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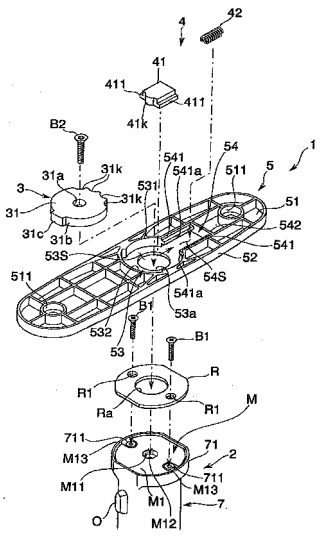
(54) **ELBOW REST AND CHAIR**

(57) An armrest is provided comprising an elbow stay (1) provided on which the arm of a person seated is placed, an armrest support (2) provided for supporting the elbow stay (1) so that the elbow stay (1) can be turned horizontally, and a snap engagement mechanism provided between the elbow stay (1) and the armrest support (2) for snapping and stopping the elbow stay (1) at a desired angle to the armrest support (2). The snap engagement mechanism includes a stationary member (3) having a plurality of snap engagement recesses (31k) provided in the outer side (31b) thereof and a movable member (4) having an engaging latch (41k) provided thereon for elastically engaging with the snap engagement recesses (31k) in a sequence as turning together with the elbow stay (1). The stationary member (3) is mounted to the armrest support (2) while the movable member (4) is mounted to the elbow stay (1). Accordingly, the armrest provided with the snap engagement mechanism allows the elbow stay (1) to be turned in relation to the armrest support (2) without being interrupted by the snap engagement mechanism while its turning movement is favorably determined to a desired angular range.

Fig.2



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Description

TECHNICAL FIELD

[0001] The present invention relates to an armrest arranged of which the elbow stay can horizontally be turned in relation to the armrest support corresponding to the condition of a person seated and a chair which has a pair of the armrests located at predetermined positions.

BACKGROUND ART

[0002] Heretofore, an armrest is known which comprises an elbow stay arranged on which the arm of a person seated is placed and an armrest support provided for pivotably supporting the elbow stay so that the elbow stay can be turned horizontally about the pivot joint between the elbow stay and the armrest support corresponding to the condition of the person (See Patent Document 1). Such a known armrest where the elbow stays can horizontally be turned on their corresponding armrest supports is equipped with a snap engagement mechanism which comprises, for example, an engaging latch or cylindrical pin provided in the form of a projection on the upper end of the armrest support and a movable member provided at the elbow stay for moving as running at its outer side directly on the pin when the elbow stay is turned and having a plurality of snap engagement recesses provided at equal intervals in the outer side thereof for engagement with the pin so that the elbow stay can be turned with a degree of resistance or a sense of click and then held at a desired angle. The movable member is located at the center of the angle of an arc of which the radius is equal to a distance between the pivot joint and the pin as sandwiched between the pivot joint and the pin. The movable member is arranged movable to and from the pivot joint along the lengthwise direction of the elbow stay. In addition, a spring for assisting the forward and backward movement of the movable member is provided at the pivot joint. The spring expands when the pin comes into engagement with the snap engagement recess as the elbow stay has been turned and contracts when the pin has run over the raised portion between two adjacent snap engagement recesses, whereby the movable member can be moved linearly.
[Patent document 1] Japanese Patent Application Laid-Open No. H07-184964 (Pages 1 to 2, and Fig. 1).

DISCLOSURE OF THE INVENTION

[Problems that the Invention is to Solve]

[0003] However, since the spring is located more close to the pivot joint than the pin fixedly mounted to the armrest support, it may disturb the turning movement of the elbow stay as being limited in the expanding and contracting function of the spring. In other words, the expanding and contracting action of the spring may be declined when the pin is inserted into the snap engagement recess in the movable member at a large angle to the direction of the expanding and contracting action (e.g., at substantially a right angle to the direction of the spring action). Accordingly, the elbow stay will hardly be turned out of the angular range where the expanding and contracting action of the spring is properly conducted. The reason is that the snap engagement recesses are provided in the outer side of the movable member which is turned together with the elbow stay. As the elbow stay turns, the direction of the forward and backward movement of the movable member or the direction of the expanding and contracting action of the spring is deviated from the direction of the engagement between the pin and the snap engagement recess in the movable member. Meanwhile, it is preferable for improving the stability of the pivotal movement of the elbow stay on the armrest support to increase the distance between the pivot joint and the pin. The pin will however hardly be positioned out of the edge along the lengthwise direction of the elbow stay. The distance between the pivot joint and the pin is strictly limited by the width of the elbow stay. Without taking stability of pivoting state of the armrest support and elbow stay into consideration, even if the distance between the pivot joint and the pin is successfully decreased for generously widening the angular range of the turning movement of the elbow stay based on the distance between the pivot joint and the pin, the location and the direction of the expanding and contracting action of the spring will actually limit the turning movement of the elbow stay.

[0004] The conventional armrest is thus limited in the turning movement of its elbow stay by the foregoing two problems.

[0005] The present invention has been developed in view of the above aspect and its object is to provide an armrest arranged of which the angular range of the turning movement of the elbow stay in relation to the armrest support can arbitrarily be determined without being limited by the function of the snap engagement mechanism.

[Means for Solving the Problems]

[0006] Specifically, an armrest according to the present invention includes: an elbow stay provided on which an elbow of a person seated is placed; an armrest support provided for pivotably supporting the elbow stay; and a snap engagement

mechanism provided between the elbow stay and the armrest support for snapping and stopping the elbow stay at a desired angle to the armrest support while the elbow stay is arranged for horizontally turning about the pivot joint between the elbow stay and the armrest support, wherein the snap engagement mechanism includes a stationary member having a plurality of snap engagement elements provided at the outer side thereof and a movable member having an engaging latch provided thereon for elastically engaging with the snap engagement elements in a sequence as turning together with the elbow stay, and the stationary member is mounted to the armrest support while the movable member is mounted to the elbow stay.

[0007] As described, since the stationary member having the plurality of snap engagement recesses provided in the outer side thereof is mounted to the armrest support while the movable member having the engaging latch provided thereon for elastically engaging with the snap engagement recesses in a sequence is mounted to the elbow stay, this allows the elastic engagement between the latch of the movable member and the snap engagement recess in the stationary member to remain constant in one direction regardless of the angle of turning of the elbow stay. Thus, the engagement between the latch and the snap engagement recess remains uniform regardless of the angle of turning of the elbow stay, and the turning movement of the elbow stay can be determined at desired angles while the prior art limits the turning movement of the elbow stay because of the disadvantageous arrangement of its snap engagement mechanism. In addition, since the outer side of its main body which comes into direct contact or adjacent to the latch is located close to the circumferential wall of the elbow stay, the stationary member can be maximized in the size thus improving the stability at the pivotal joint between the armrest support and the elbow stay. It is now noted that the term "elastic engagement" means not only engagement by the urging force of a spring, which will be described later in more detail, but also engagement by the elastic action of the movable member itself which may be made of an elastic material such as rubber.

[0008] In an actual embodiment of the armrest, the movable member may include: the movable member includes: the engaging latch; and an elastically urging means for urging the engaging latch towards the pivot joint.

[0009] Alternatively, providing a turning limit mechanism that restricts an angle of turning movement of the elbow stay in relation to the armrest support within a range of predetermined angles allows the elbow stay to be turned from the original position where its lengthwise direction is aligned with the forward and backward directions of the chair to a desired angle determined by the need of the person, hence improving the utility.

[0010] Especially, when the elbow stay has an accommodating region provided therein for accommodating the stationary member, and the turning limit mechanism includes: a projection provided on one of the outer side of the stationary member and the inner side at the accommodation region of the elbow stay; and stop portions provided on the other side for receiving directly the projection during the turning movement of the elbow stay throughout the angular range, it is possible to allow the turning movement of the elbow stay to be assuredly limited by the projection coming into direct contact with each of the stop portions. In addition, as the stationary member is accommodated in the accommodating region, its positioning to the elbow stay can significantly be facilitated. Since the turning limit mechanism incorporates a close combination of the stationary member and the accommodating region, its function for limiting the turning movement of the elbow stay will be improved in the effectiveness.

[0011] Further, when one of the outer side of the stationary member and inner side at accommodation region on which the stop portions are provided has a recess substantially corresponding in size to the projection, in order to avoid mutual interruption between the projection and the stops during the turning movement of the elbow stay throughout the angular range, and both end of the recess serve as the stops, the turning movement may be allowed to be influenced directly by the distance between the two stops or the width or center angle of the recess. Accordingly, the angular range of the turning movement of the elbow stay can simply be determine by modifying the width or center angle of the recess.

[0012] Especially, by setting an angle between two lines respectively extending from the two ends of the recess to the pivot joint to be substantially equal to a total of the angle between two lines respectively extending from the two edges of the projection to the pivot joint and the angle of the turning movement of the elbow stay, the elbow stay is allowed to be turned throughout the predetermined angle only with little play. Also, the angle between the two lines extending from the pivot joint to the two ends of the recess respectively or the center angle of the recess can hence be determined with ease.

[0013] It may be desired for increasing the physical strength of the projection to withstand against the impact with the stop portions and protecting the projection at a simpler arrangement from being injured during the turning movement of the elbow stay that the projection is configured to be substantially a fan shape in plan view.

[0014] It may also be desired for responding to the needs of the person during the turning movement of the elbow stay throughout a sufficient distance for use or between the original position where the lengthwise direction of the elbow stay is aligned with the forward and backward directions of the chair and the fully turned position where the lengthwise direction of the elbow stay is aligned with the leftward and rightward directions of the chair that the angle of the turning movement of the elbow stay is substantially 90 degrees. This allows the center angle of the recess to be determined relatively with much ease.

[0015] It may further be desired for using the armrest at either the left side or the right side of the chair that a direction

of the turning movement of the elbow stay is changeable in relation to the armrest support the restriction range of the turning movement of the elbow stay changes by changing a mounting direction of the stationary member in relation to the armrest support, whereby a direction of the turning movement of the elbow stay is configured to be changeable in relation to the armrest support. This allows the armrest to be used at either the left side or the right side of the chair simply with the stationary member mounted in a different direction.

Accordingly, as compared with the conventional armrest designed specifically for use at the left side or the right side of a chair, the armrest is capable of common use of its components hence permitting the reduction of the number of the components as well as the overall cost.

[0016] More particularly, an example of the armrest is such that the stationary member is mounted to the armrest support via a fitting mechanism including a fitting recess provided at one of a lower side of the stationary member and an upper side of the armrest support and a fitting projection that engages with the fitting recess and is provided on the other side, and the fitting projection and the fitting recess engage with each other at a given mounting direction selected from a plurality of mounting directions of the stationary member in relation to the armrest support.

[0017] It may further be desired that an angle between a line extending along the given mounting direction selected from the plurality of mounting directions of the stationary member in relation to the armrest support and another line extending along another mounting direction different from the given mounting direction is substantially equal to an angle of the turning movement of the elbow stay. This allows the fitting projection and the fitting recess to be engaged with each other selectively along the one direction or the another direction, thus desirably determining the limited range of the turning movement of the elbow stay. Simultaneously, the turning movement of the elbow stay in relation to the armrest support throughout the angular range can be ensured at every mode of the engagement.

[0018] In addition, it may be preferred that shapes in plan views of the fitting recess and the fitting projection are set so as to allow a selection between one engagement in which the fitting recess and the fitting projection are fitted at the given mounting direction and a different engagement in which the fitting recess and the fitting projection are fitted at a different mounting direction. More preferably, the fitting recess and the fitting projection are respectively in regular polygonal shapes in plan view that substantially correspond to' each other. This allows the engagement between the fitting projection and the fitting recess to be securely aligned with each direction and thus improved in the tightness of fitting. For example, in case that the regular polygonal shape of the fitting projection and the fitting recess is one of a square and an octagonal shape, the arm pad turned to substantially 90 degrees can be used commonly at both the left and right sides while remaining at substantially 90 degrees.

[0019] It may still further be desired for adjusting the overall height of the armrest in response to the size of the person that the armrest support includes: a main body fixedly mounted at the lower end to a seat and provided in its upright position; and a cover member detachably fitted onto the outer side of the main body, wherein a height adjusting mechanism is provided between the main body and the cover member for desirably adjusting the height at which the cover member is mounted to the main body.

[0020] More particularly, an exemplary embodiment of the height adjusting mechanism includes: an engaged member having a plurality of engaging holes provided therein along the height-wise direction; an engaging member having a pawl thereof provided for selectively engaging with one of the engaging holes; and an urging means for urging the engaging member towards a direction in which the pawl engages with the selected engaging hole, and wherein the engagement between the pawl and the engaging hole can be released by a counter strength.

[0021] Furthermore, it is preferable that a chair according to the present invention is provided with a pair of the armrests defined in any of claims 1 to 16 which are located in left/right symmetry at both, left and right, sides of the chair respectively.

[Effects of the Invention]

[0022] As described above, the armrest according to the present invention is provided with the stationary member that is mounted to the armrest support and has the plurality of snap engagement elements on the outer side thereof, and with the movable member that is mounted to the elbow stay and has the engaging latch for elastically engaging with the snap engagement elements in sequence. Accordingly, the direction of the elastic engagement between the engaging latch and the snap engagement elements of the stationary member remain constant, no matter what angle of turning movement the elbow stay is at in relation to the armrest support. Thus, the engagement between the engaging latch and the snap engagement elements can be always kept favorable regardless of the angle of turning movement of the elbow stay, and the range of turning movement of the elbow stay can be freely set.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023]

Fig. 1 is an overall plan view showing a chair equipped with armrests according to one embodiment of the present

invention.

Fig. 2 is a partially cutout exploded perspective view showing of a primary part of the armrest of the embodiment.

Fig. 3 is a plan view of a base showing a component of an elbow stay in the armrest of the embodiment.

Fig. 4 is a partially cutout cross sectional side view of an armrest support in the armrest of the embodiment.

Fig. 5 is a partially cutout perspective view showing an upper part of the armrest support with a stationary member.

Fig. 6 is an explanatory view showing steps of action of the armrest at the left side of the embodiment.

Fig. 7 is an explanatory view showing an action of the armrest at the left side.

Fig. 8 is an explanatory view showing steps of action of the armrest at the right side of the embodiment.

Fig. 9 is an explanatory view showing an action of the armrest at the right side.

Fig. 10 is a cross sectional side view showing a modification of the armrest support with a height adjusting mechanism according to the embodiment.

BEST MODE FOR CARRYING OUT THE INVENTION

[0024] One embodiment of the present invention will be described below referring to the relevant drawings.

[0025] An Armrest E according to the present invention is applied to such a chair C as shown in Fig. 1.

[0026] The description starts with briefly explaining the chair C. The chair C consists mainly of a seat S mounted by a support joint, not shown, to a group of legs L and a backrest B mounted by a back support post A to the rear end of the seat S.

[0027] A pair of the armrests E are mounted to both, left and right, sides of the seat S in symmetrical relationship.

[0028] The armrest E includes, as best shown in Fig. 2 etc., an elbow stay 1 provided on which an elbow of a person seated is placed and an armrest support 2 which holds the elbow stay 1 arranged capable of being horizontally turned. A snapping mechanism is provided for snapping and stopping the elbow stay 1 at predetermined angle in order to obtain proper resistance with a sense of click in change of angle. The stepping mechanism comprises a stationary member 3 and a movable member 4 which will be described later in more detail. It is assumed that the frontward and rearward directions of the armrest support 2 extend along the frontward and rearward directions of the chair C, and the "rear" of the elbow stay 1 is at the backrest B side of the original position LP (RP) at which the elbow stay 1 is lengthwisely aligned with the frontward and rearward directions of the chair C and the "front" of the elbow stay 1 is at the side opposite to the backrest B side of the original position LP (RP) (See Fig. 1).

[0029] The elbow stay 1 comprises a base portion 5 and a pad cover not shown provided on the upper side of the base portion 5.

[0030] The base portion 5 is an integrally molded member, as shown in Figs. 2 and 3, having a bottom portion 51 arranged of substantially an oval shape at the plan view, a circumferential wall 52 provided along the circumferential edge of the bottom portion 51, a first accommodating region 53 provided at a rearwardly offset position from the center along the lengthwise direction of the bottom portion 51 for accommodating the stationary member 3, and a second accommodating region 54 provided continuously from the rear end of the first accommodating region 53 for accommodating the movable member 4.

[0031] The first accommodating region 53 incorporates an accommodating space 53S surrounded by an arcuate wall 531 which is arranged of substantially a partially broken circular shape at the plan view as opened at the rear end. The arcuate wall 531 is joined at both, left and right, sides directly with the circumferential wall 52 and its thickness is reduced more through a predetermined angle at the front end than at its both neighbor sides. As the arcuate wall 531 is reduced in the thickness through the predetermined angle, it has a wide recess 532 provided in the predetermined region of the inner side of the arcuate wall 531. In this embodiment, the predetermined angle through which the recess 532 is defined is slightly greater than 90 degrees. Also, the first accommodating region 53 has a through hole 53a provided in substantially the center thereof to extend across the bottom portion 51. The through hole 53a is arranged concentric with the inner side of the arcuate wall 531 excluding the extent of the wide recess 532.

[0032] The second accommodating region 54 includes a pair of opposite walls 541 provided lengthwisely of the elbow stay 1 to extend from both the rear ends at the opening of the arcuate wall 531 towards the rear side and an accommodating space 54S of substantially a square shape at the plan view defined by the opposite walls 541 and a connecting wall 542 connecting between the opposite walls 541. As the accommodating space 54S is communicated with the accommodating space 53S of the first accommodating region 53, a horizontal rib 541a is provided on each of the opposite walls 541 which projects horizontally from substantially the center along the height-wise direction of one wall towards the other wall.

[0033] A pair of boss portions 511 are provided in both close-to-end portions along the lengthwise direction of the bottom portion 51 respectively. The boss portions 511, the circumferential wall 52, the arcuate wall 531, the opposite walls 541, and the connecting wall 542 are joined together by substantially a matrix form of ribs, thus improving the physical strength and the shaping stability of the base portion 5.

[0034] The stationary member 3 and the movable member 4 to be accommodated in the accommodating regions 53 and 54 respectively will be explained later in more detail.

[0035] The armrest support 2 includes, as shown in Figs. 2, 4, and 5, a support body 6 fixedly mounted at the lower end in an upright position to the seat S and a cover member 7 detachably fitted onto the support body 6.

[0036] The support body 6 is arranged of a pipe shape which is substantially a square at the plan view and has an inwardly projecting mounting portion 61 provided integrally at the lower end thereof for joining by screws to each close-to-end portion of the lower side of the seat S. The cover member 7 is arranged of a pipe shape which is similar in the shape to but slightly greater in the size at the plan view than the support body 6. The cover member 7 has a receiving portion 71 of substantially an oval shape at the plan view provided integrally at the upper end thereof and its inner side remains slidably fitted with the outer side of the support body 6. A couple of screw portions 711 are provided as threaded holes at both close-to-end portions of the receiving portion 71 respectively (See Fig. 2).

[0037] A height adjusting mechanism is provided between the support body 6 and the cover member 7 for adjusting the mounting height of the cover member 7 in relation to the support body 6.

[0038] The height adjusting mechanism comprises an engaged member 8 having a plurality of engaging holes 81a provided therein along the height-wise direction, an engaging member 9 having an engaging pawl 91 provided for selectively engagement with the engaging holes 81a, and an urging means or spring 10 for urging the engaging member 9 in such a direction that the engaging pawl 91 engages with the selected engaging hole 81a (See Fig. 4).

[0039] The engaged member 8 is mounted to the inner side of the support body 6. More specifically, the engaged member 8 in this embodiment comprises a pair of engaged elements 81 and 82 arranged for holding a retainer member M from two, front and rear, sides at the inner side of the support body 6. The engaging holes 81a are provided at equal intervals of a distance in the engaged element 81 which is positioned at the rear side out of the pair of engaged elements 81 and 82. The shape of the engaging holes 81a is a taper form which becomes wider towards the opening at the inner side. The two engaged elements are fitted at both, upper and lower, ends and joined to each other by appropriate means.

[0040] The engaging member 9 is arranged of substantially an arm shape at the side view and retained in the retainer member M of a hollow shape which has a fitting region M1 provided at the upper end thereof for fittingly joining with the receiving portion 71 of the cover member 7. The engaging member 9 is also arranged tiltable about a horizontal axis n provided at a predetermined height thereof. The engaging pawl 91 provided at the lower end of the engaging member 9 has a taper shape, corresponding to the engaging hole 81a, which becomes narrower towards the distal end for ease of the engagement with the engaging hole 81a. The engaging pawl 91 is located lower than the lower end of the retainer member M. In particular, a spring holder portion 92 is provided at a position higher than the horizontal axis n of the rear side of the engaging member 9 for holding a spring 10. As the spring 10 at the spring holder portion 92 extends between the engaging member 9 and the inner side of the retainer member M, it remains urging the engaging member 9 in such a direction that the engaging pawl 91 engages with the selected engaging hole 81a. An operating portion O is provided at the armrest support 2 for operating the engaging member 9. The operating portion O is arranged of its proximal end 02 joined to the upper end of the engaging member 9 and its operating body O1 extending frontwardly across an opening 72 provided in the front side of the cover member 7. When the operating portion o is pressed towards the rear side by the finger of a seated operator gripping the cover member 7 with the engaging pawl 91 remaining in engagement with the engaging hole 81a thus to inhibit the upward or downward movement of the cover member 7, the engaging member 9 tilts about the horizontal axis n and its engaging pawl 91 removes from the engaging hole 81a (as denoted by the imaginary line in the figure). This allows the cover member 7 to be slidable upwardly and downwardly in relation to the support body 6. Then, upon the action of the operating portion O being canceled at a desired height, the engaging pawl 91 comes into engagement with the corresponding engaging hole 81a at the desired height.

[0041] The fitting region M1 of the retainer member M is similar in the shape at the plan view to but slightly smaller than the receiving portion 71 of the cover member 7, as shown in Figs. 2 and 5. The fitting region M1 has a fitting recess M11 of substantially an octagonal shape at the plan view provided in substantially the center thereof for receiving a fitting projection 33 provided on the stationary member 3. Also, a screw hole M12 is provided at the center of the fitting recess M11. A couple of notches M13 are provided in the upper side at both close-to-end positions of the retainer member M respectively. Accordingly, when the retainer member M is inserted from above into the cover member 7, its fitting region M1 fits with the receiving portion 71 of the cover member 7 thus allowing the two screw portions 711 of the receiving portion 71 to be exposed through the corresponding notches M13. In particular, a spacer R, which is substantially similar in the shape at the plan view to the fitting region M1, is provided on the fitting region M1, and has a couple of round apertures R1 provided in both close-to-end sides thereof so as to be aligned with the screw portions 711 of the receiving portion 71. With a couple of bolts B1 extended through the round apertures R1 and screwed into the screw holes of the screw portions 711, the retainer member M remains inhibited from moving upwardly and slipping out. The spacer R also has a through hole Ra provided in substantially the center thereof which is substantially identical in the diameter to the through hole 53a in the first accommodating region 53 of the base portion 5 as a member of the elbow stay 1.

[0042] It is essential that before the elbow stay 1 and the armrest support 2 are mounted, the stationary member 3 and the movable member 4 which are members of the snapping mechanism are accommodated at position in the first accommodating region 53 and the second accommodating region 54 of the elbow stay 1 respectively.

[0043] The stationary member 3 comprises, as shown in Figs. 2, 5, and 6 etc., a main body 31 which has a taper hole

31a provided in the center thereof, an outer side 31b thereof arranged slightly smaller in the diameter than the inner side of the arcuate wall 531, and a projection 31c outwardly protruding provided at a portion of the outer side 31b of main body 31. Particularly, a plurality of snap engagement recesses 31k which are the functional elements of the present invention and inwardly recessed are provided at another portion of in the outer side 31b. The projection 31c is arranged of substantially a fan shape at the plan view. In this embodiment, four of the snap engagement recesses 31k in this embodiment are arranged at equal intervals of a pitch, where the angle between the two lines extending from the center of the main body 31 to the two outermost snap engagement recesses 31k respectively is set to substantially 90 degrees. More specifically, the four snap engagement recesses 31k are continuously arranged through approximately 90 degrees along the outer side 31b of the main body 31. The center point of the four snap engagement recesses 31k and the center point of the projection 31c are located at opposite sides of the center (at the taper hole 31a) of the main body 31. In addition, the projection 31c is sized to match the recess 532 in the first accommodating region 53. The diameter at the outer side 31b of the main body 31 excluding the projection 31c and the snap engagement recesses 31k is arranged slightly smaller than the inner diameter of the arcuate wall 531 joined at both sides with the circumferential wall 52, whereby the stationary member 3 is optimized in the overall size as its main body 31 remains at the outer side 31b close to the two sides of the base portion 5. Moreover, the main body 31 has an insertion 32 provided integrally on the lower side thereof for being inserted into the through hole 53a of the first accommodating region 53 and the through hole Ra of the spacer R and a projection 33 of substantially an octagonal shape at the plan view provided integrally at the center of the insertion 32 on the lower side thereof for engaging with the fitting recess M11 in the spacer R, thus constructing a step configuration (See Fig. 5). A continuous opening hole 34 is provided approximately in the center of the insertion 32 and the projection 33 that opens downward and communicate at the upper end with the taper hole 31a.

[0044] The movable member 4 comprises, as shown in Figs. 2 and 6 etc., a movable member main body 41 of a solid block shape which has an engaging latch 41k provided integrally on the front side thereof for engaging with the snap engagement recess 31k and an urging means or spring 42 for urging the movable member main body 41 towards the front. The engaging latch 41k is arranged of a protruding shape which matches in the configuration with the snap engagement recess 31k. The movable member main body 41 also has a pair of lateral projections 411 provided integrally on both sides at the lower end thereof respectively.

[0045] The action of mounting the stationary member 3 and the movable member 4 to the base portion 5 of the elbow stay 1 will now be described. The action starts with placing the spring 42 of the movable member 4 in the accommodating space 54S of the second accommodating region 54 with its expanding and contracting direction aligned with the length-wise direction of the base portion 5. The movable member main body 41 is then inserted by sliding from the space 53S of the first accommodating region 53 to the space 54S of the second accommodating region 54. This insertion can be conducted easily and smoothly by holding the two lateral projections 411 of the movable member main body 41 between the bottom portion 51 and the horizontal ribs 541a of the opposite walls 541 at the second accommodating region 54 of the base portion 5. At the time, the horizontal ribs 541a provided on the opposite walls 541 at the second accommodating region 54 serve as guide rails for guiding the sliding insertion of the movable member main body 41. As the result, the spring 42 is fitted between the movable member main body 41 and the connecting wall 542 at the second accommodating region 54 of the base portion 5. As the horizontal ribs 541a are located above the lateral projections 411 of the movable member main body 41, they inhibit the upward movement of the movable member main body 41. Then, the stationary member 3 is placed in the first accommodating region 53 so that the projection 31c of its main body 31 is received by the recess 532 at the first accommodation region 53 of the base portion 5 and one of the snap engagement recesses 31k of its main body 31 of the stationary member 3 is engaged with the engaging latch 41k of the movable member main body 41. Simultaneously, as the stationary member 3 is positioned, its insertion 32 is inserted into the through hole 53a of the base portion 5 and the through aperture Ra of the spacer R and its projection 33 of the stationary member 3 is fitted into the engaging recess M11 at the upper end of the armrest support 2. As its engaging projection 33 is shaped equal at the plan view to the octagonal shape of the engaging recess M11 in the armrest support 2, the stationary member 3 can be positioned in a desired direction selected from different directions determined by the engagement at the corresponding side of the octagonal shape with the engaging recess M11 of the armrest support 2. The two armrests E (L) at the left and E (R) at the right of this embodiment, each having the stationary member 3 mounted to the armrest support 2 by the fitting mechanism featured with a combination of the recess M11 and the projection 33, are arranged opposite to each other in the direction of mounting the stationary member 3 to the armrest support 2 (See Fig. 1).

[0046] The armrest E(L) at the left will firstly be explained referring to Figs. 6 and 7. The assembling of the armrest E (L) at the left starts with the stationary member 3 being oriented with the projection 31c of its main body 31 received directly by or positioned adjacent to the right end 532b, one of the two ends 532a and 532b, of the recess 532 at the first accommodating region 53 of the base portion 5 while the elbow stay 1 remains located at the original position LP (Fig. 6a) with its lengthwise direction extending along the frontward and rearward directions of the chair C. As the stationary member 3 is oriented in the above manner, its engaging projection 33 of the stationary member 3 is received by the recess M11 in the armrest support 2. After the placement, the stationary member 3 remains not turned from the armrest support 2 because the octagonal shape of its projection 33 matches that of the engaging recess M11 of the

armrest support 2. The shape at the plan view of the projection 33 and the recess M11 is not limited to the octagonal shape but may arbitrarily be determined of any applicable shape which can permit no relative turning movement but the engagement at different angles between the stationary member 3 and the armrest support 2. As a modification of the embodiment where the angular movement of the armrest E is through 90 degrees, the shape at the plan view may be a square. As the stationary member 3 remains oriented on the armrest support 2, the stationary member 3 is placed in the first accommodating region 53 of the base portion 5. A bolt B2 is inserted from above into the taper hole 31a of the stationary member 3 until it extends across the center aperture 34 in the insertion 32 and the projection 33 of the stationary member 3 and then screwed into the screw hole M12 at the recess M11 of the retainer member M for fixedly joining the stationary member 3 via the base portion 5 to the armrest support 2. Finally, the base portion 5 is covered at the upper side with the cover member 7. As bolts not shown are inserted from below into the boss portions 511 of the base portion 5 and screwed into threads not shown in the cover member 7, the base portion 5 and the cover member 7 are joined to each other.

[0047] As the stationary member 3 has fixedly been joined to the armrest support 2 with the movable member 4 accommodated in the elbow stay 1, the armrest E(L) at the left is completed which is capable of turning the elbow stay 1 with the movable member 4 in relation to the armrest support 2. Meanwhile, the spring 42 of the movable member 4 remains urging and pressing the engaging latch 41k of the movable member main body 41 against the pivotal joint P between the elbow stay 1 and the armrest support 2 where the latch 41k engages one of the snap engagement recesses 31k of the stationary member 3.

[0048] More particularly, the armrest E(L) at the left can be turned clockwisely about the pivotal joint P between the elbow stay 1 and the armrest support 2 through substantially 90 degrees in the horizontal from the original position LP (Fig. 6a) at which the lengthwise direction of the elbow stay 1 extends along substantially the frontward and rearward directions of the chair C to a fully turned position LQ (Fig. 6b) at which the lengthwise direction of the elbow stay 1 extends along substantially the leftward and rightward directions of the chair C. When the elbow stay 1 is turned from the original position LP to the fully turned position LQ, the engaging latch 41k of its movable member 4 engages each of the snap engagement recesses 31k as being urged by the spring 42 expanding and then runs over the outer side 31b of the stationary member 3 (apparent raised parts positioned between snap engagement recesses 31k) as pressing against the spring 42 which is thus contracted. The movable member 4 is linearly moved along the lengthwise direction of the elbow stay 1 throughout the shifting movement.

[0049] Accordingly, the urging action of the spring 42 can thus provide a proper strength of resistance or a sense of click at predetermined angles or four steps in the snapping mechanism as running from one snap engagement recess 31k to another with each engagement remaining stable during the shifting movement of the elbow stay 1 in relation to the armrest support 2. More specifically, when the elbow stay 1 is turned from the original position LP to the fully turned position LQ, the projection 31c of the stationary member 3 comes into direct contact with the left end 532a of the recess 532 at the first accommodating region 53 of the base portion 5 of the elbow stay 1, which is opposite to the right end 532b at which the projection 31c of the stationary member 3 is engaged when the elbow stay 1 stays in the original position LP. This hence inhibits the elbow stay 1 from further turning clockwisely in relation to the armrest support 2. When the elbow stay 1 is counter-clockwisely shifted back from the fully turned position LQ to the original position LP, the projection 31c of its stationary member 3 comes into direct contact with the right end 532b of the recess 532, thus inhibiting the elbow stay 1 from further turning counter-clockwisely. Since the two, left and right, ends 532a and 532b of the recess 532 act as stoppers in the turning limit mechanism, their combination with the projection 31c of the stationary member 3 constitutes the turning limit mechanism in the embodiment of the present invention. In the embodiment, the angle between the two lines extending from the pivotal center P to the two ends 532a and 532b of the recess 532 respectively or the center angle through the extension of the recess 532 is set equal to substantially a sum of the angle between two lines extending from both ends of the projection 31c to the pivotal center P and the angle (almost 90 degrees) of the turning movement of the armrest.

[0050] The assembling of the armrest E(R) at the right starts with, as shown in Figs. 8 and 9, the stationary member 3 being oriented with the projection 31c received directly by or positioned adjacent to the left end 532a of the recess 532, the other of the two ends 532a and 532b while the elbow stay 1 remains located at the original position RP (Fig. 8a). As the stationary member 3 is oriented in the above manner, its engaging projection 33 is fitted by the recess M11 in the armrest support 2. This is followed by the steps described previously with the armrest E (L) at the left which will then be explained in no more detail. In action, the armrest E(R) at the right can be turned counter-clockwisely about the pivotal joint P between the elbow stay 1 and the armrest support 2 through substantially 90 degrees in the horizontal from the original position RP (Fig. 8a) at which the lengthwise direction of the elbow stay 1 extends along substantially the frontward and rearward directions of the chair C to a fully turned position RQ (Fig. 8b) at which the lengthwise direction of the elbow stay 1 extends along substantially the leftward and rightward directions of the chair C. When the elbow stay 1 is shifted from the original position RP to the fully turned position RQ, the engaging latch 41k of its movable member 4 engages each of the snap engagement recesses 31k as being urged by the spring 42 expanding, and then runs over an portion of the outer side 31b of the stationary member 3 (apparent raised parts positioned between snap

engagement recesses 31k) as pressing against the spring 42 which is thus contracted, and the urging action of the spring 42 can thus provide a proper strength of resistance or sense of click by snapping and stopping the elbow stay1 at the predetermined angle. The movable member 4 is linearly moved along the lengthwise direction of the elbow stay 1 throughout the shifting movement in a similar manner to that of the armrest E(L) at the left. More particularly, when the elbow stay 1 is turned from the original position RP to the fully turned position RQ, the projection 31c of the stationary member 3 comes into direct contact with the right end 532b of the recess 532 at the first accommodating region 53 of the base portion 5, which is opposite to the left end 532a at which the projection 31c of the stationary member 3 is engaged when the elbow stay 1 stays in the original position RP. This hence inhibits the elbow stay 1 from further turning counter-clockwisely in relation to the armrest support 2. When the elbow stay 1 is clockwisely turned back from the fully turned position RQ to the original position RP, the projection 31c of the stationary member 3 comes into direct contact with the left end 532a at the recess 532 of the base portion 5, thus inhibiting the elbow stay 1 from further turning clockwisely.

[0051] As described, a pair of the armrests E(L) and E(R) provided at both, left and right, sides of the seat S of the chair in a symmetrical arrangement are arranged with their elbow stay 1 capable of turning in the horizontal between the common position LP or RP to the fully turned position LQ or RQ as desired by a person seated on the chair. For example, when the elbow stays 1 are turned towards each other thus to align on a virtual line at their lengthwise direction with substantially the leftward and rightward directions of the chair C, they can be used as armrests during the operation of a keyboard placed on a desk. Also, the elbow stays 1 of the armrests E can favorably be adjusted in the height by the person controlling the height adjusting mechanism in the armrest supports 2.

[0052] As set forth above, the armrest E of this embodiment has a snap mechanism which includes the stationary member 3 having a plurality of the snap engagement recesses 31k provided in the outer side 31b thereof and the movable member 4 having the engaging latch 41k provided thereon for elastically engaging with the snap engagement recesses 31k in a sequence while turning together with the elbow stay 1. The stationary member 3 is mounted to the armrest support 2 while the movable member 4 is mounted to the elbow stay 1. This allows the engagement between the latch 41k of the movable member 4 and the snap engagement recess 31k in the stationary member 3 to remain constant in one direction regardless of the angle of turning of the elbow stay 1. While the engagement between the latch 41k and the snap engagement recess 31k remains uniform regardless of the angle of turning of the elbow stay 1, the turning movement of the elbow stay 1 can be determined at desired angles. In addition, since the outer side 31b of its main body 31 of the stationary member 3 which comes into direct contact or adjacent to the latch 41k is located close to the circumferential wall 52 of the elbow stay 1, the stationary member 3 can be maximized in the size thus improving the stability at the pivotal joint between the armrest support 2 and the elbow stay 1.

[0053] In particular, the movable member 4 consists mainly of the movable member main body 41 provided with the engaging latch 41k and the spring 42 arranged for urging the engaging latch 41k towards the pivotal joint P between the elbow stay 1 and the armrest support 2. Accordingly, the movable member 4 allows the urging direction of its spring 42 to remain aligned with the engagement of its latch 41k with the snap engagement recess 31k of the stationary member 3 regardless of the angle of turning of the elbow stay 1. As the result, the urging action of the spring 42 can be improved in the effectiveness regardless of the angle of turning of the elbow stay 1.

[0054] Also, since the turning limit mechanism is provided for inhibiting the elbow stay 1 from moving out of the angle of the turning movement in relation to the armrest support 2, the person seated in the chair can arbitrarily set the turning movement of the elbow stays 1 to desired degrees in the actual action.

[0055] The turning limit mechanism is composed of the projection 31c on the outer side 31b of the stationary member 3 and the two outermost ends 532a and 532b of the recess 532 on the inner side of the arcuate wall 531 at the first accommodating region 53 where the stationary member 3 is accommodated, thus inhibiting the elbow stay 1 from further turning with one of its two, left and right, ends 532a and 532b of the recess 532 receiving directly and stopping the projection 31c which is moved with the elbow stay 1. Since the projection 31c of its stationary member 3 is received directly by one of the two, left and right, ends 532a and 532b of the recess 532, the armrest E can securely be inhibited from turning further. In addition, as the stationary member 3 is accommodated in the first accommodating region 53, its positioning can easily be determined in relation to the elbow stay 1. Since the turning limit mechanism is composed of the stationary member 3 and the first accommodating region 53, its action for limiting the turning movement of the elbow stay 1 can be improved in the effectiveness. The distance between the two ends 532a and 532b of the recess 532 or the center angle through the recess 532 determines directly the turning movement of the elbow stay 1. Accordingly, the turning movement of the elbow stay 1 can be limited to a desired degree of the angle by adjustably determining the setting of the center angle of the recess 532. Since the projection 31c of the stationary member 3 is arranged of substantially a fan shape at the plan view, it can be protected by the simple arrangement from being injured when coming into direct contact with the two ends 532a and 532b of the recess 532 during the turning movement of the elbow stay 1.

[0056] Moreover, the positional relationship between the elbow stay 1 and the armrest support 2 is contemplated so that the mounting of the stationary member 3 to the armrest support 2 is modified in the direction for determining the turning movement of the elbow stay 1 to a desired setting range. This allows each of the armrests E(L) and E(R) to be

changed in the direction of the turning movement, particularly between the original position LP or RP and the fully turned position LQ and RQ in this embodiment, by simply altering the direction of mounting the stationary member 3. Since the armrests E(L) at the left and E (R) at the right of this embodiment are identical in the components to be used, they can significantly be decreased in both the number of the components and the cost of the production as compared with the prior art armrests which are different in the construction between the left side application and the right side application.

[0057] As the fitting mechanism is composed of the fitting projection 33 provided at the lower end of the stationary member 3 and the fitting recess M11 provided in the upper side of the armrest support 2, the engagement between the fitting projection 33 and the fitting recess M11 is selectively determined by one of the different directions for mounting the stationary member 3 to the armrest support 2. Also, since both the fitting projection 33 and the fitting recess M11 are arranged of substantially an octagonal shape at the plan view for corresponding to each other, they can securely be engaged with each other in any of the directions. While the fitting projection 33 and the fitting recess M11 remain engaged securely with each other, their movement in relation to each other can be inhibited hence permitting no displacement in the direction of the stationary member 3 from the armrest support 2. Particularly, since its fitting projection 33 and fitting recess M11 arranged of the octagonal shape at the plan view, the armrest E can be employed either at the left E(L) and at the right E (R) with its elbow stay 1 arranged capable of turning through substantially 90 degrees and thus improved in the utility. Alternatively, while the elbow stay 1 is arranged capable of turning through substantially 90 degrees, both the fitting projection 33 and the fitting recess M11 may be arranged of a square shape at the plan view with equal success.

[0058] The armrest support 2 includes the support body 6 provided at its upright position and mounted at the lower end to the seat S, the cover member 7 detachably mounted to the outer side of the support body 6, and the height adjusting mechanism provided between the support body 6 and the cover member 7 for adjusting the height at which the support body 6 is mounted to the cover member 7, hence permitting the armrest E itself to be controlled in the overall height depending on the size of the person or the condition of the use and thus improved in the utility.

[0059] In particular, the height adjusting mechanism comprises the engaged member 8 having a group of the engaging holes 81a provided therein along the height-wise direction, the engaging member 9 having the pawl 91 thereof provided for selectively engaging with the engaging holes 81a, and the spring 10 acting as the urging means for urging the engaging member 9 so as to establish the engagement between the engaging pawl 91 and a desired one of the engaging holes 81a. Accordingly, the engagement between the engaging pawl 91 and the engaging hole 81a can be canceled by simply applying a counter force as resisting the urging action of the spring 10, thus contributing to the simple, favorable operation of the simple construction.

[0060] It should be understood that the present invention is not limited to the embodiment.

[0061] For example, the elements of the stationary member in the snap engagement mechanism may be implemented by snap engagement projections that are in a projected shape in place of the snap engagement recesses that are in a recessed shape. In this case, the engaging latch should be a recess that corresponds to the shape of the snap engagement projections.

[0062] Further, in the embodiment described, the movable member is provided with the main body having the engaging latch and with the spring provided as the urging means. However, the movable member may be constituted from a single elastic material such as rubber configured to engage with the snap engagement elements by means of elasticity of the elastic material. Alternatively, the movable member itself may function as the engaging latch, such as in the form of a ball. It is understood that, although the coil spring is used as the exemplary urging means in the embodiment, the urging means may be a leaf spring or the like.

[0063] Moreover, the turning limit mechanism is not limited to that in the embodiment; the turning limit mechanism may be configured to have a projection provided on the inner side at the accommodating region for accommodating the stationary member, and a pair of stoppers provided on the outer side of the stationary member. In this case, providing a recess in the outer side of the stationary member allows both ends of the recess to function as the stoppers. Further, setting of the angle of the turning movement of the elbow stay in relation to the armrest support to a given angle is possible by setting the center angle through the recess to the given angle. Alternatively, the turning limit mechanism may not necessarily be provided, and the turning movement of the elbow stay in relation to the armrest support may be allowed through full 360 degrees in the horizontal. In this case, the snap engagement elements should be provided continuously or intermittently throughout the outer side of the stationary member.

[0064] An equal effect as described above may also be achieved by providing the fitting recess constituting the fitting mechanism on the lower side of the stationary member, and the fitting projection on the upper side of the armrest support. While the plan views of both of the fitting recess and the fitting projection are preferably in regular polygonal shapes corresponding to each other, any shapes, such as rhombus or oval, may be employed if two or more steps of engagement are possible. In this case, the shapes of the plan views of the fitting recess and the fitting projection are preferably set so that it is selectable between one engagement in which the fitting recess and the fitting projection are fitted in one direction and a different engagement in which the fitting recess and the fitting projection are fitted in a different direction.

[0065] It is also possible to employ the following configuration as illustrated in Fig. 10. In the drawing, an armrest

support X2 includes an armrest support main body X6 provided upright, with a lower end thereof being fixed to the seat, and a cover member X7 detachably fitted onto an outer side of the armrest support main body X6, where the armrest support main body X6 has a plurality of engaging holes X61 at an upper end thereof; an engaging member X9 in an arm shape in side view is provided, having an engaging pawl X91 engagable to one of the engaging holes X61 at a lower end of the engaging member X9 and configured to be pivotable about a horizontal axis Xn supported by an axis support X71; and the engaging member X9 is pressed in a direction such that the engaging pawl X91 is engaged with the engaging hole X61 by elasticity of a spring X10 held on a spring holder X72 provided on the inner side of the cover member X7. Further, an operating portion XO with which the engaging member X9 is operated may be a height adjustment mechanism configured such that: the operating portion XO is provided at the armrest support X2, with an operating portion main body XO1 being exposed through an opening X73 at a side at the front of the cover member X7, and with a proximal end X02 thereof being joined to an upper end of the engaging member X9; when a person seated in the chair turns the operating portion XO upward by finger while upward or downward movement of the cover member X7 is prohibited by the engaging pawl X91 engaged with the engaging hole X61, the engaging member X9 pivots about the horizontal axis Xn to disengage the engaging pawl X91 from the engaging hole X61 (depicted by an imaginary line in the drawing), and thereby allowing the cover member X7 to slide upward and downward in relation to the armrest support main body X6; and, by stopping the operation of the operating member XO at a desired height, the engaging pawl 91 is engaged with one of the engaging holes 81a positioned at the corresponding height. With this, the number of the components may be successfully reduced in comparison with the previous embodiment.

[0066] Moreover, the specific configuration of each component of the present invention is not limited to the above-described embodiment, and various changes and modifications can be made without departing from the scope of the present invention.

INDUSTRIAL APPLICABILITY

[0067] As described above, an armrest according to the present invention is provided with a stationary member that is mounted to an armrest support and has a plurality of snap engagement elements on,an outer side thereof, and with a movable member that is mounted to an elbow stay and has an engaging latch for elastically engaging with the snap engagement elements in sequence. Accordingly, a direction of the elastic engagement between the engaging latch and the snap engagement elements of the stationary member remain constant, no matter what angle of turning movement the elbow stay is at in relation to the armrest support. Thus, the engagement between the engaging latch and the snap engagement elements can be always kept favorable regardless of the angle of turning movement of the elbow stay, and a range of the turning movement of the elbow stay can be freely set.

Claims

1. An armrest comprising:

an elbow stay provided on which the arm of a person seated is placed;
an armrest support provided for pivotably supporting the elbow stay; and
a snap engagement mechanism provided between the elbow stay and the armrest support for snapping and stopping the elbow stay at a desired angle to the armrest support while the elbow stay is arranged for horizontally turning about a pivot joint between the elbow stay and the armrest support,
wherein the snap engagement mechanism includes a stationary member having a plurality of snap engagement elements provided at the outer side thereof and a movable member having an engaging latch provided thereon for elastically engaging with the snap engagement elements in a sequence as turning together with the elbow stay, and
the stationary member is mounted to the armrest support while the movable member is mounted to the elbow stay.

2. The armrest according to claim 1, wherein
the movable member includes:

an engaging latch; and
elastically urging means for urging the engaging latch towards the pivot joint.

3. The armrest according to claim 1 or 2, further comprising:

a turning limit mechanism that restricts an angle of turning movement of the elbow stay in relation to the armrest

support within a range of predetermined angles.

4. The armrest according to claim 3, wherein
the elbow stay has an accommodating region provided therein for accommodating the stationary member, and the turning limit mechanism includes:

a projection provided on one of the outer side of the stationary member and the inner side at the accommodation region of the elbow stay; and
stop portions provided on the other side for receiving directly the projection during the turning movement of the elbow stay throughout the angular range.

5. The armrest according to claim 4, wherein
one of the outer side of stationary member and inner side at the accommodation region on which the stop portions are provided has a recess substantially corresponding in size to the projection, in order to avoid mutual interruption between the projection and the stop portions during the turning movement of the elbow stay throughout the angular range, and
both end of the recess serve as the stop portions.

6. The armrest according to claim 5, wherein
an angle between two lines respectively extending from the two ends of the recess to the pivot joint is set to be substantially equal to a total of the angle between two lines respectively extending from the two edges of the projection to the pivot joint and the angle of the turning movement of the elbow stay.

7. The armrest according to claim 5 or 6, wherein
the projection is configured to be substantially a fan shape in plan view.

8. The armrest according to one of claims 3, 4, 5, 6, and 7, wherein
the angle of the turning movement of the elbow stay is substantially 90 degrees.

9. The armrest according to one of claims 3, 4, 5, 6, 7, and 8, wherein
the restriction range of the turning movement of the elbow stay changes by changing a mounting direction of the stationary member in relation to the armrest support, whereby a direction of the turning movement of the elbow stay is configured to be changeable in relation to the armrest support.

10. The armrest according to claim 9, wherein
the stationary member is mounted to the armrest support via a fitting mechanism including a fitting recess provided at one of a lower side of the stationary member and an upper side of the armrest support and a fitting projection that engages with the fitting recess and is provided on the other side, and
the fitting projection and the fitting recess engage with each other at a given mounting direction selected from a plurality of mounting directions of the stationary member in relation to the armrest support.

11. The armrest according to claim 10, wherein
an angle between a line extending along the given mounting direction selected from the plurality of mounting directions of the stationary member in relation to the armrest support and another line extending along another mounting direction different from the given mounting direction is substantially equal to an angle of the turning movement of the elbow stay.

12. The armrest according to claim 11, wherein
shapes in plan views of the fitting recess and the fitting projection are set so as to allow a selection between one engagement in which the fitting recess and the fitting projection are fitted at the given mounting direction and a different engagement in which the fitting recess and the fitting projection are fitted at a different mounting direction.

13. The armrest according to one of claims 10, 11, and 12, wherein
the fitting recess and the fitting projection are respectively in regular polygonal shapes in plan view that substantially correspond to each other.

14. The armrest according to claim 13, wherein
the regular polygonal shape is one of a square and an octagonal shape.

15. The armrest according to one of claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14, wherein the armrest support includes:

a main body fixedly mounted at the lower end to a seat and provided in its upright position; and
a cover member detachably fitted onto the outer side of the main body, wherein
a height adjusting mechanism is provided between the main body and the cover member for desirably adjusting the height at which the cover member is mounted to the main body.

16. The armrest according to claim 15, wherein the height adjusting mechanism includes:

an engaged member having a plurality of engaging holes provided therein along the height-wise direction;
an engaging member having a pawl thereof provided for selectively engaging with one of the engaging holes; and
urging means for urging the engaging member towards a direction in which the pawl engages with the selected engaging hole, and wherein
the engagement between the pawl and the engaging hole can be released by a counter strength.

17. A chair **characterized by**:

a pair of the armrests defined in any of claims 1 to 16 which are located in left/right symmetry at both, left and right, sides of the chair respectively.

Fig.1

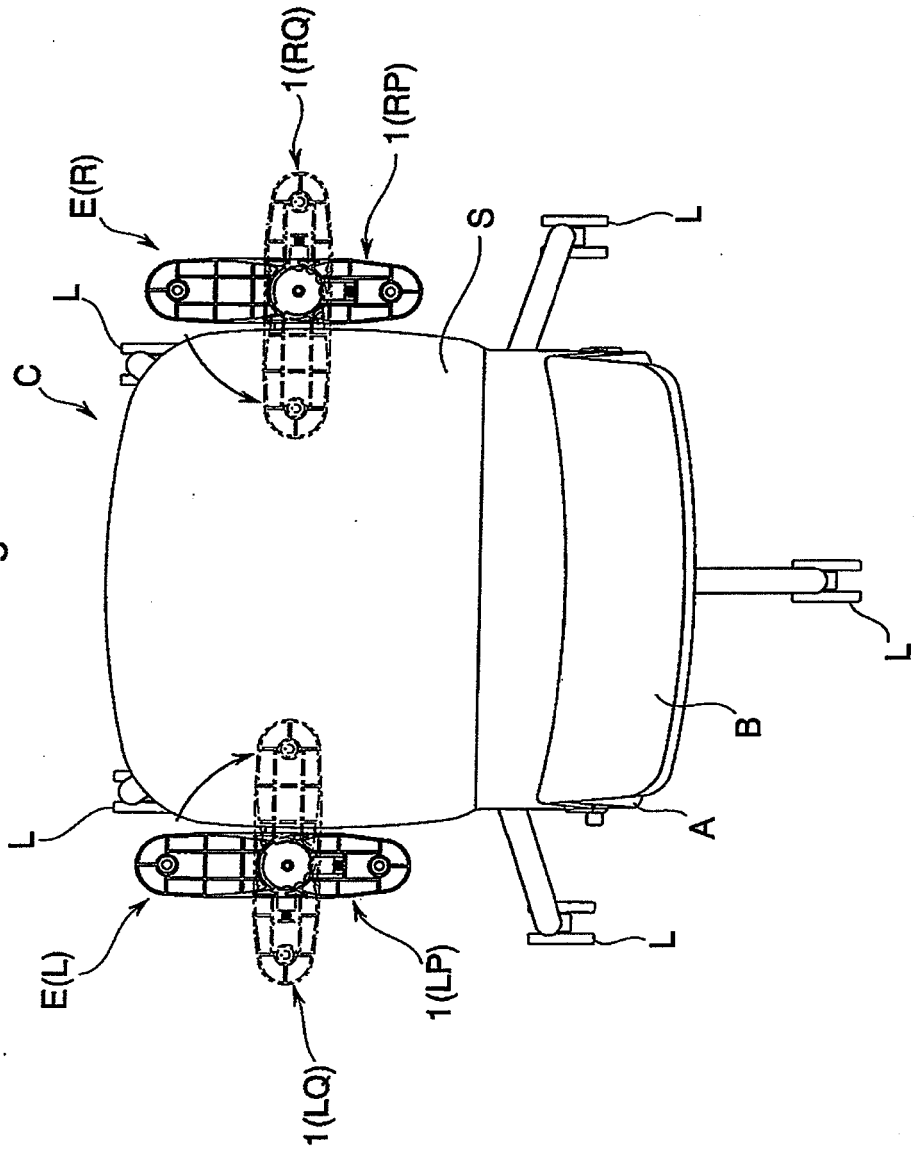

Fig.2

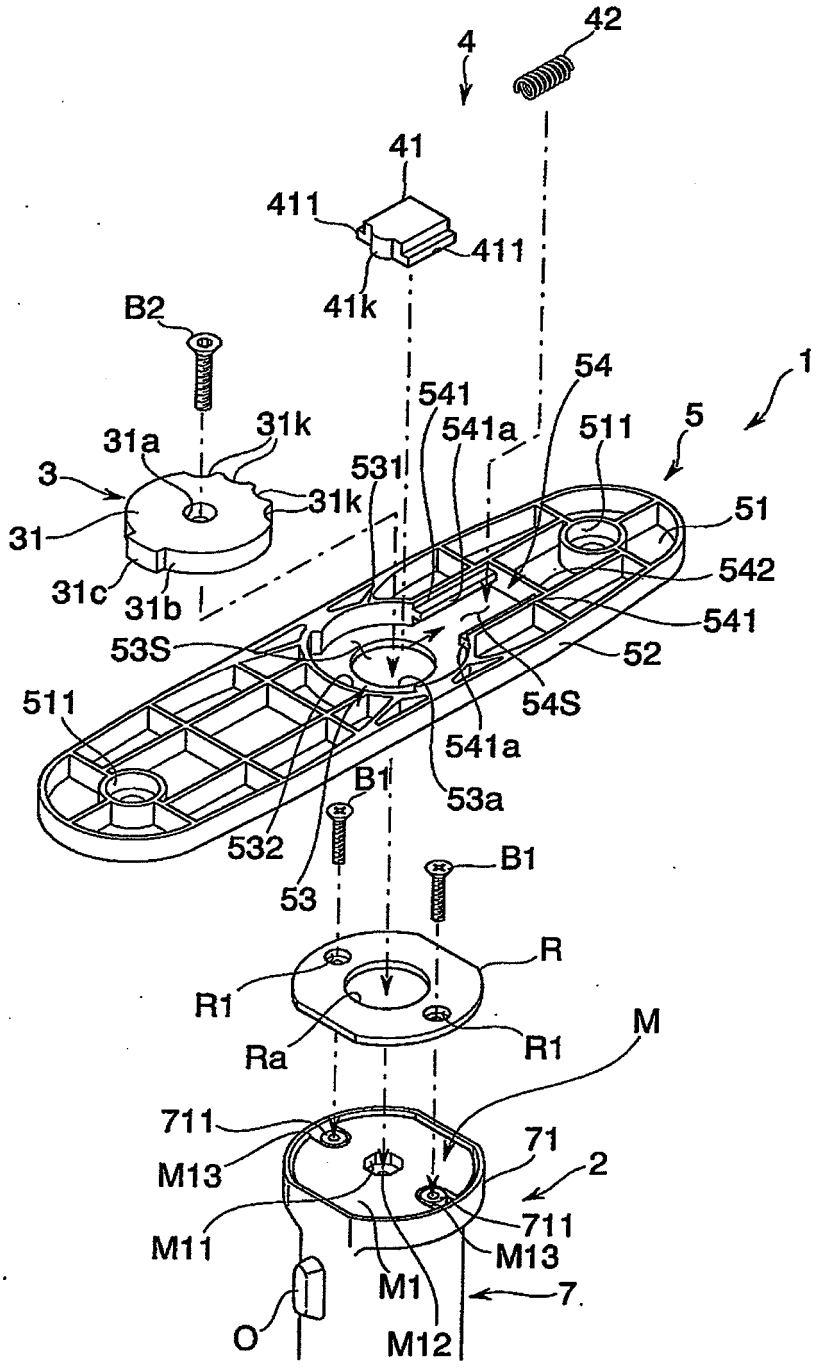
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Fig.3

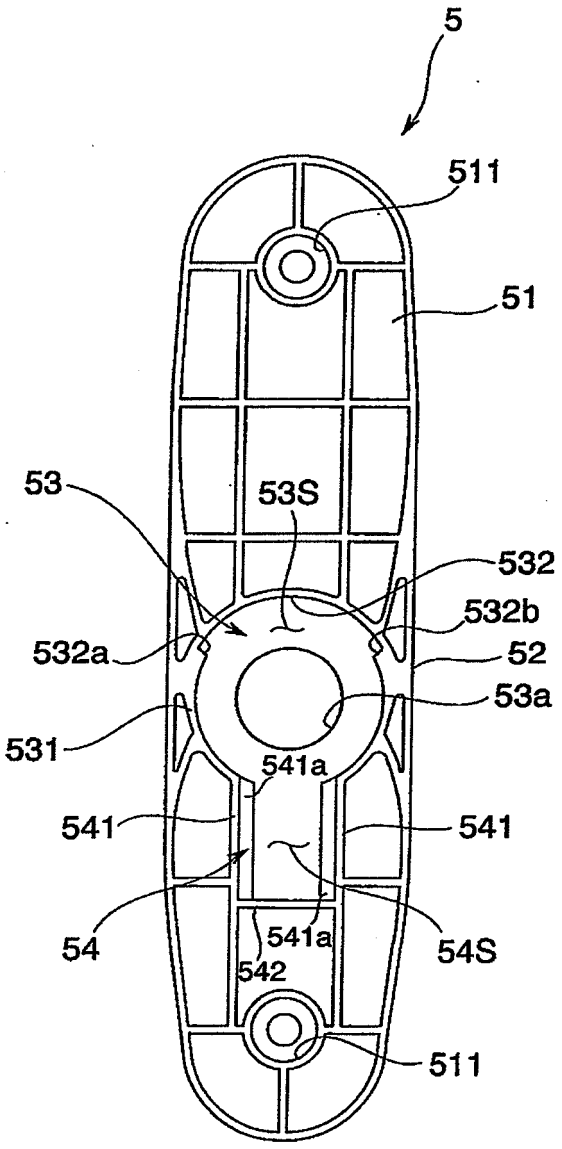
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Fig.4

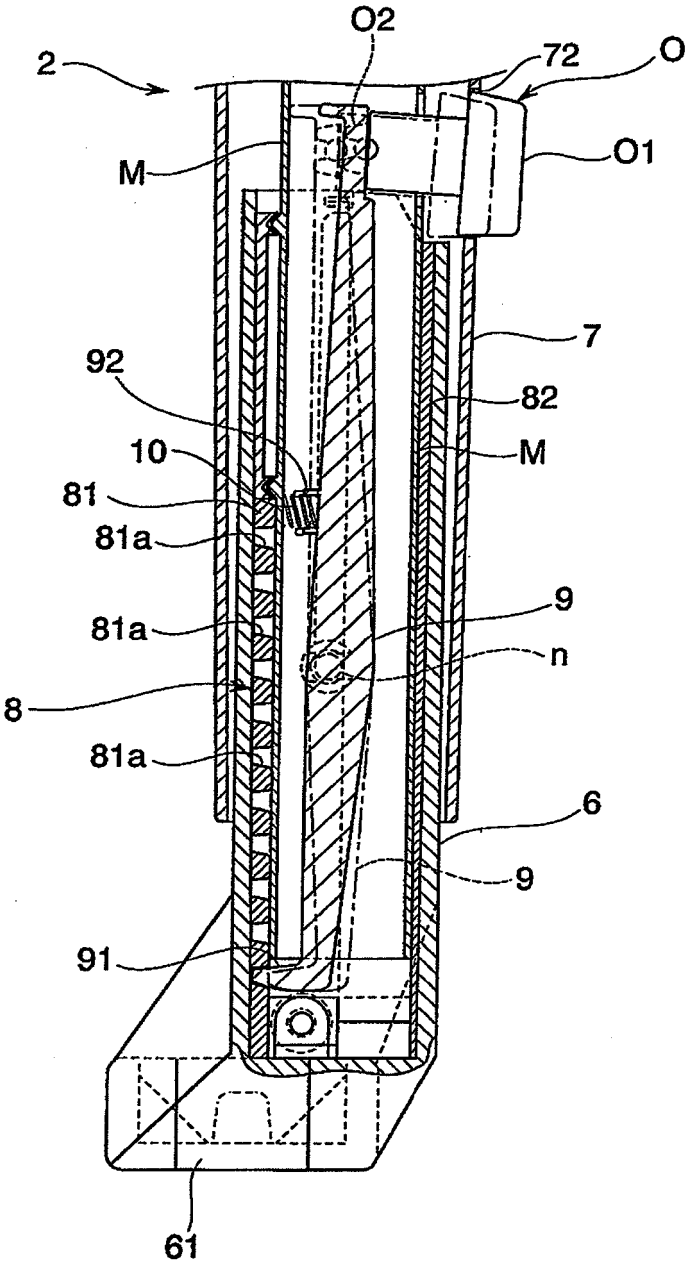

Fig.5

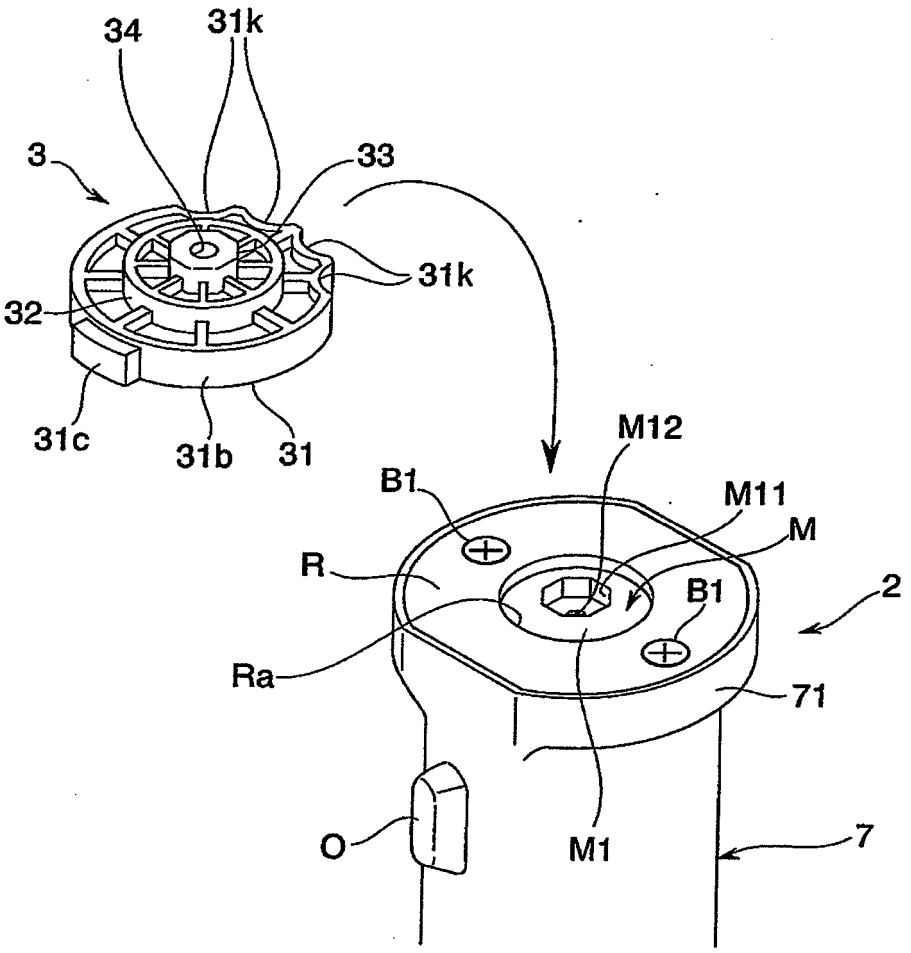

Fig.6

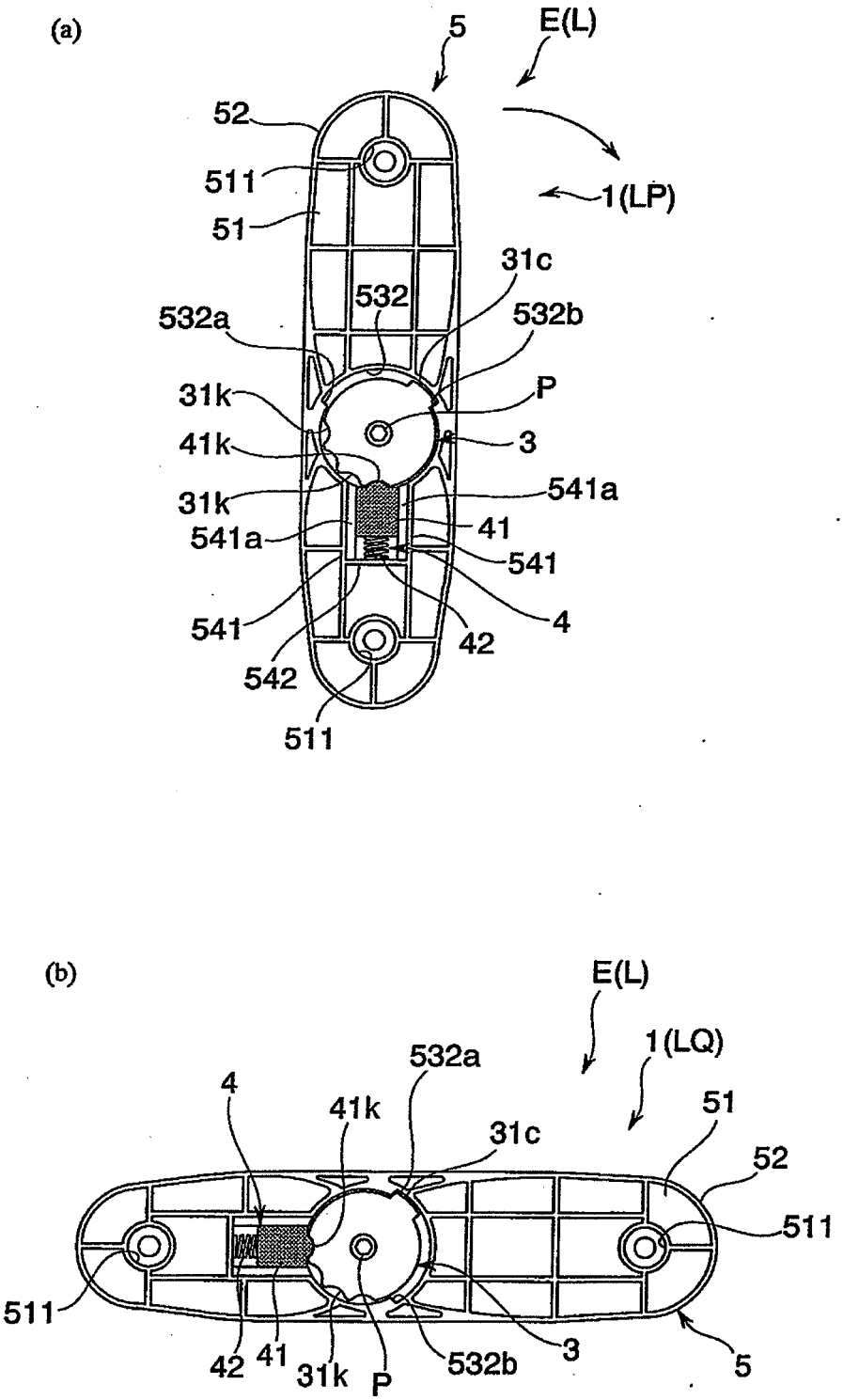
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Fig.7

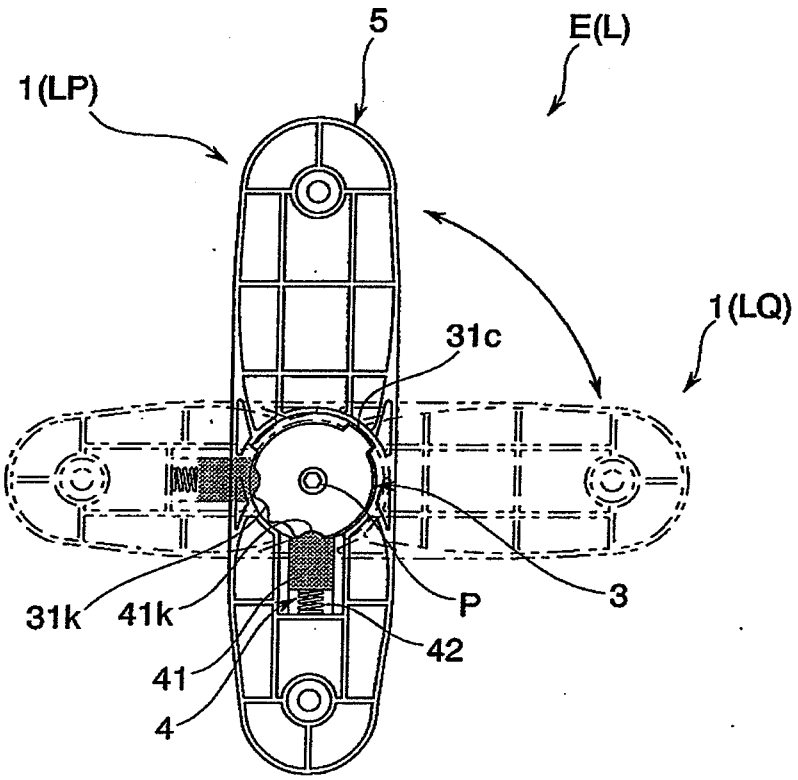
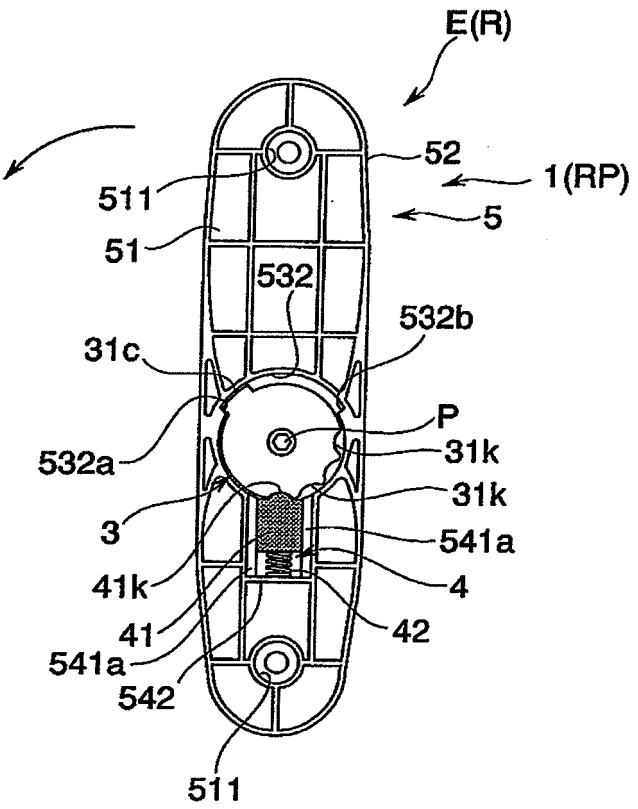


Fig.8

(a)


E(R)
52
1(RP)
511
5
51
532
532b
31c
P
532a
31k
31k
3
541a
41k
4
41
42
541a
542
511

(b)

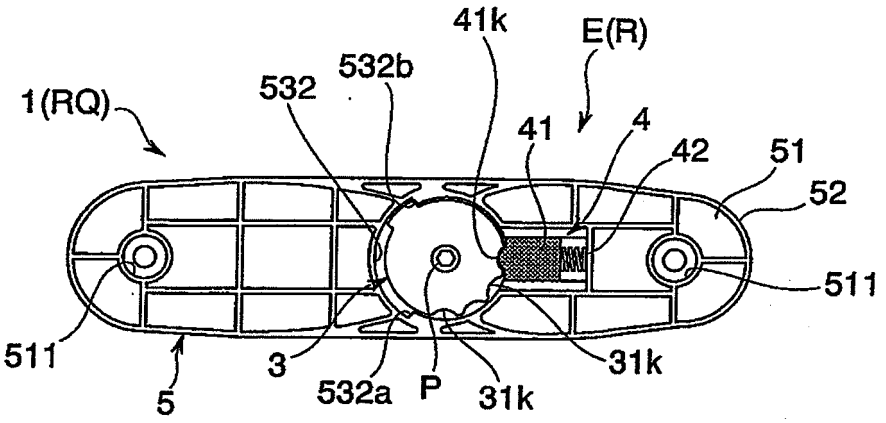

41k
E(R)
1(RQ)
532
532b
41
4
42
51
52
511
511
3
31k
5
532a
P
31k

Fig.9

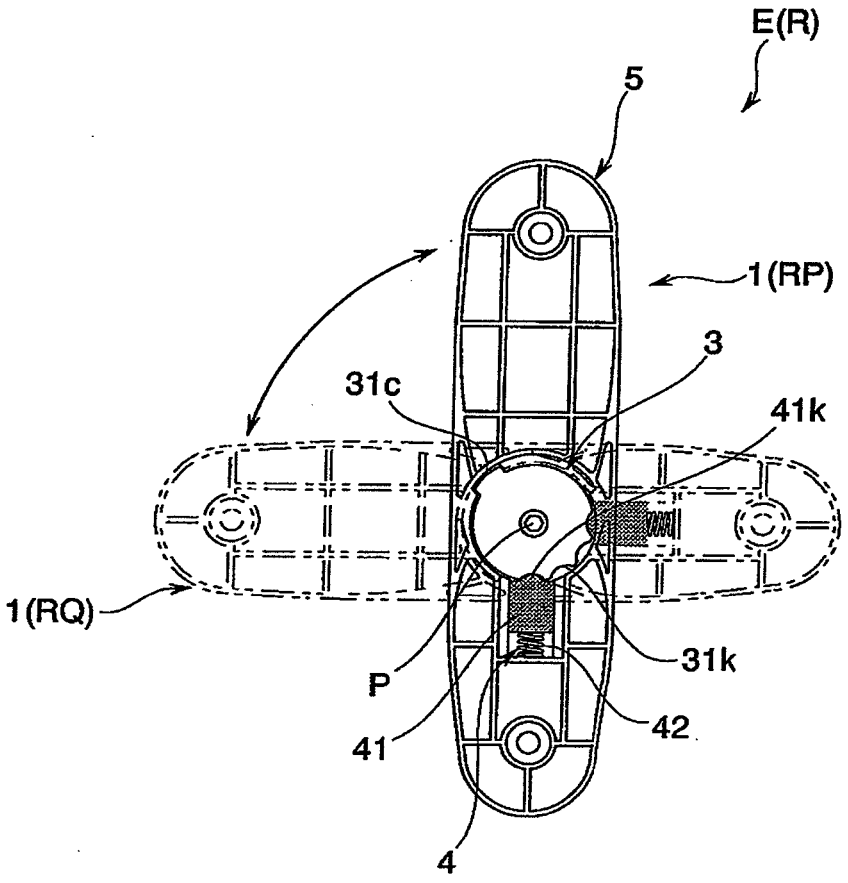


Fig.10