome problems associated with it. It would be especially desirable to provide a versatile carrier for use in water environments, which can be effectively employed not only with larger babies but also with smaller infants.

DISCLOSURE OF THE INVENTION

[0010] In general, the present invention provides a baby/infant carrier, for use in and around water, which comprises an adjustable shoulder strap system for wearing by all adult, which has a lower front terminus; and a basket seat for seating of the baby/infant, attached to the shoulder strap system about its lower front terminus. A headrest can be attached, for example, to the shoulder strap system and the basket seat. Additional elements, for example, toy rings, and so forth can be provided.

[0011] The invention is useful in baby/infant care and recreation.

[0012] Significantly, by the invention, the art is improved in kind, and one or more problems in the art is or are ameliorated or overcome. For instance, the baby/infant carrier of the invention is versatile, and can be quickly made to be adjustable to fit various sized adults and babies or infants. The headrest can provide for employment of the carrier with even small infants who have yet to develop sufficient strength for control of the neck, in which case the infant can be held safely facing the adult. If a baby does have neck control, then the baby may face out, away from the adult. Thus, as the infant grows and the headrest is not needed for support, the headrest can be removed, and the baby allowed to face out, allowing him to kick his feet and paddle and splash more easily with his hands. This invention also allows the adult a more hands free experience in the water as the baby is securely positioned in the basket seat. The carrier can safely and securely carry the baby or infant close to the adult, who thus has safe and effective control of the baby or infant in aquatic environments, and can accommodate an infant or baby, for example, weighing some eight to thirty-two pounds. The carrier can also be used for special needs infants or babies. The basket seat is beneficially positioned around the adult’s misdirection to allow the child to safely play the water. The adult enjoys significant freedom of movement as well. By freeing up the parent’s hands while securely having the baby or infant in the carrier, the parent can tend to another child without putting the carried baby or infant at risk. As well, the adult can engage in other activities such as water aerobics with the secured baby/infant and even another little brother, sister, cousin or friend large enough to not require the carrier. Thus, the invention can be used to safely take babies/infants into water and significantly enhance the experience. This water could be a pool, lake or ocean, tub or shower, and so forth and the like, i.e., the aquatic environment. Although the carrier is not intended to be a life-saving device or swimming-aid, it conveniently provides for taking babies/infants into water safely with an adult present, which allows the baby or infant to be comfortable with water at a very early age.

[0013] Numerous further advantages attend the invention.
[0014] The appended drawings form part of the specification hereof. With respect to the drawings, which are not necessarily drawn to scale, the following is briefly noted:

[0015] FIG. 1 is a front view depicting an embodiment of a carrier of the invention worn by an adult with a baby in the carrier facing out or away from the adult.
[0016] FIG. 2 is a front, exploded view of another embodiment of a carrier such as generally of FIG. 1 but with modifications thereeto, and an accompanying adjustable headrest of the invention.

[0017] FIG. 3 is a rear, exploded view of the embodiment of FIG. 2.

[0018] FIG. 4 is a side view of the embodiment of FIG. 2, showing the carrier being put on by a caregiver chiefly to illustrate its side entry system.

[0019] FIG. 5 is a front view of the embodiment of FIG. 2, with the carrier and the headrest assembled together and worn by the caregiver and carrying an infant.

[0020] The invention can be further understood by the additional detail set forth below. Such is to be taken in an illustrative and not necessarily limiting sense.

[0021] A brief key to some of the features of the carrier embodiments that are depicted in the drawings is set forth as follows:

[0022] Number Feature
[0023] 1 Carrier shoulder strap.
[0024] 2 Shoulder strap center stabilizer.
3. Attachment ring, for example, D-ring for hanging toys, tethering pool floats, hanging towels or wipes, etc.

4. Front, locking buckle especially for seat height adjustment (locking seat height adjuster).

5, 5. Baby/infant seat height adjustment strap.

6. Rear, locking, adjustable buckle especially for shoulder strap adjustment (adjustable shoulder buckle).

7. Lap belt side-release buckle that attaches bottom of the shoulder strap to a seat (caregiver quick release attachment buckle).

8, 8. Basket seat for baby or infant.

12, 12. Baby/infant seat locking buckle(s).

13. Loop or ring, which also can serve to hold belt, attach toys, etc.

14. Ring, for example, D-ring, for attachment(s) and/or toy(s).

15. Adjustable headrest attachment straps.


With further reference to the drawings, the carrier generally includes two main parts that are attached together. Basically, the first of these parts is a fully adjustable, criss-crossed shoulder strap system including shoulder straps 1 worn by adult caregiver “MOM” and which distributes the weight of baby or infant “BABY” being carried. The second of these parts is the basket seat 8, 8’ in which the infant or baby sits.

The preferred basket seat 8, 8’ is soft and made to be positioned around the adult’s midsection to allow the seated child to safely play in the water. Advantageously, adjustment of the system having the strap 1 with seat 8, 8’ can be carried out conveniently through front and rear locking buckles 4, 6. The child can be securely positioned in the seat 8 with a double element latching system 12 (FIG. 1) or in the seat 8’ with a pair of opposing double element latching systems 12 (FIGS. 2, 5). The carrier can be designed for the adult caregiver to slip on the adjustable shoulder straps 1 over the shoulders as one would otherwise do, in general, with, but in a reverse type of correspondence to, a backpack, and can include “side entry” accommodation, for example, through employment of buckles 7. Note, FIG. 4.

The carrier also can include or have available an adjustable headrest 16 (FIGS. 2, 3, 5) that can be attached to the shoulder straps 1 and basket seat 8, 8’ as, for example, through straps 15 and two-element buckles 15F/15M. Rings such as shoulder strap rings 3 and seat front rings 14 (FIGS. 2, 5) and belt loops/rings 13 (FIG. 1) can be provided to retain toys for the infant or baby to play with, towels for the caregiver to have on hand to wipe the infant or baby, etc.

The carrier is made from any suitable material(s). For instance, it can be made for the most part from water buoyant fabric that allows the baby/infant to be more buoyant while in the water, for example, neoprene, and may have nylon or other polymeric webbing, and various types of stationary, adjustable and sliding buckles and clips such as of metal or preferably plastic, for securely attaching the carrier to the adult and securing the child in the basket seat. Beneficially thus, too, the carrier can be water tolerant, readily washable, and quick drying.
however, only one side of the carrier would be available for release and entry thus. And so, the seat 8, 8 can provide for full adjustment for different sized adults.

[0041] The child is held securely in the carrier in the basket seat 8, 8. Webbing 8W such as of the aforementioned ¾-inch or 1-inch wide woven nylon, notably, again, the ¾-inch size, can be used in different areas of the seat 8, 8 as a weight-bearing stabilizer. Since the carrier beneficially can hold children of various sizes, say, from eight to thirty-two pounds, the basket seat 8, 8 has an adjustable locking enclosure system to comfortably yet securely cinch around the baby, much the way a belt on a pair of pants cinches down or a diaper cinches down on a baby. Border binding 8B, which can be sewn on for comfort and durability similar to the binding 1B, can be provided. As best seen in FIG. 2, a seat such as the seat 8 when not secured laterally can open to form a pair of opposing flaps 8F so that the infant or baby can be placed in the seat 8 with greater ease. These flaps 8F fold over to the front when the seat 8 is laterally snugged up through buckling with the buckles 12.

A seat such as the seat 8 can be provided with infant leg opening snap straps systems having leg opening straps 8L, rear stowage snaps 8R, and front operational snaps 8S. For a larger baby, the straps 8L can be snapped into the rear straps 8R or even left dangling so as to leave the maximum sized opening for the baby’s legs when sitting in the seat 8. For a smaller baby, the straps 8L can be snapped into the front snaps 8S to provide for a smaller opening for his smaller legs. A plurality of operational snaps such as the snaps 8S may be provided to accommodate the legs of various sized infants in the seat 8.

[0042] In the embodiment depicted in FIG. 1, a looped locking system includes the seat 8, the rear of which can have encircling webbing such as the ¾-inch or 1-inch woven nylon webbing attached, and includes adjusting straps 12W for the locking buckle 12, which can be sewn or otherwise attached onto the front sides of the seat 8 and may pass through the loop or ring 13 on each front side. Each part of the buckle 12 can clip together through cooperation of a male element and a female element. To create a tight secure fit around the child, the ends of the nylon webbing 12W, each having its respective buckle component, are pulled so that the fit of the basket seat 8 is tight enough to hold the child in place. If the child is facing out, the side release buckle 12 will be across a baby’s waist. If an infant is facing in or towards the adult, the side release buckle 12 will be across the lower to mid back. The headrest 16 is beneficially also used in this rear-facing position. A side or laterally directed release type of buckle 12 is advantageously employed because it would be extremely difficult for a small baby’s fingers to release the buckle 12, which could put the child in danger, and it is not so difficult to unfasten that the adult could not release the baby in an emergency situation.

[0043] In the embodiment depicted in FIGS. 2-5, a looped locking system includes the seat 8 with its horizontal nylon web 8W, which can be sewn for its length along the rear of the seat 8 so that part of the web that can be considered the ends of the web 8W, each of which can pass under vertical web reinforcement length 8R sewn on what may be considered to be extremities or flaps 8F of the unlocked seat 8. The reinforcement 8R can be an extension of the strap 8 in the front, which may be folded to the back of the strap 81F and sewn there along with the front portion of the reinforcement length 8R. The web 8W can continue under the reinforcement length 8R or end there. When continuing under and through the reinforcement 8R its ends can form loose locking straps 12W, each of which including a fastening element, for example, male element 12M for insertion into corresponding female element 12F that form the baby infant seat locking buckle 12, which forms a side or laterally releasing buckle system with its attendant advantages. Two male-female element pairs are preferably employed, one attached on the left side and one attached on the right side of a central reinforcement web 12R, which, for example, can be an about 2-inch wide (vertical height when sewn onto the front of the seat 8) woven nylon web about three to 3½ inches, say, about 3½ inches in length (horizontal distance when sewn onto the front of the seat 8) that is sewn onto the outside front of the seat 8. Each female element 12F can have its insertion body secured further by having a back fastening member (not illustrated) backing the insertion body on the inside of the front of the seat 8 as is known in the art. When the buckles 12 are locked, depending on the size of the child carried in the seat 8, the flaps portions 8F are drawn in toward the center of the seat 8 and its buckles 12 by folding, and the nylon web straps 12W, each of which are looped over and through a strut on a receiving structure of the male element 12M as is known in the art, can be adjusted to snug up the straps 12W. With tightening of the straps 12W, the child is secured about his midsection or chest in the seat 8, with additional security and strength for this provided by the strap 8W. The rings 14, for example, each a D-ring, can be used to hang toys, etc. The headrest 16 can be employed to great advantage and benefit with the seat 8.

[0044] The carrier is designed for small children with and without neck control. For infants or other special needs children who do not have neck control, the headrest 16 can be attached to the carrier, especially with the embellished carrier seat 8. The headrest 16 could also be used for times when the baby is to face the adult for a greater bonding experience through eye-to-eye, direct voice, and front tactile contact. If an infant has little or no neck control, since his head tends to flop around, a headrest can have built-in neck stabilization on the face of the headrest to help stabilize the infant’s head, or, preferably, as with a headrest such as the headrest 16 can intrinsically provide for some side to side head support by being flexible and having less pliable support outside the boundaries of the infant’s head, which rests thereon.

[0045] The headrest 16 is preferably made of a substantially flat, soft yet supportive body such as of a textile material and/or foam, for example, neoprene, say, with an about 6-mm or 7-mm thickness, notably the former, and be of any suitable horizontal and vertical dimensions, for example, about nine inches wide by about thirteen inches high, in general. The headrest 16 can have sewn cloth binding border 16B, which can make for increased comfort and durability; quick fastening straps 16Q and snaps 16S on the bottom portion of the body of the headrest 16, with the snaps 16S on the straps 16Q for fastening to the snaps 8S on the body of the seat 8 when the headrest 16 is installed but otherwise connectable, if desired, to the snaps 16S on the body of the headrest 16 for tidy and secure stowage; and ¾-inch or 1-inch wide, notably the former, woven nylon webbing 16W that has two ends, each of which forms a loop 16L sewn around a looping strut on female clip element 15F as is known in the art. The webbing 16W can be sewn on
through stitches 16T. The headrest 16 includes a pair of upper securing straps 15 that include, for example, sewn on ¾-inch or 1-inch wide, notably, again, the former, woven nylon webbing 15W, each distal end of which has a loop 15L, sewn around a looping strut on a male clip element 15M as is known in the art. Padding 15P, for example, 3-mm thick neoprene, can encircle the proximal, fixed portion of each strap 15 around the webbing 15W, and be sewn to the body of the headrest 16 by its border 16B, to provide for increased comfort when the headrest 16 is installed, as well as increased durability.

For proper use with a baby, the caregiver places her arms through the shoulder straps 1 and ensures that the shoulder strap center stabilizer 2 is located in her central back region. The caregiver then ensures that the attachment buckles 6 are snapped and the straps 1 adjusted about the buckles 6 for a snug, comfortable fit without, however, restricting movement. Next, the caregiver centers the carrier on her chest and verifies that all buckles 4, 6 are clipped and straps 1 are snug. The caregiver now unbolts the baby seat locking buckle(s) 12, 12' so that the infant or baby can be placed in the basket seat 8, 8'. Placing the baby or infant in the seat 8, 8' is easiest when the straps 12W attached to the buckle(s) 12, 12' are loosened, and afterwards these can be pulled tight after the child is positioned in the basket 8, 8'. Presuming in this instance that the child will face out, the caregiver places the child in the basket seat 8, 8', facing away from the caregiver, and clips the baby seat locking buckle(s) 12, 12. This can be done while sitting or standing as long as proper care is taken to support the child while he is inserted into the basket 8, 8'. Experience has shown that it is easiest to put the baby or infant in the seat 8, 8' while either standing up or using a counter or table to place the baby into the basket seat 8, 8', or sitting down in a chair where the child will end up sitting in the basket 8, 8' in the caregiver’s lap. Typically, if the child is twelve pounds or under, with a basket seat such as the seat 8, 8', the leg opening straps 8L must be snapped to the respective front snaps 8S, which makes the leg openings for the child smaller. Use of the straps 8L with the snaps 8S is discontinued when the opening becomes too tight around the baby’s legs. When the straps 8L are not in use, they may be snapped on the back of a basket such as the basket 8. The baby’s arms are placed and should remain behind the front seat height adjustment straps 5, 5'. The straps 5, 5' can be adjusted so that, if the carrier is employed in water, the child sits high enough in the water so that at no time will he be face-deep in the water. Next, the caregiver verifies that the baby seat locking buckle(s) 12, 12' are clipped and the webbing 12W is adjusted for a snug fit around the baby. The buckle 12 or the two seat locking buckles 12 with webbing 12W should provide enough snugness to safely hold the child, but not too tight to cut off his circulation. Prior to further using the carrier, the caregiver again verifies that all straps are snug, all buckles clipped, and any snaps snapped. The caregiver also verifies that the child is comfortable and can move his extremities without restriction. The caregiver will want to ensure that the locking seat height adjusters 4 for the baby/infant are adjusted so that the child is correctly positioned in the water. The child should be low enough to be in the water and buoyant, but not able to have his face placed in the water. Chest level for the baby is the recommended maximum depth.

Installation of the headrest 16 can be carried out readily as well. Exemplary of this is installation of the headrest 16 into the seat 8. The first step is to insert the bottom of the headrest 16 into the baby basket seat 8' so that the bottom of the headrest 16 with its snap straps 16Q generally lines up with where the snap straps 8L, 8S are located. The snap strap 8L with its carried snap 8S is then snapped onto the snap 16S on the body of the headrest 16, and the snap strap 16Q with its carried snap 16S is snapped onto the snap 8S on the front of the baby basket 8'. The headrest 16 is snapped on both leg hole openings. The caregiver then places the baby/infant into the basket seat 8', facing towards the caregiver, and clips the baby seat locking buckle elements 12F/12M on the front of the seat 8'. It is recommended that the caregiver sits down while placing the child into the baby basket 8'. Once the child is inserted into the baby basket 8' and the front basket buckles 12 are buckled and webs 12W tightened, the headrest buckle elements 15F/15M are clipped together with each web 15W forming a loop around its corresponding strap section 5'.

Some key differences of the baby/infant carrier of the invention compared to other known baby/infant carriers include the following:

The invention is for use in an aquatic environment. All of the materials, from buckles to material choice, are beneficially water friendly and non-corrosive.

The baby or infant can face either away from or towards the adult. This can be accomplished or facilitated with the assistance of a removable headrest.

The built-in headrest provides for “flop control” for the children without neck control.

The carrier can distribute the load of the child evenly across the upper area of the adult.

This invention places the child lower on the adult. This allows the child and adult to be safer because the adult does not have to enter the water too far to allow the child to be in it. It also allows the baby to kick his feet and paddle with his arms.

Not only is the child held more securely and comfortably, the adult is more free to move easily, so easily and naturally, in fact, that, as the adult and carried child move together, such activities as water aerobics by a mother and her child carried in the carrier can be beneficially carried out.

Since children love to play, the carrier has toy attachments that are in safe positions for the child as well as the adult, and prevents toys from being lost by sinking in the water.

The carrier and its headrest is highly versatile in its employments. It, however, is not intended as life saver or swimming aid; rather it is especially for safe introduction to and enjoyment of water for babies and infants. Watching other children not in the carrier is made significantly easier, and often “hands free.”

The present invention is thus provided. Various features, parts, subcombinations and combinations can be
employed with or without other features, parts, subcombinations or combinations in the practice of the invention, and numerous adaptations and modifications can be effected within its spirit, the literal claim scope of which is particularly pointed out as follows:

What is claimed is:

1. A baby/infant carrier, especially for use in water, comprising an adjustable shoulder strap system for wearing by an adult, which has a lower front terminus; and a basket seat for seating the baby/infant, attached to the shoulder strap system about its lower front terminus.

2. The carrier of claim 1, wherein the shoulder strap system includes two shoulder strap elements, each of which is attachable about a first end of a respective shoulder strap element to a forward portion of the basket seat and goes over one or another shoulder of the adult, with the shoulder strap elements able to be crossed in the back of the adult when worn, through an adjustable stabilizer device, and able to be passed beneath the arms and around the sides of the adult and attached about a second end of the respective shoulder strap element to a rearward portion of the basket seat; and the basket seat has a looped locking system for securing the baby/infant in the basket seat.

3. The carrier of claim 2, wherein the second end of the shoulder strap element and the looped locking system provides for releasable attachment, and side entry by the adult.

4. The carrier of claim 3, wherein the shoulder strap elements are adjustable as to length in a first portion of the shoulder strap elements between the first ends of the shoulder strap elements and the adjustable stabilizer device, and in a second portion of the shoulder strap elements between the second ends of the shoulder strap elements and the adjustable stabilizer device; and the looped locking system is adjustable as to tightening of the basket seat around a baby/infant when the baby/infant is seated in the basket seat.

5. The carrier of claim 4, wherein the releasable attachment is provided by quick release clips having male and female elements.

6. The carrier of claim 5, wherein padding is provided for at least a part of the shoulder strap elements; and the shoulder strap system and basket seat include neoprene.

7. The carrier of claim 6, wherein the padding includes providing a wide soft shoulder strap element, reinforced with a strong web along its length; and encircling padding around a front portion of the shoulder strap element, which front portion is a strong web, about or adjacent said first ends.

8. The carrier of claim 1, further comprising fasteners for adjustment of size of leg openings for the basket seat.

9. The carrier of claim 2, further comprising fasteners for adjustment of size of leg openings for the basket seat.

10. The carrier of claim 2, further comprising a headrest attachable to the shoulder strap system and the basket seat.

11. The carrier of claim 10, wherein the headrest includes a substantially flat, pliable body; a pair of horizontally oriented, opposing straps; a releasable locking element associated with said straps; and fastener elements for attaching the headrest to fastener elements on the basket seat.

12. The carrier of claim 11, wherein the releasable locking element of the headrest associated with said straps includes quick release clips having male and female elements; and straps of the headrest are adjustable as to length.

13. The carrier of claim 12, wherein the fastener elements on the headrest are fastened to fasteners useful for adjustment of size of leg openings on the basket seat.

14. The carrier of claim 13, wherein padding is provided for at least a part of the headrest strap by encircling padding around a portion of said straps proximate the headrest body.

15. A headrest for a baby/infant carrier, which comprises a substantially flat, pliable body; a pair of horizontally oriented, opposing straps attached to the body mounted in an upper area of the headrest body; a releasable locking element associated with said straps; and lower fastener elements useful for attaching the headrest to fastener elements on the basket seat.

16. The headrest of claim 15, wherein the body includes neoprene; releasable locking element of the headrest associated with said straps includes quick release clips having male and female elements; and the straps of the headrest are adjustable as to length.

17. The headrest of claim 16, having fastener elements on a lower part of the body.

18. A method of carrying a child by an adult in or about a water environment, which comprises:

- providing a baby/infant carrier, especially for use in water, comprising an adjustable shoulder strap system for wearing by an adult, which has a lower front terminus; and a basket seat for seating the baby/infant, attached to the shoulder strap system about its lower front terminus;
- putting on and adjusting the carrier by the adult with its shoulder strap system over the shoulders and its basket seat in front of the adult;
- placing and securing the child in the basket seat; and
- with the child in the basket seat of the carrier, preparing to enter or entering the water environment.

19. The method of claim 18, wherein: the shoulder strap system includes two shoulder strap elements, each of which is attachable about a first end of a respective shoulder strap element to a forward portion of the basket seat and goes over one or another shoulder of the adult, with the shoulder strap elements able to be crossed in the back of the adult when worn, through an adjustable stabilizer device, and able to be passed beneath the arms and around the sides of the adult and attached about a second end of the respective shoulder strap element to a rearward portion of the basket seat; and the basket seat has a looped locking system for securing the baby/infant in the basket seat; and

the adult puts on the carrier through side entry.

20. The method of claim 19, wherein water aerobics are carried out.

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