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(54) **Toy object in the shape of a body of revolution**

(57) A toy object is presented which may be used in playing dexterity games. The toy object is shaped as a body of revolution, comprising a central disc shaped part and two opposite, mirror image tapering parts joining the central disc shaped part. It is possible that each tapering part has a frusto-conical shape with a planar top. This allows a number of toy objects to be combined into a stack of toy objects one on top of the other. Further it is preferred that the frusto-conical tapering part apart from its planar top has a concave surface. But also other shapes are possible. The dimensions may vary.

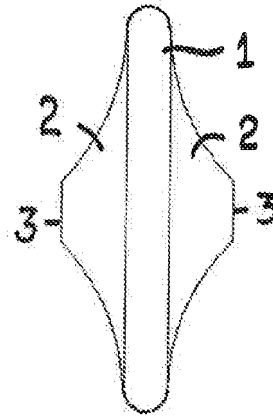


FIG. 1

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Description

[0001] The invention relates to a toy object which is shaped as a body of revolution. Specifically the toy object is meant to be used as an object for playing dexterity games in accordance with specific rules. Known examples of such toy objects are balls for playing pétanque or bowls for playing bowls.

[0002] It is an object of the present invention to provide a novel toy object of the above type.

[0003] Thus in accordance with the present invention the toy object which is shaped as a body of revolution comprises a central disc shaped part and two opposite, mirror image tapering parts joining the central disc shaped part.

[0004] Using such a toy object it is possible to play dexterity games by throwing and/or rolling the toy object to a specific location. During an initial stage of its movement the toy object generally will rotate about the central disc shaped part (which then is oriented substantially in a vertical plane). When the toy object has slowed down sufficiently, it will topple and will assume a stationary position resting on one of its tapering parts.

In a preferred embodiment of the toy object according to the present invention each tapering part has a frusto-conical shape with a planar top.

[0005] The frusto-conical shape of the tapering part enables a smooth transition of the toy object from the position in which it rotates about the central disc shaped part to the position in which it rests on one of its tapering parts. The planar top assures a stable stationary position and furthermore allows a number of similar toy objects to be stacked one on top of the other, as may be required when playing a game according to specific rules.

[0006] The tapering parts may be configured in a number of different ways, depending on the desired characteristics of the toy object. For example the frusto-conical tapering part apart from its planar top has a concave surface or a convex surface. As an alternative the generatrix of the frusto-conical tapering part may be a straight line.

[0007] Specifically, a concave surface of the tapering part enables a precise handling of the toy object, because two fingers of a player may be located at these concave portions of the opposite tapering parts while the central disc shaped part is located between said fingers. Like this, the toy object may be thrown onto a playing surface while obtaining a rotational movement. The engagement of the concave surfaces by his fingers allows a player to create desired effects for influencing the movement of the toy object.

[0008] In another embodiment of the toy object according to the present invention each tapering part is dome-shaped.

[0009] The movement of the toy object, specifically when rolling or rotating about its central disc shaped part, further may be influenced by specific constructional features. In one embodiment the central disc shaped part

comprises an outer rim of a flexible material, such as rubber or alike.

[0010] The manner in which this outer rim functions may depend from its configuration. For example, the outer rim of flexible material may comprise, as seen in a cross section, an outer profile with a shape belonging to the group of, among others, curved, straight, circular, serrated, concave, tapering and frusto-conical.

[0011] When, in accordance with yet another embodiment of the toy object according to the present invention the outer rim is detachable from the central disc shaped part, it may be replaced by another outer rim, based upon the specific characteristics required for playing a game. Further this feature may be used to personalise the toy object by choosing a specific shape or colour of the outer rim.

[0012] Although many materials may be used for the toy object, it preferably is made of glass, ceramics or plastic. It will be advantageous when the specific weight of the material is sufficiently high for enabling a stable movement (rotation) of the toy object, even when moving over an irregular surface (for example a lawn).

[0013] The central disc shaped part of the toy object may have a diameter between 30 and 55 mm. The distance between the opposite ends of the tapering parts preferably lies between 14 and 34 mm. In embodiments in which each tapering part has a frusto-conical shape with a concave surface with planar top, the planar top of the frusto-conical part may have a diameter between 8 and 2 mm.

[0014] In a specific embodiment of the toy object according to the present invention the central disc shaped part has a diameter of 50 mm, the distance between the opposite ends of the tapering parts is 22 mm and the planar top of each part has a diameter of 18 mm.

[0015] In another specific embodiment of the toy object according to the present invention the central disc shaped part has a diameter of 40 mm, the distance between the opposite ends of the tapering parts is 18 mm and the planar top of each frusto-conical part has a diameter of 12 mm.

[0016] In yet another specific embodiment of the toy object according to the present invention the central disc shaped part has a diameter of 35 mm, the distance between the opposite ends of the tapering parts is 16 mm and the planar top of each frusto-conical part has a diameter of 10 mm.

[0017] Hereinafter the invention will be elucidated by referring to the drawings in which

Fig.1 shows a first embodiment of a toy object according to the present invention;

Fig.2 shows a second embodiment of a toy object according to the present invention;

Fig.3 shows a third embodiment of a toy object according to the present invention;

Fig.4 shows a fourth embodiment of a toy object according to the present invention;

Fig. 5 shows a stack of toy objects according to the

present invention;

Fig.6 shows examples of profiles for rims;

Fig.7 shows a fifth embodiment of a toy object according to the present invention;

Fig.8 shows a sixth embodiment of a toy object according to the present invention;

Fig.9 shows a cross section of the toy object of figure 8 according to TX-IX in figure 8;

Figures 10-12 show specific embodiments of toy objects with their dimensions.

[0018] Firstly referring to figure 1, a toy object is illustrated which is shaped as a body of revolution. It comprises a central disc shaped part 1 and two opposite, mirror image tapering parts 2 joining the central disc shaped part 1. The central disc shaped part 1 and tapering parts 2 may be separately fabricated parts attached to each other with any known technique, or may be integrally made from the beginning.

[0019] As shown, each tapering part 2 has a frusto-conical shape with a planar top 3. Further, in this embodiment, the frusto-conical tapering parts 2 apart from their planar top 3 have a concave surface.

[0020] Figures 2 and 3 show embodiments of the toy object wherein the tapering parts 2 are dome-shaped without a planar top 3. In figure 2 the disc shaped part 1 is narrower than in figure 3.

[0021] A number of toy objects with a planar top 3 may be stacked as illustrated schematically in figure 5 (adjoining toy objects are illustrated here in a slightly separated manner; in reality the corresponding planar tops 3 of adjoining toy objects will rest upon each other).

[0022] Referring to figure 4 an embodiment of the toy object is illustrated in which the central disc shaped part 1 comprises an outer rim 4 of a flexible material, such as rubber or alike. This outer rim 4 may be detachable from the central disc shaped part 1 but also may be attached thereto in a non-detachable manner (e.g. vulcanised thereto).

[0023] Figure 6 shows different possibilities of embodying the outer rim 4. The outer rim of flexible material may comprise, as seen in a cross section, an outer profile with a shape belonging to the group of, among others, curved, straight, circular, serrated, concave, tapering and frusto-conical.

[0024] Figure 7 illustrates an embodiment of the toy object in which the generatrix 5 of the frusto-conical tapering parts 2 is a straight line.

[0025] In figure 8 each tapering part 2 is frusto-conical with a convex surface (and having a planar top 3). Figure 9 shows a cross section according to IX-IX on figure 8.

[0026] The illustrated toy objects preferably may be made of glass, ceramics or plastic.

[0027] In figure 10 a specific embodiment of the toy object is illustrated in which the central disc shaped part 1 has a diameter of 50 mm, the distance between the opposite ends (planar tops 3) of the tapering parts 2 is 22 mm and the planar top 3 of each frusto-conical part

has a diameter of 18 mm. Other dimensions appear from the figure.

[0028] In figure 11 another specific embodiment of the toy object is illustrated in which the central disc shaped part 1 has a diameter of 40 mm, the distance between the opposite ends (planar tops 3) of the tapering parts 2 is 18 mm and the planar top 3 of each frusto-conical part has a diameter of 12 mm. Other dimensions appear from the figure.

[0029] Finally, in figure 12 a specific embodiment of the toy object is illustrated in which the central disc shaped part 1 has a diameter of 35 mm, the distance between the opposite ends of the tapering parts 2 is 16 mm and the planar top 3 of each frusto-conical part has a diameter of 10 mm. Other dimensions appear from the figure.

[0030] The toy object may be used for playing dexterity games. Further it can be used to display all kinds of commercial messages, for example on the surfaces of the tapering parts. It can come in different colours.

[0031] The invention is not limited to the embodiments described before which may be varied widely within the scope of the invention as defined by the appending claims.

Claims

1. Toy object which is shaped as a body of revolution, comprising a central disc shaped part and two opposite, a mirror image tapering parts joining the central disc shaped part.
2. Toy object according to claim 1, wherein each tapering part has a frusto-conical shape with a planar top.
3. Toy object according to claim 2, wherein the frusto-conical tapering part apart from its planar top has a concave surface.
4. Toy object according to claim 2, wherein the frusto-conical tapering part apart from its planar top has a convex surface.
5. Toy object according to claim 2, wherein the generatrix of the frusto-conical tapering part is a straight line.
6. Toy object according to claim 1, wherein each tapering part is dome-shaped.
7. Toy object according to any of the previous claims, wherein the central disc shaped part comprises an outer rim of a flexible material, such as rubber or alike.
8. Toy object according to claim 7, wherein the outer rim of flexible material comprises, as seen in a cross

section, an outer profile with a shape belonging to the group of, among others, curved, straight, circular, serrated, concave tapering and frusto-conical.

9. Toy object according to claim 7 or 8, wherein the outer rim is detachable from the central disc shaped part. 5
10. Toy object according to any of the previous claims and made of glass, ceramics or plastic. 10
11. Toy object according to any of the previous claims, wherein the central disc shaped part has a diameter between 30 and 55 mm. 15
12. Toy object according to any of the previous claims, wherein the distance between the opposite ends of the tapering parts lies between 14 and 34 mm.
13. Toy object according to any of the previous claims, in which each tapering part has a frusto-conical shape with a concave surface and planar top, wherein the planar top of the frusto-conical part has a diameter between 8 and 25 mm. 20
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14. Toy object according to claim 13, wherein the central disc shaped part has a diameter of 50 mm, the distance between the opposite ends of the tapering parts is 22 mm and the planar top of each frusto-conical part has a diameter of 18 mm. 30
15. Toy object according to claim 13, wherein the central disc shaped part has a diameter of 40 mm, the distance between the opposite ends of the tapering parts is 18 mm and the planar top of each frusto-conical part has a diameter of 12 mm. 35
16. Toy object according to claim 13, wherein the central disc shaped part has a diameter of 35 mm, the distance between the opposite ends of the tapering parts is 16 mm the planar top of each part has a diameter of 10 mm. 40

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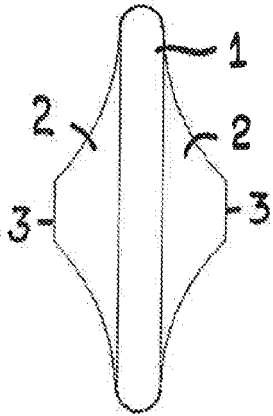


FIG. 1

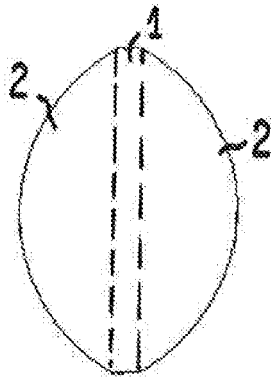


FIG. 2

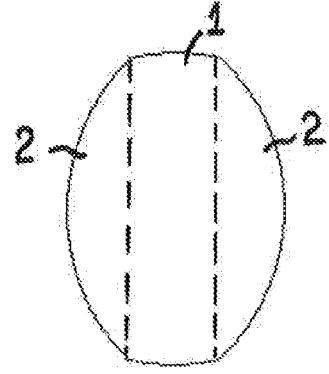


FIG. 3

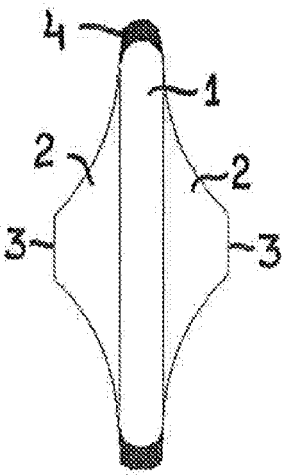


FIG. 4

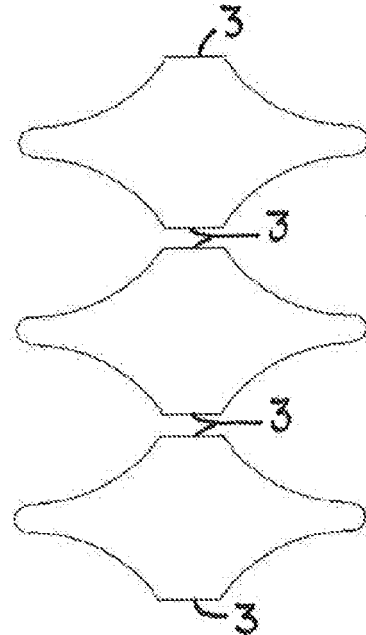


FIG. 5



FIG. 6

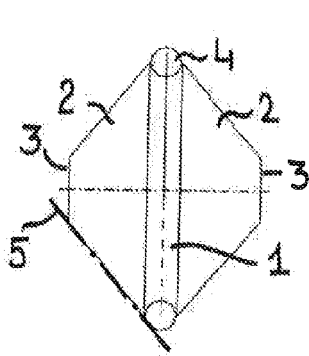


FIG. 7

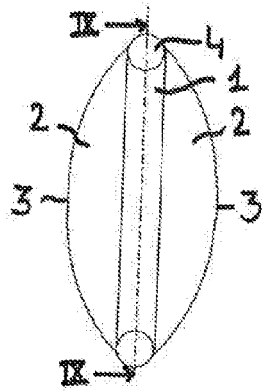


FIG. 8

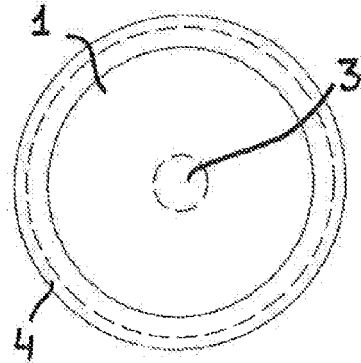


FIG. 9

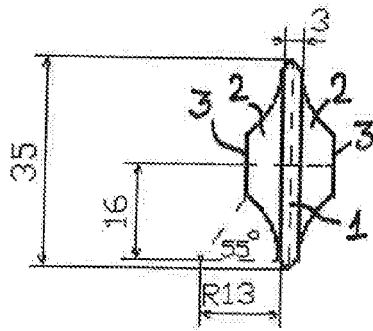
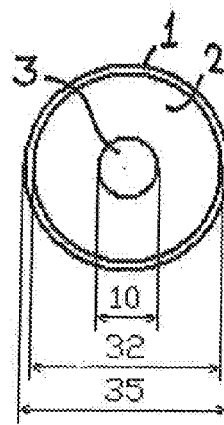


FIG. 10



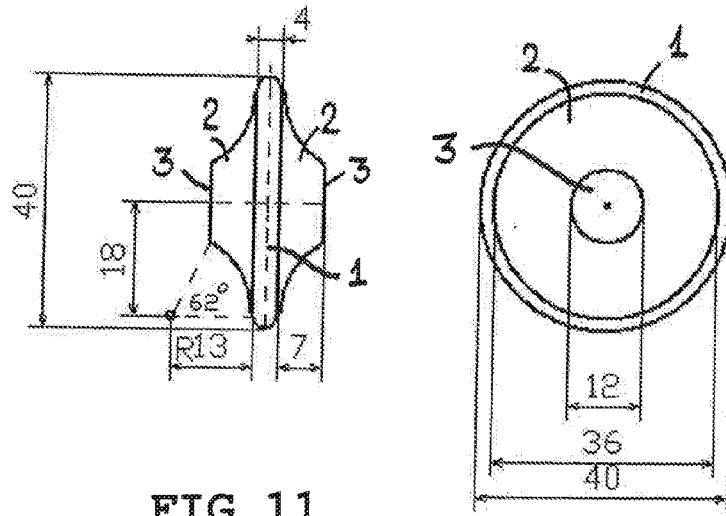


FIG. 11

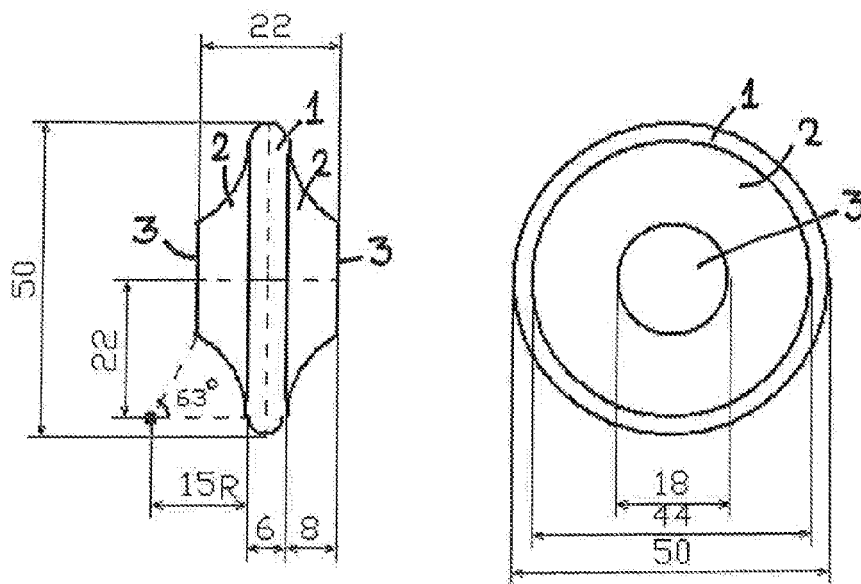


FIG. 12



EUROPEAN SEARCH REPORT

Application Number
EP 10 16 3402

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			A63B A63H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 October 2010	Examiner Bagarry, Damien
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22-10-2010

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US 2640699	A	02-06-1953	NONE
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