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## (54) **INFANT SUPPORT DEVICE**

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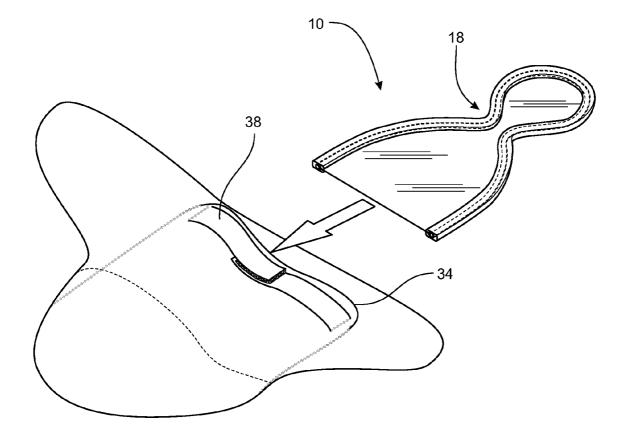
## **Publication Classification**

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#### (57) **ABSTRACT**

The infant support device that is unobtrusive and includes a frame having an upper portion and a lower portion. The upper portion of the frame defines a substantially elliptical shape for receiving the head of an infant, and the lower portion of the frame defines a substantially elliptical shape for receiving the body of an infant. The upper portion and the lower portion of the frame are arranged to form a substantially planar surface relative to one another. A cover that stretches across the frame that has a sleeve on the periphery of the cover, wherein the sleeve encloses the frame.



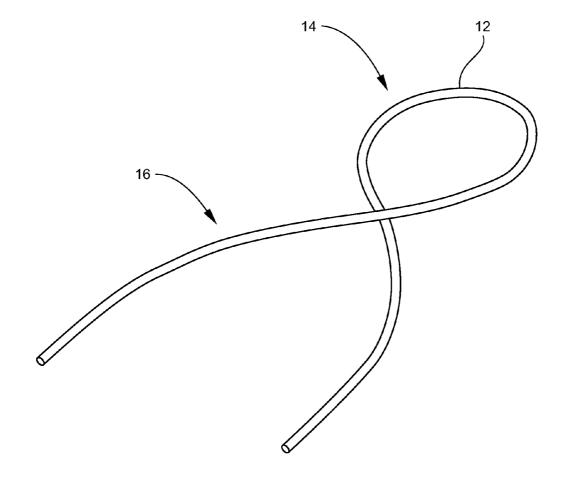
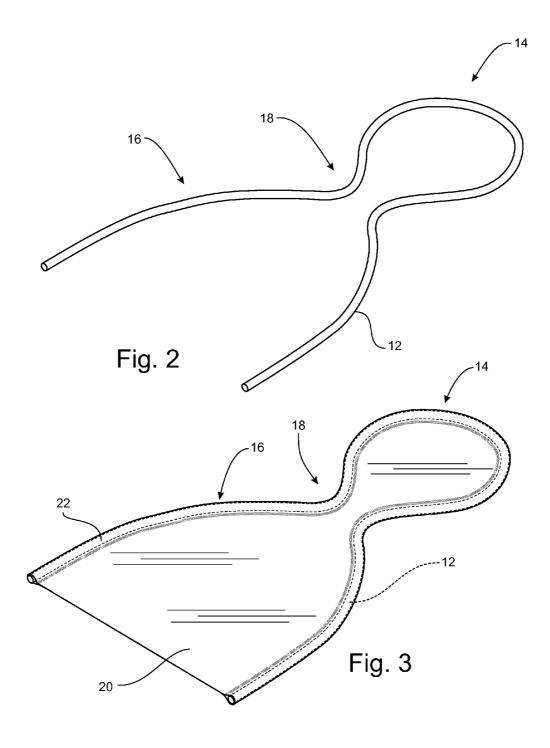
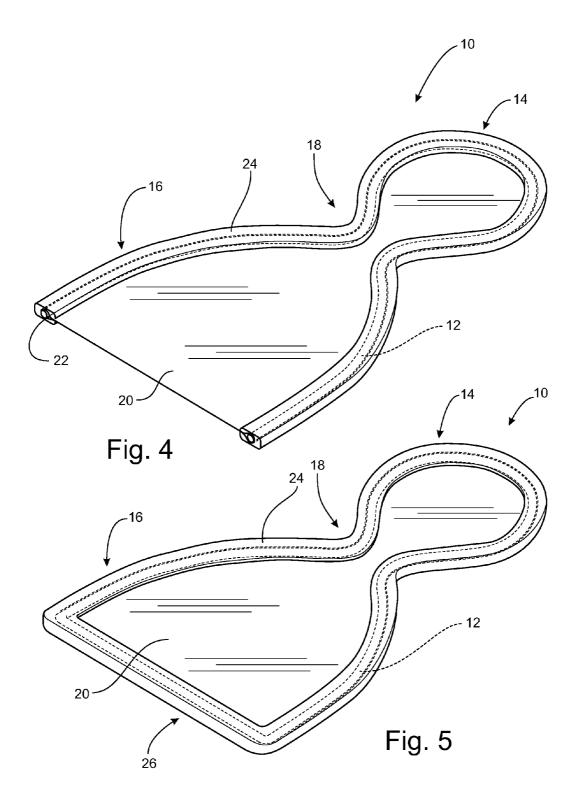
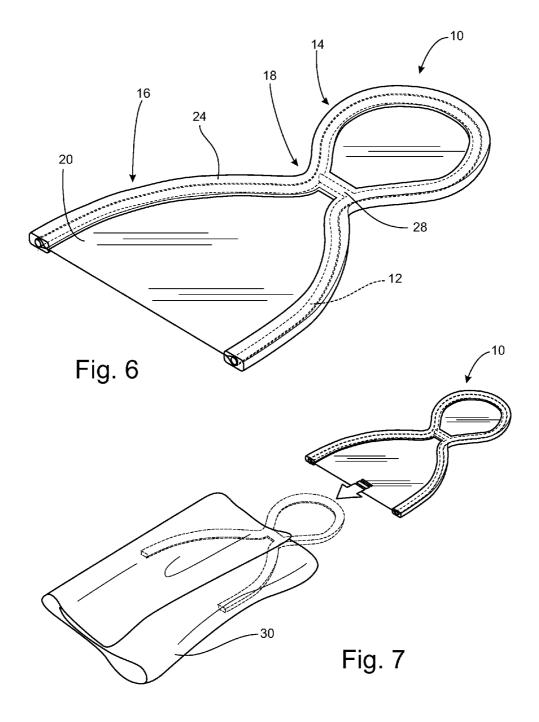
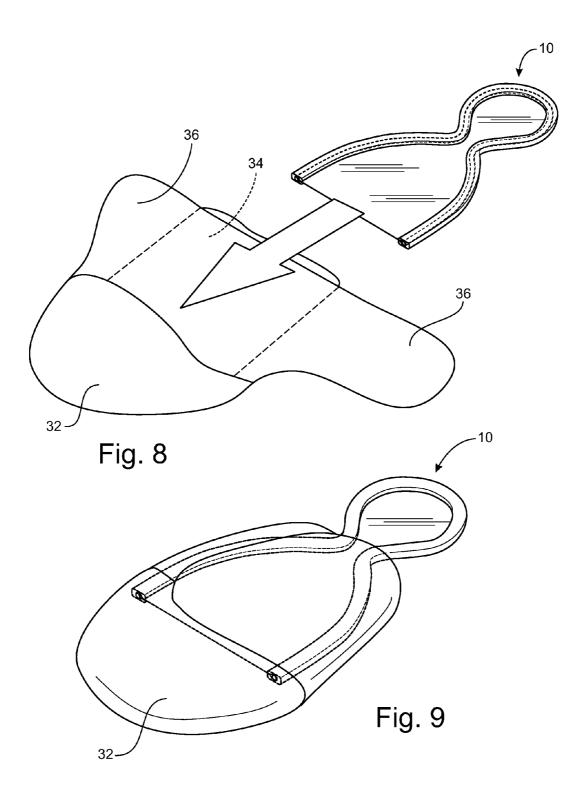


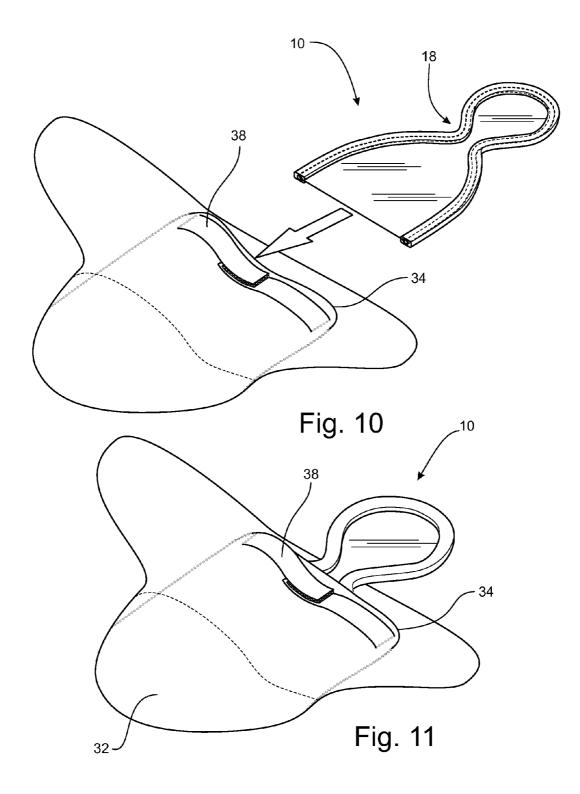
Fig. 1











#### INFANT SUPPORT DEVICE

#### FIELD OF THE INVENTION

**[0001]** The present invention relates generally to an infant support device and more generally relates to a device that supports both an infant's head and body utilizing a frame having an upper portion for receiving the infant's head and a lower portion for receiving the infant's body, whereby the upper portion and lower portion are arranged to form a planar surface relative to one another.

#### BACKGROUND OF THE INVENTION

**[0002]** The present invention relates to an infant support device. As is well known, infants do not have developed neck muscles, which would allow the infant to control its head. Therefore, the head and body of the infant must be supported with care to prevent injury to the infant. Extreme care must be exercised to provide the adequate support to the head and body for preventing injury, especially while passing the infant from one individual to another.

**[0003]** It is therefore desirable to provide an infant support device that would adequately support the body and head of the infant, while being unobtrusive. It is also desirable to provide an infant support device that can be incorporated into a blanket or swaddling blanket that would provide adequate support to the body and head of the infant, while being unobtrusive and providing comfort and warmth.

#### BRIEF SUMMARY OF THE INVENTION

**[0004]** According to one embodiment of the present invention, an infant support device includes a frame having an upper portion and a lower portion. The upper portion of the frame defines a substantially elliptical shape for receiving the head of an infant, and the lower portion of the frame defines a substantially elliptical shape for receiving the body of an infant. The upper portion and the lower portion of the frame are arranged to form a substantially planar surface relative to one another.

**[0005]** According to another embodiment of the present invention, the infant support device includes a cover that stretches across the frame.

**[0006]** According to yet another embodiment of the present invention, the infant support device includes a lower portion of the frame that has two distal ends that are in a spaced-apart arrangement.

**[0007]** According to yet another embodiment of the present invention, the infant support device includes a padded frame for providing added protection to the infant.

**[0008]** According to yet another embodiment of the present invention, the infant support device includes an upper brace positioned between the upper portion and the lower portion of the frame for providing further stability and support.

**[0009]** According to yet another embodiment of the present invention, the infant support device includes a blanket for receiving the infant support device.

**[0010]** According to yet another embodiment of the present invention, an infant support device for safely transporting and holding an infant includes a frame having an upper portion, a neck portion, and a lower portion. The upper portion of the frame defines a substantially elliptical shape for receiving the head of an infant, and the lower portion of the frame defines a substantially elliptical shape for receiving the body of an infant. The neck portion of the frame engages the upper portion and the lower portion for receiving the neck of an infant. A cover encloses the frame and stretches across the frame for supporting an infant, whereby the upper portion, the neck portion, and the lower portion of the frame are arranged to form a substantially planar surface relative to one another. [0011] According to yet another embodiment of the present invention, the infant support device includes an upper brace positioned in close proximity to the neck portion of the frame for providing further stability and support.

**[0012]** According to yet another embodiment of the present invention, the infant support device includes a swaddling blanket having a pocket therein for receiving the infant support device.

**[0013]** According to yet another embodiment of the present invention, the infant support device includes a cover having a sleeve on the outer periphery of the cover for receiving the frame, wherein the sleeve encloses the frame.

**[0014]** According to yet another embodiment of the present invention, the infant support device includes a strap positioned on the swaddling blanket for releasably securing the infant support device within the swaddling blanket.

[0015] According to yet another embodiment of the present invention, an infant support device includes a frame having an upper portion, a neck portion, and a lower portion. The upper portion of the frame defines a substantially elliptical shape for receiving the head of an infant and having a predetermined diameter that is greater than the diameter of the infant's head the upper portion is designed to receive. The lower portion of the frame defines a substantially elliptical shape for receiving the body of an infant while allowing the legs of the infant to protrude off an edge of the lower portion, but providing support to the body of the infant and having a predetermined diameter that is greater than the diameter of the infant's body the lower portion is designed to receive. The neck portion of the frame engages the upper portion to the lower portion for receiving the neck of an infant. A cover stretches across the frame and has a sleeve on the periphery of the cover, wherein the sleeve encloses the frame, and the upper portion, the neck portion, and the lower portion of the frame are arranged to form a substantially planar surface relative to one another.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0016]** The present invention is illustrated and described herein with reference to the various drawings, in which like reference numbers denote like method steps and/or system components, respectively, and in which:

**[0017]** FIG. 1 is a perspective view of one embodiment of the frame of the infant support device.

**[0018]** FIG. **2** is a perspective view of another embodiment of the frame of the infant support device.

**[0019]** FIG. **3** is a perspective view of the frame and cover of the infant support device.

**[0020]** FIG. **4** is perspective view of an embodiment of the infant support device.

**[0021]** FIG. **5** is a perspective view of another exemplary embodiment of the infant support device.

**[0022]** FIG. **6** is a perspective view of yet another exemplary embodiment of the infant support device.

**[0023]** FIG. 7 is a perspective view of yet another exemplary embodiment of the infant support device, wherein the infant support device is inserted into a blanket.

**[0024]** FIG. **8** is a perspective view of yet another exemplary embodiment of the infant support device and a swaddling blanket designed to receive the infant support device. **[0025]** FIG. **9** is a perspective view of yet another exemplary embodiment of the infant support device contained within the swaddling blanket.

**[0026]** FIG. **10** is a perspective view of yet another exemplary embodiment of the infant support device and an exemplary embodiment of the swaddling blanket.

**[0027]** FIG. **11** is a perspective view of an exemplary embodiment of the infant support device releasably secured within the swaddling blanket by a strap.

#### DETAILED DESCRIPTION OF THE INVENTION

**[0028]** Referring now specifically to the drawings, an exemplary infant support device and its internal components are illustrated in FIGS. **1**, **2**, **3**, and **4**. The infant support device is shown generally at reference numeral **10**. As illustrated in FIG. **1**, an exemplary embodiment of the frame **12** has an upper portion **14** and a lower portion **16**. The frame **12** has a substantially figure 8-shape. The upper portion **14** of the frame **12** generally defines a substantially elliptical shape for receiving the head of an infant. The lower portion **16** of the frame defines a substantially elliptical shape for receiving the body of an infant.

**[0029]** As shown in FIG. 1, the frame 12 is a single, continuous material that forms the substantially figure 8-shape. The frame 12 intersects itself, forming the upper portion 14 and lower portion 16. The upper portion 14 may be smaller in diameter than the lower portion 16, whereby the upper portion has a diameter greater than the diameter of an infant's head. The lower portion 16 has a diameter slightly greater than the width of an infant's body or torso.

**[0030]** The term "infant" has used herein is to be taken to include a small child unless the context requires otherwise.

[0031] As illustrated in FIG. 2, another exemplary embodiment of the frame 12 is a single, continuous material that generally follows the contours of an infant's body. In other words, the frame 12 contains an upper portion 14, a neck portion 18, and a lower portion 16. The upper portion 12 is designed to receive the head of an infant. The neck portion 18 is designed to receive the neck of an infant, and the lower portion 16 is designed to receive the body of an infant. The upper portion 14, neck portion 18, and lower portion 16 are arranged to form a planar surface relative to one another.

**[0032]** The distal ends of the frame **12**, as shown in FIG. **2**, are open ended. In other words, the distal ends of the frame **12** do not connect, forming a chute for allowing the infant's legs to dangle over the edge of the device **10**. Preferably, the distal ends are located just below the hips of an infant, thereby, providing the requisite support for the infant. This arrangement allows an infant's feet to dangle over the edge of the device **10**, while still supporting the head, neck, and torso.

[0033] A cover 20 encloses the frame 12, as illustrated in FIG. 3. The cover 20 provides support for resting the infant within the frame 12 of the device 10. Specifically, the cover 20 stretches between the frame 12 and includes an outer sleeve 22 on the periphery of the frame 12 for enclosing and retaining the frame 12. The sleeve 22 is substantially the same shape as the frame 12 for enclosing the frame. Preferably, the sleeve 22 is permanently stitched around the frame 12, preventing the frame from separating from the cover 20. This arrangement allows the infant to be placed upon the cover 20, and the frame 12 serves as the structural support for the device 10. The cover 20 is permanently attached to the frame 12 preventing separation of the frame 12 and cover 20.

**[0034]** FIG. 4 illustrates an exemplary embodiment of the device 10. The frame 12 includes a padded portion 24 for protecting the infant. The padded portion 24 is designed to form a cushiony exterior to the frame 12 for preventing injury to the infant that may occur from a hard, non-padded frame 12, depending upon the material utilized for the frame 12. The padded portion 24 fully encompasses the frame 12 by forming a solid exterior boundary. The padded portion 24 may be composed of any material that would dampen the force caused by the infant contacting the frame 12. Such materials may include a sponglike material of substantially uniform thickness.

[0035] As shown in FIG. 5, the distal ends of the frame 12 may be connected by a lower brace 26. The lower brace 26 engages the two distal ends of the frame 12 for providing support. Ideally, the lower brace 26 has a low profile, thus enabling the infant's legs to dangle over the edge of the device 10 unobstructed. The lower brace 26 provides added support for the distal ends of the device 10.

[0036] In another embodiment, the frame 12 includes an upper brace 28, as illustrated in FIG. 6. The upper brace 28 engages and connects two sides of the frame 12 in close proximity to the neck portion 18 of the device 10. In other words, the upper brace 28 is engaged to the frame 12 at the neck portion 18 and stretches across the interior void of the frame 12 and is engaged to the other side of the frame 12 at the neck portion 18. The upper brace 28 prevents any torque that may tend to occur when the infant is placed and held on the device 10. In other words, the upper brace 28 helps maintain the upper portion 14, the neck portion 18, and lower portion 16 in the same planar relationship when an infant is placed on the device 10. In another embodiment, the frame 12 may include both a lower brace 26 and an upper brace 28 for providing further stability and support.

[0037] In another embodiment, the device 10 may be placed within a cover, such as a blanket or like device for swaddling a baby. In such an embodiment as illustrated in FIG. 7, the device 10 is incorporated into a blanket 30. In this embodiment, the infant is placed upon the device 10, and the blanket 30 is wrapped around the infant, so that the infant is covered or swaddled by the blanket 30 and supported by the device 10.

[0038] Alternatively, the device 10 may be placed between two receiving blankets 30. The infant is then placed on the blankets 30 with the blankets 30 in the unfolded position. After the infant is placed on the blanket 30 with the device 10 located beneath the infant, the blanket 30 is securely wrapped around the infant. Alternatively, the device 10 is placed on top of a blanket 30, and the infant is placed within the device 10 on top of the unfolded blanket 30. The blanket 30 is then wrapped around the infant for warmth and comfort.

[0039] In yet another embodiment, the device 10 may be incorporated into a swaddling blanket 32. The swaddling blanket may include a pocket 34 for receiving the device 10, as illustrated in FIGS. 8 and 9. The infant is placed on top of the device 10 that is located within the pocket 34 of the swaddling blanket 32, and the sides 36 of the swaddling blanket 32 are wrapped around the infant.

[0040] In yet another alternative embodiment, a strap **38** is engaged to the swaddling blanket **32**, as illustrated in FIGS. **10** and **11**. The strap **38** is composed of two pieces of fabric that contain a hook and loop fastener (sold under the trade name VELCRO®). It is understood by one of ordinary skill in

the art that a hook and loop fastener is used herein by way of example only and any type of fastener that can releasably secure two straps together may be utilized, such as a snap or button. One side of the strap **38** contains the hook and the other side of the strap **38** contains the loop. The strap **38** is positioned in close proximity to the neck portion **18** of the device **10** when inserted into the swaddling blanket **32**. When the device **10** is inserted into the pocket **34**, each side of the strap **38** is engaged to the other through the use of the hook and loop fastener, causing the swaddling blanket **32** to partially constrict around the neck portion **18** of the device **10**. The strap **38** releasably secures the device **10** within the swaddling blanket **32**.

**[0041]** The frame **12** may be composed of any material that is rigid and can provide the structural support to support an infant. Suitable materials may include, but are not limited to, aluminum, plastic, plastic composites, steel, stainless steel, metal composites, and the like. Additionally, the frame **12** may be a sheath/core arrangement, whereby the core is a metal and the sheath is composed of a plastic or a plastic composite. It is also understood that the frame **12** may be constructed in different sizes to accommodate the various sizes and dimensions of infants.

[0042] During use of the device 10 illustrated in FIG. 1, the infant is placed within the frame 12 with its head within the top portion 14 of the frame 12 and the torso within the bottom portion 16 of the frame 12. The bottom portion 16 and top portion 14 are arranged to form a substantially planar surface relative to one another for supporting the infant. During use of the device illustrated in FIG. 2, the infant is placed within the frame 12 with its head within the top portion 14, its neck is placed within the neck portion 18, and its torso is placed within the bottom portion 16, and bottom portion 18 are arranged to form a substantially planar surface relative to one another support 18, and its torso is placed within the bottom portion 18 are arranged to form a substantially planar surface relative to one another

**[0043]** Although the present invention has been illustrated and described herein with reference to preferred embodiments and specific examples thereof, it will be readily apparent to those of ordinary skill in the art that other embodiments and examples may perform similar functions and/or achieve like results. All such equivalent embodiments and examples are within the spirit and scope of the present invention and are intended to be covered by the following claims.

What is claimed is:

1. An infant support device, comprising:

a frame having an upper portion and a lower portion; the upper portion of the frame defining a substantially

- elliptical shape for receiving a head of an infant;
- the lower portion of the frame defining a substantially elliptical shape for receiving a body of the infant; and
- whereby the upper portion and the lower portion of the frame are arranged to form a substantially planar surface relative to one another.

**2**. The infant support device according to claim **1**, further comprising a cover that stretches across the frame.

3. The infant support device according to claim 1, wherein the lower portion has two distal ends that are in a spaced apart arrangement.

**4**. The infant support device according to claim **1**, wherein the lower portion has two distal ends engaged to one another by a lower brace for providing stability and support.

**5**. The infant support device according to claim **1**, further comprising a padded frame for providing added protection to the infant.

6. The infant support device according to claim 1, further comprising an upper brace positioned between the upper portion and the lower portion of the frame for providing further stability and support.

7. The infant support device according to claim 1, further comprising a swaddling blanket having a pocket therein for receiving the infant support device.

**8**. An infant support device for safely transporting and holding an infant, comprising:

- a frame having an upper portion, a neck portion, and a lower portion;
- the upper portion of the frame defining a substantially elliptical shape for receiving a head of an infant;
- the lower portion of the frame defining a substantially elliptical shape for receiving a body of an infant;
- the neck portion of the frame engaging the upper portion and the lower portion for receiving a neck of the infant; and
- a cover that encloses the frame and stretches across the frame for supporting an infant;
- whereby the upper portion, the neck portion, and the lower portion of the frame are arranged to form a substantially planar surface relative to one another.

9. The infant support device according to claim 8, wherein the lower portion has two distal ends that are in a spaced apart arrangement.

**10**. The infant support device according to claim **8**, wherein the lower portion has two distal ends engaged to one another by a lower brace for providing further stability and support.

11. The infant support device according to claim 8, wherein the frame is padded for providing added protection to the infant.

**12**. The infant support device according to claim **8**, further comprising an upper brace positioned in close proximity to the neck portion of the frame for providing further stability and support.

**13**. The infant support device according to claim **8**, further comprising a blanket for receiving the infant support device.

14. The infant support device according to claim 8, further comprising a swaddling blanket having a pocket therein for receiving the infant support device.

**15**. The infant support device according to claim **8**, wherein the cover includes a sleeve on the periphery of the cover , wherein the sleeve encloses the frame.

16. The infant support device according to claim 14, further comprising a strap positioned on the swaddling blanket for releasably securing the infant support device within the swaddling blanket.

**17**. An infant support device for safely transporting and holding an infant, comprising:

- a frame having an upper portion, a neck portion, and a lower portion;
- the upper portion of the frame defines a substantially elliptical shape for receiving a head of an infant and having a predetermined diameter that is greater than the diameter of the infant's head the upper portion is designed to receive;
- the lower portion of the frame defines a substantially elliptical shape for receiving a body of an infant while allowing the legs of the infant to protrude off an edge of the lower portion, but providing support to the body of the

infant and having a predetermined diameter that is greater than the diameter of the infant's body the lower portion is designed to receive;

- the neck portion of the frame engages the upper portion to the lower portion for receiving a neck of the infant;
- a cover that stretches across the frame and having a sleeve on the periphery of the cover, wherein the sleeve encloses the frame; and
- whereby the upper portion, the neck portion, and the lower portion of the frame are arranged to form a substantially planar surface relative to one another.

**18**. The infant support device according to claim **17**, wherein the frame is padded for providing added protection to the infant.

**19**. The infant support device according to claim **17**, further comprising a blanket designed to receiving the infant support device.

**20**. The infant support device according to claim **17**, further comprising a swaddling blanket having a pocket therein for receiving the infant support device.

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