

[54] PLAYGROUND-AMUSEMENT DEVICE

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G

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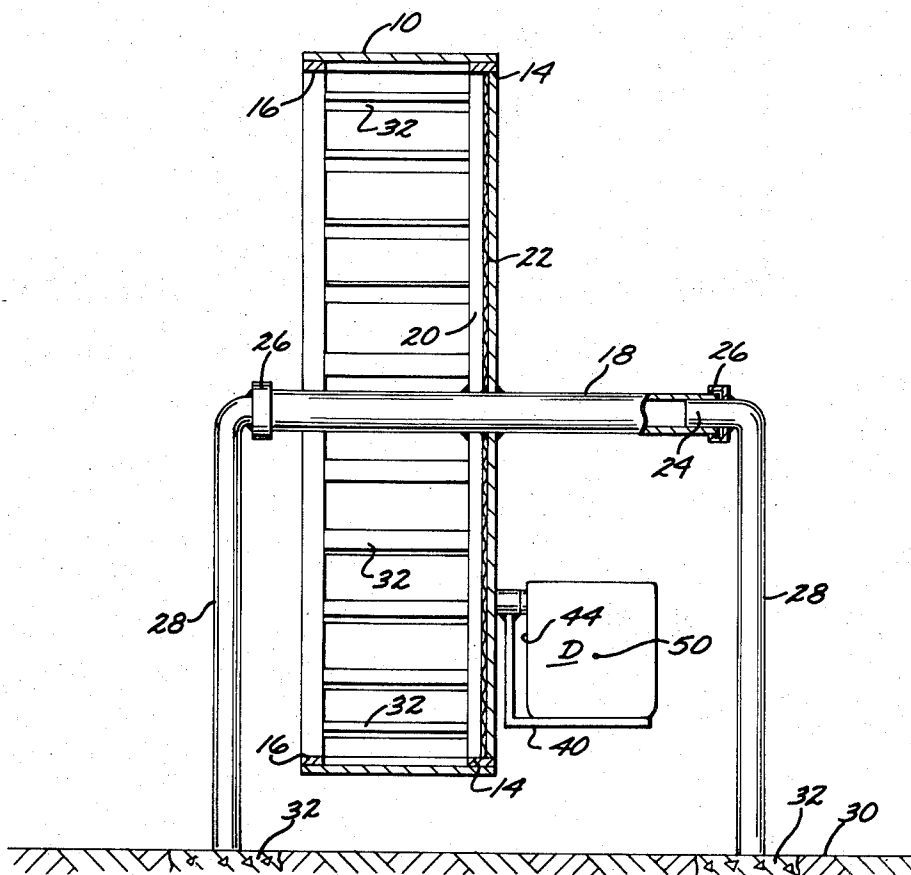
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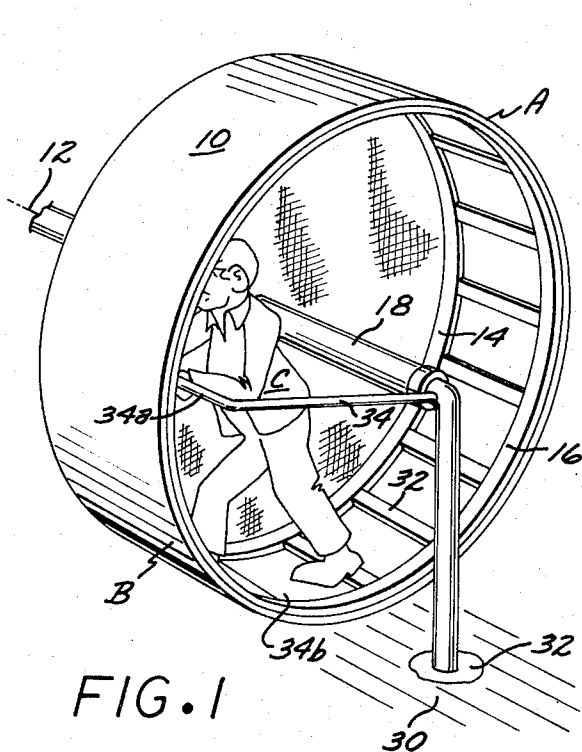
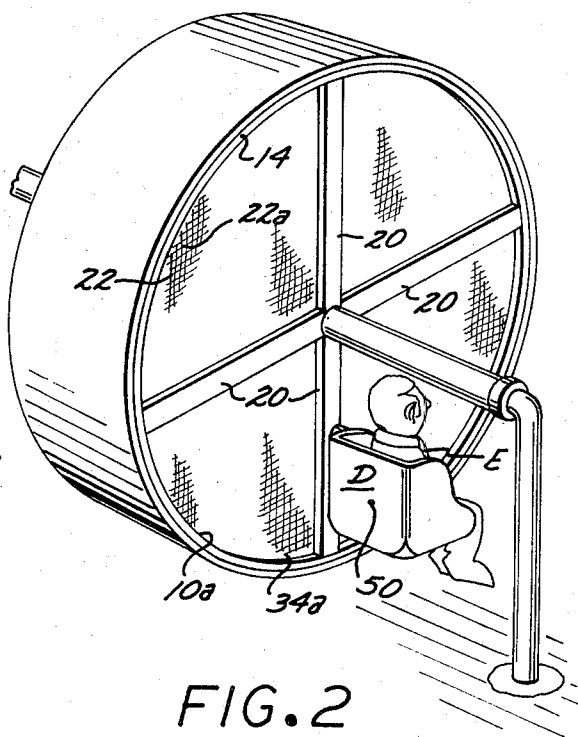
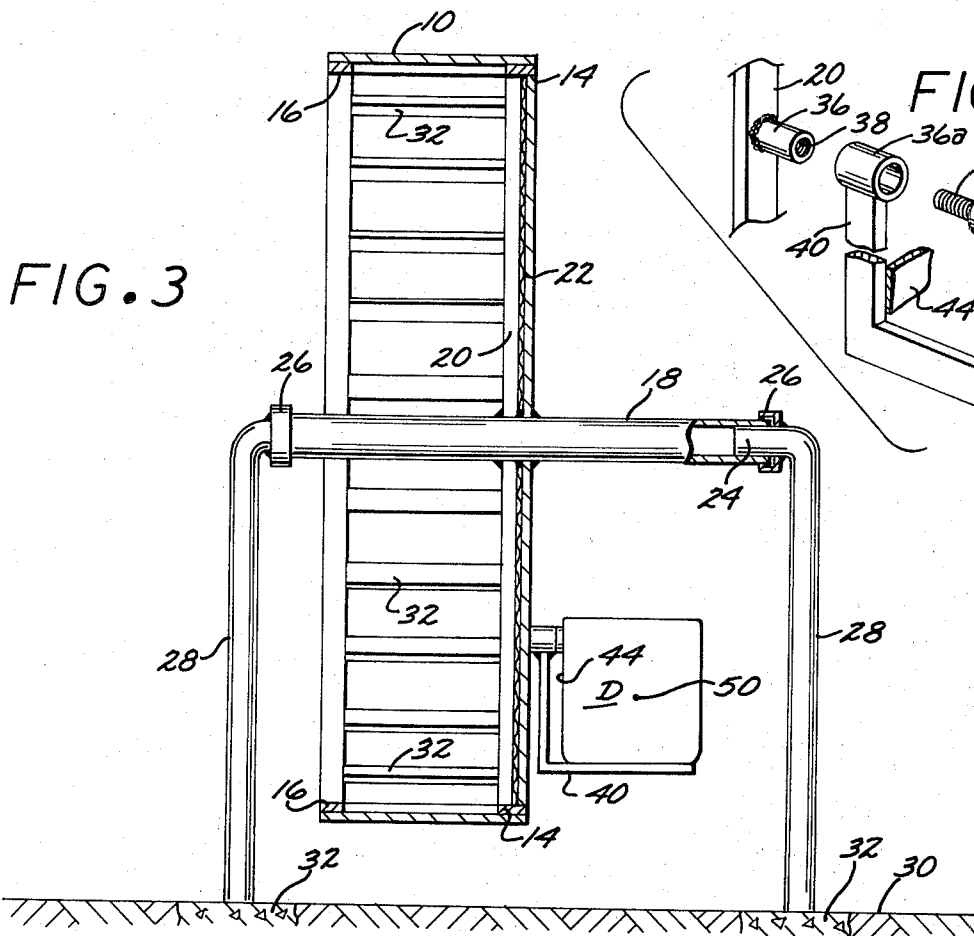
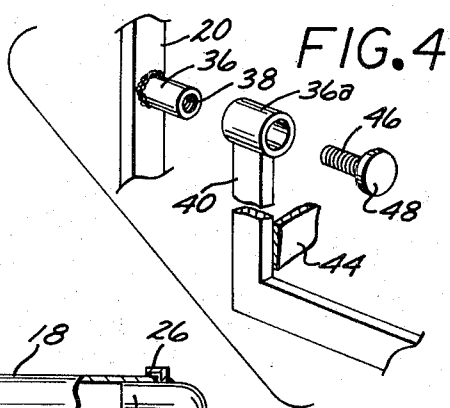
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[57] ABSTRACT

A playground amusement device in which a squirrel cage like rotatable assembly is rotated by a first child walking or running within the interior thereof and the assembly including an externally positioned, pivotally supported seat that holds at least one second child. As the assembly is actuated by the first child, the second seat supported child is subjected to a ride in a vertical circular path. The vertical supporting portion of the cage serves not only as a mounting for a cylindrical horizontal shell that has an interior surface on which the first child stands, but also as a support for a pivotally disposed seat in which the second child is disposed.

10 Claims, 4 Drawing Figures





PLAYGROUND AMUSEMENT DEVICE

BACKGROUND OF THE INVENTION

1. Field of the Invention
Playground amusement device.
2. Description of the Prior Art

Children in seeking amusement endeavor to find a device in which the actuation thereof is accomplished by the concurrent effort of two or more individuals. Merry-go-round devices that are actuated by the combined effort of a number of children have proved to be quite popular, and are at the present date the only amusement device known to the applicant that permits joint efforts on the part of a number of children to provide a ride.

A primary object in devising the present invention is to supply an amusement device that is actuated by a first child, for his amusement, and such actuation resulting in at least one second child being given a ride in a vertical circular path.

Another object of the invention is to supply a playground amusement device that is safe, simple and easy to operate, can be fabricated from standard, commercially available material, is durable, and one that requires a minimum of maintenance attention.

SUMMARY OF THE INVENTION

A rotatable assembly that includes a horizontally disposable shell, a tubular sleeve concentrically disposed therein, and rigid means extending outwardly from the sleeve to support the shell therefrom. The sleeve is rotatably supported on at least one horizontal shaft that is held in a fixed position above the playground surface by at least one upwardly extending support. Each support preferably has the lower end portion thereof embedded in a body of concrete that is buried in the ground.

The rigid means that form a part of the rotatable assembly serves a second function of pivotally supporting at least one second seat. When a first child is within the shell and walks or runs relative to an upwardly inclined portion of the interior surface thereof, the assembly rotates and the second seat supported child is caused to move in a vertical circular path.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a first perspective view of the device;
FIG. 2 is a second perspective view of the device;
FIG. 3 is a combined vertical cross sectional and side elevational view of the device; and

FIG. 4 is a fragmentary exploded perspective view of the device illustrating the manner in which the seat is pivotally supported therefrom.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The playground amusement device A as may be seen in FIGS. 1 and 2 includes a rotatable assembly B of such size as to permit a first child C to walk or run within the interior thereof. The assembly B pivotally supports a seat D on which a second child E may be situated. When the first child C walks or runs relative to an upwardly inclined portion of the interior surface of the assembly B, the assembly rotates the seat D and second child E is moved through a circular vertically extending path.

The rotatable assembly B as may be seen in FIGS. 1 and 2 includes a rigid cylindrical shell 10 that rotates about a horizontal axis 12. The shell 10 is preferably about seven feet in internal diameter. The shell 10 preferably has first and second laterally spaced, circular reinforcing ribs 14 and 16 welded or otherwise secured to the interior surface thereof.

An elongate tubular sleeve 18 is concentrically disposed relative to shell 10 and extends longitudinally along axis 12. Sleeve 18 has a number of circumferentially spaced rigid spokes 20, preferably formed from channel iron radiating outwardly therefrom, with the outer ends of the spokes being secured to the first rib 14 by welding or the like. The first open end 10a of shell 10 is closed by a heavy wire mesh sheet 22 that is rigidly secured to the spokes 20 by conventional means. The wire mesh sheet 22 has numerous openings 22a therein to permit the first child C and second child E to see one another as the device is operated.

The sleeve 18 as best seen in FIG. 3 has the interior end portions thereof rotatably supported on two shafts 24, that are held at a desired elevated position above the playground surface 30 by two supports 28. Of course, if desired, the two shafts 24 could extend the entire length of the sleeve 18, and in effect, merge into one another and be a single shaft. The shafts 24 preferably have flanged annulus shaped members 26 mounted therein that extend over the exterior end portions of the sleeve 18 to minimize the possibility of dirt and foreign material entering the confines of the sleeve 18. Such foreign material when it would so enter the sleeve would be lodged between the interior surface portions thereof and the shafts 24 and would appreciably increase the frictional resistance of the sleeve 18 turning on the shafts 24 and slowing down the rate of rotation of the assembly B when actuated by the first child C.

If desired, the annulus shaped members 26 may have oil or grease fittings mounted thereon (not shown) to lubricate the end portions of sleeve 18 that rotate on the shafts 24. The height of the supports 28 is such that the lower portion of the shell 10 is disposed between 6 inches and a foot above the playground surface 30. The lower ends of the supports 28 as shown in FIG. 3 are embedded in bodies of concrete 32 that are buried below the ground surface.

The interior surface of the shell 10 as shown in FIG. 1 has a number of circumferentially spaced laterally extending cleats or foot bars 32 secured thereto. The foot bars 32 permit the first child C to obtain better traction as he walks or runs relative to an upwardly inclined portion of the interior surface of shell 10. One of the members 28 has a bar 34 rigidly secured thereto and the bar 34 extending into the shell 10 through a second open end 34b thereof. A portion of the bar 34 defining a handle 34a that may be grasped by the first child C when he is walking or running relative to the interior surface of the shell 10.

One of the spokes 20 as best seen in FIGS. 3 and 4 has a stub shaft 36 extending outwardly therefrom on which a tapped bore 38 is defined. The stub shaft 36 pivotally supports a tubular member 36a that has an L-shaped support 40 extending downwardly therefrom and on which the seat D is mounted. An interior disposed side wall 44 of seat D has an opening (not shown) thereon through which a bolt 46 may be extended to engage the tapped bore 38.

The bolt 46 has a head 48 thereon of sufficient size as to prevent the tubular member 28 being inadvertently disposed from the stub shaft 36 when the bolt is in engagement with the tapped bore 38. The tubular member 38 as may be seen in FIG. 3 is disposed a substantial distance above the center of gravity 50 of the seat D and second child E when disposed thereon, and as a result there is no tendency for the seat to pivot to an inverted position as the seat moves through a vertical circular path.

The seat D is so positioned relative to the sleeve 18 that neither the seat D nor the second child E when situated thereon will be brought into pressure contact with the sleeve 18 as the device A operates by energy from the first child C. The force exerted by the first child C when walking or running relative to the shell 10 is disposed outwardly from the sleeve 18 a greater distance than the center of gravity 50, and as a result this differential in turning radius will assure rotation of the assembly B if the first child C and second child E are substantially equal in weight.

The use and operation of the invention is quite simple. The first child C enters the shell 10 through the second open end 34b thereof and assumes the position illustrated in FIG. 2. As the first child C walks or runs relative to an upwardly inclined portion of the interior surface of the shell 10, and in contact with the cleats 32, the shell 10 tends to rotate in a counterclockwise direction as illustrated by arrows in FIG. 1 with the second child E disposed on the seat D being treated to a ride through a circular path.

The first child C and second child E may alternately change positions to more fully enjoy operation of the playground device A. The use and operation of the invention has been described previously in detail. It will be apparent that the spokes 20 and wire mesh 22 could be replaced by a rigid circular plate if desired and the invention would continue to be operable as previously described.

I claim:

1. A playground amusement device for children that includes:

- a. a rigid cylindrical shell that defines a curved interior surface, with said shell having first and second open ends;
- b. a tubular sleeve concentrically disposed in said shell and located on the axis of rotation thereof, said sleeve having first and second ends;
- c. first means that rigidly connect said first end of said shell to said sleeve, with said first means obstructing entry into the interior of said shell through said first open end thereof;
- d. at least one horizontal shaft on which said sleeve is rotatably mounted;
- e. second means for rigidly supporting said shaft at a fixed elevation above the surface of said playground to permit said shell, sleeve and first means to rotate as an integral unit after a first child enters the interior of said shell through said second open end thereof and thereafter walks or runs relative to an upwardly inclined portion of said interior surface of said shell;
- f. a seat for at least one second child adjacently positioned to said first means and outwardly disposed therefrom;
- g. third means for pivotally supporting said seat from said first means, with said third means so posi-

tioned relative to said seat and first means that said third means is at all times positioned above the center of gravity of the combined weight of said seat and second child whereby the position of said second child is not tilted as said shell rotates, and said third means so pivotally supporting said seat from said first means that no portion of said seat or second child will be brought into pressure contact with said sleeve or second means as said shell, sleeve and first means are rotated as a unit by said first child; and

h. fourth stationary means disposed in said shell that may be grasped by said first child when walking or running relative to said shell to maintain his balance, said fourth means rigidly secured to said second means.

2. A playground amusement device as defined in claim 1 that in addition includes:

i. friction surface defining means secured to said interior surface of said shell to prevent said first child slipping when walking or running relative to said interior surface of said shell.

3. A playground amusement device as defined in claim 2 in which said friction surface defining means are a plurality of transverse, circumferentially spaced foot bars secured to said interior surface of said shell.

4. A playground amusement device as defined in claim 1 in which said first means is a flat rigid perforated member that permit said first and second child to see one another as said shell rotates.

5. A playground amusement device as defined in claim 1 in which said first means is a plurality of rigid spokes that extend out from said sleeve to said shell and a sheet of meshed steel wire secured to said spokes and extending from said sleeve to said shell, said meshed steel wire having a plurality of openings therein to permit said first child and second child to see one another as said device operates.

6. A playground amusement device as defined in claim 1 in which said second means is at least one rigid vertically disposed leg that extends down from one end of said shaft, and a body of concrete buried in the ground, and said leg having a lower end portion thereof embedded in said body of concrete.

7. A playground amusement device as defined in claim 1 in which said second means are two spaced, rigid inverted L-shaped members in which the upper portions thereof define two coaxially aligned, spaced, horizontal shafts that rotatably support said sleeve, and two spaced bodies of concrete buried in the ground, and said members having the lower portions thereof embedded in said bodies of concrete.

8. A playground amusement device as defined in claim 1 in which said third means includes a horizontal stub shaft that extends outwardly from said first means and a rigid horizontal tube that extends from said seat and rotatably engages said stub shaft.

9. A playground amusement device as defined in claim 1 in which said fourth means is a rigid bar that has first and second ends, said first end of said bar secured to said second means, and the portion of said bar adjacent said second end disposed within said shell and serving as a handle to be grasped by said first child when the latter is walking or running relative to said shell.

10. A playground amusement device as defined in claim 9 in which the portion of said bar that constitutes said handle is spaced a substantial distance from said sleeve to permit said first child to occupy a position between said handle and sleeve, with said shell having an internal diameter of substantially 7 feet.

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