United States Patent

Miller

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[54] BALL ROLLING TOY

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[52] **U.S. Cl.** .....**46/1 R,** 46/43
[51] **Int. Cl.** **A63h 33/00**
[58] **Field of Search** 46/1, 43

[56] **References Cited**

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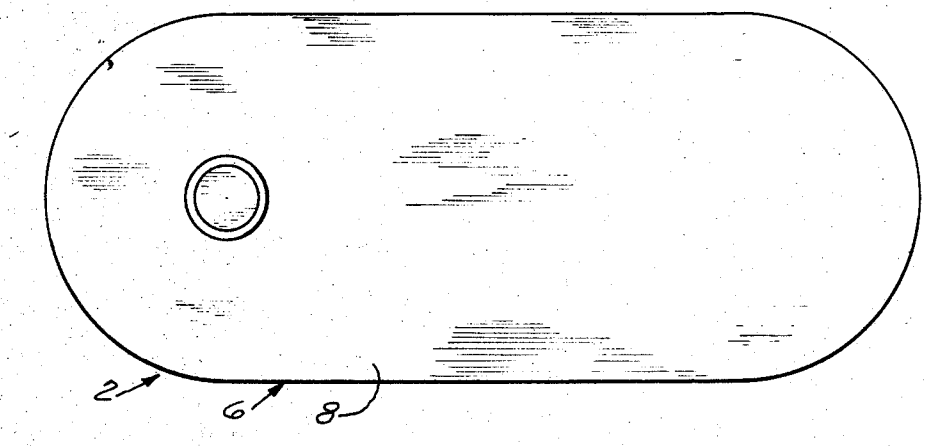
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[57] **ABSTRACT**

A ball rolling toy including a ball and an oblong device that includes two side rails, an intermediate anti-wedge rail, two handles and two hubs connecting the device together. The side rails are positioned in parallel relation to one another and connected together by connecting means or hubs. Each side rail has a side track positioned about its outer inside edge that is a mirror image of the other side track. The distance between each side track is nearly equal to the diameter of the ball. The anti-wedge rail is connected to the hubs. The anti-wedge rail has an anti-wedge track having an outline that is shaped similar to but of a smaller scale than the outline of each side track. The distance between the anti-wedge track and each side track is equal to the radius of the ball times the square root of two. The centerline of each rotatable handle is offset from the centerline of the other handle. Each handle projects outwardly from opposite sides of the device.

4 Claims, 3 Drawing Figures



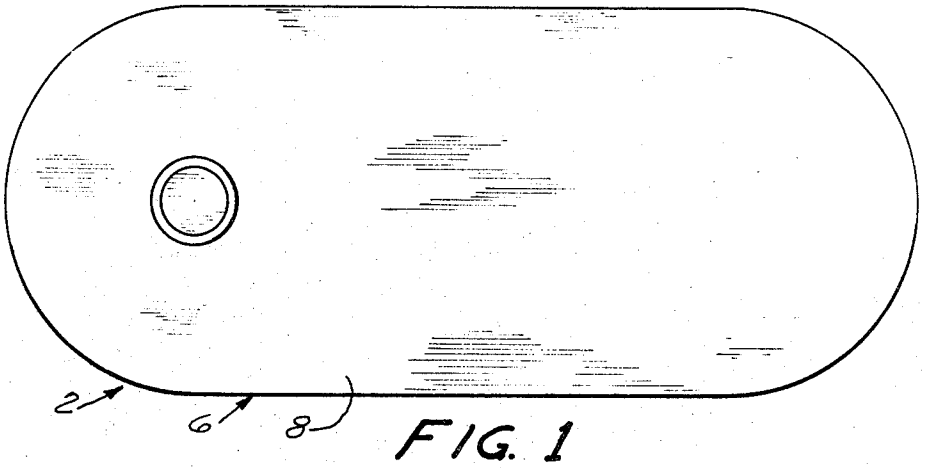


FIG. 1

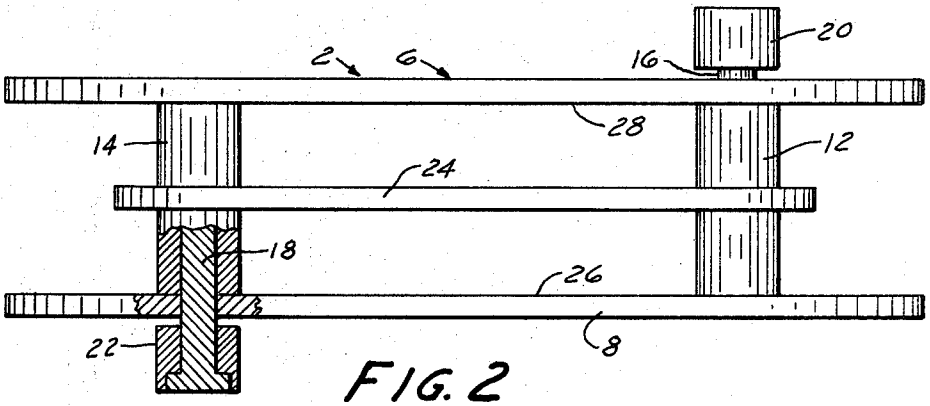


FIG. 2

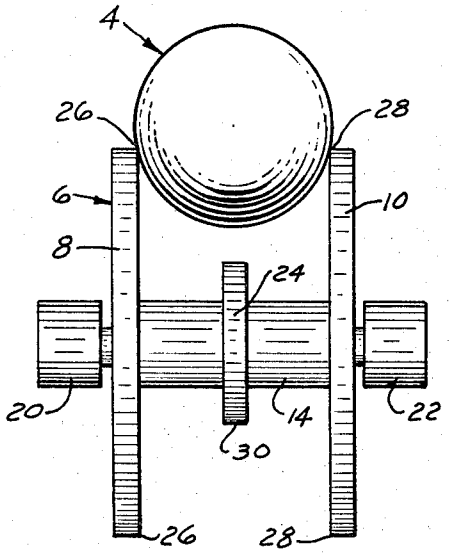


FIG. 3

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BALL ROLLING TOY

BACKGROUND OF THE INVENTION

This invention relates to a new and improved ball rolling toy, and more particularly to a toy including two spaced apart parallel tracks with an anti-wedge track positioned at a lower position midway between the two parallel tracks.

As is perhaps well known various ball rolling devices have been designed to be manipulated to move a ball back and forth over the device. In many such devices the ball may become jammed, preventing further movement of the ball. In the past such devices provided narrow ball tracks for the ball to roll upon. Such devices provided little or no control over the ball as the ball moves over the track.

BRIEF DESCRIPTION OF THE INVENTION

A ball rolling toy including a ball and an oblong device that may be manipulated by a user to move the ball along tracks on the device. The device includes two side rails having tracks thereon, an anti-wedge rail, and two rotatable handles. The side rails are held in parallel relation to one another by connecting means. The side rails are positioned from the other side a distance nearly equal to the diameter of the ball. Each side track encircles the outer inside edge of the side rail and is an identical mirror image of the other side track. As the ball rolls over the side tracks the rolling axis of the ball lies generally perpendicular to each plane passing through the side rails. The anti-wedge rail has an anti-wedge track having an outline shaped identical to the outlines of the side tracks but on a smaller scale. The anti-wedge rail is connected to the device between the side rails with the anti-wedge track spaced from the side tracks a distance almost equal to the radius of the ball times the square root of two. The connecting means include two hubs, one adjacent each end of the oblong device in order to connect the two side rails, the anti-wedge rail, and the two handles. A spindle is connected to the opposite end of each hub, allowing the spindles to project out beyond opposite sides of the device. A rotatable handle is connected to each projecting spindle. The user grasps each handle in one hand and rotates the device about the two center lines.

It is an object of this invention to provide a jam free ball rolling toy.

Another object of this invention is to provide a non-complex ball rolling toy having two tracks spaced apart a distance nearly equal to the diameter of the ball.

A further object of this invention is to provide a parallel anti-wedge track between two side tracks to provide a jam free ball rolling toy.

A further object of this invention is to provide a toy requiring physical skill to operate.

An additional object of this invention is to provide an oblong ball rolling toy with a rotatable handle connected to opposite sides and opposite ends of the device.

In accordance with these and other objects which will be apparent hereinafter, the instant invention will now be described with particular reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a side view of the oblong ball rolling device;

FIG. 2 is a top view, partially cut away, of the device as shown in FIG. 1; and

FIG. 3 is a front view of the device, as shown in FIG. 2, with the ball on the side tracks.

DESCRIPTION OF A PREFERRED EMBODIMENT

Referring now in detail to the drawings, wherein the preferred embodiment is shown, and referring to FIG. 1, 2, and 3, the ball rolling toy, generally designated as numeral 2, includes a ball 4 and oblong device 6. The device 6 includes two identical shaped side rails 8 and 10 positioned in parallel relation to one another and connected together by connecting or supporting means 12 and 14. The connecting means includes a right hub 12 and left hub 14. The right hub 12 includes spindle 16 and left hub 14 includes spindle 18. The spindles have outer flanged portions that hold the rotatable handles 20 and 22 on the device. An anti-wedge rail 24 is connected between the side rails 8 and 10.

Side rails 8 and 10 include side tracks 26 and 28 respectively. The side tracks 26 and 28 on the outer inside edge of each side rail are positioned from one another a distance nearly equal to the diameter of the ball 4. The parallel side tracks are identical mirror images of each other. The side tracks encircle the outer inside edge of the side rails. As the ball rolls over the side tracks the rolling axis of the ball lies perpendicular to the plane passing through each side rail.

The anti-wedge rail has an anti-wedge track 30 having an outline shaped identical to the side tracks but on a smaller scale. The anti-wedge rail is connected to the device between the side rails by the hubs 12 and 14. The anti-wedge track is positioned from each side track a distance almost equal to the radius of the ball times the square root of two. The anti-wedge tracks prevent the ball from moving down into the space between the side rails 8 and 10.

The connecting means or hubs 12 and 14 are drilled to receive spindles 16 and 18. The spindles project from opposite sides of the oblong device as well as from a position adjacent opposite ends of the oblong device, as shown in FIGS. 2 and 3. Rotatable handles 20 and 22 are rotatably connected to the projecting portion of the spindles 16 and 18 respectively.

The instant invention has been shown and described herein in what is considered to be the most practical and preferred embodiment. It is recognized, however, that departures may be made therefrom within the scope of the invention and that obvious modifications will occur to a person skilled in the art.

What is claimed is:

1. A ball rolling toy comprising a ball, and a track device including
   - at least one handle connected on opposite sides and adjacent opposite ends of said device,
   - two side rails positioned from one another in parallel relation at a distance nearly equal to the diameter of a ball,
   - side tracks on the outer inside edge of each side rails, enabling a ball having a diameter greater than the spacing between said tracks to roll around the rails,
   - connecting means positioned between and connecting the side rails together, and
   - an anti-wedge rail having an outer edge track with an outline generally identical in shape to the outline of said side tracks but of a smaller scale, said anti-wedge rail connected between said side rails by said connecting means.

2. A ball rolling toy as set forth in claim 1, wherein,
   - said side rails are identical mirror images of one another.

3. A ball rolling toy as set forth in claim 2, wherein,
   - said outer edge track is positioned from said side tracks a distance nearly equal to the radius of the ball times the square root of two.

4. A ball rolling toy as set forth in claim 3, wherein,
   - said connecting means are hubs positioned between the side rails, and
   - a rotatable handle connected to each side of said device having offset centerlines.

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