



US 20090053061A1

(19) **United States**

(12) **Patent Application Publication**
WANG

(10) **Pub. No.: US 2009/0053061 A1**

(43) **Pub. Date: Feb. 26, 2009**

(54) **BELL-SHAPED ORNAMENTAL COVER OF A CEILING FAN**

(52) **U.S. Cl. 416/62**

(76) **Inventor: Cliff WANG, Tanzih Township (TW)**

(57) **ABSTRACT**

Correspondence Address:
SINORICA, LLC
528 FALLSGROVE DRIVE
ROCKVILLE, MD 20850 (US)

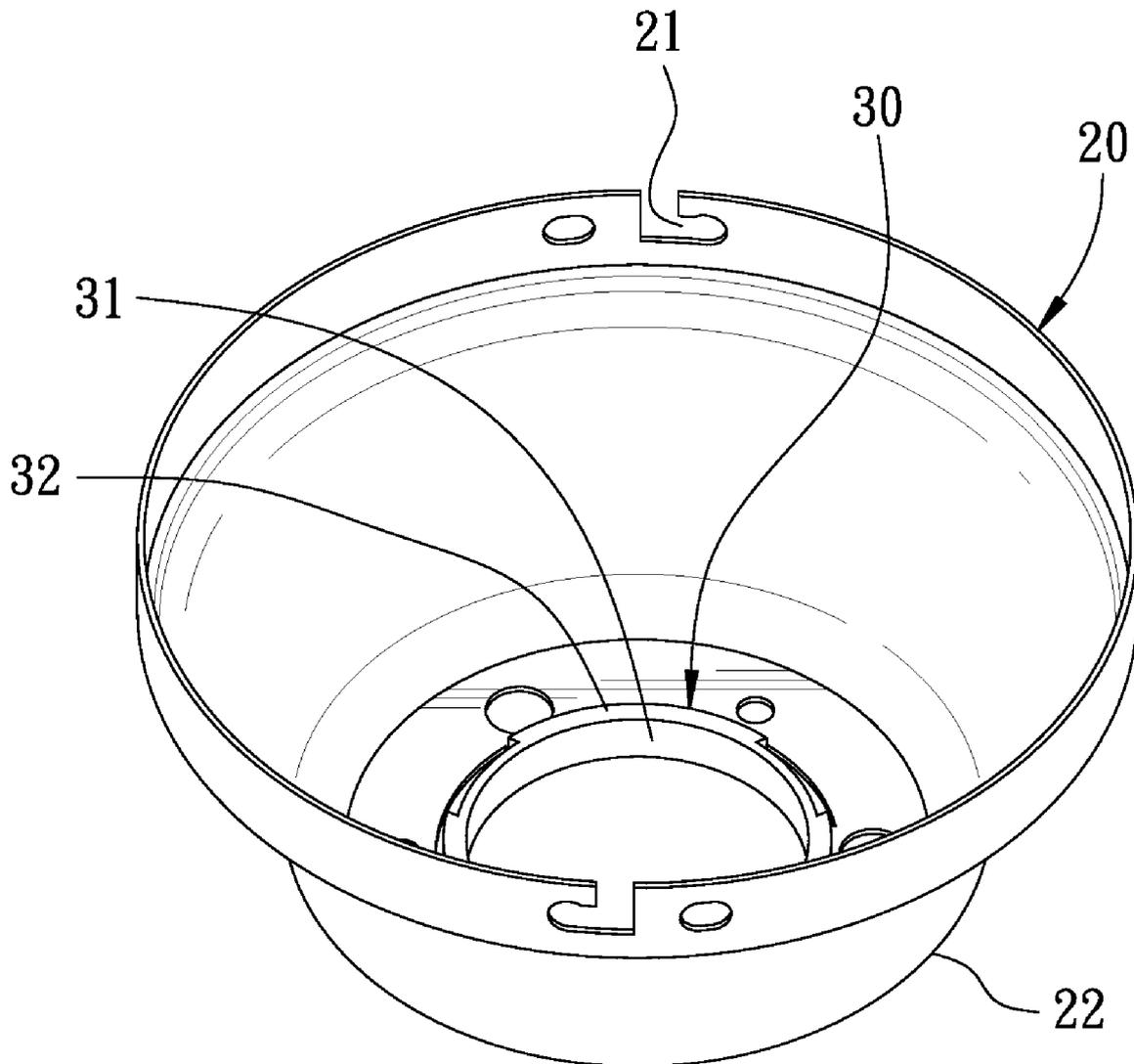
A bell-shaped ornamental cover of a ceiling fan mainly makes the bottom of a hanging bell covered by an ornamental cover to keep exposed screws hidden to beautify the ceiling fan. The hanging bell has its bottom shrunk as a neck opening with at least two engaging projections extended towards the center. The ornamental cover possesses a positioning ring extended upward around its inner circumference for being fixed in the neck opening. The positioning ring has its outer wall extended outward with plural locking portions for corresponding to the engaging projections that are respectively to be engaged with a locking groove formed inside the locking portions. In assembling, just aim the engaging projections at recesses formed between every two adjacent locking portions and then, turn around the ornamental cover.

(21) **Appl. No.: 11/843,635**

(22) **Filed: Aug. 22, 2007**

Publication Classification

(51) **Int. Cl. F04D 29/00 (2006.01)**



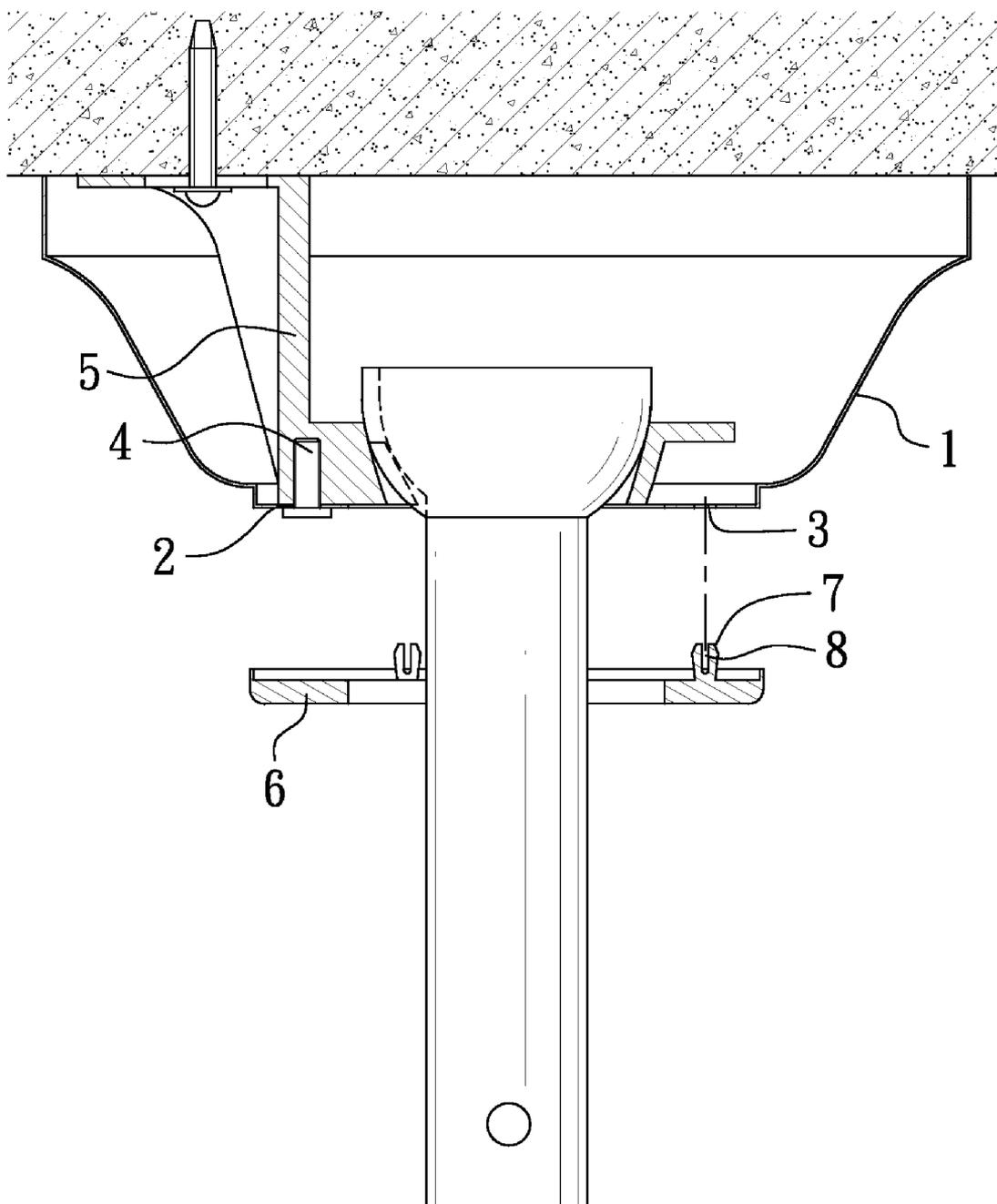


FIG. 1
PRIOR ART

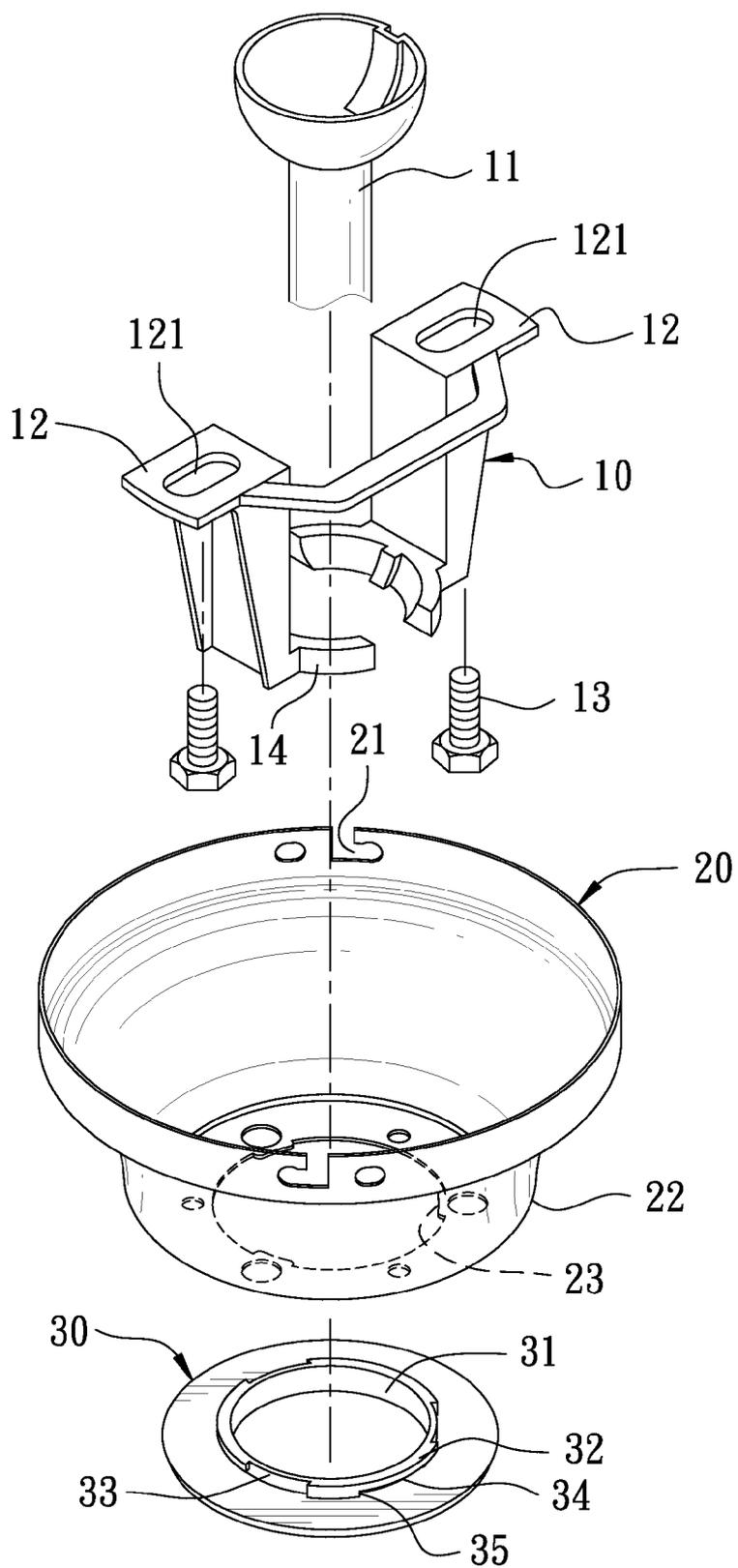


FIG. 2

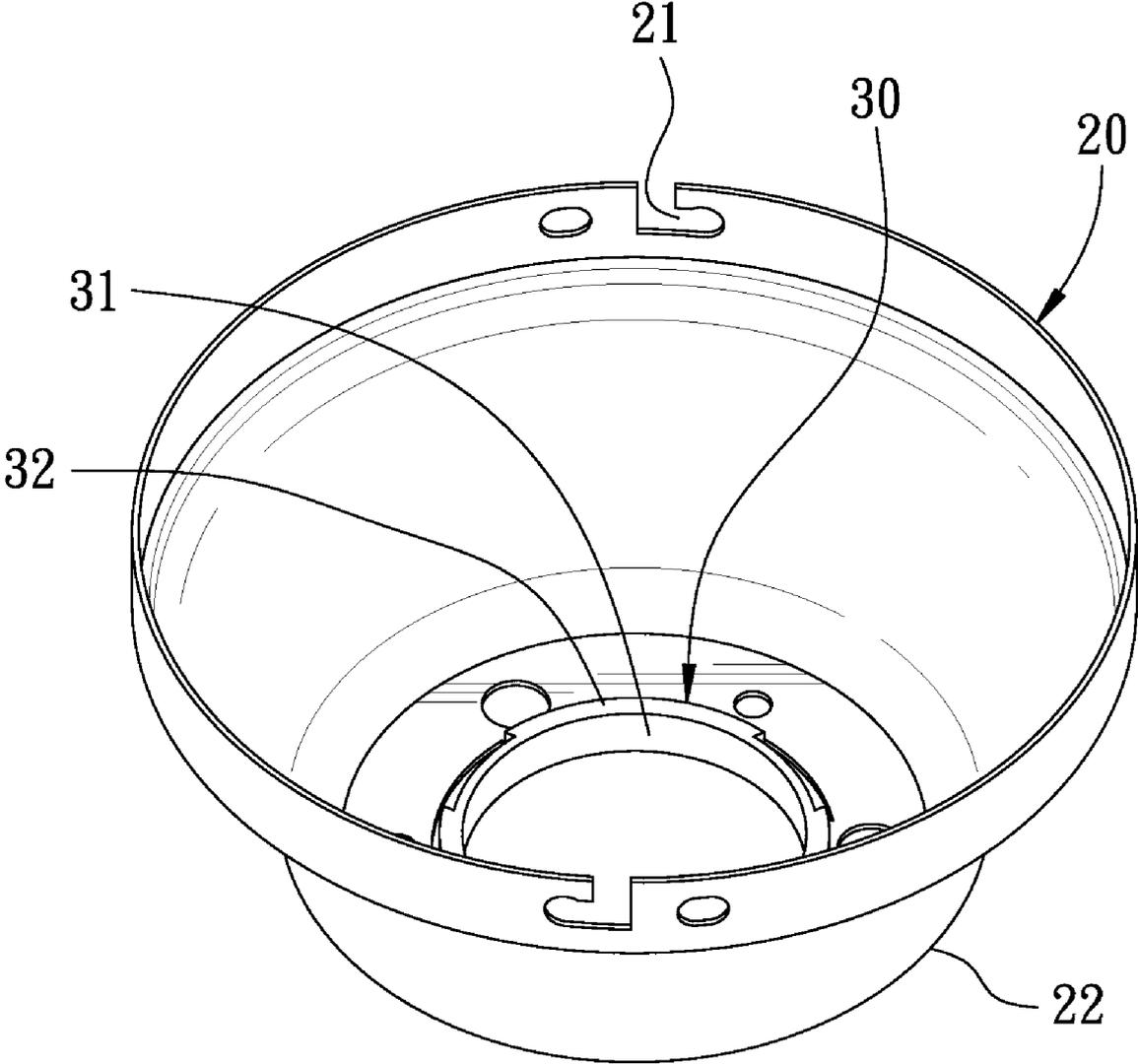


FIG. 3

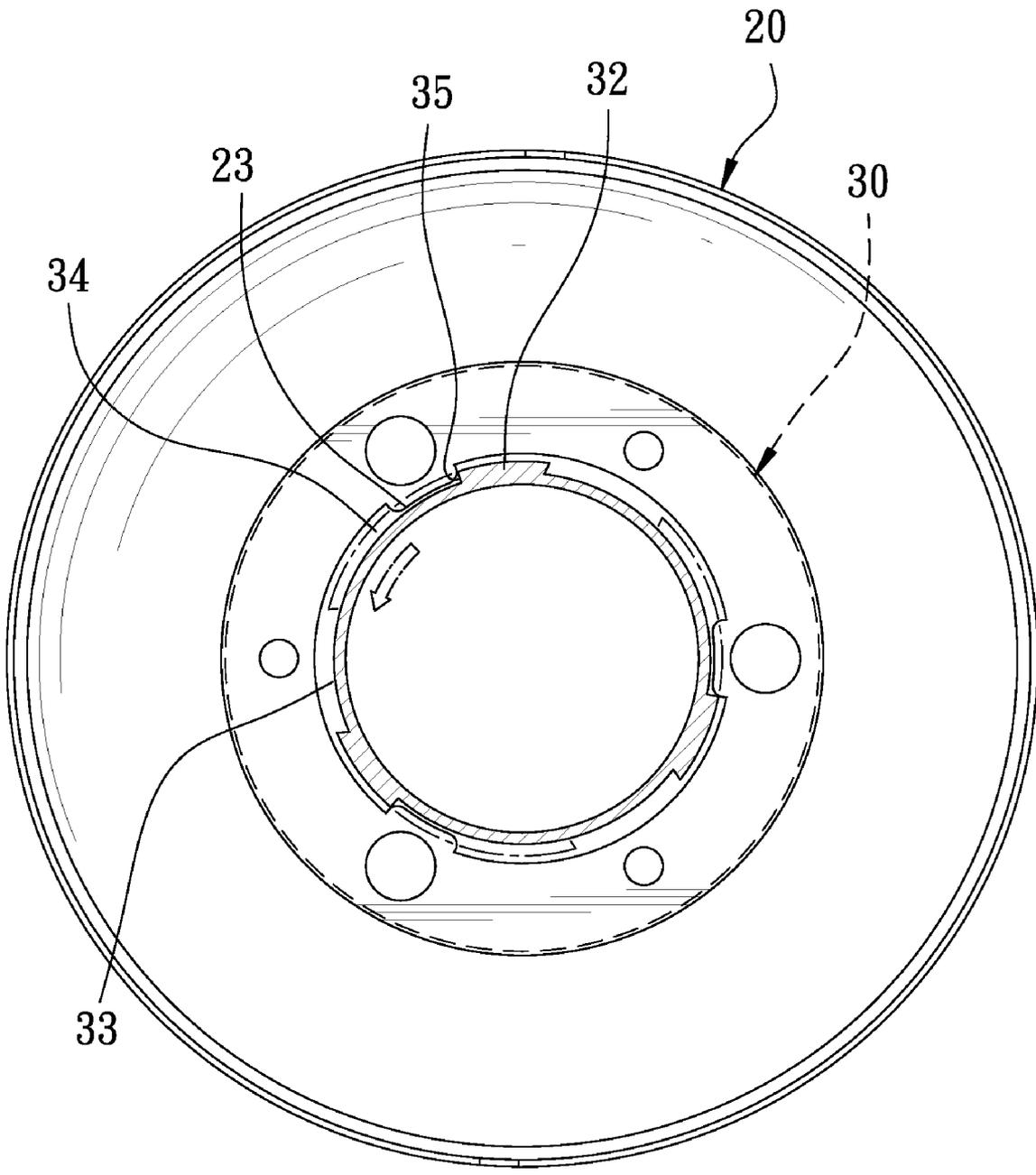


FIG. 4

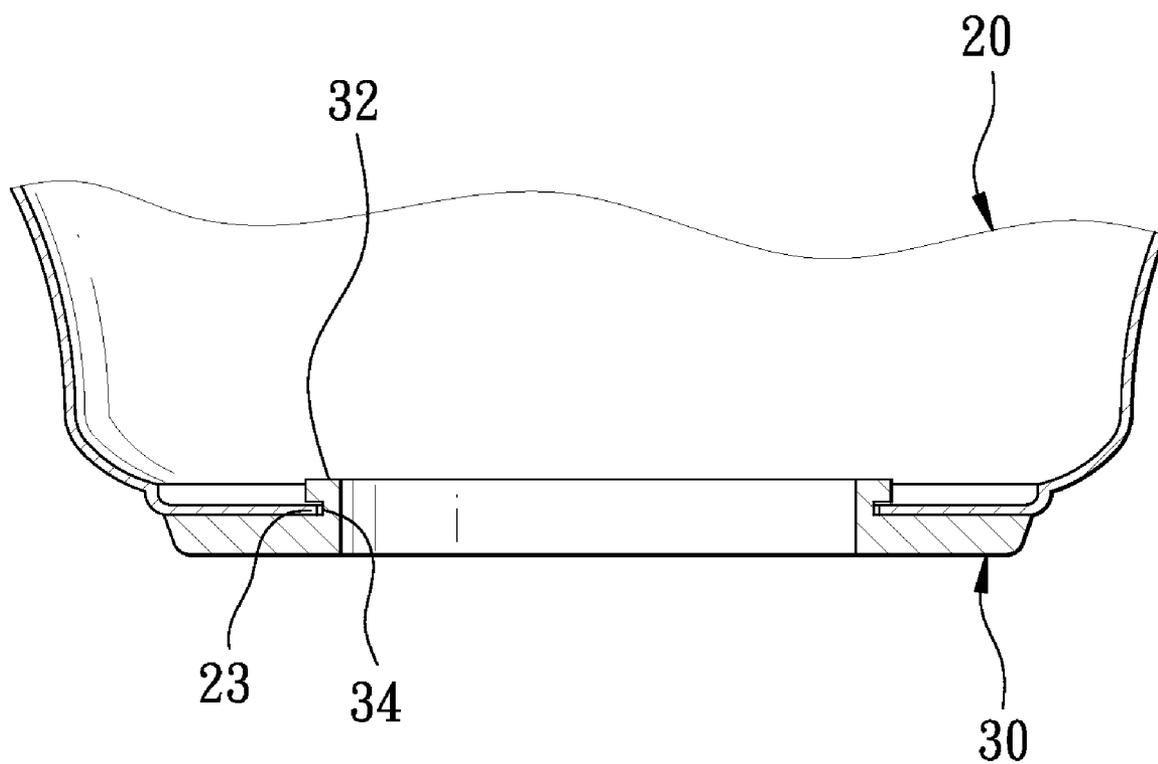


FIG. 5

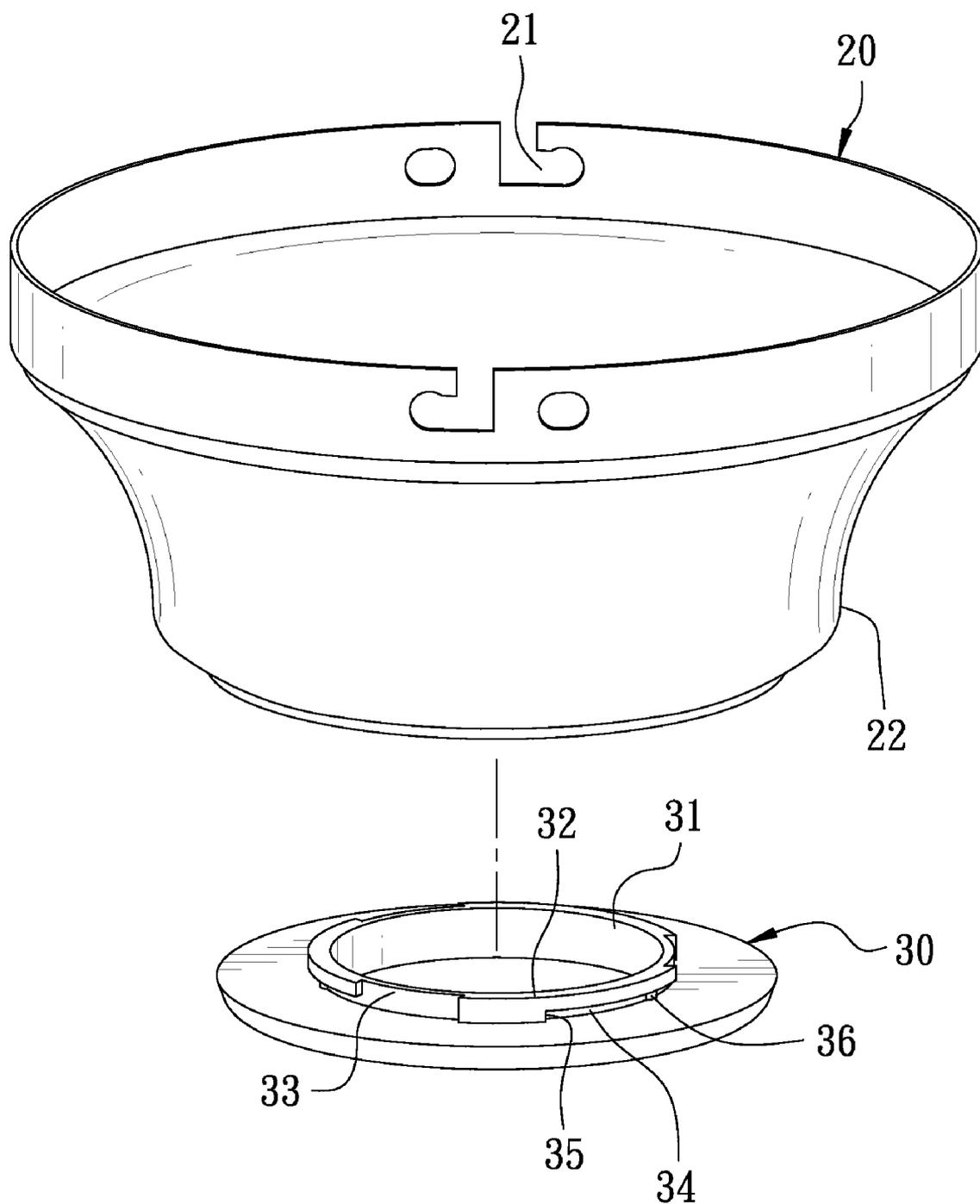


FIG. 6

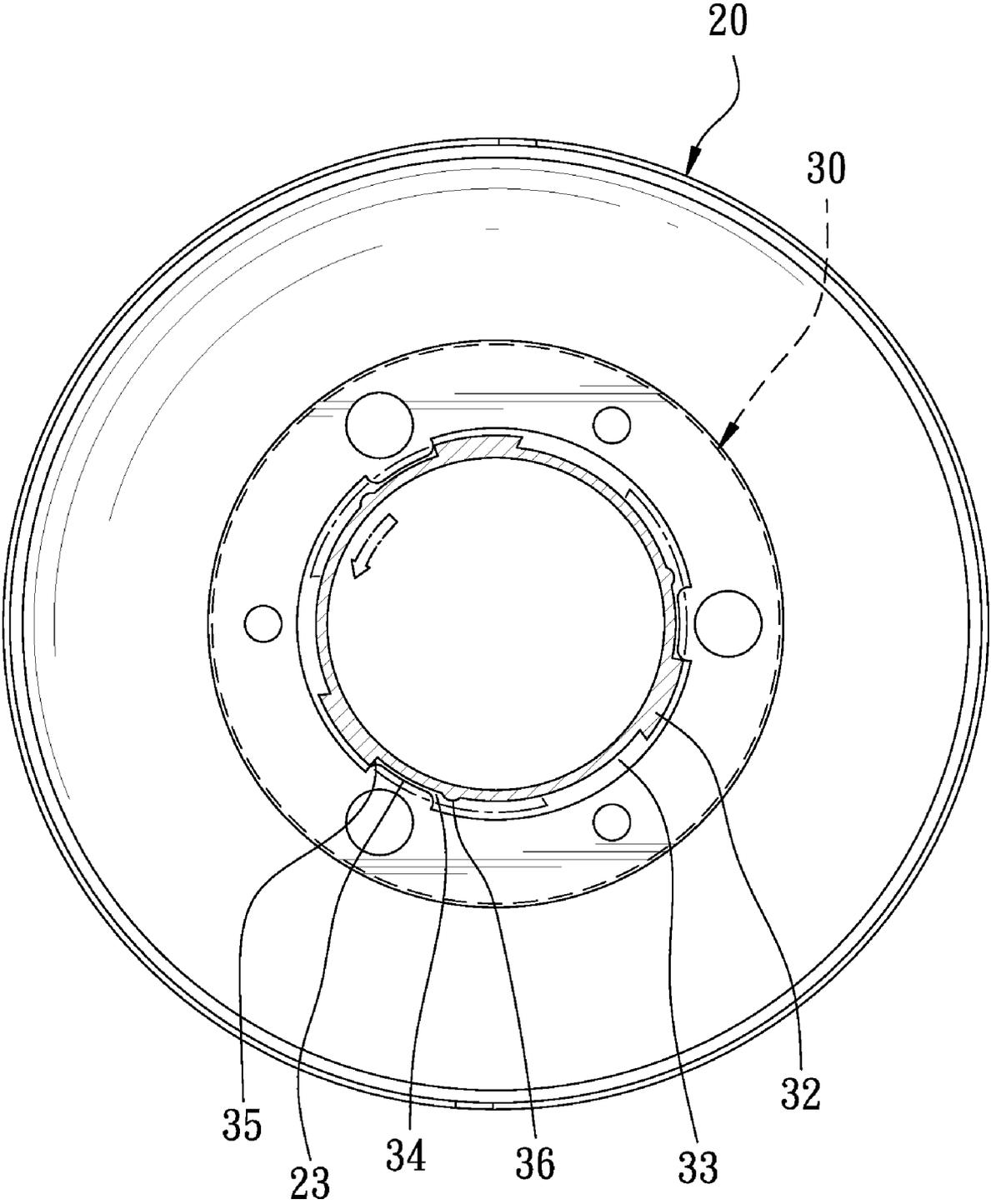


FIG. 7

BELL-SHAPED ORNAMENTAL COVER OF A CEILING FAN

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates to a ceiling fan, particularly to a bell-shaped ornamental cover that can be swiftly assembled to aesthetically decorate the ceiling fan.

[0003] 2. Description of the Prior Art

[0004] FIG. 1 shows a conventional bell-shaped ornamental cover for a ceiling fan. The hanging bell 1 is provided with three threaded holes 2 and three round holes 3 that are bored alternately around its lower circumference, equidistantly spaced apart. In installation, the threaded holes 2 are first engaged with screws 4 to keep the hanging bell 1 fixed fixedly under a hanging bracket 5. As the screws 4 are barely exposed under the hanging bell 1, looking not aesthetic, an ornamental cover 6 is thus covered up at the bottom of the hanging bell 1. Three flexible locking projections 7 are extended upwards around the ornamental cover 6 to correspond to the holes 3, having a width of their upper end slightly larger than the diameter of the holes 3. And, with a slot 8 formed in the middle of the locking projections 7 respectively, the locking projections 7 can be flexibly inserted in the holes 3 so as to keep the ornamental cover 6 fixedly positioned under the hanging bell 1. However, as the hanging bell 1 is hanged under the ceiling, the ornamental cover 6 has to be held up above a person, being tried to enable the locking projections 7 to correspond to and be forced to enter the holes 3, causing a difficult installation.

SUMMARY OF THE INVENTION

[0005] The objective of this invention is to offer a bell-shaped ornamental cover of a ceiling fan.

[0006] The main characteristics of the invention are a hanging bell and an ornamental cover. The hanging bell has its bottom shrunk as a neck opening provided with at least two engaging projections extended around its inner circumference towards the center. The ornamental cover is provided with a positioning ring extended upward around its inner circumference for being positioned in the neck opening. The positioning ring has its outer wall extended outward with plural locking portions for corresponding to the engaging projections that are respectively to be engaged with a locking groove formed inside the locking portions. A recess is formed between every two adjacent locking portions. While assembling, just aim the engaging projections at the recesses and then, turn around the ornamental cover to keep the engaging projections restricted in the locking grooves. It is unnecessary to employ other screws to keep the ornamental cover positioned on the hanging bell. Therefore, the ceiling fan can be easily decorated with such an aesthetic ornamental cover.

BRIEF DESCRIPTION OF DRAWINGS

[0007] This invention is better understood by referring to the accompanying drawings, wherein:

[0008] FIG. 1 is a cross-sectional view of a conventional bell-shaped ornamental cover;

[0009] FIG. 2 is an exploded perspective view of a first preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention;

[0010] FIG. 3 is a perspective view of the first preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention;

[0011] FIG. 4 is a top view of the first preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention;

[0012] FIG. 5 is a side view of the first preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention;

[0013] FIG. 6 is an exploded perspective view of a second preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention; and

[0014] FIG. 7 is a top view of the second preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0015] As shown in FIG. 2, a first preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention is composed of a hanging frame 10, a hanging bell 20 and an ornamental cover 30.

[0016] The hanging frame 10 is fixedly positioned on the ceiling, gradually expanded upwards to be vertically communicable throughout. The hanging frame 10 is provided with a suspending rod 11 hanged in its center, and a pair of flat plate members 12 formed symmetrically and horizontally extended upward from its two sides. Each of the flat plate members 12 is provided with an elliptic hole 121 bored centrally for being passed by a screw 13 to keep the flat plate members 12 flatly fixed with the ceiling. The bottom of the hanging frame 10 is slightly shrunk to form as a neck opening 14 for the suspending rod 11 to just pass through downwards.

[0017] The hanging bell 20 is wrapped around the hanging frame 10, gradually expanded upwards to be vertically communicable throughout for corresponding to the hanging frame 10. The hanging bell 20 is provided with two connecting grooves 21 cut around its top circumference to correspond to the screws 13 of the hanging frame 10, and a neck opening 22 formed by shrinking its bottom to correspond to the neck opening 14 of the hanging frame 10. There are three engaging projections 23 formed rectangular and horizontally and equidistantly spaced apart around the inner circumference of the neck opening 22 toward the center.

[0018] The ornamental cover 30 is formed as an annular plate for being positioned at the bottom of the hanging bell 20, provided with a positioning ring 31 extended upward around its inner circumference with a diameter slightly smaller than the inner diameter of the neck opening 22 of the hanging bell 20, so that the positioning ring 31 can be inserted in the neck opening 22 without letting its outer wall blocked by the engaging projections 23. Corresponding to the engaging projections 23, the outer wall of the positioning ring 31 is formed with plural locking portions 32 horizontally extended out. A recess 33 is formed between every two adjacent locking portions 32. The locking portions 32 are equidistantly spaced apart, respectively formed as an L-shaped projection with an opening heading downward and provided with a horizontal long locking groove 34 formed inside it, and a stopper 35 formed at its left side.

[0019] In assembling, first, the suspending rod 11 is inserted in the neck opening 14 of the hanging frame 10. Next, by means of the screws 13 passing through the elliptic holes 12 of the hanging frame 10, the hanging frame 10 is flatly

fixed on the ceiling. Then, as shown in FIGS. 3 and 4, keep the recesses 33 between the locking portions 32 of the ornamental cover 30 aimed at and passing the engaging projections 23 of the hanging bell 20. Then turn around the ornamental cover 30 to enable the engaging projections 23 to enter the locking grooves 34 of the locking portions 32 until restricted by the blocking parts 35. FIG. 5 shows the ornamental cover 30 stably installed under the hanging bell 20. For disassembling the bell-shaped ornamental cover, just turn around the ornamental cover 30 in the opposite direction to keep the engaging projections 23 moved away from the locking grooves 34 for releasing the ornamental cover 30, and then disassemble the hanging bell 20 and the hanging frame 10 orderly.

[0020] As shown in FIG. 6, a second preferred embodiment of a bell-shaped ornamental cover of a ceiling fan in the present invention has the same components as the first embodiment does, except that a point projection 36 is formed at a proper location of each of the locking grooves 34 with a thickness slightly thinner than that of the locking portions 32, so as to position the engaging projection 23 between the point projection 36 and the stopper 35. And, as shown in FIG. 7, while assembling, the engaging projections 23 are moved to pass over the point projections 36 and then, blocked by the stopper 35 to keep them steadily restricted between the stopper 35 and the point projections 36.

[0021] The advantages of the invention are described below as can be seen from the foresaid description.

[0022] During assembling, it needs only to aim the recesses 33 located between the locking portions 32 of the ornamental cover 30 at the engaging projections 23 of the hanging bell 20 and then, turn around the ornamental cover 30 to keep the engaging projections 23 restricted in the locking grooves 34. So, the bell-shaped ornamental cover 30 is not only easy to be assembled and disassembled but also to cover up the screws 13, integrally making a ceiling fan aesthetic.

[0023] While the preferred embodiment of the invention has been described above, it will be recognized and understood that various modifications may be made therein and the appended claims are intended to cover all such modifications that may fall within the spirit and scope of the invention.

What is claimed is:

1. A bell-shaped ornamental cover of a ceiling fan comprising:

a hanging frame to be fixedly positioned on a ceiling and provided with a suspending rod hanged in its center and

a pair of flat plate members symmetrically formed and horizontally extended upward from its two sides, said flat plate members having their top surfaces flatly fixed on said ceiling by plural screws, said hanging frame having its bottom shrunk to form as a neck opening for said suspending rod to just pass through downwards;

a hanging bell wrapped around said hanging frame and provided with two connecting grooves cut around its top circumference to correspond to said screws of said hanging frame and a neck opening formed by shrinking its bottom to correspond to said neck opening of said hanging frame, two engaging projections 23 horizontally extended around an inner circumference of said neck opening toward a center; and

an ornamental cover formed as an annular plate for being positioned at a bottom of said hanging bell and provided with a positioning ring extended upward around its inner circumference for being fixed in said neck opening of said hanging bell, said positioning ring provided with plural locking portions horizontally extended out from its outer wall for corresponding to said engaging projections of said hanging bell, each of said locking portions having a locking groove for engaging with said engaging projection of said hanging bell.

2. The bell-shaped ornamental cover of a ceiling as claimed in claim 1, wherein said hanging bell is provided with three engaging projections corresponding to three locking portions provided in said ornamental cover.

3. The bell-shaped ornamental cover of a ceiling as claimed in claim 1 or 2, wherein said engaging projections are formed rectangular.

4. The bell-shaped ornamental cover of a ceiling as claimed in claim 1 or claim 2, wherein said locking portions are equidistantly spaced apart, respectively formed as a L-shaped projection with an opening heading downward and provided with a horizontal long locking groove formed inside it, and a blocking part formed at its one side.

5. The bell-shaped ornamental cover of a ceiling as claimed in claim 1 or claim 2, wherein a point projection is formed on each of said locking grooves in said locking portions so as to keep said engaging projection of said hanging bell restricted between said point projection and said stopper.

* * * * *