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(54) **SEATING AND RECLINING FURNITURE**

(57) The seating and reclining furniture substantially consists of a base frame with which the seating and reclining furniture is supported on a floor surface, a seat which is articulated to the base frame, a backrest which is articulated to a rear end of the seat and to the base frame, and a footrest which is held on the seat and is adjustable via a footrest mechanism between an extend-

ed and a retracted position. The seating and reclining furniture is adjustable between a sitting position and a reclining position, the base frame having a swing frame in the manner of a four-link chain to which the seat is articulated, the swing frame being in the sitting position in a rear position and in the reclining position in a front position on the base frame.

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Description

[0001] The invention relates to seating and reclining furniture which is adjustable from a sitting position to a reclining position, in particular a bed position.

[0002] From EP 3 281 558 B1 upholstered furniture with a reclining function is known, which comprises a base frame on which a seat is articulated. Furthermore, a backrest is articulated to a rear end of the seat and to the base frame. In addition, a footrest can be adjusted between an extended and a retracted position. In the reclining or bed position, these three elements (backrest, seat and footrest) are aligned essentially flat and horizontally to the floor surface.

[0003] In order to be able to move the upholstered furniture back and forth in a simple manner between the sitting position and the reclining position, the upholstered furniture is designed in such a way that the seat is guided in a lower and an upper guide rail, the lower guide rail being S-shaped, so that the rear part of the seat moves through an approximately S-shaped trajectory when moving from the sitting position to the reclining position, which means that a support element arranged on the seat for supporting the seat is initially spaced from the floor surface and lowered to the ground level only after a predetermined distance has been exceeded. The seat pushed forward is supported in the reclining/bed position via the support element.

[0004] The invention is based on the object of specifying seating and reclining furniture which enables a structurally simpler adjustment between the sitting position and the reclining position.

[0005] According to the invention, this object is achieved by a seating and reclining furniture according to claim 1, consisting substantially of

- a. a base frame with which the seating and reclining furniture is supported on a floor surface,
- b. a seat that is articulated to the base frame,
- c. a backrest which is articulated to a rear end of the seat and to the base frame and
- d. a footrest which is held on the seat and is adjustable between an extended and a retracted position via a footrest mechanism, the seating and reclining furniture being adjustable between a sitting position and a reclining position,

the base frame having a swing frame in the manner of a four-link chain to which the seat is articulated, the swing frame being in the sitting position in a rear position and in the reclining position in a front position on the base frame.

[0006] The two guide rails according to EP 3 281 558 B1 are replaced according to the invention by the swing frame in the manner of a four-link chain, whereby the

displacement of the seat and the backrest coupled therewith is carried out by a tilting movement of the swing frame, so that the adjustment mechanism is considerably simplified both in production and in assembly.

[0007] According to a preferred embodiment of the invention, the swing frame has two rocker arms spaced apart, each of which is articulated at one end on the (stationary) base and is articulated at the other end to the seat or an intermediate rocker element. According to a preferred embodiment, the seat (on each side) is in turn articulated on the swing frame, in particular on the intermediate rocker element, with two articulated arms in the manner of a four-link chain. In the latter case, the seat can be moved forward with the help of the swing frame relative to the part of the base frame that is supported in a stationary manner on the floor surface. Depending on the dimensioning of the four-link chain, the seat can also be rotated so that a seat that is slightly raised in the sitting position at the front is oriented substantially parallel to the floor surface in the reclining position. If the swing frame has a rocker element, the seat is held on the base frame with a second four-link chain via the two articulated arms. The use of two four-link chains increases the displacement distance of the seat when it is moved from the sitting position to the reclining position. In principle, however, it is also conceivable that the displacement distance is only realized with a four-link chain.

[0008] In a further embodiment of the invention, the seat has a supporting leg which, in the reclining position, comes into contact with the floor surface for supporting the seat and is arranged at a distance from the floor surface in the sitting position. Ideally, the supporting leg only touches the floor surface shortly before reaching the reclining position in order to prevent the support leg from coming into contact with an obstacle, for example a carpet edge, or from causing the supporting leg to be rubbed against the floor surface.

[0009] The user is particularly comfortable if he can remain on the seating and reclining furniture when adjusting the seating and reclining furniture between the sitting and reclining positions. However, it must be ensured that the base frame cannot tip forward during the displacement. This can be solved, for example, by dimensioning the base frame sufficiently large in the longitudinal direction. In addition, the adjustment mechanism can be dimensioned so that the seat with the footrest is not pushed out too far forward. With such a solution, however, it is accepted that the backrest in the reclining position protrudes relatively far back over the base frame. A corresponding free space to the wall or other objects behind the seating and reclining furniture is then required.

[0010] In many cases, however, you want to keep the distance to the rear as small as possible, so that the seat and footrest are moved relatively far forward. As a result, it may be necessary for the base frame to have at least one (additional) support element which comes into contact with the floor surface at least in the reclining position, which is articulated on the swing frame and can be moved

with the swing frame between a retracted position and an extended position, the supporting element moving in the sitting position in the retracted position and in the reclining position in the extended position. For this purpose, in a special embodiment, the support element can have at least one wheel or a roller that is in contact with the floor surface and which is fastened to a holder that is displaceably guided on the base frame, the holder being articulated on the swing frame via at least one actuating rod, so that a movement of the swing frame causes a simultaneous displacement of the holder together with the support element.

[0011] Although manual adjustment of the seating and reclining furniture from the sitting to the reclining/bed position is in principle conceivable, the comfort of such seating and reclining furniture for the user is significantly increased if the seating and reclining furniture is electrically adjustable. According to a first exemplary embodiment, a first drive for extending and retracting the footrest is therefore provided. Furthermore, the seat and the backrest can be adjusted between the sitting position and an intermediate position via a seat-backrest adjustment mechanism, the angle between the seat and the backrest being greater in the intermediate position than in the sitting position. The actuation of the seat-backrest adjustment mechanism can be implemented according to the first embodiment with a second drive.

[0012] According to a second exemplary embodiment according to the invention, provision can also be made for this adjustment to be carried out with the aid of the first drive, in that the seat and backrest are adjusted after the footrest has been extended. However, it is also conceivable that both the extension of the footrest and the adjustment of the seat and backrest take place simultaneously or partially simultaneously with the first drive.

[0013] In both the first and the second exemplary embodiment, however, a swing frame drive can be provided for pivoting the swing frame between the rear and front positions. The swing frame drive thus moves the seating and reclining furniture from the intermediate position to the reclining position.

[0014] In the sitting position of the seating and reclining furniture, the footrest is retracted while the backrest is raised and the seat is in a retracted position relative to the base frame, in which it is preferably inclined slightly backward. A horizontal alignment would also be conceivable.

[0015] In the intermediate position of the seating and reclining furniture, the footrest is extended and at the same time the angle between the seat and backrest has increased via the seat-backrest adjustment mechanism, the angle increasing preferably by a maximum of 20°, most preferably by a maximum of 15°. The increase in the angle between the seat and the backrest is achieved, on the one hand, by the backrest being tilted backward by the seat-backrest adjustment mechanism and, on the other hand, by the backrest being moved forward with the seat. The seat can even be raised slightly in the front

to achieve a particularly comfortable intermediate position for the user, which is particularly suitable for relaxing or watching TV.

[0016] Starting from this intermediate position, the seating and reclining furniture moves into the reclining position by actuating the swing frame drive, in which the footrest is still extended, the backrest is lowered to the rear and the seat is in a forward-pushed position relative to the base frame. Ideally, the backrest, the seat and the footrest are aligned approximately parallel to the floor surface and, with their upholstery, preferably form a flat reclining surface in the manner of a bed.

[0017] The backrest is preferably articulated via a backrest frame on an axis of rotation running transversely at the rear end of the seat. The seat-backrest adjustment mechanism also has at least one actuating rod, which is articulated with a first end on the backrest frame and with another end on the base frame, so that the angle between the seat and backrest changes when the seat is displaced relative to the base frame. The backrest is therefore only articulated on the seat and articulated directly on the base frame via at least one actuating rod.

[0018] Further configurations of the invention are explained in more detail with reference to the following description of two exemplary embodiments.

[0019] In the drawings:

- | | |
|------------|---|
| Fig. 1 - 5 | are side views of the seating and reclining furniture according to a first embodiment, |
| Fig. 6 - 9 | are three-dimensional representations of the seating and reclining furniture according to the first exemplary embodiment, |
| Fig. 10-13 | are side views of the seating and reclining furniture according to a second embodiment and |
| Fig. 14-16 | are three-dimensional representations of the seating and reclining furniture according to the second embodiment. |

[0020] Fig. 1 to 9 show a first exemplary embodiment of a piece of seating and reclining furniture, which substantially consists of a base frame 1 with which the seating and reclining furniture is supported on a floor surface 2, a seat 3, a backrest 4 and a footrest 5. The seating and reclining furniture can be adjusted between a sitting position shown in Fig. 1 and 6 and a reclining position shown in Fig. 5 and 9, intermediate positions (Fig. 2 to 4 and 6 to 8) also being able to be used.

[0021] Only the seat mechanism is shown in the figures. Of course, the seat 3, backrest 4 and footrest 5 are provided with appropriate padding, which have been omitted for reasons of clarity. The mechanics are also covered on the side and rear in the usual way.

[0022] The base frame 1 has a basic framework with two longitudinal frame parts 100, 101, which are connect-

ed to one another by cross members 102, 103. Furthermore, a swing frame 104 is provided on the basic framework, which is designed in the manner of a four-link chain and has two spaced-apart rocker arms 105, 106, which are each articulated at one end to articulation points 107, 108 on the base frame 1 or on its longitudinal frame parts 100, 101. With the respective other end, the two rocker arms 105, 106 are fastened at second articulation points 109, 110 to an intermediate rocker element 110. By pivoting the rocker arms 105, 106, the intermediate rocker element 110 is moved forward or backward in the direction of the longitudinal frame parts 100, 101. The swing frame 104 is also designed in a corresponding manner on the other side of the seating and reclining furniture, so that on each side two rocker arms 105, 106 are articulated to the associated longitudinal frame parts 100 and 101 and articulated at the other end, each connected with an intermediate rocker element 110.

[0023] The base frame 1 is supported at its rear end by supporting feet 111 on the floor surface 2. A support element 112 is provided at the front end of the two longitudinal frame parts 100, 101, so that the seating and reclining furniture is supported on the floor surface 2 in the front area via the support elements 112 and in the rear via the supporting feet 111. If the support elements 112 are designed as a wheel or a roller, as in the exemplary embodiment shown, the seating and reclining furniture can be comfortably moved and positioned by lifting the rear area. The supporting feet 111 ensure that the seating and reclining furniture does not slip unintentionally during use. Although only one support element 112 is shown in Fig. 6 to 9 for reasons of clarity, two support elements are of course provided, so that the seating and reclining furniture is supported on the floor surface 2 at four points. The two support elements 112 are fastened to a holder 113 designed as a rod, the holder 113 being displaceably guided in guides 114 on the longitudinal frame parts 100 and 101. Furthermore, the support element 112 is articulated to an actuating rod 115, which is articulated at its other end to the (front) rocker arm 105 at an articulation point 116. A pivoting of the rocker arm 105 thus causes a displacement of the holder 113 and thus a displacement of the support element 112 via the actuating rod 115.

[0024] In the sitting position, the swing frame 104 is in a rear position on the base frame 1, in which the support element 112 is also used on the longitudinal frame parts 100, 101 (Fig. 1, 6). In the reclining position according to Fig. 5 or 9, the swing frame 104 is in a front position in which the holder 113 together with the support element 112 is extended to the front. In this way, the distance between the rear supporting feet 101 and the front support elements 112 increases, so that it can be reliably avoided that the seating and reclining furniture tilts forward unintentionally when the reclining position is adjusted, in particular if the adjustment is carried out with a person positioned on the seating and reclining furniture.

[0025] The footrest 5 is held on the seat 3 and can be

adjusted between an extended (Fig. 2) and a retracted position (Fig. 1) via a footrest mechanism 500. In the exemplary embodiment shown, the footrest mechanism 500 is designed as a linkage mechanism in the manner of a scissor linkage, which is held at two articulation points 501, 502 on the seat 3 or its seat frame. The footrest mechanism 500 is also connected to a first drive 503, which is designed, for example, as a linear drive and is supported at one end on a crossbar 300 of a seat frame of the seat 3, while its other end is connected in an articulated manner to a crossbeam 310. The crossbeam 310 is articulated at its two ends via lever arms 314 about an articulated axis 312 on the seat frame. The lever arms 314 have articulation points 313 at the end opposite the articulation axis 312 for coupling to the footrest mechanism 500. The crossbeam is fastened to the lever arm in a central region of the lever arm between the joint axis 312 and the articulation point 313. Actuation of the first drive 122 causes the crossbeam 310 to pivot about the articulation axis 312, which has the consequence that the footrest 5 is moved from the retracted position according to Fig. 1 to the extended position according to Fig. 2 via the footrest mechanism 500. When the drive is actuated in the opposite direction, the footrest 5 is retracted. A detailed description of the footrest mechanism can be found in EP 3 459 395 B1, to which reference is hereby made.

[0026] The seat 3 has a seat frame, of which only the crossbar 300 and the two longitudinal bars 301, 302 are shown here. The seat 3 is articulated on the swing frame 104 on each side with two articulated arms 303, 304 in the manner of a (second) four-link chain. The two articulated arms 304 are articulated via first articulation points 305, 306 on the longitudinal crossbeam 301 and at second articulation points 307, 308 on the intermediate swing element 110 of the swing frame 104 (Fig. 6). On the opposite swing frame 110, the seat 3 is connected in a corresponding manner to the swing frame via two articulated arms. The four-link chain of the seat connection is thus formed by the link points 305, 306, 307 and 308.

[0027] The two articulated arms 303 and 304 are part of a seat-backrest adjustment mechanism in order to adjust the seat 3 and the backrest 4 between the seat position shown in Fig. 1 and 6, respectively, into an intermediate position shown in Fig. 3 and 8. The seat-backrest adjustment mechanism also has an articulated axis 400 with which the backrest 4 is coupled to the seat 3. The seat-backrest adjustment mechanism also provides two actuating rods 401, 402, which are articulated at one end to an articulation point 403 or 404 and at the other end to articulation points 117 or 118 on the base frame 1 (Fig. 8). A second drive 309, which is preferably also designed as a linear drive, is articulated at one end to a crossbar 119 of the swing frame 104 and is also connected at its other end to the crossbeam 310.

[0028] An actuation of the second drive 309 in the sense of an increase in the distance between the crossbar 119 and the crossbeam 310 causes a displacement

of the seat 3 in that the articulated arms 303 and 304 pivot about their second articulation points 307 and 308 and thereby move the seat forward. Since the backrest 4 is articulated at its lower end via the articulation axis 400 to the rear end of the seat 3, the lower end of the backrest 4 is pushed forward together with the seat 3. The actuating rods 401, 402 cause an increasing inclination of the backrest 4 to the rear, so that the angle α between the seat 3 and the backrest 4 increases from the position shown in Fig. 1 to the position shown in Fig. 3.

[0029] Fig. 1 shows the sitting position of the seating and reclining furniture, in which the seat 3 is slightly inclined to the rear and the backrest has a slight inclination to the rear, the seat and the backrest, for example, form an angle of approximately $100^\circ \pm 8^\circ$. In the illustration according to Fig. 2, only the first drive was actuated in order to bring the footrest 5 into the extended position. Seat 3 and backrest 4 initially remain unchanged. Subsequent actuation of the second drive 309 then causes the seat 3 to pivot forward with the aid of the two articulated arms 303, 304 into the position shown in Fig. 3. The seat entrains the backrest 4 articulated on the articulation axis 400, the actuating rods 401, 402, causing the backrest 4 to be inclined to the rear.

[0030] The articulated arms 303 and 304 are dimensioned in their length and orientation in the positions according to Fig. 1 and 3 in such a way that the front end of the seat 3 slightly lifts when moving from the position according to Fig. 1 into the position according to Fig. 3, so that the seat is tilted $3^\circ \pm 2^\circ$ more backward. In addition, the angle α between the seat and backrest 4 increases compared to the sitting position according to Fig. 1 by, for example, $12^\circ \pm 3^\circ$. Because the inclination of the backrest 4 to the rear is accompanied by a movement of the lower end of the backrest 4 to the front, the free space required for the backrest inclination is shortened behind the seating and reclining furniture. Ideally, the required free space measured from the articulation axis 400 is less than 50 cm.

[0031] The first intermediate position according to Fig. 2 is, for example, a position that is very convenient for reading or watching television. The second intermediate position according to Fig. 3 is particularly suitable for relaxing.

[0032] In order to now move the seating and reclining furniture into the reclining position according to Fig. 5, in which the seating and reclining furniture assumes a flat-bed position, an adjustment of the swing frame 104 is necessary. For this purpose, a swing frame drive 120, in particular a linear drive, is provided, which is coupled at one end to a (front) crossbar 102 of the base frame 1 and is coupled at its other end to a crossbeam 121, which in turn is connected to the rear articulated arms 304 of the swing frame 104. An actuation of the swing frame drive 120 is transmitted via the crossbeam 121 to the articulated arms, which pivot about the associated articulation point 108 on the base frame 1 and thereby swivel the swing frame 104 with its interposed rocker element 110

from the rear position in Fig. 1 and 6 into the front position shown in Fig. 5 and 9. The actuation of the swing frame drive 120 into the position shown in Fig. 5 and 9 then also causes the support element 112 to be extended at the same time, which serves to support weight that is shifted forward by the displacement of the seat 3 and footrest 5 so that this adjustment process prevents the seating and reclining furniture from tipping forward even when there is a person on the seating and reclining furniture.

[0033] In order to increase the stability of the seating and reclining furniture, in particular in the region of the front end of the seat 3, the seat has at least one supporting leg 311 on both sides, which in the reclining position according to Fig. 5 and 9 comes into contact with the floor surface 2 to support the seat 3, which supporting leg is arranged at a distance from the floor surface 2 in the sitting position according to Fig. 1 and also in the intermediate positions. The supporting leg 311 is thus placed on the floor surface 2 from above and can thus be moved over an existing carpet edge without any problems. In the reclining position according to Fig. 5 and Fig. 9, the footrest 5, seat 3 and backrest 4 with their associated (not shown) upholstery preferably form a reclining surface that is as flat as possible and horizontal to the floor surface 2.

[0034] The displacement of the seat 3 and thus the accompanying lowering of the backrest 4 is first achieved via the (first) four-link chain (articulated arms 303, 304) with which the seat 3 is articulated on the swing frame. The further displacement then takes place through the second four-link chain, which is formed by the swing frame 104.

[0035] Fig. 10 to 16 show a second exemplary embodiment of a piece of seating and reclining furniture according to the invention, which substantially differs from the first exemplary embodiment only in that the second drive 309 has been dispensed with, so that in addition to the swing frame drive 120, only one other drive (first drive 122) is provided, with which both the footrest 5 is extended and retracted and the seat and backrest are adjusted. Otherwise, the design of the swing frame 104, the design and connection of the support element 112, the supporting leg 311 and also the footrest mechanism 500 are designed in accordance with the first exemplary embodiment. The connection of the swing frame drive 120 to the rocker lever 106 is also identical.

[0036] The first drive 122 of the second embodiment is articulated at one end to the crossbar 300 of the seat frame of the seat 3 and at its other end to the crossbeam 310, the first drive 122 again being designed as a linear drive, so that when it is actuated, the distance between the crossbar 300 and the crossbeam 310 can be changed. The crossbeam 310 is again articulated via the lever arms 314 about the articulation axis 312 on the seat frame and connected to the footrest mechanism 500 via articulation points 313. Actuation of the first drive 122 thus causes the crossbeam 310 to rotate about the ar-

tication axis 312, which has the consequence that the footrest 5 is moved from the retracted position according to Fig. 14 to the extended position according to Fig. 15 via the footrest mechanism 500.

[0037] In this exemplary embodiment, the lever arms 314 are extended beyond the articulation axis 312 and provide a further articulation point 315 to which an articulated rod 316 is coupled at one end. The other end of the articulated rod 316 is connected to the (rear) articulated arm 304 of the second four-link chain (Fig. 14 and 16).

[0038] A rotation of the lever arm 314 via the cross-beam 310 thus causes on the one hand an actuation of the footrest 5, and on the other hand there is the displacement of the seat 3 to the front with simultaneous inclination of the backrest 4 to the rear, as described in the first exemplary embodiment. The seating and reclining furniture then reaches the intermediate position shown in Fig. 11 and 15, which corresponds, for example, to the position according to Fig. 3 of the first exemplary embodiment.

[0039] Although the first drive 122 is articulated to the crossbar 300 of the seat frame in the exemplary embodiment shown, this could also be connected to the swing frame. This would have the consequence, however, that although the articulated rod 316 could be dispensed with, a much greater stroke of the first drive 122 would be required.

[0040] In order to move the seating and reclining furniture from the position according to Fig. 11 and 15 into the reclining position according to Fig. 13 and 16, the swing frame drive 120 is again actuated in the manner already described above.

[0041] The first exemplary embodiment has the advantage that the seat and backrest adjustment mechanism can also be actuated independently of the footrest 5. It is thus conceivable that the intermediate positions according to Fig. 2 and 3 can also be reached without the footrest being extended. However, since the second embodiment manages with only two motors, it can be manufactured more cost-effectively.

Claims

1. Seating and reclining furniture with

- a. a base frame (1) with which the seating and reclining furniture is supported on a floor surface (2),
- b. a seat (3) which is articulated to the base frame (1),
- c. a backrest (4) which is articulated to a rear end of the seat (3) and to the base frame (1) and
- d. a footrest (5) which is held on the seat (3) and can be adjusted between an extended and a retracted position via a footrest mechanism (500),

wherein the seating and reclining furniture is adjustable between a sitting position and a reclining position,

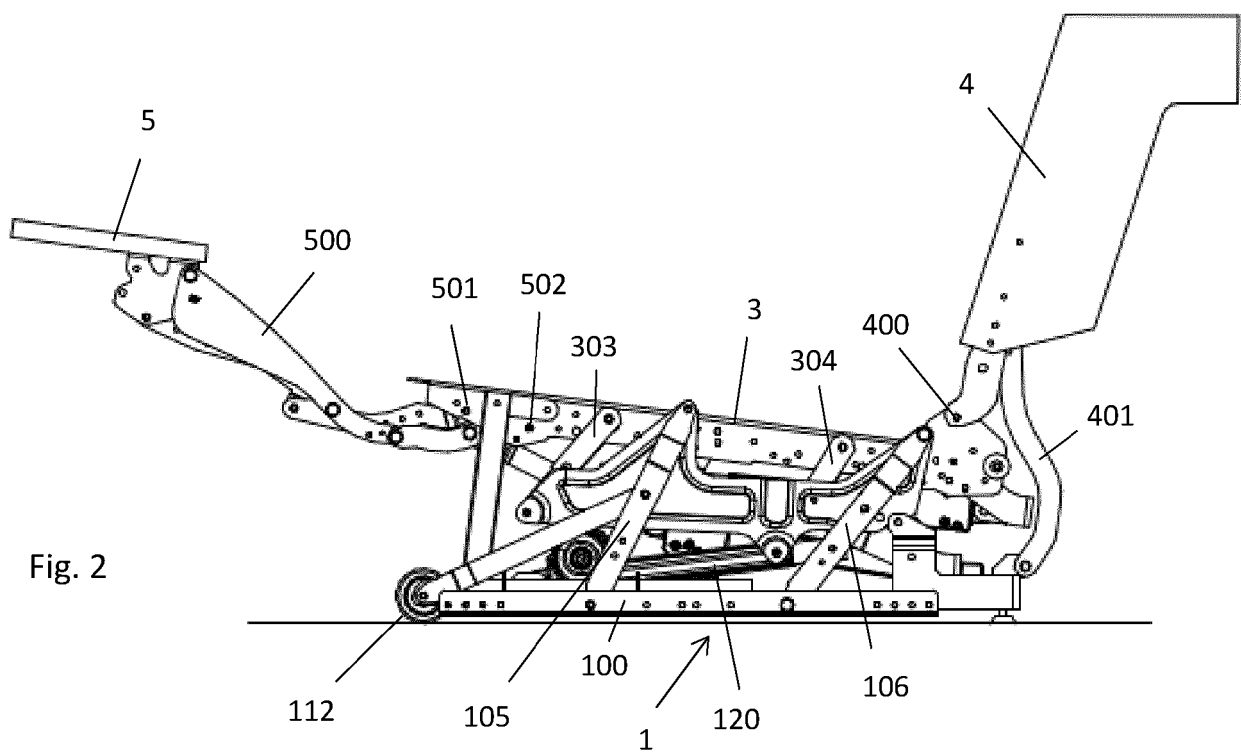
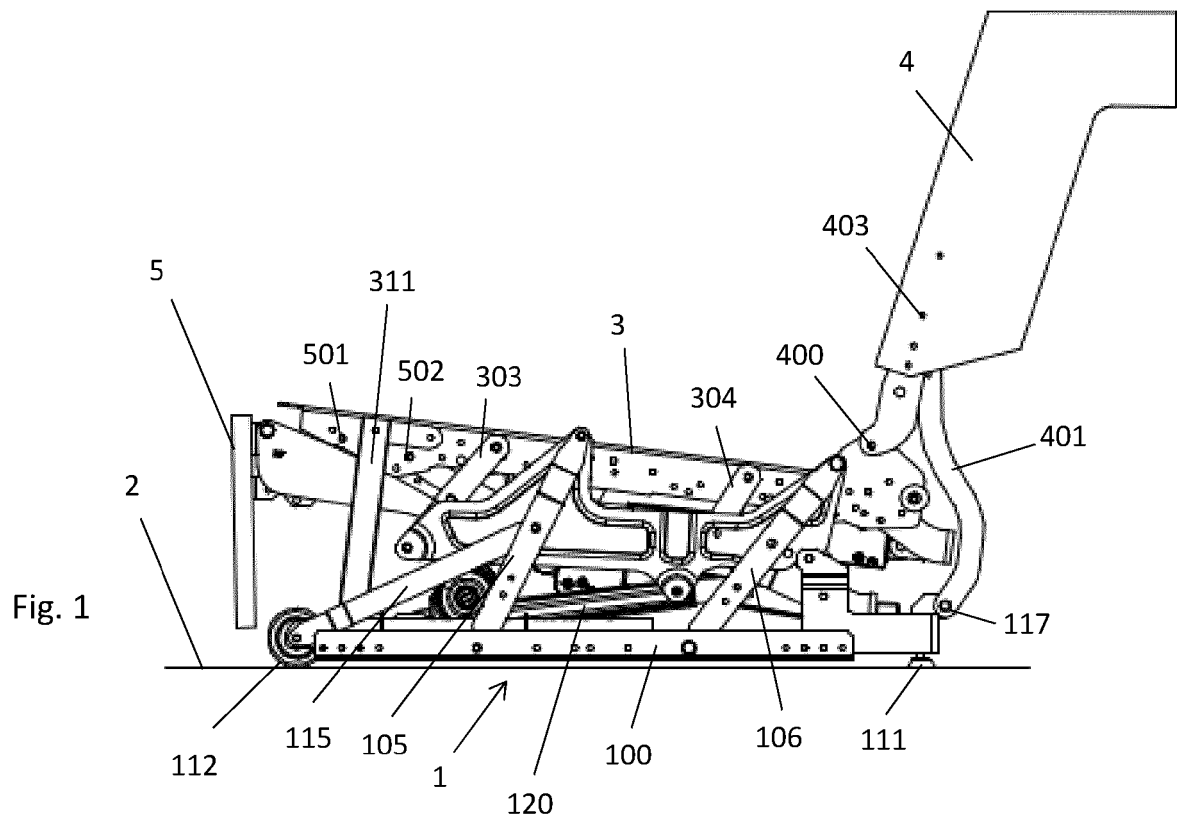
characterized in that the base frame (1) has a swing frame (104) in the manner of a four-link chain, to which the seat (3) is articulated, the swing frame (104) being in a rear position in the sitting position and in a reclining position in the front position on the base frame (1).

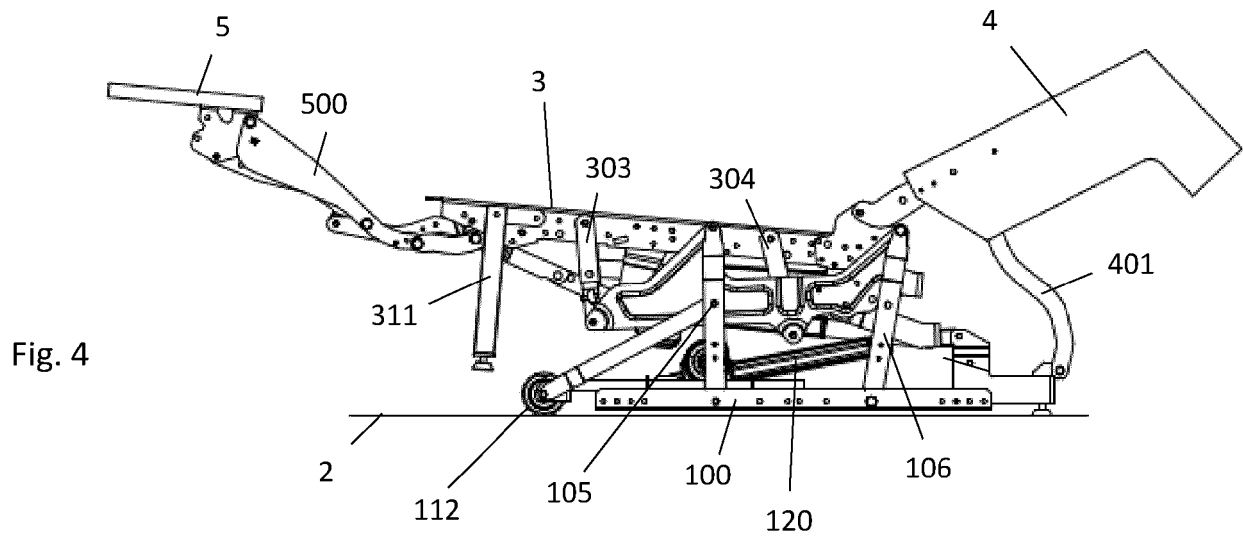
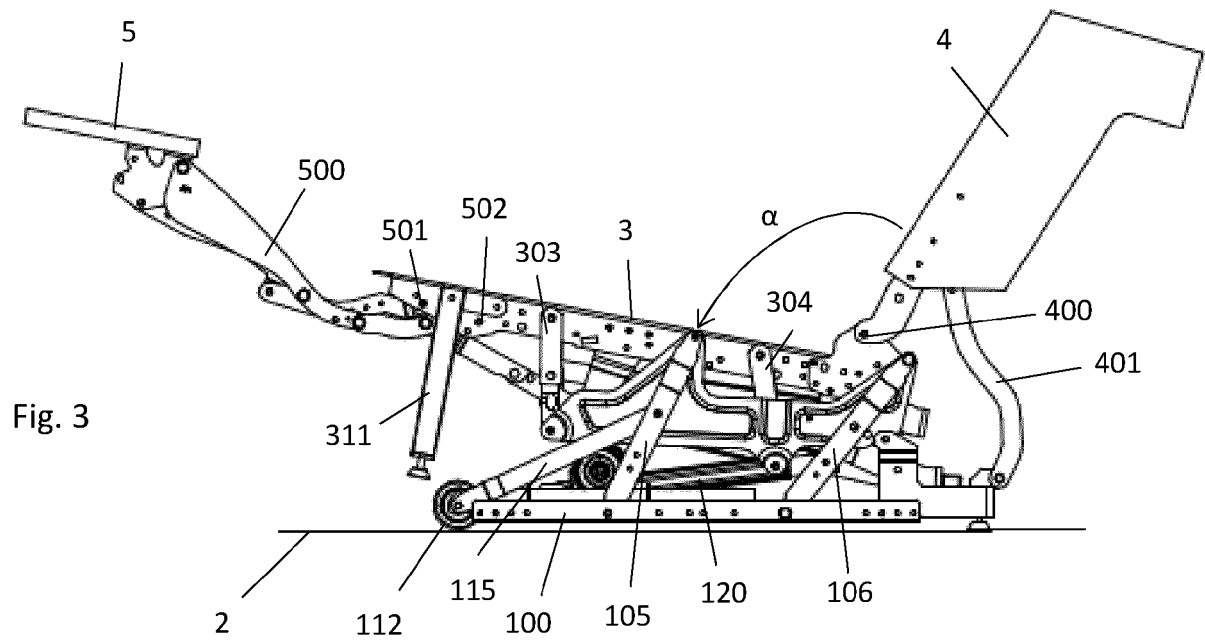
2. Seating and reclining furniture according to claim 1, **characterized in that** the seat (3) has a supporting leg (311) which comes into contact with the floor surface (2) for supporting the seat (3) in the reclining position and is arranged at a distance to the floor surface (2) in the sitting position.
3. Seating and reclining furniture according to claim 1, **characterized in that** the seat (3) is articulated on each side with two articulated arms (303, 304) in the manner of a four-link chain on the swing frame (104).
4. Seating and reclining furniture according to claim 1, **characterized in that** a first drive (503, 122) for extending and retracting the footrest (5) is provided.
5. Seating and reclining furniture according to claim 1, **characterized in that** a seat-backrest adjustment mechanism is provided to adjust the seat (3) and the backrest (4) between the sitting position and an intermediate position, the angle between seat (3) and backrest (4) being larger in the intermediate position than in the sitting position.
6. Seating and reclining furniture according to claim 4 and 5, **characterized in that** the seat-backrest adjustment mechanism is coupled to the first drive (503, 122) for adjusting the seat (3) and backrest (4) between the sitting position and the intermediate position.
7. Seating and reclining furniture according to claim 4 and 5, **characterized in that** the seat-backrest adjustment mechanism is coupled with a second drive (309) for adjusting the seat (3) and backrest (4) between the sitting position and the intermediate position.
8. Seating and reclining furniture according to claim 1, **characterized in that** a swing frame drive (120) is provided for pivoting the swing frame (104) between the rear and front positions.
9. Seating and reclining furniture according to claim 1, **characterized in that** the seat-backrest adjustment mechanism adjusts the angle (α) between the seat (3) and backrest (4) by a maximum of 20°.

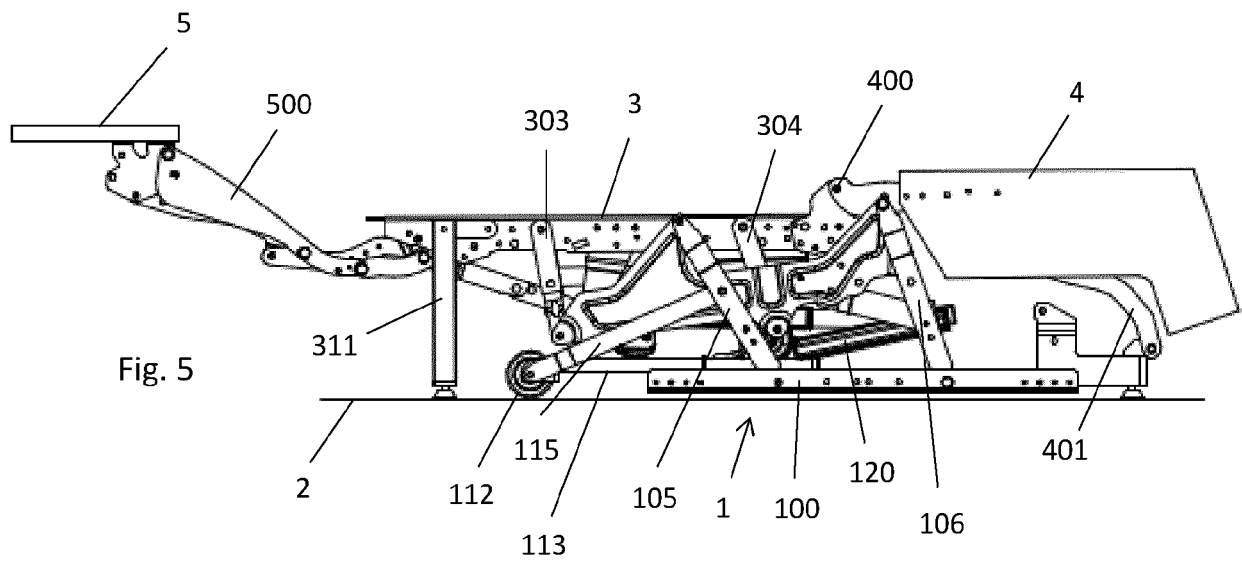
10. Seating and reclining furniture according to claim 1, **characterized in that** the backrest (4) is articulated on the seat (3) and at least one actuating rod (402) is provided, which is articulated with a first end to the backrest (4) and with another end to the base frame (1), so that the angle (α) between seat (3) and backrest (4) changes when the seat (3) is moved relative to the base frame (1). 5
11. Seating and reclining furniture according to claim 1, **characterized in that** 10
- a. in the sitting position of the seating and reclining furniture, the footrest (5) is retracted and the backrest (4) is raised, while the seat (3) is in a retracted position relative to the base frame (1) and 15
 - b. in the reclining position of the seating and reclining furniture, the footrest (5) is extended and the backrest (4) is lowered to the rear, while the seat (3) is in a pushed-forward position with respect to the base frame (1). 20
12. Seating and reclining furniture according to claim 1, **characterized in that** the base frame (1) has at least one support element (112) which comes into contact with the floor surface (2) at least in the reclining position and which is articulated on the swing frame (104) and movably connected to the swing frame (104) between a retracted position and an extended position, the support element (112) being positioned in the sitting position in the retracted position and in the reclining position in the extended position. 25 30
13. Seating and reclining furniture according to claim 12, **characterized in that** the support element (112) has at least one wheel or a roller which is in contact with the floor surface (2) and which is fastened to a holder (113) which is displaceably guided on the base frame (1), the holder being articulated on the swing frame (104) via at least one actuating rod (115). 35 40
14. Seating and reclining furniture according to claim 1, **characterized in that** the swing frame (104) has two spaced swing arms (105, 106) which are articulated at one end on the base frame (1) and articulated at the other end and connected with the seat (3) or an intermediate rocker element (110). 45

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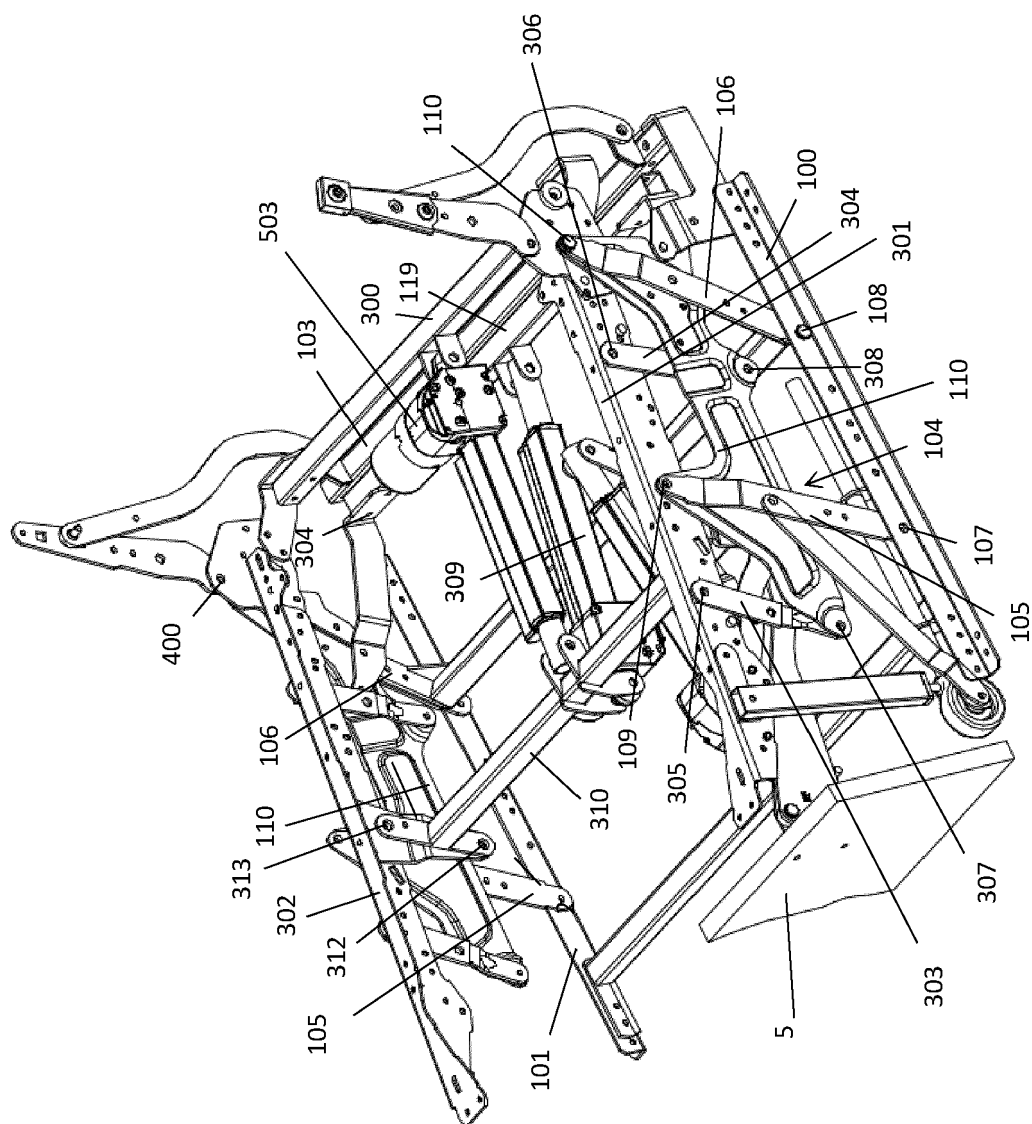


Fig. 6

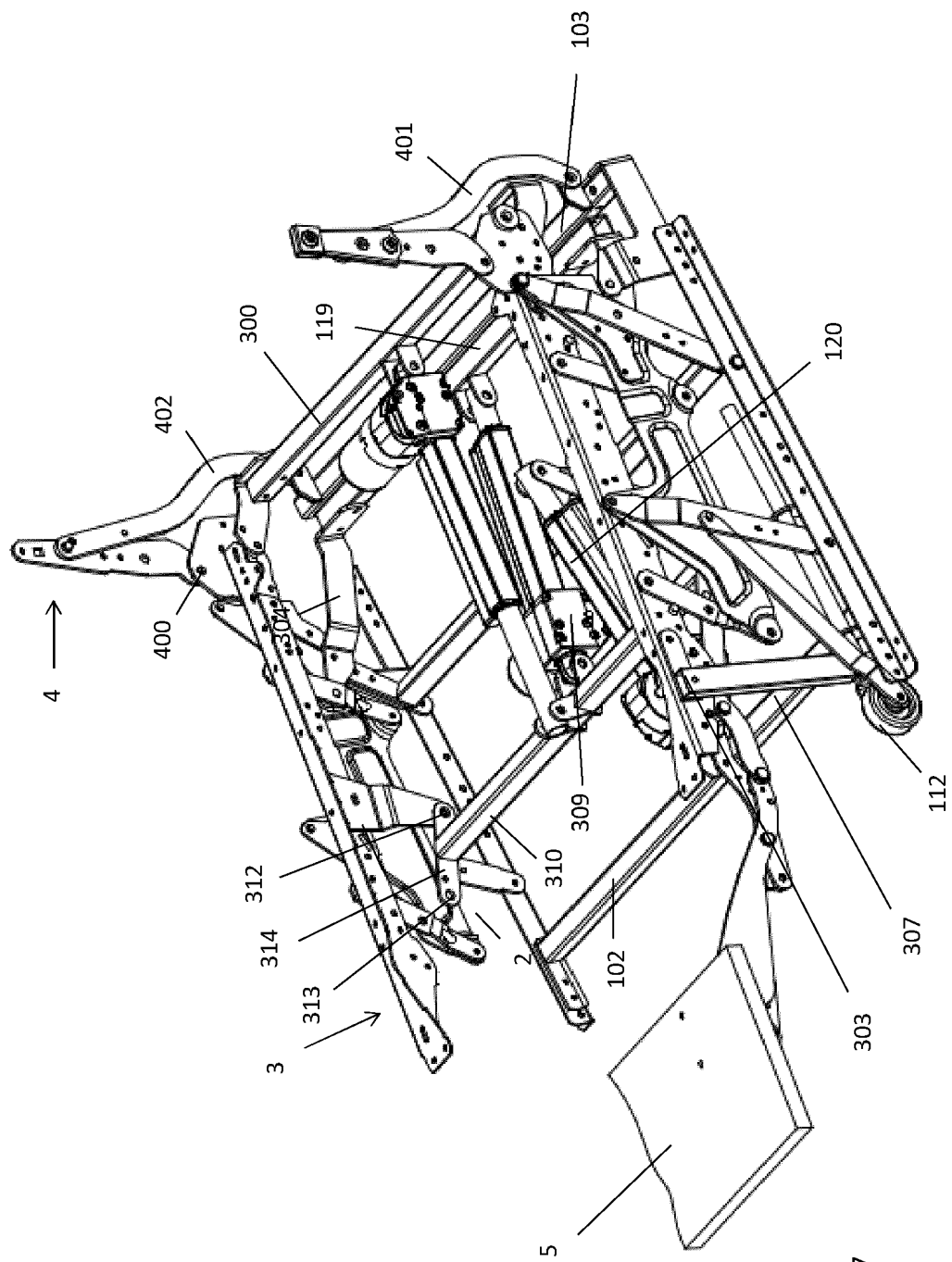


Fig. 7

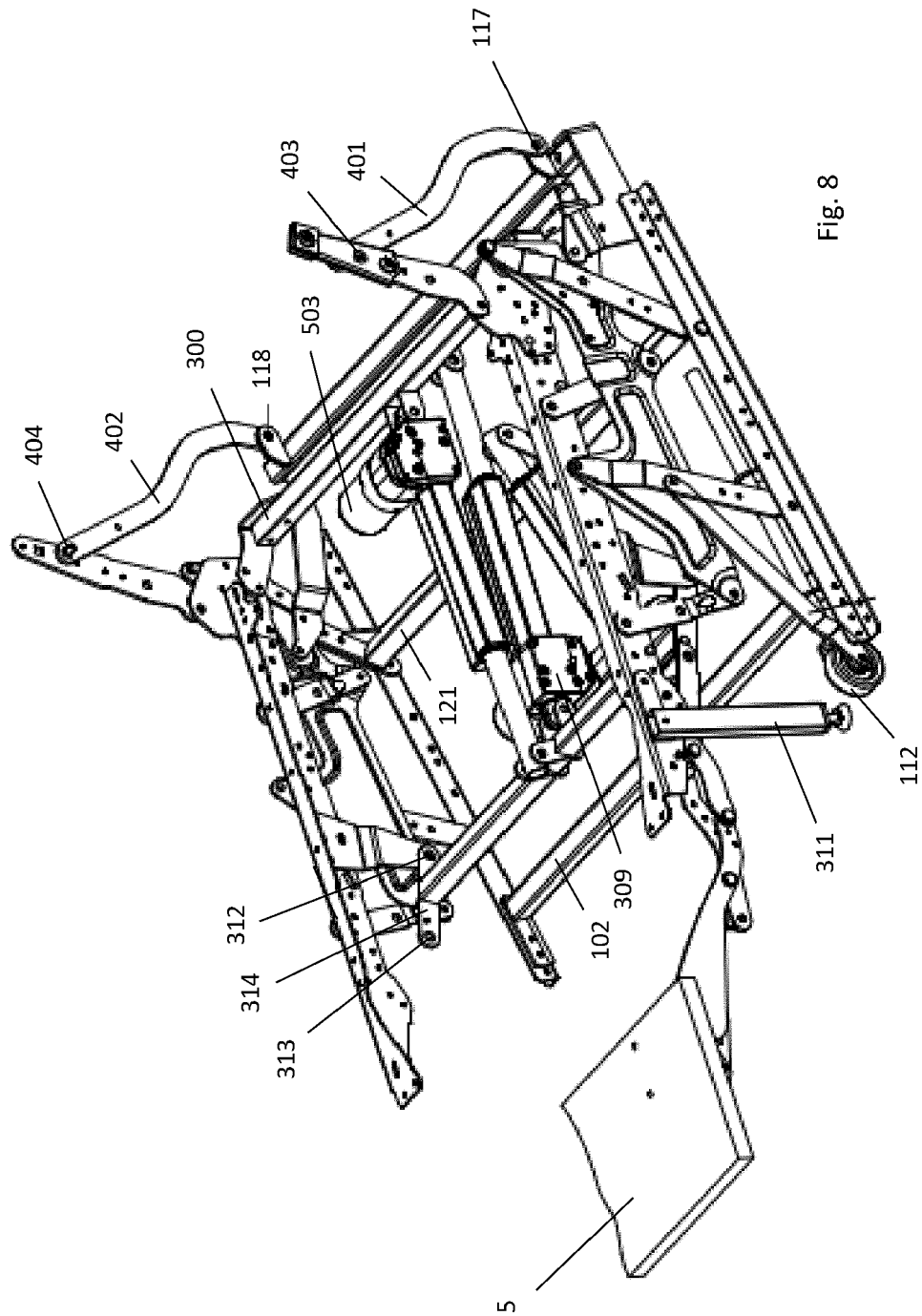


Fig. 8

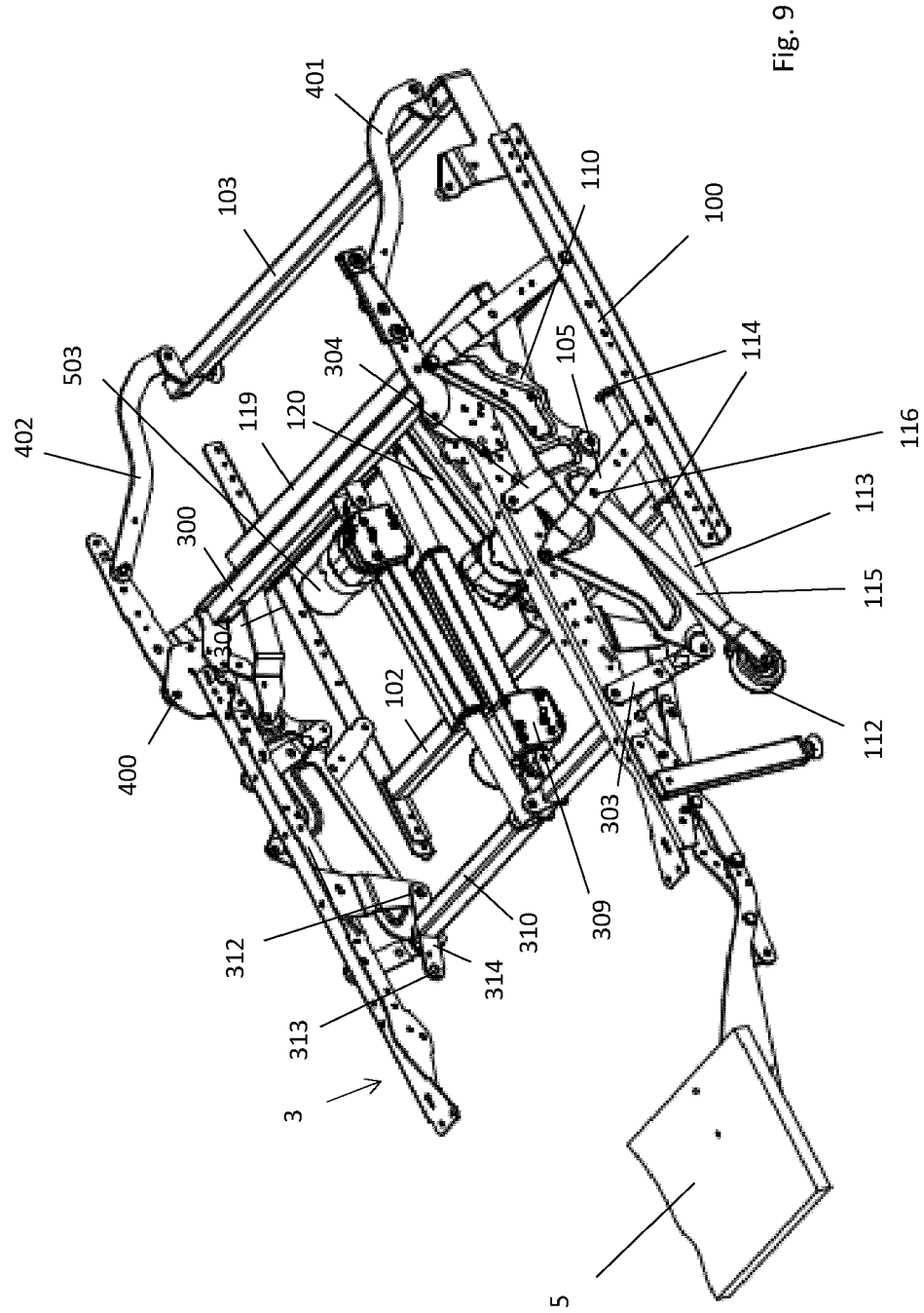


Fig. 10

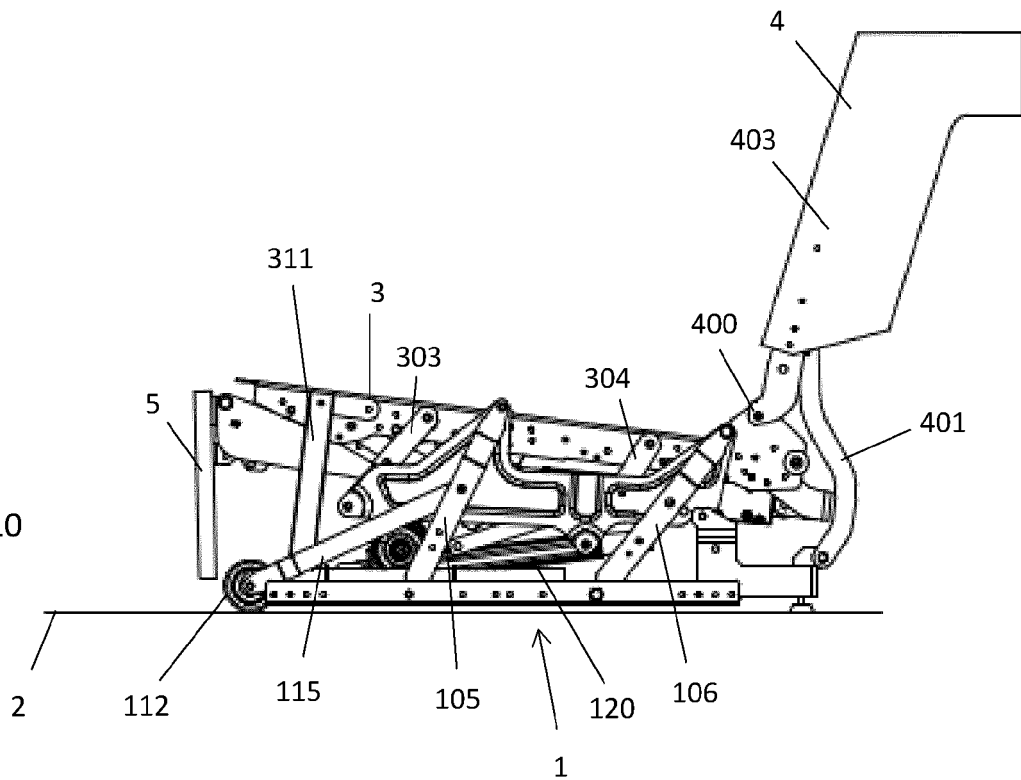
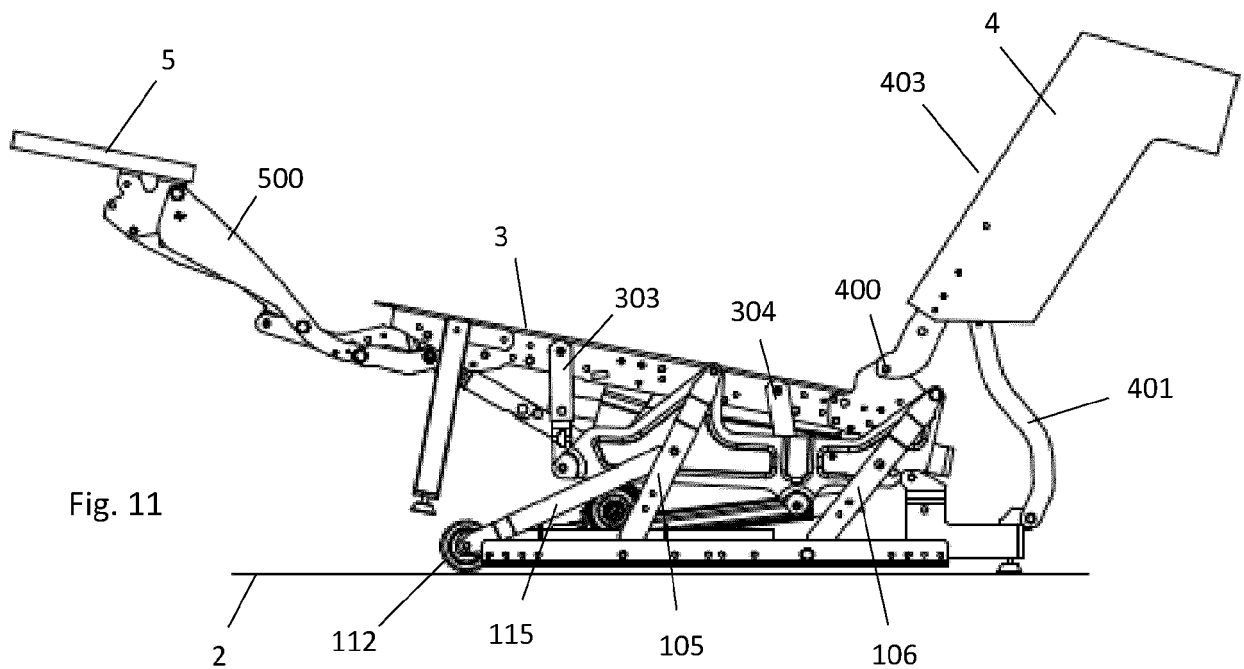
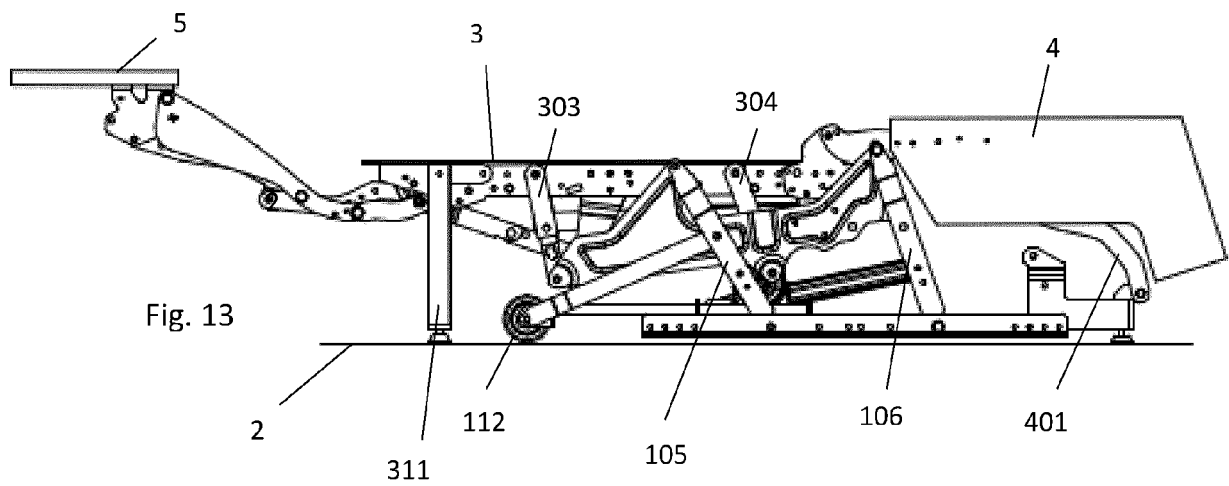
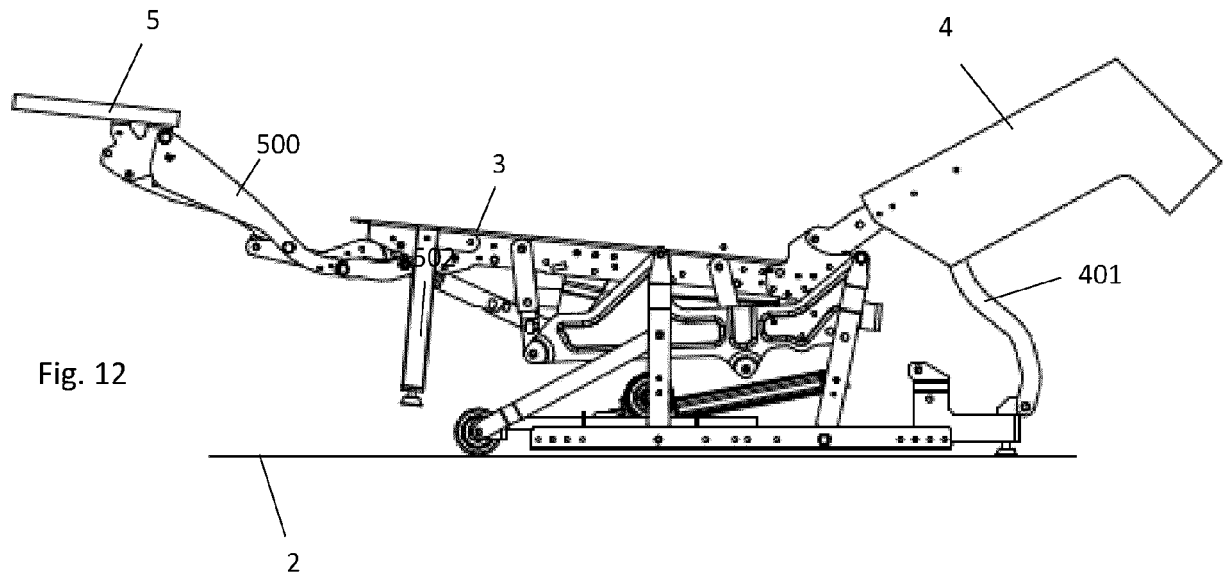


Fig. 11





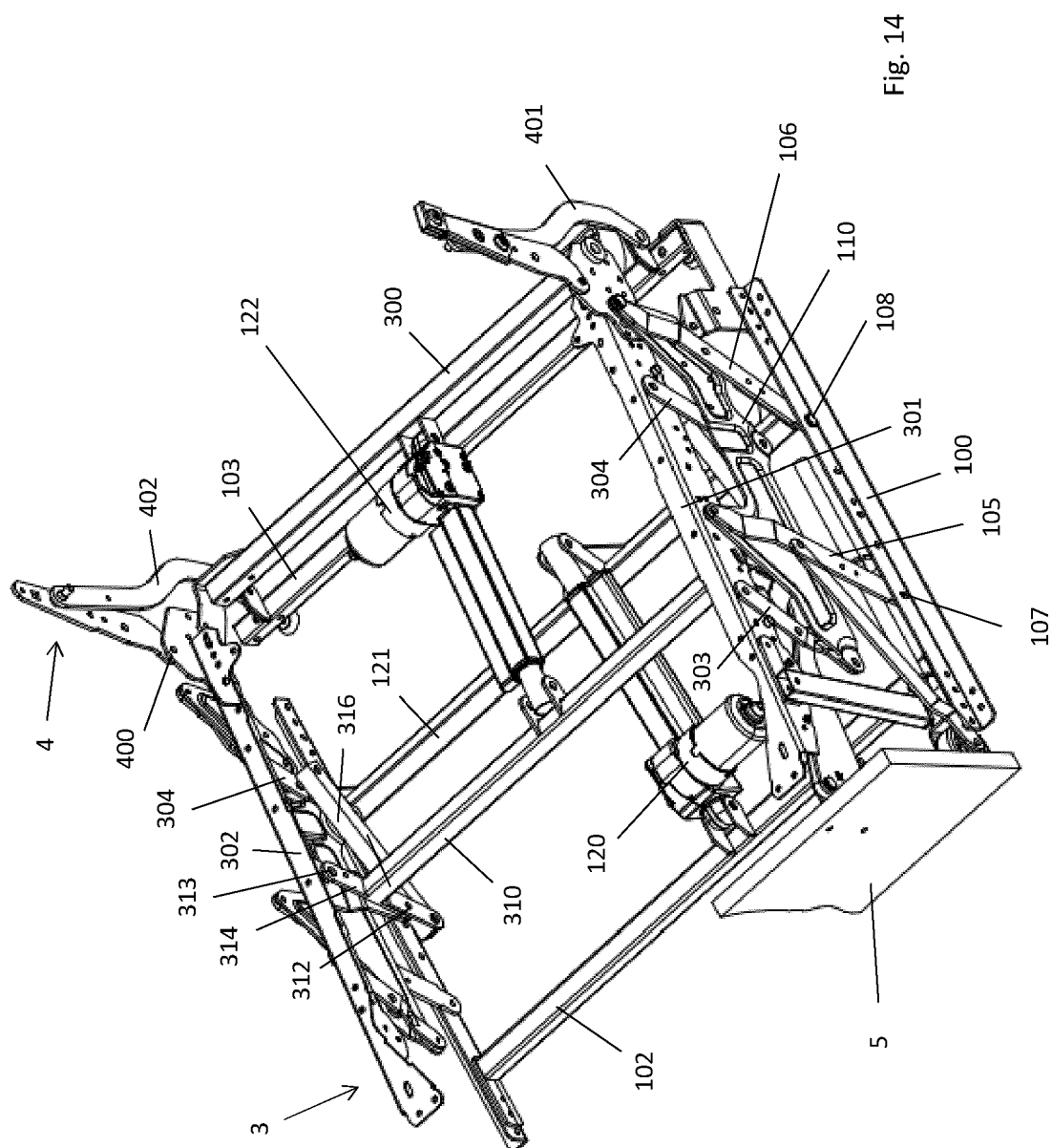


Fig. 14

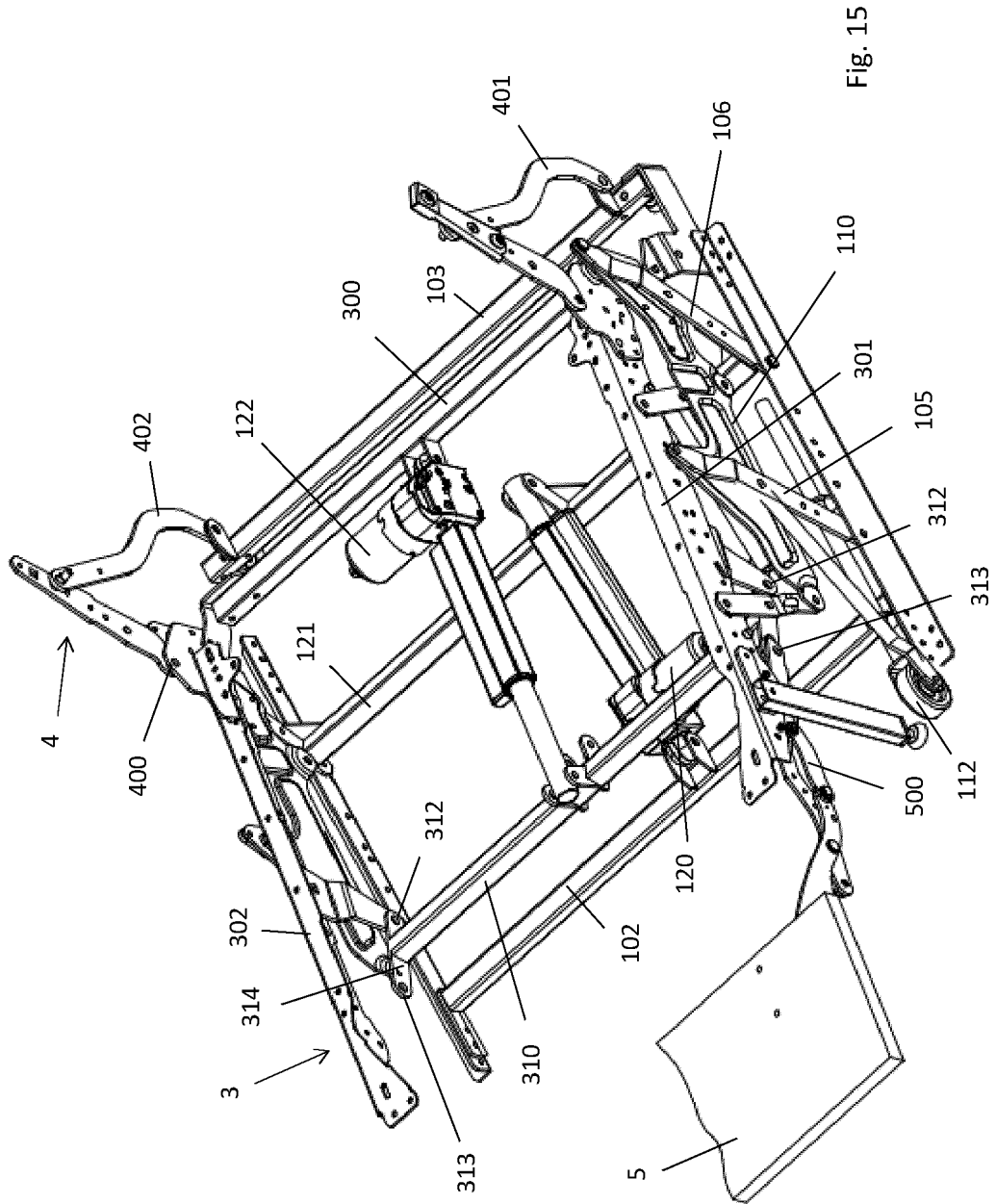


Fig. 15

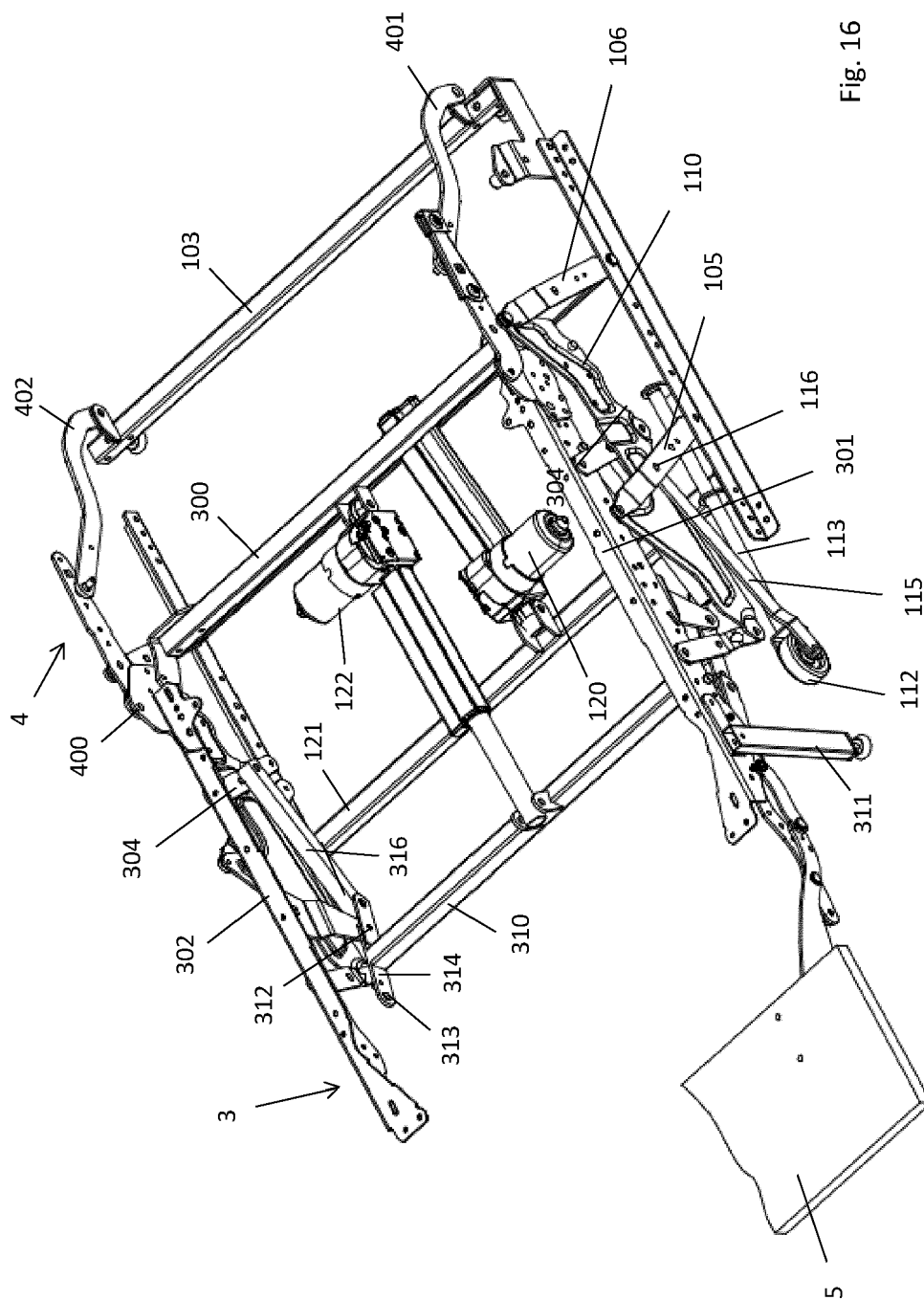


Fig. 16



EUROPEAN SEARCH REPORT

Application Number

EP 21 18 7648

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			TECHNICAL FIELDS SEARCHED (IPC)
			A47C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 13 December 2021	Examiner Lehe, Jörn
CATEGORY OF CITED DOCUMENTS		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	
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