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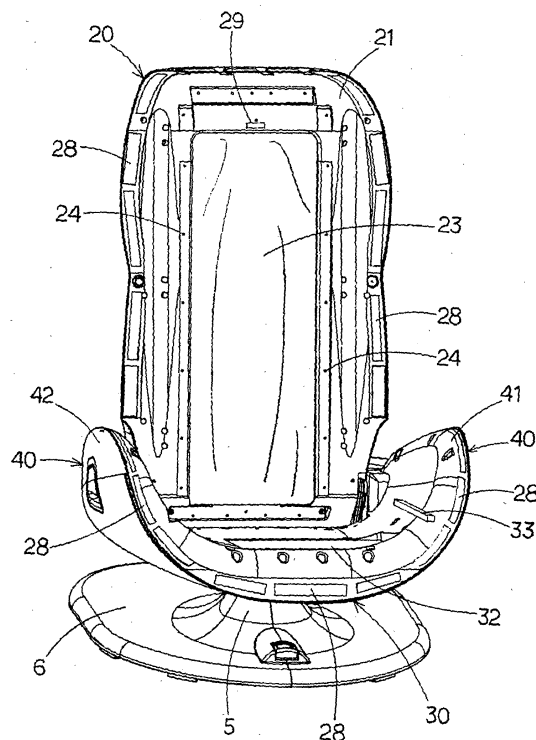
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(54) **Massaging machine**

(57) Provided is a massaging machine (1) with a cover construction improved on design and maintenance with a suppressed cost. A massaging machine (1) is provided with a back rest portion (2) and a seat portion (3). The backrest portion (2) includes: a backrest base (20) having an opening (22) for bringing a massaging tool (11) of the massaging section (10) into contact with a user therethrough; an opening cover (23) provided on the front face of the backrest base (20) so as to cover the opening (22) thereof and freely detachably attached to the peripheral edge of the opening (22); and a backrest cover (26) freely detachably attached to the front face thereof. The seat portion (3) includes: a seat base (30); a pair of armrest bases (40) provided at both sides, left and right, of the seat base (30); a seat cover (31) freely detachably attached on the top face of the seat base (30) so as to cover the top face; and armrest covers (43) freely detachably attached on both inner side faces of the armrest bases (40) so as to cover both inner side faces.

Fig. 2



Description

BACKGROUND OF THE INVENTION

Technical Field

[0001] The invention relates to a massaging machine, and in particular, to a cover construction of a chair-type massaging machine.

Background Art

[0002] A proposal has been presented on a cover structure of a backrest portion in a chair-type massaging machine provided with the backrest portion and a seat portion and having a massaging section applying massage to a user installed in at least one of the backrest portion and the seat portion (see, for example, JP-A No. 2001-276158).

[0003] The invention described in the patent literature is to realize changing a cover without exposing a massaging mechanism in appearance with a characteristic construction that an inner cover covering so as to envelop all of a backrest portion base together with the massaging section is fixedly attached to the backrest portion base, while an outer cover covering so that the inner cover is not exposed in appearance is freely detachably attached to the inner cover. A back pad is provided on a surface of the backrest portion in contact with a user and the back pad covers the inner cover without providing the outer cover in an area covered by the back pad. Another construction has been disclosed that a cover composite constituted of the inner cover and the outer cover is used on not only the backrest portion but also a seat portion and a leg portion of a chair-type massaging machine. According to the invention of the patent literature, by applying a variety of designs on an outer cover freely attachable or detachable, the outer cover can be replaced with one desired by a consumer without exposing the massaging section in appearance.

[0004] In a massaging machine with a cover structure as described above, however, since an inner cover covers all of a backrest portion base, a useless fabric is necessary even in parts covered by an outer cover and a back pad.

[0005] Moreover, in a case where colors of an outer cover and a back pad are greatly different from one of an inner cover, exposure of the inner cover through clearances of the peripheral edges of the outer cover and the back pad in appearance is unpreferable in terms of design. Still in addition, if a part of the inner cover preventing a massaging section from being exposed in appearance is broken or worn out, it requires replacing the inner cover covering all of the backrest base with a new one.

[0006] In such a way, the construction disclosed in the patent literature has had a problem associated with cost, design and maintenance.

DISCLOSURE OF THE INVENTION

[0007] The invention has been made in light of the problem and it is an object of the invention to provide a massaging machine with a cover construction improved on design and maintenance with a suppressed cost.

[0008] A massaging machine of the invention is, in order to achieve the object, directed to a chair-type massaging machine equipped with a backrest portion having a massaging section applying massage to a user installed therein and a seat portion, wherein the backrest portion includes: a backrest base having an opening for bringing a massaging tool of the massaging section into contact with the user therethrough; an opening cover provided on the front face of the backrest base so as to cover the opening thereof and freely detachably attached to the peripheral edge of the opening; and a backrest cover freely detachably attached to the front face of the backrest base so as to cover the front face thereof, while the seat portion includes: a seat base; a pair of armrest bases provided at both sides, left and right, of the seat base; a seat cover freely detachably attached on the top face of the seat base so as to cover the top face; and armrest covers freely detachably attached on both inner side faces of the armrest bases so as to cover both inner side faces.

[0009] In the construction, the backrest base is preferably constituted of: a front face housing covered by the attached backrest cover so as not to be exposed in appearance; and a back face housing.

[0010] It is preferable that the backrest base is equipped with a detection section detecting an attached/detached state of the backrest cover and the massaging section installed in the backrest base is driven only when attachment of the backrest cover is detected by the detection section.

[0011] It is preferable that the armrest bases are each constituted of: an inner side housing covered by an attached armrest cover so as not to be exposed in appearance and an outer side housing.

[0012] It is preferable that the top face of the seat base and both inner side faces of the armrest bases are integrally formed in a single piece.

[0013] It is preferable that the backrest cover, the seat cover and the armrest covers include: respective cushionmembers, which are formed so as to hold shapes in conformity with the contact faces thereof with the backrest base, the seat base and the armrest bases.

[0014] It is preferable that the covers and the corresponding bases are equipped with attaching/detaching means through engagement.

[0015] According to the invention as defined in claim 1, by replacing the backrest cover, the seat cover and the armrest covers with different ones, not only can designs of a massaging machine be made in various ways, but no unnecessary fabric is either required to be provided to parts covered by respective covers; and replacement of an opening cover preventing the massaging

ing section from being exposed in appearance can be performed only by detaching the opening cover at the peripheral edge of the opening of the backrest base.

[0016] According to the invention as defined in claim 2, not only can, by detaching only the back housing, maintenance of the massaging section be performed, but, by substituting with a back face housing matching with the backrest cover in color, a design is also improved more.

[0017] According to the invention as defined in claim 3, it can be prevented to apply a therapeutic power more than necessary to a user by driving the massaging section in a state where the backrest cover is not attached and a massaging tool of the massaging section protrudes outward more than necessary.

[0018] According to the invention as defined in claim 4, by replacing the outer side housing with one matching with the armrest covers in color, a design is improved more.

[0019] According to the invention as defined in claim 5, no clearance occurs between the seat base and each of the armrest bases when the seat cover and the armrest covers are removed, thereby improving safety in cover replacement.

[0020] According to the invention as defined in claim 6, since the covers can be attached to the respective bases in close contact therewith, which prevents the bases from being seen through the corresponding clearances, design is improved more.

[0021] According to the invention as defined in claim 7, since can attachment of the covers to the corresponding bases be performed with ease, but attachment positions are also determined, efficiency in cover replacement operation and design are improved more.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022]

Fig. 1 shows a perspective view of an appearance of a massaging machine related to an embodiment. Fig. 2 shows a perspective view of an appearance of a state where the covers other than an opening cover (a backrest cover, a seat cover and armrest covers) of the massaging machine are removed.

Fig. 3 shows a perspective view of an appearance of a state where all the covers (an opening cover, a backrest cover, a seat cover and armrest covers) of the massaging machine are removed.

Fig. 4 shows a front (plan view) of a backrest cover in the massaging machine.

Fig. 5 shows a perspective view of an appearance of the backrest cover as viewed from the rear side thereof in the massaging machine.

Fig. 6 shows a schematic sectional view taken along line A-A of Fig. 5.

Fig. 7 shows a front view (a plan view) of a seat cover in the massaging machine.

Fig. 8 shows a perspective view of an appearance of the seat cover as viewed from the rear side thereof in the massaging machine.

Fig. 9 shows a front (a plan view) of an armrest cover in the massaging machine.

Fig. 10 shows a front (a plan view) of the armrest cover as viewed from the rear side thereof in the massaging machine.

Fig. 11 shows a schematic sectional view taken along line B-B of Fig. 10.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0023] More detailed description will be given of the invention showing an embodiment below. In Fig. 1, there is shown a perspective view of a massaging machine 1 related to the embodiment below; in Fig. 2, there is shown a perspective view of an appearance of a state where the covers other than an opening cover (a backrest cover, a seat cover and armrest covers) of the massaging machine are removed; and in Fig. 3, there is shown a perspective view of an appearance of a state where all the covers (an opening cover, a backrest cover, a seat cover and armrest covers) of the massaging machine are removed.

[0024] The massaging machine 1 includes: a backrest portion 2; a seat portion 3; a pair of armrest portions, left and right, 4 and 4; a leg portion 5; and a base 6. The backrest portion 2 is assembled so as to be able to be reclined rearward and folded forward around the rear end of the seat portion 3, while the pair of armrest portions, left and right, 4 and 4, are provided at both ends, left and right, of the seat portion 3. The top end of the leg portion 5 is fixed to the bottom face of the seat portion 3, while the bottom end thereof is freely rotatably attached to the top face of the base 6.

[0025] The backrest portion 2 includes: a backrest base 20 constituted of: a front face housing 21 and a back face housing 25; and a backrest cover 26 (Fig. 4) freely detachably attached to the front face housing 21 of the backrest base 20 so as to cover the front face housing 21. A massaging section 10 for driving a massaging tool 11 applying massage to a user is installed in the backrest base 20, and the massaging tool 11 is protruded outward through the opening 22 formed in the front face housing 21 of backrest base 20 and brought into contact with the user.

[0026] The massaging section 10 is freely vertically installed in the backrest base 20 and equipped with a mechanism driving the massaging tool 11 in a predetermined locus. A vertical motion of the massaging section 10 and the mechanism for driving the massaging tool 11 have only to be operated by known techniques, wherein, while detailed description thereof is omitted, the massaging tool 11 is driven from the shoulder of the user to the waist thereof, forward and rearward, or leftward and rightward to thereby apply a rubbing massage, tapping massage, finger pressure massage and back muscle

stretching massage to the user.

[0027] As understood from Figs. 2 and 3, when the backrest cover 26 is detached, the front housing 21 of the backrest base 20 is exposed in appearance. The front housing 21 is formed with a hard synthetic resin or the like, and the opening 22 for bringing the massaging tool 11 of the massaging section, as described above, into contact with the user is formed in the middle thereof in a lateral direction. The opening cover 23 is freely detachably attached to and along the peripheral edge of the opening 22 so as to cover it on the front face thereof with attaching means 24 such as screws to thereby prevent the massaging section 10 and the massaging tool 11 from being exposed in appearance.

[0028] The opening cover 23 is formed with a synthetic fabric such as Nylon or polyester with which the massaging tool 11 operates smoothly and which is not worn out in friction on the massaging tool 11, and since part of a synthetic fabric covering the opening 22 is loosely spread, wherein the fabric is actually broader than necessary for covering the opening 22, the massaging tool 11 protrudes outward from the backrest base 20 and is driven in the predetermined locus without being hindered in the motion of the massaging tool 11, thereby difficulty is encountered breaking the opening cover 23 itself. The opening cover 23 is formed with a size just attached to the peripheral edge of the opening 22, in other words, the opening cover 23 does not cover a surface of the front face housing 21 except for the opening 22 and the peripheral edge thereof.

[0029] The front face housing 21 of the backrest base 20 not covered by the opening cover 23 is not exposed either in appearance during service by being covered with the backrest cover 26 without a necessity for providing an unnecessary fabric thereover. In a case where a necessity occurs for replacement of the opening cover 23 because of breakage thereof as well, the replacement with a new one can be done with ease only by cancellation of fixing the cover at and along the peripheral edge of the opening 22. Since an opening cover 23 is not exposed during operation, it can be used commonly for massaging machines 1 of different kinds in a design including a color and a shape in appearance.

[0030] Attaching/detaching means 28 is provided at and along the front face peripheral edge of the front face housing 21 in order to freely detachably attach the backrest cover 26. The attaching/detaching means 28 are also attached, as described later, on a contact face 26a of the backrest cover 26 with the front face housing (Fig. 5) and attachment of the backrest cover 26 to the front face housing 21 can be easily ensured by engagement with both attaching/detaching means 28. The attaching/detaching means 28 to be adopted have only to be known means such as a Velcro fastener, a fastener or a hook. The massaging machine 1 in the embodiment adopts both of a Velcro fastener and a hook; thereby enabling positioning, attachment and detachment to be realized with ease and certainty.

[0031] In Fig. 4, there is shown a front view (a plan view) of the backrest cover 26; in Fig. 5, there is shown a perspective view of an appearance of the backrest cover 26 as viewed from the rear side thereof; and in Fig. 6, there is shown a schematic sectional view along line A-A of Fig. 5. As shown in Figs. 4 to 6, the backrest cover 26 is formed in the shape in which the top end is bent toward the rear part. The contact face 26a of the backrest cover 26 with the front face housing 21 is in the shape in conformity with the front face housing 21 and the backrest cover 26 can be attached to the backrest base 20 in close contact therewith without any chance for the front face housing 21 of the backrest base 20 to be seen through a clearance. Hence, the front face housing 21 can be used commonly for massaging machines 1 of different kinds in a design including a color and a shape in appearance, which facilitates a design.

[0032] The backrest cover 26 is of a construction that as shown in Fig. 6, a part in contact with the opening 22 of the front face housing 21 is made only of the skin portion 26b and the other parts are made so that a cushion 27 formed with urethane foam or the like is enveloped by the skin portion 26b. A shape of the backrest cover 26 is formed so as to hold a shape of a cushion 27 included in the skin portion 26b of the backrest cover 26 in conformity with the front face housing 21 constituting a contact face.

[0033] The back face of the backrest cover 26 has the attaching/detaching means 28 provided at sites slightly inward from the peripheral edge thereof. The attaching/detaching means 28 are engaged with the attaching/detaching means 28 provided on the front face housing 21 of the backrest base 20 to thereby attach the backrest cover 26 to the backrest base 20 in close contact therewith. Since the attaching/detaching means 28 of the backrest cover 26 are disposed slightly inward from the peripheral edge thereof, the front face housing 21 is not exposed in appearance in a state where the backrest cover 26 is attached to the backrest base 20; therefore, only the back face housing 25 is replaced with a different one so as to match with the backrest cover 26 in appearance, shape and color, thereby enabling a variety of designs in appearance of a massaging machine 1 to be realized with ease.

[0034] A detection section 29 detecting an attachment state of the backrest cover 26 is, as shown in Figs. 2 and 3, provided at the top edge of the opening 22 of the backrest base 20. The detection section 29 is constituted of a known switch or the like and a detection result is inputted, for example, to a control circuit of the massaging section 10 described later, thereby enabling the massaging section 10 installed in the backrest base 20 to be driven only when it is detected that the backrest cover 26 is attached by the detection section 29. In such a way, it can be prevented that the massaging section 10 applies a therapeutic power to a user more than necessary by driving the massaging section 10 in a state where the massaging tool 11 of the massaging section

10 protruding outward more than necessary.

[0035] The seat portion 3, as shown in Figs. 2 and 3, includes: a seat base 30; and a seat cover 31 (Fig. 7) freely detachably attached to the top face of the seat base so as to cover it. The seat base 30 is formed with a hard synthetic resin or the like, a control circuit for driving and controlling the massaging section 10 is installed inside the seat base 30 and a lid 32 closing a space accommodating the control circuit is provided on the top face of the seat base 30. The seat base 30 is formed so that the top face is curved upwardly at both sides, left and right, thereof and the curved parts constitute inner side housings 41 and 41 serving as the both inner side faces of the armrest bases 40 and 40 of the armrest portions 4 and 4. That is, the massaging machine 1 of the embodiment of the invention has the top face of the seat base 30 and both inner side faces of the armrest bases 40 and 40 integrally formed in a single piece. With such a construction, when the seat cover 31 and the armrest covers 43 and 43 (Fig. 9) are removed, no clearance occurs between the seat base 30 and each of the armrest bases 40 and 40, thereby improving safety in replacement of a cover.

[0036] Cushioning members 33 and 33 are attached in the neighborhoods of both ends, left and right, of the seat base 30. The cushioning members 33 and 33 prevent breakage or the like from occurring by direct contact between the backrest base 20 and the seat base 30 when the backrest portion 2 is folded forward in a state where the backrest cover 26 and the seat cover 31 are detached.

[0037] Attaching/detaching means 28 are provided on the front face and the rear end of the top face of the seat base 30 in order to freely detachably attach the seat cover 31. The attaching/detaching means 28 are, as described later, also provided at both ends, forward and rearward, of a contact face 31a of the seat cover 31 with the seat base 30 and attachment of the seat cover 31 to the seat base 30 can be easily performed in a similar way to that of the backrest portion 2 by attaching/detaching means 28 at the both sides. The attaching/detaching means 28 that are used have only to be known means such as a Velcro fastener, a fastener and a hook.

[0038] In Fig. 7, there is shown a front view (a plan view) of the seat cover 31; and in Fig. 8, there is shown a perspective view of an appearance thereof as viewed from the rear side. The seat cover 31 includes: a cushion (not shown) formed with urethane foam or the like and a skin portion (attached with no mark) enveloping it and the front end is formed in the shape of being curved downward. A contact face 31a with the seat base 30 of the seat cover 31 is conformity with the top face of the seat base 30 in shape, the seat cover 31 can be attached to the seat base 30 in close contact therewith and there is no chance for the top face of the seat base 30 to be seen through a clearance. Therefore, the seat base 30 can be used commonly for massaging machines 1 of different kinds in a design including a color

and a shape in appearance, which facilitates a design.

[0039] Attaching/detaching means 28 described above are provided on the bottom face of the seat cover 31 slightly inward from the front and rear ends. The attaching/detaching means 28 are engaged with the attaching/detaching means 28 provided on the front face of the seat base 30 and at the rear end of the top face thereof to thereby attach the seat cover 31 to the seat base 30 in close contact therewith. Since the attaching/detaching means 28 of the seat cover 31 are provided slightly inward from the front and rear ends, the seat cover 31 covers the top surface of the seat base 30 with certainty.

[0040] The armrest portions 4 and 4 in Figs. 2 and 3 includes: armrest bases 40 and 40; and armrest covers 43 and 43 (Fig. 9). The armrest bases 40 and 40 includes: the inner side housings 41 and 41; and the outer side housings 42 and 42 attached to the inner side housings 41 and 41 on the outer sides thereof. The armrest covers 43 and 43 are attached to the inner side housings 41 and 41 of the armrest bases 40 and 40 so as to cover them.

[0041] The attaching/detaching means 28 are provided on the top ends of the inner side housings 41 and 41 of the armrest bases 40 and 40 and the front end peripheral edges thereof so as to freely detachably attach the armrest covers 43 and 43 to the inner side housings 41 and 41. The attaching/detaching means 28 are, as described later, also provided on a contact face 43a of the armrest covers 43 and 43 with the inner side housings 41 and 41, attachment of the armrest covers 43 and 43 to the armrest bases 40 and 40 can be performed with ease in a similar way to that of the backrest portion 2 and the seat portion 3 by engagement between both sets of the attaching/detaching means 28. The attaching/detaching means 28 that are used have only to be known means such as a Velcro fastener, a fastener and a hook.

[0042] In Fig. 9, there is shown a front view (a plan view) of the armrest covers 43 and 43; in Fig. 10, there is shown a front view (a plan view) thereof as viewed from the rear side; and in Fig. 11, there is shown a schematic sectional view taken along line B-B of Fig. 10. The armrest covers 43 and 43 are constituted of cushions 44 and 44 formed with urethane foam or the like; and skin portions 43b and 43b each enveloping a corresponding cushion, and the top ends and front ends thereof are each formed in the shape of being curved outwardly. Contact faces 43a and 43a of the armrest covers 43 and 43 with the inner side housings 41 and 41 are in conformity with the surfaces of the inner side housings 41 and 41, and the armrest covers 43 and 43 can be attached to the armrest bases 40 and 40 in close contact therewith and there arises no chance for the surfaces of the inner side housings 41 and 41 to be seen through a clearance. Therefore, the inner side housings 41 and 41 of the armrest bases 40 and 40 can be used commonly for massaging machines 1 of different kinds

in a design including a color and a shape in appearance, which facilitates a design.

[0043] Attaching/detaching means 28 described above are provided on the contact faces 43a and 43a of the armrest covers 43 and 43 with the inner side housings 41 and 41, respectively, on the top ends and slightly inwardly from the peripheral edges of the front end thereof. Engagement occurs between the attaching/detaching means 28 described just above with the attaching/detaching means 28 provided on the inner side housings 41 and 41 of the armrest bases 40 and 40 on the top end and at the peripheral edges of the front end thereof to thereby attach the armrest covers 43 and 43 to the armrest bases 40 and 40 in close contact therewith. Since the attaching/detaching means 28 of the armrest covers 43 and 43 are provided slightly inward from the peripheral edge thereof, the armrest covers 43 and 43 cover the inner side housings 41 and 41 of the armrest bases 40 and 40 with certainty.

[0044] In such a way, since the inner side housings 41 and 41 are not exposed in appearance in a state of the armrest covers 43 and 43 being attached to the armrest bases 40 and 40, respectively, only the outer side housings 42 and 42 are replaced so as to match with the armrest covers 43 and 43 in appearance, shape and color without changing the inner side housings 41 and 41, thereby enabling a variety of designs in appearance of a massaging machine 1 to be easily realized.

Claims

1. A massaging machine (1) of a chair-type equipped with a backrest portion (2) having a massaging section (10) applying massage to a user installed therein and a seat portion (3),

wherein said backrest portion (2) includes: a backrest base (20) having an opening (22) for bringing a massaging tool (11) of said massaging section (10) into contact with said user therethrough; an opening cover (23) provided on the front face of said backrest base (20) so as to cover said opening (22) thereof and freely detachably attached to the peripheral edge of said opening (22); and a backrest cover (26) freely detachably attached to said front face of said backrest base (20) so as to cover said front face thereof,

while said seat portion (3) includes: a seat base (30); a pair of armrest bases (40) provided at both sides, left and right, of said seat base (30); a seat cover (31) freely detachably attached on the top face of said seat base (30) so as to cover said top face; and armrest covers (43) freely detachably attached on both inner side faces of said armrest bases (40) so as to cover both inner side faces.

2. The massaging machine (1) according to claim 1, wherein said backrest base (20) is constituted of: a

front face housing (21) covered by said attached backrest cover (26) so as not to be exposed in appearance; and a back face housing (25).

3. The massaging machine (1) according to claim 1, wherein said backrest base (20) is equipped with a detection section (29) detecting an attached/detached state of said backrest cover (26) and said massaging section (10) installed in said backrest base (20) is driven only when attachment of said backrest cover (26) is detected by said detection section (29).
4. The massaging machine (1) according to claim 1, wherein said armrest bases (20) are each constituted of: an inner side housing (41) covered by an attached armrest cover (43) so as not to be exposed in appearance and an outer side housing (42).
5. The massaging machine (1) according to claim 1, wherein the top face of said seat base (30) and both inner side faces of said armrest bases (40) are integrally formed in a single piece.
6. The massaging machine (1) according to claim 1, wherein said backrest cover (26), said seat cover (31) and said armrest covers (43) include: respective cushion members, which are formed so as to hold shapes in conformity with the contact faces thereof with said backrest base (20), said seat base (30) and said armrest bases (40).
7. The massaging machine (1) according to claim 1, wherein said covers and said corresponding bases are equipped with attaching/detaching means through engagement.

Fig. 1

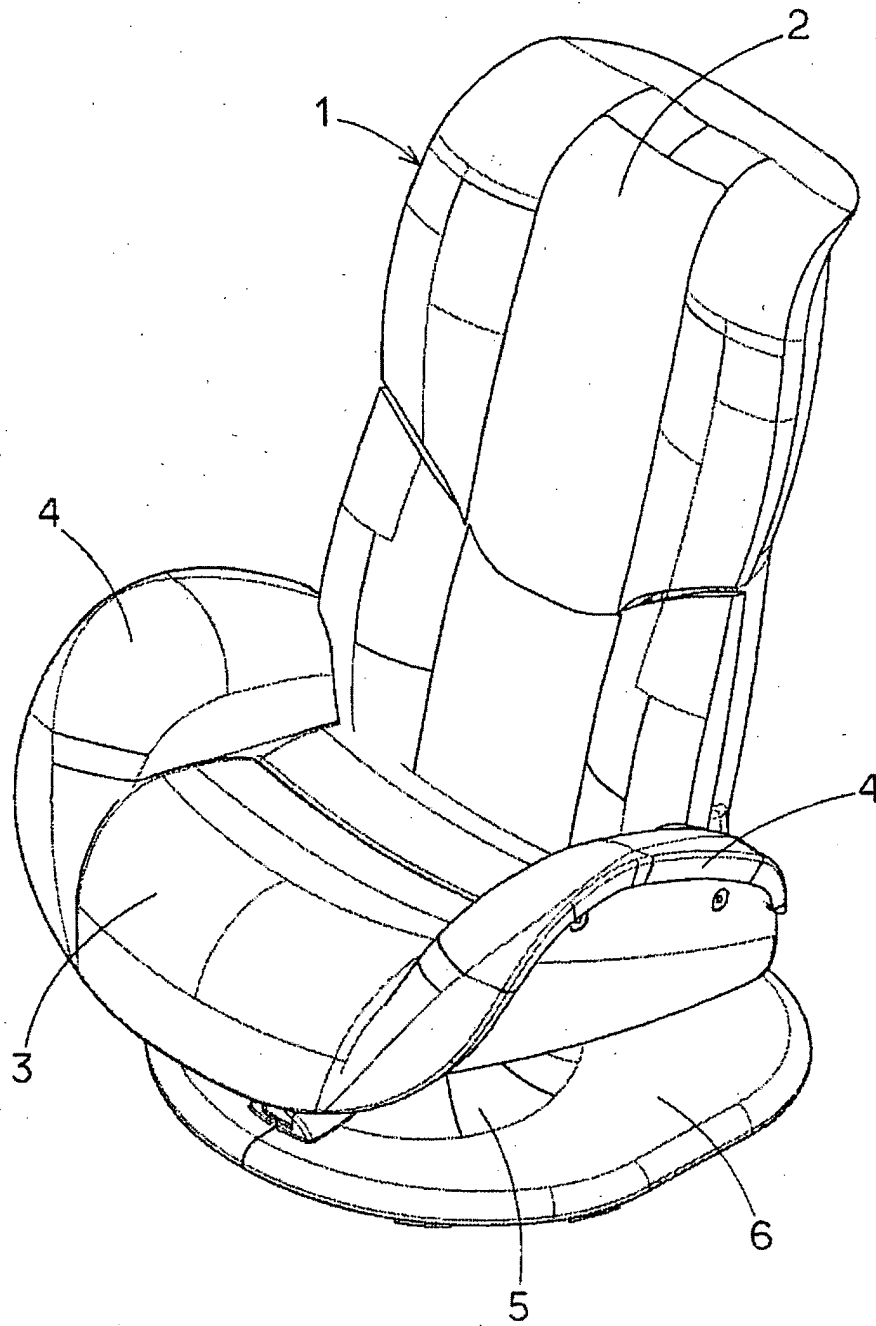


Fig. 2

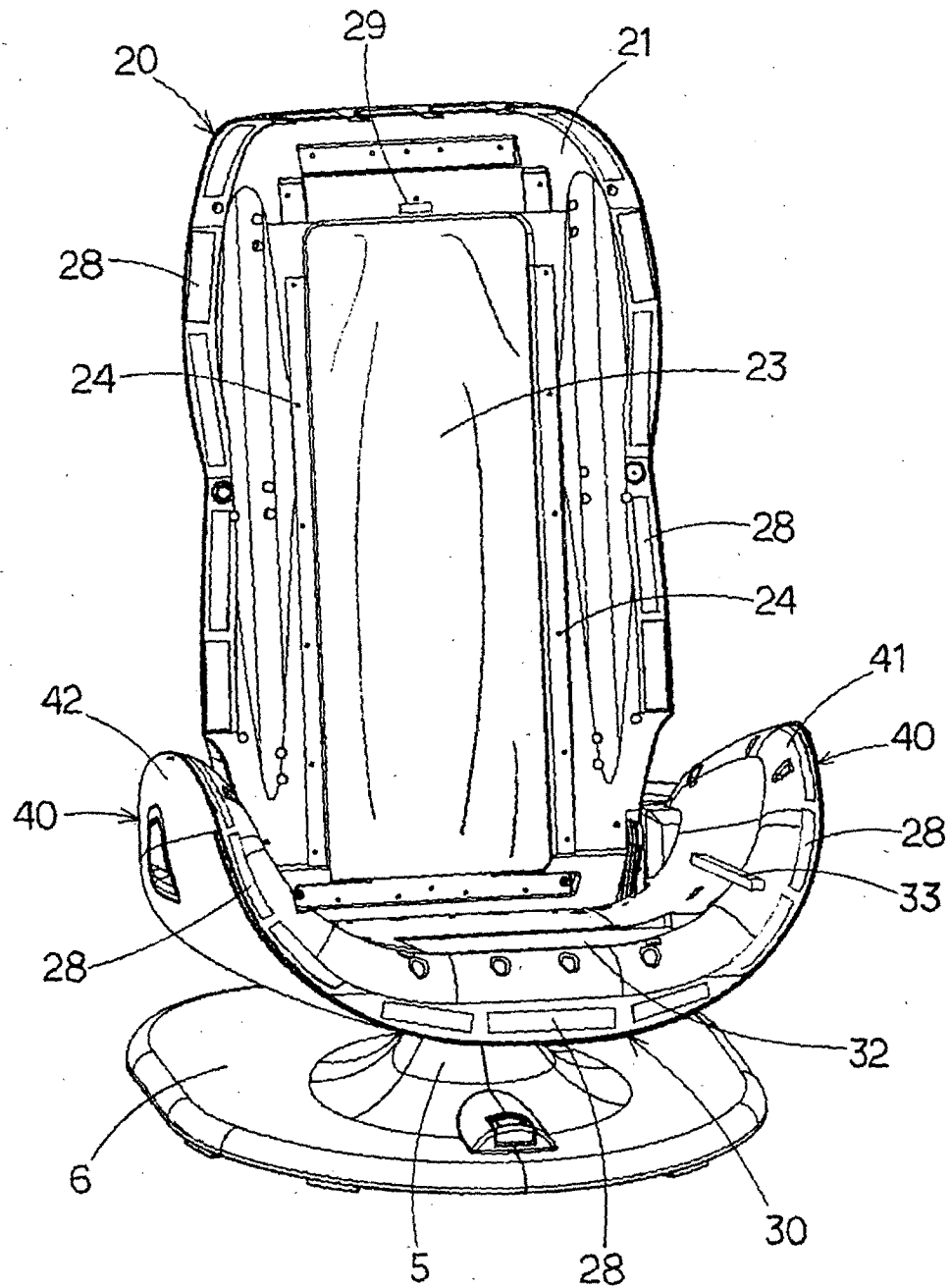


Fig. 3

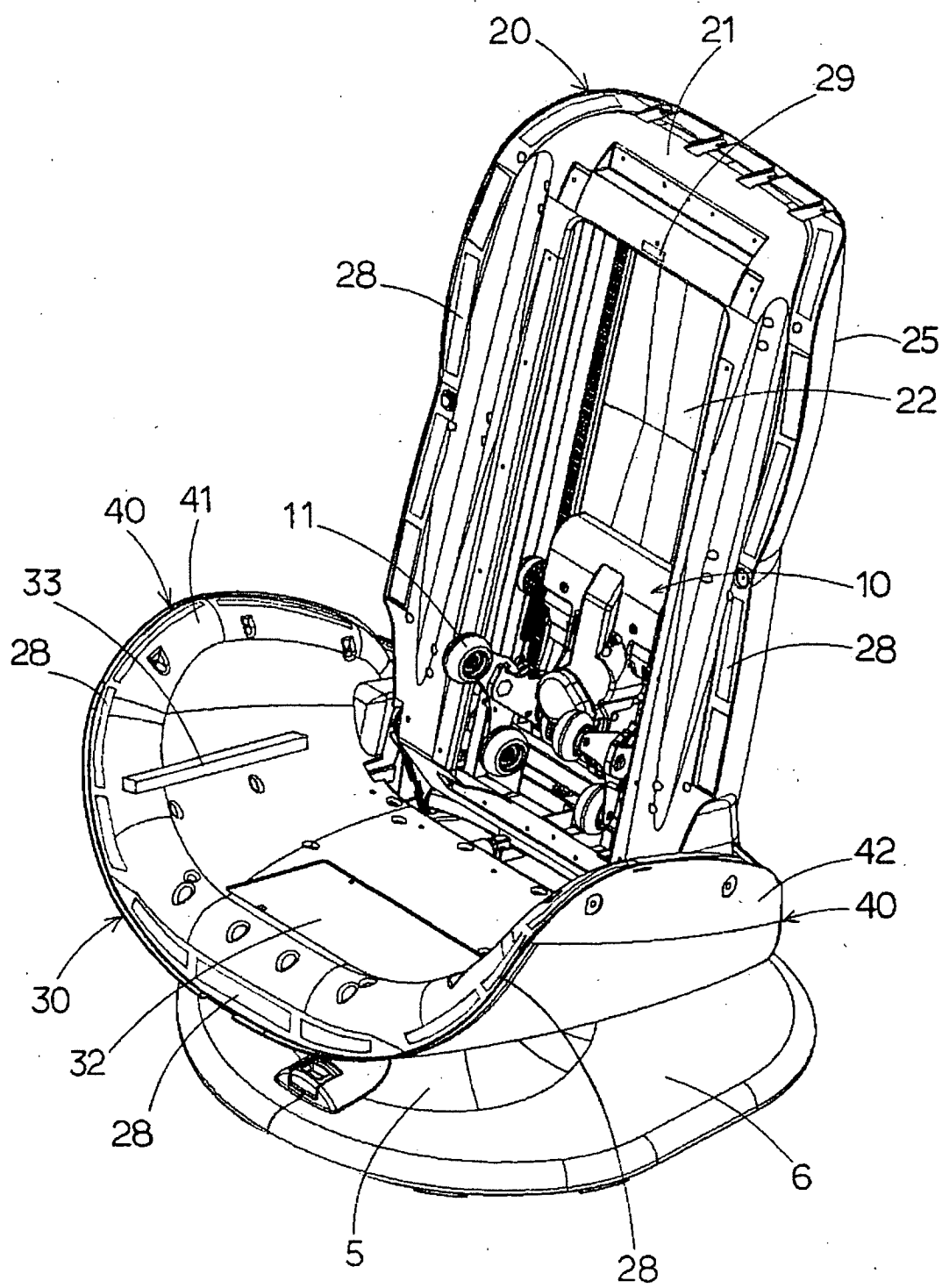


Fig. 4

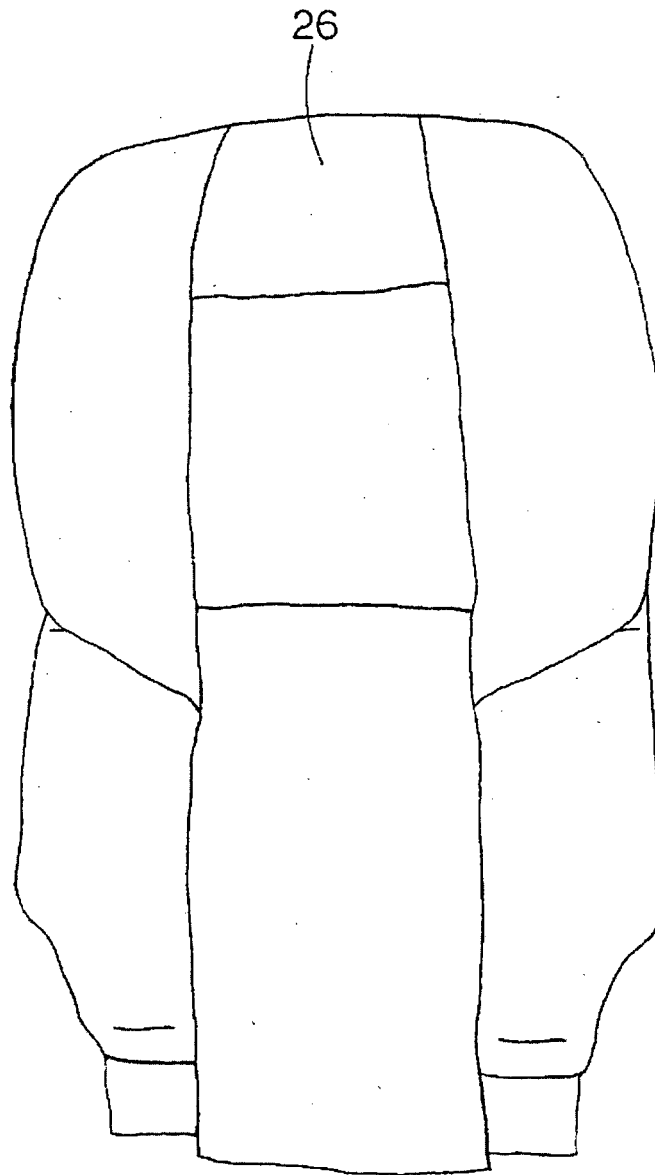


Fig. 5

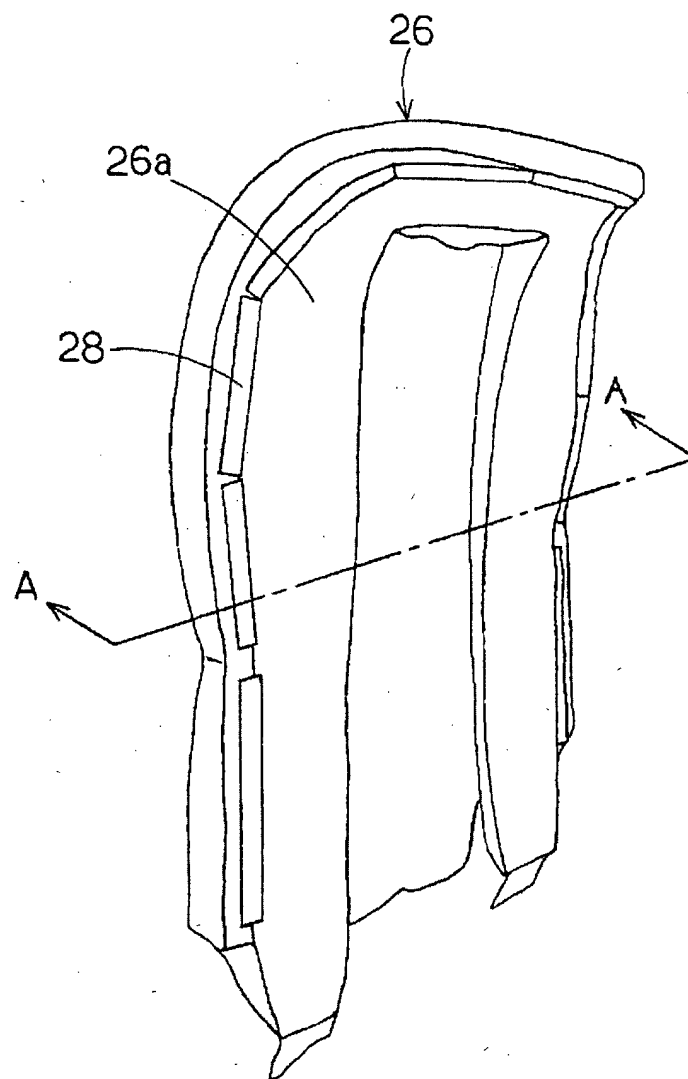


Fig. 6

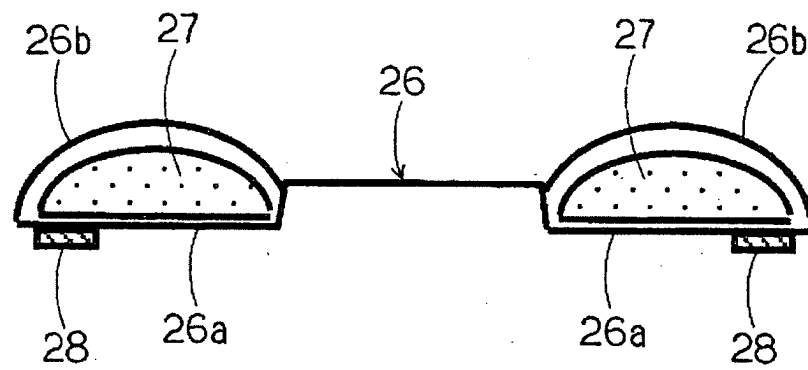


Fig. 7

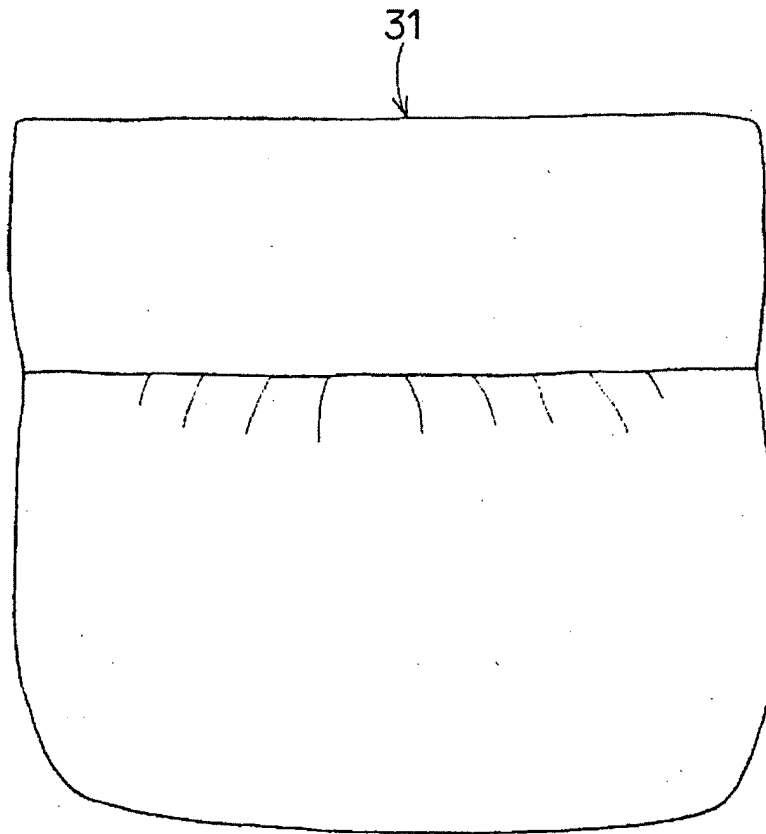


Fig. 8

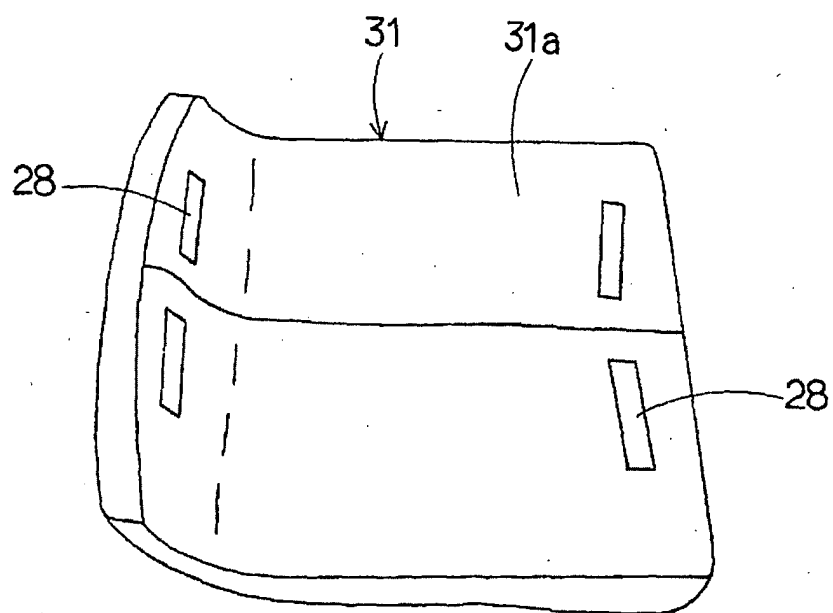


Fig. 9

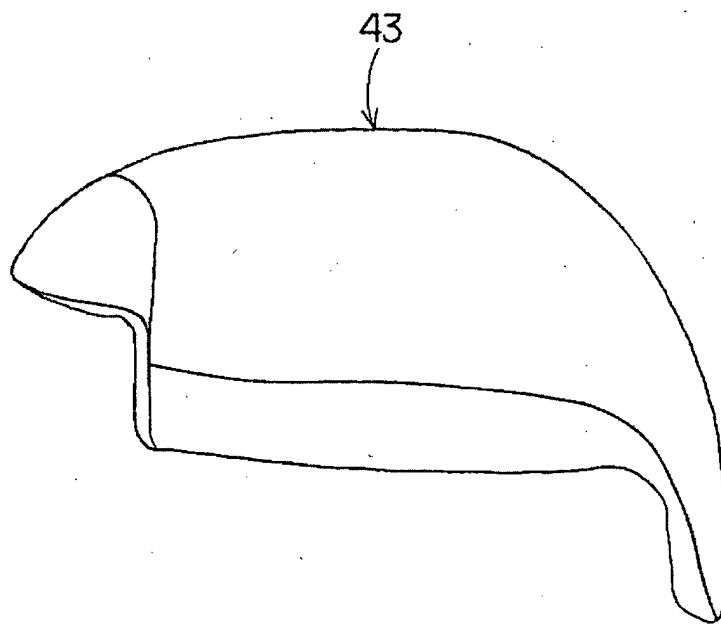


Fig. 10

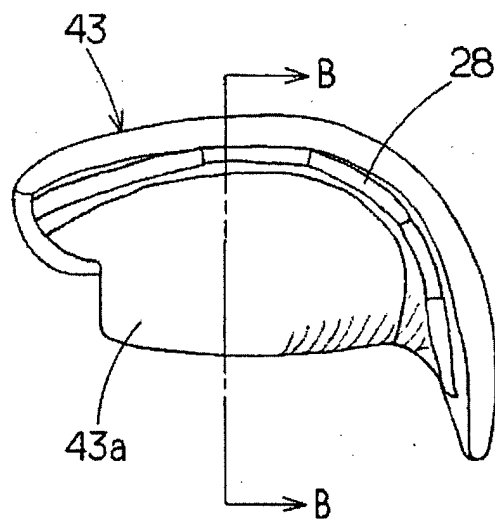
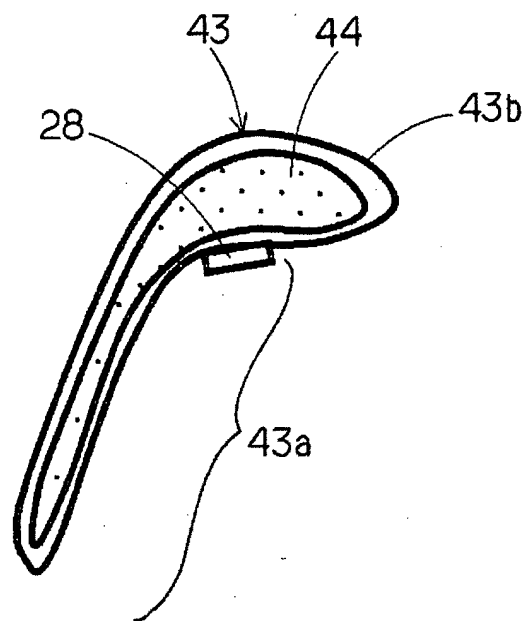


Fig. 11





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 01 1131

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 076 (C-0914), 25 February 1992 (1992-02-25) -& JP 03 267014 A (FUJI IRYOKI:KK), 27 November 1991 (1991-11-27) * the whole document *	1,2,4-7	A61H1/00 A61H37/00 A47C31/02 A47C31/10
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