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(72) Inventors; and

(71) Applicants : SCHNEIDER, Wesley Adriano Candine
[BR/BR]; Rua Doutor Homem de Melo, 1109, CEP:
05007-002, São Paulo - SP (BR). SCHNEIDER, Nélli
Angélica Matos [BR/BR]; Rua Doutor Homem de Melo,
1109, CEP: 05007-002, São Paulo - SP (BR).

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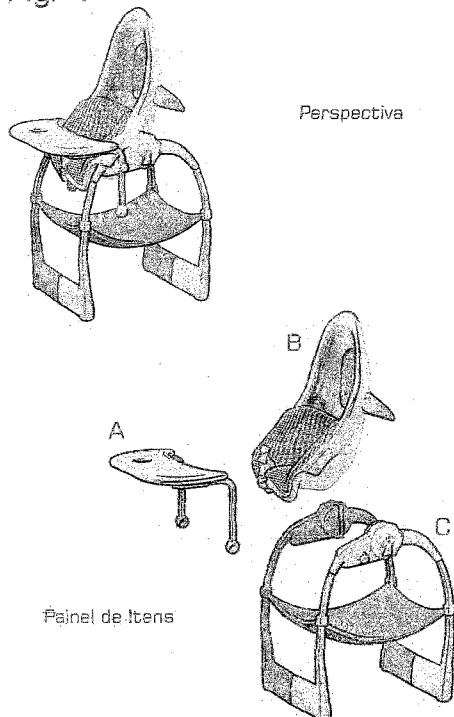
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

(54) Title: BABY CHAIR/BATHTUB

Fig. 1



(57) Abstract: Invention patent of a baby feeding table and bathtub comprised by a container used both vertically and horizontally, adjustable according to the role to be performed. Invention sustained by four foldable constant rods (C) where there are straps (17 and 18) responsible for adjusting the model. Attached to it is the board (A), which simultaneously performs the role of little table (for feeding FIG. 2) and object holder (for bathing), which has a chamber (4), respectively designed to be a bottle holder and shampoo holder, according to the activity performed. The main object of this patent is the combination of several extremely needed items: feeding table (FIG. 1), bathtub (FIG. 6), chair for carrying the baby in the vehicle (FIG. 9), basket (FIG. 10), chair for transporting the baby on the bicycle (FIG. 11), baby stroller (FIG. 12), or, everything in one single element, and it may come with accessories and support items. The support (E) is part of the present patent, being formed by a safety item based on springs and a rotation pivot that may be an accessory in the chair mode for transporting the baby in the vehicle (or any other chair used for such purpose). This patent is further characterized for its practicality, convenience and efficiency, since these are foldable items that may be transported in trips.

Title: "BABY CHAIR/BATHTUB"

The present invention is intended to help bathing and feeding the baby simultaneously. This systematic cross-function construction changes the concepts of both baby feeding chair and bathtubs that already exist in the market, showing increased practicality and efficiency in the activities involved.

Currently, adults must feed and bath their babies where it is comfortable and proper for doing both. Baby food is offered in a high vertical-shaped chair that encloses his body, allowing him to feed himself. The bathtub has a horizontal shape, generally requiring a support where it is placed for bathing the baby. The cross-functionality makes this invention totally efficient, allowing increased convenience and performance in these activities, saving space, time and money.

Both baby chair and bathtub become quickly useless, since babies grow up fast, time when people see themselves surrounded with useless objects and furniture.

Another problem is the difficulty of fitting this specific furniture in domestic places and, further, the difficulty of cleaning it, and those in charge must clean each of such items and objects separately. This results in unessential time demand, because with the novelty now submitted, instead of cleaning the chair, bathtub and then the baby, it is possible to do it all at the same time.

All of this evidences the need of grouping functions, increasing the efficiency and practicality through a totally innovative system, which makes the cleaning easier avoiding rework. Furniture preservation is favored by a multipurpose material and its storage is facilitated insofar now there are many furniture items unified in one.

The materials used for building this innovative item made it possible to use it both at the time of feeding and bathing the baby, in order to make

the cleaning easier and provide more convenience by opting for such new product. Such materials may be of plastic (in item A: 1, 2, 5 and 6; in item B: 7, 10, 11 and 13, and in item C: 14, 15, 16, 17, 18, 19, 21, 22, 23), aluminum (in item A: 1 and 3; in item C: 16, 17, 18, 21 and 22) and fabrics (in item B: 8, 9 and 12; in item C: 20), for instance, or any other, depending on the user's convenience.

The attached drawings show the chair-bathtub arrangement:

FIG. 01 Perspective view of the chair shape and panel of items: A, B and C.

FIG.02 View and detailing of item A.

FIG.03 View and detailing of item B.

FIG. 04 View and detailing of item c.

FIG. 05 View of the front and side transformation consecutively.

FIG. 06 Perspective view of the bathtub shape withdrawing the cushion component.

FIG. 07 Bathtub shape with option of disengagement for cleaning it and even transportation for bathing anywhere else.

FIG. 08 View of the system responsible for the chair to bathtub transformation.

FIG. 09 View of baby car chair in vehicle with the safety support with springs.

FIG. 10 Basket shape for transporting the baby by holding the handles.

FIG.11 Chair for transporting the baby on the bicycle.

FIG.12 Baby stroller shape.

It consists of an invention (FIG. 1 and FIG. 8) that has as its main characteristic the multiplicity resulting from combining four rods (C) that secure the main base (B). The following are among the accessories for the baby feeding chair mode:

- 1 • The safety belt (12): made with elastic material to help
2 transforming it from chair into bathtub.
- 3 • The support (8): made with anti-skidding material
- 4 • The cushion (9): made with cushioned material, which may be
5 easily removed, appearing as optional item.
- 6 • The little net (20): located in the rod (C), intended to hold the
7 baby accessories.
- 8 • The little chair (A) with bottle holder (4), all to provide the baby
9 with comfort and safety at the time he is fed.

10 The little table (A), as well as the chair (B), is totally adjustable to the
11 baby's size and weight. It is adjusted both in the height by the strap (18)
12 with a fitting through small holes in the support (3), and in the depth by the
13 adjuster (2). Such actions are verified in FIG. 5.6. The whole chair-bathtub
14 system consists of little straps (17 and 18) where the adult can make the
15 proper adjustments without harm to the baby's safety.

16 For the transformation to the bathtub mode (FIG. 5), the safety strap
17 is unlocked (18), the little chair is lifted (FIG. 5.2), the cushion is removed
18 (FIG. 6.2), both side straps are unlocked (17 and 18), and it is inclined to
19 the position and angle comfortable for the baby (FIG. 5.3 and 5.7), the
20 same straps are locked and the container is filled (13) with water according
21 to its capacity.

22 Such transformation is possible only by the system that involves the
23 rotary disk (14) and the fixed disk (15), as seen in FIG. 4.2 and FIG. 4.4.
24 When we unlock the strap (17) we may lay down the main base or put it to
25 the chair mode (FIG. 8).

26 The bathtub mode is supported by the same four rods (C)
27 interconnected to the main base (B). There is a tongue-fitting rail (7) on the

1 main base (B) and a groove-fitting rail (24) in the rods (C), both secured by
2 the lock (17). In this bathtub mode, the baby is assisted by the anti-skidding
3 support (8) preventing him from sliding or drowning. There is also a small
4 hatch (10) in the bathtub bottom where the water is drained off.

5 The little table of the previous mode is now used to assist the adult in
6 bathing the baby (FIG. 6.3), and the baby items may be placed there, with
7 the same chamber (4) now being used as shampoo/hair conditioner holder.

8 In FIG. 7.1 the main base (B) is withdrawn from the rod (C)
9 disengaging the strap (17) for cleaning the component or even for bathing
10 anywhere else. In this case the support (11) has the role of leveling the
11 main base (B) and providing safety and stability to the procedure (FIG. 7.2).
12 In addition to all proposed convenience, by adding wheels to the invention it
13 is possible to make it even more practical, as shown in FIG. 12, when the
14 chair is in its baby stroller mode. Safety locks may be added here as seen
15 in FIG. 12.1

16 In FIG. 09, the chair for carrying the baby in the vehicle represented
17 by (D) is seen. The main base (B) is placed on the support (E). This
18 support may be used in any other type of chair for transporting the baby in
19 the vehicle and have any shape or size. The support (E) is innovative
20 because of the spring devices (FIG. 9.7) ,which increase the safety in the
21 chair mode for transporting the baby in the vehicle. In FIG. 9.8, one can see
22 the rotation pivot where, in case of vehicle crash (D), there is dramatic
23 decrease of the gravitation force, thus softening the impact for the child,
24 through a rotary movement. In 9.3, there is the set formed of car
25 transportation chair with safety belts for the baby. The chair can also be
26 used by fitting it to the bicycle, as in FIG. 11.

27 In FIG. 10, the chair gains the accessory (F) and is transformed into
28 chair for transporting the baby by holding the support handle.

1 In FIG. 12, the chair is shown in its stroller shape, where little wheels
2 (G) are placed in the foldable rod (H), which may be used and kept in trips.
3 Like the entire system, it is also dismountable. In FIG. 12.1, one can see
4 the safety lock needed in the stroller mode.
5

CLAIMS

BABY CHAIR/BATHTUB

1) "BABY CHAIR/BATHTUB" refers to a container intended not only for bathing (as a bathtub) or feeding (as a baby chair) the baby, both already existing in the market. Among other implements, it may serve to accommodate the baby in the vehicle, bicycle, as stroller or a basket for transporting him by hand. All previous implements are known in the market; however, the item object of this patent is characterized for acquiring multiple functionalities through converter systems and accessories. Hence the innovation. (FIG. 4 and FIG. 8)

2) Through an additional support, the chair/bathtub/stroller may further serve as a chair to carry the child safely in the vehicle, only by removing the chair with the cushion from the set and securing it to the support (E) in the vehicle (FIG. 09).

3) Support (E) can be used in any other chair to transport the baby in the vehicle; however, its innovative spring system (detailed in the descriptive report) with the rotation pivot (9.7 and 9.8) consists of an accessory originally belonging to this chair, being therefore patented now.

4) There may be another functionality by adding little wheels (G) to the base of the four main rods (H) transforming it into a baby stroller according to FIG. 12. The rods are foldable and may be easily transported.

5) As in FIG. 10, by adding a handle (F), it is possible to transport the baby as in a basket where he may rest or sleep. The chair portion may be fitted to the bicycle in order to also transport the baby, FIG. 11.

6) In its vertical position, the front part of such container is equipped with a horizontal board that forms a little table (A), with a chamber (4) for glasses or bottles. In the horizontal position of such container, this same board may be used as a shelf and its chamber as a shampoo/conditioner

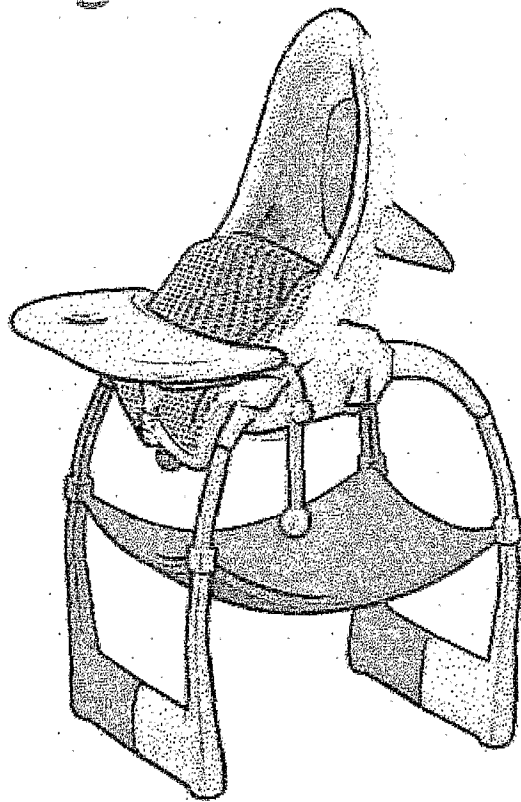
holder. The chair/bathtub is characterized for having conversion mechanisms, which allow it to be used in parallel.

7) The chair can also have a funny or simpler mode, without compromising its safety. There may be many shapes, colors and sizes, according to the user's taste, need and purchasing power, thus making from the subject matter of this patent the innovative system of functional junction evidenced in the previous items.

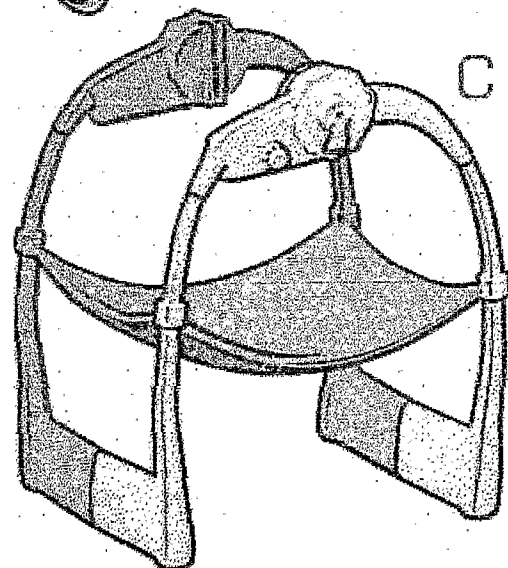
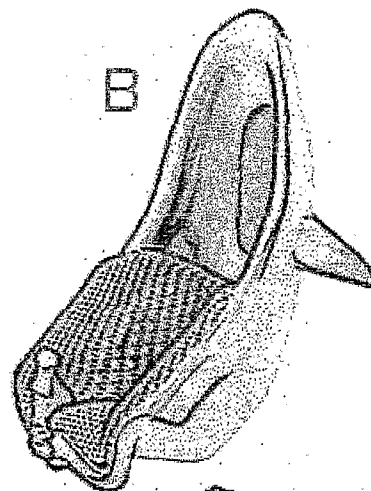
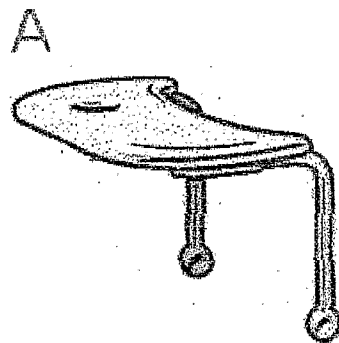
8) The manufacturing material is characterized for the easiness to clean it, being always in contact with water given the multipurpose feature. The cushion option consists of a comfort item for the baby, which may be removed easily according to the activity performed.

9) Transformation of chair (FIG. 1) into bathtub (FIG. 6.3) is possible thanks to two disks: a rotary disk (14) with a groove rail (24) and a disk (15) secured to the junction (25) of the rods (22), which allow mobility in the rotation axis. Rotation may be adjusted by loosening the strap (17), which is fitted to the hole (16) as verified in FIG. 4.2 and FIG. 8.

Fig. 1



Perspectiva



Painel de Itens

Fig. 2

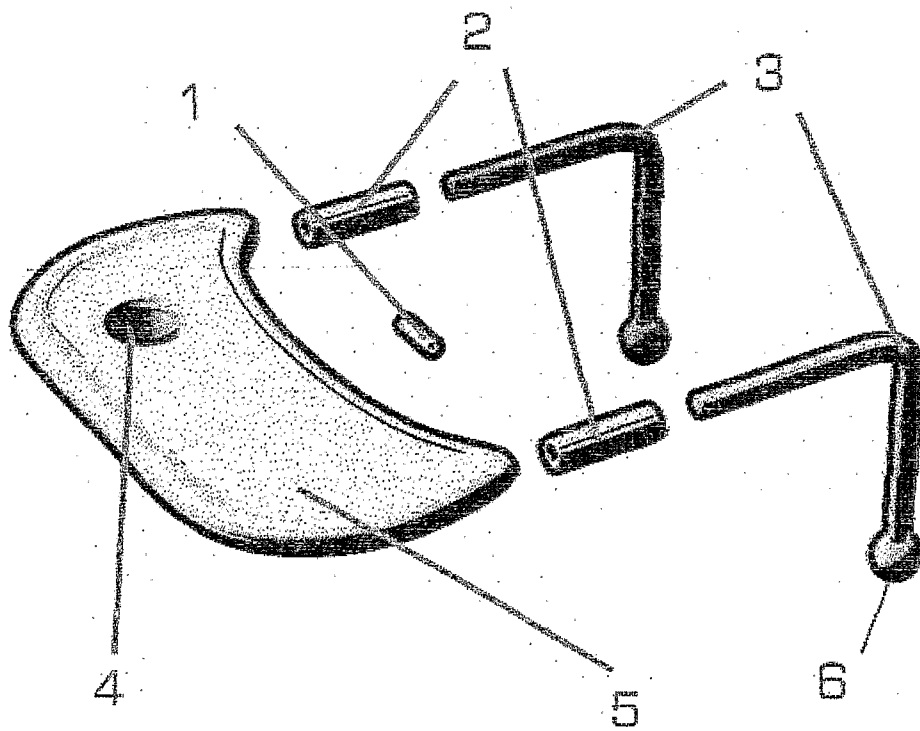
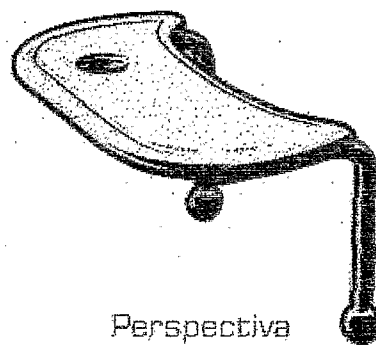
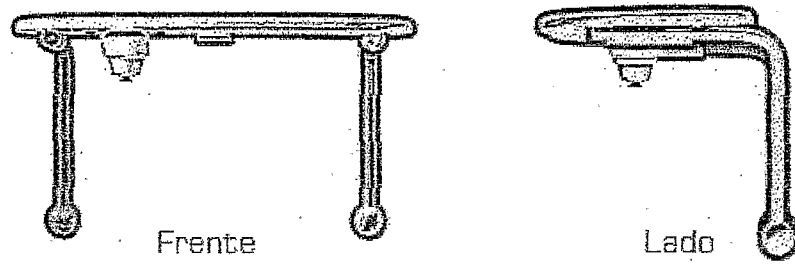


Fig. 3

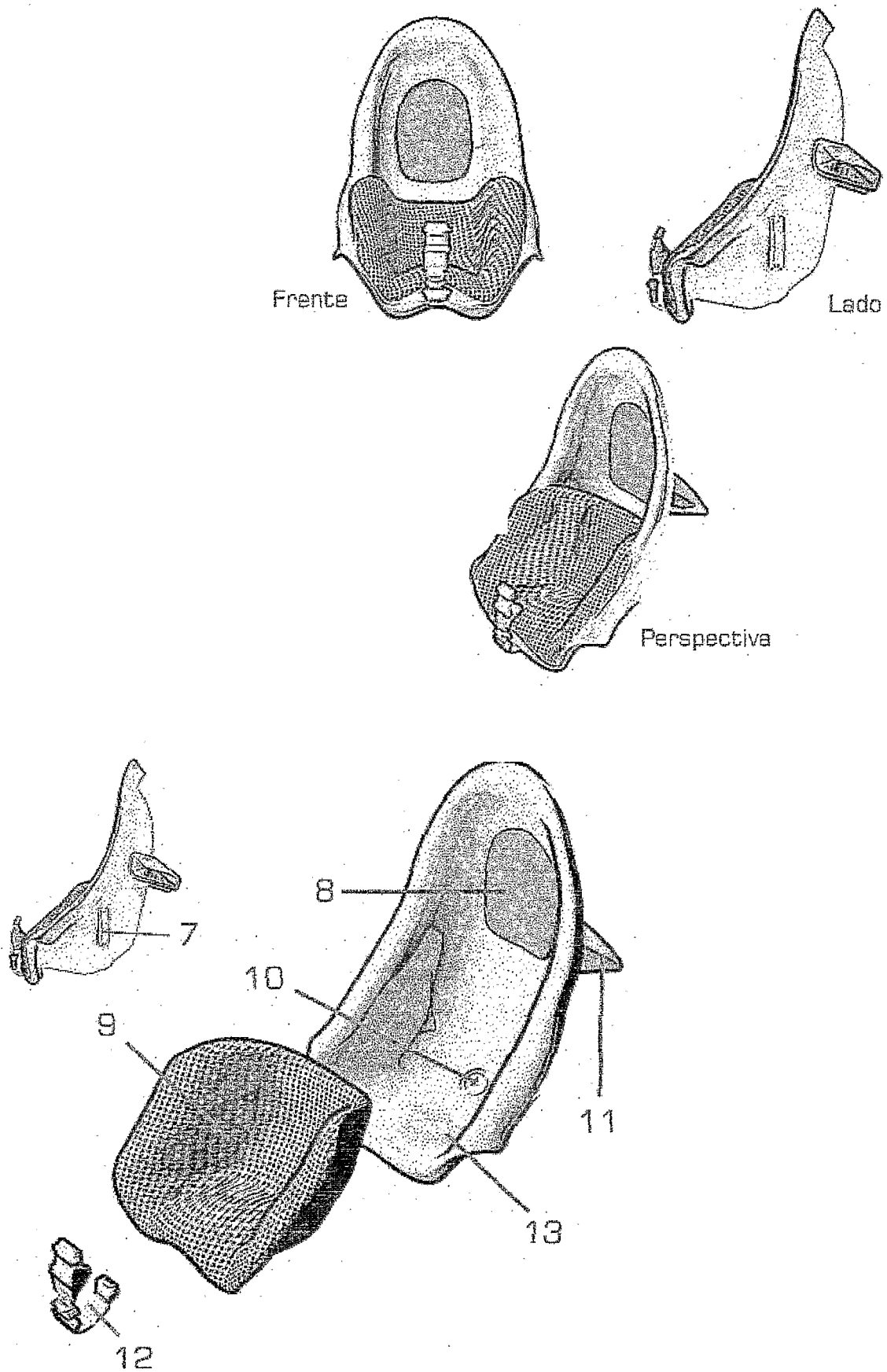
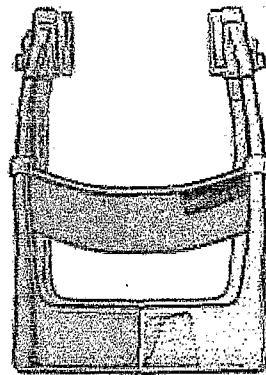
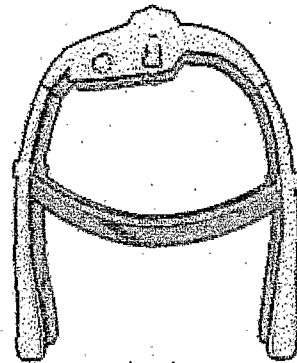


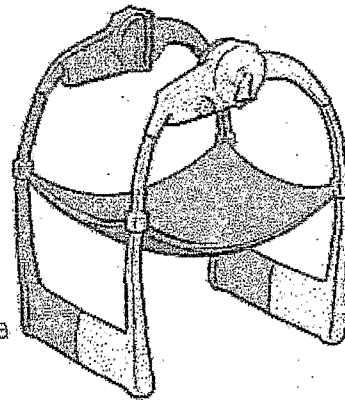
Fig. 4



Frente



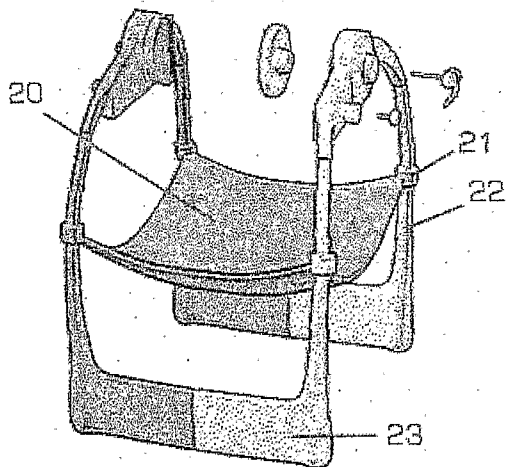
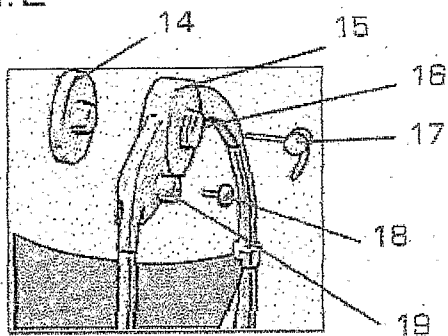
Lado



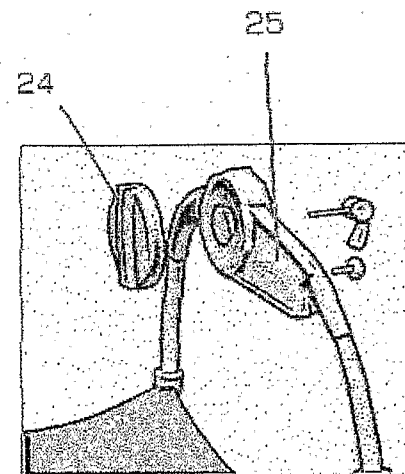
Perspectiva

4.1

4.2



4.3

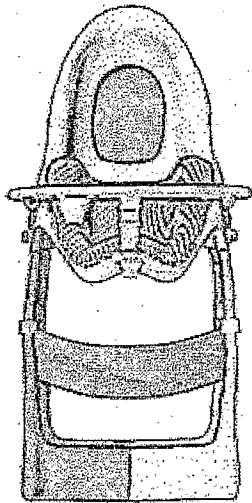


4.4

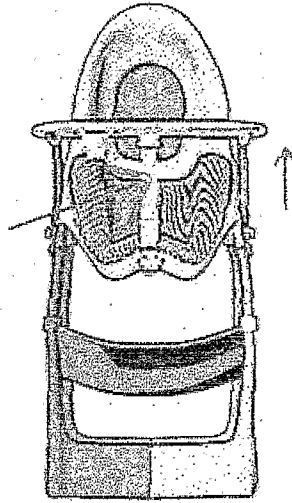
Fig. 5

Tranformação Frontal

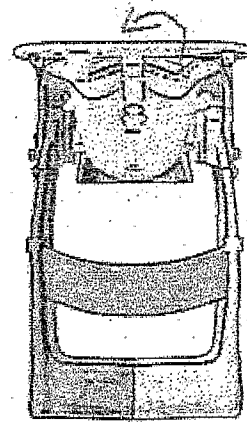
5.1



5.2

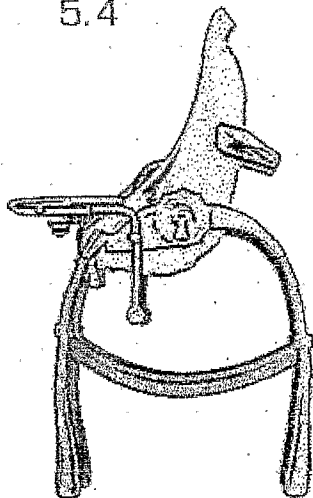


5.3

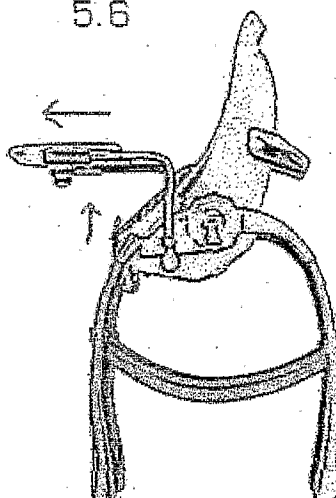


Tranformação Lateral

5.4



5.6



5.7

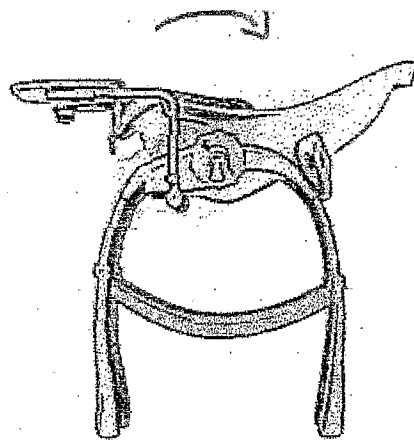
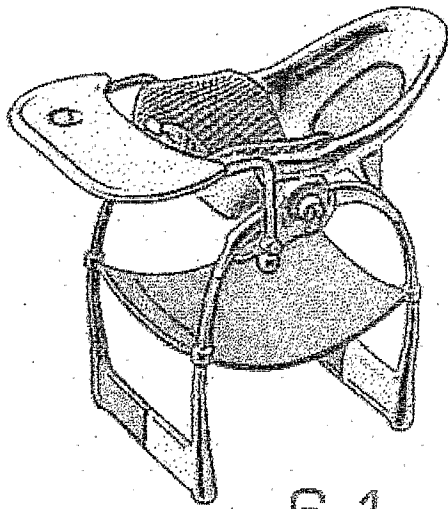
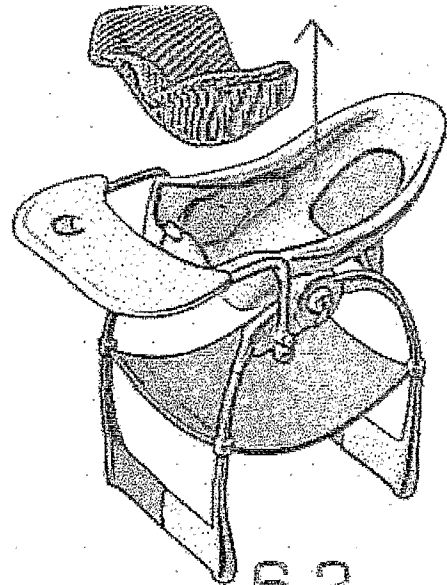


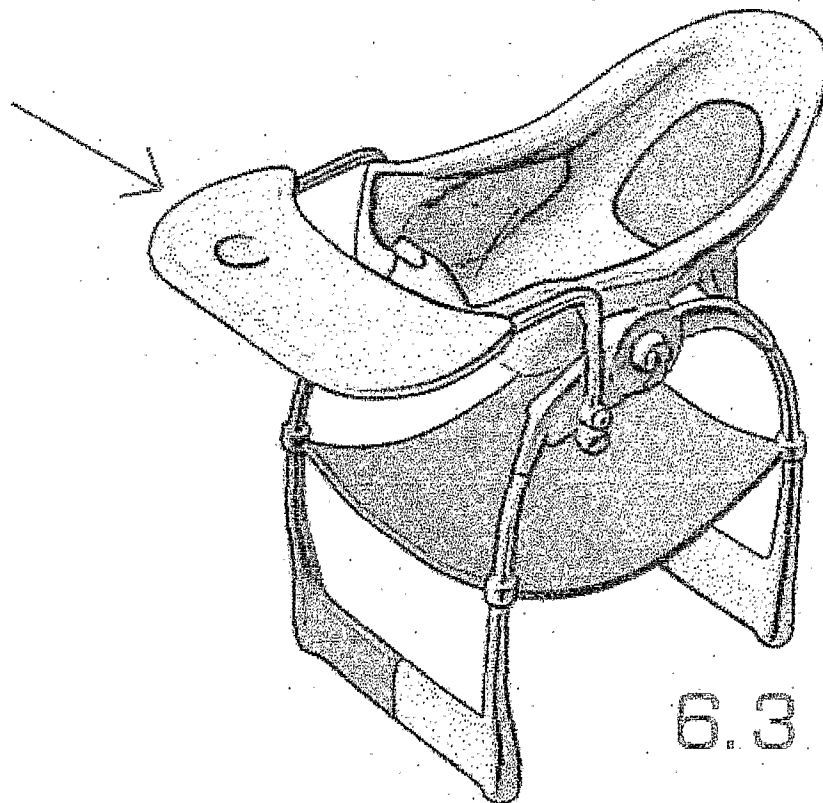
Fig. 6



6.1

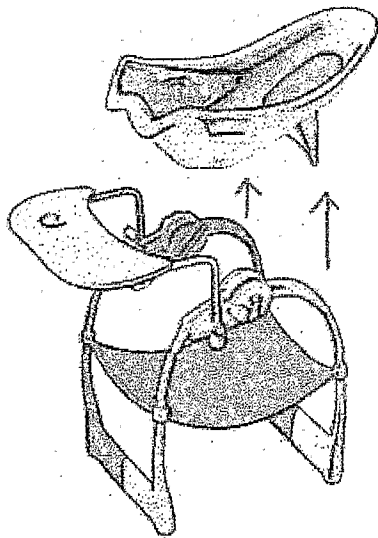


6.2

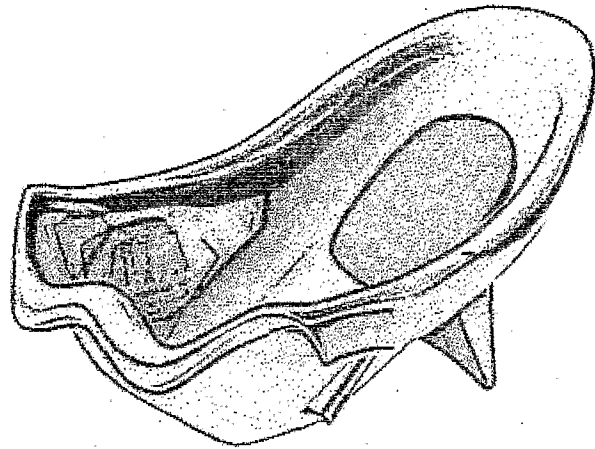


6.3

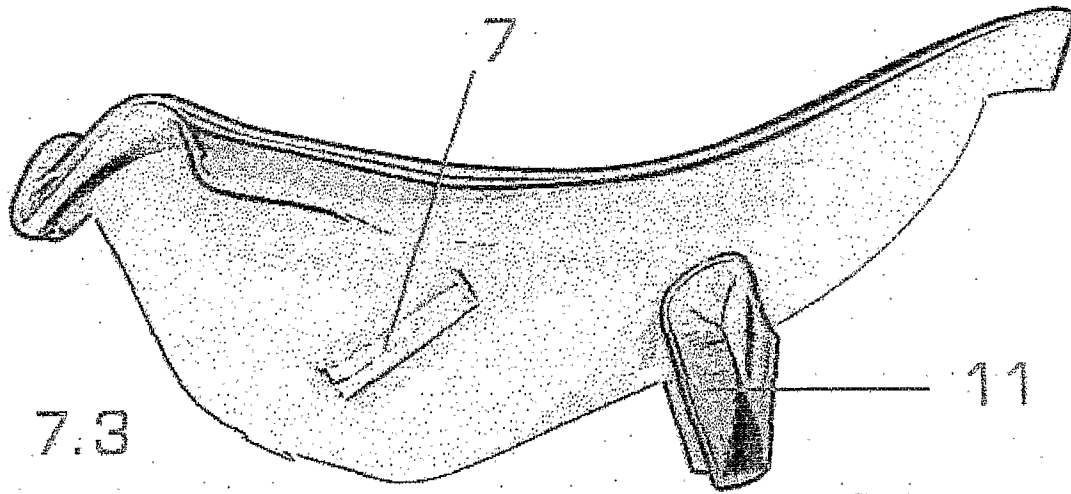
Fig. 7



7.1



7.2



7.3

Fig. 8

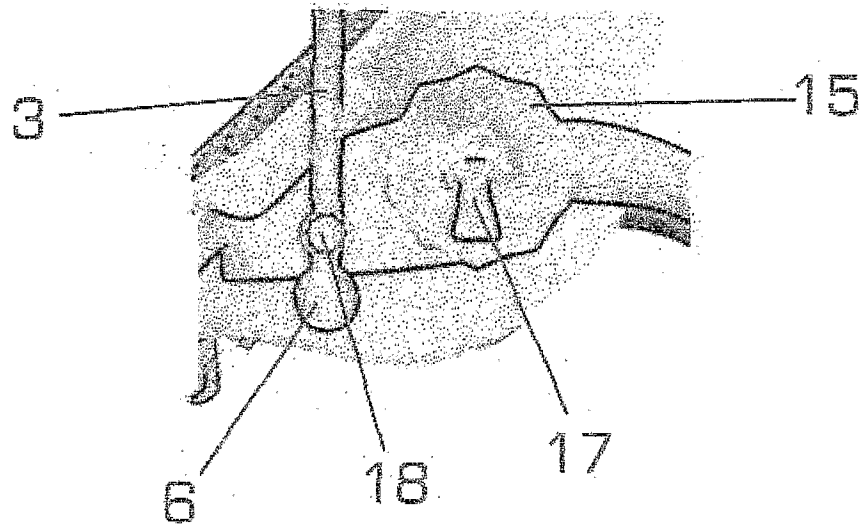


Fig. 9

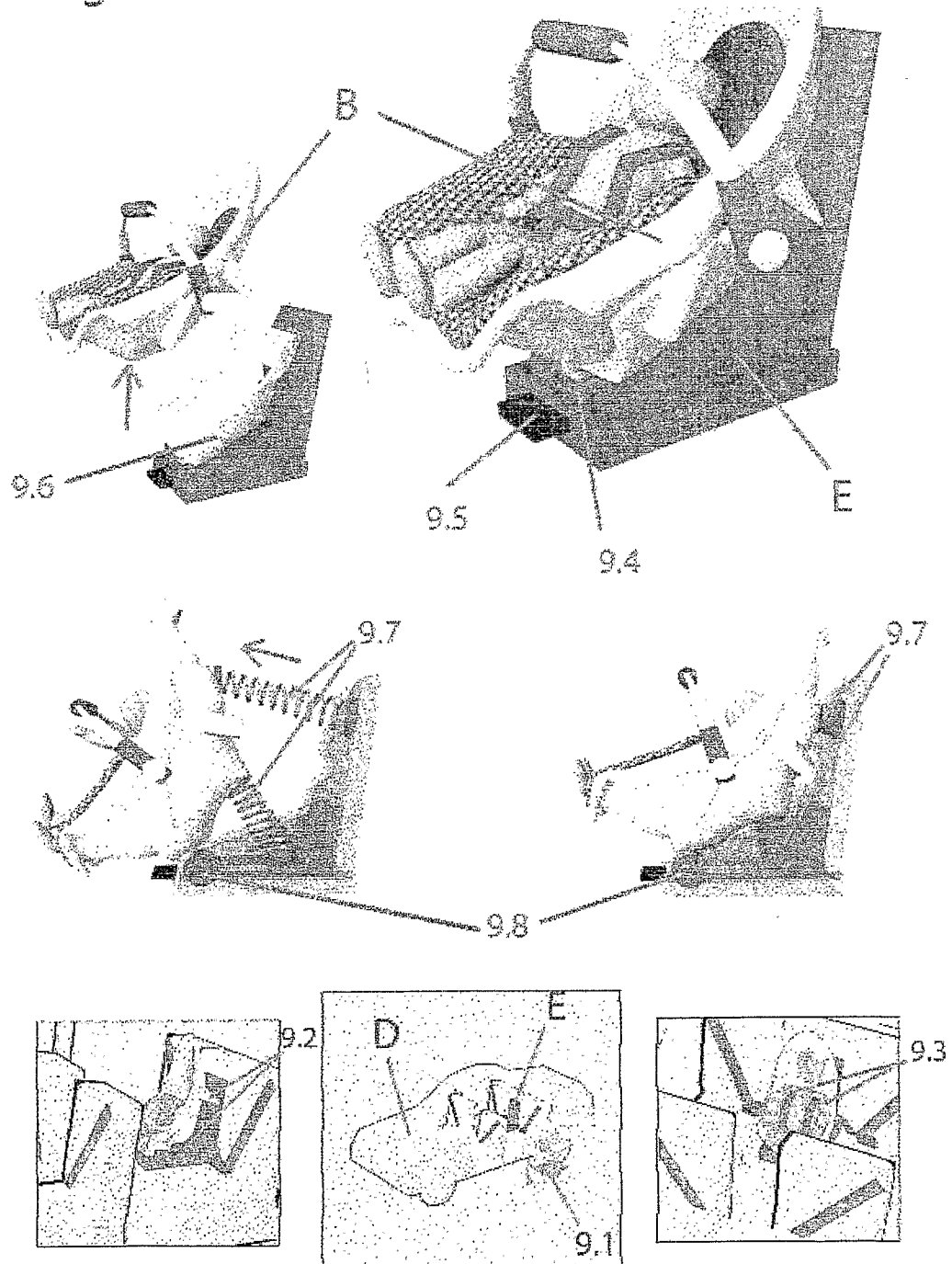


Fig. 10

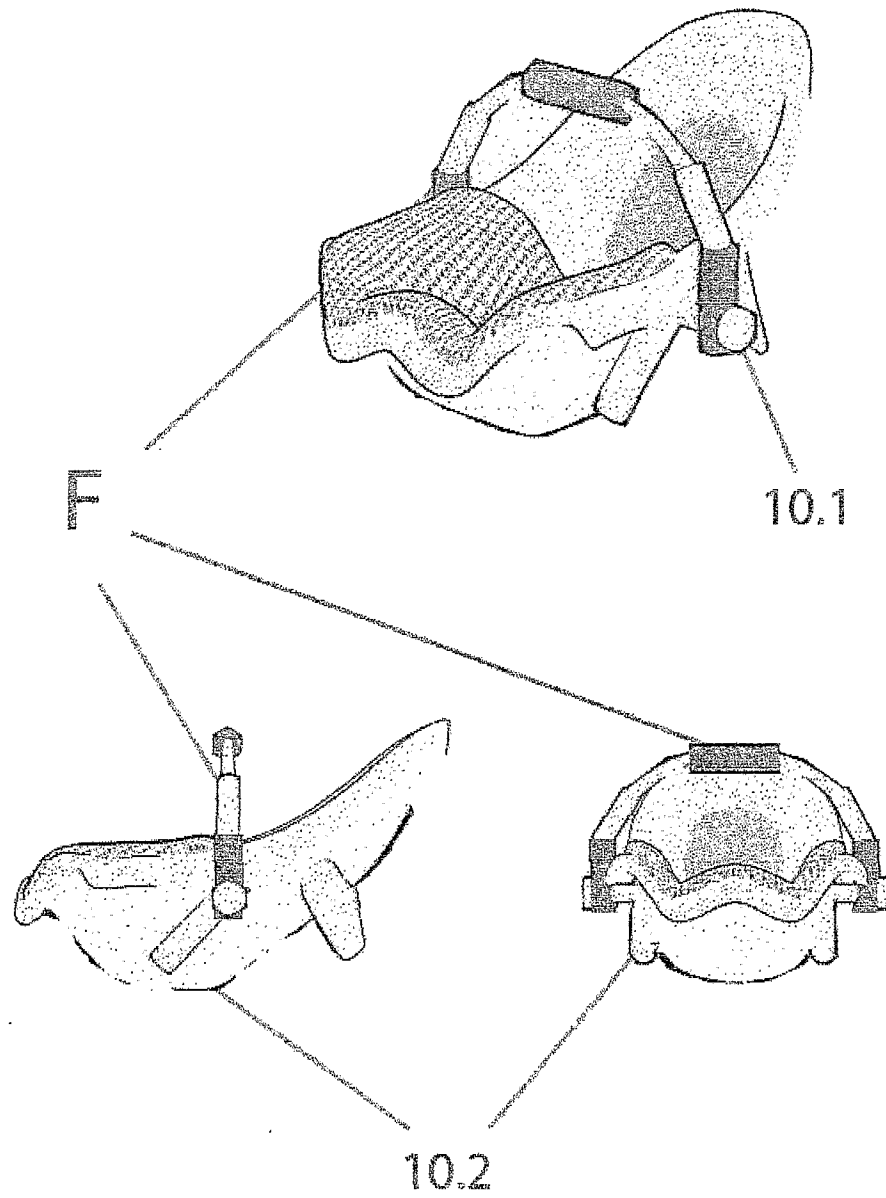


Fig. 11

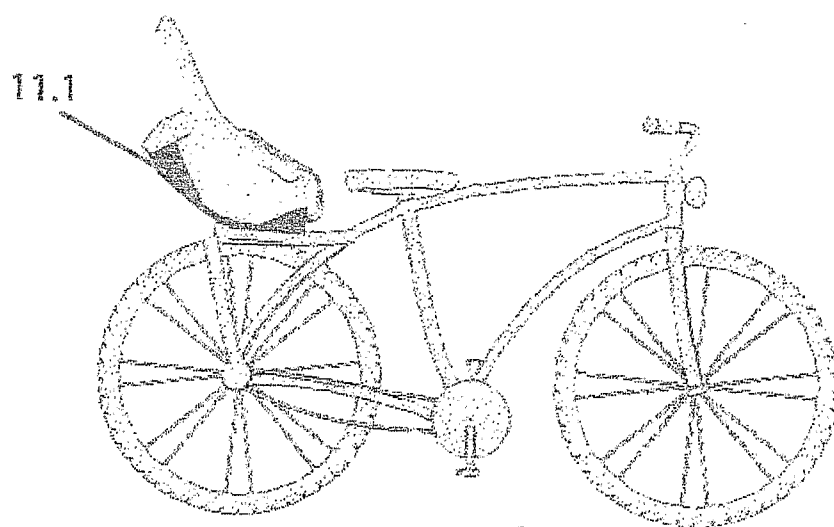
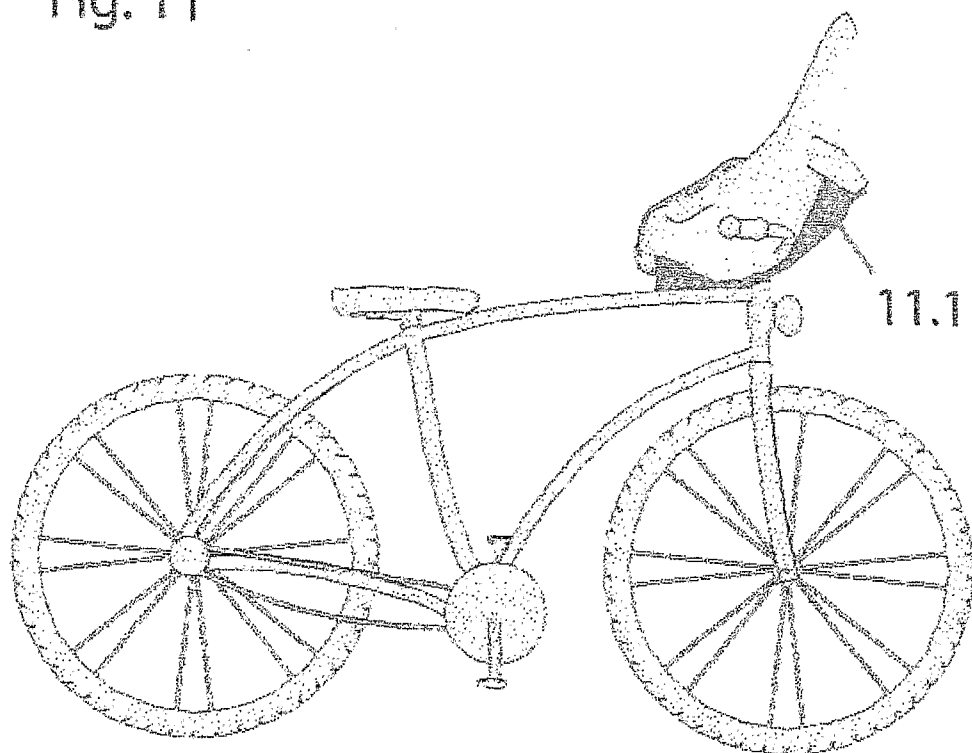
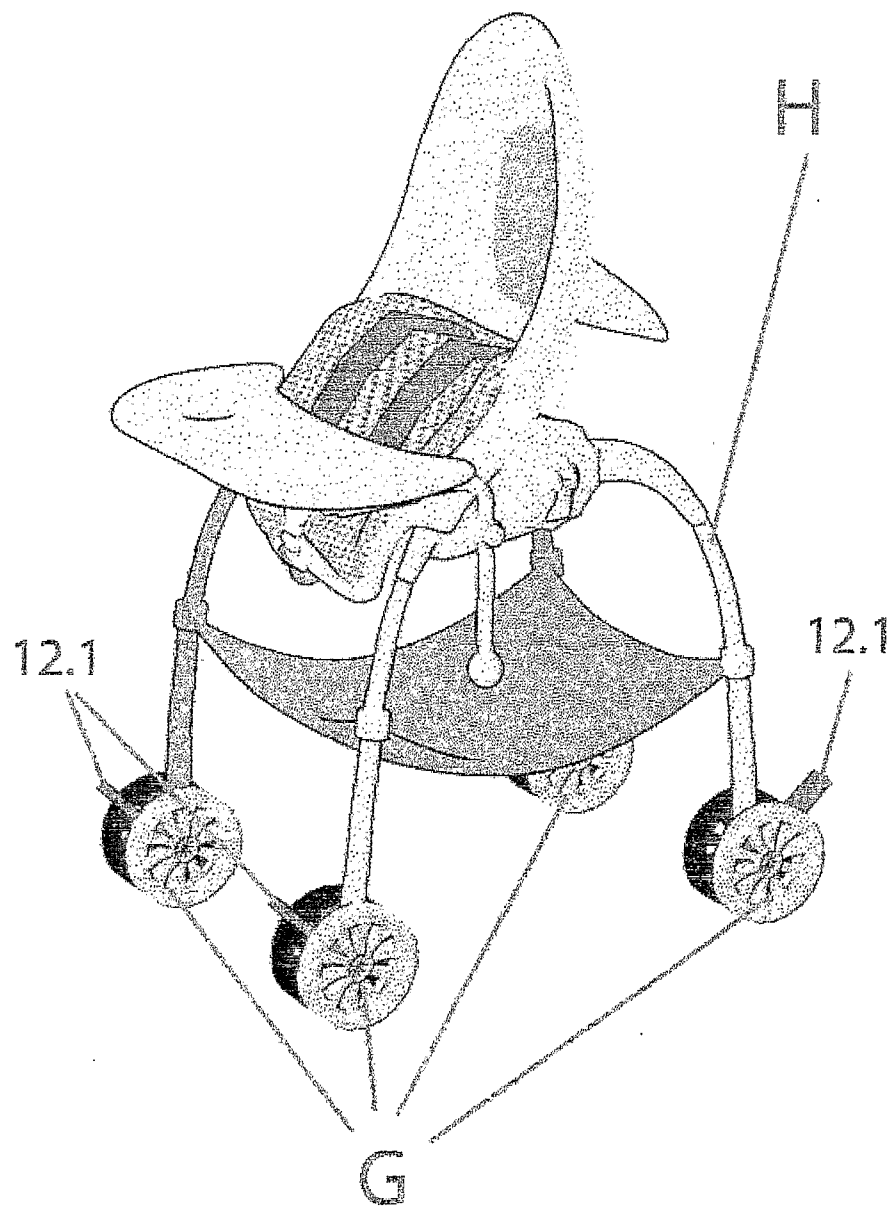


Fig. 12



INTERNATIONAL SEARCH REPORT

International application N°

PCT/BR2010/000109

A. CLASSIFICATION OF SUBJECT MATTER

A47D 1/10 A47D 1/06 A47D 13/02 B62B 7/14 A47B 85/00

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)

A47D 1/10 A47D 1/06 A47D 13/02 B62B 7/14 A47B 85/00

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

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

EPODOC, ESPACENET, SIMPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	US 5364137 A (SAFE STRAP CO INC [US]) 15 November 1994 (1994-11-15) *column 2, line 37-39, 64-67* *column 3, line 15-26, 36-40, 41-45 and 52-68* *column 5, line 21-26*	01-09
Y	US 6126236 A 03 October 2000 (2000-10-03) *figure 01*	01-09
Y	US 6099022 A 08 August 2000 (2000-08-08) *column 5, line 06-08*	01-09

☒ 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

28 June 2010

Date of mailing of the international search report

19/07/2010

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INTERNATIONAL SEARCH REPORT

International application N°

PCT/BR2010/000109

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

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PCT/BR2010/000109

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