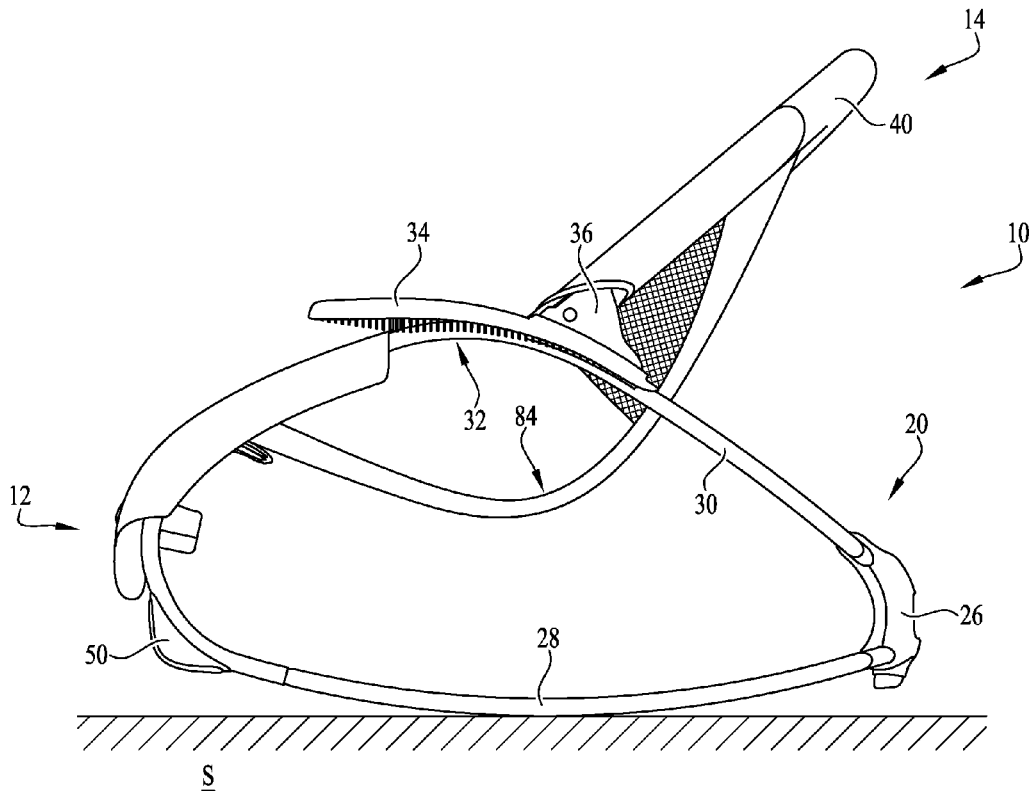




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(19) **United States**(12) **Patent Application Publication**
KAPANZHI et al.(10) **Pub. No.: US 2018/0098641 A1**(43) **Pub. Date: Apr. 12, 2018**(54) **CONVERTIBLE ROCKER**(52) **U.S. Cl.**(71) Applicant: **KIDS II, INC.**, Atlanta, GA (US)CPC *A47D 1/08* (2013.01); *A47D 1/002*
(2013.01); *A47D 13/102* (2013.01)(72) Inventors: **Avelina KAPANZHI**, Atlanta, GA
(US); **Trevor MAST**, Atlanta, GA (US);
Jacob SCLARE, Dacula, GA (US)(57) **ABSTRACT**(73) Assignee: **KIDS II, INC.**, Atlanta, GA (US)(21) Appl. No.: **15/728,960**(22) Filed: **Oct. 10, 2017****Related U.S. Application Data**(60) Provisional application No. 62/407,221, filed on Oct.
12, 2016.**Publication Classification**(51) **Int. Cl.***A47D 1/08* (2006.01)
A47D 13/10 (2006.01)
A47D 1/00 (2006.01)

A convertible child seat or support device having a rocker and an adjustable support frame. The convertible rocker generally comprises a frame and attached child support assembly. The convertible rocker is configured to support an infant in a generally supine position and a toddler in an inclined position. In example embodiments, the frame includes an adjustment mechanism to adjust the angle of incline of the backrest of the child support assembly between an infant position and a toddler position. In other embodiments, the child support assembly is configured to support a child in both an infant and toddler position based on the child's orientation in the child support assembly.



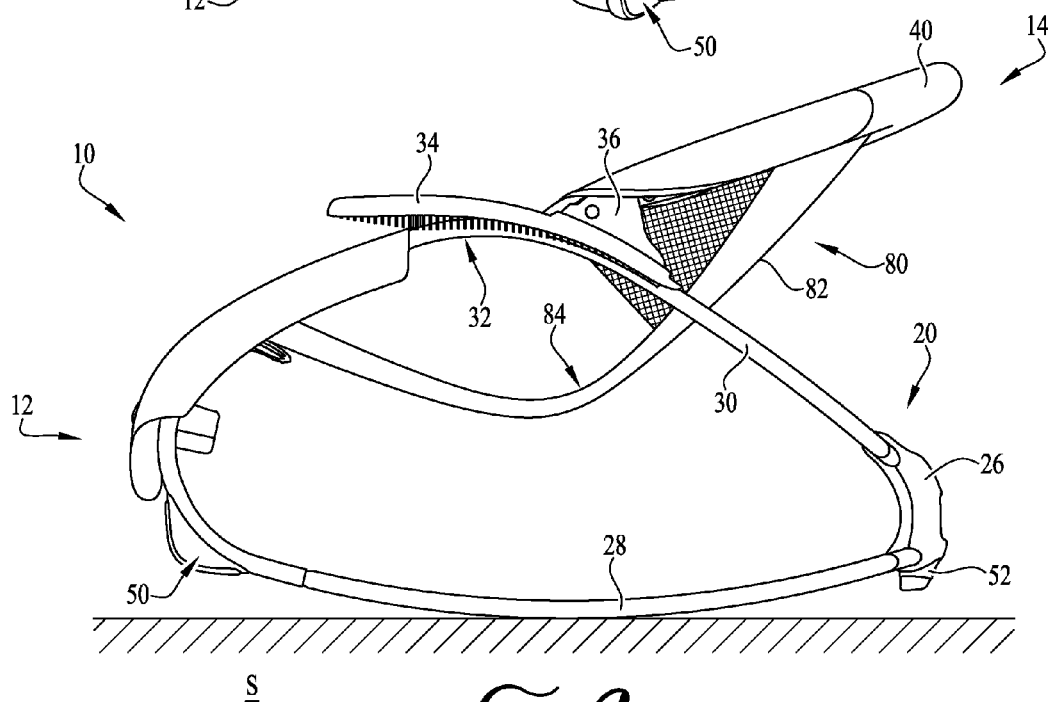
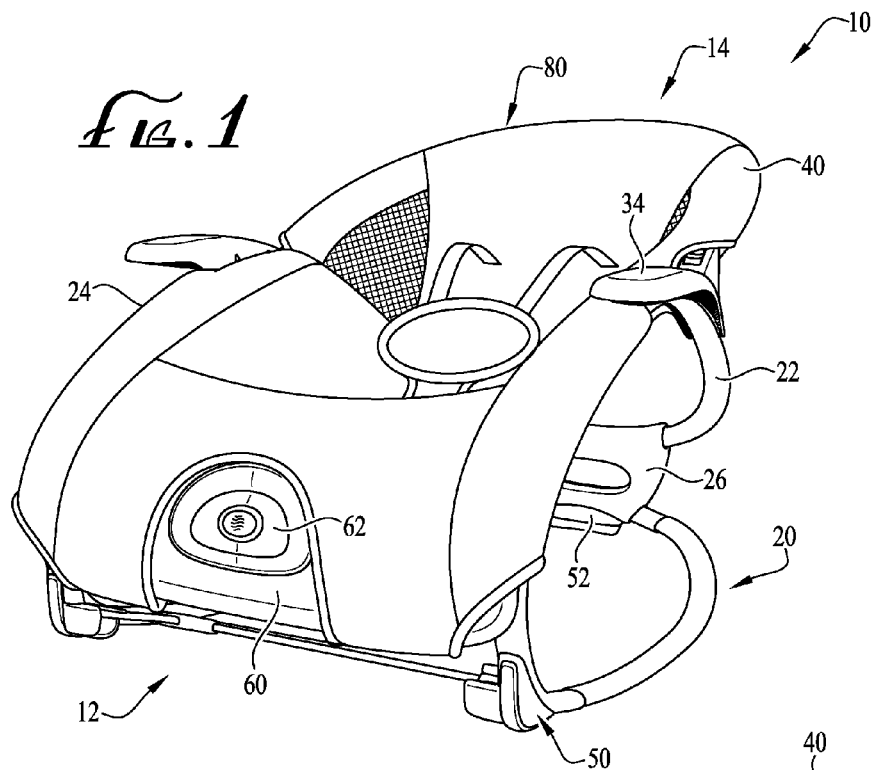

$$\mathbb{F}_{16}.2$$

FIG. 3

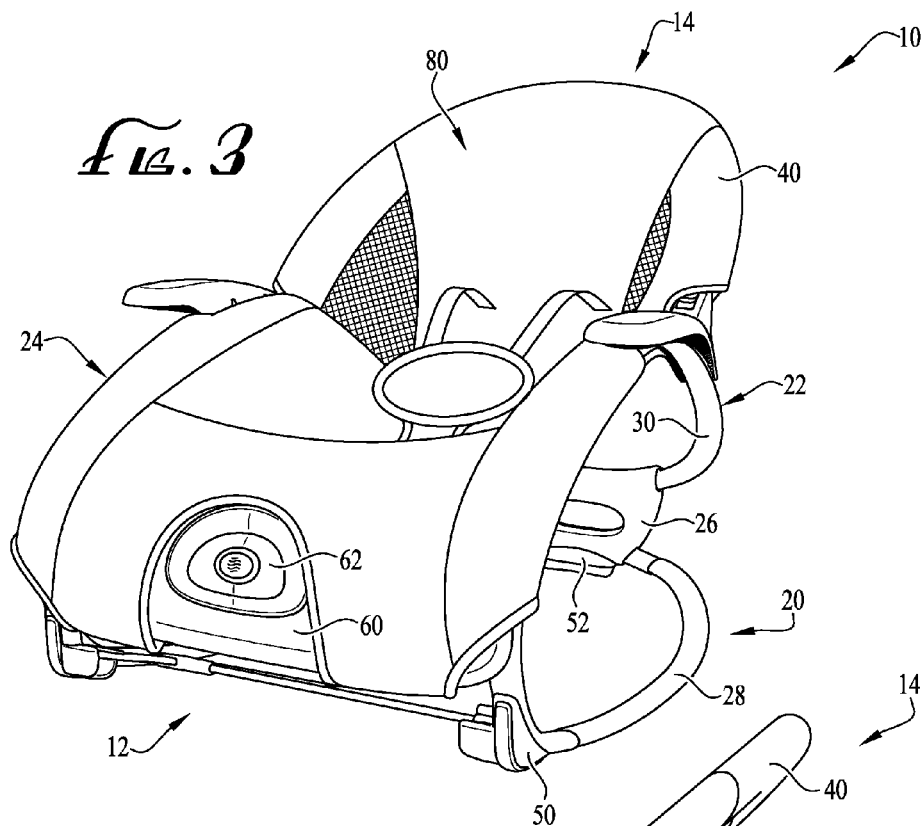
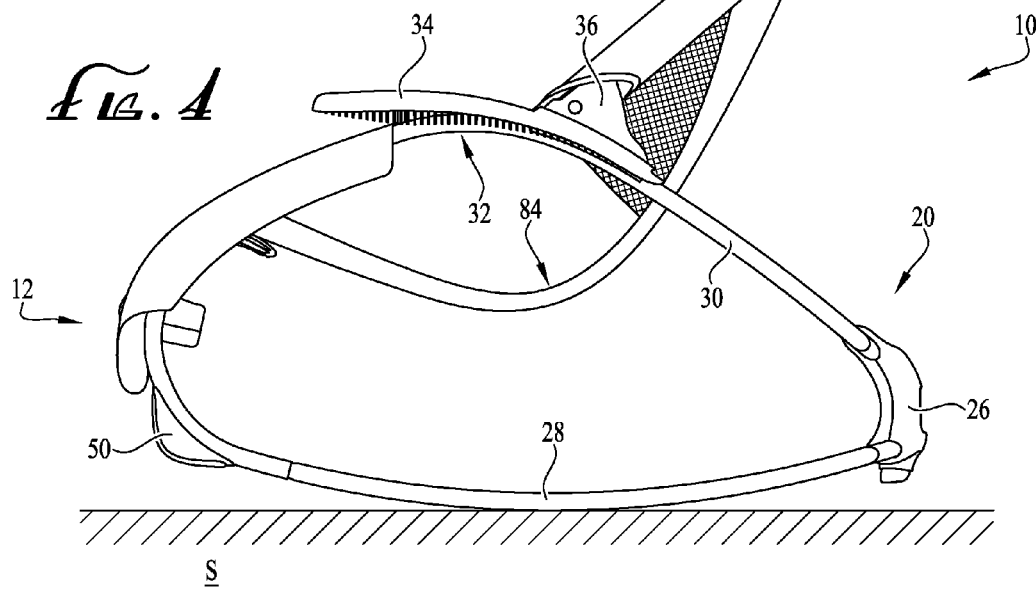
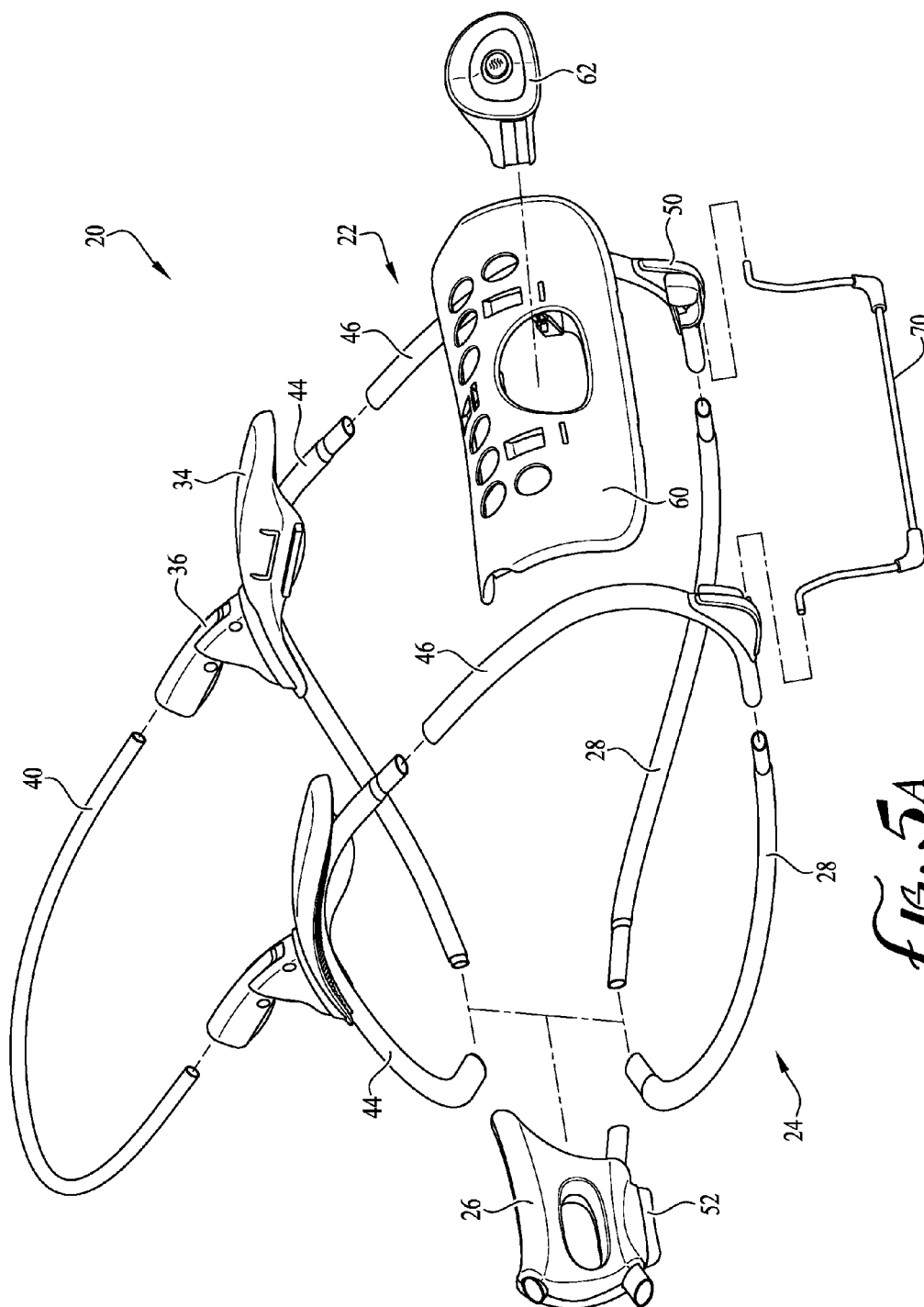


FIG. 4





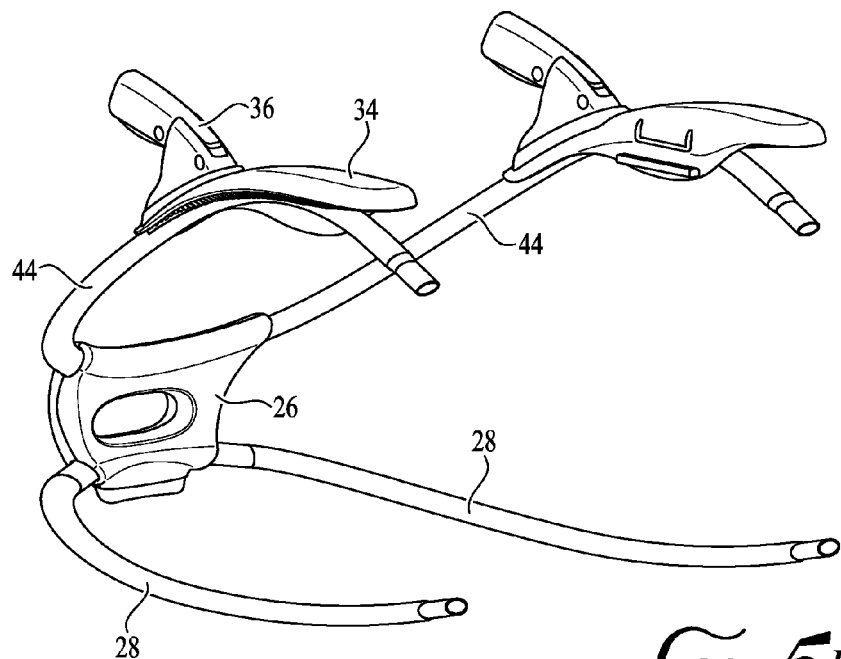


Fig. 5B

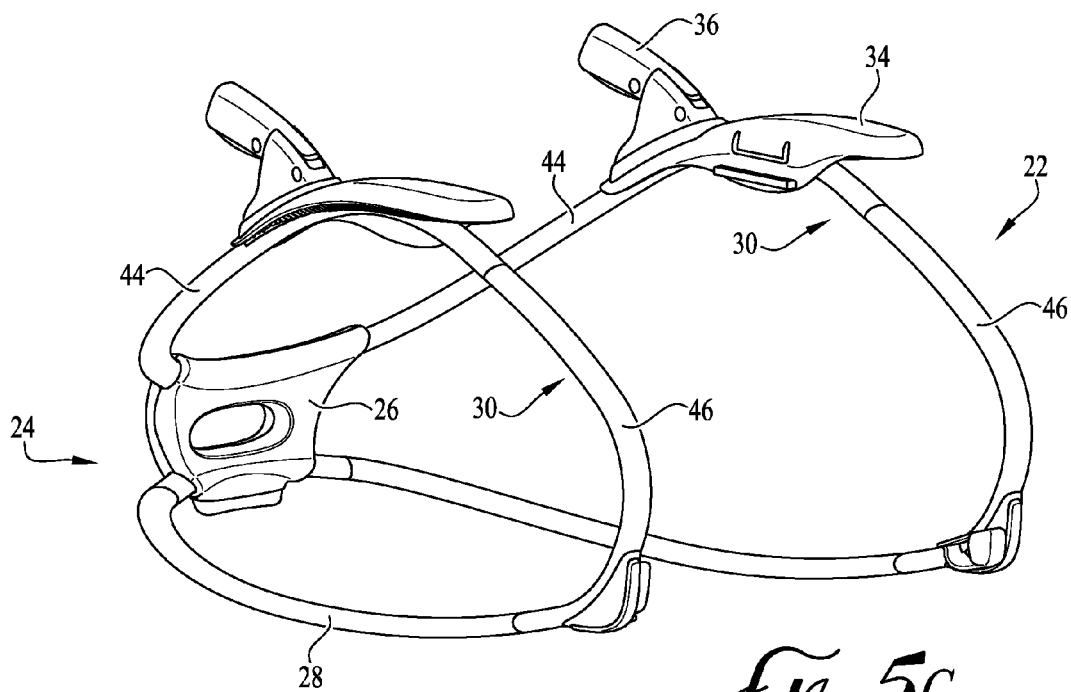
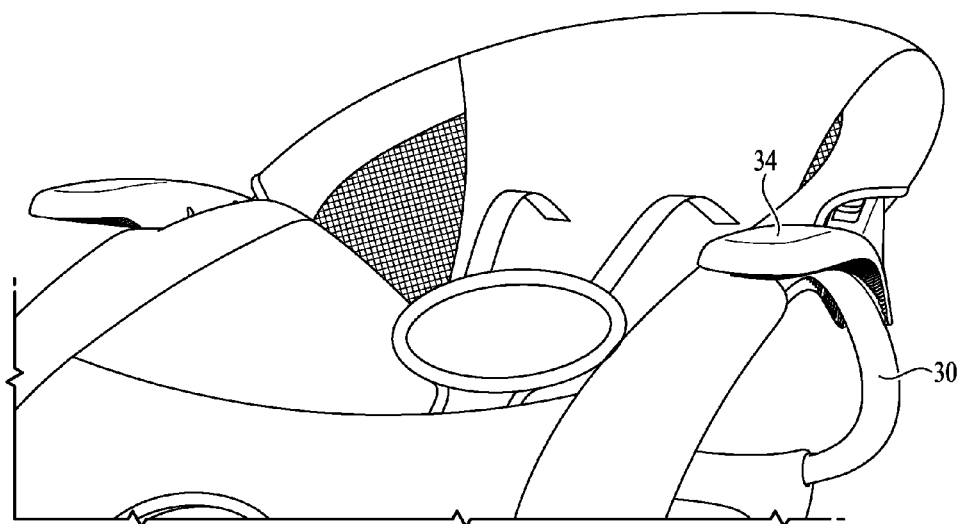
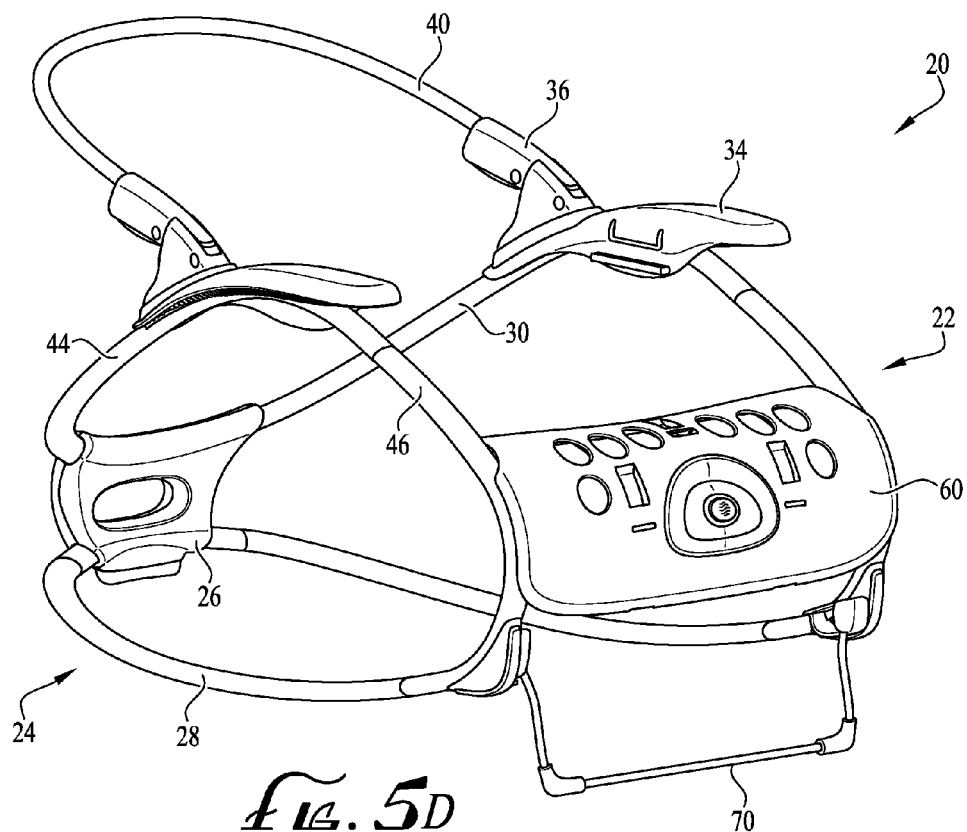


Fig. 5C



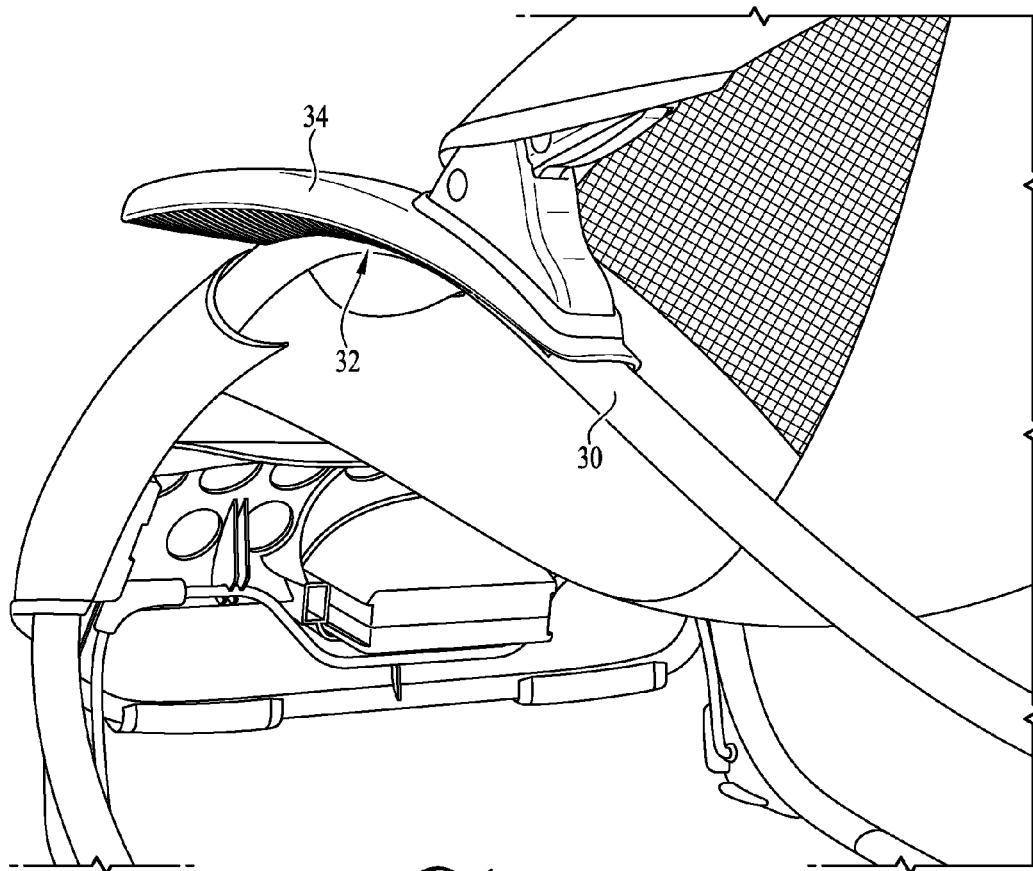


Fig. 7

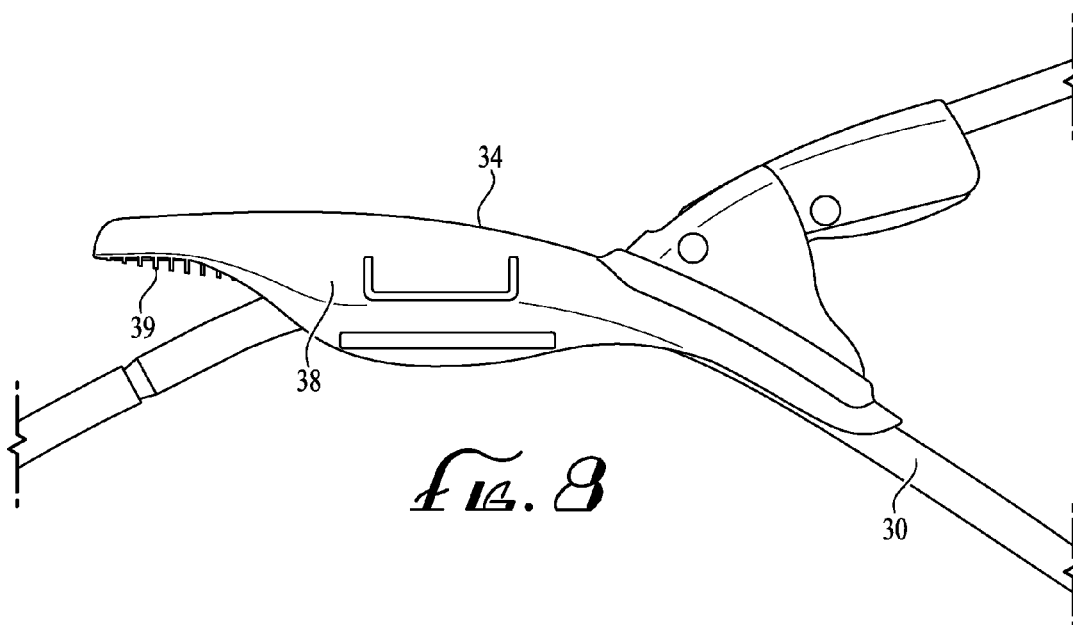
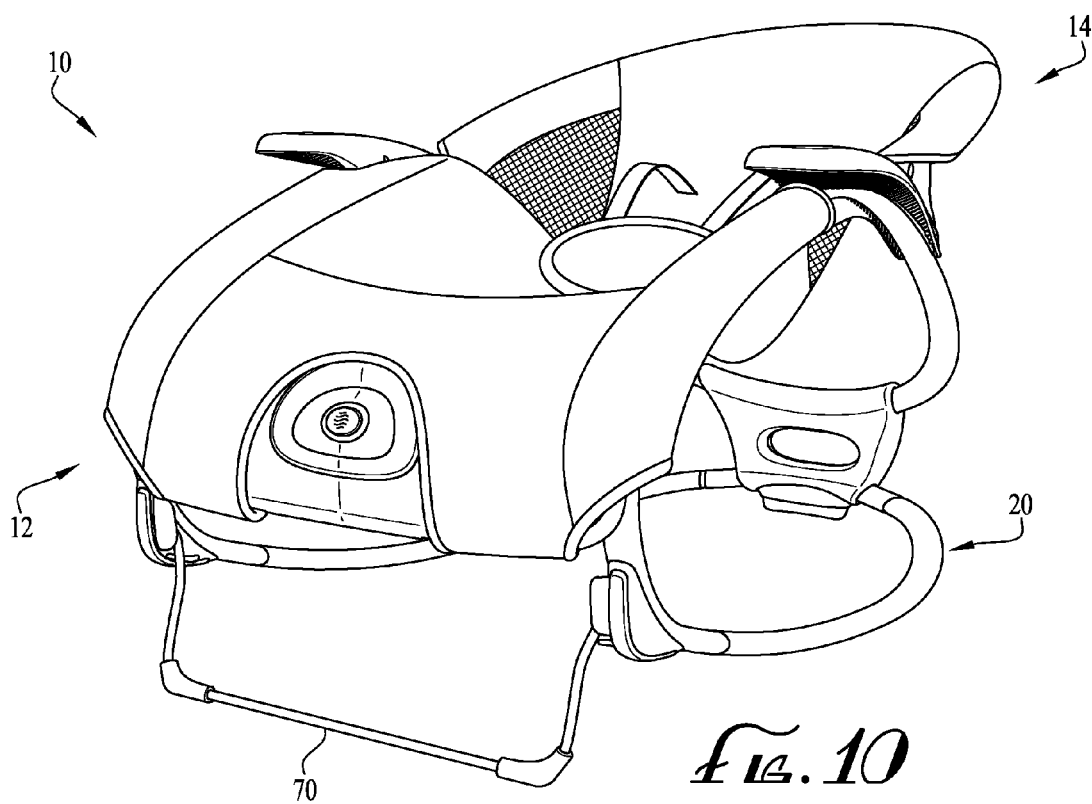
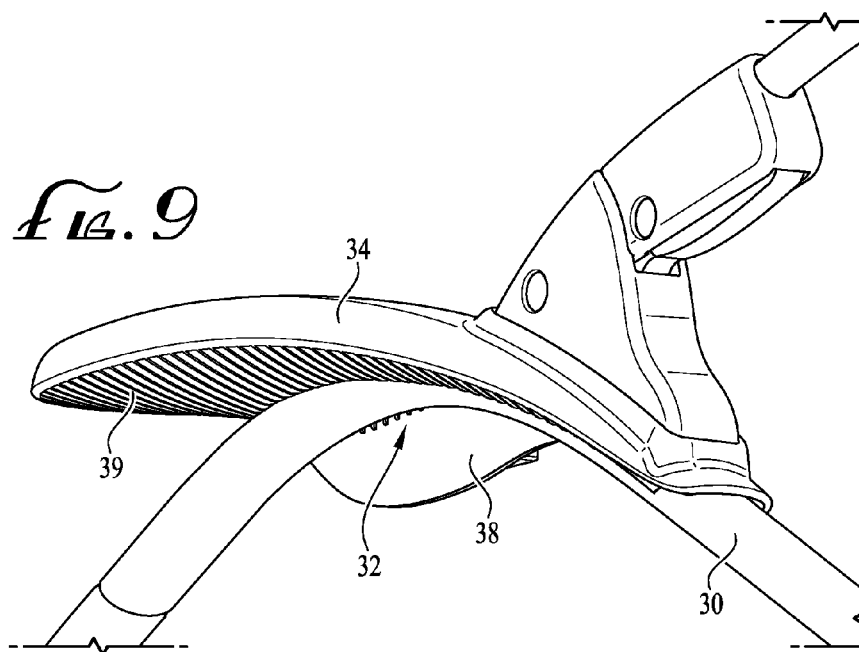
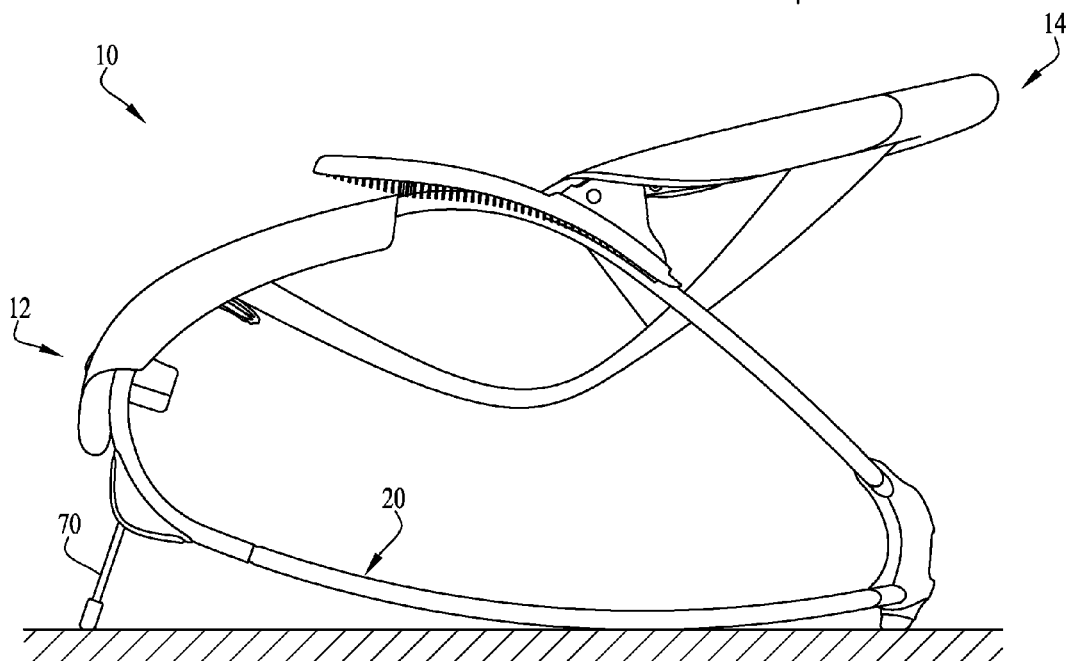
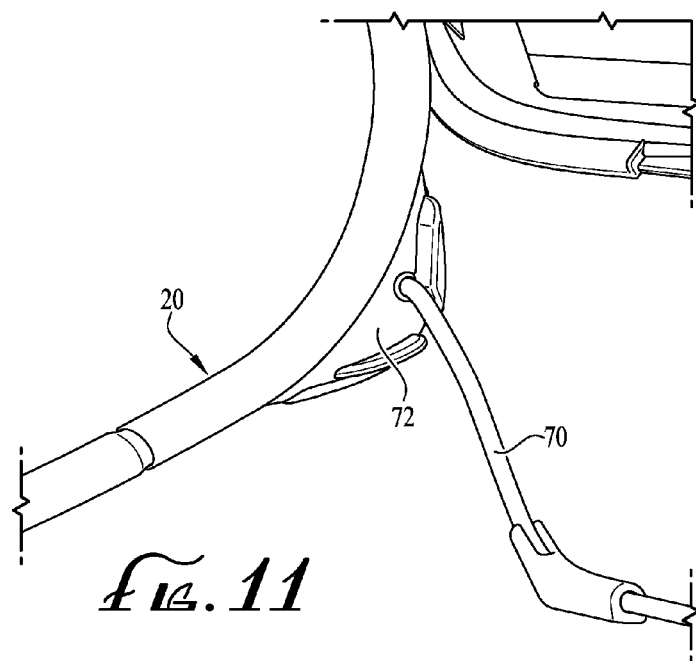
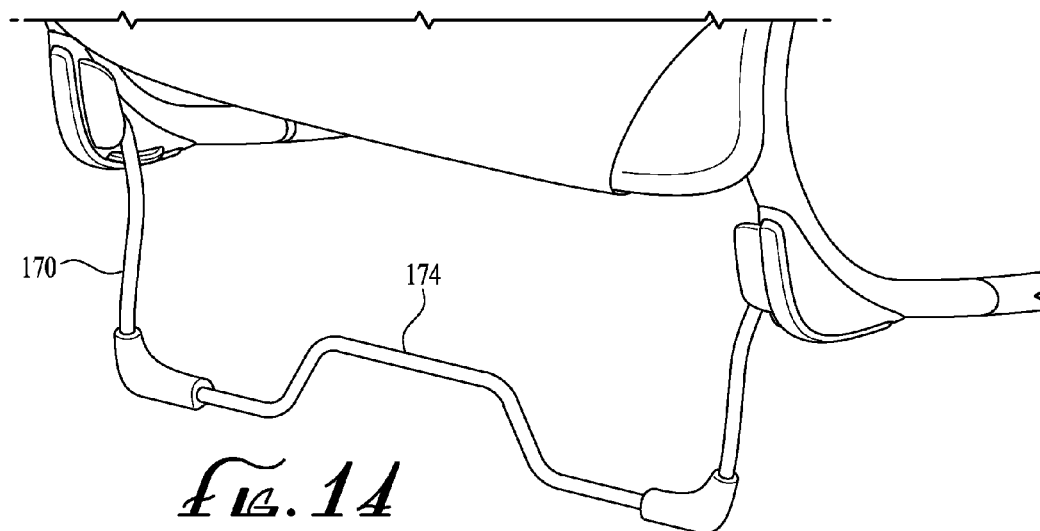
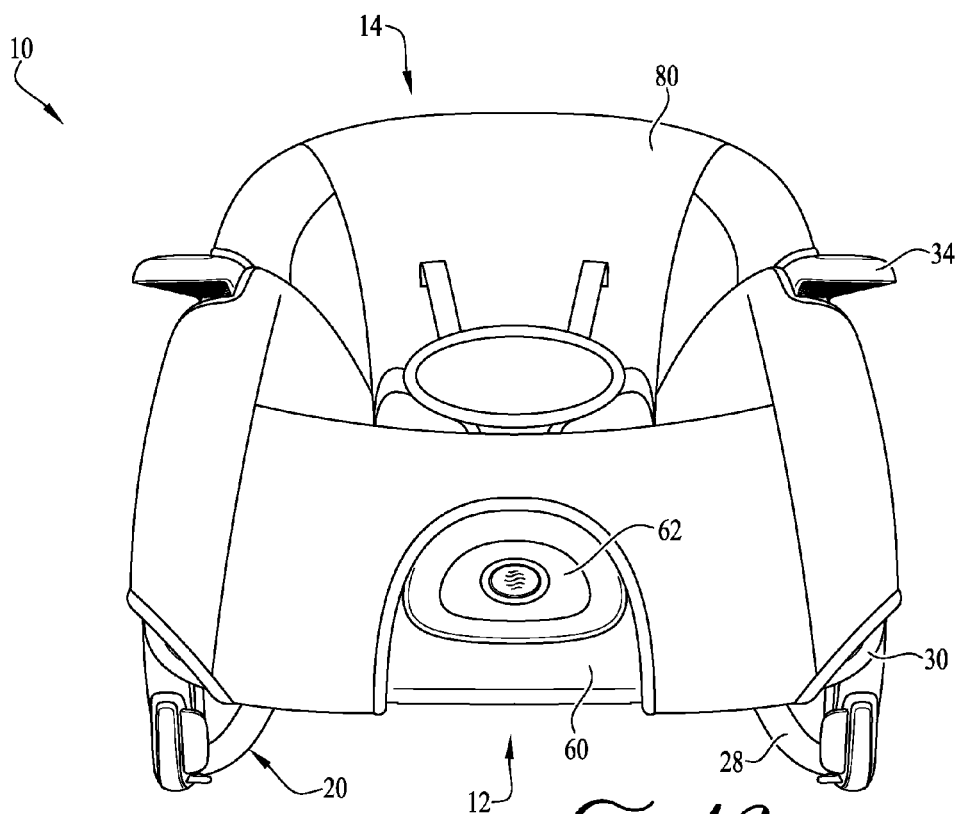
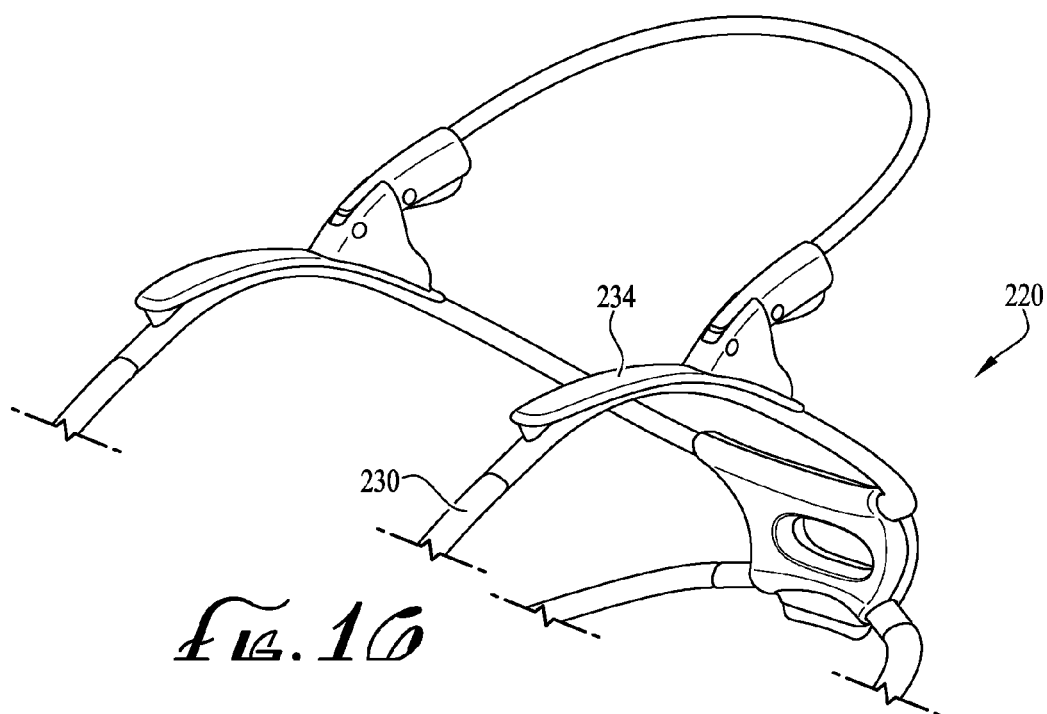
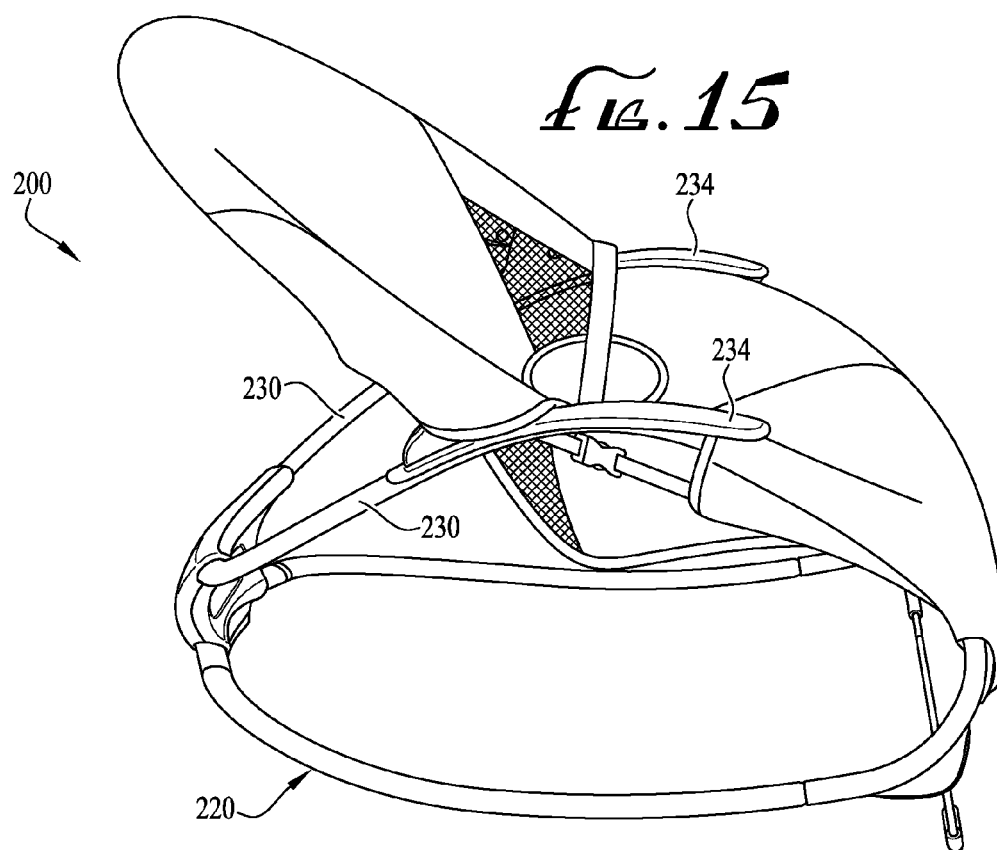


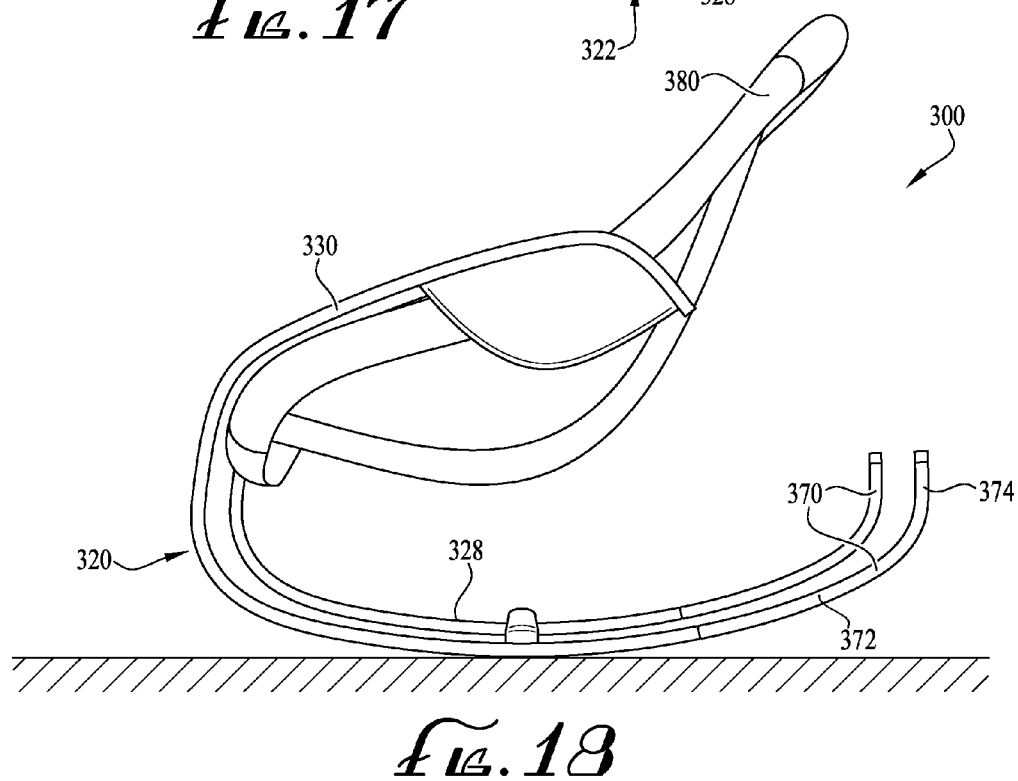
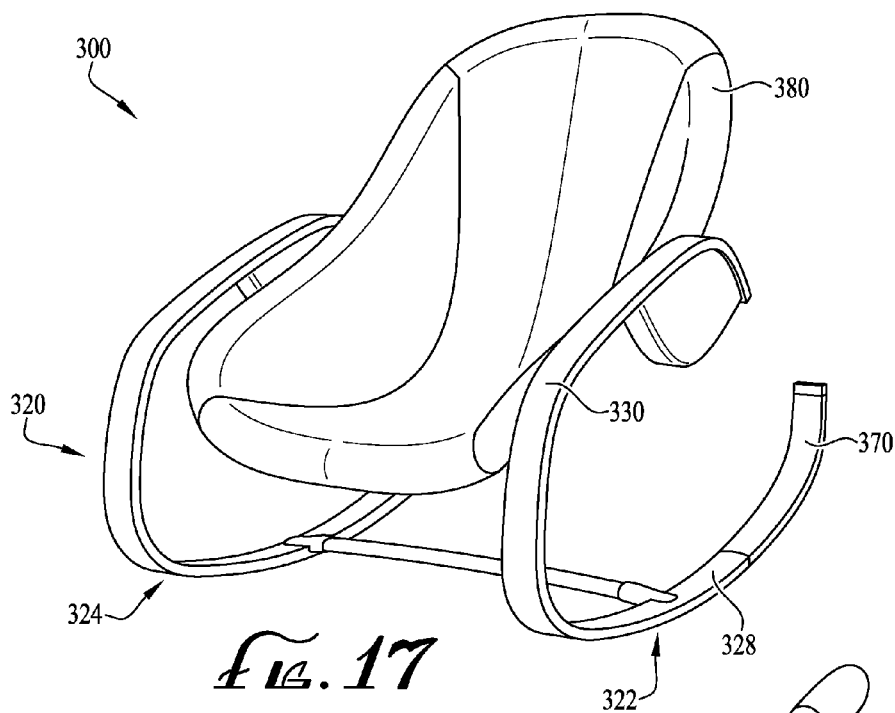
Fig. 8











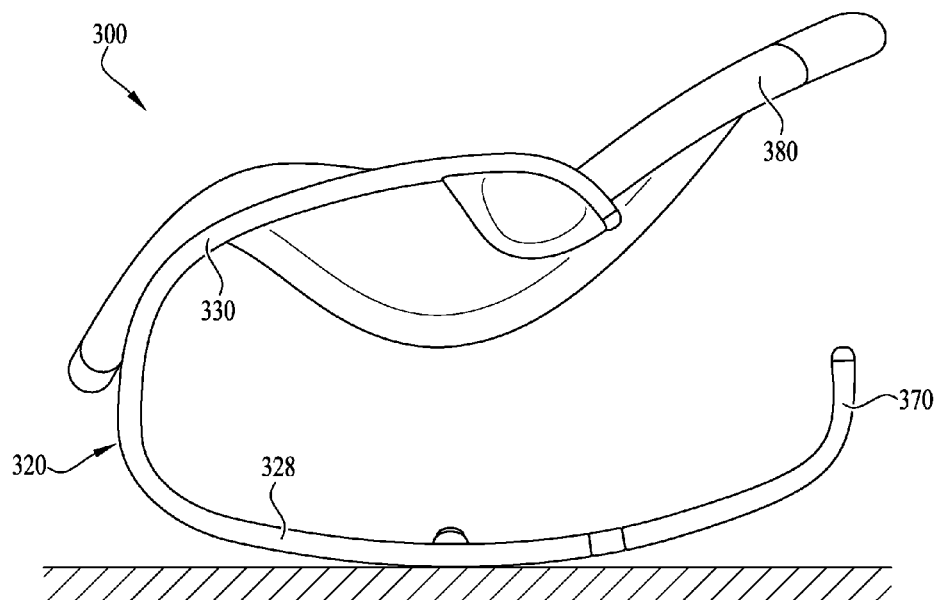


FIG. 19

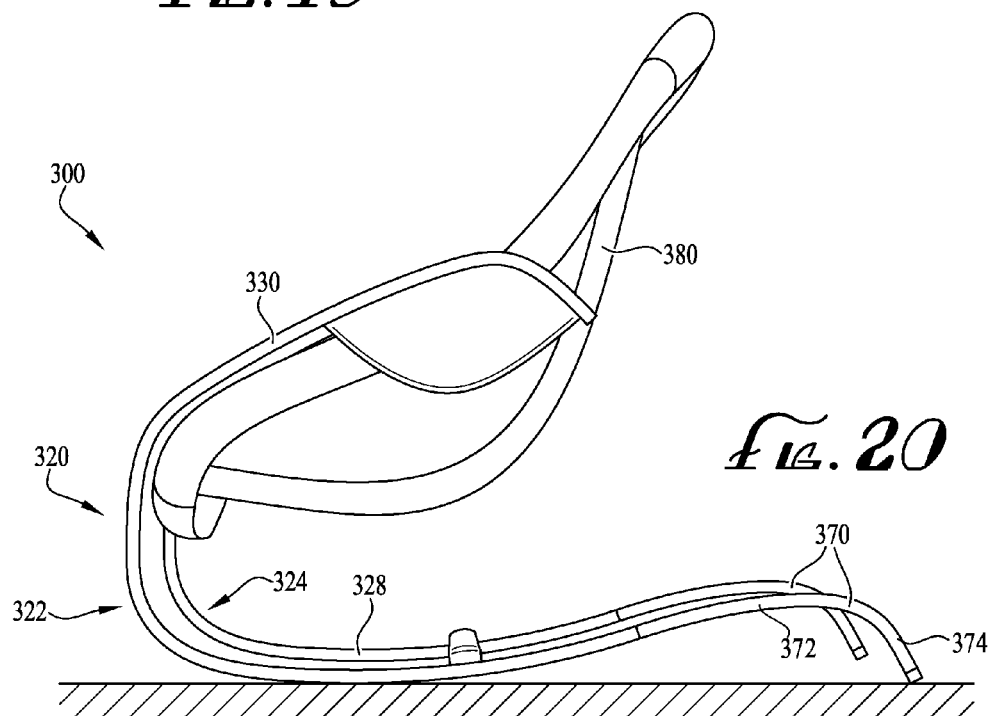


FIG. 20

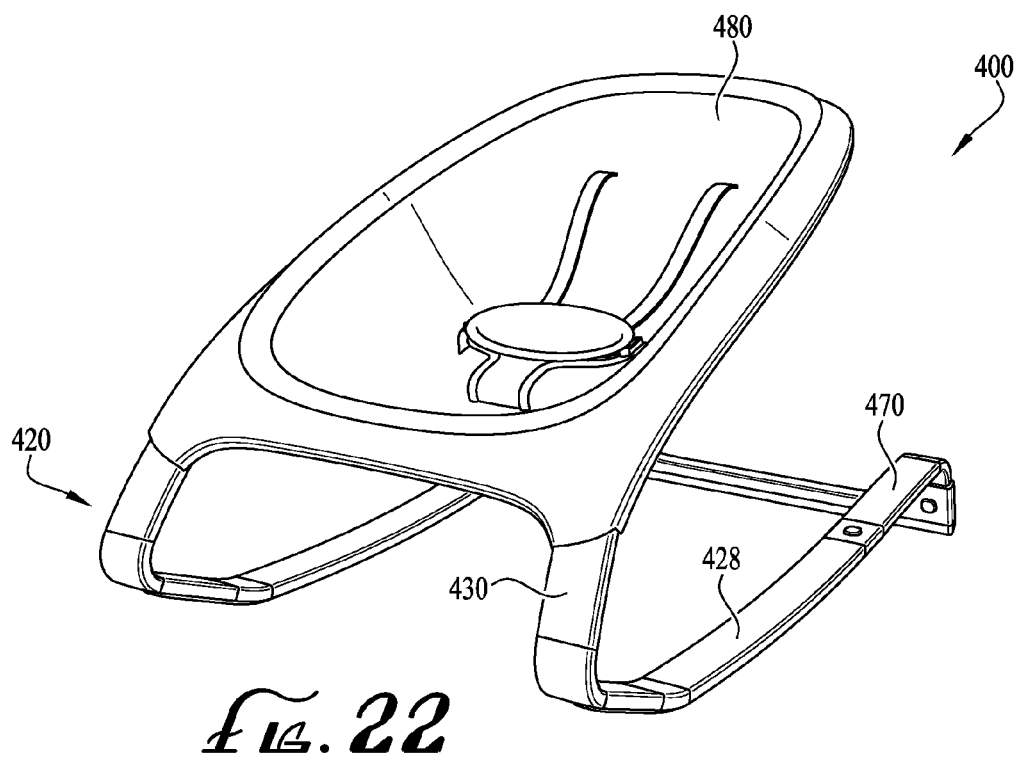
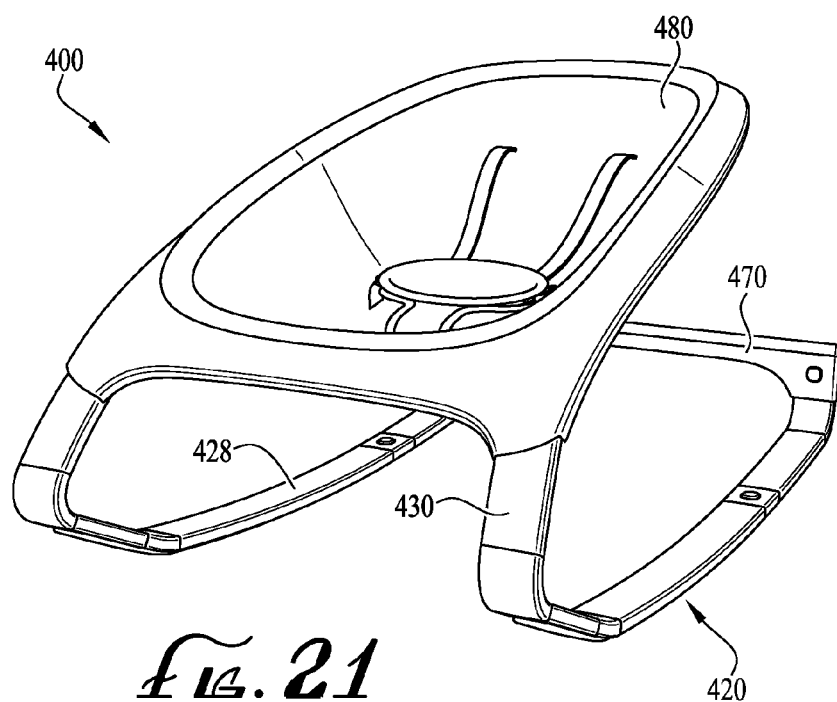


FIG. 23

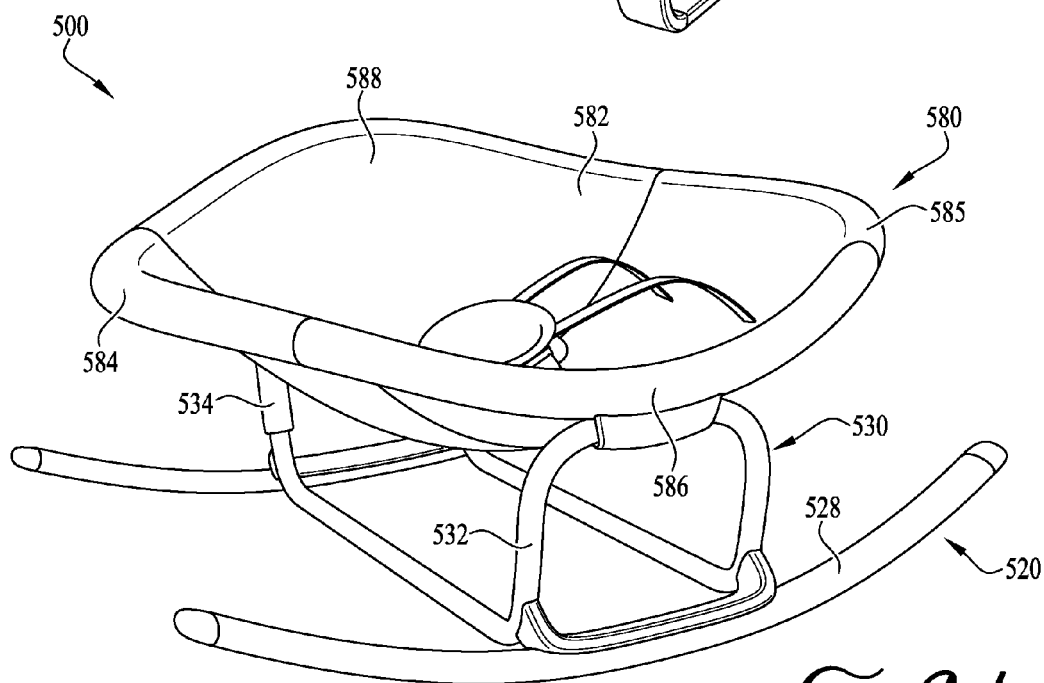
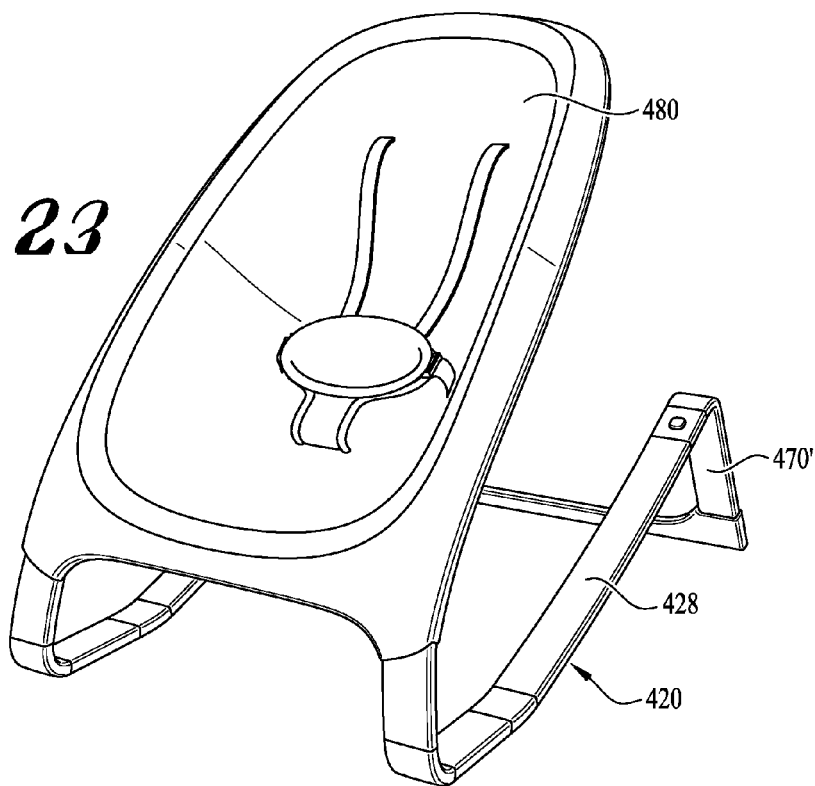


FIG. 24

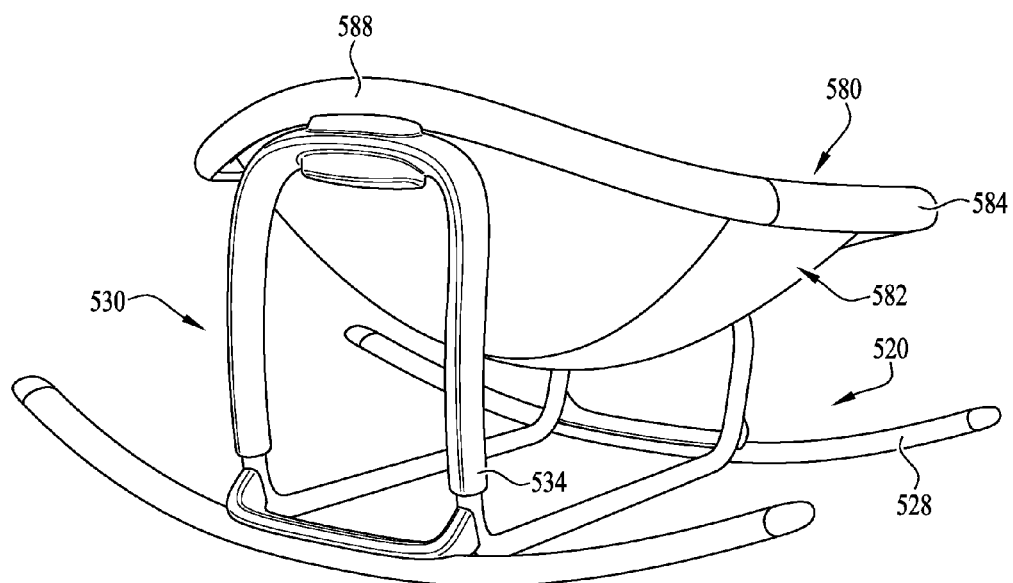


FIG. 25

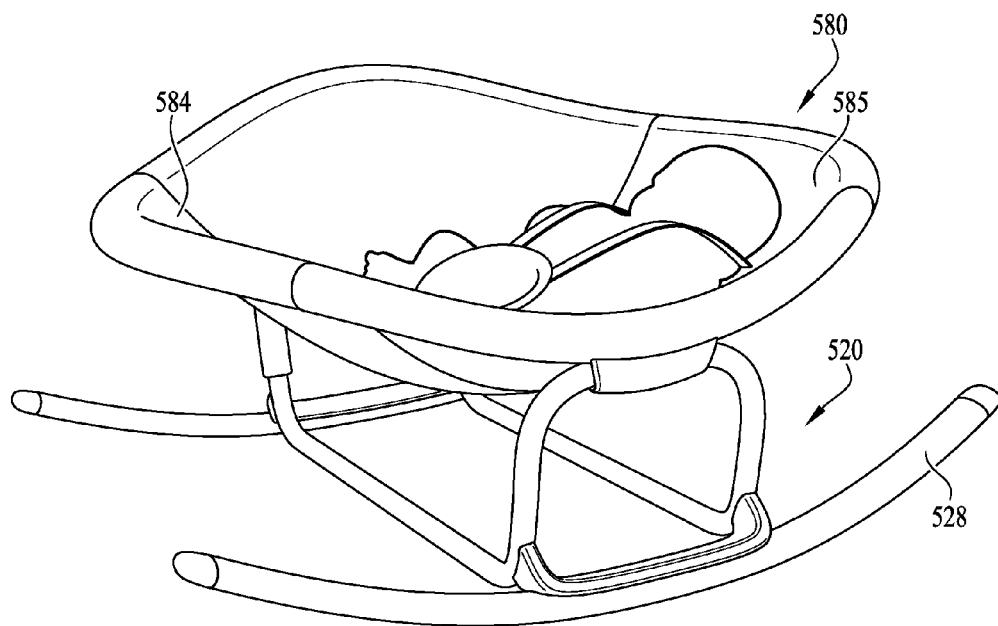


FIG. 26

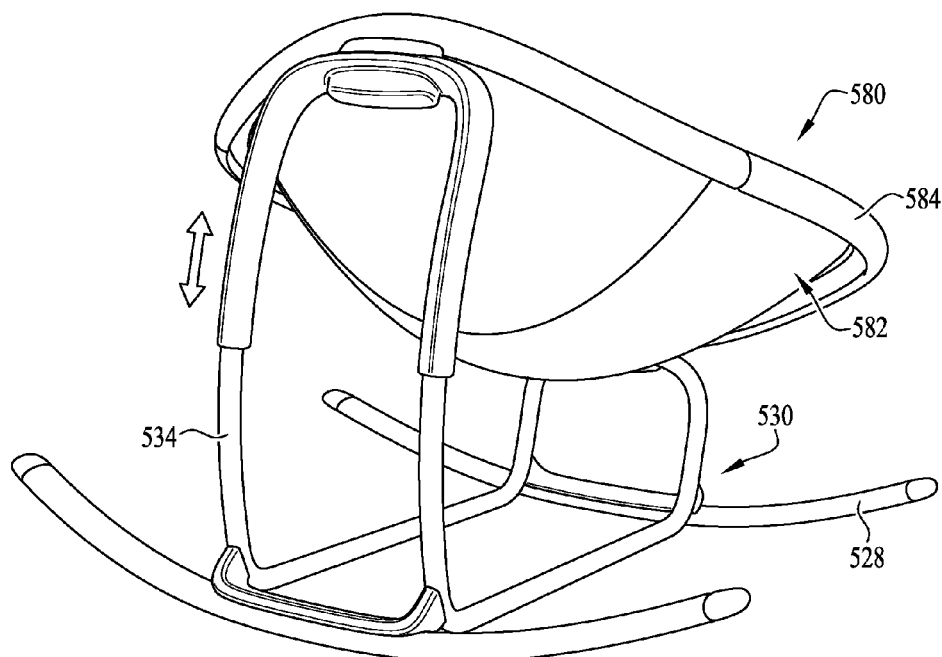


Fig. 27

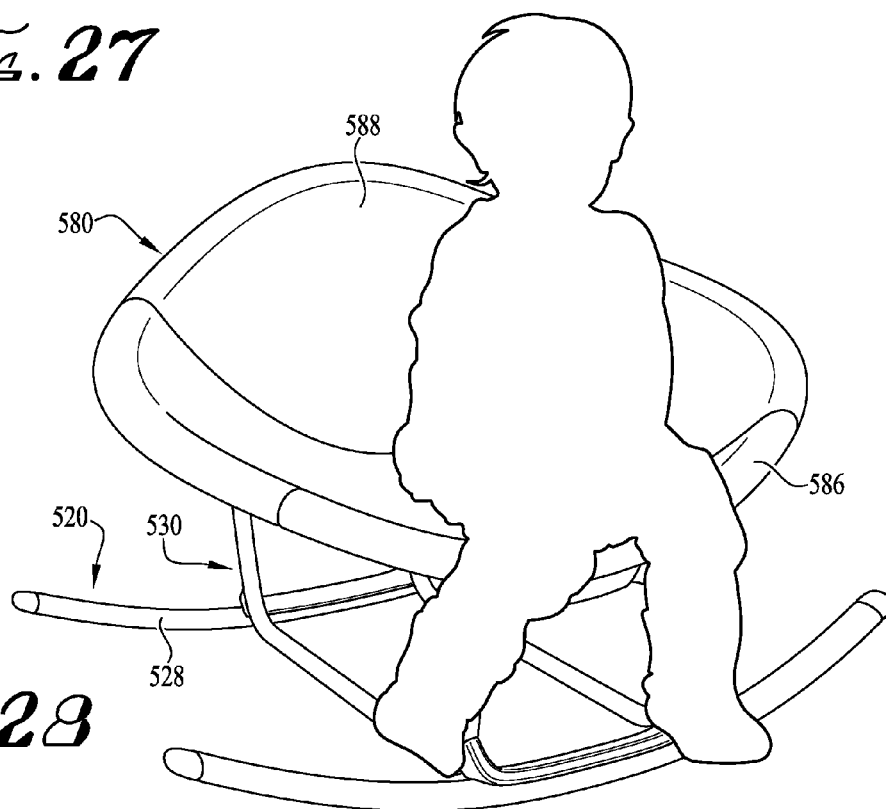
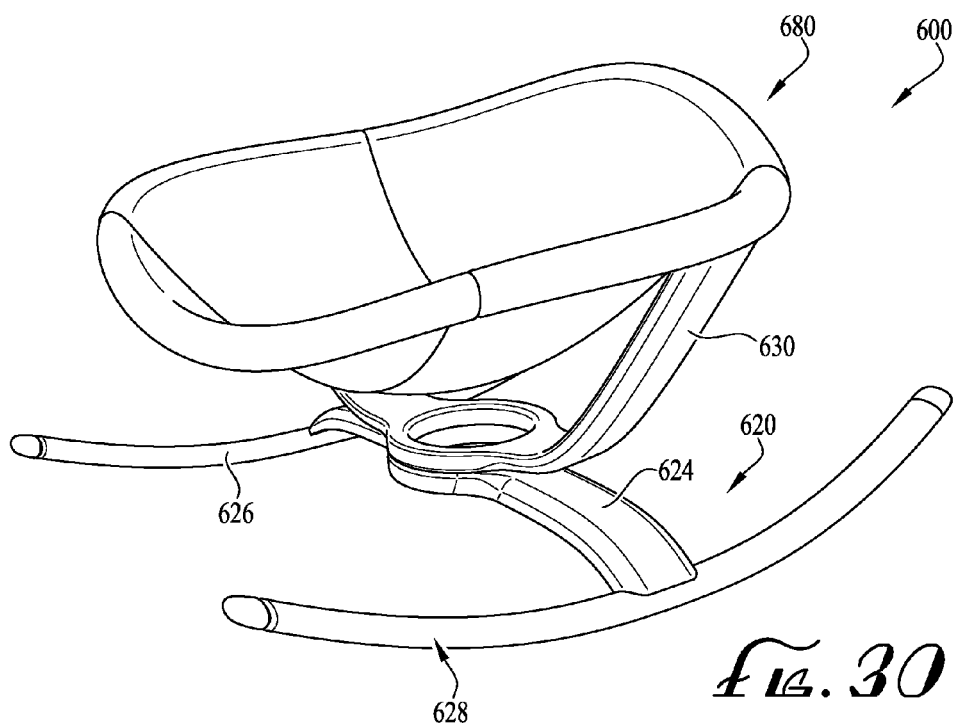
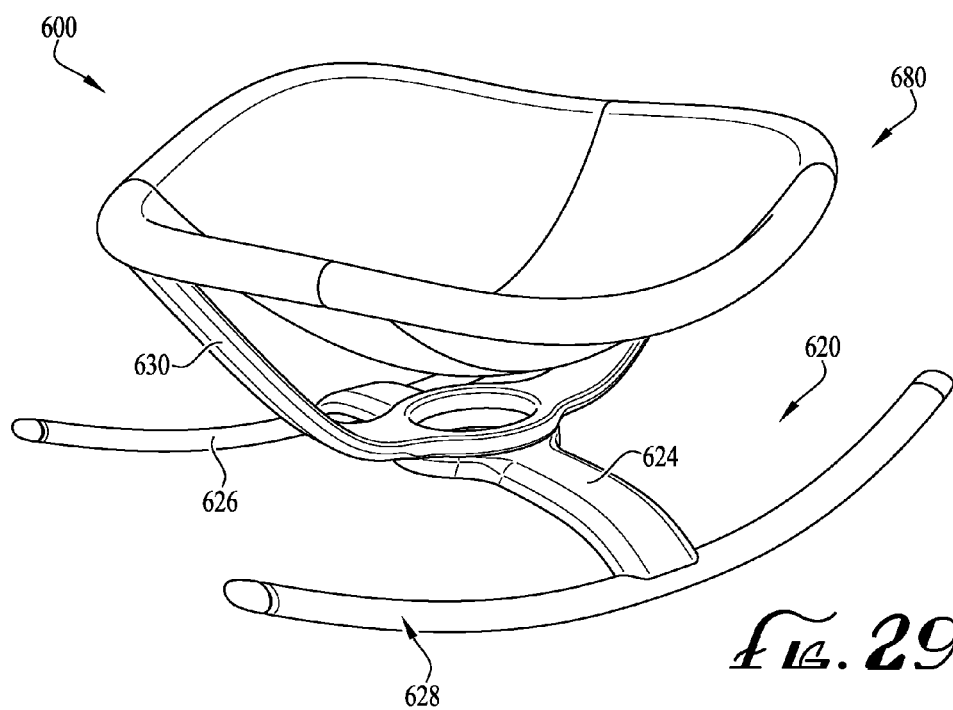


Fig. 28



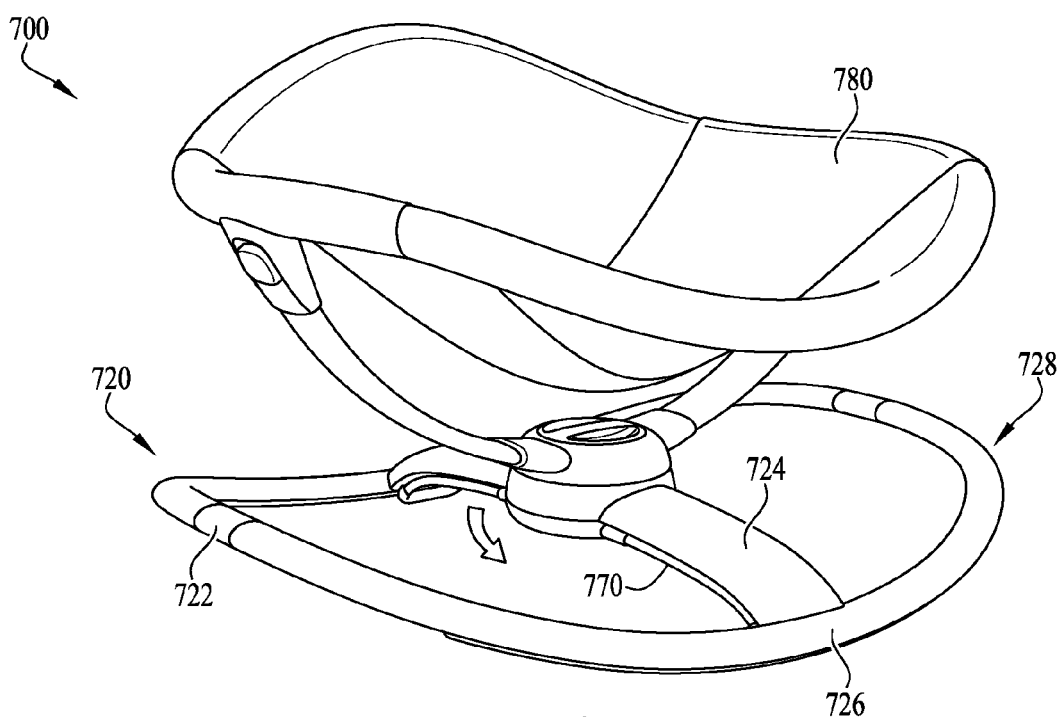


FIG. 31

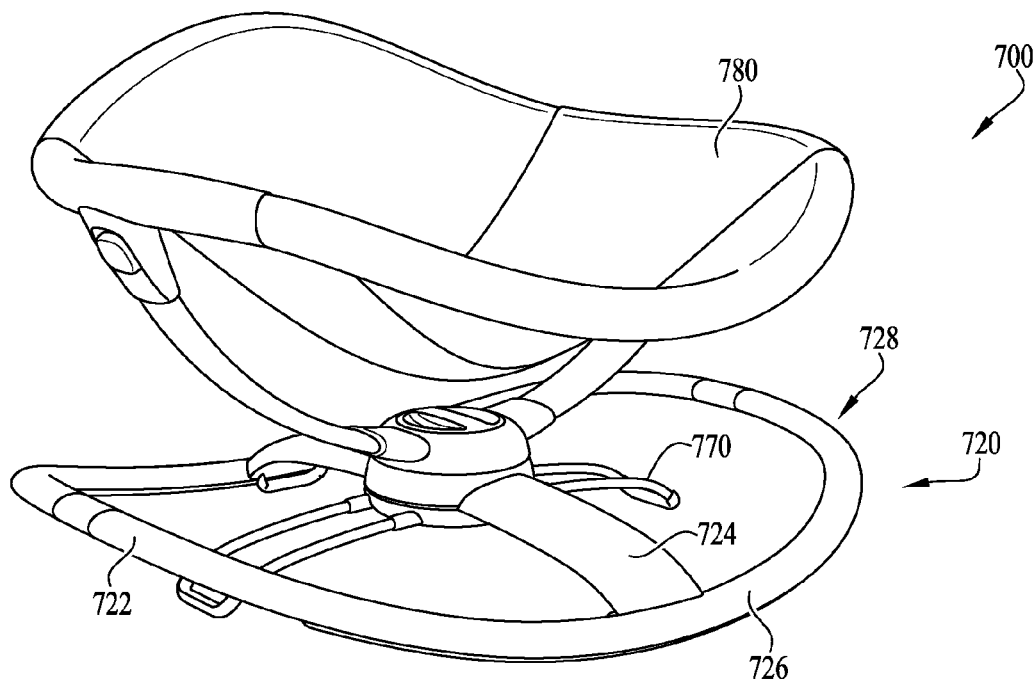


FIG. 32

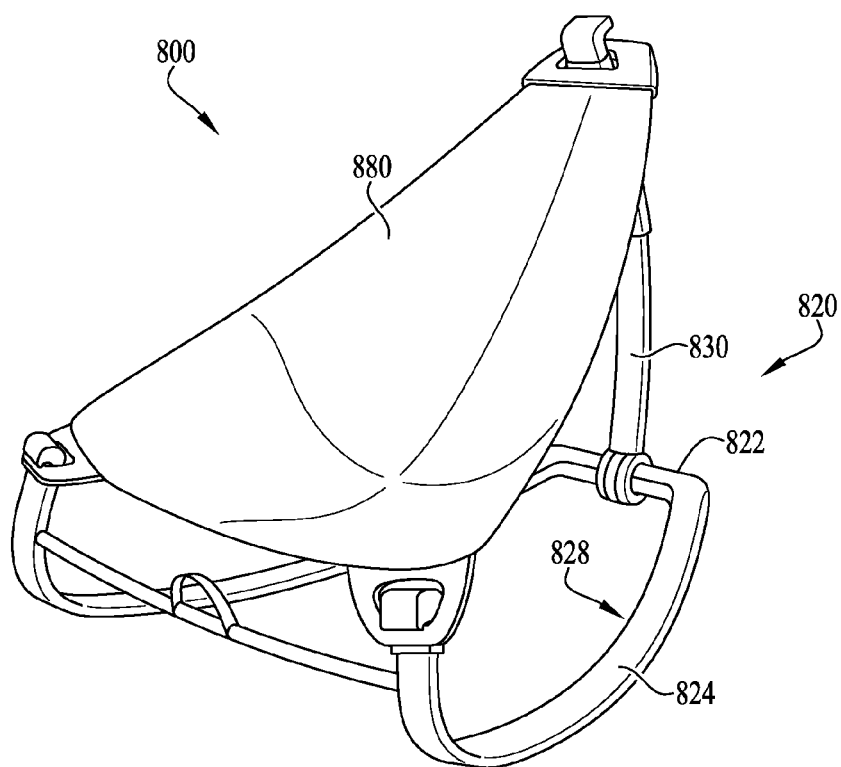


FIG. 33

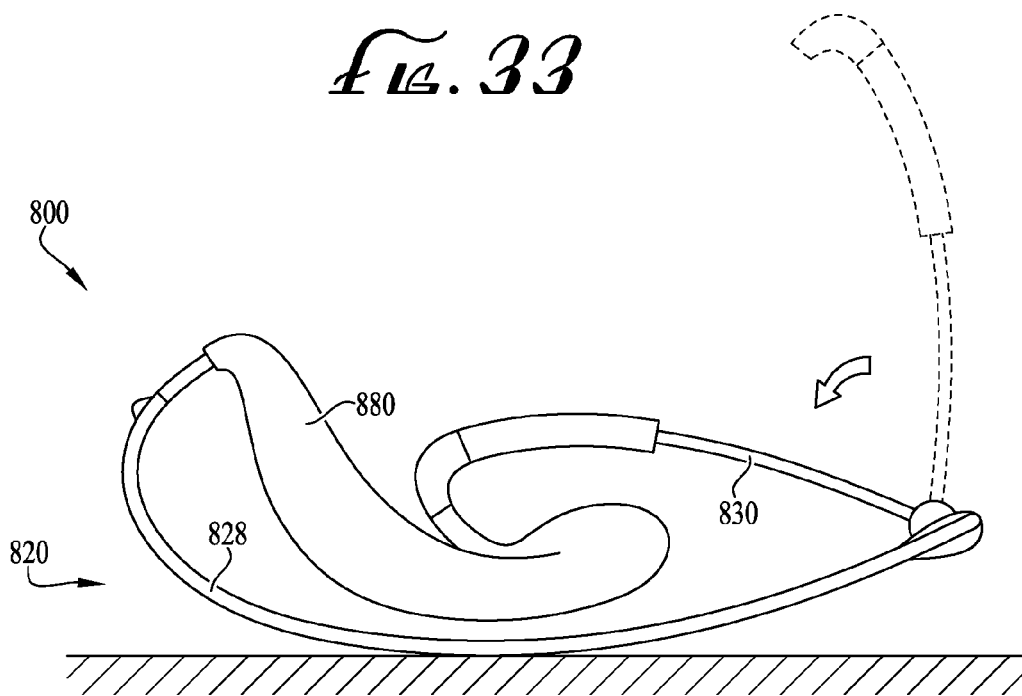
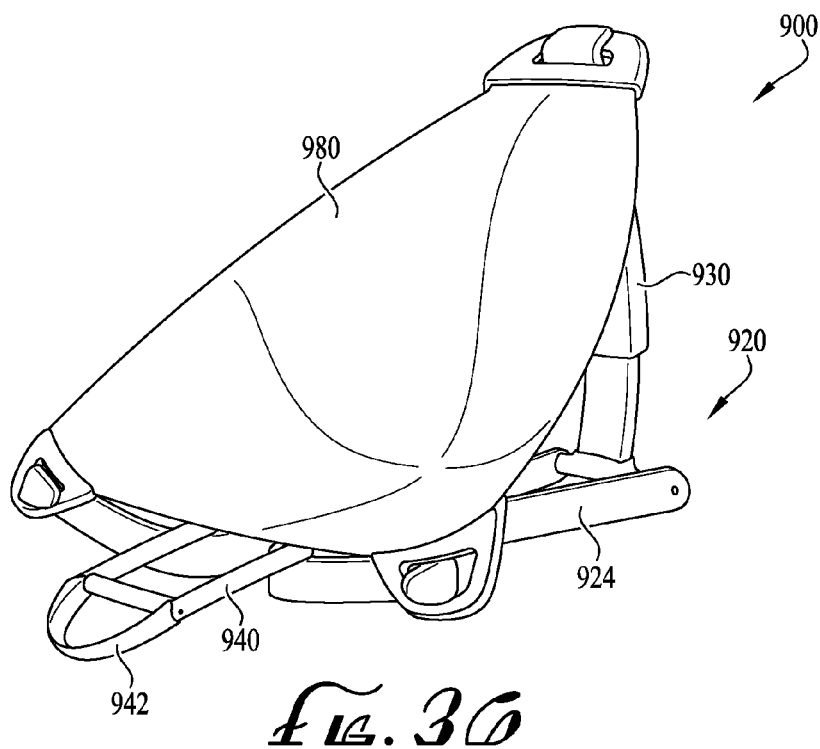
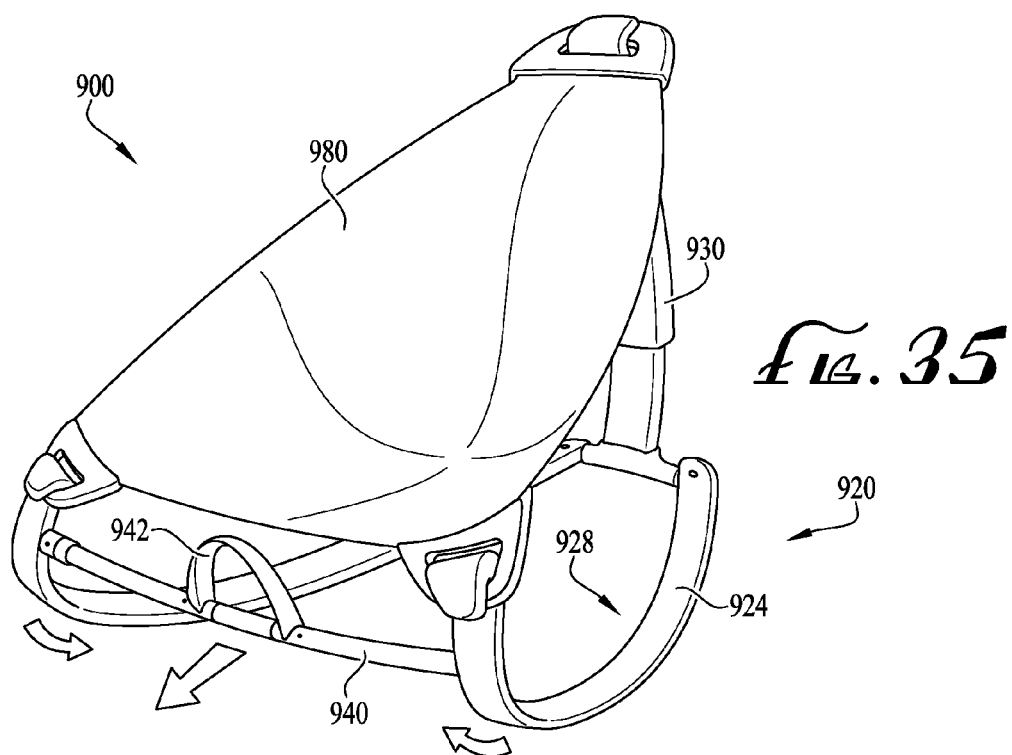
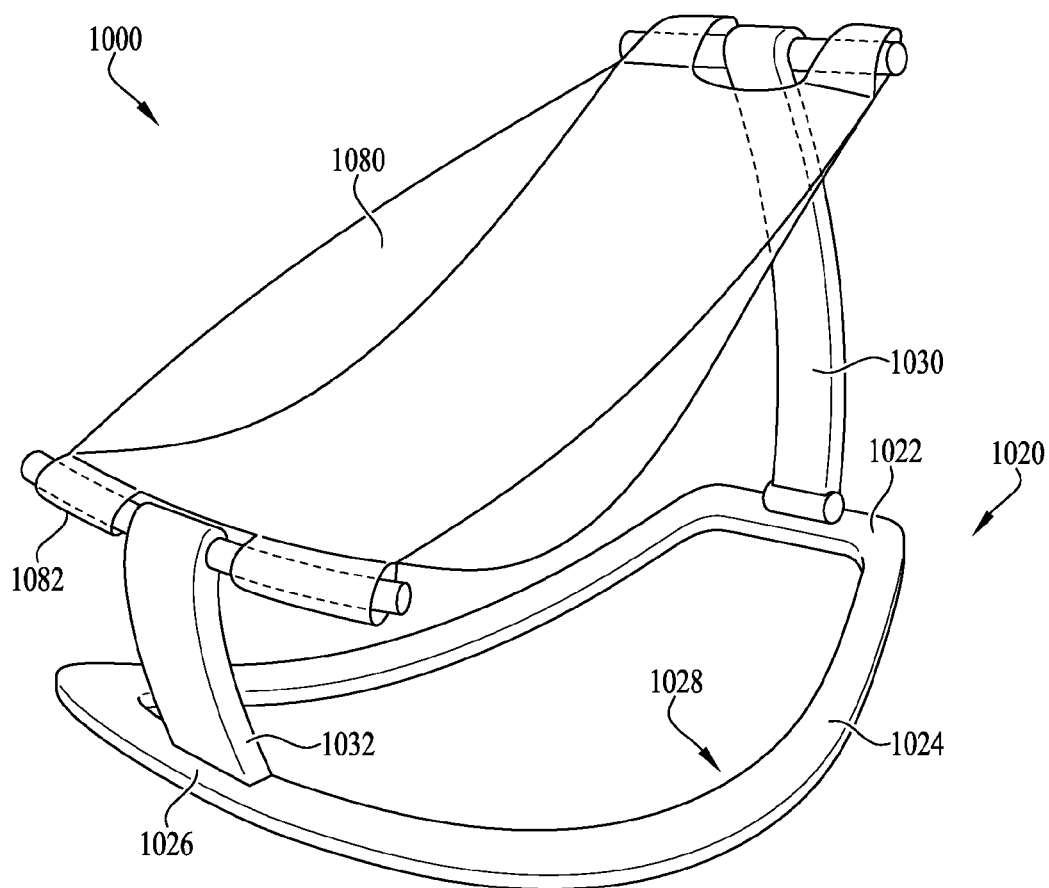


FIG. 34





Fl. 37

CONVERTIBLE ROCKER

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Patent Application Ser. No. 62/407,221 filed Oct. 12, 2016, the entirety of which is hereby incorporated herein by reference for all purposes.

TECHNICAL FIELD

[0002] The present invention relates generally to the field of children's accessories, and more particularly to a child seat or support device having a rocker base and adjustable support frame.

BACKGROUND

[0003] Support devices such as seats, rockers, bouncers, sleepers, bassinets, and the like are commonly used to hold infants and other small children during rest, play, and entertainment. Infants are supported in a supine position whereas toddlers and other small children are supported in a more inclined position. In many instances, a caregiver acquires a new seat or rocker when the child transitions from an infant to a toddler. Continuing developments and improvements are sought in the field of child seats and rockers that accommodate the seating position of both infants and toddlers.

[0004] It is to the provision of a convertible rocker meeting these and other needs that the present invention is primarily directed.

SUMMARY

[0005] In example embodiments, the present invention provides a convertible child seat or support device having a rocker and an adjustable support frame. The convertible rocker generally comprises a frame and attached child support assembly. The convertible rocker is configured to support an infant in a generally supine position and a toddler in an inclined position. In example embodiments, the frame includes an adjustment mechanism to adjust the angle of incline of the backrest of the child support assembly between an infant position and a toddler position. In other embodiments, the child support assembly is configured to support a child in both an infant and toddler position based on the child's orientation in the child support assembly.

[0006] In one aspect, the present invention relates to a convertible seat and rocking apparatus comprising a frame and a child support assembly. The frame comprises at least one rocking element and the frame is configured to rest on a support surface. The child support assembly has a head end, a foot end, and a back rest portion. The child support assembly is coupled to the frame and the back rest portion is supported at an angle relative to the support surface. The frame comprises at least one adjustable feature configured to adjust the support angle of the back rest portion between an infant support position and a toddler support position.

[0007] In another aspect, the invention relates to a convertible seat and rocking apparatus comprising at least one frame member, a child support assembly, and a kickstand. The at least one U-shaped frame member comprises at least one rocking element configured to rest on a support surface. The child support assembly has a head end, a foot end, and a back rest portion. The child support assembly is coupled to

the frame and the back rest portion is supported at an angle relative to the support surface. The kickstand is repositionally coupled the frame for repositioning between an extended position preventing rocking motion of the apparatus and a retracted position allowing rocking motion. The back rest portion is repositionable between a supine infant support position and an inclined toddler support position.

[0008] In still another aspect, the invention relates to a seat and rocker apparatus comprising a frame and a child support assembly. The frame comprises at least one rocking element configured to rest on a support surface. The child support assembly has a front end, a rear end, and two sides, wherein the child support assembly has a lengthwise axis extending between the front end and the rear end and has a widthwise axis extending between the sides. The child support assembly is coupled to the frame. A child positioned in the child support assembly along the widthwise axis is supported in an infant, supine position and a child positioned in the child support assembly along the lengthwise axis is supported in a toddler, inclined position.

[0009] These and other aspects, features and advantages of the invention will be understood with reference to the drawing figures and detailed description herein, and will be realized by means of the various elements and combinations particularly pointed out in the appended claims. It is to be understood that both the foregoing general description and the following brief description of the drawings and detailed description of example embodiments are explanatory of example embodiments of the invention, and are not restrictive of the invention, as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1 is a perspective view of a convertible rocker in a first seating position according to an example embodiment of the present invention.

[0011] FIG. 2 is a side view of the convertible rocker of FIG. 1.

[0012] FIG. 3 is a perspective view of the convertible rocker of FIG. 1 in a second seating position.

[0013] FIG. 4 is a side view of the convertible rocker of FIG. 3.

[0014] FIG. 5A is an exploded view of the frame of the convertible rocker of FIG. 1.

[0015] FIG. 5B is a perspective view of the rear hub, rocker portion and back child support portion of the frame of FIG. 5A.

[0016] FIG. 5C is a perspective view of the rear hub, rocker portion, and child support portion of the frame of FIG. 5A.

[0017] FIG. 5D is a perspective view of the frame of the convertible rocker of FIG. 1.

[0018] FIG. 6 is a detailed view of the armrest of the convertible rocker of FIG. 1.

[0019] FIG. 7 is a detailed view of the armrest of the convertible rocker of FIG. 1.

[0020] FIG. 8 is an inside side view of the armrest of the convertible rocker of FIG. 1.

[0021] FIG. 9 is a detailed view of the armrest of the convertible rocker of FIG. 1.

[0022] FIG. 10 is a perspective view of the convertible rocker of FIG. 1 with the footrest deployed.

[0023] FIG. 11 is a detailed view of the footrest of FIG. 10.

[0024] FIG. 12 is a side view of the convertible rocker of FIG. 10.

[0025] FIG. 13 is a front view of the convertible rocker of FIG. 1.

[0026] FIG. 14 is a perspective view of a foot rest for a convertible rocker according to an example embodiment of the present invention.

[0027] FIG. 15 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

[0028] FIG. 16 is a detailed view of the armrest of the convertible rocker of FIG. 15.

[0029] FIG. 17 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

[0030] FIG. 18 is a side view of the convertible rocker of FIG. 17.

[0031] FIG. 19 is a side view of the convertible rocker of FIG. 17, with the child support assembly in an inclined position.

[0032] FIG. 20 is a side view of the convertible rocker of FIG. 17, with the kickstand in a deployed position.

[0033] FIG. 21 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

[0034] FIG. 22 is a perspective view of the convertible rocker of FIG. 21, with the kickstand in a deployed position.

[0035] FIG. 23 is a perspective view of the convertible rocker of FIG. 22, with the child support assembly in an inclined position.

[0036] FIG. 24 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

[0037] FIG. 25 is a perspective view of the back of the convertible rocker of FIG. 24.

[0038] FIG. 26 is a perspective view of the convertible rocker of FIG. 24 with an infant in the child support assembly.

[0039] FIG. 27 is a perspective view of the back of the convertible rocker of FIG. 24, with the child support assembly in an inclined position.

[0040] FIG. 28 is a perspective view of the convertible rocker of FIG. 27, with a toddler in the child support assembly.

[0041] FIG. 29 is a perspective view of a convertible rocker according to an example embodiment of the present invention, with the child support assembly in a first position.

[0042] FIG. 30 is a perspective view of the convertible rocker of FIG. 29, with the child support assembly in a second position.

[0043] FIG. 31 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

[0044] FIG. 32 is a perspective view of the convertible rocker of FIG. 31, with the kickstand in the deployed position.

[0045] FIG. 33 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

[0046] FIG. 34 is a side view of the convertible rocker of FIG. 33, in a folded position.

[0047] FIG. 35 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

[0048] FIG. 36 is a side view of the convertible rocker of FIG. 35, in a folded position.

[0049] FIG. 37 is a perspective view of a convertible rocker according to an example embodiment of the present invention.

DETAILED DESCRIPTION OF EXAMPLE EMBODIMENTS

[0050] The present invention may be understood more readily by reference to the following detailed description of example embodiments taken in connection with the accompanying drawing figures, which form a part of this disclosure. It is to be understood that this invention is not limited to the specific devices, methods, conditions or parameters described and/or shown herein, and that the terminology used herein is for the purpose of describing particular embodiments by way of example only and is not intended to be limiting of the claimed invention. Any and all patents and other publications identified in this specification are incorporated by reference as though fully set forth herein.

[0051] Also, as used in the specification including the appended claims, the singular forms “a,” “an,” and “the” include the plural, and reference to a particular numerical value includes at least that particular value, unless the context clearly dictates otherwise. Ranges may be expressed herein as from “about” or “approximately” one particular value and/or to “about” or “approximately” another particular value. When such a range is expressed, another embodiment includes from the one particular value and/or to the other particular value. Similarly, when values are expressed as approximations, by use of the antecedent “about,” it will be understood that the particular value forms another embodiment.

[0052] With reference now to the drawing figures, wherein like reference numbers represent corresponding parts throughout the several views, FIGS. 1-13 show a convertible rocker apparatus 10 according to an example embodiment of the invention. In example embodiments, the convertible rocker 10 generally comprises a frame 20 and attached child support assembly 80. In the depicted embodiment, the frame 20 can be constructed of one or more members of metal, wood, plastic and/or other structural material, for example comprising multiple elements attached together to form a substantially rigid assembly or as an integral unitary construction. In the depicted embodiment, the child support assembly 80 is formed from soft goods attached to the frame 20. The frame 20 is configured to rest on a support surface, such as the floor, and support the child support assembly 80 above the support surface. The rocker 10 generally has a front end 12 or foot end and a rear end 14 or head end.

[0053] In the depicted example embodiment, the frame 20 comprises first and second side members 22, 24 attached at a rear hub 26. In example embodiments, the side members 22, 24 have a generally triangular shape when the rocker 10 is viewed from the side as in FIGS. 2 and 4. In other embodiments, the side members can have a different shape such as oval, rectangular, or polygonal. Each side member 22, 24 includes an elongate, convexly curved, arcuate rocker portion 28 extending generally parallel to a lengthwise axis of the frame 20. The rocker portion 28 is configured to rest on the support surface. As shown in FIGS. 1 and 2, the rocker portion 28 has an arcuate curve relative to the lengthwise axis of the frame 20. The arcuate configuration of the rocker portions 28 allows the device to be rocked back-and-forth on the floor or other support surface. The rocker portion 28 also has an arcuate, convex curve relative to a

widthwise axis of the frame 20. In other words, the rocker portion 28 bows outwards from the centerline of the frame 20. Differently put, the rocker portion 28 has a first convex curvature in a first dimension and a second convex curvature in a second dimension, wherein the second dimension is offset from the first dimension.

[0054] Each side member 22, 24 also includes a child support portion 30 extending between a front end of each rocker portion 28 and the rear hub 26. The child support portion 30 is also convexly curved. However, whereas the rocker portions 28 are curved at a relatively uniform angle, whereas the peak of the curve is generally centered along the rocker portion, the curve of the child support portions 30 is off-center or skewed. In the depicted embodiment, the peak 32 of the curve of the child support portion 30 is skewed toward the front or foot end 12 of the rocker 10. In other words, the angle of the front end 12 of the child support portion 30 relative to the support surface S is larger than the rear end 14 of the child support portion relative to the support surface. Differently put, the length of the child support portion 30 of the frame between the front end and the peak 32 is shorter than the length between the peak and the rear hub 26. The skewed curve of the child support portions 30 creates the triangular or tear-shape to the side members 22, 24 as shown in FIGS. 2 and 4. The shape of the side members 22, 24 can also be described as wing-shaped, blade-shaped, sail-shaped, or shaped like an airfoil. In alternate embodiments, the peak 32 of the child support portion 30 of the side members 22, 24 can be centered along the child support portion or skewed towards the rear end 14 of the rocker. In example embodiments, the length of the side members 22, 24 is greater than the height of the side members. In other embodiments, the length of the side members 22, 24 is generally equal to the height of the side members or the height of the side members is greater than the length of the side members. The child support portions 30 of the frame 20 can also include armrest 34. In the depicted embodiment, the armrest 34 is attached to the child support portions 30 between the rear hub 26 of the child support portion and the peak

[0055] The frame 20 also includes a back rest member 40 pivotally attached to the first and second side members 22, 24. In the depicted embodiment, the back rest member 40 is U-shaped with each end attached to the child support portion 30 of the first and second side members. The back rest member 40 provides support for the head end 14 of the child support assembly 80. Generally, the angle of the back rest member 40 relative to the child support portions 30 is adjustable in order to adjust the angle of the back rest 82 of the child support assembly 80. In the depicted embodiment, the ends of back rest member 40 are attached to pivot hubs 36 integrally formed in the armrests 34. The pivot hubs 36 include a releasable locking mechanism, such as a push button locking mechanism, configured to hold the back rest portion 40 in at least two support angles. The first back rest portion 40 support angle, shown in FIGS. 1 and 2, provides a supine child support surface 84 suitable to an infant. The second back rest portion 40 support angle, shown in FIGS. 3 and 4, provides a more inclined, or seated child support surface 84 suitable to a toddler. In example embodiments, the angle of the back rest portion 40 can be adjusted at least 30°. The back rest portion 40 can also be adjusted to an

intermediate position between the first back rest portion support angle and the second back rest portion support angle.

[0056] The frame 20 can also include stop surfaces configured to prevent the rocker 10 from rocking past a prescribed angle. The depicted embodiment includes a stop surface 50 on each of the first and second side members. The stop surfaces 50 are positioned at the front end of the child support portions 30. Example embodiments also include a stop surface 52 positioned on the rear hub 26. The frame can also include a bridge 60 formed from a plate attached between the front ends 12 of the child support portions 30 of the first and second side members 22, 24. The bridge 60 provides rigidity to the frame 20. The bridge 60 can also house one or more electronic features and controls. For example a vibration unit 62 can be mounted on the bridge 60. Various other features may optionally be provided, for example an audio unit, automatic rocker, heater, lights, a control unit, wired or wireless connections to a remote control device, cell phone, computer or other electronic device and/or other electronic features. The frame can also include a kickstand 70 discussed further below.

[0057] The rocker frame 20 can be disassembled for packaging and storage, as shown in FIGS. 5A-D. The disassembled rocker frame 20 can include the rear hub 26, the rocker portions 28 of the first and second side frames 22, 24, the back rest portion 40, the bridge 60, and the electronics unit 62. In the depicted embodiment, the child support portions 30 of the first and second side frames 22, 24 are each disassembled into two pieces, a rear child support portion 44 including the armrest and the front child support portion 46. To assemble the rocker frame 20, the rocker portions 28 and rear child support portions 44 are fitted into the rear hub 26 as shown in FIG. 5B. Next, the front child support portions 46 are fitted to the ends of the rocker portions 28 and rear child support portions 44. Next the bridge 60 is attached between the front child support portions 46 and the back rest portion 40 is fitted into the pivot hubs 36 in the armrests 34.

[0058] In the depicted embodiment, the armrest 34, shown in detail in FIGS. 6-9, are configured to nest over the tubing frame of the child support portion 30 of the side members 22, 24. The armrest 34 generally follows the curve of the child support portion 30 of the side member 22, 24. In the depicted embodiment, a portion of the armrest 34 extends beyond the curve of the child support portion 30. The armrest 34 can also be configured to extend beyond the outer edge of the frame 20 to provide a wider armrest surface. The inner side of the arm rest 34, shown in FIG. 8, includes an extended wall 38. The extended wall 38 is designed to prevent gaps between the frame 20 and the child support assembly 80. The underside of the armrest 34 can include a plurality of ribs 39. The ribs 39 are designed to create volume and structure for the armrest 34. In example embodiments, the ribs 39 are positioned around 5 mm apart from one another.

[0059] The frame 20 optionally further comprises a kickstand or brace component 70, shown in detail in FIGS. 10-12. In the depicted embodiment, the kickstand 70 is hingedly coupled to the front end 12 of the frame 20, and is pivotally repositionable between a folded or retracted position (FIG. 1) for allowing the rocking of the device 10 on an underlying support surface, and an open or extended position (FIGS. 10-12) for preventing rocking of the device and

maintaining the frame 20 in a stable fixed position relative to the support surface. In alternate embodiments, the kickstand 70 can be coupled at or adjacent the rear end 14 or elsewhere on the frame. In the depicted embodiment, the kickstand 70 is a U-shaped component having a central cross-member portion connected by a hinge joint 72 to the front end 12 of the frame 20. In other embodiments, the central cross-member portion of the kickstand 170 includes a handle 174 projecting therefrom for allowing a user to grip and pull or push the kickstand into position as desired, as shown in FIG. 14.

[0060] FIGS. 15 and 16 show a convertible rocking apparatus 200 according to another example embodiment of the invention. The rocking apparatus 200 includes a frame 220 substantially similar to the frame 20 of the previous embodiment 10. However, in the depicted embodiment, the armrests 234 are formed as part of the child support portion 230 of the frame 220 such that the armrest and the child support portion of the frame are a single component.

[0061] FIGS. 17-20 show a convertible rocking apparatus 300 according to another example embodiment of the invention. The rocker 300 includes a frame 320, a child support assembly 380, and a kickstand 370. In the depicted embodiment, the frame 320 comprises first and second side members 322, 324 that are generally U-shaped. Each side member 322, 324 includes an elongate, convexly curved, arcuate rocker portion 328 and a child support portion 330. The L-shaped child support portion 330 extends upward from the front end of the rocker portion 328. The child support assembly 380 is pivotally attached to the child support portion 330 of the frame 320 such that it can be pivoted between an inclined toddler position (FIG. 18) and a supine infant position (FIG. 19). In the depicted embodiment, the kickstand 370 is formed from two L-shaped members pivotally attached to the rear end of the rocker portion 328 of the frame such that the proximal section 372 of each kickstand extends outwards from the end of the rocker portion and the bent distal section 374 extends in a direction generally perpendicular to the proximal section. The end of the proximal section 372 of each kickstand 370 is coaxially aligned with, and continuously curving from, the end of the rocker portion 328. The kickstand 370 is configured to pivot or twist about an axis coaxially aligned with the end of the rocker portion 328. The kickstand 370 is pivotally repositionable between a retracted position (FIG. 18), where the distal ends of the L-shaped kickstand are pointing upward, to a deployed position (FIG. 20), where the distal ends of the L-shaped kickstand are pointing downward and engage with the support surface to prevent rocking of the device 300.

[0062] FIGS. 21-23 show a convertible rocking apparatus 400 according to another example embodiment of the invention. The rocker 400 includes a frame 420 substantially similar to the frame 320 of the previous embodiment 300. However, in the depicted embodiment, the kickstand 470 is formed from a single U-shaped component with L-shaped end members. Each end member is attached to end of rocking portion 428 of the frame 420 opposite the child supporting portion 430. To change the kickstand 470 from the retracted to the deployed position, the kickstand 470 is detached from the frame 420 and reattached with the L-shaped end members facing downward. In the depicted embodiment, the angle of incline of the child support assembly 480 is adjusted by adjusting the length of the free ends of the kickstand 470' as shown in FIG. 23.

[0063] FIGS. 24-28 show a convertible rocking apparatus 500 according to another example embodiment of the invention. The rocker 500 includes a frame 520 and a child support assembly 580. The frame 520 includes two elongate, convexly curved, arcuate rocker portions 528 and a child support portion 530. The child support portion 530 is coupled between the rocker portions 528. The child support portion 528 is configured to support the child support assembly above a support surface. In the depicted embodiment the child support portion 530 includes four legs, two legs 532 supporting the front of the child support assembly 580 and two legs 534 supporting the back of the child support assembly. The child support assembly 580 is formed from an asymmetrically convex bowl with an angled peripheral wall 582. The wall has a first side 584, a second side 585, a front 586, and a back 588. The bowl 580 has a lengthwise axis extending between the front 586 and back 588 of the bowl and a widthwise axis extending between the first side 584 and second side 585 of the bowl. In the depicted embodiment, the sides of the wall 584, 585 are of generally equal height. The front 586 of the wall 582 is generally shorter than the sides 584. The back 588 of the wall 582 is generally taller than the sides 584. In the depicted embodiment, the angle of the first side 584 of the peripheral wall 582 and the second side 585 of the peripheral wall are generally equal. The angle of the back 588 of the peripheral wall 582 is generally larger than the angle of the front 586 of the peripheral wall. The radius of curvature along the lengthwise axis of the bowl 580 is generally shorter than the radius of curvature along the widthwise axis. The bowl 580 is configured such that an infant positioned in the bowl along the widthwise axis, with its head positioned adjacent one side of the bowl and its feet positioned adjacent the other side will be supported in a generally supine position, as shown in FIG. 26. A toddler that sits in the bowl 580 facing the front 586, along the lengthwise axis will be positioned in an inclined seated position, as shown in FIG. 28. The rocking portion 528 of the frame is positioned such that a child placed in the rocker in the infant position (FIG. 26) will be rocked in a front-to-back motion and a child placed in the rocker in the toddler position (FIG. 28) will be rocked in a side-to-side motion. In the depicted embodiment, the back legs 534 of the child support portion 530 of the frame are extendable, as shown in FIG. 27, in order to increase the angle of incline of the back 586 of the wall 582 of the bowl 580 relative to the support surface.

[0064] FIGS. 29-30 show a convertible rocking apparatus 600 according to another example embodiment of the invention. The rocking apparatus 600 includes a child support assembly 680 and frame 620 substantially similar to that of the previous embodiment 500. In the depicted embodiment, the rocking portion 628 of the frame 620 includes a crossbar coupled 624 between the two curved rockers 626. The child support portion 630 of the frame is pivotally attached to the crossbar 624 such that the child support assembly 680 can be pivoted between at least a front-facing position, shown in FIG. 29, and a side-facing position, shown in FIG. 30. In other embodiments, the child support assembly 680 can be pivoted to a series of other positions. In this embodiment, a child can be rocked in both a side-to-side motion and a front-to-back motion in either the infant or toddler positions.

[0065] FIGS. 31 and 32 show a convertible rocking apparatus 700 according to another example embodiment of the invention. The rocking apparatus 700 includes a child sup-

port assembly **780** and frame **720** substantially similar to that of the previous embodiment **600**. In the depicted embodiment, the rocking portion **728** of the frame **720** is formed from an oval-shaped rocker. Each length of the rocking portion **728** forms a convex, acute rocker **726**. The rockers **726** are connected by curved end portions **722**. The depicted embodiment also includes a kickstand **770** pivotally coupled to the frame **720**. The kickstand **770** is formed from an acute member configured to nest under the crossbar **724** of the frame **720** in the retracted position, as shown in FIG. 31. To move the kick stand to the deployed position, the kickstand **770** is rotated relative to the crossbar **724** until it is positioned generally perpendicular to the crossbar. The kickstand **770** is configured to engage the support surface in the deployed position and prevent the side-to-side rocking motion of the rocking apparatus **700**.

[0066] FIGS. 33 and 34 show a convertible rocking apparatus **800** according to another example embodiment of the invention. The rocking apparatus **800** includes a frame **820** and a child support assembly **880**. The frame **820** includes a rocking portion **828** and a child support portion **830**. In the depicted embodiment, the rocking portion **828** is formed from a generally V-shaped member having a crossbar **822** positioned at the head end of the rocker and two acute rockers **824** extending at an angle from the crossbar. The child support portion **830** of the frame **820** includes a support bar pivotally attached to the crossbar **822** of the rocking portion **828** of the frame. In the depicted embodiment, the child support assembly **880** is formed from soft goods suspended between the distal ends of the rockers **824** and the distal end of the child support portion **830** of the frame. In example embodiments, the length of the child support portion **830** is adjustable to move the child support assembly **880** from an infant supporting position to a toddler supporting position. The child support portion **830** of the frame **820** can also be pivoted between a use position, shown in FIG. 33, and a folded position shown in FIG. 34.

[0067] FIGS. 35 and 36 show a convertible rocking apparatus **900** according to another example embodiment of the invention. The rocking apparatus **900** includes a child support assembly **980** and frame **920** substantially similar to that of the previous embodiment **800**. In the depicted embodiment, the rocking portion **928** of the frame is formed from two acute rockers **924**. The proximal end of each rocker **924** is pivotally attached to the base of the child support portion **930** of the frame. The rockers **924** can be pivoted between the use position, shown in FIG. 35 and a folded position, shown in FIG. 36. In the folded position, the rockers are pivoted inwards toward the lengthwise axis of the rocker **900**. The frame **920** can include a locking bar **940** configured to releasably hold the rockers **924** in the use position. The locking bar **940** includes a handle **942** that can be pulled to separate the bar **940** into segments and allow the rockers **924** to pivot inward.

[0068] FIG. 37 shows a convertible rocking apparatus **1000** according to another example embodiment of the invention. The rocking apparatus **1000** includes a child support assembly **1080** and frame **1020** substantially similar to that of the previous embodiment **800**. In the depicted embodiment, the rocking portion **1028** of the frame **1020** is oval-shaped having a rear crossbar **1022** and a front crossbar **1026** with the rockers **1024** coupled in between. The child support portion **1030** of the frame is attached to the rear crossbar **1022** as in the previous embodiment. The front of

the child support assembly **1080** is attached to a T-shaped member **1032** extending upward from the front crossbar **1026**. The child support assembly **1080** includes sleeves **1082** configured to fit over the T-shaped cross-bar **1032**.

[0069] While the invention has been described with reference to example embodiments, it will be understood by those skilled in the art that a variety of modifications, additions and deletions are within the scope of the invention, as defined by the following claims.

What is claimed is:

1. A convertible seat and rocking apparatus comprising: a frame comprising at least one rocking element, wherein the frame is configured to rest on a support surface; and a child support assembly having a head end, a foot end, and a back rest portion, wherein the child support assembly is coupled to the frame, and wherein the back rest portion is supported at an angle relative to the support surface; wherein the frame comprises at least one adjustable feature configured to adjust the support angle of the back rest portion between an infant support position and a toddler support position.
2. The convertible seat and rocking apparatus of claim 1, wherein the at least one rocking element has a first convex curvature in a first dimension and a second convex curvature in a second dimension, wherein the second dimension is offset from the first dimension.
3. The convertible seat and rocking apparatus of claim 1, wherein the frame comprises first and second triangular-shaped side members, wherein one side of each side member includes a rocking apparatus.
4. The convertible seat and rocking apparatus of claim 3, wherein each of the first and second triangular-shaped side members comprises an armrest.
5. The convertible seat and rocking apparatus of claim 4, wherein each armrest includes a sidewall positioned between the side member and the child support assembly.
6. The convertible seat and rocking apparatus of claim 4, wherein the at least one adjustable feature comprises a U-shaped back rest support bar having two ends, wherein the first end of the back rest support bar is pivotally coupled to the armrest of the first side member and the second end of the back rest support bar is pivotally coupled to the armrest of the second side member.
7. The convertible seat and rocking apparatus of claim 1, further comprising a kickstand pivotally coupled for repositioning between an extended position preventing rocking motion of the apparatus and a retracted position allowing rocking motion.
8. The convertible seat and rocking apparatus of claim 3, wherein the frame further comprises a bridge coupled between the first and second side members.
9. The convertible seat and rocking apparatus of claim 3, wherein a first side of the triangular shaped side members comprises a rocker portion configured to rest on a support surface.
10. The convertible seat and rocking apparatus of claim 9, wherein a second and a third side of the triangular shaped side members comprises a child support portion configured to support the child support assembly above the support surface.
11. The convertible seat and rocking apparatus of claim 10, wherein the second side and third side of the triangular shaped side members are not equal length.

- 12.** A convertible seat and rocker apparatus comprising:
At least one U-shaped frame member comprising at least one rocking element configured to rest on a support surface;
a child support assembly having a head end, a foot end, and a back rest portion, wherein the child support assembly is coupled to the frame, and wherein the back rest portion is supported at an angle relative to the support surface; and
a kickstand repositionally coupled the frame for repositioning between an extended position preventing rocking motion of the apparatus and a retracted position allowing rocking motion;
wherein the back rest portion is repositionable between a supine infant support position and an inclined toddler support position.
- 13.** The convertible seat and rocking apparatus of claim 12, wherein the kickstand comprises an L-shaped member.
- 14.** The convertible seat and rocking apparatus of claim 13, wherein a proximal end of the L-shaped member is pivotally coupled to an end of the at least one U-shaped frame member, wherein the L-shaped member has a free, distal end.
- 15.** The convertible seat and rocking apparatus of claim 14, wherein in the retracted position, the free end of the L-shaped member is pointed away from the support surface and in the extended position, the free end of the L-shaped member is pointed toward and engages with the support surface.
- 16.** The convertible seat and rocking apparatus of claim 14, wherein the length of the free end of the L-shaped member is adjustable, wherein adjusting the length of the free end of the L-shaped member in the extended position adjust the angle of support for back rest portion of the child support assembly.

- 17.** A seat and rocker apparatus comprising:
a frame comprising at least one rocking element configured to rest on a support surface; and
a child support assembly having a front end, a rear end, and a first and second side, wherein the child support assembly has a lengthwise axis extending between the front end and the rear end and has a widthwise axis extending between the first side and the second side, wherein the child support assembly is coupled to the frame;
wherein a child positioned in the child support assembly along the widthwise axis is supported in an infant, supine position; and
wherein a child positioned in the child support assembly along the lengthwise axis is supported in a toddler, inclined position.
- 18.** The seat and rocker apparatus of claim 17, wherein the child support assembly is formed from a bowl having a peripheral sidewall wherein the peripheral sidewall has a height at the front end, the rear end, and the first and second sides of the child support assembly.
- 19.** The seat and rocker apparatus of claim 18, wherein the height of the peripheral sidewall at the front end of the child support assembly is lower than the height of the peripheral sidewall at the first and second sides of the child support assembly.
- 20.** The seat and rocker apparatus of claim 18, wherein the height of the peripheral sidewall at the rear end of the child support assembly is higher than the height of the peripheral sidewall at the first and second sides of the child support assembly.
- 21.** The seat and rocker apparatus of claim 17, wherein the child support assembly is pivotally coupled to the frame such that the orientation of the child support assembly relative to the rocking element can be adjusted.

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