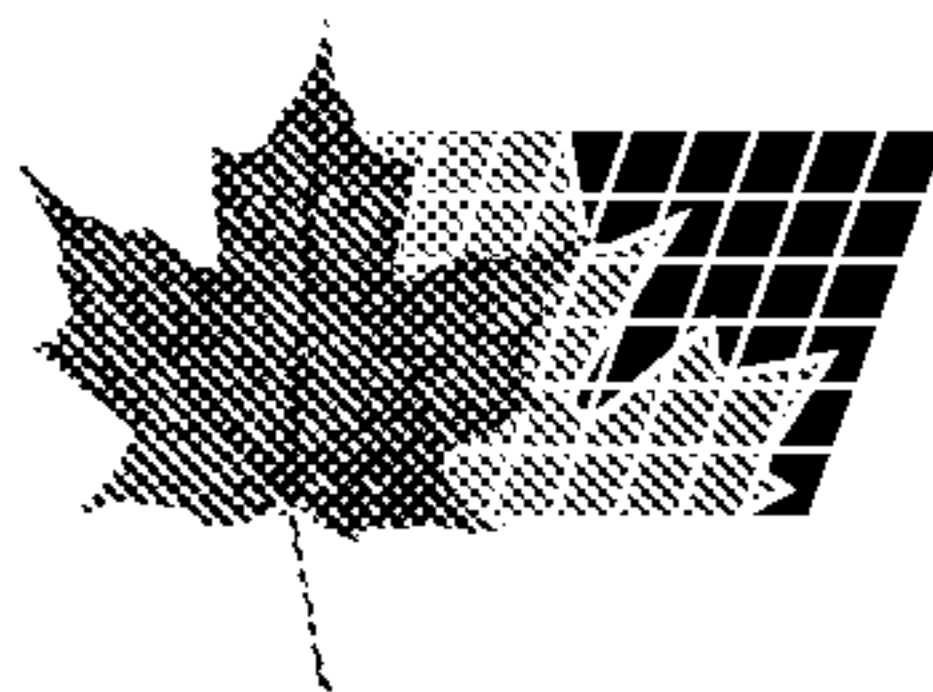
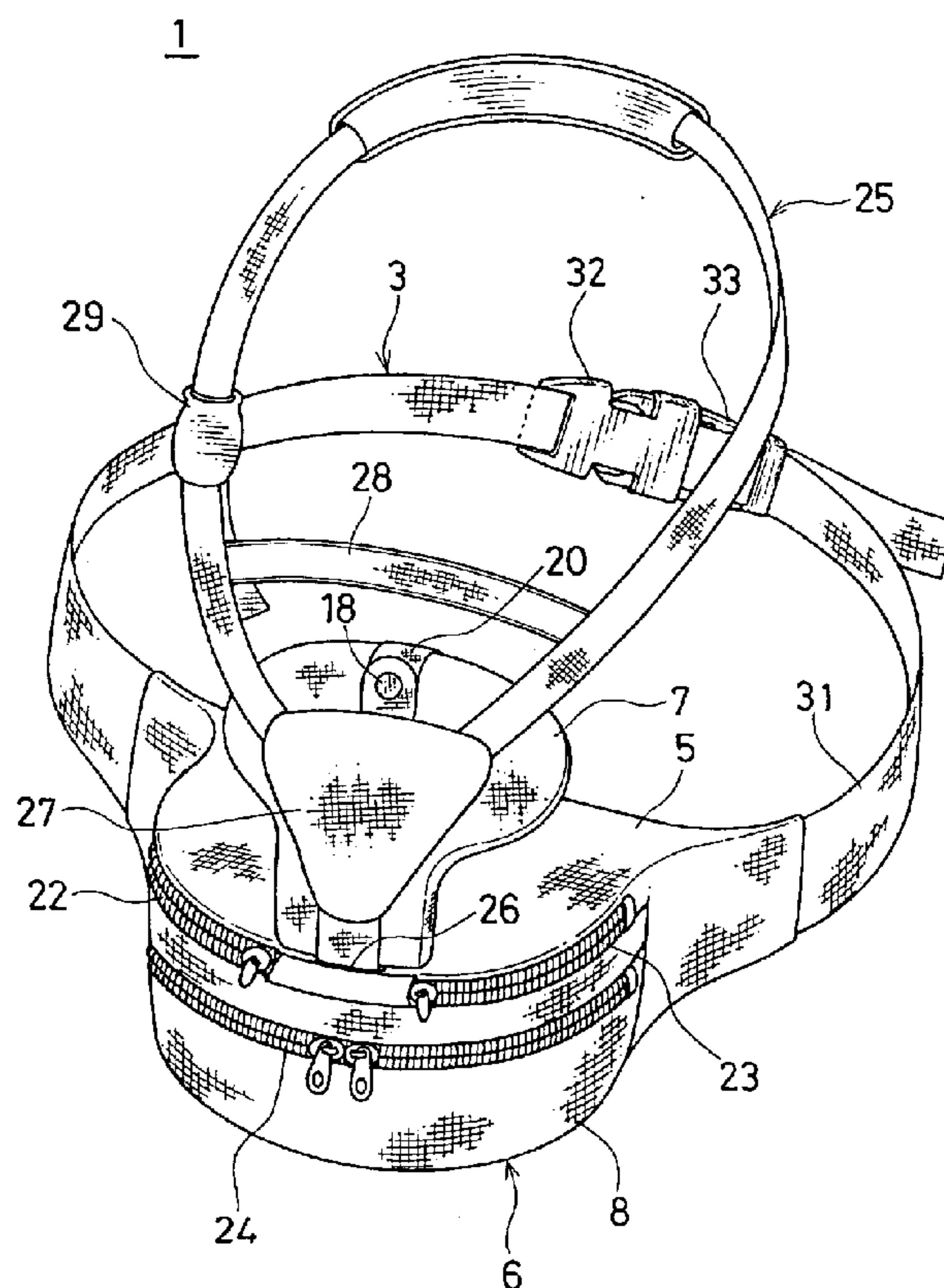




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(57) A baby holder to be worn in the form of a waist pouch, comprises a waist strap which is worn around the waist of a wearer and a support which is mounted on the waist strap and positioned to extend outwardly from the wearer's abdomen so that a seat surface for receiving the buttocks of a baby is formed on the support. In order to securely hold the baby while the baby maintains good posture, a pad wall uprighted from the seat surface is provided on the support so that this pad wall is adjacent to the back of a baby who is held backward, or located between the legs of a baby who is held frontward. The front surface of the pad wall is T-shaped and is rotatably mounted on the support.



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ABSTRACT

A baby holder to be worn in the form of a waist pouch, comprises a waist strap which is worn around the waist of a wearer and a support which is mounted on the waist strap and positioned to extend outwardly from the wearer's abdomen so that a seat surface for receiving the buttocks of a baby is formed on the support. In order to securely hold the baby while the baby maintains good posture, a pad wall uprighted from the seat surface is provided on the support so that this pad wall is adjacent to the back of a baby who is held backward, or located between the legs of a baby who is held frontward. The front surface of the pad wall is T-shaped and is rotatably mounted on the support.

The present invention relates to a baby holder which is worn as a waist pouch comprising a support forming a seat surface for receiving the buttocks of a baby, and more particularly, it relates to an improved baby holder which stabilizes the baby's posture.

Japanese Utility Model Publication No. 4-46619 (1992) discloses a baby holder which is of interest to the present invention. This baby holder comprises a support forming a seat surface for receiving the buttocks of a baby, and this support is mounted on a waist strap which is worn around the waist of the wearer. Further, this baby holder comprises a wrist strap extending from the front part of the seat surface so that the wearer wears this strap on the wrist for holding the baby. Thus, the wearer can stably carry the baby with the baby holder while preventing it from falling.

In order to implement the state of stably holding the baby and preventing it from falling with the aforementioned wrist strap, however, the wearer must carry the baby while wearing the wrist strap. The wrist strap is not self-sustaining and cannot support the baby without the help of the wearer.

Consequently, one hand of the wearer is constantly restrained by the wrist strap, and the wearer cannot freely use both hands while holding the baby.

Further, the wrist strap relatively readily deforms in an arbitrary direction. Depending on the position of the wearer's hand, therefore, the baby may disadvantageously be forced into an unnatural posture.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide a baby holder which can overcome the aforementioned problems.

The present invention is directed to a baby holder comprising a waist strap adapted to be worn around a waist of a person, a support defining a seat surface adapted to receive thereon buttocks of a baby, mounted on said waist strap and positioned to extend from an abdomen of the person, a pad wall rotatably mounted on said support to be capable of selectively assuming a first state extending along said seat surface and a second state extending upright from said seat surface, an elastic member arranged to urge said pad wall in a direction from said first state toward said second state, and a stop member arranged to selectively maintain said pad wall in said first state against an elastic urging force of said elastic member.

According to the present invention, the pad wall is provided to be tiltable upright from the seat surface whereby the buttocks of the baby can be prevented from slipping off the seat surface. Thus the baby can be prevented from falling off the support.

Further, the pad wall can be charged with a core having sufficient rigidity or the like to be self-sustaining, thereby exhibiting the aforementioned function without the help of the wearer. Thus, the wearer can freely use both hands to quickly cope with a danger, for example, thereby improving the safety of the baby.

5 Due to the presence of the pad wall, further, the baby's backbone can be protected against abnormal curvature, whereby the baby can constantly maintain good posture. Thus, it is possible to provide a baby holder which can contribute to the baby's health.

10 According to the present invention, the pad wall is preferably rotatably mounted on the support to be capable of selectively assuming a state either extending along or extending upward from the seat surface. Due to this structure, the bulk of the baby holder can be reduced by bringing the pad wall into the state extending along the seat surface when the baby is not received on the support, whereby the portability of the baby holder is further improved. Alternatively, to use the pad wall, it is possible to immediately
15 bring the pad wall into a usable state by simply rotating the pad wall upwardly from the seat surface.

The pad wall may be rendered removable from the support, for enabling the aforementioned reduction of the bulk of the baby holder when the pad wall is not in use.

20 When the pad wall is rotatably mounted on the support, the baby holder may further comprise an elastic member for urging the pad wall and rotating the same to the upward position from the seat surface and an engaging member for maintaining the pad wall in the position adjacent to and extending along the seat surface against the urging of the elastic member. Due to this structure, the pad wall can be automatically uprighted when not engaged by the engaging member, whereby the operability of the baby holder
25 can be improved.

The pad wall may be rendered height-controllable. Due to such height controllability of the pad wall, the height of the pad wall can be varied as the baby grows, while it is possible to prevent unnecessary bulkiness of the baby holder resulting from presence of a pad wall which is excessively high for the size of the baby.

30 Further, the horizontal position of the pad wall may be rendered adjustable. In this case, the position of the pad wall can be adjusted as the baby grows.

The pad wall preferably has a T-shaped front surface. In this case, it is possible to hold the baby frontward, toward the pad wall so that the baby has its back to the wearer or to hold the baby backward against the pad wall so that the baby faces the
35 wearer. In other words, such a T-shaped pad wall provides a relatively wide surface for supporting the upper portion of the baby, while allowing natural arrangement of the baby's legs when the baby is seated toward the pad wall.

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Further, both end portions of the pad wall are preferably curved to approach the wearer on the upper surface. In this case, the pad wall can further fit the baby's body, providing further stable support for the baby.

5 In the seat surface and the pad wall, at least those regions coming into contact with the baby's body are preferably charged with a first cushion member, a second cushion member having a larger elastic coefficient than the first cushion member, which is arranged at the back of the first cushion member, and a third cushion member, having a larger elastic coefficient than the second cushion member, which is arranged at the back of the second cushion member. Due to such a cushion structure including three
10 layers of cushion members, substantially only the first cushion member can deform to provide a preferable touch for the baby in an ordinary state while the second and third cushion members successively serve as shock absorbers against a strong shock, whereby high reliability for shock absorptivity can be expected and the safety of the baby holder can be further improved.

15 When the support comprises a holding core having an upper surface extending along the seat surface and a rear surface extending along the wearer's abdomen for keeping the support in shape in the present invention, the waist strap preferably has a front strap part passing along the front surface of the holding core, so that this front strap part is fixed to the holding core. In this case, the front strap part
20 raises the front portion of the holding core, preventing downward movement of the front portion, whereby the seat surface can be maintained in a substantially horizontal state without strongly pushing the rear surface of the holding core against the wearer's abdomen. Thus, the wearer can be effectively prevented from being pressed or being inhibited from free movement.

25 According to the present invention, the waist strap more preferably comprises a rear strap part passing along the rear surface of the holding core in addition to the front strap part, so that the front and rear strap parts are coupled with each other on both sides of the holding core. Due to this structure, stability of the holding core is increased while the position of the front strap part can be further stabilized, whereby the
30 front strap part can effectively exhibit the aforementioned function.

Further preferably, the height of the front strap part on the front surface of the holding core is selected to be lower than that of the rear strap part on the rear surface of the holding core in the present invention. Due to this structure, the function of the front strap part can be further effectively applied to the holding core for raising its
35 front portion.

The pad wall may be rendered adjustable in width. Thus, the width of the pad wall can be adjusted as the baby grows, while it is possible to prevent unnecessary bulkiness of the baby holder resulting from the presence of a pad wall which is excessively wide for the size of the baby.

5 The baby holder according to the present invention may further comprise a curved surface forming member for forming a curved surface along the baby's buttocks on an internal angle portion which is defined between the pad wall and the seat surface. Due to such a curved surface forming member, it is possible to further stabilize the baby's buttocks while providing a preferable touch for the baby.

10 BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the invention will now be described with reference to the drawings in which:

Figure 1 is a perspective view showing the overall appearance of a baby holder 1 according to an embodiment of the present invention;

Figure 2 is a perspective view corresponding to the embodiment shown in Figure 1, with the pad wall 7 uprighted from the seat surface 6;

Figure 3 is a perspective view of the embodiment shown in Figure 1, with the pad wall 7 uprighted from the seat surface 6 and also including a support strap 25 drawn out;

Figure 4 illustrates a mode of use of the baby holder 1 in the state shown in Figure 1 for holding a baby backward;

Figure 5 illustrates a mode of use of the baby holder 1 in the state shown in Figure 2 for holding a baby backward;

Figure 6 illustrates a mode of use of the baby holder 1 in the state shown in Figure 2 for holding a baby frontward;

Figure 7 illustrates a mode of use of the baby holder 1 in the state shown in Figure 3 for holding a baby backward;

Figure 8 is a side elevational view showing the internal structure of a support 6 of the baby holder 1 and the pad wall 7;

Figure 9 is a side elevational view corresponding to the embodiment shown in Figure 8, wherein the pad wall 7 extends upward from the seat surface 5;

Figure 10 is a front elevational view showing a holding core 10 and a waist strap 3;

Figure 11 is a top plan view showing the holding core 10 and the waist strap 3;

Figure 12 is an end view showing a cross-section of the pad wall taken along the line XII - XII of Figure 9;

5 Figure 13A is a side elevational view showing the state of the backbone 38 of the baby 4 supported by the pad wall 7;

Figure 13B is a side elevational view showing the state of the backbone 38 of the baby 4 without support from a pad wall;

10 Figure 14 is a sectional view showing a part of a seat surface 5 of a support 6 provided on a baby holder according to another embodiment of the present invention;

Figure 15 is a side elevational view showing a pad core 16 and a cover member 13 of a baby holder according to still another embodiment of the present invention;

15 Figure 16 is a side elevational view in section showing a pad core 16 and a holding core 10a of a baby holder according to a further embodiment of the present invention;

Figure 17 is a rear elevational view sectionally showing the pad core 16 and the holding core 10a shown in Figure 16;

20 Figure 18 is a front elevational view showing a support 6a and a pad wall 7a provided on a baby holder according to a further embodiment of the present invention;

Figure 19 is a sectional view taken along the line XIX - XIX of Figure 18;

Figure 20 is a bottom plan view showing the support 6a and the pad wall 7a shown in Figure 18;

25 Figure 21 is a side elevational view showing a holding core 10 and a waist strap 3a provided on a baby holder according to a further embodiment of the present invention;

Figure 22 is a front elevational view showing a pad wall 7b provided on a baby holder according to a further embodiment of the present invention;

Figure 23 is a sectional view taken along the line XXIII - XXIII of Figure 22;

30 Figure 24 is a sectional view taken along the line XXIV - XXIV of Figure 22;

Figure 25 is a perspective view showing a part of a baby holder 1 according to a further embodiment of the present invention;

Figure 26 is a perspective view showing part of a baby holder 1a according to a further embodiment of the present invention;

Figure 27 is a perspective view corresponding to the embodiment shown in Figure 26, showing a reduction in width of the pad wall 7c; and

Figure 28 is a perspective view showing the part of the baby holder 1a illustrated in Figure 27 from another angle.

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DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figures 1 to 12 illustrate a baby holder 1 according to an embodiment of the present invention. Figures 1 to 3 are perspective views of the overall appearance of the baby holder 1, illustrating typical states assumable by the baby holder 1. Figures 4 to 7 show typical modes of use of the baby holder 1.

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Referring to Figures 1 to 3 and 4 to 7, the baby holder 1 comprises a waist strap 3 which is worn around the waist of a wearer 2, and a support 6, defining a seat surface 5 for receiving the buttocks of a baby 4, which is mounted on the waist strap 3 and positioned to extend outwardly from the abdomen of the wearer 2. Further, a pad wall 7 which may extend upwardly from the seat surface 5, is provided on the support 6, as a structure characterizing the present invention.

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According to this embodiment, the pad wall 7 has a T-shaped front surface. This pad wall 7 is rotatably mounted on the support 6. Thus, the pad wall 7 can selectively assume a state extending along the seat surface 5 as shown in Figures 1 and 4, and a state extending upward from the seat surface 5 as shown in Figures 2, 3 and 5 to 7 respectively. The pad wall 7 extends upward from the seat surface 5 at an angle of about 100°, for example.

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With reference to Figures 1 to 7 as well as to Figures 8 to 12, the baby holder 1 is now described in more detail.

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Figures 8 and 9 are side elevational views showing the internal structure of the support 6. The support 6 is preferably covered with a bag 8. This bag 8 defines a proper space 9 in its interior, so that a holding core 10 for providing the support 6 with an arbitrary shape is stored in this space 9. The holding core 10 is formed by a material that provides sufficient rigidity despite its lightness, such as a molding of foam resin, for example. The holding core 10 forms an upper surface 11 extending parallel to the seat surface 5 and a rear surface 12 extending along the abdomen of the wearer 2, so that a substantially horizontal plane can be retained on the seat surface 5 when the support 6 comes into contact with the abdomen of the wearer 2. Preferably, the upper surface 11 and the rear surface 12 of the holding core 10 intersect with each other at an obtuse angle of about 100°, for example. Figures 10 and 11 also illustrate the holding core 10.

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A cover member 13 which is made of hard resin, for example, is fixed to the upper surface 11 of the holding core 10. A bracket 14 is formed on the front end of the cover member 13, so that an axis 15 passing through this bracket 14 rotatably supports a pad core 16 for maintaining the shape of the pad wall 7. When the pad wall 7 extends upward from the seat surface 5, a part of the pad core 16 comes into contact with a part of the bracket 14, thereby defining the terminal end of upward rotation of the pad core 16. The pad core 16, which is adapted to supply the pad wall 7 with sufficient rigidity, is made of hard resin, for example. Thus, the pad wall 7 is rotatably held with respect to the support 6. The cover member 13 may be integrally molded with the holding core 10, or may be inserted in a mold for molding the holding core 10.

A torsion spring 17 is arranged around the aforementioned axis 15. The torsion spring 17 urges the pad wall 7 upward from the seat surface 5. The torsion spring 17 may be replaced with a coil spring, or another elastic member such as a rubber member, for example.

A pair of engageable hooks 18 and 19 are provided for maintaining the pad wall 7, which is urged by the torsion spring 17 to the upward position as described above, in the state extending along the seat surface 5 against the elasticity of this torsion spring 17. The hook 18 is mounted on an end portion of a strap 20 extending from the pad wall 7, while the other hook 19 is mounted on an end portion of another strap 21 extending from the support 6. When the hook 18 engages with the hook 19 as shown in Figure 8, the pad 7 is maintained in the state extending along the seat surface 5, regardless of the elasticity of the torsion spring 17. The hooks 18 and 19 may be replaced with other stop members such as velcro fasteners, for example.

The aforementioned space 9 in the bag 8 is sized to be capable of storing articles other than the holding core 10. This space 9 can be used for storing small articles such as a handkerchief, tissue paper and the like, for example. As shown in Figures 1 to 3, openable slide fasteners, such as zippers 22, 23 and 24 are provided on the bag 8, to facilitate insertion and removal of such small articles.

The baby holder 1 further comprises a support strap 25, as shown in Figures 3 and 7. The support strap 25 may be stored in the space 9 of the bag 8 when the strap is not in use. Alternatively, the support strap 25 may be drawn out from an opening 26 between zippers 22 and 23. The support strap 25 forms a loop as a whole, and comprises a pad part 27 having a relatively wide area on its base portion. Further, a bridge strap part 28 is formed in the vicinity of the pad part 27, for coupling respective side portions of the support strap 25 with each other. The effective length of the support

strap 25 is preferably rendered adjustable, and a length adjusting mechanism 29 is provided for this purpose, although this mechanism is not illustrated in detail.

5 Figures 10 and 11 are a front elevational view and a top plan view, respectively, for illustrating the relationship between the support 6, particularly the holding core 10, and the waist strap 3. The waist strap 3 comprises a front strap part 30 and a rear strap part 31 passing along the front and rear surfaces of the holding core 10, respectively. The front and rear strap parts 30 and 31 are coupled with each other on both sides of the holding core 10.

10 The front strap part 30 is fixed to a relatively upper position of the front surface of the holding core 10. This fixation is attained by an adhesive or rivets (not shown), for example. Thus, the holding core 10 is fixed by the front strap part 30 on its front side, whereby the holding core 10 is stabilized, inhibiting the seat surface 5 from being so inclined that its front part is undesirably lowered. Thus, the seat surface 5 can be properly kept in a horizontal state. Optionally, the rear strap part 31 may or may not
15 be fixed to the holding core 10.

A buckle 32 and a tip 33 which are engageable with each other are mounted on respective end portions of the waist strap 3. The buckle 32 and the tip 33 are to engage each other when the wearer 2 wears the waist strap 3 around the waist. As shown in Figure 10, the tip 33 can be mounted on an arbitrary position of the waist strap 3, thereby also serving a function of adjusting the effective length of the waist strap 3.
20 Alternatively, the buckle 32 and the tip 33 may be replaced with other types of strap coupling members.

While the rear strap part 31 forms the principal part of the waist strap 3 so that the buckle 32 and the tip 33 are mounted on the end portions of the rear strap part 31 and both end portions of the front strap part 30 are connected to the rear strap part 31 in this embodiment, the front strap part 30 may alternatively form the principal part of the waist strap 3 so that the buckle 32 and the tip 33 are mounted on respective end portions of the front strap part 30, and both end portions of the rear strap part 31 are connected to the front strap part 30. Further, both of the front and rear strap parts 30 and 31 may extend toward the positions of the buckle 32 and the tip 33. Further, the waist strap 3 may be formed only by the front strap part 30 with no rear strap part 31, so that the buckle 32 and the tip 33 are mounted on respective end portions of the front strap part 30.
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Referring again to Figures 8 and 9, cushion members 34, 35 and 36 cover
35 the upper surface of the cover member 13 and both surfaces of the pad core 16,

respectively. Cushion members 34, 35 and 36 are made of urethane foam or cotton, for example. The cushion member 34 is covered with the bag 8, and makes the seat surface 5 soft. Figure 12 also shows the cushion members 35 and 36 and the pad core 16. Figure 12 is an end view showing a cross-section taken along the line XII - XII of Figure 9. The cushion members 35 and 36 are covered with a surface sheet 37 of the pad wall 7, and make both surfaces of the pad wall 7 soft.

As clearly understood from Figure 12, the upper surface of the pad wall 7 is so shaped that both end portions thereof are curved to approach the wearer 2. Thus, the pad wall 7 can further conform to the body of the baby 4, for more securely supporting the baby 4. While the aforementioned curved shape is provided by the cushion members 35 and 36 in the embodiment shown in Figure 12, both end portions of the pad core 16 may alternatively be curved to provide the pad wall 7 with a curved shape.

A method of using the baby holder 1 is now described. Figures 4 to 7 illustrate typical modes of use of the baby holder 1. The baby holder 1 is in one of the states shown in Figures 1 to 3 in each of the modes shown in Figures 4 to 7.

The state shown in Figure 1 is employed when the wearer 2 simply wears the baby holder 1. In this state, the pad wall 7 is positioned to extend along the seat surface 5, to reduce the bulk of the baby holder 1. The hooks 18 and 19 engage with each other as shown in Figure 8, to maintain the pad wall 7 in this state.

In the aforementioned state, the support 6 may be employed as a temporary stay for holding the baby 4 backward. While the buttocks of the baby 4 are placed on the pad wall 7 in this case, the pad wall 7 which is charged with the cushion member 36 along its outer surface provides a soft seat for the baby 4.

When the hooks 18 and 19 disengage each other the pad wall 7 extends upward from the seat surface 5, as shown in Figure 2. In this state, the support 6 is employed as a stay for holding the baby 4 backward as shown in Figure 5 or frontward as shown in Figure 6. In this case, the pad wall 7 provides a backrest surface for the baby 4 in the mode of use shown in Figure 5, or serves as positioning means between the legs of the baby 4 in the mode of use shown in Figure 6. The pad wall 7, which has a T-shaped front surface as described above, can provide a relatively wide surface for supporting the upper portion of the baby 4, while allowing a natural arrangement of both legs of the baby 4 who is seated to face the pad wall 7 as shown in Figure 6.

The use of each of the aforementioned modes shown in Figures 5 and 6 is preferably limited to a relatively short time. When this baby holder 1 is employed for

supporting the baby 4 over a relatively long time, the support strap 25 is drawn out from the support 6 as shown in Figure 3, and the baby 4 is placed on the support 6 backward as shown in Figure 7, so that the wearer 2 wears the support strap 25 on the shoulder. Thus, the baby 4 can be securely held over a relatively long time with the help of the support strap 25 as well as the pad part 27 and the bridge strap part 28 provided thereon in addition to the pad wall 7.

In any of the modes of use shown in Figures 4 to 7, it is advisable for the wearer 2 to lay at least one hand on the body of the baby 4, in order to improve safety for the baby 4.

Figures 13A and 13B are side elevational views showing states of the backbone 38 of the baby 4 supported by the pad wall 7 (Figure 13A) and supported by no pad wall (Figure 13B), respectively. When no pad wall is provided as shown in Figure 13B, the backbone 38 of the baby 4 may be abnormally curved to exert a bad influence on the health of the baby 4 unless the wearer 2 or the baby's protector pays sufficient attention to the baby's posture. On the other hand, when the back of the baby 4 is supported by the pad wall 7 as shown in Figure 13A, the backbone 38 is protected against abnormal curvature, and the baby 4 can readily maintain good posture. Further, the pad wall 7 also functions to prevent the buttocks of the baby 4 from slipping off the seat surface 5, thereby securely positioning the buttocks of the baby 4 on the seat surface 5.

Figures 14 to 28 show other embodiments of the present invention. Referring to Figures 14 to 28, elements corresponding to those shown in Figures 1 to 13 are denoted by similar reference numerals, to omit redundant description.

Figure 14 is a sectional view showing a seat surface 5 and parts of structures related thereto. In place of the cushion member 34 in the aforementioned embodiment, a three-layer structure consisting of a first cushion member 39, a second cushion member 40 located below the first cushion member, and a third cushion member 41 which is located below the second cushion member, is employed in this embodiment. The second cushion member 40 has a larger elastic coefficient than the first cushion member 39, while the third cushion member 41 has a larger elastic coefficient than the second cushion member 40. In more concrete terms, materials employed for the first, second and third cushion members 39, 40 and 41 respectively may be a combination of urethane foam, urethane chips and a polyethylene bead foam, a combination of cotton, urethane foam and polystyrene foam, a combination of cotton, urethane foam and urethane chips, or the like.

According to such a cushion structure including the three layers of cushion members 39, 40 and 41, substantially only the first cushion member 39 deforms in an ordinary state so that a preferable feeling can be provided to the baby while the second and third cushion members 40 and 41 successively serve as shock absorbers against a strong shock, whereby high reliability can be expected with respect to shock absorptivity and the safety of the baby holder can be further improved.

The aforementioned three-layer cushion structure can also be applied to the cushion members 35 and 36 which are charged in the pad wall 7 (see Figures 8, 9 and 12) so that an effect similar to the above can be expected, although this structure is not shown.

As shown in Figure 15, a tension belt 42 for coupling a pad core 16 and a cover member 13 with each other may be provided to further reliably and strongly define the terminal position of upward rotation of the pad core member 16. Ends of the tension belt 42 are mounted on the pad core 16 and the cover member 13 by rivets 43 and 44 respectively.

Alternatively, as shown in Figures 16 and 17, a pad core 16 may be rendered horizontally movable, thereby controlling the horizontal position of a pad wall 7. Specifically, a cover member 13a, upon which the pad core 16 is mounted, is rendered horizontally movable along the upper surface 11a on the holding core 10a. The cover member 13a is fixed in position by a bolt 45 in each position obtained as a result of such movement.

The horizontal position of the pad wall 7 is thus rendered controllable, whereby the position of the pad wall 7 can be adjusted as the baby grows. According to this embodiment, the pad wall 7 can be removed from the support by unfastening the bolt 45. When the pad wall 7 is not used over a relatively long period of time, this pad wall 7 can be removed to further reduce the bulk of the baby holder.

As shown in Figures 18 to 20, a pad wall 7a may be rendered vertically movable with respect to a support 6a, so that its height is controllable. Figures 18, 19 and 20 are a front elevational view, a sectional view taken along the line XIX - XIX in Figure 18, and a bottom plan view respectively.

Referring to Figures 18 to 20, the front end of the support 6a is provided with a guide hole 46 vertically passing through the support, so that a guide leg 47 downwardly extending from the pad wall 7a is vertically slidably received in the guide hole 46. An elastically deformable engager 48 is provided at the center of the guide leg 47, and an engaging projection 49 is formed on the engager 48. Optionally, a plurality

of engaging holes (e.g., two) 50 and 51 are vertically arranged on the support 6a, corresponding to the position of the engaging projection 49. Therefore, the height of the pad wall 7a can be controlled by inserting the engaging projection 49 in either one of the engaging holes 50 and 51.

5 Due to such height controllability of the pad wall 7a, the height of the pad wall 7a can be adjusted as the baby grows, while it is possible to prevent unnecessary bulkiness of the baby holder resulting from presence of a pad wall which is excessively high for the baby's size.

10 The aforementioned engaging holes 50 and 51 are preferably tapered on outer sides thereof, while the engaging projection 49 is also preferably tapered. Thus, release of the engaging projection 49 from the engaging hole 50 or 51 is simplified, while the engaging production 49 can readily engage with the engaging hole 50 or 51.

15 Also, in this embodiment the pad wall 7a can be removed from the support 6a. When the pad wall 7a is not used over a relatively long period of time, therefore, the pad wall 7a can be removed to further reduce the bulk of the baby holder, similar to the aforementioned embodiment.

20 Figure 21 is a side elevational view showing a holding core 10 and a waist strap 3a. The waist strap 3a has front and rear strap parts 30a and 31a passing along the front and rear surfaces of the holding core 10 respectively. These front and rear strap parts 30a and 31a are coupled with each other on both sides of the holding core 10, similar to the aforementioned front and rear strap parts 30 and 31.

25 According to this embodiment, the front strap part 30a passes along a relatively low position on the front surface of the holding core 10. The height of this front strap part 30a on the front surface of the holding core 10 is selected to be lower than that of the rear strap part 31a on the rear surface of the holding core 10.

Due to such selection of the height of the front strap part 30a, the force for raising up the front end of the holding core 10 can be further strongly exerted by the front strap part 30a. Thus, the front strap part 30a can function to further effectively keep a substantially horizontal attitude of a seat surface.

30 As shown in Figures 22 to 24, a pad wall 7b may be rendered adjustable in width. Figure 22 is a front elevational view of the pad wall 7b, and Figures 23 and 24 are sectional views taken along the lines XXIII - XXIII and XXIV - XXIV in Figure 22 respectively.

35 Referring to Figures 22 to 24, the pad wall 7b comprises an upright part 52 which extends upwardly from a seat surface 5, and wing parts 53 and 54 extending



sideways from the upright part 52. The upright part 52 is provided with a through slot 55 opening on both sides thereof. The wing parts 53 and 54 are partially inserted in the through slot 55, to be movable between positions shown by solid and phantom lines in Figure 22 while keeping this state. The width of the pad wall 7b is changed by this movement.

The aforementioned upright part 52 and the wing parts 53 and 54 are comprised of resin moldings, for example. The wing parts 53 and 54 are provided with engagers 56 and 57 which are elastically deformable due to the elasticity of the resin material, and engaging projections 58 and 59 are formed on the engagers 56 and 57, respectively. On the other hand, the upright part 52 is provided with a plurality of engaging holes (e.g., two) 60 and 61 which are transversely aligned with each other in correspondence to the position of the engaging projection 58, as well as a plurality of engaging holes (e.g., two) 62 and 63 which are transversely aligned with each other in correspondence to the position of the engaging projection 59.

When the engaging projections 58 and 59 engage with the engaging holes 60 and 62 respectively, the pad wall 7b maintains a relatively small width as shown by the solid lines in Figure 22. Alternatively, when the engaging projections 58 and 59 engage with the engaging holes 61 and 63 respectively, the pad wall 7b maintains a relatively large width as shown by the phantom lines in Figure 22.

When the pad wall 7b is thus rendered adjustable in width, the width of the pad wall 7b can be adjusted as the baby grows, while it is possible to prevent unnecessary bulkiness of the baby holder resulting from presence of a pad wall which is excessively wide for the size of the baby.

The aforementioned engaging holes 60 to 63 are preferably tapered on outer sides thereof. Thus, the operation of releasing the engaging projections 58 and 59 from the engaging holes 60 to 63 can be simplified.

As shown in Figure 25, a curved surface forming member 64 for forming a curved surface along the baby's buttocks may be provided on an internal angle portion which is defined between a pad wall 7 and a seat surface 5. Figure 25 is a perspective view showing a part of a baby holder 1 from behind the pad wall 7.

Referring to Figure 25, the curved surface forming member 64 is formed of flexible sheet material such as cloth or the like, and defines a bag part 65 for receiving the upper end portion of the pad wall 7. Two tongues 66 and 67 are formed on an end of the curved surface forming member 64 which is opposite to that provided with the bag part 65 not to interfere with a strap 21, and hooks 68 and 69 are provided on these

tongues 66 and 67, respectively. Alternatively, hooks (not shown) are provided on the bag 8 for detachably engaging the hooks 68 and 69, respectively.

The mounted state of the curved surface forming member 64 shown in Figure 25 is employed in the mode of use shown in Figure 5 or 7. In this mode, the curved surface forming member 64 forms a curved surface along the buttocks of the baby 4, whereby the buttocks of the baby 4 can be further stabilized and thus provide the baby with a preferable feeling. In the mode of use shown in Figure 4, on the other hand, the curved surface forming member 64 is folded with the pad wall 7. In order to allow engagement of the hooks 18 and 19 as shown in Figure 8 in this state, the bag part 65 of the curved surface forming member 64 is provided with a hole (not shown) for enabling the wearer to draw out the strap 20. In the mode of use shown in Figure 6, however, the curved surface forming member 64 having a relatively large width is preferably removed, so as not to press the crotch of the baby 4.

Figures 26 to 28 show a baby holder 1a according to a further embodiment of the present invention. The baby holder 1a shown in Figures 26 to 28 comprises a pad wall 7c which is adjustable in width, and two curved surface forming belts 70 and 71 corresponding to the aforementioned curved surface forming member 64.

The pad wall 7c comprises an upright part 72 which extends upward from a seat surface 5, and wing parts 73 and 74 extending sideways from the upright part 72. As understood from both of Figures 26 and 27, the wing parts 73 and 74 are rotatably coupled to the upright part 72 through hinges 75 and 76, respectively, whereby the pad wall 7c is adjustable in width. The upright part 72 and the wing parts 73 and 74 may be made of resin, for example, and the hinges 75 and 76 can be provided by thin portions of such resin.

In order to maintain the wing parts 73 and 74 in the state extending sideways from the upright part 72 as shown in Figure 26, the following structure is employed, for example:

Describing the structure for the wing part 74, a bar 77 (shown in phantom lines) which is rendered axially movable to be capable of projecting sideways is held in the upright part 72, as shown in Figure 28. The bar 77 is provided with an operation knob 78, which passes through a slot 79 provided in the upright part 72 to be movable in this slot 79. On the other hand, the wing part 74 is provided with a hole 80 for receiving the bar 77 when projection occurs. When the operation knob 78 is operated to insert the bar 77 in the hole 80 while bringing the wing part 74 into the state extending sideways from the upright part 72, therefore, this extended state is maintained.

The other wing part 73 is also maintained in the state extending sideways from the upright part 72 by a structure substantially similar to that for the aforementioned wing part 74. Figure 28 illustrates an operation knob 81 and a slot 82 corresponding to the operation knob 78 and the slot 79 respectively.

5 The curved surface forming belts 70 and 71 are coupled between the wing parts 73 and 74 and the rear surface of a bag 8 respectively. These curved surface forming belts 70 and 71 extend along the baby's buttocks in the state shown in Figure 26, thereby stably holding the same while providing a preferable touch for the baby. The state shown in Figure 26 is employed in the mode of use shown in Figure 5 or 7. While
10 pulling force is applied to the wing parts 73 and 74 in this state through the curved surface forming belts 70 and 71 which are under the weight of the baby 4, the wing parts 73 and 74 can be maintained in the state extending sideways from the upright part 72 due to the action of the aforementioned bar 77 etc.

 Alternatively, the state shown in Figures 27 and 28 is employed in the mode
15 of use shown in Figure 4. In this state, the curved surface forming belts 70 and 71 extend substantially along the upright part 72 and the seat surface 5, so as not to press the crotch of the baby 4.

 While the present invention has been described with reference to embodiments shown in the drawings, further modifications are within the scope of the
20 present invention.

 While the support 6 is covered with the bag 8 so that the holding core 10 is stored in this bag 8 in each of the illustrated embodiments, for example, the holding core itself may alternatively form the support, without provision of a bag.

 While the pad wall 7 has a T-shaped front surface, the pad wall may
25 alternatively have another shape. Although the pad wall 7 is selected in the T shape to be applicable to both of the states of holding the baby 4 backward as shown in Figures 5 and 7 and frontward as shown in Figure 6 respectively, the pad wall 7 may alternatively have a relatively large uniform width when the baby holder is dedicatedly employed for holding the baby backward. When the baby holder is dedicatedly employed
30 for holding the baby frontward, on the other hand, the pad wall 7 may have a relatively small uniform width.

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A baby holder comprising:
 - a waist strap adapted to be worn around a waist of a person;
 - a support defining a seat surface adapted to receive thereon buttocks of a baby, mounted on said waist strap and positioned to extend from an abdomen of the person;
 - a pad wall rotatably mounted on said support to be capable of selectively assuming a first state extending along said seat surface and a second state extending upright from said seat surface;
 - an elastic member arranged to urge said pad wall in a direction from said first state toward said second state; and
 - a stop member arranged to selectively maintain said pad wall in said first state against an elastic urging force of said elastic member.
2. The baby holder in accordance with claim 1, wherein said pad wall includes a height adjustment mechanism such that a height of said pad wall is adjustable.
3. The baby holder in accordance with claim 1 or 2, wherein said pad wall is selectively movably attached to said support so that a horizontal position of said pad wall on said support is adjustable.
4. The baby holder in accordance with claim 3, further comprising a cover plate on which said pad wall is mounted, and a bolt, wherein said support has a channel therein extending in a direction adapted to extend away from the abdomen of the person and a plurality of bolt holes along said channel, said cover plate includes a portion slidably engaged in said channel with a hole in said portion, and said bolt is fastened through said hole in said portion into a selected one of said bolt holes in said channel whereby said pad wall is selectively movably attached to said support.
5. The baby holder in accordance with any of claims 1 to 3, wherein said pad wall is removably attached to said support.
6. The baby holder in accordance with any of claims 1 to 5, wherein said pad wall has a T-shaped front surface.

7. The baby holder in accordance with any of claims 1 to 6, wherein at least an upper portion of said pad wall has two opposite end portions that are respectively curved in directions adapted to approach toward the abdomen of the person.
8. The baby holder in accordance with any of claims 1 to 7, further comprising a curved surface forming member for forming a curved surface along the buttocks of the baby at an internal angle defined between said seat surface and said pad wall in said second state.
9. The baby holder in accordance with claim 8, wherein said curved surface forming member comprises at least one flexible sheet member connected to and spanning between said pad wall and said support such that said flexible sheet member is at least partially suspended above said seat surface.
10. The baby holder in accordance with claim 9, wherein said at least one flexible sheet member comprises two straps having respective first ends respectively connected to said pad wall at two opposite lateral sides thereof and having respective second ends respectively connected to said support.
11. The baby holder in accordance with any of claims 1 to 10, further comprising a support strap having a loop shape connected to and extending from said support adjacent said pad wall, wherein said support has a space therein and an opening into said space adjacent said pad wall, wherein said support strap is adapted to pass along said pad wall, around the baby and over one shoulder of the person in a deployed condition thereof and to pass through said opening and to be stored in said space in a stored condition thereof.
12. The baby holder in accordance with any of claims 1 to 11, wherein said pad wall is rotatably mounted on said support by a pivotal connection located at a side of said support adapted to be directed away from the abdomen of the person, wherein said pivotal connection includes a pivot stop that prevents said pad wall from rotating beyond said second state in a direction away from said first state, and wherein said pad wall has sufficient rigidity that said pad wall is self-supporting.

13. The baby holder in accordance with any of claims 1 to 12, wherein said support has a guide slot at an edge thereof with a plurality of engagement holes passing through a wall of said guide slot, said pad wall includes a pad wall body and a guide leg extending from said pad wall body with an elastically deflectable engaging projection provided on said guide leg, and said guide leg is slidably arranged in said guide slot with said engaging projection projecting into a selected one of said engagement holes, such that a vertical height of said pad wall is adjustable.

14. The baby holder in accordance with any of claims 1 to 13, wherein said support comprises a support core and a bag enclosing said support core, and wherein said bag further encloses a storage space therein and has an opening for accessing said storage space.

15. A baby holder comprising:

a waist strap adapted to be worn around a waist of a person;

a support defining a seat surface adapted to receive thereon buttocks of a baby, mounted on said waist strap and positioned to extend from an abdomen of the person; and

a pad wall mounted on said support to be extendable upright from said seat surface;

wherein said pad wall and said seat surface of said support each respectively comprise therein, at least at an area of a surface adapted to come in contact with the baby, a first cushion member, a second cushion member and a third cushion member in a stacked arrangement with said first cushion member closest to said surface adapted to come in contact with the baby, wherein said second cushion member has a larger elastic coefficient than does said first cushion member and said third cushion member has a larger elastic coefficient than does said second cushion member.

16. A baby holder comprising:

a waist strap adapted to be worn around a waist of a person;

a support defining a seat surface adapted to receive thereon buttocks of a baby, mounted on said waist strap and positioned to extend from an abdomen of the person; and

a pad wall mounted on said support to be extendable upright from said

seat surface;

wherein said support comprises a holding core having an upper surface extending along said seat surface and a rear surface adapted to extend along the abdomen of the person for maintaining a shape of said support; and

wherein said waist strap includes a front strap part that passes around a front surface of said holding core adapted to face away from the abdomen of the person, and that is fixed to said holding core.

17. The baby holder in accordance with claim 16, wherein said waist strap further includes a rear strap part that passes along said rear surface of said holding core, and wherein said front strap part and said rear strap part are connected with each other on both sides of said holding core.

18. The baby holder in accordance with claim 16 or 17, wherein said front strap part is arranged to pass along said front surface of said holding core at a position that is lower than a position of said rear strap part passing along said rear surface of said holding core.

19. A baby holder comprising:

a waist strap adapted to be worn around a waist of a person;

a support defining a seat surface adapted to receive thereon buttocks of a baby, mounted on said waist strap and positioned to extend from an abdomen of the person; and

a pad wall mounted on said support to be extendable upright from said seat surface;

wherein said pad wall includes a width adjustment mechanism such that a width of said pad wall is adjustable.

20. The baby holder in accordance with claim 19, wherein said pad wall includes an upright part that is mounted on said support and two wing parts movably extending respectively laterally from said upright part, and wherein said width adjustment mechanism comprises a slot extending through said upright part with said wing parts slidably received in said slot, engagement holes passing through a wall of said upright part into said slot, and a respective elastically deflectable engaging projection provided on each said wing part and projecting into a respective selected one of said engagement holes.

21. The baby holder in accordance with claim 19 or 20, wherein said pad wall includes an upright part that is mounted on said support and two wing parts movably extending respectively laterally from said upright part, and wherein said width adjustment mechanism comprises two hinge joints respectively rotatably connecting said wing parts to said upright part, with respective axes of said hinge joints extending parallel to a direction of a major extension of said upright part, two sliding bars arranged to be slidable in said upright part to selectively protrude laterally from said upright part, and a respective receiving hole provided in each said wing part for selectively receiving therein one of said sliding bars.

FIG. 1

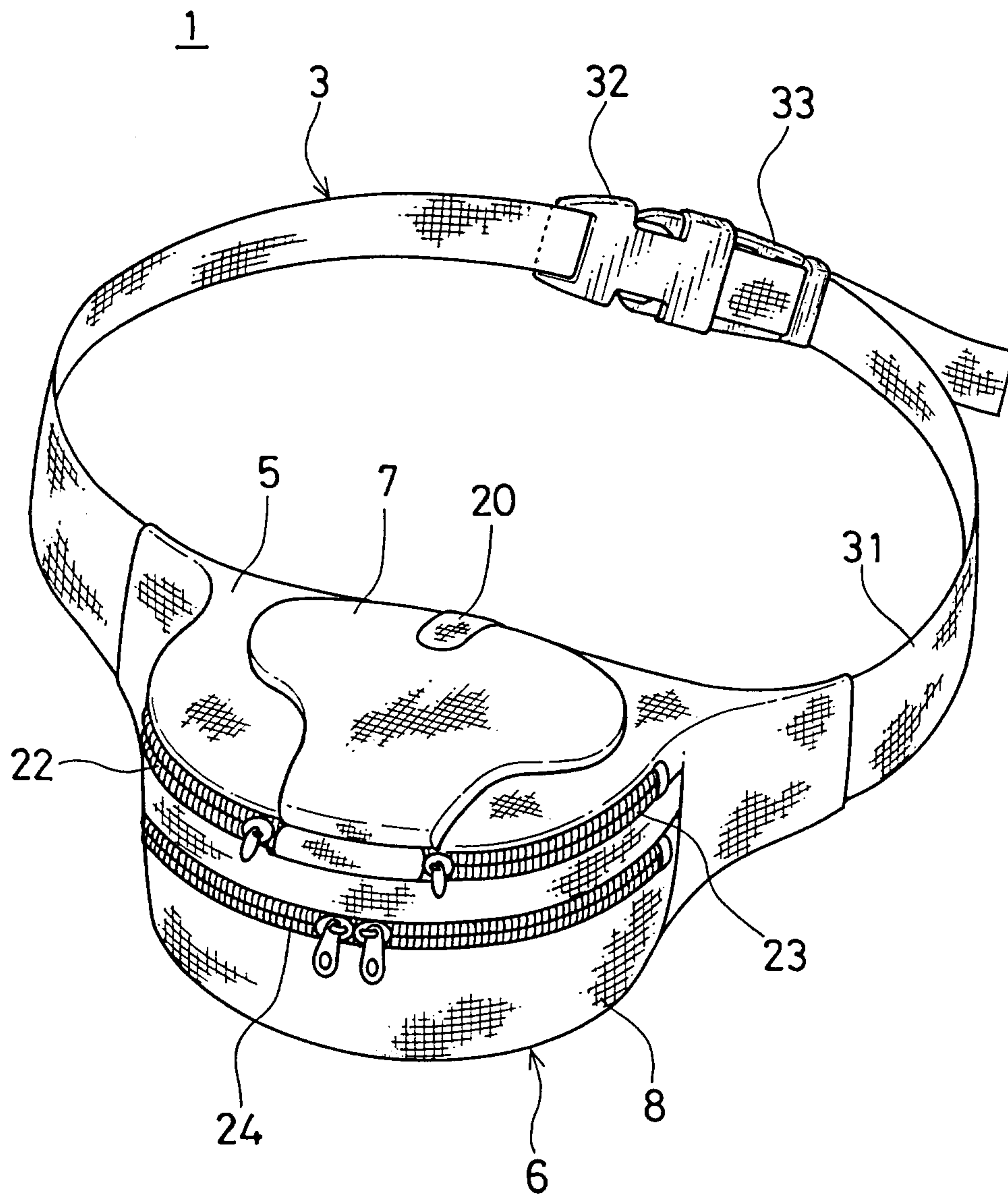


FIG. 2

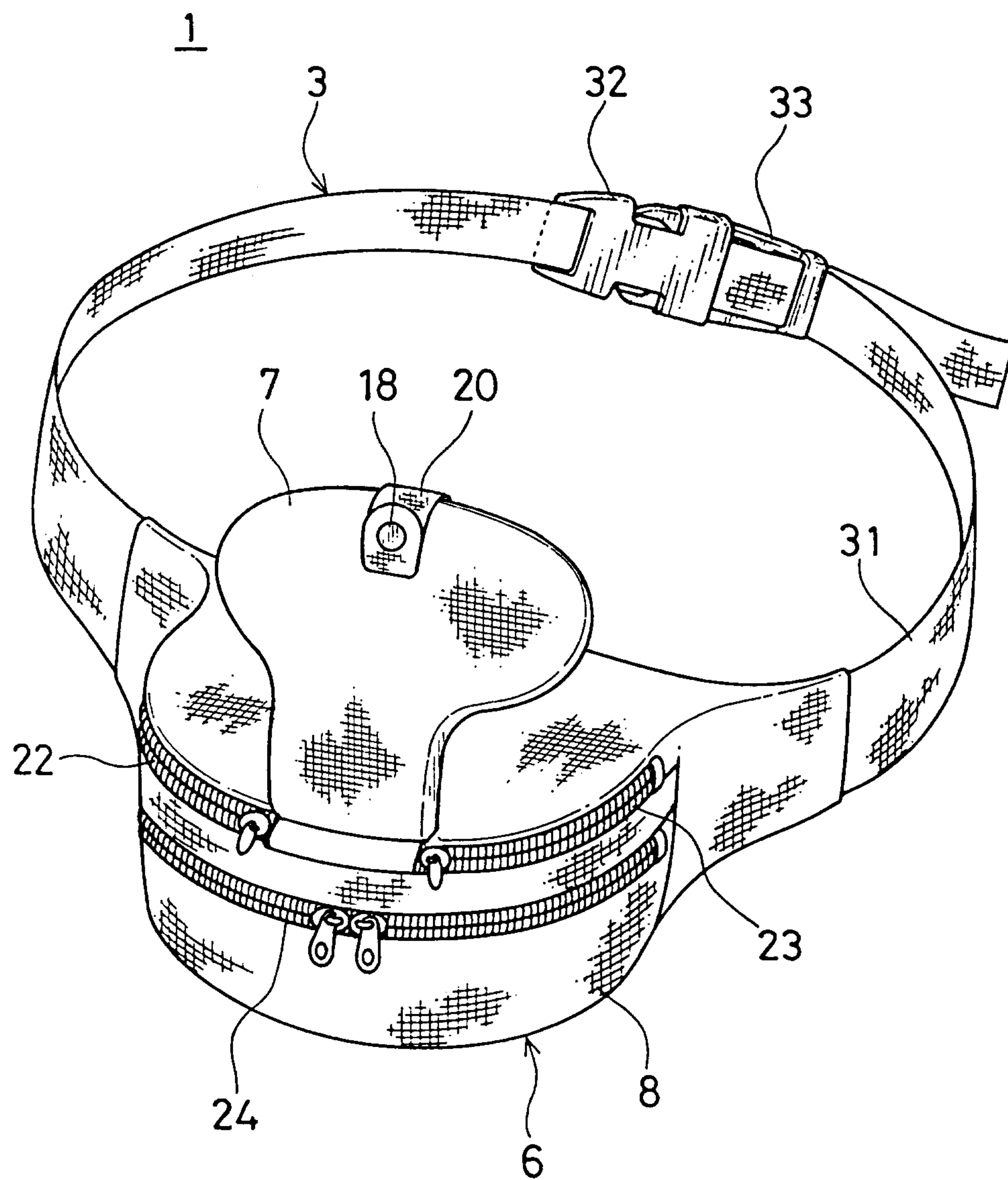


FIG. 3

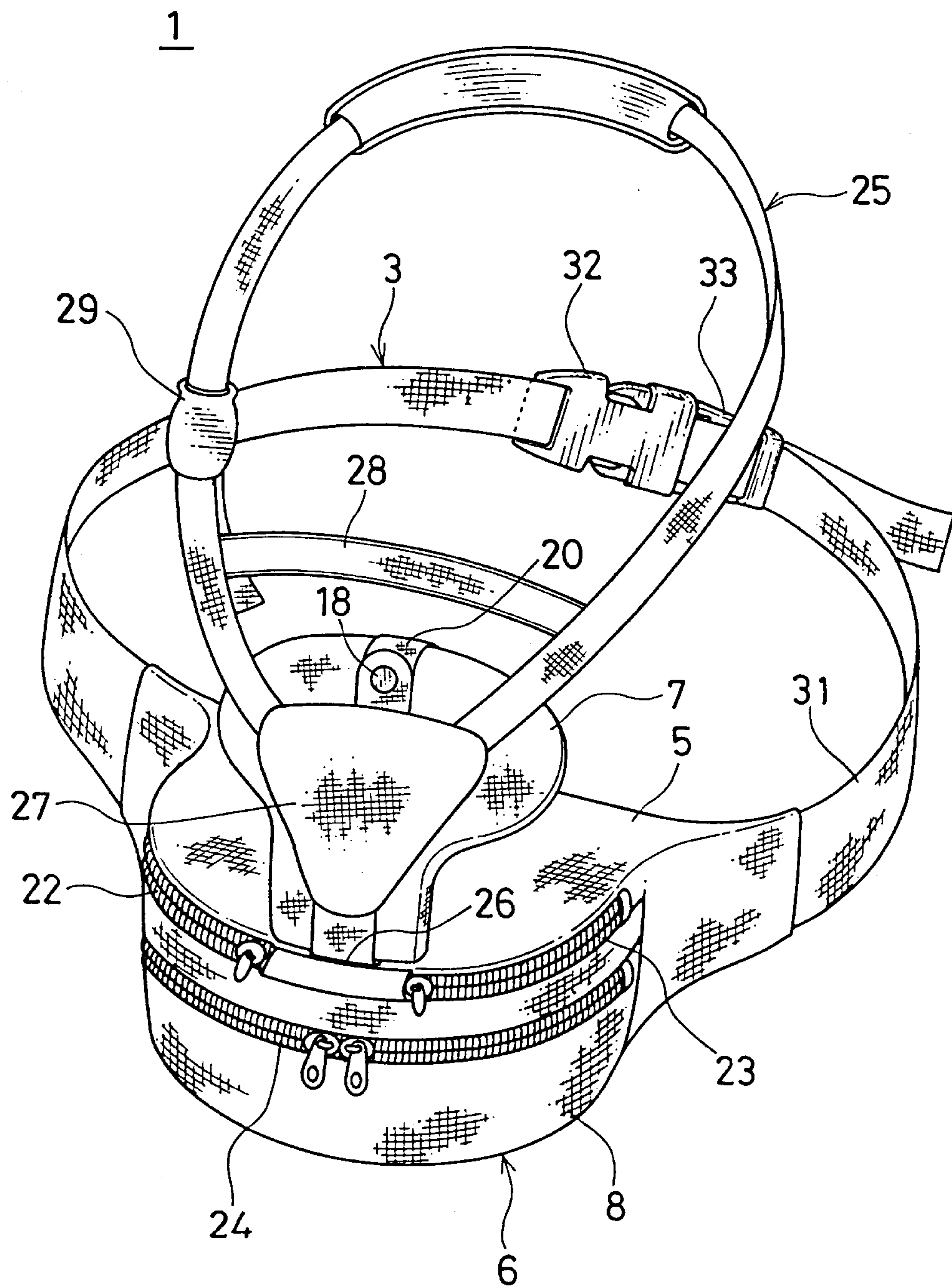


FIG. 4

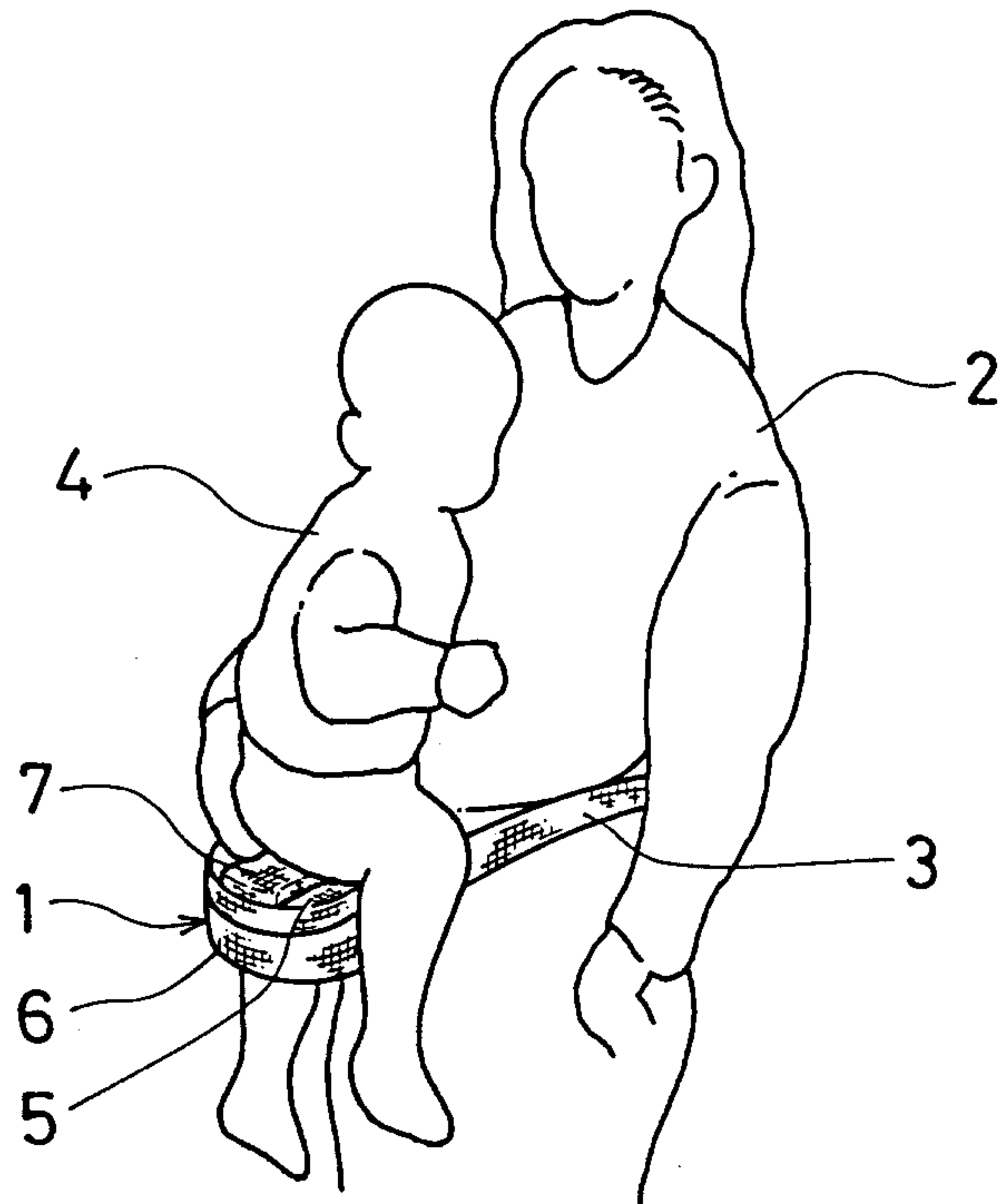


FIG. 5

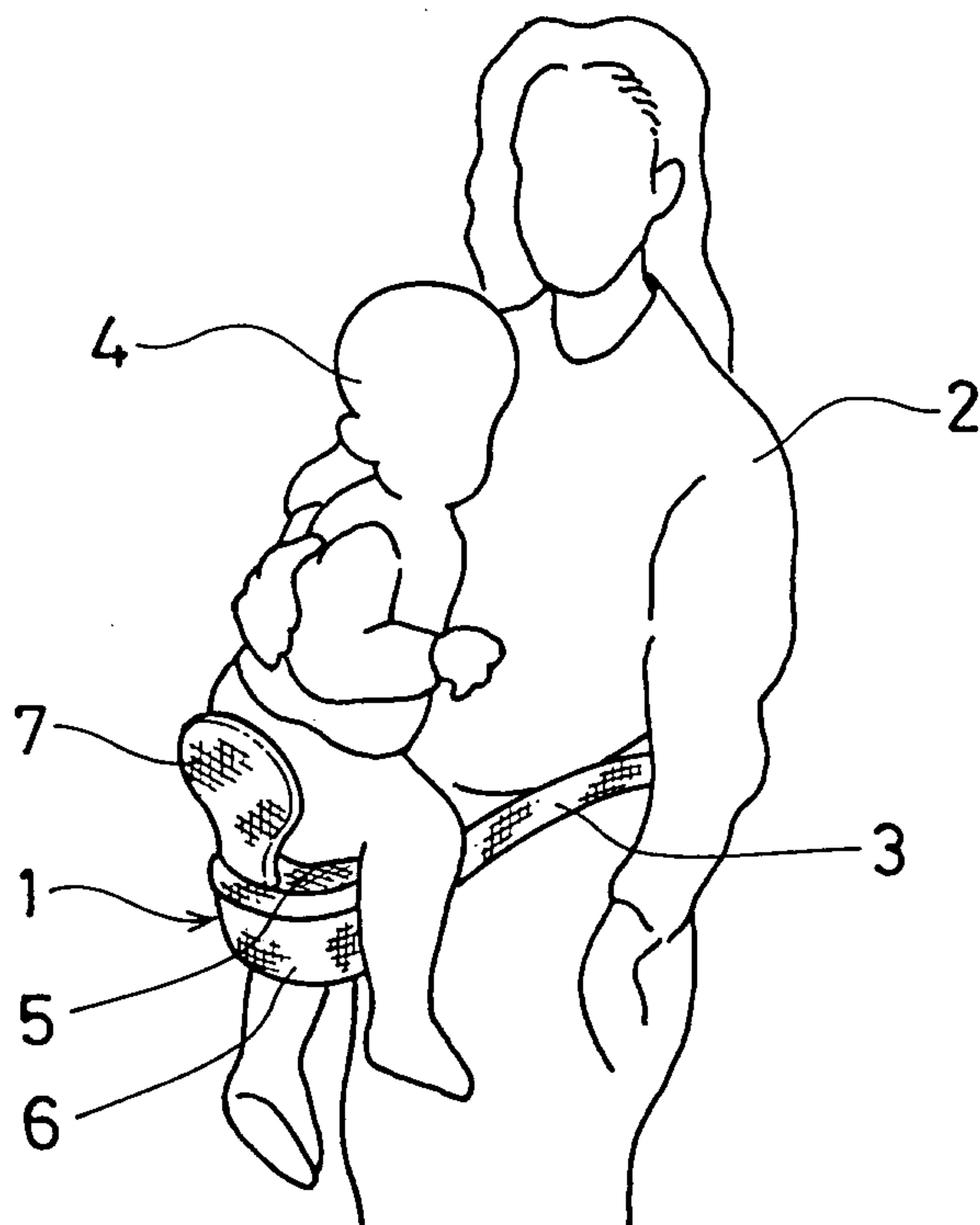


FIG. 6

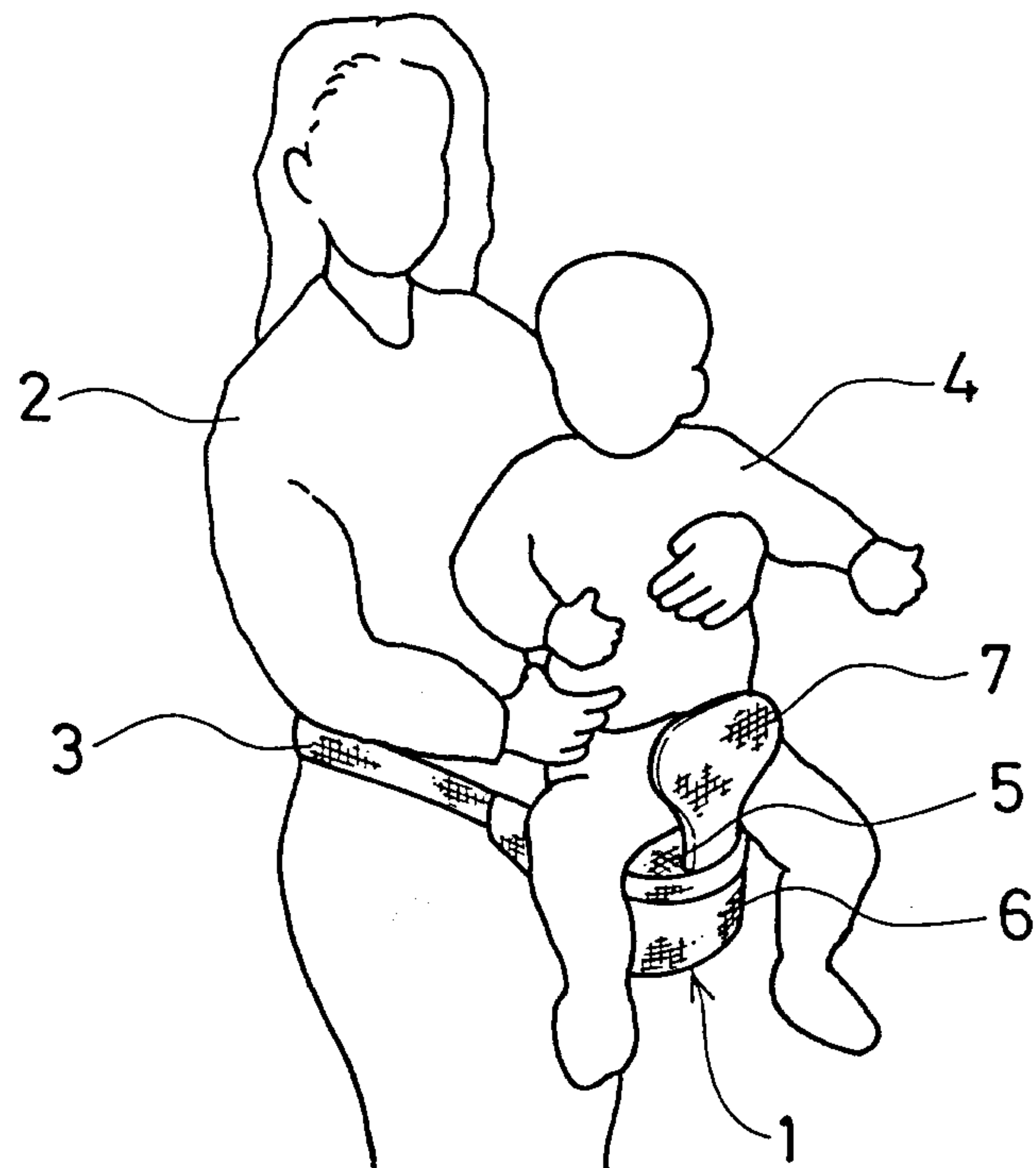


FIG. 7

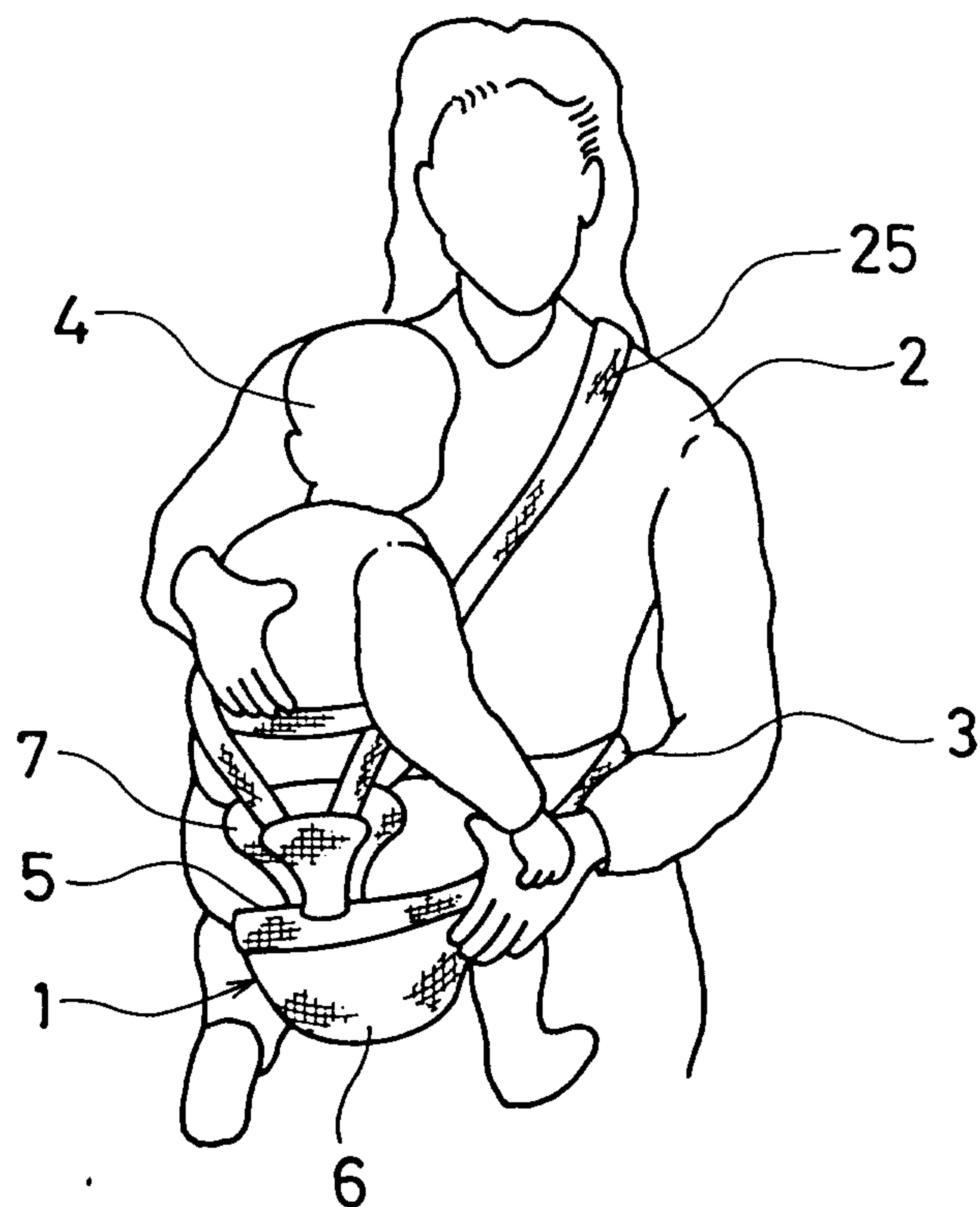


FIG. 9

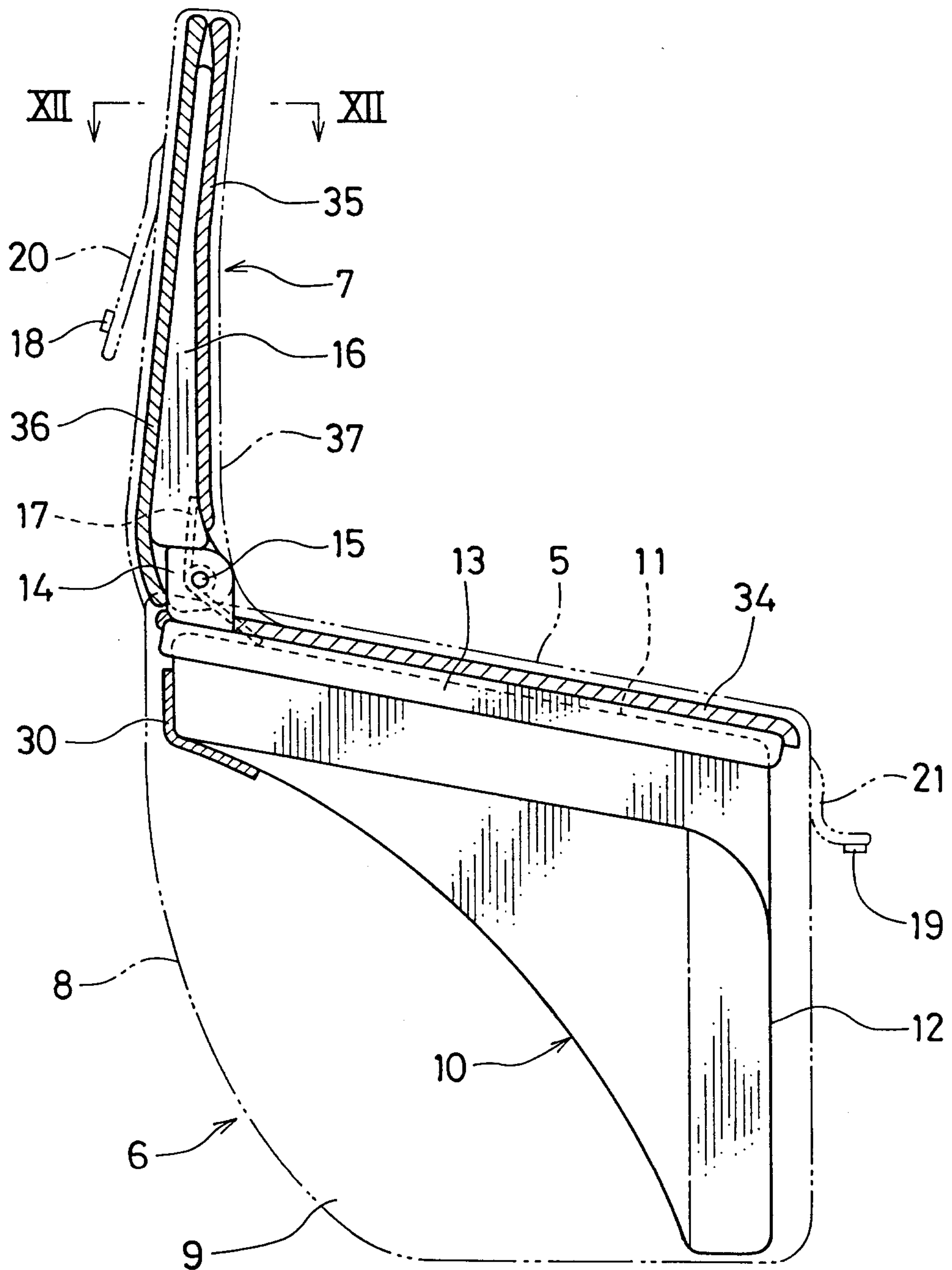


FIG. 10

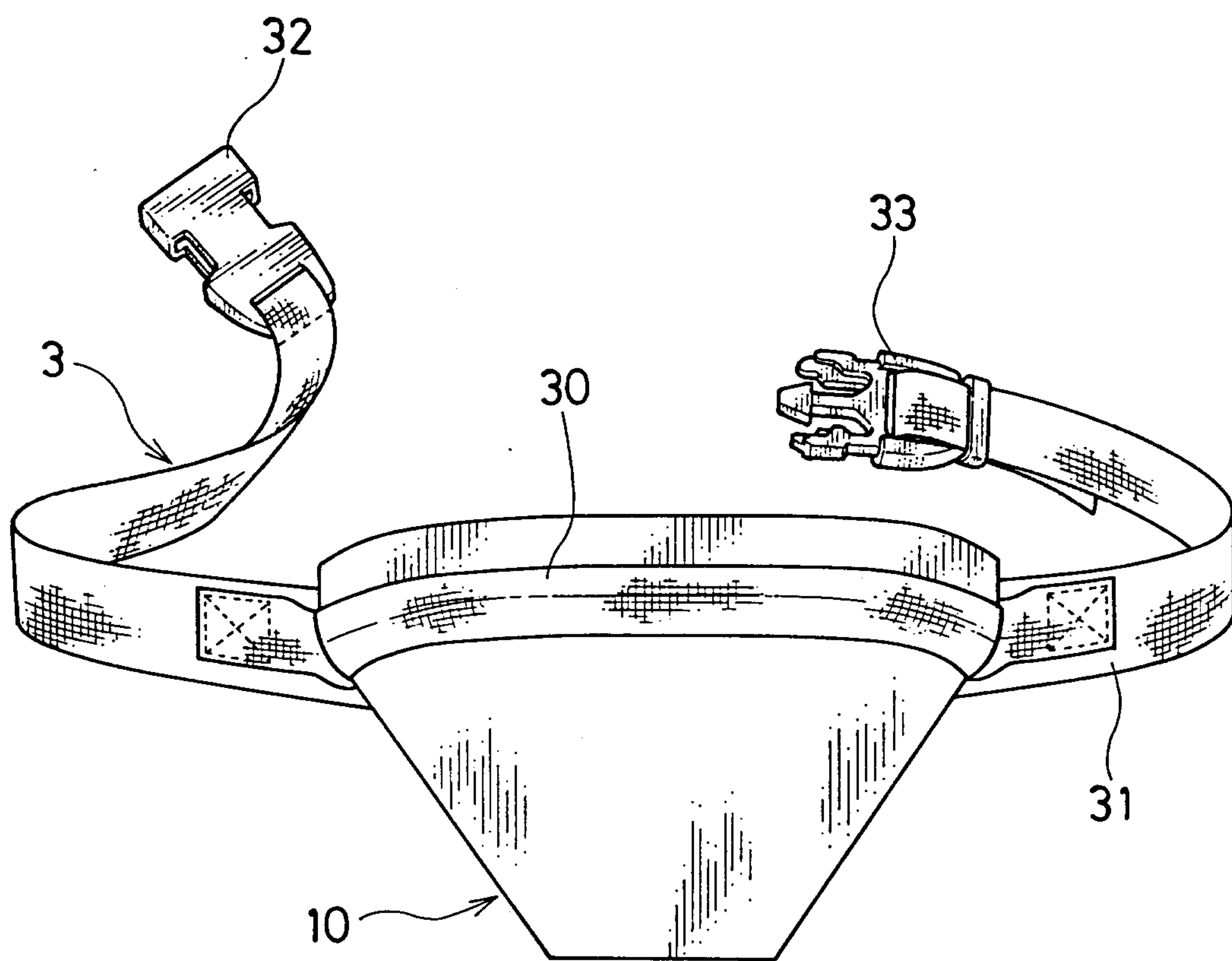


FIG. 11

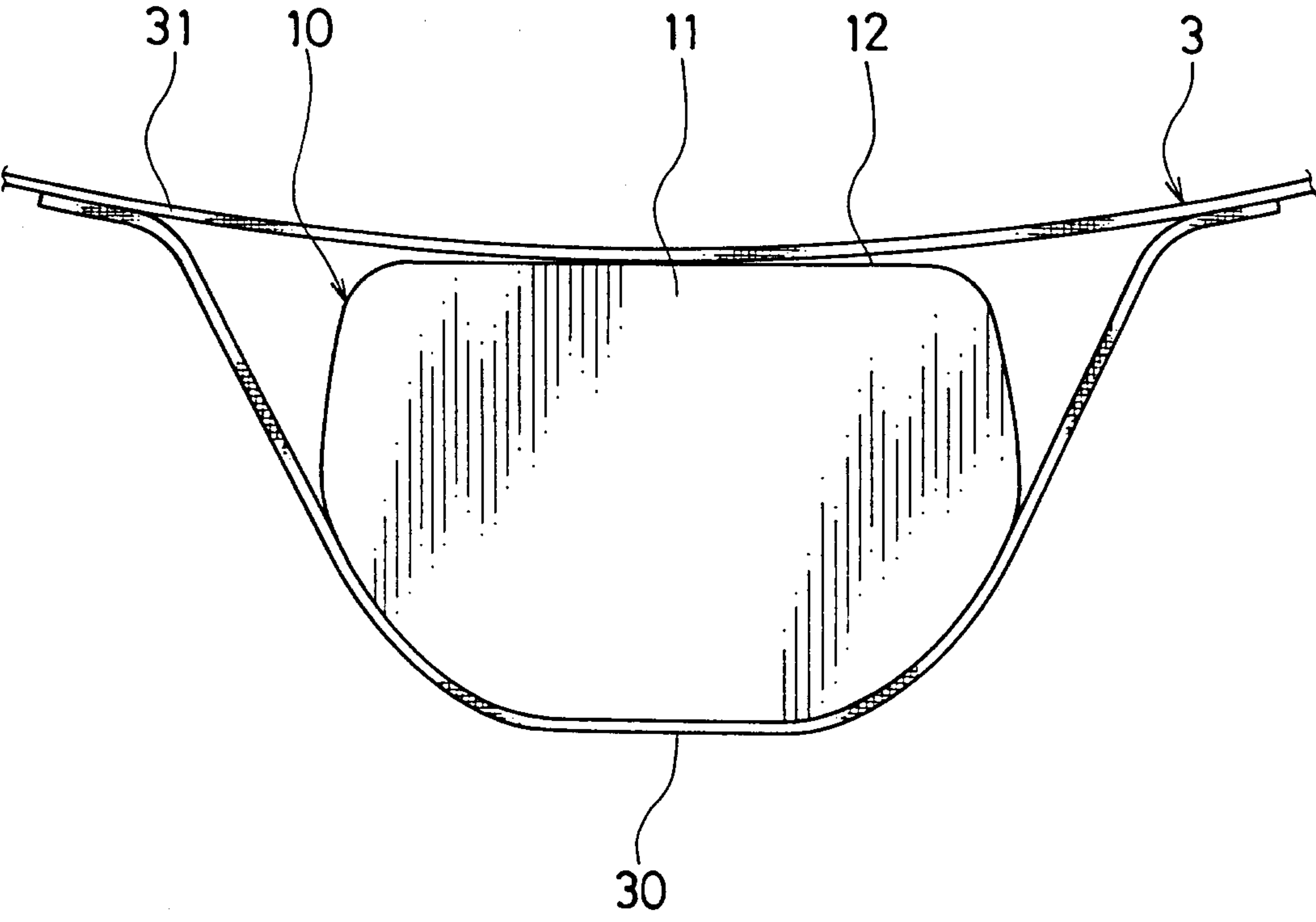


FIG. 12

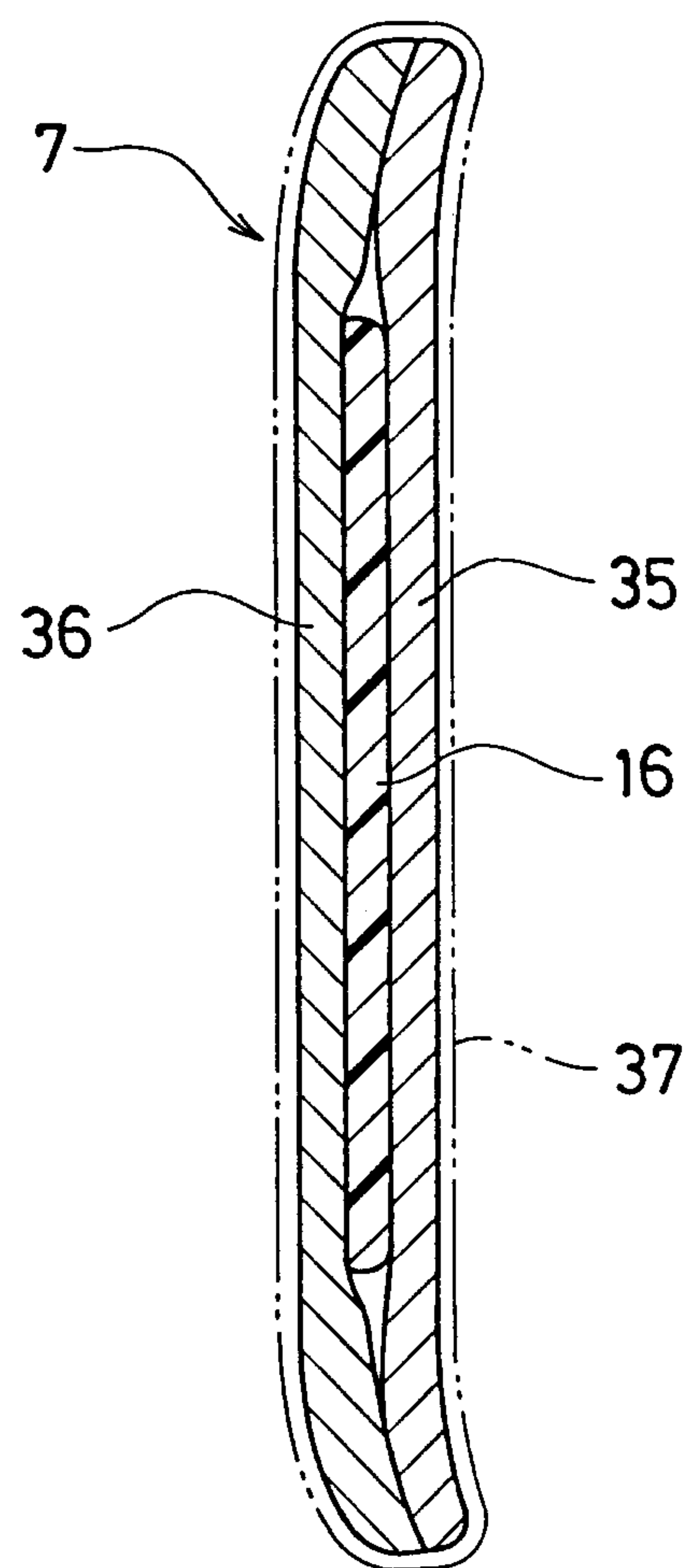


FIG. 13A

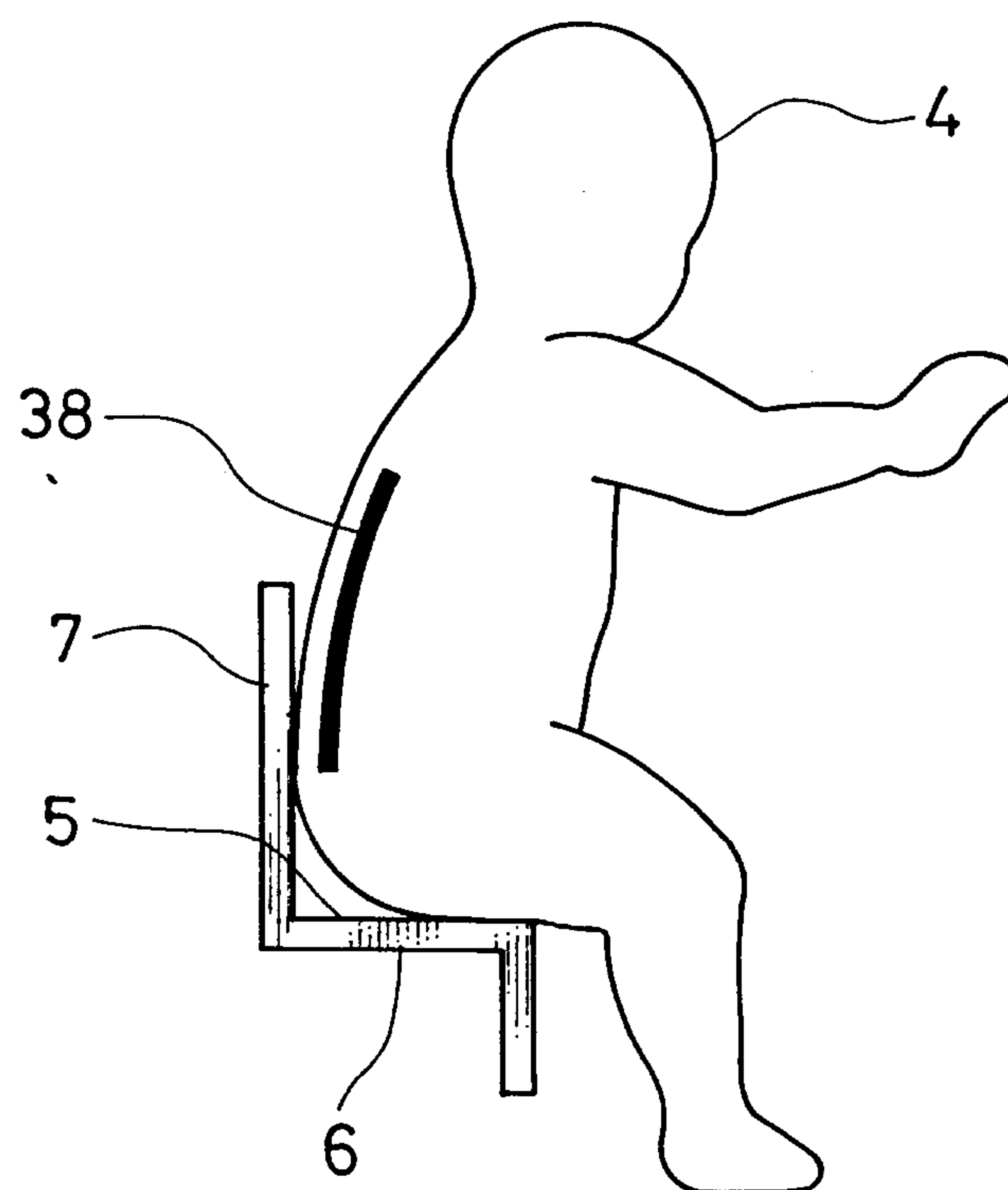


FIG. 13B

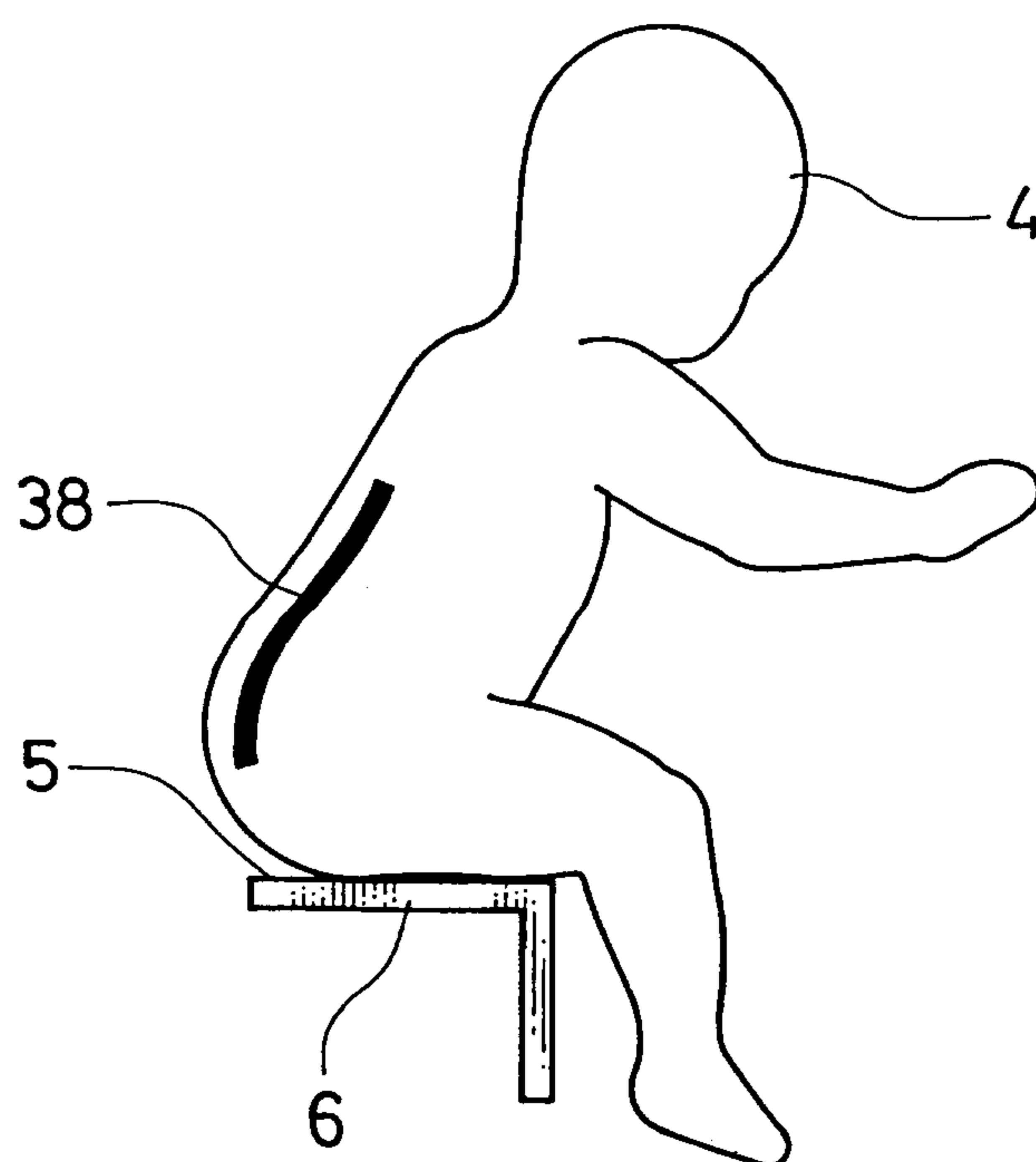


FIG. 14

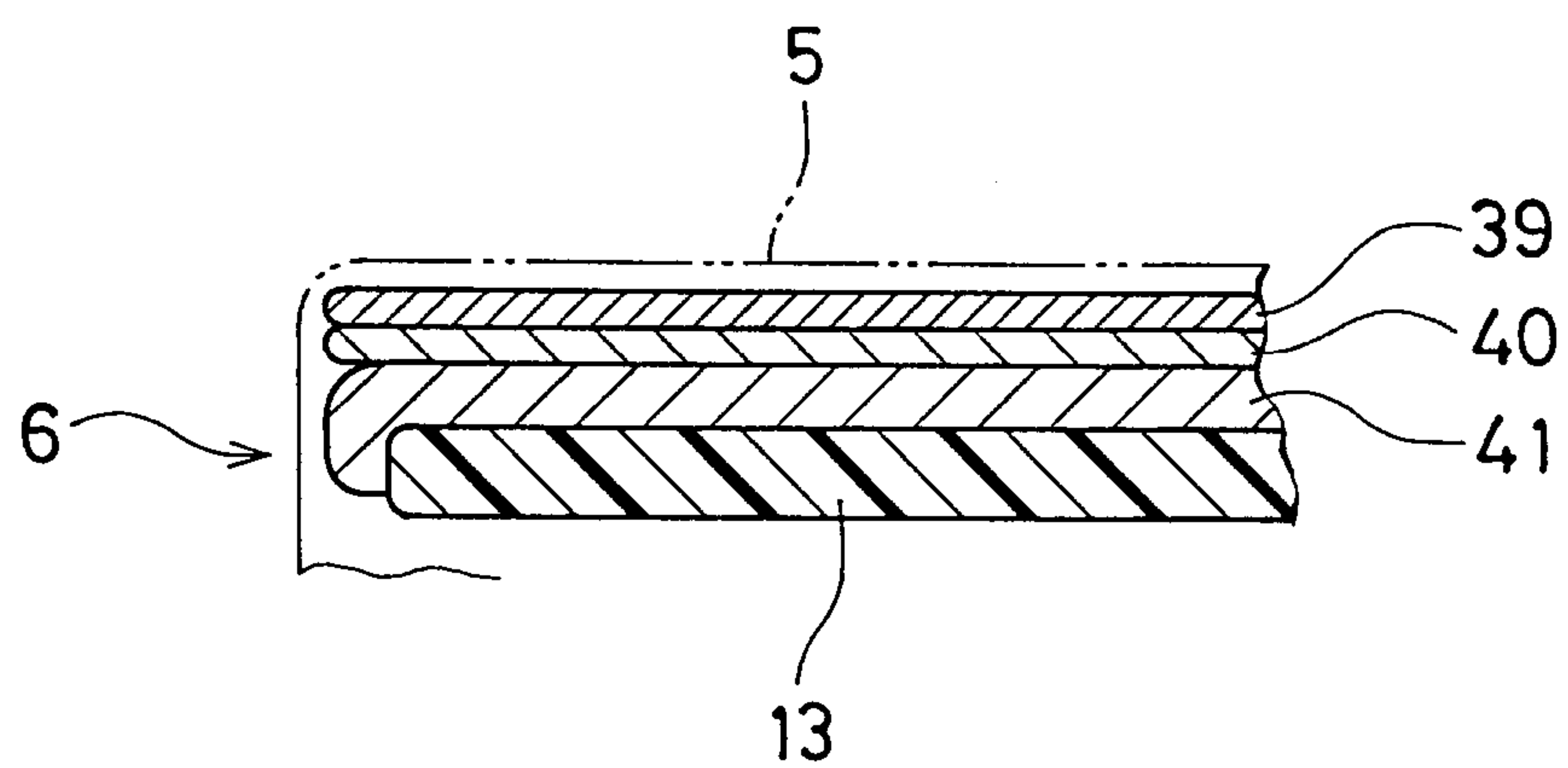


FIG. 15

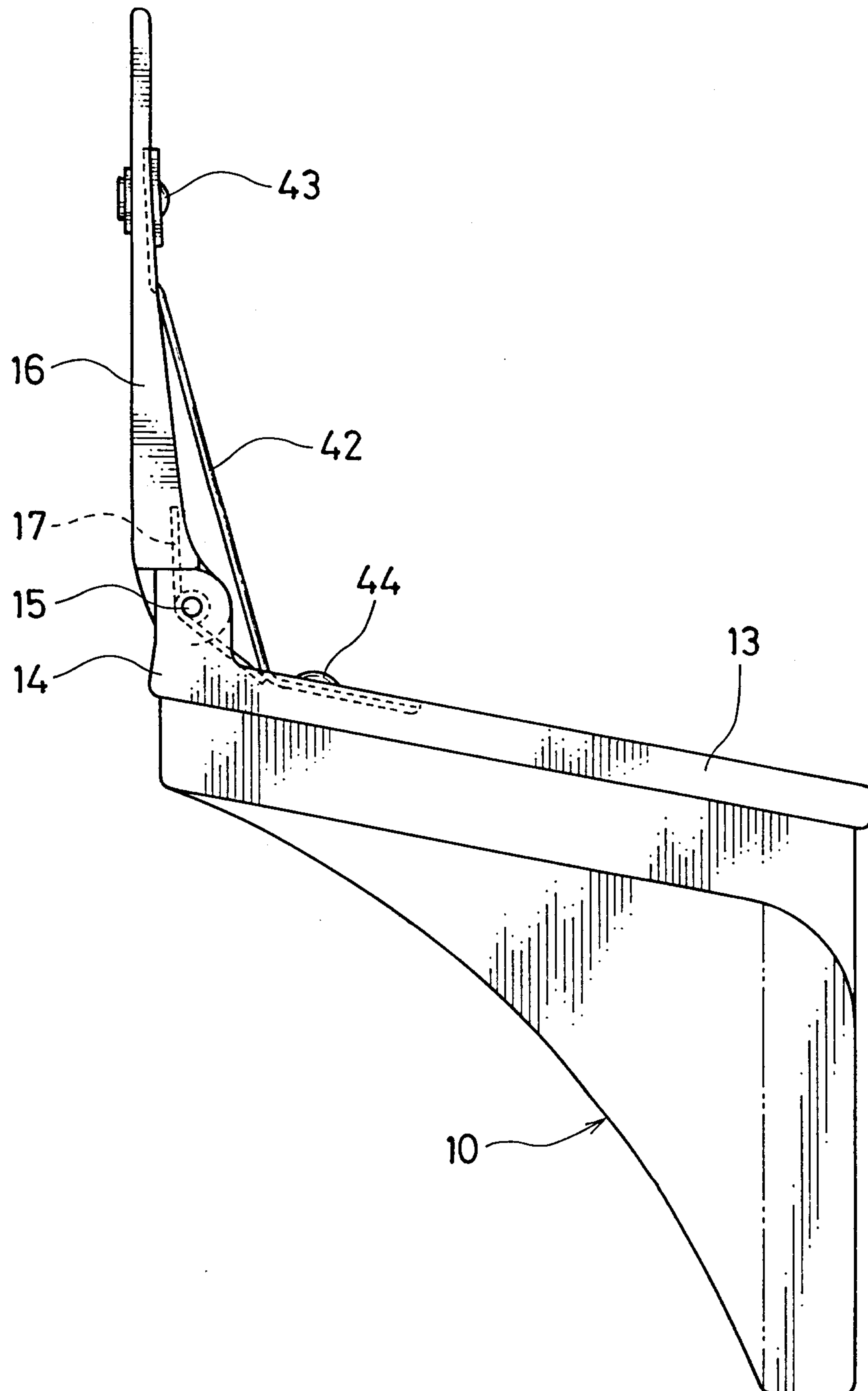


FIG. 16

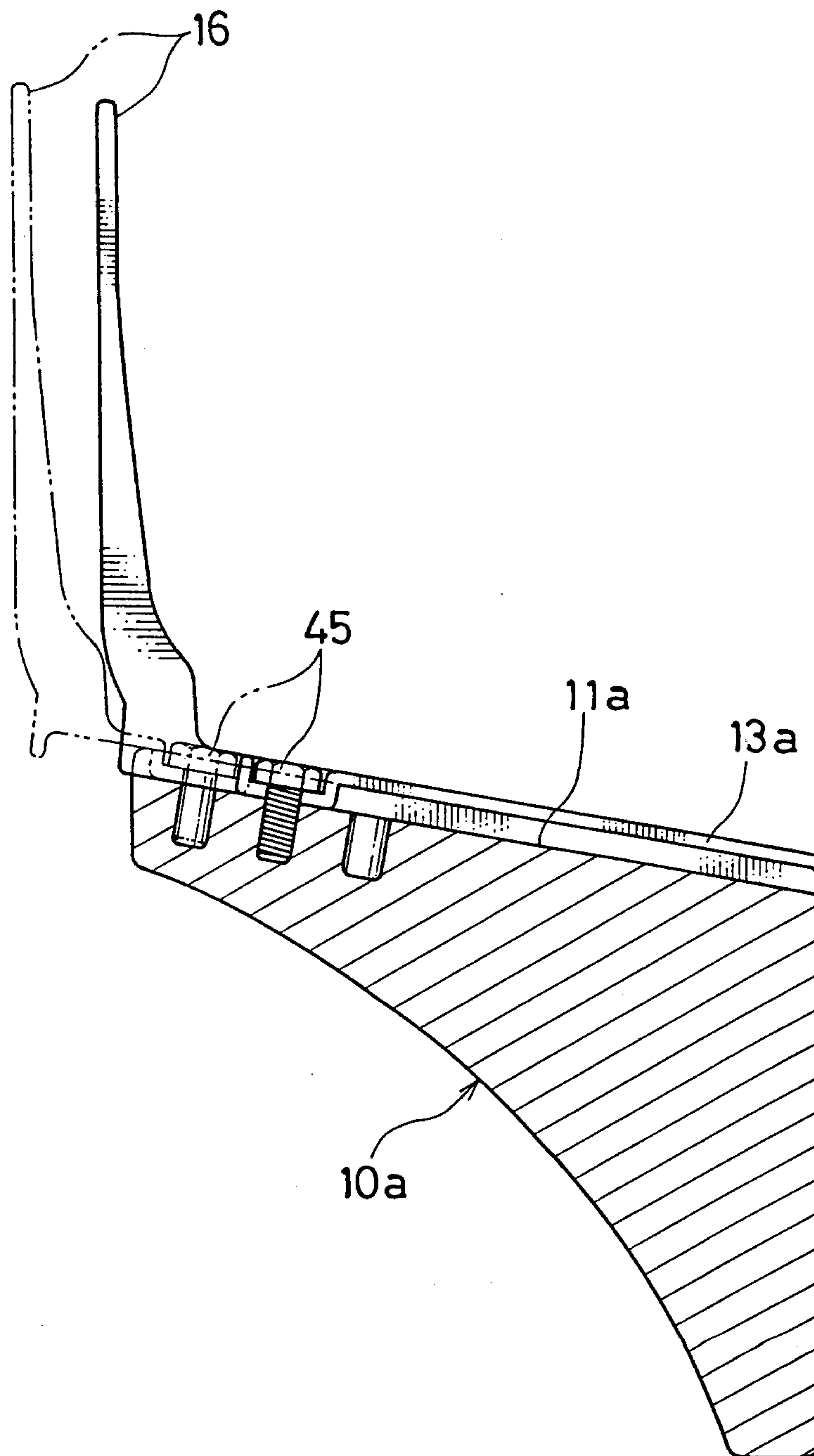


FIG. 17

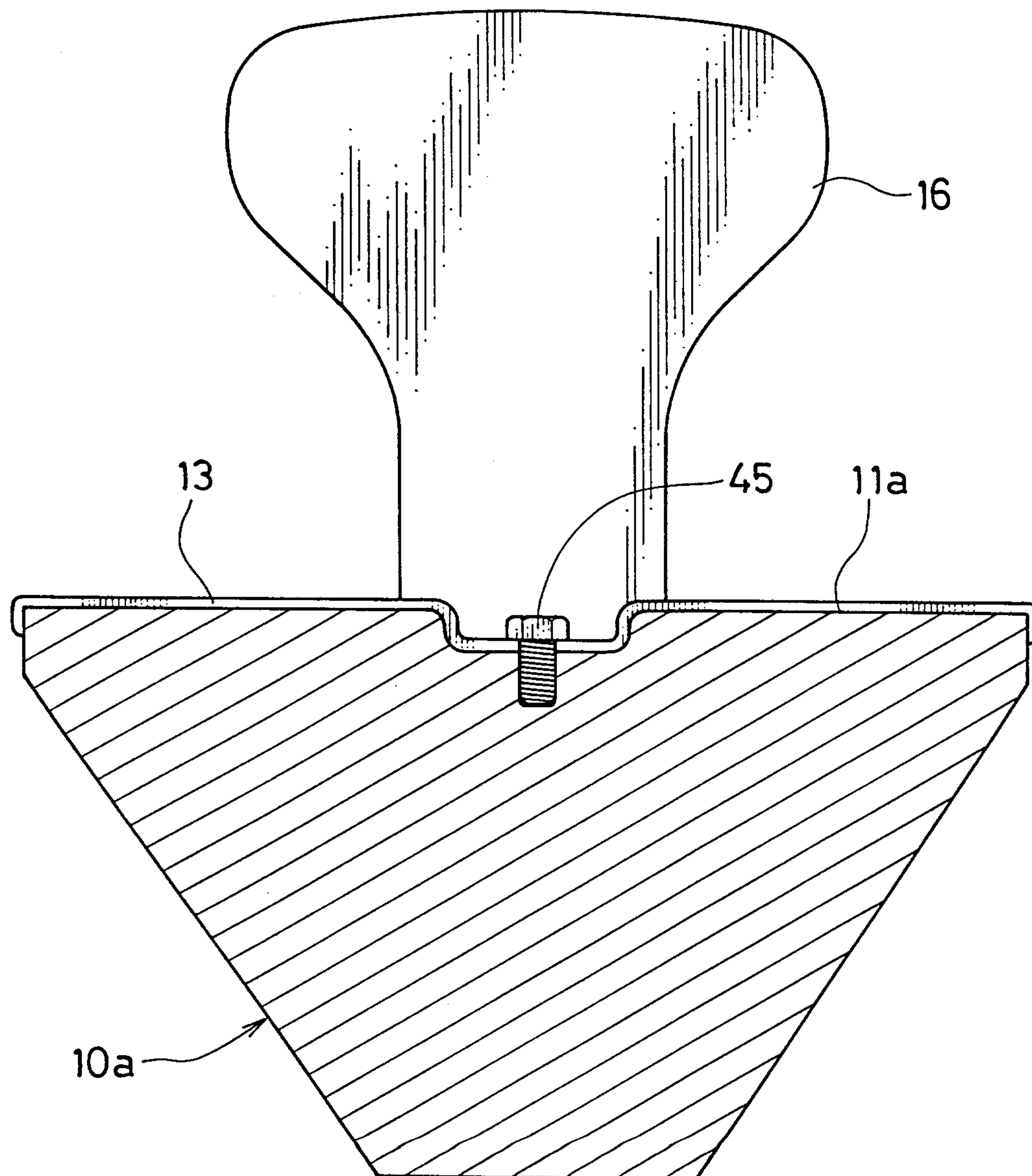


FIG. 18

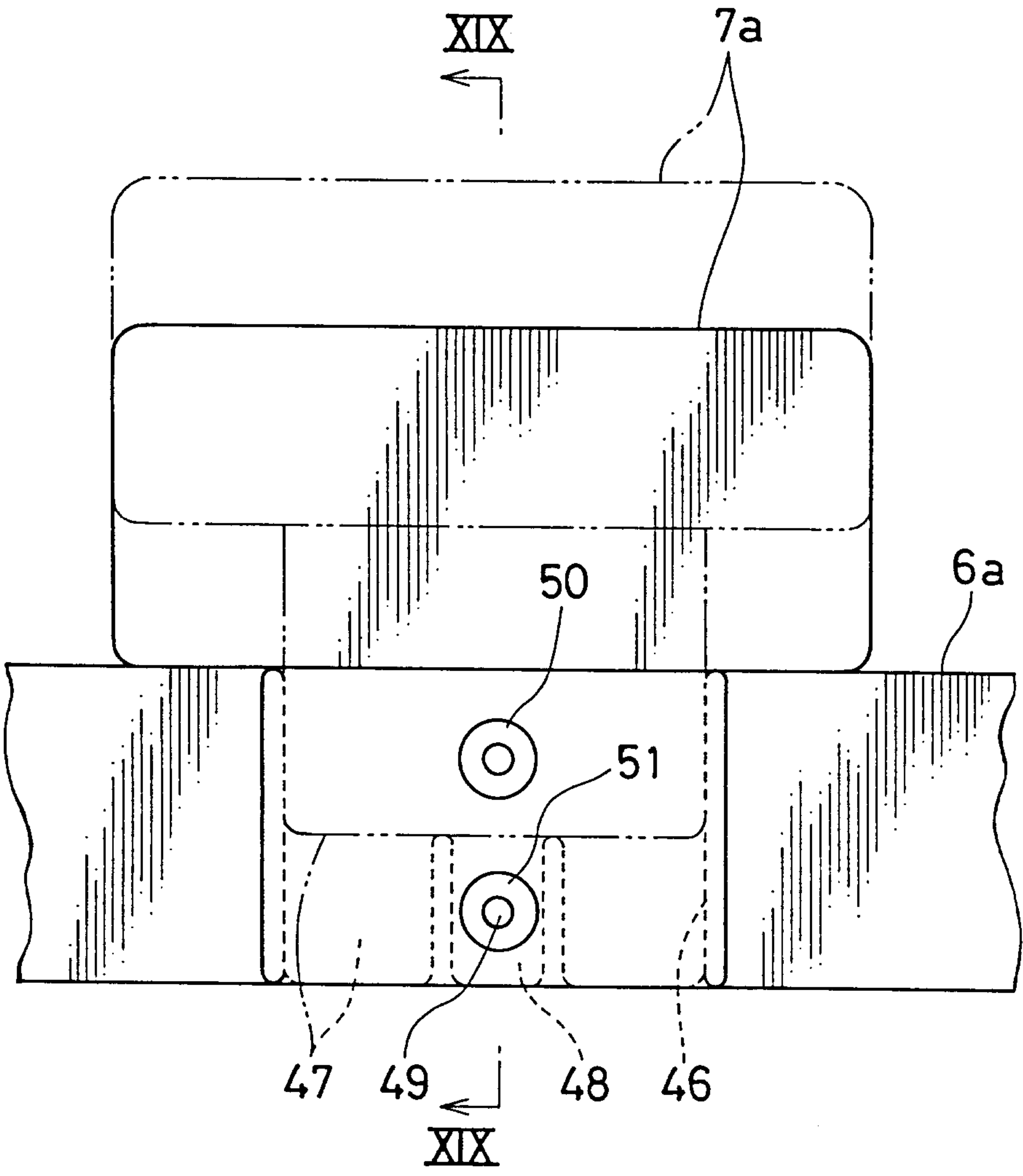


FIG. 19

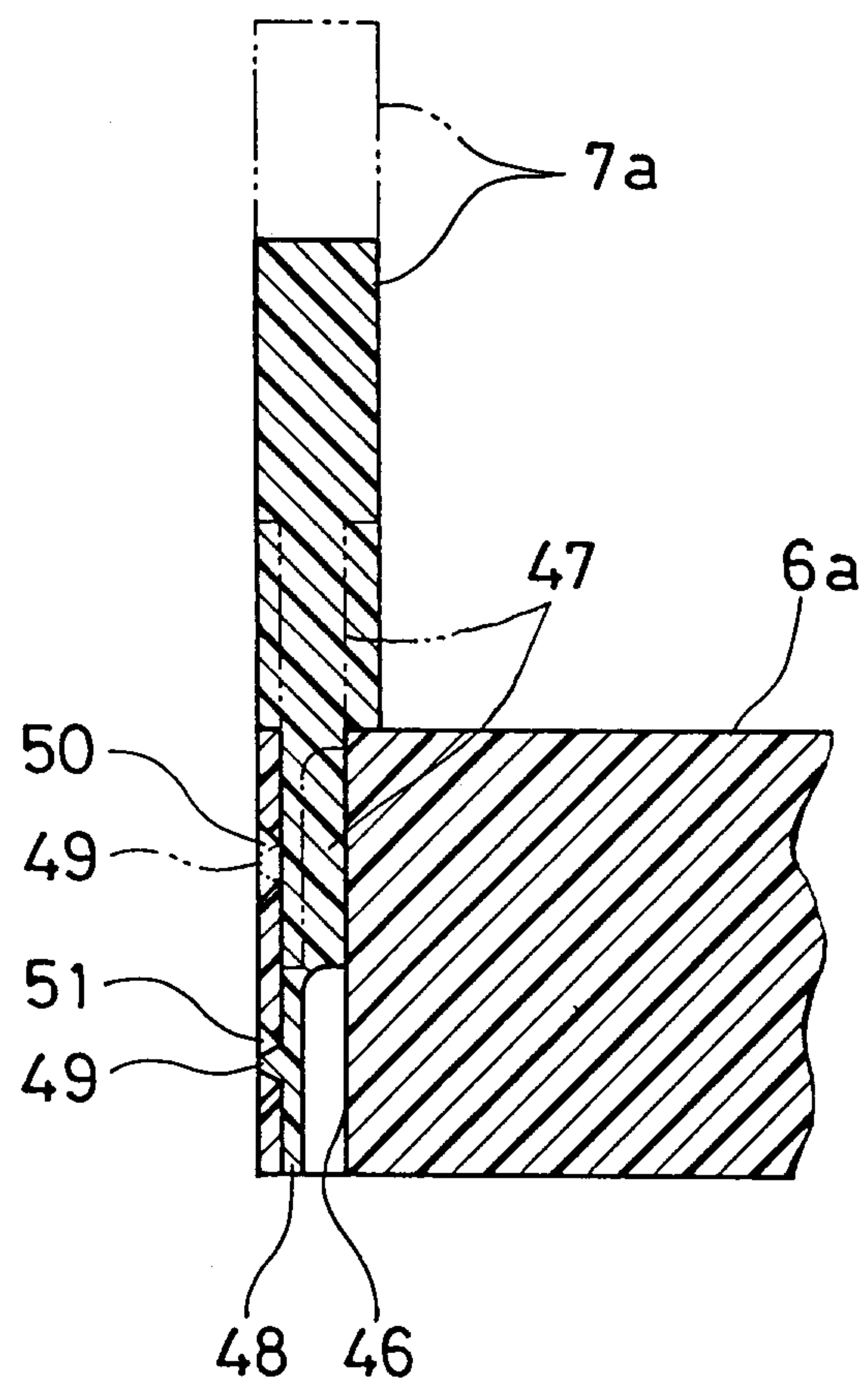


FIG. 20

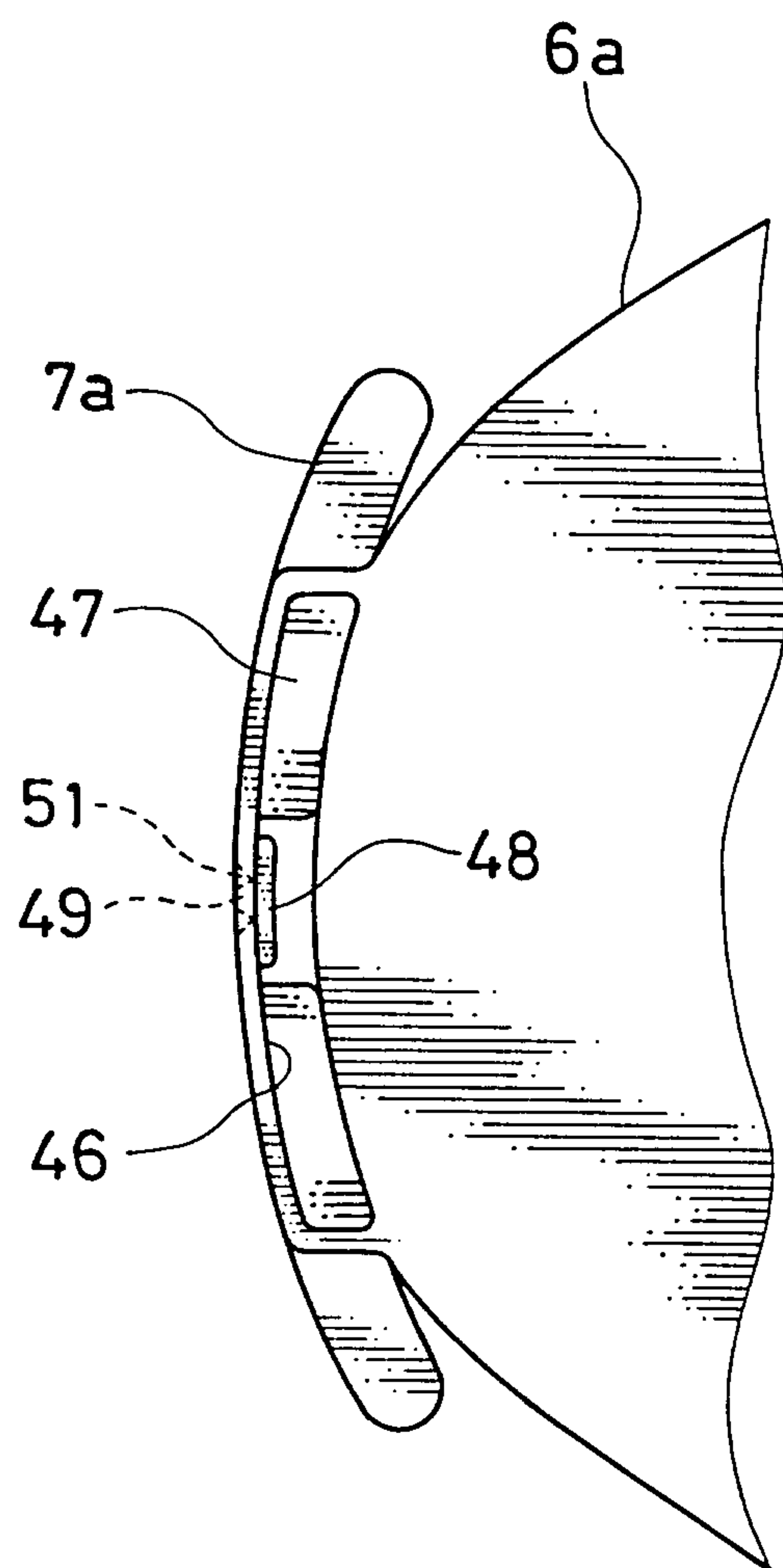


FIG. 21

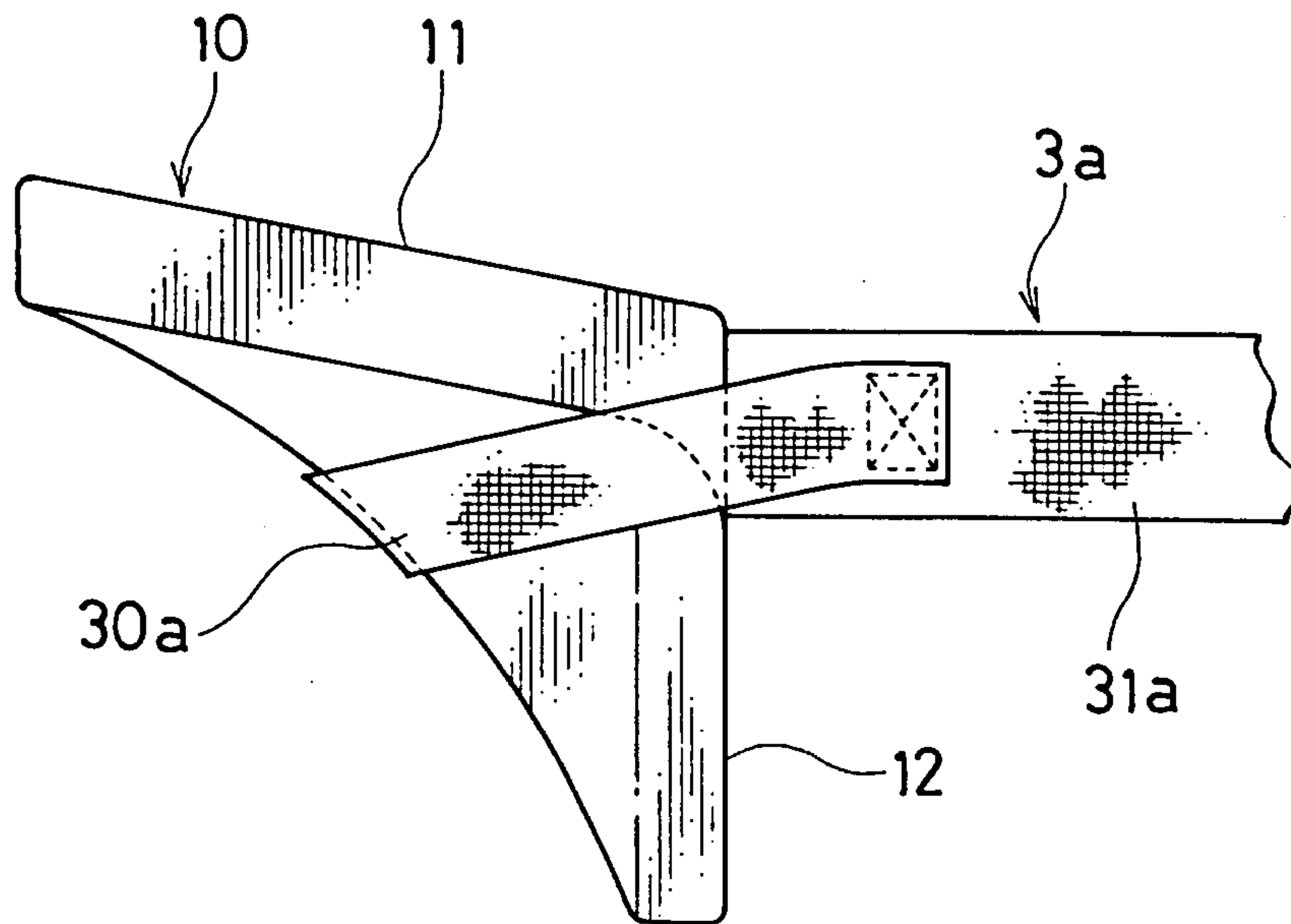


FIG. 22

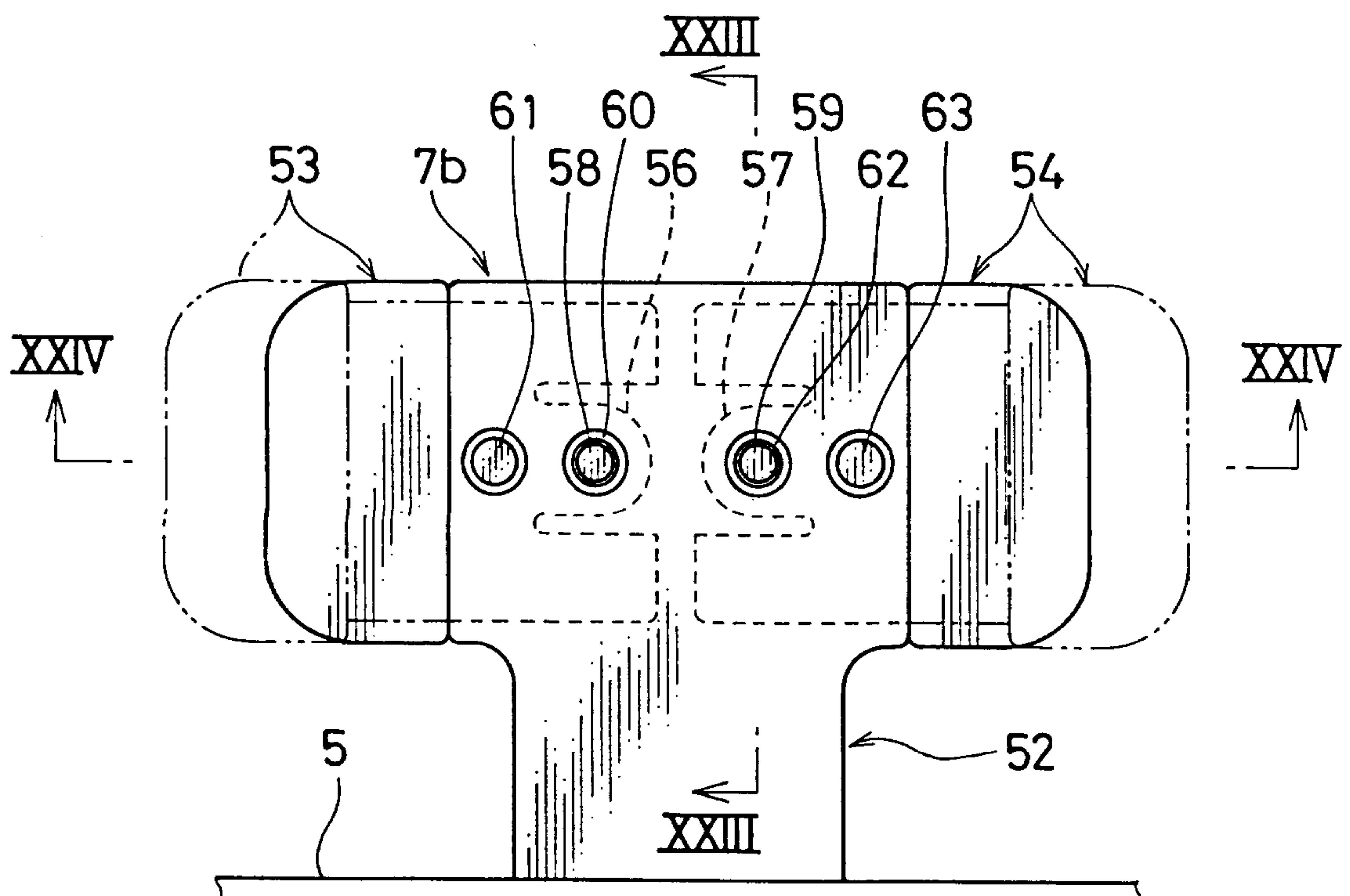


FIG. 23

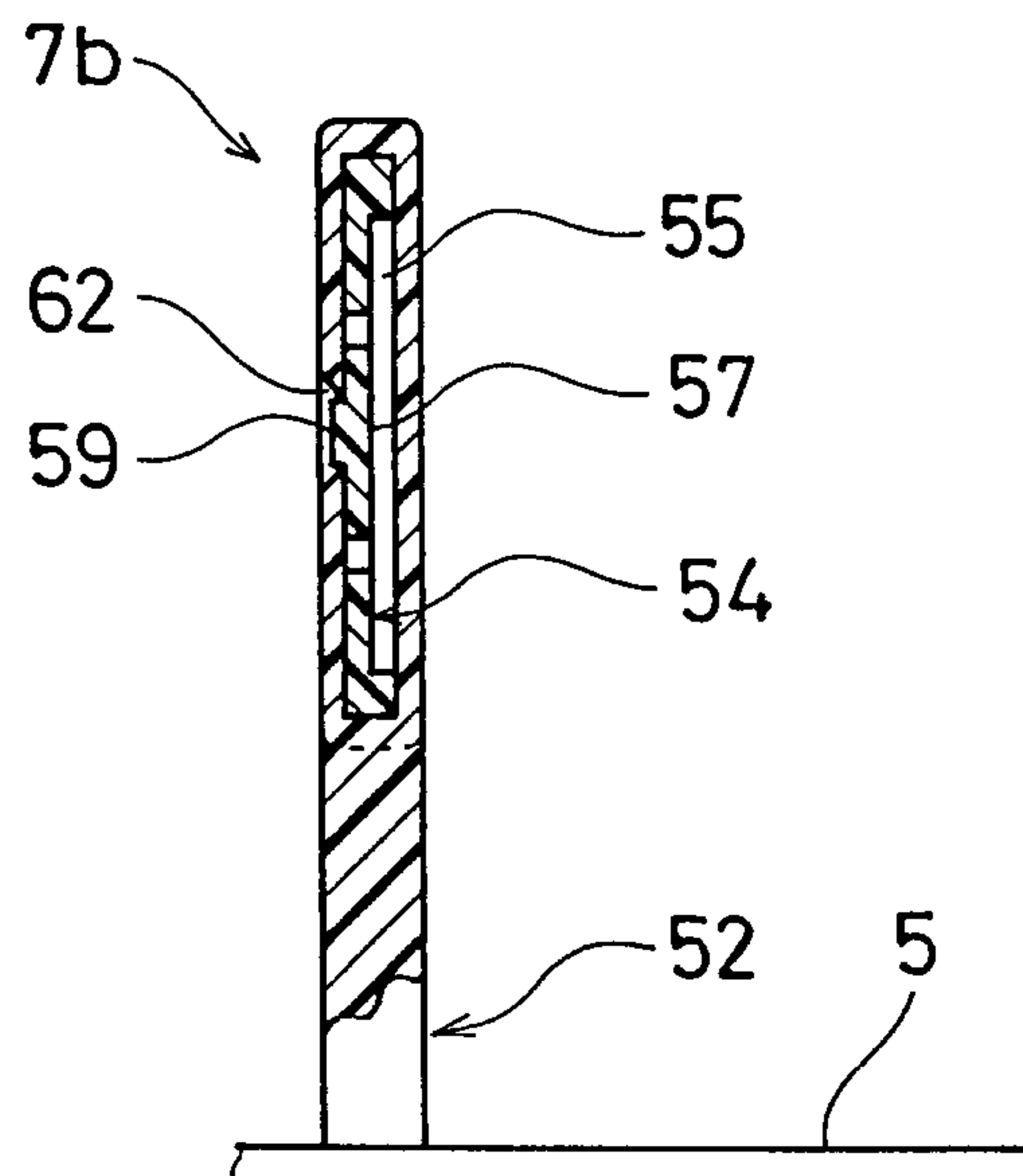


FIG. 24

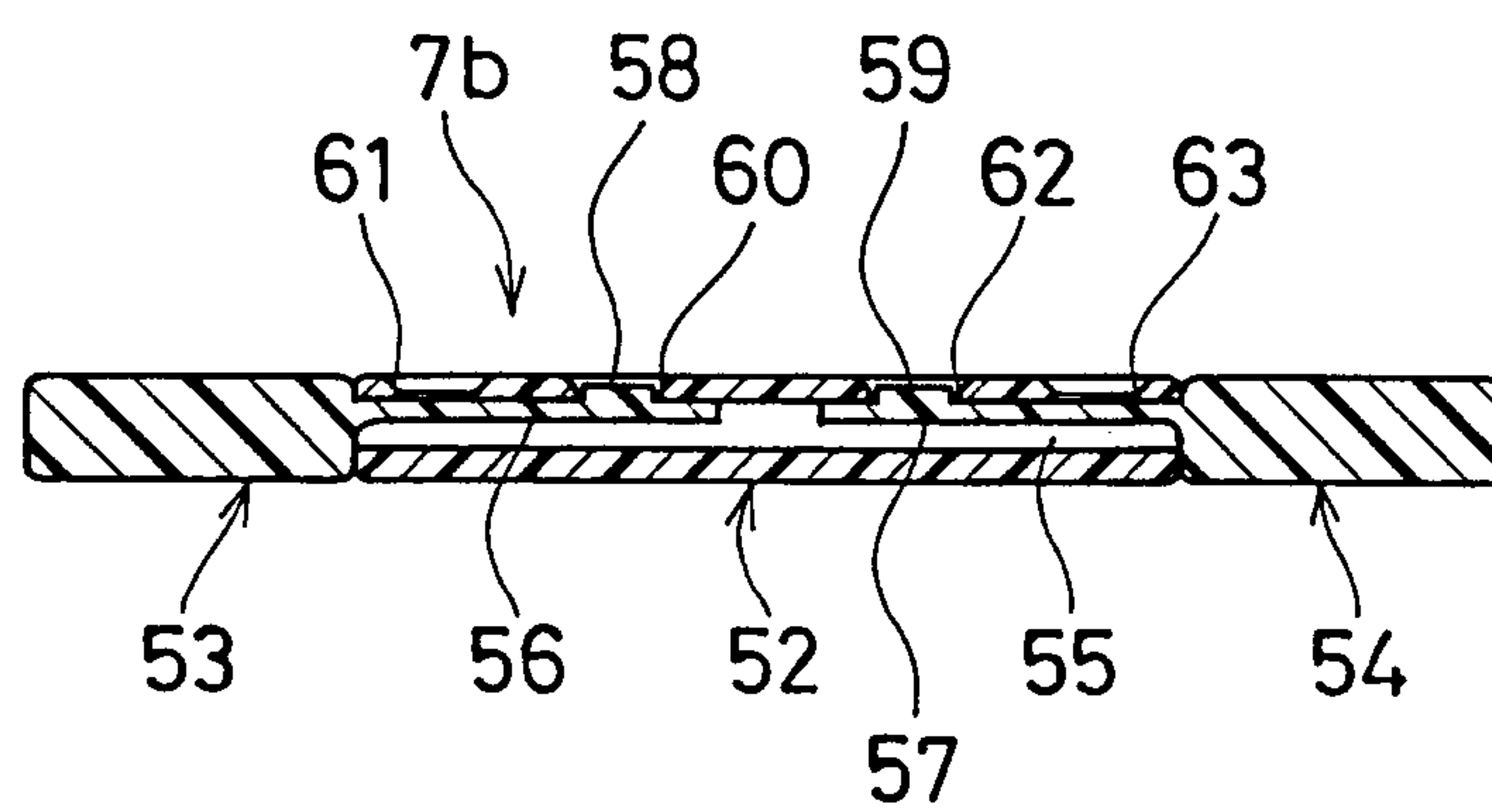


FIG. 25

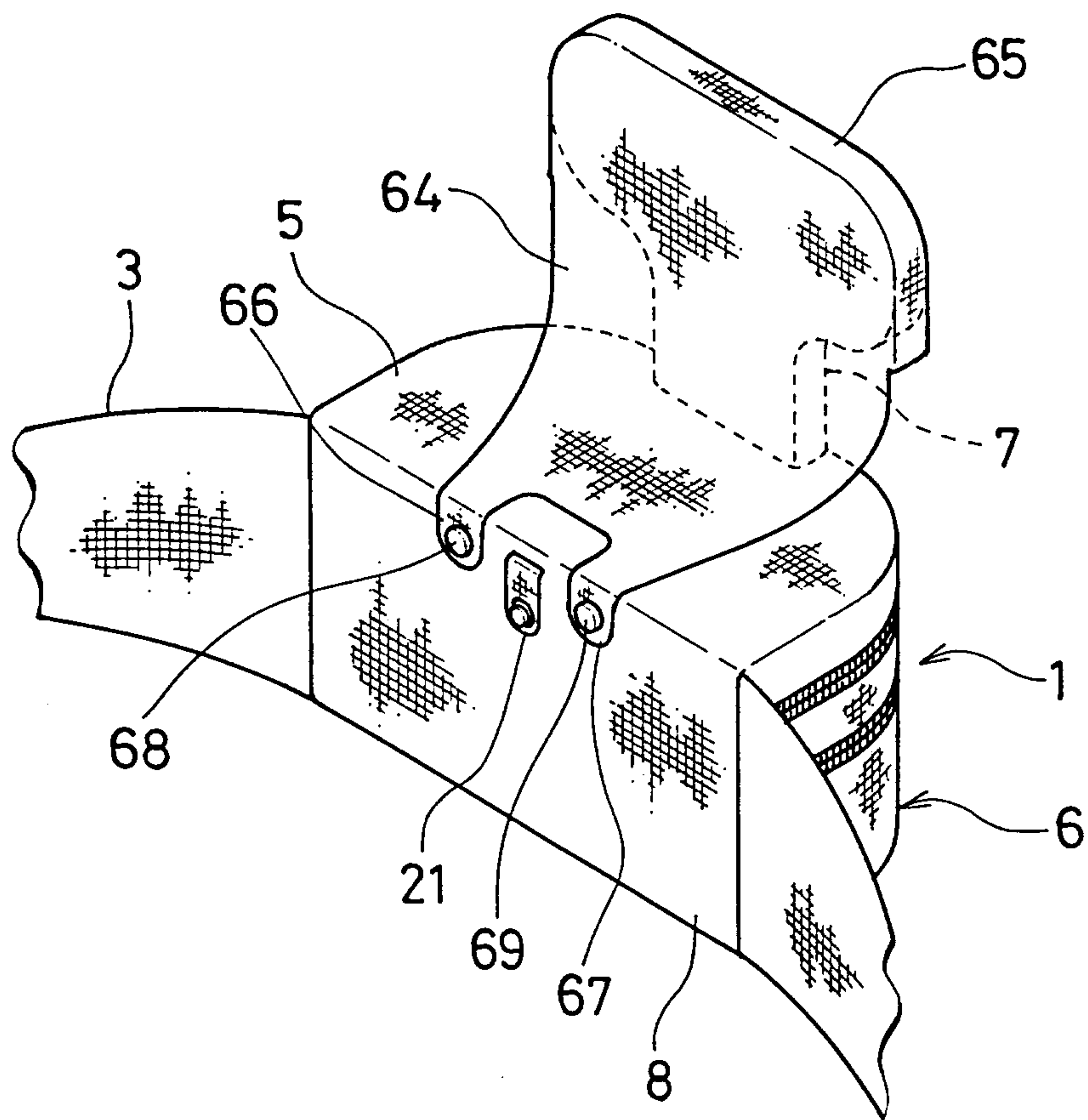


FIG. 27

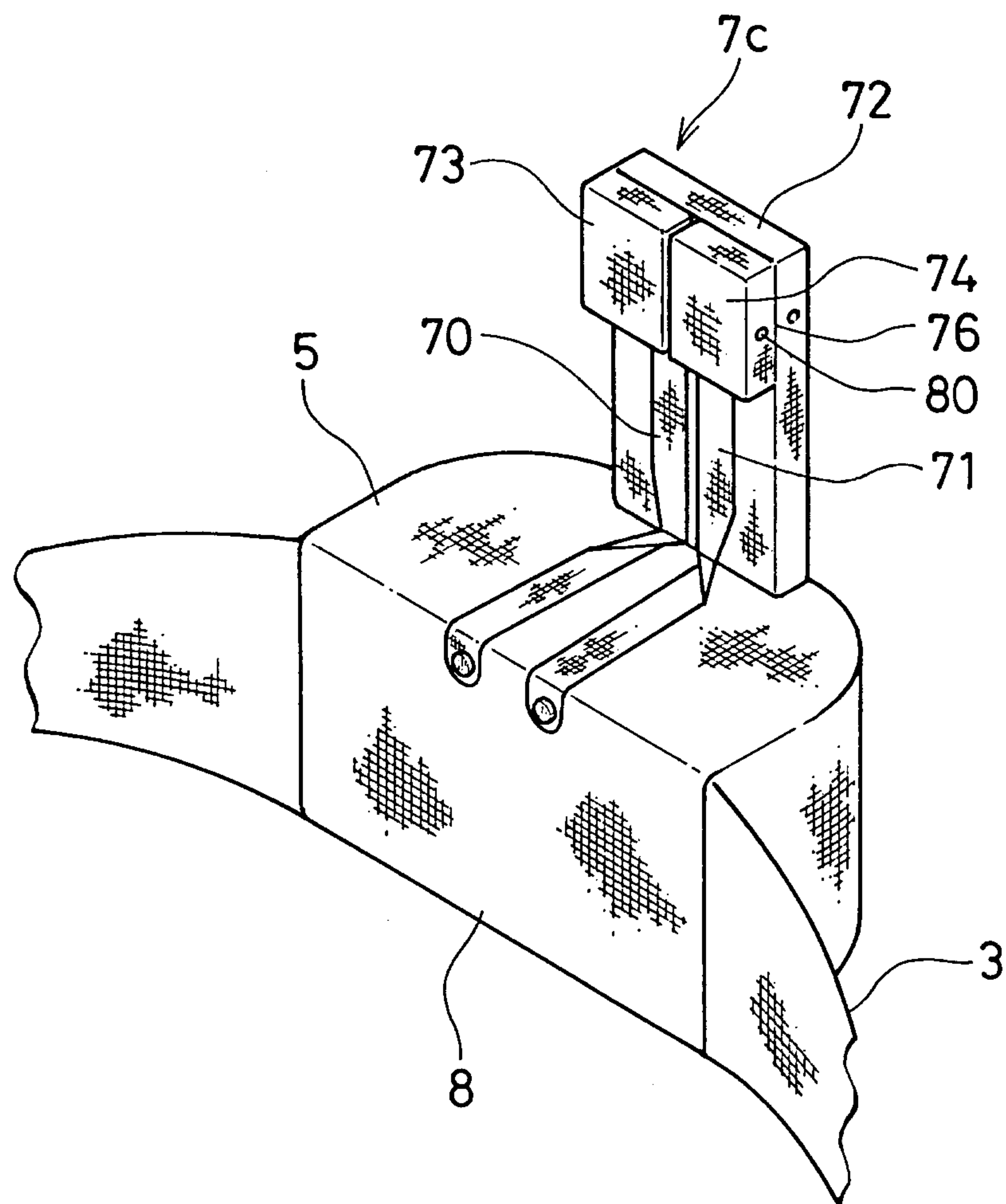


FIG. 28

