US 20110136604A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2011/0136604 A1**

(43) **Pub. Date: Jun. 9, 2011**

Hsu

(54) **BALL BODY**

(76) Inventor: **I-Pin Hsu**, Tainan City (TW)

(21) Appl. No.: **12/591,963**

(22) Filed: **Dec. 7, 2009**

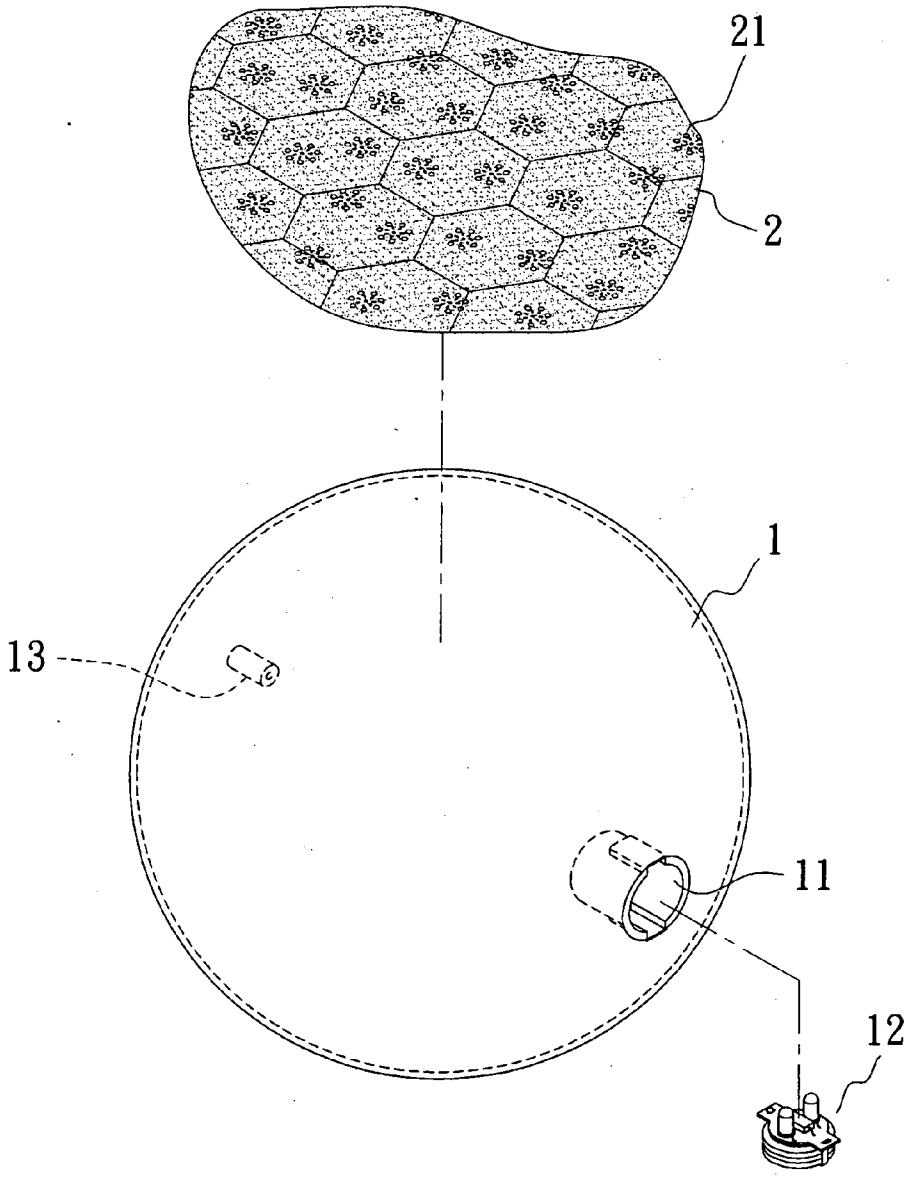
Publication Classification

(51) **Int. Cl.**
A63B 41/02 (2006.01)

(52) **U.S. Cl.** **473/609**

(57) **ABSTRACT**

This invention relates to a ball body which essentially comprises a transmitting hollow inner bladder. A recessed socket for accommodation of a vibration-powered luminous body is provided on the transmitting hollow inner bladder. A superficial layer is further wrapped on outside surface of the transmitting hollow inner bladder, which has transmitting areas provided thereon. When the ball body is played to produce vibration, the vibration-powered luminous body is lightened and light is scattered out through the transmitting hollow inner bladder and the transmitting areas on the superficial layer so as to increase more fun in playing the ball and diversified functions of toy.



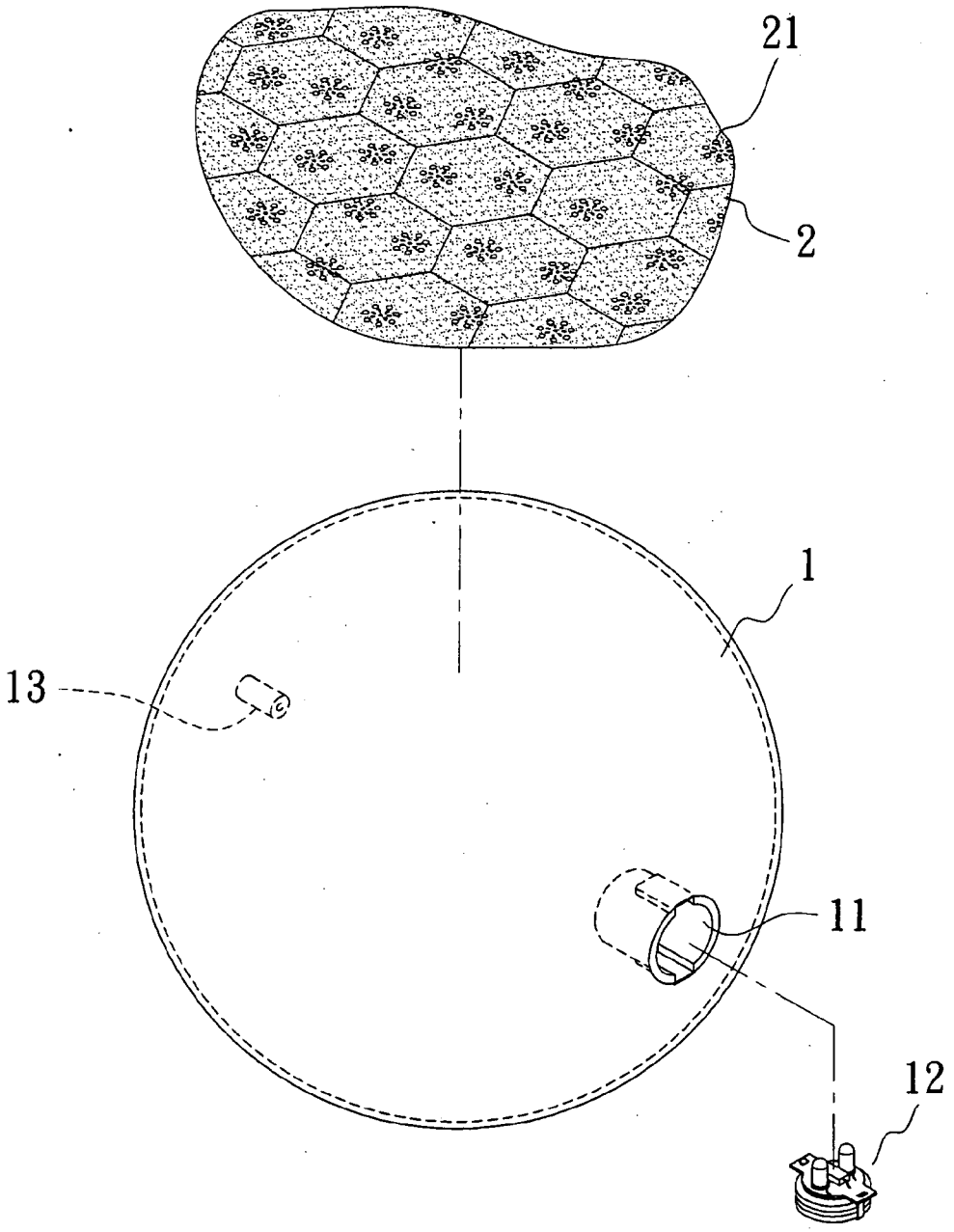


FIG. 1

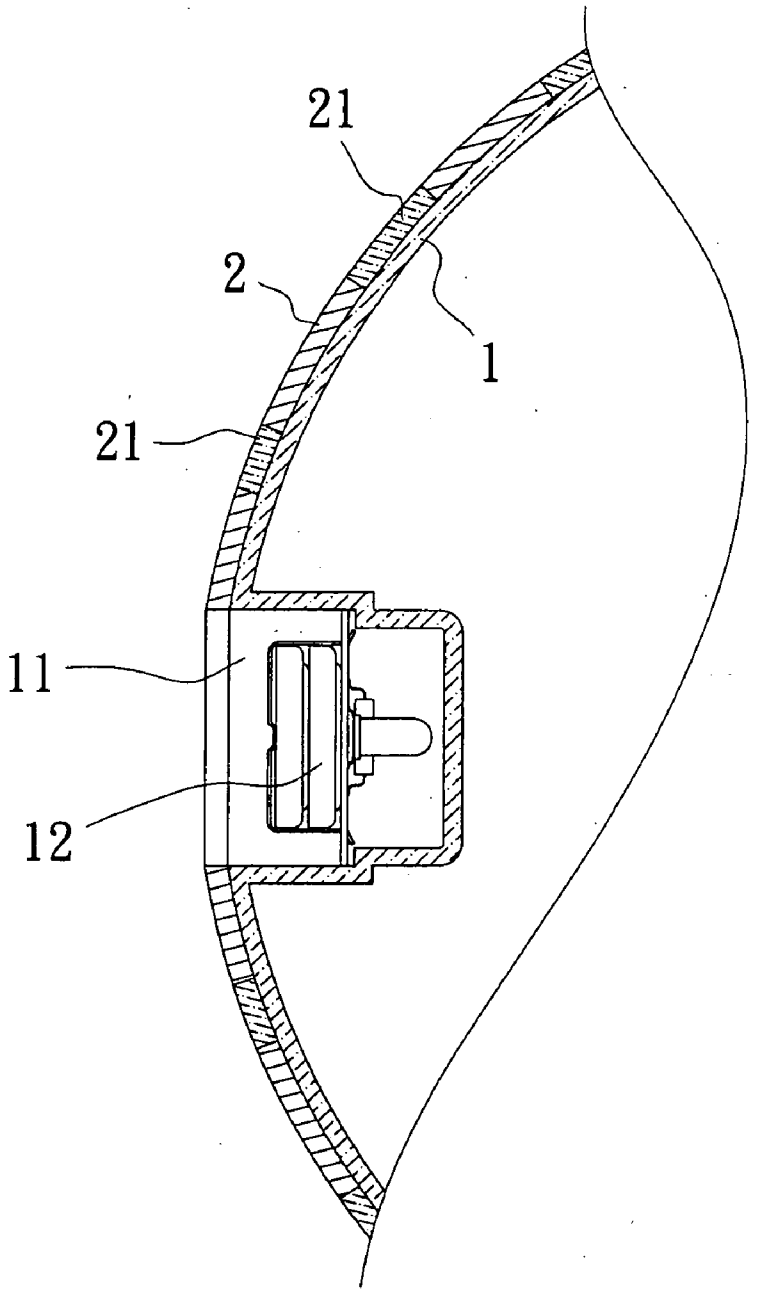


FIG. 2

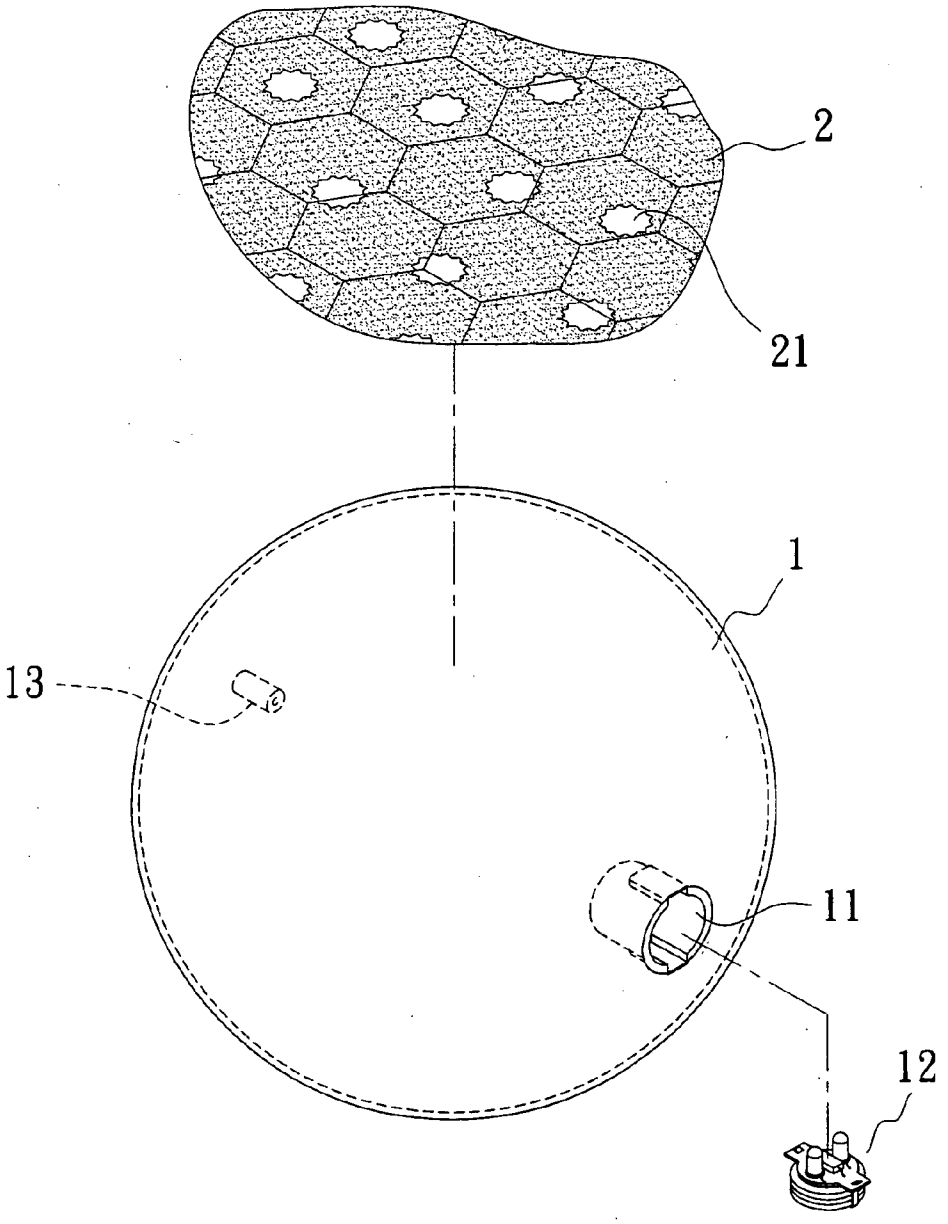


FIG. 3

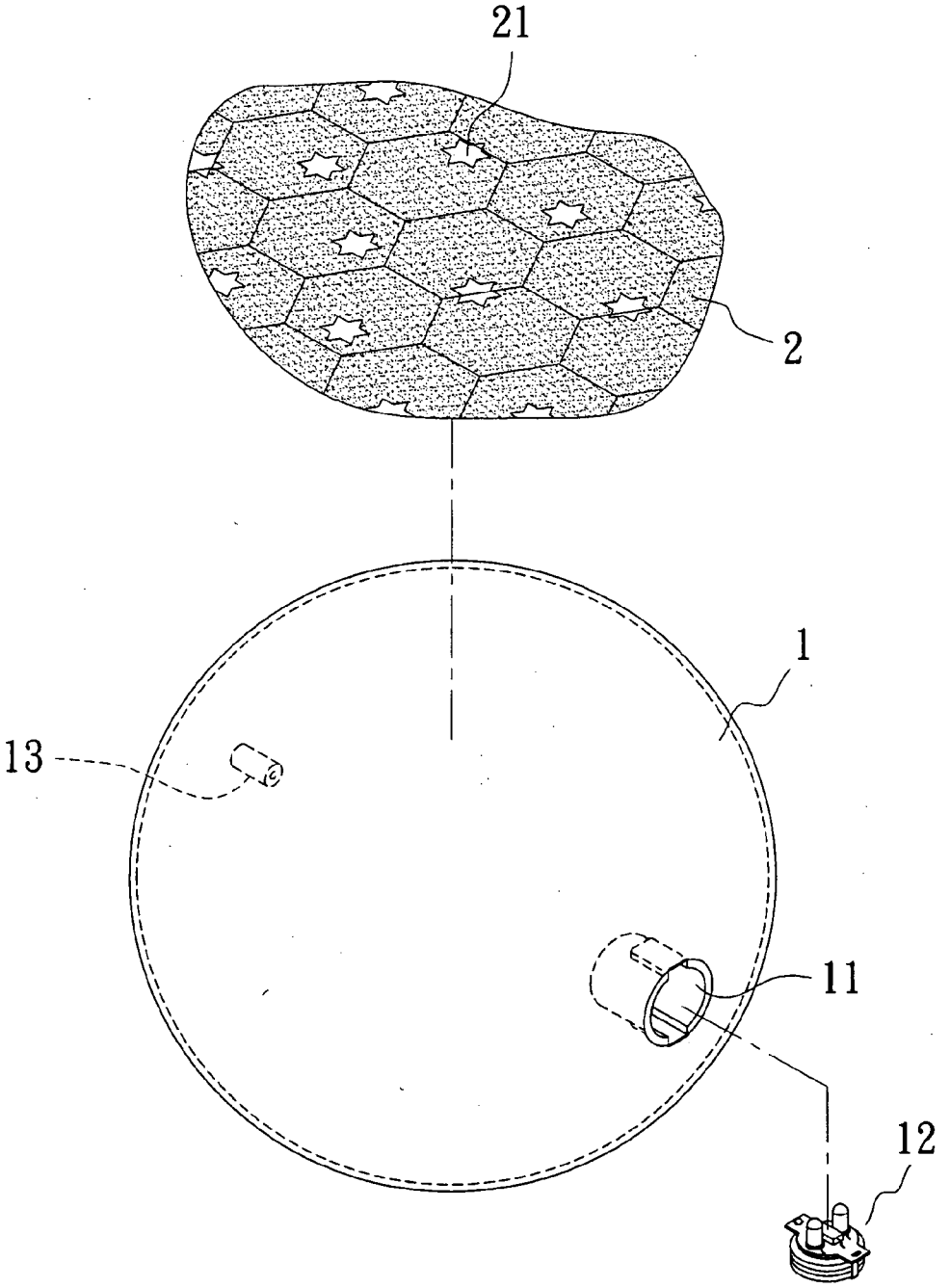


FIG. 4

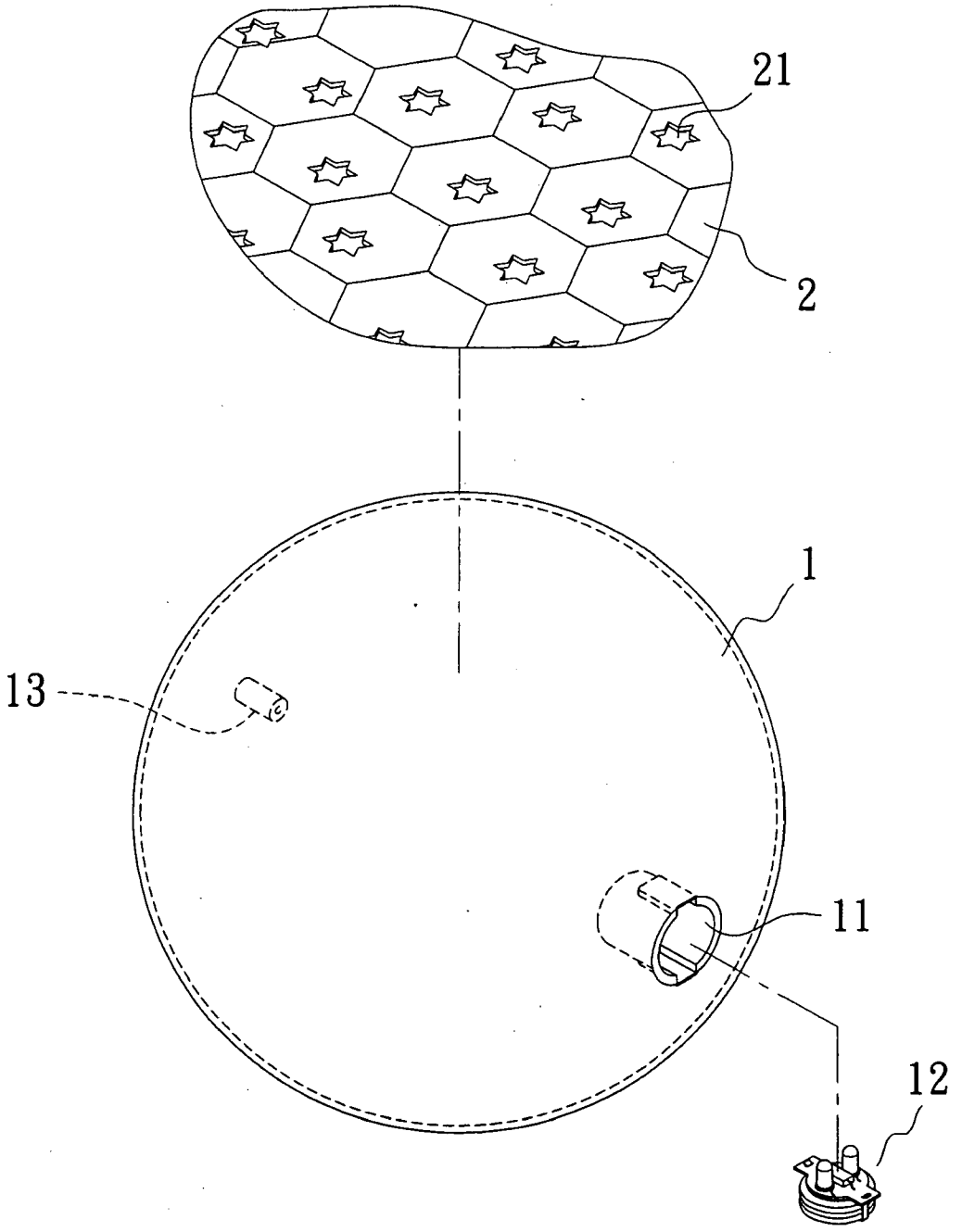


FIG. 5

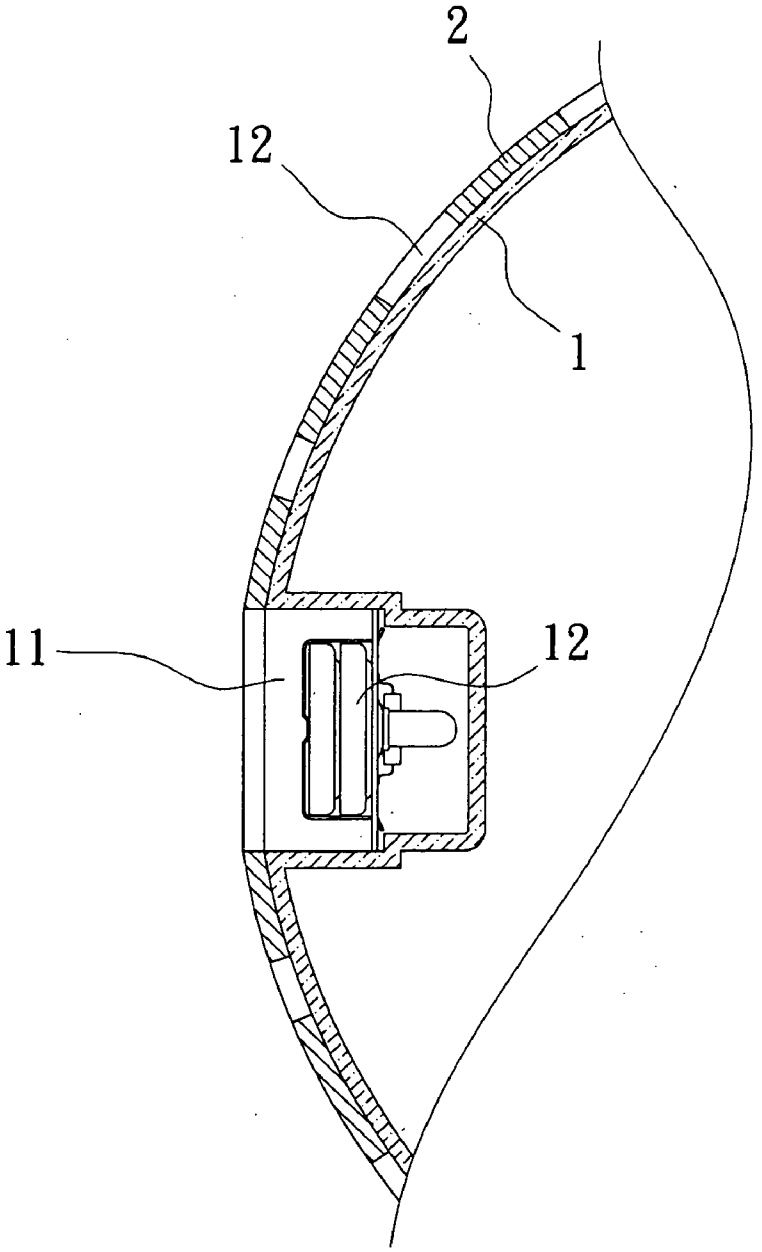


FIG. 6

BALL BODY

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a ball body, more particularly to a toy jumping ball having flickering and patterned light, which can increase more fun in playing by the design of an inner bladder having luminous body and a superficial layer having transmitting pattern areas thereon.

[0003] 2. Brief Description of the Prior Art

[0004] There are two kinds of conventional toy balls currently sold on market, one is made by rubber sheet into a hollow ball and is inflated with air so as to have enough elasticity for play, such as rubber ball, basketball, dodgeball and volleyball, while the other one is completely solid in whole ball body and is made by elastic rubber material.

[0005] The ball body inflated with air is lighter in weight, but it is a single-layer design without color variation so that it is less attractive to those children like novel stuff and visual stimulation. After a period of time usage, either rubber skin on the outside of ball body is broken, or air inside the ball body is leaked to cause insufficiency in pressure inside the ball body or decrease in elasticity, or rubber skin is broken, the ball is out of service.

[0006] Additionally, there is a jumping ball containing a puppet, a luminous body or a beeper and its manufacturing cost is more expensive due to above containment. With respect to a jumping ball having luminous body therein, a transmitting inner bladder is provided inside and a luminous body is embedded in or at one end of the inner bladder to allow the ball have the color present by the light emitted so as to increase appeal for children. However, the ball also has unitary color after the transmitting inner bladder is lightened so that there is again no variation in color or pattern. Further, the transmitting inner bladder cannot be printed with any pattern on it in order not to shield the light emitted from the luminous body. This will result in insufficiency of brightness which might dwindle the attraction for children.

[0007] In view of the above shortcomings of prior art, the inventor of the present invention hereby proposes a ball body according to research and improvement conducted on prior art, on the basis of his proficient experience and knowledge in R&D and manufacturing in relevant field, with a purpose to achieve better practical value of the invention.

SUMMARY OF INVENTION

[0008] The main object of the ball body of the present invention is to improve the disadvantage of dwindling attraction of conventional structure for children due to few variation in color and pattern. It can increase more fun in play by the design of an inner bladder having luminous body and a superficial layer having transmitting pattern areas on it.

[0009] The object and advantages of the ball body can be achieved by the following technology.

[0010] The ball body of the present invention essentially comprises a transmitting hollow inner bladder. A recessed socket for accommodation of a vibration-powered luminous body is provided on the transmitting hollow inner bladder. A superficial layer is wrapped on outside surface of the transmitting hollow inner bladder, which has transmitting areas provided thereon. When the ball body is played to produce vibration, the vibration-powered luminous body is lightened and light is scattered out through the transmitting hollow inner bladder and the transmitting areas on the superficial layer so as to increase more fun in playing and diversified functions of toy.

[0011] Furthermore, the ball body of the present invention has a mouth for inflation provided on the transmitting hollow inner bladder for timely supplement of enough quantity of gas so that the ball body has sufficient elasticity for play.

[0012] In the ball body of the present invention, the transmitting areas on the superficial layer are hollowed out such that light can be scattered out from the hollow-out transmitting areas. Hence, pleasure in playing ball and diversified functions of toy can be increased.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. **1** is a perspective exploded view showing the ball body of the present invention.

[0014] FIG. **2** is a sectional schematic view showing the ball body of the present invention.

[0015] FIG. **3** is a schematic view showing the transmitting areas of the ball body of the present invention.

[0016] FIG. **4** is another schematic view showing the transmitting areas of the ball body of the present invention.

[0017] FIG. **5** is a perspective exploded view showing another embodiment of the ball body of the present invention.

[0018] FIG. **6** is a sectional schematic view showing another embodiment of the ball body of the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0019] The objects, the technical contents and the expected effectiveness of the present invention will become more apparent from the detailed description of the preferred embodiment in conjunction with the accompanying drawings.

[0020] FIG. **1** is a perspective exploded view showing the ball body of the present invention; FIG. **2** is a sectional schematic view showing the ball body of the present invention. Referring to those figures, the ball body of the present invention comprises:

[0021] a transmitting hollow inner bladder (**1**) provided with a recessed socket (**11**) for accommodation of a vibration-powered luminous body (**12**) thereon;

[0022] a superficial layer (**12**) wrapped throughout the outside of the transmitting hollow inner bladder (**1**), which has transmitting areas (**21**) distributed over it, the transmitting areas (**21**) having specified pattern design.

[0023] When in use, as shown in FIGS. **1** to **6**, the transmitting hollow inner bladder (**1**) is wrapped with the superficial layer (**2**) which can be made to have anyone design of ball such as basketball, volleyball or football. Transmitting areas (**21**), which can be a design of flower, star, cartoon, character, animal as shown in FIGS. **1**, **3** and **4**, or which can be hollowed out patterns, are provided on the superficial layer (**2**). When the ball body is played to produce vibration, the vibration-powered luminous body (**12**) is lightened and light is scattered out through the transmitting hollow inner bladder (**1**) and the transmitting areas (**21**) so as to increase more pleasure in playing the ball and to increase diversified functions of toy.

[0024] Furthermore, a mouth (**13**) for inflation is provided on the transmitting hollow inner bladder (**1**) for timely supplement of enough quantity of gas so that the ball body has sufficient elasticity for play.

[0025] The abovementioned embodiment or drawings are not intended to restrict the product aspect, structure or usage mode of the present invention. Various modifications and variations can be made without departing from the spirit and scope of the present invention, as set forth in the appended claims.

[0026] Based on foregoing, the ball body of the present invention surely has following advantages when comparing with prior art.

[0027] 1. The ball body of the present invention has an inner bladder having a vibration-powered luminous body and a superficial layer having transmitting pattern areas. When the ball is played to produce vibration, the vibration-powered luminous body is lightened and light is scattered out through the transmitting hollow inner bladder and the transmitting areas on the superficial layer so as to increase more fun in playing the ball and to increase diversified functions of toy.

[0028] 2. The superficial layer of the ball body of the present invention can be made to have anyone style of ball such as basketball, volleyball or football. Transmitting areas can be made to have a design of flower, star, cartoon, character, animal so as to increase more fun in playing the ball and diversified functions of toy.

[0029] 3. In the ball body of the present invention, the transmitting areas can be made either to have or to have no hollow-out design. Light can be scattered out through the transmitting areas so as to increase more fun in playing the ball and diversified functions of toy.

[0030] 4. In the ball body of the present invention, a mouth for inflation or a valve is provided on the transmitting hollow inner bladder for timely supplement of enough quantity of gas so that the ball body has sufficient elasticity for play.

What is claimed is:

1. A ball body, comprising:

a transmitting hollow inner bladder, having a recessed socket for accommodation of a vibration-powered luminous body provided thereon;

a superficial layer wrapped on outside surface of the transmitting hollow inner bladder, a plurality of transmitting areas with specified pattern design being distributed throughout the superficial layer.

2. A ball body as claimed in claim **1**, wherein said transmitting areas are hollowed out.

3. A ball body as claimed in claim **1**, wherein a mouth for inflation is provided on the transmitting hollow inner bladder.

4. A ball body as claimed in claim **1**, wherein said superficial layer has a design of ball.

* * * * *