



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
19.02.2020 Bulletin 2020/08

(51) Int Cl.:
A61G 13/00 (2006.01) **A61G 13/08** (2006.01)
A61G 13/12 (2006.01)

(21) Application number: **18189002.1**

(22) Date of filing: **14.08.2018**

(84) Designated Contracting States:
**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**
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

(71) Applicant: **Gymna Uniphy**
3740 Bilzen (BE)

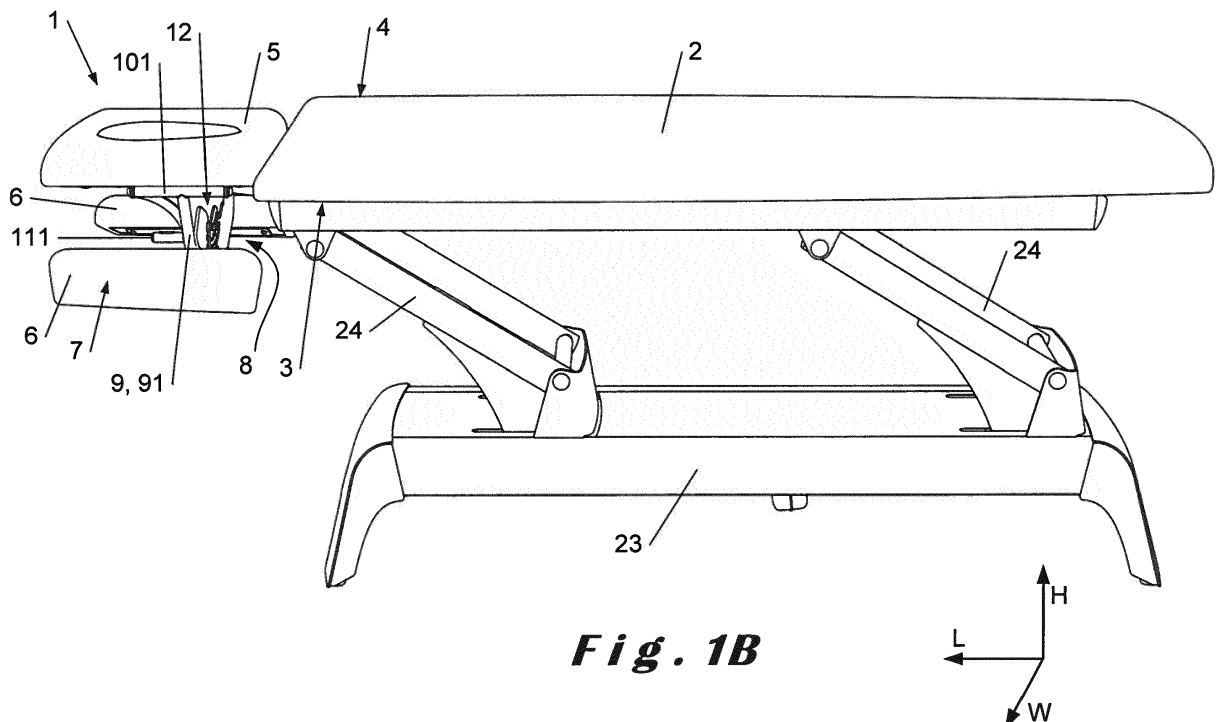
(72) Inventor: **Wijnmaalen, Piet Jacobus**
3740 Bilzen (BE)

(74) Representative: **Gevers Patents**
Intellectual Property House
Holidaystraat 5
1831 Diegem (BE)

(54) **TREATMENT COUCH WITH ADJUSTABLE ARM SUPPORTS**

(57) The invention provides a treatment couch (1) for use in physiotherapeutic treatment of a patient (25). A treatment platform (2) of the treatment couch (1) comprises a head support (5) and two arm supports (6). The arm supports (6) are arranged in a first position on opposing sides (3, 4) of the head support (5) in a width direction (W). Each arm support (6) is provided with adjustment means (8) for moving the arm support (6) from the first position to at least one second position lower

than the first position. The adjustment means (8) are arranged for also moving the arm support (6) inwards in the width direction when moving the arm support (6) from the first position to the at least one second position. The adjustment means (8) are arranged for also tilting the arm support (6) in the width direction with its support surface (7) away from the treatment platform (2) when moving the arm support (6) from the first position to the at least one second position.



Description

Technical field

[0001] The present invention relates to a treatment couch for use in physiotherapeutic treatment of a patient, wherein the treatment device comprises adjustable arm supports for supporting the arms of the patient.

Background art

[0002] A treatment couch with adjustable arm supports is known from EP 2 578 198 A1. This treatment couch comprises a treatment platform for supporting the patient. The treatment platform comprises a head support and two adjustable arm supports arranged on opposing sides of the head support. Each arm support is provided with adjustment means comprising a tilting arm for moving the arm support from a first position next to the head support to at least one second position lower than the first position. In the at least one second position, the arm supports support the arms of the patient hanging downwards next to the patient when the patient is in a prone position on the treatment couch. This with the purpose of relaxing the neck and shoulder muscles of the patient. The adjustment means are also arranged for tilting the arm support in the length direction, i.e. forwards and backwards.

[0003] This treatment couch has the disadvantage that the available positions of the arm supports do not provide the ideal support for the arms of the patient in order to relax the neck and shoulder muscles. Thus, the treatment couch does not provide optimal comfort to the patient. Furthermore, this treatment couch also has the disadvantage that it is difficult and time consuming to adjust both arm supports to the desired position, since this has to be repeated for both arm supports.

Disclosure of the invention

[0004] It is an aim of the present invention to provide a treatment couch which improves the comfort of the patient. It is a further aim of the present invention to provide a treatment couch with arm support which are easier to adjust to the desired position.

[0005] This aim is achieved according to the invention with a treatment couch showing the technical characteristics of the first independent claim.

[0006] Therefore, the present invention provides a treatment couch for use in physiotherapeutic treatment of a patient. The treatment couch comprises a treatment platform for supporting the patient. The treatment platform extends along a longitudinal direction. The treatment platform extends along a width direction. The treatment platform comprises a head support for supporting the head of the patient. The treatment platform comprises two arm supports having a support surface for supporting the arms of the patient. The arm supports are arranged

in a first position on opposing sides of the head support in the width direction. In the first position, the arm support is preferably substantially level with the head support, i.e. a top surface of the arm support is substantially aligned with a top surface of the head support. Each arm support is provided with adjustment means for moving the corresponding arm support in a height direction from the first position to at least one second position lower than the first position. The adjustment means are arranged for also moving the corresponding arm support inwards in the width direction when moving the corresponding arm support from the first position to the at least one second position. Hence, for also moving the corresponding arm support in the width direction towards the opposing side of the head support in the width direction. The adjustment means are arranged for also tilting the corresponding arm support in the width direction with its support surface away from the treatment platform when moving the corresponding arm support from the first position to the at least one second position.

[0007] The treatment couch according to the present invention offers the advantage that the arm supports are better able to follow the motion of the arms of the patient when they are lowered next to the body of the patient in a prone position on the treatment couch. When lowering the arms, the arms are rotated and move thereby towards each other in the width direction. This motion of the arms can be followed by the arm supports by means of the arm supports moving inwards in the width direction. With the arms being rotated, the angle of the arms with respect to the horizontal plane also changes. This motion of the arms can be followed by the arms supports by means of the arm supports tilting in the width direction with their support surface away from the treatment platform. In this way the arms of the patient are better supported, such that the patient is better able to relax his/her neck and shoulder muscles, which improves the comfort of the patient.

[0008] In an embodiment of the treatment couch according to the present invention the adjustment means are arranged for moving the corresponding arm support along a curved trajectory when moving the corresponding arm support from the first position to the at least one second position. Preferably, the adjustment means are arranged for moving the corresponding arm support along a circular trajectory when moving the corresponding arm support from the first position to the at least one second position.

[0009] The inventors have found that moving the arm support along a curved trajectory, preferably a circular trajectory, offers the advantage that the arm support can be moved inwards in the width direction and can be tilted in the width direction with its support surface away from the treatment platform in a gradual and smooth manner when moving the arm support from the first position to the at least one second position with increasing distance in the height direction between the at least one second position and the first position. This is beneficial for the

comfort of the patient.

[0010] To allow for an optimal tilting of the arm support in the width direction with its support surface away from the treatment platform, the tilting may be done such that the support surface of the arm support is kept substantially perpendicular to the curved, preferably circular, trajectory followed by the arm support.

[0011] In an embodiment of the treatment couch according to the present invention the adjustment means are arranged for moving the corresponding arm support increasingly inwards in the width direction with increasing distance in the height direction between the at least one second position and the first position when moving the corresponding arm support from the first position to the at least one second position.

[0012] This embodiment is beneficial for the comfort of the patient, since it enables the arm supports to follow the movement of the arms towards each in the width direction when the arms are increasingly lowered below the treatment platform.

[0013] In an embodiment of the treatment couch according to the present invention the adjustment means are arranged for increasingly tilting the corresponding arm support in the width direction with its support surface away from the treatment platform with increasing distance in the height direction between the at least one second position and the first position when moving the corresponding arm support from the first position to the at least one second position.

[0014] This embodiment is beneficial for the comfort of the patient, since it enables the arm supports to follow the change in angle of the arms with respect to the horizontal plane when the arms are increasingly lowered below the treatment platform.

[0015] In an embodiment of the treatment couch according to the present invention the adjustment means comprise a tilting arm. A first end of the tilting arm is tiltably connected to the treatment platform. A second end of the tilting arm is connected to the corresponding arm support. The second end of the tilting arm is opposite of the first end of the tilting arm.

[0016] In an embodiment of the treatment couch according to the present invention the tilting arm extends along the width direction.

[0017] In an embodiment of the treatment couch according to the present invention the tilting arm is tiltably connected to the treatment platform at a side of the treatment platform opposite of a side of the treatment platform where the corresponding arm support is arranged.

[0018] In an embodiment of the treatment couch according to the present invention the head support is tiltably connected to the treatment platform. The adjustment means are connected to the head support. The arm supports are connected to the head support via the adjustment means.

[0019] In this embodiment the arm supports follow the movement of the head support when the head support is tilted with respect to the treatment platform. This offers

the advantage that the position of the arm supports with respect to the head support does not have to be readjusted when the head support is being tilted with respect to the treatment platform.

[0020] In an embodiment of the treatment couch according to the present invention the treatment couch comprises linking means for linking the adjustment means of both arm supports. The linking means are arranged such that moving one of the arm supports from the first position to the at least one second position causes a corresponding movement of the other arm support.

[0021] The linking means offer the advantage that both arm supports may be adjusted synchronously to the desired position by only moving one of the arm supports. This makes it easier for the patient or practitioner to adjust the arm supports.

[0022] In an embodiment of the treatment couch according to the present invention the linking means comprise a first protrusion arranged on the adjustment means of one of the arm supports. The linking means comprise a first slot on the adjustment means of the other arm support. The first slot is arranged for receiving the first protrusion. The first slot is shaped such that when moving one of the arm supports from the first position to the at least one second position the first slot guides the first protrusion for causing the corresponding movement of the other arm support.

[0023] The inventors have found that the linking means can be implemented in a simple and compact manner by means of the first protrusion that is guidably arranged in the first slot for causing the synchronous movement of the arm supports. This simplifies the design of the treatment couch.

[0024] In an embodiment of the treatment couch according to the present invention the linking means comprise at least one second protrusion arranged on the adjustment means of one of the arm supports and at least one second slot on the adjustment means of the other arm support. The at least one second slot is arranged for receiving the corresponding at least one second protrusion. The at least one second slot is shaped such that when moving one of the arm supports from the first position to the at least one second position the corresponding at least one second slot guides the at least one second protrusion for causing the corresponding movement of the other arm support.

[0025] The at least one second protrusion and the corresponding at least one second slot for implementing the linking means, in addition to the first protrusion and the first slot, offers the advantage of a strong linking between the arm supports, and an improved guiding of the arm supports for causing the synchronous movement of the arm supports.

[0026] In an embodiment of the treatment couch according to the present invention the linking means are arranged for locking the arm supports in the first position and the at least one second position by means of a locking protrusion on the adjustment means of one of the arm

supports and for each of the first position and the at least one second position a corresponding locking slot on the adjustment means of the other arm support. Each locking slot is arranged for receiving the locking protrusion when the arm supports are in the corresponding position and thereby preventing movement of the arm supports.

[0027] The linking means being arranged for locking the arm support in the first position and the at least one second position offers the advantage that the arm supports may be maintained in the desired position for the patient, which is beneficial for the comfort of the patient.

[0028] In an embodiment of the treatment couch according to the present invention the linking means are arranged for biasing the locking protrusion into the corresponding locking slot when the arm supports are in the corresponding position. The linking means are arranged such that the locking protrusion is manually releasable out of the locking slot in which it is biased.

[0029] This embodiment allows for a quick and easy locking of the arm supports in the first position and the at least one second position, because of the biasing of the locking protrusion in the corresponding locking slot. This embodiment also allows for a quick and easy unlocking of the arm supports from the first position and the at least one second position, because the locking protrusion is manually releasable out of the locking slot. This allows for a quick and easy adjustment of the position of the arm supports.

Brief description of the drawings

[0030] The invention will be further elucidated by means of the following description and the appended figures.

Figure 1A shows a treatment couch according to an embodiment of the present invention with the arm supports in a first position.

Figure 1B shows the treatment couch of Figure 4A with the arm support in a lowest second position.

Figure 2A shows the head support and the arm supports of the treatment couch of Figure 1A, with the arm supports in a first position.

Figure 2B shows the head support and the arm supports of the treatment couch of Figure 1A, with the arm supports in an intermediate second position at a first distance lower than the first position.

Figure 2C shows the head support and the arm supports of the treatment couch of Figure 1A, with the arm supports in a lowest second position at a second distance lower than the first position.

Figure 3 shows an exploded view of the head support and the arm supports of the treatment couch of Figure 1A.

Figure 4A shows in front view a schematic representation of a treatment couch according to an embodiment of the present invention in a first position.

Figure 4B shows in front view a schematic representation

of the treatment couch according to Figure 4A in an intermediate second position at a first distance lower than the first position.

Figure 4C shows in front view a schematic representation of the treatment couch according to Figure 4A in a lowest second position at a second distance lower than the first position.

Figure 5 shows in front view a schematic representation of a patient on a treatment couch according to an embodiment of the present invention in a second position.

Modes for carrying out the invention

[0031] The present invention will be described with respect to particular embodiments and with reference to certain drawings but the invention is not limited thereto but only by the claims. The drawings described are only schematic and are non-limiting. In the drawings, the size of some of the elements may be exaggerated and not drawn on scale for illustrative purposes. The dimensions and the relative dimensions do not necessarily correspond to actual reductions to practice of the invention.

[0032] Furthermore, the terms first, second, third and the like in the description and in the claims, are used for distinguishing between similar elements and not necessarily for describing a sequential or chronological order. The terms are interchangeable under appropriate circumstances and the embodiments of the invention can operate in other sequences than described or illustrated herein.

[0033] Moreover, the terms top, bottom, over, under and the like in the description and the claims are used for descriptive purposes and not necessarily for describing relative positions. The terms so used are interchangeable under appropriate circumstances and the embodiments of the invention described herein can operate in other orientations than described or illustrated herein.

[0034] The term "comprising", used in the claims, should not be interpreted as being restricted to the means listed thereafter; it does not exclude other elements or steps. It needs to be interpreted as specifying the presence of the stated features, integers, steps or components as referred to, but does not preclude the presence or addition of one or more other features, integers, steps or components, or groups thereof. Thus, the scope of the expression "a device comprising means A and B" should not be limited to devices consisting only of components A and B. It means that with respect to the present invention, the only relevant components of the device are A and B.

[0035] Figures 1A and 1B and Figures 2A-2C shows a treatment couch 1 according to an embodiment of the present invention for use in physiotherapeutic treatment of a patient 25. Figures 1A and 1B show the treatment couch 1 in its entirety with arm supports 6 for supporting the arms 27 of the patient 25 adjusted to different positions with respect to a head support 5 for supporting the

head 26 of the patient 25. Figures 2A-2C show some more detail of a frontal part of the treatment couch 1 comprising the head support 5 and the arm supports 6, wherein the arm supports 6 are again positioned in different positions with respect to the head support 5. More detail of the arm supports 6 and the head support 5 is shown in the exploded view of Figure 3. The different positions of the arm supports 6 with respect to the head support 5, such as shown in Figures 2A to 2C, are also represented schematically in Figures 4A-4C for a clearer view. Figure 5 shows a schematic representation of the patient 25 in a prone position on the treatment platform 1 with its arms 27 resting on the arm supports 6 positioned in a position below the head support 5.

[0036] At the bottom, the treatment couch 1 comprises a support base 23 by means of which the treatment couch 1 supports on the ground. At the top, the treatment couch 1 comprises a treatment platform 2 for supporting the patient 25. The treatment platform 2 extends in a longitudinal direction L, in order to support the patient 25 at least partially along its length, and the treatment platform 2 extends along a width direction W, perpendicular to the longitudinal direction L, in order to support the patient 25 from its left side to its right side. Between the treatment platform 2 and the support base 23, the treatment couch 1 comprises a lifting system with lifting arms 24 for moving the treatment platform 2 up and down in a height direction H perpendicular to the longitudinal direction L and to the width direction W.

[0037] A front section of the treatment platform 2 comprises a head support 5 for supporting the head 26 of the patient 25 and two arm supports 6 having a support surface 7 for supporting the arms 27 of the patient 25. One of the arm supports 6 is arranged on a first side 3 of the treatment platform 2 in the width direction W. The other arm support 6 is arranged on a second side 4 of the treatment platform 2 in the width direction W. The head support 5 is arranged in between the arm supports 6. The remainder of the treatment platform 2 is used for supporting the torso and legs of the patient 25.

[0038] The head support 5 is tiltably connected to the remainder of the treatment platform 2 for changing the inclination of the head 26 of the patient 25 with respect to the torso of the patient 25. The arm supports 6 are connected to the head support 5, such that the arm supports 6 are moved together with the head support 5 when the head support 5 is tilted with respect to the remainder of the treatment platform 2.

[0039] The arm supports 6 are however also moveable independent of the head support 5, which enables the arm supports 6 to support the arms 27 of the patient 25 at different positions with respect to the head 26 of the patient 25. Therefore, each arm support 6 is provided with adjustment means 8 which enable the arm support 6 to be moved in the height direction H to different positions below the head support 5, such as for example can be seen in Figures 1A-1B, 2A-2C and 4A-4C.

[0040] The adjustment means 8 comprise a tilting arm

9, which can for example be seen in Figure 3. At a first end 10, the tilting arm 9 is tiltably connected to the treatment platform 2 by means of a hinge 101. At a second end 11, opposite of the first end 10, the tilting arm 9 is connected to the arm support 6 via a support rod 111. The tilting arm 9 extends along the width direction W, and the hinge 101 and the support rod 111 extend along the longitudinal direction L. The tilting arm 9 of the arm support 6 which is arranged on the first side 3 of the treatment platform 2 is tiltably connected to the head support 5 at the side of head support 5 which is located at the second side 4 of the treatment platform 2. The tilting arm 9 of the arm support 6 which is arranged on the second side 4 of the treatment platform 2 is tiltably connected to the head support 5 at the side of the head support 5 which is located at the first side 3 of the treatment platform 2.

[0041] The tilting arm 9 is composed of a first rod 91, a second rod 92 and a third rod 93. The second rod 92 forms the central part of the tilting arm 9, and when the support arm 6 is arranged in a first position next to the head support 5 and substantially level with the head support 5 as can be seen in Figures 1A, 2A, and 4A, the second rod 92 is arranged in the width direction W centrally below the head support 5 and runs substantially parallel to the head support 5. At one side, the second rod 92 connects to the first rod 91. The first rod 91 runs upwards from the second rod 92 to the hinge 101 by means of which the tilting arm 9 is tiltably connected to the head support 5. At the opposite side, the second rod 92 connects to the third rod 93. The third rod 93 runs upwards from the second rod 92 to the support rod 111 via which the tilting arm 9 is connected to the arm support 6. This configuration allows for a compact design of the tilting arm 9 in the height direction H.

[0042] The tilting arm 9 are preferably arranged close to the remainder of the treatment platform 2. This leaves sufficient space available below the head support 5 where a practitioner seated in front of the treatment couch 1 can position his/her legs without being hindered by the tilting arm 9.

[0043] With the tilting arm 9 being tiltably connected to the head support 5 of the treatment platform 2, the arm support 6 is moveable downwards in the height direction H along a circular trajectory from the first position wherein the arm support 6 is arranged next to the head support 5, such as shown in Figures 1A, 2A and 4A, to at least one second position lower than the first position, such as shown in Figures 1B, 2B-C, 4B-C and 5.

[0044] Because of this rotating motion of the arm supports 6, the arm supports 6 do not only move downwards along the height direction H, but they also move inwards along the width direction W. With increasing distance d1, d2 between the first position of the arm support 6 and the second position of the arm support 6, the arm supports 6 move more inwards along the width direction W. This can for example be seen by comparing Figures 2B and 4B on the one hand, where the arm supports 6 are

located at a distance d1 from the head support 5, with the Figures 2C and 4C on the other hand, where the arm supports 6 are located at a distance d2 from the head support 5. In this way the arm supports 6 are able to follow the rotating motion of the arms 27 of the patient when the arms 27 are lowered next to the torso of the patient 25 in a prone position on the treatment couch 1, such as can be seen in Figure 5.

[0045] Because of the rotating motion of the arm support 6 and the arm support 6 being fixed to the tilting arm 9, the arm support 6 is also tilted outwards, i.e. tilted in the width direction W with its support surface 7 away from the head support 5 of the treatment platform 2. With increasing distance d1, d2 between the first position of the arm support 6 and the second position of the arm support 6, the arm supports 6 also tilts more outwards, which can again be seen by comparing Figures 2B and 4B on the one hand with the Figures 2C and 4C on the other hand. In this way the support surface 7 of the arm supports 6 are able to follow the change in angle of the arms with respect to the horizontal plane, for optimal support of the arms 27.

[0046] The treatment couch 1 also comprises linking means 12 which link the tilting arms 9 of the arm supports 6 to each other in such a way that movement of only one of the arm supports 6 from the first position to a second position at a given distance below the first position, causes the other arm support 6 to also move from its first position to a second position at said given distance below its first position.

[0047] The linking means 12, as can be seen in Figure 3, comprise a first plate 13 arranged on the second rod 92 of the tilting arm 9 of one of the arm supports 6. The linking means also comprise a second plate 14 arranged on the second rod 92 of the tilting arm 9 of the other arm support 6. The first plate 13 and the second plate 14 extend upwards in the height direction H and face towards each other. The first plate 13 is provided with a first protrusion 15 and a second protrusion 16, which protrude from the first plate 13 in a direction towards the second plate 14. The first protrusion 15 and the second protrusion 16 are formed by rollers 15 and 16 which are connected to the first plate 13 by means of screws 151, 161. The second plate 14 is provided with a first slot 17 and a second slot 18 for respectively receiving the first protrusion 15 and the second protrusion 16.

[0048] The first slot 17 is shaped such that the first protrusion 15 is only moveable along one direction within the first slot 17. Said direction is chosen to coincide with the path that is followed by the first protrusion 15 when the arm support 6 on the tilting arm 9 with the first protrusion 15, is moved from its first position to a lower second position. When the first protrusion 15 is moved by moving the arm support 6 on the tilting arm 9 with the first protrusion 15, the movement of the first protrusion 15 within the first slot 17 causes the tilting arm 9 with the first slot 17 to also move, and this in such a way that the arm support 6 on the tilting arm 9 with the first slot 17 is

moved from its first position to a corresponding second position. When the first slot 17 is moved by moving the arm support 6 on the tilting arm 9 with the first slot 17, the movement of the first slot 17 with respect to the first protrusion 15 causes the tilting arm 9 with the first protrusion 15 to also move, and this in such a way that the arm support 6 on the tilting arm 9 with the first protrusion 15 is moved from its first position to a corresponding second position. The second slot 18 is shaped with respect to the second protrusion 16 in a similar way.

[0049] The linking means 12 are also provided for locking the arm supports 6 in their first position and one or more of their second positions. As can be seen in Figure 3 the linking means 12 comprises for this purpose a locking protrusion 16 on the first plate 13. The locking protrusion 19 is arranged on a side of the first plate facing away from the second plate 14, but extends through the first plate 13 in the direction of the second plate 14. The locking protrusion 19 is biased in the direction towards the second plate 14, for example by means of a spring, but may be moved manually in the opposite direction by overcoming the bias force. On the second plate 14 the linking means comprise a first locking slot 201 for locking the arm supports 6 in their first position, a second locking slot for locking the arm supports 6 in a second position at a distance d1 from the head support 5, and a third locking slot 203 for locking the arm supports 6 in a second position at a second distance d2 from the head support 5. These locking slots 201, 202, 203 are provided on a locking plate 20 which is attached to the second plate 14 between the first slot 17 and the second slot 18 on the side of the second plate 14 facing towards the first plate 13. In this way, when the arm supports 6 are moved to one of the first position and the second positions for which a locking slot 201, 202, 203 is provided, the locking protrusion 19 is biased into the corresponding locking slot 201, 202, 203, thereby preventing further movement of the tilting arms 9 and thus of the arm supports 6, until the locking protrusion 19 is released manually out of the locking slot 201, 202, 203.

References

[0050]

1	treatment couch
2	treatment platform
3	first side
4	second side
5	head support
6	arm support
7	support surface
8	adjustment means
9	tilting arm
91	first rod
92	second rod
93	third rod
10	first end

101	hinge
11	second end
111	support rod
12	linking means
13	first plate
14	second plate
15	first protrusion
151	screw
16	second protrusion
161	screw
17	first slot
18	second slot
19	locking protrusion
20	locking plate
201-203	locking slot
23	support base
24	lifting arm
25	patient
26	head
27	arms
L	longitudinal direction
W	width direction
H	height direction
d1, d2	distance

Claims

1. A treatment couch (1) for use in physiotherapeutic treatment of a patient (25), wherein the treatment couch comprises a treatment platform (2) for supporting the patient (25), wherein the treatment platform (2) extends along a longitudinal direction (L) and along a width direction (W), wherein the treatment platform (2) comprises a head support (5) for supporting the head (26) of the patient (25), wherein the treatment platform (2) comprises two arm supports (6) having a support surface (7) for supporting the arms (27) of the patient (25), wherein the arm supports (6) are arranged in a first position on opposing sides (3, 4) of the head support (5) in the width direction (W), wherein each arm support (6) is provided with adjustment means (8) for moving the corresponding arm support (6) in a height direction (H) from the first position to at least one second position lower than the first position, **characterised in that** the adjustment means (8) are arranged for also moving the corresponding arm support (6) inwards in the width direction (W), and for also tilting the corresponding arm support (6) in the width direction (W) with its support surface (7) away from the treatment platform (2), when moving the corresponding arm support (6) from the first position to the at least one second position.
2. The treatment couch (1) according to claim 1, wherein the adjustment means (8) are arranged for moving the corresponding arm support (6) along a curved

trajectory, preferably along a circular trajectory, when moving the corresponding arm support (6) from the first position to the at least one second position.

3. The treatment couch (1) according to claim 1 or 2, wherein the adjustment means (8) are arranged for moving the corresponding arm support (6) increasingly inwards in the width direction (W) with increasing distance in the height direction (H) between the at least one second position and the first position when moving the corresponding arm support (6) from the first position to the at least one second position.
4. The treatment couch (1) according to any one of the claims 1-3, wherein the adjustment means (8) are arranged for increasingly tilting the corresponding arm support (6) away from the treatment platform (2) with increasing distance (d1, d2) in the height direction between the at least one second position and the first position when moving the corresponding arm support (6) from the first position to the at least one second position.
5. The treatment couch (1) according to any one of the claims 1-4, wherein the adjustment means (8) comprise a tilting arm (9), wherein a first end (10) of the tilting arm (9) is tiltably connected to the treatment platform (2), and wherein a second end (11) of the tilting arm (9) is connected to the corresponding arm support (6).
6. The treatment couch (1) according to claim 5, wherein the tilting arm (9) extends along the width direction (W).
7. The treatment couch (1) according to claim 5 or 6, wherein the tilting arm (9) is tiltably connected to the treatment platform (2) at a side (3, 4) of the treatment platform opposite of a side (3, 4) of the treatment platform (2) where the corresponding arm support (6) is arranged.
8. The treatment couch (1) according to any one of the claims 1-7, wherein the head support (5) is tiltably connected to the treatment platform (2), and wherein the adjustment means (8) are connected to the head support (5).
9. The treatment couch (1) according to any one of the claims 1-8, wherein the treatment couch (1) comprises linking means (12) for linking the adjustment means (8) of both arm supports (6), wherein the linking means (12) are arranged such that moving one of the arm supports (6) from the first position to the at least one second position causes a corresponding movement of the other arm support (6).

10. The treatment couch (1) according to claim 9, wherein the linking means (12) comprise a first protrusion (15) arranged on the adjustment means (8) of one of the arm supports (6) and a first slot (17) on the adjustment means (8) of the other arm support (6) for receiving the first protrusion (15), and wherein the first slot (17) is shaped such that when moving one of the arm supports (6) from the first position to the at least one second position the first slot (17) guides the first protrusion (15) for causing the corresponding movement of the other arm support (6). 5 10
11. The treatment couch (1) according to claim 10, wherein the linking means (12) comprise at least one second protrusion (16) arranged on the adjustment means (8) of one of the arm supports (6) and at least one second slot (18) on the adjustment means (8) of the other arm support (6) for receiving the corresponding at least one second protrusion (16), and wherein the at least one second slot (18) is shaped such that when moving one of the arm supports (6) from the first position to the at least one second position the corresponding at least one second slot (18) guides the at least one second protrusion (16) for causing the corresponding movement of the other arm support (6). 15 20 25
12. The treatment couch (1) according to any one of the claims 9-11, wherein the linking means (12) are arranged for locking the arm supports (6) in the first position and the at least one second position by means of a locking protrusion (19) on the adjustment means (8) of one of the arm supports (6) and for each of the first position and the at least one second position a corresponding locking slot (201, 202, 203) on the adjustment means (8) of the other arm support (6), wherein each locking slot (201, 202, 203) is arranged for receiving the locking protrusion (19) when the arm supports (6) are in the corresponding position and thereby preventing movement of the arm supports (6). 30 35 40
13. The treatment couch (1) according to claim 12, wherein the linking means (12) are arranged for biasing the locking protrusion (19) into the corresponding locking slot (201, 202, 203) when the arm supports (6) are in the corresponding position, and wherein the linking means (12) are arranged such that the locking protrusion (19) is manually releasable out of the locking slot (201, 202, 203) in which it is biased. 45 50

55

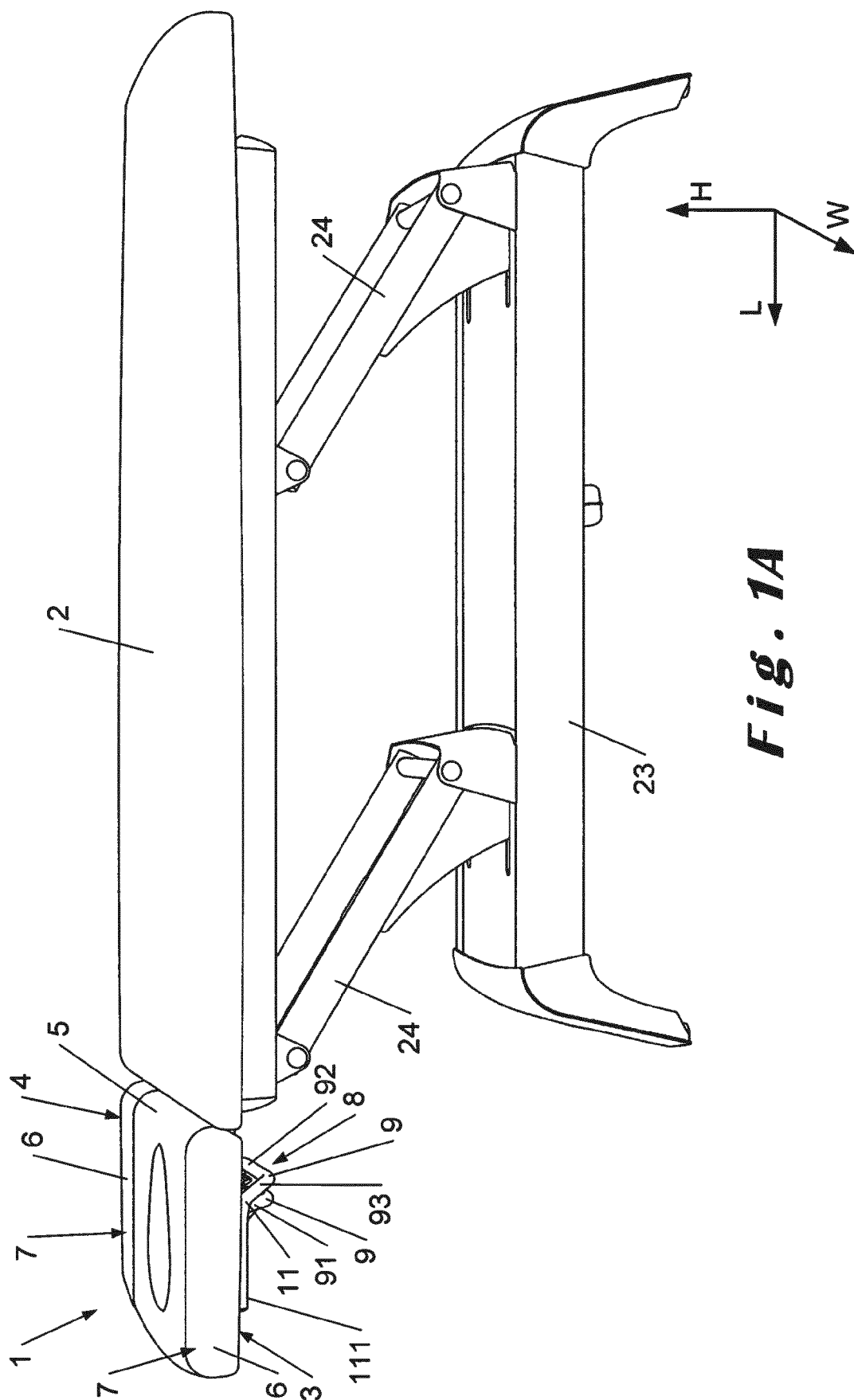
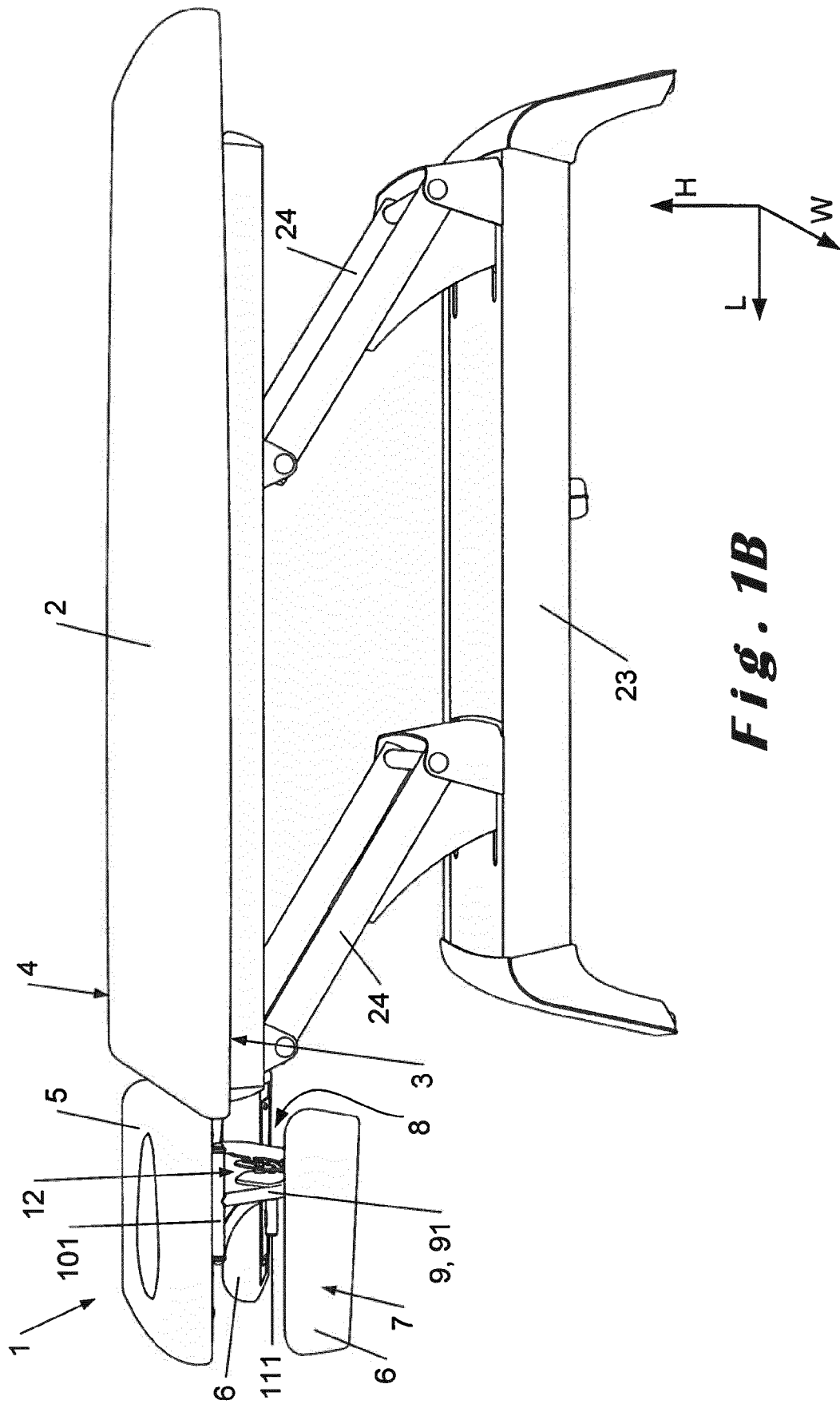


Fig. 1A



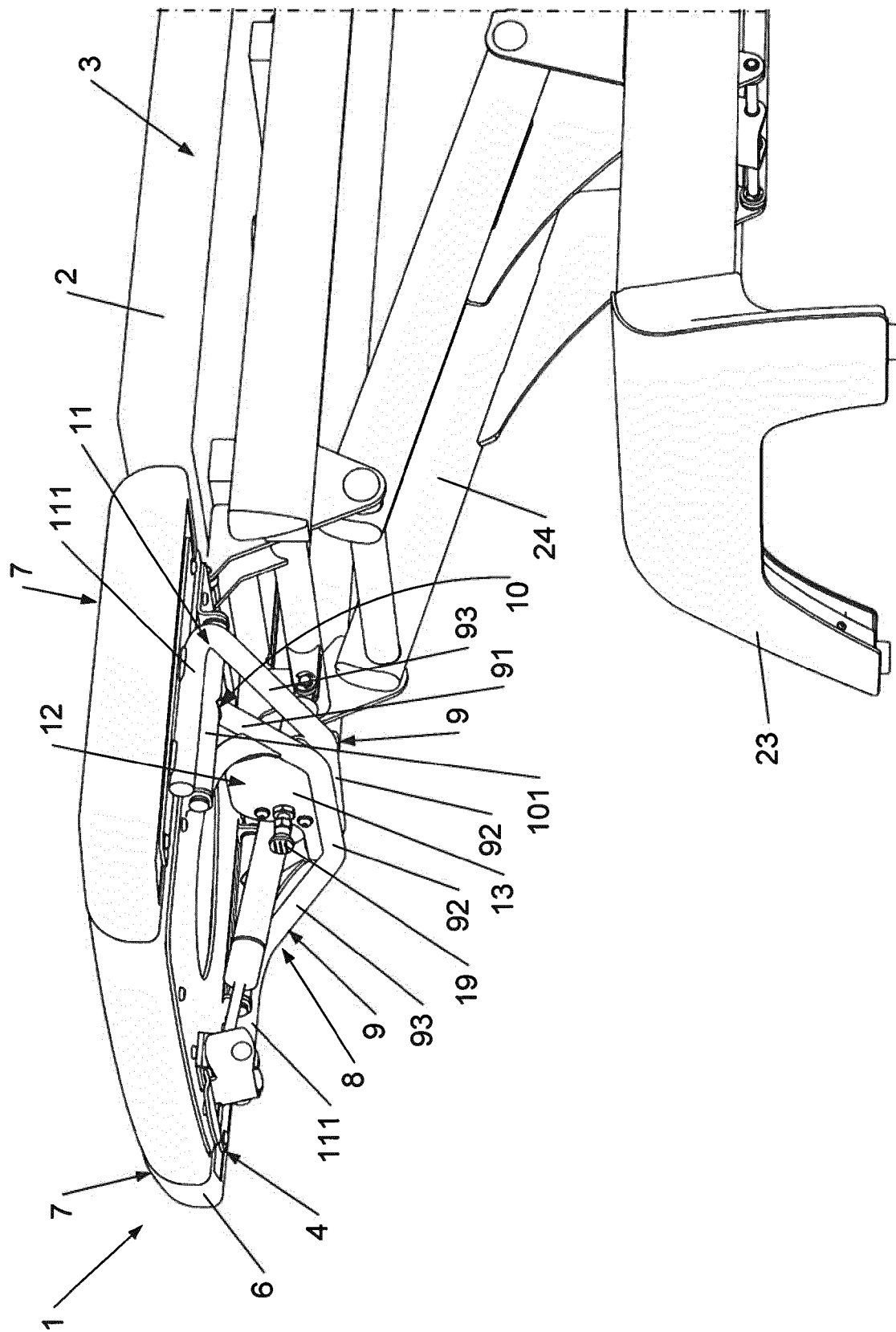


Fig. 2A

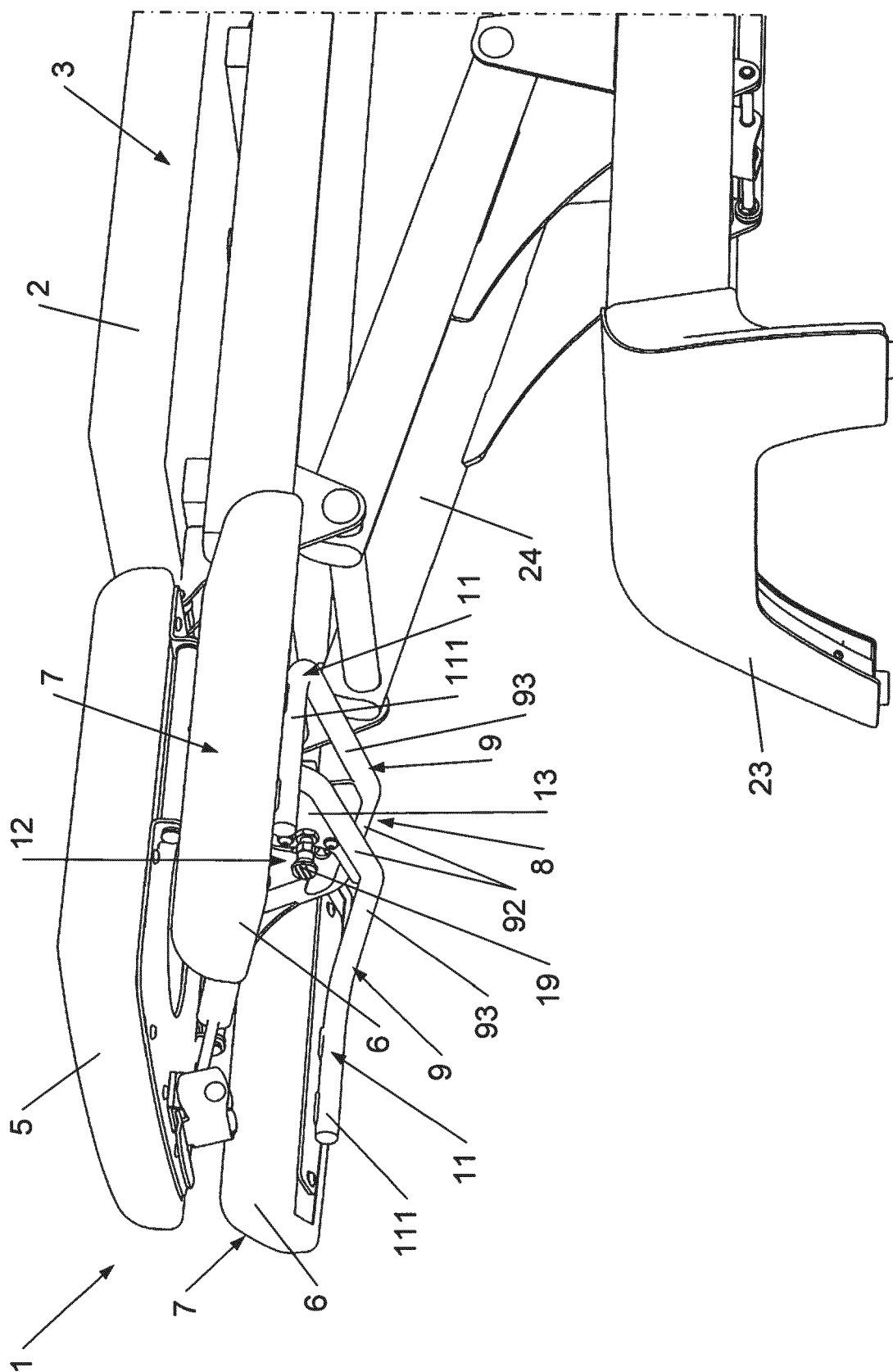


Fig. 2B

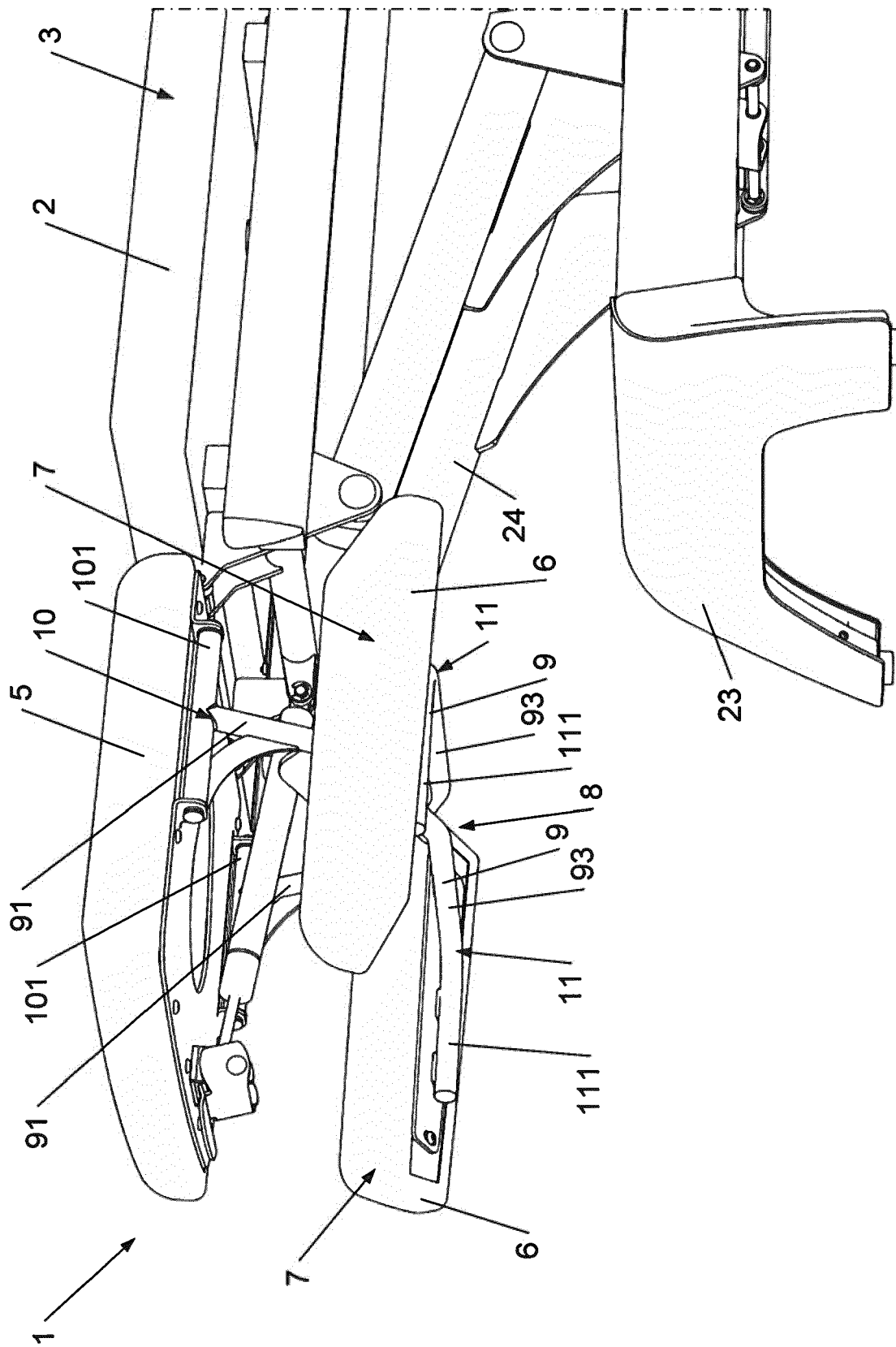


Fig. 2C

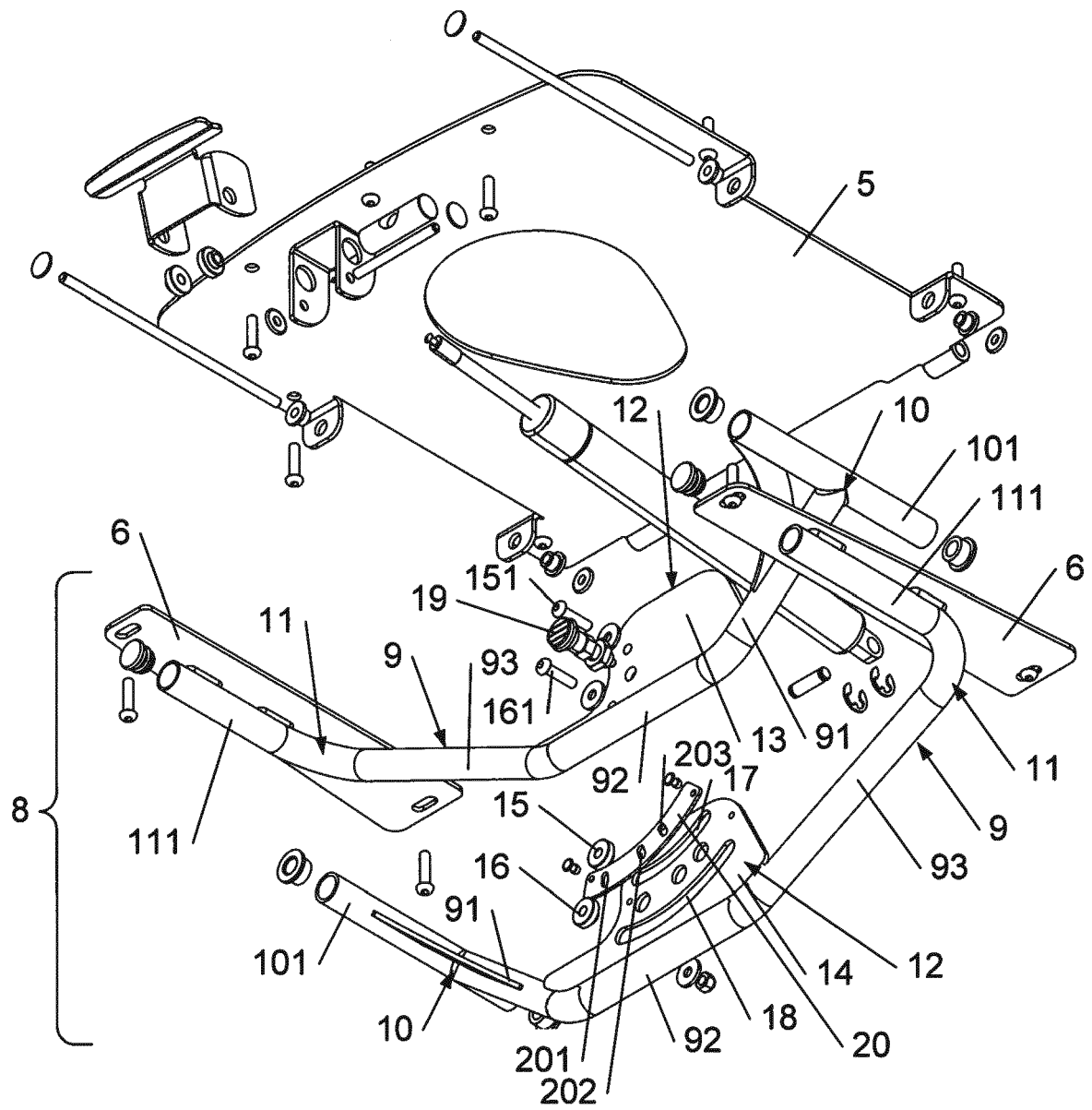
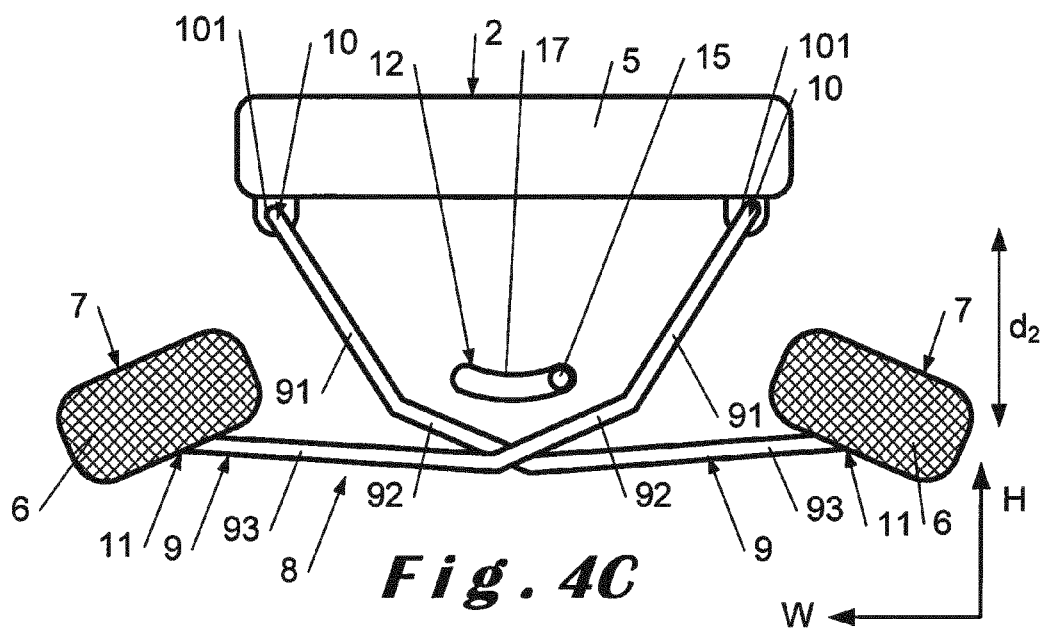
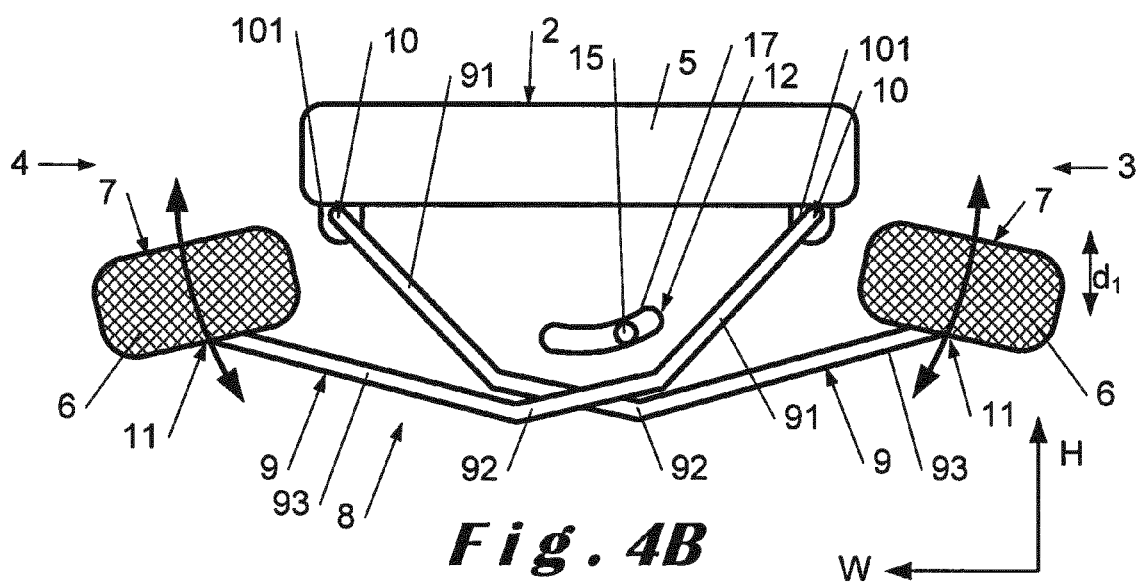
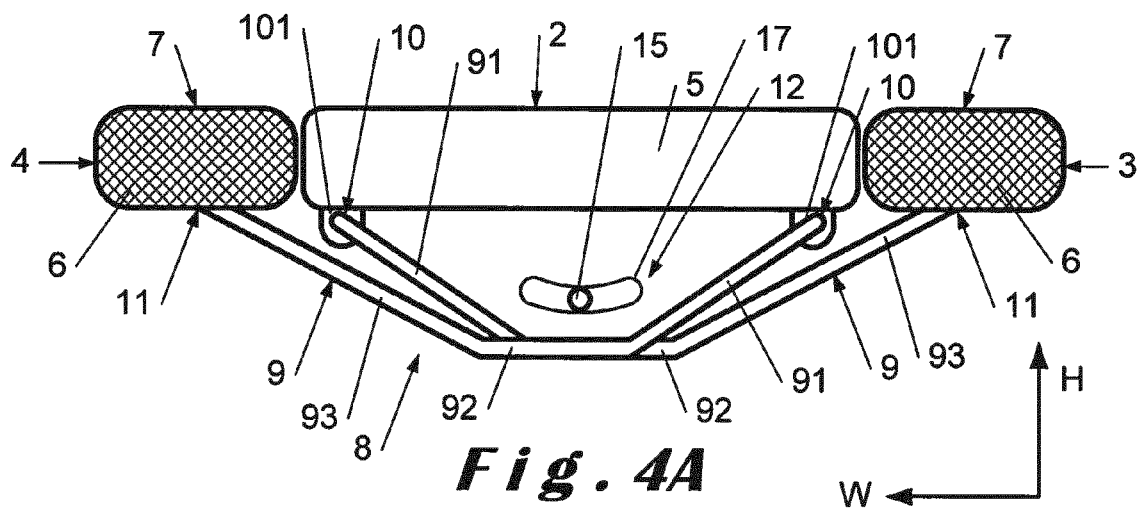
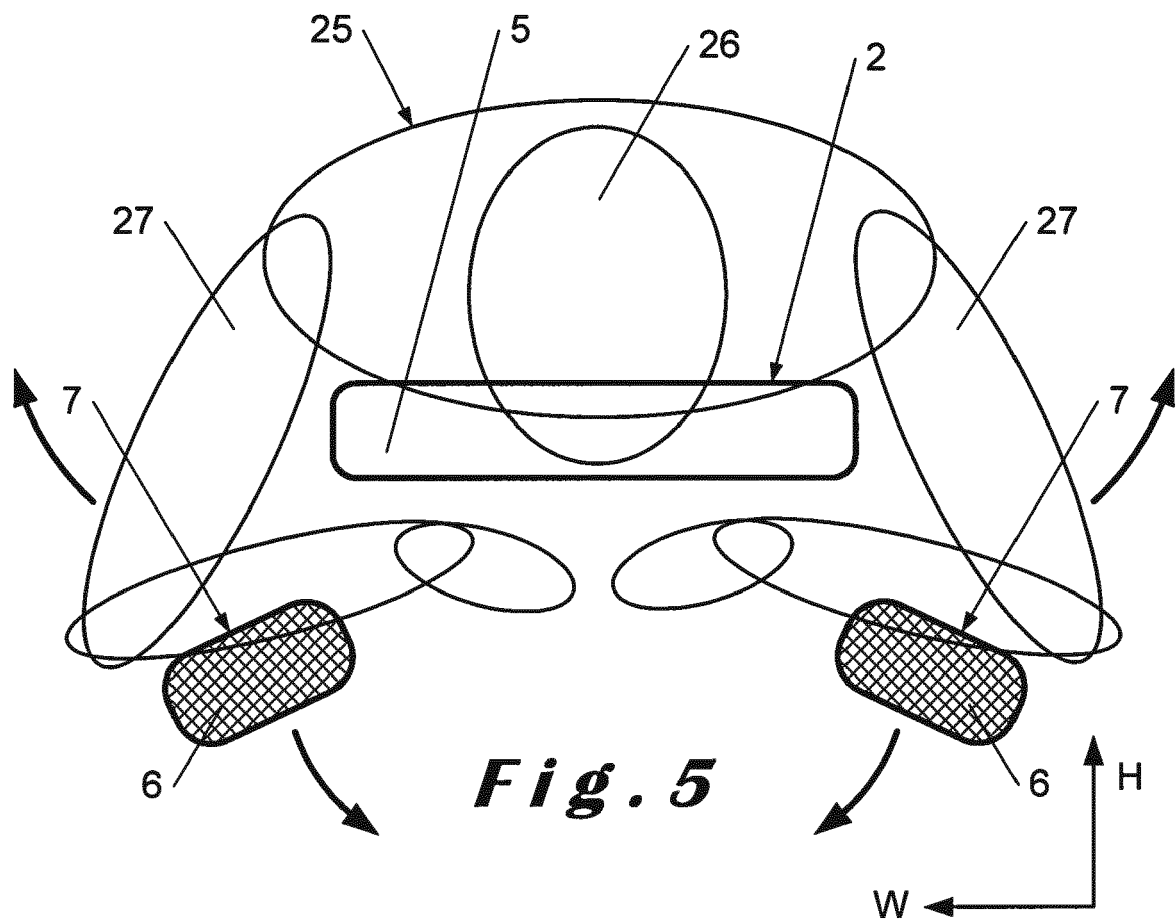


Fig. 3







EUROPEAN SEARCH REPORT

Application Number
EP 18 18 9002

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 298 18 536 U1 (HWK HAGSFELDER WERKSTAETTEN & [DE]) 24 December 1998 (1998-12-24) * page 8, line 3 - page 9, line 6; figures *	1-13	INV. A61G13/00
A,D	EP 2 578 198 A1 (GHARIENI GMBH [DE]) 10 April 2013 (2013-04-10) * abstract; figures *	1,5	ADD. A61G13/08 A61G13/12
A	US 8 819 879 B1 (DAY GREG [US] ET AL) 2 September 2014 (2014-09-02) * abstract; figures *	1	
A	US 2017/119610 A1 (CHRISTENSEN STEVEN S [US] ET AL) 4 May 2017 (2017-05-04) * abstract; figures *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			A61G
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 7 February 2019	Examiner Kousouretas, Ioannis
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 18 18 9002

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-02-2019

10

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 29818536 U1	24-12-1998	NONE	
EP 2578198 A1	10-04-2013	DE 102011115097 A1 EP 2578198 A1 US 2013086747 A1	11-04-2013 10-04-2013 11-04-2013
US 8819879 B1	02-09-2014	US 8819879 B1 US 2014331409 A1	02-09-2014 13-11-2014
US 2017119610 A1	04-05-2017	US 2017119610 A1 US 2018177659 A1	04-05-2017 28-06-2018

15

20

25

30

35

40

45

50

55

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- EP 2578198 A1 [0002]