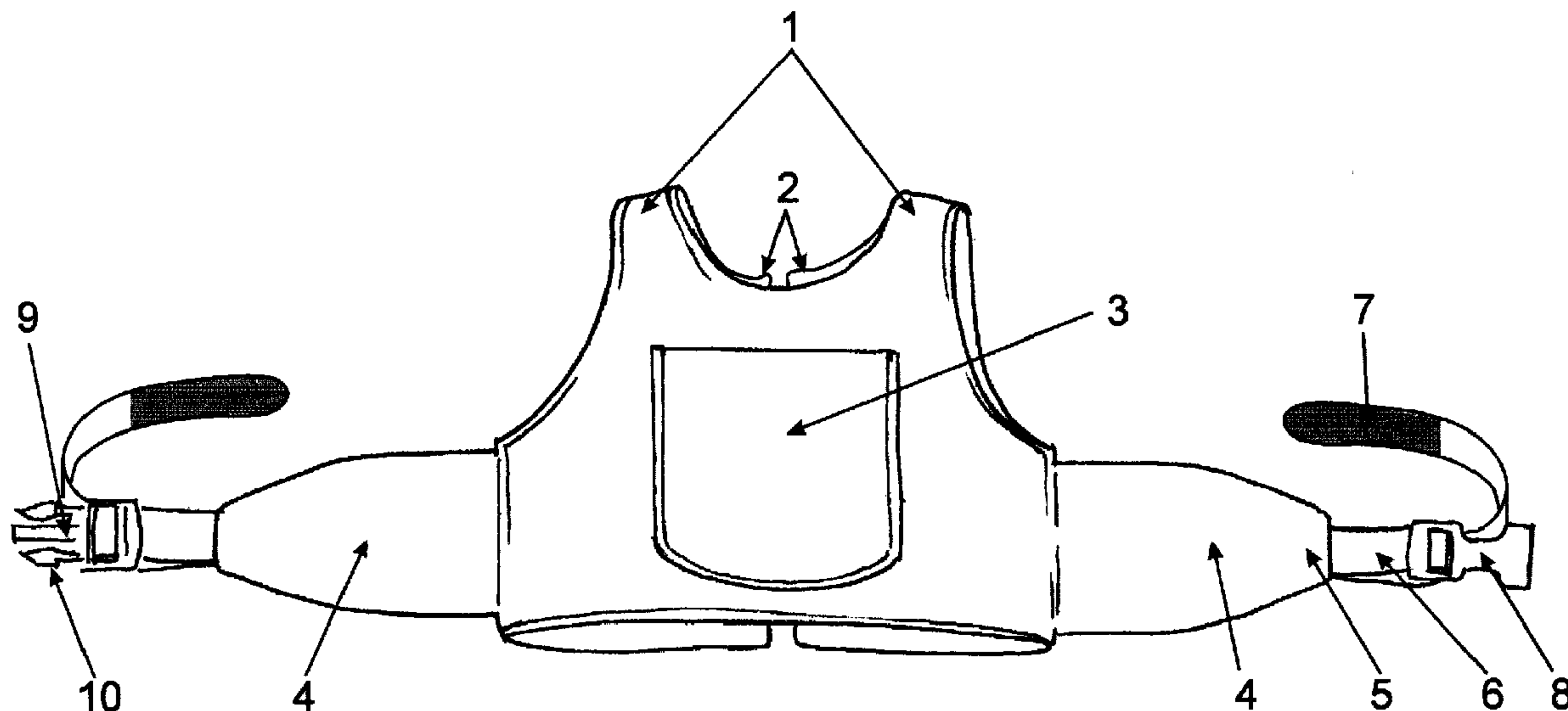




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(54) Titre : HARNAIS DE SECURITE POUR ENFANT
(54) Title: CHILD SAFETY VEST



(57) **Abrégé/Abstract:**

A safety vest for children that is used as a restraint by surrounding the front and back of the upper torso. In one mode the vest is used as a safety belt in a stroller, conventional type chairs, chairs manufactured for children, or as an additional safety belt for seats made for transportation. In a second mode, the vest can be used when the child is walking, by attaching a snap hook with tether strap to the back of the vest where two d-rings are provided; third mode is a front pocket on the vest that provides storage of a baby bottle or small soft toy. The restraint provides side belts that extend to VELCRO loop, side release buckle and hook for easy adjustment. The middle back is open and closed by one VELCRO hook on one middle back panel, and, one VELCRO loop on the adjacent back panel.

ABSTRACT

A safety vest for children that is used as a restraint by surrounding the front and back of the upper torso. In one mode the vest is used as a safety belt in a stroller, conventional type chairs, chairs manufactured for children, or as an additional safety belt for seats made for transportation. In a second mode, the vest can be used when the child is walking, by attaching a snap hook with tether strap to the back of the vest where two d-rings are provided; third mode is a front pocket on the vest that provides storage of a baby bottle or small soft toy.

The restraint provides side belts that extend to VELCRO loop, side release buckle and hook for easy adjustment. The middle back is open and closed by one VELCRO hook on one middle back panel, and, one VELCRO loop on the adjacent back panel.

BACKGROUND OF INVENTION

This garment relates to the added safety of children. It can protect them against the hazards of spontaneous and unsafe movements by securing the upper torso. In particular, the present garment relates to a safety vest that is multi-functional. In one mode, it serves to restrain a child in a variety of seats such as a stroller, conventional type chair; chairs manufactured for children; or as an additional safety restraint in seats made for transportation. In a second mode this garment is provided with a front pocket for storing a baby bottle or soft toy. There is also a tether strap that is held by the caregiver at one end. The tether strap is connected to the vest by a snap-hook to use for when walking. This garment is for children from the ages of 9 months to 4 years of age, and, in particular when more than one child are tended too simultaneously.

By the age of 9 months, most children are not aware of dangerous hazards. Therefore, they need extra protection and care. At the curious age of 9 months, children are intrigued buy new stimuli that often causes them to wander off or climb out of their strollers. It is at this age that they are learning to stand. This leads to unsafe movements that includes falling forward to reach, or squirming out of the lap belt installed in a stroller, to a standing position. In present strollers, the manufacturer's lap belts do not provide upper torso restraints. They allow the child too much mobility. Although lap belts are provided in most strollers or chairs, many children are still injured. Some children can fall from high chairs by sliding under the tray. Unfortunately, these lap belts only provide enough protection to hold the trunk of the child's back.

This present garment provides a means to hold a child back by securing the entire upper torso. Its design holds both shoulders back with the child's front torso in one complete vest. It is adjustable by its side straps that confine around to the back of a stroller or high

chair. A lost child is every parents worst fear, especially in a crowd such as a shopping mall or public festivities. The back of the safety vest has two d-ring hooks, one on each side of middle back. This present garment includes a snap hook and tether strap that can be attached to the middle back of vest in order to guide the child whilst walking. The tether strap is composed of nylon web. On one hand it provides safe union, while on the other, provides some freedom between child and caregiver.

Baby bottles are general necessities that follow each outing. They are often held by the infant and tend to fall into the side of the stroller when not in use. This leads to milk and juice leaks. They cause odorous stains on strollers and clothing. Bottles can also be dropped from infants' hands causing dirty and lost bottles. The front pocket on the safety vest serves as a storage of a baby bottle. Thus, the pocket serves to eliminate a number of these problems. This pocket can also be used to hold a soft toy.

This present garment is viewed quite favorably by children and are made with many bright colorful prints and solids. The soft cotton used to manufacture these vests are comfortable and do not cut into childs waist or upper torso. This garment provides adjustments to the back of child and not front, therefore allowing only an adult to unfasten the adjustable straps provided. This garment folds, stores and washes quite easily. This garment is particularly useful for parents of multi-birth situations. It allows the caregiver to tend to one child and feel more confident that the other is also safe. Elderly people such as grandparents who mind small children would also benefit from this garment, as often they cannot keep up with a young child's curiosity.

Prior Art

Previously designed harnesses or restraints are non attractive as they resemble animal harnesses with leashes. Therefore, they are obviously too degrading and embarrassing to use for children. In researching the design in and in particular the uses of my garment I found U.S. Patent No. 5,259,338, to be similar, in that it holds parts of the upper torso in a criss-cross fashion. This design however does not provide full upper torso security. This is due to the fact that it has straps that do not hold full upper front and back of child in one piece. The leash provided with this garment connects to the waist of the child and not the upper middle back where more control of the torso is easier to secure. The waist strap can cause tilting of the child; therefore upper middle back attachments provide a center point for more weight control. The strap that is worn around the waist is inconvenient to wear for an adult who has a large coat or bulky clothing, which is the case especially in Canada. This harness does not provide a storage pocket for an item such as a baby bottle nor does it provide wide side straps for adjustment to a stroller. My garment provides wide cotton straps which hold the sides of the child; this provides support for the front part of the chest and the back.

In reference to U.S. Patent No. 5,325,818, and 4,666,017; neither garment provide support for the entire chest and back, nor do they provide a convenient storage pocket as does my garment. U.S. Patent numbers 4,832,053, and 5,301,371 were the only fully enclosed designs that are similar to my garment. Patent 5,301,371 is a safety vest to be used in a car, it does not provide side straps and neither has a front pocket or walking restraining tether strap. This garment comprises safety belts fixed inside the vest portion that can be uncomfortable for the child. This vest buckles in the front allowing a child of 4 years to unfasten his or herself.

Patent no. 4,832,053 is a patient torso restraint device that is also similar to my garment but does not come in child sizes and is meant for adult patient wear. This was not designed for children.

In conclusion of my research, I did not find a vest that addressed the impending problem of the safety and comfort of children, nor did I find a vest that is as multi-functional as my garment.

Summary of garment

This garment relates to greater safety for infants and toddlers.

With its multi-functions, it can be adapted to adjust around the back of a stroller, conventional type chair; or chairs manufactured for children. In addition this present garment can also be used as an additional seat restraint in seats made for transportation.

The front of the vest has a pocket, for storage of a baby bottle or soft toy. The back D-rings that are sewn on the middle-back of the vest adjust for a snap hook and tether strap for when the child is of walking age. The vest comprises a front and back portion. side arm hole opening that slips onto child's arms. Two wide material side straps; one on each side of vest that consists of VELCRO loop and hook on the same surface, threaded through a slideable locking side release buckle; male pronged and female receiving clasp. A back portion that is completely open in the middle. There are two arm hole openings on each side of the vest for fitting the child. This back portion consists of an upper loop on one side of the back of the vest and a hook on the upper part of the adjoining side. One inch below the hook and loop are two-d-rings that are sewn in on either side of the middle back for adjustment or connection of the snap hook tether strap. This tether strap, made of nylon webbing; one end consists of a snap-hook; this is adjusted to the middle back of the vest portion and at the other end a loop to secure an adult grasp. This provides adult child connection. This tether strap is long enough to allow for some freedom for the child and caregiver and short enough to discourage entanglement and or tripping over by either caregiver or child; whilst in a walking situation. The two side straps; one on each side of the vest, have VELCRO one inch loop sewn on the inside of the back panel. The loop is folded at the end of the back panel and

turned over so that it can be sewn on the out side of the back panel. This loop is then sewn onto the inside portion of the side straps until the strap's end and the loop can continue to have a free loop end. The side straps, approximately 5 inches in length and 3 inches in width, narrows to one inch to become parallel to the one inch loop. At the end of the loop is the hook; these are on the same surface and are molded together. The hook is then slipped through the male pronged locking buckle that is provided with prongs and is adapted to be received in an adjustable female clasp. The hook can be adjusted to any part of the loop.

When the child is in a stroller the side straps can be put through the side openings of the stroller at the back side. Although there are many strollers of different design, my research concludes me to believe that most strollers have openings for securement of said garment. The side straps, VELCRO loop and hook can be adjusted according to child's size.

In order to use the vest as a restraint while walking with a child, the side straps must not hang on the sides of the child. The hook must be fastened to the inside of the back panel, therefore shortening the side adjustments to the full extent and allowing the side adjustments from hanging.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG.1. Front portion of vest.

FIG 2. Back portion of vest.

FIG 3. Back view of vest and its function with tether strap.

FIG 4. Back view of vest fully closed with snap hook and tether strap.

FIG 5. Front view of vest in conventional type chair and its function with front pocket.

FIG 6. Back view of vest when used in a conventional type chair and its function.

DETAILED DESCRIPTION WITH REFERENCE TO DRAWINGS

With further reference to the drawings, the infant or toddler safety vest of the present garment is shown therein and indicated generally by the numbers.

FIG 1. Showing front view of vest, which is one piece indicated at 1. The front piece, showing front of vest, are connected to the back 2 of vest forming one piece.

The front storage pocket indicated at 3, is sewn onto front of vest indicated at 1. The side straps indicated at 4 are 3 inches wide and narrow to 1 inch. indicated at 5. The VELCRO loop indicated at 6 is sewn to 5 side straps. VELCRO hook, indicated at 7 is molded to VELCRO loop 6 and threaded through female receiving buckle, indicated at 8. The female receiving side release buckle, indicated at 8 is threaded through VELCRO loop 6 and VELCRO hook 7. Male pronged side release buckle, indicated at 9 receives female receiving clasp. Side release indicated at 10 are squeezed together to release buckle.

FIG. 2

The middle back portion of the vest is made up of 2 panels, both indicated at 11. The right and left panel indicated at 11 consists of VELCRO loop 12 and VELCRO hook 13, for easy adjustments according to child's size. The d-ring tabs, indicated at 14 are used to secure the d-ring hooks 15 to the back of the vest. The snap hook 16 is sewn to the tether strap indicated at 17. The snap hook 16 is fastened to the d-rings 15. The tether has a hand loop 18 formed at the opposite end thereof for an adults grasp.

VELCRO hook 7 (fig. 1) is 5 inches in length, can be adjusted to VELCRO loop, indicated at 6 (fig.

1). Side release buckle, male pronged 8 (fig.1) and female receiving clasp 9 (fig. 1), are adjusted by sliding up or down VELCRO loop indicated at 6 (fig.1).

Fig. 3

The back view of safety vest and its function when used with tether strap are as follows; VELCRO hook 7 (fig.1) fastens to loop 19 that is sewn on inside of vest. Side strap 4, (fig. 1) is now completely closed, therefore there are no pieces hanging from sides of child. Male pronged side release buckle 9(fig. 1) slides along VELCRO loop, 6 (fig. 1) and locks with female receiving clasp 8 (fig.1). VELCRO hook 13 (fig.2), is fastened to loop 12 (fig. 2).

Fig. 4

This view shows the safety vest entirely closed for use with tether strap 17(fig.2) and snap hook 16 (fig.1) fastened to 15(fig.2) d-rings. Side release buckle, female receiving clasp 8(fig. 1) is locked to male pronged (fig. 1).

Fig. 5

This view shows the child in safety vest sitting in a conventional type chair with sides of chair indicated at 21 and 22. Storage pocket 3(fig. 1) shows how a baby bottle indicated at 20 can be stored in pocket, (pocket can also be used for a soft toy or the like). Two side straps, one on each side of vest, both indicated at 4(fig.1) are used to secure vest around conventional type chair 21.

Fig. 6

This view shows the safety vest and its function for adjusting side straps 4(fig. 1) around sides of back of chair indicated at 21 (fig.5) and 22 (fig.5). Locking side release buckle, female receiving clasp 8 (fig.1) and male pronged 9 (fig.1) are fastened to back of chair.

CLAIMS

The embodiment of the garment in which an exclusive property or privilege is claimed are defined as follows;

1. A safety vest to restrain a wearer to an object comprising:

a front panel having two side edges, two shoulder edges, an inner surface an outer surface;

two back panels each having two side edges, a shoulder edge, a bottom edge, an inner surface and an outer surface;

one side edge of each back panel attached to a corresponding front panel side edge to form a vest side;

each back panel shoulder edge attached to a corresponding front panel shoulder edge to form a vest shoulder and thereby defining two arm hole openings between the vest shoulders and vest sides;

the other back panel side edges remaining free and located adjacent one another when said safety vest is secured on the wearer;

each of said back panels comprising an upper middle back portion extending from a bottom of each arm hole opening to said vest shoulder and a lower middle back portion extending from the bottom of said arm hole opening to the bottom edge of said back panel;

means for releasably attaching the free side edges of the back panels in order to secure the vest on the wearer;

two elongate side panel straps having an end attached between the front and back panels along said side edges and below said arm hole openings;

continuous hook and loop strip fasteners extending horizontally and attached to the lower middle back portion of each back panel, each of said continuous hook and loop strip fasteners having a loop portion and a hook portion;

the loop portions of said continuous hook and loop strip fasteners being attached to the

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inner surface of said back panels and folded over the free side edges of the back panels in order to be attached to the outer surface of the back panels and to the elongate side panel straps;

said continuous hook and loop strip fasteners extending beyond outer ends of the elongate side panel straps to define free ends that comprise said hook portion; and

a female receiving clasp and a male prong of a slidable side release buckle, respectively mounted on the free end of each hook and loop strip fastener for securing the safety vest around said object when fastened together.

2. A safety vest as set forth in claim 1, wherein said means for releasably attaching the free side edges of the back panels comprise hook and loop strip fasteners provided adjacent one another and adjacent to the top of the free side edge of each of the upper middle back portions of the back panels.

3. A safety vest as set forth in claim 1 or 2, wherein the hook portions of the continuous hook and loop strip fasteners are each threaded through one of said male prong and female receiving clasp of the slidable side release buckle, and are releasably attached to said loop portions of the continuous hook and loop strip fasteners to adjust the position of said slidable side release buckle.

4. A safety vest as set forth in any one of claims 1 to 3 wherein the loop portion and the hook portion of each continuous hook and loop strip fastener are molded together to form

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a one piece hook and loop strip fastener.

5. A safety vest as set forth in any one of claims 1 to 4, wherein the continuous hook and loop strip fasteners are sewn to the inner and outer surfaces of the lower middle back portions of the back panels, and on one side of the elongate side straps.

6. A safety vest as set forth in any one of claims 1 to 5, wherein one D-ring is provided at the free side edge of the upper middle back portion of each back panel, said D-rings being positioned adjacent one another to receive a snap hook provided at one end of a tether strap.

7. A safety vest as set forth in any one of claims 1 to 6, wherein a front storage pocket is provided on the outer surface of the front panel.

8. A safety vest as set forth in any one of claims 1 to 7, wherein said object is a stroller or any conventional type chair.

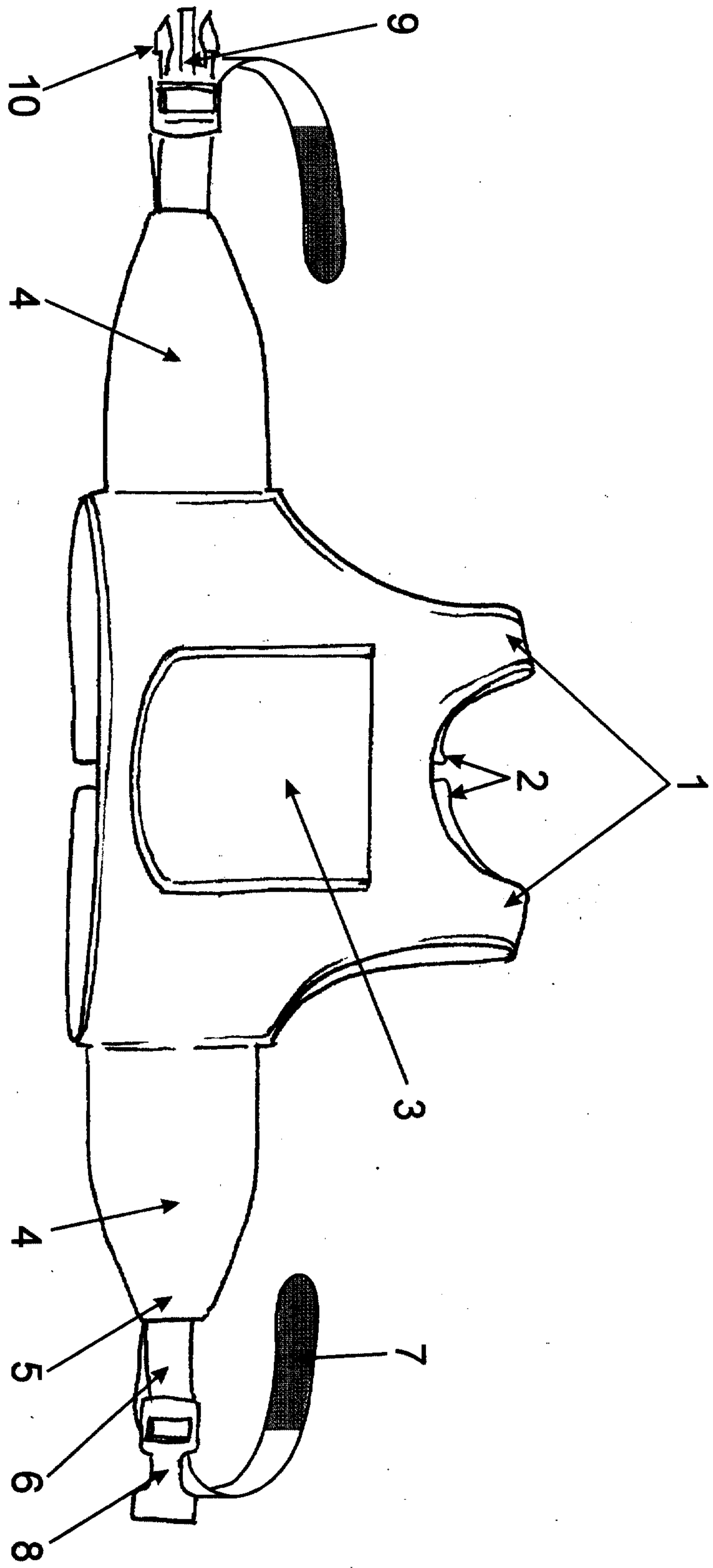


FIG. 1

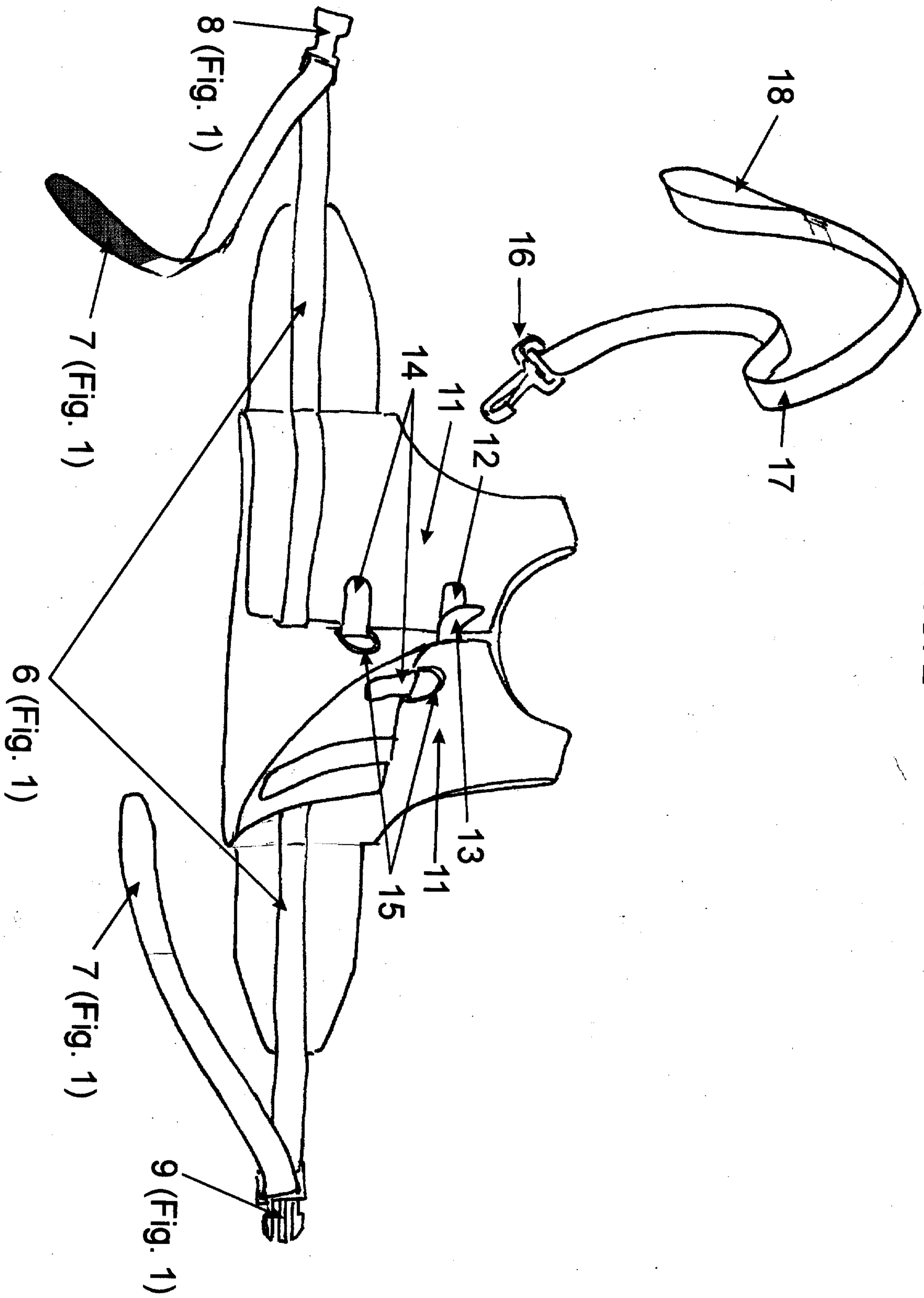


FIG. 3

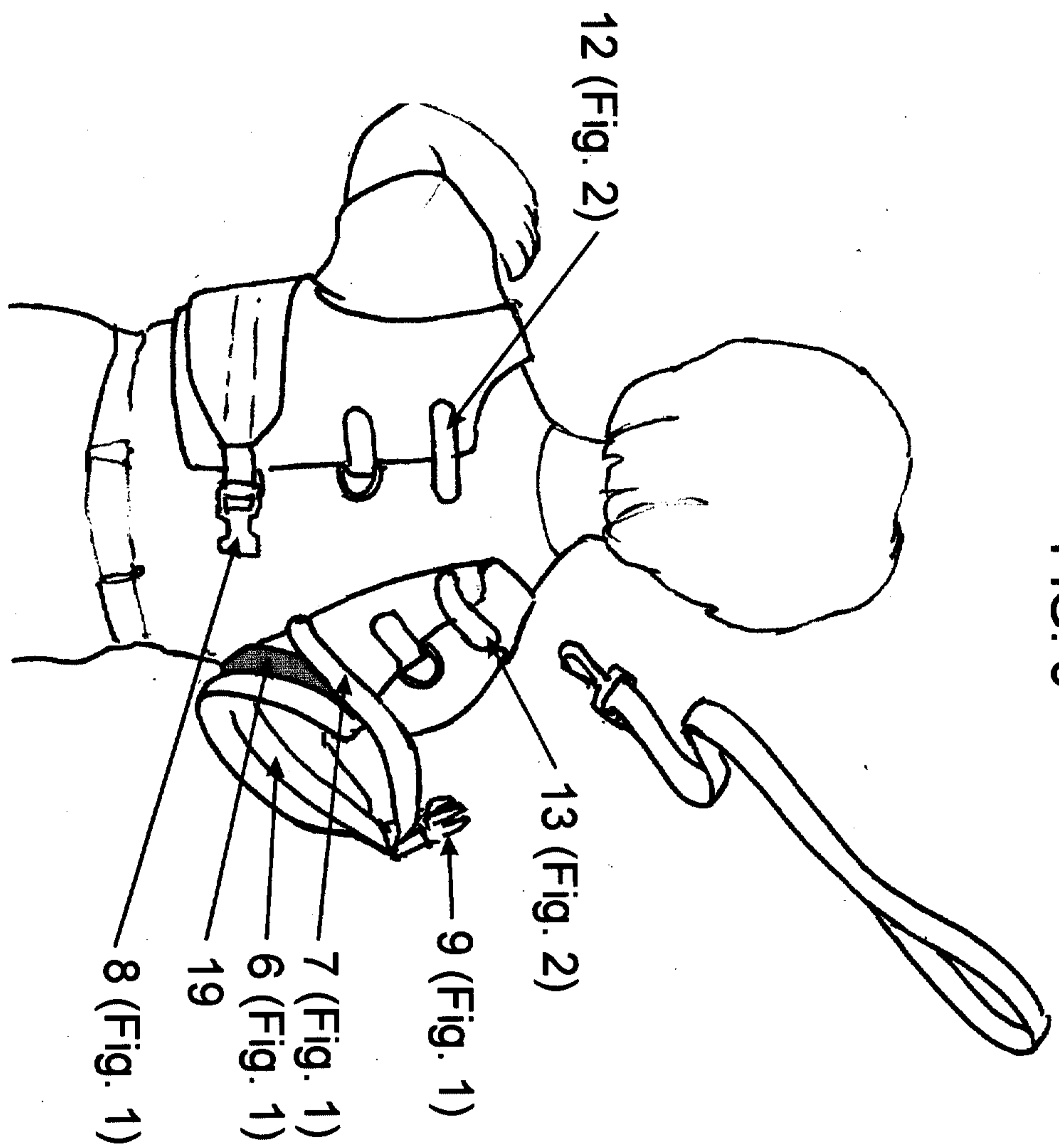


FIG. 4

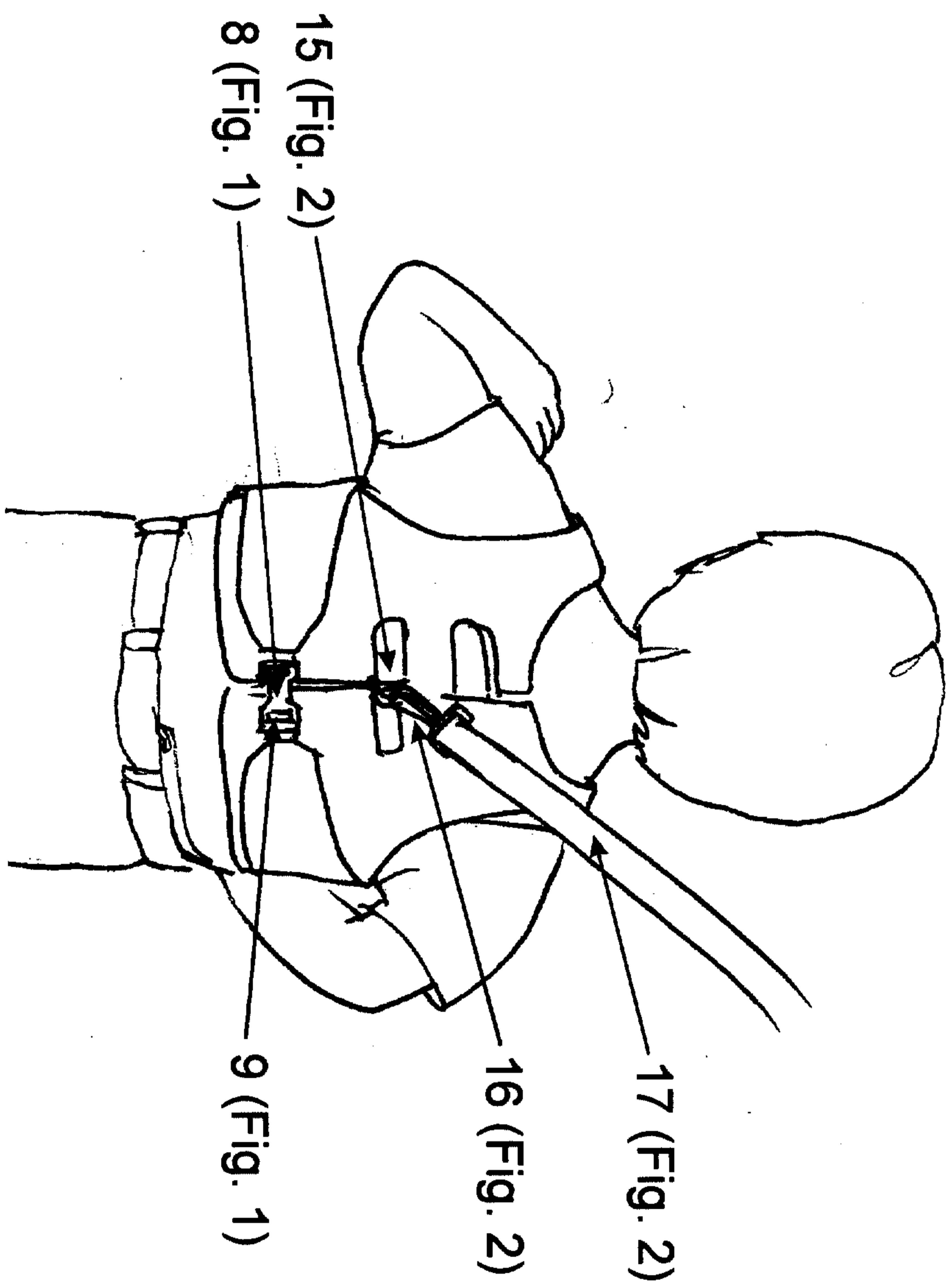


FIG. 5

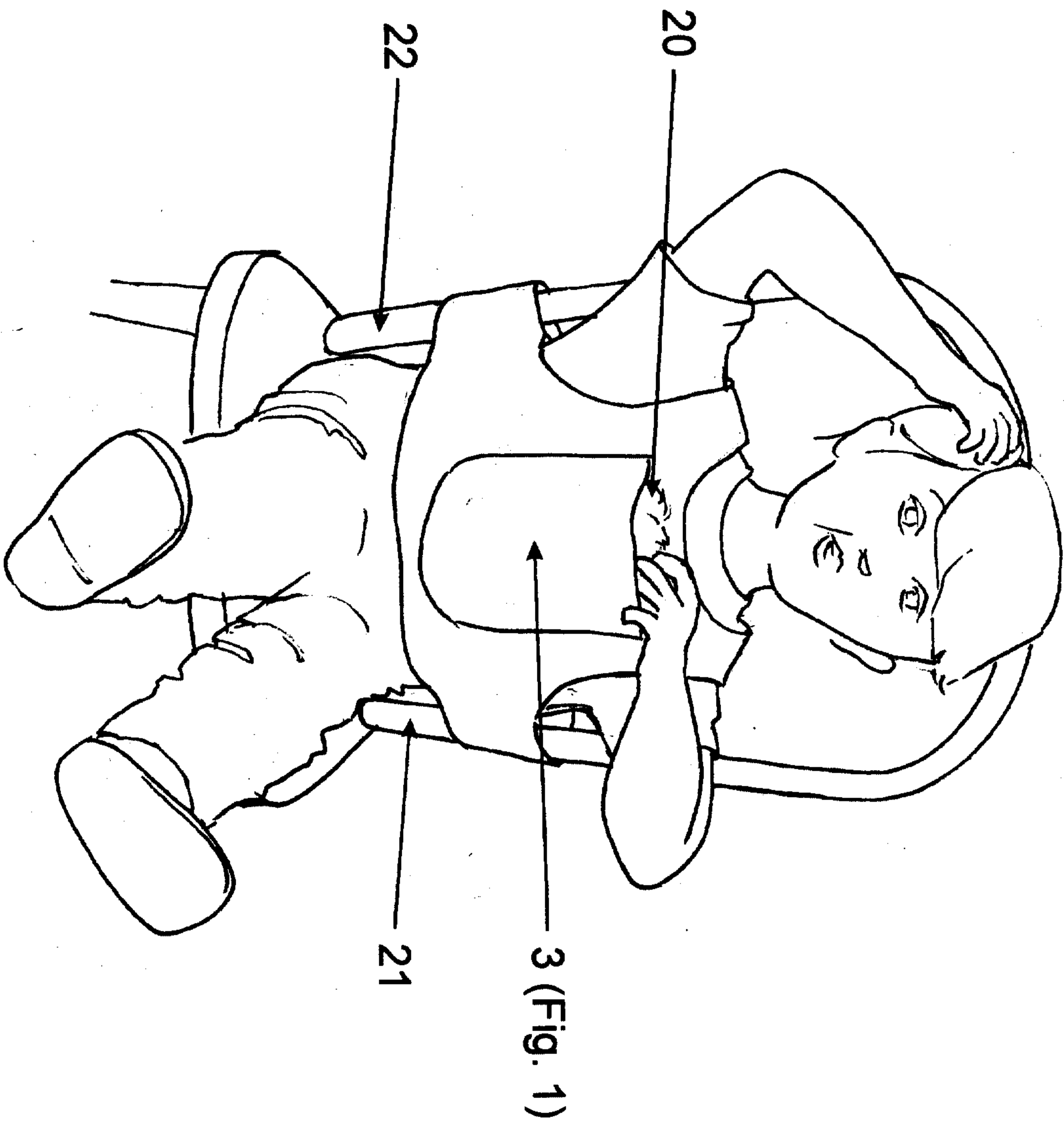


FIG. 6

