

PATENT SPECIFICATION

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DRAWINGS ATTACHED

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(54) A TOY

(71) I, LUTHER JACKSON RUSSELL, of 524 Fernwood Road, Key Biscayne, Florida, 33149, United States of America, a citizen of the United States of America, do hereby declare the invention, for which I pray that a patent may be granted to me and, the method by which it is to be performed, to be particularly described in and by the following statement—

The invention relates to a toy using gyroscopic principles and commonly known as a bandalore or "Yo-Yo" (registered Trade Mark). As is well known toys of the kind referred to consist of two identical bodies joined by a shaft on which is fitted a string.

The present invention provides a toy which comprises two identical circular bodies, each having one flat face and an opposite face in which is formed a chamber having a peripheral rim and a central cylindrical boss which defines a hole passing through the body, said bodies being rigidly coupled by means of a hollow shaft which fits into said holes in such a way that the flat faces of the two bodies face each other, and a string attached to said shaft at its mid-point.

In the accompanying drawings:—

Figure 1 is a perspective view of a toy according to the present invention.

Figure 2 is an exploded perspective view of the parts of the toy as shown in Figure 1.

Figure 3 is a perspective view of a variation of the toy shown in Figures 1 and 2, partially exploded.

Figure 4 is an elevation of the toy shown in Figure 2.

In the separate figures the same indicia are given to corresponding elements or parts.

Figures 1 and 2 show a toy which consists of two circular bodies 1 and 2 having identical shape. Each body is primarily made up of a wheel or rotor 3 and a cover 4. The wheel 3 has a flat face 5 on whose centre portion there is a plurality of radial ribs 6 and a cen-

tral hole 10 with internal small ribs 7. An arched rim 8 defines a chamber in the other face of the wheel.

This chamber has in its centre a cylindrical projecting boss 9 which defines a recess ending at a shoulder 14 set back with respect to the face 9¹ of boss 9 and through which passes the hole 10 and which is surrounded by a flat portion 11.

The projecting cylindrical boss 9 may be formed integrally with four radial ribs 12 each having a flared outer end of a triangular shape defining a blade 26 the thickness of which diminishes gradually towards the periphery of the body and whose outer edge is separated from rim 8 by a channel 13. The radial portions 12 and blades 26 together form a Maltese Cross, and they can be all of the same colour or of different colours, permitting one to obtain thereby very decorative effects.

The cover 4 can be completely transparent in order to display the special decorative effects and can be of varied thickness or have projecting or recessed internal portions, to give additional decorative effects; the decorative effects may include writing. Alternatively the cover may be non-transparent and have a decorative exterior. The cover is of arched form and has a border 15 which fits into the channel 13.

The hole 10, where it passes through the shoulder 14, is of a diameter just sufficient to accommodate the shank of a rivet 20. The hole has a portion of larger diameter, visible in wheel 2 in Figure 2, which contains the ribs 7 and receives a shaft 16. This shaft preferably has a central groove 17 and is provided with a string 18 attached to the shaft by being looped round it as shown. Ribs 7 grip the shaft 16 so that the bodies and the shaft rotate together. The gap between the flat faces of the wheels accommodates the string when the latter is wound up on the shaft (Fig. 4).

The head 21 of rivet 20 is received in the recess defined by shoulder 14, in wheel 2. The

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tip of the rivet is retained on the other side of the boss 9 of wheel 3 by means of a washer 22 provided with a hole 23 through which passes the rivet shank. The rivet holds the wheels and shaft rigidly together.

In the embodiment of Figure 3 there is shown the possibility of providing alternative decorative effects between the cover 4 and chamber defined by the wheel in which a decorative disk 24 suitably arched to coincide with the cover 4 is lodged. In this way it is possible to change the decorative effects. In this case the cover 4 preferably is completely transparent or if desired partially transparent.

With regard to Figures 1 and 4, it can be appreciated that the purely exterior view of the toy gives the impression of two rotatable bodies in which the covers are of arched form, giving when joined a unitary appearance.

The above embodiments are such that specially appealing effects are obtained both when the toy is at rest and when it is rotating.

WHAT I CLAIM IS:—

1. A toy which comprises two identical circular bodies, each having one flat face and an opposite face in which is formed a chamber having a peripheral rim and a central cylindrical boss which defines a hole passing through the body, said bodies being rigidly coupled by means of a hollow shaft which fits into said holes in such a way that the flat faces of the two bodies face each other, and a string attached to said shaft at its mid-point.

2. A toy as claimed in Claim 1 in which the said opposite face is provided with a plurality of radial ribs each having a flared outer end whose thickness diminishes gradually to-

wards the periphery of the body, a peripheral channel being formed between the said rim and the ends of the ribs.

3. A toy as claimed in Claim 1 or 2 wherein each chamber is closed by a respective cover.

4. A toy as claimed in Claim 3 having in each said chamber a peripheral channel which receives a peripheral portion of the respective cover.

5. A toy as claimed in Claim 3 or 4, wherein the cover is transparent.

6. A toy as claimed in Claim 3 or 4, wherein the cover is partly transparent.

7. A toy as claimed in Claim 3 or 4, wherein the cover is non-transparent and presents a decorative exterior.

8. A toy as claimed in Claim 5 or 6, wherein a decorative disk is arranged in a chamber closed by the transparent or part-transparent cover.

9. A toy as claimed in any one of Claims 1 to 8, wherein the flat face of each rotatable body is provided with a plurality of radial rays around the central hole.

10. A toy as claimed in any one of Claims 1 to 9, wherein the said central hole contains a shoulder.

11. A toy as claimed in any of Claims 1 to 10 including a rivet traversing the said holes and the hollow shaft and holding together the said bodies and shaft.

12. A toy substantially as described with reference to the accompanying drawings.

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