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

(11) EP 2 020 199 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
04.02.2009 Bulletin 2009/06

(51) Int Cl.:
A47K 3/12 *(2006.01)*

(21) Application number: **08013329.1**

(22) Date of filing: **24.07.2008**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA MK RS

(30) Priority: **31.07.2007 JP 2007199498**

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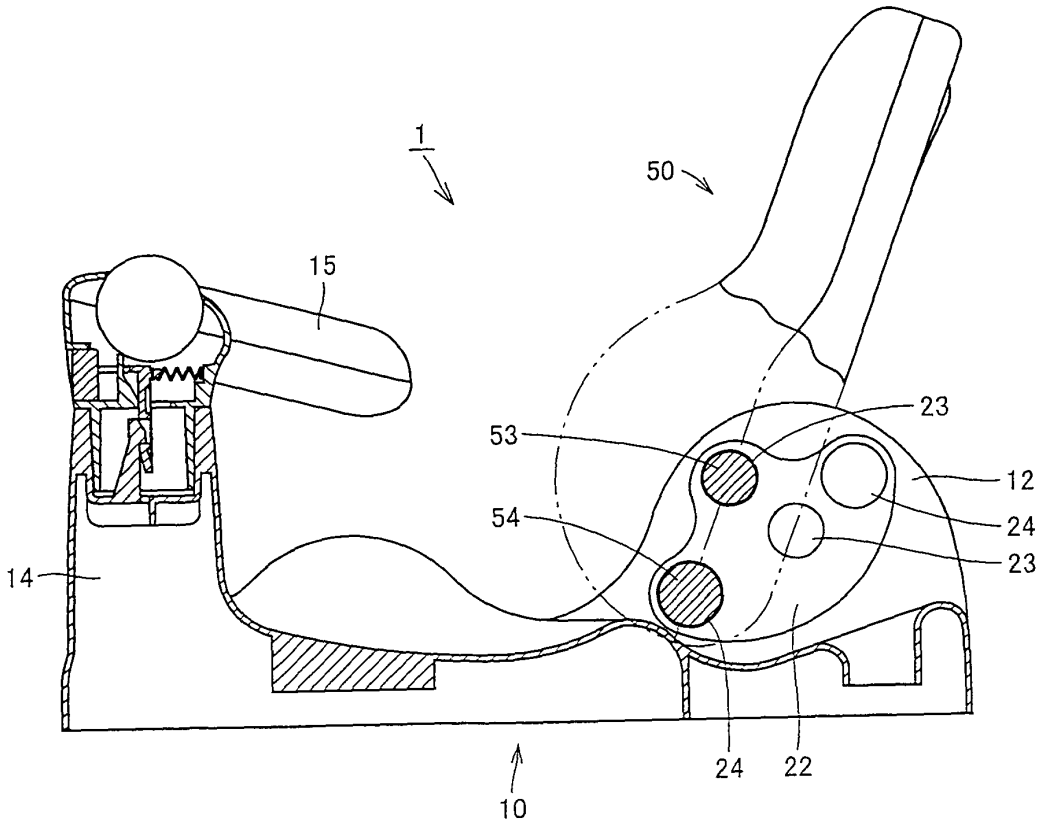
(54) Child bath chair

(57) A child bath chair (1) includes a base member (10) having a seating surface portion, and a back member (50) having a backrest surface portion and detachably attached to the base member (10).

FIG. 12



EP 2 020 199 A1

Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a bath chair that is used by an infant or young child during bath time.

Description of the Background Art

[0002] Japanese Patent Publication Nos. 2004-121491 and 2002-119391 of unexamined applications disclose a child bath chair. The child bath chairs disclosed in these publications have a base member having a seating surface portion, a back member having a backrest surface portion and attached to the base member in a backward inclinable manner, and a forward guard member provided above a front part of the base member and extending in a width direction.

[0003] In the child bath chairs disclosed in the above publications, the back member is capable of reclining adjustment with respect to the base member. However, a scummy deposit is likely to build up around a pivot shaft that pivotally connects the back member with the base member. Since a bathroom has a lot of moisture, mold may grow from the scummy deposit, which is not sanitarily preferable.

SUMMARY OF THE INVENTION

[0004] It is an object of the present invention to provide a child bath chair that can be always kept clean.

[0005] According to the present invention, a child bath chair that is used by a young child during bath time includes: a base member having a seating surface portion; and a back member having a backrest surface portion and detachably attached to the base member.

[0006] According to the present invention having the above structure, the back member is detachable from the base member. Therefore, each part of the bath chair can be washed and the bath chair can be kept clean.

[0007] In a preferred embodiment of the present invention, the back member is supported by the base member in a backward and forward inclinable manner. In this embodiment as well, since the back member is detachable from the base member, a portion around a pivot shaft for pivotally connecting the back member with the base member can be kept clean.

[0008] In one embodiment, the base member has a pair of rear standing wall portions provided at both ends in a width direction of a rear part of the base member so as to face both side surfaces of the back member, respectively. A first engaging shaft and a second engaging shaft are provided in one of the rear standing wall portion of the base member and the side surface of the back member so as to be displaceable between a position protruding from a surface and a position retracted inside, and a first shaft hole and a second shaft hole for respectively receiving the first engaging shaft and the second engaging shaft are provided in the other of the rear standing wall portion of the base member and the side surface of the back member.

[0009] In the above embodiment, a plurality of first shaft holes and a plurality of second shaft holes are provided. Preferably, the plurality of second shaft holes are located at an equal distance from one of the plurality of first shaft holes, and the plurality of first shaft holes are located at an equal distance from one of the plurality of second shaft holes.

[0010] In a more preferred embodiment, the first engaging shaft and the second engaging shaft are provided on both side surfaces of the back member. The back member includes a first biasing member for biasing the first engaging shaft toward the protruding position, a first operation member for moving the first engaging shaft to the retracted position against biasing force of the first biasing member, a second biasing member for biasing the second engaging shaft toward the protruding position, and a second operation member for moving the second engaging shaft to the retracted position against biasing force of the second biasing member. Preferably, the base member has a recess region recessed to a predetermined depth in each of respective inner wall surfaces of the pair of rear standing wall portions, and the first shaft hole and the second shaft hole are provided in the recess region. The first engaging shaft and the second engaging shaft are provided so that the first engaging shaft and the second engaging shaft can be stopped at an intermediate position between the protruding position and the retracted position, and in the intermediate position, the first engaging shaft and the second engaging shaft are respectively removed from the first shaft hole and the second shaft hole, but protrude from both side surfaces of the back member to such a height that the first engaging shaft and the second engaging shaft cannot be removed from the recess region.

[0011] In one embodiment, the back member is inclinable forward until the back member becomes approximately parallel to the base member. With this structure, a compact folded form of the bath chair can be implemented.

[0012] Preferably, the base member includes a pillar portion extending upward from a middle in a width direction of a front part of the base member, and a front guard portion extending from an upper end of the pillar portion toward both sides in the width direction. Preferably, the front guard portion is detachably attached to the pillar portion.

[0013] Preferably, the base member has a pair of front standing wall portions raised upward at both ends in a width direction of a front part of the base member.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014]

Fig. 1 is a perspective view of a child bath chair according to an embodiment of the present invention;
Fig. 2 is a front view of the child bath chair;
Fig. 3 is a side view of the child bath chair;
Fig. 4A is a plan view of a back member, Fig. 4B is a front view of the back member, and Fig. 4C is a side view of the back member;
Fig. 5 is a rear view of the back member;
Fig. 6 is a diagram illustrating an internal mechanism of the back member;
Fig. 7 is a diagram showing the state obtained by operating first and second operation members in the state shown in Fig. 6;
Fig. 8 is a diagram showing the state obtained by operating the first and second operation members after moving a third engagement member downward;
Fig. 9 is a sectional side view of a base member;
Fig. 10 is a sectional front view of the base member;
Fig. 11 is a sectional side view of the bath chair with the back member in a forward inclined state;
Fig. 12 is a sectional side view of the bath chair with the back member in a slightly backward inclined state;
Fig. 13 is a sectional side view of the bath chair with the back member in a largely backward inclined state; and
Fig. 14 is a sectional side view of the bath chair with the back member in a further backward inclined state.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0015] Figs. 1 through 3 show a child bath chair according to an embodiment of the present invention. First, the overall form of the child bath chair will be described based on its external appearance with reference to the figures.

[0016] A child bath chair 1 is used by an infant or young child during bath time, and includes a base member 10 having a seating surface portion 11, and a back member 50 having a backrest surface portion 51. As described in detail later, the back member 50 is detachably attached to the base member 10. In the illustrated embodiment, the back member 50 is supported by the base member 10 in a forward and backward inclinable manner.

[0017] The base member 10 includes a pillar portion 14 and a front guard portion 15. The pillar portion 14 extends upward from the middle in the width direction of a front part of the base member 10, and the front guard portion 15 extends from an upper end of the pillar portion 14 toward both sides in the width direction. As described later, the front guard portion 15 is detachably attached to the pillar portion 14. A spherical object 16 that attracts child's interest is rotatably accommodated in the middle of the top surface of the front guard portion 15.

[0018] The base member 10 has a pair of rear standing wall portions 12 and a pair of front standing wall portions 13. The rear standing wall portions 12 are provided at both ends in the width direction of a rear part of the base member 10 and face both side surfaces of the back member 50, respectively. The front standing wall portions 13 are provided at both ends in the width direction of the front part of the base member 10 and are raised upward.

[0019] The back member 50 has a pair of sidewall portions 52 projecting forward from both sides of the back member 50. When a child sits on the bath chair, the right and left sides of the child's body are supported by the pair of sidewall portions 52 and the child's legs are placed between the pair of front standing wall portions 13 and the pillar portion 14. Therefore, the child can retain a stable posture.

[0020] Figs. 4 through 8 show the back member 50. The back member 50 has a pair of first engaging shafts 53 and a pair of second engaging shafts 54 which are displaceable between a position protruding from both sidewalls of the back member 50 and a position retracted inside the back member 50. Corresponding to the first engaging shafts 53 and the second engaging shafts 54, two first shaft holes 23 and two second shaft holes 24 are formed in the respective inner wall surfaces of the pair of rear standing wall portions 12 of the base member 10 which respectively face both sidewall surfaces of the back member 50 (see Fig. 9). The first shaft holes 23 are provided to receive the first engaging shafts 53 and the second shaft holes 24 are provided to receive the second engaging shafts 54. In the illustrated embodiment, the relatively small first engaging shafts 53 are located above the relatively large second engaging shafts 54.

[0021] Figs. 6 through 8 illustrate elements accommodated in the back member 50. As shown in the figures, the pair of first engaging shafts 53 are respectively fixed to a pair of first engaging members 55, and the pair of second engaging shafts 54 are respectively fixed to a pair of engaging members 56. The pair of first engaging members 55 are always biased by respective first springs 59 so as to move outward in the width direction. Each first spring 59 has its one end supported by a first fixed spring bearing 63 fixed to the back member 50. The other end of each first spring 59 abuts on a first spring abutting portion 57 fixed to the first engaging member 55. Similarly, the pair of second engaging members 56 are always biased by respective second springs 60 so as to move outward in the width direction. Each second spring 60 has its one end supported by a second fixed spring bearing 64 fixed to the back member 50. The other end of each second spring 60 abuts on a second spring abutting portion 58 fixed to the second engaging member 56. It should be understood that other biasing members for providing resilient biasing force may be used instead of the springs 59, 60.

[0022] In the state of Fig. 6, the pair of first engaging members 55 and the pair of second engaging members 56 are located outermost in the width direction, and the pair of first engaging shafts 53 and the pair of second engaging shafts 54 are brought to the protruding position

protruding from both sides of the back member 50 to a large extent.

[0023] As can be seen from Figs. 5 and 6, a pair of first operation members 61 for performing an operation of moving the respective first engaging members 55 are fixedly attached to the pair of first engaging members 55, respectively. A pair of second operation members 62 for performing an operation of moving the respective second engaging members 56 are fixedly attached to the pair of second engaging members 56, respectively. The pair of first operation members 61 and the pair of second operation members 62 are exposed to the outside from a back surface of the back member 50. By pinching the pair of first operation members 61 with fingers so that the first operation members 61 approach each other, the first engaging shafts 53 are brought to the retracted position retracted into the back member 50 against the biasing force of the first springs 59. Similarly, by pinching the pair of second operation members 62 with fingers so that the second operation members 62 approach each other, the second engaging shafts 54 are brought to the retracted position retracted into the back member 50 against the biasing force of the second springs 60.

[0024] As shown in Fig. 6, a third engaging member 67 is also accommodated in the back member 50. The third engaging member 67 extends in an up-down direction between the pair of first engaging members 55 and between the pair of second engaging members 56. The third engaging member 67 is provided displaceably in the up-down direction. An operation click 72 for performing an operation of moving the third engaging member 67 is exposed to the outside from the back surface of the back member 50.

[0025] The third engaging member 67 is always biased by a third spring 66 so as to move to an upper position. The third spring 66 has its one end supported by a third fixed spring bearing 65 fixed to the back member 50. Each of the first engaging members 55 has a first protrusion 68 protruding toward the middle in the width direction of the back member 50. Each of the second engaging members 56 has a second protrusion 69 protruding toward the middle in the width direction of the back member 50. The third engaging member 67 has third protrusions 70 and fourth protrusions 71. The third protrusions 70 are provided at such a position that the third protrusions 70 can face the first protrusions 68 of the pair of first engaging members 55, respectively. The fourth protrusions 71 are provided at such a position that the fourth protrusions 71 can face the second protrusions 69 of the pair of second engaging members 56, respectively.

[0026] Fig. 7 shows the state of the back member 50 after the pair of first operation members 61 and the pair of second operation members 62 are operated to approach each other from the state shown in Fig. 6. In the state of Fig. 7, the third protrusions 70 of the third engaging member 67 respectively abut on the first protrusions 68 of the pair of first engaging members 55. Therefore, the pair of first engaging shafts 53 are retained at an intermediate position slightly protruding from both sides of the back member 50. Similarly, the fourth protrusions 71 of the third engaging member 67 respectively abut on the second protrusions 69 of the pair of second engaging members 56. Therefore, the pair of second engaging shafts 54 are retained at an intermediate position slightly protruding from both sides of the back member 50.

[0027] Fig. 8 shows the state of the back member 50 after the operation click 72 of the third engaging member 67 is operated to move the third engaging member 67 to a lower position and the first operation members 61 and the second operating members 62 are operated to move the first and second engaging members 55, 56 toward the middle in the width direction of the back member 50. In the illustrated state, the third protrusions 70 and fourth protrusions 71 of the third engaging member 67 are located at a displaced position from the first protrusions 68 of the pair of first engaging members 55 and the second protrusions 69 of the pair of second engaging members 56, respectively. Therefore, the pair of first engaging shafts 53 and the pair of second engaging shafts 54 are brought to a retracted position completely retracted from both sides of the back member 50 into the back member 50.

[0028] Hereinafter, the base member 10 will be described with reference to Figs. 9 and 10. A recess region 22 recessed to a predetermined depth is formed in the respective inner wall surfaces of the pair of rear standing wall portions 12 of the base member 10. The two first shaft holes 23 and the two second shaft holes 24 are provided in the recess regions 22. The two second shaft holes 24 are located at an equal distance from one of the first shaft holes 23 which is located above, and the two first shaft holes 23 are located at an equal distance from one of the second shaft holes 24 which is located forward (on the left side in Fig. 9).

[0029] As shown in Fig. 9, a cylindrical part of the front guard portion 15 is accommodated in a columnar recess of the pillar portion 14. The pillar portion 14 has a fixed click 17 protruding upward from the bottom of the columnar recess. The front guard portion 15 has an engaging piece 19, and the engaging piece 19 has an engaging hole 18 through which the engaging piece 19 can be anchored to the fixed click 17. The engaging piece 19 is biased by a spring 21 in a direction in which the engaging piece 19 is anchored to the fixed click 17. The front guard portion 15 has an operation button 20 for performing an operation of moving the engaging piece 19.

[0030] In the state of Fig. 9, the fixed click 17 of the pillar portion 14 and the engaging piece 19 of the front guard portion 15 are anchored to each other so that the front guard portion 15 cannot be detached from the pillar portion 14. By pressing the push button 20 in the state of Fig. 9, the anchored state between the engaging piece 19 and the fixed click 17 is released so that the front guard portion 15 can be detached from the pillar portion 14.

[0031] Figs. 11 through 14 show the bath chair with

the back member 50 in various positions. Each state will now be described.

[0032] First, in the state of Fig. 11, the first engaging shaft 53 fits in the upper first shaft hole 23, the second engaging shaft 54 fits in the rear upper second shaft hole 24, and the back member 50 is inclined forward until the back member 50 becomes approximately parallel to the base member 10. Fig. 11 shows the form of the bath chair while not in use, that is, a compact folded form of the bath chair.

[0033] The second engaging shaft 54 is retracted by operating the second operation member 62 in the state of Fig. 11. This operation causes the second protrusion 69 of the second engaging member 56 and the fourth protrusion 71 of the third engaging member 67 to abut on each other. Therefore, the second engaging shaft 54 is retained in the intermediate position between the protruding position and the retracted position. In other words, in this intermediate position, the second engaging shaft 54 is removed from the second shaft hole 24, but protrudes from both sides of the back member 50 to such a height that the second engaging shaft 54 cannot be removed from the recess region 22 provided in each of the respective inner surfaces of the pair of rear standing wall portions 12. In this state, the back member 50 is pivoted backward around the first engaging shaft 53 in order to obtain the state shown in Fig. 12.

[0034] In the state of Fig. 12, the second engaging shaft 54 fits in the front lower second shaft hole 24 and the back member 50 is inclined slightly backward so that the bath chair can be used as a chair. The first engaging shaft 53 is retracted by operating the first operation member 61 in the state of Fig. 12. This operation causes the first protrusion 68 of the first engaging member 55 and the third protrusion 70 of the third engaging member 67 to abut on each other. Therefore, the first engaging shaft 53 is retained in the intermediate position between the protruding position and the retracted position. In other words, in this intermediate position, the first engaging shaft 53 is removed from the first shaft hole 23, but protrudes from both sides of the back member 50 to such a height that the first engaging shaft 53 cannot be removed from the recess region 22. In this state, the back member 50 is pivoted backward around the second engaging shaft 54 in order to obtain the state shown in Fig. 13.

[0035] In the state of Fig. 13, the first engaging shaft 53 fits in the lower first shaft hole 23, and the back member 50 is in a largely backward inclined state. By operating the first operation member 61 in the state of Fig. 13, the first engaging shaft 53 is removed from the first shaft hole 23. In this state, the back member 50 is pivoted further backward, whereby the state shown in Fig. 14 is obtained. In the state of Fig. 14, the back surface of the back member 50 abuts on a rear end abutting portion 25 of the base member 10, whereby the position of the back member 50 is fixed.

[0036] In order to detach the back member 50 from the base member 10, the operation click 72 of the third engaging member 67 is first operated to move the third engaging member 67 to a lower position. In this state, the first operation member 61 and the second operation member 62 are operated to retract the first engaging shaft 53 and the second engaging shaft 54 to a completely retracted position. Since the first engaging shaft 53 and the second engaging shaft 54 are completely retracted from both side walls of the back member 50 into the back member 50, the back member 50 can be detached from the base member 10.

[0037] In the illustrated embodiment, the first engaging shaft 53 and the second engaging shaft 54 are provided in the back member 50, and the first shaft hole 23 and the second shaft hole 24 are provided in the base member 10. In another embodiment, however, the first and second engaging shafts may be provided in the base member and the first and second shaft holes may be provided in the back member. In still another embodiment, the bath chair may have a back member that is detachable from the base member but has a fixed inclination angle.

[0038] Although an embodiment of the present invention has been described above with reference to the figures, the present invention is not limited to the illustrated embodiment. Various modifications and variations can be made to the above described and illustrated embodiment within the same scope or an equivalent scope as in the present invention.

[0039] The present invention can thus be advantageously used as a child bath chair that can be kept clean.

Claims

1. A child bath chair that is used by a young child during bath time, comprising:

   a base member (10) having a seating surface portion; and
   a back member (50) having a backrest surface portion and detachably attached to said base member (10).

2. The child bath chair according to claim 1, wherein said back member (50) is supported by said base member (10) in a backward and forward inclinable manner.

3. The child bath chair according to claim 1 or 2, wherein
   said base member (10) has a pair of rear standing wall portions (12) provided at both ends in a width direction of a rear part of said base member so as to face both side surfaces of said back member (50), respectively, and
   a first engaging shaft (53) and a second engaging shaft (54) are provided in one of the rear standing wall portion (12) of said base member (10) and the

side surface of said back member (50) so as to be displaceable between a position protruding from a surface and a position retracted inside, and a first shaft hole (23) and a second shaft hole (24) for respectively receiving said first engaging shaft (53) and said second engaging shaft (54) are provided in the other of the rear standing wall portion of said base member and the side surface of said back member.

4. The child bath chair according to claim 3, wherein a plurality of said first shaft holes (23) and a plurality of said second shaft holes (24) are provided.

5. The child bath chair according to claim 4, wherein said plurality of second shaft holes (24) are located at an equal distance from one of said plurality of first shaft holes (23), and said plurality of first shaft holes (23) are located at an equal distance from one of said plurality of second shaft holes (24).

6. The child bath chair according to one of claims 3 to 5, wherein said first engaging shaft (53) and said second engaging shaft (54) are provided on both side surfaces of said back member (50), and said back member includes a first biasing member (59) for biasing said first engaging shaft (53) toward said protruding position, a first operation member (61) for moving said first engaging shaft to said retracted position against biasing force of said first biasing member, a second biasing member (60) for biasing said second engaging shaft (54) toward said protruding position, and a second operation member (62) for moving said second engaging shaft to said retracted position against biasing force of said second biasing member.

7. The child bath chair according to one of claims 3 to 6, wherein said base member (10) has a recess region (22) recessed to a predetermined depth in each of respective inner wall surfaces of said pair of rear standing wall portions (12), said first shaft hole (23) and said second shaft hole (24) are provided in said recess region, said first engaging shaft (53) and said second engaging shaft (54) are provided so that said first engaging shaft and said second engaging shaft can be stopped at an intermediate position between said protruding position and said retracted position, and in said intermediate position, said first engaging shaft and said second engaging shaft are respectively removed from said first shaft hole and said second shaft hole, but protrude from both side surfaces of said back member to such a height that said first engaging shaft and said second engaging shaft cannot be removed from said recess region.

8. The child bath chair according to one of claims 2 to 7, wherein said back member (50) is inclinable forward until said back member becomes approximately parallel to said base member (10).

9. The child bath chair according to one of claims 1 to 8, wherein said base member (10) includes a pillar portion (14) extending upward from a middle in a width direction of a front part of said base member, and a front guard portion (15) extending from an upper end of said pillar portion toward both sides in the width direction.

10. The child bath chair according to claim 9, wherein said front guard portion (15) is detachably attached to said pillar portion (14).

11. The child bath chair according to one of claims 1 to 10, wherein said base member (10) has a pair of front standing wall portions (13) raised upward at both ends in a width direction of a front part of said base member.

FIG. 1

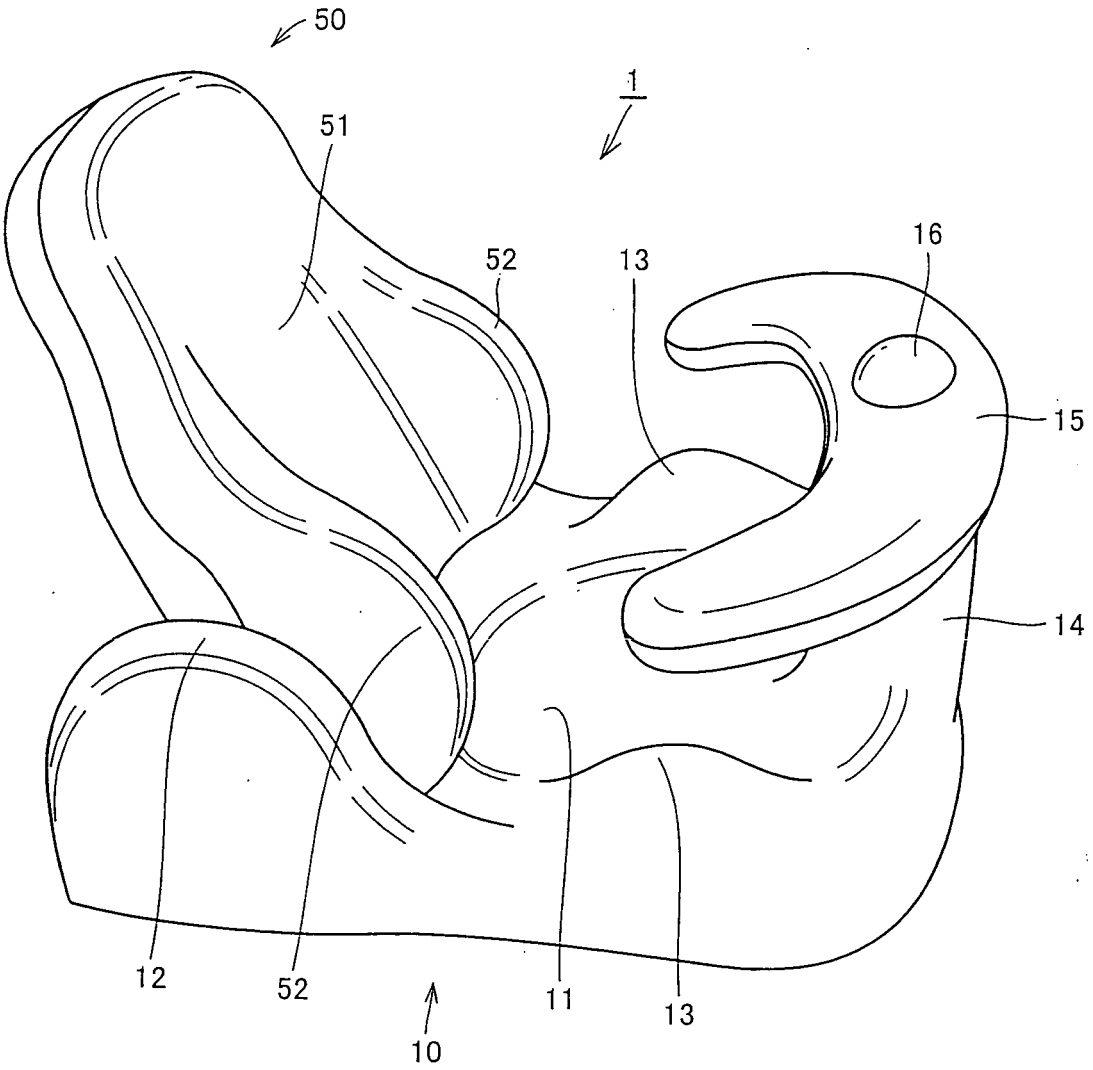


FIG. 2

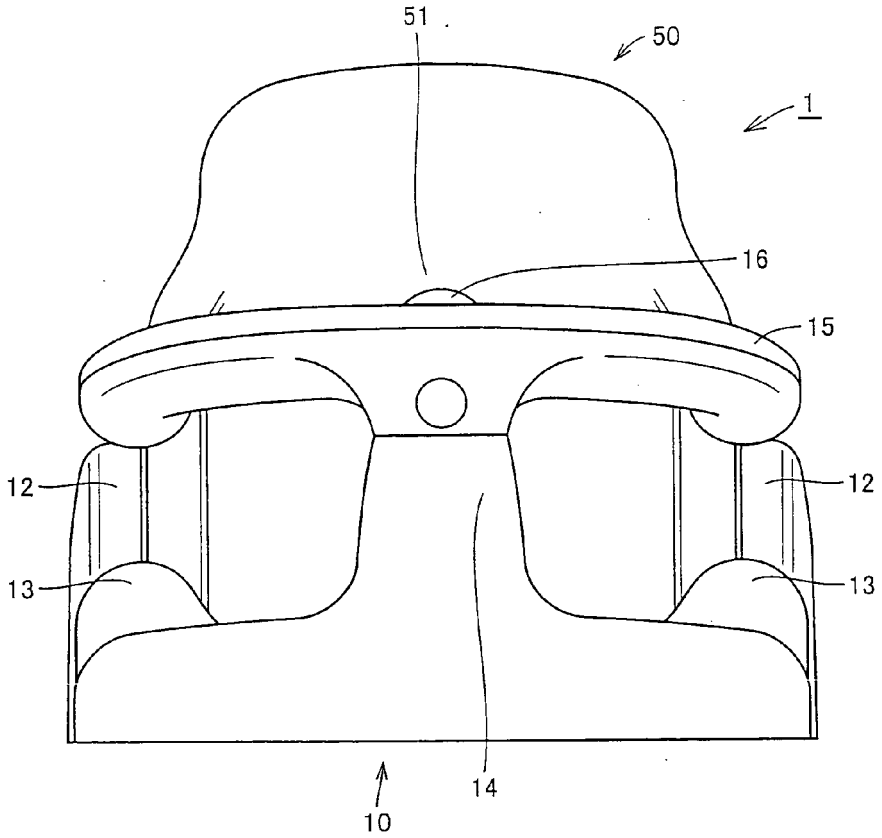


FIG. 3

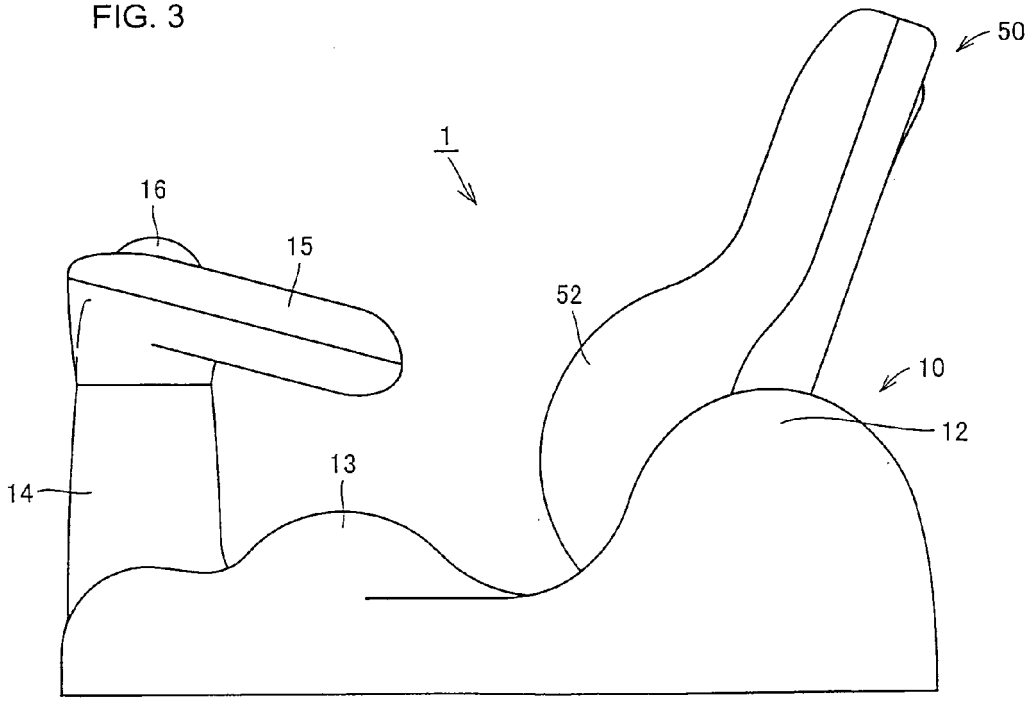


FIG. 4A

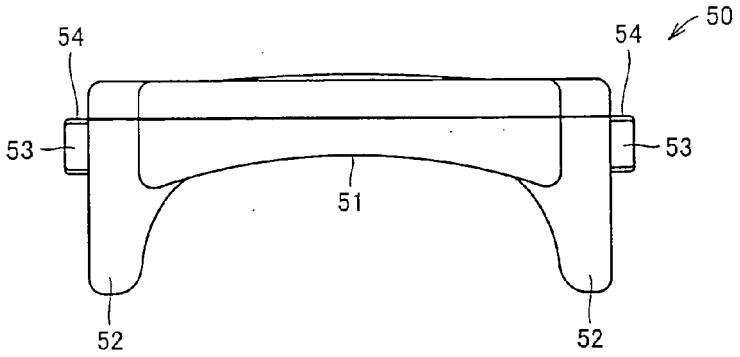


FIG. 4B

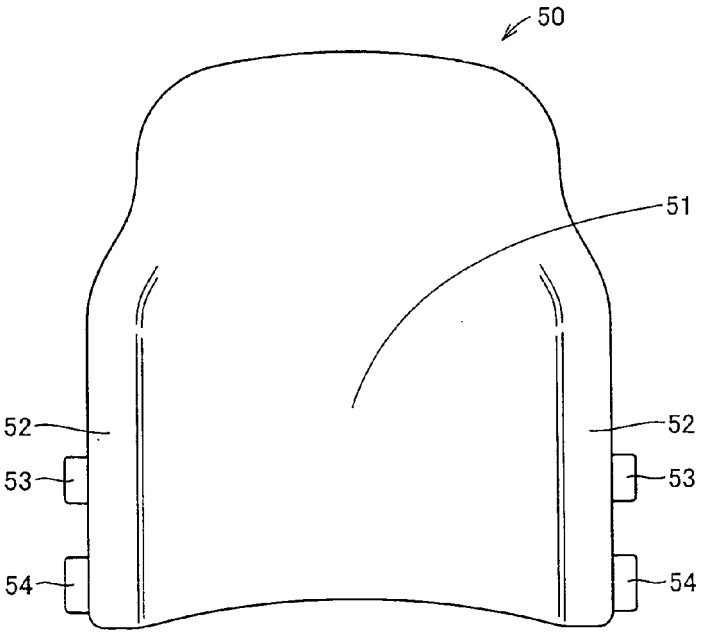


FIG. 4C

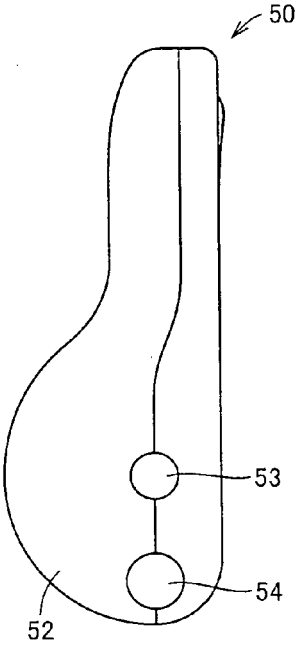


FIG. 5

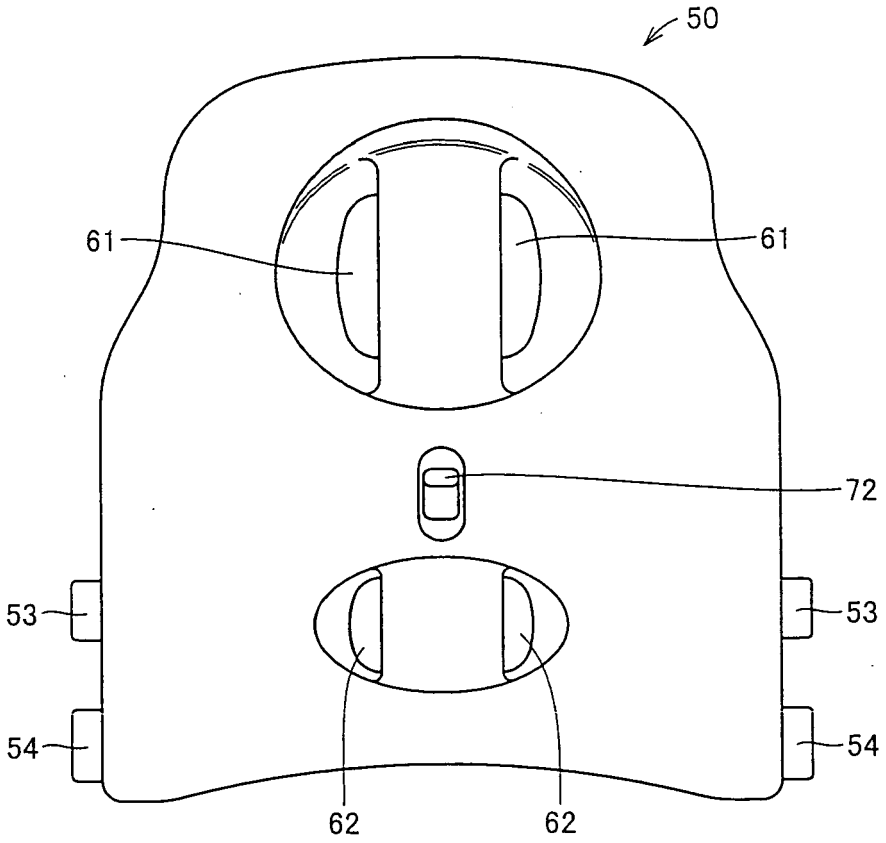


FIG. 6

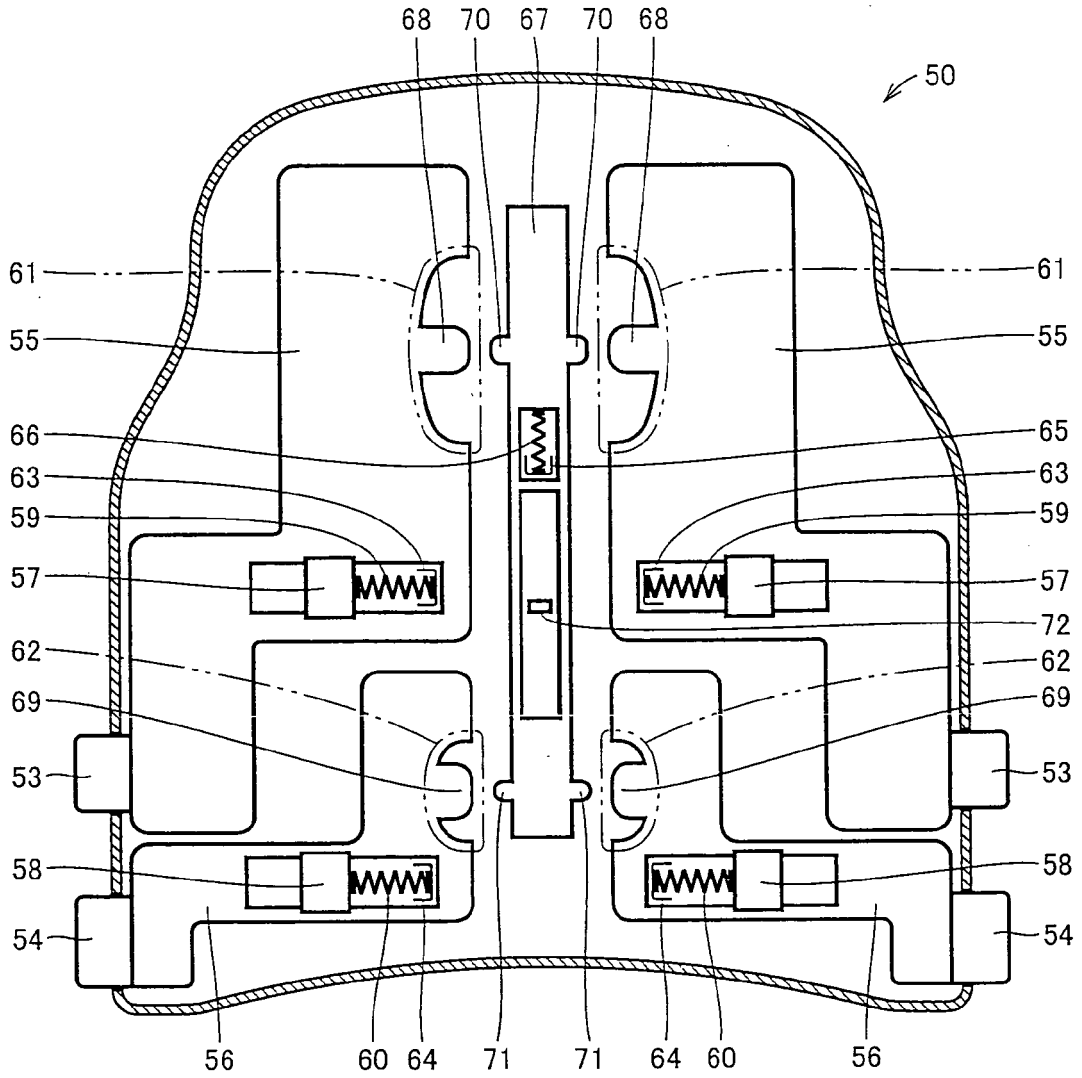

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FIG. 7

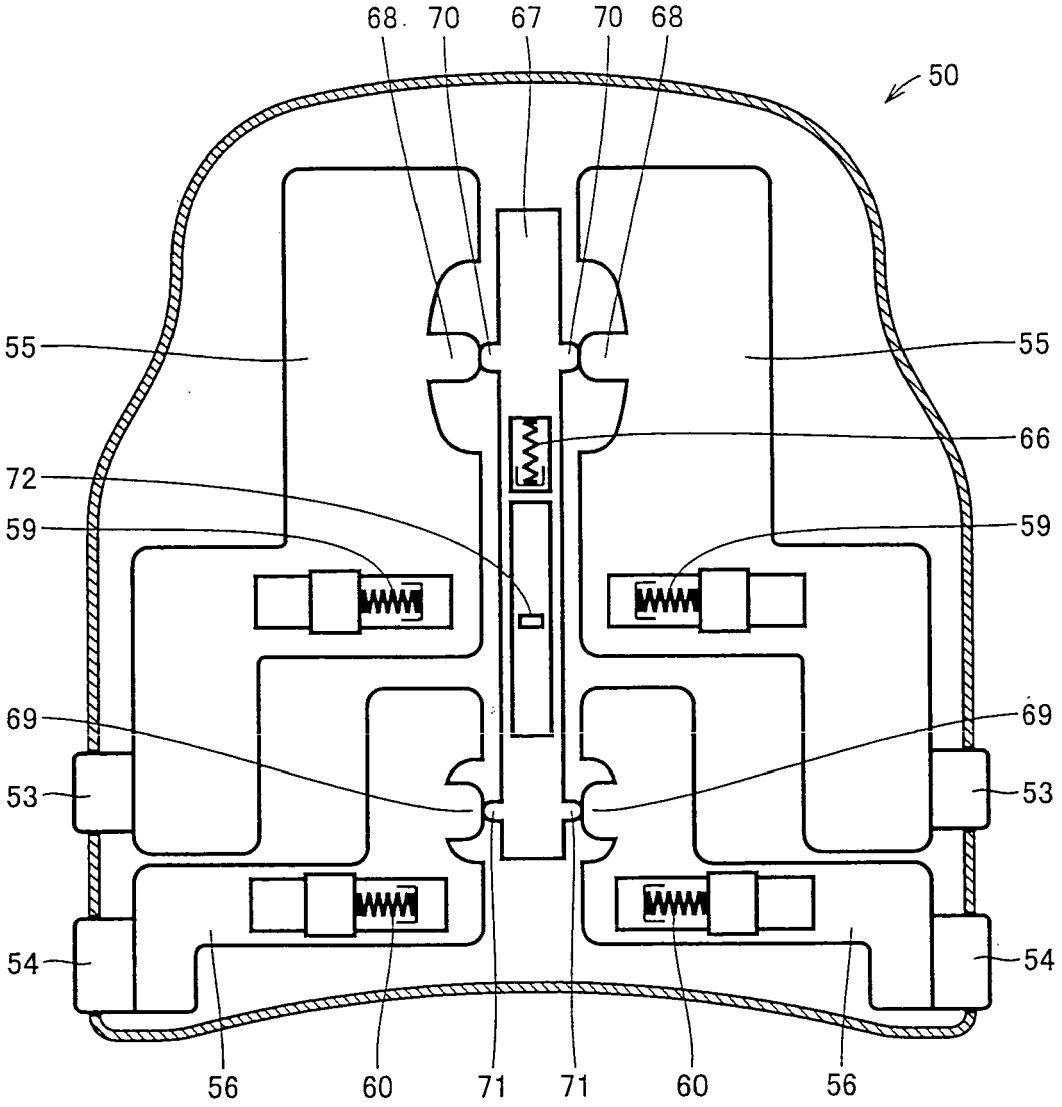

FIG. 8

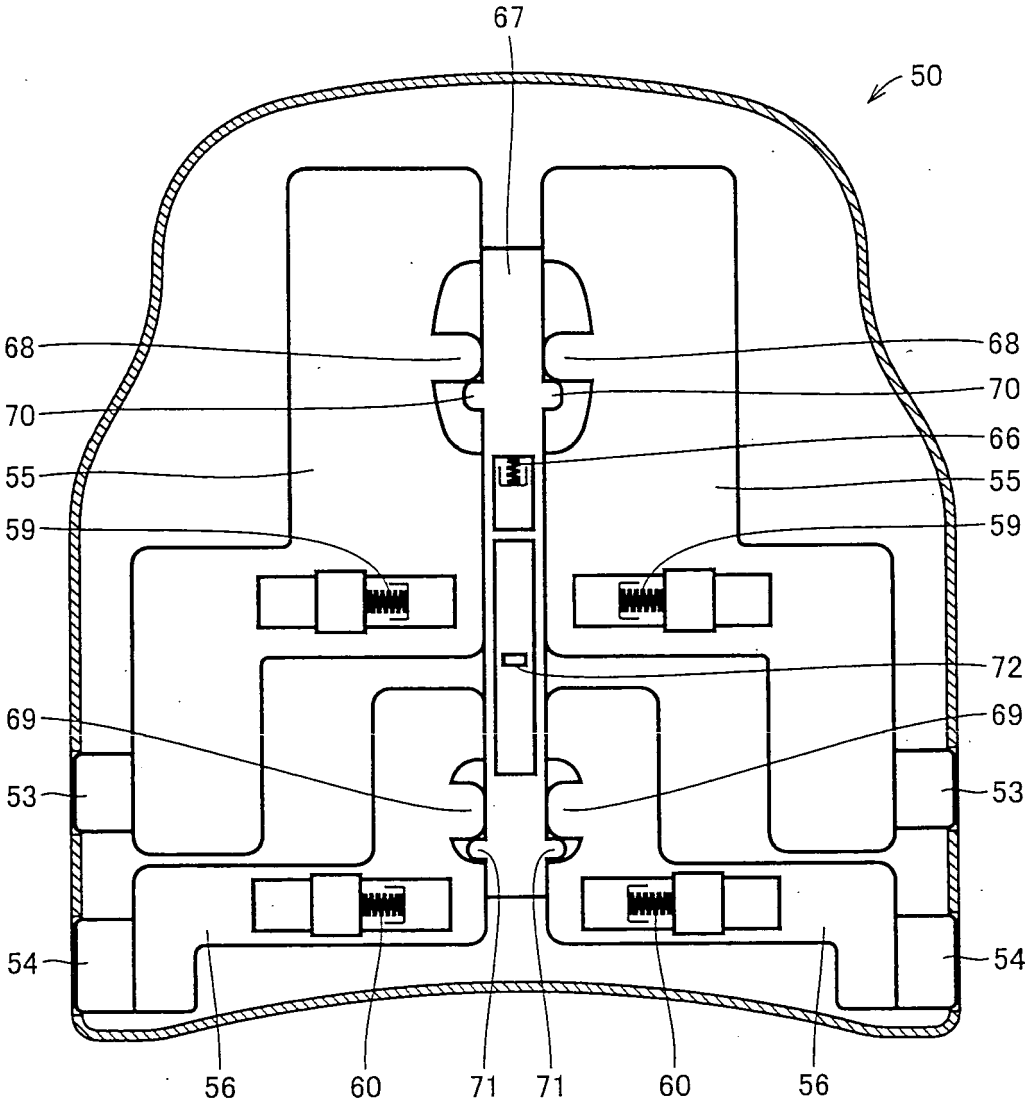

FIG. 9

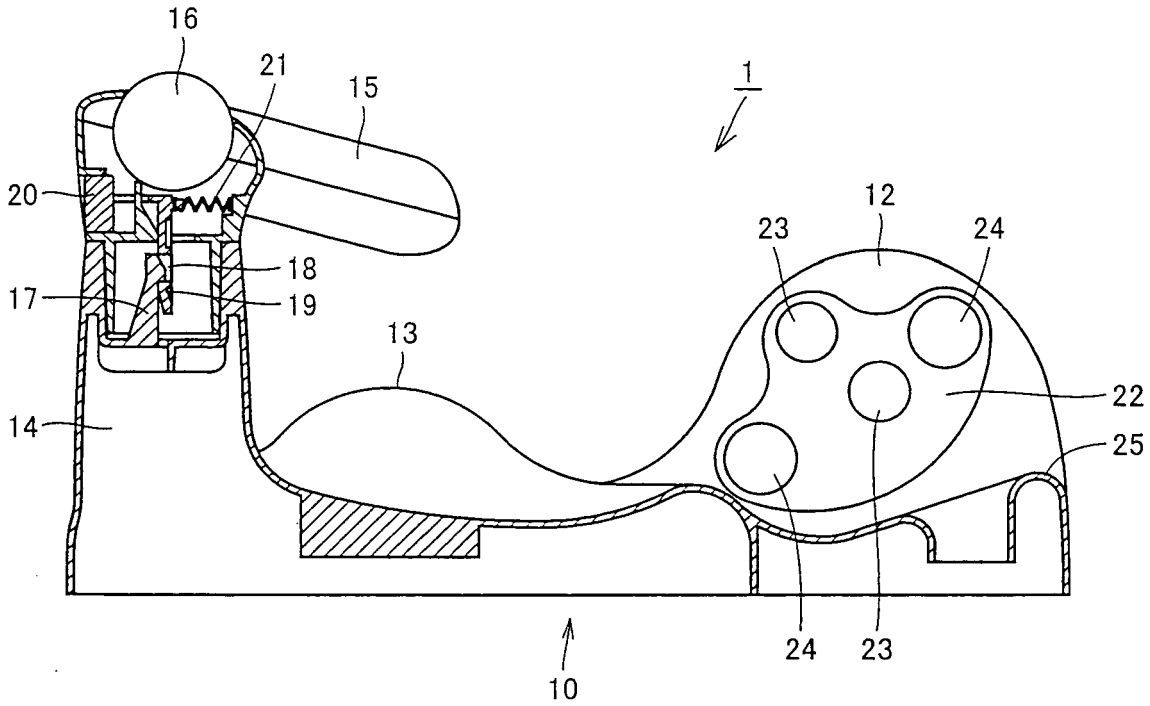

FIG. 10

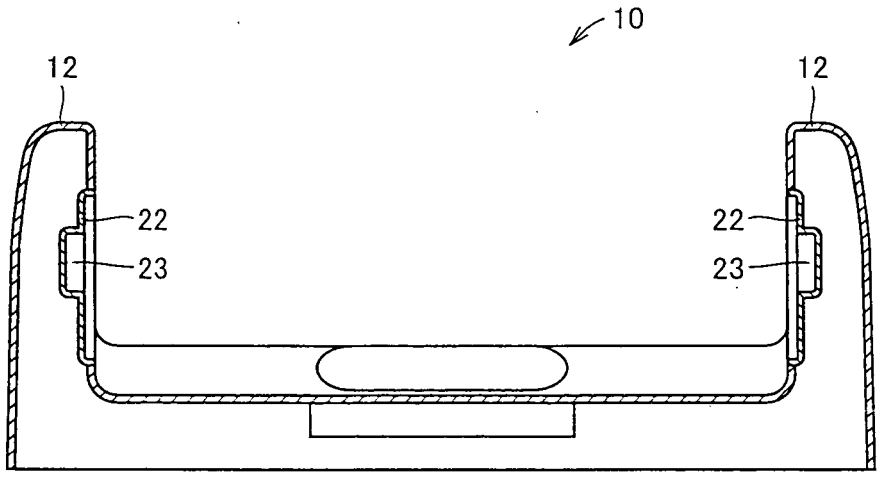

FIG. 11

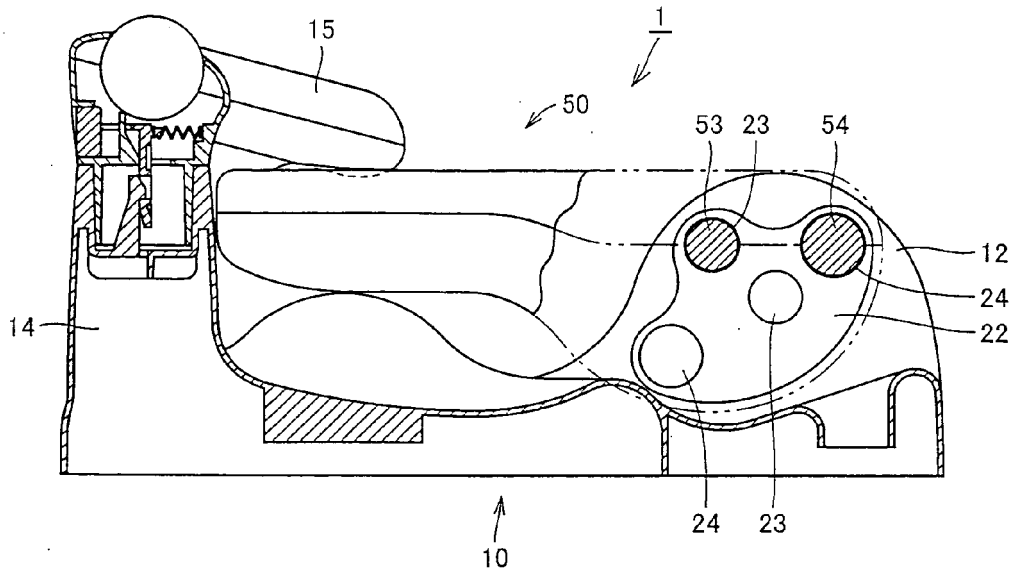
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FIG. 12

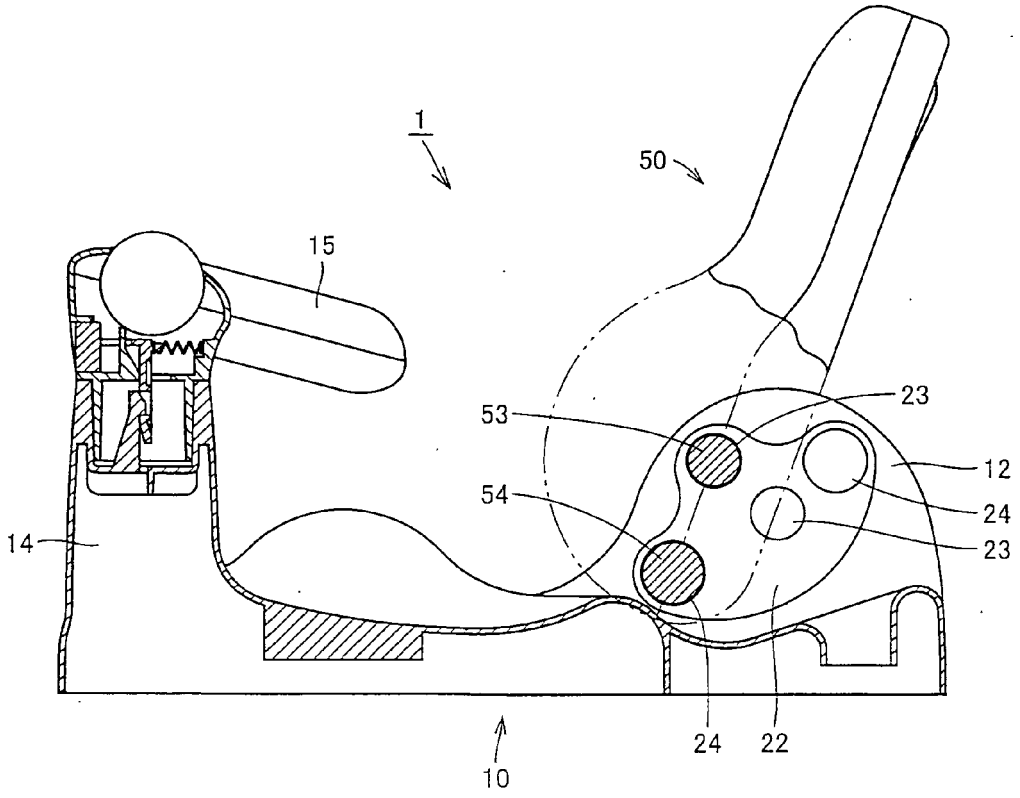
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FIG. 13

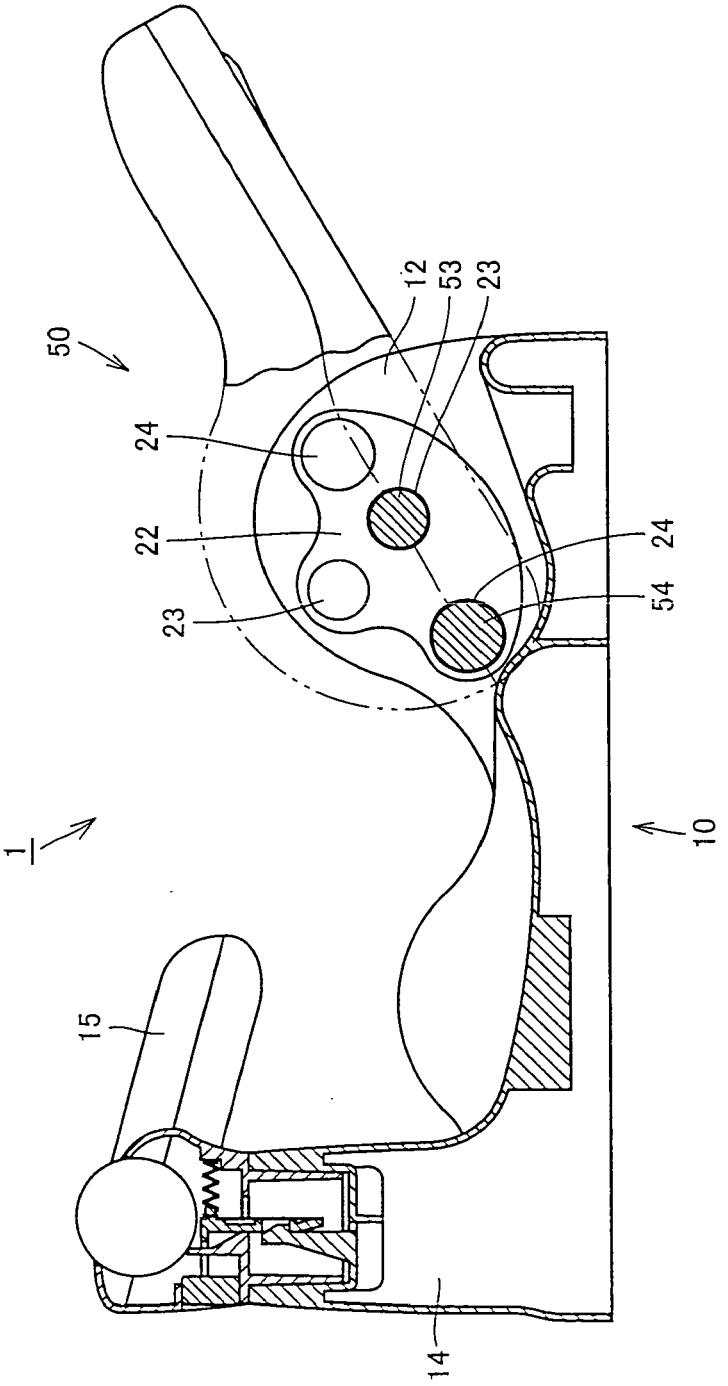
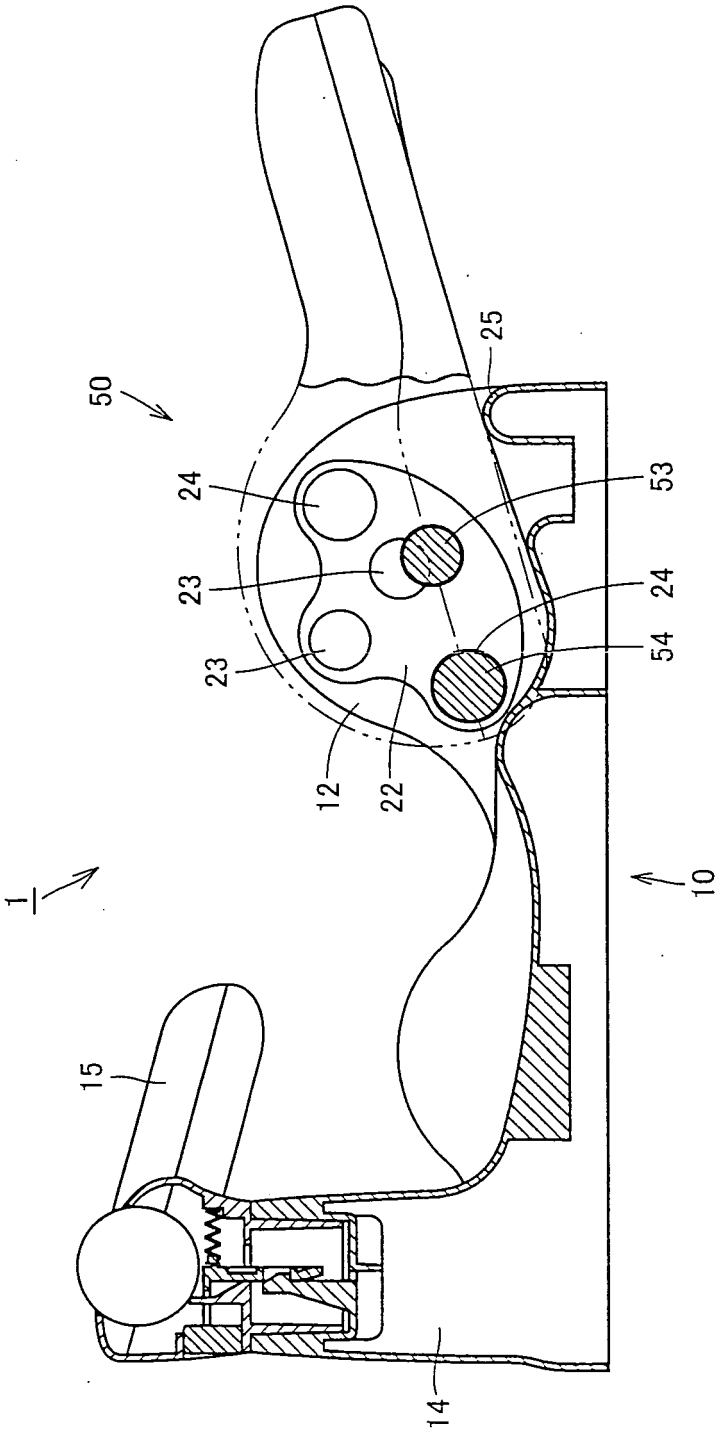


FIG. 14



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EUROPEAN SEARCH REPORT

Application Number
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