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(54) **Shower door adjustment and positioning member**

(57) A shower door adjustment and positioning member (1) including a base (11) and a stop block (13) is revealed. The stop block (13) consists of a stop flange (131, a plurality of stop convex parts (132) and an adjustment slot (134. The adjustment and positioning member (1) further includes a locking block (15) corresponding to the adjustment slot (134) of the stop block (13. A shower door (2) is mounted with a locking hole (21) corresponding to an outer edge of the stop block (13. A plurality of stop concave parts (211) corresponding to the stop convex parts (132) is formed around the locking hole (21) so as to mount the stop block (13) into the locking hole (21. Then the locking block (15) is set into the adjustment slot (134) of the stop block (13. By screw fasteners (152, the locking block (15) is threaded and connected to the base (11. Thus the shower door (2) and the base (11) are connected to each other. Thus the shower door (2) will not rotate or tilt.

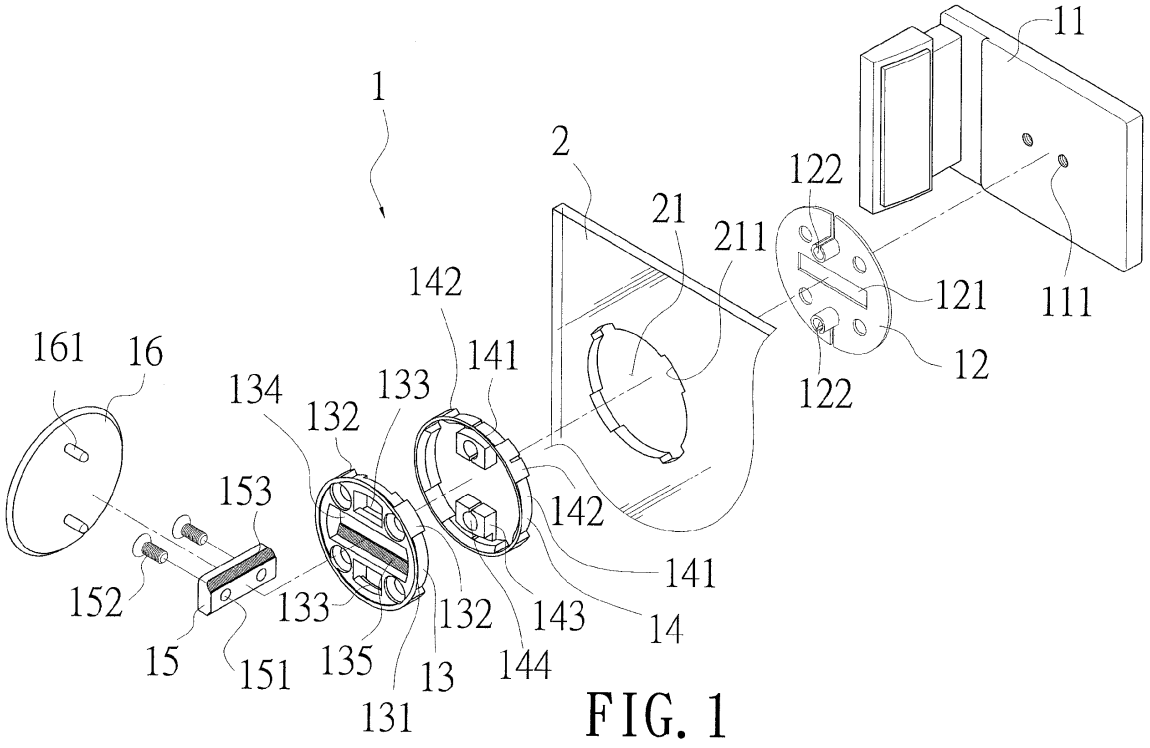

FIG. 1

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Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to a shower door adjustment and positioning member, especially to a door adjustment and positioning member that makes assembly and positioning of shower doors easier and more convenient so as to increase practical value of the device.

2. Description of Related Art

[0002] Generally, a shower door is set in bathrooms to separate different areas such as shower area and toilet area. The bathroom design features on separation of wet and dry areas so as to keep other areas dry after the shower.

[0003] Refer to Fig. 6, an assembling and positioning member 3 for a common glass shower door includes a base 31 disposed with a round assembly block 32 on the front surface thereof and a cover 33 corresponding to the round assembly block 32. During assembling and in use, a glass door 4 is mounted with a round insertion hole corresponding to the round assembly block 32 of the assembling and positioning member 3. Then the round assembly block 32 on the front surface of the base 31 of the assembling and positioning member 3 passes through the round insertion hole of the glass door 4. By the cover 33 covering and fixed over the round assembly block 32, the assembling and positioning member 3 is not released from the glass door 4. However, in practice, while the above assembling and positioning member 3 being assembled with and connected to the glass door 4 by the round assembly block 32, the glass door 4 is difficult to remain in the vertical position, and easily to rotate and tilt. Thus there is a need to improve such design.

SUMMARY OF THE INVENTION

[0004] Therefore it is a primary object of the present invention to provide a shower door adjustment and positioning member by which a shower door mounted with a single locking hole will not rotate or tilt during the assembling process. At the same time, both the assembling and positioning of the shower door are getting easier and more convenient. The practical value of the device is increased.

[0005] In order to achieve above object, a shower door adjustment and positioning member of the present invention includes a base with a stop block arranged on the front surface thereof. The stop block is disposed with a stop flange on an outer edge and a plurality of stop convex parts therearound, and is also mounted with an adjustment slot. The adjustment and positioning member further includes a locking block corresponding to the adjustment slot of the stop block. Moreover, a shower door is mounted with a locking hole corresponding to an outer edge of the stop block. A plurality of stop concave parts respectively corresponding to each stop convex part is formed around the locking hole so as to mount the stop block into the locking hole of the shower door. Then the locking block is set into the adjustment slot of the stop block. By screw fasteners, threaded holes of the locking block are connected to and fixed with the threaded holes of the base. Thus the shower door and the base are assembled with and connected to each other. Therefore, each stop convex part of the stop block and corresponding stop concave part around the locking hole of the shower door are lock with each other for positioning.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The structure and the technical means adopted by the present invention to achieve the above and other objects can be best understood by referring to the following detailed description of the preferred embodiments and the accompanying drawings, wherein

Fig. 1 is an explosive view of an embodiment according to the present invention;

Fig. 2 is an assembly view of an embodiment according to the present invention;

Fig. 3 is a schematic drawing showing an embodiment during the adjustment according to the present invention;

Fig. 4 is another schematic drawing showing an embodiment during the adjustment according to the present invention;

Fig. 5 is a partial assembled cross sectional view of another embodiment according to the present invention;

Fig. 6 is a schematic drawing showing a prior art in use.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0007] Refer to Fig. 1, an adjustment and positioning member 1 of the present invention mainly includes a base 11 disposed with at least one threaded hole 111 on a front surface thereof. A protection piece 12 made from a buffer material such as plastic is arranged at the front side of the base 11. A long hole 121 corresponding to the threaded hole 111 of the base 11 is disposed on the protection piece 12. At least one positioning sleeve hole 122 is formed on the protection piece 12. A stop block 13 corresponding to the protection piece 12 includes a stop flange 131 around an outer edge of the stop block

13 and a plurality of stop convex parts 132 therearound. A locking slot 133 corresponding to the positioning sleeve hole 122 of the protection piece 12, and an adjustment slot 134 corresponding to both the threaded hole 111 of the base 11 and the long hole 121 of the protection piece 12 are mounted on the stop block 13. Adjusting teeth 135 are formed on an inner edge of the adjustment slot 134. A protective ring 14 is set around the stop block 13. The protective ring 14 is also made from a buffer material such as plastic. The protective ring 14 is also disposed with a stop flange 141 and a plurality of stop convex parts 142 corresponding to the stop flange 131 and the stop convex parts 132 of the stop block 13 therearound. And at least one mounting block 143 corresponding to the locking slot 133 of the stop block 13 is arranged at the protective ring 14. A location hole 144 corresponding to the positioning sleeve hole 122 of the protection piece 12 is mounted on the mounting block 143. The device further includes a locking block 15 corresponding to the adjustment slot 134 of the stop block 13. The locking block 15 is mounted with at least one threaded hole 151 corresponding to the threaded hole 111 of the base 11. By a screw fastener 152, the threaded hole 151 of the locking block 15 is connected to and fixed with the threaded hole 111 of the base 11. Moreover, an outer edge of the locking block 15 is set with adjusting teeth 153 corresponding to the adjusting teeth 135 on the inner edge of the adjustment slot 134. A cover 16 is disposed on a front side of the stop block 13, covering the stop block 13 completely. At least one locating pin 161 corresponding to the positioning sleeve hole 122 of the protection piece 12 is set on an inner surface of the cover 16.

[0008] Refer to Fig. 2, a shower door 2 is mounted with a locking hole 21 whose size is corresponding to the outer edge of the protective ring 14. A plurality of stop concave parts 211 corresponding to each stop convex part 142 of the protective ring 14 is formed around the locking hole 21. When the stop block 13 is mounted into the protective ring 14, the stop flange 131 and each stop convex part 132 of the stop block 13 are sleeved and connected with the stop flange 141 and corresponding stop convex part 142 of the protective ring 14 correspondingly. Moreover, the mounting block 143 of the protective ring 14 is mounted and locked into the locking slot 133 of the stop block 13. Thereby the stop block 13 together with the protective ring 14 inserts through the locking hole 21 of the shower door 2 from the front surface of the shower door 2 and each stop convex part 132, 142 of the stop block 13 and the protective ring 14 is just locked with and limited in the stop concave part 211 around the locking hole 21. By the stop flanges 131, 141 of the stop block 13 and the protective ring 14 locking against the front surface of the locking hole 21 of the shower door 2, the shower door 2 is unable to move forward and release from the stop block 13 and the protective ring 14. From the other surface of the shower door 2, the positioning sleeve hole 122 of the protection piece 12 is mounted into the location hole 144 on the mounting block 143 of the protective ring 14. The locking block15 is set within the adjustment slot 134 of the stop block 13. By the screw fastener 152 passing through, the threaded hole 151 of the locking block 15 and the threaded hole 111 of the base 11 are connected and fixed with each other. Thus the shower door 2 and the base 11 are assembled with and connected to each other. Then the cover 16 covers and locates outside the stop block 13 and the locating pin 161 of the cover 16 is inserted into and is located in the positioning sleeve hole 122 of the protection piece 12. Thus the assembling and positioning of the shower door 2 are completed. Due to the convex parts 132, 142 of the stop block 13 and the protective ring 14 locked with the stop concave parts 211 around the locking hole 21 of the shower door 2, the shower door 2 is not rotated or tilted. At the same time, the protection piece 12 and the protective ring 14 are made from buffer material so as to prevent the shower door 2 from being scraped by other metal components.

[0009] When users intend to finely adjust the position of the shower door 2 assembled with and connected to the adjustment and positioning member 1, the screw fastener 152 screwed in the locking block 15 is screwed and loosened, as shown in Fig. 3 an Fig. 4. Then the stop block 13 together with the protective ring 14 sleeved therearound drives the shower door 2 to be moved and adjusted within the adjustment slot 134 of the stop block 13. Due to the adjusting teeth 135, 153 between the adjustment slot 134 and the locking block 15, the movement and adjustment of the shower door 2 are more convenient and precise. After adjustment, the screw fastener 152 is threaded and locked securely. Thus the purpose of adjustment and positioning is achieved.

[0010] Furthermore, refer to Fig. 5, an annular receiving slot 136 corresponding to the cover 16 is formed projectingly on an outer edge of the stop block 13. Thus the cover 16 is just received and mounted into the annular receiving slot 136 on the outer edge of the stop block 13 while the cover 16 covering and positioning outside the stop block 13. Thus the periphery of the cover 16 will not project from the stop block 13. The connection between the cover 16 and the stop block 13 is a flat surface.

[0011] In summary, compared with the structure available now, the present invention uses each stop convex part of the stop block and the stop concave part around the locking hole of the shower door locked and positioned by each other to prevent rotation and tilt of the shower door having a single locking hole. Thus the assembling and positioning of the shower door are getting easier and more convenient. The practical value of the device is increased in many applications.

[0012] Additional advantages and modifications will readily occur to those skilled in the art. Therefore, the invention in its broader aspects is not limited to the specific details, and representative devices shown and described herein. Accordingly, various modifications may be made without departing from the spirit or scope of the general inventive concept as defined by the appended claims and their equivalents.

Claims

1. A shower door adjustment and positioning member (1) **characterized in that** it comprises:

   a base (11) mounted with at least one threaded hole (111) on a front surface thereof;
   a stop block (13) that includes a stop flange (131) on an outer edge, a plurality of stop convex parts (132) therearound, and at least one adjustment slot (134) corresponding to the threaded hole (111) of the base (11); and
   a locking block (15) corresponding to the adjustment slot (134) of the stop block (13) and mounted with at least one threaded hole (151) that is corresponding to the threaded hole (111) of the base (11) and is connected to the threaded hole (111) of the base (11) by at least one screw fastener (152);
   a shower door (2) is mounted with a locking hole (21) and a plurality of stop concave parts (211) respectively corresponding to each stop convex part (132) of the stop block (13) is formed around the locking hole (21) so that the stop block (13) is mounted into the locking hole (21) of the shower door (2).

2. The device as claimed in claim 1, wherein a protection piece (12) is arranged between the stop block (13) and the base (11); a long hole (121) corresponding to the threaded hole (111) of the base (11) is mounted on the protection piece (12) and at least one positioning sleeve hole (122) is formed on the protection piece (12); a locking slot (133) corresponding to the positioning sleeve hole (122) of the protection piece (12) is mounted on the stop block (13).

3. The device as claimed in claim 1, wherein adjusting teeth (135) are formed on an inner edge of the adjustment slot (134) of the stop block (13) while an outer edge of the locking block (15) is set with adjusting teeth (153) corresponding to the adjusting teeth (135) on the inner edge of the adjustment slot (134) of the stop block (13).

4. The device as claimed in claim 1, wherein the stop block (13) is mounted in a protective ring (14) and the protective ring (14) includes a stop flange (141) and a plurality of stop convex parts (142) respectively corresponding to the stop flange (131) and the stop convex parts (132) of the stop block (13).

5. The device as claimed in claim 2, wherein the stop block (13) is mounted in a protective ring (14) and the protective ring (14) includes a stop flange (141) and a plurality of stop convex parts (142) respectively corresponding to the stop flange (131) and the stop convex parts (132) of the stop block (13), at least one mounting block (143) corresponding to the locking slot (133) of the stop block (13), and at least one location hole (144) corresponding to the positioning sleeve hole (122) of the protection piece (12) and mounted on the mounting block (143).

6. The device as claimed in claim 1, wherein a cover (16) is disposed on a front surface of the stop block (13) and the cover (16) covers the stop block (13) completely.

7. The device as claimed in claim 6, wherein an annular receiving slot (136 corresponding to the cover (16) is formed projectingly on an outer edge of the stop block (13).

8. The device as claimed in claim 2, wherein a cover (16) is disposed on a front surface of the stop block (13) and covering the stop block (13) completely; least one locating pin (161) corresponding to the positioning sleeve hole (122) of the protection piece (12) is set on an inner surface of the cover (16).

9. The device as claimed in claim 8, wherein an annular receiving slot (136) corresponding to the cover (16) is formed projectingly on an outer edge of the stop block (13).

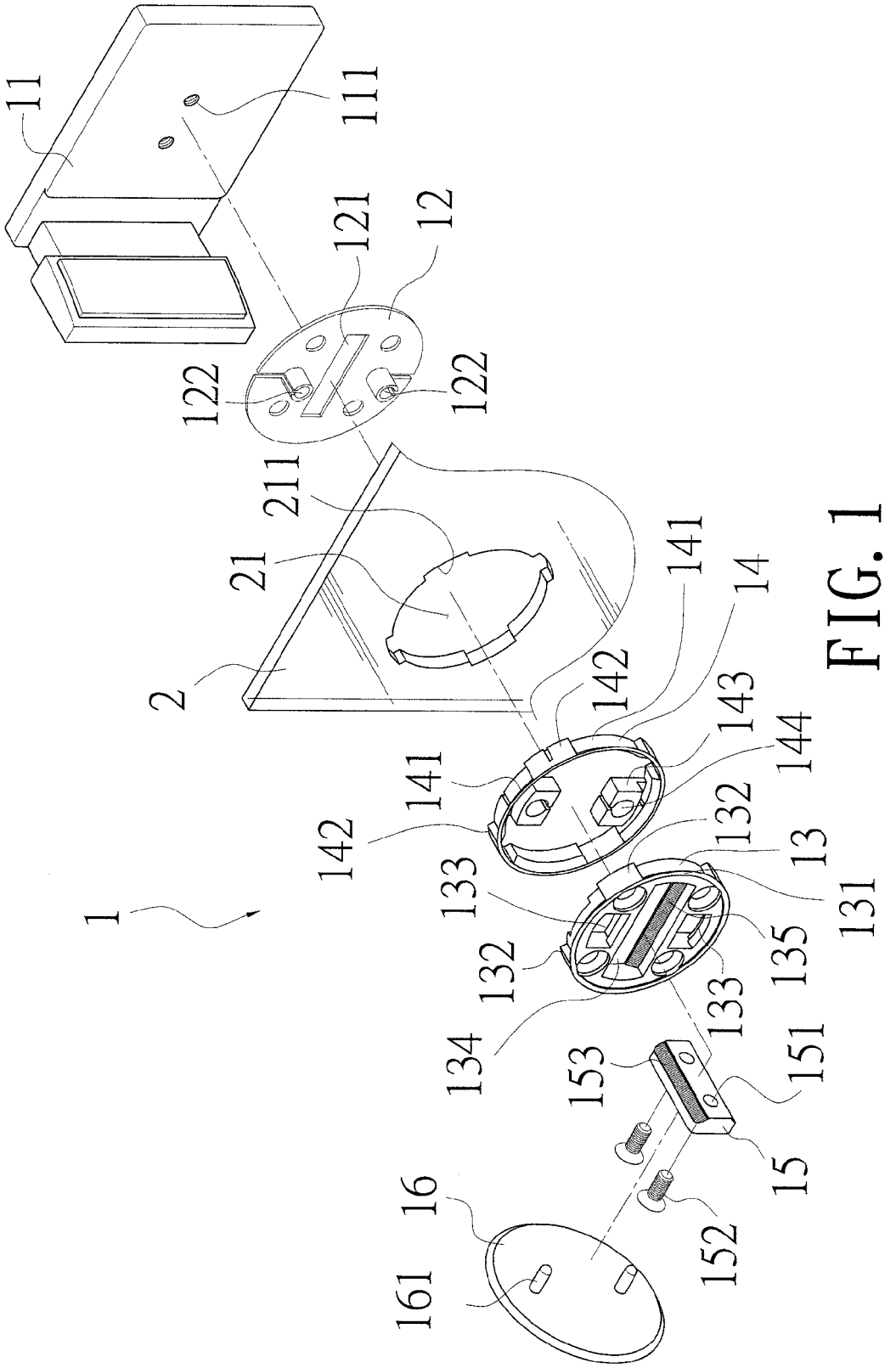
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FIG. 1

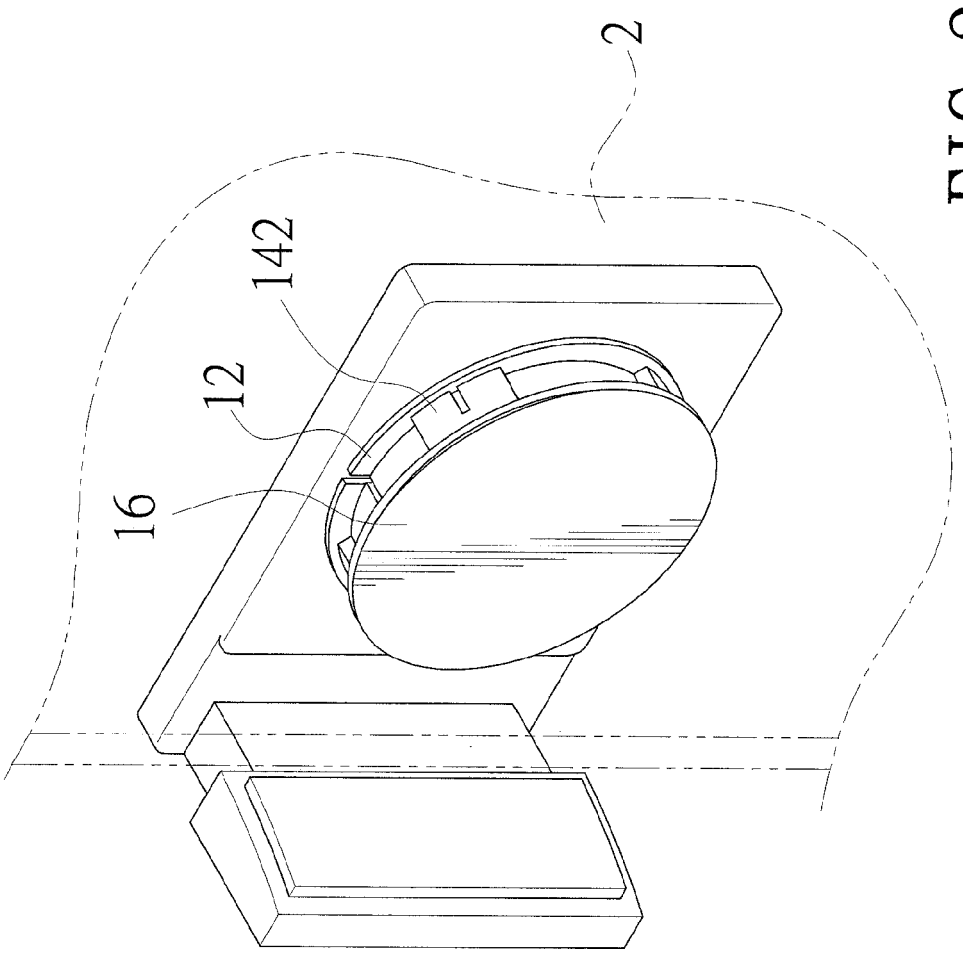

FIG. 2

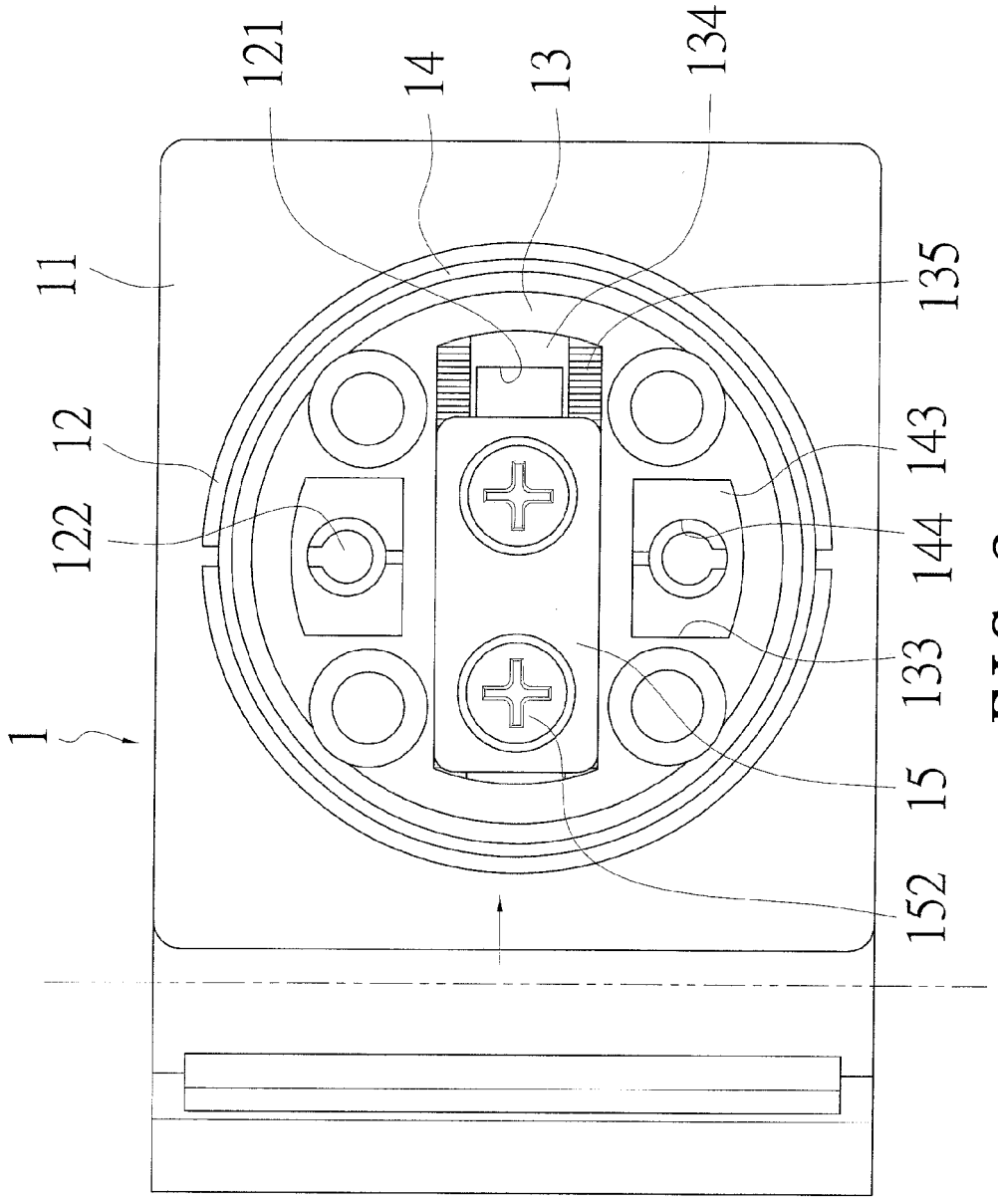

FIG. 3

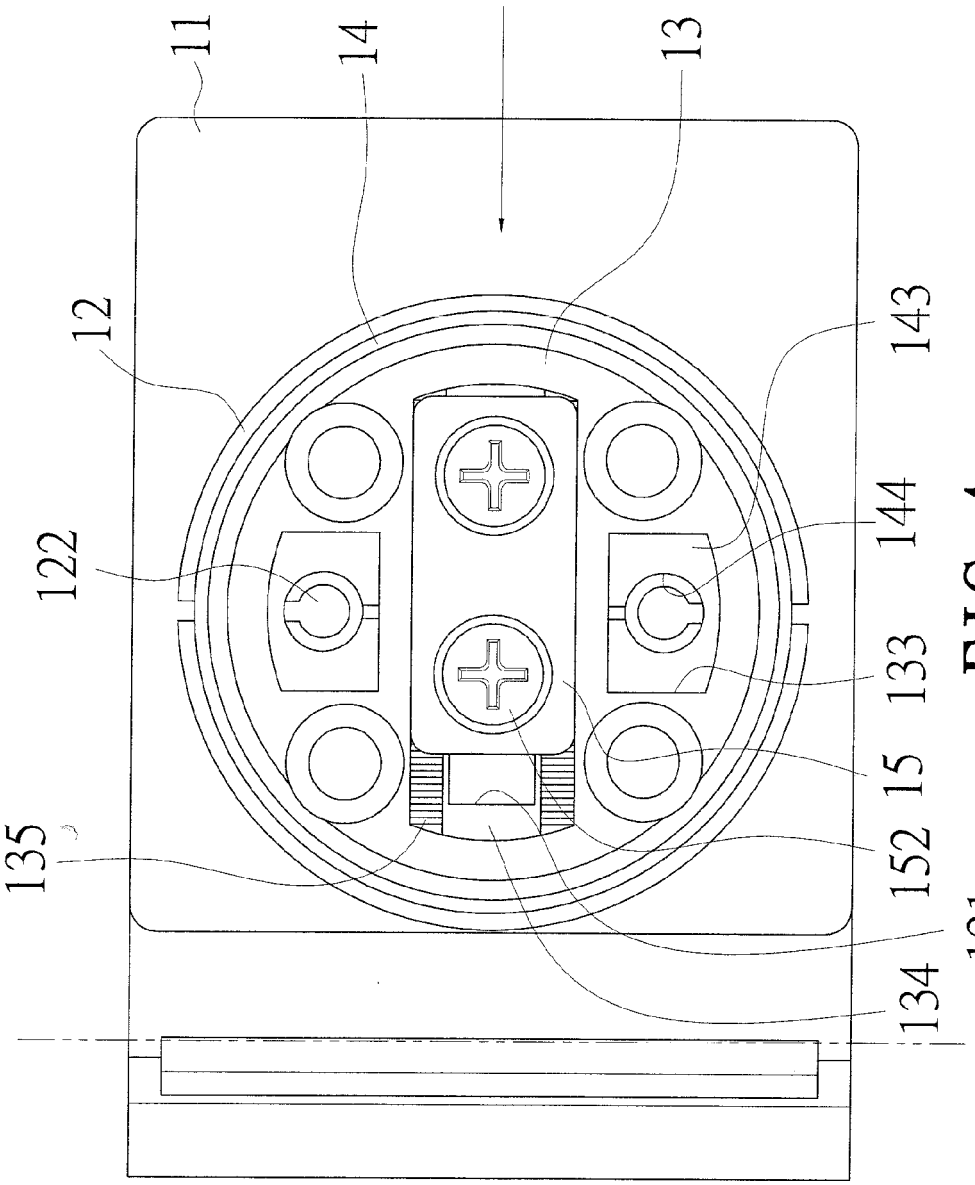

FIG. 4

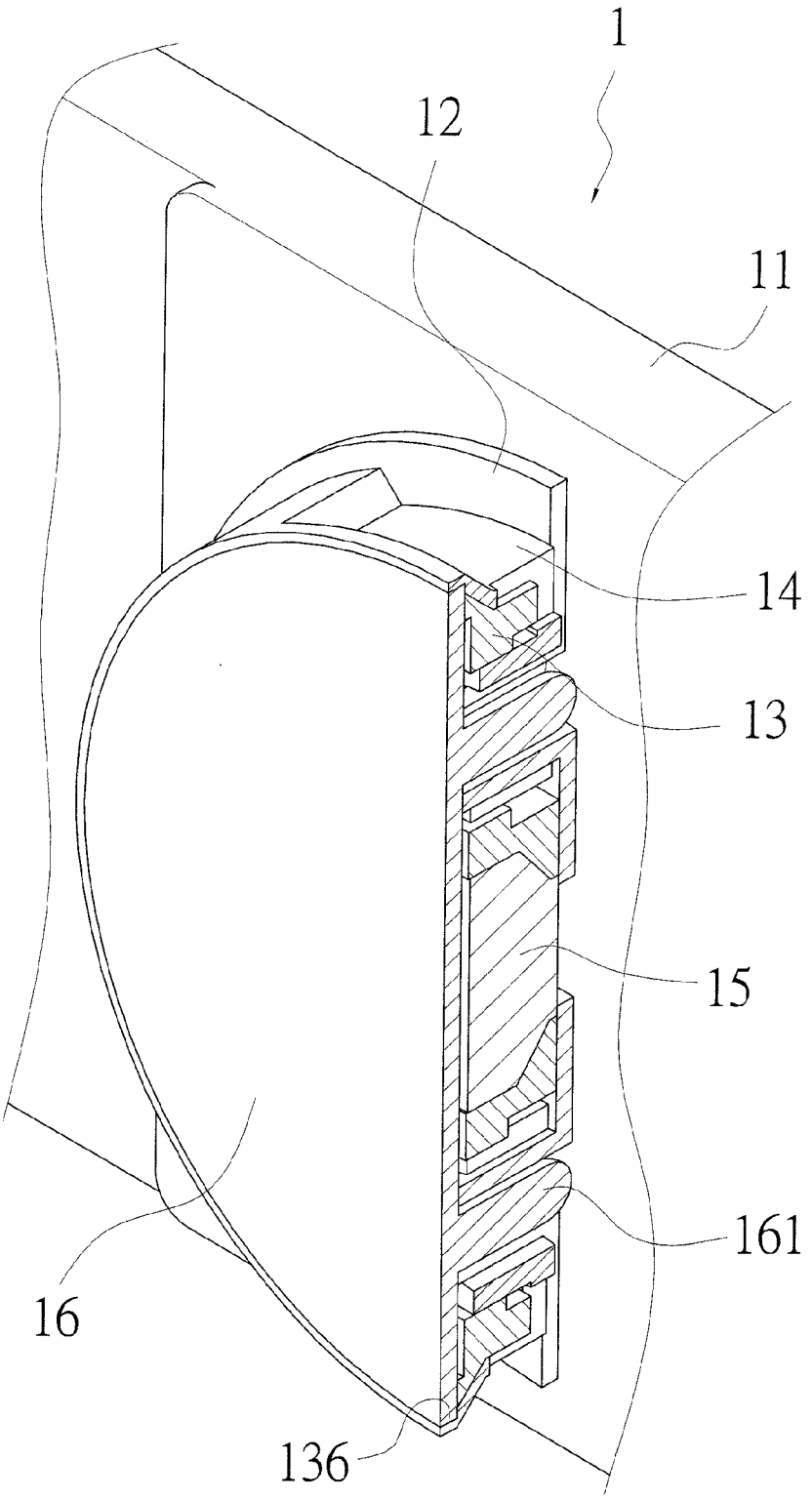

FIG. 5

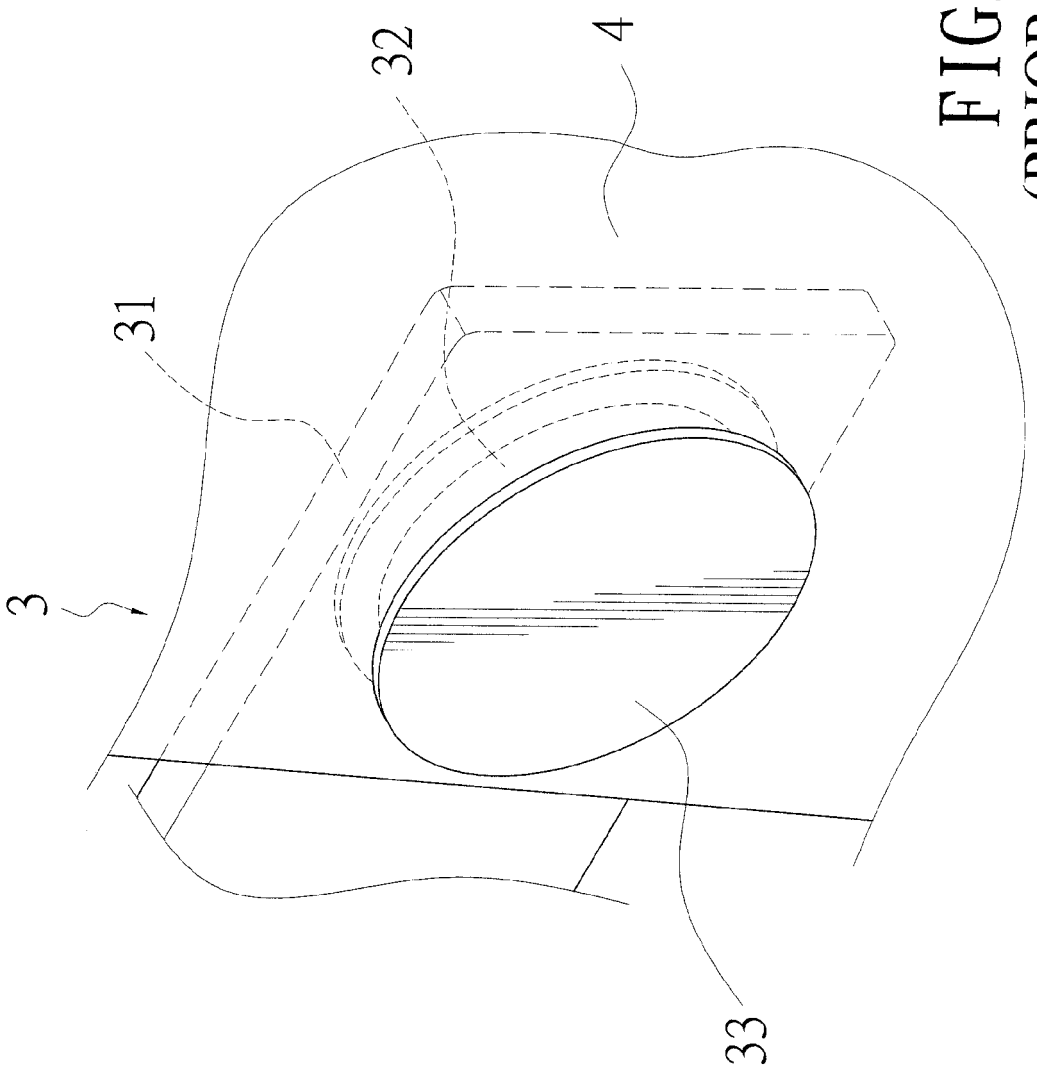

FIG. 6
(PRIOR ART)

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EUROPEAN SEARCH REPORT

Application Number
EP 11 15 1795

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	DE 196 46 575 A1 (FISCHBACH JOACHIM [DE]; HOMMEL GUENTER [DE]) 14 May 1998 (1998-05-14) * the whole document * -----	1	INV. A47K3/36

TECHNICAL FIELDS SEARCHED (IPC)

A47K

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	5 July 2011	Clasing, Martina

CATEGORY OF CITED DOCUMENTS

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 15 1795

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 19646575 A1	14-05-1998	NONE	

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