TILTING TUBE WITH ROLLING MEMBER GAME

Inventor: Patrick M. Landreville, 1352 W. Gwava, Oxnard, Calif. 93030

Filed: July 19, 1974

Appl. No.: 490,111

Primary Examiner—Richard C. Pinkham
Assistant Examiner—Harry G. Strappello
Attorney, Agent, or Firm—Spensley, Horn and Lébitz

This invention relates to a game of skill for use and enjoyment by persons of all age groups. The device is comprised of an elongated tubular member defining a path of travel for a ball contained therein. The tubular member is formed so as to have a patterned clear, opaque alternating configuration. By tilting the hand held elongated member, the ball can be caused to roll toward one end, appearing in one clear section, and the object is to tilt the member in the opposite direction, causing the ball to stop and roll in the opposite direction and appear in a clear section disposed near the opposite end. Thus the object is to make the ball appear in oppositely disposed first clear sections and not appear in oppositely disposed second clear sections closer to each end of the elongated member.

8 Claims, 7 Drawing Figures
1 TILTING TUBE WITH ROLLING MEMBER GAME

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a game of skill or a testing device which is hand held and requires sight-hand coordination and manual dexterity.

2. Prior Art

Various forms of game devices involving rolling balls or marbles have been previously disclosed. For example, U.S. Pat. No. 454,254 discloses a tubular member containing an enclosed ball. The tubular member is mounted on a trunnioned support so as to be balanced when disposed in the horizontal plane. The game requires the player to tilt the tubular member such that the ball is centered and the system balances in a horizontal plane. The tubular member has an opening, in its preferred form, disposed through the top of the tubular member for observing the ball as it approaches the equilibrium point. This disclosure does not contain an elongated member which is formed alternating in opaque, clear sections and can not be hand held as is the present invention. Further, the objective of the device is entirely different and it is much more costly than the present invention.

Other games have been disclosed which provide a maze like path through which an enclosed ball must be moved by manual visual coordination. However, no prior art is known to the applicant which employs a hand held elongated tubular member containing a rolling ball which is formed in a patterned opaque, clear configuration in which the ball can be made to appear in alternate clear sections by manual visual coordination.

The present invention provides a number of significant improvements to known games of skill or testing devices. In summary, the invention requires a particular type of coordination between sight and hand, presents a method for measuring sight-hand coordination, provides enjoyment as a game of skill whether manipulated by a single player, whether or not against a time limitation, and presents a reproducible testing device in which each user is subject to identical testing conditions. The device may be inexpensively manufactured in various sizes to range from small party favors to large devices for the combined manipulation of two persons.

SUMMARY OF THE INVENTION

A device which can be utilized as a game of skill or as a device for testing sight-hand coordination is disclosed. The device is comprised of an elongated tubular member in which a rolling ball is disposed. The tubular member is formed so as to have two separate clear sections near each end, with the remainder of the member being opaque. The device is operated by hand holding the elongated member and tilting it back and forth such that the enclosed ball is made to appear alternately in only the first of the clear sections near one end before being tilted in the opposite direction to repeat the feat at the other end. The device can be used by one or two persons as a game of skill or as a testing device.

The novel features which are believed to be characteristic of the invention, both as to organization and method of utilization, together with further objects and advantages thereof, will be better understood from the following description, considered in connection with the accompanying drawings in which by way of example, the presently preferred embodiment is illustrated. It is to be expressly understood, however, that the drawings are for purpose of illustration and description only, and are not intended as a definition of the limits of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a pictorial illustration of the preferred embodiment being employed as a game of skill, or as a testing device;

FIG. 2 is a plan view of the preferred embodiment shown in FIG. 1;

FIG. 3 is a sectional view taken along line 3—3 of FIG. 2;

FIG. 4 is a partial plan view of an alternate embodiment having slots;

FIG. 5 is a plan view of an alternate embodiment having a hexagonal cross section;

FIG. 6 is a cross sectional view taken along line 6—6 of FIG. 5; and,

FIG. 7 is a pictorial view of two players using the preferred embodiment as a game.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Now referring to the drawings, the game of skill or testing device 10 of the presently preferred embodiment is shown in use in FIG. 1. It is comprised of an elongated tubular member 11 defining a path of travel for a ball or marble 30. The elongated member is formed so as to have a particular opaque, clear (transparent or translucent) patterned configuration. It should be noted that the device 10 can be employed equally as well as either a game of skill or as a testing device. However, the following description will refer to the device as if it were a game of skill. The elongated member 11 is held in a horizontal plane, relative to the ground, by the player grasping the tubular member with one or both hands 40 and 41. In the presently preferred embodiment, the game is played by the player tilting the elongated member such that it is not disposed in a horizontal plane, as shown by the directional arrows and phantom lines of FIG. 1. The tilting causes the enclosed ball 30 to roll towards the lower end. As the wall 30 appears in the first clear section 16, the elongated member 11 must be tilted by the player in the opposite direction to cause the ball to roll in the opposite direction and appear in an oppositely disposed clear section 16 without appearing in either clear section 14 disposed at the ends thereof. The invented device can be formed in alternate embodiments yet still be within the scope and basic concept as previously described.

In the preferred form, the elongated member 11 is formed of clear plastic tubing. Sections of the elongated member are painted with opaque paint as illustrated in FIG. 2. It has been found that a particular alternating pattern of clear and opaque sections provide a game which requires considerable skill. Other alternating patterns of opaque and transparent sections may also provide a game of skill, however, the skill required may be either greater or lesser depending upon the particular arrangement of the alternating sections. In the preferred embodiment, a first section 14 is clear and is disposed adjacent end 13 of the elongated rod 11 and extends inward approximately 2 inches. The second
section 15 is opaque and extends inward from section 14 approximately 2 inches. Section 16 is clear and extends approximately 2 inches inward from section 15. Section 17 is opaque and extends from section 16 approximately 18 inches. Section 18 is clear and approximately 2 inches in length and extends from section 17. Section 19 is opaque and extends away from section 18 and is about 2 inches in length. Section 20 is clear, is disposed between end 12 and section 19 and is approximately 2 inches in length. Thus, the overall length of the tubular member is approximately 30 inches, about 1 inch in diameter and has a wall thickness of approximately one-sixteenth of an inch with the ends being closed by end caps 12 and 13 cemented in place, in the alternative snapped or pressed in place. As described, the device is long enough to be held by two hands, though in alternate embodiments the device may be shortened and operated by one or both hands. It has been found that a total length of approximately 1 foot is a minimum length suitable for providing a device to tax sight-hand coordination.

The important dimensional arrangement is of the alternating opaque clear opaque sections disposed on each end, and shortening or lengthening may occur to section 17 without greatly alternating the degree of skill required. The two inch clear, opaque sections provide an optimum arrangement for a game of skill. Sections of lesser length require a much greater degree of skill, while sections of greater length require a much lesser degree of skill. The dimensions of the central section 17 are not as critical as the dimensions of the end sections, however, in the preferred form it should be of sufficient length to enable a player to place both hands within that opaque section and balance and tilt the elongated member in either direction. Caps 12 and 13 are disposed on either end of the tubular member 11 and thereby define a limited path of travel for a ball or marble 30 contained therein.

The ball or marble 30 as illustrated in FIG. 3 is positioned within the tubular member 11 prior to placing the caps 12 and 13 on the ends of the tubular member. The ball 30 in the preferred form is approximately three-fourths of an inch in diameter and may be a large glass marble or other spherical member such as a rubber ball. It has been found that the larger diameter ball of this size performs its function in a much better fashion than a smaller diameter ball, however either may be employed in the present invention. In some instances, a steel ball which is much heavier than a glass marble ball, may be positioned within the tubular member and be employed in the game of skill. These heavier balls tend to require a greater degree of skill since the heavier ball acquires a greater momentum as it rolls from one end of the tube to the other end of the tube. For this purpose an alternative embodiment may employ a removable cap such that balls of different diameter and/or weight may be alternately disposed within the tube to vary the degree of skill required in the game.

When playing the game, the elongated member is held in a horizontal position relative to the ground. The ball 30 must be made to appear alternately in sections 16 and 18 without appearing in either section 14 or 20. If in play, the player tilts the elongated member such that end 13 is lower than end 12, the ball 30 will begin to roll toward end 13. As the ball enters clear section 16, the player must react and tilt the elongated member such that end 12 is displaced below end 13 causing the ball to stop moving toward end 13 before it appears in section 14. As the ball comes to a halt, it begins rolling in the opposite direction toward end 12 and as soon as the ball appears in the clear section 18, the player must again tilt the member in the opposite direction, stopping the ball from moving through section 19 and appearing in section 20. In this example, one point is scored each time the ball appears alternately in either section 16 or 18 without appearing in either of the clear sections 14 or 20. If the player causes the ball to appear in either section 14 or 20, he is disqualified and loses any accumulated points. The winner of the game can be determined by the number of points accumulated within any specified time period. It should be noted that this is only one set of rules which may be derived for utilizing the invented game of skill. The device could be used for testing sight-hand coordination and manual dexterity in much the same manner.

In alternate embodiments, the tubular member can be made of glass and painted or colored to form the alternating clear and opaque sections. If the tubular member 11 is formed of clear plastic, it can be painted to form the desired alternating pattern or it could be partially covered in sections by an opaque member to form the desired pattern. In an additional embodiment, the elongated tubular member could be formed of welded together sections of clear and opaque members of glass of plastic.

An alternate form of the present invention is shown in FIG. 4. In this embodiment the elongated member is formed from a solid opaque tube. However, slots are cut in the wall of the tubular member to form windows 32 and 31 in one end and opposing windows in the opposite end which perform essentially the same function as the transparent sections 14 and 16 in the preferred form of the invention. Thus, as a ball rolls toward end 12, the ball can be made to appear in section 32 and if it appears in section 31, then the player would be disqualified and the game could be played as previously described.

In the preferred form, the elongated member 11 is a cylindrical tubular member, however in an alternate embodiment as shown in FIG. 5, the elongated member 33 is shown as hexagonal in shape. The member 33 can be formed or painted so as to have the desired clear opaque pattern, a ball 30 may be disposed within this hexagonal tubular member as illustrated in FIG. 6 and the game may be played as previously described. In another embodiment, a ball which is not spherical in shape, may be employed as long as it slides freely along the interior of the elongated member.

The game of skill previously described can also be played by two individuals as is shown in FIG. 7. In this usage, player 42 places one hand near end 13 and player 43 places one hand near end 12. The players must now combine their sight-hand coordination and manual dexterity to cause the ball to alternately appear in transparent sections 16 and 18 without appearing in transparent sections 14 and 20 as previously described. In this usage, the game requires considerable skill between two individuals and may be used as a unique party game.

I claim:

1. A hand-held device capable of being employed as a game of skill and a testing device requiring sight-hand coordination and manual dexterity comprising:
5. an elongated tubular member having enclosed ends, said elongated member having a first and second clear sections disposed on opposite ends, a first and second opaque section disposed inwardly and adjacent said first and second clear sections, third and fourth clear sections disposed inwardly and adjacent said first and second opaque sections and a third opaque section disposed between said third and fourth clear sections, said elongated member defining an internal path; and,

b. a movable means disposed within said elongated member capable of moving along said path; whereby said device can be tilted causing said movable means to move through said path and appear alternately in said third and fourth clear sections without appearing in said first or second clear sections.

2. The device of claim 1, wherein said movable means is a spherical ball.

3. The device of claim 1, wherein said elongated tubular member is cylindrical in cross section.

4. The device of claim 1, wherein said elongated member is approximately 30 inches in length and 1 inch in diameter, said first, second, third and fourth clear sections are approximately 2 inches in length and said first and second opaque sections are approximately 2 inches in length.

5. The device of claim 1, wherein said elongated member is fabricated from clear plastic and said opaque sections are formed by painting.

6. The device of claim 1, wherein one end of said elongated member is disengagable from said elongated member for removal and replacing of said movable means with a second movable means.

7. The device of claim 1, wherein said elongated member is opaque and said clear sections are created by forming slits in the wall of said elongated member.

8. The device of claim 1, wherein the cross section of said elongated member is irregular in shape.

** ** **