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(57) **ABSTRACT**

When the supporting unit is supported away from the flame unit by a predetermined distance in the opening of the flame unit, the rotational stick and are inserted in the rotatable state into the reentrant unit and described above. The rotational stick and support the supporting unit in the vicinity of a center of a center of gravity of the supporting unit and the upper part end in up and down direction. Thereby it is possible to keep the attitude in which the table surface of the jewelry unit faces to the front.

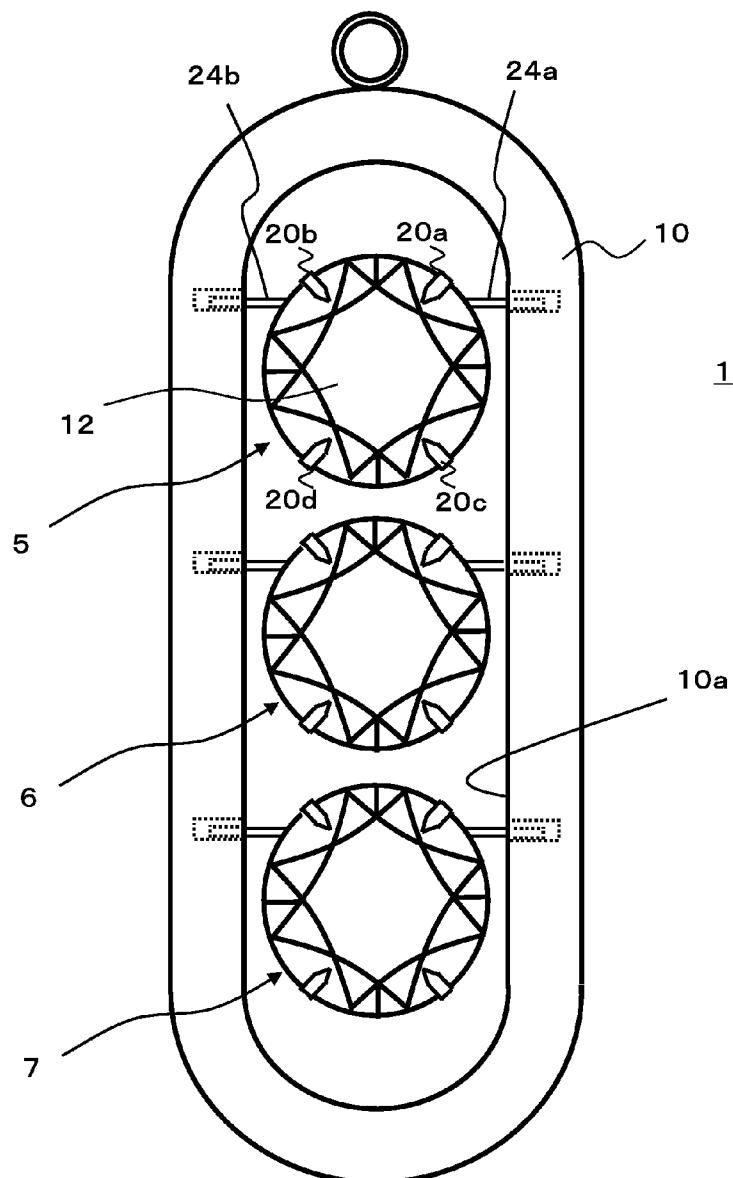
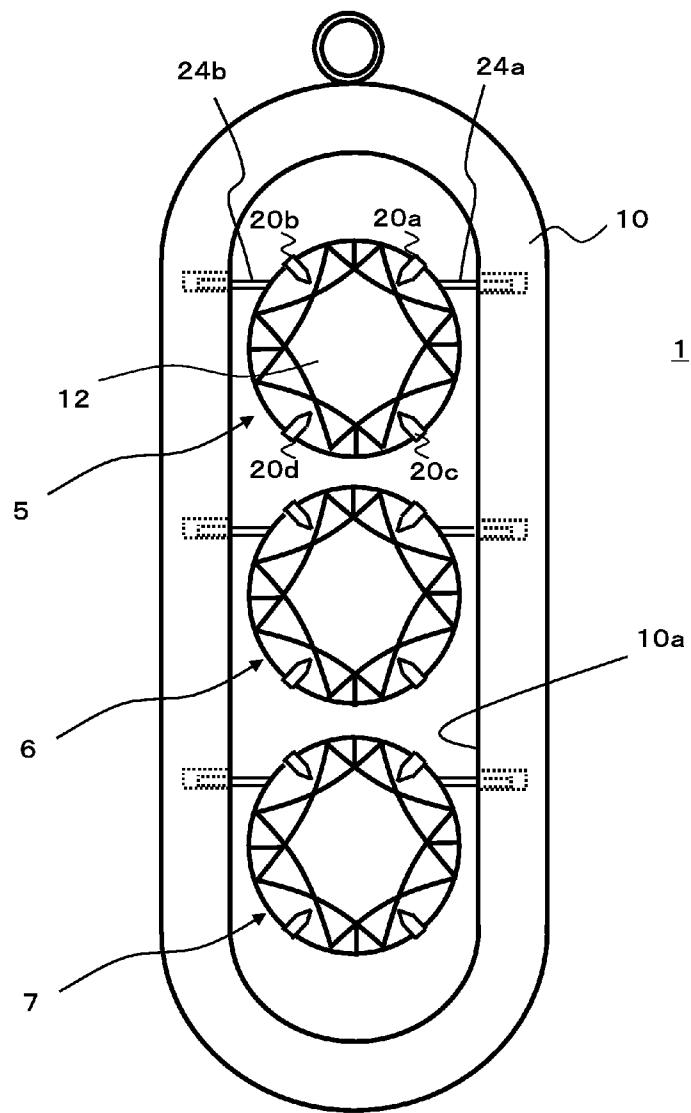


Fig. 1



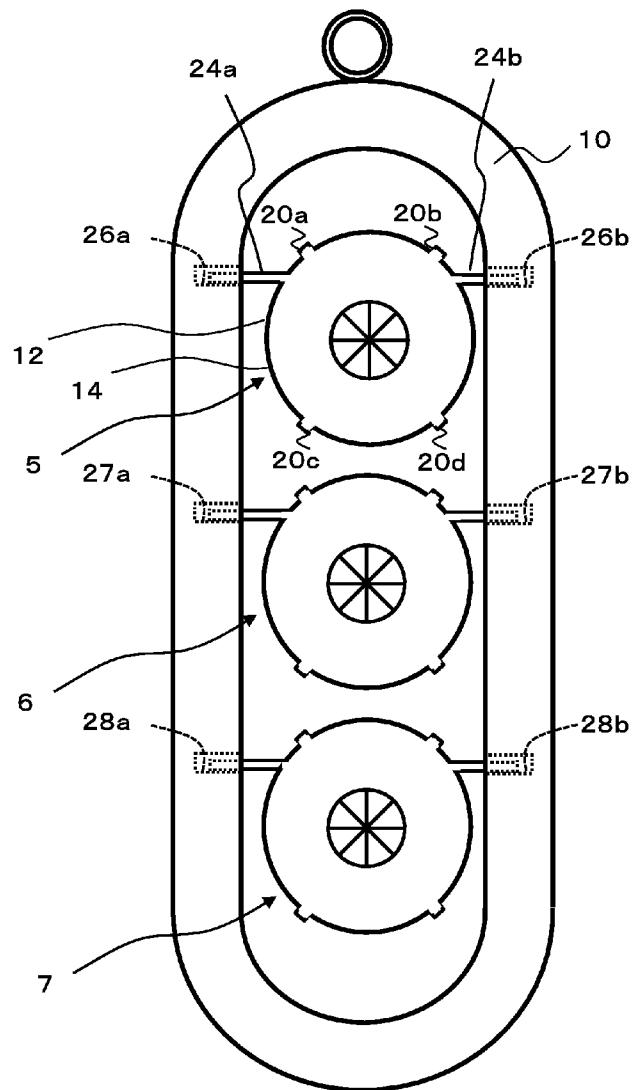
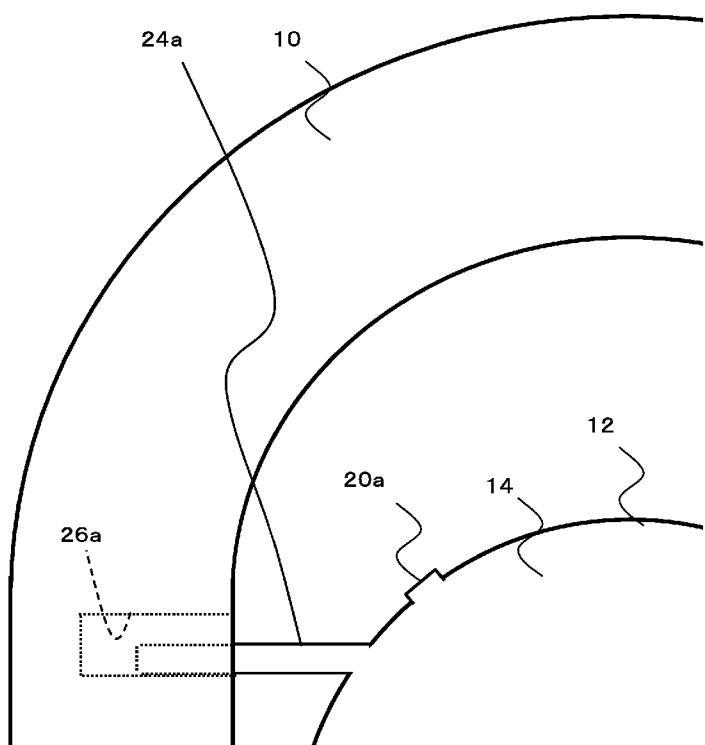
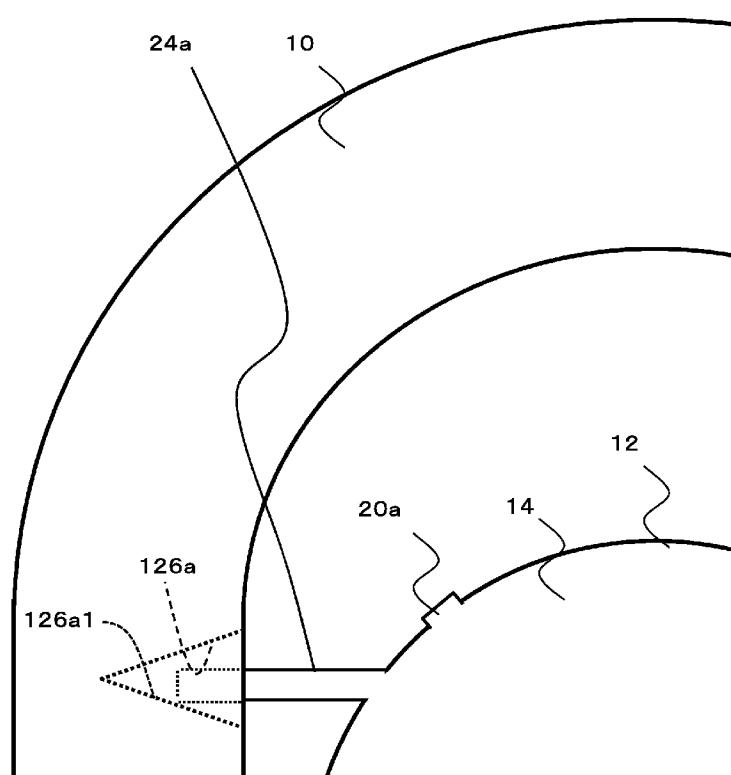
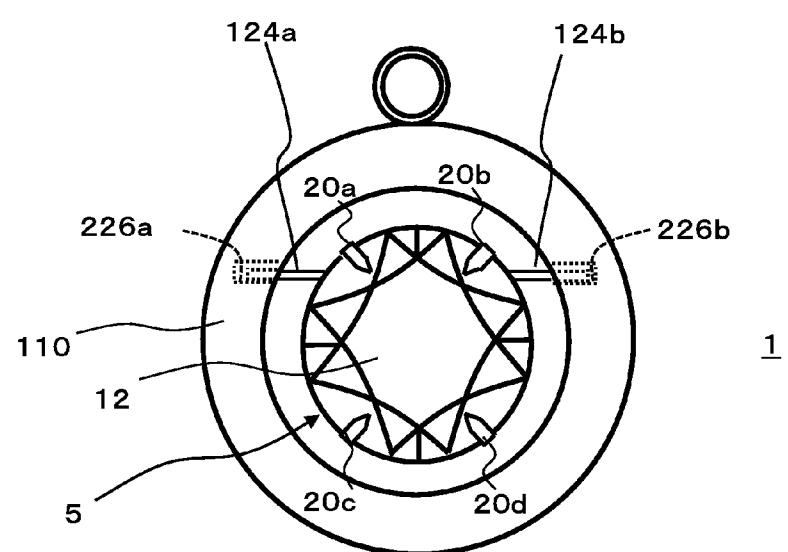
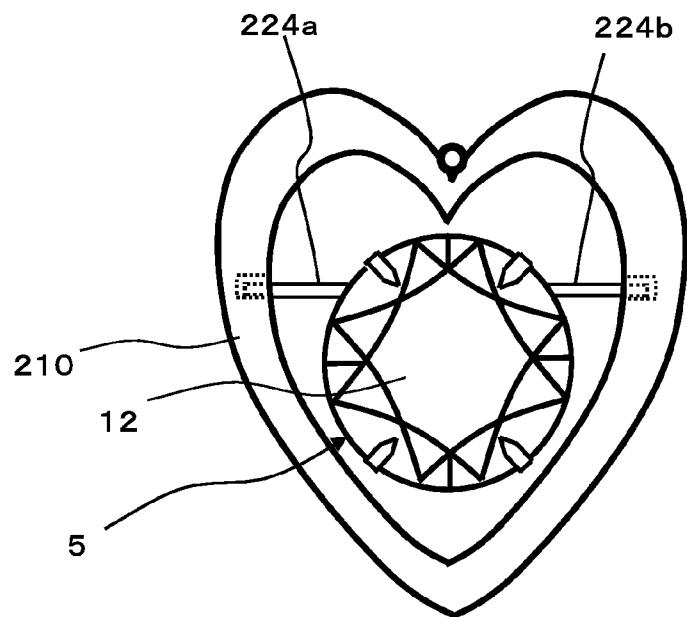
**Fig. 2**

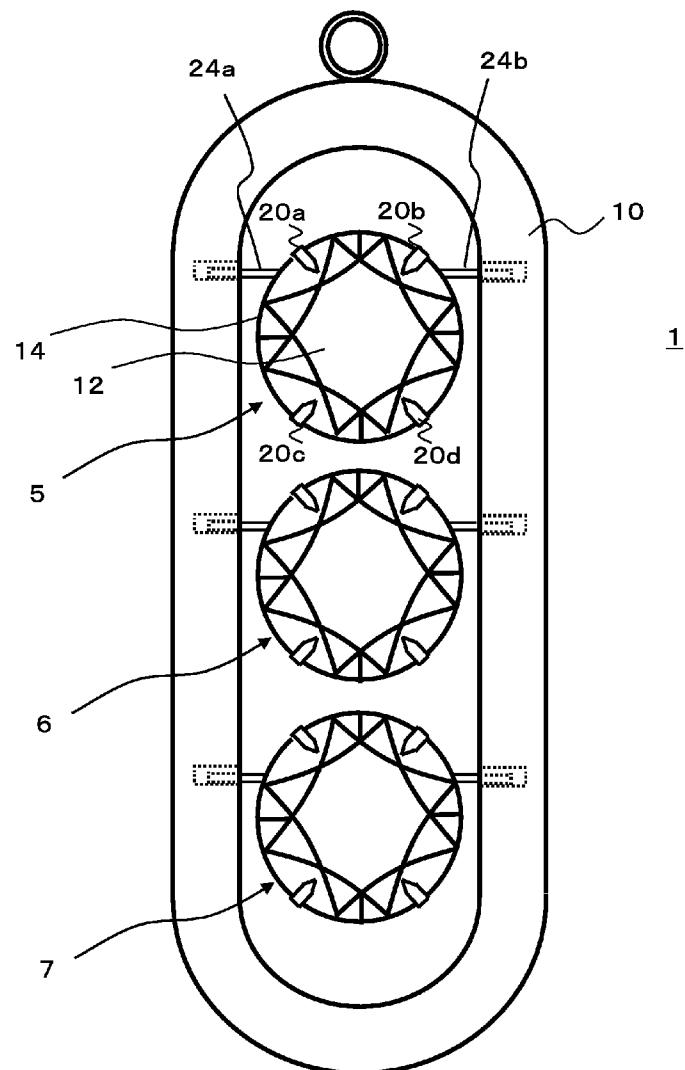
Fig. 3

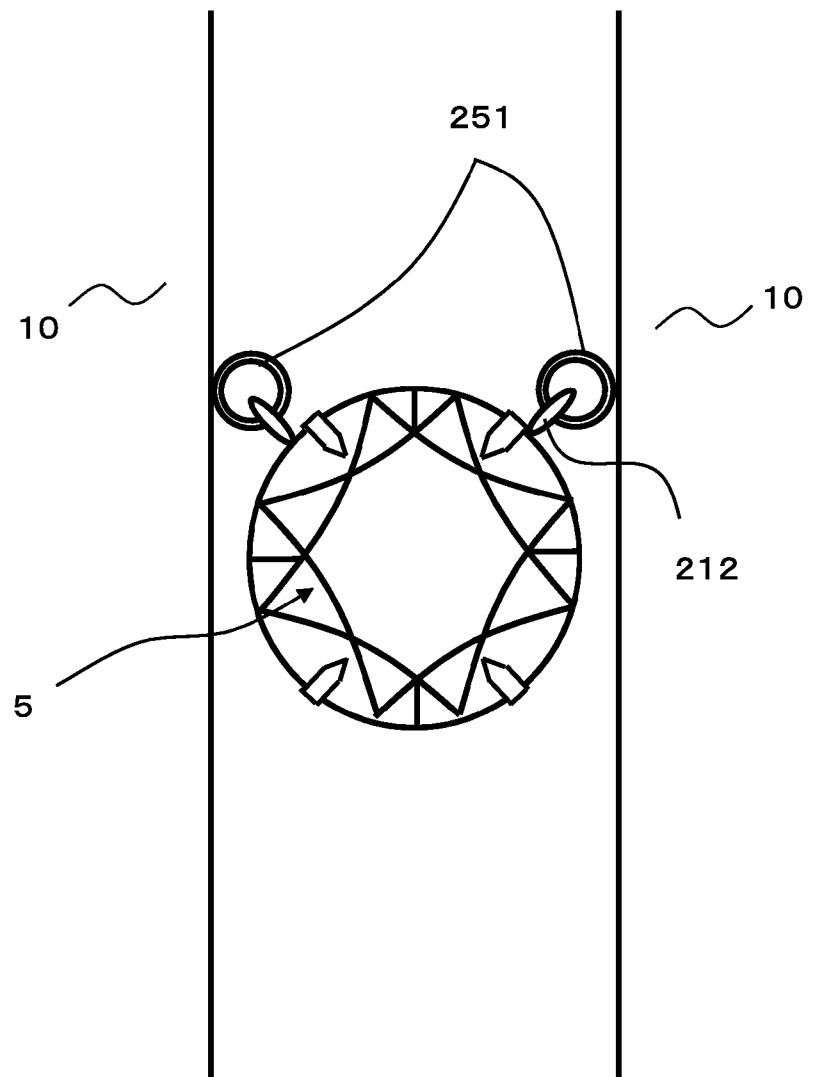


**Fig. 4**

**Fig. 5**

**Fig. 6**

**Fig. 7**

**Fig. 8**

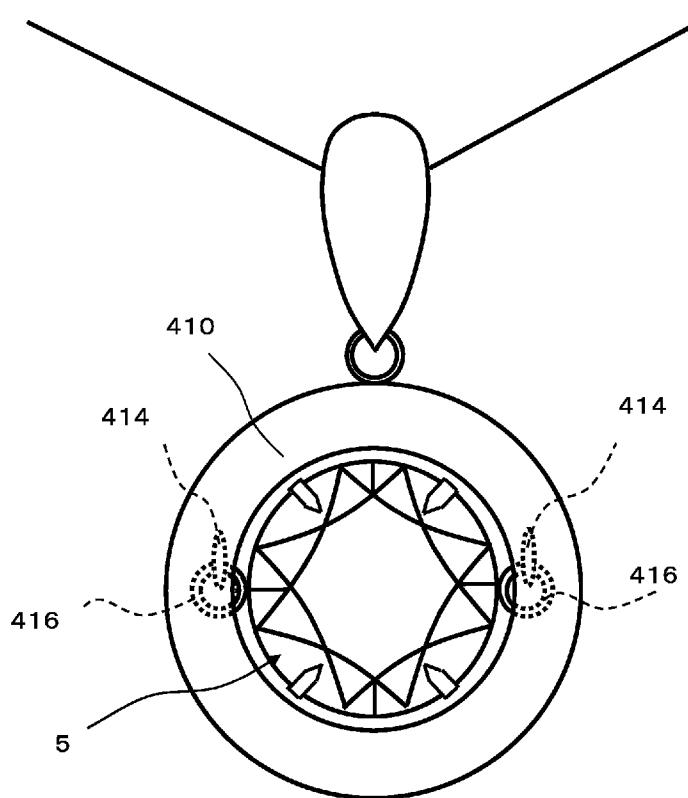
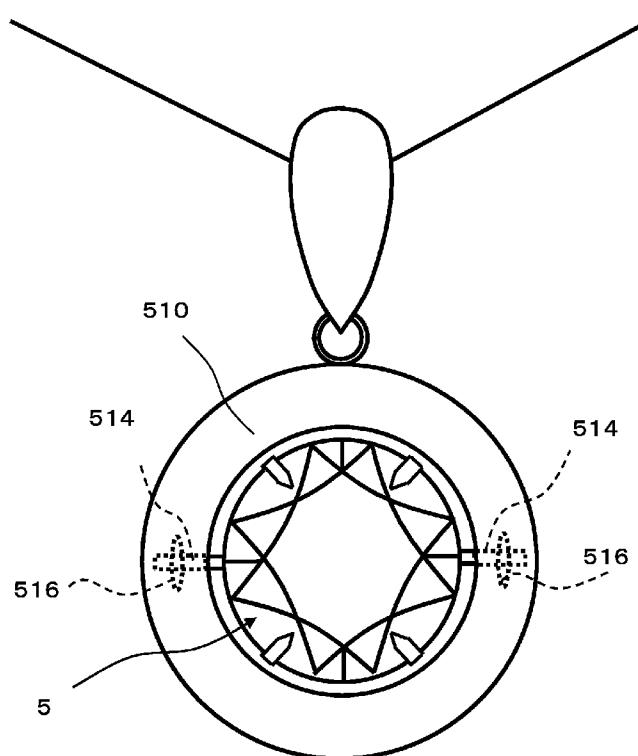
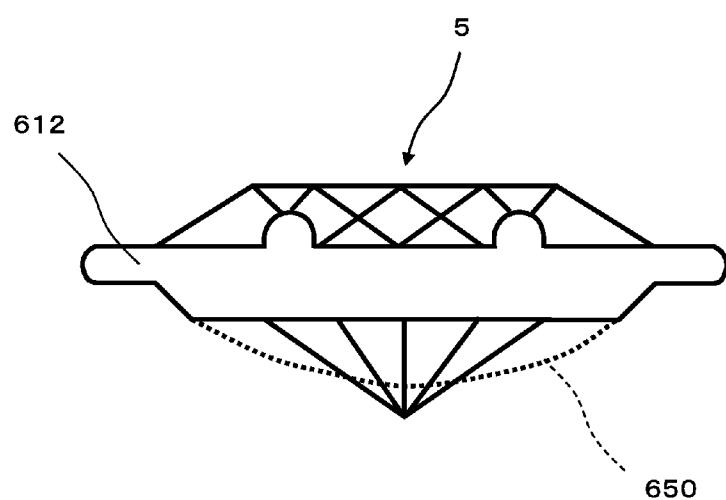
**Fig. 9**

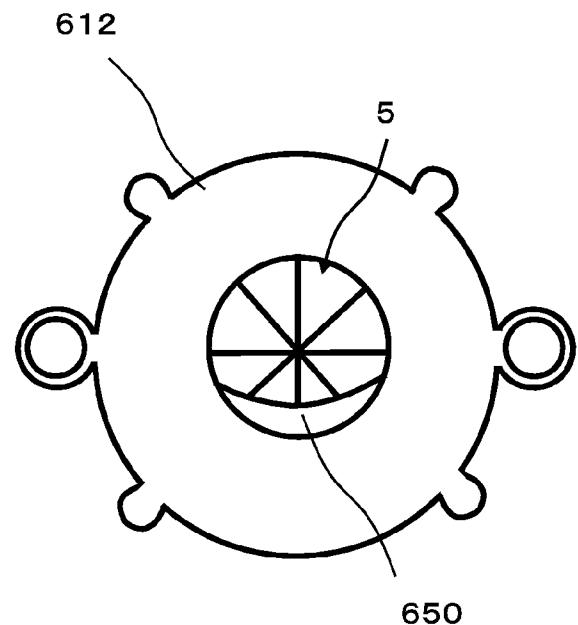
Fig. 10

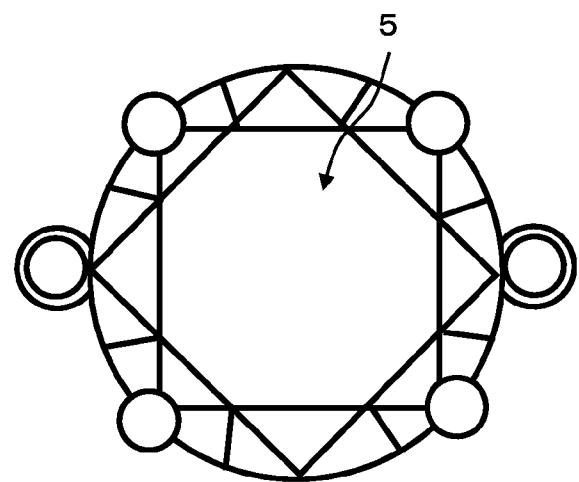


**Fig. 11**



**Fig. 12**



**Fig. 13**

**PERSONAL ORNAMENT****TECHNICAL FIELD**

[0001] The present invention relates to a personal ornament making a supporting unit which supports a jewelry swing.

**BACKGRAND ART**

[0002] For example, there are rings supporting the support unit which fixed the jewelries such as diamonds in possible of swing state. It is possible to show a diamond to shine by making the diamond swing in comparison with the case without making the diamond swing.

[0003] Such rings set the diamond so that an axis enabling swing goes along a center neighborhood in the plane direction of the table surface (the front).

**DISCLOSURE OF INVENTION****Technical Problem**

[0004] By the way, when going to let the diamond swing in a pendant, etc. which supports a diamond, there is a problem that a table side of the diamond does not turn to the front when using the prior art.

[0005] This invention is made in view of this situation, and purpose is to provide a personal ornament having a structure supporting so that the jewel swings by movement in a state that the table side of the jewelry such as a diamond, etc at the time of being wearied and which can support stably the jewelry by a position making its table side face front (outside).

**Technical Solution**

[0006] To solve the problem of the prior art and to achieve the purpose, the personal ornament of the present invention comprises an ornament unit, a frame unit set with a distance from the ornament unit, and a joint unit jointing the frame unit and the ornament unit at upper part position for a center of gravity of the ornament unit so that the ornament unit swings by vibration.

[0007] Preferably, the joint unit of the personal ornament of the present invention joins the body of the ornament unit and the frame unit, or joins the holding unit of the ornament unit holding the body of the ornament unit and the frame unit.

[0008] Preferably, the joint unit of the personal ornament of the present invention comprises a projection unit which is set on one of the ornament unit and the frame unit, and a reentrant unit or a hollow unit which joins to the projection unit and which is set on another of the ornament unit and the frame unit.

[0009] Preferably, the joint unit of the personal ornament of the present invention comprises a first ring unit which is set on one of the ornament unit and the frame unit and a second ring unit which joins to the first ring unit and which is set on another of the ornament unit and the frame unit.

[0010] Preferably, the joint unit of the personal ornament of the present invention comprises a supporting axis fixed to the holding unit and a reentrant unit to which the supporting axis is inserted in a state that can swing.

[0011] Preferably, the supporting axis of the personal ornament of the present invention is connected by point or line to the under surface of the inside of the reentrant unit.

[0012] Preferably, the frame unit of the personal ornament of the present invention supports a plurality of the ornament units at different positions in up and down direction or right

and left direction of the frame unit, the joint units of the plurality of the ornament units make join the frame unit and the ornament unit at the position upward for a center of gravity of the corresponding ornament unit.

[0013] Preferably, in the personal ornament of the present invention, the joint unit of the plurality of the ornament units join the frame unit and the ornament unit at different positions in up and down direction.

[0014] Further, in the case that the plurality of ornament units are positioned at different positions in up and down direction or right and left direction, it is possible to constitute so that adjacent ornament units come in contact to have an influence on swing thereof mutually.

**BRIEF DESCRIPTION OF DRAWINGS**

[0015] FIG. 1 is a front view of the pendant of the embodiment of the present invention.

[0016] FIG. 2 is a rear view of the pendant.

[0017] FIG. 3 is an enlarged view of the neighborhood of rotational stick shown in FIG. 2.

[0018] FIG. 4 is a figure to explain a pendant relating to the second embodiment of the present invention.

[0019] FIG. 5 is a figure to explain a pendant relating to the third embodiment of the present invention.

[0020] FIG. 6 is a figure to explain a pendant relating to the third embodiment of the present invention.

[0021] FIG. 7 is a figure to explain a pendant relating to other embodiment of the present invention.

[0022] FIG. 8 is a figure to explain a pendant relating to other embodiment of the present invention.

[0023] FIG. 9 is a figure to explain a pendant relating to other embodiment of the present invention.

[0024] FIG. 10 is a figure to explain a pendant relating to other embodiment of the present invention.

[0025] FIG. 11 is a figure to explain a pendant relating to other embodiment of the present invention.

[0026] FIG. 12 is a figure to explain a pendant relating to other embodiment of the present invention.

[0027] FIG. 13 is a figure to explain a pendant relating to other embodiment of the present invention.

**BEST MODE FOR CARRYING OUT THE INVENTION**

[0028] Below the embodiment of the personal ornament of this invention will be explained as follows.

**First Embodiment**

[0029] FIG. 1 is a front view of the pendant 1 of the embodiment of the present invention.

[0030] FIG. 2 is a rear view of the pendant 1. FIG. 3 is an enlarged view of the neighborhood of rotational stick 24a shown in FIG. 2.

[0031] As shown in FIG. 1, the pendant 1 has a structure in which the jewelry unit 5, 6 and 7 are arranged in series to be supported to a flame unit 10 in a state that the jewelry unit 5, 6 and 7 can swing.

[0032] The flame unit 10 has a shape having slim opening 10a inside. One pair of reentrant unit 26a and 26b is formed at the positions of inside surfaces of right and left to which the opening 10a is formed to face each other.

[0033] Further, the reentrant unit 27a, 27b and the reentrant unit 28a and 28b are formed in equal distance of up and down direction at downward of the reentrant unit 26a and 26b of the inside surfaces.

[0034] In the present embodiment, the reentrant unit 26a, 26b, 27a, 27b, 28a and 28b are reentrants of the section circle.

[0035] The jewelry unit 5 has the supporting unit 14 supporting jewelry 12 such as diamonds. The supporting unit 14 holds the jewelry 12 by nail 20a, 20b, 20c and 20d. The jewelry 12 is an example of the main body of the ornament of the present invention, and the supporting unit 14 is the support member of the present invention.

[0036] The rotational stick 24a and 24b which stuck out in the right and left direction are fixed to the support member 14.

[0037] When the supporting unit 14 is supported away from the 10 by a predetermined distance in the opening 10a of the flame unit 10, the rotational stick 24a and 24b are inserted in the rotatable state into the reentrant unit 26a and 26b described above.

[0038] The cross section of the rotational stick 24a and 24b are circular.

[0039] The rotational stick 24a and 24b support the supporting unit 14 at an upward position for a center of gravity of the supporting unit 14.

[0040] For example, the rotational stick 24a and 24b support the supporting unit 14 in the vicinity of a center of a center of gravity of the supporting unit 14 and the upper part end in up and down direction.

[0041] When considering a swing property, in case it assumes "h" as a distance in up and down direction, the position of the rotational stick 24a and 24b is desirable to be a range of "3/4 h" in up and down direction using a center position between a center of gravity of the supporting unit 14 and the upper part end as a center.

[0042] When the rotational stick 24a and 24b rotate in the reentrant unit 26a and 26b in the state that user wears the pendant 1, it is possible to avoid that the jewelry unit 5 holding the supporting unit 14 make half turn rotate, because the center of gravity of the supporting unit 14 is below from the position of the rotational stick 24a and 24b.

[0043] Thereby it is possible to keep the attitude in which the table surface of the jewelry unit 5 supported by the supporting unit 14 faces to the front (outside). Therefore it is possible to avoid that the table surface faces inside to improve design characteristics.

[0044] In addition, the rotational stick 24a and 24b may be molded integrally with the supporting unit 14.

[0045] Although the case in which the jewelry unit 5, 6 and 7 are set positioned at the different position of the up and down direction is explained in the embodiment described above, the jewelry unit 5, 6 and 7 may be set at the different position of the horizontal direction.

## Second Embodiment

[0046] In the embodiment described above, as shown in FIG. 3, the case in which the reentrant of the section circle is used as the reentrant unit 26a, 26b, 27a, 27b, 28a and 28b formed to the flame unit 10.

[0047] In the present embodiment, the case in which a under surface of the reentrant is declined to the side of the supporting unit 14 as the reentrant formed to the flame unit 10.

[0048] FIG. 4 is a figure to explain a pendant relating to the second embodiment of the present invention.

[0049] As shown in FIG. 4, the under surface 126a1 of the reentrant unit 126a formed to the flame unit 10 is declined to the side of the supporting unit 14.

[0050] Therefore the rotational stick 24a and the under surface 126a1 of the reentrant unit 126a of the flame unit 10 are jointed at a point.

[0051] Thereby the frictional force between the rotational stick 24a and the under surface 126a1 made lower, and it is easy to make the supporting unit 14 swing.

## Third Embodiment

[0052] FIG. 5 is a figure to explain a pendant of the third embodiment of the present invention.

[0053] As shown in FIG. 5, the pendant of the third embodiment of the present invention has a structure in which the jewelry unit 5 (a diamond) is supported in the state that it is possible to swing into the flame unit 110 which is ring shape.

[0054] That is, one pair of the reentrant unit 226a and 226b are formed at the position facing mutually of the internal perimeter surface of the flame unit 110.

[0055] And the rotational stick 124a and 124b of the supporting unit 114 of the jewelry unit 5 is inserted into the reentrant unit 226a and 226b in the state that it is possible to swing.

[0056] In the present embodiment, the same effect with the first embodiment is provided.

[0057] In addition, in the present embodiment, it is possible to form the under surface of the reentrant unit 226a and 226b declined as described in the second embodiment.

## Fourth Embodiment

[0058] FIG. 6 is a figure to explain a pendant relating to the fourth embodiment of the present invention.

[0059] As shown in FIG. 6, the pendant relating to the fourth embodiment of the present invention has a constitution which supports the jewelry unit 5 in the flame unit 210 of the heart shape having an opening in the state that it is possible to swing on an axis rotational stick 224a and 224b.

[0060] The present invention is not limited to the above embodiments.

[0061] It will be appreciated by those skilled in the art which various modifications, combinations, sub-combinations, and replacements may be made in part or all of the components within the technical scope and its equivalents of the present invention.

[0062] For example, it is possible to set the position of the rotational stick 24a and 24b of the supporting unit 14 of the jewelry unit 5, 6 and 7 to pass the position which is more near to the center of gravity in the upper part of the center of gravity as the downward jewelry unit.

[0063] In addition, it is possible to support the jewelry unit not at the position of the upper part for the center of gravity as described above but at the positions different mutually of right and left position.

[0064] Thereby it is possible to make difference of the movement of the jewelry unit 5, 6 and 7 delicately and can hereby cause a new beautiful sight.

[0065] In addition, the case that supported jewelry units of three or one in a frame unit is explained in the embodiment, but it is possible to support jewelry unit of more than two or four.

[0066] In addition, the shape of the frame unit maybe other than the shape the closed opening. Furthermore, the diamond

is used as for an example of the jewelry unit **5**, **6** and **7** in the present embodiment described above, the ornament unit other than the diamond may be used.

[0067] Furthermore, the case the pendant is used for as an example of the personal ornament, a body decorations product other than the pendant may be used in the present invention.

[0068] In addition, it is possible to have the structure jointing to the frame unit using a circle perception in substitution for the axis as explained above.

[0069] For example, as shown in FIG. 8, it is possible to fix the round jumpring **251** to the flame unit **10** and join the round jumpring **212** fixed to the jewelry unit **5** and other unit to the round jumpring **251**.

[0070] Furthermore, it is possible to use the circular unit corresponding to the circle perception as for the reentrant of the frame unit described above.

[0071] In addition, it is possible to have the structure of fixing the round jumpring **414** on the back side of ring-shaped frame unit **410** to join the round jumpring **416** of the jewelry unit **5** to the [414].

[0072] For example, the round jumpring **414** is fixed to the back side standing straight by wax, etc. In this case, the round jumpring **416** is located in the upward position of the center of gravity of the jewelry unit **5**.

[0073] In addition, as shown in FIG. 10, it is possible to have the structure of fixing the round jumpring **516** on the back side of the frame unit **510** to insert the rotational stick **514** of the jewelry unit **5** into the round jumpring **516** in the state that it is possible to swing. In this case, the round jumpring is located at the upward position of the center of gravity of the jewelry unit **5**.

[0074] In addition, it is possible to set a weight unit to the frame unit **612** or the jewelry unit **5** so that the support axis (an axis) or circle perception (a support ring) supports the jewelry unit **5** at an upward position for a center of gravity of a frame unit **610** as shown in FIG. 11 to FIG. 13.

[0075] FIG. 11 is a side view, FIG. 12 is a rear view, and FIG. 13 is a front view.

[0076] In addition, it is possible to decide a shape and the weight balance of the support unit and ornament unit, not setting a weight, but decide it so that the jewelry unit is supported upper position with respect to the center of gravity by a support axis (an axis) or circle perception (a support hollow unit).

[0077] In addition, the support hollow unit and joint unit of the present invention may have the shape other than the circle perception.

[0078] In the present embodiment, the same effect with the first embodiment is provided.

[0079] In addition, in the present embodiment, it is possible to form the under surface of the reentrant unit **226a** and **226b** declined as described in the second embodiment.

[0080] Furthermore, the diamond is used as for an example of the ornament unit of the present invention in the present embodiment described above, the ornament unit other than the diamond may be used.

[0081] Further, in the case that the plurality of ornament units are positioned at different positions in up and down direction or right and left direction, it is possible to constitute

so that adjacent ornament units come in contact to have an influence on swing thereof mutually.

#### INDUSTRIAL APPLICABILITY

[0082] The present invention may be applied to a personal ornament making a supporting unit supporting a jewelry swing.

#### EXPLANATION OF REFERENCE

- [0083] **1** Pendant
- [0084] **5, 6, 7** jewelry unit
- [0085] **10, 110, 210** flame unit
- [0086] **12** Jewelry (Diamond)
- [0087] **14** supporting unit
- [0088] **20a, 20b, 20c, 20d** nail
- [0089] **24a, 24b, 124a, 124b, 224a, 224b** rotational stick
- [0090] **26a, 26b, 27a, 27b, 28a, 28b, 226a, 226b** reentrant unit

1. A personal ornament comprises:  
an ornament unit;  
a frame unit set with a distance from the ornament unit; and  
a joint unit jointing the frame unit and the ornament unit at  
upper part position for a center of gravity of the ornament unit so that the ornament unit swings by vibration.
2. A personal ornament as set forth in claim 1 wherein  
the joint unit joins the body of the ornament unit and the  
frame unit, or joins the holding unit of the ornament unit  
holding the body of the ornament unit and the frame unit.
3. A personal ornament as set forth in claim 1 wherein  
the joint unit comprises:  
a projection unit which is set on one of the ornament unit  
and the frame unit; and  
a reentrant unit or a hollow unit which joins to the projection  
unit and which is set on another of the ornament unit  
and the frame unit.
4. A personal ornament as set forth in claim 1 wherein  
the joint unit comprises:  
a first ring unit which is set on one of the ornament unit and  
the frame unit; and  
a second ring unit which joins to the first ring unit and  
which is set on another of the ornament unit and the  
frame unit.
5. A personal ornament as set forth in claim 1 wherein the  
joint unit comprises a supporting axis fixed to the holding unit  
and a reentrant unit to which the supporting axis is inserted in  
a state that can swing.
6. A personal ornament as set forth in claim 1 wherein  
the supporting axis is connected by point or line to the  
under surface of the inside of the reentrant unit.
7. A personal ornament as set forth in claim 1 wherein  
the frame unit supports a plurality of the ornament units at  
different positions in up and down direction or right and  
left direction of the frame unit, the joint units of the  
plurality of the ornament units make join the frame unit  
and the ornament unit at the position upward for a center  
of gravity of the corresponding ornament unit.
8. A personal ornament as set forth in claim 7 wherein  
the joint unit of the plurality of the ornament units join the  
frame unit and the ornament unit at different positions in  
up and down direction.
9. A personal ornament as set forth in claim 1 wherein  
the plurality of ornament units are positioned at different  
positions in up and down direction or right and left  
direction so that adjacent ornament units come in contact  
to have an influence on swing thereof mutually.