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Description

Technical Field

- 5 **[0001]** The present invention relates to a chair in which an attachment part of an upholstery material of a load-supporting body, such as a seat body or a backrest, is improved.

Background Art

- 10 **[0002]** In seat bodies of chairs used for office work, generally, a cushion material, such as urethane, is arranged at an upper part of a base plate constituting a framework, and is covered with a sheet-like upholstery material from an outside surface of the cushion material to an outside edge of the base plate.

- [0003]** When the upholstery material of this type of chair is attached, it is easy to replace the upholstery material with another at the time of fouling or the like, and it is easy to apply stable tension throughout the upholstery material.
15 Therefore, a technique of narrowing a peripheral edge of the upholstery material on a lower surface side of the base plate using a tightening cord, thereby fixing the upholstery material to the cushion material and the base plate is frequently used (for example, refer to Patent Documents 1 and 2).

- [0004]** In the chair described in Patent Documents 1 and 2, a bag-shaped insertion hole is provided in the peripheral edge of the upholstery material that holds the outside surface of the cushion material, and the outer peripheral edge of a base plate, the tightening cord is inserted through the insertion hole, and end parts of the tightening cord are tied together on the lower surface side of the base plate. A locking projection that restricts the displacement of the tightening cord to a base plate center side is provided on a lower surface side of such a chair, and thereby, positional deviation of the upholstery material is prevented.

- [0005]** In such a chair, the upholstery material can be easily attached to the cushion material and the base plate by tightening the tightening cord in the shape of a loop on the lower surface side of the base plate and tying the end parts. Moreover, variations in the tension that acts on the upholstery material can be reduced by managing the length of the tied part of the tightening cord.

Citation List

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Patent Document

[0006]

- 35 [Patent Document 1] Japanese Patent Publication No. 3728576
[Patent Document 2] Japanese Patent Publication No. 4255670

Further combinations are disclosed in document DE19535181A1 or document FR2481907A1 that do not provide easy secure attachment of the upholstery material.

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Summary of Invention

Technical Problem

- 45 **[0007]** In the chair described in Patent Documents 1 and 2, the locking projection is formed only in a direction in which the tightening cord that tends to narrow inward is caught. However, actually, if the upholstery material is stretched on the cushion material and the base plate, it becomes clear that the peripheral edge of the upholstery material tightened by the tightening cord is displaced not only in a direction in which the peripheral edge tends to narrow inward but also in a direction in which the peripheral edge tends to widen outward.

- 50 **[0008]** As the cause of this, for example, if the peripheral edge of the upholstery material is tightened by the tightening cord in a case where the base plate and the cushion material have a substantially rectangular shape in plan view, parts corresponding to vicinities of corner parts of the base plate or the cushion material on the peripheral edge of the upholstery material are most strongly pulled by the tightening cord. However, by the parts corresponding to vicinities of linear parts between the corner parts adjacent to each other on the peripheral edge of the upholstery material, pulling force becomes relatively weak. Therefore, it is predicted that the parts are displaced to partially widen outward due to the tension of the upholstery material.

- 55 **[0009]** Thus, an object of the invention is to provide a chair that can appropriately restrict displacement of a tightening cord and a peripheral edge of an upholstery material and can reduce positional deviation of an upholstery material.

Solution to Problem

[0010] In order to solve the above problems, a chair related to the invention includes a load-supporting body. The load-supporting body includes a base plate constituting a framework; a cushion material arranged on a front surface side of the base plate; an upholstery material stretched to cover at least an outside surface of the cushion material and an outer peripheral edge of the base plate; and a tightening cord inserted through a peripheral edge of the upholstery material and tightened to allow end parts to be tied together on a rear surface side of the base plate in a state in which the upholstery material has covered the outside surface of the cushion material and the outer peripheral edge of the base plate. The base plate is provided with first locking means for restricting displacement of the tightened tightening cord in a base-plate center direction, and second locking means for restricting displacement of the tightened tightening cord in a base plate outward direction.

[0011] Accordingly, if the tightening cord inserted through the peripheral edge of the upholstery material is tightened on the rear surface side of the base plate in a state in which the upholstery material has covered the outside surface of the cushion material and the outer peripheral edge of the base plate, the displacement of the tightening cord in the base-plate center direction is restricted by the first locking means, and the displacement of the tightening cord in the base plate outward direction is restricted by the second locking means. Therefore, not only the displacement of the peripheral edge of the upholstery material that tends to narrow inward but also the displacement thereof that tends to widen outward is restricted.

[0012] The base plate may be formed in a substantially rectangular shape having corner parts at four corners and linear parts between the corner parts, the corner parts may be provided with the first locking means, and at least some of the linear parts may be provided with the second locking means.

[0013] In this case, if the tightening cord inserted through the peripheral edge of the upholstery material is tightened on the rear surface side of the base plate in a state in which the upholstery material has covered the outside surface of the cushion material and the outer peripheral edge of the base plate, the tightening cord tends to be displaced in the direction of narrowing inward in the corner parts of the base plate, and the upholstery material tends to be displaced in the direction of widening outward in some of the linear parts of the base plate. In this case, each displacement of the tightening cord is restricted by the first locking means and the second locking means. Therefore, in every part of the base plate, curling of the upholstery material can be appropriately prevented.

[0014] According to the invention, the first locking means include a first side wall protruding from a rear surface of the base plate to a rear side, and a first protruding wall protruding in an outward direction of the base plate from the vicinity of a protruding end of the first side wall, and the second locking means may include a second side wall protruding from the rear surface of the base plate to the rear side, and a second protruding wall protruding in an inward direction of the base plate from the vicinity of a protruding end of the second side wall.

[0015] In this case, slip-out of the tightening cord or the peripheral edge of the upholstery material is reliably restricted by the first protruding wall and the second protruding wall. Additionally, even in a case where the tightening cord or the peripheral edge of the upholstery material directly abuts against neither the first protruding wall nor the second protruding wall, the displacement of the tightening cord or the upholstery material is restricted by the first side wall or the second side wall.

[0016] A recessed groove that is continuous in a circumferential direction of the base plate is formed in the rear surface of the base plate, the first side wall is an inside wall of the recessed groove, and the second side wall is an outside wall of the recessed groove.

[0017] In this case, when the upholstery material is attached, the tightening cord or the peripheral edge of the upholstery material can be arranged inside the first protruding wall or the second protruding wall, pushing the tightening cord or the peripheral edge of the upholstery material into the recessed groove that is continuous in the peripheral direction of the base plate. Therefore, the upholstery material can be easily attached. Additionally, since the tightening cord or the peripheral edge of the upholstery material is arranged within the recessed groove that is continuous in the circumferential direction of the base plate, the upholstery material is not more easily curled.

[0018] According to the invention, the first protruding wall and the second protruding wall is arranged so as to be separated from each other in a direction in which the tightening cord extends, and to be adjacent to each other.

[0019] In this case, even if the length of the first protruding wall and the second protruding wall is extended, the tip parts of the first protruding wall and the second protruding wall are stopped from coming into contact with each other. For this reason, the length of the first protruding wall and the second protruding wall can be sufficiently extended, and when the tightening cord or the peripheral edge of the upholstery material is attached, the first protruding wall and the second protruding wall can be easily bent and deformed. Therefore, this can facilitate the attachment of the upholstery material.

[0020] It is preferable that respective tip parts of the first protruding wall and the second protruding wall that are provided adjacent to each other extend to positions with substantially half lengths of the separation width of the first side wall and the second side wall in a direction intersecting the direction in which the tightening cord extends.

[0021] In this case, since the wide range, in a slip-out direction, of a region where the peripheral edge of the upholstery material and the tightening cord are arranged is covered with the first protruding wall and the second protruding wall, slip-out of the peripheral edge of the upholstery material can be effectively prevented. Additionally, the work of putting the upholstery material between the first side wall and the second side wall is not easily hindered by the first protruding wall and the second protruding wall.

[0022] Tip parts of the first protruding wall and the second protruding wall may be arranged at positions that face each other.

[0023] In this case, since the tip parts of the first protruding wall and the second protruding wall are arranged to face each other, even if the displacement direction of the tightening cord or the peripheral edge of the upholstery material varies, the displacement of the tightening cord or the peripheral edge of the upholstery material is reliably restricted by any one of the first protruding wall and the second protruding wall.

[0024] Portions of tip parts of the first protruding wall and the second protruding wall may be arranged to face each other, and remaining portions thereof may be arranged so as to be separated from each other in a direction in which the tightening cord extends.

[0025] In this case, even if the displacement direction of the tightening cord or the peripheral edge of the upholstery material varies, the displacement of the tightening cord or the peripheral edge of the upholstery material is reliably restricted by any one of the first protruding wall and the second protruding wall. Additionally, since only the portions of the tip parts of the first protruding wall and the second protruding wall face each other, and the remaining portions thereof are separated from each other in the direction in which the tightening cord extends, the first protruding wall and the second protruding wall extend to be long along the direction in which the tightening cord extends. For this reason, the first protruding wall and the second protruding wall can be easily bent and deformed when the tightening cord or the peripheral edge of the upholstery material is attached. Therefore, this can facilitate the attachment of the upholstery material.

Advantageous Effects of Invention

[0026] According to the invention, since not only the displacement of the peripheral edge of the upholstery material that tends to narrow inward but also the displacement thereof that tends to widen outward can be appropriately restricted, positional deviation of the upholstery material can be more reliably suppressed.

Brief Description of Drawings

[0027]

FIG. 1 is a side view of a chair of a first embodiment of the invention.

FIG. 2 is a perspective view in a state in which a leg part of the chair of the first embodiment of the invention is removed.

FIG. 3 is a bottom view of a base plate of the first embodiment of the invention.

FIG. 4 is a perspective view when the base plate of the first embodiment of the invention is seen from a lower, diagonally front and left side.

FIG. 5 is an enlarged view of a V portion, in FIG. 3, of a seat body of the first embodiment of the invention.

FIG. 6 is a sectional view, corresponding to section VI-VI of FIG. 3, of the seat body of the first embodiment of the invention.

FIG. 7 is a sectional view, corresponding to section VII-VII of FIG. 3, of the seat body of the first embodiment of the invention.

FIG. 8 is a bottom view of main parts of a base plate of a second embodiment of the invention.

FIG. 9 is a bottom view of main parts of a base plate of a third embodiment.

FIG. 10 is a bottom view of main parts of a base plate of a fourth embodiment of the invention.

Description of Embodiments

[0028] Hereinafter, embodiments will be described with reference to the drawings. In addition, in the following description, a direction in which the front of a human being who sits down in a regular posture on a chair faces and which is indicated by arrow FR in the drawings is referred to as "front", and a direction opposite to the front is referred to as "rear". Additionally, as for "up", "down", "left", and "right", a direction indicated by arrow UP in the drawings on the upper side of the human being who sits down in the regular posture on the chair is referred to as "up", and a direction opposite thereto is referred to as "down", and a direction indicated by arrow LH in the drawings on the left of the human being who sits down in the regular posture on the chair 1 is referred to as "left", and a direction opposite thereto is referred to as "right".

[0029] First, a first embodiment illustrated in FIGS. 1 to 7 will be described.

[0030] FIG. 1 is a side view illustrating the overall configuration of the chair 1 of this embodiment, and FIG. 2 is a perspective view when the chair 1 from which some components are removed is seen obliquely from below.

[0031] As illustrated in these drawings, the chair 1 of this embodiment includes a leg part 2 placed on a floor F, a box-like supporting base 3 installed at an upper end of the leg part 2, a seat body 4 on which a sitting person sits down, a seat-receiving member 5 attached to an upper surface of the supporting base 3 to support the seat body 4, and a backrest part 6 that extends to a rear part upper side from the supporting base 3 and supports the back of a sitting person who sits down on the seat body 4.

[0032] The leg part 2 includes a multi-branch leg 7 with casters 7a, and a leg pillar 8 that is erected from a central part of the multi-branch leg 7 and incorporates a gas spring that is a lifting mechanism, and the supporting base 3 is attached to an upper end part of the leg pillar 8 so as to be rotatable in a horizontal direction. A lift-adjusting mechanism of the leg pillar 8 and a tilt-adjusting mechanism of the backrest part 6 are incorporated into the supporting base 3. The backrest part 6 includes a backrest-supporting frame 9 having a substantially L-shape in a side view, and a backrest body 10 that is attached to a front surface of a rear upper part of the backrest-supporting frame 9 and directly supports the back of a sitting person who sits down on the seat body 4, and a front lower end of the backrest-supporting frame 9 is coupled to the tilt-adjusting mechanism within the supporting base 3.

[0033] In addition, reference signs 11 in FIGS. 1 and 2 designate a pivotal shaft of the backrest-supporting frame 9 on the supporting base 3, and reference sign 12 designates an operation knob of the tilt-adjusting mechanism provided to protrude from a side surface of the supporting base 3. Additionally reference sign 90 in FIG. 1 designates armrests attached to lower surfaces on both left and right sides of the seat body 4 as additional parts.

[0034] FIG. 3 is a bottom view of the seat body 4. In this embodiment, the seat body 4 constitutes a load-supporting body of the chair 1 of this embodiment.

[0035] The seat body 4 includes a base plate 13 constituting a framework, a cushion material 14 made of urethane attached to an upper part of the base plate 13, and an upholstery material 15 that is stretched to cover an outside surface of the cushion material 14 to an outer peripheral edge of the base plate 13. In addition, in FIG. 3, the upholstery material 15 is illustrated by phantom lines for the sake of illustration.

[0036] FIG. 4 is a perspective view when the base plate 13 is seen obliquely from below.

[0037] The base plate 13 is formed of synthetic resin having elasticity, and is formed in a substantially oblong shape with four rounded corners in a top view. That is, the base plate 13 is provided with corner parts 13a that are rounded at four corners, and has an external shape in which linear parts 13b are respectively arranged between the corner parts 13a adjacent to each other. The base plate 13 is provided such that a continuous shielding wall 16 serving as a reinforcing rib protrudes downward from a lower surface of a peripheral edge excluding a central region of a rear side. The shielding wall 16 conceals that a lower surface of the base plate 13 is seen from a side, and functions to restrict excessive bending deformation of the whole region of the base plate 13. Additionally a plurality of reinforcing ribs 23 with low protruding height extending in a forward-rearward direction are provided at equal intervals so as to protrude from a region closer to an inner side than the shielding wall 16 of the lower surface of the base plate 13.

[0038] The base plate 13 is held by the seat-receiving member 5 fixed on the supporting base 3 so as to be slidable forward and backward.

[0039] As illustrated in FIG. 2, a locking lever 21 for locking the front and rear positions of the seat body 4 is tiltably attached to a left side part of the base plate 13. A plurality of lock holes 35 are formed in the seat-receiving member 5, and the sliding position of the base plate 13 is locked by a tip part of the locking lever 21 being fitted into an arbitrary lock hole 35. A release operation knob 22 to be gripped by an operator is integrally formed on a base end side in the locking lever 21.

[0040] FIG. 5 is an enlarged view illustrating a V portion of FIG. 3, and FIGS. 6 and 7 are views illustrating sections corresponding to a VI-VI section and a VII-VII section of FIG. 3.

[0041] A bag-shaped insertion hole part 17 running along a circumferential direction is provided at a peripheral edge 15a of the upholstery material 15 that is arranged so as to be routed to a lower surface side of the peripheral edge of the base plate 13. The insertion hole part 17 is broken at a portion of the peripheral edge 15a of the upholstery material 15 in the circumferential direction, and a tightening cord 18 is inserted from the broken portion of the tightening cord 18. The tightening cord 18 tightens the peripheral edge 15a of the upholstery material 15 on the lower surface side of the base plate 13, in a state in which the upholstery material 15 is stretched to hold the outside surface of the cushion material 14 to the outer peripheral edge of the base plate 13, and both end parts 18a and 18a are tied together with a predetermined tension in that state.

[0042] Here, a recessed groove 19 running along the circumferential direction is formed in the lower surface of the outer peripheral edge of the base plate 13, and the peripheral edge 15a of the upholstery material 15 is fitted into the recessed groove 19 together with the tightening cord 18.

[0043] The recessed groove 19 is formed by a first annular side wall 24 that protrudes downward from the lower surface of the base plate 13, and a second annular side wall 25 that protrudes downward from the lower surface of the base

plate 13 at a position separated to the outside of the first side wall 24. In this embodiment, a portion of the first side wall 24 is formed continuously with a root side of the shielding wall 16. In other words, the shielding wall 16 is formed continuously with a protruding end of the first side wall 24.

[0044] A plurality of first protruding walls 26 that protrude in an outward direction of the base plate 13 from the vicinity of the protruding end of the first side wall 24 are provided in regions corresponding to the respective corner parts 13a of the base plate 13 of the first side wall 24, and regions corresponding to the linear parts 13b. Meanwhile, a plurality of second protruding walls 27 that protrude in an inward direction of the base plate 13 from the vicinity of a protruding end of the second side wall 25 are provided in regions corresponding to the linear parts 13b on both left and right sides of the base plate 13 and the linear part 13b on the front side thereof, in the second side wall 25.

[0045] In this embodiment, the first side wall 24 and the first protruding wall 26 constitute first locking means for restricting the displacement of the tightened tightening cord 18 in a base-plate center direction, and the second side wall 25 and the second protruding wall 27 constitute second locking means for restricting the displacement of the tightened tightening cord 18 in the outward direction of the base plate.

[0046] The first protruding wall 26 and the second protruding wall 27 provided in the regions corresponding to the linear parts 13b on both left and right sides and the linear part 13b on the front side are arranged so as to be separated from each other by a predetermined distance in a direction in which (the tightening cord 18 of) the recessed groove 19 extends, and to be adjacent to each other. That is, the first protruding wall 26 and the second protruding wall 27 are alternately arranged with the recessed groove 19 interposed therebetween.

[0047] Regarding the first protruding wall 26 and the second protruding wall 27 that are provided to be adjacent to each other in the regions corresponding to the linear parts 13b on both left and right sides and the linear part 13b on the front side, as illustrated in FIG. 5, their respective tip parts extend to positions with substantially half lengths of the groove width of the recessed groove 19.

[0048] In the chair 1 of this embodiment, in a case where the cushion material 14 is arranged on the base plate 13 and the upholstery material 15 is attached thereto, first, the upholstery material 15 is covered to hold the outside surface of the cushion material 14 and the outer peripheral edge of the base plate 13, and the peripheral edge 15a of the upholstery material 15 is fitted into the recessed groove 19 of the base plate 13 together with the tightening cord 18 on the lower surface side of the base plate 13. In this case, in the respective corner parts 13a and the linear part 13b on a rear side, the tightening cord 18 and the peripheral edge 15a of the upholstery material 15 ride over only the first protruding wall 26 and are pushed into the recessed groove 19. Meanwhile, in the linear parts 13b on both left and right sides and the linear part 13b on the front side, the first protruding wall 26 and the second protruding wall 27 ride over the tightening cord 18 and the peripheral edge 15a of the upholstery material 15 and are pushed into the recessed groove 19.

[0049] Next, in this state, both end parts of the tightening cord 18 pulled out from the insertion hole part 17 of the peripheral edge of the upholstery material 15 are tightened using an appropriate instrument, and both the end parts of the tightening cord 18 are tied together in that state. In addition, the tightening of the tightening cord 18 can also be manually performed by a worker. In this way, if both the end parts of the tightening cord 18 are tightened, the tightening cord 18 and the peripheral edge 15a of the upholstery material 15 tend to be displaced in a base-material center direction in the regions corresponding to the respective corner parts 13a of the base plate 13 and the rear linear part 13b, and the tightening cord 18 and the peripheral edge 15a of the upholstery material 15 tend to be displaced in a base material outward direction in some of the regions corresponding to the linear parts 13b on both the left and right sides of the base plate 13 and the linear part 13b on the front side, and tend to be displaced in the base-material center direction in some of the other above regions. In this case, the displacement, in the base-plate center direction, of the tightening cord 18 and the peripheral edge 15a of the upholstery material 15 is restricted by the first side wall 24 and the first protruding wall 26, and the displacement, in the base plate outward direction, of the tightening cord 18 and the peripheral edge 15a of the upholstery material 15 is restricted by the second side wall 25 and the second protruding wall 27.

[0050] As described above, in the chair 1 related to this embodiment, the second side wall 25 and the second protruding wall 27 that are the second locking means in addition to the first side wall 24 and the first protruding wall 26 that are the first locking means are provided at suitable positions on the lower surface of the base plate 13 of the seat body 4. Therefore, not only the displacement of the peripheral edge 15a of the upholstery material 15 that tends to narrow inward but also the displacement thereof that tends to widen outward can be appropriately restricted. For this reason, curling of the upholstery material 15 in various directions can be more reliably suppressed.

[0051] Particularly, in the chair 1 related to this embodiment, the second side wall 25 and the second protruding wall 27 are provided in the linear parts 13b on both the left and right sides of the base plate 13 and the linear part 13b on the front side in the thick cushion material 14 superimposed on an upper surface. Therefore, the displacement of the peripheral edge 15a of the upholstery material 15 that tends to widen outward accompanying the tightening of the tightening cord 18 can be appropriately restricted.

[0052] Additionally, in the chair 1 related to this embodiment, the first locking means is constituted of the first side wall 24 and the first protruding wall 26, and the second locking means is constituted of the second side wall 25 and the second protruding wall 27. Therefore, slip-out of the peripheral edge 15a of the upholstery material 15 from the recessed

groove 19 can be reliably restricted by the first protruding wall 26 and the second protruding wall 27. In addition, even in a case where the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 directly abuts against neither the first protruding wall 26 nor the second protruding wall 27, the displacement of the tightening cord 18 or the upholstery material 15 can be restricted by the first side wall 24 and the second side wall 25 that are walls of the recessed groove 19.

[0053] Moreover, in the chair 1 related to this embodiment, the recessed groove 19 is provided in the lower surface of the base plate 13 so as to be continuous in the circumferential direction of the base plate 13, the first side wall 24 is constituted of an inside wall of the recessed groove 19, and the second side wall 25 is constituted of an outside wall of the recessed groove 19. Therefore, when the upholstery material 15 is attached, the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 can be easily arranged inside the first protruding wall 26 or the second protruding wall 27, continuously pushing the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 into the recessed groove 19 on the base plate 13. For this reason, the upholstery material 15 can be easily attached. Moreover, since the displacement of the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 is restricted within the continuous recessed groove 19, the curling of the upholstery material 15 can be made less likely to occur.

[0054] However, the continuous recessed groove 19 may not necessarily be formed in the lower surface of the base plate 13. As in a second embodiment illustrated in FIG. 8, the first side wall 124 and the second side wall 125 that are narrow may intermittently protrude from the lower surface of the base plate 113 so as to run along the direction in which the tightening cord 18 extends, and the first protruding wall 126 and the second protruding wall 127 may be respectively provided continuously with the vicinities of the respective protruding ends of the first side wall 124 and the second side wall 125.

[0055] Additionally, in the chair 1 related to this embodiment, the first protruding wall 26 and the second protruding wall 27 provided in the linear parts 13b are arranged so as to be separated from each other in the direction in which the tightening cord 18 extends, and to be adjacent to each other. Therefore, the length of the first protruding wall 26 and the second protruding wall 27 can be sufficiently extended without causing any contact between tip parts of the first protruding wall 26 and the second protruding wall 27. For this reason, the first protruding wall 26 and the second protruding wall 27 can be easily bent and deformed when the tightening cord 18 or the peripheral edge of the upholstery material 15 is attached. Therefore, this can facilitate the attachment of the upholstery material 15.

[0056] Particularly, in the case of this embodiment, the respective tip parts of the first protruding wall 26 and the second protruding wall 27 that are provided adjacent to each other in the linear parts extend to positions with substantially half lengths of the groove width (the separation width of the first side wall 24 and the second side wall 25) of the recessed groove 19. Therefore, the wide range of the recessed groove 19 is blocked by the first protruding wall 26 and the second protruding wall 27, and the slip-out of the peripheral edge 15a (tightening cord 18) of the upholstery material 15 from the inside of the recessed groove 19 can be effectively prevented. Additionally, as in this embodiment, even in a case where the respective tip parts of the first protruding wall 26 and the second protruding wall 27 are extended to the positions with substantially half lengths of the groove width of the recessed groove 19, if minimal setting is made so that the tightening cord 18 can pass through the recessed groove at least, the work of putting the peripheral edge 15a of the upholstery material 15 into the recessed groove 19 is not hindered by the first protruding wall 26 and the second protruding wall 27.

[0057] FIG. 9 is a view illustrating lower surfaces of main parts of a base plate 213 of a third embodiment.

[0058] In this embodiment, tip parts of a first protruding wall 226 and a second protruding wall 227 provided in the linear parts are arranged at positions that face each other.

[0059] In the case of this embodiment, the tip parts of the first protruding wall 226 and the second protruding wall 227 are arranged to face each other. Therefore, even if the displacement direction of the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 varies, the displacement of the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 can be reliably restricted by any one of the first protruding wall 226 and the second protruding wall 227.

[0060] FIG. 10 is a view illustrating lower surfaces of main parts of a base plate 313 of a fourth embodiment of the invention.

[0061] In this embodiment, portions of tip parts of a first protruding wall 326 and a second protruding wall 327 provided in the linear parts face each other, and remaining portions thereof are arranged so as to be separated from each other in a direction in which the tightening cord 18 extends.

[0062] In this embodiment, even if the displacement direction of the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 varies, the displacement of the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 can be reliably restricted by any one of the first protruding wall 326 and the second protruding wall 327.

[0063] Additionally, since only the portions of the tip parts of the first protruding wall 326 and the second protruding wall 327 face each other, and remaining portions thereof are separated from each other in the direction in which the tightening cord 18 extends, the first protruding wall 326 and the second protruding wall 327 extend to be long along the direction in which the tightening cord 18 extends. For this reason, the first protruding wall 326 and the second protruding

wall 327 can be easily bent and deformed when the tightening cord 18 or the peripheral edge 15a of the upholstery material 15 is attached. For this reason, the attachment of the upholstery material 15 can be facilitated.

[0064] The invention is not restricted to the above embodiments, and various design changes can be made. For example, although the above embodiments exemplify a load-supporting body as a seat body, it is also possible to adopt the same structure for a backrest body of the backrest part.

Industrial Applicability

[0065] According to the chair of the invention, since not only the displacement of the peripheral edge of the upholstery material that tends to narrow inward but also the displacement thereof that tends to widen outward can be appropriately restricted, positional deviation of the upholstery material can be more reliably suppressed.

Reference Signs List

[0066]

1:	CHAIR
4:	SEAT BODY (LOAD-SUPPORTING BODY)
13, 113, 213, 313:	BASE PLATE
14:	CUSHION MATERIAL
15:	UPHOLSTERY MATERIAL
18:	TIGHTENING CORD
19:	RECESSED GROOVE
24, 124:	FIRST SIDE WALL
25, 125:	SECOND SIDE WALL
26, 126, 226, 326:	FIRST PROTRUDING WALL
27, 127, 227, 327:	SECOND PROTRUDING WALL

Claims

1. A chair, comprising a load-supporting body, the load-supporting body including:

a base plate (13, 113, 213, 313) constituting a framework;
 a cushion material (14) arranged on a front surface side of the base plate;
 an upholstery material (15) stretched to cover at least an outside surface of the cushion material and an outer peripheral edge of the base plate; and
 a tightening cord (18) inserted through a peripheral edge of the upholstery material and tightened to allow end parts to be tied together on a rear surface side of the base plate in a state in which the upholstery material (15) has covered the outside surface of the cushion material (14) and the outer peripheral edge of the base plate, wherein the base plate (13, 113, 213, 313) is provided with first locking means for restricting displacement of the tightened tightening cord (18) in a base-plate center direction, and second locking means for restricting displacement of the tightened tightening cord (18) in a base plate outward direction, the first locking means includes a first side wall (24, 124) protruding from a rear surface of the base plate to a rear side, and a first protruding wall (26, 126, 226, 326) protruding in an outward direction of the base plate from the vicinity of a protruding end of the first side wall, the second locking means includes a second side wall (25, 125) protruding from the rear surface of the base plate to the rear side, and a second protruding wall (27, 127, 227, 327) protruding in an inward direction of the base plate from the vicinity of a protruding end of the second side wall; and
 the first protruding wall (24, 124) and the second protruding wall (25, 125) are arranged so as to be separated from each other in a direction in which the tightening cord (18) extends, and to be adjacent to each other
characterized in that:
 a recessed groove (19) that is continuous in a circumferential direction of the base plate is formed in the rear surface of the base plate, the first side wall (24, 124) is an inside wall of the recessed groove (19), and the second side wall (25, 125) is an outside wall of the recessed groove (19).

2. The chair according to Claim 1, wherein the base plate (13, 113, 213, 313) is formed in a substantially rectangular shape having corner parts at four

corners and linear parts between the corner parts,
wherein the corner parts are provided with the first locking means, and
wherein at least some of the linear parts are provided with the second locking means.

3. The chair according to Claim 1,
wherein respective tip parts of the first protruding wall (26, 126, 226, 326) and the second protruding wall (27, 127, 227, 327) that are provided adjacent to each other extend to positions with substantially half lengths of the separation width of the first side wall and the second side wall in a direction intersecting the direction in which the tightening cord (18) extends.
4. The chair according to Claim 1,
wherein portions of tip parts of the first protruding wall (26, 126, 226, 326) and the second protruding wall (27, 127, 227, 327) are arranged to face each other, and remaining portions thereof are arranged so as to be separated from each other in a direction in which the tightening cord (18) extends.

Patentansprüche

1. Ein Stuhl, umfassend einen lasttragenden Körper, wobei dieser lasttragende Körper besteht aus:

einer Grundplatte (13, 113, 213, 313), die einen Rahmen bildet;
einem Kissenmaterial, (14), das an einer Vorderflächenseite der Grundplatte angeordnet ist;
einem Polstermaterial (15), das so gespannt ist, dass mindestens eine Außenfläche des Kissenmaterials und eine Außenumfangskante der Grundplatte bedeckt ist; und
einer Spannschnur (18), die durch eine Umfangskante des Polstermaterials eingezogen und festgezogen wird, und es so ermöglicht, dass ihre Enden an einer hinteren Fläche der Grundplatte zusammengebunden werden können, so dass das Polstermaterial (15) die Außenfläche des Kissenmaterials (14) und die äußere Umfangskante der Grundplatte bedeckt,
wobei die Grundplatte (13, 113, 213, 313) mit einer ersten Verriegelungsvorrichtung, um eine Verschiebung der gespannten Spannschnur (18) in Richtung des Zentrums der Grundplatte zu beschränken und mit einer zweiten Verriegelungsvorrichtung versehen ist, um eine Verschiebung der gespannten Spannschnur (18) in Außenrichtung der Grundplatte zu beschränken,
wobei die erste Verriegelungsvorrichtung eine erste Seitenwand (24, 124), die von einer rückwärtigen Fläche der Grundplatte zur Rückseite vorsteht, und eine erste vorstehende Wand (26, 126, 226, 326), die in Außenrichtung der Grundplatte vorsteht, ausgehend von nahe dem vorstehenden Ende der ersten Seitenwand umfasst, wobei die zweite Verriegelungsvorrichtung eine zweite Seitenwand (25, 125), die von einer rückwärtigen Fläche der Grundplatte zur Rückseite vorsteht und eine zweite vorstehende Wand (27, 127, 227, 327), die in Innenrichtung der Grundplatte vorsteht, ausgehend von nahe dem vorstehenden Ende der zweiten Seitenwand umfasst; und
wobei die erste vorstehende Wand (24, 124) und die zweite vorstehende Wand (25, 125) so angeordnet sind, dass sie voneinander in der Richtung getrennt sind, in der die Spannschnur (18) verläuft, und dass sie zueinander benachbart sind;
dadurch gekennzeichnet, dass:
eine eingelassene Nut (19), die durchgehend in Umfangsrichtung der Grundplatte verläuft, in der rückwärtigen Fläche der Grundplatte vorgesehen ist, die erste Seitenwand (24, 124) dabei eine Innenwand der eingelassenen Nut (19) bildet und die zweite Seitenwand (25, 125) eine Außenwand der eingelassenen Nut (19) bildet.

2. Stuhl gemäß Anspruch 1,
wobei die Grundplatte (13, 113, 213, 313) von einer im Wesentlichen rechteckigen Form mit Eckteilen an vier Ecken und linearen Teilen zwischen den Eckteilen gebildet wird,
wobei die Eckteilen mit den ersten Verriegelungsvorrichtungen versehen sind und wobei zumindest einige der linearen Teile mit der zweiten Verriegelungsvorrichtung vorgesehen sind.
3. Stuhl gemäß Anspruch 1,
wobei die jeweiligen Spitzenteile der ersten vorspringenden Wand (26, 126, 226, 326) und der zweiten vorspringenden Wand (27, 127, 227, 327), die nebeneinander vorgesehen sind, bis zu Positionen verlaufen, die im Wesentlichen die halbe Länge der Weite aufweisen, die die erste von der zweiten Seitenwand trennt, in einer Richtung, die die Richtung schneidet, in die die Spannschnur (18) verläuft.

4. Stuhl gemäß Anspruch 1,
wobei Abschnitte der Spitzenteile der ersten vorspringenden Wand (26, 126, 226, 326) und der zweiten vorsprin-
genden Wand (27, 127, 227, 327) so angeordnet sind, dass sie einander gegenüber liegen, und die restlichen Teile
so angeordnet sind, dass sie voneinander in der Richtung, in der die Spannschnur (18) verläuft, getrennt sind.

Revendications

1. Siège, comprenant un corps de support de charge, le corps de support de charge incluant :

une plaque de base (13, 113, 213, 313) constituant une armature ;
un matériau de coussin (14) agencé d'un côté surface avant de la plaque de base ;
un matériau de garniture (15) étiré pour recouvrir au moins une surface extérieure du matériau de coussin et
un bord périphérique externe de la plaque de base ; et
un cordon de serrage (18) inséré à travers un bord périphérique du matériau de garniture et serré pour permettre
aux parties d'extrémité d'être attachées ensemble d'un côté surface arrière de la plaque de base dans un état
dans lequel le matériau de garniture (15) a recouvert la surface extérieure du matériau de coussin (14) et le
bord périphérique externe de la plaque de base,
dans lequel la plaque de base (13, 113, 213, 313) est dotée d'un premier moyen de verrouillage pour restreindre
le déplacement du cordon de serrage (18) serré dans une direction vers le centre de la plaque de base, et d'un
second moyen de verrouillage pour restreindre le déplacement du cordon de serrage (18) serré dans une
direction vers l'extérieur de la plaque de base,
le premier moyen de verrouillage inclut une première paroi latérale (24, 124) faisant saillie à partir d'une surface
arrière de la plaque de base vers un côté arrière, et une première paroi saillante (26, 126, 226, 326) faisant
saillie dans une direction vers l'extérieur de la plaque de base à partir du voisinage d'une extrémité saillante
de la première paroi latérale,
le second moyen de verrouillage inclut une seconde paroi latérale (25, 125) faisant saillie à partir de la surface
arrière de la plaque de base vers le côté arrière, et une seconde paroi saillante (27, 127, 227, 327) faisant saillie
dans une direction vers l'intérieur de la plaque de base à partir du voisinage d'une extrémité saillante de la
seconde paroi latérale ; et
la première paroi saillante (24, 124) et la seconde paroi saillante (25, 125) sont agencées de façon à être
séparées l'une de l'autre dans une direction dans laquelle le cordon de serrage (18) s'étend, et à être adjacentes
l'une à l'autre
caractérisé en ce que :
une gorge évidée (19) qui est continue dans une direction circonférentielle de la plaque de base est formée
dans la surface arrière de la plaque de base, la première paroi latérale (24, 124) est une paroi intérieure de la
gorge évidée (19), et la seconde paroi latérale (25, 125) est une paroi extérieure de la gorge évidée (19).

2. Siège selon la revendication 1,
dans lequel la plaque de base (13, 113, 213, 313) est formée dans une forme sensiblement rectangulaire ayant des
parties cunéiformes aux quatre coins et des parties linéaires entre les parties cunéiformes,
dans lequel les parties cunéiformes sont dotées du premier moyen de verrouillage, et
dans lequel au moins certaines des parties linéaires sont dotées du second moyen de verrouillage.

3. Siège selon la revendication 1,
dans lequel les parties de pointe respectives de la première paroi saillante (26, 126, 226, 326) et de la seconde
paroi saillante (27, 127, 227, 327) qui sont prévues adjacentes l'une à l'autre s'étendent jusqu'à des positions ayant
des longueurs sensiblement égales à la moitié de la largeur de séparation de la première paroi latérale et de la
seconde paroi latérale dans une direction croisant la direction dans laquelle le cordon de serrage (18) s'étend.

4. Siège selon la revendication 1,
dans lequel des portions des parties de pointe de la première paroi saillante (26, 126, 226, 326) et de la seconde
paroi saillante (27, 127, 227, 327) sont agencées pour se faire face, et les portions restantes de celles-ci sont
agencées de façon à être séparées les unes des autres dans une direction dans laquelle le cordon de serrage (18)
s'étend.

FIG. 1

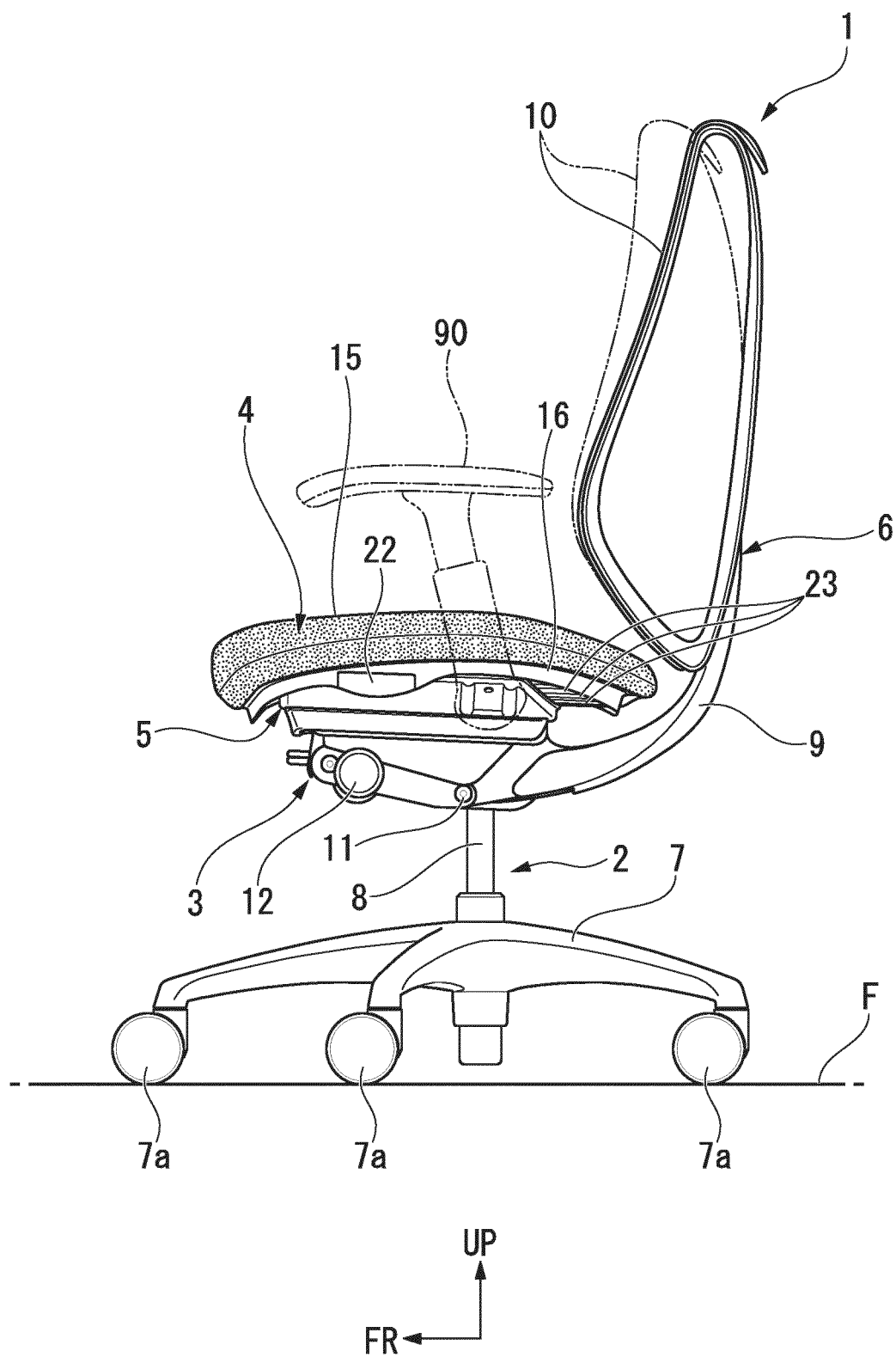


FIG. 2

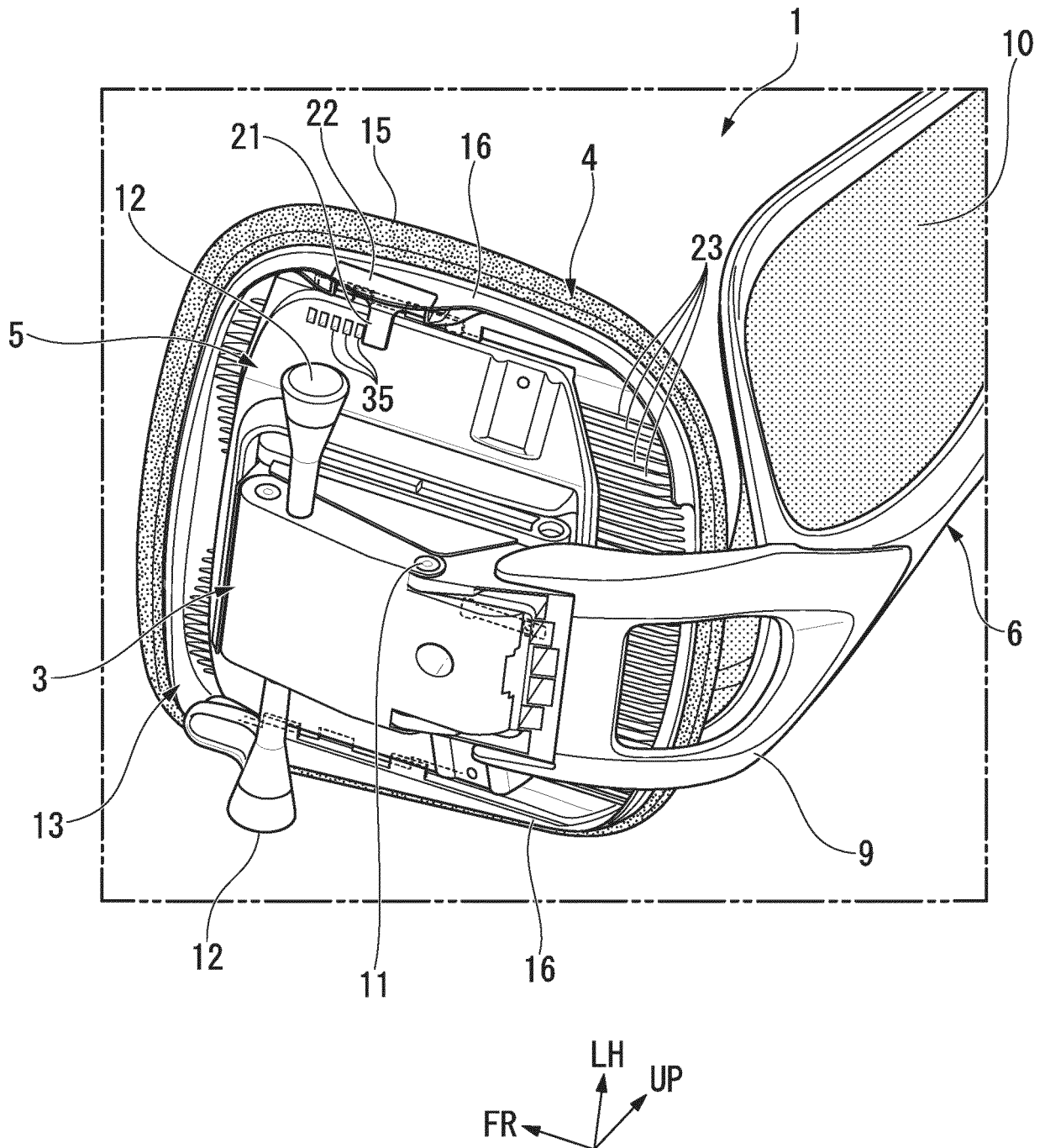


FIG. 3

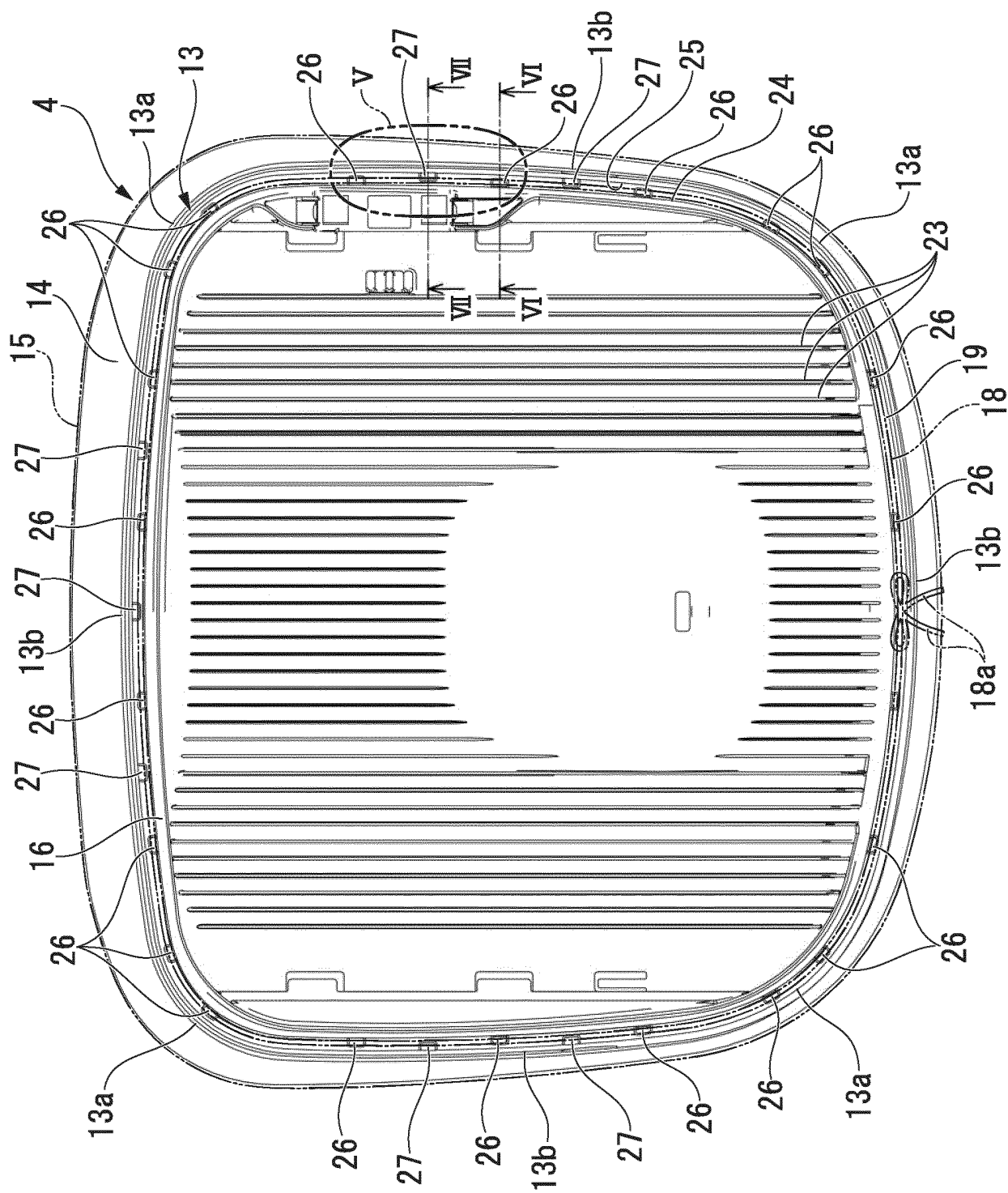


FIG. 4

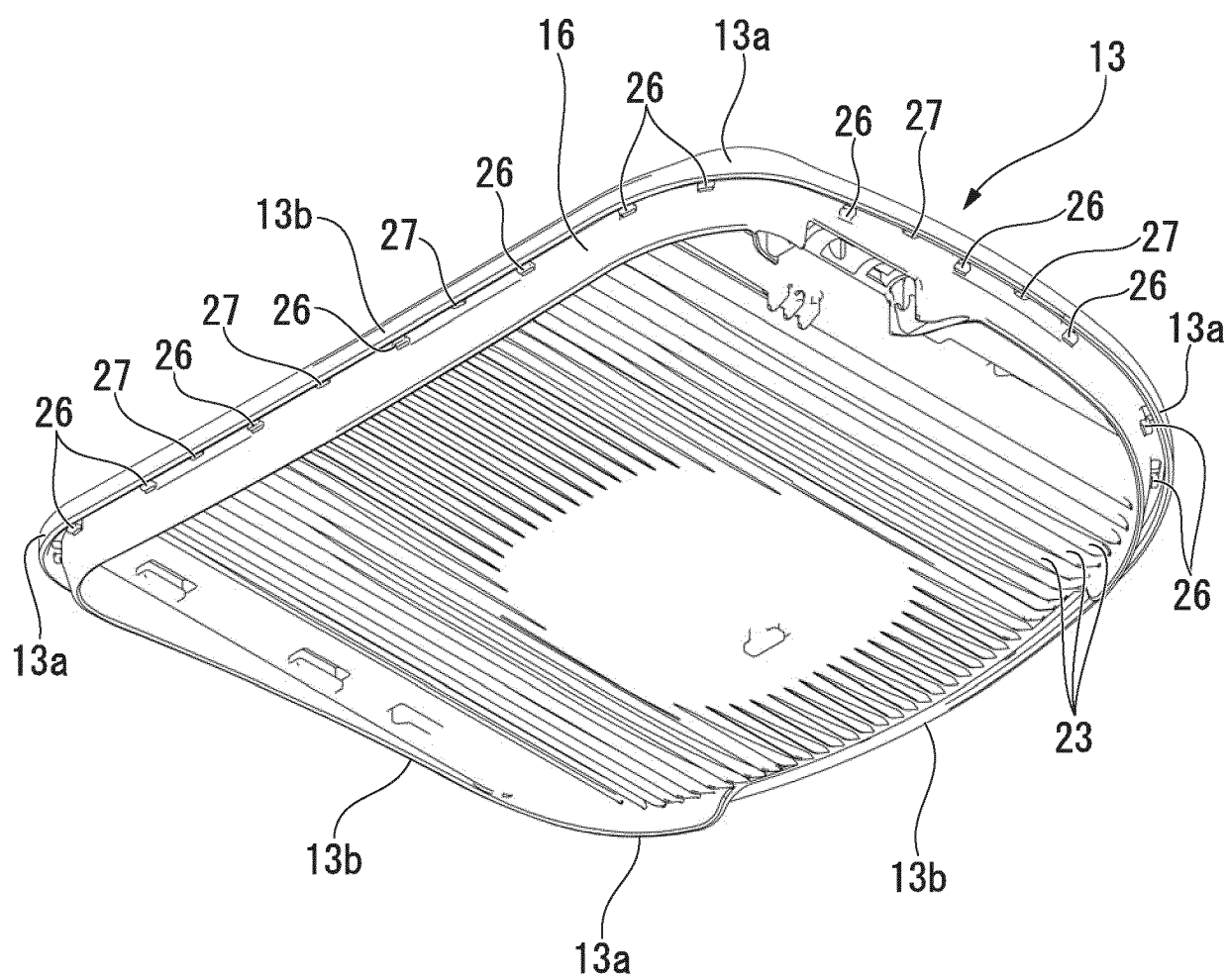


FIG. 5

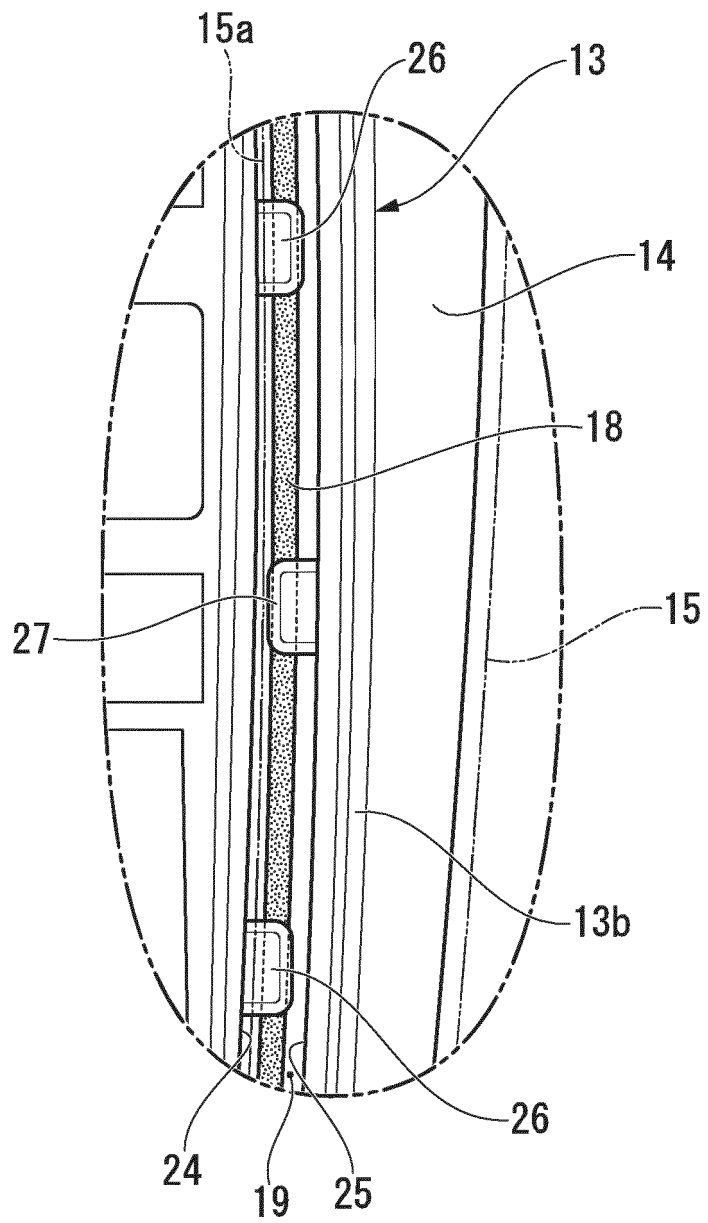


FIG. 6

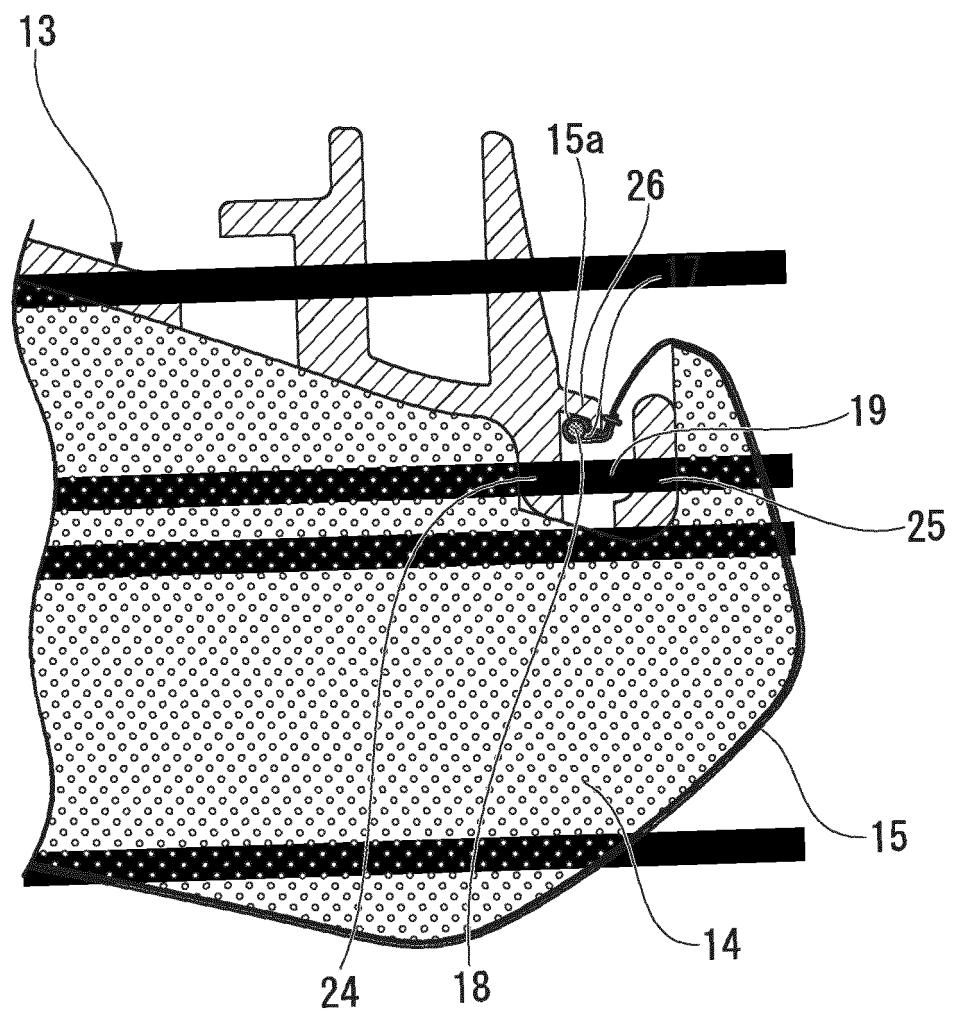


FIG. 7

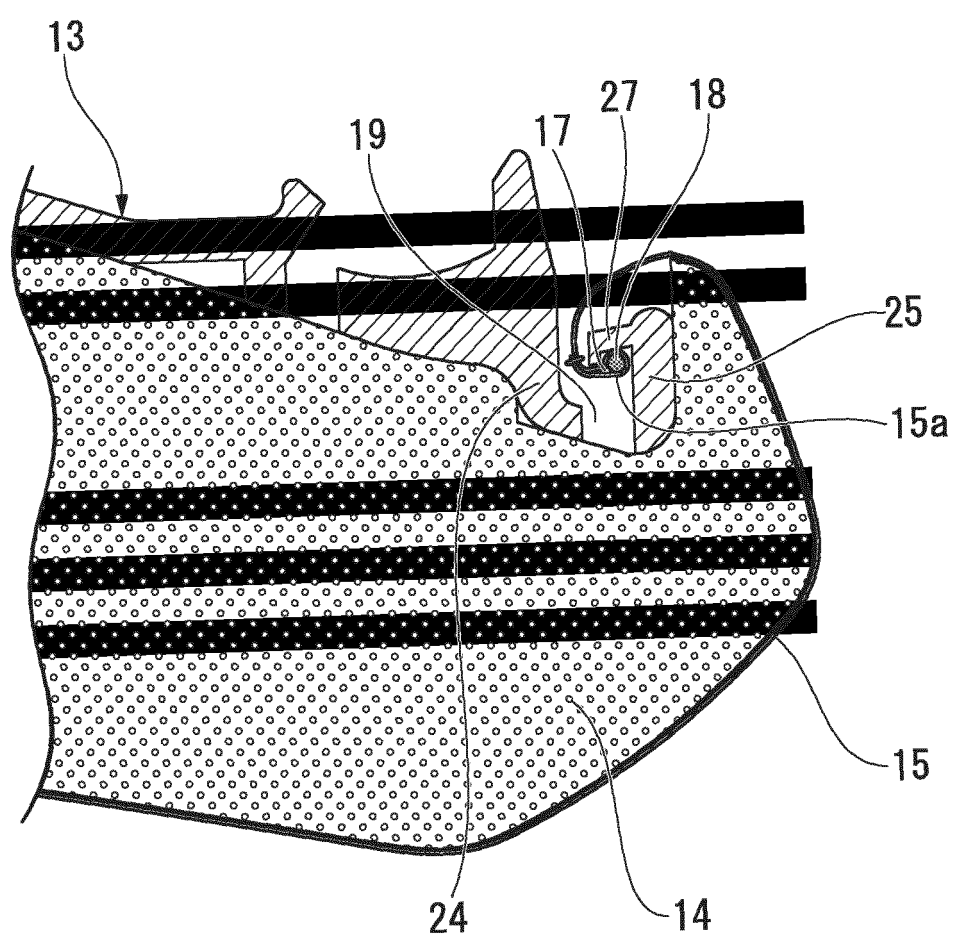


FIG. 8

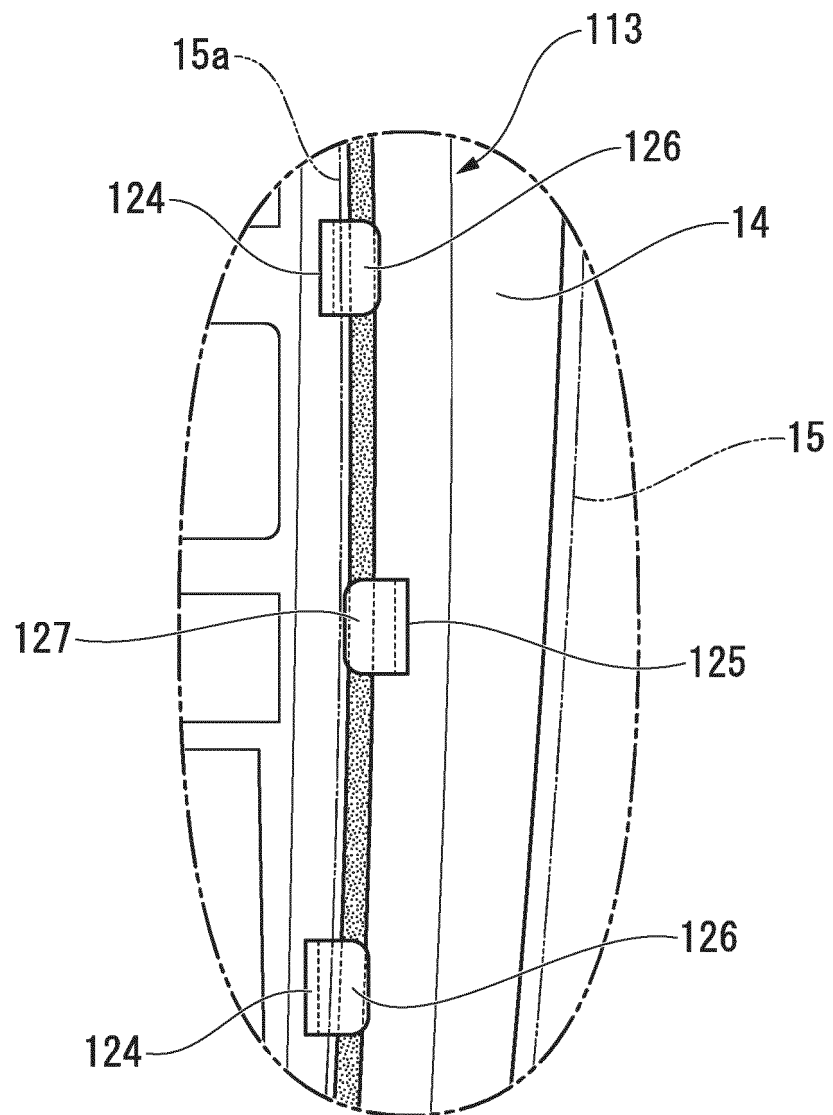


FIG. 9

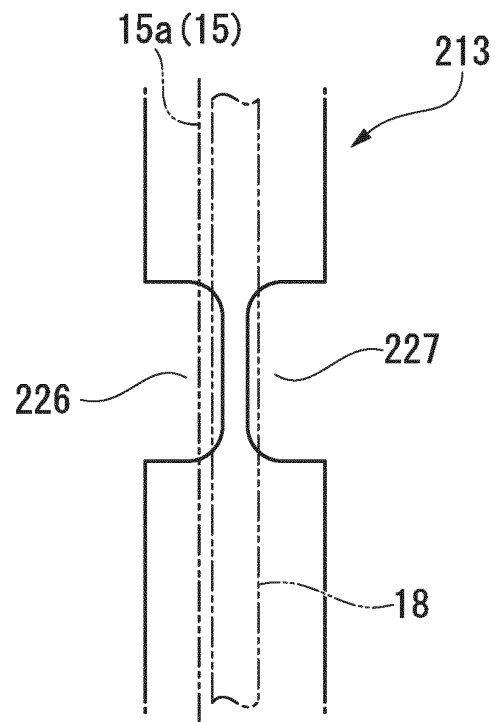
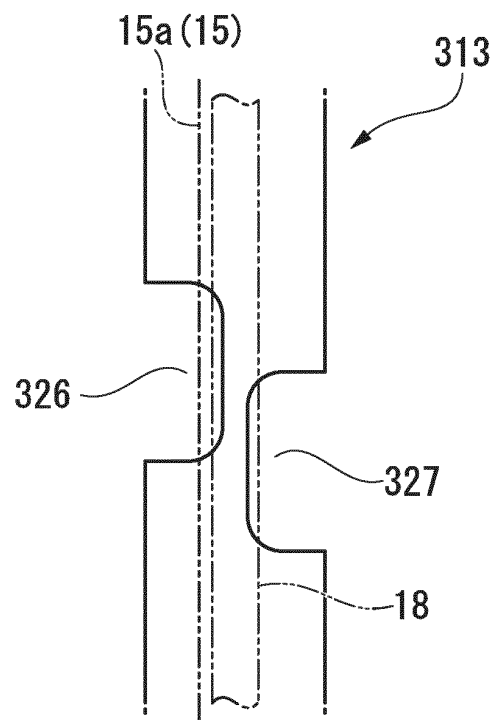


FIG. 10



REFERENCES CITED IN THE DESCRIPTION

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