(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 593 323 A1

(12) EUROPEAN PATENT APPLICATION
published in accordance with Art. 158(3) EPC

(43) Date of publication:
09.11.2005 Bulletin 2005/45

(21) Application number: **04713237.8**

(22) Date of filing: **20.02.2004**

(51) Int Cl.[7]: **A47C 3/02**, A47D 1/08, A47C 4/02

(86) International application number:
PCT/JP2004/002037

(87) International publication number:
WO 2004/073458 (02.09.2004 Gazette 2004/36)

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR
Designated Extension States:
AL LT LV MK

(30) Priority: **24.02.2003 JP 2003045904**
26.01.2004 JP 2004017601

(71) Applicant: **Aprica Ikujikenkyukai Aprica Kassai Kabushikikaisha**
Osaka-shi, Osaka 542-0082 (JP)

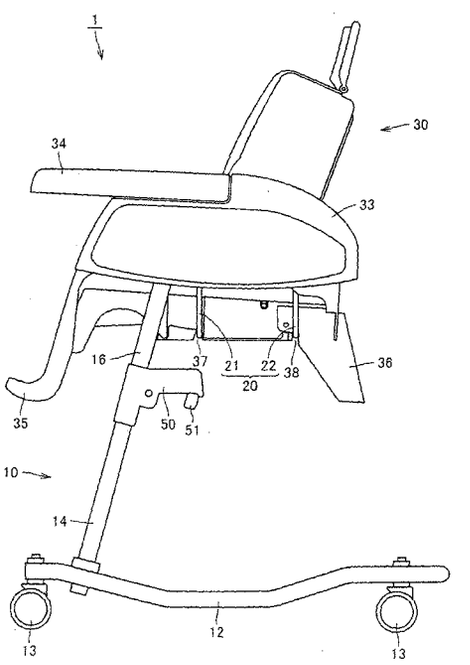
(72) Inventors:
- **KASSAI, Kenzou**
Osaka-shi, Osaka 5420083 (JP)
- **YAMAMOTO, Hiroyasu,**
Aprica Kassai Kabushiki Kaisha
Osaka-shi, Oska 5420082 (JP)

(74) Representative: **Oser, Andreas et al**
Prüfer & Partner GbR
Patentanwälte
Harthauser Strasse 25 d
81545 München (DE)

(54) SWING CHAIR AND CHILD-CARE CHAIR

(57) A detachable rocking chair (1) comprises rocking rods (21) and (22) supported by a base member (10) so that they can rock and a seat body (30) detachably supported by the rocking rods (21) and (22). The seat body (30) can be detached from the base member (10) and stand on a floor by itself. Such self-standing means comprises a front leg part (35) located in a front bottom of the seat body, and a rear leg part (36) located in a rear bottom of the seat body.

FIG. 2



EP 1 593 323 A1

Description

TECHNICAL FIELD

[0001] The present invention relates to a rocking chair and a baby chair used as a chair or a bed for a baby especially.

BACKGROUND ART

[0002] One example of the rocking chair is disclosed in Japanese Unexamined Patent Publication No. 11-89681. A rocking chair disclosed in this document comprises a base having four wheels, and a seat supported on the base so that it can rock. The seat rocks at a high position from a floor.

[0003] The rocking chair is provided for a few-month-old baby to be cradled. Therefore, after the baby has grown up to be able to stand or walk alone, the rocking chair is not needed in general. In other words, a conventional rocking chair has a short duration of use.

DISCLOSURE OF THE INVENTION

[0004] It is an object of the present invention to provide a rocking chair which can be used after a baby has grown up.

[0005] It is another object of the present invention to provide a rocking chair which gives a neat impression in design.

[0006] It is still another object of the present invention to provide a baby chair which gives a neat impression in design and changes its usage pattern according to circumstances.

[0007] A detachable rocking chair according to the present invention comprises a base member, a rocking member supported by the base member so that it can rock, and a seat body detachably supported by the rocking member. The seat body comprises self-standing means for enabling self-standing independently.

[0008] According to the above constitution of the present invention, after the baby has grown up to be able to stand or walk alone, the seat body can be detached from the base member and it can stand on a floor by itself. Therefore, the child can be seated on the seat body standing on the floor by itself. Thus, according to the present invention, the chair can be used for a long period of time. When the chair which has been used during an early stage of life is continuously used after the small baby has grown up, memory of affection from a parent at the early stage of life lasts for a long period of time, which has a favorable impact on growth of a brain of the child.

[0009] In addition, the "chair" used in this specification conceptually comprises a chair which can be switched between the form of a chair and the form of a bed.

[0010] The self-standing means comprises a front leg part located in a front bottom of the seat body, and a rear leg part located in a rear bottom of the seat body, for example. In order to increase safety, it is preferable that the rocking chair comprises locking means for locking a connection state between the rocking member and the seat body.

[0011] According to one embodiment, the rocking member comprises a pair of rocking rods extending in a width direction at front and rear positions at a regular interval and supported by the base member so that it can rock. The seat body comprises a pair of notches which receives the pair of rocking rods on its bottom surface. In this constitution, if the seat body is lifted, it can be easily detached from the base member. In this case, in order to improve the safety, it is preferable that the seat body comprises a moving member which can be moved between a closing position in which the notch is closed and an opening position in which the notch is opened, a forcing member forcing the moving member to be brought to the closing position, and an operation member for moving the moving member.

[0012] According to one embodiment, the base member comprises a lower frame body located below, and an upper frame body supported by the lower frame body so as to be vertical movable. The rocking member is supported by the upper frame body so that it can rock. As a more concrete structure, the lower frame body comprises a rectangular frame member having four or more wheels and extending almost horizontally, and a lower vertical frame member extending upward from one side of the rectangular frame member, and the upper frame body comprises an upper vertical frame member aligned with the lower vertical frame member and supported by the lower vertical frame member so as to be vertically movable, and an upper horizontal frame member extending in a horizontal direction from an upper end of the upper vertical frame member. The rocking member is supported by the upper horizontal frame member so that it can rock.

[0013] When the rectangular member has four or more wheels, more stable movement can be implemented. In addition, the term "rectangular frame" used in this specification includes not only a rectangular configuration having four angular corners but also a round configuration and a configuration close to a semicircle. In the case of the rectangular frame having the round configuration, when six wheels are provided, more stable movement can be implemented.

[0014] According to another embodiment of the present invention, the self-standing means comprises a slide leg which is housed in the seat body and can be pulled out. For example, the seat body comprises a backrest part which can be reclined to the form of a bed. In this case, in order to stably support posture of the form of the bed, the slide leg is provided so that it can be pulled out backward from a back surface of the seat body. Preferably, a back surface of the slide leg is provided so as to be in almost the same plane as the back surface of the seat body.

[0015] According to another aspect of the present invention, a rocking chair comprises a base member and a seat body supported by the base member so that is can rock. The base member comprises a horizontal frame member extending almost horizontally, and a vertical frame member extending upward from one end of the horizontal frame member, which has an almost L-shaped configuration as a whole. Such rocking chair having the above constitution can give a neat impression in design. The vertical frame member extends upward from a front end of the horizontal frame member, for example.

[0016] In the above rocking chair, it is preferable that the seat body is supported by the base member so that its height can be adjusted. When the seat body is provided so that its height can be adjusted, the seat body can be maintained at an optimal height according to circumstances. In addition, preferably, the seat body is detachably supported by the base member. Thus, since the seat body can be used independently, it is more convenient. In this case, preferably, the seat body comprises self-standing means for enabling self-standing independently.

[0017] Preferably, the horizontal frame member and the vertical frame member are provided so that they can be folded to each other. In this constitution, since the base member can be compactly folded when it is not used, a dimension of the base member in a folded state can be reduced.

[0018] According to one embodiment, the base member comprises an upper horizontal frame member extending almost horizontally from an upper end of the vertical frame member, and the seat body is supported by the upper horizontal frame member so that it can rock. In this case, the upper horizontal frame member and the vertical frame member may be provided so that they can be folded to each other.

[0019] For example, the seat body comprises a seat part, and a backrest part which can be reclined to the form of a bed.

[0020] According to still another aspect of the present invention, a baby chair comprises a base member and a seat body detachably supported by the base member. The base member comprises a horizontal frame member extending almost horizontally, and a vertical frame member extending upward from one end of the horizontal frame member, which has an almost L-shaped configuration as a whole.

[0021] Preferably, the seat body comprises self-standing means for enabling self-standing independently. In addition, in order to implement more various kinds of usage patterns, it is preferable that the seat body comprises a seat part, and a backrest part which can be reclined to the form of a bed. More preferably, the seat body is supported by the base member so that it can rock. The seat body may be supported by the base member so that its height can be adjusted.

[0022] According to one embodiment, the horizontal frame member and the vertical frame member are provided so that they can be folded to each other. For example, the base member comprises an upper horizontal frame member extending almost horizontally from an upper end of the vertical frame member, and the seat body is detachably supported by the upper horizontal frame member. The upper horizontal frame member and the vertical frame member may be provided so that they can be folded to each other.

BRIEF DESCRIPTION OF DRAWINGS

[0023]

Fig. 1 is a perspective view showing one embodiment of the present invention;
Fig. 2 is a side view showing a detachable rocking chair shown in Fig. 1;
Fig. 3 is a perspective view showing a base member;
Fig. 4 is a side view showing a seat body;
Fig. 5 is a bottom view showing the seat body;
Fig. 6 is a sectional view showing a connection structure between a rocking member and the seat body;
Fig. 7 is a sectional view showing a state in which front and rear sliders are moved backward from a state shown in Fig. 6;
Fig. 8 is a sectional view showing a state just before the seat body is connected to the rocking member;
Fig. 9 is a sectional view showing a state in which the seat body is being connected to the rocking member;
Fig. 10 is a sectional view showing a structure to prohibit relative movement of upper and lower vertical frame members;
Fig. 11 is a sectional view showing a state after a lever is turned from a state shown in Fig. 10;
Fig. 12 is a side view showing a seat body according to another embodiment of the present invention;
Fig. 13 is a rear view showing the seat body shown in Fig. 12; and
Fig. 14 is a side view showing a state in which a backrest part is reclined to the form of a bed from a state shown in Fig. 12.

BEST MODE FOR CARRYING OUT THE INVENTION

[0024] Figs. 1 and 2 show one embodiment of the present invention. An illustrated rocking chair 1 comprises a base member 10, a rocking member 20 supported by the base member 10 so that it can rock, and a seat body 30 detachably supported by the rocking member 20. The seat body 30 has a configuration in which it can be detached from the base member 20 and it can stand on a floor by itself.

[0025] Fig. 3 shows the base member 10 and Fig. 4 shows the seat body 30. A constitution of the base mem-

ber 10 will be described with reference to Fig. 3.

[0026] The base member 10 comprises a lower frame body 11 located below and an upper frame body 15 supported by the lower frame body 11 so as to be vertically movable. The lower frame body 11 comprises a rectangular frame member 12 having four wheels 13 and extending almost horizontally, and a lower vertical frame member 14 extending upward from one side positioned at a front end of the rectangular frame member 12. According to the illustrated embodiment, the lower vertical frame member 14 comprises two pipes.

[0027] The upper frame body 15 of the base member 10 comprises an upper vertical frame member 16 aligned with the lower vertical frame member 14 and supported by the lower vertical frame member 14 so as to be vertically movable, and an upper horizontal frame member 17 extending backward in an almost horizontal direction from an upper end of the upper vertical frame member 16. According to the illustrated embodiment, the upper vertical frame member 16 comprises two pipes. The upper horizontal frame member 17 comprises two rod-shaped plates. A width-direction connection member 18 is provided between the two pipes of the upper vertical frame member.

[0028] The rocking member 20 comprises a pair of rocking rods 21 and 22 extending in a width direction so as to be spaced at front and rear positions, and supported by the base member 10 so that they can rock. More specifically, each of the rocking rods 21 and 22 has a U-shaped configuration and its both ends are supported by the upper horizontal frame member 17 of the base member 10 so that it can rock. The forward rocking rod 21 and the backward rocking rod 22 are connected by a center connection member 23 so as to be spaced at a regular interval.

[0029] Although the pair of rocking rods 21 and 22 is manually moved in the illustrated embodiment, they may be electrically moved by driving means such as a motor.

[0030] The seat body 30 will be described with reference to Figs. 1, 2 and 4 mainly. The seat body 30 comprises a seat part 31, a backrest part 32, a pair of side wall parts 33 extending upward from both sides of the seat part 31, a table 34 mounted on the side wall part 33, a footrest part (front leg part) extending downward from the front edge of the seat part 31, and a rear leg part 36 located in the rear bottom.

[0031] As shown in Figs. 1 and 2, a front notch 37 and a rear notch 38 which receive the front rocking rod 21 and the rear rocking rod 22, respectively are provided in a bottom surface of the seat body 30. The seat body 30 rocks, supported by the pair of rocking rods 21 and 22. Each side wall part 33 of the seat body 30 has an inverted U-shaped configuration which covers the upper horizontal frame member 17 of the base member 10 and vertical parts of the rocking rods 21 and 22.

[0032] As shown in Fig. 4, the seat body 30 detached from the base member 10 can stand on a floor by itself. In the illustrated embodiment, the self-standing means for enabling the seat body 30 to stand by itself comprises the footrest part 35 and the rear leg part 36. A bottom surface of the footrest part 35 and the bottom surface of the rear leg part 36 are in contact with the floor surface so that the seat body 30 can stand by itself. Therefore, a child can be seated on the seat body 30 set directly on the floor.

[0033] As means for enabling the seat body to stand by itself is not limited to the illustrated one. For example, the seat body may have folding legs and the legs are set so that the seat body can stand by itself according to need.

[0034] A connection structure between the seat body 30 and the rocking member 20 will be described in detail with reference to Figs. 5 and 6.

[0035] A p air of rail members 40 extending backward and forward is mounted on both sides of the bottom surface of the seat body 30 and fixed thereto. Each rail member 40 has the front notch 37 and the rear notch 38 which receive the front rocking rod 21 and the rear rocking rod 22, respectively.

[0036] As shown in Fig. 6, each rail member 40 houses a front slider 41 and a rear slider 42 which can be moved between a closing position in which the front notch 37 and the rear notch 38 are closed and an opening position in which they are opened. The front slider 41 has a locking part 41a which traps the front rocking rod 21 received in the front notch 37 and the rear slider 42 has a locking part 42a which traps the rear rocking rod 22 received in the rear notch 38.

[0037] The front slider 41 has a connection pin 44 having a head at its rear end. A connection member 43 is positioned between the front slider 41 and the rear slider 42. A front end of the connection member 43 is positioned on an axis part of the connection pin 44, and a rear end thereof abuts on the rear slider 42. A spring 45 fitted in the axis part of the connection pin 44 constantly forces the front slider 41 toward the closing position.

[0038] The pair of rear sliders 42 positioned on the right and left sides is connected to each other through a setscrew 49 and an operation rod 48. Each rail member 40 has an elongated hole 47 through which the setscrew 49 passes. The operation rod 48 extending in the width direction can be moved back and forth within a range in which the setscrew 49 can be moved in the elongated hole 47. A spring 46 abutting on a rear end of the rear slider 42 constantly forces the rear slider 42 toward the closing position.

[0039] A connection state between the seat body 30 and the front and rear rocking rods 21 and 22 can be stably maintained when the locking parts 41a and 42a of the front and rear sliders 41 and 42 are positioned under the rocking rods 21 and 22, respectively.

[0040] When the seat body 30 is to be detached from the base member 10, the operation rod 48 extending in the width direction is grasped and drawn backward with a hand. Then, as shown in Fig. 7, the front and rear slid-

ers 41 and 42 are moved backward and the notches 37 and 38 are opened. In this state, as the seat body 30 is lifted, the seat body 30 can be easily detached from the base member 10.

[0041] The seat body 30 is mounted on the base member 10 as follows. As shown in Fig. 8, first, the locking part 42a of the rear slider 42 is brought to the rear rocking rod 22 and in this state, the rear part of the seat body 30 is moved downward. Then, the rear slider 42 is moved backward so as to compress the spring 46 and the rear rocking rod 22 enters the rear notch 38. Then, as shown in Fig. 9, the locking part 41a of the front slider 41 is brought to the front rocking rod 21 and in this state, the front part of the seat body 30 is moved downward. Then, the front slider 41 is moved backward so as to compress the spring 45 and the front rocking rod 21 enters the front notch 37.

[0042] According to the illustrated embodiment, a height of the seat body 30 supported on the base member 10 can be changed. A structure for implementing it will be described with reference to Figs. 10 and 11. As described above, the base member 10 comprises the lower vertical frame member 14 and the upper vertical frame member 16 in the form of the pipes. The lower vertical frame member 14 is inserted into the upper vertical frame member 16.

[0043] A resin bracket 50 is fixed to a lower end of the upper vertical frame member 16. As shown in Fig. 10, a lever 51 is turnably mounted on the resin bracket 50 through an axis 52. A rear end of the lever 51 forms an operation button 58 and a lock pin 54 is mounted on its rear end through a connection axis 55 and a hole 56. In a state shown in Fig. 10, a tip end of the lock pin 54 passes through the resin bracket 50 and a hole 57 of the upper vertical frame member 16 and engages in a hole 14a of the lower vertical frame member 14 to prohibit relative movement of the upper and lower vertical frame members 14 and 16. This state can be stably maintained by force of a spring 53.

[0044] When the height of the seat body 30 is to be changed, as shown in Fig. 11, the operation button 58 is moved upward and the lever 51 is turned counterclockwise. When the lever 51 is turned, the lock pin 54 is moved to the right in the figure and separated from the hole 14a of the lower vertical frame member 14. Therefore, the upper vertical frame member 16 can be vertically moved together with the seat body 30.

[0045] Figs. 12 to 14 show a seat body 100 according to another embodiment of the present invention. The illustrated seat body 100 comprises a seat part 101, a backrest part 102 which is retained by the seat part 101 so that it can be reclined, and a head guard part 103 turnably mounted on an upper end of the backrest part 102. The backrest part 102 can be reclined to the form of a bed as shown in Fig. 14. When the seat body 100 is in the form of a chair as shown in Fig. 12, the head guard 103 is in almost the same plane as a backrest surface of the backrest part 102 or bent so as to form a slightly inclined angle with respect to the backrest surface in order to open an upper region of the backrest part 102. Meanwhile, when the seat body 100 is in the formed of the bed as shown in Fig. 14, the head guard part 103 is provided so as to form a bending angle from the backrest surface in order to protect a top of the head of the child.

[0046] A front notch 137 and a rear notch 138 are formed in a bottom surface of the seat part 101. The front notch 137 and the rear notch 138 have the same effect as in the front and rear notches 37 and 38 in the above embodiment. That is, the front notch 137 and the rear notch 138 receive a front rocking rod 21 and a rear rocking rod 22 supported by a base member so that they can rock.

[0047] The seat part 101 comprises a slide leg 110 which is housed in its rear part and can be pulled out backward. The slide leg 110 comprises an inverted U-shaped member 111 which is clearly shown in Fig. 13, and two slide rods 112 extending backward and forward. As shown in Figs. 12 and 13, in a state in which the slide leg 110 is housed, a back surface of the slide leg 110, that is, a back surface of the inverted U-shaped member 111 is provided so as to be in almost the same plane as a back surface of the seat part 101.

[0048] As shown in Fig. 14, when the seat body 100 is set on a floor in the form of the bed, the seat part 101 could become unstable when a body weight of the child is applied to the largely reclined backrest part 102. Thus, as shown in Fig. 14, the slide leg 110 is pulled out backward to stably support the seat body 100 in the form of the bed.

[0049] Although one embodiment of the present invention has been described above with reference to the drawings, various kinds of modifications and variation can be made within the same or equivalent scope of the present invention. For example, the configuration of the rocking member is not limited to the rod and various kinds of configurations can be applied thereto. Similarly, the means for enabling the seat body to stand by itself may have various kinds of configurations.

[0050] Furthermore, although the seat body can rock and be detachable with respect to the base member and it can stand by itself in the illustrated embodiment, the following embodiment can be also applied.

(1) A rocking chair comprises a base member, and a seat body supported by the base member so that it can rock. The base member comprises a horizontal frame member extending almost horizontally, and a vertical frame member extending upward from one end of the horizontal frame member, which has an almost L-shaped configuration as a whole. In this embodiment, the seat body may be the one which cannot be detached from the base member or may be detachable. In order to select an optimal usage pattern according to circumstances, it is preferable that the seat body is supported by the base

member so that its height can be adjusted or in the case of the detachable seat body, means for enabling self-standing independently is provided.

(2) In the case of the L-shaped base member, the horizontal frame member and the vertical frame member may be provided so that they can be folded to each other. In addition, the base member may comprise an upper horizontal frame member extending almost horizontally from an upper end of the vertical frame member. In this case, the seat body is supported by the upper horizontal frame member so that it can rock. In addition, the upper horizontal frame member and the vertical frame member may be provided so that they can be folded to each other. A structure in which the horizontal frame member and /or the upper horizontal frame member can be folded with respect to the vertical frame member have several kinds of configurations. As its one example, the frame is turnably connected to a connection part of the crossed two frame members through an axis. In this case, in a folded state, the horizontal frame member and/or the upper horizontal frame member can be adjacent to the vertical frame member so as to overlap it.

(3) A baby chair in which a seat body is not rocked may be provided. More specifically, the baby chair comprises a base member, and seat body detachably supported by the base member. The base member comprises a horizontal frame member extending almost horizontally, and a vertical frame member extending upward from one end of the horizontal frame member, which has an almost L-shaped configuration as a whole. The seat body is preferably supported by the base member so that its height can be adjusted. In addition, the seat body comprises means for enabling self-standing independently. Further preferably, it comprises a backrest part which can be reclined to the form of a bed.

INDUSTRIAL APPLICABILITY

[0051] The present invention can be advantageously applied to a rocking chair and/or a child chair used as a chair or a bed for a baby especially.

Claims

1. A detachable rocking chair comprising:

a base member;
a rocking member supported by said base member so that it can rock; and
a seat body detachably supported by said rocking member, wherein
said seat body comprises self-standing means for enabling self-standing independently.

2. The detachable rocking chair according to claim 1, wherein said self-standing means comprises a front leg part located in a front bottom of said seat body, and a rear leg part located in a rear bottom of said seat body.

3. The detachable rocking chair according to claim 1 or 2, comprising locking means for locking a connection state between said rocking member and said seat body.

4. The detachable rocking chair according to any one of claims 1 to 3, wherein said rocking member comprises a pair of rocking rods extending in a width direction at front and rear positions at a regular interval and supported by said base member so that they can rock, and

said seat body comprises a pair of notches which receives said pair of rocking rods in its bottom surface.

5. The detachable rocking chair according to claim 4, wherein said seat body comprises:

a moving member which can be moved between a closing position in which said notch is closed and an opening position in which said notch is opened;
a forcing member forcing said moving member toward said closing position; and
an operation member for moving said moving member.

6. The detachable rocking chair according to any one of claims 1 to 5, wherein said base member comprises a lower frame body located below, and an upper frame body supported by said lower frame body so as to be vertical movable, and

said rocking member is supported by said upper frame body so that it can rock.

7. The detachable rocking chair according to claim 6, wherein said lower frame body comprises a rectangular frame member having four or more wheels and extending almost horizontally, and a lower vertical frame member extending upward from one side of said rectangular frame member,

said upper frame body comprises an upper vertical frame member aligned with said lower vertical frame member and supported by the lower vertical frame member so as to be vertically movable, and an upper horizontal frame member extending in a horizontal direction from an upper end of said upper vertical frame member, and

said rocking member is supported by said upper horizontal frame member so that it can rock.

8. The detachable rocking chair according to any one

of claims 1 to 7, wherein said self-standing means comprises a slide leg which is housed in said seat body and can be pulled out.

9. The detachable rocking chair according to claim 8, wherein said seat body comprises a backrest part which can be reclined to the form of a bed, and the slide leg is provided so that it can be pulled out backward from a back surface of said seat body.

10. The detachable rocking chair according to claim 9, wherein a back surface of said slide leg is provided so as to be in almost the same plane as a back surface of said seat body in a folded state.

11. A rocking chair comprising:

a base member comprising a horizontal frame member extending almost horizontally, and a vertical frame member extending upward from one end of the horizontal frame member, which has an almost L-shaped configuration as a whole, and
a seat body supported by said base member so that it can rock.

12. The rocking chair according to claim 11, wherein said seat body is supported by said base member so that its height can be adjusted.

13. The rocking chair according to claim 11, wherein said seat body is detachably supported by said base member.

14. The rocking chair according to claim 11, wherein said seat body comprises self-standing means for enabling self-standing independently.

15. The rocking chair according to claim 11, wherein said horizontal frame member and said vertical frame member are provided so that they can be folded to each other.

16. The rocking chair according to claim 11, wherein said base member comprises an upper horizontal frame member extending almost horizontally from an upper end of said vertical frame member, and
said seat body is supported by said upper horizontal frame member so that it can rock.

17. The rocking chair according to claim 16, wherein said upper horizontal frame member and said vertical frame member are provided so that they can be folded to each other.

18. The rocking chair according to claim 11, wherein said seat body comprises a seat part, and a backrest part which can be reclined to the form of a bed.

19. A baby chair comprising:

a base member comprising a horizontal frame member extending almost horizontally, and a vertical frame member extending upward from one end of the horizontal frame member, which has an almost L-shaped configuration as a whole, and
a seat body detachably supported by said base member.

20. The baby chair according to claim 19, wherein said seat body comprises self-standing means for enabling self-standing independently.

21. The baby chair according to claim 19, wherein said seat body comprises a seat part, and a backrest part which can be reclined to the form of a bed.

22. The baby chair according to claim 19, wherein said seat body is supported by said base member so that it can rock.

23. The baby chair according to claim 19, wherein said seat body is supported by said base member so that its height can be adjusted.

24. The baby chair according to claim 19, wherein said horizontal frame member and said vertical frame member are provided so that they can be folded to each other.

25. The baby chair according to claim 19, wherein said base member comprises an upper horizontal frame member extending almost horizontally from an upper end of said vertical frame member, and
said seat body is detachably supported by said upper horizontal frame member.

26. The baby chair according to claim 25, wherein said upper horizontal frame member and said vertical frame member are provided so that they can be folded to each other.

FIG. 1

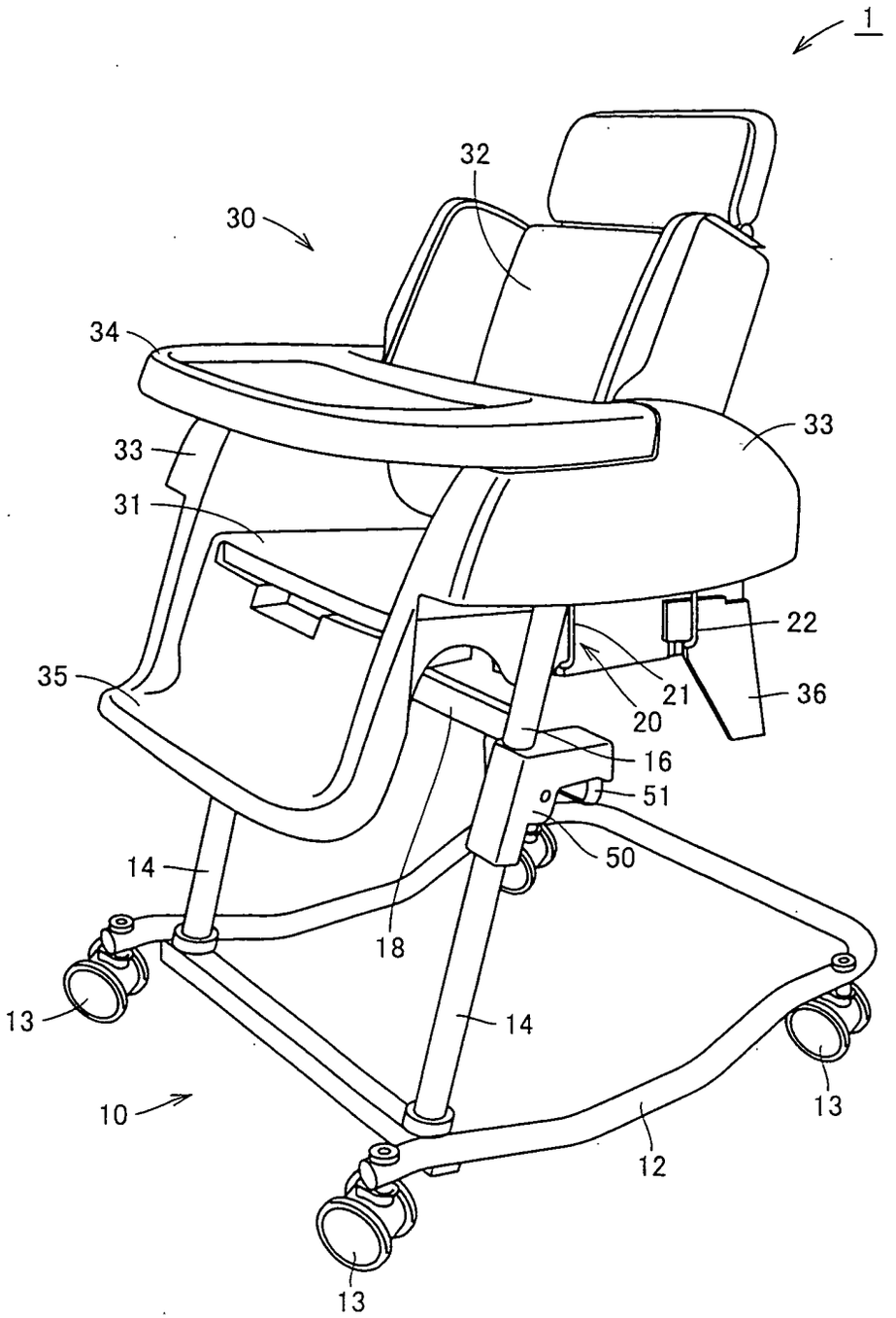


FIG. 2

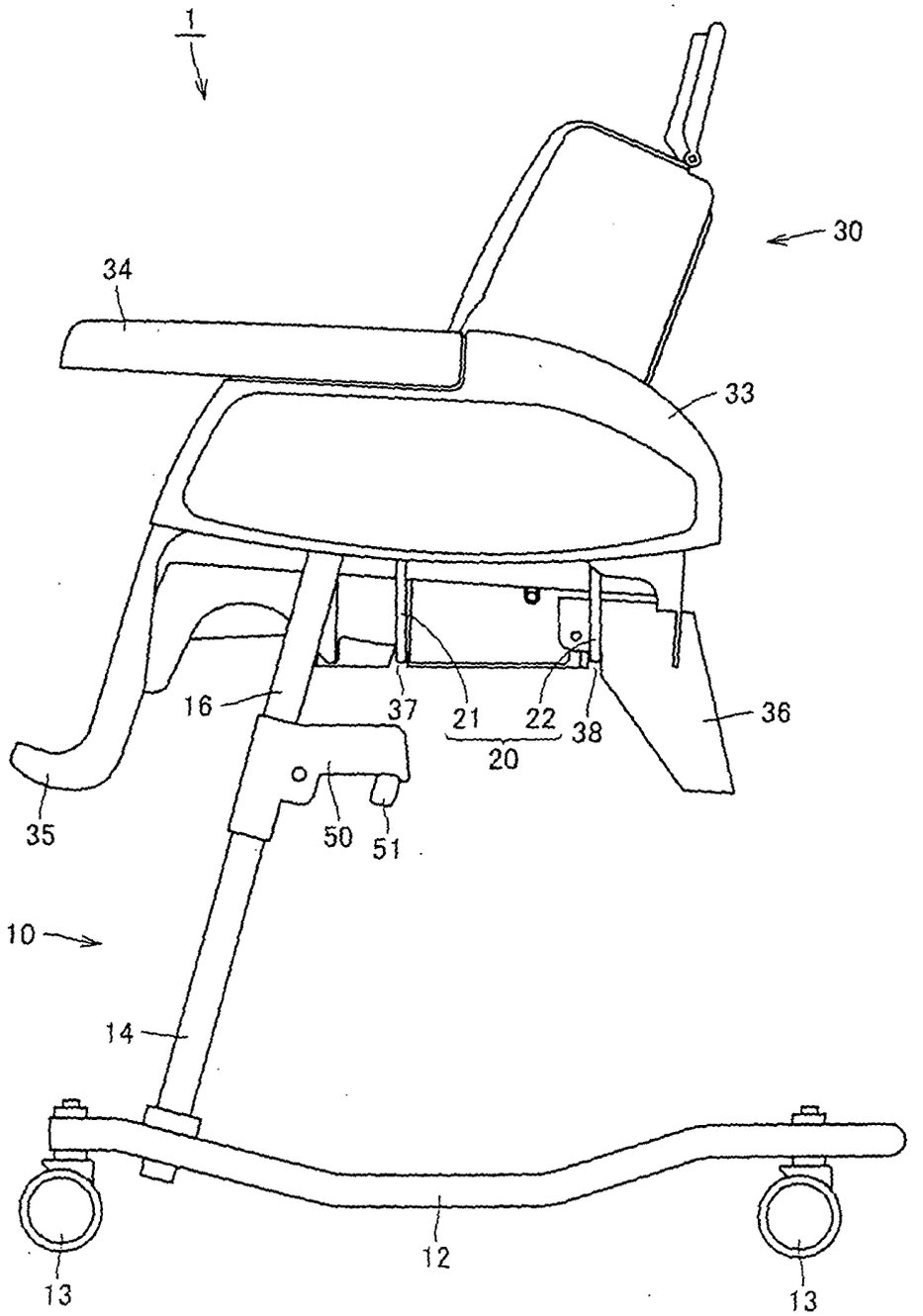


FIG. 3

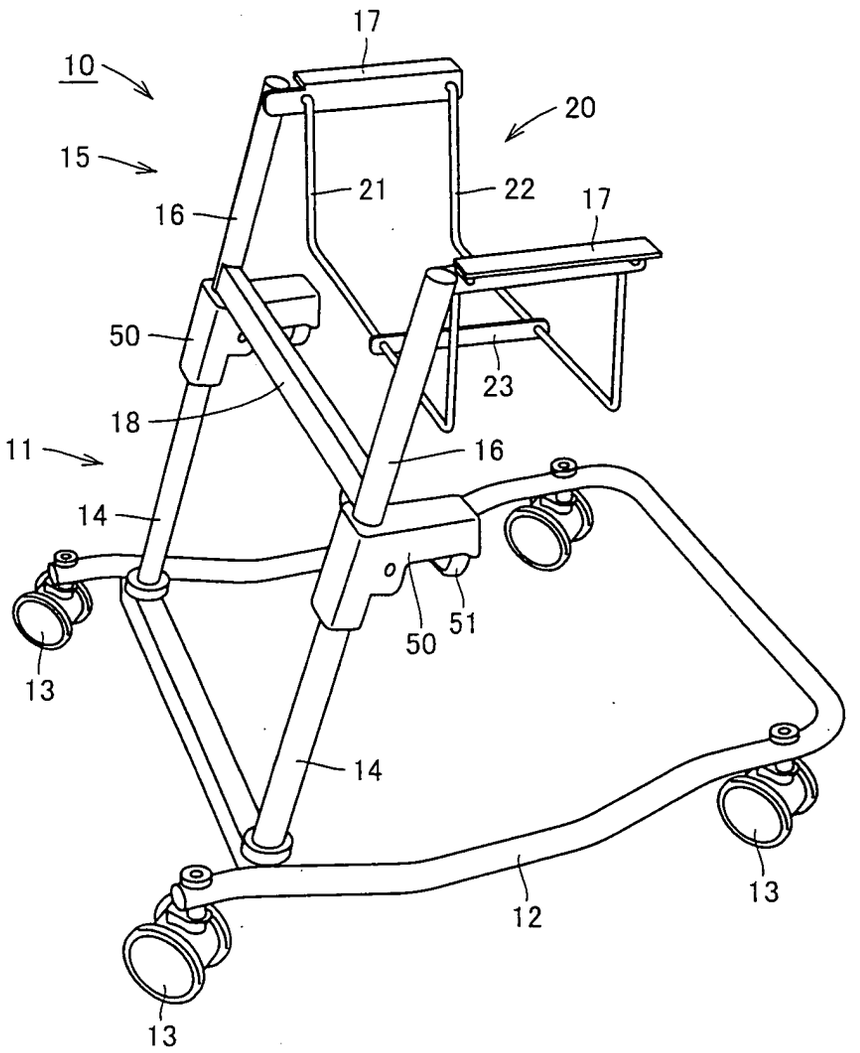


FIG. 4

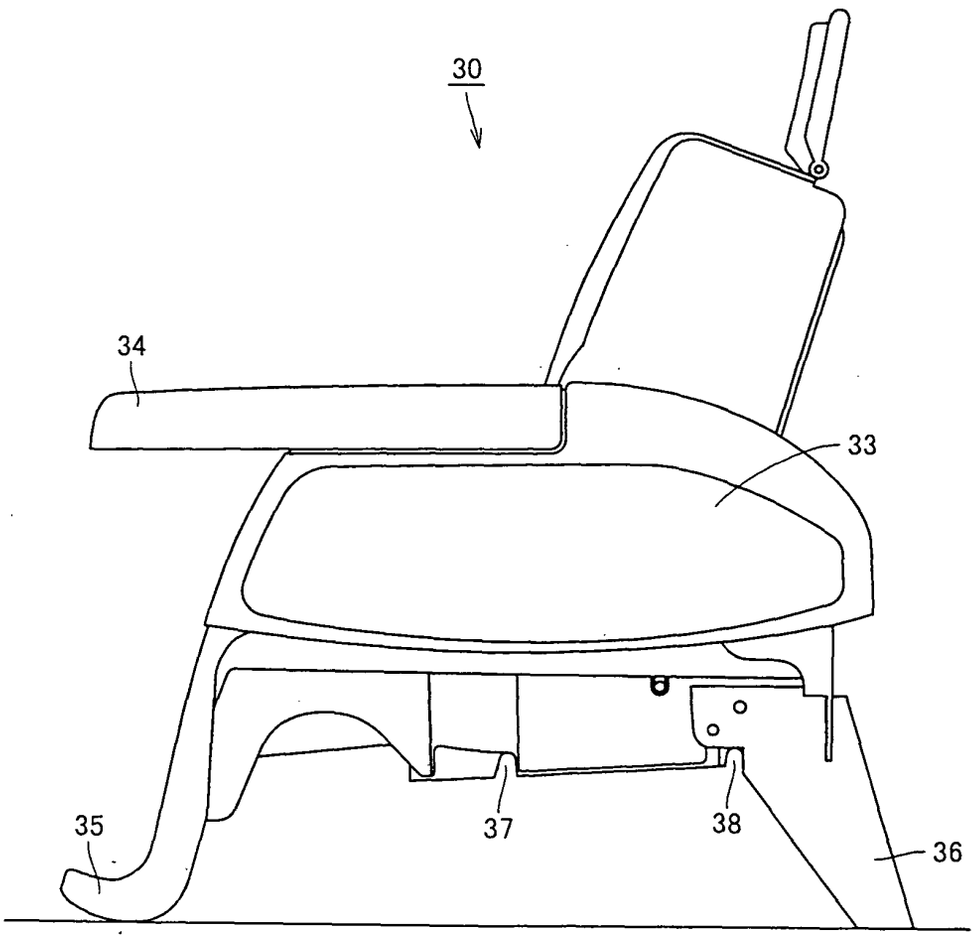


FIG. 5

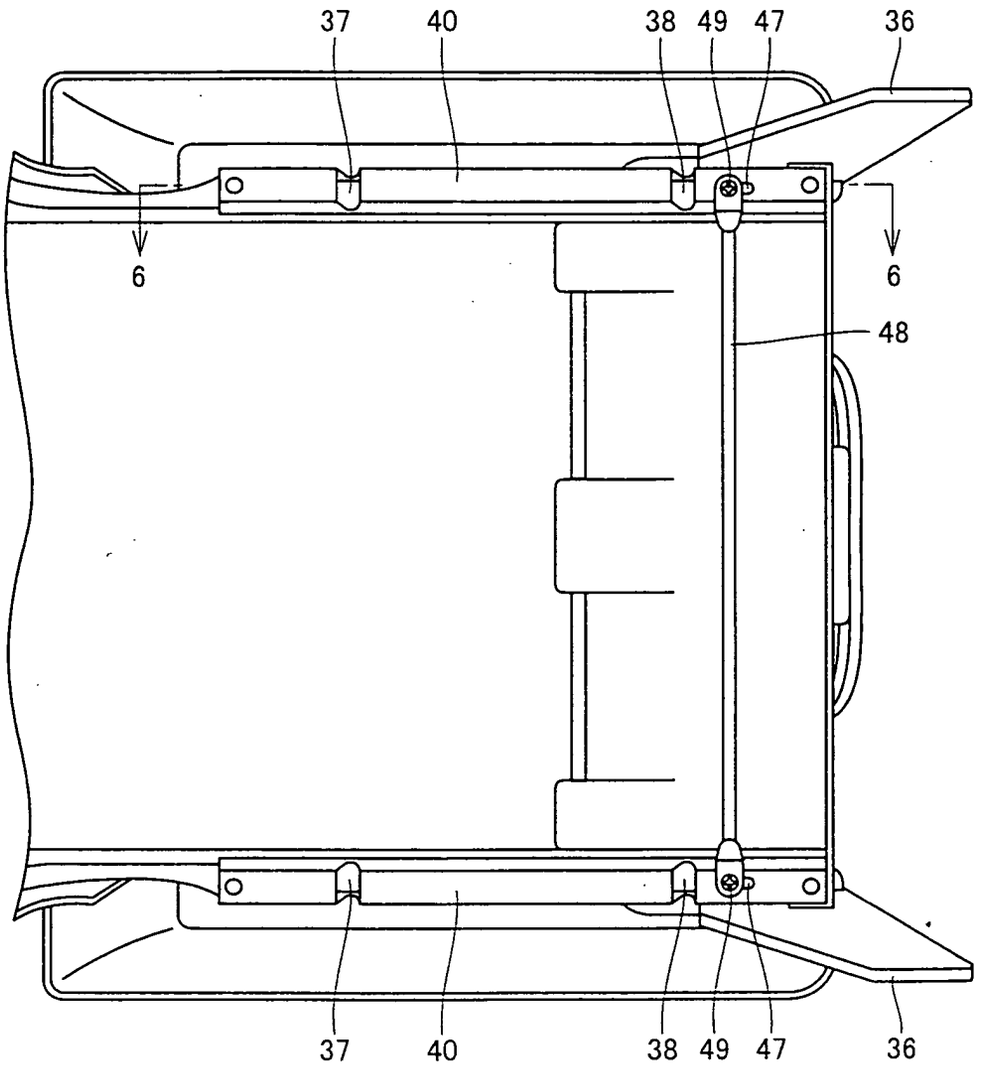


FIG. 6

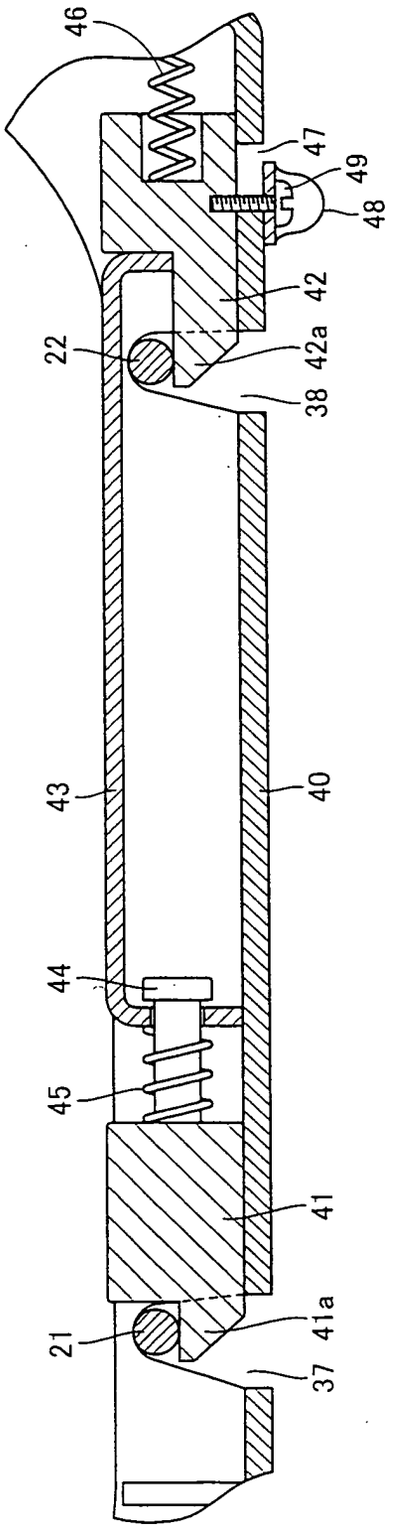


FIG. 7

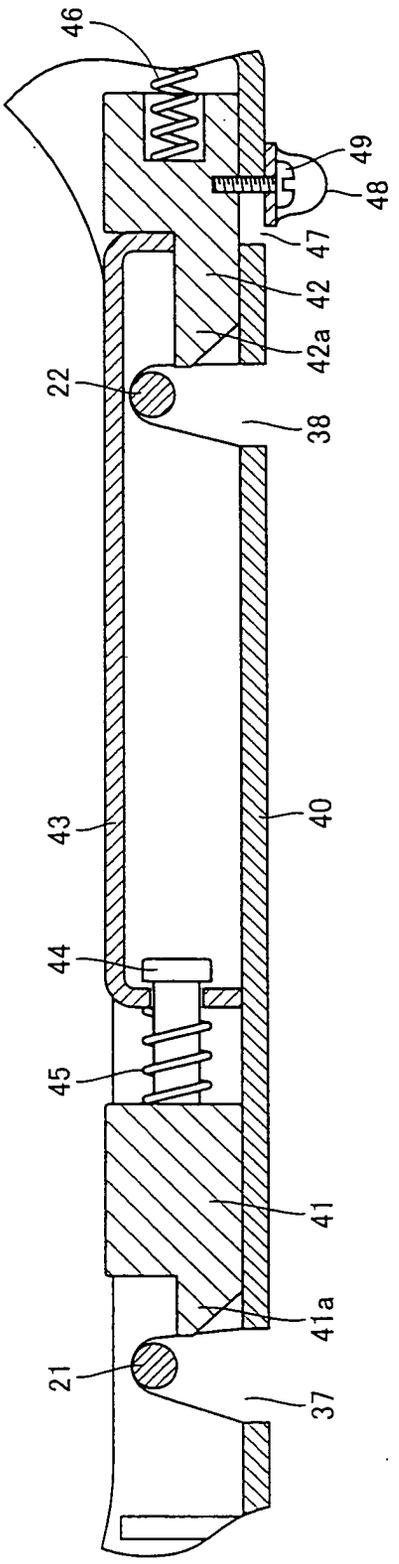


FIG. 8

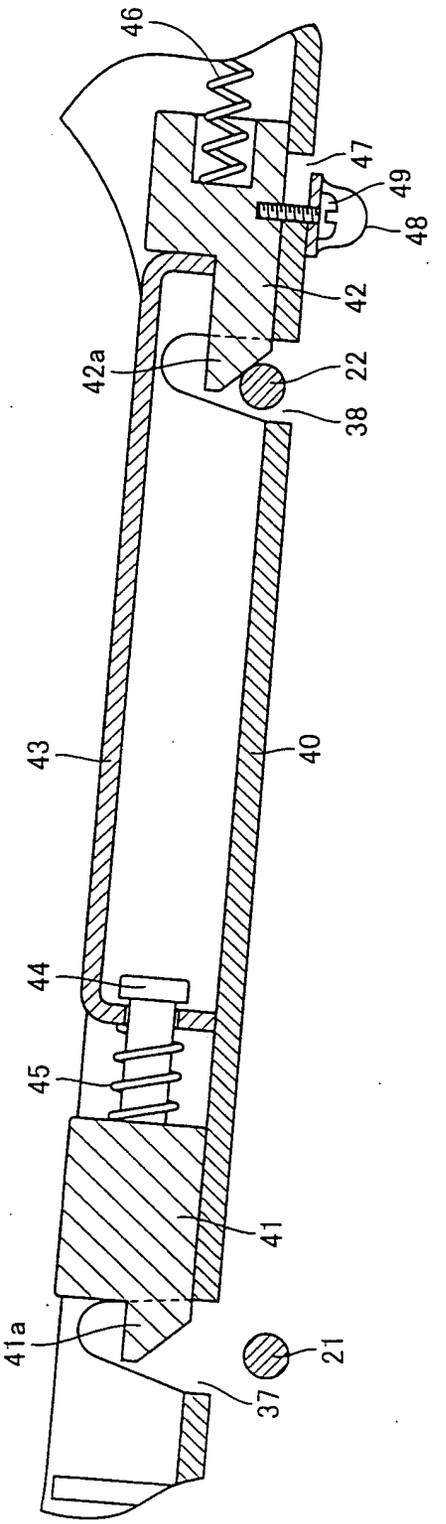


FIG. 9

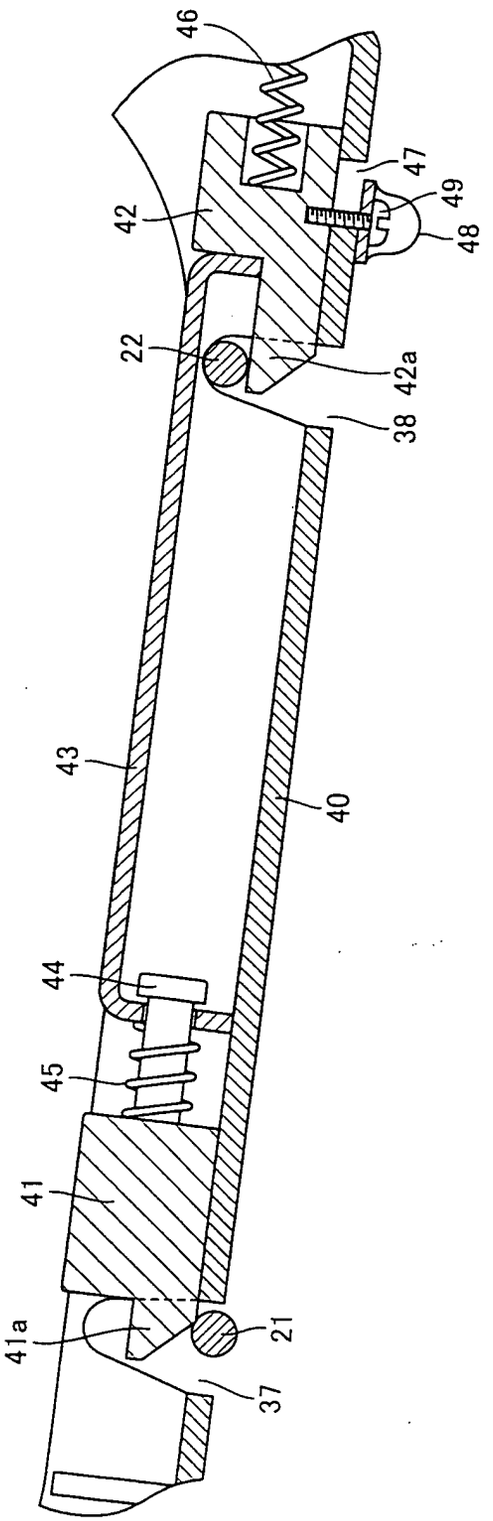


FIG. 10

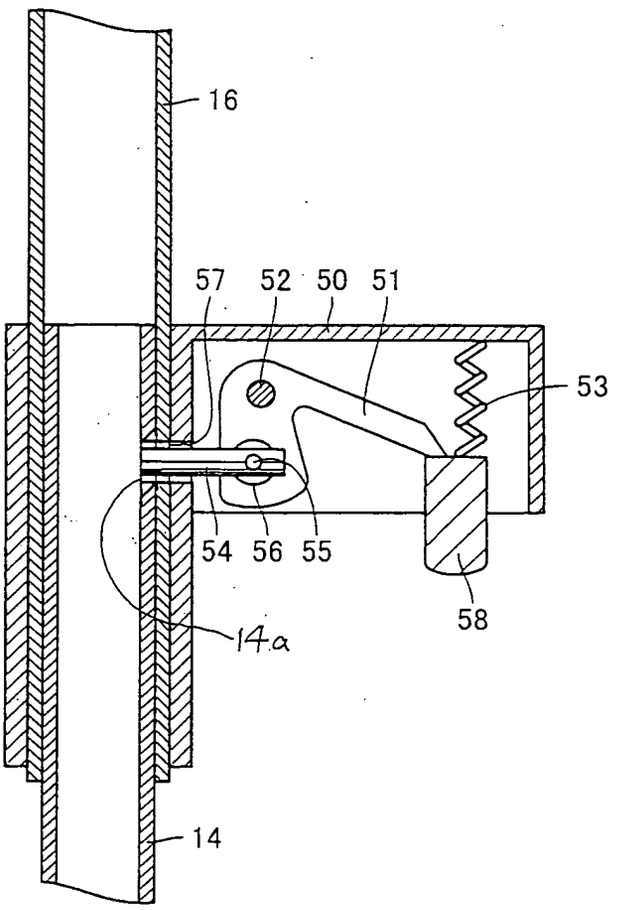


FIG. 11

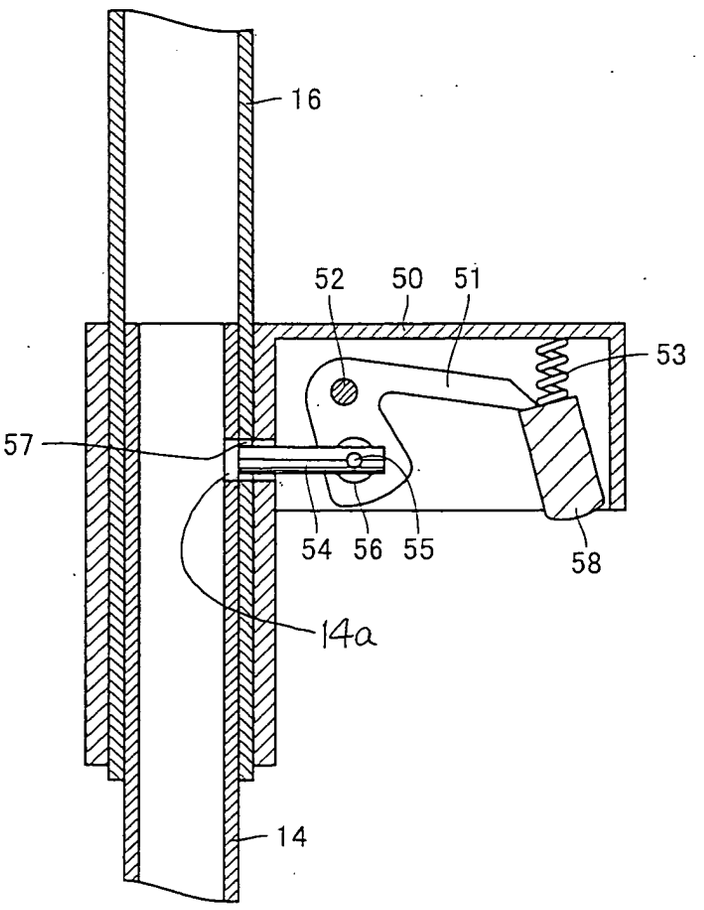


FIG. 12

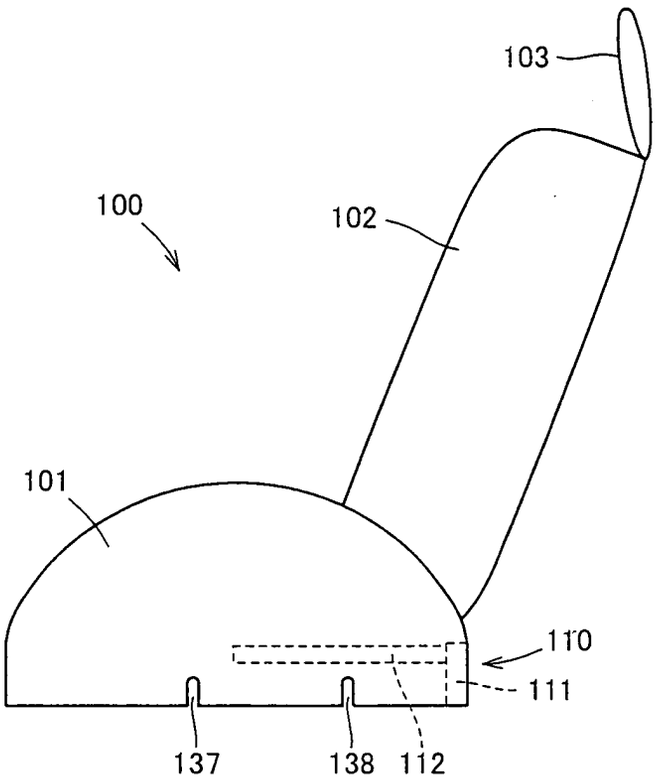


FIG. 13

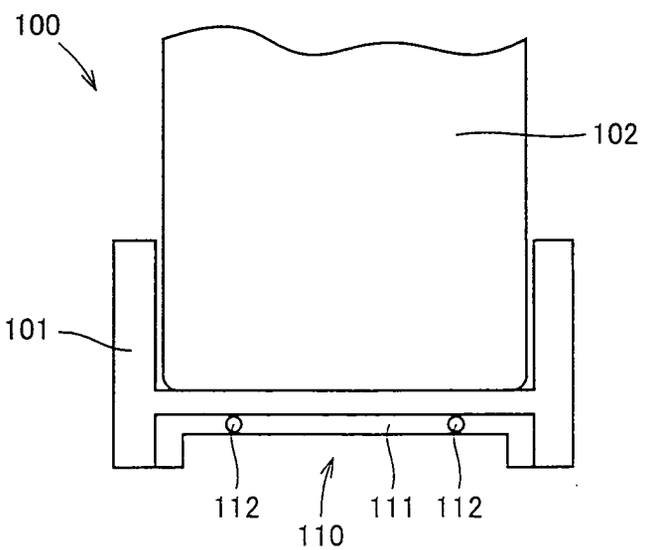
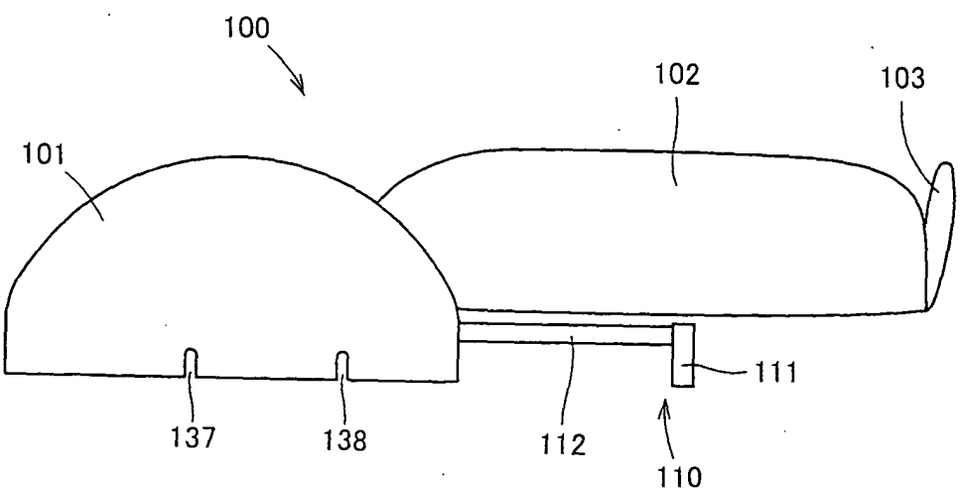


FIG. 14



INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2004/002037

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl[7] A47C3/02, A47D1/08, A47C4/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl[7] A47C3/02, A47D1/08, A47C4/02, A47C3/20, A47D1/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2004
Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 170078/1985(Laid-open No. 78155/1987) (Combi Corp.), 19 May, 1987 (19.05.87), Full text; all drawings (Family: none)	1-4,6,11-26 5,7-10
Y A	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 109579/1975(Laid-open No. 23604/1977) (Tomy Kogyo Kabushiki Kaisha), 19 February, 1977 (19.02.77), Full text; all drawings (Family: none)	1-4,6,11-26 5,7-10

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
31 May, 2004 (31.05.04)	15 June, 2004 (15.06.04)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2004/002037

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 129758/1985(Laid-open No. 39548/1987) (Kabushiki Kaisha Sanko Kogei), 09 March, 1987 (09.03.87), Full text; all drawings (Family: none)	2
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 46740/1988(Laid-open No. 154848/1989) (Kanto Auto Works, Ltd.), 25 October, 1989 (25.10.89), Full text; all drawings (Family: none)	3
Y	JP 9-327350 A (Koizumi Sangyo Corp.), 22 December, 1997 (22.12.97), Full text; all drawings (Family: none)	6,12,23
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 191264/1981(Laid-open No. 93261/1983) (Chitose Kabushiki Kaisha), 24 June, 1983 (24.06.83), Full text; Fig. 1 (Family: none)	11-26
Y	US 3061261 A (Daniel Berlin), 30 October, 1962 (30.10.62), Full text; Fig. 6 (Family: none)	15,17,24,26
Y	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 118209/1975(Laid-open No. 59354/1976) (Combi Corp.), 11 May, 1976 (11.05.76), Full text; all drawings (Family: none)	18,21

Form PCT/ISA/210 (continuation of second sheet) (January 2004)