A swaddling accessory (100) comprised of elongate flexible material (102) divided into a left wing (110L) and a right wing (110R), the elongate flexible material (102) having attached hook and loop components (104H, 104R, 104LC, 104LC). The swaddling accessory (100) secures the baby's arms by: placing the infant (100I) on the swaddling accessory (100); weaving the left wing (110L) between the right arm (100BR) and the torso (100BT), then passing the left wing (110L) around the right arm (100BR); repeating a similar weaving with the left arm (100BL) and the right wing (110R); and then securing the left wing (110L) and right wing (110R) at the back of the infant with hook and loop fasteners installed on the elongate flexible material (102). The swaddling accessory may be used with a swaddling cloth. Several embodiments and variations are presented, including an embodiment with a capability of securing either one arm or two arms, and an embodiment constructed out of two removably attachable pieces of flexible material.
SWADDLING ACCESSORY APPARATUS AND METHOD FOR SECURING AN INFANT’S ARMS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of the U.S. Provisional Patent Application No. 61/278,477 filed Oct. 7, 2009 by the present inventor. This provisional patent application is incorporated herein by reference.

TECHNICAL FIELD

[0002] This invention refers to apparatus used to swaddle babies; more particularly to accessories that may be used with swaddling cloths, swaddling blankets and the like.

BACKGROUND ART

[0003] The age-old practice of swaddling is a method of wrapping babies in garments of various materials and styles. Studies have shown that the benefits of swaddling include a reduction in sudden infant death syndrome (SIDS) as well as improved sleep habits. Unfortunately, there is a safety concern associated with swaddling. This issue relates to securing an infant’s arms in an effective manner to avoid the arms wriggling out of the swaddle. If the infant’s arms are not properly secured, there is a risk of the swaddle garment moving upwards towards the infant’s face if the infant attempts to free the infant’s hands. This is a serious concern, as no swaddle garment should cover an infant’s face. In some instances, the infant’s arms are simply too strong to hold in its swaddle. In other instances, parents may have difficulty mastering the unique swaddling technique. Many swaddle garments also pose a challenge of holding infant’s arms in place due to the lightweight fabric that is often used. All of these issues may be compounded. It is common for parents who experience these challenges to simply abandon swaddling their babies altogether for fear of their child’s safety. Therefore there is a need for securing an infant’s arms in a fail-safe manner when using a swaddling cloth.

SUMMARY

Technical Problem

[0004] The problem is to secure the arms of an infant in a fail-safe manner when used with a swaddling cloth.

Solution to Problem

[0005] The swaddling accessory presented herein solves the problem of securing the arms of an infant in a fail-safe manner when used with a swaddling cloth or used to assist a health care provider while examining an infant. In a first embodiment, the swaddling accessory is constructed from a single piece of elongate flexible material such as, but not limited to, a knitted cloth. The elongate flexible material has attached hook and loop fasteners. It is designed and configured so that the infant is placed on the flexible material with the longitudinal axis of the cloth traverse to the infant’s torso. Then a first end of the swaddling accessory is placed between the infant’s first arm and torso, then over the first arm. Similarly, the second end of the swaddling accessory goes between the infant’s second arm and torso, then over the second arm. The two ends of the swaddling accessory are then secured to the back of the elongate flexible material using the hook and loop fasteners. The swaddling accessory secures the infant’s arms in a sufficiently snug way so the infant’s arms cannot be raised or moved away from the infant’s torso. A swaddling cloth may then be put around the infant, over the swaddling accessory, in the usual manner of securing a swaddling cloth to an infant. The swaddling accessory is designed so it adjusts to the infant as the infant grows. It may be manufactured in several sizes to accommodate various sizes of babies. Furthermore, the amount of snugness may be adjusted to determine the amount of movement the infant is allowed. The swaddling accessory may also be used without the swaddling cloth in assisting a health care provider while examining an infant. Additional embodiments are included, including one that allows the swaddling accessory to constrain only one arm of the infant as well as two arms. The swaddling cloth is not part of the invention.

ADVANTAGEOUS EFFECTS OF INVENTION

[0006] What is novel about this invention is that it is an accessory that works with, but is independent of, most swaddling blankets and cloths. The swaddling accessory secures the infant’s arms from being raised or from getting free of the swaddling cloth.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1A illustrates a front view of a first embodiment of the present invention.
[0008] FIG. 1B illustrates a back view of the first embodiment of the present invention.
[0009] FIG. 2A illustrates a front view of a first step of putting the first embodiment of the present invention on an infant.
[0010] FIG. 2B illustrates a front view of a second step of putting the first embodiment of the present invention on an infant.
[0011] FIG. 2C illustrates a front view of the first embodiment of the present invention when secured on an infant.
[0012] FIG. 3A illustrates a cross section of FIG. 2C when the first embodiment secures the arms of a moderately sized infant.
[0013] FIG. 3B illustrates a cross section of FIG. 2C when the first embodiment secures the arms of a small infant.
[0014] FIG. 4A illustrates a second embodiment of the present invention made from two sections of elongate flexible material.
[0015] FIG. 4B illustrates a cross section of FIG. 2C for the second embodiment of the present invention.
[0016] FIG. 5A illustrates a front view of preparing to put on a swaddling cloth after the first embodiment of the present invention is secured on an infant.
[0017] FIG. 5B illustrates a front view of the swaddling cloth wrapped on an infant after the first embodiment of the present invention is secured on an infant.
[0018] FIG. 6A illustrates a front view of a third embodiment of the present invention designed to secure either one or two arms of an infant.
[0019] FIG. 6B illustrates a sectional view of the third embodiment of the present invention.
FIG. 6C illustrates a front view of the third embodiment of the present invention securing one arm of an infant.

DETAILED DESCRIPTION OF EMBODIMENTS

In this detailed description and the appended claims, terms such as left, right, bottom and top refer to the figure where the reference is first introduced. The exception to the terminology is made when referring to an infant’s left arm and right arm; where the usual meaning applies. The term swaddling cloth refers to any blanket, cloth or other garment that is used for swaddling an infant. The terms front and back refer to the front and back of the swaddling accessory when the infant is lying on the swaddling accessory. The term hook component and loop component refer to components of a hook and loop pair of removable attachment means such as, but not limited to VELCRO brand hook and loop fasteners. Two hook and loop pairs may have share a single component. The same numeral is used to refer to a specific item in different figures if it refers to the same physical item, independent of the figure’s view. The term flexible material refers to a cloth or other fabric or material suitable for use in swaddling an infant.

FIGS. 1A and 1B refer to a first embodiment 100 of the present invention. FIG. 1A illustrates a front view of the first embodiment 100, looking at it from the front while it is positioned on a surface such as a floor or bed. First embodiment 100 is comprised of an elongate piece of an elongate flexible material 102 having a left wing 110L and a right wing 110R. The elongate flexible material 102 has one piece of center loop component 104Lc two pieces of hook component, left hook component 104HL and right hook component 104HR attached to the back of the elongate flexible material 102; and one piece of loop component 104LL attached to the front of the elongate flexible material 102. The center loop component 104Lc is positioned on the back of the elongate flexible material 102 centered on the elongate flexible material 102 so that it is bisected by the vertical axis 100V. The left loop component 104LL is positioned on the front of the elongate flexible material 102 on the left side towards the left end 108L; the right hook component 104HR is positioned on the front of the elongate flexible material 102 on the right side towards the right end 108R. The left hook component 104HL is positioned on the back of the elongate flexible material 102 on the left side towards the left end 108L. All the hook and loop components, center loop component 104Lc, left hook component, 104HL, right hook component 104HR, and left loop component 104LL are positioned centered on the horizontal axis 100H located midway between the top and bottom of the elongate flexible material 102.

FIG. 1B shows the back of first embodiment 100. The same numerals used in FIG. 1A apply to FIG. 1B.

FIGS. 2A through 2C illustrate an overview of the steps involved in wrapping the first embodiment of the present invention on an infant while FIGS. 3A and 3B give a cross section view of first embodiment 100 when wrapped on a moderately sized infant and a small infant respectively. Referring to FIG. 2A, the first step is to place the elongate flexible material 102 on a flat horizontal surface such as a floor or a bed with the front of the elongate flexible material 102 facing upward and the cloth extended with the horizontal axis 100H going from left to right. The infant 100I is then placed on elongate flexible material 102 facing front with the infant’s back lying on elongate flexible material 102. The infant is positioned so the bottom edge of the elongate flexible material 102 is just above the infant’s wrist and the infant is centered on the elongate flexible material 102.

FIG. 2B shows the second step. The left wing 110L of elongate flexible material 102 is placed between the torso 100BT of the infant and the right arm 100BR and then extended over the right arm 100BR toward the left. The right wing 110R of elongate flexible material 102 is placed between the torso 100BT of the infant and left arm 100BL, then extended over the left arm 100BL and extended to the right.

The third step, also discussed later with reference to FIGS. 3A and 3B, is performed as follows: The left wing 110L is then placed to the back of elongate flexible material 102; the right wing 110R is then placed to the back of elongate flexible material 102; and the two wings 110R and 110L are secured to the back of elongate flexible material 102 so that the left arm 102BL and right arm 102BR are secured snugly.

FIG. 2C illustrates a front view of first embodiment 100 when wrapped on the infant with the arms snugly secured at the sides of the torso 100BT. The specific details illustrating how first embodiment 100 secures the infant’s arms are illustrated in the cross section views of FIGS. 3A and 3B.

FIGS. 3A and 3B show two methods for securing first embodiment 100 on the infant. Both FIGS. 3A and 3B are cross section of FIG. 2C. FIG. 3A illustrates how first embodiment 100 is wrapped on a moderately sized infant while FIG. 3B shows how first embodiment 100 is wrapped on a small infant. Refer now to FIG. 3A. With the infant’s back lying on the front side of first embodiment 100, the left wing 110L of first embodiment 100 is threaded between the right arm 100BR of the infant and torso 100BT, then around the front of the right arm 100BR of the infant and then under the infant. The left end 108L is then pulled firmly to the right under the infant’s back so the right arm 100BR of the infant is held snugly. The left hook component 104HL is then attached to the left side of the center loop component 104Lc. This secures the infant’s right arm.

The left arm 100BL of the infant is secured similarly. The right wing 110R of first embodiment 100 is threaded between the left arm 100BL of the infant and torso 100BT, then around the front of the left arm 100BL of the infant and then under the infant. The right end 108R is pulled firmly to the left under the infant’s back so the left arm 100BL of the infant is held snugly. The right hook component 104HR is then attached to the right side of the center loop component 104Lc. This secures the infant’s left arm.

FIG. 3B illustrates how first embodiment 100 is attached to an infant that is smaller than the infant illustrated in FIG. 3A. The left wing 110L of first embodiment 100 is wrapped around the infant’s right arm in the same manner as described for FIG. 3A. The right wing of first embodiment 100 is also wrapped around the infant’s left arm as described for FIG. 3A, but with one difference. The right hook component 104HR is attached to the left loop component 104LL. This secures both of the infant’s arms. It is therefore seen that first embodiment 100 can accommodate the infant as she grows in size. FIG. 3B accommodates a small infant while FIG. 3A accommodates a larger infant.

FIGS. 4A and 4B illustrate a second embodiment 200 of the present invention. FIG. 4A has the same design as FIG. 1A with the following wing differences. Second embodiment 200 is divided into two wings vertically, separating them into approximately two halves, a left wing 110L.
and a right wing 110R. The left wing 110L has a left side hook component 204HL attached to the back near the edge 202L; and the right wing 110R has right side loop component 204LR attached to the front of the right wing 110R near the edge 202R. The center loop component 104C of first embodiment 100 is replaced by two loop components 206L.L and 206L.R.

Fig. 4B is a cross section of second embodiment 200 as illustrated in Fig. 2C. The left wing 110L and right wing 110R are joined with the right side hook component 204LR attached to the left side loop component 204EL. Once these two wings are attached, securing the infant with embodiment two is done in the same manner as embodiment one. The primary advantage of embodiment two is that after the appropriate sizing is done once, the two wings can stay attached and both arms can easily be secured in subsequent uses of this embodiment without having to reach behind and/or around the infant as compared to the first embodiment.

Figs. 5A through 5D illustrate the use of first embodiment 100 together with an infant blanket 112 used as a swaddling cloth. Fig. 5A indicated first embodiment 100, positioned diagonally on a flat horizontal surface. Fig. 5B indicates the top corner 114 of the infant blanket folded down. Fig. 5C indicated laying the infant 100B on the infant blanket 112, the top crease 116 of the blanket level with the infant’s neck, with first embodiment 100 already secured on the infant. Fig. 5D indicates the infant blanket 112 wrapped around the infant 100B, the wrapping done in the usual manner.

Figs. 6A through 6C illustrate a third embodiment 300 of the present invention. Referring to Fig. 6A, third embodiment 300 modifies first embodiment 100 by having a piece of additional right hook component 302LR positioned on the right side of the front of first embodiment 100. Third embodiment 300 permits the swaddling cloth to be used in the same way as first embodiment 100. However, it also allows third embodiment 300 to be used as a one-arm swaddling cloth.

Fig. 6B illustrates a sectional view of third embodiment 300 as it is used as a swaddling accessory securing only one arm. Third embodiment 300 swaddles an infant torso 3T and left arm 100BL of infant while keeping the right arm 100BR free. Fig. 6C illustrates third embodiment 300 as used with an infant. As illustrated in Fig. 6B, additional right hook component 302LR engages left loop component 104L in a manner that keeps left arm 100BL of the infant free. The location and configuration of the components of third embodiment 300 are determined so that third embodiment 300 functions as indicated.

The one arm swaddle of third embodiment 300 assists parents with weaning their infant off the swaddle blanket. One-arm swaddling is a fairly typical approach to this transition. The challenge with this is similar to the challenge with swaddling in general; babies often work their way out of them. Parents are highly motivated to keep their infant’s arms secured for as long as they can because of the “startle-reflex” which is a known term to depict the infant’s inability to control their arms from moving around while they sleep which often wakes them up. Therefore many want to swaddle as long as is practical and when they are ready to transition out of swaddling, they often attempt to do this one arm at a time. Third embodiment 300 will assist with this.

The three embodiments are dimensioned and configured so they functions as described. The actual dimensions of the swaddling accessory are a design option. Typical dimensions for the first embodiment are 15 cm (6 in) height and 70 cm (23.5) length; however, these dimensions can vary, depending on the size of the infant using the swaddling accessory. The shape of the swaddling accessory can also vary as long as it functions as described herein. Other removable attaching mechanisms may be used instead of the hook and loop means such as buckles or snaps. A knitted fabric of the swaddling accessory works well when also used as the material for a companion swaddling cloth; however, other fabrics may also be used. Several different sizes of swaddling accessories may be used to accommodate the infant from birth until a swaddling accessory is no longer used. The swaddling accessory can also be used in certain situations without a swaddling cloth; for example for a doctor’s office to secure the infant’s arms during an exam. The elongate flexible material may be made from on or more pieces of material that are attached together by attachment means such as gluing, or stitching.

The disclosure presented herein describes three embodiments of the invention. These embodiments are to be considered as only illustrative of the invention and not a limitation of the scope of the invention. Various permutations, combinations, variations, and extensions of these embodiments are considered to fall within the scope of this invention. Therefore, the scope of this invention should be determined with reference to the claims and not just by the embodiments presented herein.

What is claimed is:

1. A swaddling accessory for wrapping an infant that secures the infant’s arms snugly to the infant’s torso, the infant having a first arm, a second arm, an infant back and a torso, the swaddling accessory comprising:
   an elongate flexible material having a longitudinal axis and a vertical axis, the vertical axis partitioning the elongate flexible material into a first wing and a second wing; the elongate flexible material having permanently attached at least one pair of removably attaching means; the elongate flexible material being sized and configured so that:
   when the infant’s back is placed on the elongate flexible material with the longitudinal axis of the elongate flexible material being traverse to the torso;
   the first wing of the elongate flexible material being positioned between the first arm and the torso, and then positioned above and over the first arm, and then positioned away from the torso;
   the second wing of the elongate flexible material being positioned between the second arm and the torso, and then positioned above and over the second arm, and then positioned away from the torso;
   and then the first wing and the second wing being secured at the infant back using the removably attaching means;
   wherein the swaddling accessory secures the infant’s arms snugly to the torso.

2. The swaddling accessory of claim 1 wherein the removably attaching means is comprised of at least one hook component and at least one loop component comprising a hook and loop pair.

3. The swaddling accessory of claim 1 being dimensioned and configured so that a swaddling cloth may be put on the infant over the swaddling accessory when the swaddling accessory is securing the infant’s arms snugly to the torso.
4. A method for securing an infant's arms snugly to the infant's torso, the infant having a first arm, a second arm, an infant back and a torso, the method comprising the steps of:
a. providing an elongate flexible material having a longitudinal axis and a vertical axis, the vertical axis partitioning the elongate flexible material into a first wing and a second wing, the elongate flexible material having permanently attached at least one pair of removably attaching means;
b. positioning the infant back on the elongate flexible material with the longitudinal axis of the elongate flexible material being traverse to the torso;
c. positioning the first wing of the elongate flexible material between the first arm and the torso, then positioning the first wing above and over the first arm, and then positioning the first wing away from the torso;
d. positioning the second wing of the elongate flexible material between the second arm and the torso, then positioning the second wing above and over the second arm, and then positioning the second wing away from the torso;
e. securing the first wing and the second wing at the infant back using the means for removably attaching the elongate flexible material;
wherein the swaddling accessory secures the infant's arms snugly to the torso.
5. A swaddling accessory for wrapping an infant that secures the infant's arms snugly to the infant's torso, the infant having a first arm, a second arm, an infant back and a torso, the swaddling accessory comprising:
one or more pieces of material, the one or more pieces of material comprising an elongate flexible material having a longitudinal axis and a vertical axis, the vertical axis partitioning the elongate flexible material into a first wing and a second wing;
the elongate flexible material having permanently attached at least one pair of removably attaching means;
the elongate flexible material with the removably attaching means is sized and configured such that when the elongate flexible material passes around the infant back, the first wing is threaded between the first arm and the torso, the second wing is threaded between the second arm and the torso, and the first wing and the second wing are secured at the infant back using at least one pair of removably attachable means;
then the elongate flexible material secures the infant's arms snugly to the torso.
6. The swaddling accessory claim 5 being dimensioned and configured so that a swaddling cloth may be put on the infant when the swaddling accessory is securing the infant's arms snugly to the torso.

7. The swaddling accessory of claim 5 being dimensioned and configured so that the elongate flexible material may be used by a health care provider by assisting in the examination of the infant.
8. The swaddling accessory of claim 5 wherein the elongate flexible material additionally comprises a third hook component attached near the second end on the elongate flexible material front such that the elongate flexible material may be wrapped on the infant to secure one arm and leave the other arm free.
9. The swaddling accessory of claim 5 wherein the elongate flexible material is comprised of a single piece of material.
10. The swaddling accessory of claim 5 wherein the elongate flexible material is comprised of at least two pieces of material wherein the pieces of material are removably attached.
11. The swaddling accessory of claim 5 wherein the elongate flexible material is comprised of at least two pieces of material wherein the pieces of material are permanently attached.
12. The swaddling accessory of claim 5 wherein the elongate flexible material having an elongate flexible material front, an elongate flexible material back, a first end and second end, the removably attaching means is comprised of:
a first loop component positioned near the first end on the elongate flexible material front;
a first hook component positioned near the first end on the elongate flexible material back;
a second hook component positioned on the elongate flexible material back near the second end;
and a second hook component positioned on the elongate flexible material back passing through the vertical axis;
the elongate flexible material, the first hook component, the second hook component, the first loop component and the second loop component being sized and configured such that when the elongate flexible material is positioned on the infant, then the elongate flexible material secures the infant's arms snugly to the torso.
13. The swaddling accessory of claim 12 wherein the first hook component removably attaches to the second loop component, and the second hook component removably attaches to the second loop component thereby accommodating an infant of moderate size.
14. The swaddling accessory of claim 12 wherein the first loop component removably attaches to the second hook component thereby accommodating an infant of small size.