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(54) Titre : LAMPE A TUBE
(54) Title: TUBE LAMP

(57) **Abrégé/Abstract:**

Disclosed is a tube lamp, comprising a mounting box and a lamp body matched with the mounting box, the mounting box comprising a top plate and side wall boards around the top plate; the tube lamp also comprises a fixed board, the fixed board comprises a fixed board body; at least two sets of fasteners are disposed at the two ends of the fixed board body; the fasteners are interspaced; the fixed board is detachably connected to the mounting box through the fasteners; and the lamp body is connected to the mounting box through the fixed board. At least two sets of fasteners are disposed at the two ends of the fixed board body; the fasteners are used for connection with the mounting box; the two sets of fasteners are interspaced, capable of being applied to many mounting boxes of different sizes, so the tube lamp has higher compatibility.



Abstract

Disclosed is a tube lamp, comprising a mounting box and a lamp body matched with the mounting box, the mounting box comprising a top plate and side wall boards around the top plate; the tube lamp also comprises a fixed board; the fixed board comprises a fixed board body; at least two sets of fasteners are disposed at the two ends of the fixed board body; the fasteners are interspaced; the fixed board is detachably connected to the mounting box through the fasteners; and the lamp body is connected to the mounting box through the fixed board. At least two sets of fasteners are disposed at the two ends of the fixed board body; the fasteners are used for connection with the mounting box; the two sets of fasteners are interspaced, capable of being applied to many mounting boxes of different sizes, so the tube lamp has higher compatibility.

Description

Title of the Invention: Tube Lamp

[0001] Technical Field

[0002] The present invention relates to the field of lighting devices, in particular to a tube lamp.

[0003] Description of the Related Art

[0004] A tube lamp is a lighting fitting which is embedded in a ceiling and emits light downward. The most prominent characteristic of the tube lamp is maintaining the overall uniformity of building decorations and avoiding damage to the perfection and uniformity of ceiling art due to the placement of lamps. A tube lamp usually has a screw base, and can be directly equipped with an incandescent light bulb or energy-saving bulb. At present, the majority of light fittings are installed through lock screws and are compatible with a few mounting box sizes; besides, alignment is needed during installation of the lighting fittings, so operation is inconvenient.

[0005] Detailed Contents of The Present Invention

[0006] The technical problem to be solved in the present invention is to provide a tube lamp with higher compatibility.

[0007] In order to solve the above technical problem, the present invention employs the following technical solution: a tube lamp is disclosed, including a mounting box and a lamp body matched with the mounting box, wherein the mounting box includes a top plate and side wall boards around the top plate. The tube lamp also includes a fixed board.

[0008] The fixed board includes a fixed board body. At least two sets of fasteners are disposed at the two ends of the fixed board body; the fasteners are interspaced; and the fixed board is detachably connected to the mounting box through the fasteners.

[0009] The lamp body is connected to the mounting box through the fixed board.

[0010] Further, the fixed board body also includes a middle snap joint base; the lamp body is provided with a snap joint; the snap joint is matched with the snap joint base; the top plate and the side wall boards form an accommodating cavity; the snap joint is in snap-fit with the snap joint base, and the snap joint is received in the accommodating cavity.

[0011] Further, the snap joint base is a round through-hole formed on the body; the snap joint includes a metal spring plate; and the two ends of the metal spring plate are bent toward each other.

[0012] Further, the metal spring plate includes a bottom plate and a first side plate and a second plate which are disposed at two ends of the bottom plate and are bent toward each other; the upper end of the first side plate extends outward to form a stop portion, while the second side plate is connected to the outer end of the stop portion.

[0013] Further, the fastener includes screw holes formed on the fixed board body; the mounting box is provided with connecting columns along the inner wall faces of the side wall boards; the connecting columns are provided with connecting holes; the fixed board is detachably connected to the mounting box through the screw holes and screws in the connecting holes.

- [0014] Further, three sets of screw holes are provided.
- [0015] The present invention has the following beneficial effects: at least two sets of fasteners are disposed at the two ends of the fixed board body; the fasteners are used for connection with the mounting box; the two sets of fasteners are interspaced, capable of being applied to mounting boxes of different sizes, and capable of being compatible with many mounting boxes of different sizes, and have higher compatibility.
- [0016] Description of Several Views of the Attached Drawings
- [0017] FIG. 1 is a structural exploded view of a tube lamp according to an embodiment of the present invention;
- [0018] FIG. 2 is a structural view of the tube lamp being installed according to an embodiment of the present invention;
- [0019] FIG. 3 is a structural view of the tube lamp after being installed according to an embodiment of the present invention;
- [0020] FIG. 4 is a structural view of a metal spring plate according to an embodiment of the present invention.
- [0021] Description of marks:
- [0022] 1. mounting box; 11. top plate; 12. side wall board; 2. fixed board; 21. fixed board body; 22. snap joint base; 23. fastener; 3. lamp body; 4. metal spring plate; 41. bottom plate; 42. first side plate; 43. stop portion ; 44. second side plate.
- [0023] Detailed Description of the Present Invention
- [0024] The technical contents, fulfilled objective and effects of the present invention are described in detail with reference to the embodiments and attached drawings.
- [0025] The most important concept of the present invention lies in that at least two sets of fasteners are disposed at the two ends of a fixed board body 21 of a tube lamp; the fasteners 23 are used for connection with the mounting box 1; the two sets of fasteners are interspaced, capable of being applied to mounting boxes 1 of different sizes, so the tube lamp has higher compatibility.
- [0026] Refer to FIG. 1-FIG. 3. A tube lamp according to the present invention includes a mounting box 1 and a lamp body 3 matched with the mounting box 1. The mounting box 1 includes a top plate 11 and side wall boards 12 around the top plate 11. The tube lamp also includes a fixed board 2.
- [0027] The fixed board 2 includes a fixed board body 21; at least two sets of fasteners 23 are disposed at the two ends of the fixed board body 21; and the fasteners are interspaced; the fixed board 2 is detachably connected to the mounting box 1 through the fasteners 23.
- [0028] The lamp body 3 is connected to the mounting box 1 through the fixed board 2.
- [0029] From the above description it is known that the present invention has the following beneficial effects: at least two sets of fasteners are disposed at the two ends of the fixed board body 21; the fasteners 23 are used for connection with the mounting box 1; the two sets of fasteners are interspaced, capable of being applied to mounting boxes 1 of different sizes, and capable of being compatible with many mounting boxes 1 of different sizes, so the tube lamp has higher compatibility.

- [0030] Further, the fixed board body 21 also includes a middle snap joint base 22; the lamp body 3 is provided with a snap joint; the snap joint is matched with the snap joint base 22; the top plate 11 and the side wall boards 12 form an accommodating cavity; the snap joint is in snap-fit with the snap joint base 22, and the snap joint is received in the accommodating cavity.
- [0031] From the above description it is known that the snap-joint connection mode, in comparison with the prior art, can effectively save mounting time, reduce mounting cost, and bring convenience to repairs in the future.
- [0032] Further, the snap joint base 22 is a round through-hole formed on the body; the snap joint includes a metal spring plate 4; and the two ends of the metal spring plate 4 are bent toward each other.
- [0033] From the above description it is known that the structure formed by the round through-hole and the metal spring plate 4 can realize quick installation without alignment in the horizontal direction.
- [0034] Further, as shown in FIG. 4, the metal spring plate 4 includes a bottom plate 41 and a first side plate 42 and a second plate 44 which are disposed at two ends of the bottom plate 41 and are bent toward each other; the upper end of the first side plate 42 extends outward to form a stop portion 43, while the second side plate 44 is connected to the outer end of the stop portion 43.
- [0035] Further, the fastener 23 includes screw holes formed on the fixed board body 21; the mounting box 1 is provided with connecting columns along the inner wall faces of the side wall boards 12; the connecting columns are provided with connecting holes; the fixed board 2 is detachably connected to the mounting box 1 through the screw holes and screws in the connecting holes.
- [0036] From the above description it is known that, the screw hole is mated with the connecting hole so that the fixed board 2 and the mounting box 1 can be conveniently, quickly and firmly installed, and the screw hole is a simple mating structure, is low in cost and easy to manufacture.
- [0037] Further, three sets of screw holes are provided.
- [0038] Refer to FIG. 1-FIG. 4. The first embodiment of the present invention is as follows. A tube lamp according to the present invention includes a mounting box 1 and a lamp body 3 matched with the mounting box 1. The mounting box 1 includes a top plate 11 and side wall boards 12 around the top plate 11.
- [0039] The tube lamp also includes a fixed board 2. The fixed board 2 comprises a fixed board body 21. The two ends of the fixed board body 21 are provided with three sets of screw holes, and the three sets of the screw holes are interspaced from one another. The fixed board 2 is detachably connected to the mounting box 1 through screw holes. The mounting box 1 is provided with connecting columns along the inner wall faces of the side wall boards 12; the connecting columns are provided with connecting holes; the fixed board 2 is detachably connected to the mounting box 1 through the screw holes and screws in the connecting holes.
- [0040] The fixed board body 21 also comprises a middle snap joint base 22; the lamp body 3 is provided with a snap joint; the snap joint is matched with the snap joint base 22; the top plate 11 and the side wall boards 12 form an accommodating cavity; the snap joint is in snap-fit with the snap joint base 22, and snap joint is received in the accommodating cavity. The snap joint base 22 is a round though-hole formed on the body. The snap joint comprises a metal spring plate 4; the two ends of the metal spring plate 4 are bent toward each other; the metal spring plate 4 comprises a bottom plate 41 and a first side plate 42 and a second side plate 44 which are disposed at two ends of the bottom plate 41 and are bent toward each other; the upper end of the first side plate 42 extends outward to form a stop portion 43, and the second side plate 44 is connected to the outer end of the stop portion 43.

[0041] In conclusion, the tube lamp provided by the present invention has high compatibility, can perform quick installation without alignment on the horizontal direction, greatly improving installation efficiency while realizing a simple structure and low cost.

[0042] The above are only some embodiments of the present invention and shall not be regarded as limit to the present invention. Any equivalent modifications made on the basis of the description and attached drawings of the present invention, or direct or indirect application to the related fields, shall fall within the protective scope of the present invention.

Claims

- [Claim 1] A tube lamp, comprising a mounting box and a lamp body matched with the mounting box, the mounting box comprising a top plate and side wall boards around the top plate, characterized in that the tube lamp also comprises a fixed board; the fixed board comprises a fixed board body; at least two sets of fasteners are disposed at the two ends of the fixed board body; the fasteners are interspaced; the fixed board is detachably connected to the mounting box through the fasteners;
- and the lamp body is connected to the mounting box through the fixed board.
- [Claim 2] The tube lamp according to claim 1, wherein, the fixed board body also comprises a middle snap joint base; the lamp body is provided with a snap joint; the snap joint is matched with the snap joint base; the top plate and the side wall boards form an accommodating cavity; the snap joint is in snap-fit with the snap joint base, and the snap joint is received in the accommodating cavity.
- [Claim 3] The tube lamp according to claim 2, wherein, the snap joint base is a round through-hole formed on the body; the snap joint comprises a metal spring plate; and the two ends of the metal spring plate are bent toward each other.
- [Claim 4] The tube lamp according to claim 3, wherein, the metal spring plate comprises a bottom plate and a first side plate and a second plate which are disposed at two ends of the bottom plate and are bent toward each other; the upper end of the first side plate extends outward to form a stop portion, while the second side plate is connected to the outer end of the stop portion.
- [Claim 5] The tube lamp according to any one of claims 1-4, wherein, the fastener comprises screw holes formed on the fixed board body; the mounting box is provided with connecting columns along the inner wall faces of the side wall boards; the connecting columns are provided with connecting holes; the fixed board is detachably connected to the mounting box through the screw holes and screws in the connecting holes.
- [Claim 6] The tube lamp according to claim 5, wherein, three sets of screw holes are provided.

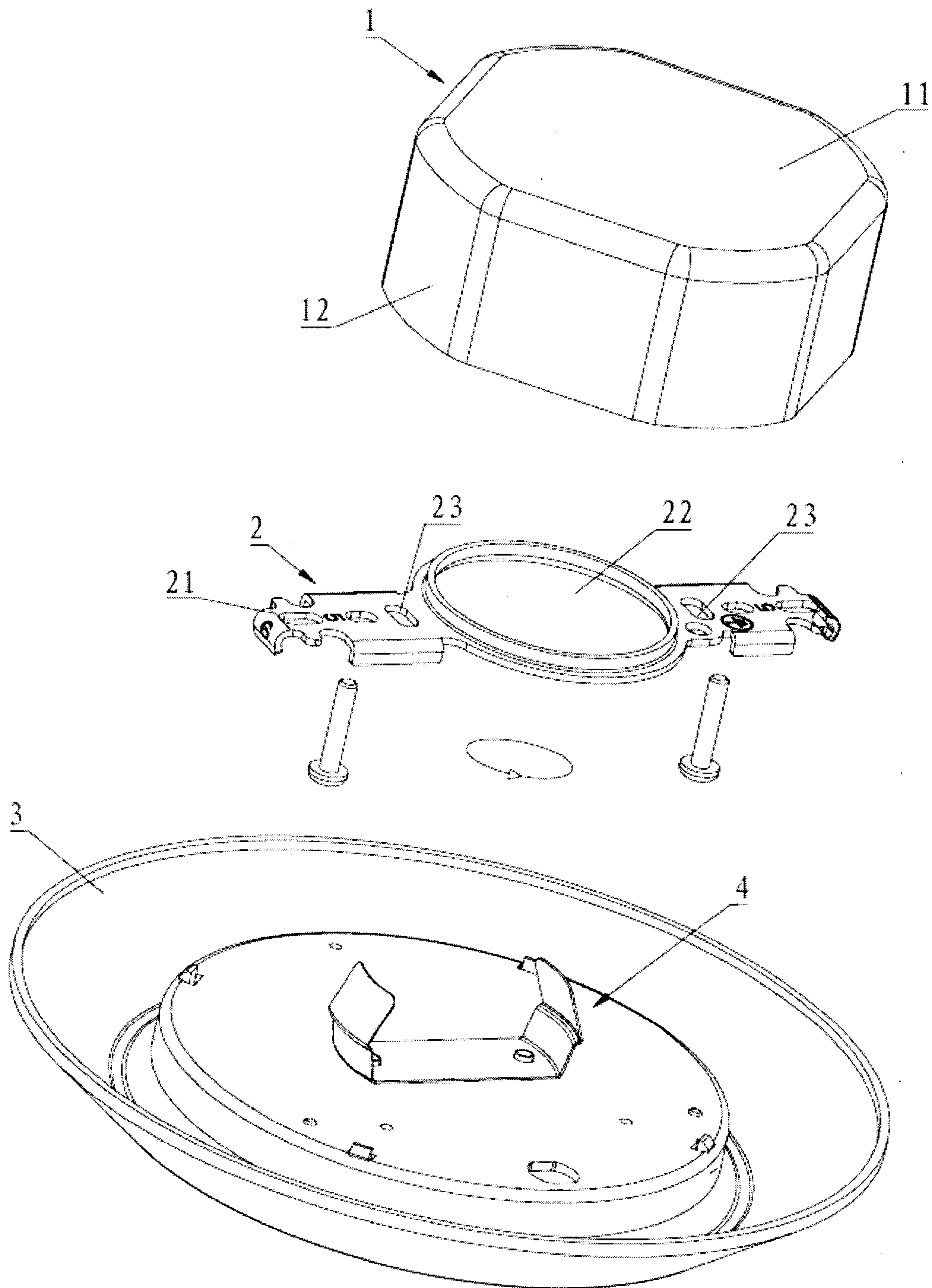


FIG. 1

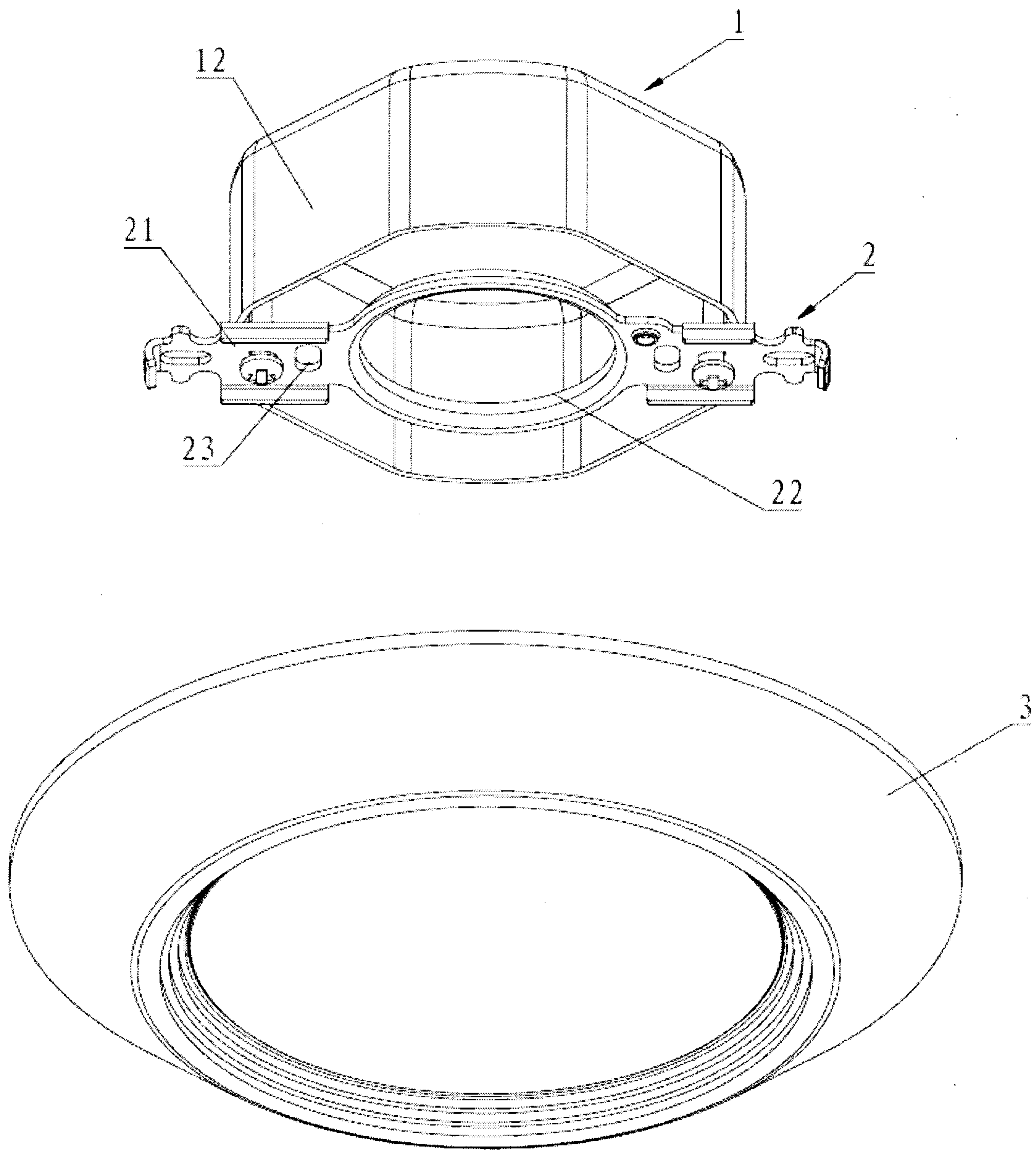


FIG. 2

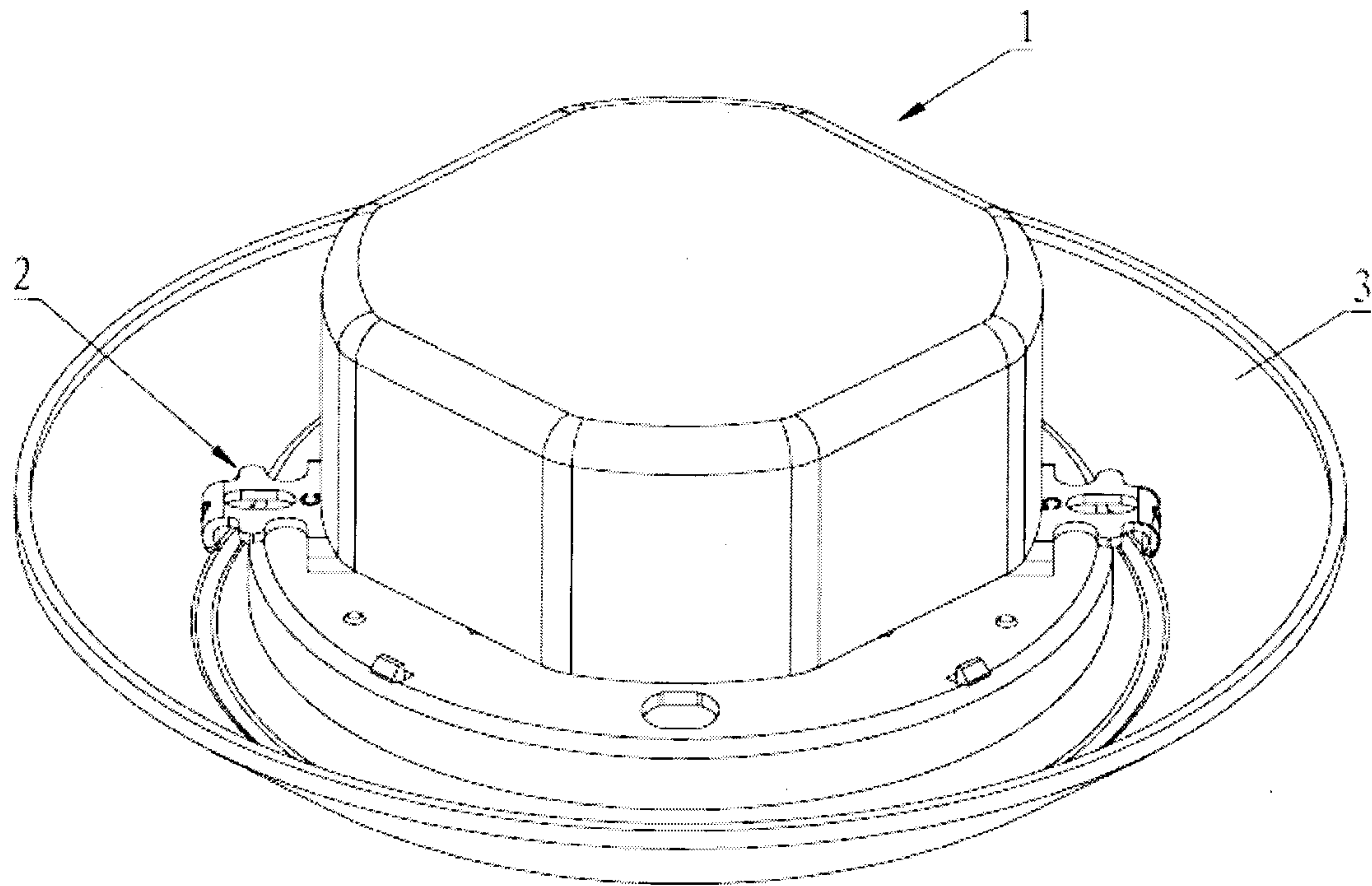


FIG. 3

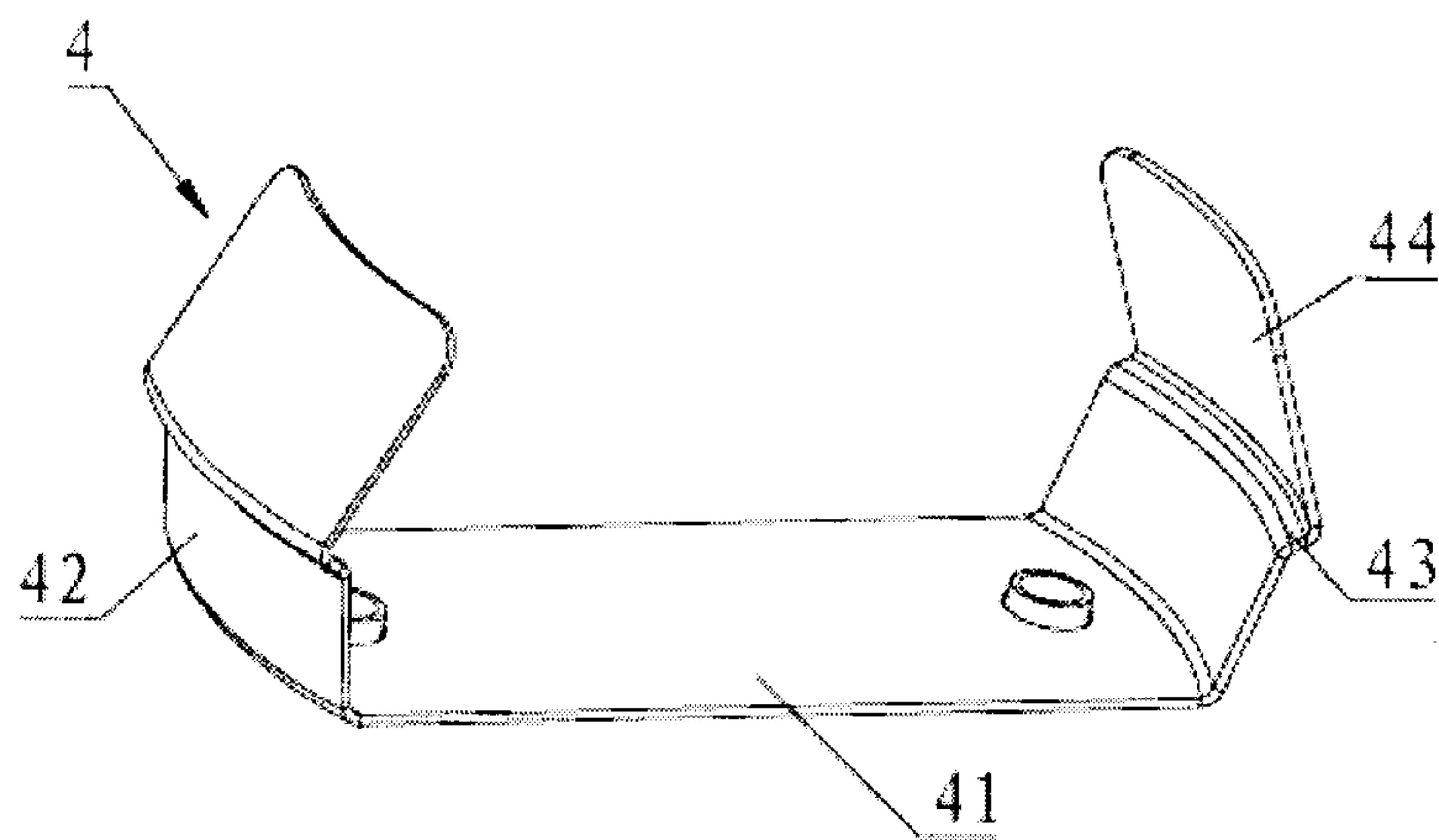


FIG. 4