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(54) **BABY CRIB**

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(73) Proprietor: **Artsana S.p.A.
22070 Grandate (CO) (IT)**

(72) Inventor: **Sozzo, David
22070 Grandate CO (IT)**

(74) Representative: **Perani, Aurelio et al
Perani & Partners
Piazza San Babila, 5
20122 Milano (IT)**

(56) References cited:
**GB-A- 2 501 526 US-A- 6 148 456
US-A1- 2003 126 681 US-A1- 2007 056 097**

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Description

[0001] The present invention relates to a baby crib having a substantially rectangular shape, with a bottom having a mattress of conventional thickness and with perimeter walls made of a flexible material, said bottom and said walls being supported by a frame composed of rod-like elements, wherein at least one of the perimeter walls of greater longitudinal extent comprises a portion that can be detached from the adjacent walls and overturned toward the exterior of the crib on the same wall by being folded around a line substantially parallel to the plane of the bottom of the crib, and wherein the frame of the crib has support members (or legs) that can be adjusted to increase and/or decrease the height of the crib.

[0002] Baby cribs of the above mentioned type are well known in the art and may be particularly used next to an adult bed, namely the bed of the mother or the person who cares for the baby at night, due to the possibility of adapting the height of the crib to the height of the bed (to create a seamless, stepless surface). For instance, a baby crib of this type is known from US2003126681 A1. The crib wall portion that can be detached from the adjacent walls and overturned toward its own wall, will form an opening through which the person who cares for the baby may access the baby without rising from his/her bed.

[0003] While the above structural arrangement provides apparent advantages in addressing nighttime baby-care issues, it still suffers from certain drawbacks, including the problem that, in spite of all the efforts for ensuring that the crib is positioned next to the adult bed with as small a gap as possible therebetween, no one can exclude that, once the wall portion has been overturned, a temporarily unattended baby may come out of the crib through the stationary portion of the wall, which is also made of a flexible material, like that of the overturned portion, and fall within the gap, as small as it is, between the crib and the side of the bed of the adult who is taking care of him/her.

[0004] The object of the present invention is to provide a baby crib that has such a structure as to obviate the above mentioned drawback.

[0005] Such object is fulfilled by a baby crib as defined in the features of claim 1 below.

[0006] The invention will be now described in greater detail with reference to a preferred embodiment thereof, given by way of illustration and without limitation, and shown in the annexed drawings, in which:

- Figure 1 shows a perspective view of the crib of the invention, in a form involving its use in a position far from an adult bed;
- Figure 2 shows a perspective view of the crib of the invention, in a form involving its use next to the side of an adult bed;
- Figure 3 shows a perspective view of the support frame of the crib when the latter is in the form of

Figure 1;

- Figure 4 shows a perspective view of the support frame of the crib when the latter is in the configuration as shown in Figure 2;
- Figure 5 shows the plan view of the support frame of the crib of Figure 4.

[0007] Referring to the above mentioned figures, the baby crib of the invention has a substantially rectangular plan shape with perimeter walls 1, 2, 3 and 4 made of a flexible material, preferably a textile material. Conventionally, these walls also have paddings in certain portions thereof. The opposed walls 2 and 4 have a greater longitudinal extent than the opposed walls 1 and 3. The crib has a bottom 5 which may accommodate a conventional mattress, not shown, whose thickness, for example ranges from 25 to 70 mm, and is preferably 50 mm. At least one of the perimeter walls of greater longitudinal extent, in the illustrated example the wall 4, comprises a portion 6 that can be detached from the adjacent walls 1 and 3 and overturned toward the exterior of the crib on the same wall 4, by being folded around a line 7 substantially parallel to the plane of the bottom 5 of the crib.

[0008] For this purpose, the wall 4 is connected to the adjacent walls 1 and 3 by means of quick reversible detachment means, such as zippers, schematically referenced 8. The detachable and overturnable portion 6 of the wall 4 contains an area, referenced 6a, of adequate size, made of a transparent flexible material.

[0009] The line 7 around which said portion 6 of the wall 4 is overturned is spaced from the bottom 5 of the crib, by the provision of a stationary portion 9 of the wall 4. The height of the stationary portion 9 relative to the plane of the bottom 5 of the crib, with the addition of the conventional thickness of a mattress, not shown, is such that a substantially cylindrical body having a diameter of about 200 mm, a length of about 300 mm and a weight of about 15 kg, when left free to roll on the crib mattress, assuming the latter is tilted about 15 degrees from the bottom 5, from the side proximate the side wall 2 opposite to that 4 comprising said detachable and overturnable portion 6 toward the stationary portion 9 of the wall, is stopped by the latter.

[0010] As a non-limiting example, the distance of the line 7 from the bottom 5 of the crib ranges from 100 to 250 mm, and is preferably 150 mm.

[0011] The walls, 1, 2, 3 and 4 and the bottom 5 that form together the crib of the invention are supported by a frame composed of rod-like elements, generally referenced 10.

[0012] Referring to Figure 3, the frame 10 is shown in the arrangement that it takes when the crib is in the configuration of Figure 1, i.e. a conventional use, with the portion 6 of the wall not overturned.

[0013] Said frame 10 comprises support members 11, 12, preferably a pair of vertical posts 11 and 12. The vertical posts 11, 12 have an inverted T shape. The transverse arm of the T shape forms the base of the posts.

[0014] Preferably, each transverse arm of the T shape underlying the crib wall 4 with the detachable and over-
turnable wall portion 6 has a respective end section, 13a,
14a that can be folded at an angle relative to the rod itself,
by pivoting about respective pins 13b and 14b.

[0015] This structure of the posts 11 and 12 of the sup-
port frame of the crib can reduce the transverse dimen-
sions of the crib at its supports, as more particularly
shown in Figure 4, for it to be moved as close as possible
to the side of a bed of an adult that may take care of the
baby at night without having to get up, by simply over-
turning the portion 6 of the wall 4.

[0016] The rod-like elements 15 and 16 are fixed to the
posts 15 and 16 and are connected by conventional ar-
rangements to the rod-like elements 17 and 18. These
elements are connected by conventional arrangements
to the upper free edges 1a, 2a, 3a, 4a of the walls 1, 2,
3, 4 of the crib, and are thus supported in their vertical
position.

[0017] The posts 11, 12 are configured to increase
and/or decrease the height of the crib from the ground,
such that the crib and its mattress may be brought to the
same height as the mattress of the bed against which
the crib is moved. For this purpose, the posts 11, 12 are
of telescopic type and have lock members (of conven-
tional and per-se known type) for stable configuration
thereof at different heights. As shown in the accompany-
ing figures, the posts 11, 12 are preferably placed at the
side walls 1, 3 of smaller extent (those adjacent to the
overturnable wall 4). It shall be noted that the columns
11, 12 may be configured to allow the bottom 5 to be
tilted relative to the ground.

[0018] Additional rod-like elements 19 and 20, also
connected to the posts 11 and 12, act to support the
bottom 5 of the crib.

[0019] For the crib to maintain its position once it is
moved close to the bed, the crib comprises at least one
belt (not shown), which is rigidly joined to the frame and
can be closed around an element of the bed. Preferably,
the belt is of extensible type (by means of appropriate
buckles) and is rigidly joined to the above mentioned rod-
like element 20 that supports the bottom 5 of the crib.

[0020] In a preferred aspect of the invention, a rod-like
element, generally referenced 21, is connected to the
element 20 and extends in the stationary portion 9 of the
wall 4 with the detachable and overturnable portion 6.
This element 21 comprises a pair of opposed sections
22 which extend along the height of said stationary por-
tion 9 from the plane of the bottom 5 of the crib and at
least one section 23 which extends along at least one
middle section of the length of said stationary wall portion
9. The middle section 23 is smaller in length than the
distance between the two side walls 1, 3 adjacent to the
overturnable side wall 4. In other words, the length of the
middle section 23 is smaller than the width of the over-
turnable side wall 4, such that the latter may be over-
turned and attached to the structure of the crib. The el-
ement 21 is preferably inserted into a pocked formed in

the stationary wall portion 9.

[0021] The presence of the element 21 in the portion
9 imparts the required resistance to the latter, when the
upper portion 6 of the wall 4 is overturned around the line
7 to provide free access to the plane of the crib by the
person that cares for the baby when the crib is next to
the bed.

[0022] When the portion 6 of the wall 4 is detached
from the adjacent walls 1 and 3 and overturned around
the line 7, the ends 18a and 18b of the rod-like element
18 inserted in the free edge 4a of the wall 4 are also
detached from the rod-like elements 15 and 16 and later
placed on appropriate supports 24 and 25 on the posts
11 and 12 of the support frame.

[0023] The dimensions and materials of the crib and
its support frame may be obviously changed as needed,
without departure from the scope of the invention as dis-
closed above and claimed below.

Claims

1. A baby crib having a substantially rectangular plan
shape, with a bottom (5) having a mattress of con-
ventional thickness and with perimeter walls (1, 2,
3, 4) made of a flexible material, said bottom (5) and
said walls (1, 2, 3, 4) being supported by a frame
(10) composed of rod-like elements, wherein at least
one of the peripheral walls (4) of greater longitudinal
extent comprises a portion (6) that can be detached
from the adjacent walls (1, 3) and overturned toward
the exterior of the crib on the same wall (4) by being
folded around a line (7) substantially parallel to the
plane of the bottom (5) of the crib, said crib further
comprising support members (11, 12) for supporting
said frame (10), the bottom (5) and the walls (1, 2,
3, 4) which can be configured to increase and/or de-
crease the distance of the bottom (5) from the
ground, additional rod-like elements (19, 20) con-
nected to said support members (11, 12) supporting
the bottom (5) of the crib, said line around which said
wall portion (6) is overturned being spaced from the
plane of the bottom (5) of the crib by the provision
of a stationary wall portion (9), said frame (10) for
supporting the bottom (5) and the walls (1, 2, 3, 4)
of the crib comprising at least one rod-like element
(21) which extends in said stationary portion (9) of
the wall (4) with the detachable and overturnable por-
tion (6), **characterized in that** said rod-like element
(21) extending in said stationary portion (9) compris-
es a pair of opposed sections (22) which extend
along the height of said stationary portion (9) from
the plane of the bottom (5) of the crib and at least
one section (23) that extends along at least one mid-
dle section of the length of said stationary wall sec-
tion (9) and substantially parallel to the fold line (7).

2. A baby crib as claimed in claim 1, **characterized in**

that said support members (11, 12) comprise a pair of vertical posts for supporting the crib, said posts having an inverted T shape, the transverse arm (13, 14) of the T shape forming the base of the posts, the ends of each transverse arm of the T shape, underlying the wall (4) of the crib having the detachable and overturnable wall portion (6) having a section (13a, 14a) that can be folded at an angle relative to the rod itself.

3. A baby crib as claimed in any of claims 1 and 2, **characterized in that** said support frame (10) for supporting the bottom (5) and the walls (1, 2, 3, 4) of the crib comprises rod-like elements (15, 16, 17, 18) engaged with the edge of said peripheral walls, the rod-like element (18) engaged with the edge (4a) of the wall with the detachable and overturnable portion (6) being adapted to be separated from the rod-like elements (15, 16) engaged with the other peripheral walls and to be attached to said posts (11, 12) when said detachable and overturnable portion (6) is in its overturned position.
4. A baby crib as claimed in any of claims 1 to 3, wherein the flexible material that forms said peripheral walls (1, 2, 3, 4) of the crib is a padded flexible material.

Patentansprüche

1. Babybett, das eine im Wesentlichen rechteckige Grundrissform aufweist, mit einem Boden (5) und einer Matratze mit herkömmlicher Dicke und mit Umfangswänden (1, 2, 3, 4) aus einem flexiblen Material, wobei der Boden (5) und die Wände (1, 2, 3, 4) von einem Rahmen (10) getragen werden, der aus stabartigen Elementen besteht, wobei wenigstens eine der Umfangswände (4) mit größerer Längenausdehnung einen Abschnitt (6) umfasst, der von den angrenzenden Wänden (1, 3) herausgenommen und in Richtung Außenseite des Bettes auf derselben Wand (4) gekippt werden kann, indem er um eine im Wesentlichen parallel zur Ebene des Bodens (5) des Bettes verlaufende Linie (7) geklappt wird, wobei das Bett ferner Tragmittel (11, 12) zum Tragen des Rahmens (10), des Bodens (5) und der Wände (1, 2, 3, 4) umfasst, die ausgebildet werden können, um den Abstand des Bodens (5) vom Fußboden zu erhöhen und/oder zu vermindern, wobei zusätzliche stabartige Elemente (19, 20), die mit den Tragmitteln (11, 12) verbunden sind, den Boden (5) des Bettes tragen, wobei die Linie, um die der Wandabschnitt (6) gekippt wird, durch Vorsehung eines stationären Wandabschnitts (9) von der Ebene des Bodens (5) des Bettes beabstandet ist, wobei der Rahmen (10) zum Tragen des Bodens (5) und der Wände (1, 2, 3, 4) des Bettes wenigstens ein stabartiges Element (21) umfasst, das sich in dem stationären Abschnitt

(9) der Wand (4) mit dem herausnehmbaren und kippbaren Abschnitt (6) erstreckt, **dadurch gekennzeichnet, dass** das stabartige Element (21), das sich in dem stationären Abschnitt (9) erstreckt, ein Paar von gegenüberliegenden Bereichen (22) umfasst, die sich längs der Höhe des stationären Abschnitts (9) von der Ebene des Bodens (5) des Bettes erstrecken, und wenigstens einen Bereich (23), der sich längs wenigstens eines mittleren Bereichs der Länge des stationären Wandbereichs (9) und im Wesentlichen parallel zur Klapplinie (7) erstreckt.

2. Babybett nach Anspruch 1, **dadurch gekennzeichnet, dass** die Tragmittel (11, 12) ein Paar von vertikalen Pfosten zum Tragen des Bettes umfassen, wobei die Pfosten eine umgedrehte T-Form aufweisen, wobei der querverlaufende Arm (13, 14) der T-Form die Basis der Pfosten bildet, wobei die Enden eines jeden querverlaufenden Arms der T-Form, die unter der Wand (4) des Bettes liegen und den herausnehmbaren und kippbaren Wandabschnitt (6) aufweisen, einen Bereich (13a, 14a) aufweisen, der in einem Winkel relativ zum Stab selbst umgeklappt werden kann.
3. Babybett nach einem der Ansprüche 1 und 2, **dadurch gekennzeichnet, dass** der Tragrahmen (10) zum Tragen des Bodens (5) und der Wände (1, 2, 3, 4) des Bettes stabartige Elemente (15, 16, 17, 18) umfasst, die in die Kante der Umfangswände eingreifen, wobei das stabartige Element (18), das in die Kante (4a) der Wand mit dem herausnehmbaren und kippbaren Abschnitt (6) eingreift, dazu geeignet ist, von den stabartigen Elementen (15, 16) getrennt zu werden, die in die anderen Umfangswände eingreifen, und an den Pfosten (11, 12) angebracht zu werden, wenn der herausnehmbare und kippbare Abschnitt (6) sich in seiner gekippten Stellung befindet.
4. Babybett nach einem der Ansprüche 1 bis 3, wobei das flexible Material, das die Umfangswände (1, 2, 3, 4) des Bettes bildet, ein flexibles Polstermaterial ist.

Revendications

1. Lit de bébé ayant une forme plane sensiblement rectangulaire, avec un fond (5) ayant un matelas d'épaisseur conventionnelle et avec des parois périphériques (1, 2, 3, 4) réalisées en matériau flexible, ledit fond (5) et lesdites parois (1, 2, 3, 4) étant supportés par un châssis (10) composé d'éléments en forme de tige, dans lequel au moins une des parois périphériques (4) d'extension longitudinale supérieure comprend une portion (6) qui peut être détachée des parois adjacentes (1, 3) et renversée vers

l'extérieur du lit sur la même paroi (4) en étant pliée autour d'une ligne (7) sensiblement parallèle au plan du fond (5) du lit, ledit lit comprenant en outre des éléments de support (11, 12) pour supporter ledit châssis (10), le fond (5) et les parois (1, 2, 3, 4), qui sont configurés pour augmenter et/ou diminuer la distance du fond (5) par rapport au sol, des éléments additionnels en forme de tige (19, 20) connectés auxdits éléments de support (11, 12) supportant le fond (5) du lit, ladite ligne autour de laquelle ladite portion de paroi (6) est renversée étant espacée du plan du fond (5) du lit avec la disposition d'une portion de paroi fixe (9), ledit châssis (10) pour supporter le fond (5) et les parois (1, 2, 3, 4) du lit comprenant au moins un élément en forme de tige (21) qui s'étend dans ladite portion fixe (9) de la paroi (4) avec la portion détachable et renversable (6), **caractérisé en ce que** ledit élément en forme de tige (21) s'étendant dans ladite portion fixe (9) comprend une paire de sections opposées (22) qui s'étendent suivant la hauteur de ladite portion fixe (9) à partir du plan du fond (5) du lit et au moins une section (23) qui s'étend le long d'au moins une section centrale de la hauteur de ladite portion fixe (9) et sensiblement parallèle à la ligne de pliage (7).

2. Lit de bébé selon la revendication 1, **caractérisé en ce que** lesdits éléments de support (11, 12) comprennent une paire de montants verticaux, pour supporter le lit, lesdits montants ayant une forme de T inversé, le bras transversal (13, 14) de la forme de T formant la base des montants, les extrémités de chaque bras transversal de la forme de T, disposées au-dessous de la paroi (4) du lit ayant la portion de paroi détachable et renversable (6) ayant une section (13a, 14a) qui peut être pliée pour former un angle par rapport à la tige elle-même.
3. Lit de bébé selon l'une quelconque des revendications 1 et 2, **caractérisé en ce que** ledit châssis de support (10) pour supporter le fond (5) et les parois (1, 2, 3, 4) du lit comprend des éléments en forme de tige (15, 16, 17, 18) engagés avec le bord desdites parois périphériques, l'élément en forme de tige (18) engagé avec le bord (4a) de la paroi avec la portion détachable et renversable (6) étant adapté pour être séparé des éléments en forme de tige (15, 16) engagés avec les autres parois périphériques et pour être attaché auxdits montants (11, 12) quand ladite paroi détachable et renversable (6) est dans sa position renversée.
4. Lit de bébé selon l'une quelconque des revendications 1 à 3, dans lequel le matériau flexible qui forme lesdites parois périphériques (1, 2, 3, 4) du lit est un matériau flexible rembourré.

FIG 1

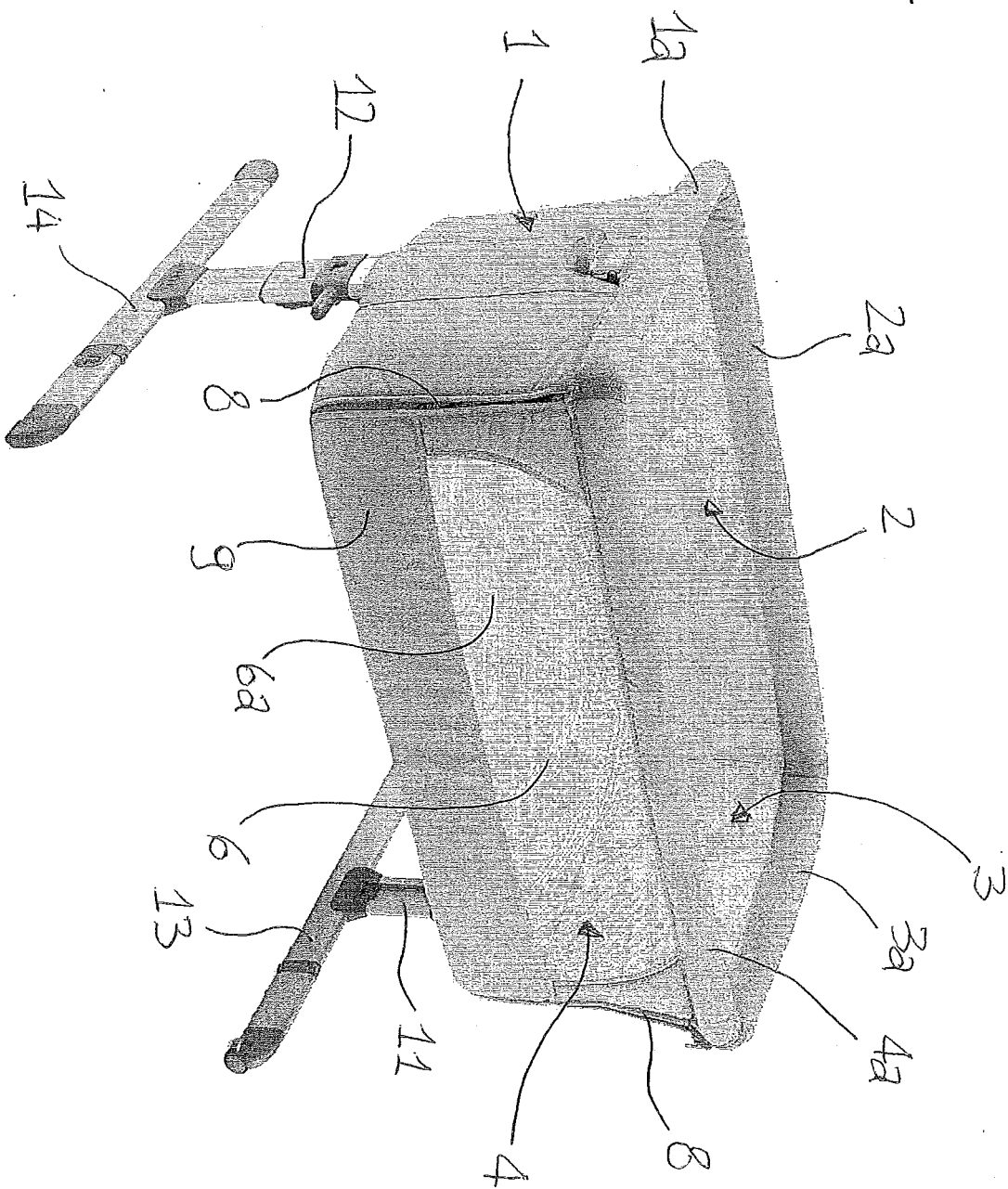


FIG 2

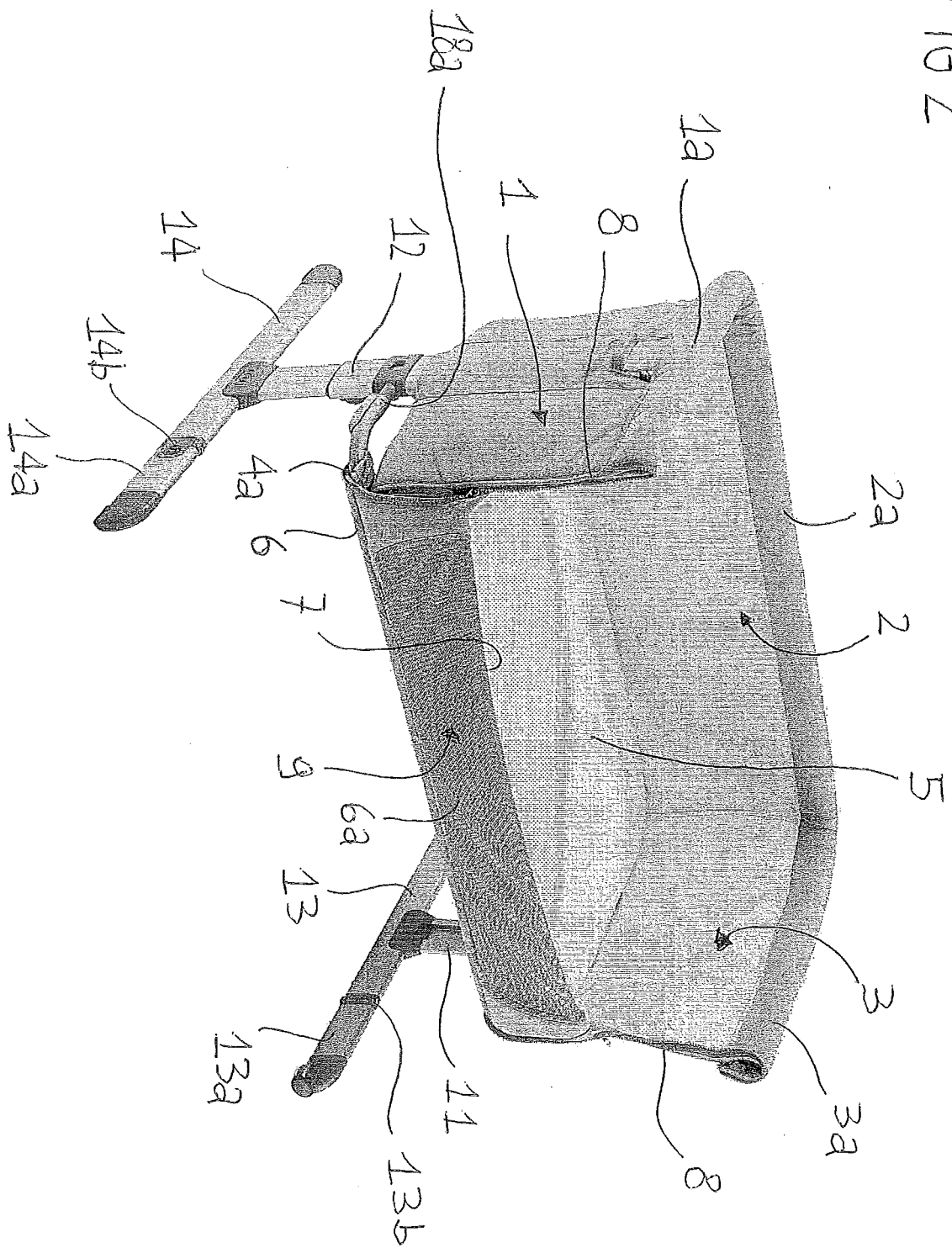


FIG 3

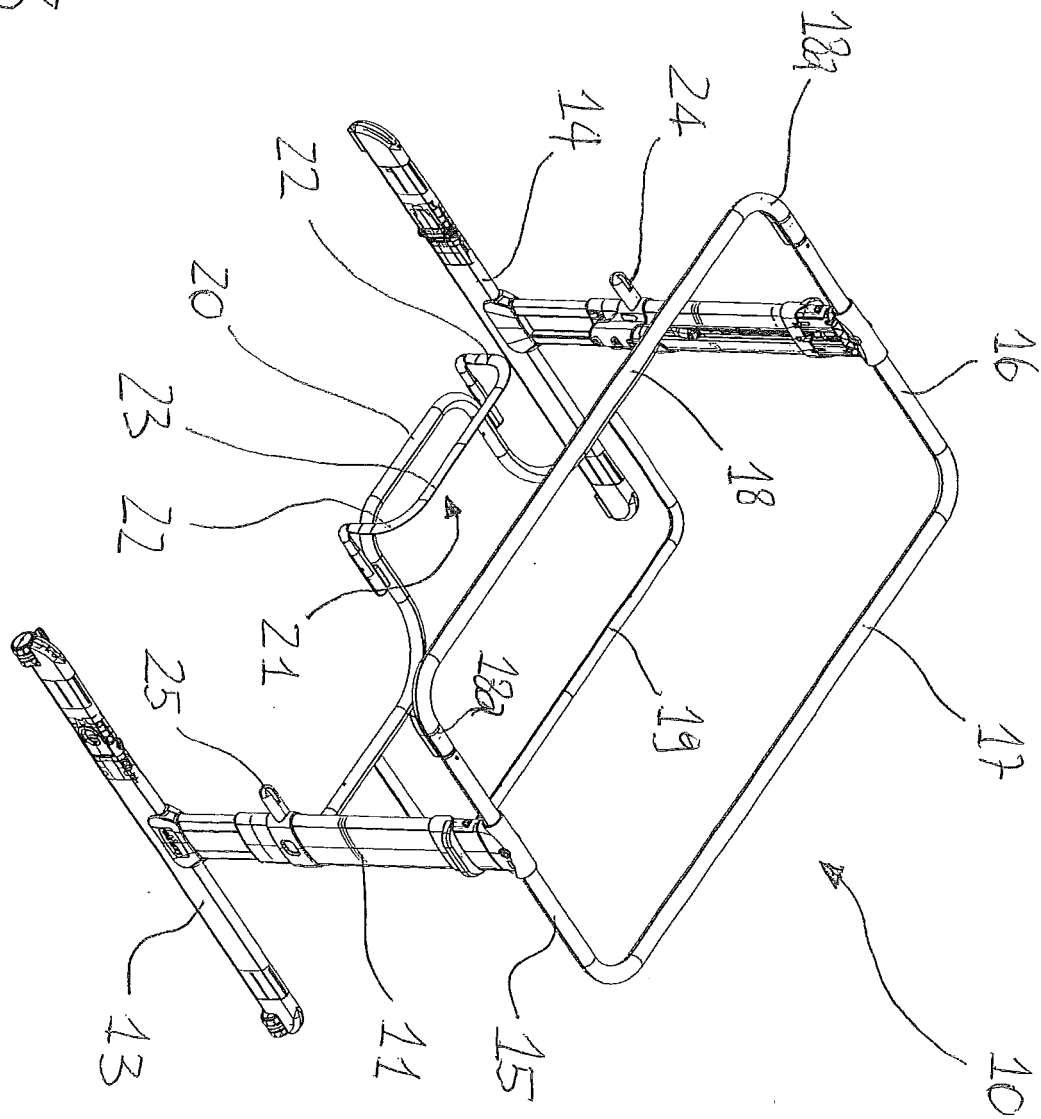
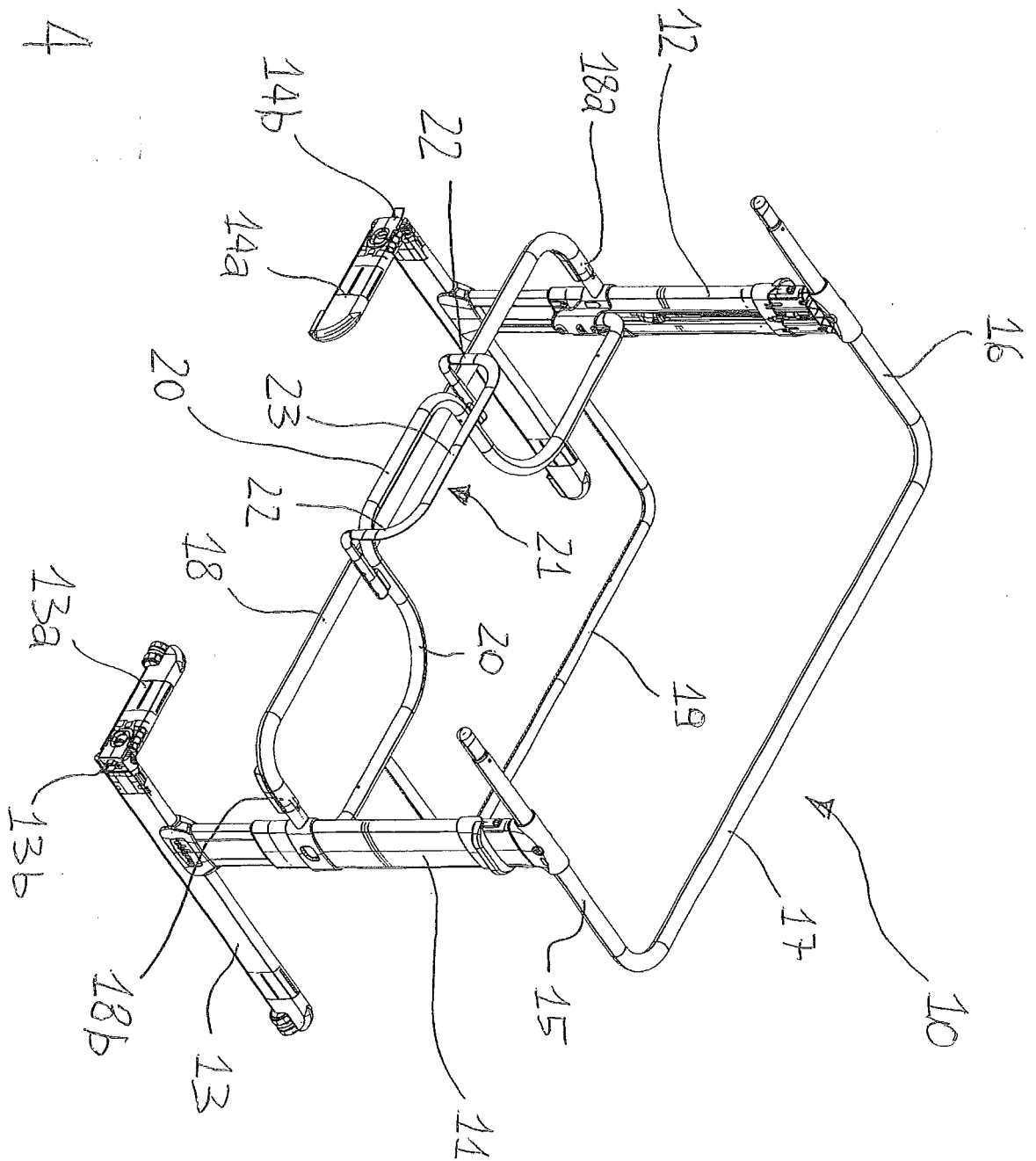
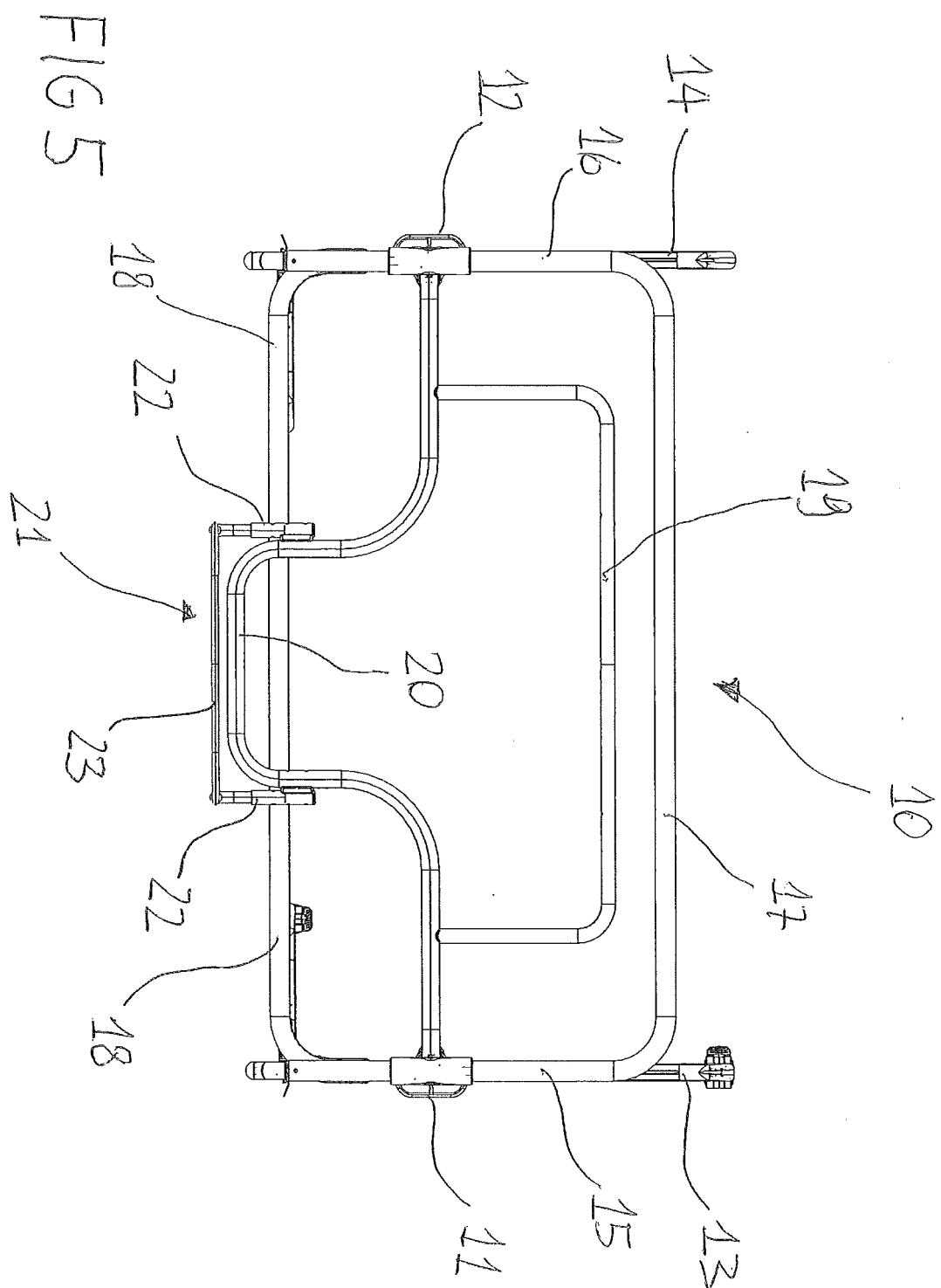


FIG 4





REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 2003126681 A1 [0002]