

SPECIFICATION

Bowl toy

5 *Field of the invention*

The instant invention relates to toys and more specifically to toys with members having rotatable and rolling motions.

10 *Background of the prior art*

Various rotation spinning balls which are transparent, hollow and/or have members inside are well known in the art. In U.S. Patent No. 955,435 there is disclosed a transparent ball having an object or figure disposed within it which is suspended in equilibrium so that it is unaffected by the rotary motion of the ball. In U.S. Patent No. 2,115,986 a hollow ball is partly filled with liquid and contains a float. In this toy, the primary concern is to provide a more colorful effect when the ball is rolled. In U.S. Patent No. 2,351,762, a transparent, hollow, spherical ball has a figure positioned inside. The figure is free and carries a weight at one end so that the figure always remains vertical when the ball is at rest.

Other variations of hollow, transparent, spheres which have movable mechanisms of a colorful and/or a complicated nature disposed within the sphere are shown in U.S. Patent Nos. 2,467,781; 2,942,379; and 3,058,261. Another transparent hollow toy ball which incorporates a liquid within the toy is disclosed in U.S. Re. 23,612.

Clearly, many sizes and types of toys have been made but the vast field of entertainment, especially for small children, is never completely filled, and children and parents are always looking for something new. Children, of course, tire quickly of a toy, or break the toy, or the toy is too advanced for the child, especially very young children. What we have discovered is a new and improved toy that has combined a myriad of various motions and movements along with desirable coloring and visual effects. Furthermore, our new and improved toy can be readily grasped, handled, filled, dumped, and played with by the child, and the child plays with our new and improved toy for considerable lengths of time.

Summary of the present invention

The present invention is a toy comprising a plurality of transparent balls movable within and from a transparent, hollow part-spherical member. This member has a circular opening disposed on its surface with the opening having a diameter less than the diameter of the said member. The opening has a rim about its perimeter, the rim extending into the opening.

The transparent balls have a smaller diameter than diameter of the opening.

The balls are free to move about substantially the entire inner surface of the said member.

At least one of the balls contains a free spinning rotor. Agitation of the said member causes the balls contained therein to roll. The rolling of the balls causes the rotor to spin. The balls may continue to roll after the said member has come to a stop, and

the rotor may continue to spin after the ball has stopped turning.

In a preferred embodiment of our new toy, there are three transparent balls disposed within the said member. The said rotor may be planar, with different colours on its opposed surfaces. One of the balls may have a metalized film or other mirror disposed within it. In certain embodiments of the present invention, the rotor may be a four-sided planar rotor.

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Brief description of the drawings

Figure 1 is a side view of one embodiment of the toy of the present invention.

Figure 2 is a top view of the toy shown in Figure 1.

Figure 3 is a perspective view of the components of the toy shown in Figures 1 and 2.

Detailed description of the drawings

Figure 1 illustrates a preferred embodiment of the toy of the present invention, shown generally at 10, comprises a plurality of transparent balls 12 disposed within a transparent, hollow part-spherical member 14, said member having a circular opening 16 shown in Figure 2. The diameter of the opening is smaller than the diameter of the member 14. The opening has a rim 18 disposed about the periphery of the opening and extending into the opening. The diameter of the transparent balls 12 is substantially smaller than the diameter of the opening 16, and the balls are movable into and out of the member 14 as shown in Figure 3. When disposed within the said member, the balls are freely movable about substantially the entire inner surface of member 14. When member 14 is agitated, the balls roll along the inner surface thereof and against each other. The balls may continue to move within member 14 after the motion of the latter has stopped. At least one of the balls contains a free spinning rotor 20 comprising a spindle 22 of length less than the internal diameter of the ball, said spindle having a decorative spinning member 24 disposed thereon. When the ball is moved, the rotor turns and spins. The rotor may continue spinning after the ball has ceased to turn.

In the preferred embodiment of the toy shown in Figures 1 and 2, three transparent balls are disposed within the member 14, and each of the three balls contains a free spinning rotor.

In each of the balls shown, the decorative spinning member is a four-sided planar figure. The opposed surfaces of a planar decorative spinning member may be of different colors to emphasize the spinning.

From the preferred embodiment shown, one of the transparent balls has a mirror 26 disposed on the surface of the decorative spinning member. However, though it is preferred to include a mirror within one of the balls, it is not necessary that it be disposed on a rotor.

The foregoing description of the drawings are illustrative and are not to be taken as limiting. Still other variations and modifications are possible without departing from the scope of the present invention.



CLAIMS

1. A toy comprising a plurality of transparent balls movable within and from a transparent, hollow part-spherical member, said member having a circular opening disposed on its outer surface, said opening having a diameter smaller than the diameter of said member, said opening having a rim about its perimeter, the rim extending into the opening, said transparent balls disposed within said member, having a diameter less than the diameter of said opening, said balls being freely movable about substantially the entire inner surface of said member, at least one of said balls containing a free spinning rotor, whereby when the said member is agitated the balls roll, causing the rotor to spin.
2. A toy according to claim 1, wherein three transparent balls are disposed within said member.
3. A toy according to claim 1 wherein the rotor is a planar rotor and has different colours on its opposed surfaces.
4. A toy according to claim 1 wherein one of the transparent balls has a mirror disposed within the ball.
5. A toy according to claim 1 wherein the rotor is a four-sided planar rotor.
6. A toy according to claim 1 wherein three transparent balls are disposed within said member, one of the transparent balls has a mirror disposed within the ball, and another of the balls has a second rotor, having different colours on its opposed surfaces, this being a planar rotor.
7. A toy according to claim 1, substantially as described with reference to the accompanying drawings.

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