

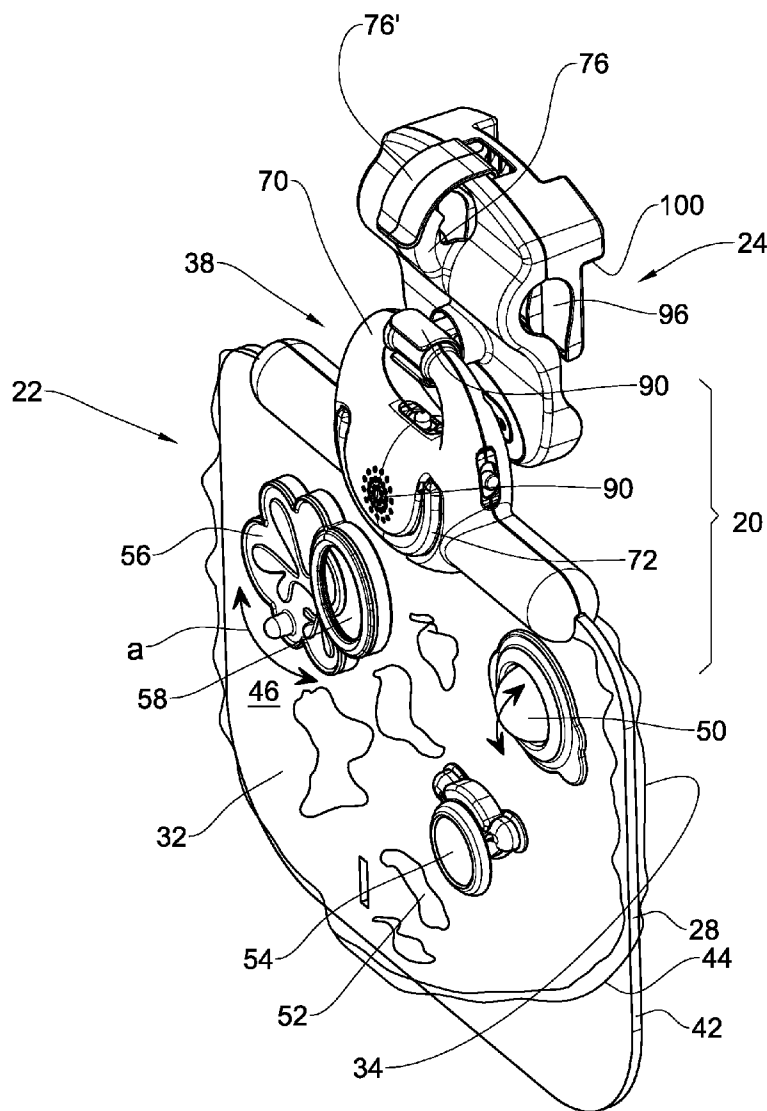


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ABOUKRAT et al.(10) **Pub. No.: US 2015/0224414 A1**(43) **Pub. Date: Aug. 13, 2015**(54) **INFANT AMUSEMENT DEVICE****Publication Classification**(71) Applicant: **TINY LOVE LTD.**, Tel Aviv (IL)(51) **Int. Cl.**
A63H 33/00 (2006.01)(72) Inventors: **Frederik Meir ABOUKRAT**, Hod Hasharon (IL); **Ido SEGAL**, Kefar Saba (IL)(52) **U.S. Cl.**
CPC **A63H 33/006** (2013.01)(73) Assignee: **TINY LOVE LTD.**, Tel Aviv (IL)(57) **ABSTRACT**(21) Appl. No.: **14/621,609**(22) Filed: **Feb. 13, 2015****Related U.S. Application Data**

(60) Provisional application No. 61/939,318, filed on Feb. 13, 2014.

Provided is an infant amusement device to be mounted on a furniture item having a supporting wall, the device including a board-like body configured with a first face configured in turn with a first stimulating theme and a second face configured in turn with a second stimulating theme, and a handle unit configured for carrying the amusement device and for mounting it on said supporting wall at a plurality of positions exposing the first face or the second face.



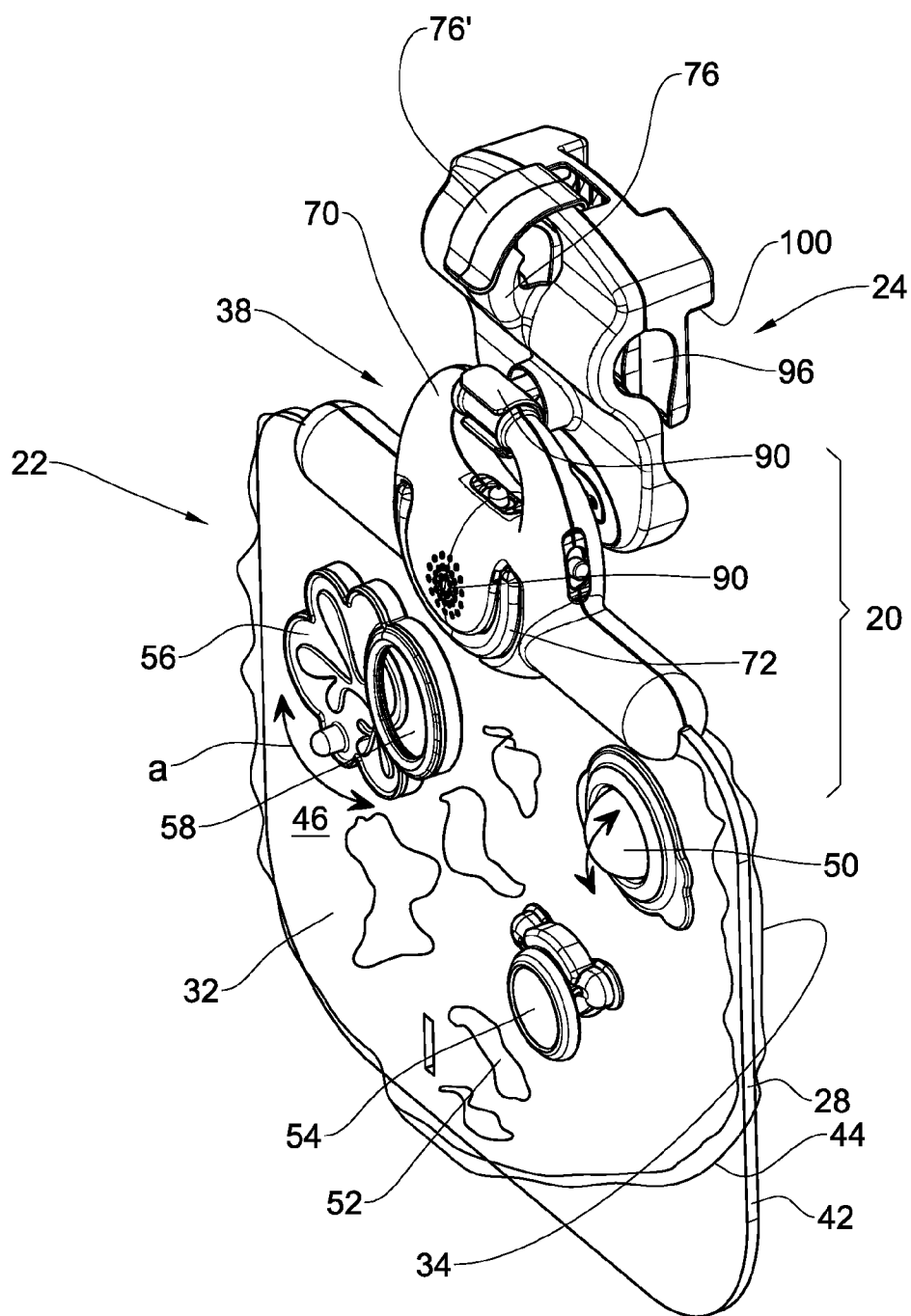


Fig. 1

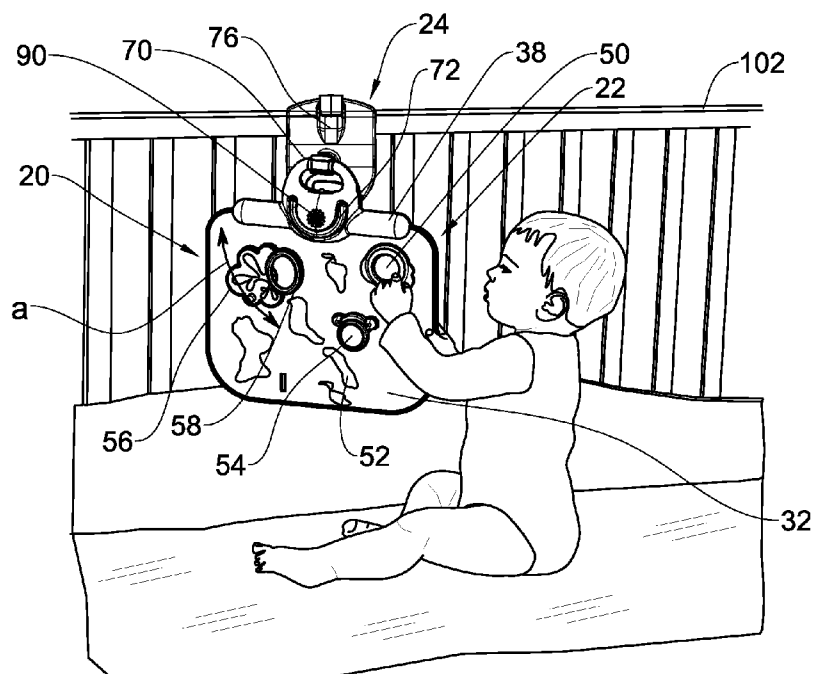


Fig. 2A

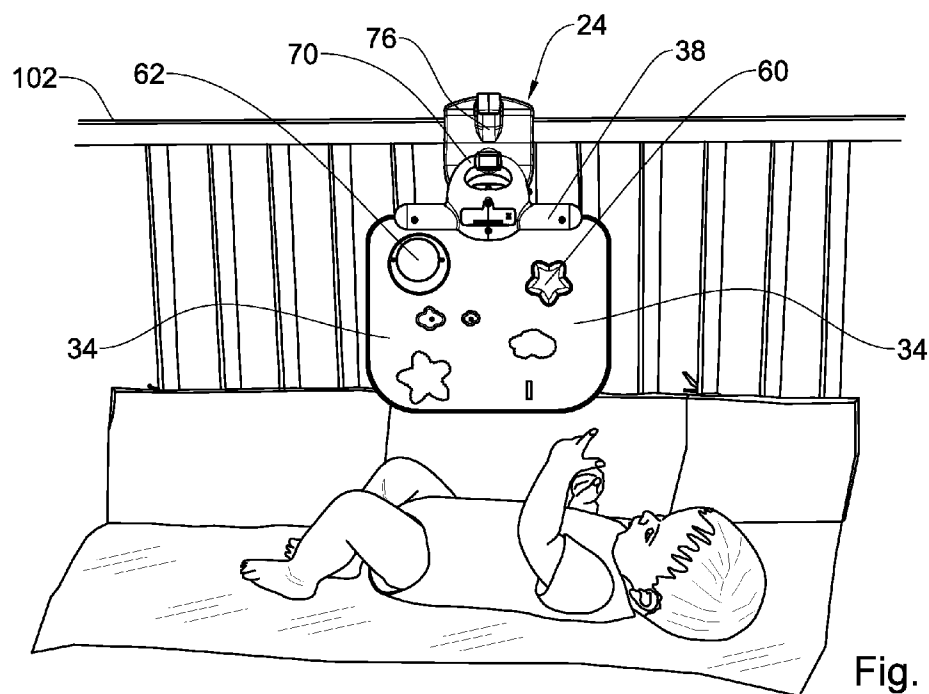


Fig. 2B

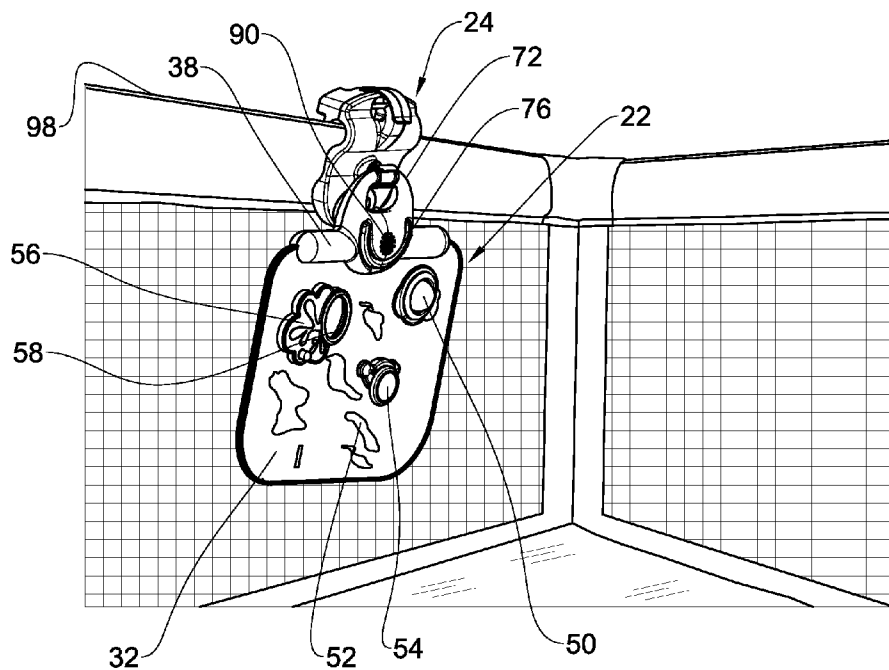


Fig. 2C

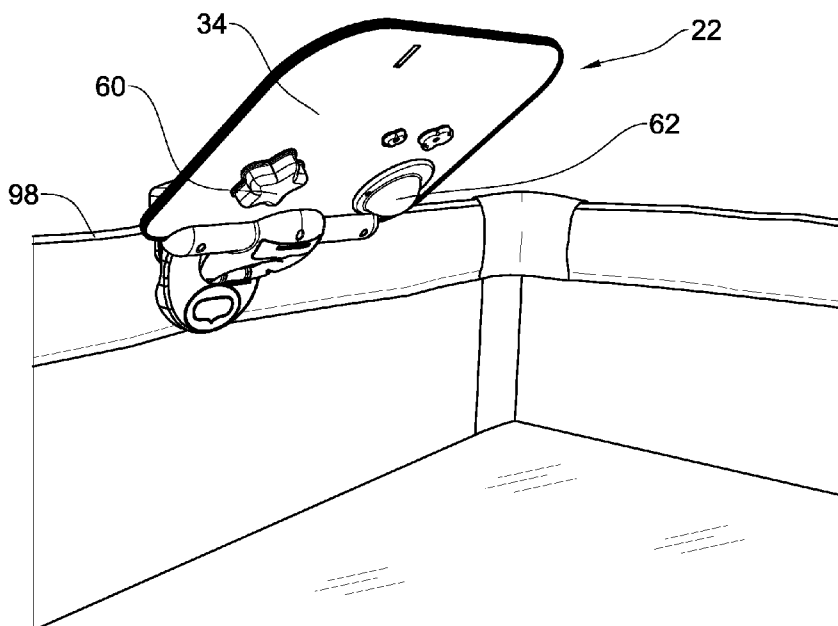


Fig. 2D

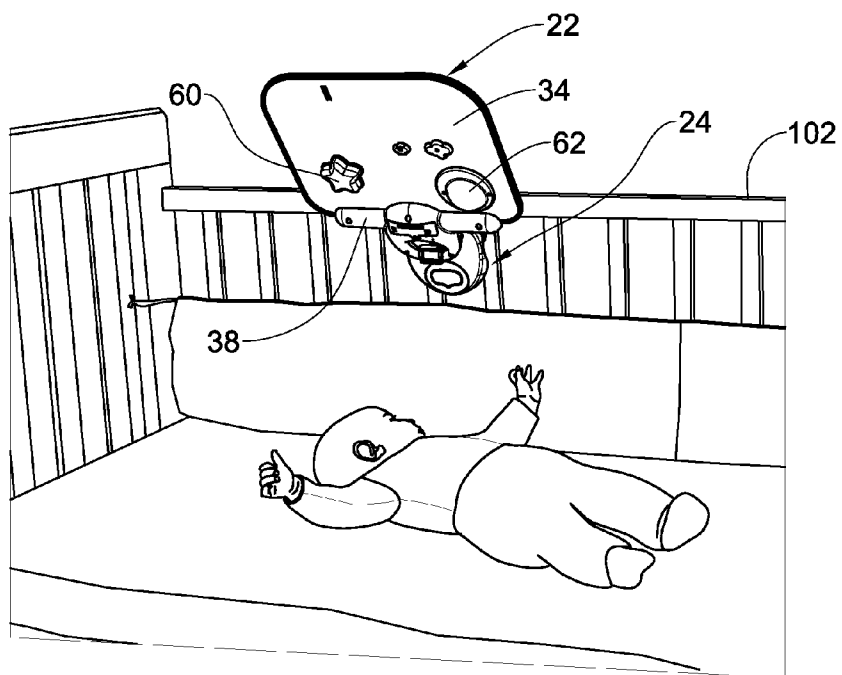


Fig. 3

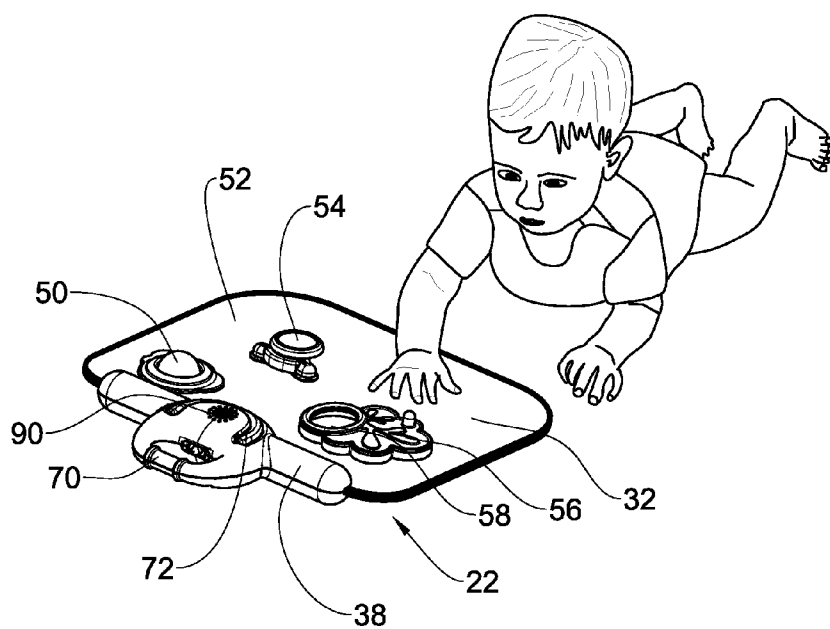


Fig. 4

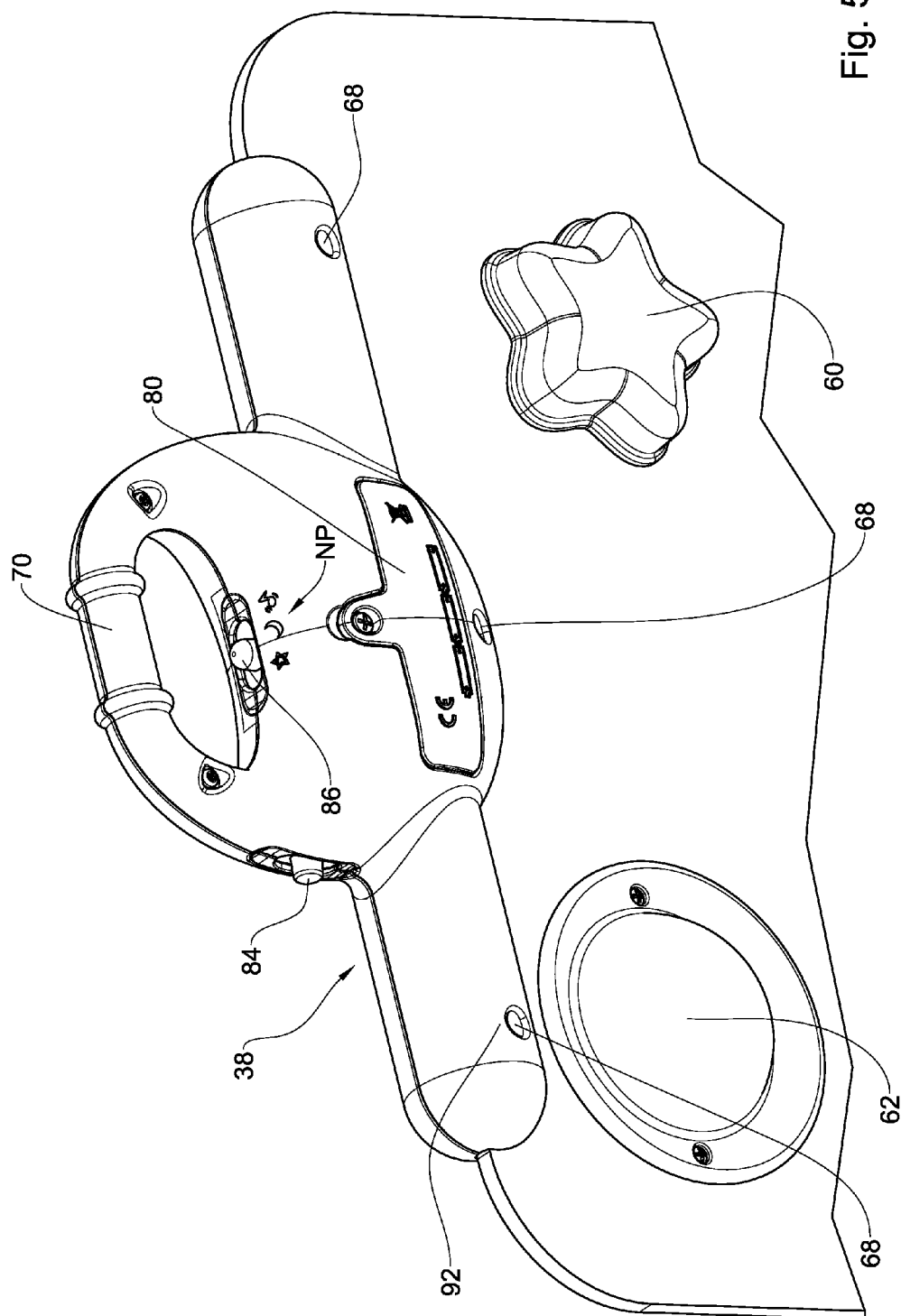


Fig. 5

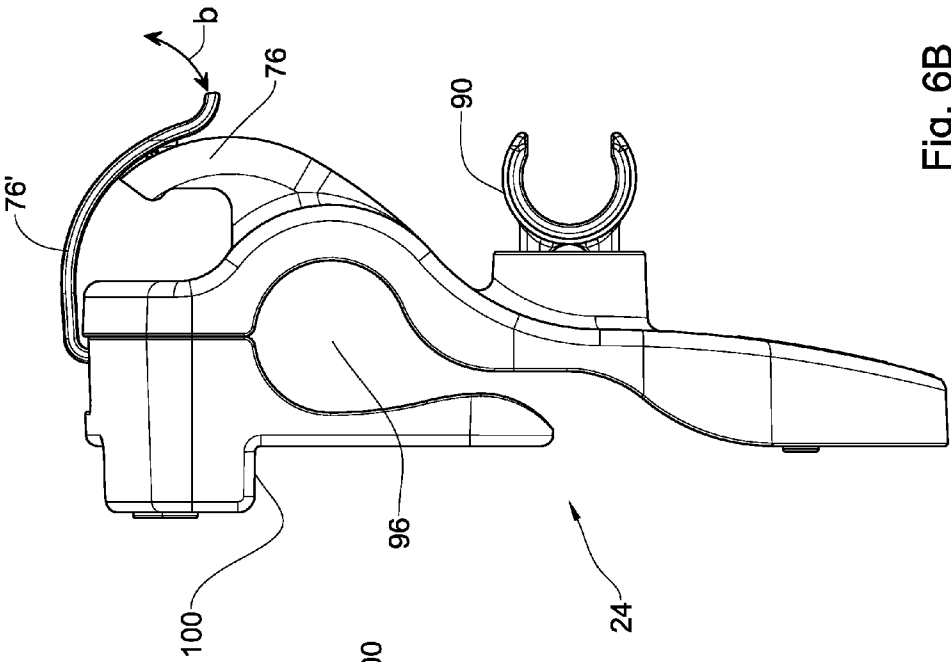


Fig. 6B

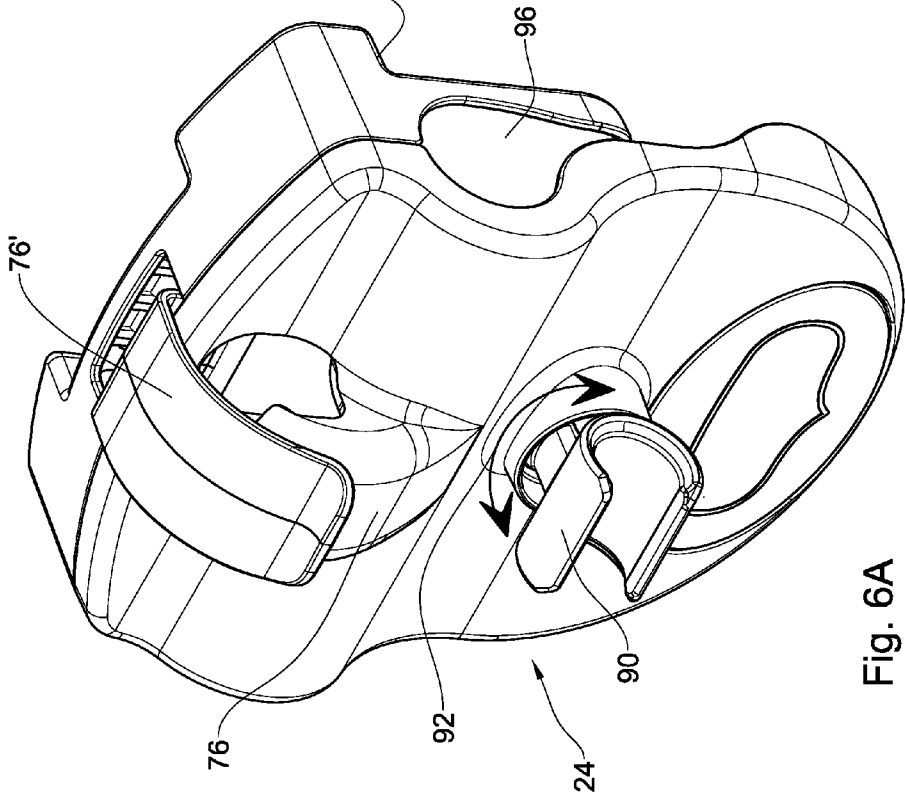
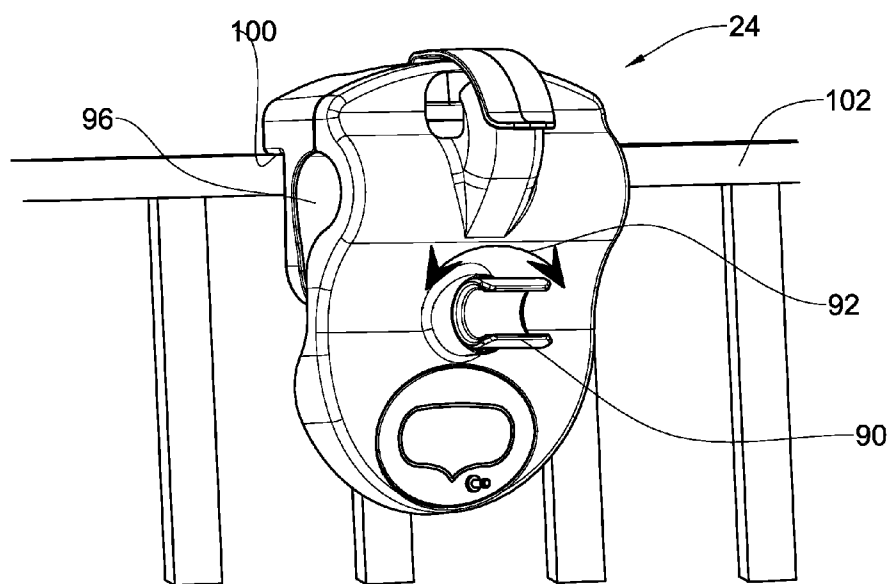
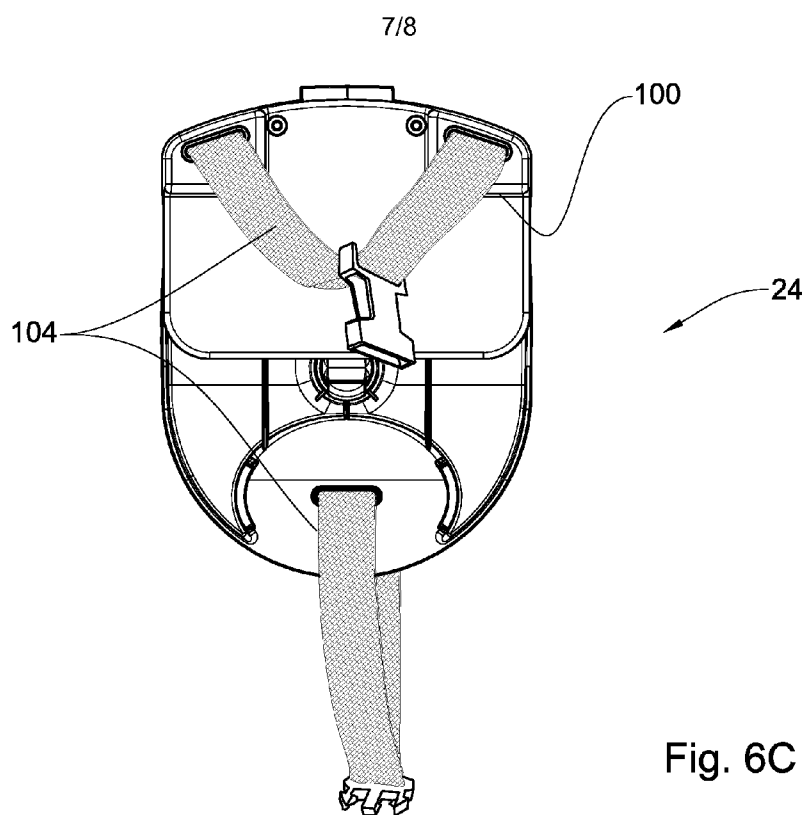


Fig. 6A



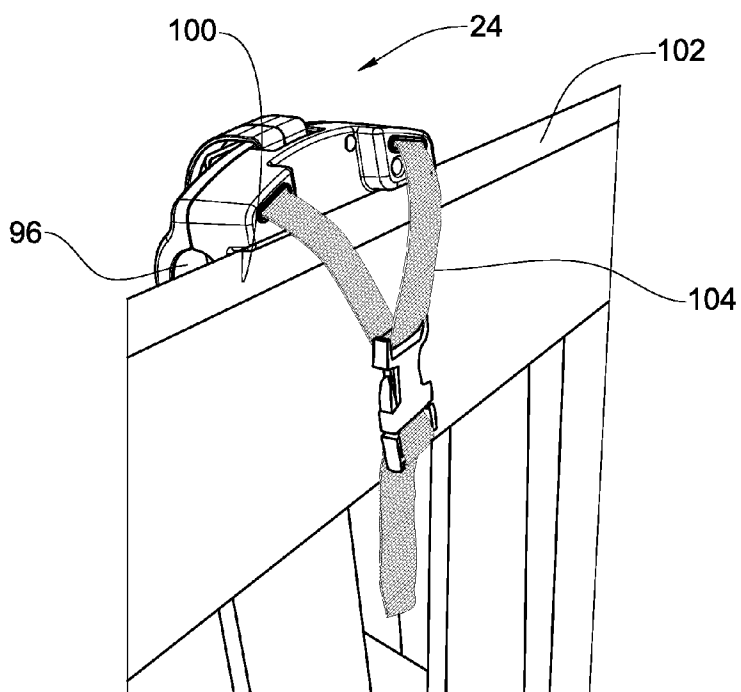


Fig. 7B

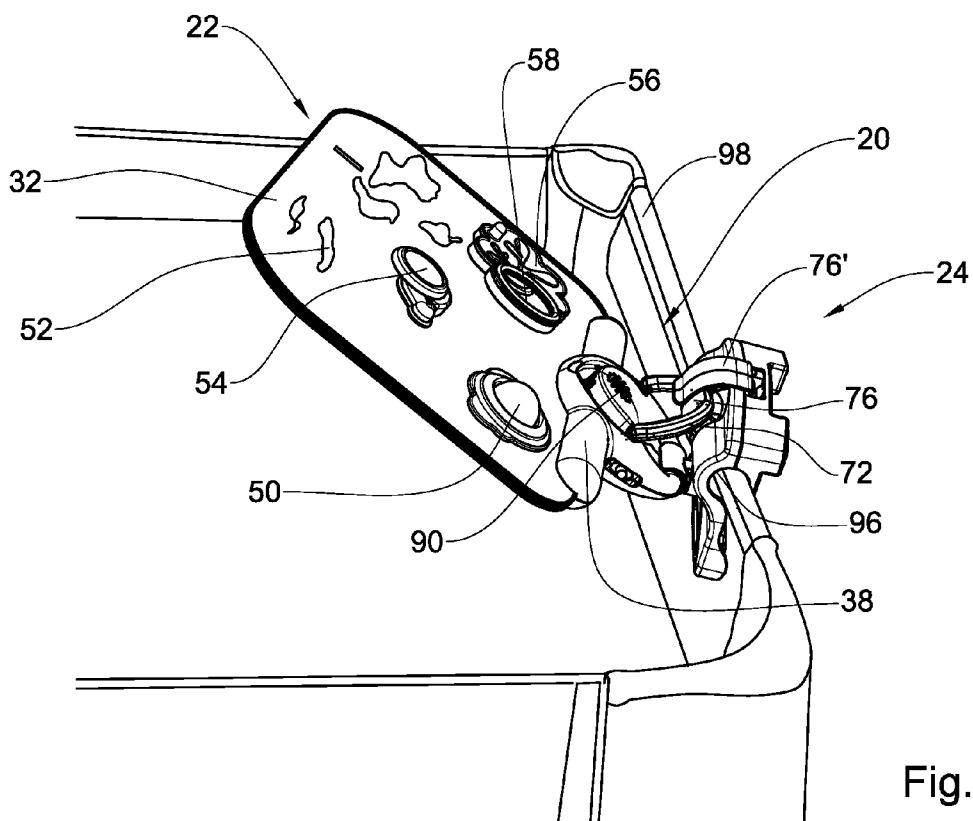


Fig. 8

INFANT AMUSEMENT DEVICE

TECHNOLOGICAL FIELD

[0001] The present disclosure is directed to a multifunctional amusement device for infants. More particularly it is concerned with such a device configurable between activity center modes and soothing modes.

BACKGROUND

[0002] Amusement devices intended to be attached to infant furniture are known in the art. One example of such activity center is disclosed in U.S. Pat. No. 4,973,286 describing a multiple actuation crib toy includes a housing together with a clamp to secure the housing to a convenient surface or portion of an infant crib.

GENERAL DESCRIPTION

[0003] According to the present disclosure there is provided an infant amusement device comprising a board-like body configured with a first face configured in turn with a first stimulating theme and a second face configured in turn with a second stimulating theme, and a handle unit configured for carrying the amusement device and for mounting it on a wall mounting unit at one of several positions exposing the first face or the second face.

[0004] The infant amusement device according to the present disclosure is suited for use at any one of a plurality of configurations, i.e. detached from the wall mounting unit, e.g. hand held or placed over a surface (such as floor, carpet, mat/mattress, etc.), or articulated to the wall mounting unit wherein it is manipulable between displaying the first face or the second face, and wherein at least one of the first face and the second face can be displayed also supinely, i.e. can be viewed when the child is supine.

[0005] The wall mounting unit is configured for use in conjunction with the infant amusement device and is configured for attaching to a plurality of child locations, typically such as any child accommodating unit e.g. crib, bed, playpen and the like, or even a vehicle backrest, however configured with at least a substantially upright extending portion, such as a side wall, onto which the wall mounting unit can be detachably-attachable mounted.

[0006] According to an aspect of the disclosure, the wall mounting unit is configured with a mounting portion configured for detachably attaching to a supporting wall, and a device articulation portion configured for detachably attaching thereto a handle unit of an infant amusement device; said device articulation portion configured for displaying either a first face or a second face of the infant amusement device and for displaying at least one of the first face and the second face at a tilted position, said face facing downwards so it can be viewed when a child is supine.

[0007] According to an example of the disclosure, there is provided an infant amusement device to be mounted on a furniture item having a supporting wall, the device comprising: a board-like body configured with a first face configured in turn with a first stimulating theme and a second face configured in turn with a second stimulating theme, and a handle unit configured for carrying the amusement device and for mounting it on said supporting wall at a plurality of positions exposing the first face or the second face.

[0008] According to an example of the disclosure, there is provided an infant amusement device comprising: a board-

like body configured with a first face configured in turn with a first stimulating theme and a second face configured in turn with a second stimulating theme, a handle unit configured for carrying the amusement device; and a wall mounting unit configured for mounting thereon the handle unit and detachably attaching to a supporting wall of a furniture item; wherein the handle unit is further configured for mounting the amusement device on said wall mounting unit at a plurality of positions exposing the first face or the second face.

[0009] The handle unit can be integral or integrated with the board-like body, or can be detachably attachable thereto.

[0010] The handle unit facilitates manual gripping and carrying of the infant amusement device and serves also for articulation to the wall mounting unit.

[0011] Any one or more of the following features, designs and configurations can be incorporated in the infant amusement device according to the present disclosure, either separately or in combinations thereof:

[0012] One or both of the first stimulation theme and the second stimulation theme can comprise or be associated with an audio generating unit. The audio generating unit can be common for both of the first stimulation theme and the second stimulation theme, or independent;

[0013] The audio generating unit can comprise one or more pre-recorded audio themes (e.g. on a chip/printed circuitry or flash memory) and it can be configured for cooperation with an external audio source, e.g. an MP3 player (by a suitable communications jack or transmitted), or it can comprise a memory card slot, etc.;

[0014] The audio generating unit can be configured in the handle unit;

[0015] The handle unit can comprise one or more speakers and a power source, e.g. a battery compartment. There can also be provided a jack for battery recharging;

[0016] The power source can be common for the audio generating unit and for one or more light emitting units associated with one or both of the stimulating themes;

[0017] Controls can be provided for adjusting volume and/or light intensity;

[0018] An ambient light sensor can be configured for initiating or terminating a stimulation action (motion, light or sound associated; independently or in combinations). For example, a soothing light and or lullaby melody can spontaneously be activated or terminated, depending on illumination conditions at the vicinity of the amusement device;

[0019] A sound/noise sensor can be configured for initiating or terminating a stimulation action (motion, light or sound associated; independently or in combinations). For example, a soothing light and or lullaby melody can spontaneously be activated or terminated, depending on sound, such as child's crying;

[0020] The electronics of the amusement device can be configured for cooperation with a remote control unit, for initiating or terminating or controlling intensity of one or more stimulation actions;

[0021] A electronics of the amusement device can be configured with a timer for initiating or terminating one or more stimulation actions;

[0022] The first stimulating theme is an activity center theme configured for active stimulating an infant, i.e. inducing and encouraging active cooperation of the infant. Such a theme can include movable articles, noise/light generating articles, articles requiring minimum

level of manipulating coordination. Typically the activity center theme is associated with exciting images, pattern and colors, such as an outdoor scenario, etc.;

[0023] The second stimulating theme is a soother theme configured for passive stimulating an infant, i.e. for audio and/or visual stimulation only. Typically the soother theme is associated with soft and calming images, pattern and colors, such a nigh scenario, etc.;

[0024] The infant amusement device is typically light weight and devoid of pointed corners or elements;

[0025] The board-like body of the infant amusement device can be substantially planar;

[0026] The board-like body can be made of or comprise a material rendering it rigid though pliable;

[0027] The board-like body is configured with a rigid though pliable structural element, the structural element can be made of PP (Polypropylene);

[0028] The structural element is be at least partially embedded within or coated by a comfort layer, such as foamed material, and the like, rendering it softness. According to a particular example, the structural element is enveloped by a comfort layer;

[0029] The board-like body can be configured with an external layer comprising the first theme and the second theme. The external layer can be made for example of fabric;

[0030] The mounting portion of the wall mounting unit can be configured for mounting on a variety of elements such as a wall portion of a crib, bed, playpen, vehicle's car rest and the like. The mounting portion can be configured with different mounting arrangements including a clamping arrangement, a harness/strap fitting, rendering it suitable for detachably-attachable mounting, however a secure way so as to prevent its unintentional detaching;

[0031] The clamping arrangement of the mounting portion is configured for clamping over a top edge or a side edge of a supporting element such as a wall of a crib, playpen etc.;

[0032] The device articulation portion of the wall mounting unit can be configured with a grip unit for snappingly engaging a handle unit of the infant amusement device;

[0033] The grip unit can be configured for pivotal displacement, so that the amusement device can be rotated at least 180° about a roll axis, and at least 90° about a pitch axis;

[0034] The device articulation portion can be configured with discrete angular settings, for arresting the infant amusement device at intermediate angular positions;

[0035] The device articulation portion can be configured with an arresting portion for securing the infant amusement device at a tilted position (inclined about a pitch axis), thereby rendering a face of the amusement device visible when a child is at a supine position;

[0036] The arresting portion can be a hook arrangement configured for arresting a respective arresting member configured at the handle unit of the infant amusement device. The arresting member can be for example a ring-shaped element, a chain, etc.

BRIEF DESCRIPTION OF THE DRAWINGS

[0037] In order to better understand the subject matter that is disclosed herein and to exemplify how it may be carried out

in practice, embodiments will now be described, by way of non-limiting examples only, with reference to the accompanying drawings, in which:

[0038] FIG. 1 is a perspective view of an infant amusement device according to the disclosure, articulated to a wall mounting unit;

[0039] FIG. 2A illustrates the amusement device mounted on an infant's bed at an;

[0040] FIG. 2B illustrates the on an infant's bed at an 'soothing mode';

[0041] FIG. 2C is the same as FIG. 2A, however with the amusement device mounted on a 'pack and play', the device at the 'activity mode';

[0042] FIG. 2D illustrates the device of FIG. 2C at a supine viewing 'soothing mode';

[0043] FIG. 3 illustrates the amusement device mounted on an infant's bed and a soothing face thereof facing downwards, the infant at a supine position;

[0044] FIG. 4 illustrates the amusement device detached and in use at a free activity mode, the infant at a prone position;

[0045] FIG. 5 is an enlargement of the handle unit of the infant amusement device;

[0046] FIG. 6A is a front isometric view of a wall mounting unit configured for use in conjunction with the amusement device;

[0047] FIG. 6B is a left side view of the wall mounting unit of FIG. 6A;

[0048] FIG. 6C is a rear view of the wall mounting unit of FIG. 6A;

[0049] FIG. 7A is a front view illustrating the wall mounting unit attached to a side wall of an infant's bed;

[0050] FIG. 7B is a rear isometric view of the wall mounting unit of FIG. 7A, attached to another furniture; and

[0051] FIG. 8 is a top perspective view of the amusement device mounted on a 'pack and play', the device a supine soothing mode.

DETAILED DESCRIPTION OF EMBODIMENTS

[0052] Attention is directed to the drawings, illustrating an infant amusement device assembly generally designated 20 comprising an infant amusement device generally designated 22 and a wall mounting unit generally designated 24, to which the infant amusement device 22 is detachably attachable in various modes of use, as will be discussed herein below.

[0053] The infant amusement device 22 comprises a board-like body 28 configured with a first face 32 configured in turn with a first stimulating theme, and a second face 34 configured in turn with a second stimulating theme. The body 28 is further configured with an integrated handle unit generally designated 38.

[0054] The body 28 is substantially planar/flat and comprises a rigid though pliable structural element 42 (partially exposed in FIG. 1) e.g. made of PP (Polypropylene). The structural element 42 is fully coated with a comfort layer, such as foamed material 44 rendering it softness (FIG. 1), wherein the structural element 42 and comfort layer 44 are fully enveloped by an external layer made for example of fabric 46, said fabric carrying a different theme on each face of the device, as will be discussed hereinafter.

[0055] The first face 32 is configured with a so-called 'activity theme' and is thus fitted with a stimulating pattern such as farm images, outdoor images and the like (this can best be seen in FIGS. 2A, 2C, 4 and 8), with several stimu-

lating elements such as a hemisphere **50** comprising several beads, a cellophane-like noise inducing leaf-like elements **52**, a moving beetle **54**, a window element **56** pivotally displaceable (indicated by arrow a) so that a different image is exposed through a window portion **58** at each angular position, etc.

[0056] The second face **34** is configured with a so-called 'soother theme' and is thus fitted with a stimulating pattern such as sky images (this can best be seen in FIGS. 2B, 2D, 3 and 5), with several stimulating elements such as a 3D star **60** and a moon **62**.

[0057] The handle unit **38** is fixedly attached (e.g. by fasteners **68**; FIG. 5) to the planar board portion of the device, and is configured for carrying the amusement device **22** and for mounting it on the wall mounting unit **24** at one of several positions exposing as will hereinafter be described.

[0058] The handle unit **38** comprises a carrying and mounting handle portion **70** and a pivotal ring **72** to be used at the inclined supine position (FIGS. 2D, 3 and 8). The ring **72** is configured for engagement with a corresponding hook portion **76** of the wall mounting unit **24**, such that the amusement device **22** can be retained inclined with the soothing face **34** facing downwards at an infant laying at a supine position. As noted, when the amusement device **22** is at its substantially vertically disposed position, the ring **72** is received within a corresponding groove configured at the handle unit **38**.

[0059] The hook portion **76** is fitted with a securing hook closure **76'** can normally be disposed at a closed position (FIGS. 6A and 6B), in which it secures the pivotal ring **72** when is fitted on the hook portion **76**, as in FIG. 8. The hook closure **76'** can be displaced to an open position (not shown) as indicated by an arrow b in FIG. 6B, so as to allow the pivotal ring **72** to be released from the hook **76**.

[0060] The hook closure **76'** can be, for example, a spring loaded element or can be closed or fastened with a snap or with other closing arrangement.

[0061] The handle unit **38** further comprises, at a back face thereof, a battery compartment **80** (FIG. 5) normally secured by several screws. The handle unit can be provided with a jack for battery recharging (not shown). The handle further comprises a volume control **84** and a mode control **86**, so that the amusement device **22** can be used at several positions as discussed below.

[0062] In the present example, the second face **34** comprises a soft light illuminator received within the star element **60** and the moon element **62**. The light will turn on upon displacing the control **86** to a so-called 'night position' (designated NP in FIG. 5). Alternatively, there can be configured a light sensor (not shown) embedded for example in the handle unit **38**, wherein at low ambient light condition the illuminating elements will light. This however can be avoided by a manual override switch. According to a particular example, several portions of at least the second face of the device are configured for glowing at darkness. Such a sensor can also induce soothing sounds.

[0063] Furthermore, the handle portion **38** is configured with an audio system (speaker **90** noticeable at a front face of handle **38**, associated with the first face **32**). The audio system comprises several pre-recorded audio themes (e.g. on a chip/printed circuitry or flash memory) and it can be configured for cooperation with an external audio source, e.g. an MP3 player (by a suitable communications jack or transmitted thereto e.g. by Bluetooth, etc.; not shown), or it can comprise a memory card slot (also not shown), etc. The sound can be lullaby

melodies or other soft music, or sounds associated with the theme of the first, activity face **32** of the amusement device **22**, e.g. sounds of animals, nursery rhymes, etc.

[0064] The electronic of the device can be configured with several sensors and controls. For example, volume loudness and ON/OFF switch **84** (FIG. 5). There can also be provided a sound/noise sensor for initiating or terminating a stimulation action (motion, light or sound associated; independently or in combinations). For example, a soothing light and or lullaby melody can spontaneously be activated or terminated, depending on sound, such as child's crying. There can further be provided a remote control unit (not shown), for initiating or terminating or controlling intensity of one or more stimulation actions. Likewise, the electronics of the amusement device can be configured with a timer for initiating or terminating one or more stimulation actions.

[0065] Turning now to FIGS. 6 and 7, reference is made to the wall mounting unit generally designated **24**. At the outset, it is appreciated that the wall mounting unit can be attached to a variety of child locations, such as any child accommodating unit e.g. crib, bed, playpen and the like, or even a vehicle backrest (for amusing a child seated behind it, etc.).

[0066] The wall mounting unit **24** comprises at a front face thereof a handle grip **90** configured for snapingly attaching thereto the handle portion **70** of the handle unit **38**, said handle grip **90** configured for rotating at least 180° as indicated by arrowed line **92** in FIG. 6A. The handle grip **90** is pivotally attached to the body of the wall mounting unit **24**, however with some degree of freedom. According to one particular example, the handle grip **90** can be configured with discrete angular settings, for arresting the infant amusement device **22** at intermediate angular positions.

[0067] The wall mounting unit **24** further comprises a clip-like top edge mount **96**, having a circular cross-section and configured for clamping engagement over a rounded top edge **98** of a bed/crib/playpen and the like as shown in FIGS. 2C, 2D and 8 (or turned at 90° for mounting on a post). Elasticity and clamping force can be regulated by resilience of the material and respective fasteners (not shown).

[0068] When required to attach the infant amusement device assembly **20** to a bed and the like (FIGS. 2A, 2B and 7A), a resting edge **100** of the wall mounting unit **24** is placed over a respective bar or edge **102** of the bed (best seen in FIG. 7B), and is securely fastened by using length adjustable straps **104** as illustrated in FIG. 7B.

[0069] The pivotal articulation of the handle portion **70** with the handle grip **90**, which by itself is pivotal, facilitates the amusement device for rotation at least 180° about a roll axis, and at least 90° about a pitch axis.

[0070] It is thus appreciated that the infant amusement device can be used in several fashions:

[0071] An activity mode (FIGS. 2A and 2C), exposing the first face **32** to the infant, at a substantially upright position;

[0072] A free position (FIG. 4), detached from the wall mounting unit and exposing either face to the infant, in a carry along position (in this position the first face **32** is facing the infant);

[0073] A soothing position (FIG. 2B), exposing the second face **34** to the infant, at a substantially upright position; and

[0074] A supine soothing position (FIGS. 2D, 3 and 8), exposing the second face **34** to the infant, at an inclined position above the surface bearing the infant, i.e. easily viewable when the infant is supine.

1. An infant amusement device, comprising:
 - a board-like body configured with a first face configured in turn with a first stimulating theme and a second face configured in turn with a second stimulating theme;
 - a handle unit configured for carrying the amusement device; and
 - a wall mounting unit configured for mounting thereon the handle unit and detachably attaching to a supporting wall of a furniture item,
 wherein the handle unit is further configured for mounting the amusement device on said wall mounting unit at a plurality of positions exposing the first face or the second face.
2. The infant amusement device of claim 1, wherein the wall mounting unit is configured with a mounting portion configured for detachably attaching to said supporting wall, and a device articulation portion configured for detachably attaching thereto the handle unit of the infant amusement device.
3. The infant amusement device of claim 2, wherein the device articulation portion is convertible between at least two positions so as to display either the first face or the second face of the infant amusement device.
4. The infant amusement device of claim 3, wherein the device articulation portion is convertible between said positions by rotating about one or more axes.
5. The infant amusement device of claim 3, wherein the device articulation portion has a tilted position, so that said first face or said second face faces downwards so it can be viewed when a child is supine.
6. The infant amusement device of claim 1, wherein the handle unit facilitates manual gripping and carrying of the infant amusement device.
7. The infant amusement device of claim 2, wherein the mounting portion of the wall mounting unit comprises a mounting arrangement allowing said detachable attachment thereof to the supporting wall, while preventing its unintentional detaching.
8. The infant amusement device of claim 7, wherein the mounting arrangement is a clamping arrangement.
9. The infant amusement device of claim 2, wherein the device articulation portion is configured with a grip unit for snappingly engaging the handle unit of the infant amusement device.
10. The infant amusement device of claim 9, wherein the grip unit is configured for pivotal displacement, so that the infant amusement device can be rotated at least 180° about a roll axis, and at least 90° about a pitch axis.

11. The infant amusement device of claim 2, wherein the device articulation portion is configured with discrete angular settings, for arresting the infant amusement device at intermediate angular positions.

12. The infant amusement device of claim 2, wherein the device articulation portion is configured with an arresting portion for securing the infant amusement device at a tilted position, thereby rendering a face of the amusement device visible when a child is at a supine position.

13. The infant amusement device of claim 12, wherein the arresting portion is a hook arrangement configured for arresting a respective arresting member configured at the handle unit of the infant amusement device.

14. The infant amusement device of claim 1, wherein one or both of the first stimulation theme and the second stimulation theme comprise or are associated with an audio generating unit.

15. The infant amusement device of claim 14, wherein the audio generating unit is common for both of the first stimulation theme and the second stimulation theme, or independent therefrom.

16. The infant amusement device of claim 15, wherein the audio generating unit is fitted within the handle unit.

17. The infant amusement device of claim 1, wherein the handle unit comprises a power source.

18. The infant amusement device of claim 1, wherein the handle unit is integral or integrated with the board-like body.

19. An infant amusement device to be mounted on a furniture item having a supporting wall, the device comprising:

- a board-like body configured with a first face configured in turn with a first stimulating theme and a second face configured in turn with a second stimulating theme; and
- a handle unit configured for carrying the amusement device and for mounting it on said supporting wall at a plurality of positions exposing the first face or the second face.

20. A wall mounting unit for use in conjunction with the infant amusement device of claim 19, configured for detachably attaching to the supporting wall, comprising:

- a mounting portion configured for detachably attaching to the supporting wall; and
- a device articulation portion configured for detachably attaching to the handle unit,

wherein said device articulation portion being convertible between at least two positions so as to display either the first face or the second face of the infant amusement device.

* * * * *