CHILD BOUNCING APPARATUS

A child's bouncing apparatus includes a supporting base having an upwardly opening cavity receiving and positioning a portion of the periphery of a large inflated flexible ball. A rigid structure extends upwardly alongside the periphery of the ball positioned in the base. The rigid structure includes laterally extending footrests at a mid-portion and laterally extending handles or handgrips at the upper end. A child occupying the bouncing apparatus engages his feet with the footrests and his hands with the handgrips and moves between a vertically standing position and a sitting position on the ball with the weight of the child partially compressing the upper periphery of the ball downwardly. The downward compression provides an upward thrust to the child during a repetitive movement between the standing position and the sitting position.
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BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention generally relates to a child's bouncing apparatus and more specifically to a child's bouncing apparatus having a supporting base with an upwardly opening cavity receiving and positioning a portion of the periphery of a large inflated ball on which the child can bounce.

2. Description of the Related Art

Various types of bouncing toys, including an inflatable resilient member of various shapes and configurations, are well known in the prior art. Such prior art toys include spherical inflated resilient balls having a handle incorporated at an upper periphery thereof in which the lower portion of the ball merely rests upon a floor surface or the like. The direction of movement of the ball during bouncing movement, however, is unpredictable and thus requires considerable skill by the user to maintain his/her position on the ball during bouncing movement. Also known is a supporting base for an inflated ball in which an occupant can merely set upon the ball without being able to grasp the ball to obtain a bouncing movement.

SUMMARY OF THE INVENTION

In order to overcome the drawbacks of prior art devices, the present invention includes a supporting base with an upwardly opening cavity for receiving and positioning a large inflated ball on which a child can bounce. Connected to and extending upwardly from the supporting base is a rigid structure, such as a strut or plate. The plate extends alongside the periphery of the ball positioned in the base and includes laterally extending footrests at a midportion and laterally extending handles or handgrips at the upper end. A child occupying the bouncing apparatus engages his/her feet with the footrests and his/her hands with the handgrips. (Hereinafter reference to the feet and hands of the occupant child will be to the male gender, i.e. "his" for simplicity; however, it should be readily understood that the child can be either male or female). The child can then bounce between a vertically standing position and a sitting position on the ball with the weight of the child partially compressing the upper periphery of the ball downwardly. This downward compression provides an upward thrust to the occupant child during a repetitive movement between the standing position and sitting position. Such repetitive movement assists in muscular development of the child and body component coordination as well as providing a unique bouncing toy that a young child will occupy and use for extended periods of time.

It is therefore an object of the present invention to provide a stable and sturdy child's bouncing apparatus for use by young children to develop body muscular strength and body movement coordination.

It is another object of the present invention to provide a child's bouncing apparatus in accordance with the preceding object which includes a stationarily supported large, inflated, resilient ball and a vertically extending rigid strut or plate or other supporting structure alongside the ball to support transversely extending footrests and handles.

Still another object of the present invention is to provide a bouncing apparatus in accordance with the preceding objects which enables an occupant to place his feet on the footrests at a mid-portion of the support strut and to grasp the handles at the upper end of the support strut and move in a repetitive manner between a generally vertical standing position and a sitting position in which the ball is partially compressed with the compressed air inside of the ball exerting an upward force to assist the occupant in moving from the sitting position to the generally vertical standing position.

Yet another object of the present invention is to provide a child's bouncing apparatus in accordance with the preceding objects in which the large inflated ball is stationarily supported by a supporting base engaging a floor surface or other similar support with the supporting base including an upwardly open, partially spherical cavity to receive and position the ball adjacent the rigid support structure.

A further object of the present invention is to provide a child's bouncing apparatus in which the rigid support strut having the footrests and handles thereof is rigidly connected with the supporting base for positioning the handles and footrests adjacent to the ball.

Still a further object of the present invention is to provide a child's bouncing apparatus that serves as a bouncing toy with repetitive movement of the child using the device to entice the child to use the device for long periods of time thereby serving as an exercise device to develop muscles and also to develop coordination of various body components.

A final object of the present invention recited herein is to provide a child's bouncing apparatus which can be made from readily available and inexpensive components for ease and economy of manufacture and which will be sturdy and long lasting in operation and use.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully herein-after described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front elevational view of the child's bouncing apparatus of the present invention illustrating a child positioned thereon in vertical standing relation to the apparatus.

FIG. 2 is a front elevational view of the present invention with the child in sitting position with the inflated ball partially deformed downwardly in the upper portion thereof for compressing the air within the ball so that the compressed air when returning the ball to its normal shape will exert an upward force on the child to assist in returning to the standing position of FIG. 1.

FIG. 3 is a top plan view of the child's bouncing apparatus of the present invention without a child occupying the apparatus.

FIG. 4 is a vertical sectional view of the child's bouncing apparatus taken along section line 4-4 on FIG. 3,
illustrating the relationship of the supporting base, spherical inflated ball and rigid vertically extending strut or plate alongside the ball.

[0018] FIG. 5 is a vertical sectional view taken along section line 5-5 on FIG. 3 illustrating further the relationship between the supporting base, spherical ball and rigid strut or plate extending alongside the ball.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0019] Although only one preferred embodiment of the invention is explained in detail, it is to be understood that the invention is not limited in its scope to the details of construction and arrangement of components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced or carried out in various ways. Also, in describing the preferred embodiments, specific terminology will be resorted to for the sake of clarity. It is to be understood that each specific term includes all technical equivalents which operate in a similar manner to accomplish a similar purpose.

[0020] The child's bouncing apparatus of the present invention is generally designated by reference numeral 10 and includes a supporting base, generally designated by reference numeral 12. Base 12 includes a bottom panel or plate 14 that can be supported on a generally flat surface such as the floor or other like surface. The bottom plate 14 may be circular in configuration as illustrated in FIG. 3 or any other convenient shape to provide a stable support for the bouncing apparatus 10. The upper surface of the bottom plate 14 is provided with an upwardly and inwardly inclined peripheral wall 16 defined by a plurality of flat upwardly inclined panels 18.

[0021] The inclined panels 18 includes a generally straight lower edge 20 secured to or integral with the base plate 14. The end edges of panels 18 are joined along junction line 22 and the upper edge of each of the panels 18 is preferably curved concavely to 24 to form a generally circular support for a portion of the periphery of a large spherical, inflatable, resilient, flexible ball 26. A portion of the lower periphery of ball 26 extends downwardly into the upwardly open cavity 28 defined by the peripheral wall 16 and the circular edges 24 of the wall panels 18, such as illustrated in FIG. 4. The curved edges 24 of the peripheral wall 16 engage the periphery of the ball 26 below a horizontal center thereof but sufficiently above the bottom periphery to position the ball stationarily within the supporting base 12 and with the lowest point of the ball being spaced slightly from the bottom plate 14. This configuration provides a stable support platform for the large inflatable ball 26 within the supporting base 12.

[0022] Extending upwardly and supported from the support base 12 is a rigid support structure 30 connected to the supporting base 12 and extending upwardly alongside a portion of the periphery of the ball 26. At a mid-section of the rigid structure 30 is transversely extending member 32 in the form of a rod-like structure having a peripheral flange 34 at each end thereof. The upper end of the support structure 30 includes a similar transverse rod-like member 36 defining a pair of handles or handgrips 38 having a peripheral flange 40 at the outer end thereof. The rigid support structure 30 may be in the form of a vertical plate 42, rigid rod or strut or any other rigid structure.

[0023] The vertical spacing of the transverse members 32 and 36 is such that a young child 44 may position his feet 46 on the footrest 32 and grasp the handles 38 with his hands 48 in both a standing position as illustrated in FIG. 1 and a sitting position as illustrated in FIG. 2. In a sitting position on the ball 26 the child's weight depresses the upper portion of ball 26 so that it deforms to compress the air within the ball. The compressed air within the ball then provides an upward force against the sitting child to exert an upward force to assist the child in moving toward a standing position.

[0024] Thus, a child 44 can readily move between the standing position as shown in FIG. 1 and the sitting position as shown in FIG. 2 in a repetitive manner by appropriate application of and relaxation of forces exerted by the feet 44 against the footrest 32 and by the hands 48 on the hand grips 38. This repetitive action can improve a child's coordination and motor skills as well as a sense of accomplishment by being able to move between a sitting and standing position and effective use of the bouncing apparatus without immediate supervision of a parent or older person.

[0025] The supporting base 12, including the base plate 14 and the peripheral wall 16, may be constructed of substantially rigid plastic material of unitary construction or it may be constructed of metal, wood, or any combination of desired materials. The ball 26 is commercially available and has a periphery corresponding to the upper edge 24 of the upwardly opening cavity 28 so that a peripheral engagement with the ball occurs below a horizontal center of the ball but sufficiently upwardly from the bottom surface thereof to provide a stable stationary support for the inflated ball 26 as shown in FIG. 4.

[0026] The rigid support structure 30 may also be constructed of plastic material and of unitary construction with the supporting base 12. It may be vertically straight or may be angled as illustrated in FIG. 4 to enable the hand grips to be more accessible to the hands 48 of the child occupant 44. The upright rigid structure or member 30 may be in the form of a metal plate, rod structure or plastic and dimensionally related to the ball to enable older young children to position themselves on the ball by placing one foot on a footrest and pulling himself to a generally vertical position to enable the other leg to be swung over the ball and engaged with the other footrest in a manner somewhat similar to a young child getting a board, a tricycle or other vehicle.

[0027] The rigid support structure 30 is preferably rigid with the base but it may be constructed of pivotal components or pivotally connected to the base to be folded into a compact condition for occupying a smaller space for shipment, storage and handling and the ball may be constructed of rubber or plastic and capable of being stored and handled in a deflated condition to occupy less space.

[0028] The child's bouncing apparatus of this invention provides a stable and sturdy relationship between the supporting base, the supported ball and the structure engaged by the feet and hands of the occupant child 44. This arrangement provides a stable support structure for the child and maintains the relationship between the supporting structure and the child during repetitive bouncing of the child. Known
bouncing balls that merely rest on a floor surface or the like and in which the handle structure is attached to the ball reduce the possibility of directional control and provides an unstable support for a child using the device. In the present invention, the base structure maintains the position of the ball and the relationship of the occupant to the ball during repetitive bouncing engagement with the ball.

The foregoing should be considered as illustrative only of the principles of the invention. Since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described. Accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed is:

1. A bouncing apparatus for use by young children to develop muscular strength and body movement coordination comprising a stationarily supported large, inflated flexible ball, a stationery upright member supported adjacent said ball, a handle at an upper portion of said upright member and a foot support on said upright member, said handle being located above a top surface of said ball, said foot support being located below a top surface of said ball with the spacing of the ball, handle and foot support enabling a child to repetitively move between a standing position and a sitting position when grasping said handle and engaging feet on said foot support and to partially compress said ball when in said sitting position, said partial compression of said ball causing the ball to exert a force on the child to assist in upward movement towards standing position with repetitive bouncing movement being controlled by movement of the hands, arms, legs and feet of the child when moving between said standing position and said sitting position.

2. The bouncing apparatus claimed in claim 1, wherein said upright member adjacent said ball is a rigid member supported in stationery adjacent relation to said ball.

3. The bouncing apparatus claimed in claim 1, wherein said handle includes a pair of laterally extending handgrips at the upper end portion of said upright member in position for gripping by a child.

4. The bouncing apparatus as claimed in claim 1, wherein said foot support includes a pair of laterally extending footrests at a mid portion of said upright member in position to be engaged by the feet of a child during movement between standing and sitting positions.

5. A child’s bouncing apparatus comprising a floor supported base having an upwardly open partial spherical cavity, an inflated spherical resilient ball positioned in said cavity, said ball having a diameter greater than an upper open end of said cavity to position a major portion of said ball above the upper end of said cavity, an upstanding rigid member extending upwardly from said base alongside said ball, said rigid member extending above said ball and including a handle at an upper end to enable a child to sit on the ball and grip said handle, said upstanding rigid member including footrests below said handle to enable a child to place his feet on said footrests and bounce on said inflated ball with his hands engaging the handle and his feet engaging the footrests to maintain his position while sitting upon and bouncing on said inflatable ball by repetitively pulling on said handle and pushing on said footrests and releasing said forces to maintain a bouncing action on said ball.

6. The bouncing apparatus as claimed in claim 5, wherein said handle includes a pair of laterally extend handgrips at the upper end of said rigid member.

7. The bouncing apparatus as claimed in claim 5, wherein said footrests extends laterally and rigidly from said rigid member and terminate in a foot retainer to prevent feet from slipping off the footrests.

8. A bouncing apparatus comprising a resiliently supported seat, a rigid upright member supported adjacent said seat, a handle on an upper portion of said upright member and a foot support on said upright member below said handle, the spacing of the seat, handle and foot support enabling an occupant to repetitively move between a standing position and a sitting position when grasping said handle and engaging his feet on said foot support and moving said seat downwardly when sitting on said seat, said downward movement of said seat when an occupant moves from a standing position to a sitting position resulting in the seat exerting an upward force on the occupant.

9. The bouncing apparatus as claimed in claim 8, wherein said resiliently mounted seat includes a pneumatic component that is compressed when the occupant moves to sitting position.

10. The bouncing apparatus as claimed in claim 9, wherein said pneumatic component is a stationarily supported inflated ball.

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