Nov. 14, 1961 S. M. BACHMAN 3,008,715

BALL AND RUNWAY TOY

Filed May 13, 1959

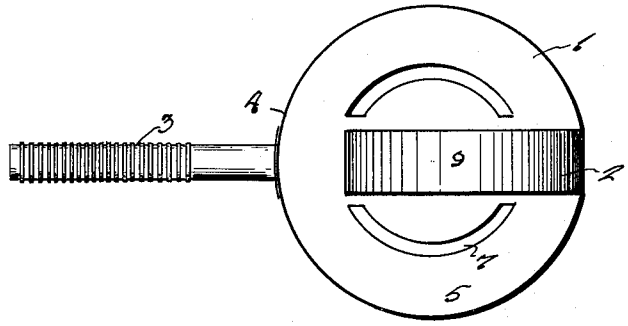


FIG. 1

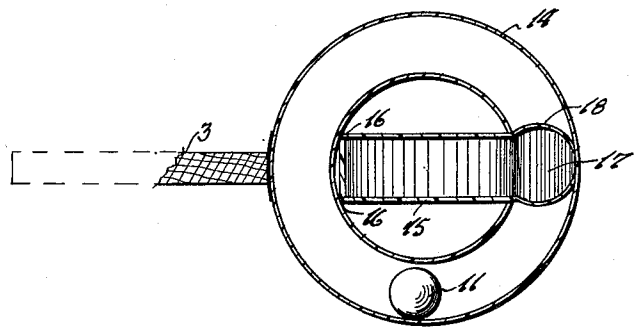


FIG. 2

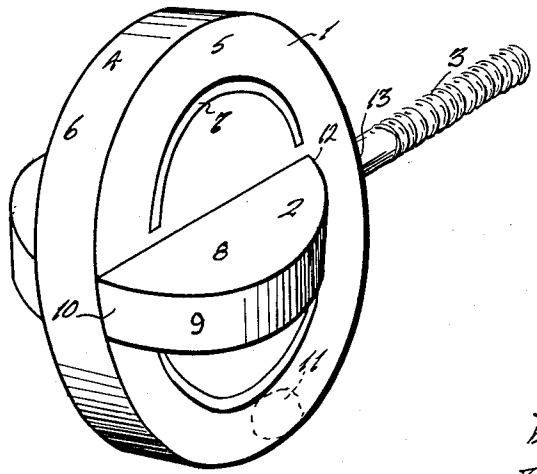


FIG. 3

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BALL AND RUNWAY TOY

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My invention relates to new and useful improvements in toys of the ball and runway type and comprises a pair of circular runways situated at right angles to one another and intersecting at a common locus and having a ball rollable therein, wherein considerable dexterity is required to transfer the ball from one runway to the other without said ball losing momentum.

An object of my invention is therefore to provide a device of the character herewithin described which requires a fair amount of manipulative skill in order to operate same.

Another object of my invention is to provide a device of the character herewithin described which is particularly suitable for improving children's co-ordination due to the aforementioned manipulative skill required in order to operate the toy.

A yet further object of my invention is to provide a device of the character herewithin described which is fascinating and interesting and is relatively inexpensive to manufacture.

With the foregoing objects in view, and such other objects and advantages as will become apparent to those skilled in the art to which this invention relates as this specification proceeds, my invention consitss essentially in the arrangement and construction of parts all as hereinafter more particularly described, reference being had to the accompanying drawings in which:

FIGURE 1 is a top plan view of one embodiment of my device.

FIGURE 2 is a sectional top plan view of an alternative embodiment of my device.

FIGURE 3 is a perspective view of the device shown in FIGURE 1.

In the drawings like characters of reference indicate corresponding parts in the different figures.

Proceeding therefore to describe my invention in detail, reference should be made first to FIGURES 1 and 3. The device consists of a housing forming a primary drum or runway **1** and a secondary drum or runway **2**, said primary drum having an operating handle **3** secured to the perimeter **4** of the drum and extending outwardly therefrom with its axis disposed diametrically of the runways.

The drum **1** is preferably made of transparent plastic or the like and is circular when viewed in plan, consisting of a pair of spaced and parallel discs **5** and a peripheral wall **6** spanning same.

Arcuately curved slots **7** may be formed therein but are not necessary for the operation of the device.

Secondary drum **2** also consists of a pair of circular discs **8** maintained in spaced apart arrangement by means of a peripheral wall **9** secured thereto and the diameter of this drum is slightly less than the diameter of the primary drum **1**. The primary drum is slotted to receive the secondary drum at right angles thereto which is supported by the primary drum and the locus of intersection **10** diametrically opposite the handle **3** is made common to both drums by removing a portion of the faces **8** of the

secondary drum so that the two drums or runways communicate with each other at this point. A ball **11** manufactured of steel or other material is inserted within the device during manufacture and should be small enough to pass between portion **12** of the perimeter of the secondary drum **2** and the portion **13** of the perimeter of the primary drum **1**.

FIGURE 2 shows an alternative embodiment of the device in which the primary runway **14** consists of a plastic tube having a handle **3** secured to the wall thereof and extending outwardly as in the previous embodiment.

Secondary runway **15** also consists of a plastic tube situated at right angles within the primary runway **14** and being supported therein by cementing the tubes together at the points **16**. These two tubes **14** and **15** intersect at a common locus **17** diametrically opposite the handle **3** and if desired, this locus of intersection may be enlarged as shown at **18**.

A ball **11** is also inserted within the tubes during assembly and the size of the ball should be slightly less than the diameter of the tubes **14** and **15**.

In operation of either embodiment, the device is grabbed by the handle **3** with, for example, the primary runway **1** or **14** parallel to the ground as illustrated in FIGURES 1 and 2. A circular motion is made by hand thus eliminating movement of the ball **11** around the primary runway; centrifugal force maintains it against the peripheral wall **6** thereof. Without cessation of the rotary movement, the device is turned through 90 degrees so that the secondary runway is now parallel to the ground, as illustrated in FIGURE 3 and by timing this movement correctly, the ball transfers to the secondary runway without losing momentum. After rotating the ball around the secondary runway parallel to the ground, the device may again be moved through 90 degrees back to the original position, the object being once again to maintain momentum of the ball during the transfer operation so that it now runs around the primary runway.

After the necessary skill has been obtained in operating the device, it may be rotated in planes other than parallel to the ground providing that the transfer is always through approximately 90 degrees.

Since various modifications can be made in my invention as hereinabove described, and many apparently widely different embodiments of same made within the spirit and scope of the claim without departing from such spirit and scope, it is intended that all matter contained in the accompanying specification shall be interpreted as illustrative only and not in a limiting sense.

What I claim as my invention is:

A ball and runway toy, comprising in combination, a housing forming a first continuous annular runway of a relatively large diameter, an elongated handle secured at one end thereof to said housing and projecting outwardly therefrom with its axis extending diametrically of said runway, said housing also forming a second continuous annular runway of a smaller diameter than the first runway, said second runway being disposed in a plane perpendicular to the first runway with the axis of the handle also extending diametrically of the second runway, each of said runways having a continuous peripheral wall, said runways being offset from each other along the axis of said handle and communicating with each other at one intersection point on the handle axis, a portion of the second runway diametrically opposite from said inter-

section point bypassing the adjacent portion of the first runway at the inside of the latter, the peripheral walls of the respective runways being crossed and mutually coplanar at said intersection point, and a ball freely movable along a circular path selectively in said runways and in contact with the peripheral wall thereof under influence of centrifugal force, said runways being uninterrupted except at their intersection point whereby the circular path of the ball movement in the respective runways is of a

constant diameter, said ball being transferable from either runway to the other by turning said housing through ninety degrees about the axis of said handle when the ball is at the point of intersection of the runways.

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