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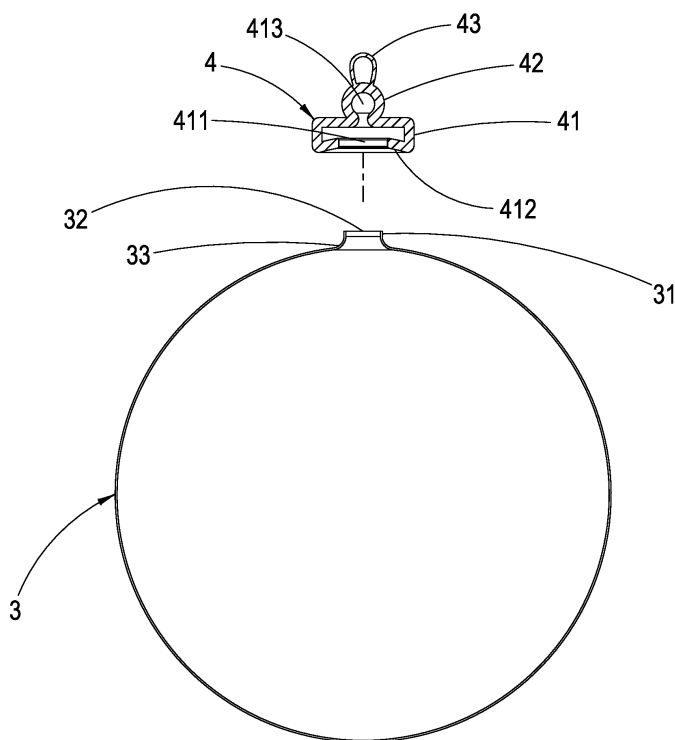
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CHRISTMAS ORNAMENT STRUCTURE

(57)

A Christmas ornament structure comprises a glass ball (3) and a ceramic cap (4), wherein the glass ball (3) is a hollow object, and a blow orifice part (31) upwardly extends from an end of the surface and includes a hole (32); in addition, the ceramic cap (4) is a modeled body (42), a circle ring (43) is connected on the top of the modeled body (42), a hollow structure (413) is inwardly formed by a connection inner wall (412) on the interior surface of the ceramic cap (4), and such a hollow structure (413) is connected in communication with the

interior of the glass ball (3); moreover, the bottom of the ceramic cap (4) includes an opening (411) which allows the blow orifice part (31) of the glass ball (3) to enter, the perimeter of the opening (411) includes a connection inner wall (412) having an arc-shaped face closely fitting to the surface of the glass ball (3) and fixedly bonded to the glass ball (3) thus resulting in an in-out thoroughly connected Christmas ornament model of integral formation.



Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention generally relates to a Christmas ornament structure; especially, it relates to a Christmas ornament structure capable of presenting an integral profile.

2. Description of Related Art

[0002] Traditionally, during Christmas holidays, people may decorate their Christmas trees to add more joyful atmosphere, and, for such decorations, it is possible to set up many colorful light bulbs and suspend various kinds of ornaments to reveal certain specific festival ambience, possibly including the selection of an intended theme, with different themes being embodied by some specific representative colors, patterns, symbolic characters, or otherwise based on popular or cultural preservation or people's personal preferences, and these decorative approaches may vary per household. In practice, people may choose a variety of diversified but mutually story-connected ornaments to collectively create a Christmas tree emanating delightful complete festival ambience.

[0003] Most of conventional Christmas suspension ornaments are made into a spherical shape from various suitable materials, and different colors, finishes and patterns may be embellished on its spherical surface so as to match the required theme; in use, Christmas ornament balls of glass materials are most comprehensively adopted. As shown in Figures 1A and 1B, it can be seen that the structure is generally divided into two portions: a glass ball 1 and a metal cap 21, in which the ball 1 is air-blow fabricated and a blow orifice part 11 thereof is thus included; the metal cap 21 is manufactured by pressing a metal sheet and combined it to the ball 1 with an elastic metal hook loop 22, in which such a combination is done by leaving a pinhole 211 on the metal cap 21, covering the metal cap 21 onto the blow orifice part 11 of the ball 1, and then forcibly inserting an elastic connector 221 on the two ends of the elastic metal hook loop 22 into the pinhole 211 on the metal cap 21 thus entering the interior of the ball 1; in this way, the inserted elastic connector 221 can automatically stretch out due to its own elastic force so as to fixedly combine the ball 1 and the metal cap 21, while the top face of the elastic metal hook loop 22 may reserve a hanging ring 222 on the top face of the metal cap 21.

[0004] It should be noticed that the closely fixed attachment between the metal cap 21 and the ball 1 entirely depends on the strength of the elastic connector 221, and since the elastic connector 221 may be vulnerable to deformation issues caused by metallic fatigue or excessive suspension weight, or else because of being er-

roneously applied, the metal cap 21 may detach from the ball 1 thus resulting in ball damage or breakage problems. Therefore, the structural security of the conventional metal cap 21 obviously may be quite insufficient, and the metal cap 21 merely features the required suspension function and the coverage for the blow orifice part 11 of the ball 1; further, since the illustrated structure is restricted to bending into a stereo profile from a flat sheet, the aesthetic aspect may be undesirably lost, thus departing from the true and original purpose of such embellishing decorations for Christmas tree themes as well as atmosphere. Moreover, the weight proportion of the metal cap 21 may greatly differ from glasses, and the costs of metallic materials may be significantly higher as well; hence, the manufacture processes for the Christmas ball ornament may become more cost-saving and efficient if it is possible to effectively eliminate or reduce the above-said drawbacks.

[0005] Accordingly, the Christmas suspension ornaments may provide the best decorative effects in case that the metal cap 21 can provide meaningful shapes and colors, and also enable a 3-dimension feature in order to be combined with the ball 1 safely in terms of its structure and allow the extension of pattern design variations on the ball 1.

SUMMARY OF THE INVENTION

[0006] A Christmas ornament structure, comprising: a glass ball, wherein the glass ball is a hollow object, a blow orifice part upwardly extends from the surface of the glass ball, the blow orifice part includes a hole, and the adjoining area between the blow orifice part and the surface of the glass ball forms an arc-shaped face; and a ceramic cap, including an integrally formed cap body and a modeled body, wherein the bottom of the cap body has an opening, the perimeter of the opening includes a connection inner wall having a concavely arc-shaped face, and a hollow structure extends upwardly from the continuous inner wall to the modeled body, and a circle ring is connected on the modeled body; wherein the cap body of the ceramic cap covers the blow orifice part of the glass ball such that the blow orifice part enters the hollow structure of the ceramic body via the opening of the cap body, so the concavely arc-shaped connection inner wall of the ceramic cap closely fits to the arc-shaped face of the glass ball, and the ceramic cap and the glass ball can be fixedly bonded by means of a glue thereby obtaining an in-out thoroughly connected Christmas ornament model of integral formation.

[0007] In a preferred embodiment, the surface of the glass ball can be embellished with the color painting pattern, texts or a combination thereof.

[0008] In a preferred embodiment, the cap body and the modeled body of the ceramic cap conjunctively form an integral model.

[0009] In a preferred embodiment, the integral model of the ceramic cap is designed specifically for the color

painting pattern on the surface of the glass ball.

[0010] In a preferred embodiment, the cap body may be in a form of a round column or a quadrilateral column.

[0011] In a preferred embodiment, the glass ball and the ceramic cap have similar weight proportions.

[0012] In a preferred embodiment, a strip is connected onto the circle ring.

[0013] In a preferred embodiment, the diameter of the hole in the blow orifice part is 8mm.

[0014] In a preferred embodiment, the diameter of the blow orifice part is 10mm.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015]

Figure 1A shows a disassembled structure view of a conventional Christmas ball.

Figure 1B shows an assembled structure view of a conventional Christmas ball.

Figure 2A shows a disassembled view for a first embodiment of the Christmas ornament structure according to the present invention.

Figure 2B shows a disassembled cross-section view for the first embodiment of the Christmas ornament structure according to the present invention.

Figure 3A shows an assembled view for the first embodiment of the Christmas ornament structure according to the present invention.

Figure 3B shows an assembled cross-section view for the first embodiment of the Christmas ornament structure according to the present invention.

Figure 4 shows a second embodiment of the Christmas ornament structure according to the present invention.

Figure 5 shows a third embodiment of the Christmas ornament structure according to the present invention.

Figure 6 shows a fourth embodiment of the Christmas ornament structure according to the present invention.

Figure 7 shows a fifth embodiment of the Christmas ornament structure according to the present invention.

Figure 8 shows a sixth embodiment of the Christmas ornament structure according to the present invention.

Figure 9 shows a seventh embodiment of the Christmas ornament structure according to the present invention.

Figure 10 shows an eighth embodiment of the Christmas ornament structure according to the present invention.

Figure 11 shows a view for the application of the Christmas ornament structure according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0016] Other technical contents, aspects and effects concerning the present invention can be clearly appreciated through the detailed descriptions on the preferred embodiments of the present invention in conjunction with the appended drawings.

[0017] Refer now to Figures 2A-3B, wherein a disassembled view for a first embodiment, a disassembled cross-section view for the first embodiment, an assembled view for the first embodiment and an assembled cross-section view for the first embodiment of the Christmas ornament structure according to the present invention are respectively shown. It can be observed that the Christmas ornament structure comprises a glass ball 3 and a ceramic cap 4, in which the glass ball 3 is a hollow object and a blow orifice part 31 extends upwardly from an end of the surface; also, the blow orifice part 31 includes a hole 32, and the adjoining area between the blow orifice part 31, and the outer surface of the glass ball 3 forms an arc-shaped face 33.

[0018] Herein the diameter of the hole 32 in the blow orifice part 31 is 8mm, while the diameter of the blow orifice part 31 is 10mm.

[0019] Moreover, the ceramic cap 4 includes an integrally formed cap body 41 and a modeled body 42, wherein the bottom of the cap body 41 has an opening 411, the perimeter of the opening 411 includes a connection inner wall 412 having a concavely arc-shaped face, and a hollow structure 413 extends inwardly from the connection inner wall 412 to the modeled body 42, and a circle ring 43 is connected on the modeled body 42.

[0020] The ceramic cap 4 covers the blow orifice part 31 of the glass ball 3 such that the blow orifice part 31 enters the hollow structure 413 via the opening 411 of the cap body 41, so the concavely arc-shaped face on the continuous inner wall 412 closely fits to the arc-shaped face 33 of the glass ball 3, and the continuous inner wall 412 of the cap body and the arc-shaped face of the glass ball 3 can be fixedly bonded by means of a glue 9 thereby obtaining an in-out thoroughly connected Christmas ornament model of integral formation.

[0021] In addition, the circle ring 43 on the modeled body 42 can be utilized to connect to a strip 8 such that the Christmas ornament structure can be placed in suspension onto a Christmas tree (as shown in Figure 11).

[0022] Refer next to Figure 4, wherein another model for the ceramic cap 4 is shown, and it can be seen that the difference between it and Figures 2A-3B exists in that the shape of the cap body 41 on the ceramic cap 4 may be of a quadrilateral column, and another modeled body 42 is also installed on the cap body 41 and connected with a circle ring 43; meanwhile, the internal structure of the present cap body 41 is identical to the ones illustrated in Figures 2A-3B, thus the descriptions thereof are omitted for brevity.

[0023] Following this, refer to Figure 5, wherein yet an-

other model of the ceramic cap 4 is shown. The difference between it and Figures 2A-3B lies in that the bottom of the cap body 41 on the ceramic cap 4 is in a form of round column, and the modeled body 42 is modeled as a bird; moreover, a circle ring 43 is connected on top of the modeled body 42 and the surface 34 of the glass ball 3 includes a color painting pattern 341 consisting of patterns, texts or a combination thereof. Herein, in Figure 5, the color painting pattern 341 demonstrates a Christmas tree pattern, and the internal structure of the cap body 41 is identical to the ones shown in Figures 2A-3B, thus the descriptions thereof are omitted for brevity.

[0024] Subsequently, refer to Figure 6, the surface 34 of the glass ball 3 can be painted with a color painting pattern 341 consisting of patterns, texts or a combination thereof, and the difference between it and Figures 2A-3B exists in that the color painting pattern 341 on the surface 34 of the glass ball 3 is expressed with a sort of regular stripes arrangement, while its other portions are identical to the ones shown in Figures 2A-3B, thus the descriptions thereof are omitted for brevity.

[0025] Refer then to Figure 7, wherein the difference between it and Figures 2A-3B is that the integral model of the cap body 41 as well as the modeled body 42 in the ceramic cap 4 looks like a Christmas hat, and a circle ring 43 is connected to the top of the modeled body 42, while the color painting pattern 341 on the surface 34 of the glass ball 3 reveals a Santa Claus face pattern such that the integral model may offer quality and aesthetic perceptions by fitting the Santa Claus face pattern on the surface 34 of the glass ball 3 to the Christmas hat on the ceramic cap 4; similarly, its remained structures are identical to the ones found in Figures 2A-3B, thus the descriptions thereof are omitted for brevity.

[0026] Refer further to Figure 8, wherein the difference between it and Figures 2A-3B lies in that the integral model of the cap body 41 as well as the modeled body 42 in the ceramic cap 4 presents a model of a car carrying a tree on its top, and a circle ring 43 is connected to the top of the modeled body 42, while the color painting pattern 341 on the surface 34 of the glass ball 3 shows patterns of a Christmas house, woods, snowflake and reindeers such that the integral model may offer quality and aesthetic perceptions; similarly, its remained structures are identical to the ones found in Figures 2A-3B, thus the descriptions thereof are omitted for brevity.

[0027] Refer now to Figure 9, wherein the difference between it and Figures 2A-3B lies in that the modeled body 42 of the ceramic cap 4 demonstrates a model of star, and a circle ring 43 is connected to the top of the modeled body 42, while the color painting pattern 341 on the surface 34 of the glass ball 3 presents the same star pattern as the modeled body 42 so that the color painting pattern 341 displays a 2D visual effect and the modeled body 42 creates a 3D effect thereby offering quality and aesthetic perceptions; similarly, its remained structures are identical to the ones found in Figures 2A-3B, thus the descriptions thereof are omitted for brevity.

[0028] Refer further to Figure 10, wherein the difference between it and Figures 2A-3B is that the modeled body 42 of the ceramic cap 4 demonstrates the profile of a reindeer, and a circle ring 43 is connected to the top of the modeled body 42, while the color painting pattern 341 on the surface 34 of the glass ball 3 presents a pattern including a Christmas tree, reindeer and snowy background so that the color painting pattern 341 displays a 2D visual effect and the modeled body 42 creates a 3D effect thereby offering quality and aesthetic perceptions; similarly, its remained structures are identical to the ones found in Figures 2A-3B, thus the descriptions thereof are omitted for brevity.

[0029] Therefore, it can be seen from the aforementioned embodiments that, through the plasticity of the material in the ceramic cap 4 itself, it is possible to make the ceramic cap extend to form a variety of modeled bodies, and, further in conjunction with the color painting pattern 341 drawn on the glass ball 3, each of the Christmas ornaments can create a different and unique visual effect, which is impossible for prior art Christmas ornaments to achieve.

[0030] Moreover, as shown in Figure 11, a strip 8 may be connected with the circle ring 43 of the ceramic cap 4 and tied onto a Christmas tree 7 so that the glass ball 3 can be hung thereon; in this way, with the color painting pattern on each of the glass balls 3 in combination with ceramic caps 4 of various models, the entire Christmas tree can favorably present joyful festival atmosphere.

[0031] Compared with other conventional technologies, the Christmas ornament structure according to the present invention provides the following advantages:

1. Under the premise of structural safety, the present invention features that a hollow ceramic cap is utilized and closely glued onto the exterior surface of the glass ball, no additional connectors are required, and the consistence with regards to object weight proportions and appearance effects can be achieved.
2. Since the conventional cap is obtained by pressing a flat metal sheet to be in a cap shape and then attached onto the glass ball, the model thus created can be only single and unchangeable, in capable of allowing design flexibility in conjunction with the color painting pattern on the glass ball. Comparatively, the ceramic cap according to the present invention is made from ceramic materials so as to offer meaningful profiles and colors and allow the formation of any required 3D models by exploiting the advantage of low costs with regards to stereo plasticity, such that the glass ball design is not restricted to the changes in the ball itself; besides, the present invention allows the 3D modeling design on the ceramic cap in conjunction with the color painting pattern on the glass ball so as to provide rich and versatile integral models of the ceramic cap thus successfully achieving the objective of the best Christmas deco-

ration effects that conventional metal cap fails to attain.

[0032] It should be noticed that, although the present invention has been disclosed through the detailed descriptions of the aforementioned embodiments, such illustrations are by no means used to restrict the scope of the present invention; that is, skilled ones in relevant fields of the present invention can certainly devise any applicable alternations and modifications after having comprehended the aforementioned technical characteristics and embodiments of the present invention without departing from the spirit and scope thereof. Hence, the scope of the present invention to be protected under patent laws should be delineated in accordance with the claims set forth hereunder in the present specification.

Claims

1. A Christmas ornament structure, comprising:

a glass ball (3), wherein the glass ball (3) is a hollow object, a blow orifice part (31) upwardly extends from the surface of the glass ball, the blow orifice part (31) includes a hole (32), and the adjoining area between the blow orifice part (31) and the surface of the glass ball (3) forms an arc-shaped face (33); and
a ceramic cap (4), including an integrally formed cap body (41) and a modeled body (42), wherein the bottom of the cap body (41) has an opening (411), the perimeter of the opening (411) includes a connection inner wall (412) having a concavely arc-shaped face, and a hollow structure (413) extends upwardly from the continuous inner wall to the modeled body (42), and a circle ring (43) is connected on the modeled body (42); wherein the cap body (41) of the ceramic cap (4) covers the blow orifice part (31) of the glass ball (3) such that the blow orifice part (31) enters the hollow structure (413) of the ceramic body (4) via the opening (411) of the cap body (41), so the concavely arc-shaped connection inner wall (412) of the ceramic cap (4) closely fits to the arc-shaped face (33) of the glass ball (3), and the ceramic cap (4) and the glass ball (3) can be fixedly bonded by means of a glue (9) thereby obtaining an in-out thoroughly connected Christmas ornament model of integral formation.

2. The Christmas ornament structure according to Claim 1, wherein the surface of the glass ball (3) can be embellished with the color painting pattern (341), texts or a combination thereof.

3. The Christmas ornament structure according to

Claim 2, wherein the cap body (41) and the modeled body (42) of the ceramic cap (4) conjunctively form an integral model.

4. The Christmas ornament structure according to Claim 3, wherein the integral model of the ceramic cap (4) is designed specifically for the color painting pattern (341) on the surface of the glass ball (3).

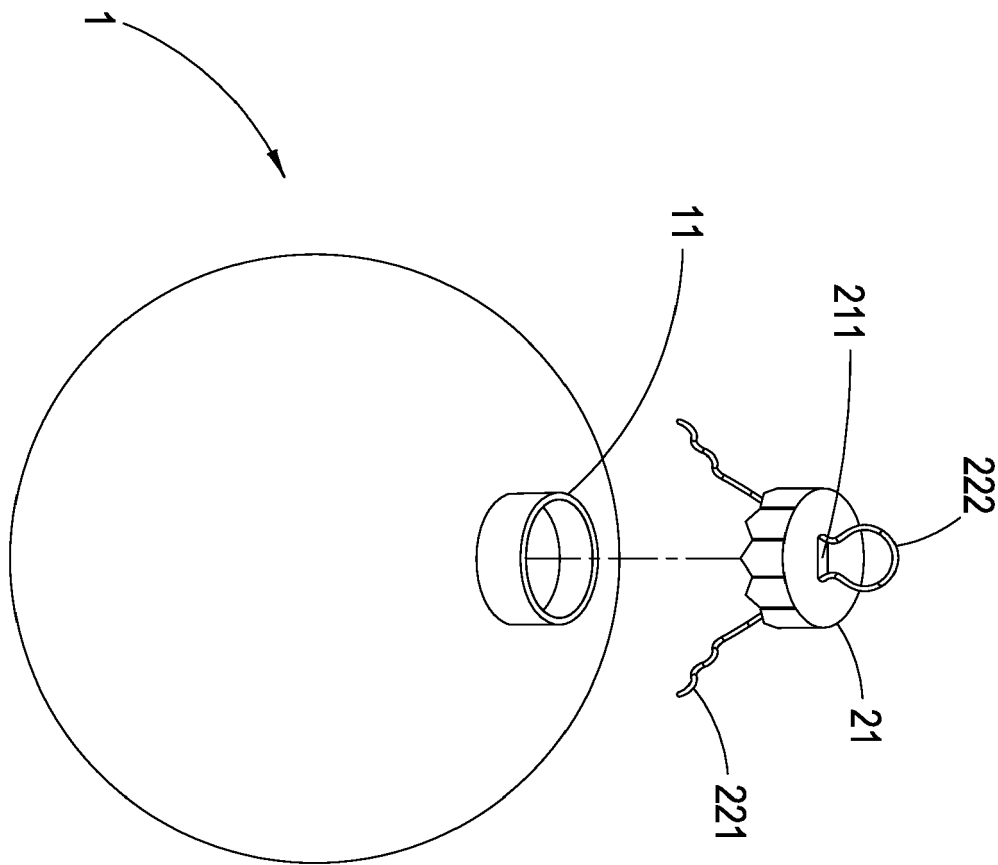
5. The Christmas ornament structure according to Claim 1, wherein the cap body (41) may be in a form of a round column or a quadrilateral column.

6. The Christmas ornament structure according to Claim 1, wherein the glass ball (3) and the ceramic cap (4) have similar weight proportions.

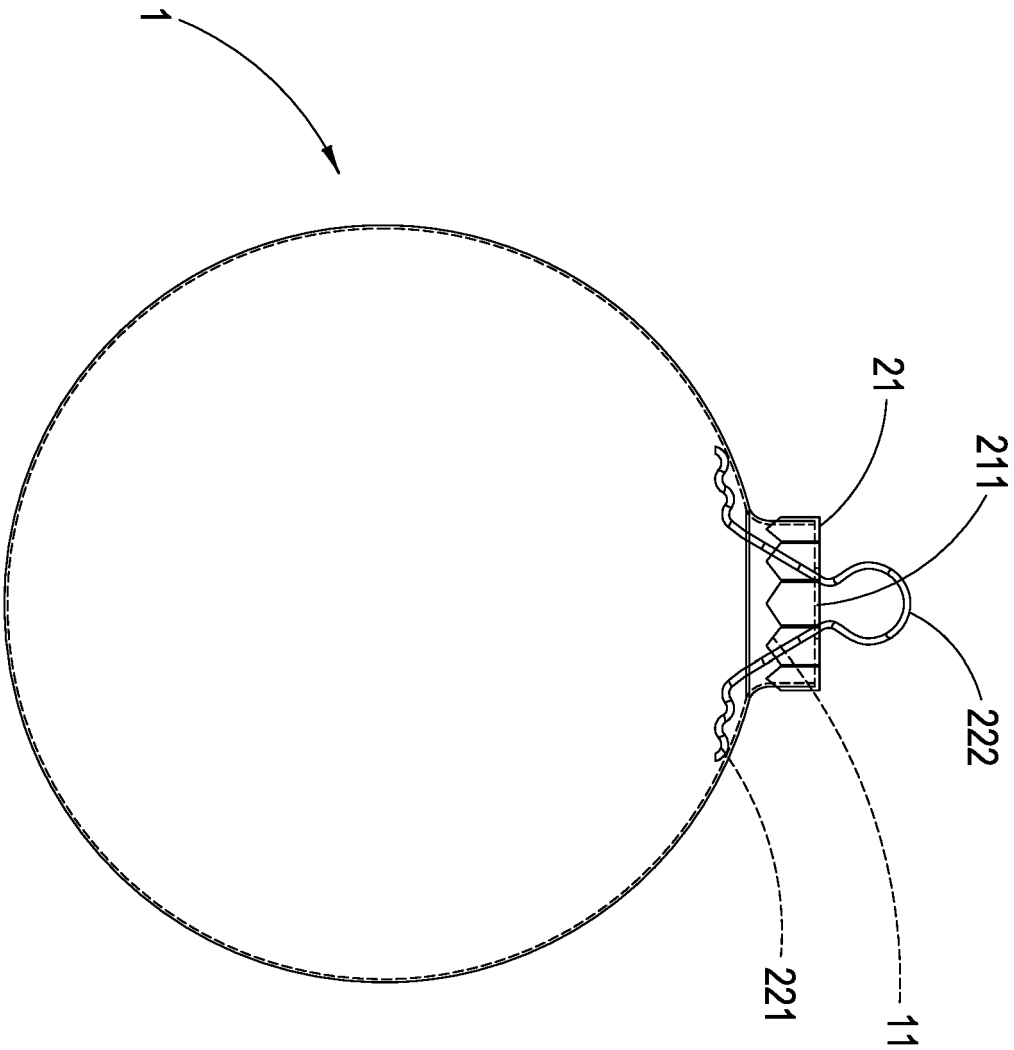
7. The Christmas ornament structure according to Claim 1, wherein a strip (8) is connected onto the circle ring (43).

8. The Christmas ornament structure according to Claim 1, wherein the diameter of the hole (32) in the blow orifice part (31) is 8 mm.

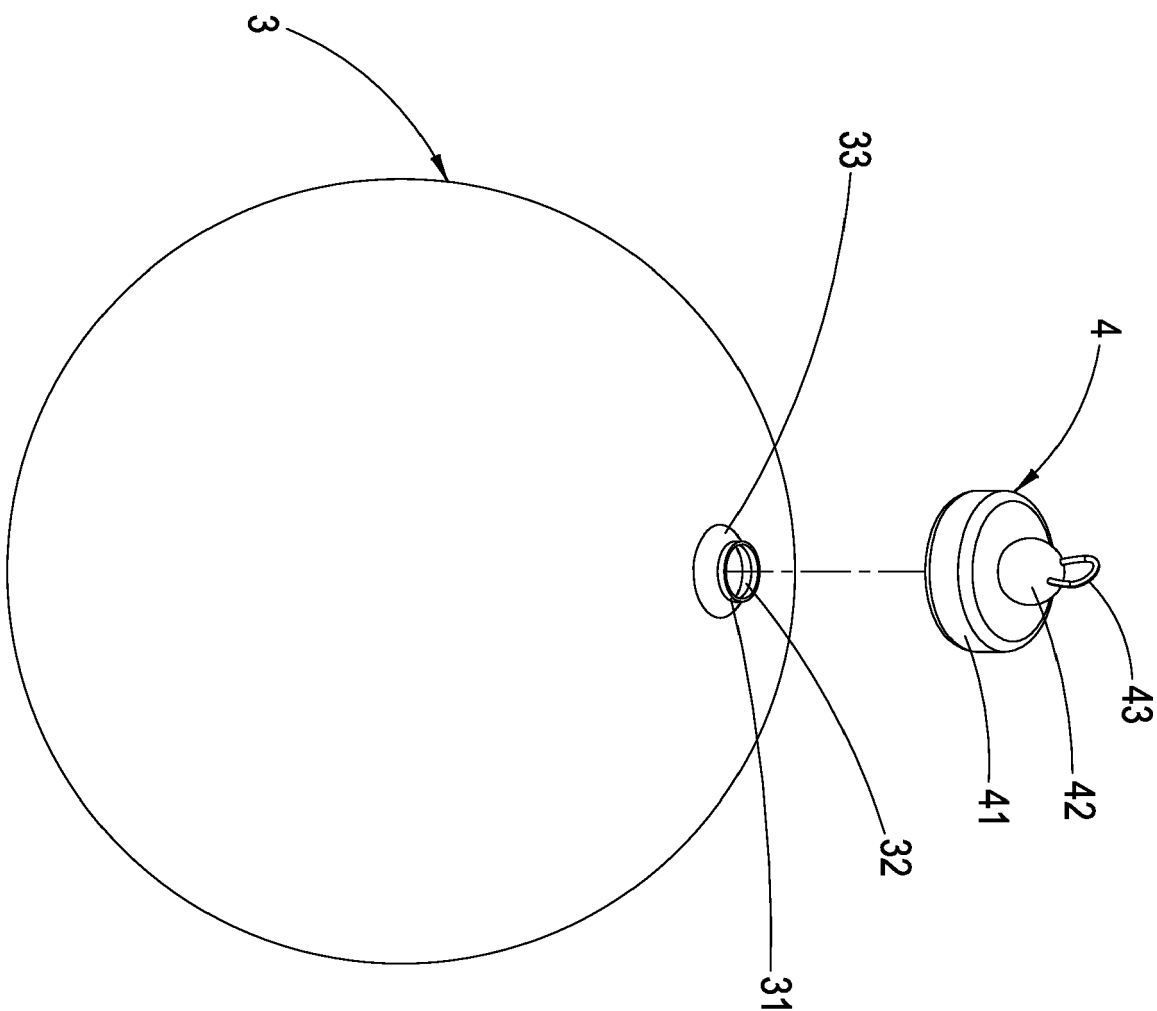
9. The Christmas ornament structure according to Claim 1, wherein the diameter of the blow orifice part (31) is 10 mm.



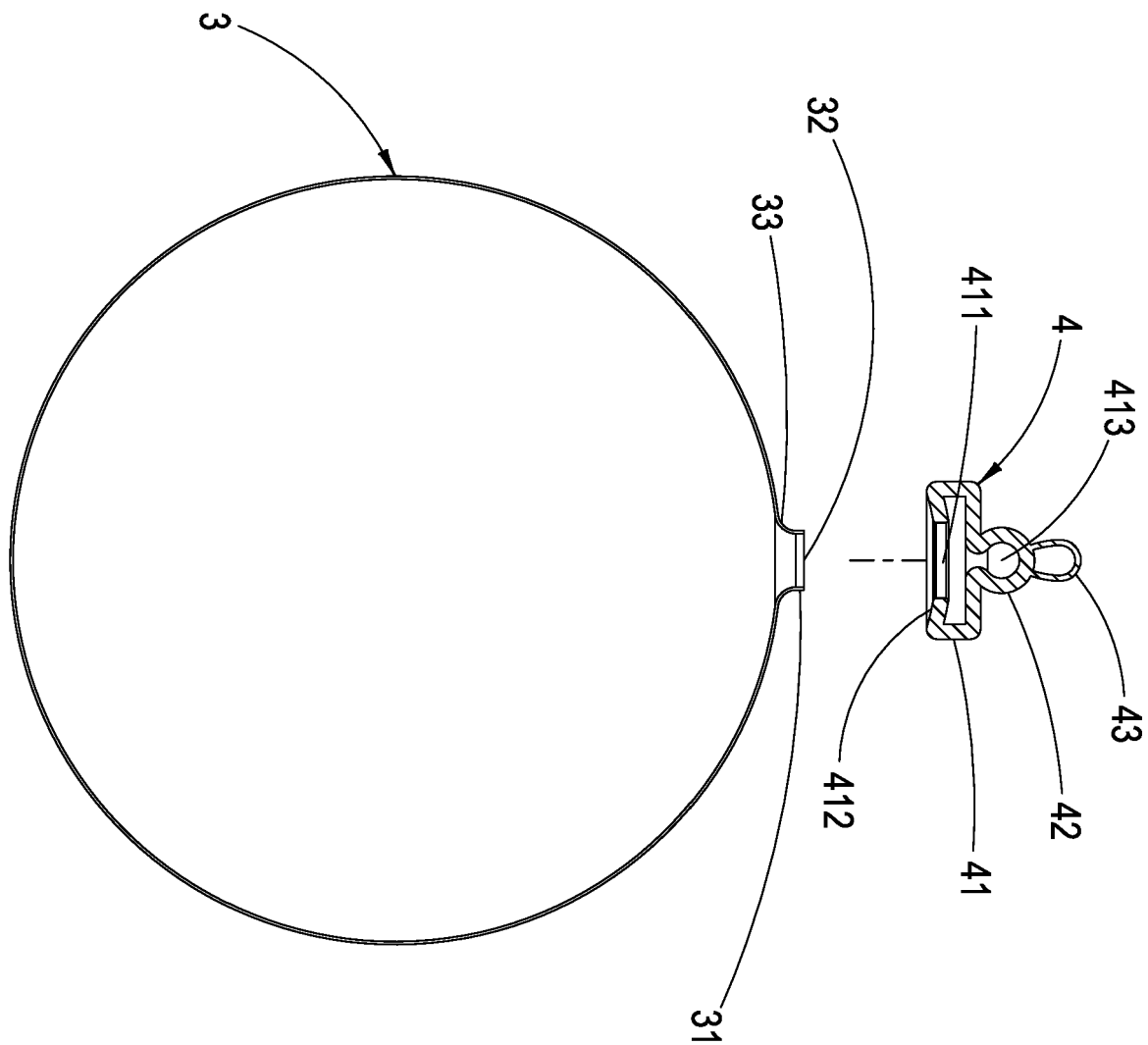
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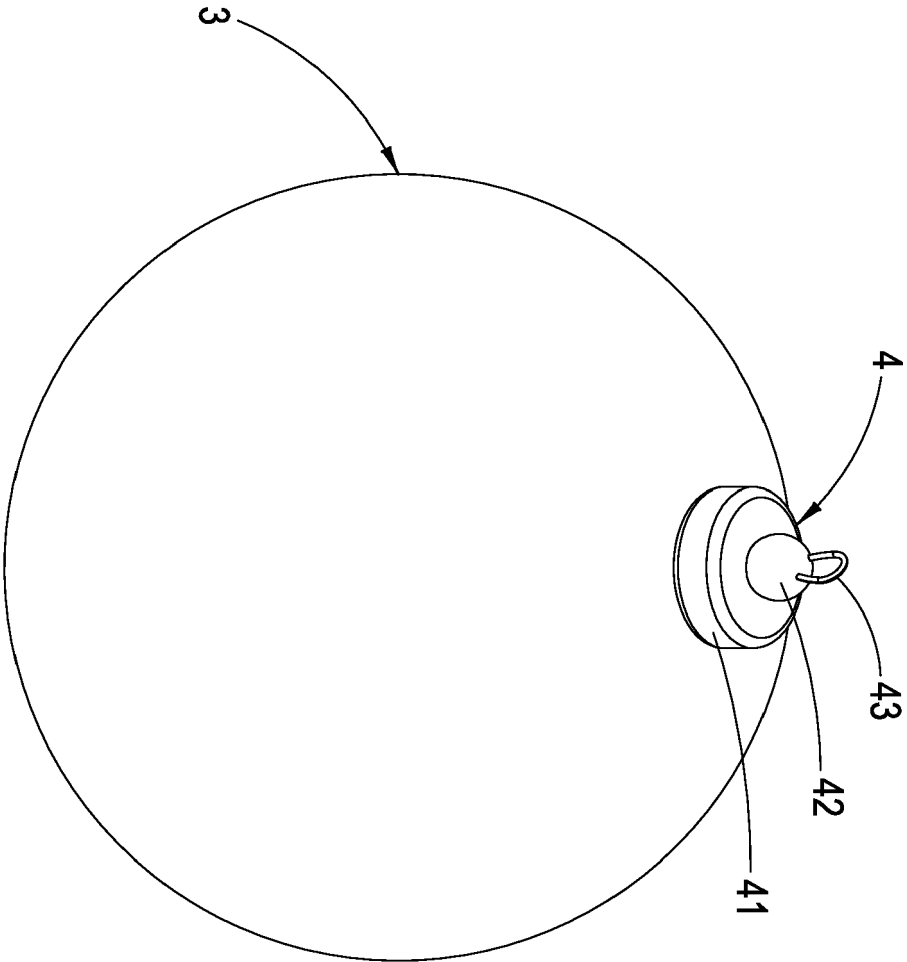
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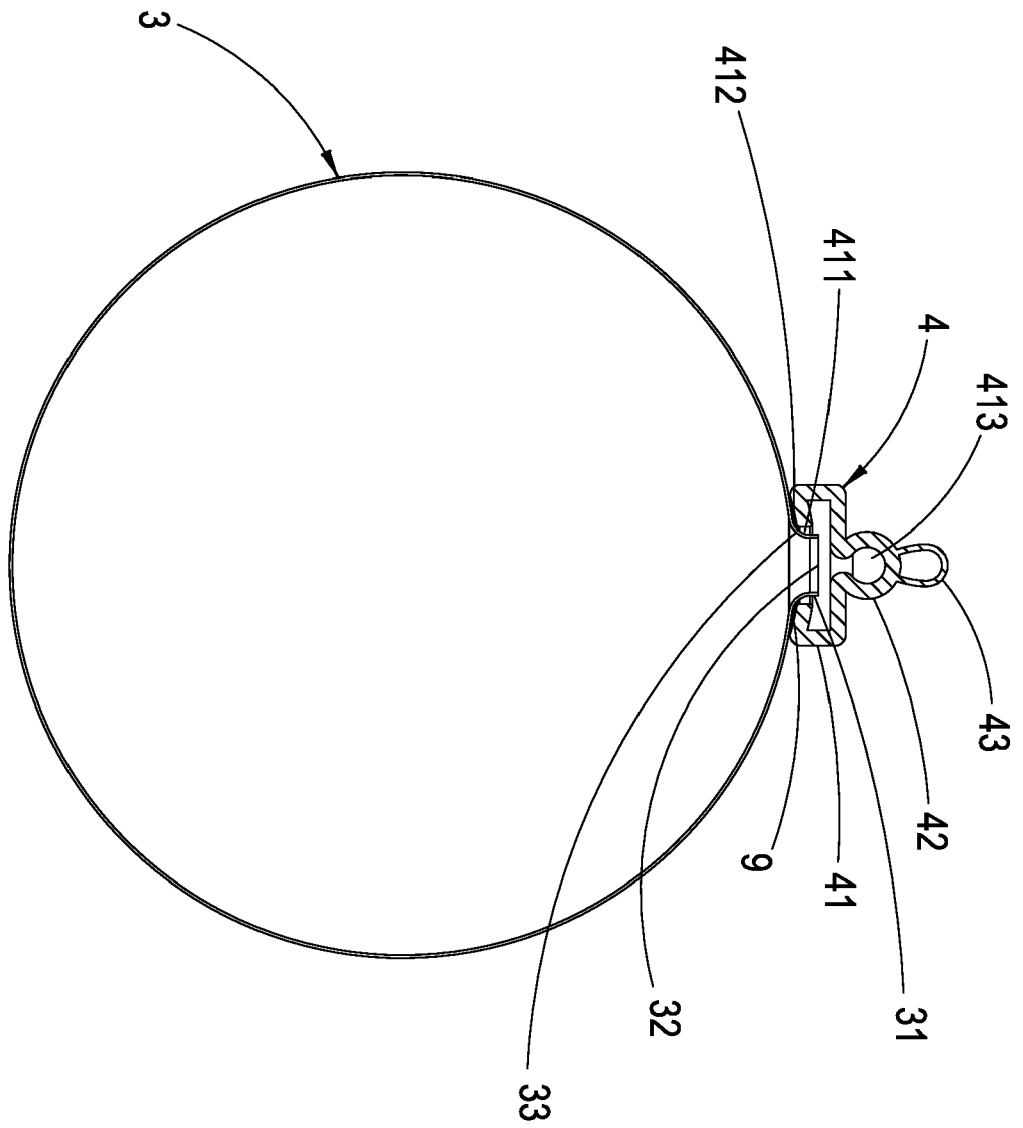
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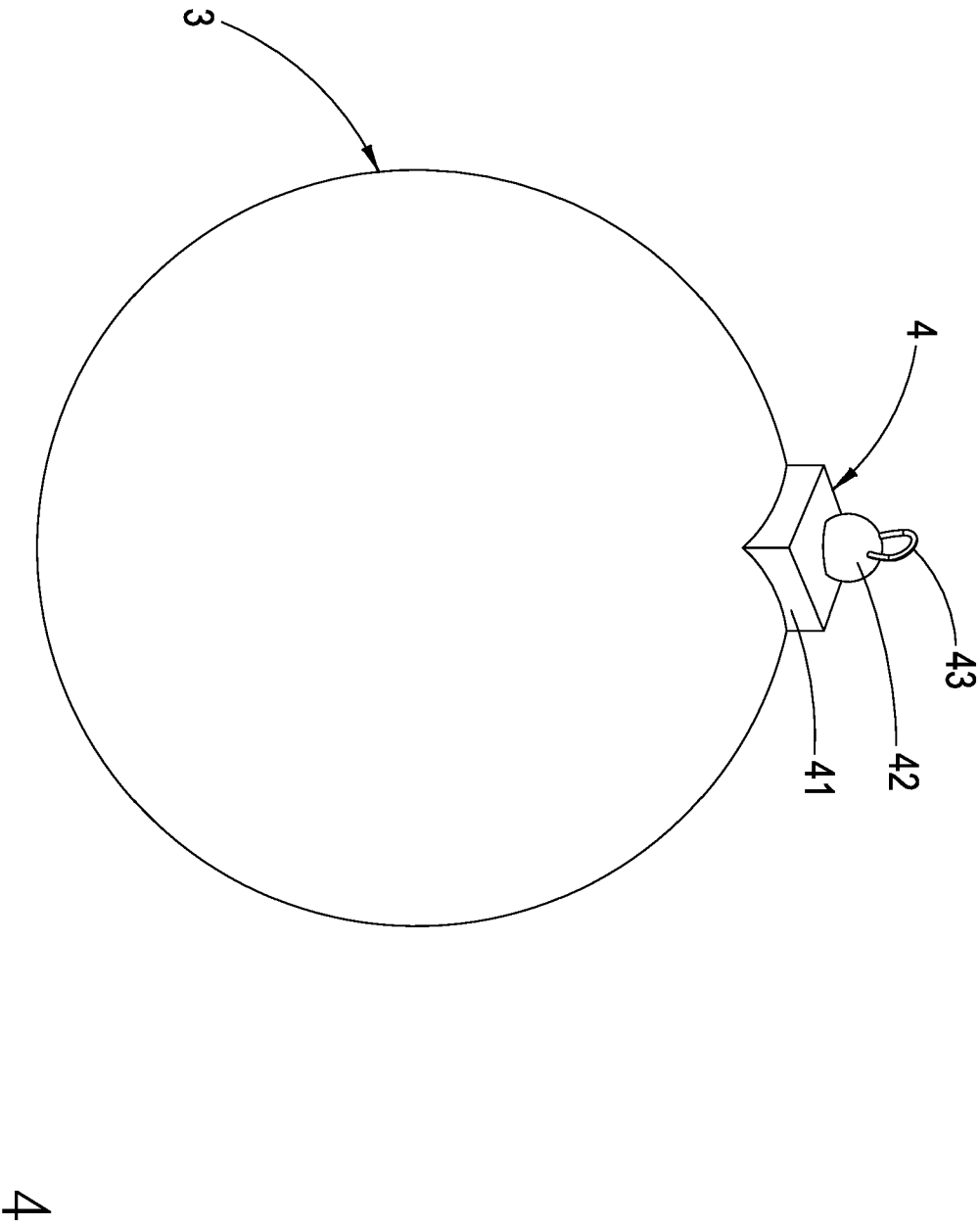
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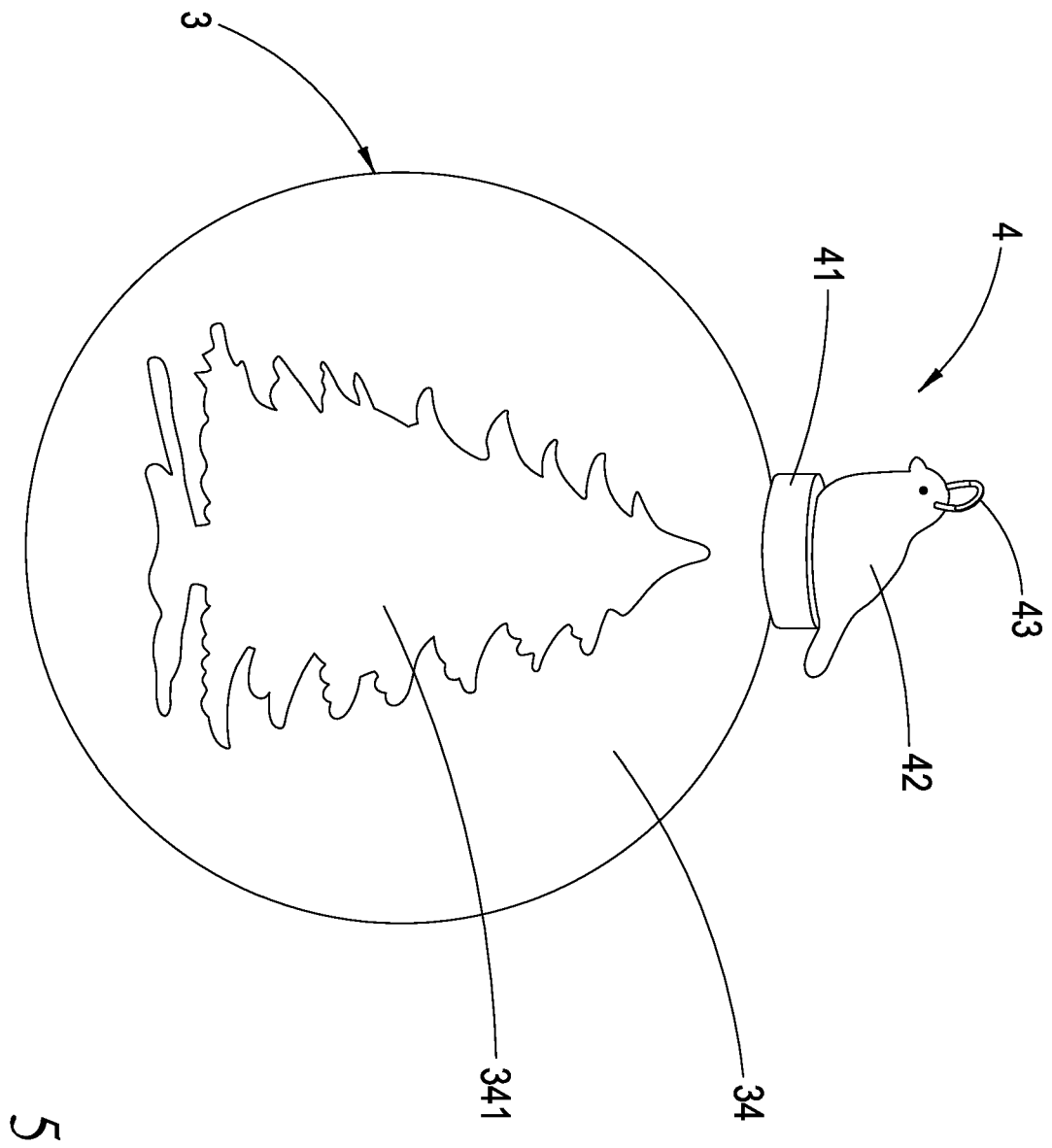


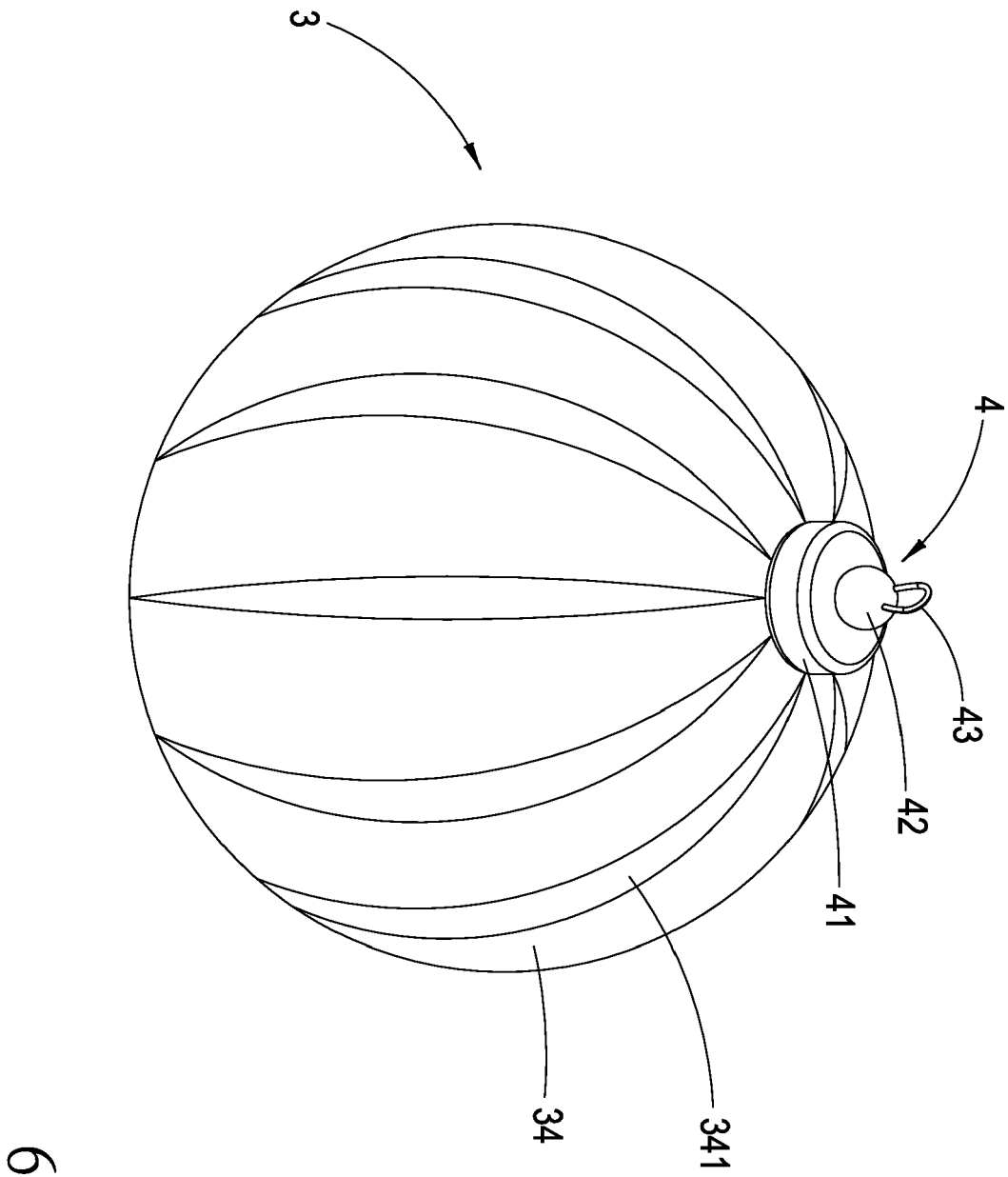
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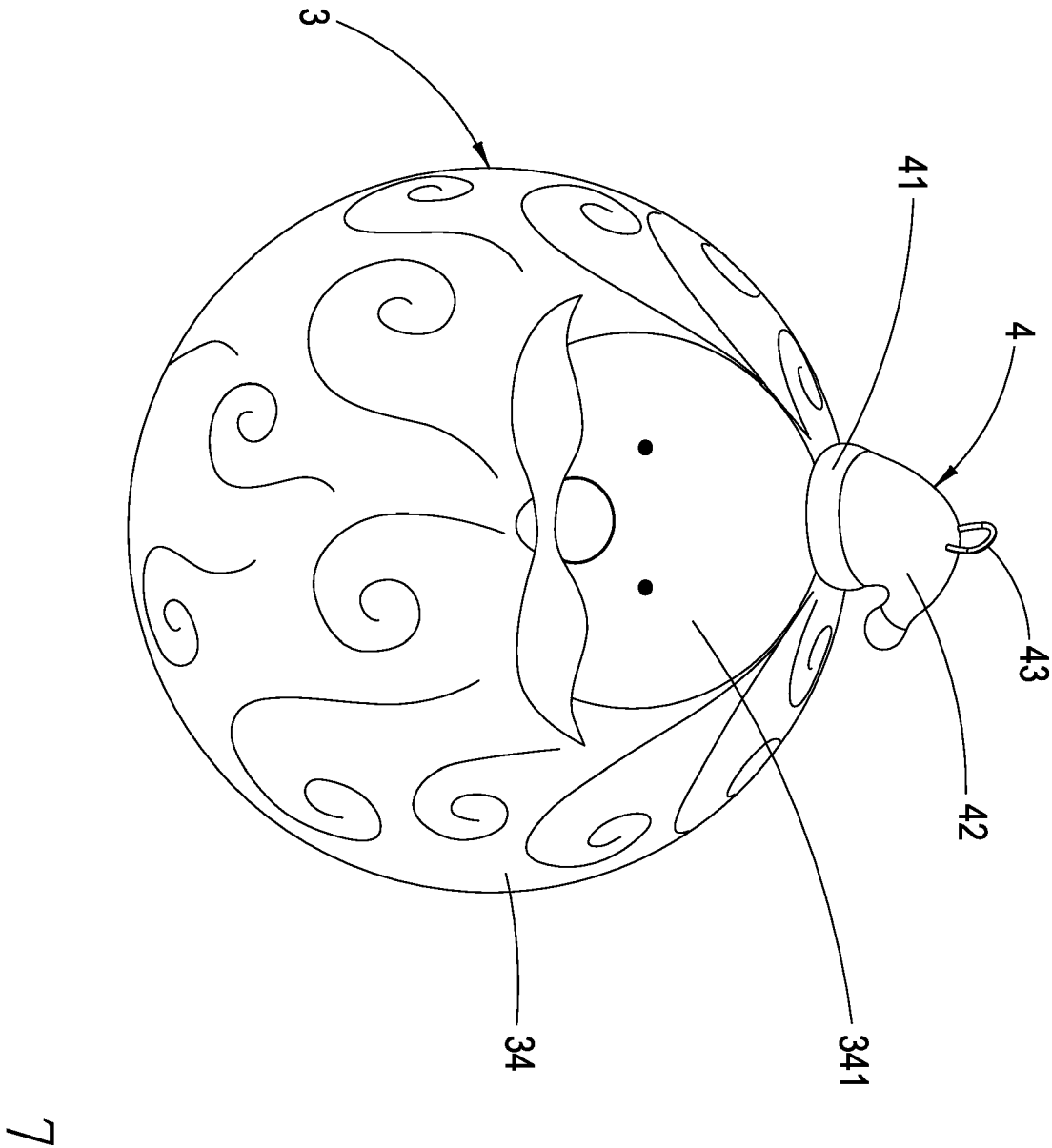


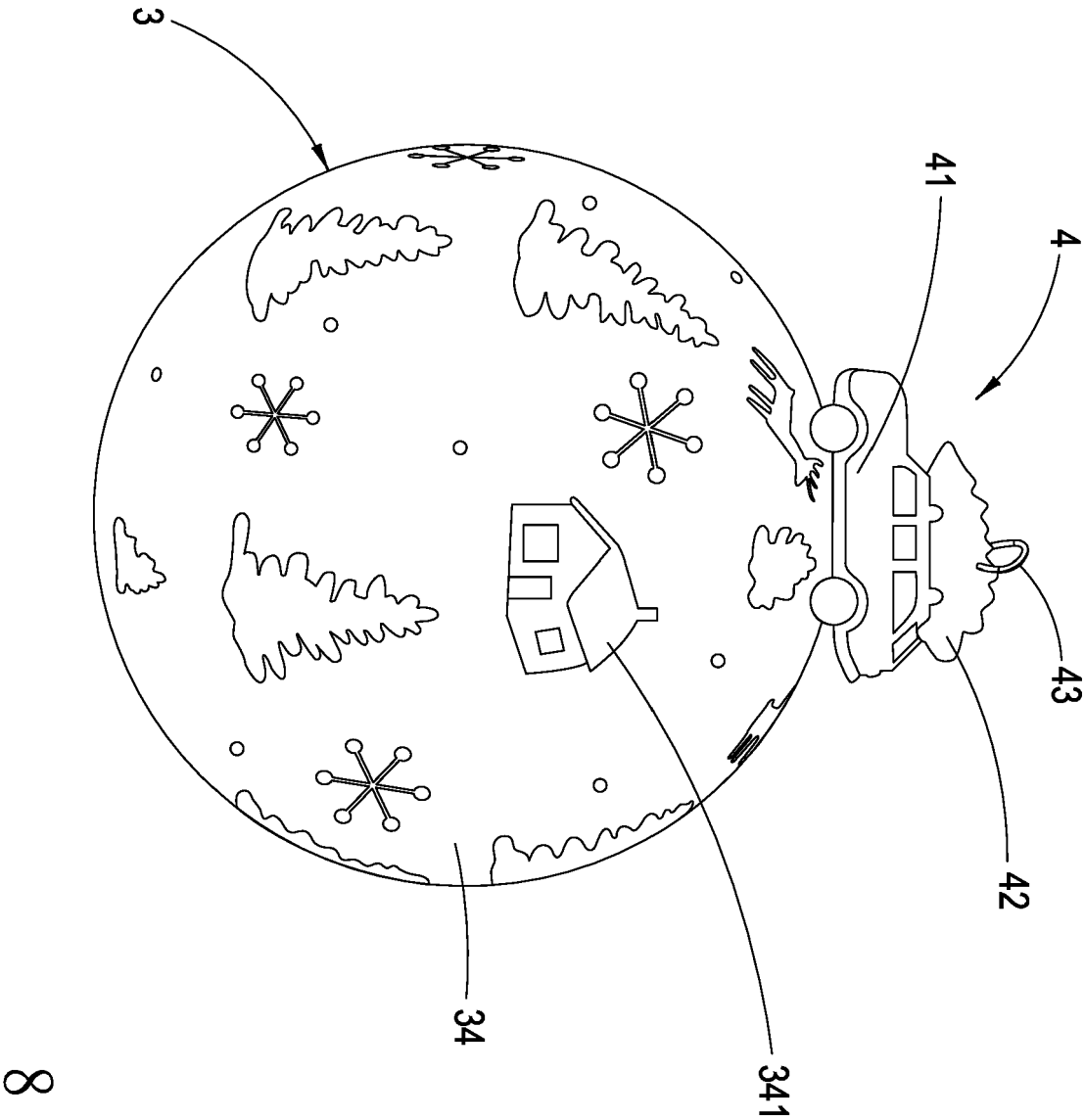
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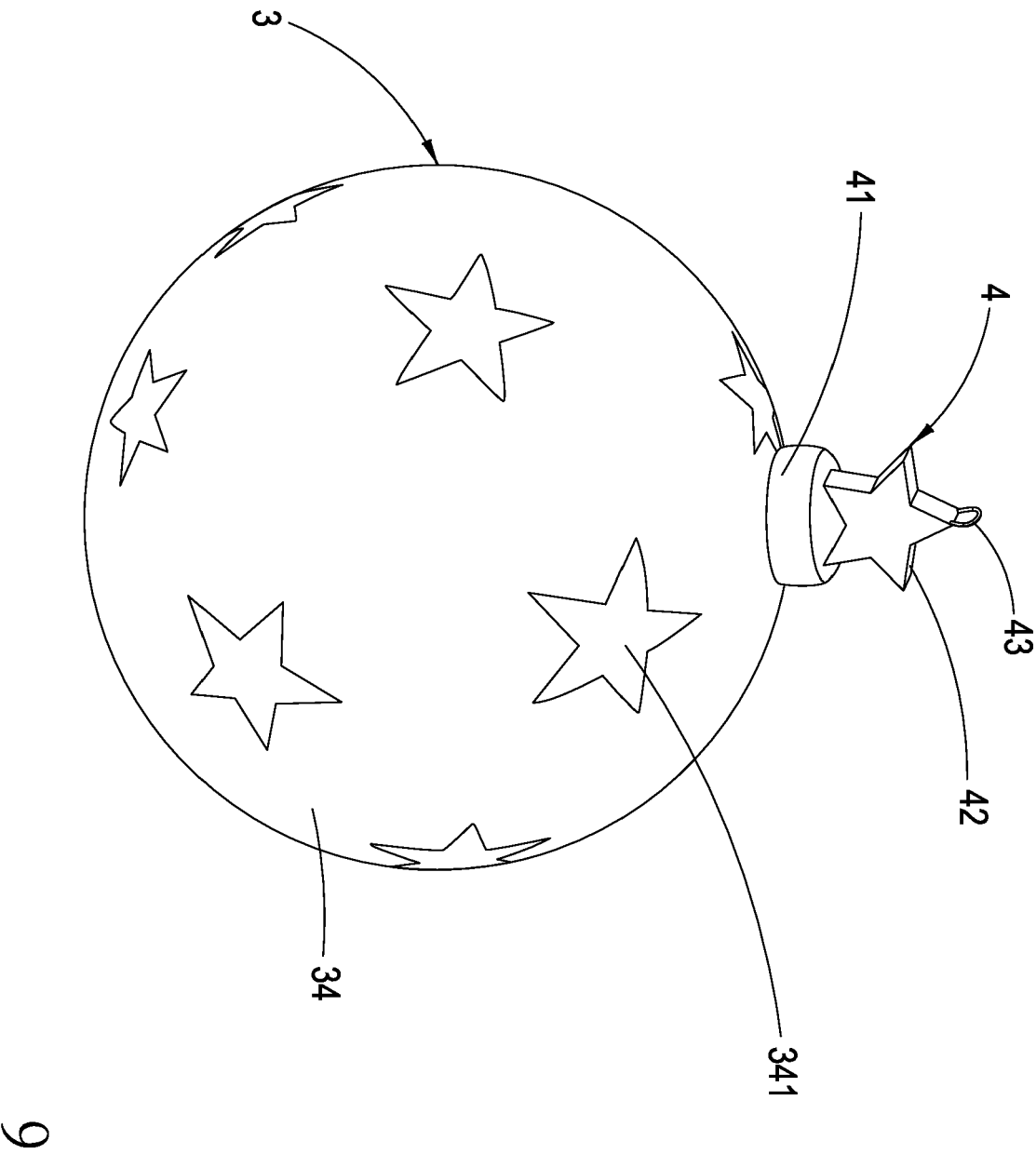


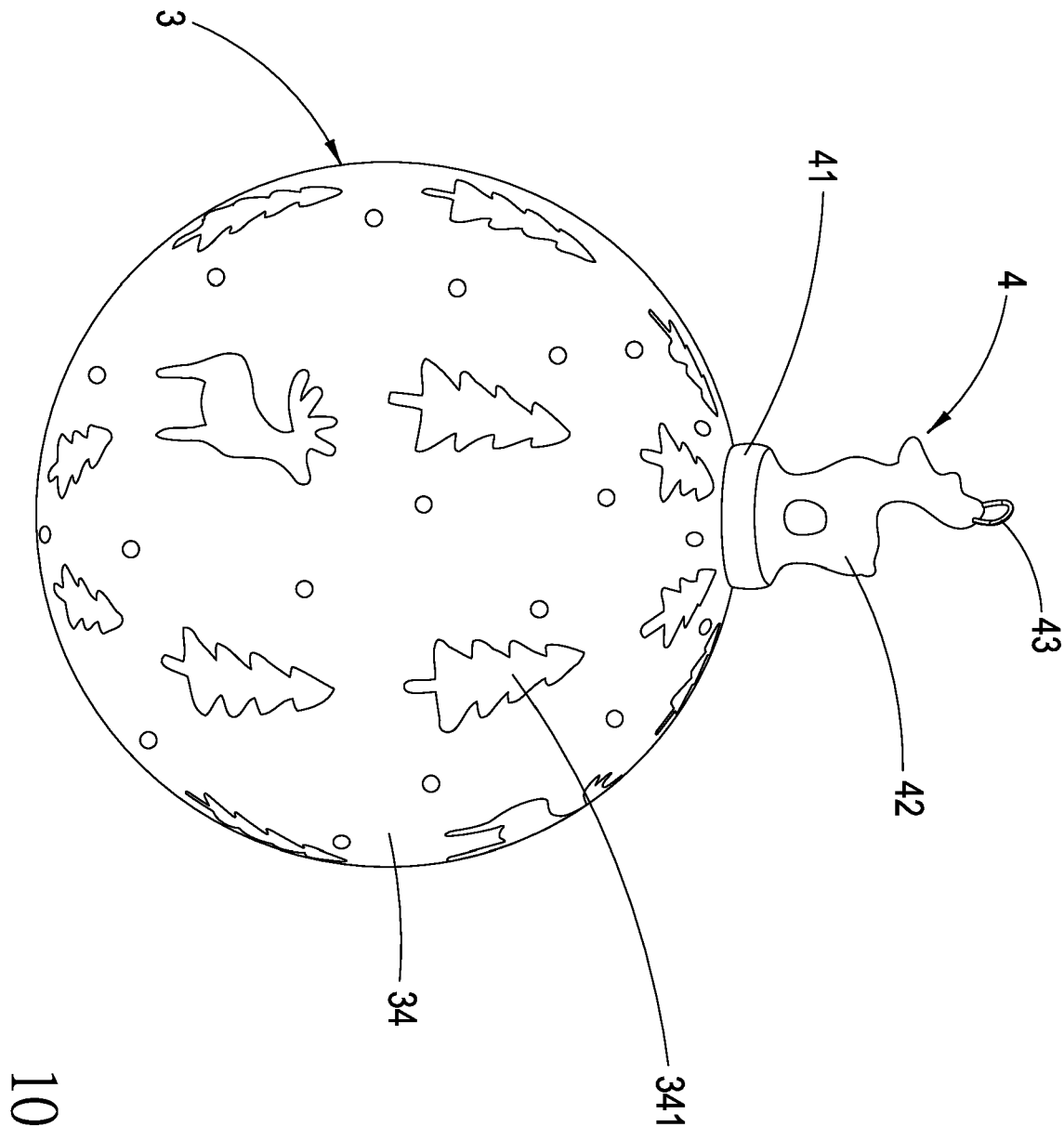


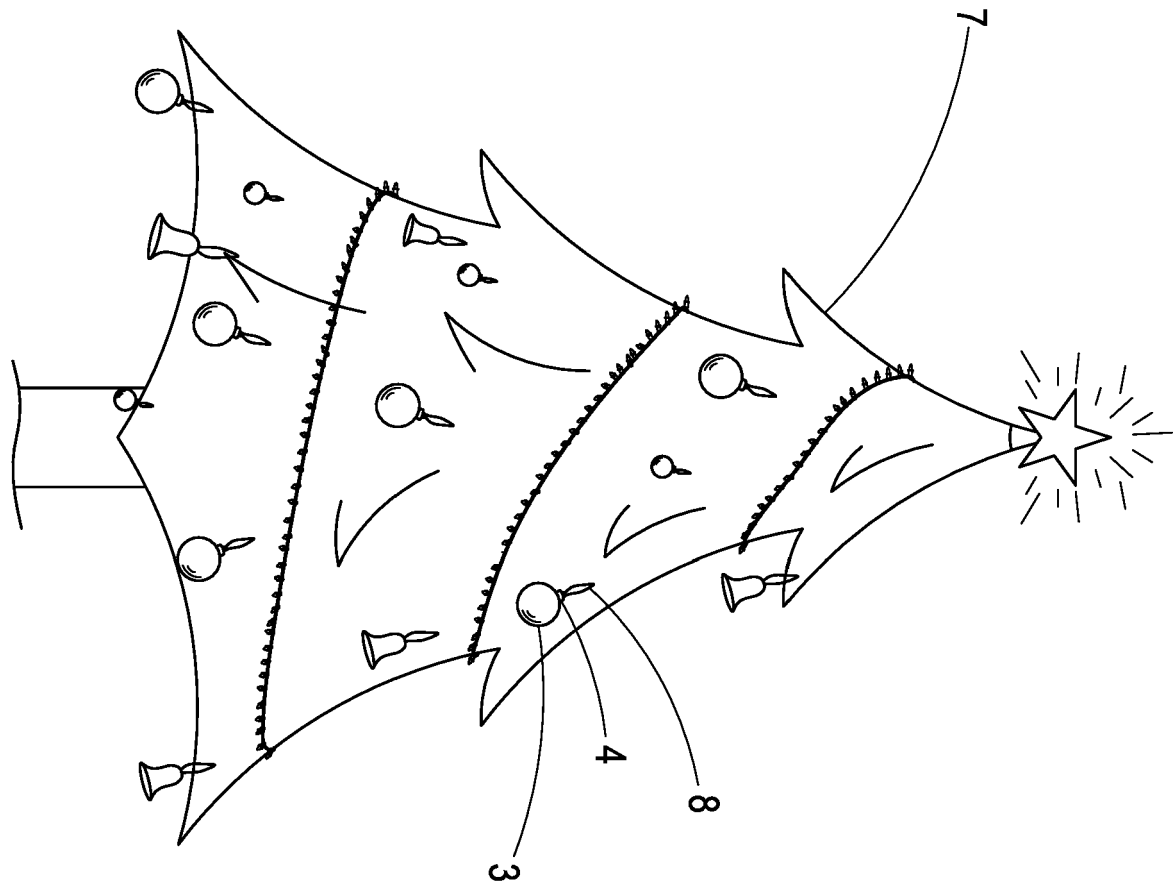












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EUROPEAN SEARCH REPORT

Application Number
EP 17 15 1572

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 2 353 853 A (SAYFORD) 18 July 1944 (1944-07-18) * the whole document *	1	INV. A47G33/08 A47G33/10
A	DE 44 36 431 A1 (STROBEL) 11 May 1995 (1995-05-11) * claim 1 * & DE 43 28 661 A1 (STROBEL) 2 March 1995 (1995-03-02) * figure 1 *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47G
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 21 July 2017	Examiner Beugeling, Leo
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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The members are as contained in the European Patent Office EDP file on
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21-07-2017

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2353853	A	18-07-1944	NONE
DE 4436431	A1	11-05-1995	NONE

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82