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(54) **COSLEEPING AND SITTING SUPPORT DEVICE**

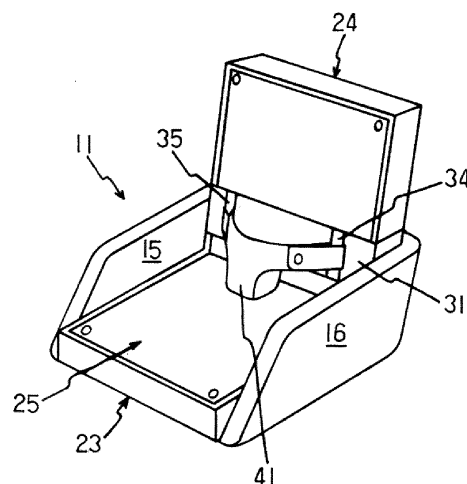
(57) [Problem]

To provide a support tool for bed and seat which is available for use in infant whose age is in a wide range of zero month to several years.

[Solving Means]

The support tool comprises: a main body frame member having a bottom face part, a back face part, and both side face parts; a mattress which is housed in the main body frame member, and is divided into a seat face part and a backrest part; a main belt which is detachably attached after having been passed to an outer circumference of the seat face part or the backrest part of the mattress; and a crotch belt which is detachably attached to the main belt, and is characterized in that, when the support tool is employed for a bed, the mattress is stretched so that the seat face part and the backrest part of the mattress is made flat in shape, a part of which is employed to be placed on the bottom face part of the main body frame member, and when the support tool is employed for a seat, the backrest part of the mattress is abutted against the back face part of the main body frame member and the seat face part of the mattress is placed on the bottom face part of the main body frame member, or alternatively, the mattress is folded to thereby ensure that the seat face part and the backrest part of the mattress are overlapped on each other so that the seat face and backrest parts are employed to be placed on the bottom face part of the main body frame member.

[Fig. 9]



Description**[Means for Solving the Problem]****[Technical Field]**

[0001] The present invention relates to a support tool for bed and seat, and more particularly to a support tool for bed and seat which is available for use in infant whose age is in a wide range of zero month to several years.

[Background Art]

[0002] Conventionally, as support tools for bed, there has been proposed a variety of support tools for bed such as a gap protection comforter for bed or a cushion for bed (refer to Patent Literatures 1 and 2, for example). However, in these conventional support tools for bed, since they are essentially targeted to be available for use in infant whose age is in a range from zero month to several months, there is a problem that each of these tools is not available for use as a support tool for seat suitable for infant whose age is several years.

[0003] On the other hand, conventionally, as support tools for seat, there has been mainly proposed a variety of assembling-type seats for infant (for example, refer to Patent Literatures 3 to 5). However, in these conventional support tools for seat, since they are essentially targeted to be available for use in infant whose age is several years, there is a problem that each of these tools is not available for use as a support tool for bed suitable for infant whose age is in the range of zero month to several months.

[Citation List]**[Patent Literature(s)]****[0004]**

[Patent Literature 1] Japanese Unexamined Patent Application Publication No. 2001-340196

[Patent Literature 2] Japanese Utility Model Registration Publication No. 3186007

[Patent Literature 3] Japanese Unexamined Patent Application Publication No. 2006-68498

[Patent Literature 4] Japanese Unexamined Patent Application Publication No. 2009-6146

[Patent Literature 5] Japanese Unexamined Patent Application Publication No. 2012-205616

[Summary of Invention]**[Problem to Be Solved by Invention]**

[0005] The problem to be solved by the present invention is to provide a support tool for bed and seat which is available for use in infant whose age is in a wide range of zero month to several years.

[0006] The present invention that solves the aforementioned problem relates to a support tool for bed and seat, comprising: a main body frame member having a bottom face part, a back face part and both side face parts; a mattress which is housed in the main body frame member, and is divided into a seat face part and a backrest part; a main belt which is detachably attached after having been passed to an outer circumference of the seat face part or the backrest part of the mattress; and a crotch belt which is detachably attached to the main belt, wherein, when the support tool is employed for a bed, the mattress is stretched so that the seat face part and the backrest part of the mattress is made flat in shape, a part of which is employed to be placed on the bottom face part of the main body frame member, and when the support tool is used for a seat, the backrest part of the mattress is abutted against the back face part of the main body frame member and the seat face part of the mattress is placed on the bottom face part of the main body frame member, or alternatively, the mattress is folded to thereby ensure that the seat face part and the backrest part of the mattress are overlapped on each other so that the seat face and backrest parts are employed to be placed on the bottom face part of the main body frame member.

[0007] The support tool for bed and seat, according to the present invention (hereinafter, simply referred to as the support tool of the present invention), comprises a main body mattress member, a mattress, a main belt, and a crotch belt. The main body frame member generally comprises a frame, a cushion member which is wound around the frame, and a covering member to cover these frame and cushion member, and as a whole, has a bottom face part, a back face part, and both side face parts, and further, a front face part and a top face part each are formed in an opened shape thereof.

[0008] The mattress comprises a cushion member, for example, a planar shape made of a polyester compression cotton, and a covering member to cover the cushion member, and as a whole, is divided into a seat face part and a backrest part. The mattress, when it is folded to thereby ensure that the seat face part and the backrest part are overlapped on each other, is housed in an internal space which is surrounded by the bottom face part, the back face part, and both side face parts of the main body frame member, and when the support tool is employed for bed, the mattress is stretched so that the seat face part and the backrest of the mattress are made flat in shape, a part of which is employed to be placed on the bottom face part of the main body frame member, and further, when the support tool is employed for a seat, the backrest part of the mattress is abutted against the back face part of the main body frame member and the seat face part of the mattress is placed on the bottom face part of the main body frame member or the mattress is folded to thereby ensure that the seat face part and the backrest part of the mattress are overlapped on each

other so that the seat face and backrest parts are employed to be placed on the bottom face part of the main body frame member.

[0009] The main belt, at one end part or both end parts thereof, comprises an engagingly locking means, for example, a pair of Velcro tapes and a pair of a key piece and a lock piece or the like so as to be detachably attached after having been passed to the outer circumference of the seat face part or the backrest part of the mattress. It is preferable that the main belt, when the main body frame member has been placed on the seat, has an equivalent length so as to be able to be detachably attached after having been passed to the outer circumference of the backrest part of the seat as well.

[0010] The crotch belt is intended to detachably attached to the main belt. Although the shape of the crotch belt may be any shape, it is preferable that the shape is a substantial T-shape or a substantial Y-shape in an unfasten state, so that, in this case, both upper pieces and a lower piece, each of which formed in the substantial T-shape or substantial Y-shape, can be detachably attached. For example, ring parts are provided at two portions of the main belt, one upper piece of the crotch belt that has been formed in the substantial T-shape or substantial Y-shape, is passed through one of these ring parts, whereas the other upper piece is passed through the other ring part, and further, both of the upper pieces that have been passed therethrough are folded on each other, both upper pieces are fastened with buttons, and an end part of the lower piece of the crotch belt is fastened with a Velcro tape.

[0011] In the support tool of the present invention, at the backrest part of the mattress and the back face part of the main body frame member, it is preferable to provide attaching means for detachably attaching the backrest part of the mattress to the back face part of the main body frame member. For example, the male shapes of the snap buttons which form a pair are attached to the backrest part of the mattress via a connecting member, whereas the female shapes of the snap buttons are attached to the back face part of the main body frame member, and by means of the snap buttons, the backrest part of the mattress is detachably attached to the back face part of the main body frame member and then the mattress is stabilized.

[0012] Also, in the support tool of the present invention, it is preferable to further comprise an inclined mattress which is employed, when the support tool is employed for a bed, while being sandwiched between the bottom face part of the main body frame part and the backrest part or the seat face part of the mattress placed on the bottom face part, and when the support tool is employed for a seat, the backrest part is formed between the back face part of the main body frame member and the mattress in a folded state thereof. By doing this, when the support tool is employed for a bed, the head part of infant is slightly lifted, and when the support tool is employed for a seat, the backrest part is formed between the back

face part of the main body frame member and the mattress in a folded state thereof; and therefore, the seated posture is stabilized.

[0013] In addition, in the support tool of the present invention, it is preferable to further comprise a subsidiary belt which is passed from the back face part of the main body frame member to the backrest part of the seat, the subsidiary belt detachably attaching the back face part of the main body frame member to the backrest part of the seat. At both end parts of the substantially belt, engagingly locking means to be detachably connected to each other, for example, a pair of Velcro tapes and a pair of key piece and lock piece or the like are provided, both end parts of the subsidiary belt are passed through a plurality of ring parts that have been provided at the back face part of the main body frame member and then are passed to the backrest part, and both end parts are connected to each other by the connecting means. By doing this, the main body frame member can be placed to be stable on the seat face part of the seat.

[Advantageous Effect(s) of the Invention]

[0014] According to the support tool of the present invention that has been described hereinabove, there is attained an advantageous effect that a support tool for bed and seat which is available for use in infant whose age is zero month to several years can be provided.

[Brief Description of Drawings]

[0015]

[Fig. 1] Fig. 1 is a perspective view illustrating a main body frame member of a support tool of the present invention.

[Fig. 2] Fig. 2 is a perspective view illustrating a state in which a mattress of the support tool of the present invention is slightly lifted.

[Fig. 3] FIG. 3 is a plan view illustrating a main belt of the support tool of the present invention in an unfasten state.

[Fig. 4] FIG. 4 is a plan view illustrating a crotch belt of the support tool of the present invention in an unfasten state.

[Fig. 5] Fig. 5 is a side view illustrating an inclined mattress of the support tool of the present invention.

[Fig. 6] Fig. 6 is a back view illustrating a subsidiary belt or the like of the support tool of the present invention and a use state thereof.

[Fig. 7] Fig. 7 is a perspective view illustrating a use state in which the support tool of the present invention is employed for bed.

[Fig. 8] Fig. 8 is a longitudinal sectional view illustrating another use state when the support tool of the present invention is employed for a bed.

[Fig. 9] Fig. 9 is a perspective view illustrating a use state when the support tool of the present invention

is used as a seat.

[Fig. 10] Fig. 10 is a perspective view illustrating another use state when the support tool of the present invention is employed for a seat.

[Fig. 11] Fig. 11 is a perspective view illustrating a further use state when the support tool of the present invention is employed for a seat.

[Fig. 12] Fig. 12 is a perspective view illustrating a furthermore use state when the support tool of the present invention is employed for a seat.

[Description of Embodiments]

[0016] Fig. 1 is a perspective view illustrating a main body frame member of a support tool of the present invention. A main body frame member 11 comprises: a standalone frame, although is not shown; a cushion member, although is not shown, which is wound around the frame; a covering member 12 to cover these frame and cushion member, and as a whole, has a bottom face part 13, a back face part 14, and both side face parts 15, 16, and further, a front face part and a top face part each are formed in an opened shape thereof.

[0017] Fig. 2 is a perspective view illustrating a state in which a mattress of the support tool of the present invention is slightly lifted. A mattress 21 comprises: a cushion member, for example, a flat plate shape, although is not shown, which is made of a polyester compression cotton; and a covering member 22 to cover the cushion member, and as a whole, is divided into a seat face part 23 and a backrest part 24. To the mattress 21, a cover 25 to cover surfaces of the seat face part 23 and the backrest part 24 are detachably attached via snap buttons 26a, 26b, 26c, 26d, and the mattress 21, when it is folded to thereby ensure that the bottom face part 23 and the backrest part 24 are overlapped on each other, is intended to be housed in an internal space which is surrounded by the bottom face part 13, the back face part 14 and both side face parts 15, 16 of the main body frame member 11.

[0018] Fig. 3 is a plan view illustrating a main belt of the support tool of the present invention in an unfasten state. A main belt 31, at both end parts thereof, comprises a pair of Velcro tapes 32, 33 as engagingly locking means; is intended to be detachably passed to the outer circumference of the seat face part 23 or the backrest part 24 of the mattress 21; and has an equivalent length so as to be able to be detachably passed to the outer circumference of the backrest part of the seat when the bottom face part 13 of the main body frame member 11 has been placed on the seat. In the main belt 31, at two portions of a central part, ring parts 34, 35 are formed to be spaced from each other, and onto a back face between the ring part 34 and the ring part 35 as well, a Velcro tape 36 is attached. The ring parts 34, 35 are intended to engagingly lock both upper pieces 42, 43 of a crotch belt 41 which will be described later and the Velcro tape 36 is intended to engagingly lock a Velcro tape 45 of a lower

piece 44 of the crotch belt 41.

[0019] Fig. 4 is a plan view illustrating a crotch belt of the support tool of the present invention in an unfasten state. The crotch belt 41, in an unfasten state thereof, is formed in a substantial T-shape, and both upper pieces 42, 43 and a lower piece 44, each of which is formed in a substantial T-shape, is intended to be detachably attached to the main belt 31. That is, to one upper piece 42 formed in the substantial T-shape, a total of two buttons 42a, 42b are attached to be spaced from each other at a position which is close to a central part, and a total of three button holes 42c, 42d, 42e are punched to be spaced from each other at a position which is close to an end part. Similarly, to the other upper piece 43 as well, a total of two buttons 43a, 43b are attached to be spaced from each other at a position which is close to a central part, and a total of three button holes 43c, 43d, 43e are punched to be spaced from each other at a position which is close to an end part. In addition, on a back face of an end part of the lower piece 44 that is formed in the substantial T-shape, a Velcro tape 45 is attached. One upper piece 42 of the crotch belt 41, which is formed in the substantial T-shape, is passed through one ring part 34 of the main body 31, and the other upper piece 43 is passed through the other ring part 35, both of the upper pieces 42, 43 that has been passed therethrough are folded, any one of the button holes 42c, 42d, 42e of the upper piece 42 is engaged with either one of the buttons 42a, 42b, and any one of the button holes 43c, 43d, 43e of the upper piece 43 is engagingly locked with either one of the buttons 43a, 43b, both upper pieces 42, 43 are fastened with buttons, and the Velcro tape 45 at the end part of the lower piece 44 of the crotch belt 41 is engagingly locked with the Velcro tape 36 of the main belt 31.

[0020] Fig. 5 is a side view illustrating an inclined mattress of the support tool of the present invention. An inclined mattress 51 is slightly large in thickness at one end part and is slightly small in thickness at the other end part that is opposite thereto, and as a whole, comprises: a cushion member, although is not shown, which is smoothly inclined from one end part to the other end part; and a cover 52 to cover this cushion member.

[0021] Fig. 6 is a back view illustrating a subsidiary belt or the like of the support tool of the present invention and a use state thereof. Onto a back face of the backrest part 24 of the mattress 21, a total of two connecting members 24a, 24b are attached to be spaced from each other, and at end parts of the connecting members 24a, 24b, male shapes 24c, 24d of the snap buttons are attached. On the other hand, on a back face of the back face part 14 of the main body frame member 11, a total of two ring parts 14a, 14b are formed to be spaced from each other, and to the ring parts 14a, 14b, female shapes 24e, 24f of the snap buttons are attached. The male shapes 24c, 24d of the snap buttons are engagingly locked with the female shapes 24e, 24f so as to thereby detachably attach the backrest part 24 of the mattress 21 to the back

face part 14 of the main body frame member 11. Through the ring parts 14a, 14b, a subsidiary belt 61 of which length is adjustable is passed, and at both end parts of the subsidiary belt 61, a key piece 61a and a lock piece 61b which is paired therewith are attached, and as described later, the subsidiary belt 61 is passed to the backrest part of the seat and then the key piece 61a is engagingly locked with the lock piece 61b, and the main body frame member 11 can be thereby attached to the seat.

[0022] Fig. 7 is a perspective view illustrating a use state when the support tool of the present invention is employed for a bed. Incidentally, in the drawings illustrating the use states below, conveniently, the same constituent elements as those of Fig. 1 to Fig. 6 will be described with the same reference numerals as those used in Fig. 1 to Fig. 6 being assigned thereto. In Fig. 7, the mattress 21 is stretched so that the seat face part 23 and the backrest part 24 of the mattress 21 are made flat in shape, and the backrest part 24 is placed on the bottom face part 13 of the main body frame member 11. At an intermediate part of the bottom face part 23 and the backrest part 24 of the mattress 21, the main belt 31 is wound around the outer circumference thereof, and to the main belt 31, the crotch belt 41 is detachably attached.

[0023] Fig. 8 is a perspective view illustrating another use state when the support tool of the present invention is employed for a bed. Fig. 8 shows the use state similar to that of Fig. 7 except that an inclined mattress 51 has been interposed between the backrest part 24 of the mattress 21 and the bottom face part 13 of the main body frame member 11. In the case of Fig. 8, the head part of infant is slightly lifted when he or she is laid down on a bed.

[0024] Fig. 9 is a perspective view illustrating a use state when the support tool is employed for a seat. In Fig. 9, the backrest part 24 of the mattress 21 is abutted against the back face part 14 of the main body frame member 11 and the seat face part 23 of the mattress 21 is placed on the bottom face part 13 of the main body frame member 11. At the backrest part 24 of the mattress 21, the main belt 31 is wound around the outer circumference thereof, and to the main belt 31, the crotch belt 41 is detachably attached.

[0025] Fig. 10 is a perspective view illustrating another use state when the support tool of the present invention is employed for a seat. In Fig. 10, the mattress 21 is folded to thereby ensure that the seat face part 23 and the backrest part 24 of the mattress 21 are overlapped on each other, and these seat face and backrest parts are placed on the bottom face part 13 of the main body frame member 11 and further the inclined mattress 51 is sandwiched between the back face part 14 of the main body frame member 11 and the mattress 21 in a folded state thereof. At the inclined mattress 51, the main belt 31 is wound around the outer circumference thereof, and to the main belt 31, the crotch belt 41 is detachably attached.

[0026] Fig. 11 is a perspective view illustrating a further

use state when the support tool of the present invention is employed for a seat. Fig. 11 shows the use state similar to that of Fig. 9 except that the main body frame member 11 is placed on the seat face part of the seat, the back face part 14 of the main body frame member 11 is attached to the backrest part of the seat by means of a subsidiary belt 61 which has been wound around the outer circumference of the backrest part of the seat through the ring parts 14a, 14b of the back face part 14, and the main belt 31 is also wound around the outer circumference of the backrest part of the seat, whereas the crotch belt 41 is omitted. In the case of Fig. 11, the infant is intended to set safer in posture when he or she is seated.

[0027] Fig. 12 is a perspective view illustrating a furthermore use state when the support tool of the present invention is employed for a seat. Fig. 12 shows the use state similar to that of Fig. 10 except that the main body frame member 11 is placed on the seat face part of the seat, the back face part 14 of the main body frame member 11 is attached to the backrest part of the seat by means of the subsidiary belt 61 that has been wound around the outer circumference of the backrest of the seat through the ring parts 14a, 14b of the back face part 14, and the main belt 31 is also wound around the outer circumference of the backrest part of the seat. In the case of Fig. 12 as well, the infant is intended to set safer in posture when he or she is seated.

[Description of Reference Numerals]

[0028]

11	Main body frame member
21	Mattress
31	Main belt
41	Crotch belt
51	Inclined mattress
61	Subsidiary belt

Claims

1. A support tool for bed and seat, comprising:

- a main body frame member having a bottom face part, a back face part and both side face parts;
- a mattress which is housed in the main body frame member, and is divided into a seat face part and a backrest part;
- a main belt which is detachably attached after having been passed to an outer circumference of the seat face part or the backrest part of the mattress; and
- a crotch belt which is detachably attached to the main belt,

wherein, when the support tool is employed for a

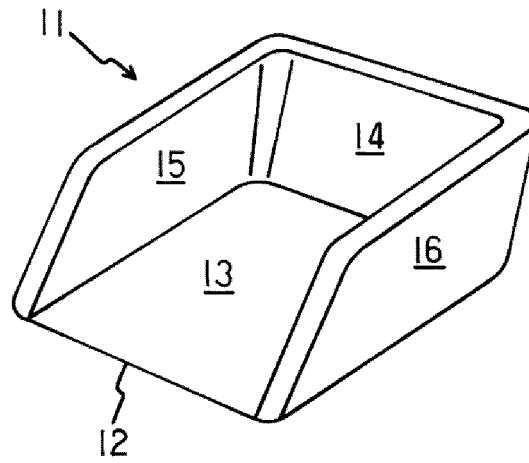
bed, the mattress is stretched so that the seat face part and the backrest part of the mattress is made flat in shape, a part of which is employed to be placed on the bottom face part of the main body frame member, and when the support tool is employed for a seat, the backrest part of the mattress is abutted against the back face part of the main body frame member and the seat face part of the mattress is placed on the bottom face part of the main body frame member, or alternatively, the mattress is folded to ensure that the seat face part and the backrest part of the mattress are overlapped on each other so that the seat face and backrest parts are employed to be placed on the bottom face part of the main body frame member.

2. The support tool for bed and seat, according to claim 1, further comprising attaching means for detachably attaching the backrest part of the mattress to the back face part of the main body frame member.
3. The support tool for bed and seat, according to claim 1 or claim 2, further comprising an inclined mattress which is employed, when the support tool is employed for a bed, while being sandwiched between a bottom face part of the main body frame member and the backrest part or the seat face part of the mattress that is placed on the bottom face part, and which is employed, when the support tool is employed for a seat, while being sandwiched between the back face part of the main body frame member and the mattress in a folded state thereof.
4. The support tool for bed and seat, according to any one of claims 1 to 3, further comprising a subsidiary belt which is passed from the back face part of the main body frame member to the backrest part of the seat, and detachably attaching the back face part of the main body frame member to the backrest part of the seat.
5. The support tool for bed and seat, according to any one of claims 1 to 4, wherein a crotch belt is formed in a substantial T-shape or a substantial Y-shape in an unfasten state thereof, so that both upper pieces and a lower piece, each of which is formed in the substantial T-shape or the substantial Y-shape, are detachably attached to the main belt.

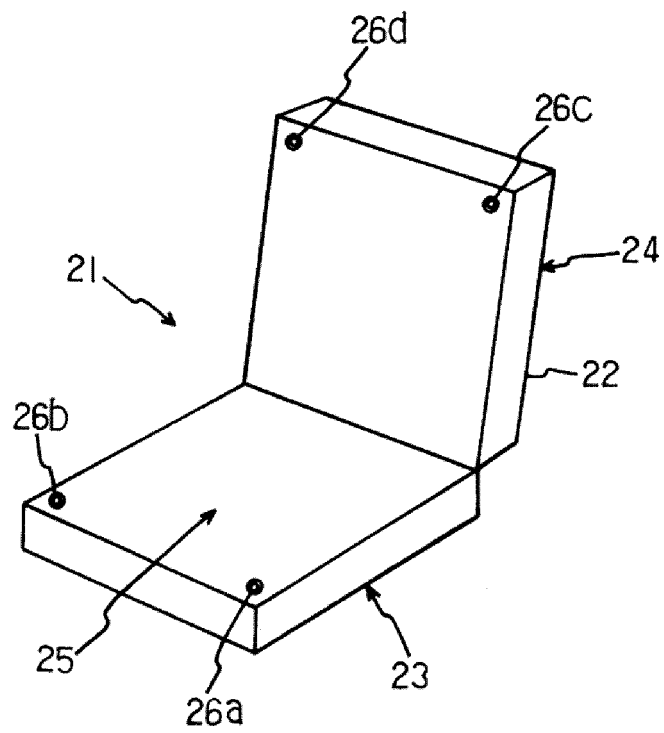
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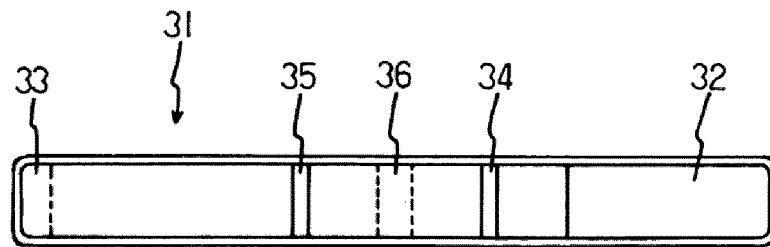
[Fig. 1]



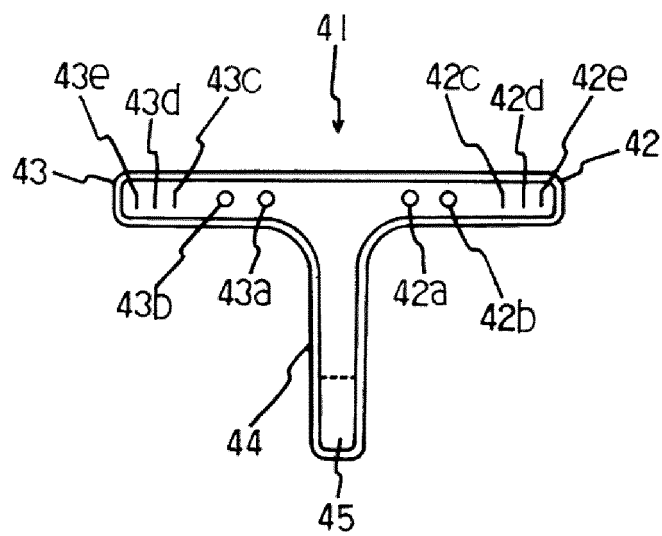
[Fig. 2]



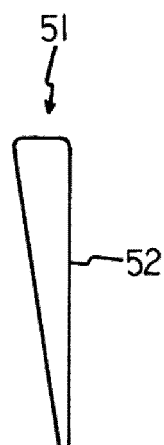
[Fig. 3]



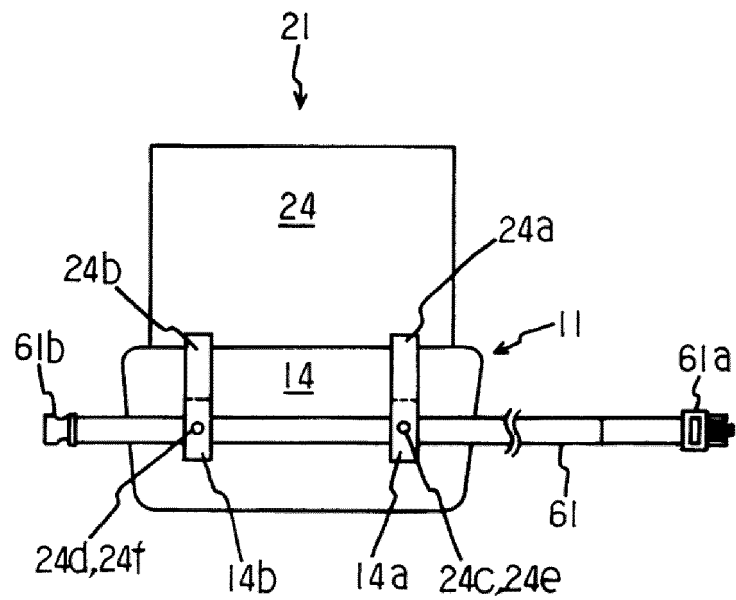
[Fig. 4]



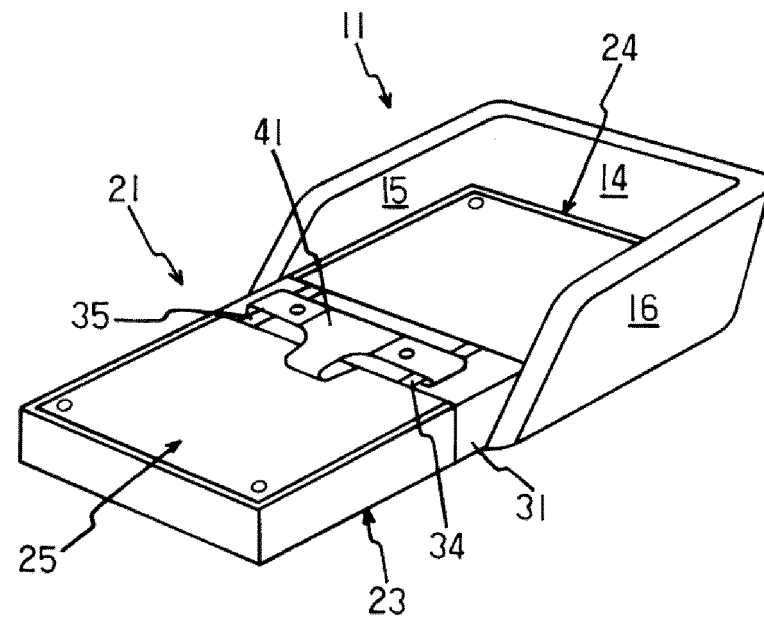
[Fig. 5]



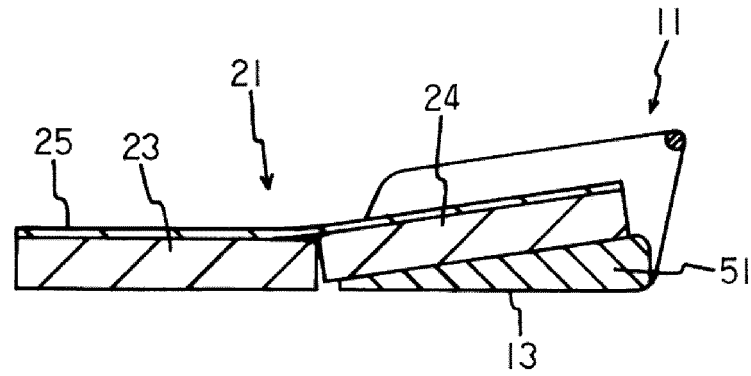
[Fig. 6]



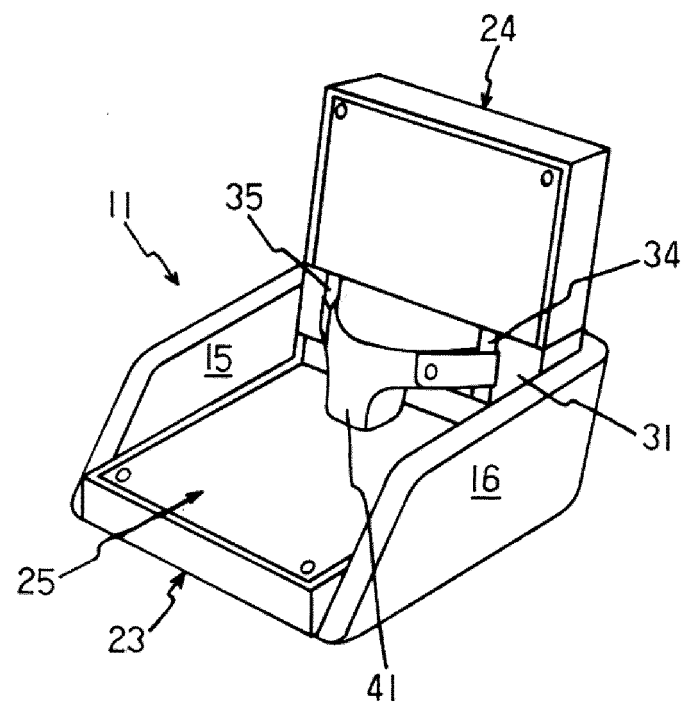
[Fig. 7]



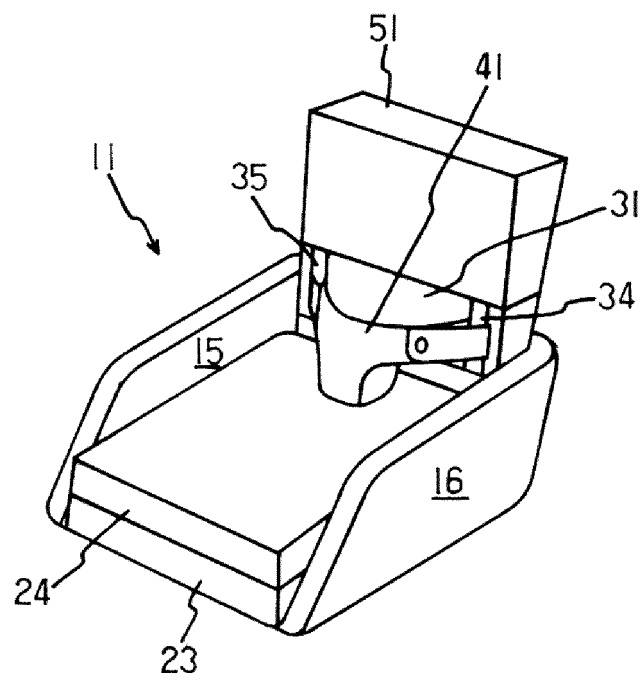
[Fig. 8]



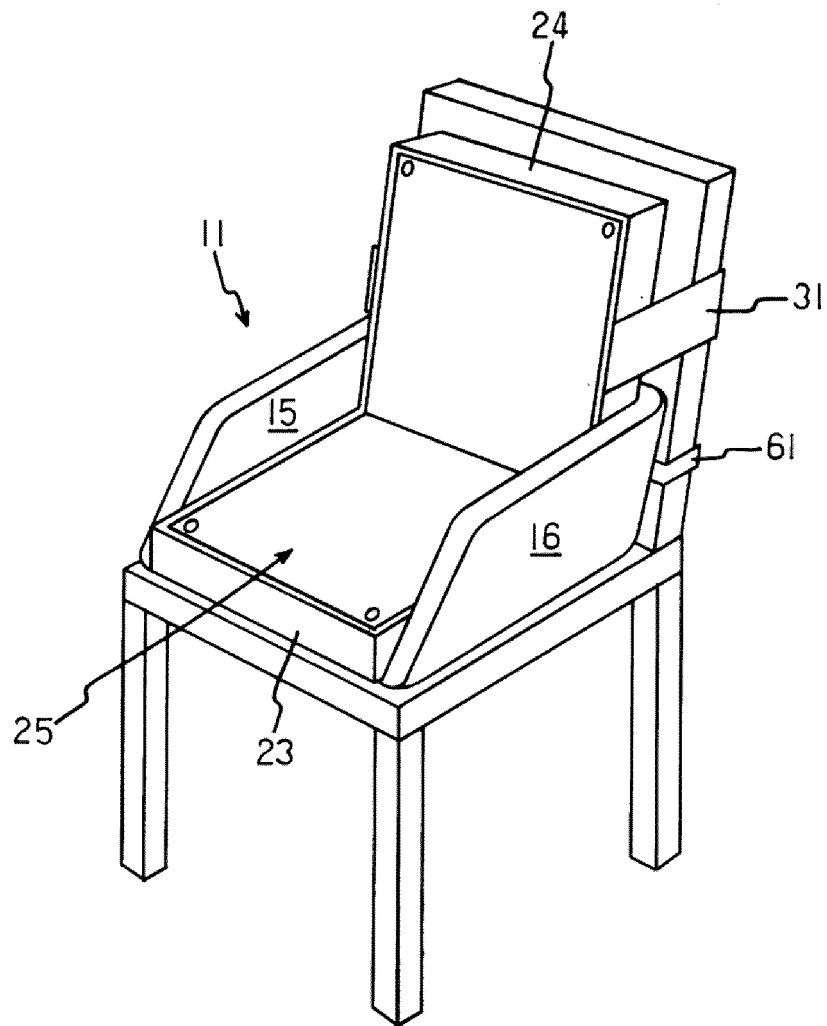
[Fig. 9]



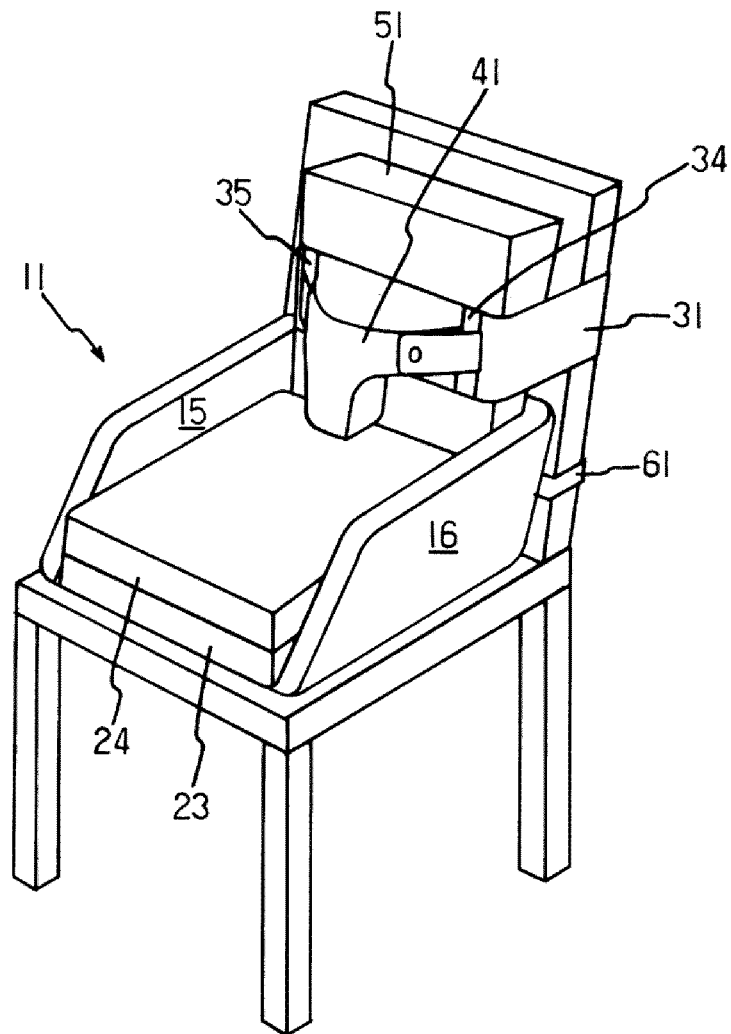
[Fig. 10]



[Fig. 11]



[Fig. 12]



INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2014/060898

A. CLASSIFICATION OF SUBJECT MATTER

A47D11/00(2006.01) i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A47D11/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2014

Kokai Jitsuyo Shinan Koho 1971-2014 Toroku Jitsuyo Shinan Koho 1994-2014

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 7234181 B1 (Christine GRIGGS), 26 June 2007 (26.06.2007), entire text; all drawings (Family: none)	1-5
A	JP 2005-124639 A (Aprica Ikuji Kenkyukai Aprica Kassai Kabushiki Kaisha), 19 May 2005 (19.05.2005), entire text; all drawings & US 2005/0115000 A1 & EP 1525825 A1 & KR 10-2005-0038549 A & CN 1608553 A	1-5

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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Date of the actual completion of the international search

12 May, 2014 (12.05.14)

Date of mailing of the international search report

27 May, 2014 (27.05.14)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

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REFERENCES CITED IN THE DESCRIPTION

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