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(54) **ARRANGEMENT FOR ADJUSTING THE WIDTH OF THE CARRIER MEANS**

ANORDNUNG ZUR EINSTELLUNG DER BREITE EINER TRÄGERVORRICHTUNG

DISPOSITIF DE RÉGLAGE DE LA LARGEUR D'UN MOYEN DE PORTAGE

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(56) References cited:
FR-A1- 2 806 278 **FR-A1- 2 806 278**
FR-A1- 2 851 436 **US-A- 3 481 517**
US-B1- 6 988 644 **US-B2- 6 520 391**
US-B2- 7 252 214

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Description

[0001] The present invention relates to the arrangement described in the preamble of claim 1 for adjusting the width of a carrier, which carrier is intended particularly for carrying a child on an adult's front, back, or hip. The carrier has been supplied with a width adjustment of the carrying section, to make the same carrier ergonomically suitable for infant babies as well as for larger toddlers well until their pre-school years.

[0002] In prior art, various fabrics or their combinations are used for sewing carriers in the form of, for instance, a back carrier, a front carrier or a mei, with upper straps that go over the wearer's shoulders, as well as lower straps or a hip belt that are attached around the waist or hip, and occasionally also other straps such as a chest strap that holds the upper straps in place. Between the straps there is a carrying section that can be realized in various ways, formed a little e.g. into a shape of a cup or into a rectangle or square. Ergonomically, the carrying section should support the child's thighs down until the knees. During the most active carrying period, from newborn to about two-year-old, the child will grow by dozens of centimetres. Furthermore, carriers are often used occasionally for carrying larger children, for instance on longer distances, at airports or while hiking, and for handicapped or other children with special needs. Most carriers according to prior art make compromises regarding the width of the carrying section to make it suitable for children ranging from approximately six to eighteen months old. This makes it too wide for small babies and too narrow for larger children. Thus a carrier designed for a twelve-month-old is not suitable for ergonomic carrying of a small baby or a larger child. For some carriers, the problem has been solved by adding a separate inner part for smaller babies. This adds to the fabric layers of the carriers, which is undesirable in hot weather, warm climates or indoor use. Nor does the separate inner section solve the problem in terms of the ergonomics of carrying larger children.

[0003] French patent application No. FR2806278A1 presents a carrier where the problem addressed is explicitly confined to weather conditions. Thus the invention comprises long strips or bands that, when used, will surround the infant on the sides. In other words, they are in use above the legs of the infant and do not provide any additional support for the thighs of the infant. By necessity they are also fastened to the shoulder straps acting as an upper support element when in use, and not to the lower support element.

[0004] The object of this invention is to remove the disadvantages described above and to achieve an advantageous and easily modifiable, reliable and ergonomic arrangement for adjusting the width of a carrier intended particularly for carrying children, where the width can be increased as a child grows. The arrangement according to the invention is characterised by what is disclosed in the characterisation part of claim 1. Other embodiments

of the invention are characterised by what is disclosed in the other claims.

[0005] The advantages of the arrangement according to the invention include the fact that the width adjustment of the carrier's carrying section is designed in a way that allows the width to be increased easily as the child grows. Another benefit of the width adjustment is that the same carrier can be used for children of different sizes, meaning that a family does not have to purchase several carriers, if the children are carried at different times. The width adjustment of the carrying section is flexible. It can be a fixed part of the carrier or the widening sections can be removable. The new width adjustment mechanism is suitable for different carrier models, including back carriers, front carriers and square cloths - i.e. any equipment with lower straps or a hip belt and a carrying section. Furthermore, the widening sections stay with the carrier without being in the way or without danger of being broken when they are not needed, as the lower part of the carrier has pockets on both sides into which the widening sections are folded when the carrier is used to carry a smaller baby. Alternatively, the widening sections can be attached on the outside of the carrying section when not in use, or, if removable, they can be placed in a different pocket of the carrier or temporarily in a handbag, for example. The width adjustment according to the invention also enables the same carrier to be realized so that the child can be carried facing forward, because in such a position the crotch width must be significantly smaller than when the child is carried facing the wearer. In addition, the width adjustment and the wider lower part of the carrying section are useful when the baby is carried not only in vertical position but also in L-shaped or reclining position in the same carrier.

[0006] In the following, the invention will be described in more detail by the aid of embodiment examples with reference to the attached drawings, wherein

Figure 1 presents an arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded open, viewed from the back side of the carrier,

Figure 2 presents an enlarged detail of the carrier presented in Figure 1,

Figure 3 presents the arrangement for adjusting the width of a carrier according to Figure 1, viewed from the back side of the carrier, with the widening sections of the carrier folded into the pockets on the carrying section, which pockets have closing implements in the form of loops and buttons.

Figure 4 presents another arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded open, viewed from the back side of the carrier,

Figure 5 presents a third arrangement according to

- the invention for adjusting the width of a carrier, with the widening sections of the carrier folded into the pockets, viewed from the back side of the carrier,
- Figure 6 presents yet another arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded on top of the carrying section, viewed from the backside of the carrier,
- Figure 7 presents a further arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded open, viewed from the back side of the carrier,
- Figure 8 presents yet another arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded open, viewed from the backside of the carrier,
- Figure 9 presents a further arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded open, viewed from the back side of the carrier,
- Figure 10 presents yet another arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded open, viewed from the back side of the carrier, and
- Figure 11 presents one more arrangement according to the invention for adjusting the width of a carrier, with the widening sections of the carrier folded over the top of the carrying section and attached to each other, viewed from the back side of the carrier.

[0007] Figures 1-3 present a carrier 1 according to the invention, viewed from the backside of the carrier, i.e. from the outside, with the carrier spread freely open. In this case the carrier would be positioned between the viewer and the wearer of the carrier. The carrier 1 comprises at least a carrying section 2, widening sections 3 and 4, pockets 5 and 6 and upper support elements 65, such as upper straps or carrying straps placed on the wearer's shoulders. In addition, the carrier has at least lower support elements 66 to be adjusted around the wearer's body, which elements consist for example of a hip belt 31 or lower straps 67 or for example both a hip belt 31 and lower straps 67. In Figure 1, as in the other figures, the section marked with diagonal lines is normally hidden area. Therefore for example in Figure 1, a section of an additional belt 32 sewn on top of the hip belt 31 has been removed from the top of the right widening section 4, in order to allow a better view of the attachment of the widening section 4 to the hip belt 31 acting as the lower support element 66. The widening sections 3 and 4 are attached from their lower parts to the lower support ele-

ments 66, at least when unfolded, i.e. in the open position, to ensure that the sections stay properly unfolded during use. The widening sections do not have to be attached to the lower support elements 66 by their very lowest parts, however. In practice, it is sufficient if they are attached to the lower support elements 66 essentially from below their midpoint, at least. The widening section 4 is fastened by its lower end 4a to the lower support elements 66, i.e. in this case to the hip belt 31, using an appropriate fastening device, such as snaps 4b or similar. The attachment of the widening section 3 to the hip belt 31 or the lower strap 67, i.e. in general to the lower support elements 66, is identical to that of the lower end 4a of the widening section 4. The lower attachment of the widening sections 3 and 4 may also be a corner attachment or an attachment by the outer edge of the widening section, or a combination of these. What is essential is that the widening sections 3 and 4 are durably fastened to the lower support elements 66, i.e. to either the hip belt 31 or the lower straps 67.

[0008] In the solutions presented in Figures 1-3, the widening sections 3 and 4 are attached by one of their vertical edges either directly to the edge of the carrying section 2, essentially in line with the pockets 5 and 6, or to the edge of the pockets 5 and 6. The widening sections 3 and 4 are designed to be folded into the pockets 5 and 6 when they are not needed. Figure 3 presents a situation in which the lower part of the widening section 4 has been detached from the hip belt 31 and folded upwards in order to make the widening section fit completely into the pocket 6. The closing means of the pockets 5 and 6 can for example consist of buttons 7-12 and loops 13-18.

[0009] Figure 4 presents a width adjustment of the carrier 1 according to the invention, in which one of the vertical edges of each widening section 3 and 4 is attached to the pockets 5 and 6, which pockets have zippers 19 and 20 as their closing means. In other respects, the widening sections 3 and 4 and their attachments are identical to those presented in Figures 1 and 2.

[0010] Figure 5 presents a width adjustment of the carrier 1 according to the invention, in which the widening sections 3 and 4 are unfastened at their lower ends and folded into the pockets 5 and 6, which pockets have Velcro tapes 21 and 22 as their closing means. In this figure, the lower support element 66 consists of lower straps 67, to which the lower ends of the widening sections 3 and 4 are attached when the widening sections 3 and 4 are in use.

[0011] Figure 6 presents a width adjustment of the carrier 1 according to the invention, in which the widening sections 3 and 4 are folded over the top of the carrying section 2 and attached to it with snap fasteners 23-28. In other respects, the attachment of the lower ends of the widening sections 3 and 4 to the hip belt 31 acting as the lower support element 66 is e.g. identical to the attachment solution presented in Figures 1-3.

[0012] Figure 7 presents a width adjustment of the carrier 1 according to the invention, in which the widening

sections 3 and 4 are removable and fastened by one of their vertical edges to the carrying section 2 with zippers 29 and 30. In other respects, the attachment of the lower ends of the widening sections 3 and 4 to the hip belt 31 acting as the lower support element 66 is e.g. identical to the attachment solution presented in Figures 1-3.

[0013] Figure 8 presents an attachment of the lower ends of the widening sections 3 and 4 of the carrier 1 according to the invention to an additional belt 32 sewn on top of the hip belt 31 of the carrier 1. The fasteners can be for example snap fasteners 33-40 and ribbons 41-44. This attachment solution also corresponds to the attachment of the widening sections 3 and 4 in the other embodiments presented in the previous figures. Where the snap fasteners 33-40 and ribbons 41-44 are, the additional belt 32 is detached from the hip belt 31, which means that the lower ends of the widening sections 3 and 4 are easy to insert and remove from between the additional belt 32 and the hip belt 31.

[0014] Figure 9 presents a width adjustment of the carrier 1 according to the invention, in which the widening sections 3 and 4 are fastened between the hip belt 31 and the additional belt 32 sewn on top of it. The ends of the additional belt 32 are not presented in the figure. The fasteners can be for example snap fasteners 45-48.

[0015] Figure 10 presents a width adjustment of the carrier 1 according to the invention, in which the widening sections 3 and 4 are fastened to the hip belt 31 with ribbons 51-54 that pass beneath the support loops 49 and 50. The fasteners can be for example D-rings 55-62.

[0016] Figure 11 presents a width adjustment of the carrier 1 according to the invention, in which the widening sections 3 and 4 are folded over the top of the carrying section 2 and attached to each other by the ends of the ribbons 51-54 with snap fasteners 63 and 64.

[0017] The width adjustment arrangement common to all the abovementioned embodiments of the carrier 1 according to the invention consists of widening sections 3 and 4 that are fastened to the top or to the sides of the carrying section 2 of the carrier 1 with a fixed or non-fixed attachment. The widening sections 3 and 4 increase the width of the carrying section 2 on both sides. It is essential that the widening sections stay in place properly and stay essentially wide and do not bunch up in use. The various fastening methods described above have been developed with this in mind, but the fastening itself may vary, as may the way of removing the widening sections from use. When the widening sections are not in use, if they are fixed permanently to the carrier, they are folded into pockets 5 and 6 placed in, on or under the carrying section 2, or they are attached on the top of the carrying section 2 as presented in Figure 6, or attached to each other as presented in Figure 11. The closing means 7-22 of the pockets 5 and 6 are buttons 7-12 and loops 13-18, or zippers 19, 20 or Velcro tapes 21, 22. The widening sections 3 and 4 are attached to the lower support elements 66 of the carrier 1, i.e. to the hip belt 31 and/or the lower straps 67 with fasteners 33-48, 51-62. The fasteners

33-48, 51-62 go under and/or through the additional belts 32 placed on top of the hip belt 31 and then the fasteners 33-48, 51-62 go under the support loops 49, 50 placed on top of the hip belt 31 and/or the lower straps 67, so that the widening sections 3 and 4 stay better in place. In some carriers 1 it is sufficient to fasten the widening sections 3 and 4 with the fasteners 33-48, 51-62 to the lower support elements 66, i.e. to the hip belt 31 and/or the lower straps 67. The widening sections 3 and 4 are sewn by one of their vertical edges to the edges of the carrying section 2, partly within the pockets 5 and 6, as presented for example in Figures 4 and 5, or the widening sections 3 and 4 are a fixed part of the carrying section 2, as presented for example in Figure 9.

[0018] The above description represents the most advantageous embodiments of the invention. Those skilled in the art will see, however, that the invention is not limited to the embodiment examples presented above, but can be varied within the scope of the patent claims presented below. The widening sections of the carrier according to the invention can be made out of a single or several layers of fabric, padded or unpadded. The shape, size and placement of the widening sections can be varied to optimally suit each carrier. The fasteners of the widening sections can be e.g. zippers, snap fasteners, snap tape, D-rings, buttons, ribbons or Velcro tapes. The abovementioned fasteners are also suitable for use as the closing means of the pockets into which the widening sections are folded or placed when not in use. The attachment of the widening sections to the lower straps or hip belt can be carried out in many ways; it is important that the widening sections stay in place without bunching up in use. The attachment of the widening sections to the lower straps or to the hip belt can be carried out with support loops or make use of additional belts and fasteners, such as zippers, snap fasteners, pieces of snap tapes, D-rings, buttons, ribbons or Velcro tapes, sewn on top of the hip belt in one or more layers.

[0019] Other variation possibilities of the invention include changing the shape of the widening sections, lengthening or shortening and/or widening or narrowing their model, and adding diverse removable or non-removable linings.

Claims

1. A carrier (1), which carrier (1) includes at least a carrying section (2) intended for carrying a child, upper support elements (65) attached to the carrying section and placed over the wearer's shoulders, and lower support elements (66) to be placed around the wearer's body and attached around the waist or hip, and widening sections (3, 4) that are fastened to the top or to the sides of the carrying section (2) of the carrier (1) with a fixed or non-fixed attachment by one of their vertical edges, **characterised in that** for supporting the child's thighs the widening sections

- (3, 4) has been arranged to attach to the lower support elements (66), such as lower straps (67) and/or a hip belt (31) to form a stationary connection between the carrying section (2) and the lower support elements (66).
2. A carrier according to claim 1, **characterised in that** the widening sections (3, 4) are a permanent part of the carrier (1), being sewn on top of the carrying section (2), in between its fabric layers or to the sides of the carrying section (2), or are removably attached with fastening devices (29, 30) or in another similar manner.
 3. A carrier according to claim 1 or 2, **characterised in that** the widening sections (3, 4) are attached by their lower end, at least from below their midpoint, to the lower support elements, such as the lower straps (67) or the hip belt (31), using fasteners (33-48, 51-62) or in another similar manner.
 4. A carrier according to any of the claims 1-3, **characterised in that** there are pockets (5, 6) in or on top of the carrying section (2), into which pockets the widening sections (3, 4) are designed to be placed when not in use.
 5. A carrier according to any of the claims above, **characterised in that** there are pockets (5, 6) in or on top of the carrying section (2), into which pockets non-removable widening sections (3, 4) are designed to be folded and removable widening sections (3, 4) are designed to be placed when the widening sections (3, 4) are not in use.
 6. A carrier according to any of the claims above, **characterised in that** the closing means (7-22) of the pockets (5, 6) optimally consist of buttons (7-12) and loops (13-18), zippers (19, 20), Velcro tapes (21, 22), snap fasteners or snap tapes.
 7. A carrier according to any of the claims above, **characterised in that** there are support loops (49, 50) and/or additional belts (32), sewn on top of the lower straps (67) and/or the hip belt (31), through which loops or belts the widening sections (3, 4) are designed to pass partly or completely when in use.
 8. A carrier according to any of the claims above, **characterised in that** the attachment of the widening sections (3, 4) to the carrying section and to the lower straps (67, 68) and/or the hip belt (31) optimally consists of fastening devices (29, 30) or fasteners (33-48, 51-62) such as snap fasteners (33-40, 45-48), ribbons (41-44), D-rings (55-62), zippers, snap tapes, Velcro tapes or other similar attachment methods.

Patentansprüche

1. Tragevorrichtung (1), welche Tragevorrichtung (1) zumindest einen Tragabschnitt (2) zum Zwecke des Tragens eines Kindes aufweist, obere Träger-Elemente (65), die an dem Tragabschnitt befestigt und über den Schultern des Trägers zu platzieren sind, sowie untere Träger-Elemente (66), die um den Körper des Trägers zu platzieren und um die Hüfte oder das Becken festzulegen sind, und Verbreiterungsabschnitte (3, 4), die oben an dem Tragabschnitt (2) der Tragevorrichtung (1) oder dessen Seiten mittels einer fixierten oder nicht-fixierten Befestigung durch einen seiner vertikalen Ränder festgelegt sind, **dadurch gekennzeichnet, dass** zum Unterstützen der Oberschenkel des Kindes die Verbreiterungsabschnitte (3, 4) angeordnet sind, um die unteren Träger-Elemente (66) festzulegen, beispielsweise als untere Gurtbänder (67) und/oder als Hüftriemen (831), um eine stationäre Verbindung zwischen dem Tragabschnitt (2) und den unteren Träger-Elementen (66) zu bilden.
2. Tragvorrichtung nach Anspruch 1, **dadurch gekennzeichnet, dass** die Verbreiterungsabschnitte (3, 4) ein permanenter Teil der Tragevorrichtung (1) sind, die an dem oberen Teil des Tragabschnitts (2) zwischen dessen Stofflagen oder an den Seiten des Tragabschnitts (2) vernäht sind, oder entfernbar mit Befestigungsvorrichtungen (29, 30) entfernbar befestigt sind, oder auf eine andere ähnliche Weise.
3. Tragevorrichtung nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** die Verbreiterungsabschnitte (3, 4) durch deren unteres Ende befestigt sind, zumindest von unterhalb ihres Mittelpunktes an den unteren Träger-Elementen, wie beispielsweise den unteren Gurtbändern (67) oder dem Hüftriemen (31), unter Verwendung von Befestigungselementen (33-48, 51-62) oder in anderer ähnlicher Weise.
4. Tragevorrichtung nach einem der Ansprüche 1 - 3, **dadurch gekennzeichnet, dass** Taschen (5, 6) in oder an dem oberen Ende des Tragabschnitts (2) vorgesehen sind, in welche Taschen die Verbreiterungsabschnitte (3, 4) eingebracht werden können, wenn sie nicht in Verwendung sind.
5. Tragevorrichtung nach einem der obigen Ansprüche, **dadurch gekennzeichnet, dass** Taschen (5, 6) in oder an dem oberen Ende des Tragabschnitts (2) vorgesehen sind, in welche Taschen nicht-abnehmbare Verbreiterungsabschnitte (3, 4) gefaltet werden können, und abnehmbare Verbreiterungsabschnitte (3, 4) platzierbar sind, wenn die Verbreiterungsabschnitte (3, 4) nicht in Verwendung sind.
6. Tragevorrichtung nach einem der obigen Ansprü-

che, **dadurch gekennzeichnet, dass** die Verschlussmittel (7-22) der Taschen (5, 6) in optimierter Weise aus Knöpfen (7, 12) und Schlaufen (13-18), Reißverschlüssen (19, 20), Klettbandern (21, 22), Druckknöpfen oder Nietknopf-Bändern bestehen.

7. Tragevorrichtung nach einem der obigen Ansprüche, **dadurch gekennzeichnet, dass** Trageschlaufen (49, 50) und/oder zusätzliche Riemen (32) vorgesehen sind, die oben an den unteren Gurtbändern (67) und/oder dem Hüftriemen (31) genäht sind, durch welche Schlaufen oder Riemen die Verbreiterungsabschnitte (3, 4) teilweise oder vollständig durchzulaufen bestimmt sind, wenn diese in Verwendung sind.

8. Tragevorrichtung nach einem der obigen Ansprüche, **dadurch gekennzeichnet, dass** die Befestigung der Verbreiterungsabschnitte (3, 4) an dem Tragabschnitt und die unteren Gurtbänder (67, 68) und/oder der Hüftriemen (31) in optimierter Weise aus Befestigungselementen (29, 30) oder Befestigungsmitteln (33-48, 51-62) bestehen, wie beispielsweise aus Druckknöpfen (33-40, 45-48), Bändern (41-44), D-Ringen (55-62), Reißverschlüssen, Druckniet-Bändern, Klettverschlussbändern oder durch andere ähnliche Befestigungsmethoden.

Revendications

1. Support (1), lequel support (1) comprend au moins une section porteuse (2) prévue pour porter un enfant, des éléments de support supérieurs (65) attachés à la section porteuse et placés sur les épaules du porteur, et des éléments de support inférieurs (66) à placer autour du corps du porteur et attachés autour de la taille ou des hanches, et des sections d'élargissement (3, 4) qui sont fixées au dessus ou aux côtés de la section porteuse (2) du support (1) avec une attache fixe ou non fixe par l'une de leurs arêtes verticales, **caractérisé en ce que** pour soutenir les cuisses de l'enfant, les sections d'élargissement (3, 4) ont été agencées pour s'attacher aux éléments de support inférieurs (66) tels que des bandes inférieures (67) et/ou une ceinture de hanche (31) pour former une liaison stationnaire entre la section porteuse (2) et les éléments de support inférieurs (66).

2. Support selon la revendication 1, **caractérisé en ce que** les sections d'élargissement (3, 4), qui sont cousues au-dessus de la section porteuse (2) entre ses couches de tissu ou sur les côtés de la section porteuse (2), sont une partie permanente du support (1), ou sont attachées de manière amovible avec des dispositifs de fixation (29, 30) ou d'une autre manière similaire.

3. Support selon la revendication 1 ou 2, **caractérisé en ce que** les sections d'élargissement (3, 4) sont attachées par leur extrémité inférieure, au moins depuis le dessous de leur point central, aux éléments de support inférieurs tels que les bandes inférieures (67) ou la ceinture de hanche (31), en utilisant des éléments de fixation (33-48, 51-62) ou d'une autre manière similaire.

4. Support selon l'une quelconque des revendications 1 à 3, **caractérisé en ce que** des poches (5, 6) se trouvent dans ou au-dessus de la section porteuse (2), dans lesquelles poches les sections d'élargissement (3, 4) sont destinées à être placées lorsqu'elles ne sont pas utilisées.

5. Support selon l'une quelconque des revendications précédentes, **caractérisé en ce que** des poches (5, 6) se trouvent dans ou sur le dessus de la section porteuse (2), dans lesquelles des sections d'élargissement non amovibles (3, 4) sont destinées à être pliées et des sections d'élargissement amovibles (3, 4) sont destinées à être placées lorsque les sections d'élargissement (3, 4) ne sont pas utilisées.

6. Support selon l'une quelconque des revendications précédentes, **caractérisé en ce que** les moyens de fermeture (7-22) des poches (5, 6) consistent de manière optimale en des boutons (7-12) et des boucles (13-18), des fermetures éclair (19, 20), des bandes Velcro (21, 22), des boutons-pression ou des rubans d'encliquetage.

7. Support selon l'une quelconque des revendications précédentes, **caractérisé en ce que** des boucles de support (49, 50) et/ou des ceintures supplémentaires (32) sont cousues sur le dessus des bandes inférieures (67) et/ou de la ceinture de hanche (31), par lesquelles boucles ou ceintures les sections d'élargissement (3, 4) sont destinées à passer en partie ou complètement lors de l'utilisation.

8. Support selon l'une quelconque des revendications précédentes, **caractérisé en ce que** l'attache des sections d'élargissement (3, 4) à la section porteuse et aux bandes inférieures (67, 68) et/ou la ceinture de hanche (31) consiste de manière optimale en des dispositifs de fixation (29, 30) ou des éléments de fixation (33-48, 51-62) tels que des boutons-pression (33-40, 45-48), des rubans (41-44), des anneaux D (55-62), des fermetures éclair, des rubans d'encliquetage, des bandes Velcro ou d'autres procédés d'attache similaires.

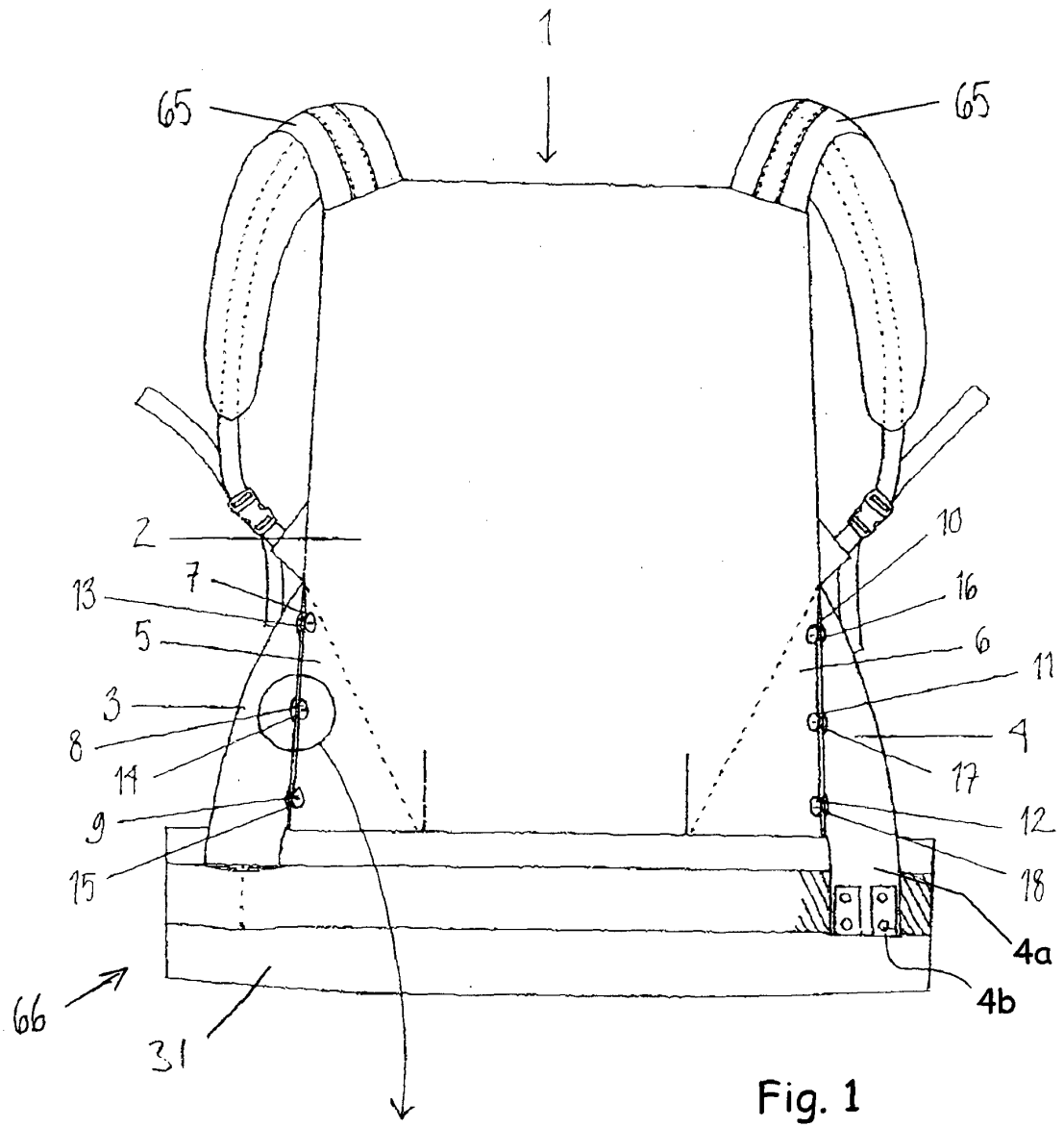


Fig. 1

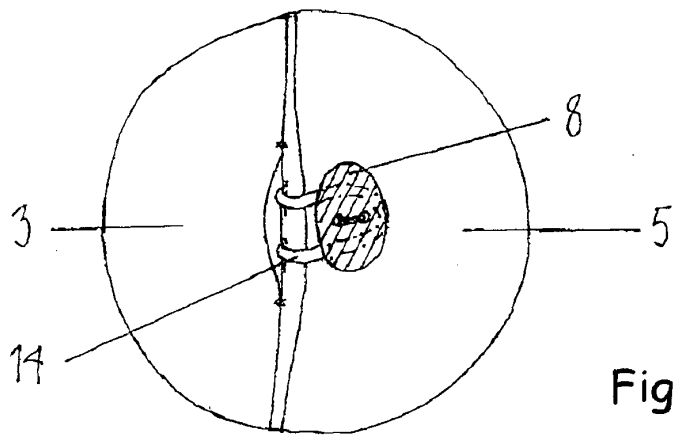


Fig. 2

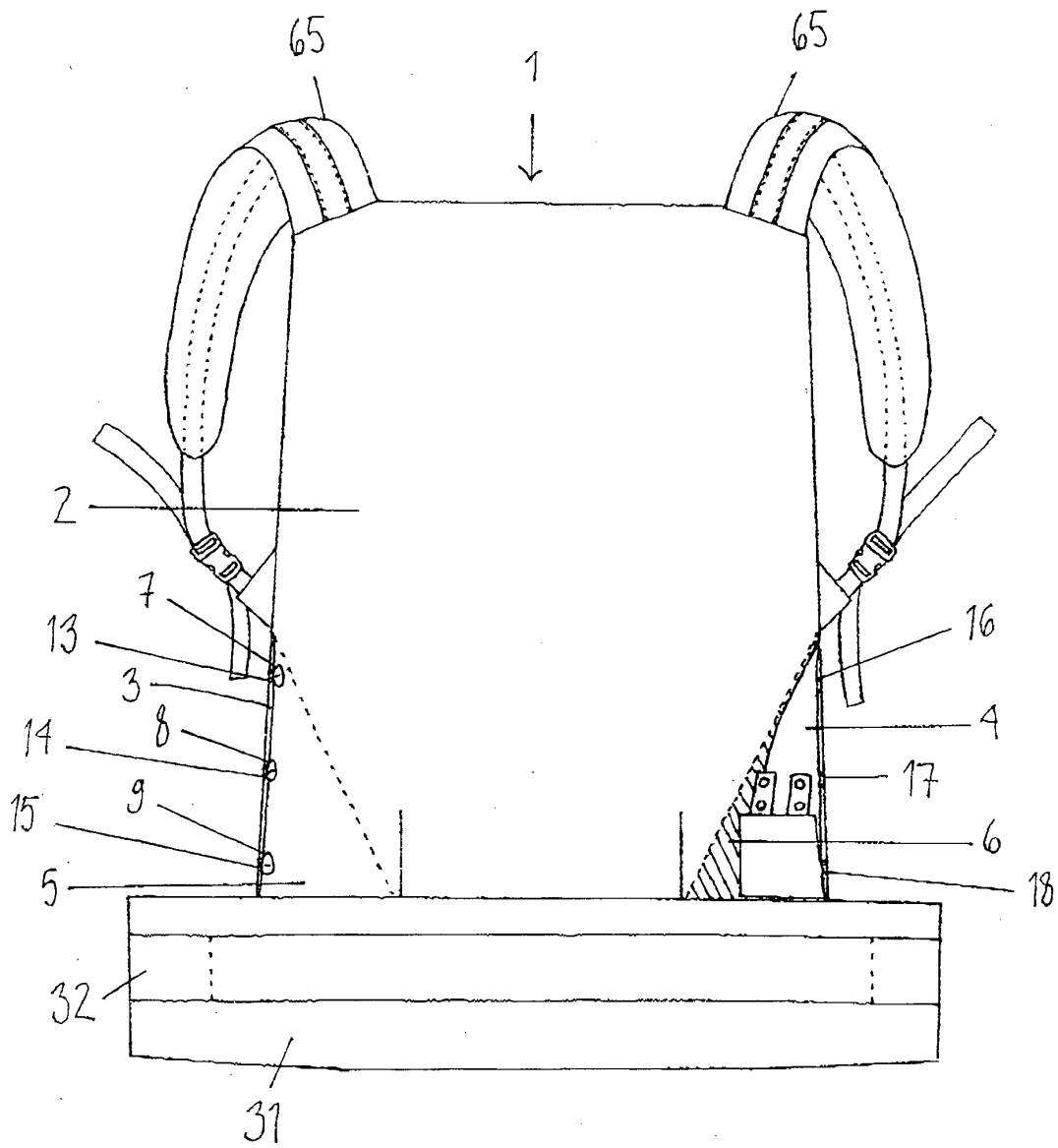


Fig. 3

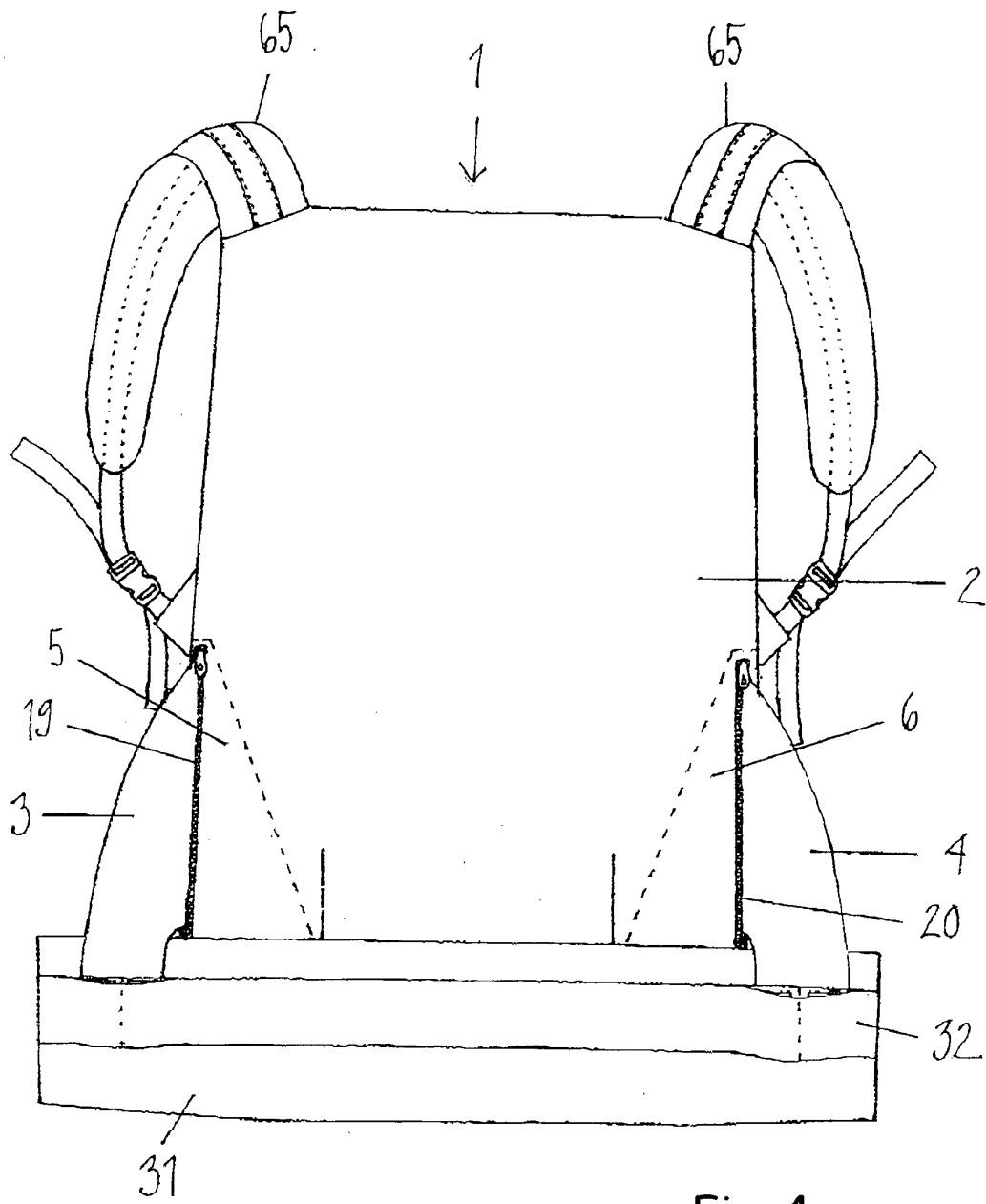
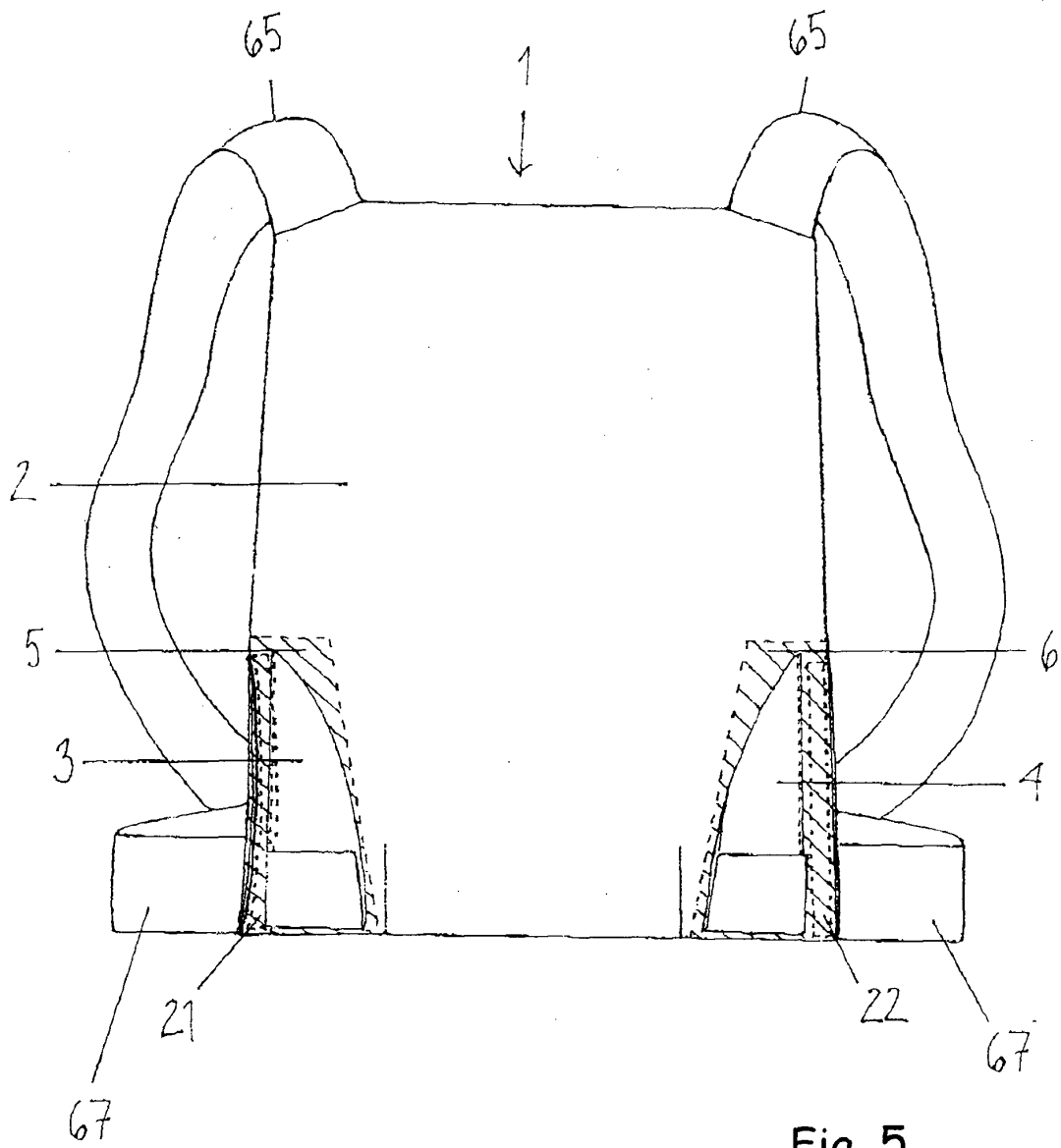


Fig. 4



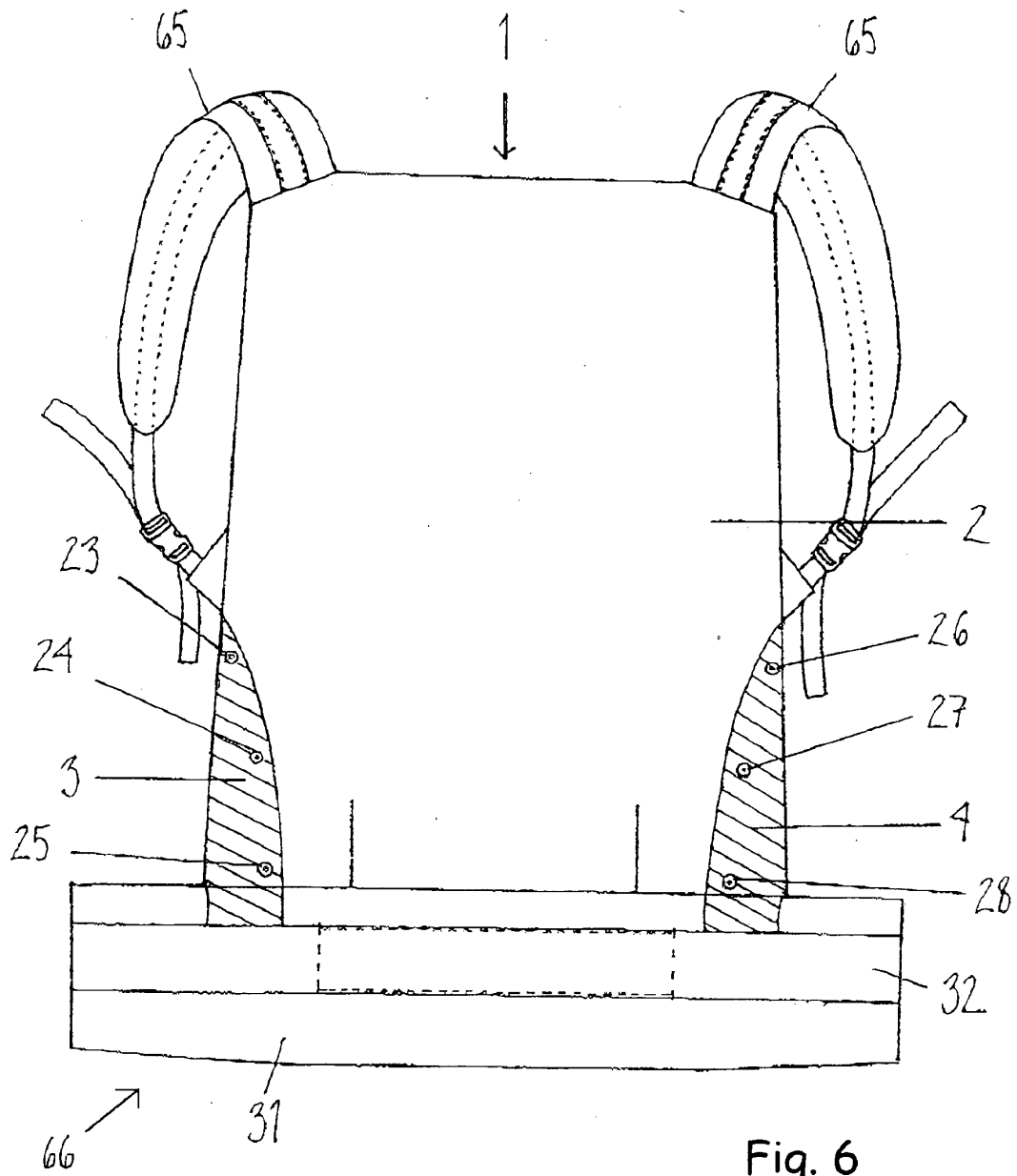


Fig. 6

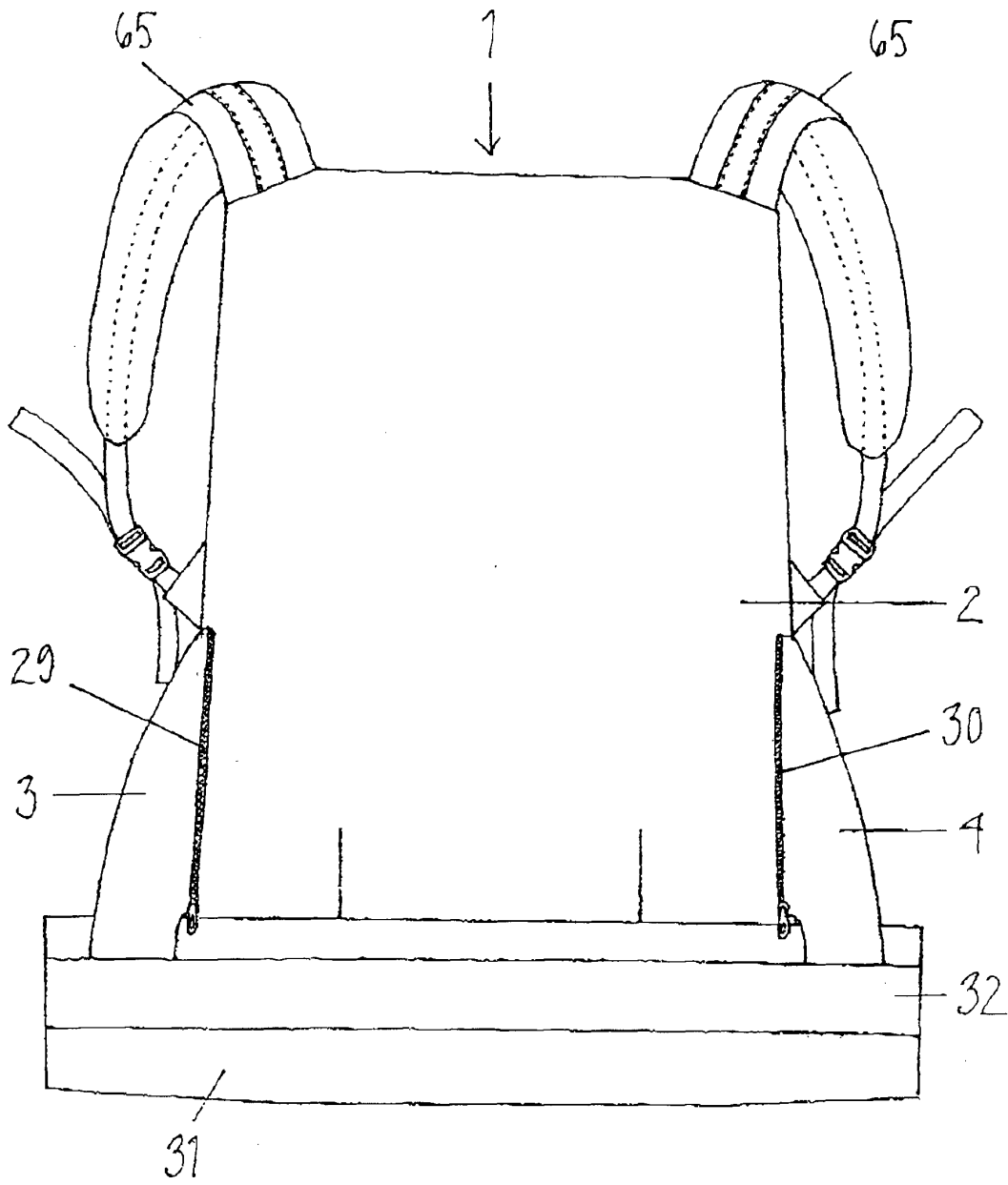


Fig. 7

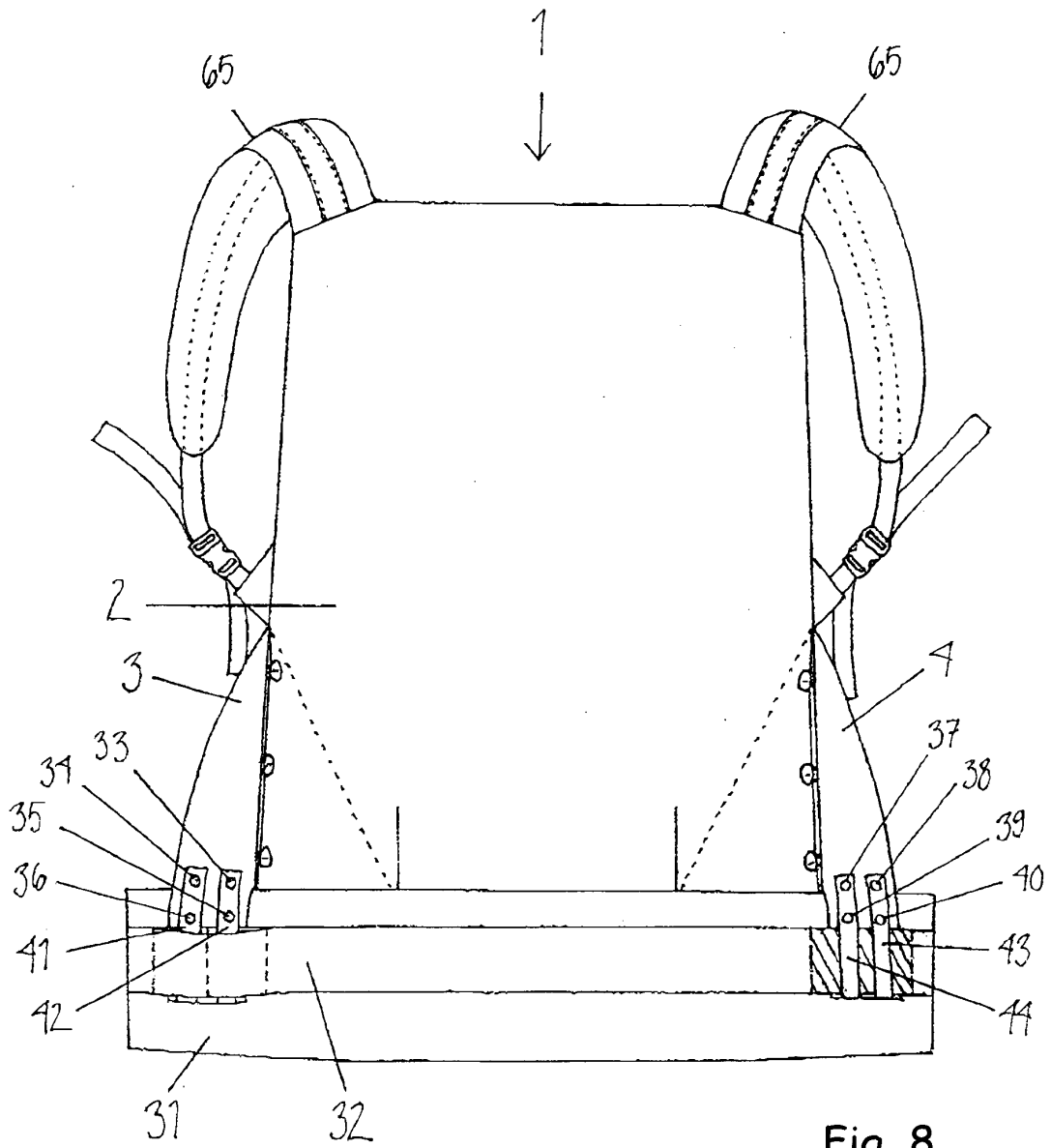


Fig. 8

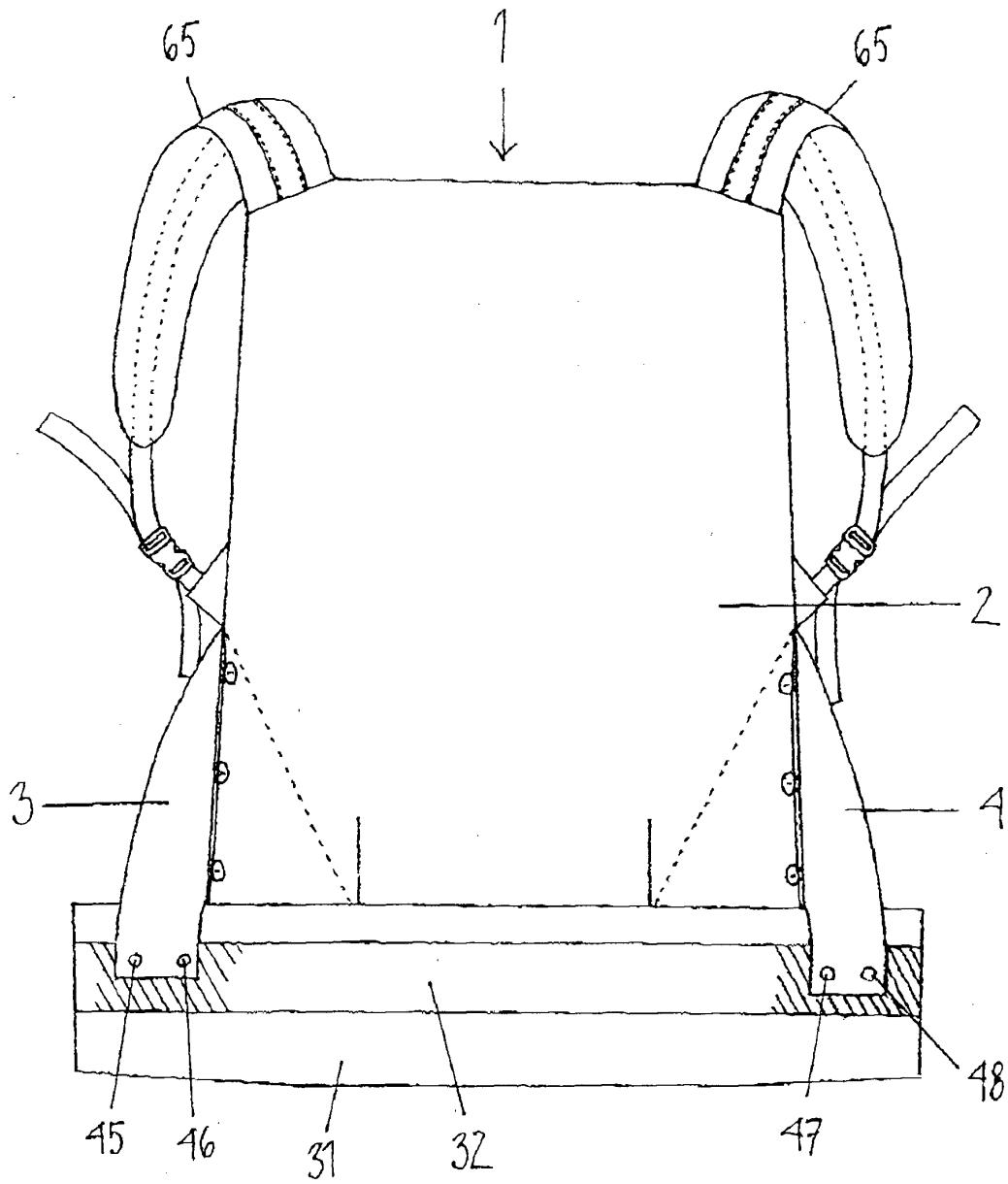


Fig. 9

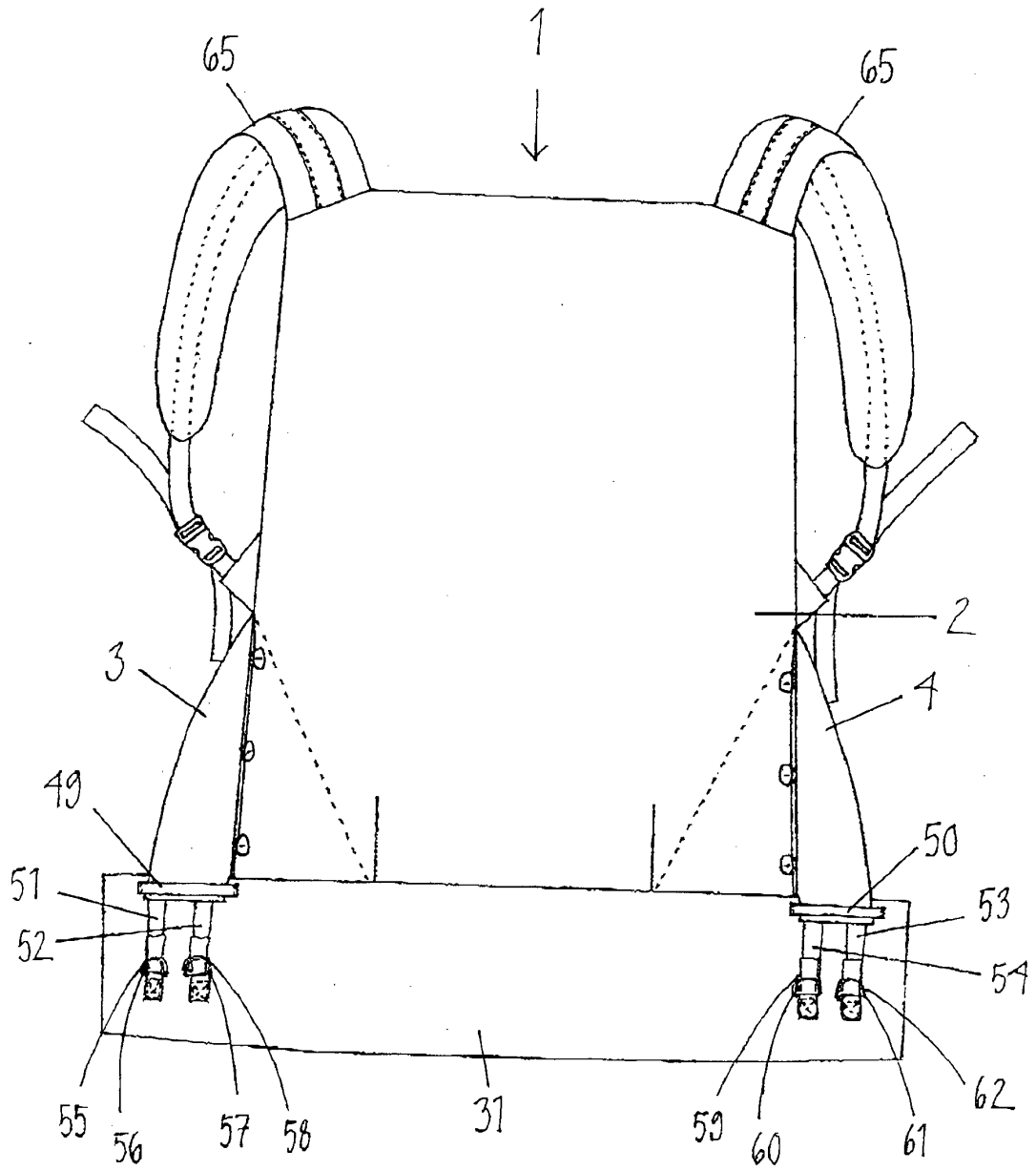


Fig. 10

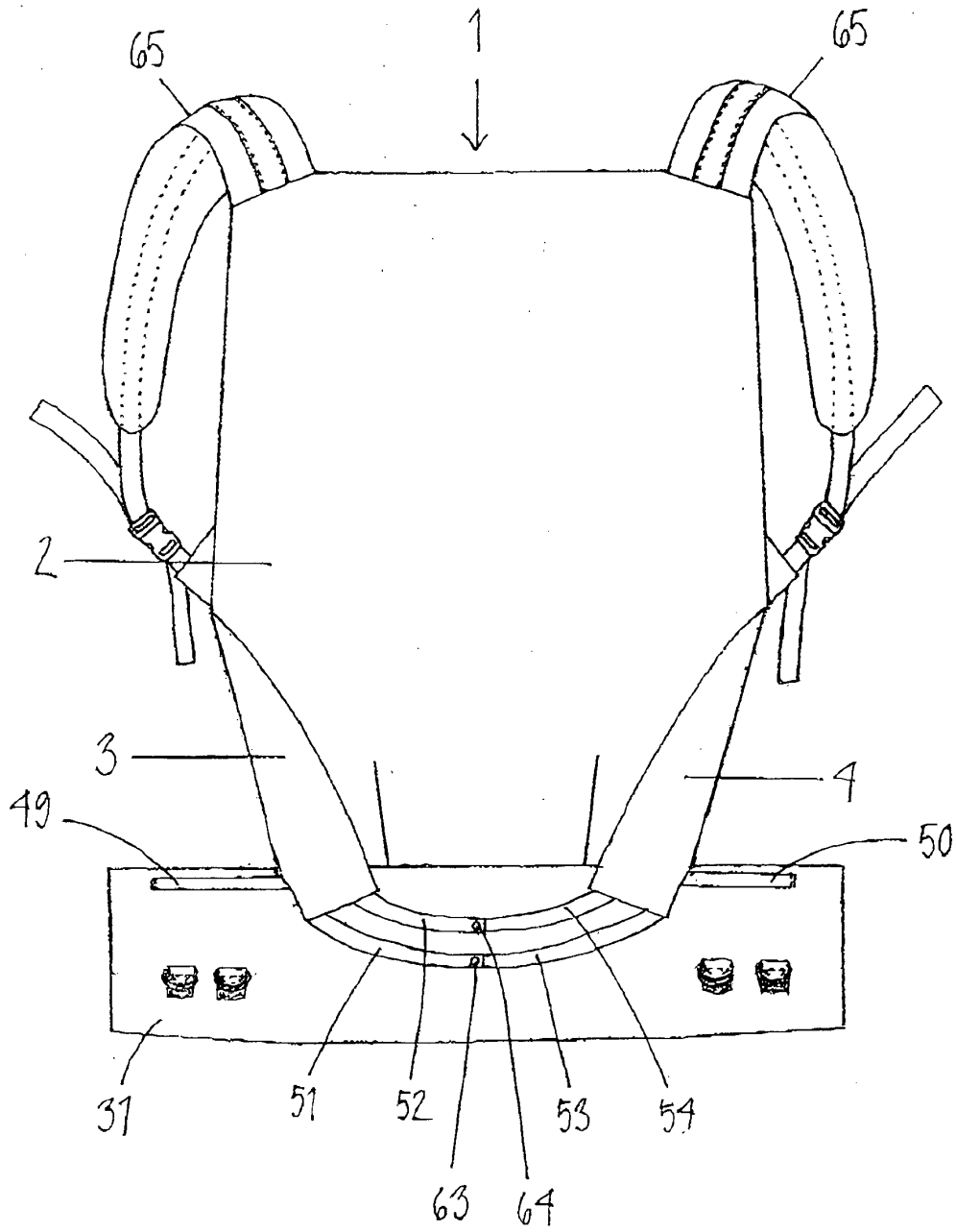


Fig. 11

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- FR 2806278 A1 [0003]