



Description

FIELD OF THE INVENTION

[0001] The present invention relates to a trophy structure, and more particularly to a modular trophy structure designed according to the assembly of a trophy to facilitate the manufacture and assembling processes and provide a flexible application and practical use of the trophy.

BACKGROUND OF THE INVENTION

[0002] Nowadays, our life is filled up with various different activities. To recognize and encourage achievements on good result, performance and status of the activities, trophies (or label objects in other forms) become a common way for the highlights and achievements of these activities. With reference to FIG. 1 for a conventional trophy, the trophy 90 comprises a base 91 and a label object 92, wherein a screw 921 is protruded from the bottom of the label object 92, and a corresponding screw hole 911 is formed on the base 91, such that the screw 921 is locked and secured into the screw hole 911 to combine the base 91 with the label object 92 to form the trophy 90. In addition, another screw 922 is protruded from the top of the label object 92 and secured with a label object 93 to expand the content of the highlight.

[0003] Although the finished product with the aforementioned conventional trophy structure is manufactured by screwing and assembling related parts, yet it still has the following drawbacks. Since the base 91 and the label object 92 are combined by securing the screw 921 into the screw hole 911, the screwing and assembling operations take much time and fail to meet the cost-effective requirements, and the operating process causes a greater chance of damaging the label object 92. Obviously, such conventional trophy structure is not an ideal design. In addition, the final combination status of the base 91 and the label object 92 requires precise positions or fixing positions and does not allow any skew of the assembly, and the conventional trophy structure relates to the setting of the length of combining the screw with the screw hole. In the modularization process, various factors may cause a dislocation of the screw and the screw hole easily to result in a misaligned connection. Obviously, the conventional trophy structure requires further improvements. Therefore, it is an important subject for related manufacturers and designers to overcome the aforementioned drawbacks of the conventional trophy structure.

[0004] In view of the aforementioned drawbacks of the prior art, the inventor of the present invention based on years of experience in the related industry to conduct extensive researches and experiments, and finally developed a modular trophy structure in accordance with the present invention.

SUMMARY OF THE INVENTION

[0005] Therefore, it is a primary objective of the present invention to provide a modular trophy structure that can be assembled more conveniently and quickly to achieve a cost-effective manufacture.

[0006] Another objective of the present invention is to provide a modular trophy structure that makes the connection of a trophy more flexibly to improve the expandability, practicality and value of the trophy design.

[0007] A further objective of the present invention is to provide a modular trophy structure that prevents the assembling of the trophy from being skewed, dislocated, or tilted, so as to improve the overall assembling quality and the display quality of the trophy.

[0008] To achieve the aforementioned objectives, the present invention provides a modular trophy structure, comprising: a base, having a plurality of rotating latch slots formed thereon, and disposed in the same circumference or different circumferences of the same center; and a label object, including a label base and a figure body coupled to each other, and the label base having a plurality of rotating latch members disposed at the same circumference or different circumferences of the same center; wherein, the rotating latch member is installed at the rotating slot, and the rotating latch member is latched into the rotating latch slot by a rotating operation, so that the label base is combined onto the base.

[0009] Wherein, the rotating latch slot includes a containing slot and a rotating slot coupled to each other, and the containing slot is coupled to a side of the rotating slot in the same circumferential direction, and the other side of the containing slot is protruded farther towards the outside than the rotating slot, and the rotating latch member includes a disposing portion and a rotating latch portion coupled to each other, and the disposing portion is coupled vertically to a side of the rotating latch portion in the same circumferential direction, and the other side of the disposing portion is protruded to the outside farther towards the outside than the rotating latch portion.

[0010] Wherein, the rotating slot has a blocking portion formed on an outer side of the rotating slot and at a position adjacent to the containing slot, and the bottom position of the blocking portion is substantially a rotating space.

[0011] Wherein, an end of the rotating slot away from the containing slot is a rotating latch end, and the rotating latch end has a width smaller than the rotating slot.

[0012] Wherein, the corresponding combination of the rotating latch slot and the rotating latch member are installed at positions of the same circumference of the same center.

[0013] Wherein, the figure body further includes at least a label connecting portion and at least a label connector coupled to the label connecting portion, and a label rotary latch mechanism is installed between the label connecting portion and the label connector.

[0014] Wherein, the label rotary latch mechanism in-

cludes a plurality of rotating slots formed at the label connecting portion and a plurality of rotating latch members disposed at the label connector, and the rotating slot includes a containing slot and a rotating slot coupled to each other, and the containing slot is coupled to a side of the rotating slot in the same circumferential direction, and the other side of the containing slot is protruded farther towards the outside than the rotating slot, and the rotating latch member includes a disposing portion and a rotating latch portion coupled to each other, and the disposing portion is coupled vertically to a side of the rotating latch portion in the same circumferential direction, and the other side of the disposing portion is protruded farther towards the outside than the rotating latch portion.

[0015] Wherein, the top of the figure body further includes an expansion connecting portion, and at least one expansion member coupled to the expansion connecting portion, and the expansion member includes an expanded base and an expanded figure body, and an expanded rotating latch mechanism is installed between the expanded base and the expansion connecting portion.

[0016] Wherein, the expanded rotating latch mechanism includes a plurality of rotating latch slots formed at the expansion connecting portion and a plurality of rotating latch members disposed at the expanded base, and the rotating latch slot includes a containing slot and a rotating slot coupled to each other, and the containing slot is coupled to a side of the rotating slot in the same circumferential direction, and the other side of the containing slot is protruded farther towards the outside than the rotating slot, and the rotating latch member includes a disposing portion and a rotating latch portion coupled to each other, and the disposing portion is coupled vertically to a side of the rotating latch portion in the same circumferential direction, and the other side of the disposing portion is protruded farther towards the outside than the rotating latch portion.

[0017] Wherein, the bottom of the blocking portion further includes at least one concave latch portion, and the top of the disposing portion includes at least one convex latch portion corresponsive to the concave latch portion, and the base further includes at least one positioning recess formed thereon, and the label base includes at least one positioning protrusion member formed thereon and corresponsive to the positioning recess.

[0018] The present invention will become clearer in light of the following detailed description of an illustrative embodiment of this invention described in connection with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019]

FIG. 1 is a schematic view of a conventional trophy structure;

FIG. 2 is a perspective view of a modular trophy structure of the present invention;

FIG. 3 is a partial exploded view of a modular trophy structure of the present invention;

FIG. 4 is an exploded view of a modular trophy structure of the present invention;

FIG. 5 is a schematic view of operating a modular trophy structure of the present invention;

FIG. 5A is a partial cross-sectional view of assembling a modular trophy structure of the present invention;

FIG. 6A is a schematic view of assembling a modular trophy structure of the present invention;

FIG. 6B is a schematic view of assembling a modular trophy structure of the present invention; and

FIG. 6C is a schematic view of assembling a modular trophy structure of the present invention; and

FIG. 7 is a schematic view of assembling a modular trophy structure of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0020] With reference to FIGS. 2 and 3 for a modular trophy structure of the present invention, the modular trophy structure comprises a base body 10 and a label object 20, and the base body 10 comprises a base 11, and the base 11 includes a plurality of rotating latch slots 12 formed thereon, and the plurality of rotating latch slots 12 are formed at positions of the same circumference or different circumferences of the same center. In this embodiment, the base 11 includes four rotating latch slots 12 formed thereon and arranged at positions of the same circumference, and the rotating latch slot 12 includes a containing slot 121 and a rotating latch slot 122 coupled to (or interconnected with) each other, and the containing slot 121 is coupled to a side of the rotating latch slot 122 in the same circumferential direction, and the other side of the containing slot 121 is protruded farther towards the outside (with respect to the center position) than the rotating latch slot 122, so that an outer side of the rotating latch slot 122 has a blocking portion 123 formed at a position adjacent to the containing slot 121, and the bottom of the blocking portion 123 is a rotating space 124 (as shown in FIG. 5A), and an end of the rotating latch slot 122 away from the containing slot 121 is a rotating latch end 122A. In an appropriate embodiment, the rotating latch slot 122 is tapered towards the rotating latch end 122A. In other words, the rotating latch end 122A has a width smaller than the rotating latch slot 122.

[0021] The label object 20 includes a label base 21 and a figure body 22 coupled to each other, and the bottom of the label base 21 includes a plurality of rotating latch members 23 disposed at the same circumference or different circumferences of the same center. In this embodiment, the label base 21 includes four rotating latch members 23 responsive to the rotating latch slots 122 of the bases 11, and the four rotating latch members 23 are disposed at positions of the same circumference. The rotating latch member 23 includes a disposing portion 231 and a rotating latch portion 232 coupled to each other, and the disposing portion 231 is coupled to a side of the rotating latch portion 232 in the same circumferential direction, and the other side of the disposing portion 231 is protruded farther towards the outside (with respect to the center position) than the rotating latch portion 232.

[0022] The plurality of rotating latch slots 12 of the base 11 and the plurality of rotating latch members 23 of the label base 21 constitute a rotating latch mechanism (not labeled). In other words, the rotating latch mechanism is installed between the base 11 and the label base 21, and the rotating latch mechanism comprises a rotating latch slot 12 and a rotating latch member 23. In addition, the spatial positions of the rotating latch slot 12 and the rotating latch member 23 may be switched. For example, the base 11 includes the rotating latch member, and the label base 21 includes the rotating slot, but the invention is not limited to such arrangement.

[0023] In FIG. 3, the containing slot 121 has a width A, the rotating latch slot 122 has a width B, the disposing portion 231 has a width a, and the rotating latch portion 232 has a width b, wherein the width A is equal to or slightly greater than the width a, and the width B is equal to or slightly greater than the width b to facilitate manufacturers or users to install the rotating latch member 23 into the rotating latch slot 12. In addition, the rotating latch slot 122 has a length greater than the length of the rotating latch portion 232, so as to provide an operating space of moving the rotating latch portion 232 in the rotating latch slot 122. Further, the corresponding rotating latch slots 12 and rotating latch members 23 are arranged at positions of the same circumference (with respect to the same center), so that the containing slot 121, rotating latch slot 122 is disposed opposite to the disposing portion 231 and the rotating latch portion 232, and the plurality of rotating latch slots 12 (or rotating latch members 23) are arranged at different circumferences, so as to provide a foolproof effect for the assembling and operation processes.

[0024] In FIGS. 5 and 5A, when the label base 21 and the base 11 are combined, the rotating latch member 23 is installed at the rotating latch slot 12, so that the disposing portion 231 (with the width a) is installed into the containing slot 121 (with the width A), and then the rotating latch portion 232 is rotated to move in a direction towards the rotating latch end 122A of the rotating latch slot 122, until a latching effect is produced, and the disposing portion 231 is linked to move into the rotating

space 124. After the disposing portion 231 is moved to a position under the blocking portion 123 to produce a latching effect in the vertical direction, the rotation and latching effect of the rotating latch mechanism makes the label base 21 to be combined with the base 11, so as to prevent the installation from being dislocated or skewed. If it is necessary to remove or separate the label base 21 from the base 11, the rotating latch portion 232 is rotated in the opposite direction to resume the disposing portion 231 to its original position opposite to the containing slot 121. Now, the label base 21 can be separated or removed from the base 11. The assembling and removing operations are quick, simple, and easy.

[0025] The figure body 22 is the main eye-catching area of the trophy, and the figure body 22 may further include at least a label connecting portion 24 and at least a label connector 25 coupled to the label connecting portion 24, and a label rotary latch mechanism (not labeled) may also be installed between the label connecting portion 24 and the label connector 25. In this embodiment, the label rotary latch mechanism includes a plurality of rotating latch slots 241 installed at the label connecting portion 24 and a plurality of rotating latch members 251 installed at the label connector 25, and the plurality of rotating latch slots 241 and the plurality of rotating latch members 251 are also arranged at the same circumference or different circumferences of the same center, and the rotating latch slot 241 includes a containing slot 242 and a rotating slot 243 coupled to (or interconnected with) each other, and the rotating latch member 251 includes a disposing portion 252 and a rotating latch portion 253 coupled to each other. In the present invention, a label rotary latch mechanism is installed between the label connecting portion 24 and the label connector 25, which is similar to the rotating latch mechanism installed between the base 11 and the label base 21. In other words, the assembly, operating method or spatial position of the label rotary latch mechanism and the rotating latch mechanism are the same, and thus will not be repeated. After the label connector 25 is coupled to the label connecting portion 24, the label connector 25 shows a label content 254 of the trophy at the front side of the trophy, so that the content of the trophy may be changed if needed.

[0026] In FIGS. 3 and 4, the top of the figure body 22 further includes an expansion connecting portion 26, and at least one expansion member 30 is coupled to the expansion connecting portion 26, and the expansion member 30 includes an expanded base 31 and an expanded figure body 32, and an expanded rotating latch mechanism (not labeled) is also installed between the expanded base 31 and the expansion connecting portion 26. In this embodiment, the expanded rotating latch mechanism includes a plurality of rotating slots (not shown in the figure) formed at the expansion connecting portion 26 and a plurality of rotating latch members 311 installed at the expanded base 31, and an expanded rotating latch mechanism installed between the expanded base 31 and

the expansion connecting portion 26 is the same as the rotating latch mechanism installed between the base 11 and the label base 21. In other words, the assembly, operating method or spatial position of the expanded rotating latch mechanism and the rotating latch mechanism are similar, and thus will not be repeated. In addition, the expanded figure body 32 of the expansion member 30 is another expanded area for showing the content of the trophy. When it is not necessary to install the expansion member 30, the expansion member 30 acts as an end connecting member (not shown in the figure), and the expanded rotating latch mechanism installed between the end connecting member and the expansion connecting portion 26 may be reserved for connecting or replacing the expansion member 30 at a later time. In the present invention, the top of the expanded figure body 32 may have another expanded rotating latch mechanism (not shown in the figure) coupled to an expansion member, so that the content and height of the label of the trophy may be increased as required to provide a flexible assembling and manufacturing processes of the trophy.

[0027] In FIGS. 6A~6C, the bottom of the blocking portion 123 of the base 11 further includes at least one concave latch portion 125, and the top of the disposing portion 231 includes at least one convex latch portion 233, and the concave latch portion 125 and the convex latch portion 233 are latched with each other, and they may be in form of one or more pairs. After the rotating latch member 23 is rotated and latched to the rotating latch slot 12, the convex latch portion 233 is precisely latched to the concave latch portion 125 to provide better latching and positioning effects and enhance the feel of positioning during the rotation and combining operation. In addition, the spatial positions of the concave latch portion 125 and the convex latch portion 233 may be switched. For example, the concave latch portion 125 is disposed at the top of the disposing portion 231, and the convex latch portion 233 is disposed at the bottom of the blocking portion 123. In addition, a label rotary latch mechanism is installed between the label connecting portion 24 and the label connector 25, and an expanded rotating latch mechanism is installed between the expanded base 31 and the expansion connecting portion 26. Such arrangements are applicable for latching the concave latch portion 125 with the convex latch portion 233.

[0028] In FIG. 7, the relative positions of the base 11 and the label base 21 are positioned and combined, wherein the base 11 has a positioning recess 13, and the label base 21 has a positioning protrusion member 27 which can be positioned and latched to the positioning recess 13 by rotating, combining and operating the label base 21, so as to provide better latching and positioning effects of positioning, combining and operating the base 11 with the label base 21 and enhance the positioning feel of the rotation and combining operation.

[0029] In summation of the description above, the modular trophy structure of the present invention provides a

more convenient and quicker way of assembling the trophy to provide a cost-effective manufacture. In the meantime, the present invention features various way of combining the components of the trophy to provide flexible applications of the trophy to improve the applicability, practicality and value of the trophy. The present invention further has the effect of preventing the assembling and manufacture of the trophy from being dislocated or skewed, so as to improve the overall assembling quality and the display quality of the trophy.

Claims

1. A modular trophy structure, comprising:
 - a base (11), having a plurality of rotating latch slots (12) formed thereon, and arranged in the same circumference or different circumferences of the same center; and
 - a label object (20), including a label base (21) and a figure body (22) coupled to each other, and the label base (21) having a plurality of rotating latch members (23) arranged in the same circumference or different circumferences of the same center; wherein, the rotating latch member (23) is installed at the rotating latch slot (12), and the rotating latch member (23) is latched into the rotating latch slot (12) by a rotating operation, so that the label base (21) is combined onto the base (11).
2. The modular trophy structure of claim 1, **characterized in that** the rotating latch slot (12) includes a containing slot (121) and a rotating slot (122) coupled to each other, and the containing slot (121) is coupled to a side of the rotating slot (122) in the same circumferential direction, and the other side of the containing slot (121) is protruded farther towards the outside than the rotating slot (122), and the rotating latch member (23) includes a disposing portion (231) and a rotating latch portion (232) coupled to each other, and the disposing portion (231) is coupled vertically to a side of the rotating latch portion (232) in the same circumferential direction, and the other side of the disposing portion (231) is protruded to the outside farther towards the outside than the rotating latch portion (232).
3. The modular trophy structure of claim 2, **characterized in that** the rotating slot (122) has a blocking portion (123) formed on an outer side of the rotating slot (122) and at a position adjacent to the containing slot (121), and the bottom position of the blocking portion (123) is substantially a rotating space (124).
4. The modular trophy structure of claim 2, **characterized in that** an end of the rotating slot (122) away

from the containing slot (121) is a rotating latch end (122A), and the rotating latch end (122A) has a width smaller than the rotating slot (122).

5. The modular trophy structure of claim 2, **characterized in that** the corresponding combination of the rotating latch slot (12) and the rotating latch member (23) are installed at positions of the same circumference of the same center. 5
6. The modular trophy structure of claim 1, **characterized in that** the figure body (22) further includes at least a label connecting portion (24) and at least a label connector (25) coupled to the label connecting portion (24), and a label rotary latch mechanism is installed between the label connecting portion (24) and the label connector (25). 10
7. The modular trophy structure of claim 6, **characterized in that** the label rotary latch mechanism includes a plurality of rotating latch slots (241) formed at the label connecting portion (24) and a plurality of rotating latch members (251) disposed at the label connector (25), and the rotating latch slot (12) includes a containing slot (242) and a rotating slot (243) coupled to each other, and the containing slot (242) is coupled to a side of the rotating slot (243) in the same circumferential direction, and the other side of the containing slot (242) is protruded farther towards the outside than the rotating slot (243), and the rotating latch member (251) includes a disposing portion (252) and a rotating latch portion (253) coupled to each other, and the disposing portion (252) is coupled vertically to a side of the rotating latch portion (253) in the same circumferential direction, and the other side of the disposing portion (252) is protruded farther towards the outside than the rotating latch portion (253). 20 25 30 35
8. The modular trophy structure of claim 1, **characterized in that** the top of the figure body (22) further includes an expansion connecting portion (26), and at least a expansion member (30) coupled to the expansion connecting portion (26), and the expansion member (30) includes an expanded base (31) and an expanded figure body (32), and an expanded rotating latch mechanism is installed between the expanded base (31) and the expansion connecting portion (26). 40 45 50
9. The modular trophy structure of claim 8, **characterized in that** the expanded rotating latch mechanism includes a plurality of rotating latch slots (12) formed at the expansion connecting portion (26) and a plurality of rotating latch members (311) disposed at the expanded base (31), and the rotating latch slot (12) includes a containing slot (121) and a rotating slot coupled to each other, and the containing slot (121) 55

is coupled to a side of the rotating slot (122) in the same circumferential direction, and the other side of the containing slot (121) is protruded farther towards the outside than the rotating slot (122), and the rotating latch member (311) includes a disposing portion (231) and a rotating latch portion (232) coupled to each other, and the disposing portion (231) is coupled vertically to a side of the rotating latch portion (232) in the same circumferential direction, and the other side of the disposing portion (231) is protruded farther towards the outside than the rotating latch portion (232).

10. The modular trophy structure of claim 3, **characterized in that** the bottom of the blocking portion (123) further includes at least a concave latch portion (125), and the top of the disposing portion (231) includes at least a convex latch portion (233) responsive to the concave latch portion (125), and the base (11) further includes at least a positioning recess (13) formed thereon, and the label base (21) includes at least a positioning protrusion member (27) formed thereon and responsive to the positioning recess (13).

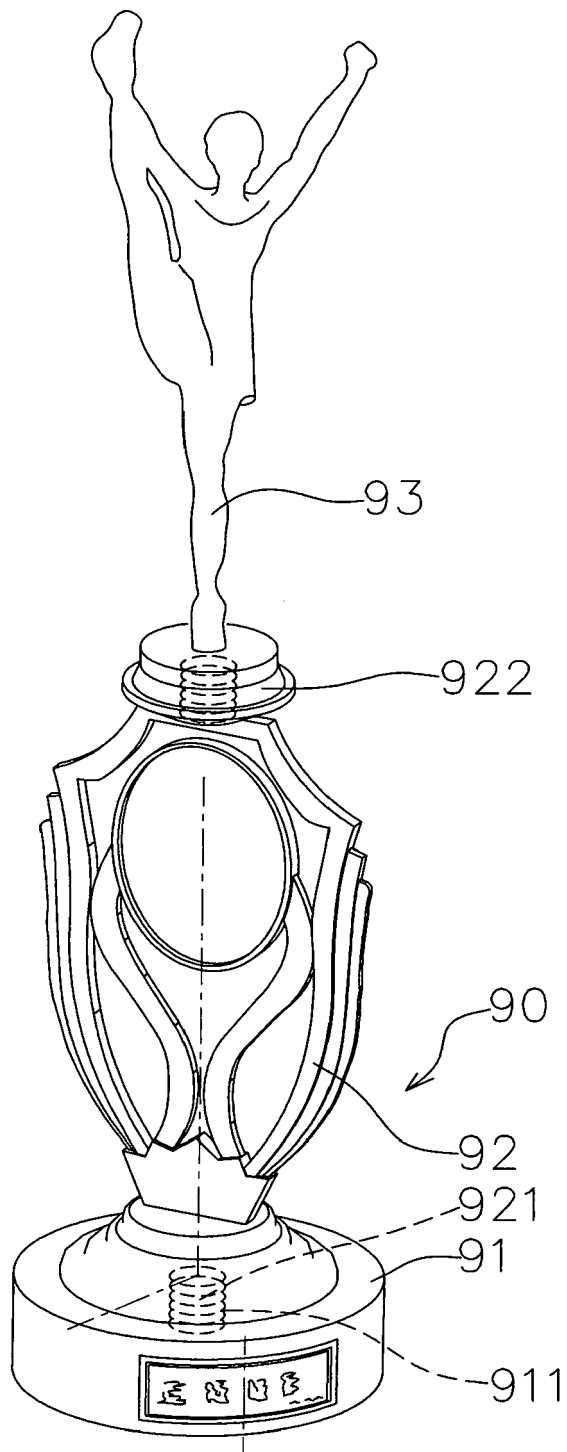
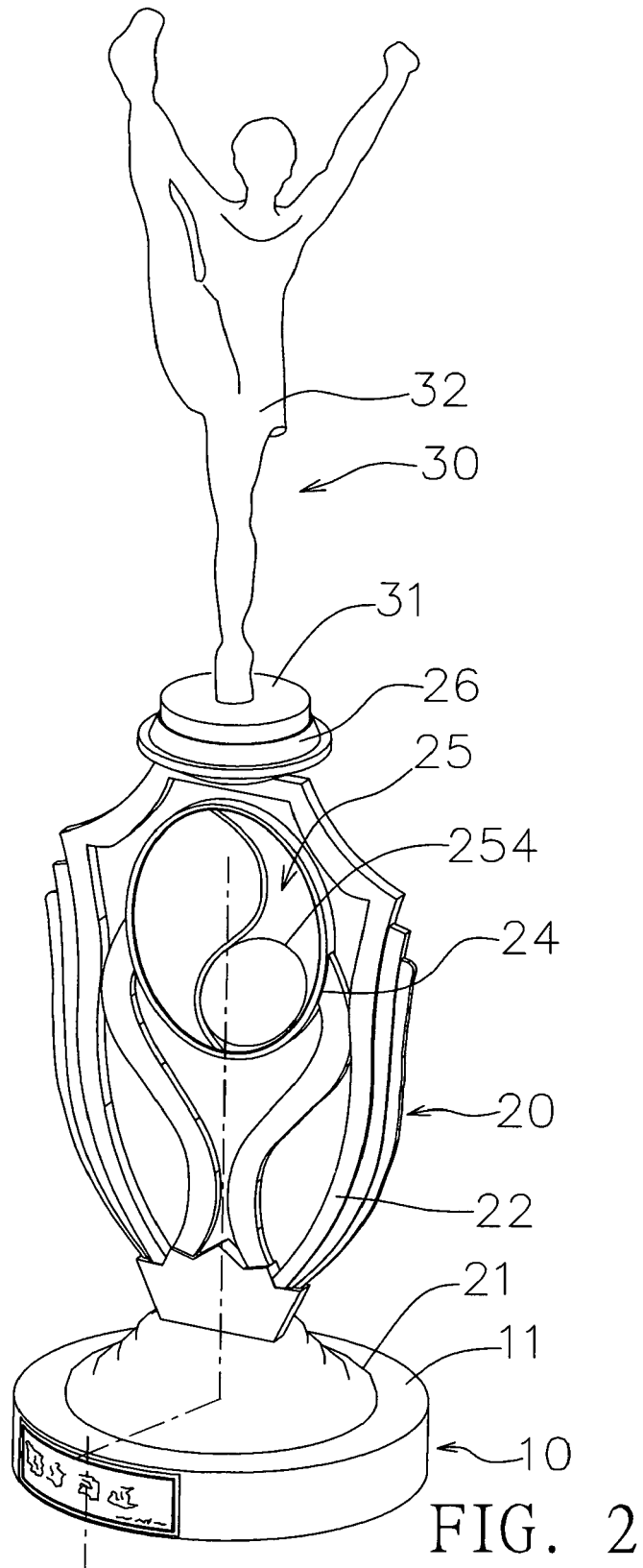
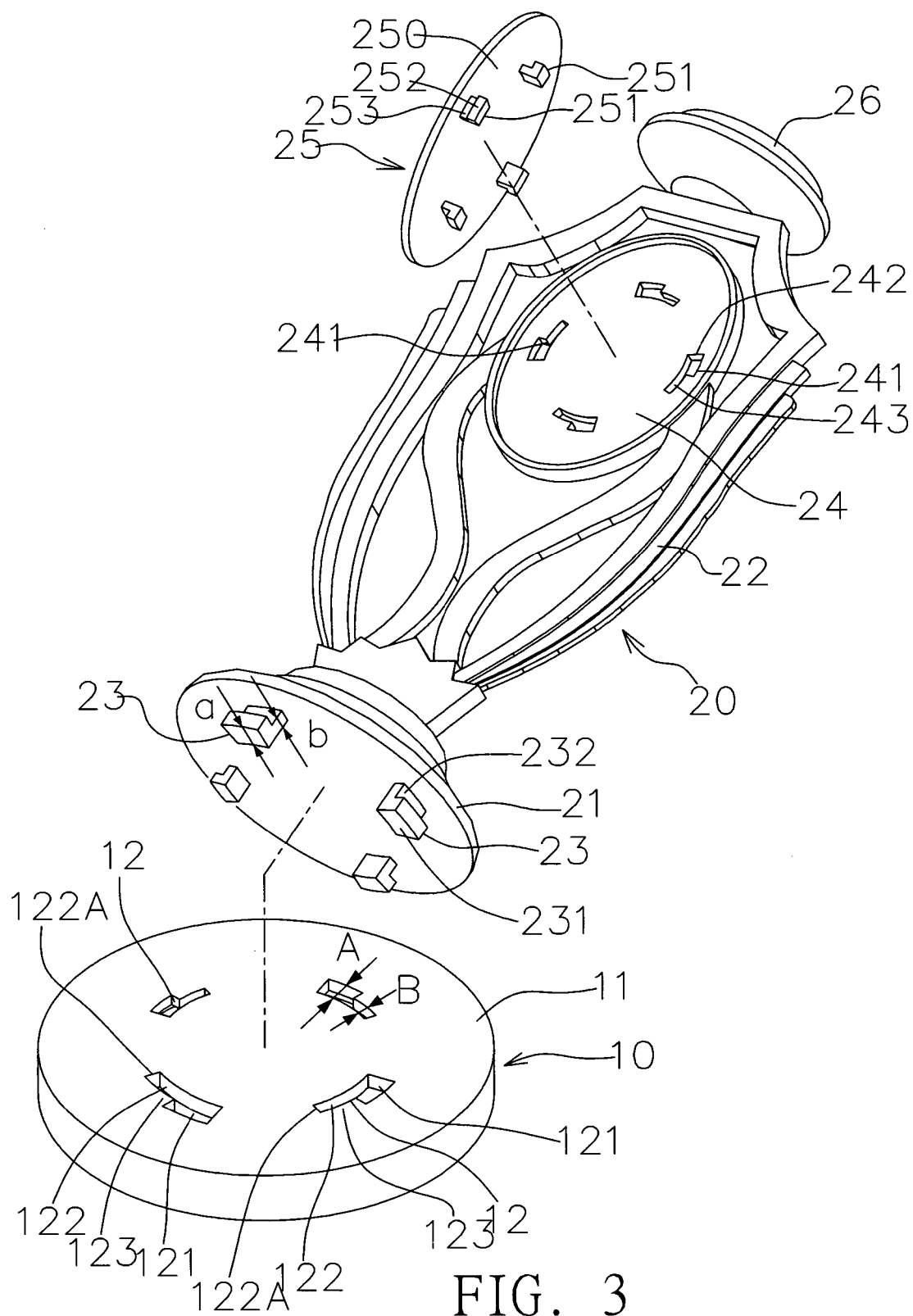


FIG. 1
(Prior Art)





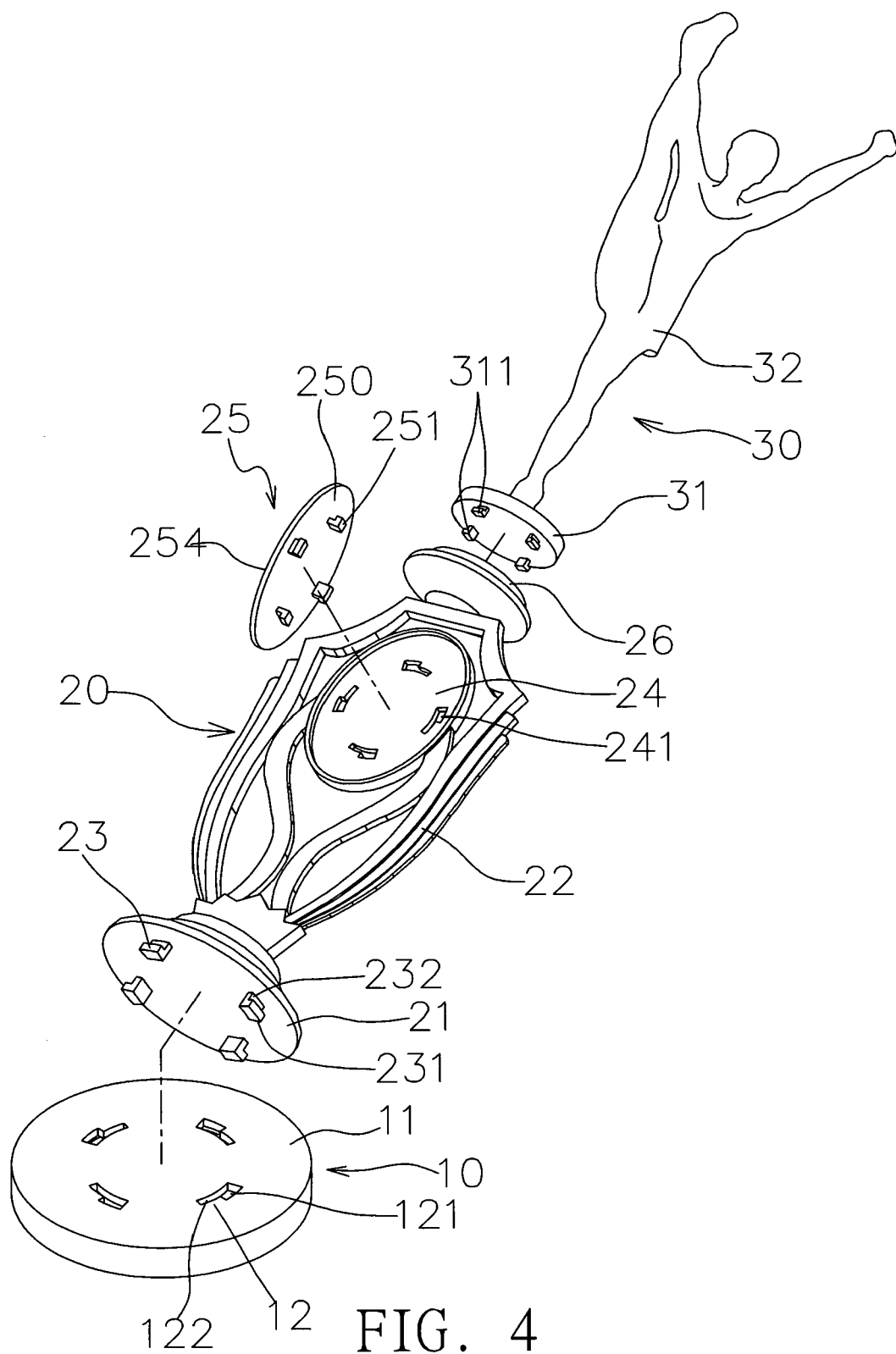


FIG. 4

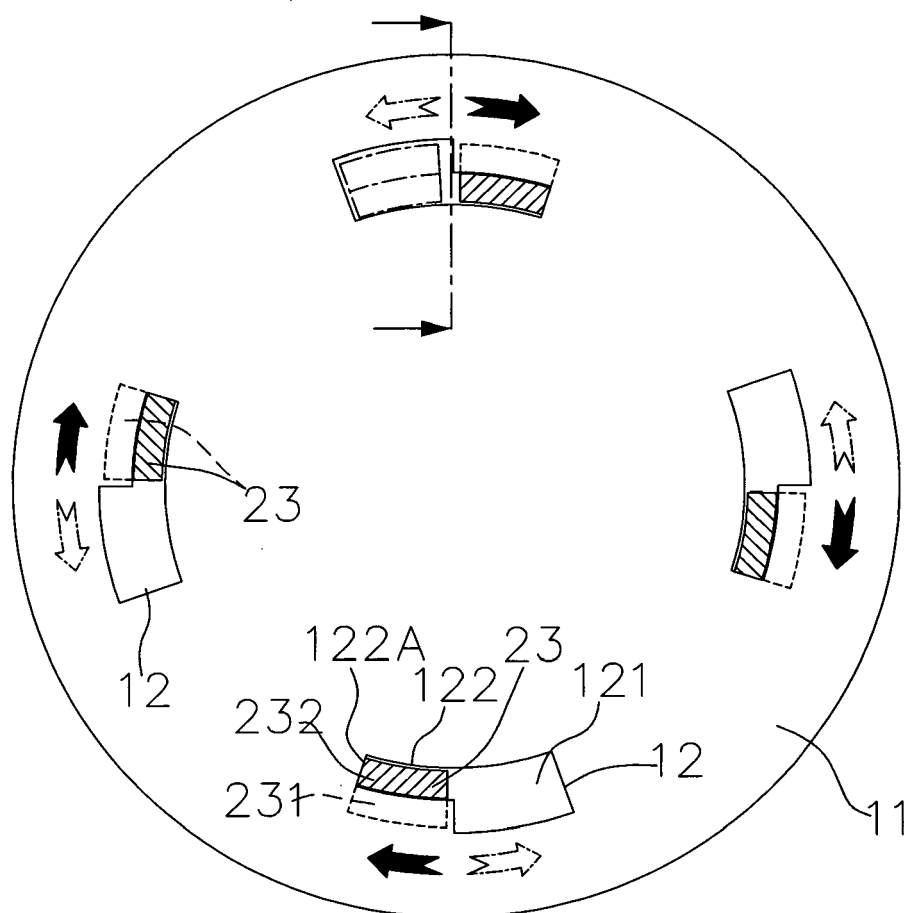


FIG. 5

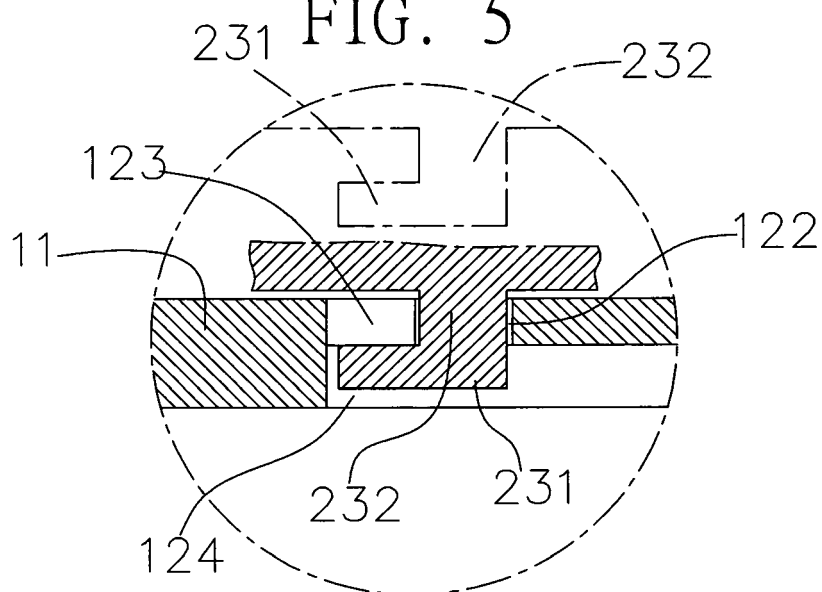


FIG. 5A

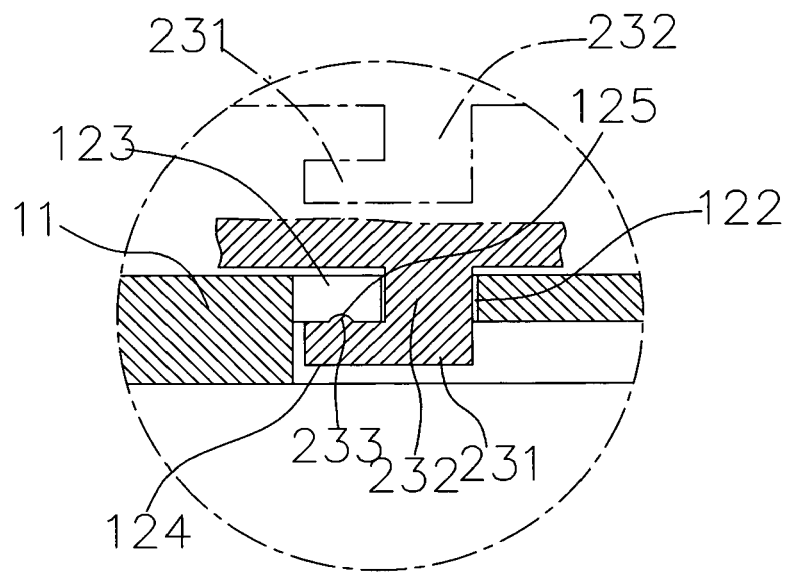


FIG. 6A

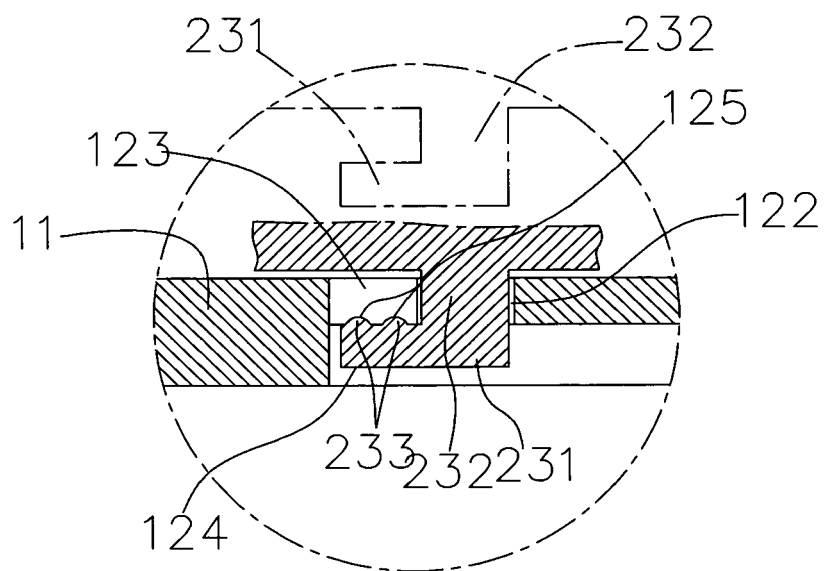


FIG. 6B

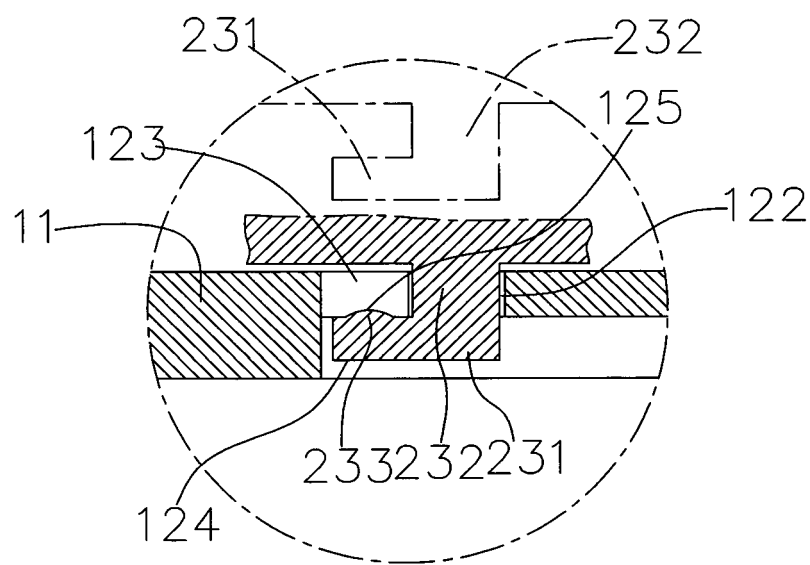


FIG. 6C

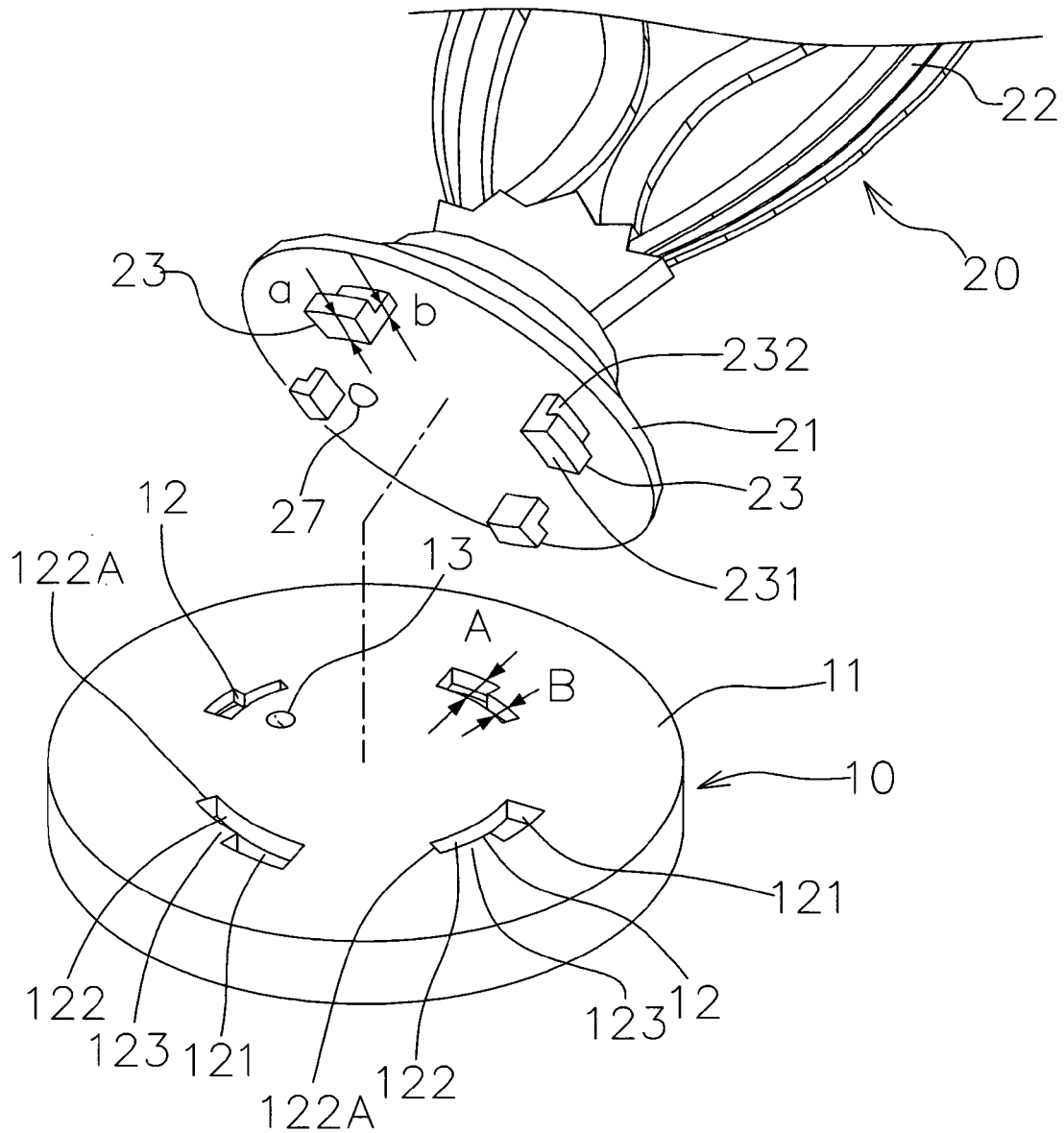


FIG. 7



EUROPEAN SEARCH REPORT

Application Number
EP 14 00 2918

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2010/213087 A1 (WELDON) 26 August 2010 (2010-08-26) * figures 2, 6A, 8 *	1-5	INV. A47G33/00
X	US 2011/183150 A1 (BROWN) 28 July 2011 (2011-07-28) * figure 1 *	1,8	
X	US 2009/146025 A1 (SCHWARTZ) 11 June 2009 (2009-06-11) * figures 2, 8-10, 13, 15, 16 *	1,8	
A		2-5,9,10	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47G B44C G09F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 2 February 2015	Examiner Beugeling, Leo
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 14 00 2918

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-02-2015

10

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010213087 A1	26-08-2010	US D667240 S1	18-09-2012
		US D670935 S1	20-11-2012
		US D671336 S1	27-11-2012
		US 2010213087 A1	26-08-2010
		US 2013220853 A1	29-08-2013
		WO 2010107564 A2	23-09-2010

US 2011183150 A1	28-07-2011	NONE	

US 2009146025 A1	11-06-2009	NONE	

15

20

25

30

35

40

45

50

55

EPO FORM P0459

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