Feb. 12, 1952 K. W. JOHNSON 2,585,780

BOB-UP TOY

Filed Sept. 17, 1946

FIG. 1

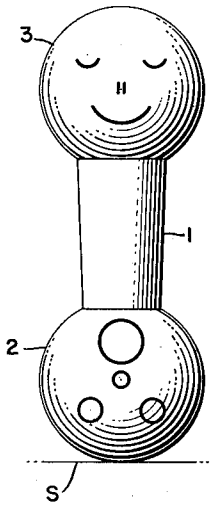


FIG. 2

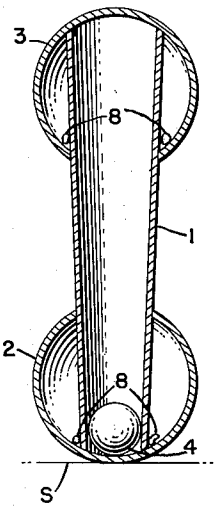


FIG. 4

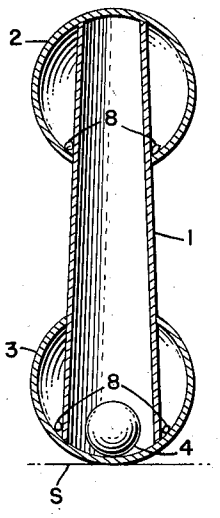


FIG. 3

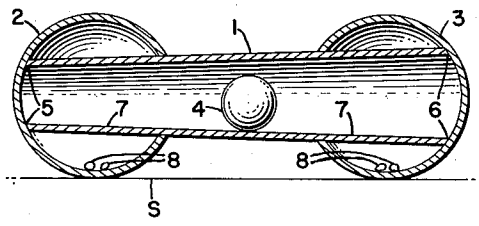


FIG. 5

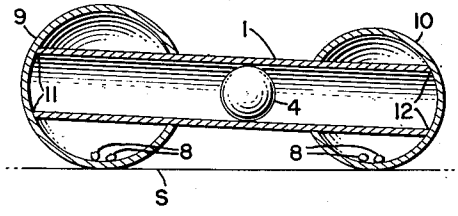
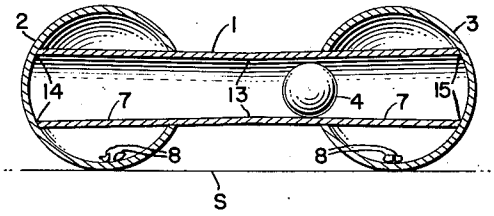


FIG. 6



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BOB-UP TOY

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6 Claims. (Cl. 46—134)

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This invention relates to an improvement in a bob-up toy, and more particularly to a bob-up toy able to balance and rock upon either of two ends.

Among the objects of this invention are to provide a bob-up toy which will balance and rock upon either end when placed upon said end, which when pushed from an upright position will tend to return to an upright position upon either the original or the opposite end, which will arise to an upright position when placed horizontally upon a level surface, which when thrown or cast upon a level surface will assume an upright position upon one of its ends, which has enclosed compartments which may contain rattling elements, which is simple and economical to make, and which will amuse a child.

The invention is illustratively exemplified in the accompanying drawing, in which:

Figure 1 is a front elevation of a bob-up toy embodying my invention;

Figure 2 is a sectional view thereof, with the toy standing upright upon one end;

Figure 3 is a sectional view wherein the toy has been made to assume a horizontal position;

Figure 4 is a sectional view subsequent to that of Figure 3 wherein the toy has regained an upright position but upon the opposite end from that upon which it stood in Figure 2;

Figure 5 is a sectional view of a modification; and

Figure 6 is a sectional view of another modification.

In Figures 1–4, a bob-up toy is shown, having a tube 1, two substantially spherical caps 2 and 3 mounted on opposite ends of the tube in such a manner that the tube penetrates through each cap up to the opposite wall of said cap, and a relatively heavy ball 4 free to roll within the space enclosed by the inside of the tube and the two caps. The toy will balance upon that end which contains the ball 4 because of the weight of the ball, the convex outer surface of the caps, and the impossibility of the ball moving within the caps appreciably from the longitudinal axis of the toy. When upright, any sideward leaning of the toy causes the ball to be lifted against the pull of gravity, so that the toy is pulled by gravity back toward the vertical. The diameter of the tube 1 is greater at end 6 than at end 5, so that, when the toy is pushed over into or laid in a horizontal position on a level surface S, as in Figure 3, the lower inner surface of the tube will slope downward from end 5 to end 6 of the tube, and the ball 4 will roll from end 5 to end 6, with

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the result that the toy will regain an upright position, as shown in Figure 4, upon the opposite end of the toy than the end on which it previously stood, as shown in Figure 2.

Rattling elements 8 may be enclosed within the space enclosed by the outside wall of the tube 1 and the inside wall of the caps 2 and 3.

The ball 4 is preferably spherical and is of relatively heavy material, such as steel, lead, or a globule of mercury; while the tube 1 and caps 2 and 3 are of relatively light-weight material, such as "Celluloid" or other suitable material.

In Figure 5, a modification is shown, having a tube 1 of the same diameter throughout its length, while the two caps 9 and 10 have different diameters, so that the tube 1 slopes downward from cap 9 to cap 10 when the toy is pushed over into or laid in a horizontal position upon a level surface S. Hence, the ball 4 will roll from the end 11 to the end 12 of the tube in a manner similar to that already described in connection with the embodiment shown in Figures 1–4, whereupon this embodiment will rise to an upright position upon cap 10.

In Figure 6, another modification is shown, having a tube 1 of lesser diameter at its middle portion 13 and of greater diameter at each end. The two caps 2 and 3 have the same diameter, so that when the toy is pushed over into or laid in a horizontal position upon a level surface S, the lower inner surface 7 of the tube will slope downward from the middle portion 13 of the tube to the opposite ends of the tube. Thus, a ball 4 will roll toward the end 14 if the ball is between points 13 and 14 in the tube, while the ball will roll toward the end 15 if the ball is between points 13 and 15 of the tube, whereupon, in either case, the toy will rise to an upright position upon one or the other of its ends.

Any of the embodiments of this toy may be thrown or cast upon a level surface, whereupon the toy will come to rest upright upon one or the other of its two ends. This presents possibilities for amusement, since the user or users may try to guess which end will be uppermost after the next throw.

Figure 1 shows two faces conventionally applied as ornamentation, one face on each cap; but other suitable ornamentation may be used.

Within the scope of the appended claims, various modifications other than as disclosed may be made by those skilled in the art without departing from the spirit of the invention.

I claim:

1. A toy comprising a tube of relatively light

weight, two outwardly convex caps of substantially equal diameter and of relatively light weight closing respectively the opposite two ends of the tube and extending laterally and rearwardly therefrom, the inner surfaces of the caps and the bore of the tube forming a tubular chamber, and a relatively heavy ball enclosed within said tubular chamber; providing a toy adapted to balance upon one of said outwardly convex caps when placed upon a level supporting surface; said tube increasing in bore diameter toward at least one end from any point along its length other than said last mentioned end, whereby when the longitudinal axis of the tube is substantially horizontal the gradient of the lower inner surface of the tube will cause the ball to roll to and come to rest in said last mentioned end of the tube, whereby the weight of the ball will cause the toy to rise to a substantially upright position upon the outwardly convex cap at the end containing the ball.

2. A toy comprising a tube of relatively light weight, two outwardly convex caps of substantially equal diameter and of relatively light weight closing respectively the two opposite ends of the tube and extending laterally and rearwardly therefrom, the inner surfaces of the caps and the bore of the tube forming a tubular chamber, and a relatively heavy ball enclosed within said tubular chamber; providing a toy adapted to balance upon one of said outwardly convex caps when placed upon a level supporting surface; the bore of said tube tapering from one end to the other of the tube so that when the longitudinal axis of the tube is substantially horizontal the ball is caused to roll toward and come to rest in that end of the tube having the larger bore diameter, whereby when the toy is placed lengthwise upon a level supporting surface said ball will roll to said last mentioned end of said tube, whereby the weight of the ball will cause the toy to rise to a substantially upright position upon that cap at the end containing the ball.

3. A toy comprising a tube of relatively light weight, two outwardly convex caps of substantially equal diameter and of relatively light weight closing respectively the opposite two ends of the tube and extending laterally and rearwardly therefrom, the inner surfaces of the caps and the bore of the tube forming a tubular chamber, and a relatively heavy ball enclosed within said tubular chamber; providing a toy adapted to balance alternatively upon either of said outwardly convex caps when placed upon a level supporting surface; the bore diameter of said tube tapering from each end of the tube toward a lesser diameter at substantially the middle portion of said tube, so that when the toy is placed lengthwise upon a level supporting surface said ball will roll downwardly toward and come to rest in an end of said tube, whereby the weight of the ball will cause the toy to rise to a substantially upright position upon that cap at the end containing the ball.

4. A toy of the structure set forth in claim 1, and wherein said caps each consists of a hollow member of substantially spherical shape with an opening receiving an end of said tube, the end of the tube in each case penetrating through the opening and up to the inner surface of the opposite wall of the cap.

5. A toy of the structure set forth in claim 2, and wherein said caps each consist of a hollow member of substantially spherical shape with an opening receiving an end of said tube, the end of the tube in each case penetrating through the opening and up to the inner surface of the opposite wall of the cap.

6. A toy of the structure set forth in claim 3, and wherein said caps each consist of a hollow member of substantially spherical shape with an opening receiving an end of said tube, the end of the tube in each case penetrating through the opening and up to the inner surface of the opposite wall of the cap.

KEITH WHITAKER JOHNSON.

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The following references are of record in the file of this patent:

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