

(19) **DANMARK**

(10) **DK/EP 4225690 T3**



(12)

Oversættelse af europæisk patentskrift

Patent- og
Varemærkestyrelsen

-
- (51) Int.Cl.: **B 68 C 1/14 (2006.01)**
- (45) Oversættelsen bekendtgjort den: **2024-09-30**
- (80) Dato for Den Europæiske Patentmyndigheds bekendtgørelse om meddelelse af patentet: **2024-06-26**
- (86) Europæisk ansøgning nr.: **21783303.7**
- (86) Europæisk indleveringsdag: **2021-10-01**
- (87) Den europæiske ansøgnings publiceringsdag: **2023-08-16**
- (86) International ansøgning nr.: **EP2021077113**
- (87) Internationalt publikationsnr.: **WO2022073874**
- (30) Prioritet: **2020-10-06 DE 202020105713 U**
- (84) Designerede stater: **AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR**
- (73) Patenthaver: **Rohn, Saskia, Eddesser Strasse 1, 31234 Edemissen, Tyskland**
- (72) Opfinder: **ROHN, Saskia, , 31234 Edemissen, Tyskland**
MEIER, Tina, , 31234 Edemissen, Tyskland
- (74) Fuldmægtig i Danmark: **Zacco Denmark A/S, Arne Jacobsens Allé 15, 2300 København S, Danmark**
- (54) Benævnelse: **SADELGJORD**
- (56) Fremdragne publikationer:
EP-A1- 3 511 291
DE-U1- 9 017 284
DE-U1- 29 600 374
US-A- 2 239 764

Saddle Girth

[0001] The invention relates to a girth for strapping a saddle onto the back of a riding animal, which girth is divided into three parts in the tensioning direction, and comprises a middle piece and two belt portions connected thereto, which belt portions are connected to different sides of the saddle in order to connect the girth to a saddle, wherein the belt portions are connected to the middle piece, there being intermediately disposed on each side a rigid joint ring fastened to the middle piece by at least one connection strap, wherein the joint rings are arranged spaced apart from one another in the direction of the longitudinal extent of the girth.

[0002] Girths are guided around the belly of a riding animal, for example a horse, and connected with their ends to each side of a saddle, typically to a saddle flap. Since such a girth is guided around the belly of a riding animal, it is also referred to as a belly girth. Girths are in many cases padded to avoid pressure points as much as possible. In adaptation to the curvature of the belly of a riding animal, two belly girths are also sometimes used as a girth for the belly. For horses as riding animals, girths with a crescent-shaped contour and a width greater in the middle of the girths than in the region of the connection buckles for connecting such a girth to a saddle have been designed to increase the wear comfort. To distribute the tensioning force, the greater width of the girth is lined with a leather piece or consists of such a leather piece. Due to the crescent-shaped design, in which the tensioning or pulling force is introduced via the ends of the crescent-shaped design, the pulling force is introduced mainly into the shorter side of the crescent-shaped design, despite the provision of a stiffening plate. As a result, an optimal seat of such a girth on the body of the animal is not provided.

[0003] DE 296 00 374 U1 discloses a belly girth for fastening a riding saddle onto a horse. The belly girth has two parallel narrower belts, sewn onto a wider middle piece. They each carry a ring at their long-side ends. Attached to the rings are belts with which the girth can be connected to a saddle by means of buckles. Each belt is connected to the middle piece via its own ring. This serves the purpose that the belts can be adjusted against each other in order to adapt these these belts to buckles separated by different distances from one another on the saddle. The rings serve the purpose of spreading the middle piece over the belts attached to the ring.

[0004] The girth is guided around the chest of a horse (the same applies to other riding animals), as outlined above. The movement of the horse changes the circumference contour and the circumference of the chest. This means that the girth, which is preferably guided over the sternum of the horse, slips forward behind the forehand. In an attempt to avoid this, without needlessly having to tighten the girth against the body of the animal, girths have been developed with elastomer rings or other elastomer elements inserted into the belt. This means that the girth has a certain elasticity to allow an expansion of the chest when breathing. Even if the wear comfort of the horse is improved in this respect, such a girth also tends to move from its intended position behind the forehand. According to another embodiment of a girth using an elastomer element, it is provided that the girth carries a ring-shaped support cushion in its center, which supports the girth in the area of the sternum on the chest of the horse.

[0005] However, the disadvantage of girths with elastomer elements is that, due to the lack of a tensioning abutment, the saddle attachment is in many cases too tight, and the elastomer elements, such as the elastomer rings or a ring-shaped cushion, are pretensioned too wide to allow the desired compensatory movement to take place to the intended circumference. Tensioning the girth too tightly will have a negative effect on the wear comfort of the riding animal.

[0006] Against this background, it is the object of the invention to propose a girth for strapping a saddle on the back of a riding animal with high wear comfort for the riding animal, in which the girth remains in its position with respect to the forehand of the riding animal on which the girth has been positioned when saddling.

[0007] This object is achieved according to the invention by a girth having the features of Claim 1.

[0008] This girth is divided into three parts in the direction of its longitudinal extent and thus in the tensioning direction. This girth comprises a middle piece and two belt portions connected to the middle piece. The belt portions are used to connect the girth to the girth straps of a saddle and thus represent the connection of the middle piece to the saddle. The two belt portions are separated by the middle piece. The belt portions are connected to the middle piece by means of a rigid joint ring. The

joint rings themselves are spaced from each other in the direction of the longitudinal extent of the girth and attached to the middle piece by at least one connection strap. The connection of the connection straps and optionally the belt portions to the rigid joint ring is designed so that they can be readily adjusted in relation to the joint ring, typically by a loop that extends over a portion of the joint ring and therefore has a corresponding wide design. The at least one connection strap or the belt portions can thus be moved in relation to the joint ring in the direction of the circumference of the joint ring. Such a joint ring can be circular. Then there is the possibility that both the connection straps and the belt portion attached to them can be adjusted in relation to the joint ring. For the functionality of this girth, it is generally sufficient if such mobility exists only between the connection strap in relation to the joint ring.

[0009] In this girth, the insertion of the rigid joint rings forms a joint at which the belt portions can be adjusted in relation to the middle piece, in the direction of the width of the middle piece and thus parallel to the surface of the body of the animal. By this measure, the belt portion 2 attached thereto and the joint ring can be swiveled in relation to the at least one connection strap in the plane of the middle piece. As a result of this flexibility, changes in the shape of the chest of the riding animal, for example, of the horse, which result in a change in the position of the middle piece compared to that of the saddle or the girth straps, are compensated by an adjustment of the belt portions in relation to the middle piece, without any change in the effective length of the girth. As a result of this flexibility, despite changes in the shape of the chest due to breathing movements of the horse, the middle piece of the girth does not tend to move towards the forehead.

[0010] Due to the above mentioned functionality of this girth, it is particularly suitable for saddling horses, where the withers are spaced relatively far from the forehead. As a result, the saddle is then in a position with respect to the chest such that the girth must be placed further apart from the forehead around it, thus at a position where changes in the circumference of the chest are more strongly caused by horse movements. It goes without saying that in the case of such a horse the girth tends to move behind the forehead. To prevent this, excessive tensioning of the girth would be required. If the girth according to the invention is used, this requirement is effectively counteracted,

without adversely affecting the wearing comfort of the riding animal, such as the horse.

[0011] The joint rings of this girth are rigidly designed in order to introduce the pulling force applied thereto from the belt portions into the middle piece without any change in shape. Typically, metal rings are used as joint rings. Preferred is an embodiment in which the metal rings have a particularly smooth surface, so that the connection straps and belt portions connected thereto can be smoothly adjusted accordingly. A chrome-plated or polished surface of such a metal ring is provided in a preferred embodiment. Good sliding or adjusting properties also occur when the connection strap(s) and the belt portions are made of an artificial leather, for example Biothane[®], because this material has a low friction against metal.

[0012] The belt portions attached to the joint rings can be single-belt or double-belt. It is understood that more than two belts can also be connected thereto. When this girth is designed with belt portions, each formed by several single belts, such as a double belt, a D-ring is preferably used as joint ring. The individual belts of the belt portion are connected to the straight web of the D-ring in such an embodiment, while the at least one connection strap is connected on the middle piece to the arc-shaped portion. By means of such a joint ring, the pulling force is introduced into the joint ring and thus into the at least one connection strap and therefore again into the middle piece via the multi-belt girth of the belt portion. The separation of the two belt portions or of the two rigid joint rings makes the design of the middle piece independent of the design of the belt portions. The middle piece is typically designed with a wider width than the width of the belt portions. In this way, a large-surface application can be provided on the chest of the riding animal via the middle piece, which significantly increases the wear comfort due to the distribution of the tensioning force over the surface of the middle piece. In order to support a distribution of force over the width of the middle piece (transverse extent with respect to the longitudinal direction of the girth), a design is provided such that the joint rings are respectively connected to the middle piece with two connection straps. These connection straps diverge from each other from the joint ring in the direction of the middle piece, so that the tensioning or pulling force, which is introduced into the connection strap via the joint ring, is passed through the connection straps to the marginal region of the middle piece. In order to achieve

this, the connection straps typically extend to the marginal end of the middle piece. In this way, the connection straps act simultaneously as pulling force distributing elements in such a design of the girth.

[0013] In another embodiment, it is provided that the joint rings will pass through an upper material of the middle piece. The section of the middle piece that passes through the joint ring then represents the connection strap.

[0014] The middle piece is typically padded towards the body of the animal, which allows further increasing the wear comfort of the riding animal. Such an embodiment may provide that the middle piece has a tension-resistant upper layer to which the connection straps are connected. This tension-resistant upper layer represents the position of the middle piece, which in relation to the body of the animal is the outer material layer and therefore the material layer facing away from the animal body. This serves to distribute the pulling force over the surface of the middle piece. Such a middle piece also has a support which is connected to the upper layer and faces the body of the animal and which undertakes the padding function. This support can be an open mesh fabric, which is lined with an elastic spacer. The open mesh fabric layer is the layer applied to the body of the animal.

[0015] The middle piece may have a certain stiffening as long as it is applied to the body of the animal when strapping the girth on.

[0016] The provision of the middle piece with a tension-resistant upper layer, as described above by an embodiment, can also be used to connect to it a padded support, for example using fluffy velcro bands. This allows the use of different paddings for different purposes, so that the padding can be adapted to the respective purpose without having to use a different girth for this purpose.

[0017] The middle piece and the belt portions may differ in terms of material, especially if the middle piece is designed to be slightly more rigid than the belt portions. For example, the middle piece with its connection strap and/or the belt portions may be made of leather or faux leather.

[0018] Both the belt portions and the middle piece can be multi-part.

[0019] The invention is described in the following using an embodiment with reference to the attached figures. In the figures:

Figure 1: A top view of a three-part girth according to the invention, with a middle piece and two belt portions connected thereto.

Figure 2: the girth of Figure 1 with the belt portions flexibly adjusted in relation to the middle piece;

Figure 3: the girth of Figures 1 and 2 with an additional padding fitted to its middle piece; and

Figure 4: a girth according to an additional embodiment.

[0020] A girth 1 comprises a middle piece 2 and two belt portions 3, 4. The belt portions 3, 4 are constructed in the same way. When the belt portion 3 is described in further detail below, these embodiments apply equally to the belt portion 4.

[0021] The middle piece 2 is a flexible material layer, sufficiently pliable to fit easily to the body of the animal when the girth 1 is applied. In the embodiment shown, the middle portion 2 is made of a tension-resistant material, for example Biothane[®] with a tension-resistant support.

[0022] The belt portion 3 is a belt portion with a double belt. The belt portion 3 thus has two belts 5, 6. The belts 5, 6 carry a buckle 7, 8 on each end to connect the girth 1 to a girth strap of a saddle (not shown in the figures). The belt portion 3 is connected to the middle piece 2 with insertion of a joint ring 9. In the embodiment shown, the joint ring 9 is implemented as a D-ring. A joint ring 9 of this type for connecting the belt portion 3 to the middle piece 2 has a curved portion in at least one direction, and thus either towards the middle piece 2 or towards the belt portion 3. In the embodiment shown, the curved portion is positioned so that it faces in the direction of middle piece 2. This is due to the fact that the two belts 5, 6 of the belt portion 3 are parallel. It is therefore possible to connect these two belts 5, 6 to the web 10 of the joint ring 9. At the joint ring 9 a double web is provided, so that parallel to the web 10 a second web 11 connects the legs of the arc portion 12. The two webs 10, 11 are connected in the middle by a cross web. By means of the cross web the two belts 5, 6 are separated from each other in their respective positions on the web 10 and thus kept at a distance.

[0023] The joint ring 9 is attached to the middle piece 2 via two connection straps 13, 14 in the embodiment shown. These are sewn to the middle piece 2 for their longitudinal extent. The seam is marked by way of example with reference numeral 15 in the case of the connection strap 13. The

connection straps 13, 14 diverge from each other from the joint ring 9. This is achieved by distributing a pulling force introduced via the belt portion 3 into the joint ring 9 and via it into the connection strap 13, 14 over the width of the middle piece 2 to the marginal region and thus over the entire width. The width of middle piece 2 is significantly greater than the width of the belt portions 3, 4. Also, the width of the middle piece 2 exceeds the extension of the joint ring 9 in this direction. In the embodiment shown, the extension of the middle piece 2 in this respect is about twice as large as that of the joint ring 9. The uncoupling of the middle piece 2 from the belt portions 3, 4 allows a width design independent of the belt portions 3, 4. The middle piece 2 can have a geometry adapted to the body of the animal. It is also advantageous in such a diverging arrangement of the connection straps 13, 14 that each connection strap 13, 14 is arranged to form a blunt angle, a right-angled arrangement being also possible, with respect to the arc portion 12 of the joint ring 9. The seams 15 are made with respect to the loop 16 of the connection straps 13, 14, which covers the arc portion 12, so that the width of the loop 16 is sufficiently large to allow the joint ring 9 with its arc portion 12 to be easily adjusted in the plane of the middle piece 2, as indicated by the arrows in Figure 1. This means that the connection belt 3 is connected so that it can be articulated in relation to the middle piece 2.

[0024] In the embodiment of Figure 1, the joint rings 9 are located on the outside of the middle piece 2 and therefore do not contact the body of the animal.

[0025] The flexibility of the belt portion 3 in relation to the middle piece 2 is shown in Figure 2. The two belt portions 3, 4 are adjusted in the same direction in relation to the middle piece. It is a special feature that the introduction of pulling force from the belt portions 3, 4 via the joint rings 9 into the middle piece 2 is carried out equally regardless of the orientation of the belt portions 3, 4 relative to the middle piece 2. Thus, irrespective of the joint position of the belt portions 3, 4, the application of the middle piece 2 with its underside against the animal body remains the same over the surface, even if the belt portions 3, 4, as shown in Figures 1 and 2, are adjusted in relation to the middle piece 2. It is essential that no torsional torque is introduced into the belt portions 3, 4 and also the middle piece 2, and thus the middle piece 2 maintains its surface contact with the body of the animal. The adjustability is smooth due to the correspondingly large loops 16 of the connection straps

13, 14. In the embodiment shown, a polished steel ring is used as a D-ring. The smooth surface has only a very low adhesion friction with the Biothane[®] 13, 14 straps, which supports the smooth movement of the joint.

[0026] Figure 3 shows the girth 1 with its middle piece 2 and the two belt portions 3, 4 in a development. In this development, a padding 17 is applied to the underside of the middle piece 2 facing the body of the animal. In the embodiment of Figure 3, the padding 17 is detachably connected to the underside of the middle piece 2, namely by means of fluffy velcro bands. This padding can be removed for cleaning purposes and put back on or replaced with other paddings.

[0027] The belt portions 3, 4 can be connected directly to the girth straps, as is the case in the embodiment shown. It is understood that between the belt portions 3, 4 and the girth straps, there may also be intermediate belts.

[0028] Figure 4 shows another embodiment of a girth 1.1, which is basically constructed like the girth 1 of the above mentioned figures. Therefore, the above considerations for the girth 1 apply equally to the girth 1.1. In contrast to the girth 1, the embodiment of the girth 1.1 of Figure 4 does not have an oval but an octagonal shape in its middle piece 2.1, the shape being stretched in the longitudinal extent of the girth 1.1. The belt portions 3.1, 4.1 are also connected to the middle piece 2.1 by means of connection straps 13.1, 14.1 with insertion of an intermediate D-ring 9.1. The joint rings 9.1 are located next to the middle piece 2.1 in this embodiment. The belt portions 3.1, 4.1 are correspondingly shorter to be connected to the girth straps. The connection straps 13.1, 14.1 diverge from each other approximately at the angle of the tapered end sections of the stretched octagonal shape, so that they are placed close to the margin approximately parallel to edges of the middle piece 2.1, converging towards the joint ring 9.1. A pulling force is introduced directly into the marginal regions of the middle piece 2.1 of this 1.1 girth.

[0029] The invention has been described in the context of embodiments. Without departing from the scope of the current claims, there are numerous other possibilities for a person skilled in the art to implement them without this having to be explained in more detail in the context of these remarks.

List of reference numerals**[0030]**

1, 1.1	Saddle girth
2, 2.1	Middle piece
3, 3.1	Belt portion
4, 4.1	Belt portion
5	Belt
6	Belt
7	Buckle
8	Buckle
9, 9.1	Joint ring
10	Web
11	Web
12	Arc portion
13, 13.1	Connection strap
14, 14.1	Connection strap
15	Seam
16	Loop
17	Padding

Patentkrav

1. Gjord til påspænding af en sadel på ryggen af et ridedyr, hvilken gjord (1, 1.1) er tredelt i spændingsretningen og omfatter et midterstykke (2, 2.1) og to gjorddele (3, 4; 3.1, 4.1), som er forbundet dermed, hvilke gjorddele (3, 4; 3.1, 4.1) er forbundet med forskellige
5 sider af sadlen med henblik på at forbinde gjorden (1, 1.1) med en sadel, hvor remdelene (3, 4; 3.1, 4.1) er forbundet med midterstykket (2, 2.1), idet der intermediært på hver side er anbragt en stiv ledring (9, 9.1), som er fastgjort til midterstykket (2, 2.1) med mindst én forbindelsesrem (13, 14; 13.1, 14.1), hvor ledringene (9, 9.1) er anbragt med mellemrum fra hinanden i retningen af gjordens (1, 1.1) længdeudstrækning, **kendetegnet ved,**
10 **at** forbindelsesremmenes (13, 14; 13.1, 14.1) forbindelse ned den pågældende ledring (9, 9.1) er udformet på en sådan måde, at forbindelsesremmene, når gjorden (1, 1.1) er spændt på ryggen af et ridedyr, kan indstilles i forhold til ledringene (9, 9.1), og derfor kan gjorddelene (3, 4; 3.1, 4.1) indstilles, i retningen af midterstykkets (2) bredde, i forhold til midterstykket (2) ved indgreb med de stive ledringe (9, 9.1) mellem gjorddelene (3, 4; 3.1,
15 4.1) og midterstykket (2), hvilket i hvert tilfælde danner et led.

2. Gjord ifølge krav 1, **kendetegnet ved, at** ledringene (9, 9.1) er konfigureret som D-ringe, og en gjorddel (3, 4; 3.1, 4.1) er forbundet med det lige væv (10), og den mindst ene forbindelsesrem (13, 14; 13.1, 14.1) er forbundet med det krumme afsnit (12) af D-
20 ringen (9, 9.1).

3. Gjord ifølge krav 2, **kendetegnet ved, at** gjorddelene (3, 4; 3.1, 4.1) er forbundet med ledringenes (9, 9.1) lige væv (10).

25 4. Gjord ifølge et hvilket som helst af kravene 1 til 3, **kendetegnet ved, at** hver ledring (9, 9.1) er forbundet med midterstykket (2, 2.1) ved hjælp af to forbindelsesremme (13, 14; 13.1, 14.1), hvor begge forbindelsesremmene (13, 14; 13.1, 14.1) er anbragt således, at de divergerer, begyndende fra deres forbindelse med ledringen (9, 9.1).

5. Gjord ifølge krav 4, **kendetegnet ved, at** begge forbindelsesremmene (13, 14; 13.1, 14.1), med hvilke ledringene (9, 9.1) er forbundet med midterstykket (2, 2.1), strækker sig med deres ende vendende væk fra den pågældende ledring (9, 9.1) så langt som ind i området tæt på kanten af midterstykket (2, 2.1) i den tværgående retning i forhold til længdeudstrækningen.
6. Gjord ifølge et hvilket som helst af kravene 1 til 5, **kendetegnet ved, at** midterstykkets (2, 2.1) bredde, i den tværgående retning i forhold til afstanden mellem ledringene (9, 9.1), er større end hver af ledringenes (9, 9.1) diameter i den samme retning.
7. Gjord ifølge krav 6, **kendetegnet ved, at** midterstykket (2, 2.1) har en bredde, der svarer til omtrent det dobbelte af ledringenes (9, 9.1) diameter i den retning.
8. Gjord ifølge et hvilket som helst af kravene 1 til 7, **kendetegnet ved, at** ledringenes (9, 9.1) afstand fra hinanden ved midterstykket (2, 2.1) svarer til mindst omtrent halvdelen af en gjorddels (3, 4; 3.1, 4.1) længde.
9. Gjord ifølge et hvilket som helst af kravene 1 til 8, **kendetegnet ved, at** ledringene (9, 9.1) er metalringe, især forkromede eller polerede metalringe.
10. Gjord ifølge et hvilket som helst af kravene 1 til 9, **kendetegnet ved, at** gjorddelene (3, 4; 3.1, 4.1) er konfigureret som dobbeltgjorde med spænder (7, 8) på endesiden, med henblik på forbindelse med en sadel.

11. Gjord ifølge et hvilket som helst af kravene 1 til 10, **kendetegnet ved, at** midterstykket (2, 2.1) er polstret på den side, der vender hen imod dyrets krop.

12. Gjord ifølge krav 11, **kendetegnet ved, at** midterstykket har et
5 torsionsmodstandsdygtigt øvre lag, der vender væk fra dyrets krop, og et nedre lag, der er fastgjort hertil, hvilket antager funktionen af en polstring.

13. Gjord ifølge et hvilket som helst af kravene 11 eller 12, **kendetegnet ved, at** ledningenes forbindelsesremme kun er forbundet med et torsionsmodstandsdygtigt
10 øvre lag af midterstykket (2, 2.1).

14. Gjord ifølge krav 12, **kendetegnet ved, at** polstringen (17) på en udløselig måde er forbundet med midterstykket (2, 2.1).

15. Gjord ifølge et hvilket som helst af kravene 1 til 14, **kendetegnet ved, at** midterstykket (2, 2.1) og gjorddelene (3, 4; 3,1, 4,1) er fremstillet ud fra eller med involvering af kunstlæder.

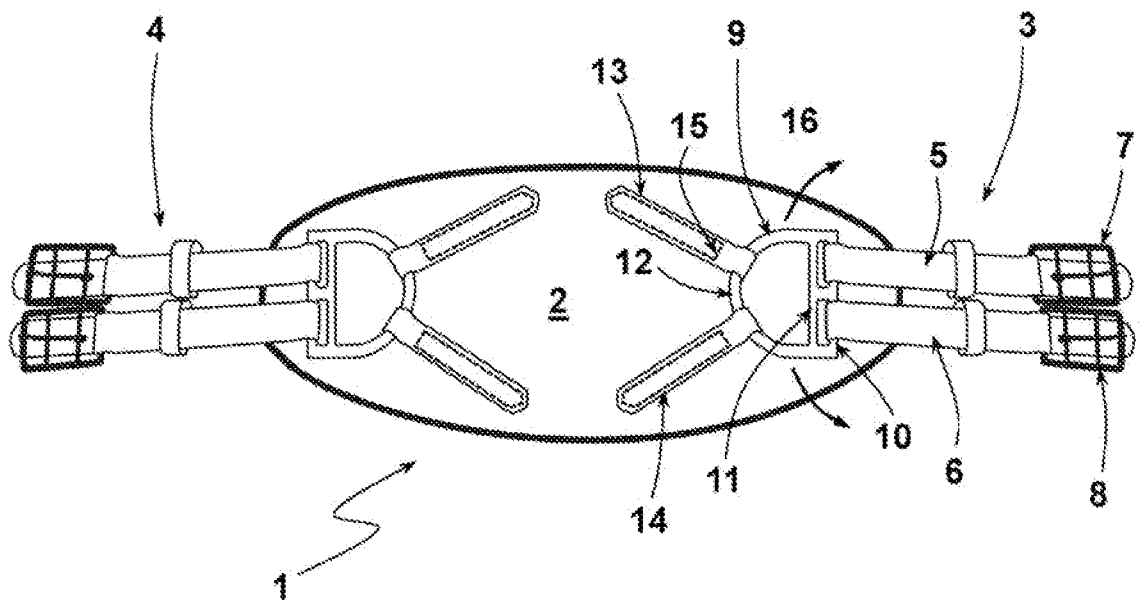


Fig. 1

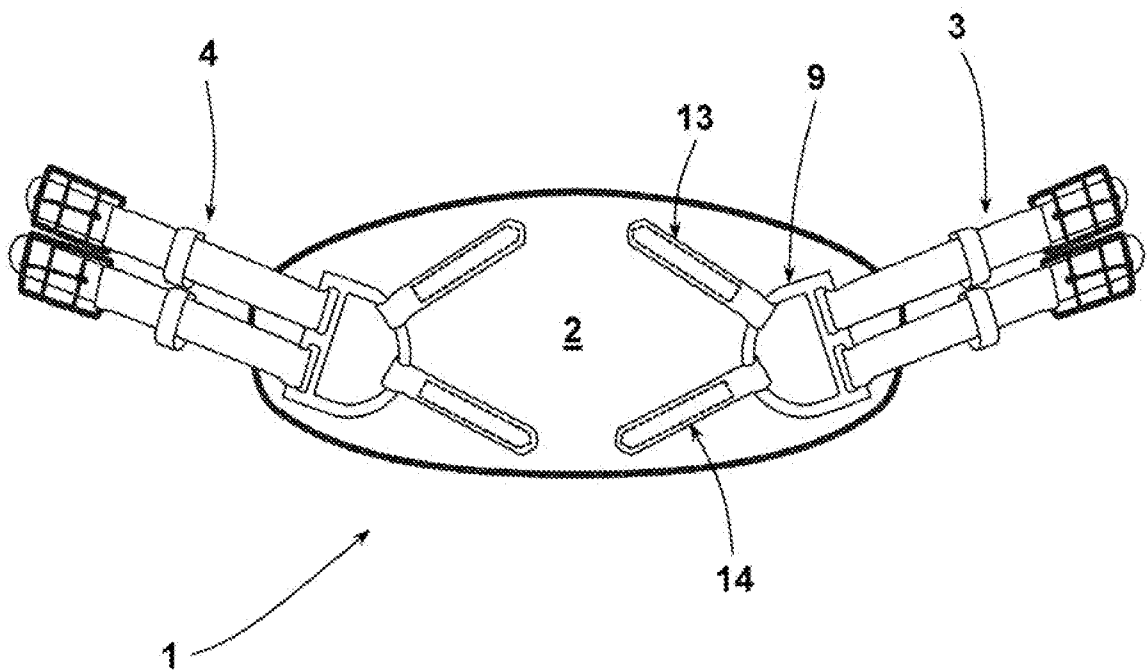


Fig. 2

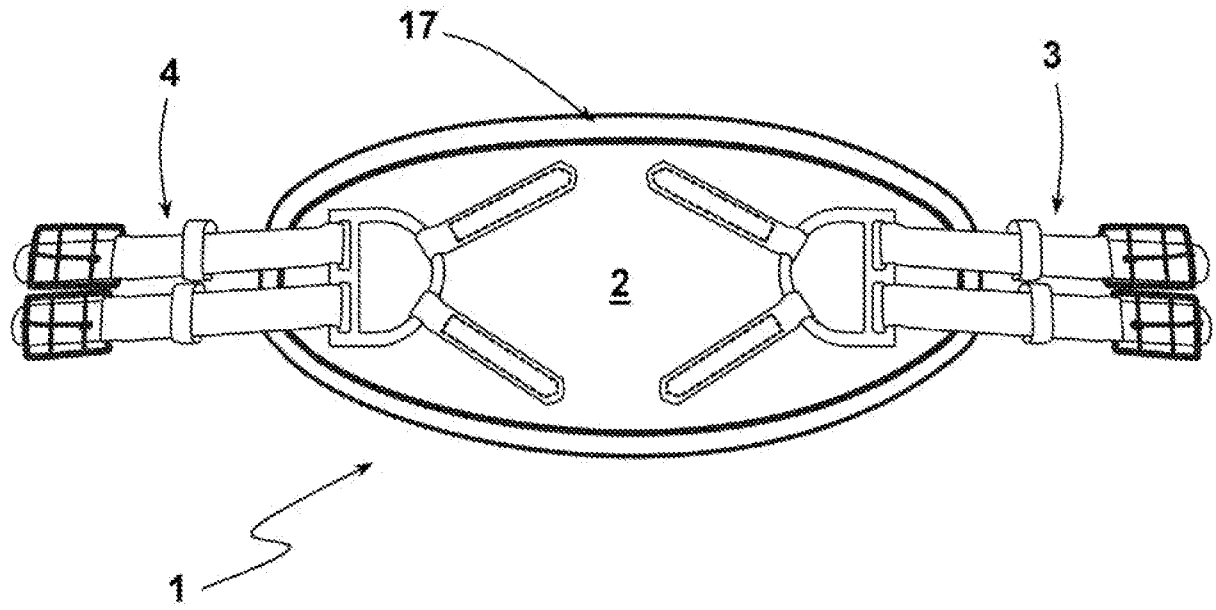


Fig. 3

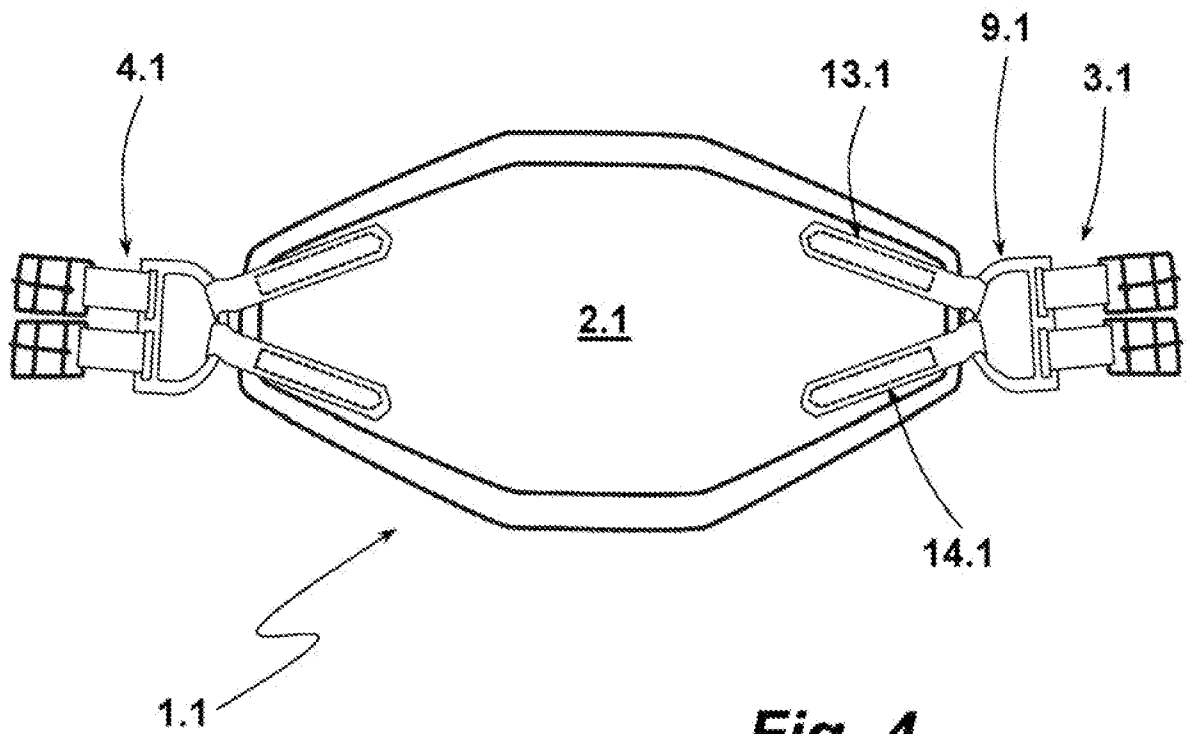


Fig. 4