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(54) **HAIR CURLER**

LOCKENWICKLER

FER À FRISER

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Description

TECHNICAL FIELD

[0001] The present application relates to a hair curler which can change the use form.

BACKGROUND OF THE INVENTION

[0002] A hair curler is a common hand-held electronic product for hairdressing. It is equipped with a hot perm device with a single bar heating part. When users use it, they wrap their hair around the heating part to heat it, so that the hair can be deformed and shaped according to the shape of the heating part. When winding hair, because the heating part and handle part are horizontal, the forearm and the main arm should keep about horizontal state during the whole process, leading to fatigue. If the shape is changed so that the handle and heating rod are perpendicular to the right angle, the forearm and the main arm can be relaxed, but the user himself can not handle the hair behind the head.

[0003] KR 2014 0058195 A discloses an iron and hair iron combination which prepares an operating part hinge-coupling a first body part and a second body part each having a thermal plate heated with the electric power through the central axis to be opened to and closed limitedly, while the thermal plates of the second body part and the first body part are circulated to be corresponded in the angle of 90 degrees to be used as an iron when rotating the thermal plate in the same direction by the operating part, to have the effect of being easily used with two functions.

TECHNICAL PROBLEM

[0004] The technical problem to be solved by the present application is to provide a hair curler to solve the problem that the existing curler has a fixed shape and can not change the use form.

TECHNICAL SOLUTON

[0005] The technical scheme adopted by the present application to solve its technical problems is as follows: providing a hair curler according to claim 1.

[0006] In the hair curler provided by the present application, a line connecting the first end and the rotation structure forms a first axis; a line connecting the second end and the rotation structure forms a second axis; the rotation axis is perpendicular to the first axis and the second axis.

[0007] In the hair curler provided by the present application, the second end further comprises a second rotation structure, and the second arm is rotatably connected to a power cord member through the second rotation structure.

[0008] In the hair curler provided by the present application, the heating member is a heating square cylinder, comprising at least one pair of hair-heating surfaces and one pair of hair-heating round corners.

[0009] In the hair curler provided by the present application, a second handle portion is arranged on the first end and the second handle portion is connected with the heating member.

[0010] In the hair curler provided by the present application, the first arm further comprises a temperature sensing member; the second arm further comprises a temperature control system, and the heating member or/and the temperature sensing member is electrically connected with the temperature control system.

[0011] In the hair curler provided by the present application, the heating member is detachably connected with the first arm.

[0012] Not forming part of the present invention is provided a hair curler comprising a first arm, a second arm, a detachable structure connected with the first arm and the second arm; the first arm comprises a heating member for heating hair; the second arm comprises a handle portion; one end of the detachable structure is fixedly connected with the first arm, and the other end of the detachable structure is detachably connected with the second arm and embedded into the second arm so that the first arm and the second arm can be disassembled from each other and fixed at the first operation position and second operation position after rotating relative to each other with respect to the detachable structure to change a relative angle; an end of the first arm close to the second arm is provided with a first conductive point and a second conductive point connecting with the heating member; the second arm is provided with a third conductive point and a fourth conductive point corresponding to positions of the first conductive point and the second conductive point respectively; the third conductive point and the fourth conductive point are further connected with the power cord member; when the first arm and the second arm are fixed at the first operation position, the first conductive point is connected with the third conductive point and the second conductive point is connected with the fourth conductive point, making the heating member energetically heated; when the first arm and the second arm are fixed at the second operation position, the first conductive point is connected with the fourth conductive point and the second conductive point is connected with the third conductive point, also making the heating member energetically heated.

[0013] In this hair curler, the first operation position is a position where the first arm is parallel to the second arm, the second operation position is a position where the first arm is perpendicular to the second arm.

[0014] In this hair curler, the second arm comprises an elastic structure, the third conductive point, the fourth conductive point and the elastic structure are arranged inside the second arm; the first conductive point and the second conductive point are arranged on one end of the detachable structure located inside the second arm; one

end of the elastic structure is fixed inside the second arm, and the other end of the elastic structure is fixedly connected with the third conductive point and the fourth conductive point, so that the third conductive point and the fourth conductive point can be moved relative to the second arm and when the first arm and the second arm are fixed at the first operation position or the second operation position, the elastic structure presses the third conductive point and the fourth conductive point to the first conductive point and the second conductive point.

THE BENEFICIAL EFFECT OF THE INVENTION

[0015] Implementing embodiments of the present application has the following beneficial effects: the hair curler is ergonomic because a user can adjust a relative angle between the heating member and the handle portion when curling different strands of hair.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] The present application will be further described below in conjunction with the accompanying drawings and embodiments, in which:

Fig. 1 is a schematic diagram of the hair curler of a first preferred embodiment of the present application;

Fig. 2 is a schematic diagram of conversion between the first operation position and the second operation position of the hair curler of a first preferred embodiment of the present application;

Fig. 3A is a schematic diagram of the hair curler at the first operation position, Fig. 3B is a schematic diagram of the hair curler at the second operation position;

Fig. 4A shows the structure of the hair curler at one angle at the first working position; Fig. 4B shows the structure of the hair curler at another angle at the first working position; Fig. 4C shows the structure of the hair curler at one angle at the second working position;

Fig. 5 is a schematic diagram of the hair curler of a fourth preferred embodiment of the present application;

Fig. 6A is a schematic diagram of the hair curler at the first operation position; Fig. 6B is the sectional structure diagram of A-A in Fig. 6A;

Fig. 7 is a schematic diagram of the hair curler of a sixth preferred embodiment of the present application;

Fig. 8 is a schematic diagram of the hair curler of a seventh preferred embodiment of the present application;

Fig. 9 is a schematic diagram of the hair curler of an eighth preferred embodiment of the present application;

Fig. 10 is a schematic diagram of the hair curler of another preferred embodiment of the present application;

Fig. 11 is a schematic diagram of the conductive points of the hair curler in the first operation position of another preferred embodiment of the present application;

Fig. 12 is a schematic diagram of the conductive points of the hair curler in the second operation position of another preferred embodiment of the present application.

Fig. 13 is a schematic diagram of the structure of the hair curler when using different first arms of an eighth preferred embodiment of the present application.

EMBODIMENT OF THE INVENTION

[0017] In order to more clearly understand the technical features, objects and effects of the present application, the specific embodiments of the present application will be described in detail with reference to the accompanying drawings.

[0018] Fig. 1 is a schematic diagram of the hair curler of a first preferred embodiment of the present application. As shown in Fig. 1, the main body of the hair curler comprises a first end 01, a second end 02, a rotation structure 03, and the rotation structure 03 is between the first end 01 and the second end 02; the first arm 11 is between the first end 01 and the rotation structure 03, and the second arm 21 is between the second end 02 and the rotation structure 03; the first arm 11 and the second arm 21 are rotatably connected through the rotation structure 03. The direction of the axis of the rotation structure 03 is the rotation axis 33 or 43.

[0019] The first arm 11 comprises a heating member 04 for heating hair; the second arm 21 comprises a handle portion 06; one end of the rotation structure 03 is embedded in the first arm 11, and the other end is embedded in the second arm 21; the first arm 11 and the second arm 21 rotate relative to each other with respect to a rotation axis 33 of the rotation structure 03 to change a relative angle R, and are fixed at a first operation position P1 and a second operation position P2.

[0020] Fig. 2 is a schematic diagram of conversion between the first operation position and the second operation position of the hair curler of a first preferred embodiment of the present application. As shown in Fig. 2, the first arm 11 and the second arm 21 rotate R relative to each other and change between the first operation position P1 and the second operation position P2.

[0021] The first operation position P1 is a position where the first arm 11 is parallel or approximately parallel to the second arm 21, the first end 01, the second end 02 and the rotation structure 03 are on the same axis; the second operation position P2 is a position where the first arm 11 is perpendicular or approximately perpendicular to the second arm 21.

[0022] When the first arm 11 and the second arm 21 rotate relative to each other to change a relative angle R

and are fixed at the first operation position P1, the first arm 11 is parallel or approximately parallel to the second arm 21, the first end 01, the second end 02 and the rotation structure 03 are on the same axis, forming a single columnar body; when the first arm 11 and the second arm 21 rotate relative to each other and are fixed at the second operation position P2, the first arm 11 is perpendicular or approximately perpendicular to the second arm 21, forming a double-columnar body. Conversion between the first operation position P1 and the second operation position P2, makes the hair curler ergonomic because a user can adjust a relative angle between the heating member 04 and the handle portion 06 when curling different strands of hair.

[0023] Fig. 3A is a schematic diagram of the hair curler at the first operation position, Fig. 3B is a schematic diagram of the hair curler at the second operation position. As shown in Fig. 3A and 3B, a line connecting the first end 01 and the rotation structure 03 forms a first axis 13; the second arm 21 rotates with the first axis 13 as the axis center relative to the first arm 11 and changes the relative angle; a line connecting the second end 02 and the rotation structure 03 forms a second axis 23; the first arm 11 rotates with the second axis 23 as its axis center relative to the second arm 21 and changes the relative angle.

[0024] A first interior angle 34 is formed between the rotation axis 33 and the first axis 13; a second interior angle 35 is formed between the rotation axis 33 and the second axis 23; when the first arm 11 and the second arm 21 rotate relative to each other with respect to the rotation axis 33 to change a relative angle R, the first interior angle 34 and the second interior angle 35 remain unchanged. At the first operation position P1, the first arm 11 is parallel or approximately parallel to the second arm 21; at the second operation position P2, the first arm 11 is perpendicular or approximately perpendicular to the second arm 21, the first interior angle 34 and the second interior angle 35 are equal to or close to 45 degrees.

[0025] Fig. 4A shows the structure of the hair curler at one angle at the first working position; Fig. 4B shows the structure of the hair curler at another angle at the first working position; Fig. 4C shows the structure of the hair curler at one angle at the second working position. As shown in Fig. 4A, 4B and 4C, a line connecting the first end 01 and the rotation structure 03 forms a first axis 13, a line connecting the second end 02 and the rotation structure 03 forms a second axis 23; the rotation axis 33 is perpendicular to the first axis 13 and the second axis 23. The first arm 11 and the second arm 21 rotate R relative to the rotation axis 33 and change the relative angle; whether in the first operation position P1, the second operation position P2 or in the relative rotation R process, the rotation axis 33 is perpendicular to the first axis 13 and the second axis 23 all the time.

[0026] Fig. 5 is a schematic diagram of the hair curler of a fourth preferred embodiment of the present application. As shown in Fig 5, the second end 02 further comprises a second rotation structure 24, the second rotation structure 24 is arranged at the second end 02; the second arm 21 is rotatably connected to a power cord member 25 through the second rotation structure 24. The rotating axis of the second rotation structure 24 coincides with the second axis 23, and the power cord member 25 rotates R2 with the second axis 23 as the axis relative to the second arm 21.

[0027] Fig. 6A is a schematic diagram of the hair curler at the first operation position; Fig. 6B is the sectional structure diagram of A-A in Fig. 6A. As shown in Fig. 6A and 6B, the heating member 04 is a heating square cylinder 41, comprising at least one pair of hair-heating surfaces 42 and one pair of hair-heating round corners 43. The heating member 04 of the present embodiment is only an illustration. In order to deform and shape the hair according to the shape of the heating member, the heating member 04 can be changed as needed.

[0028] Fig. 7 is a schematic diagram of the hair curler of a sixth preferred embodiment of the present application. As shown in Fig.7, first arm 11 further comprises a temperature sensing member 44; the second arm 21 further comprises a temperature control system45; the heating member 04 or/and the temperature sensing member 44 is electrically connected with the temperature control system 45. If the heating member 04 or/and the temperature sensing member 44 is electrically connected with the temperature control system 45 through a wire, the connecting wires need to pass through the rotation structure 03, the heating member 04 or/and the temperature sensing member 44 rotates R relative to the temperature control system 45 and changes the relative angle.

[0029] Fig. 8 is a schematic diagram of the hair curler of a seventh preferred embodiment of the present application. As shown in Fig. 8, the heating member 04 is detachably connected with the first arm 11. That is to say, in the present embodiment, a divisible heating member 07 can be used, and the hair can be deformed and shaped to the desired shape by changing the divisible heating member 07 of different shapes.

[0030] Preferably, in the embodiment of the present application, the first end 01 is provided with a second handle portion 08. The second handle portion 08 is made of insulating material or coated with insulating material, which is connected with the heating member 04 to help control or rotate the first arm 11, so as to facilitate the change of the use form under different conditions.

[0031] The present application is about a hair curler. Unlike known hair curlers, the present application comprises a rotation structure 03, which connects the heating member 04 with the handle portion 16, and the handgrip/use method of the hair curler can be changed according to different conditions.

[0032] Fig. 9 is a schematic diagram of the hair curler of an eighth preferred embodiment of the present application. As shown in Fig. 9, the present embodiment provides a hair curler, comprising a first arm 11, a second arm 21, a detachable structure 05 connected with the

first arm 11 and the second arm 21; the first arm 11 comprises a heating member 04 for heating hair; the second arm 21 comprises a handle portion 06; one end of the detachable structure 05 is fixedly connected with the first arm 11, and the other end of the detachable structure 05 is detachably connected with the second arm 21 and embedded into the second arm 21 so that the first arm 11 and the second arm 21 can be disassembled from each other and fixed at the first operation position P1 and second operation position P2 after rotating relative to each other with respect to the detachable structure 05 to change a relative angle. The first operation position P1 is a position where the first arm 11 is parallel or approximately parallel to the second arm 21, the second operation position P2 is a position where the first arm 11 is perpendicular or approximately perpendicular to the second arm 21. The end planes of the first arm 11 and the second arm 21 are both inclined planes with 45 degrees angle, so that they can still fit and connect with each other after switching the angle between the two arms by rotation. In the present embodiment, an end of the first arm 11 close to the second arm 21 is provided with a first conductive point A and a second conductive point B (not shown) connecting with the heating member 04; the end of the second arm 21 close to the first arm 11 is provided with a third conductive point C and a fourth conductive point D (not shown) corresponding to positions of the first conductive point A and the second conductive point B respectively; the third conductive point C and the fourth conductive point D are further connected with the power cord member. When the first arm 11 and the second arm 21 are fixed at the first operation position P1, the first conductive point A is connected with the third conductive point C and the second conductive point B is connected with the fourth conductive point D, making the heating member 04 energetically heated; when the first arm 11 and the second arm 21 are fixed at the second operation position P2, the first conductive point A is connected with the fourth conductive point D and the second conductive point B is connected with the third conductive point C; because the heating member 04 is a resistive heating material, it does not distinguish between positive and negative poles, so the heating member 04 can also be electrically heated at this time. Through the above structure, the hair curler can not only realize the transformation of the shape of the first arm 11 and the second arm 21 to curl different parts of hair, but also use conductive points to realize the electrical connection between the first arm 11 and the second arm 21, which avoids the problem of easy breakage of the wire caused by the use of wire connection, and improves the service life and use experience of the curler.

[0033] Specially, as shown in Fig. 10 to 12, in another preferred embodiment, the second arm 21 comprises an elastic structure 26, the third conductive point C, the fourth conductive point D and the elastic structure 26 are arranged inside the second arm 21; the first conductive point A and the second conductive point B are arranged on one end of the detachable structure 05 located inside the second arm 21. The elastic structure 26 can be a spring, one end is fixed inside the second arm 21, the other end is connected to the plastic plate where the third conductive point C and the fourth conductive point D are provided, so that the third conductive point C and the fourth conductive point D can be moved relative to the second arm 21 driven by the elastic structure 26, and when the first arm 11 and the second arm 21 are fixed at the first operation position P1 or the second operation position P2, the elastic structure 26 presses the third conductive point C and the fourth conductive point D to the first conductive point A and the second conductive point B, making the conductive points close to each other under the action of the elastic structure 26. By setting the conductive connection point inside the second arm 21, the hair curler can be safer in use, and the conductive point will not be affected by water vapor, wear and foreign matter, so that the reliability and stability of the connection can be maintained at all times.

[0034] In the present application, the first arm 11 is fixedly connected to the detachable structure 05; the end of the detachable structure 05 embedded in the second arm 21 is arranged as a cylindrical structure; one end of the corresponding second arm 21 is arranged as a through-hole structure with the same shape but slightly smaller diameter of the cylindrical structure, so that the second arm 21 and the detachable structure 05 can be connected by interference fit; so that the hair curler can be disassembled between the second arm 21 and the first arm 11 when changing the shape, rotate and change the angle of the second arm 21 relative to the first arm 11, and then connect with the first arm 11, so that the hair curler can change the shape more conveniently and improve the user's experience. At the same time, the first arm 11 and the heating member 04 can be set to various shapes suitable for various shapes. As shown in Fig. 13, because the second arm 21 and the first arm 11 can be disassembled, users can use the same handle portion 06 to make different hair shapes with the first arm 11 and the heating member 04 of different shapes and sizes.

[0035] The embodiments of the present application have been described above with reference to the drawings, but the present application is not limited to the specific embodiments described above, and the specific embodiments described above are merely illustrative and not restrictive. In the light of the scope of the present application, many forms may be made as long as they fall within the scope of the claims.

Claims

1. A hair curler, comprising a first arm (11), second arm (21), and a rotation structure (03) rotatably connected to the first arm (11) and the second arm (21); wherein the first arm (11) comprises a heating member (04) for heating hair; the second arm (21) com-

prises a handle portion (06); one end of the rotation structure (03) is embedded in the first arm (11), and the other end is embedded in the second arm (21); the first arm (11) and the second arm (21) rotate relative to each other with respect to a rotation axis (33) of the rotation structure (03) to change a relative angle, and are fixed at a first operation position (P1) and a second operation position (P2);

further comprising a first end (01) and a second end (02), wherein the first arm (11) is between the first end (01) and the rotation structure (03), and the second arm (21) is between the second end (02) and the rotation structure (03);
characterized in that the first operation position (P1) is a position where the first arm (11) is parallel to the second arm (21), and the first end (01), the second end (02) and the rotation structure (03) are on the same axis; the second operation position (P2) is a position where the first arm (11) is perpendicular to the second arm (21); wherein a line connecting the first end (01) and the rotation structure (03) forms a first axis (13); a line connecting the second end (02) and the rotation structure (03) forms a second axis (23); a first interior angle (34) is formed between the rotation axis (33) and the first axis (13); a second interior angle (35) is formed between the rotation axis (33) and the second axis (23); when the first arm (11) and the second arm (21) rotate relative to each other with respect to the rotation axis (33) to change a relative angle, the first interior angle (34) and the second interior angle (35) remain unchanged.

2. The hair curler according to claim 1, wherein a line connecting the first end (01) and the rotation structure (03) forms a first axis (13); a line connecting the second end (02) and the rotation structure (03) forms a second axis (23); the rotation axis (33) is perpendicular to the first axis (13) and the second axis (23).

3. The hair curler according to one of claims 1-2, wherein the second end (02) further comprises a second rotation structure (24), and the second arm (21) is rotatably connected to a power cord member (25) through the second rotation structure (24).

4. The hair curler according to claim 1, wherein the heating member (04) is a heating square cylinder (41), comprising at least one pair of hair-heating surfaces (42) and one pair of hair-heating round corners (43).

5. The hair curler according to claim 1, wherein a second handle portion (08) is arranged on the first end (01) and the second handle portion (08) is connected with the heating member (04).

6. The hair curler according to claim 1, wherein the first arm (11) further comprises a temperature sensing member (44); the second arm (21) further comprises a temperature control system (45), and the heating member (04) or/and the temperature sensing member (44) is electrically connected with the temperature control system (45).

7. The hair curler according to claim 1, wherein the heating member (04) is detachably connected with the first arm (11).

Patentansprüche

1. Lockenwickler, umfassend einen ersten Arm (11), einen zweiten Arm (21) und eine Rotationsstruktur (03), die drehbar mit dem ersten Arm (11) und dem zweiten Arm (21) verbunden ist; wobei der erste Arm (11) ein Heizelement (04) zum Erhitzen von Haar umfasst; der zweite Arm (21) einen Griffabschnitt (06) umfasst; ein Ende der Rotationsstruktur (03) in dem ersten Arm (11) eingebettet ist und das andere Ende in dem zweiten Arm (21) eingebettet ist; der erste Arm (11) und der zweite Arm (21) sich relativ zueinander in Bezug auf eine Rotationsachse (33) der Rotationsstruktur (03) drehen, um einen relativen Winkel zu ändern, und an einer ersten Betriebsposition (P1) und einer zweiten Betriebsposition (P2) fixiert sind;

ferner umfassend ein erstes Ende (01) und ein zweites Ende (02), wobei der erste Arm (11) zwischen dem ersten Ende (01) und der Rotationsstruktur (03) ist und der zweite Arm (21) zwischen dem zweiten Ende (02) und der Rotationsstruktur (03) ist;
dadurch gekennzeichnet, dass die erste Betriebsposition (P1) eine Position ist, wo der erste Arm (11) parallel zu dem zweiten Arm (21) ist und das erste Ende (01), das zweite Ende (02) und die Rotationsstruktur (03) auf der gleichen Achse sind; die zweite Betriebsposition (P2) eine Position ist, wo der erste Arm (11) senkrecht zu dem zweiten Arm (21) ist;
wobei eine Linie, die das erste Ende (01) und die Rotationsstruktur (03) verbindet, eine erste Achse (13) bildet; eine Linie, die das zweite Ende (02) und die Rotationsstruktur (03) verbindet, eine zweite Achse (23) bildet; ein erster Innenwinkel (34) zwischen der Rotationsachse (33) und der ersten Achse (13) gebildet wird; ein zweiter Innenwinkel (35) zwischen der Rotationsachse (33) und der zweiten Achse (23) gebildet wird; wenn der erste Arm (11) und der zweite Arm (21) sich relativ zueinander in Bezug auf die Rotationsachse (33) drehen, um einen relativen Winkel zu ändern, der erste Innenwin-

kel (34) und der zweite Innenwinkel (35) unverändert bleiben.

2. Lockenwickler nach Anspruch 1, wobei eine Linie, die das erste Ende (01) und die Rotationsstruktur (03) verbindet, eine erste Achse (13) bildet; eine Linie, die das zweite Ende (02) und die Rotationsstruktur (03) verbindet, eine zweite Achse (23) bildet; die Rotationsachse (33) senkrecht zu der ersten Achse (13) und der zweiten Achse (23) ist.

3. Lockenwickler nach einem der Ansprüche 1-2, wobei das zweite Ende (02) ferner eine zweite Rotationsstruktur (24) umfasst und der zweite Arm (21) durch die zweite Rotationsstruktur (24) drehbar mit einem Netzkabelelement (25) verbunden ist.

4. Lockenwickler nach Anspruch 1, wobei das Heizelement (04) ein quadratischer Heizzylinder (41) umfassend mindestens ein Paar Haarheizflächen (42) und ein Paar runde Haarheizecken (43) ist.

5. Lockenwickler nach Anspruch 1, wobei ein zweiter Griffabschnitt (08) auf dem ersten Ende (01) angeordnet ist und der zweite Griffabschnitt (08) mit dem Heizelement (04) verbunden ist.

6. Lockenwickler nach Anspruch 1, wobei der erste Arm (11) ferner ein Temperaturfühlelement (44) umfasst; der zweite Arm (21) ferner ein Temperaturregelsystem (45) umfasst und das Heizelement (04) oder/und das Temperaturfühlelement (44) elektrisch mit dem Temperaturregelsystem (45) verbunden ist/sind.

7. Lockenwickler nach Anspruch 1, wobei das Heizelement (04) abnehmbar mit dem ersten Arm (11) verbunden ist.

Revendications

1. Fer à friser, comprenant un premier bras (11), un second bras (21) et une structure de rotation (03) reliés de façon rotative au premier bras (11) et au second bras (21) ; dans lequel le premier bras (11) comprend un élément chauffant (04) pour chauffer les cheveux ; le second bras (21) comprend une partie poignée (06) ; une extrémité de la structure de rotation (03) est incorporée dans le premier bras (11), et l'autre extrémité est incorporée dans le second bras (21) ; le premier bras (11) et le second bras (21) tournent l'un par rapport à l'autre, par rapport à un axe de rotation (33) de la structure de rotation (03) pour modifier un angle relatif, et sont fixés sur une première position de fonctionnement (P1) et sur une seconde position de fonctionnement (P2) ; comprenant en outre une première extrémité (01) et une seconde extrémité (02), dans lequel le premier bras (11) est situé entre la première extrémité (01) et la structure de rotation (03), et le second bras (21) est situé entre la seconde extrémité (02) et la structure de rotation (03) ; **caractérisé en ce que**
la première position de fonctionnement (P1) se trouve dans une position où le premier bras (11) est parallèle au second bras (21), et la première extrémité (01), la seconde extrémité (02) et la structure de rotation (03) se trouvent sur le même axe ; la seconde position de fonctionnement (P2) se trouve dans une position où le premier bras (11) est perpendiculaire au second bras (21) ;
dans lequel une ligne reliant la première extrémité (01) et la structure de rotation (03) forme un premier axe (13) ; une ligne reliant la seconde extrémité (02) et la structure de rotation (03) forme un second axe (23) ; un premier angle intérieur (34) est formé entre l'axe de rotation (33) et le premier axe (13) ; un second angle intérieur (35) est formé entre l'axe de rotation (33) et le second axe (23) ; lorsque le premier arbre (11) et le second bras (21) tournent l'un par rapport à l'autre, par rapport à l'axe de rotation (33) pour modifier un angle relatif, le premier angle intérieur (34) et le second angle intérieur (35) demeurent inchangés.

2. Fer à friser selon la revendication 1, dans lequel une ligne reliant la première extrémité (01) et la structure de rotation (03) forme un premier axe (13) ; une ligne reliant la seconde extrémité (02) et la structure de rotation (03) forme un second axe (23) ; l'axe de rotation (33) est perpendiculaire au premier axe (13) et au second axe (23).

3. Fer à friser selon l'une des revendications 1 à 2, dans lequel la seconde extrémité (02) comprend en outre une seconde structure de rotation (24), et le second arbre (21) est relié de façon rotative à un élément de cordon d'alimentation (25) à travers la seconde structure de rotation (24).

4. Fer à friser selon la revendication 1, dans lequel l'élément chauffant (04) est un cylindre carré chauffant (41), comprenant au moins deux surfaces de chauffe de cheveux (42) et deux coins arrondis de chauffe de cheveux (43).

5. Fer à friser selon la revendication 1, dans lequel une seconde partie poignée (08) est située sur la première extrémité (01) et la seconde partie poignée (08) est reliée à l'élément chauffant (04).

6. Fer à friser selon la revendication 1, dans lequel le

premier bras (11) comprend en outre un élément de détection de température (44) ; le second bras (21) comprend en outre un système de contrôle de température (45), et l'élément chauffant (04) ou/et l'élément de détection de température (44) sont électriquement reliés au système de contrôle de température (45).

7. Fer à friser selon la revendication 1, dans lequel l'élément chauffant (04) est relié de manière amovible au premier bras (11).

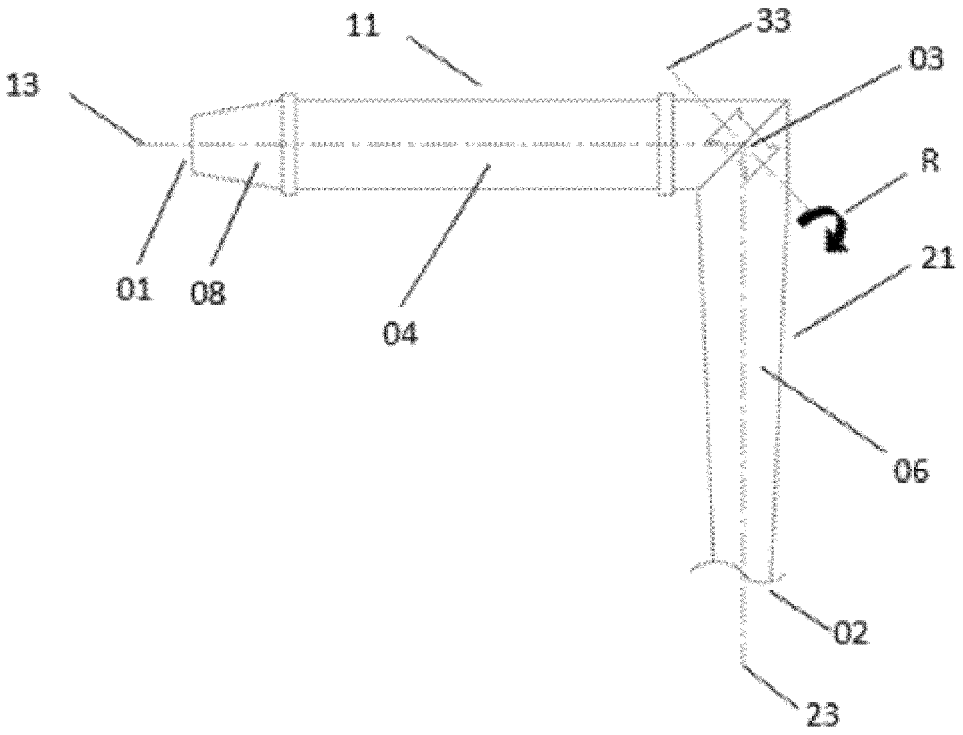

Figure 1

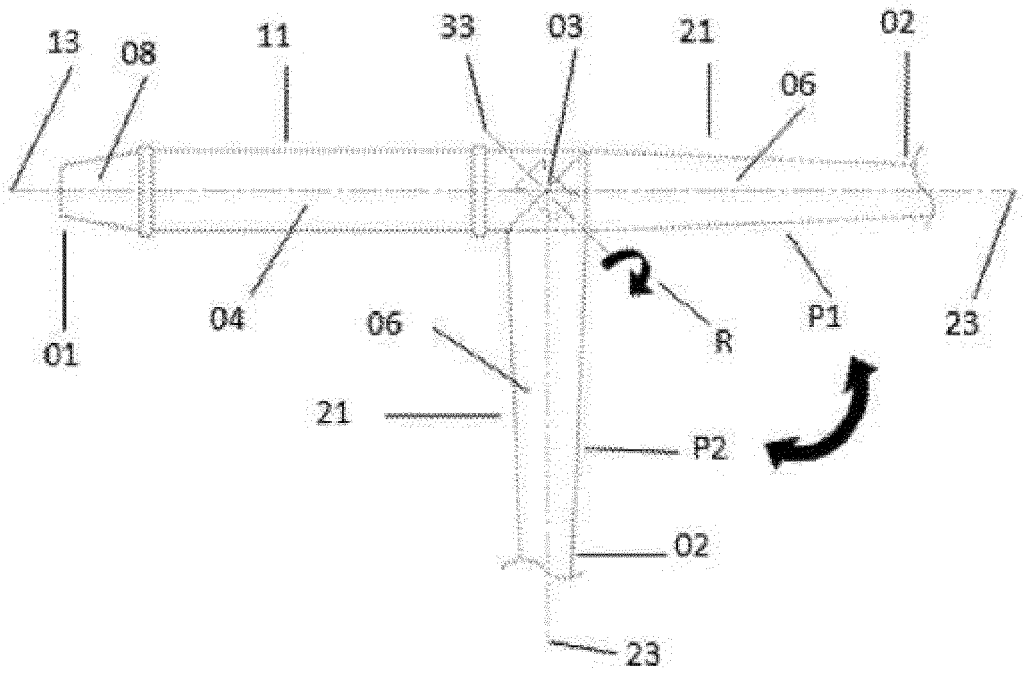

Figure 2

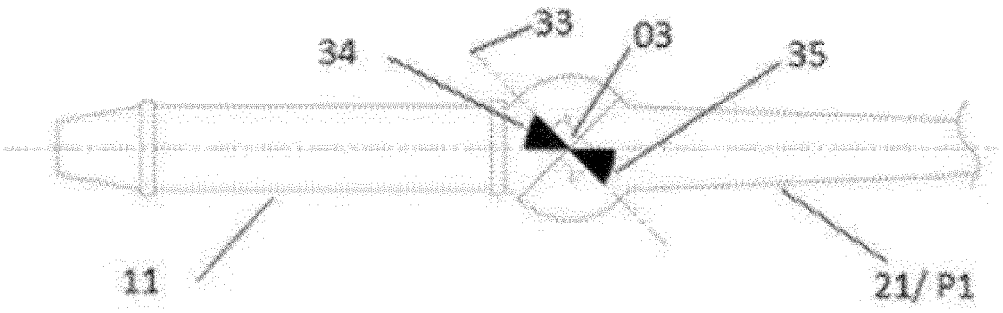

Figure 3A

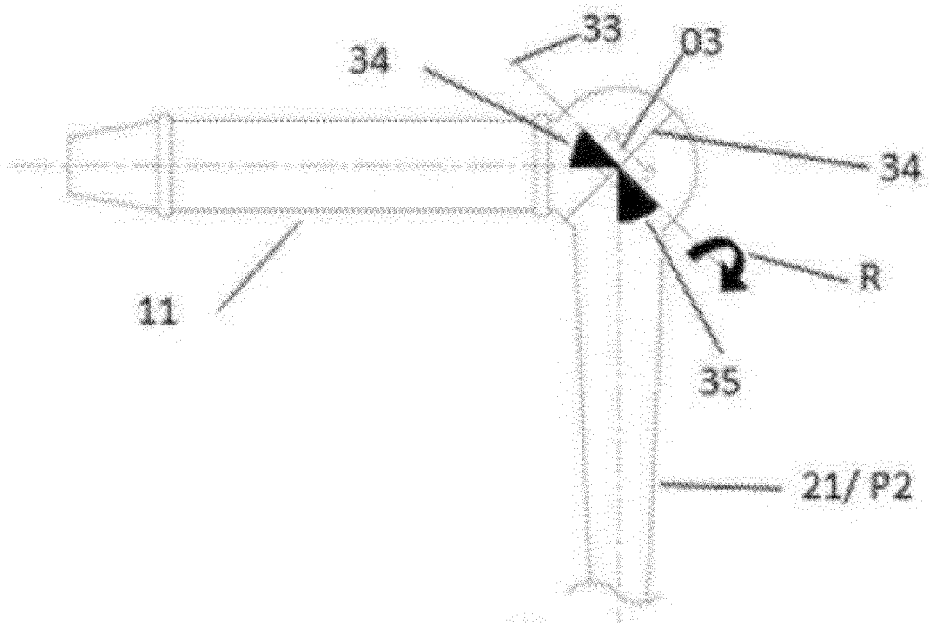

Figure 3B

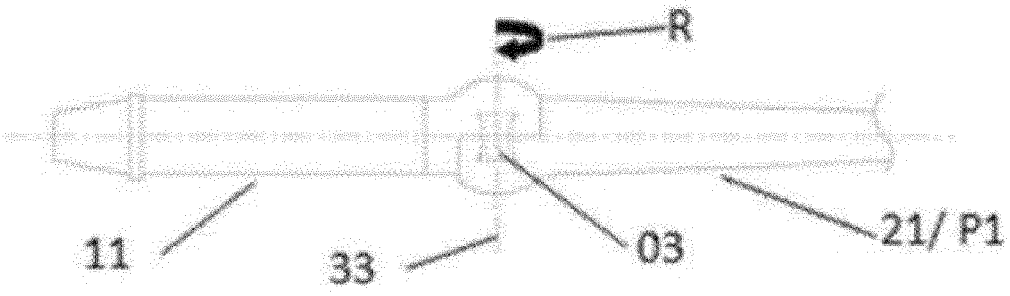

Figure 4A

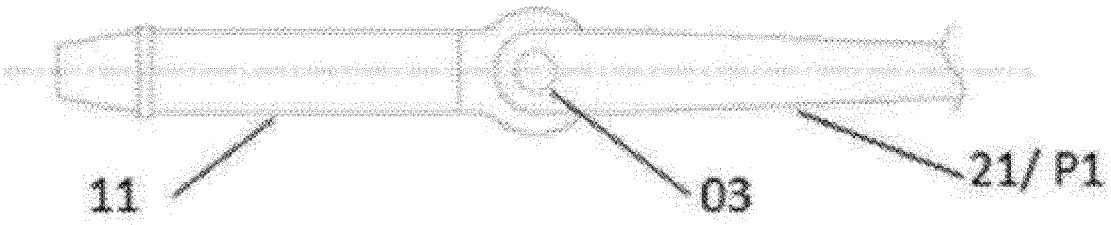

Figure 4B

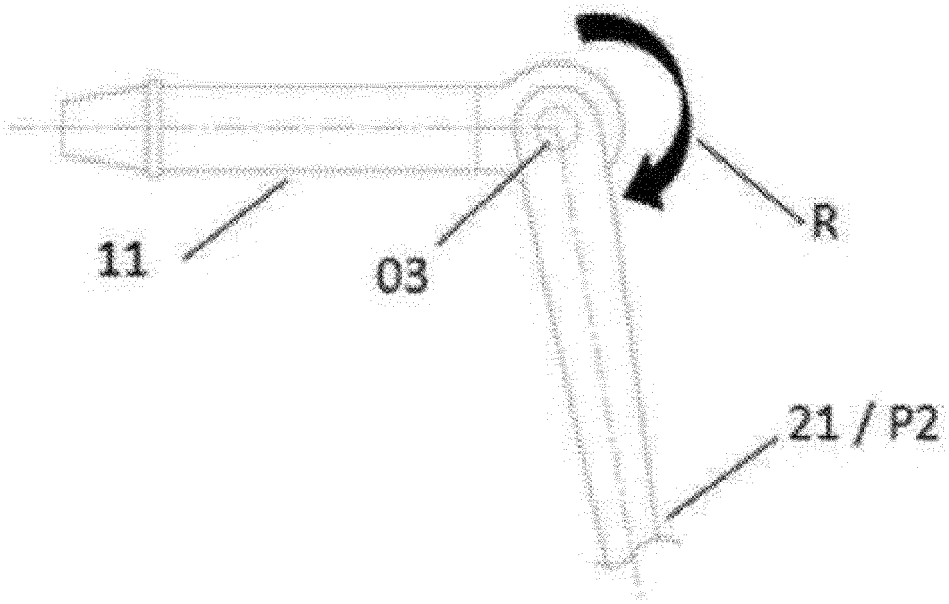

Figure 4C

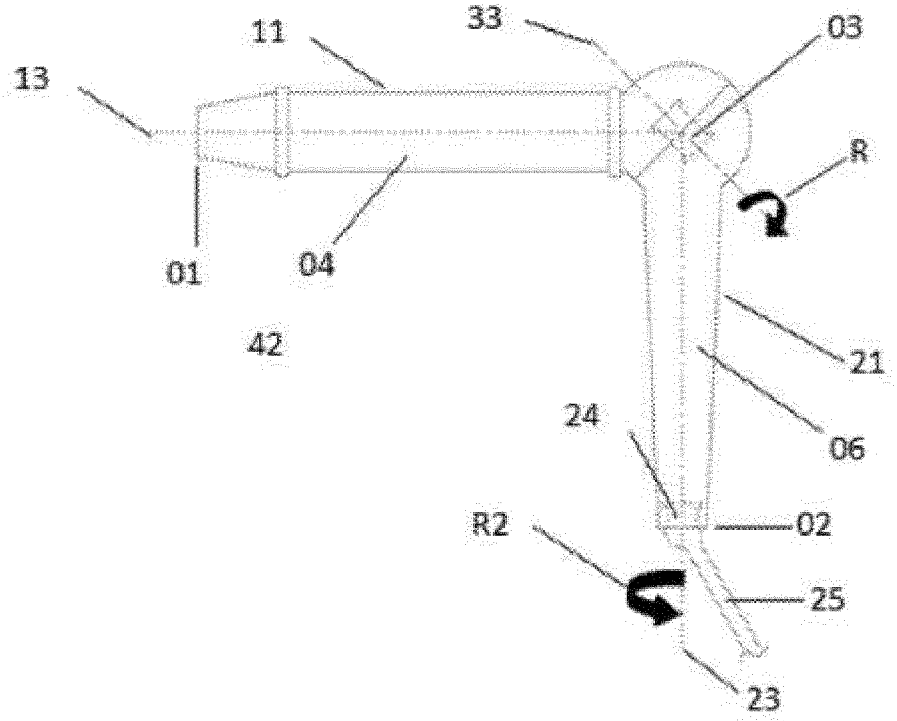

Figure 5

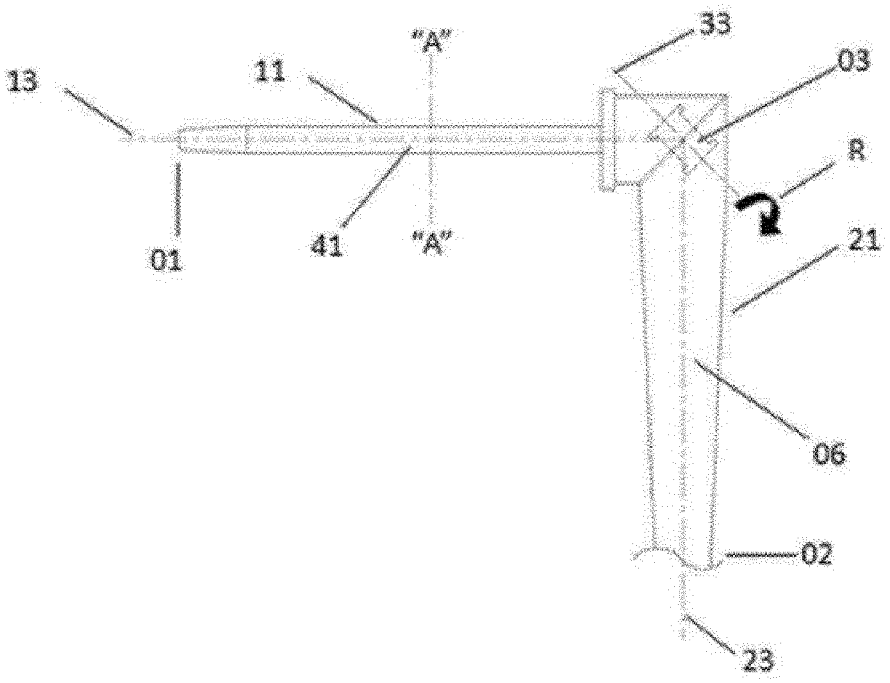

Figure 6A

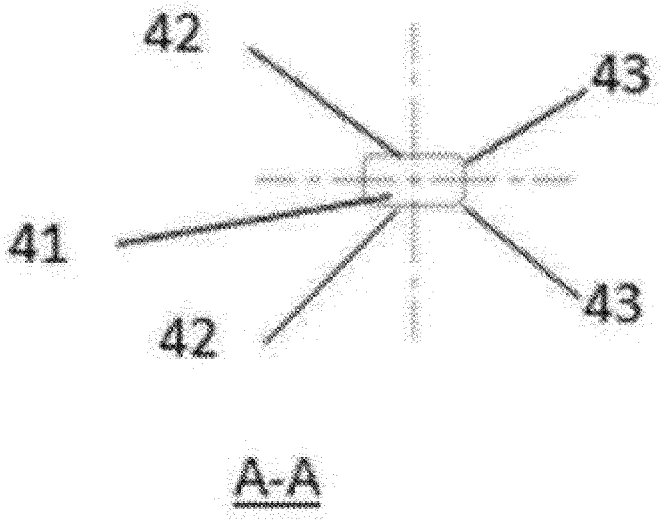

Figure 6B

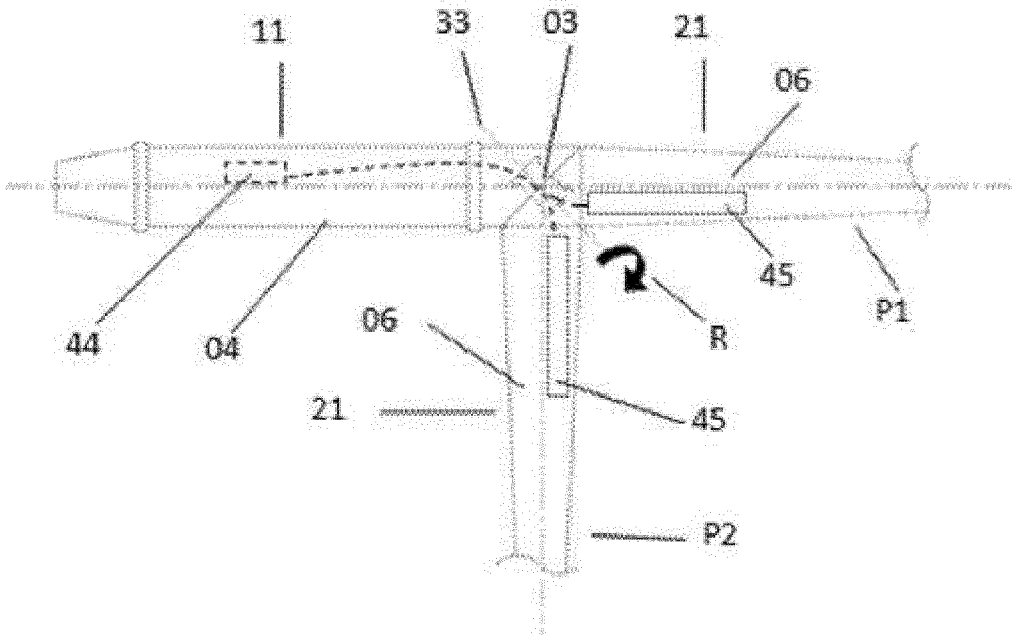

Figure 7

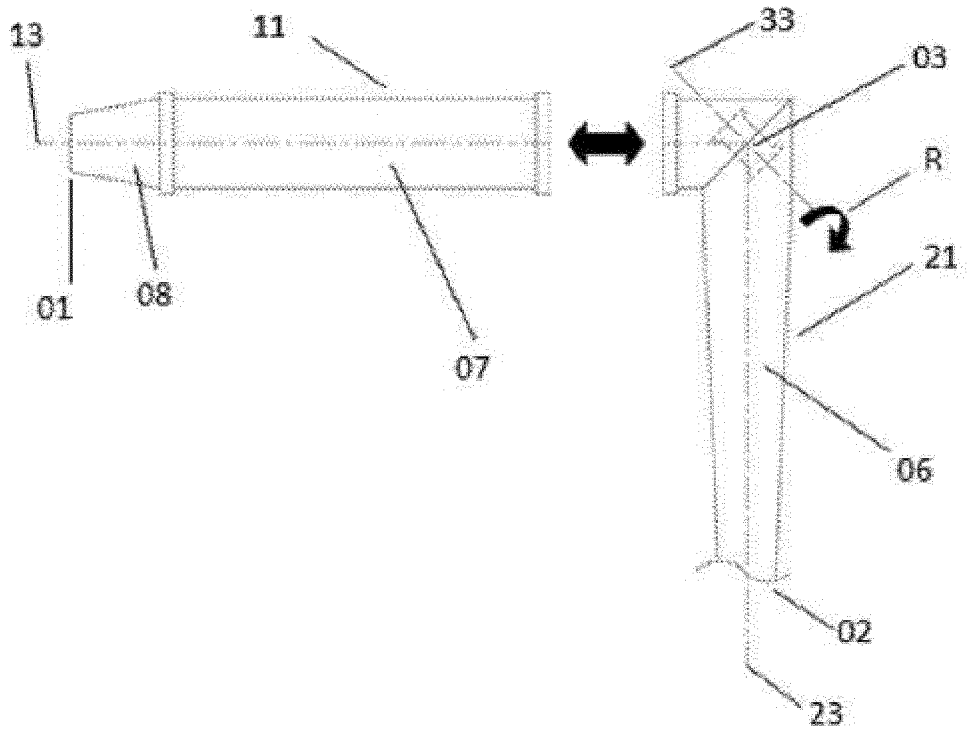

Figure 8

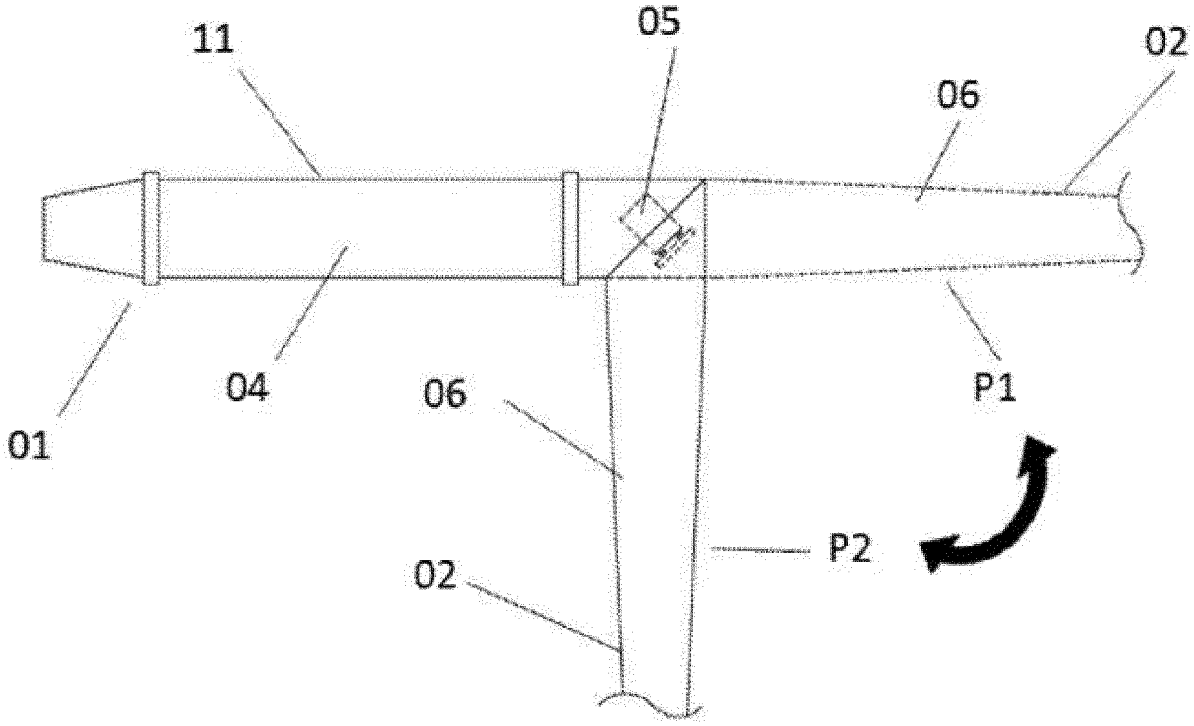

Figure 9

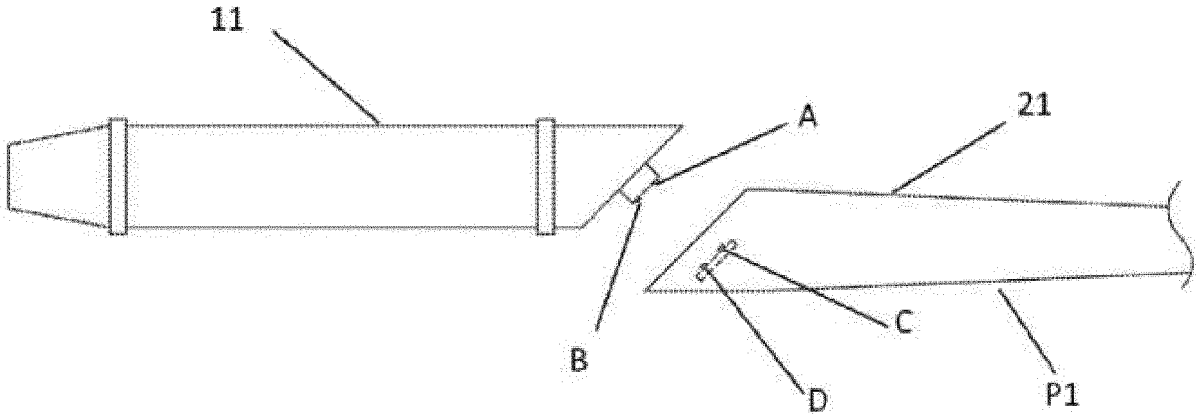

Figure 10

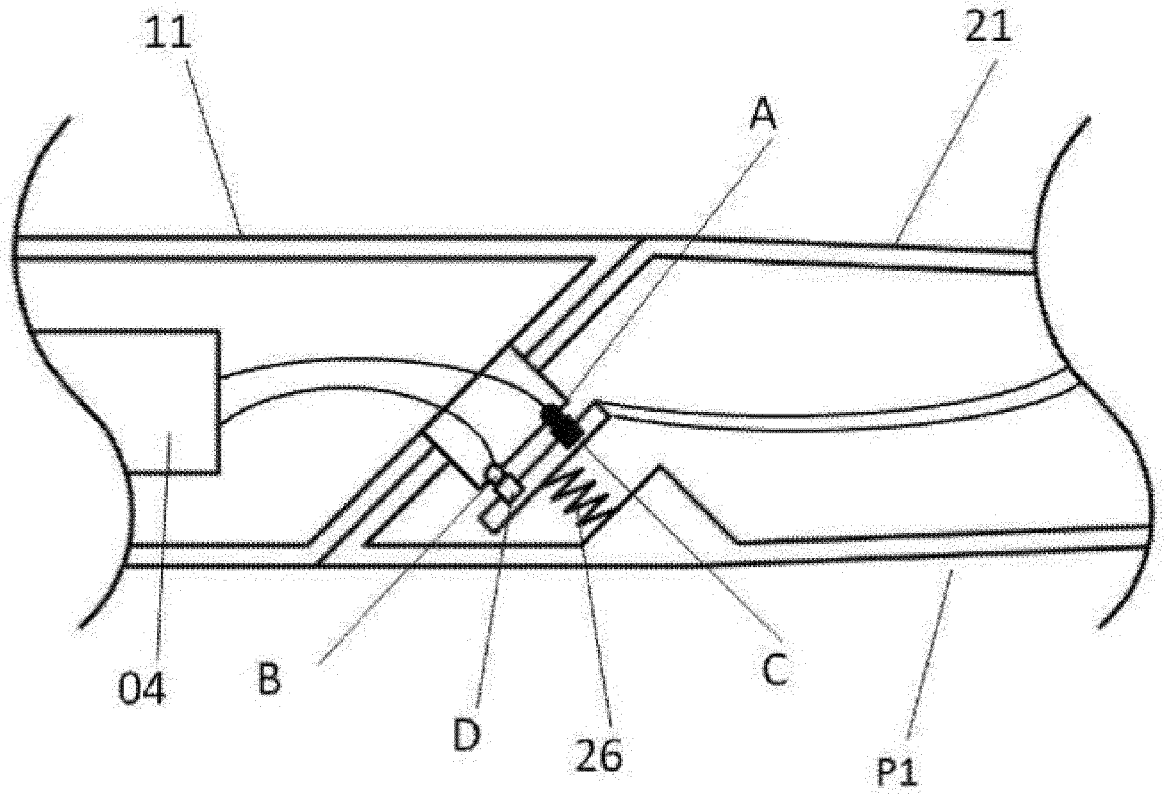

Figure 11

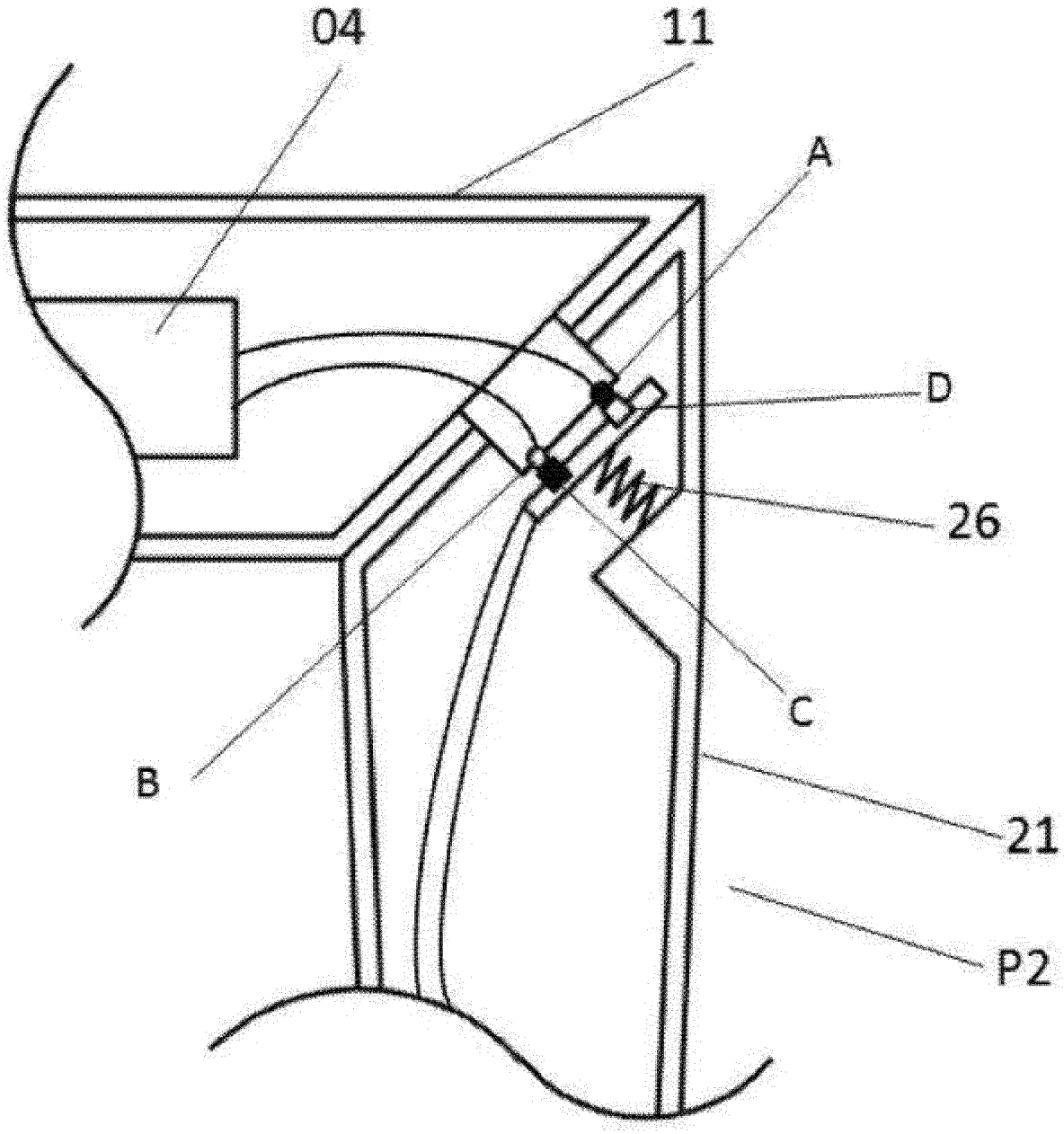

Figure 12

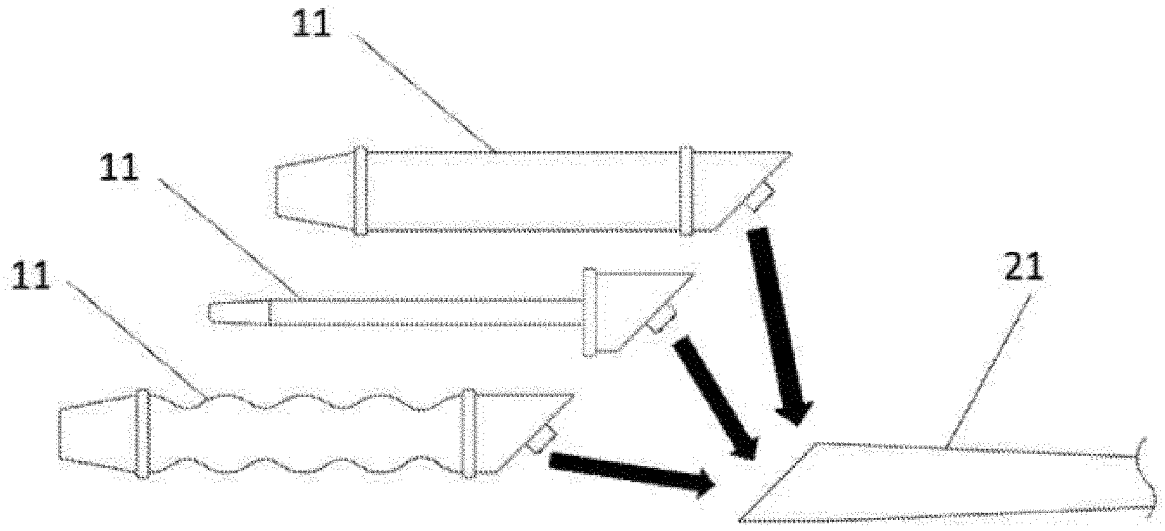

Figure 13

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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