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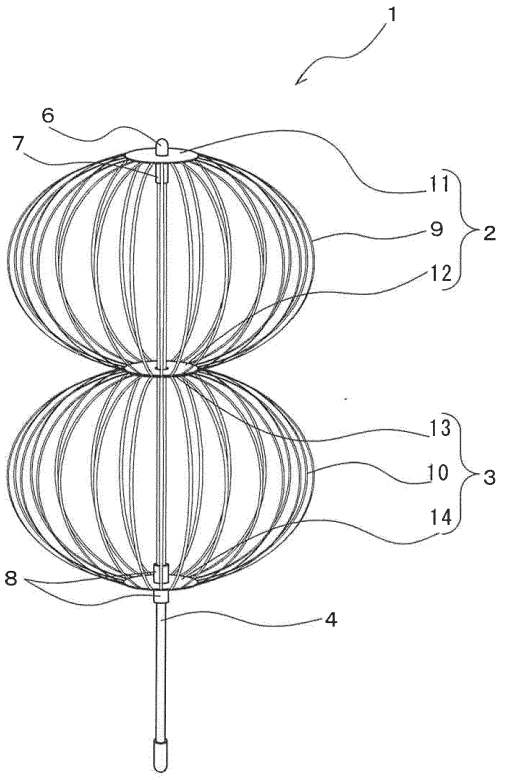
(54) Stick ornament capable of displaying various images by rotating stick and operating method of stick ornament

(57) A stick ornament (1) comprising: a stick (4); a first ornament body (2) arranged above the stick (4); a second ornament body (3) arranged below the first ornament body (2); and a rotational device (35) which holds and rotates the stick (4); wherein by rotating the stick (4) by means of the rotational device (35), the first ornament body (2) and the second ornament body (3) rotate and a first band-shaped member (9) and a second band-shaped member (10) rotate and transform to display various shapes; and when the rotating direction of the stick (4) is inverted by the rotational device (35), the images change.

[Fig. 1]



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Description

Field of the invention

[0001] The present invention relates to a stick ornament capable of displaying various images with the afterimage effect by rotating a stick with a rotational device, and an operating method thereof.

Description of prior art

[0002] A variety of ornaments and toys are known that produce fantastic images and motion pictures by manual rotational operation. For example, there is the mid-air afterimage appearing fan which is known from Japanese Utility Model No. 3081811 and wherein, by moving this with one's hand, letters, symbols, and shapes seem to appear in mid-air. There is also a stick toy known from Japanese Utility Model No. 3116440, wherein, by rotating the stick, various images are displayed by the afterimage effect

[0003] Although these known stick toys are capable of displaying various images by being rotated, as there is only one area that displays the image, there is the problem of changes in the image becoming limited as one becomes familiar with the toy. Also, when the toy is simply set down, it is not possible to know what kind of image will actually appear. For this reason, upon the sales thereof, it is difficult to appeal to a user without conducting an actual storefront demonstration. Also, as the image is not formed when it is set down, there is the problem of not being able to be used as a placed ornament.

Summary of the invention

[0004] In light of the above, the purpose of the present invention is to provide a stick ornament capable of simultaneously displaying two images and further capable of displaying various images by being rotated automatically, and an operating method of such stick ornament.

[0005] The invention is defined by the independent claims. The dependent claims define advantageous embodiments.

[0006] The stick ornament of the present invention is a stick ornament comprising a stick, a first ornament body arranged above the stick, and a second ornament body arranged below the first ornament body, and is **characterized in that** the first ornament body comprises a first fixing member that is fixed to the end of the stick in a removable manner, a second fixing member that is attached to the stick below the first fixing member and in a rotatable manner, and a plurality of a bendable first band-shaped member having one end fixed to the first fixing member and the other end fixed to the second fixing member, the stick is inserted into a hole provided in the centre of the first fixing member and the second fixing member, and by rotating the stick, the first band-shape members rotate and transform to display various shapes, and the second ornament body comprises a third fixing member fixed to the stick in a rotatable manner, a fourth fixing member attached to the stick below the third fixing member and in a rotatable manner, and a plurality of a bendable second band-shaped member having one end fixed to the third fixing member and the other end fixed to the fourth fixing member, the stick is inserted into a hole provided in the centre of the third fixing member and the fourth fixing member, and by rotating the stick, the second band-shape members rotate and transform to display various shapes.

[0007] Preferably, the second fixing member and the third fixing member are fixed to each other, and the second fixing member and the third fixing member rotate as a single unit.

[0008] More preferably, the stick ornament comprises a third ornament body comprising a fifth fixing member fixed to the stick in a rotatable manner, a sixth fixing member attached to the stick below the fifth fixing member and in a rotatable manner, and a plurality of a bendable third band-shaped member having one end fixed to the fifth fixing member and the other end fixed to the sixth fixing member, wherein the stick is inserted into a hole provided in the centre of the fifth fixing member and the sixth fixing member, and by rotating the stick, the third band-shape members rotate and transform to display various shapes, said third ornament body being arranged on the interior of at least one of the first ornament body and the second ornament body.

[0009] Preferably, one of either the fifth fixing member or the sixth fixing member of the third ornament body is attached to the stick in a rotatable manner, while the other is fixed to the stick.

[0010] Preferably, at least one of the first through third band-shaped members is attached in a twisted state.

[0011] Preferably, below the second ornament body, additionally, at least one second ornament body is arranged.

[0012] Preferably, a LED is built into the second fixture, while a switch and a power source for the LED are built into the first fixture.

[0013] In order to automatically rotate the stick ornament of the present invention, a rotational device that holds and rotates the bottom end of the stick is preferably provided, wherein the rotational device has a motor that rotates the stick, and a control unit that controls the operation of the motor, the switching between the forward rotation and the reverse rotation of the motor is performed by the control unit, and the stick is capable of rotating in the forward direction and rotating in the reverse direction by means of the rotational device.

[0014] Alternatively, as a different form of automatically rotating the stick ornament of the present invention, a rotational device that holds and rotates both ends of the stick in a horizontal state is provided, wherein the rotational device has a motor that rotates the stick, and a control unit that controls the operation of the motor, the switching between the forward rotation and the reverse

rotation of the motor is performed by the control unit, and the stick is capable of rotating in the forward direction and rotating in the reverse direction in a horizontal state by means of the rotational device.

[0015] It is possible to automatically alter the number of rotations of the motor and the timing of the switching between the forward rotation and the reverse rotation by means of the control unit, or alternatively, it is possible to operate the number of rotations of the motor and the timing of the switching between the forward rotation and the reverse rotation using a remote controller.

[0016] Preferably, the bottom end of the stick is held by the rotational device in a detachable manner.

[0017] The operating method of the stick ornament of the present invention comprising a rotational device is **characterized in that**, if the second fixing member and the third fixing member are fixed to each other, in a state where a twist is applied to the first ornament body or the second ornament body, after the stick is rotated by the rotational device, as the stick is rotated in the opposite direction, the twist applied to the first ornament body or the second ornament body is relayed to the other ornament body.

[Effects of the Invention]

[0018] The stick ornament of the present invention comprises a first ornament body arranged above the stick, and a second ornament body arranged below the first ornament body, wherein by the first ornament body having a plurality of a bendable first band-shaped member where by rotating the stick, the first band-shape members rotate and transform to display various shapes, and the second ornament body having a plurality of a bendable second band-shaped member where by rotating the stick, the second band-shape members rotate and transform to display various shapes, it is possible to simultaneously display two images, and therefore it is possible to display a number and variety of images greater than was possible conventionally.

[0019] By further providing a third ornament body, in which the third band-shaped members rotate and transform to display various shapes, and being arranged on the interior of at least one of the first ornament body and the second ornament body, it is possible to simultaneously display three or four images and be further enjoyable visually. By at least one of the first through third band-shaped members being attached in a twisted state, or by one of the fifth fixing member and the sixth fixing member of the third ornament body being attached to the stick in a rotatable manner while the other is fixed to the stick, the changes of the images that are displayed by the rotation of the stick become further varied.

[0020] By additionally arranging at least one second ornament body below the second ornament body for obtaining a configuration in which 3 levels or more of ornament bodies are arranged on the stick, it becomes possible to display further varied shapes.

[0021] By having an LED built into the second fixture, and a switch and a power source for the LED built into the first fixture, when light is projected onto the band-shaped members with the LED, depending on the material of the band-shaped members, ornamentation by light is made possible by means of reflecting the light.

[0022] By comprising a rotational device that holds and rotates the bottom end of the stick in order to automatically rotate the stick ornament of the present invention, and the stick being capable of rotating in the forward direction and rotating in the reverse direction by means of the rotational device, it becomes possible to display images by automatically rotating the stick without having to rotate the stick by hand.

[0023] Also, as a different form of automatically rotating the stick ornament of the present invention, by comprising a rotational device that holds and rotates both ends of the stick in a horizontal state, the switching between the forward rotation and the reverse rotation of the motor being performed by the control unit, and the stick being capable of rotating in the forward direction and rotating in the reverse direction in a horizontal state by means of the rotational device, it becomes possible to automatically display a new change of images.

[0024] By automatically altering the number of rotations of the motor and the timing of the switching between the forward rotation and the reverse rotation by means of the control unit, and also operating the number of rotations of the motor and the timing of the switching between the forward rotation and the reverse rotation using a remote controller, it becomes possible to automatically or intentionally change the image.

[0025] The operating method of the stick ornament of the present invention comprising a rotational device is capable of intentionally changing the image that is formed by the ornament body by being configured such that if the second fixing member and the third fixing member are fixed to each other, in a state where a twist is applied to the first ornament body or the second ornament body, after the stick is rotated by the rotational device, as the stick is rotated in the opposite direction, the twist applied to the first ornament body or the second ornament body is relayed to the other ornament body.

Short description of the drawings

[0026] These and further aspects of the invention will be explained in greater detail by way of example and with reference to the accompanying drawings in which:

Fig. 1 is a perspective view of a first embodiment of a stick ornament according to the present invention.
Fig. 2 is a perspective view of the stick ornament in a state of being attached to a rotational device.
Fig. 3 is a perspective view of a first and second fixture.
Fig. 4 is a plan view of a base member.
Fig. 5 is a plan view illustrating a state where a band-

shaped member is attached to the base member.
Fig. 6 is a partial enlarged perspective view illustrating a state where a first band-shaped member is fixated with a first and second fixing member.
Fig. 7 is a partial enlarged perspective view illustrating a state where a second band-shaped member is fixated with a third and fourth fixing member.
Fig. 8 is a partial enlarged perspective view illustrating a state where the second fixing member and the third fixing member are fixed to each other.
Fig. 9 is a schematic drawing illustrating one example of an image that is revealed by a stick ornament according to the present invention.
Fig. 10 is a perspective view of a second embodiment of a stick ornament according to the present invention.
Fig. 11 is a partial enlarged perspective view illustrating, in the second embodiment, a state where the first band-shaped member is fixated with the second fixing member.
Fig. 12 is a partial enlarged perspective view illustrating, in the second embodiment, a state where the second band-shaped member is fixated with the third fixing member.
Fig. 13 is a partial enlarged perspective view illustrating, in the second embodiment, a state where the second fixing member is mounted on top of the third fixing member.
Fig. 14 is a perspective view of a third embodiment of a stick ornament according to the present invention.
Fig. 15 is a perspective view of a third ornament body.
Fig. 16 is a perspective view of a fourth embodiment of a stick ornament according to the present invention.
Fig. 17 is a perspective view of a band-shaped member of the stick ornament of the first embodiment having a twist applied thereto.
Fig. 18 is a perspective view illustrating an example of the transformation of the stick ornament of the third embodiment.
Fig. 19 is a schematic drawing illustrating one example of an image that is revealed by the stick ornament of the third embodiment.
Fig. 20 is a perspective view of a case where the stick ornament of the first embodiment is operated using a remote controller.
Fig. 21 is a partial enlarged view of a state where the stick ornament is attached to the rotational device in a detachable manner.
Fig. 22 is a perspective view of a fifth embodiment of a stick ornament.
Fig. 23 is a perspective view of a sixth embodiment of a stick ornament.
Fig. 24 is a cross section of a first fixture and a second fixture of the stick ornament of the sixth embodiment.

[0027] The drawings of the figures are neither drawn to scale nor proportioned. Generally, identical components are denoted by the same reference numerals in the figures.

Detailed description of embodiments of the invention

[0028] A stick ornament (1) of the present invention will be explained below in detail in reference to the drawings. Fig. 1 is a perspective view of a first embodiment of the stick ornament (1) of the present invention.

[0029] The first embodiment of the stick ornament (1) of the present invention, as illustrated in Fig. 1, is configured of a first ornament body (2), a second ornament body (3), and a stick (4), and by transforming a first band-shaped member (9) of the first ornament body (2) and a second band-shaped member (10) of the second ornament body (3), simultaneously forms two images.

[0030] The first ornament body (2) comprises a first fixing member (11) fixed to the end of the stick (4) in a removable manner, a second fixing member (12) attached to the stick (4) below the first fixing member (11) and in a rotatable manner, and a plurality of the bendable first band-shaped member (9) having the top end thereof fixed to the first fixing member (11) and the bottom end thereof fixed to the second fixing member (12).

[0031] The first fixing member (11) is fixed to the stick (4) by being sandwiched from the top and bottom by a first fixture (6) and a second fixture (7) that is fixed to the stick (4) in a removable manner, and by removing the first fixture (6) positioned above the first fixing member (11), the first fixing member (11) becomes removable from the stick (4). As illustrated in Fig. 3, the first fixture (6) and the second fixture (7) is made of resin in the shape of a ring, and the insertion hole that is provided on each is formed to be of a size that creates a tight fit when the stick (4) is inserted. Due to this, when the stick (4) is inserted into the insertion hole of the first fixture (6) and the second fixture (7), although the first fixture (6) and the second fixture (7) are fixed to the stick (4) by a tight fit, as an adhesive, etc. is not used in the fixation, the first fixture (6) and the second fixture (7) can be easily removed from the stick (4) by hand.

[0032] The first fixing member (11) consists of a lamination of two layers of a base member (15) that are approximately circular and are provided with a penetration hole (16) in the centre thereof as illustrated in Fig. 4(a), and the second fixing member (12) consists of one base member (17) that is approximately circular and is provided with a penetration hole (18) in the centre thereof as illustrated in Fig. 4(b). The stick (4) is inserted through the penetration holes (16, 18). In doing so, in order for the second fixing member (12) to be rotatable with respect to the stick (4), the penetration hole (18) is made just large enough to leave a gap to leave the second fixing member (12) movable, even in the state where the stick (4) has been inserted. Meanwhile, after the stick (4)

is inserted through the penetration hole (16), as the first fixing member (11) is fixed to the stick (4) by the first fixture (6) and the second fixture (7), the size of the penetration hole (16) only needs to be large enough to allow the stick (4) to be inserted, and it is preferable that a gap is not created.

[0033] The fixation of the first band-shaped member (9) by the first fixing member (11), as illustrated in Fig. 6, is achieved by sandwiching and laminating the top end of the first band-shaped member (9) with the two base members (15). In doing so, as the first band-shaped members (9) are arranged with evenly spaced intervals, as illustrated in Fig. 4 and 5, on the base member (15), markings for the positioning of the first band-shaped member (9) are provided radially. Also, in order to easily fixate the first band-shaped member (9), the surfaces of the base members (15) that are to be laminated with each other are prepared as an adhesive surface by having and adhesive solution provided thereon in advance or an adhesive tape pasted thereon, and therefore prior to use, a sheet to protect the adhesive surface is laminated thereon. Furthermore, in order to enhance the design of the stick ornament (1), as illustrated in Fig. 4 and 5, the flat shape of the base member (15) can be the shape of a flower petal, and the markings can be of a design of flower petals.

[0034] The fixation of the first band-shaped member (9) by the second fixing member (12), as illustrated in Fig. 6, is achieved by pasting and provisionally fixing the bottom end of the first band-shaped member (9) onto the single base member (17). The base member (17), similarly to the base member (15), is provided with an adhesive surface, and is also provided with markings for deciding the positioning of the first band-shaped member (9).

[0035] The second ornament body (3) comprises a third fixing member (13) attached to the stick (4) in a rotatable manner together with the second fixing member (12), a fourth fixing member (14) fixed to the stick (4) below the third fixing member (13), and a plurality of the bendable second band-shaped member (10) having the top end thereof fixed to the third fixing member (13) and the bottom end thereof fixed to the fourth fixing member (14).

[0036] The third fixing member (13) consists of one base member (17) that is approximately circular and is provided with a penetration hole (18) in the centre thereof, while the fourth fixing member (14) consists of a lamination of two layers of a base member (15) that are approximately circular and are provided with a penetration hole (16) in the centre thereof. In order for the third fixing member (13) to be rotatable together with the second fixing member (12) with respect to the stick (4), the penetration hole (18) is made just large enough to leave a gap to leave the second fixing member (13) movable, even in the state where the stick (4) has been inserted.

[0037] The fixation of the second band-shaped member (10) by the third fixing member (13), as illustrated in Fig. 7, is achieved by pasting and provisionally fixing the top end of the second band-shaped member (10) onto the single base member (17). After all of the second band-shaped members (10) are pasted onto the base member (17) with evenly spaced intervals, the base member (17) of the second fixing member (12) having the first band-shaped members (9) provisionally fixed thereon with evenly spaced intervals, and the base member (17) of the third fixing member (13) is laminated, thus achieving the fixation of the bottom ends of the first band-shaped members (9) and the fixation of the top ends of the second band-shaped members (10). Accordingly, as illustrated in Fig. 8, the second fixing member (12) and the third fixing member (13) are fixed to each other to form a single unit.

[0038] The fixation of the bottom end of the second band-shaped member (10) by the fourth fixing member (14), as illustrated in Fig. 7, is achieved by sandwiching and laminating the bottom end of the second band-shaped member (10) between the two layers of the base member (15). In such manner, the fixation of the first band-shaped members (9) and the second band-shaped members (10) are achieved by the first fixing member (11), the second fixing member (12), the third fixing member (13), and the fourth fixing member (14), and as illustrated in Fig. 1, the state where the first ornament body (2) and the second ornament body (3) are connected at the top and bottom is created.

[0039] Although the first fixing member (11) is fixed to the stick (4) in a removable manner by the first fixture (6) and the second fixture (7) arranged on the top and bottom thereof, the third fixing member (13) is held by a stopper (8) which is attached to the stick (4) below the third fixing member (13). Due to this, the third fixing member (13) is prevented from moving downwards while still being capable of rotating. The fourth fixing member (14) is fixated by stoppers (8) attached to the stick (4) on the top and bottom of the fourth fixing member (14). Due to these, the fourth fixing member (14) is fixed to the stick (4). The number of the stoppers (8) and the arrangement thereof may be altered as needed. Furthermore, it is possible to have the first and fourth fixing member (11, 14) attached to the stick (4) in a rotatable manner while having the second and third fixing member (12, 13) fixed to the stick (4) in a removable manner. Due to this, the stick ornament (1) is made capable of changing into further varied shapes.

[0040] The first fixture (6), the second fixture (7), and the stoppers (8) are made of resin in the shape of a ring, and the insertion hole that is provided on each is formed to be of a size that creates a tight fit when the stick (4) is inserted. Due to this, when the stick (4) is inserted into the insertion hole of the first fixture (6), the second fixture (7), and the stoppers (8), although the first fixture (6), the second fixture (7), and the stoppers (8) are fixed to the stick (4) by a tight fit, as an adhesive, etc. is not used in the fixation, the first fixture (6), the second fixture (7), and the stoppers (8) can be easily removed from the stick (4)

by hand.

[0041] Next, the method of pasting the first and second band-shaped members (9, 10) onto the base members (15, 17) will be explained. For example, in the case where the top ends of the first band-shaped members (9) are fixed to the base member (15) of the first fixing member (11), as illustrated in Fig. 5, by using the adhesive surface, the first band-shaped members (9) are pasted onto the surface of the base member (15) in order. In the example illustrated, 16 strands of the first band-shaped member (16) are prepared and are pasted on in order with evenly spaced intervals by utilizing the markings provided on the base member (15).

[0042] In the case of the first fixing member (11), once all of the first band-shaped members (9) have been pasted onto one base member (15), the other base member (15) is laminated from the top, and therefore all of the first band-shaped members (9) are sandwiched and adhered to be fixated by the two base members (15). Due to this, one end of the first band-shaped members (9) is fixed to the first fixing member (11). In the case of the second and third fixing members (12, 13), after the first and second band-shaped members (9, 10) are each pasted onto the base members (17) and are laminated with each other, the bottom end of the first band-shaped member (9) and the top end of the second band-shaped member (10) are sandwiched and fixated by the two base members (17). The fourth fixing member, similar to the first fixing member (11), is fixated by the bottom end of the second band-shaped member (10) being sandwiched by the two base members (15). The method of laminating the base members (15, 17) with each other are not especially limited to those using adhesives and it is possible to use various methods of fixation.

[0043] The first and the second band-shaped members (9, 10) are of a thickness of 10-120 μm (micrometer), a material having an appropriate degree of elasticity such as film, paper, or plastic, etc. is used as the material thereof, and by easily being bent as the stick (4) is rotated, is made capable of displaying various images. Also, by applying a hologram treatment, a mirroring treatment, a phosphorescent treatment, or a fluorescence treatment to the surface of the second band-shaped members (9, 10) or by combining various colours, even further beautiful effects can be provided upon display of images. Furthermore, the stick (4) has a circular cross-section of a diameter of 3-6 mm, and is formed by a material such as plastic, etc.

[0044] Also, the lengths of the first band-shaped member (9) and the second band-shaped member (10), instead of being the same length, may be configured to be of different lengths, and in cases where such configuration is used, the sizes of the images formed will be different. Furthermore, it is also possible to alter the shape of the images that are formed by transforming the first or the second band-shaped member (9, 10) in advance.

[0045] With such as the stick ornament (1) having the first ornament body (2) and the second ornament body (3) attached to the stick (4) thereof as illustrated in Fig. 1, while two images are formed simultaneously by the first ornament body (2) and the second ornament body (3) when the stick (4) is rotated by hand, additionally, if the rotation of the stick (4) is inverted during this process, the image changes and various shapes are displayed. Especially, by repeating this inversion, or depending on the timing of the inversion, the changes of the shape of the image are enriched.

[0046] As a further developed form of the stick ornament (1) of the present invention, as illustrated in Fig. 2, there is a configuration that is provided with a rotational device (5) that automatically rotates the stick (4). In this embodiment, by rotating the stick (4) with the rotational device (5), the first band-shaped member (9) of the first ornament body (2) and the second band-shaped member of the second ornament body (3) are transformed to automatically form an image. Other than the rotational device (5), all of the components are similar to the stick ornament (1) of the first embodiment and therefore the explanation of such will be omitted.

[0047] The rotational device (5) is internally equipped with a motor that rotates the stick (4) and a control unit that controls the operation of the motor. The rotational device (5) is also internally equipped with a battery as a power source for the motor, and is also provided with a switch (not illustrated) that operates the rotational device (5). The control unit performs the control of inverting the rotation of the motor at a predetermined time. In other words, the control unit controls the switching between the forward rotation and the reverse rotation of the motor, and furthermore, is also capable of controlling the rotational speed of the motor as well as the timing of the switching between the forward rotation and the reverse rotation. Although the timing of the switching is configured as 5 seconds as an example, this timing is capable of being configured as needed, and a switch to alter this setting can also be provided. As the stick (4) is fixed to the rotational device (5) in a removable manner, it is also possible to rotate the stick (4) by hand. The power source may possibly be an external power source instead of a battery.

[0048] Next, the method of operating the stick ornament (1) provided with the rotational device (5) will be explained. When the switch of the rotational device (5) is turned ON, the motor rotates in the forward direction, and by the stick (4) rotating, the first and second band-shaped members (9, 10) of the first and second ornament body (2, 3) transform and two images connected to the top and bottom are displayed. Subsequently, the rotation of the motor is inverted by the control unit of the rotational device (5). Accordingly, when the rotation of the stick (4) is reversed, the first and second band-shaped members (9, 10) of the first and second ornament body (2, 3) are twisted, and for example as illustrated in Fig. 9, the images change.

[0049] As described in the above, although the image of the first and second ornament body (2, 3) change every

time the rotation of the motor is inverted, this configuration alone does not make the changes remarkably greater. Also, it is not possible to control the kinds of shapes of the images. Accordingly, before the rotational device (5) is operated, in advance, a twist is applied to either one of the first or the second ornament body (2, 3) and the band-shaped members (9. 10) are transformed. For example, in a state where a twist is applied to only the first ornament body (2) and the first band-shaped member (9) is transformed, the rotational device (5) is operated to rotate the stick (4). Accordingly, for example as illustrated in Fig. 9(a), the first ornament body (2) forms an image resembling two ovals layered on top and bottom, while the second ornament body (3) forms an oval-shaped image.

[0050] Subsequently, when the rotation of the stick (4) is inverted by the rotational device (5), the twist that had been applied to the first ornament body (2) is relayed to the second ornament body (3) by the second fixing member (12) and the third fixing member (13), and the second ornament body (3) is twisted creating a state where the second band-shaped member (10) is transformed. As a result of this, as illustrated in Fig. 9(b), an oval-shaped image is formed by the first ornament body (2), while the second ornament body (3) forms an image resembling two ovals layered on top and bottom. Furthermore, by inverting the stick (4), the twist of the second ornament body (3) is again relayed to the first ornament body (2).

[0051] In such manner, every time the rotation of the stick (4) is inverted by the rotational device (5), the twist that has been applied to either one of the first or the second ornament body (2, 3) is relayed to the other ornament body (3). Accordingly, the images that are formed by the first and second ornament body (2, 3) are greatly changed, entertaining any persons viewing the ornament.

[0052] The stick ornament (1) of the present invention is capable of automatically displaying images by making the stick rotate with the rotational device (5), and additionally, by inverting the rotation of the stick (4), is also capable of automatically changing the images that are formed by the first and second ornament body (2, 3), and furthermore, when a twist is applied to one of the ornament bodies by having the second fixing member (12) and the third fixing member (13) fixed to each other, every time the stick (4) is inverted, by the twist being relayed to the other ornament body, it becomes possible to further effectively change the images.

[0053] Next, the control unit of the rotational device (5) will be explained in further detail. While the rotational device (5) rotates the stick (4) by means of the rotation of the motor, the number of rotations of the motor is capable of automatically being altered by the control unit built into the rotational device (5). For example, after a predetermined amount of time elapses, the number of rotations of the motor can be increased, and after a predetermined amount of time further elapses, the number of rotations of the motor can be decreased back to the original number of rotations. According to such changes in the number of rotations, the number of rotations of the stick (4) is also altered automatically, and the images formed by the first and second ornament body (2, 3) change. Various methods can be used for the control of the number of rotations by the control unit, and the number of rotations and the rotating time can also be altered by such as a switch.

[0054] Although the control unit also controls the switching between the forward rotation and the reverse rotation of the motor, by programming it to control the timing of the switching to perform the switching after a predetermined amount of time, furthermore, it becomes possible to alter the timing of the switching by such as a switch. Furthermore, it is also possible to combine and control the altering of the number of rotations of the motor and the switching between the forward rotation and the reverse rotation.

[0055] It is also possible to operate the switching operation of the number of rotations of the motor and that between the forward rotation and the reverse rotation, as illustrated in Fig. 20, by means of a remote controller (36). By operating buttons on the remote controller (36), it is possible to increase and decrease the number of rotations, switch between the forward rotation and the reverse rotation, and furthermore, turn the rotational device (5) ON / OFF. The remote controller (36) illustrated in Fig. 20 is provided with three buttons (37, 38, 39) wherein the ON / OFF of the rotational device (5) is operated by the button (37), the increase and decrease of the number of rotations is operated by the button (38), and the switching between the forward rotation and the reverse rotation of the motor is operated by the button (39).

[0056] The button (38) alters the number of rotations of the motor by operations of being pressed to either the right or left. For example, when the button (38) is pressed to the left, the number of rotations is increased, and when pressed to the right, the number of rotations decreases. Next, the forward rotation and the reverse rotation is switched by the button (39) being pressed to either the right or left. For example, the button (39) can be pressed to the right for the forward rotation, and be pressed to the left for the reverse rotation. The operating method according to a remote controller of such manner is not especially limited to the above configuration, and various forms can be applied. By utilizing such remote controller, it is possible to operate the rotational device (5) from a remote location, therefore enable even easier operation.

[0057] The stick (4) is fixed to the rotational device (5) in a detachable manner. Due to this, it is possible to exchange the stick ornament (1), and is also possible to rotate the stick ornament (1) by hand. For the fixation method of the stick (4), as illustrated in Fig. 21, a method where the stick (4) is inserted through the opening in the centre of an axis (47) of the rotational device (5) and the stick (4) is fixated from both sides by tightening two set-screws (48), is used. The fixation method of the stick (4)

is not especially limited to the above configuration, and as long as the stick (4) is fixed in a detachable manner, it is possible to use other fixation methods.

[0058] Next, a stick ornament (1') of a second embodiment will be explained. The stick ornament (1') of the second embodiment is differed from the stick ornament (1) of the first embodiment in that the second fixing member (12) and the third fixing member (13) are not fixed to each other and are configured separately, and is provided with a rotational device (5). For this reason, in the stick ornament (1') of the second embodiment, components that are the same as those of the stick ornament (1) of the first embodiment are explained using the same reference numbers and detailed explanations thereof will be omitted.

[0059] The stick ornament (1') of the second embodiment, as illustrated in Fig. 10, is configured of a first ornament body (2'), a second ornament body (3'), a stick (4), and the rotational device (5), and by rotating the stick (4) by means of the rotational device (5), the first band-shaped members (9) of the first ornament body (2') and the second band shaped members (10) of the second ornament body (3) are transformed to automatically form images.

[0060] The first ornament body (2') comprises a first fixing member (11), a second fixing member (12') attached to the stick (4) below the first fixing member (11) and in a rotatable manner, and a plurality of the first band-shaped members (10) having one end fixed to the first fixing member (11) and the other end fixed to the second fixing member (12'). The first fixing member (11) is fixed to the stick (4) by being sandwiched from the top and bottom by a first fixture (6) and a second fixture (6) that is fixed to the stick (4) in a removable manner.

[0061] The first fixing member (11) consists of a lamination of two layers of a base member (15), while the second fixing member (12') consists of a lamination of two layers of another base member (17). The fixation of the first band-shaped member (9) by the first fixing member (11) is achieved by sandwiching and laminating the top end of the first band-shaped member (9) between the two base members (15). Meanwhile, the fixation of the first band-shaped member (9) by the second fixing member (12') differs from that of the first embodiment, and as illustrated in Fig. 11, is achieved by sandwiching and laminating the bottom end of the first band-shaped member (9) between the two base members (17).

[0062] The second ornament body (3') comprises a third fixing member (13') attached to the stick in a rotatable manner, a fourth fixing member (14) attached to the stick (4) below the third fixing member (13'), and a plurality of a bendable second band-shaped members (10) having the top end thereof fixed to the third fixing member (13') and the bottom end thereof fixed to the fourth fixing member (14).

[0063] The third fixing member (13') consists of a lamination of two layers of a base member (17), while the fourth fixing member (14) consists of a lamination of two layers of another base member (15). The fixation of the second band-shaped member (10) by the third fixing member (13') differs from that of the first embodiment, and as illustrated in Fig. 12, is achieved by sandwiching and laminating the top end of the second band-shaped member (10) between the two base members (17). Meanwhile, the fixation of the second band-shaped member (10) by the fourth fixing member (14) is achieved by sandwiching and laminating the bottom end of the second band-shaped member (10) between the two base members (15). As the method of pasting the first and the second band-shaped members onto the base members (15, 17) is the same as that in the first embodiment, a detailed explanation thereof will be omitted.

[0064] The first ornament body (2') and the second ornament body (3') of the above described manner are arranged on the top and bottom of the stick (4). In doing so, the first fixing member (11) of the first ornament body (2') is fixed to the stick (4) in a removable manner by the first fixture (6) and the second fixture (7) arranged on the top and bottom, and the third fixing member (13') is held by a stopper (8) attached to the stick (4) below the third fixing member (13'). Due to this, the third fixing member 13 is prevented from moving downwards. Accordingly, as illustrated in Fig. 13, a state where the second fixing member (12') is mounted above the third fixing member (13') is created. However, in this embodiment, the second fixing member (12') and the third fixing member (13') are not fixed to each other. The fourth fixing member (14) is fixated by stoppers (8) attached to the stick (4) on the top and bottom of the fourth fixing member (14). Due to this, the fourth fixing member (14) is fixed to the stick (4). The number of the stoppers (8) and the arrangement thereof may be altered as needed.

[0065] As described in the above, the stick ornament (1) holds and rotates the stick (4) on which the first ornament body (2') and the second ornament body (3') are attached, by means of the rotational device (5). The structure of the rotational device (5) is the same as that of the first embodiment.

[0066] Next, the operating method of the stick ornament (1') of the second embodiment will be explained. When the switch is turned ON, the motor rotates in the forward direction, and by the stick (4) rotating, the first and second band-shaped members (9, 10) of the first and second ornament body (2', 3') transform, and accordingly two images are displayed on the top and bottom. Subsequently, the rotation of the motor is inverted by the control unit of the rotational device (5). Accordingly, when the rotation of the stick (4) is reversed, the first and second band-shaped members (9, 10) of the first and second ornament body (2', 3') transform such as by twisting, causing the images to change.

[0067] Although the second fixing member (12') and the third fixing member (13') move independently as they are not fixed to each other, as the second fixing member (12') is mounted on top of the third fixing member (13') depending on the case, there may be cases where the

two rotate together due to forces of friction, etc. By moving the stopper (8) downwards, it is possible to move the second fixing member (12') and the third fixing member (13') to the top and bottom in order to create an interval. In this case, there is almost no possibility that the second fixing member (12') and the third fixing member (13') have an effect on each other, and the first ornament body (2') and the second ornament body (3') rotate mostly independently to form images.

[0068] Nevertheless, by moving the stopper (8) upwards from the above described state where the second fixing member (12') and the third fixing member (13') are placed apart from each other on the top and bottom and making the third fixing member (13') come into contact with the second fixing member (12'), and furthermore by pushing the second fixing member (12') upwards with the third fixing member (13'), a state where the second fixing member (12') is held by the third fixing member (13') is created. In such state, if the stick (4) is rotated by means of the rotational device (5) and is further inverted, for example, if the first band-shaped member (9) is transformed by a twist applied to only the first ornament body (2'), this could lead to a case where this twist is relayed to the second ornament body (3') by the second fixing member (12') and the third fixing member (13'), creating a state where the second ornament body (3') is twisted and the second band-shaped member (10) is transformed. However, as the second fixing member (12') and the third fixing member (13') are not fixed to each other, there are also cases where the twist is not relayed.

[0069] If the stopper (8) is moved further upwards, a state where the bottom section of the first band-shaped member (9) droops down lower than the second fixing member (12') is formed, thus creating a state where contact is made with the upper section of the second band-shaped member (10). When such state is created, by the first band-shaped member (9) and the second band-shaped member (10) making contact, it becomes easier for the twist applied to one ornament body (2', 3') to be relayed to the other ornament body (2', 3').

[0070] In such manner, with the stick ornament (1') of the second embodiment, by moving the stopper (8), it is possible to change the images formed by the first ornament body (2') and the second ornament body (3').

[0071] Next, a stick ornament (20) of a third embodiment will be explained. The stick ornament (20) of the third embodiment utilizes a third ornament body (23), and furthermore, comprises a twist that has been applied to a third band-shaped member (24) of the third ornament body (23). This embodiment, in reference to the drawings, will be explained in detail.

[0072] The stick ornament 20 utilizes a first ornament body (2), a second ornament body (3) and a stick (4) that are of the same structure as those of the stick ornament (1) of the first embodiment, and as illustrated in Fig. 14, has the third ornament body (23) arranged inside the second ornament body (3). Accordingly, detailed explanations of the first ornament body (2), the second ornament body (3), and the stick (4) will be omitted, and the explanation from here will be centred on the third ornament body (23).

[0073] The third ornament body (23), as illustrated in Fig. 15, comprises a fifth fixing member (25) attached to the stick (4), a sixth fixing member attached to the stick (4) below the fifth fixing member (25) and in a rotatable manner, and a plurality of a bendable third band-shaped member (24) having the top end thereof fixed to the fifth fixing member (25) and the bottom end thereof fixed to the sixth fixing member (26). The fifth fixing member (25), similar to the first fixing member (11) consists of a lamination of two layers of a base member (15) that are approximately circular and are provided with a penetration hole (16) in the centre thereof, and the sixth fixing member (26) utilizes the lamination of the two base members (17) used with the second and the third fixing member (12, 13).

[0074] Although the third band-shaped member (24) utilizes the same material as that of the first and the second band-shaped member (9, 10), in order for the third ornament body (23) to be arranged inside the second ornament body (3), the length thereof if equal to or less than half of the band-shaped member (10). Furthermore, in fixing both ends of the third band-shaped member (24) to the fifth fixing member (25) and the sixth fixing member (26), for example, after one end is fixed to the fifth fixing member (15), the other end is fixed to the sixth fixing member (26) in a state where a twist of a half rotation has been applied to the third band-shaped member (24). In doing so, a twist in the same direction is applied to all of the third band-shaped members (24). For the method of fixating the third band-shaped member (24) to the fifth fixing member (25) and the sixth fixing member (26), a method similar to that of the first and the second band-shaped members (9, 10) is utilized.

[0075] In such manner, in the third ornament body (23) with the third band-shaped members (24) all having a twist applied thereto, as a material having elasticity is used as the third band-shaped member (24), by a force trying to resolve this twist occurring, as illustrated in Fig. 15, even when the stick (4) is not being rotated, the third ornament body (23) transforms into a state where the entirety thereof is twisted. When the third ornament body (23) in such state is rotated, further transformations occur making it possible to display various images.

[0076] Upon arranging the third ornament body (23) onto the stick (4), the fifth fixing member (25) and the sixth fixing member (26) are arranged to be positioned between the third fixing member (13) and the fourth fixing member (14) of the second ornament body (2). Due to this, the third ornament body (23) is positioned inside of the second ornament body (2). Also, at this point, the fifth fixing member (25) of the third ornament body (23) is fixed to the stick (4), while the sixth fixing member (26) is arranged onto the stick (4) in a rotatable manner. For the method for fixating the fifth fixing member (25), the method used with the stick ornament (1) of the first em-

bodiment wherein a stopper (8) is arranged below the fifth fixing member (2), the method wherein the stoppers (8) are arranged on the top and bottom of the fifth fixing member (25), or a method wherein the penetration hole of the fifth fixing member (25) is made small to form a fixation when the stick (4) plugs the hole can be used.

[0077] Accordingly, although the third fixing member (13) is positioned above the fifth fixing member (25), the third fixing member (13), as it is merely mounted on top of the fifth fixing member (25), is capable of rotating, and is also in a state where movement upwards along the stick (4) is possible. Additionally, as the third fixing member (13) is formed as a single unit with the second fixing member (12), the second fixing member (12), together with the third fixing member (13), is also of a rotatable manner in a state where movement upwards along the stick (4) is possible.

[0078] The space between the sixth fixing member (26) and the fourth fixing member (14) is capable of being altered as needed by the stopper (8) arranged below the fourth fixing member (14). As illustrated in Fig. 15, although the fourth fixing member (14) is arranged such that the sixth fixing member (26) is positioned almost midway of the third fixing member (13) and the fourth fixing member (14), it is also possible to move the stopper (8) upwards for an arrangement where the fourth fixing member (14) is in contact with the sixth fixing member (26).

[0079] In such manner, with the stick ornament (20) with three ornament bodies attached to the stick (4) thereof, three images are formed by rotating the stick (4), providing changes of images that are further enjoyable. Additionally, similar to the other embodiments, it is capable of being automatically rotated by means of the rotational device (5).

[0080] The third ornament body (23) is also capable of being arranged inside the first ornament body (2), instead of inside the second ornament body (3), and such altercation can be made by a user. Additionally, it is also possible to arrange the third ornament body (23) inside both the first ornament body (2) and the second ornament body (3) to enable the display of four images.

[0081] Additionally, it is also possible to apply the twist, applied to the third band-shaped member (24) of the third ornament body (23), to the first band-shaped member (9) of the first ornament body (2) and the band-shaped member (10) of the second ornament body (3). Furthermore, even with the stick ornament (1) of the first embodiment and the stick ornament (1') of the second embodiment, it is possible to apply a twist to the band-shaped member, and the stick ornament (1) of the first embodiment having a twist is applied to the band-shaped members (9, 10) is illustrated in Fig. 17.

[0082] Next, a stick ornament (20') which is a modification of the stick ornament (20) of the third embodiment will be explained. The stick ornament (20'), as illustrated in Fig. 18, is configured of a first ornament body (2), a second ornament body (3), a third ornament body (23') arranged inside the second ornament body (3), and a stick (4). The third ornament body (23') comprises a fifth fixing member (25') attached to the stick (4) in a rotatable manner, a sixth fixing member (26') fixed to the stick (4) below the fifth fixing member (25'), and a plurality of a bendable third band-shaped member (24) having the top end thereof fixed to the fifth fixing member (25') and the bottom end thereof fixed to the sixth fixing member (26').

[0083] The fifth fixing member (25') consists of a lamination of two layers of a base member (17) that are approximately circular and are provided with a penetration hole (16), and the sixth fixing member (26') utilizes the lamination of two base members (17) that are approximately circular. Additionally, the third band-shaped member (24), similarly to that of the third ornament body (23), has both ends fixed to the fifth fixing member (25') and the sixth fixing member (26') in a state where a twist of a half rotation has been applied thereto.

[0084] Upon arranging the third ornament body (23') of such structure onto the stick (4), the fifth fixing member (25') is arranged in a rotatable manner with respect to the stick (4), while the sixth fixing member (26') is in a state of being fixed such that it will not rotate with respect to the stick (4). With the fixing member (25'), although the stick (4) is inserted through penetration holes (18) provided on the centre of the base members (17), at this point, by the size of the diameter of the penetration holes (18) being larger than the diameter of the stick (4), a state where the fixing member (25') is in a rotatable manner is created, and furthermore, in a state of being capable of moving up and down, is attached to the stick (4).

[0085] With the sixth fixing member (26'), although the stick (4) is inserted through penetration holes (16) provided on the centre of the base members (15), at this point, by the diameter of the penetration holes (16) being almost the same or slightly smaller than the diameter of the stick (4) such that the stick (4) plugs the hole, a state where the fixing member (26') is fixed to the stick (4) is created. Nevertheless, if a force is applied to the fixing member (26') that is fixated in such state, it is capable of being moved up and down. With the stick ornament (20'), the third ornament body (23') is arranged on the stick (4) in such manner.

[0086] Next, the relation of the third ornament body (23') with the first ornament body (2) and the second ornament body (3) will be explained. While the third ornament body (23') is arranged inside the second ornament body (3), at this point, the third fixing member (13) of the second ornament body (3) is positioned on top of the fifth fixing member (25') of the third ornament body (23'), and furthermore, the second fixing member (12) of the first ornament body (2) is positioned on top of the third fixing member (13). Although the second fixing member (12) and the third fixing member (13) are fixed to each other, the fifth fixture (25') and the third fixture (13) are not fixed to each other, and meanwhile the second fixing member (12), the third fixing member (13), and the fifth fixing member (25') are attached to the stick (4) in a rotatable man-

ner, and for this reason, are capable of moving up and down.

[0087] Due to this arrangement, with the stick ornament (20'), the first ornament body (2) is fixed at the top end while the bottom end is capable of rotating and moving up and down, the top end and the bottom end of the second ornament body (3) are capable of rotating and moving up and down, and the third ornament body (23') is fixed at the bottom end while the top end is capable of rotating and moving up and down.

[0088] When such stick ornament (20') is rotated, an image such as that illustrated in Fig. 9(b) is revealed, and the third ornament body (23') rotates in a hovered state inside the second ornament body (2). Such action is one action that occurs while the rotation of the stick ornament (20') followed by the inverting thereof is being repeated, and this state is not maintained at all times. Nevertheless, in the case of the stick ornament (20) explained earlier, due to the structure where the top end of the third ornament body (23) is fixed while the bottom end is capable of rotating and moving up and down, when compared to those which reveal an image such as that illustrated in Fig. 9(a), it can be seen that changes into further various forms are made possible.

[0089] The stick ornament (20') is only partially different from the stick ornament (20). Accordingly, by removing the third ornament body (23) of the stick ornament (20) and arranging this onto the stick (4) such that the top and bottom are replaced with each other, the stick ornament (20) can easily be altered into the form of the stick ornament (20'). Accordingly, the stick ornament of the present invention is capable of easily being altered into a different form by a user.

[0090] Next, a stick ornament (30) of a fourth embodiment will be explained. The stick ornament (30) of the fourth embodiment, as illustrated in Fig. 16, holds and then rotates both ends of a stick (4) arranged in the horizontal direction by means of a rotational device (35).

[0091] The stick ornament (30) of this embodiment is configured of the stick (4) arranged in the horizontal direction, a first ornament body (2) and a second ornament body (3) arranged on the left and right of the stick (4), and the rotational device (35) that holds and rotates both ends of the stick (4). The basic structure of the first ornament body (2) and the second ornament body (3) is a structure that is almost the same as that of the stick ornament (1) of the first embodiment, and therefore a detailed explanation thereof will be omitted.

[0092] The rotational device 35 has a holding part (33) that holds one end (equivalent to the top end mentioned in other forms) of the stick (4), and a rotation holding part (34) that holds and rotates the other end (equivalent to the bottom end mentioned in other forms) of the stick, and the inside of the rotation holding part (37) is internally equipped with components such as the motor, etc. that rotates the stick (4).

[0093] Furthermore, the rotational device (35) is internally equipped with a control unit that controls the operation of the motor, and a battery as a power source for the motor, and a switch (not illustrated) that operates the rotational device (35) is also provided. The control unit performs the control of inverting the rotation of the motor at a predetermined time. In other words, the control unit controls the switching between the forward rotation and the reverse rotation of the motor, and furthermore, is also capable of controlling the rotational speed of the motor as well as the timing of the switching between the forward rotation and the reverse rotation.

[0094] With the stick ornament (30) of the fourth embodiment, by having the direction of the stick (4) arranged in the horizontal direction, the direction of the images that are displayed differ from those of the other embodiments, and thus becomes capable of providing viewers with a new impression. In this embodiment, it is also possible to provide a third ornament body similar to that of the third embodiment. Additionally, it is also possible to apply a twist to the band-shaped member.

[0095] The stick ornament of the present invention, as explained up to this point, by arranging two ornament bodies on the top and bottom, and additionally arranging a third ornament body and applying a twist to the band-shaped members, realizes various forms and enables display of images that are more complicated and greater varied than before, and is capable of entertaining a viewer.

[0096] Next, a stick ornament (40) of a fifth embodiment will be explained. The stick ornament (40) of the fifth embodiment is of a configuration that provides, below the second ornament body (3) in the stick ornament (20) of the third embodiment, another second ornament body (3). This embodiment will be explained in reference to the drawings.

[0097] The stick ornament (40) utilizes a first ornament body (2), a second ornament body (3), and a stick (4) that are of the same structure as those of the stick ornament (20) of the third embodiment, and has, as illustrated in Fig. 22, below the second ornament body (3), another second ornament body (23) arranged to create a stick ornament of an arrangement having three levels. Inside the first second ornament body (3) of the series, a third ornament body (23) is arranged.

[0098] It is possible for the two second ornament bodies (3) to be either of a case where they are arranged in a separately rotatable manner, or a case where they are fixed to each other and arranged. Additionally, it is also possible to arrange one more third ornament body (23) inside the second ornament body that is second in the series. In such manner, by increasing the number of ornament bodies and creating an arrangement consisting of three levels, the images that are created when the stick (4) is rotated become further varied. Accordingly, it is also possible to further increase the number of stick ornaments to create arrangements consisting of four or five levels.

[0099] Next, a stick ornament (41) of a sixth embodiment will be explained. The stick ornament (41) of the

sixth embodiment is of a configuration that used an LED for the effect of ornamentation by light. The stick ornament body (41) is of a configuration having a LED utilizing illumination provided on the stick ornament (1) of the first embodiment, and as illustrated in Fig. 23, a second fixture (42) internally equipped with an LED (43) is used in place of the second fixture (7) of the stick ornament body (1), and a first fixture (44) internally equipped with a switch (45) is used in place of the first fixture (6).

[0100] As the stick ornament body (41) utilizes components other than the second fixture (42) and the first fixture (44) which fixates the first ornament, a first ornament body (2), a second ornament body (3), and a stick (4), etc. which are the same as those of the first stick ornament (1), a detailed explanation of these components will be omitted, and the explanation from here will be centred on the second fixture (42) and the first fixture (44).

[0101] As illustrated in Fig. 24, the second fixture (42) is internally equipped with the LED (43) arranged to project light downwards and utilizes a structure where a lens (49) covers the LED (43). The light of the LED (43) is diffused by the lens (49). Furthermore, the first fixture (44), as well as being internally equipped with the switch (45) that turns the LED (43) ON / OFF, is also internally equipped with a battery (46) which is a power source for the LED (43), and the LED (43), the switch (45), and the battery (46) are electrically connected.

[0102] The light from the LED (43) is diffused by the lens (49) and serves the purpose of illuminating the first ornament body (2) from the inner side. When the light from the LED (43) illuminates the first band-shaped members (9) of the first ornament body (2), if the surfaces of the first band-shaped members (9) had had a hologram treatment, or a mirroring treatment, etc. applied thereto, by reflection of the light, further visual effects are created. When the first ornament body (2) rotates, as the first band-shaped members (9) transform and accordingly as the angle at which the light from the LED (43) reaches the surface changes, it is possible to create further complicated visual effects.

[0103] The arrangement of the LED (43) and the form of the switch (45) are not especially limited to the above configuration, and for example, it is possible to arrange a plurality of LEDs, or to even configure the first fixture (44) to function as a switch that is operated by the rotation of the fixture itself.

[0104] The present invention has been described in terms of specific embodiments, which are illustrative of the invention and not to be construed as limiting. More generally, it will be appreciated by persons skilled in the art that the present invention is not limited by what has been particularly shown and/or described hereinabove. Reference numerals in the claims do not limit their protective scope.

Use of the verbs "to comprise", "to include", "to be composed of", or any other variant, as well as their respective conjugations, does not exclude the presence of elements other than those stated.

Use of the article "a", "an" or "the" preceding an element does not exclude the presence of a plurality of such elements.

Claims

1. A stick ornament (1) comprising : a stick (4) ; a first ornament body (2) arranged above the stick (4); and a second ornament body (3) arranged below the first ornament body (2); wherein
the stick ornament (1) is **characterized in that** the first ornament body (2) comprises: a first fixing member (11) that is fixed to the end of the stick (4) in a removable manner; a second fixing member (12) that is attached to the stick (4) below the first fixing member (11) and in a rotatable manner; and a plurality of bendable first band-shaped members (9) having one end fixed to the first fixing member (11) and the other end fixed to the second fixing member (12); the stick (4) is inserted into holes (16, 18) provided respectively in the centre of the first fixing member (11) and of the second fixing member (12); and by rotating the stick (4), the first band-shape members (9) rotate and transform to display various shapes; and
the second ornament body (3) comprises: a third fixing member (13) attached to the stick (4) in a rotatable manner; a fourth fixing member (14) attached to the stick (4) below the third fixing member (13) and in a rotatable manner; and a plurality of bendable second band-shaped members (10) having one end fixed to the third fixing member (13) and the other end fixed to the fourth fixing member (14); the stick (4) is inserted into holes (16, 18) provided respectively in the centre of the third fixing member (13) and of the fourth fixing member (14); and by rotating the stick (4), the second band-shape members (10) rotate and transform to display various shapes.

2. The stick ornament (1) according to Claim 1, **characterized in that** the second fixing member (12) and the third fixing member (13) are fixed to each other, and the second fixing member (12) and the third fixing member (13) rotate as a single unit.

3. The stick ornament (1) according to Claim 1 or 2, **characterized in that** at least one of either the first band-shaped members (9) or the second band-shaped members (10) are attached in a twisted state.

4. The stick ornament (1) according to any of Claims 1 through 3, **characterized in that** the first (11) and fourth (14) fixing members are attached to the stick (4) in a rotatable manner, while the second (12) and third (13) fixing members are fixed to the stick (4).

5. The stick ornament (20) according to any of Claims

1 through 4, **characterized in that** a third ornament body (23) comprising: a fifth fixing member (25) fixed to the stick (4) in a rotatable manner; a sixth fixing member (26) attached to the stick (4) below the fifth fixing member (25) and in a rotatable manner; and a plurality of bendable third band-shaped members (24) having one end fixed to the fifth fixing member (25) and the other end fixed to the sixth fixing member (26); wherein the stick (4) is inserted into holes (16, 18) provided respectively in the centre of the fifth fixing member (25) and of the sixth fixing member (26); and by rotating the stick (4), the third band-shape members (24) rotate and transform to display various shapes, is arranged on the interior of at least one of the first ornament body (2) and the second ornament body (3).

6. The stick ornament (20) according to Claim 5, **characterized in that** one of either the fifth fixing member (25) or the sixth fixing member (26) of the third ornament body (23) is attached to the stick (4) in a rotatable manner, while the other one is fixed to the stick (4).

7. The stick ornament (20) according to Claim 5 or 6, **characterized in that** the third band-shaped members (24) are attached in a twisted state.

8. The stick ornament (40) according to one of any of Claims 1 through 7, **characterized in that** below the second ornament body (3), at least one additional second ornament body (3) is arranged.

9. The stick ornament (41) according to one of any of Claims 1 through 8, **characterized in that** a LED (43) is built into the second fixture (42), while a switch (45) and a power source (46) for the LED (43) are built into the first fixture (44).

10. The stick ornament (30) of any of Claims 1 through 9, **characterized by** comprising a rotational device (35) that holds and rotates a bottom end of the stick (4), wherein the rotational device (35) has a motor that rotates the stick (4), and a control unit that controls the operation of the motor, the switching between a forward rotation and a reverse rotation of the motor is performed by the control unit, and the stick (4) is rotated in the forward direction and rotated in the reverse direction by the rotational device (35).

11. The stick ornament (30) of any of Claims 1 through 9, **characterized in that** it comprises a rotational device (35) that holds and rotates both ends of the stick(4) in a horizontal state, wherein the rotational device (35) has a motor that rotates the stick (4), and a control unit that controls the operation of the motor, the switching between a forward rotation and a reverse rotation of the motor is performed by the control unit, and the stick (4) is rotated in the forward direction and rotated in the reverse direction in a horizontal state by the rotational device (35).

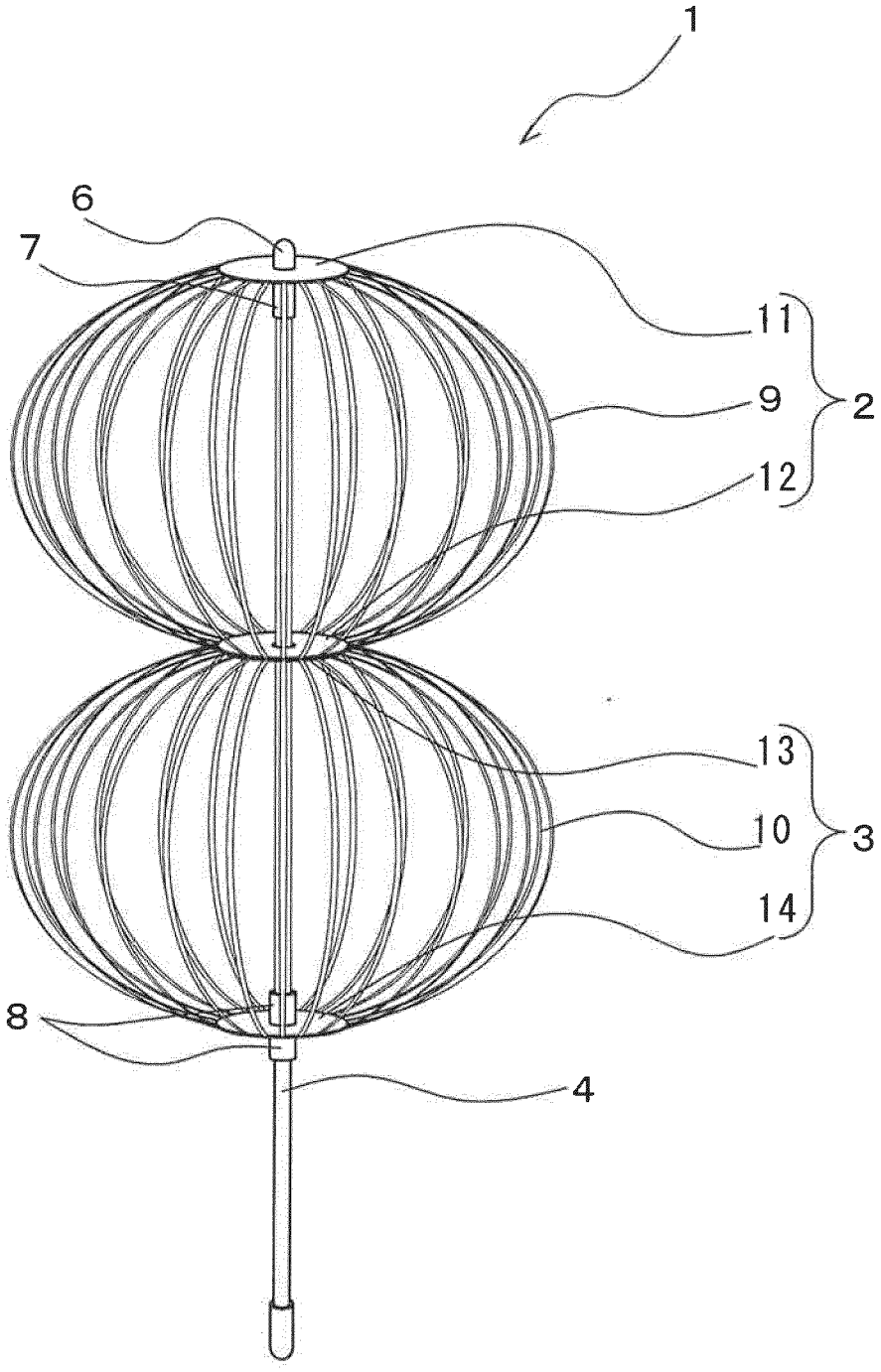
12. The stick ornament (30) according to Claim 10 or 11, **characterized in that** the number of rotations of the motor and the timing of the switching between the forward rotation and the reverse rotation are automatically altered by the control unit.

13. The stick ornament (30) according to one of any of Claims 10 through 12, **characterized in that** the altering of the number of rotations of the motor and the switching between the forward rotation and the reverse rotation are operated by a remote controller (36).

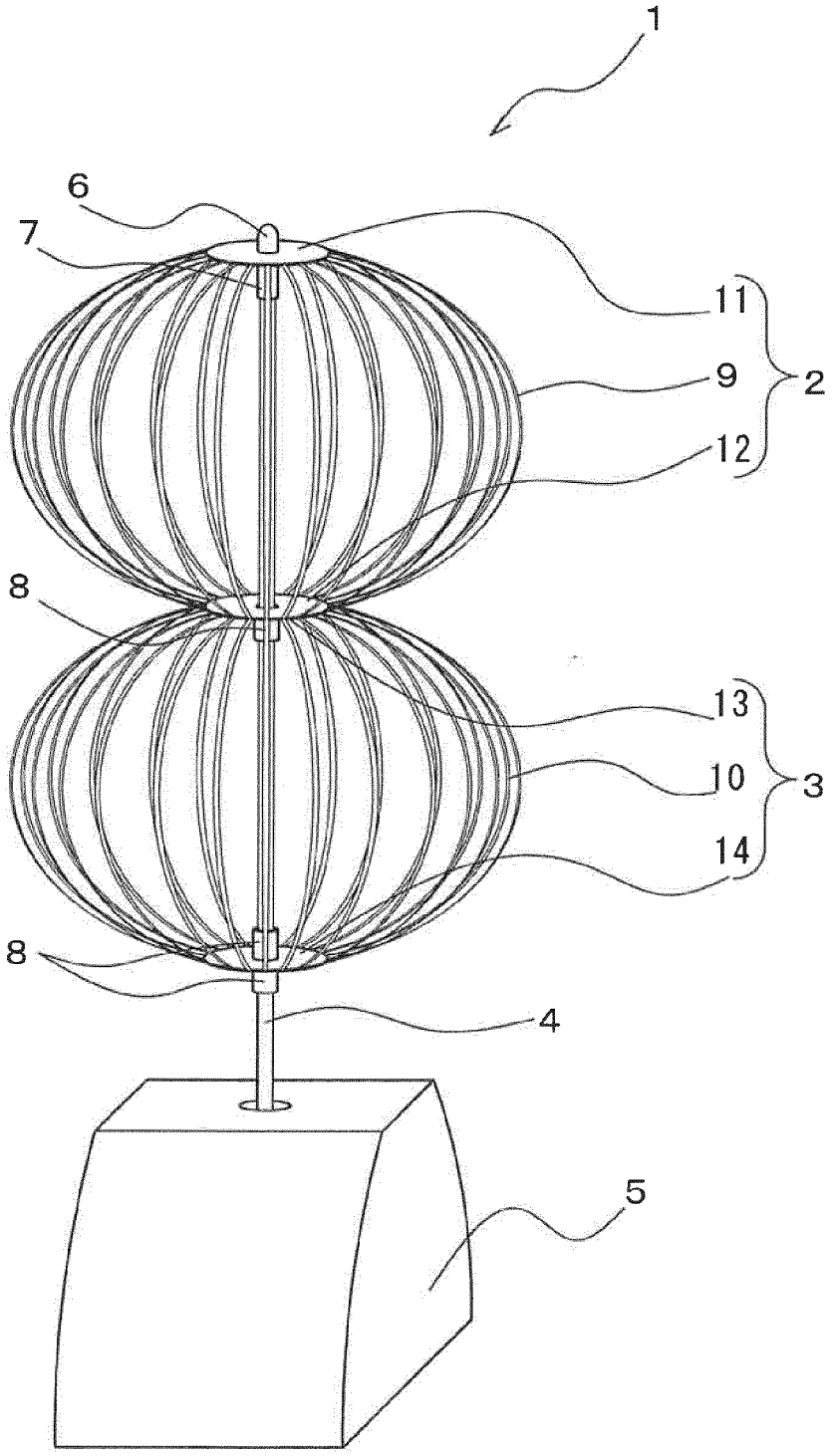
14. The stick ornament (30) according to one of any of Claims 10 through 13, **characterized in that** the bottom end of the stick (4) is held by the rotational device (35) in a detachable manner.

15. An operating method of the stick ornament (30) according to one of any of Claims 10 through 14, wherein
the operating method of the stick ornament (30) comprising a rotational device (35) is **characterized in that**,
if the second fixing member (12) and the third fixing (13) member are fixed to each other, in a state where a twist is applied to the first ornament body (2) or the second ornament body (3), after the stick (4) is rotated by the rotational device (35), as the stick (4) is rotated in the opposite direction, the twist applied to the first ornament body (2) or the second ornament body (3) is relayed to the other ornament body.

[Fig. 1]

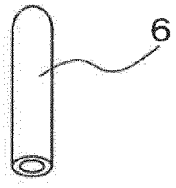


[Fig. 2]



[Fig. 3]

(a)



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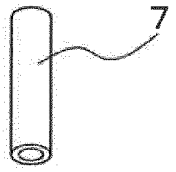
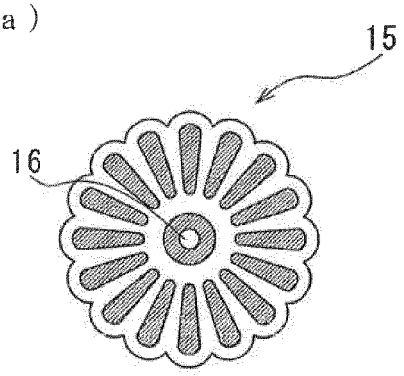


[Fig. 4]

(a)



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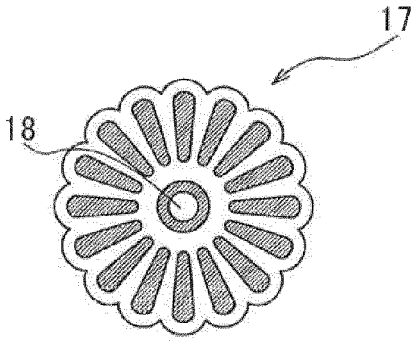
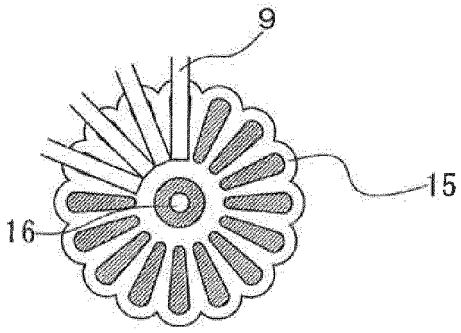
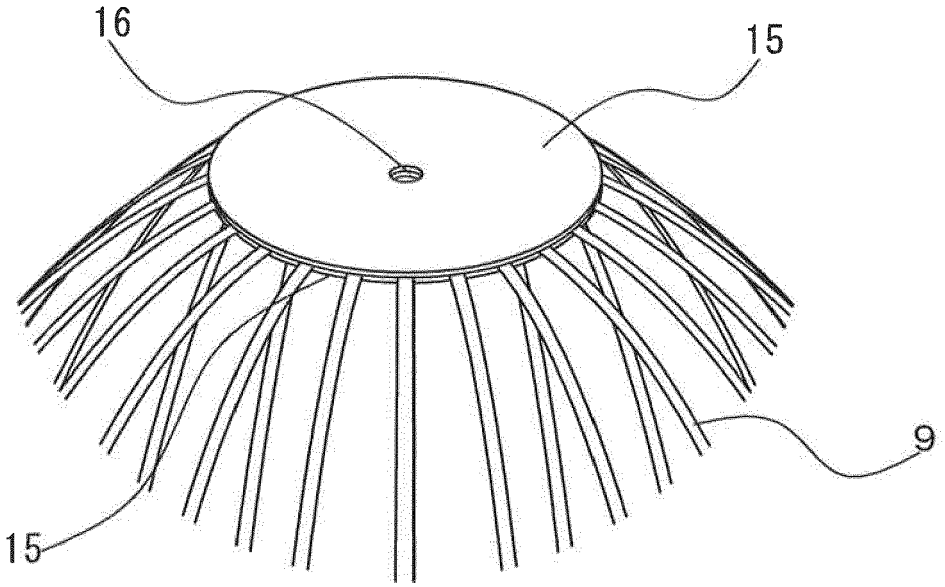
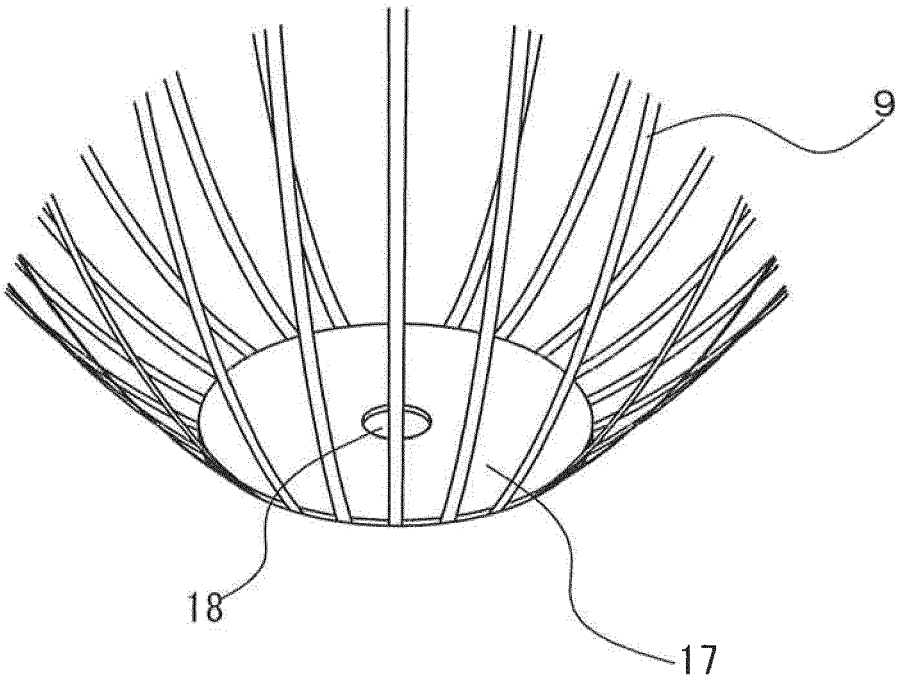


[Fig. 5]

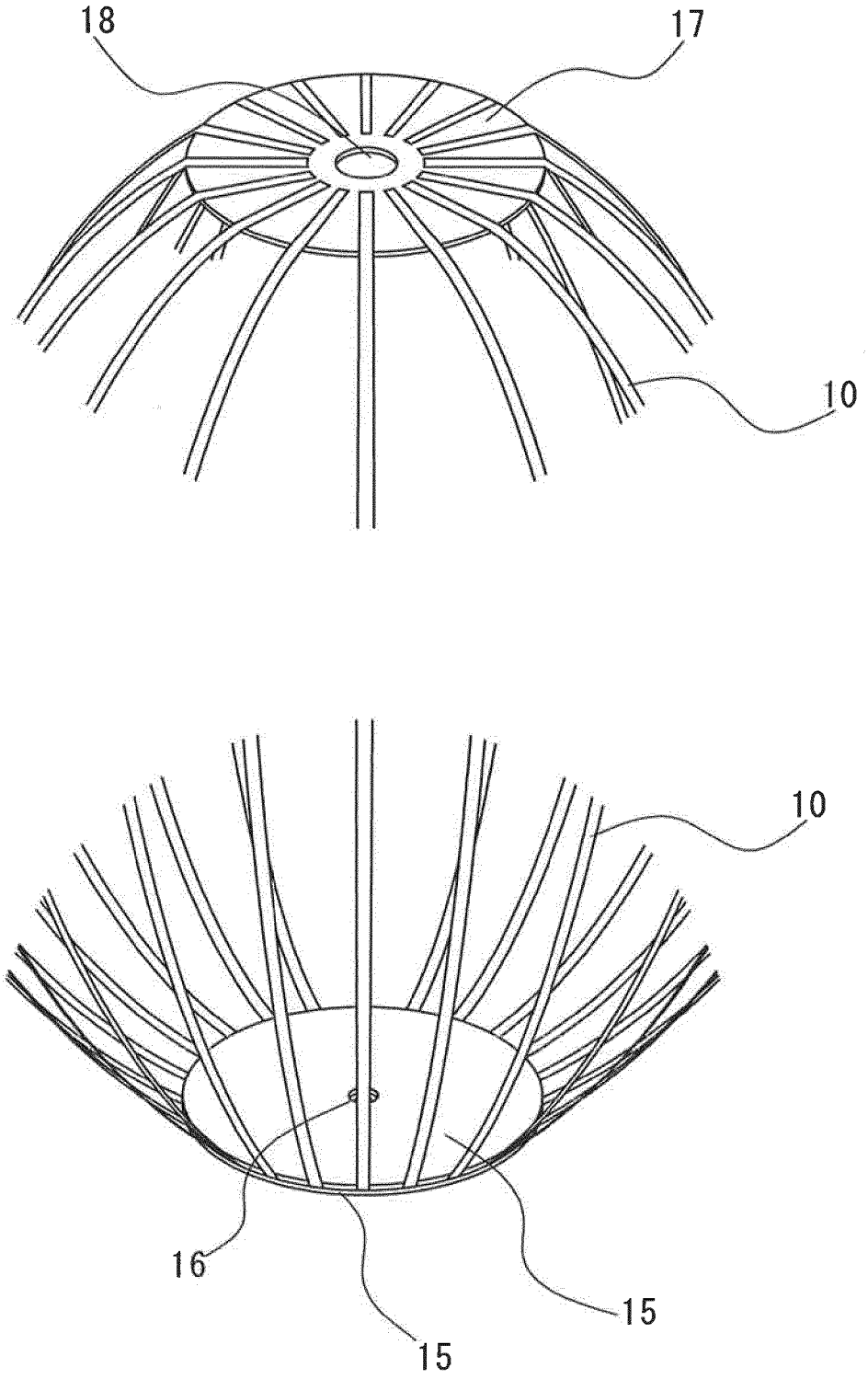


[Fig. 6]

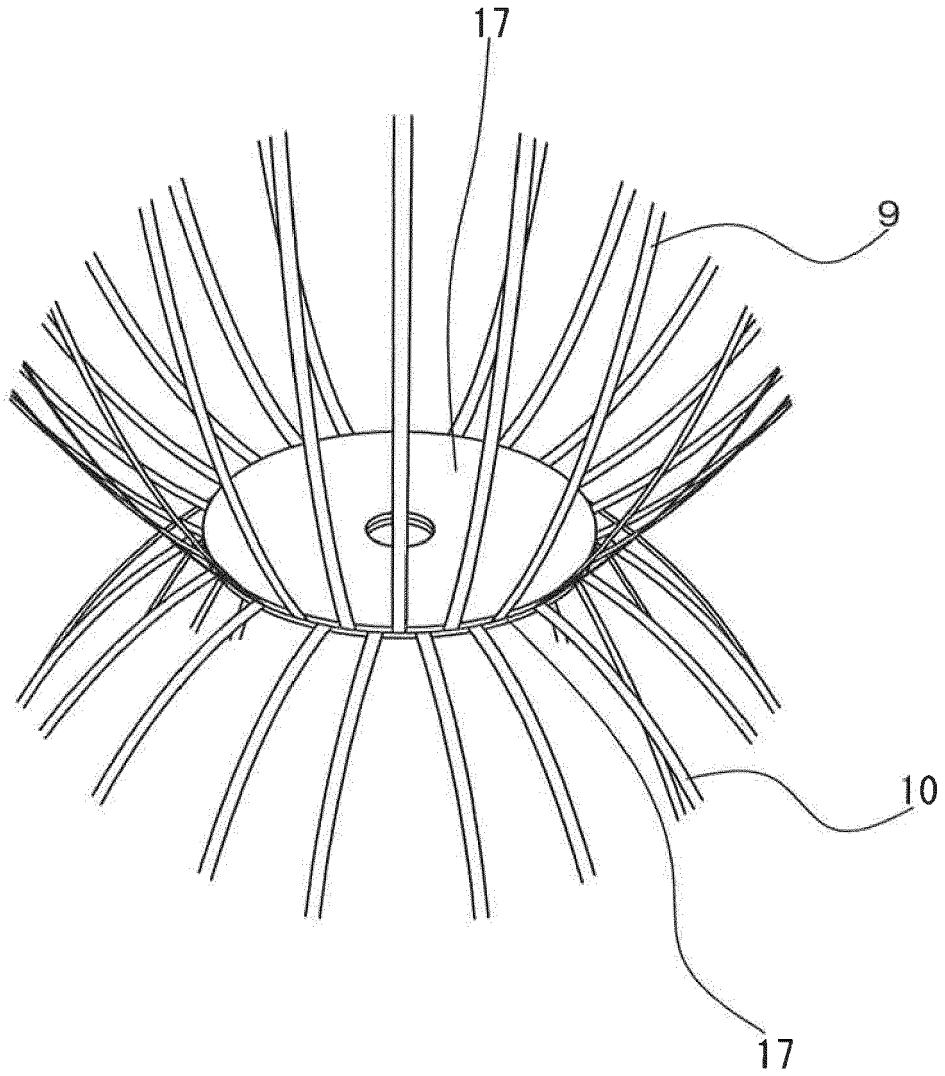




[Fig. 7]

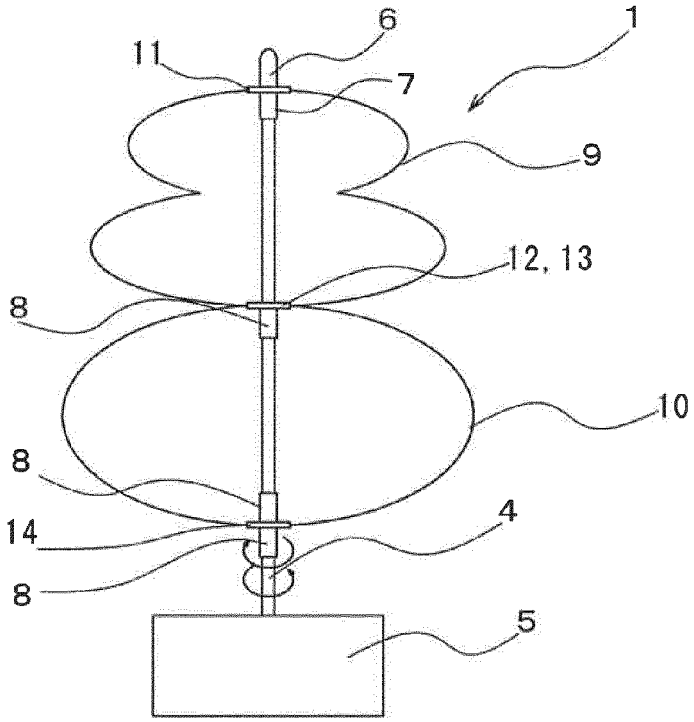


[Fig. 8]



[Fig. 9]

(a)



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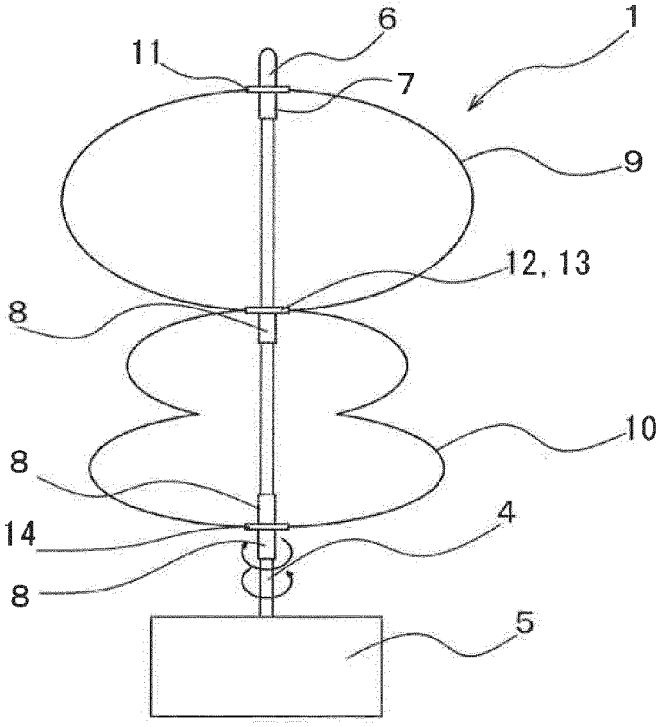
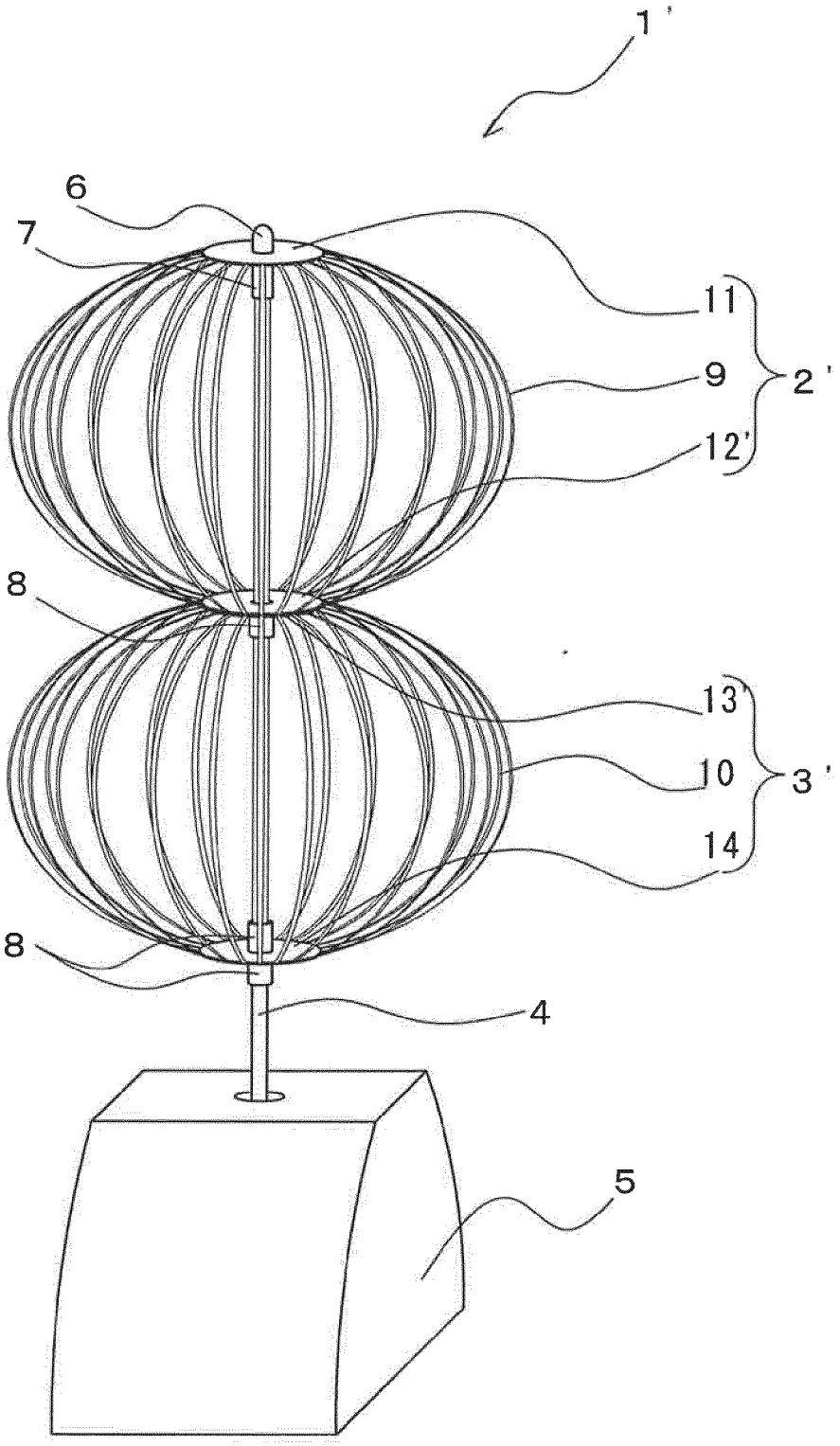
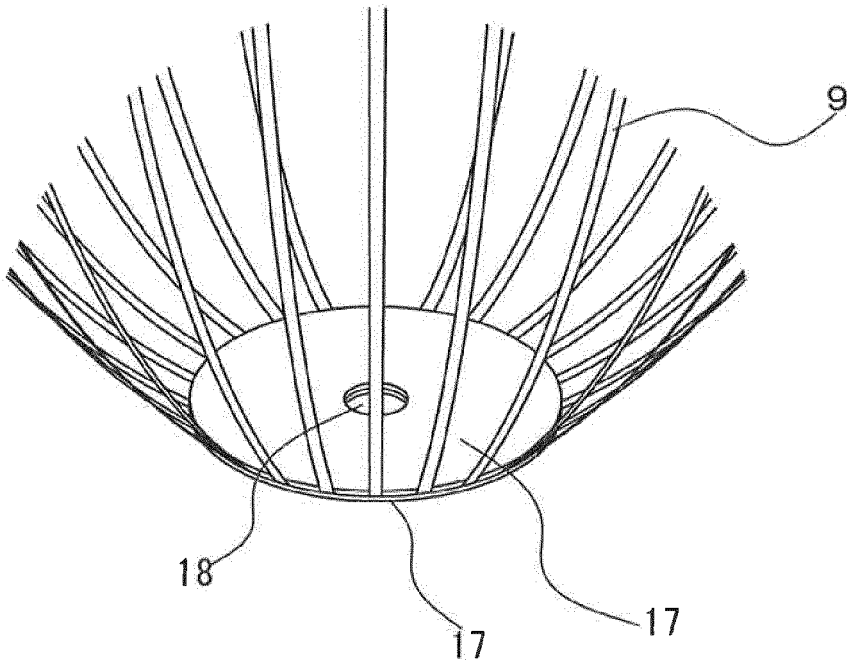


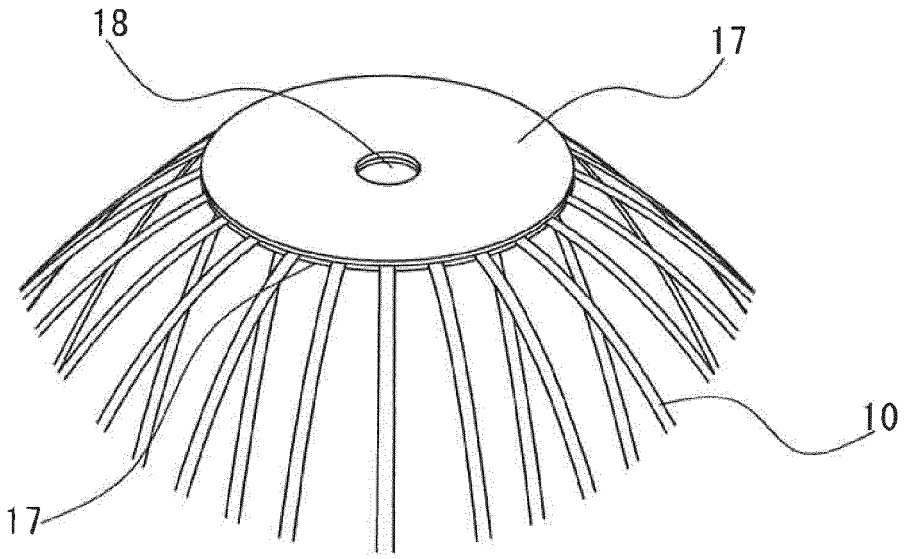
[Fig. 10]



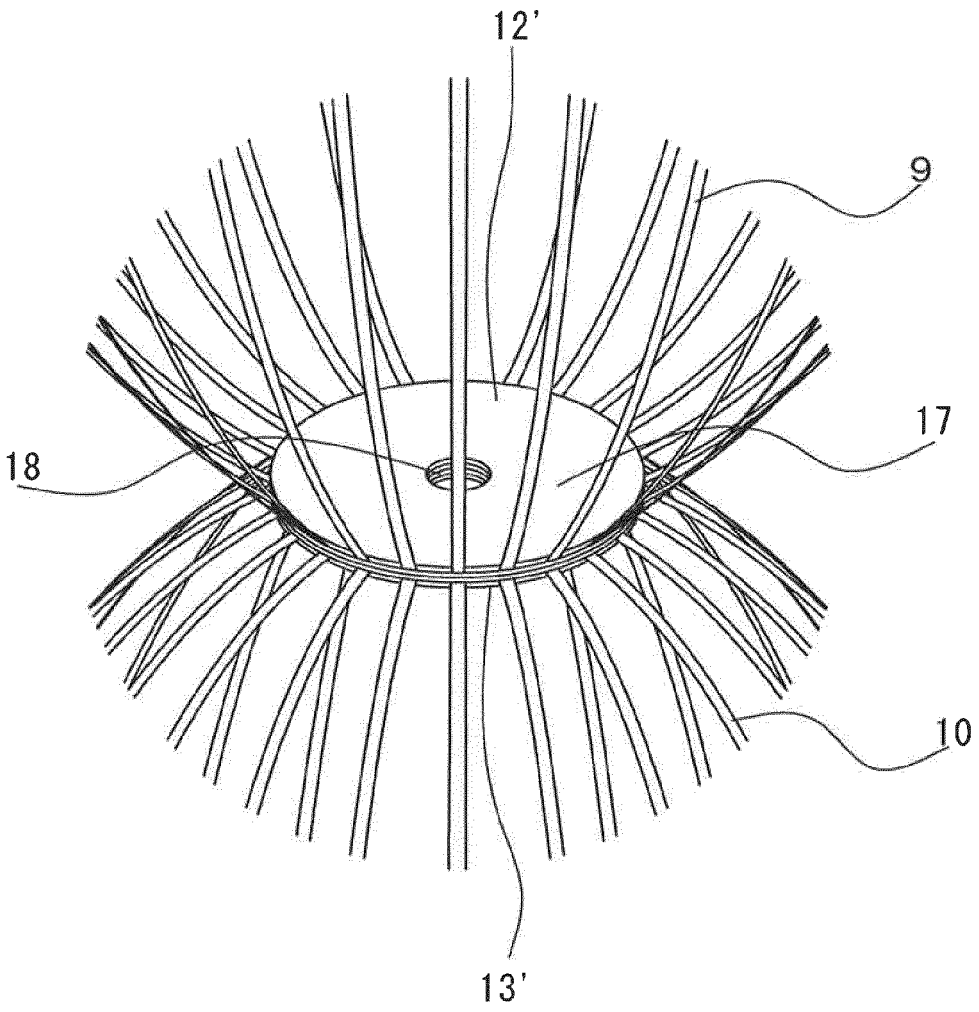
[Fig. 11]



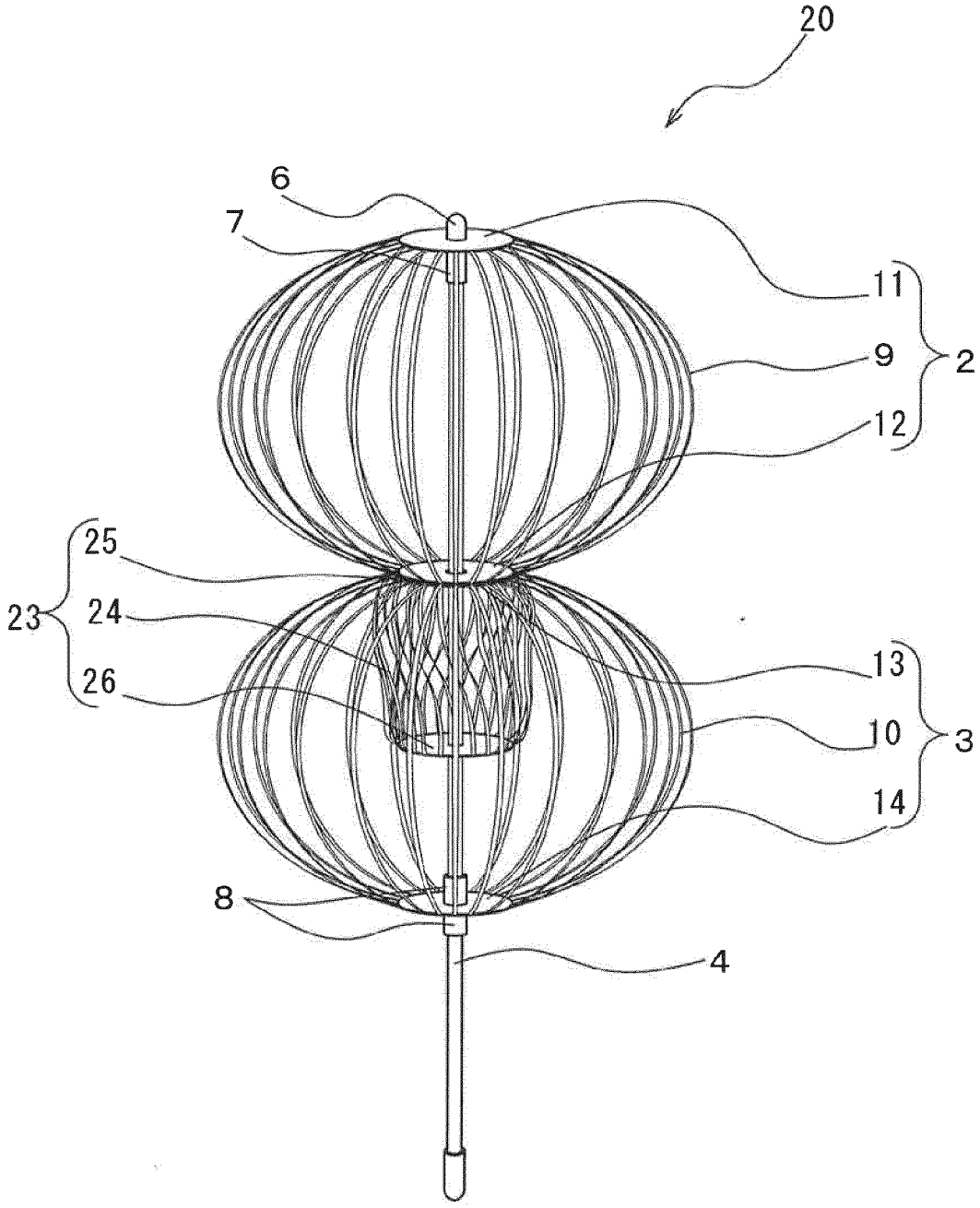
[Fig. 12]



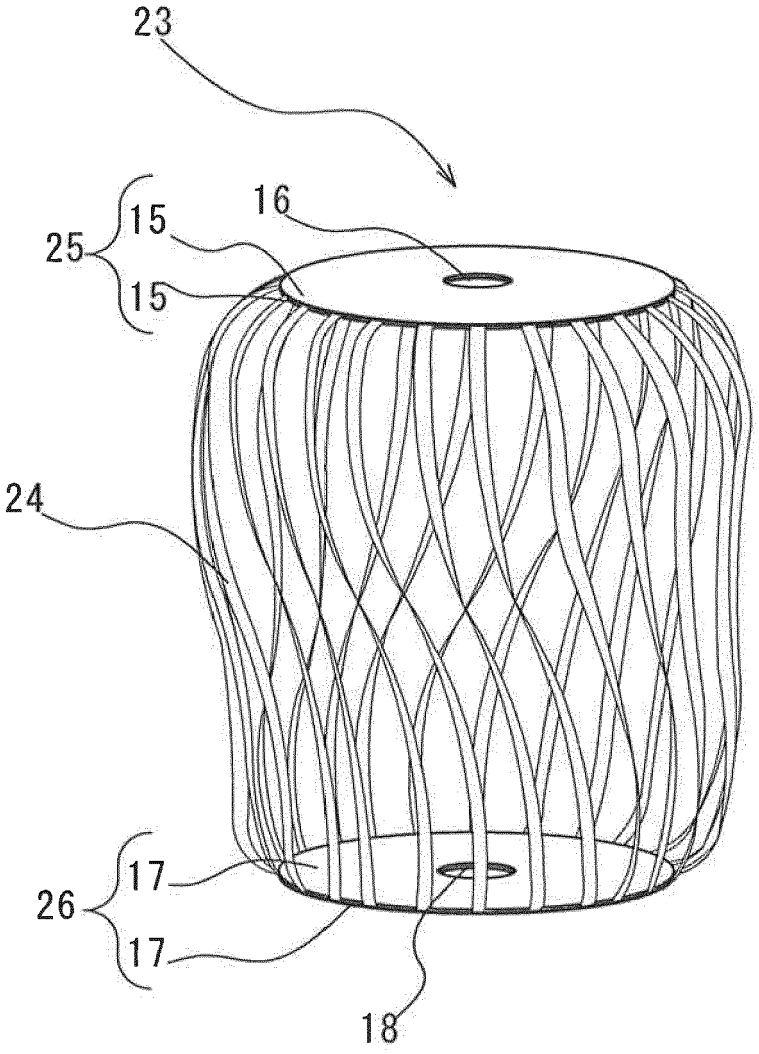
[Fig. 13]



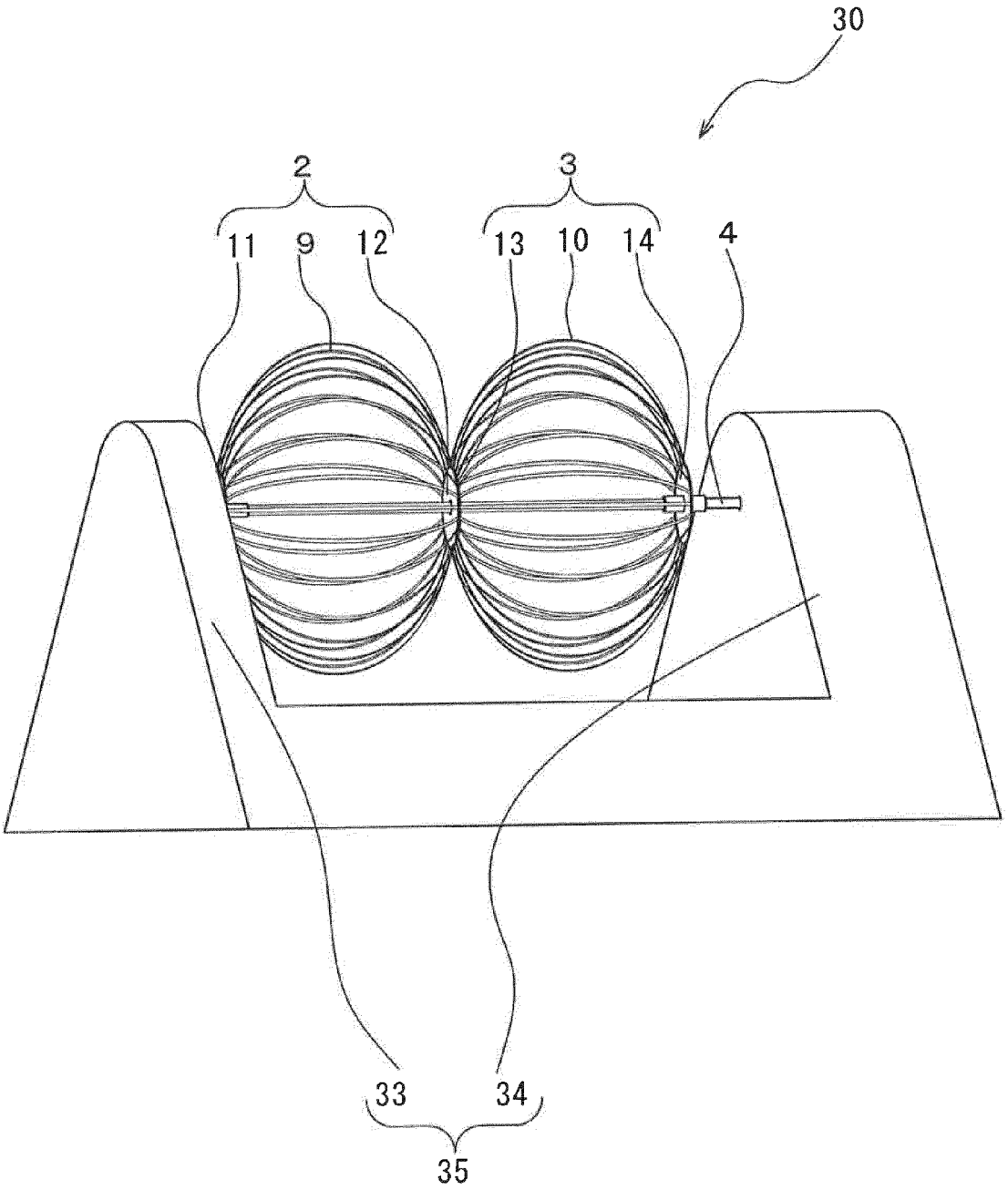
[Fig. 14]



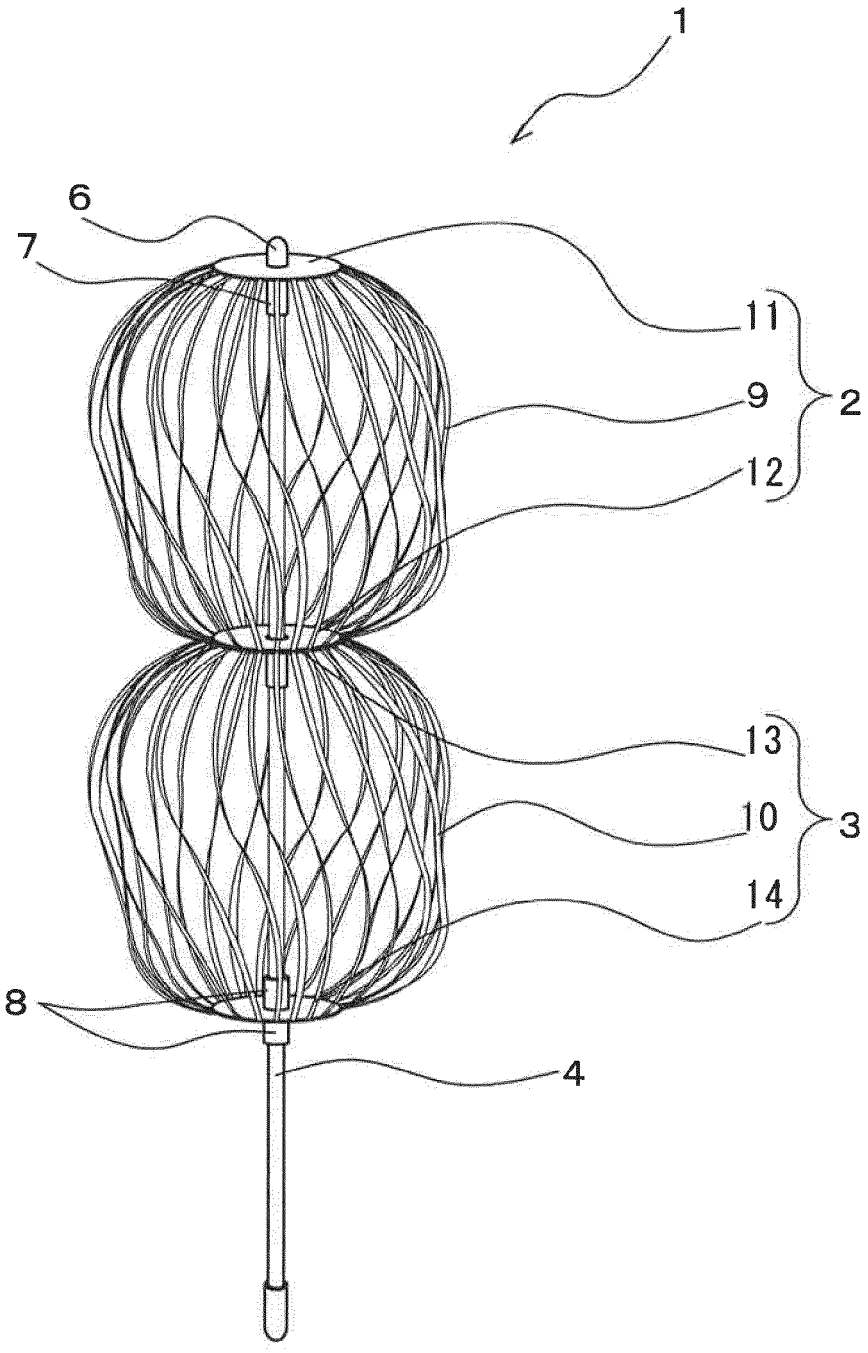
[Fig. 15]



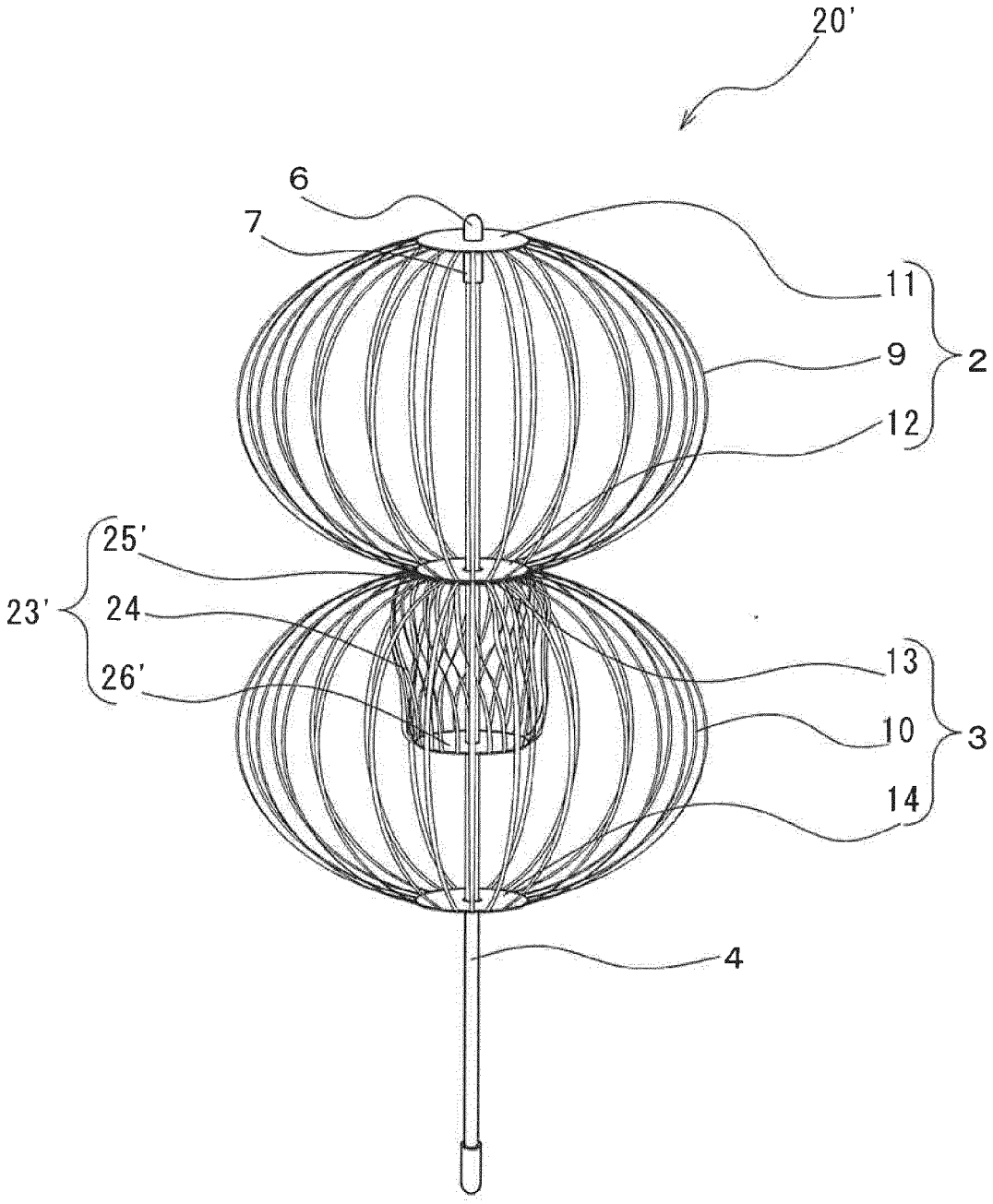
[Fig. 16]



[Fig. 17]

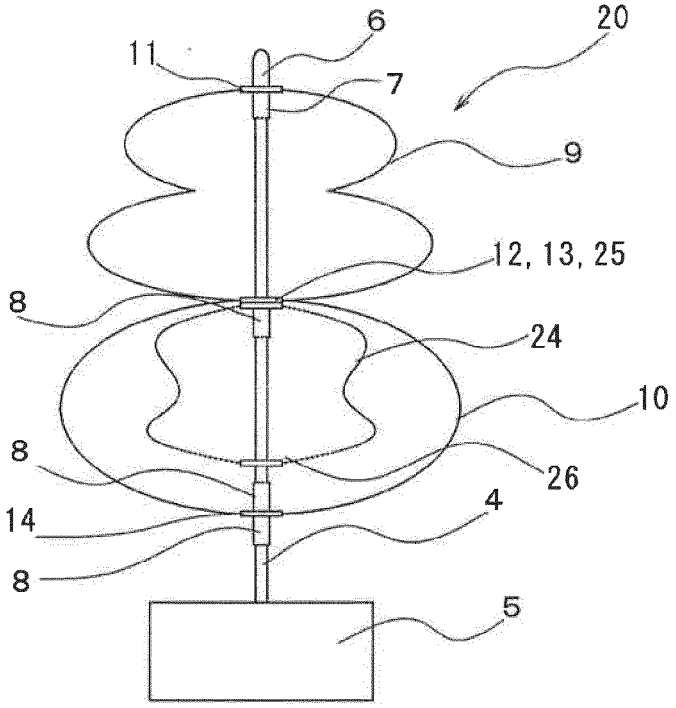


[Fig. 18]



[Fig. 19]

(a)



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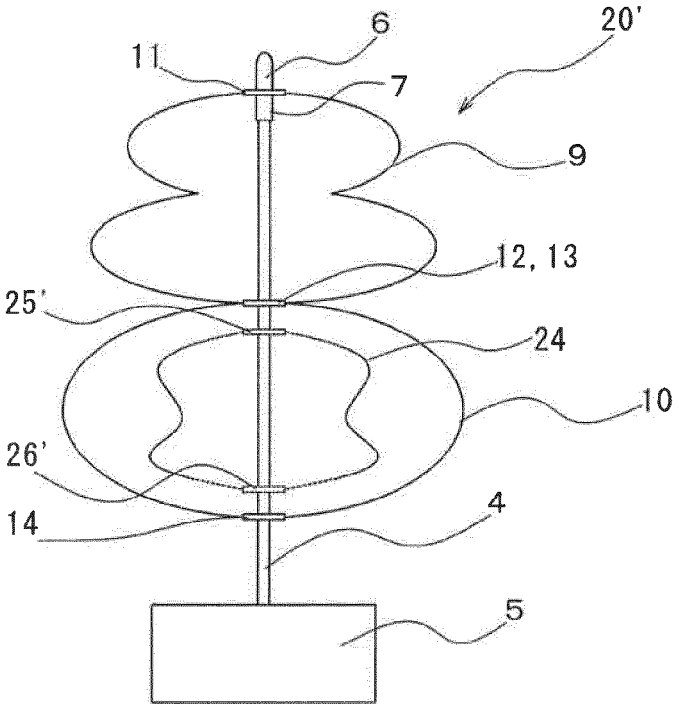
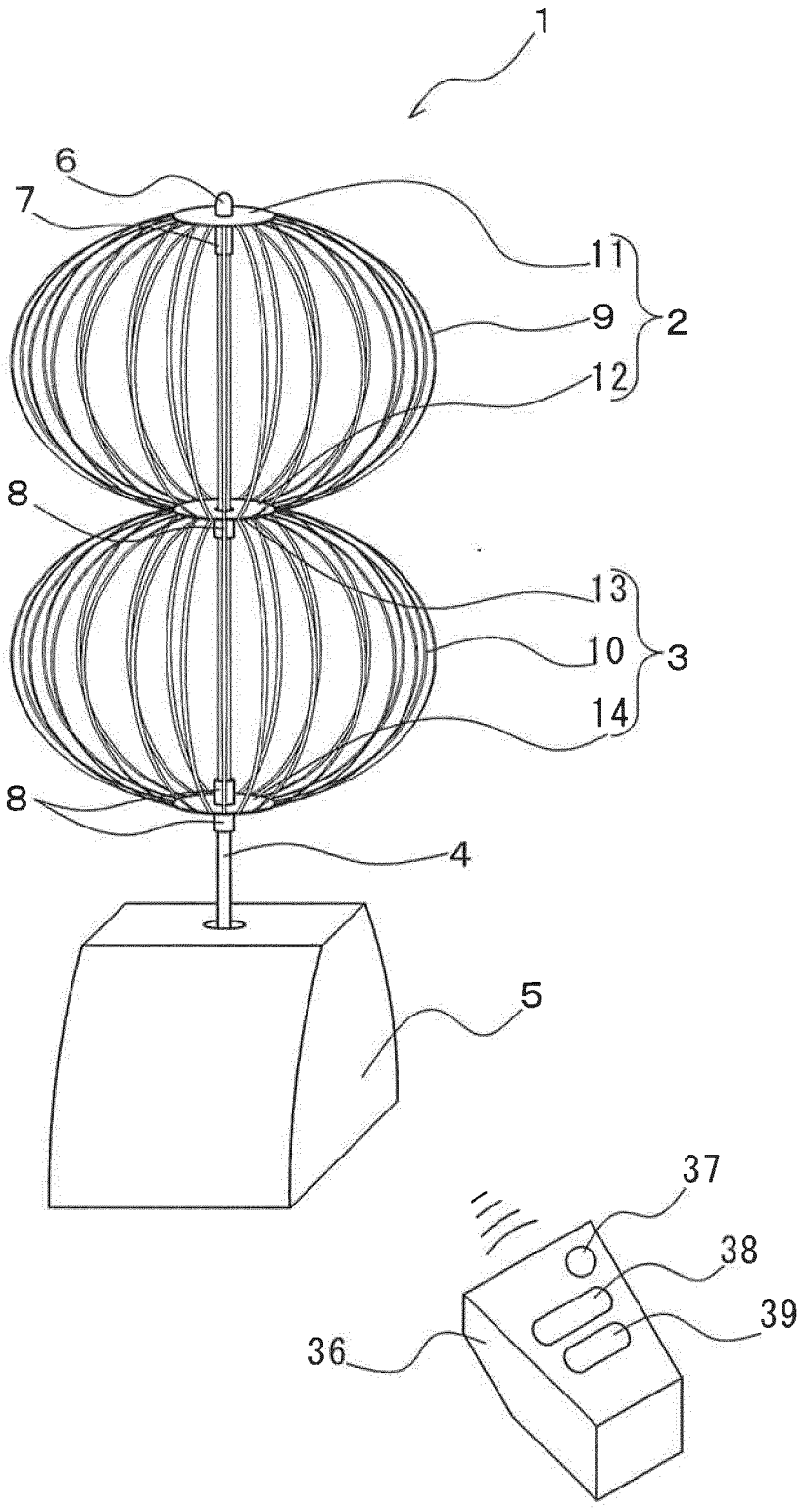
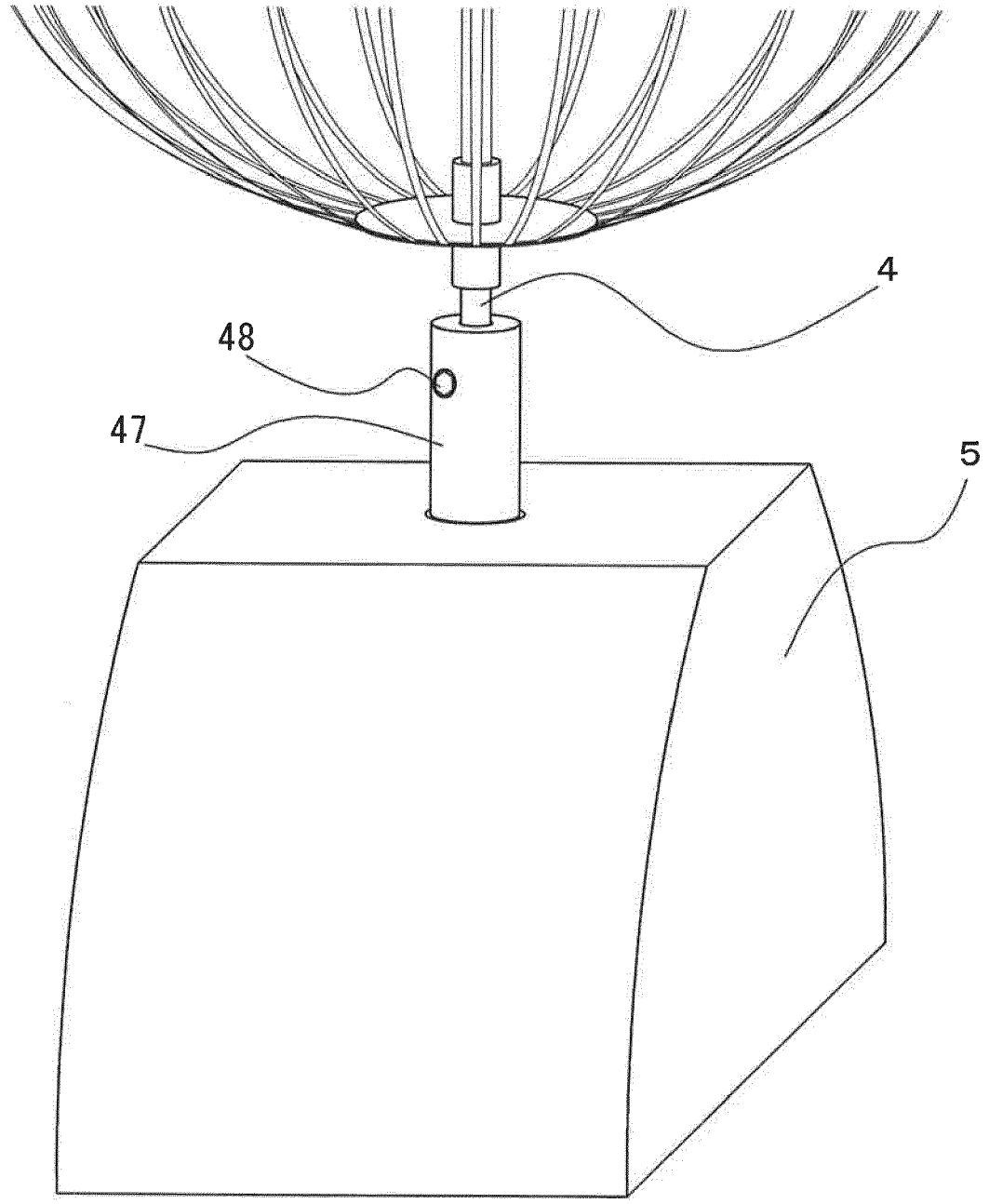


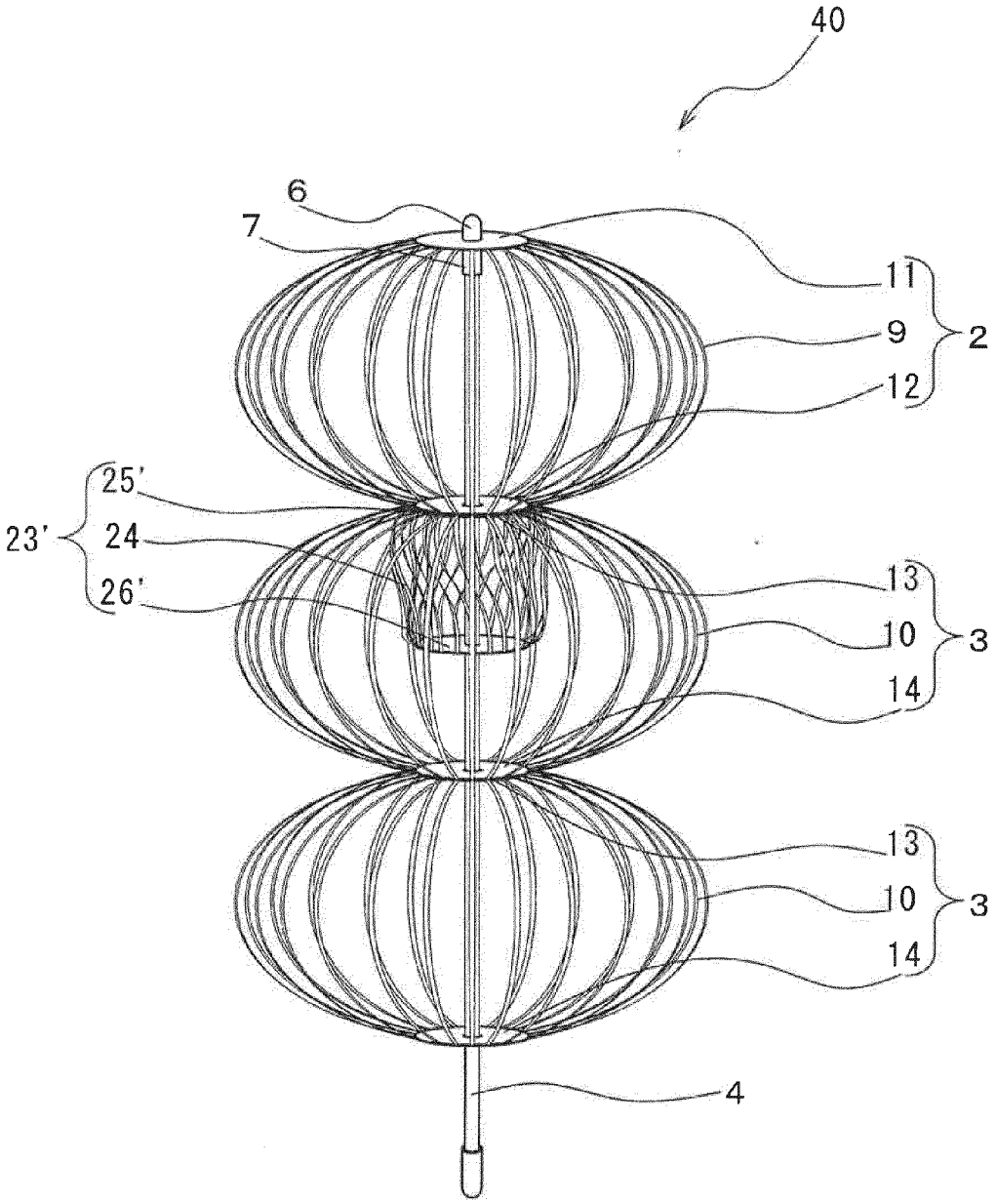
[Fig. 20]



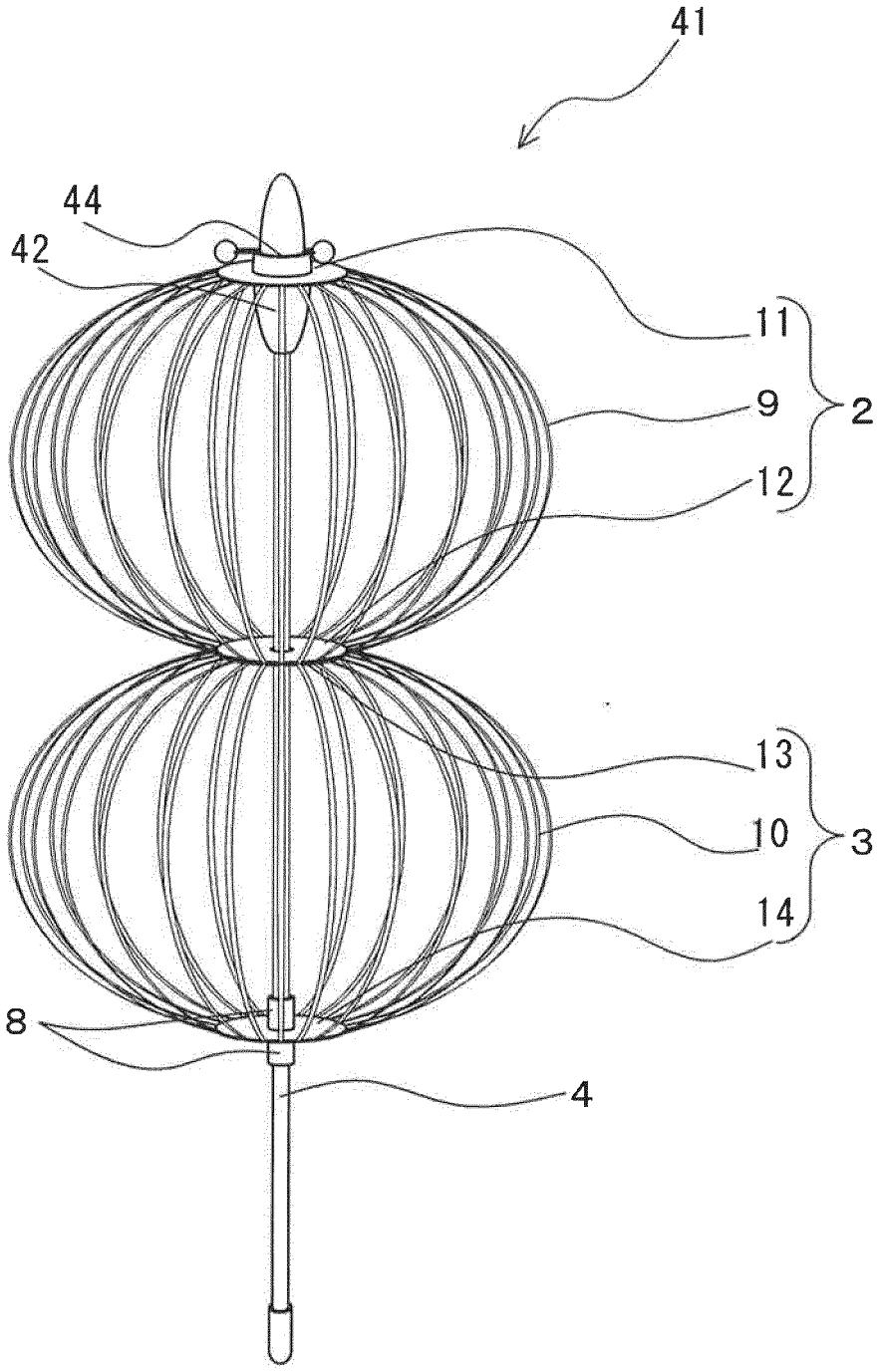
[Fig. 21]



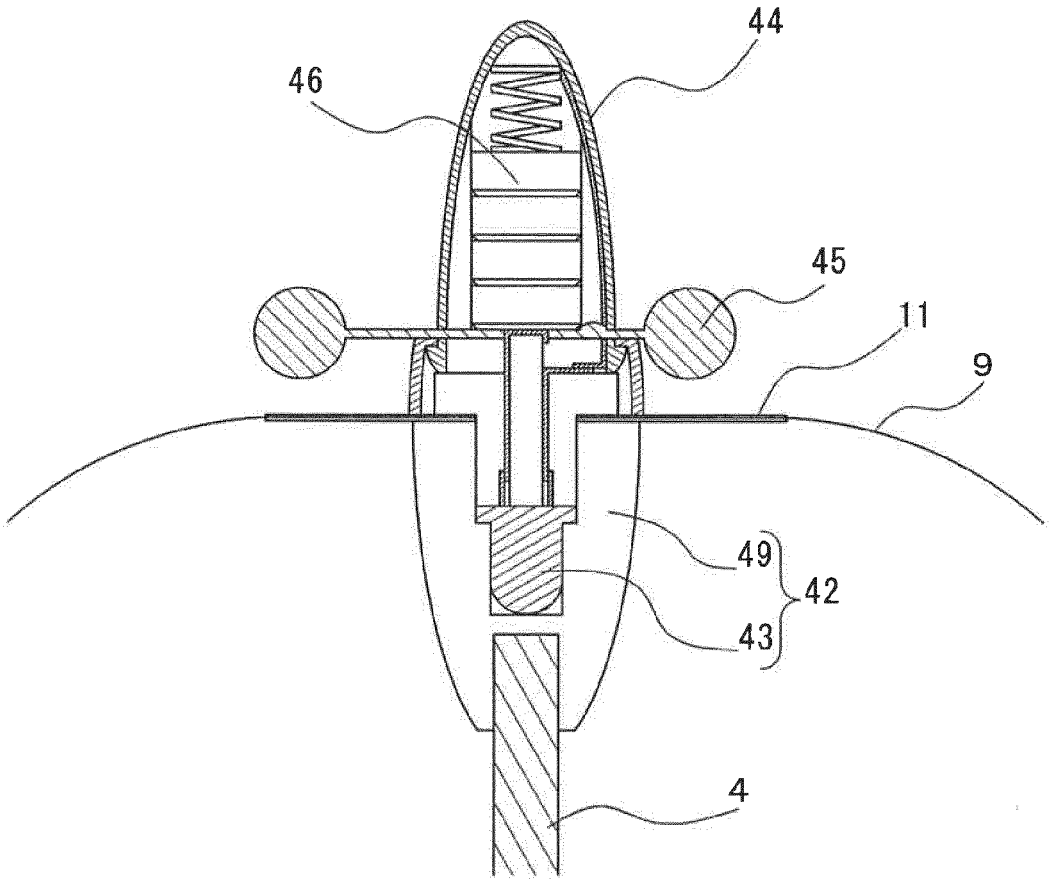
[Fig. 22]



[Fig. 23]



[Fig. 24]



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EUROPEAN SEARCH REPORT

Application Number
EP 13 17 8272

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	CN 2 417 371 Y (GUAN MINGYI [CN]) 31 January 2001 (2001-01-31) * page 3, paragraph 4; figure 1 * -----	1-15	INV. A63F9/06 G09F11/08 G09F11/04
A	US 2004/096601 A1 (RAYMOND MARK A [US]) 20 May 2004 (2004-05-20) * page 2, paragraph 12-13 * * page 3, paragraph 23 - paragraph 24 * -----	1-15	G09F11/06
A	US 5 695 346 A (SEKIGUCHI YOSHI [US] ET AL) 9 December 1997 (1997-12-09) * abstract; figures 43-48 * -----	1-15	
A	US 1 183 763 A (PERITZ BERNARD [US]) 16 May 1916 (1916-05-16) * the whole document * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC) A63F G09F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	18 October 2013	Brumme, Ion

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18-10-2013

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