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(54) Titre : PEIGNE ELECTRIQUE EN FORME DE VAGUE DESTINE AU RAIDISSEMENT DES CHEVEUX
(54) Title: A WAVY-SHAPED ELECTRIC HAIR STRAIGHTENING COMB

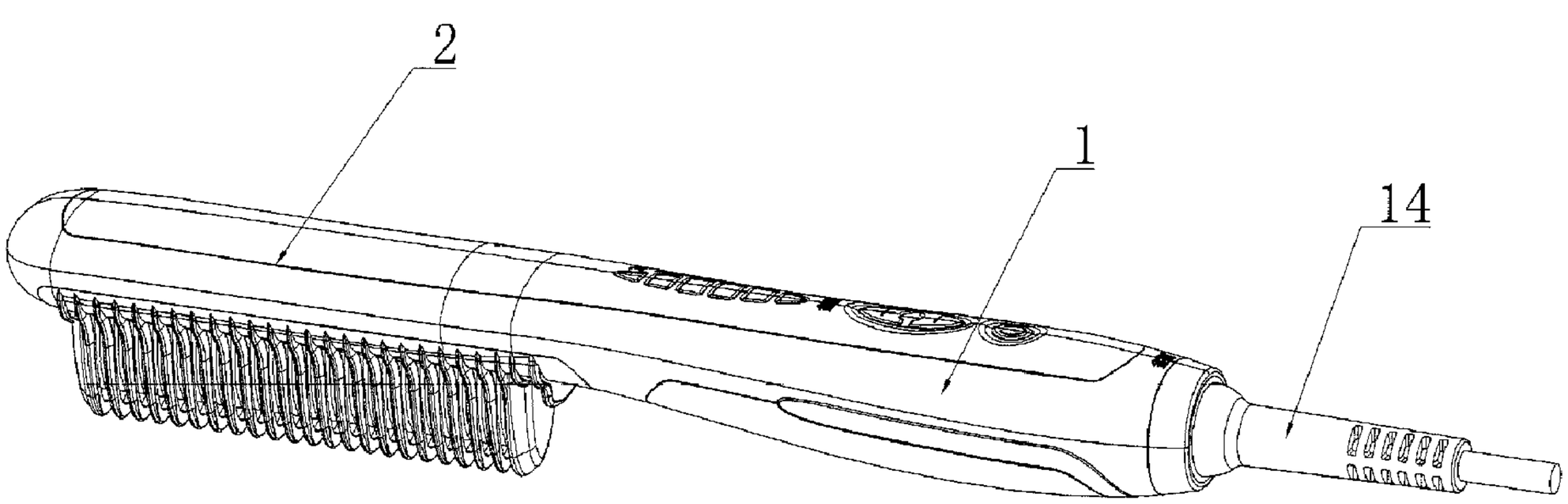


FIG. 1

(57) Abrégé/Abstract:
The present invention discloses and provides a wavy-shaped electric straight comb, which includes a comb part and a handle. The comb part has a first comb and a second comb, and the first comb has a plurality of first comb teeth, and the second comb has a plurality of second comb teeth, a plurality of through holes, each formed between two adjacent second comb teeth, which the plurality of first comb teeth of the first comb respectively drills through the plurality of through holes of the second comb, and each first comb teeth is disposed between two corresponding adjacent comb teeth, for assembling the first comb and the second comb together , and each of the first comb teeth and the second comb teeth defines a wavy-shaped cross-section, and two adjacent first and second comb teeth keep an interval from 0.25mm to 1.5mm and define a wavy-shaped hair accommodating space.

ABSTRACT

The present invention discloses and provides a wavy-shaped electric straight comb, which includes a comb part and a handle. The comb part has a first comb and a second comb, and the first comb has a plurality of first comb teeth, and the second comb has a plurality of second comb teeth, a plurality of through holes, each formed between two adjacent second comb teeth, which the plurality of first comb teeth of the first comb respectively drills through the plurality of through holes of the second comb, and each first comb teeth is disposed between two corresponding adjacent comb teeth, for assembling the first comb and the second comb together， and each of the first comb teeth and the second comb teeth defines a wavy-shaped cross-section, and two adjacent first and second comb teeth keep an interval from 0.25mm to 1.5mm and define a wavy-shaped hair accommodating space.

A WAVY-SHAPED ELECTRIC HAIR STRAIGHTENING COMB

BACKGROUND OF THE INVENTION

Field of Invention

The present invention relates to a hair treatment equipment, and more particularly to a wavy-shaped electric straightening comb.

Related Art

Hair straightening is generally needed at hairdressing industry, which usually utilizes a hair straightening tool. Generally, a hair straightening tool is clamp-type hair straightener, which has two clamp plates, being opposite to each other. Each clamp plate has a heating element disposed therein for straightening the hair between the two clamp plates. The problem is that the clamp-type hair straightener only can be used to straightening the hair, but can't be used to combing the hair. Therefore, an operator generally needs to hold a comb and the clamp-type straightener at the same time. So, the operation is inconvenient and inefficient.

Therefore, a new type electric straightening comb is needed, which should be safely, conveniently, and effectively for hair straightening.

SUMMARY OF THE INVENTION

Taking above into consideration, an object of an embodiment of the invention is to provide a wavy-shaped electric straightening comb. The wavy-shaped electric straightening comb includes a comb part and a handle, which are connected together in

sequence. The comb part includes a heating equipment and a plurality of comb teeth extending outwardly, wherein the comb part has a first comb and a second comb, which the first comb keeps close to the heating equipment and conducts heat energy to the second comb, and the first comb has a first fixing plate and a plurality of first comb teeth disposed on the first fixing plate at a regularly intervals, and the second comb has a second fixing plate, a plurality of second comb teeth, a plurality of through holes, each formed between two adjacent second comb teeth defined on the second fixing plate, which the plurality of first comb teeth of the first comb respectively drills through the plurality of through holes of the second comb, and each first comb tooth is disposed between two corresponding adjacent second comb teeth, for assembling the first comb and the second comb together, and each of the first comb teeth and the second comb teeth defines a wavy-shaped cross-section, and two adjacent first and second comb teeth keep an interval from 0.25mm to 1.5mm and define a wavy-shaped hair accommodating space.

Another object of an embodiment of the invention is to provide that the comb part further includes a front cover, disposed before the handle, and a heat shield on the front cover, which the heat shield includes a plurality of comb-shaped sheath, each of the comb-shaped sheath being a hollow structure, respectively corresponding to each of the first comb teeth and the second comb teeth, and respectively surrounding an outer peripheral face of each of the first comb teeth and the second comb teeth.

Another object of an embodiment of the invention is to provide that the handle includes a front cover, a rear cover, and a cable formed at an end of the front cover, a PCB disposed on a rear part of the front cover, a light shield on a front part of the PCB, and a button module on a rear part of the PCB, which the rear cover includes a light guider, and a plurality button holes, respectively corresponding to the light shield and the button module, and the front cover, the rear cover and the cable are assembled together through a

cable ring.

Another object of an embodiment of the invention is to provide that the heating equipment includes a holder being accommodated in the handle, a heating element disposed on the holder, two contact terminals electrically connecting the heating element to the PCB, which the heating element defines a heating area, being attached to the first comb.

Another object of an embodiment of the invention is to provide that the wavy-shaped electric straightening comb further includes an antiskid cover on the rear part of the front cover, and a front decoration cover before the antiskid cover.

Another object of an embodiment of the invention is to provide that the rear cover further provides a rear decoration cover, which has a plurality of openings respectively corresponding to the button hole and the light guider.

Another object of an embodiment of the invention is to provide that a width of each of the first comb teeth and the second comb teeth gradually decreases from it's root end to it's top end.

Another object of an embodiment of the invention is to provide that the heat shield further includes two baffles at two ends of the heat shield.

Compare to the conventional clamp-type hair straightener, the wavy-shaped electric straightening comb of the present invention defines a wavy-shaped accommodating space through the wavy shaped cross-sections of the two adjacent first and second comb teeth, which the wavy-shaped accommodating space can provide a pulling force to the hair accommodated therein through a wave crest and a wave valley of each of the two adjacent first and second comb teeth. Thus, when the hair passes through the accommodating

space between the two adjacent first and second comb teeth, the hair are loaded a reasonable pulling force and heated at a reasonable temperature to realize a straightening purpose. In addition, the wavy-shaped electric straightening comb can prevent the user to be scalded for a wrong operation by provide the heat shield, which further has two baffles at two ends of the heat shield. Thus, the operation for the user is easy and convenient, and the special design of the wavy-shaped electric straightening comb can assure the straightening effects. In use, the interval between the adjacent first and second comb

Other novel features and advantages will become apparent from the following detailed description of preferred and exemplary embodiments when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG.1 is an isometric diagram of a wavy-shaped electric straightening comb according to a first exemplary embodiment of the invention.

FIG. 2 is an exploded isometric view of the wavy-shaped electric straightening comb of FIG.1, which has a comb part.

FIG.3 depicts an isometric view of the comb part of FIG.2.

FIG.4 depicts an isometric view of a plurality of first comb teeth and a plurality of second comb teeth of the comb part.

DETAILED DESCRIPTION OF THE INVENTION

Reference will now be made to the drawings to describe preferred and exemplary embodiments in details.

Figures 1, 2, 3 and 4, a wavy-shaped electric straightening comb of the present invention includes a comb part 2 and a handle 1, which are connected together in sequence. The comb part 2 includes a heating equipment (not labeled) and a plurality of comb teeth extending outwardly. The comb part 2 includes a first comb 3 and a second comb 4, which the first comb 3 keeps close to the heating equipment and conducts heat energy to the second comb 4. The first comb 3 includes a first fixing plate 21 and a plurality of first comb teeth 32 disposed on the first fixing plate 21 at a regularly intervals. The second comb 4 includes a second fixing plate 41, a plurality of second comb teeth 42, a plurality of through holes (not labeled), each formed between two adjacent second comb teeth 42 defined on the second fixing plate 41. The plurality of first comb teeth 32 of the first comb 3 respectively drills through the plurality of through holes of the second comb 4, each first comb tooth 32 being disposed between two corresponding adjacent second comb teeth 42. Thus the first comb 2 and the second comb 4 are assembled together. Each of the first comb teeth 32 and the second comb teeth 42 defines a wavy-shaped cross-section. Two adjacent first and second comb teeth 32, 42 keep an interval from 0.25mm to 1.5mm and define a wavy-shaped hair accommodating space. The comb part 2 further includes a front cover 5, disposed before the handle 1, and a heat shield 6 on the front cover 5. The heat shield 6 includes a plurality of comb-shaped sheath 61, each of which is a hollow structure, respectively corresponding to each of the first comb teeth 32 and the second comb teeth 42, and respectively surrounding an outer peripheral face of each of the first comb teeth 32 and the second comb teeth 42. The first comb 3 and the second comb 4 are used to be heated for straightening the hair, and the heat shield 6 disposed out of the first comb 3 and the second comb 4 are used to prevent scalding a scalp of a user.

The handle 1 includes a front cover 7, a rear cover 8, and a cable 9 formed at an end of the front cover 7, a PCB (printed circuit board) 10 disposed on a rear part of the front cover 7, a light shield 11 on a front part of the PCB 10, and a button module 12 on a

rear part of the PCB 10. The rear cover 8 has a light guide 13, and a plurality of button holes 14, respectively corresponding to the light shield 11 and the button module 12. The front cover 7, the rear cover 8 and the cable 9 are assembled together through a cable ring 15. The PCB 10 and the button module 12 cooperate to turn on/off the wavy-shaped electric straightening comb. The light shield 11 and the light guide 13 are used to cooperate to transmit a displaying light to the rear cover 8 for indicating a temperature scope.

The heating equipment includes a holder 16 being accommodated in the handle, a heating element 17 disposed on the holder 16, two contact terminals 18 electrically connecting the heating element 17 to the PCB10. The heating element 17 defines a heating area 19, which is attached to the first comb 3. When the heating element 17 is driven to emit heat, the heat energy is transmitted to the first comb 3 and the second comb 4 for realizing straightening the hair. In addition, the wavy-shaped electric straightening comb further has an antiskid cover 20 on the rear part of the front cover 7, and a front decoration cover 21 set on the antiskid cover 20. The rear cover 8 further provides a rear decoration cover 22, which has a plurality of openings respectively corresponding to the button hole 14 and the light guider 13.

Each of the first comb teeth 32 and the second comb teeth 42 defines a V-shaped peripheral profile and a wavy-shaped cross-section. A width of each of the first comb teeth 32 and the second comb teeth 42 gradually decreases to near-zero from it's root end to it's top end. In assembly, the two adjacent first and second comb teeth 32, 42 define a wavy-shaped accommodating space for accommodating the hair therein, and straightening the hair through a high-temperature heat energy. Compare to the conventional clamp-type hair straightener, the wavy-shaped electric straightening comb of the present invention defines a wavy-shaped accommodating space through the wavy shaped cross-sections of

the two adjacent first and second comb teeth 32, 42, which the wavy-shaped accommodating space can provide a pulling force to the hair accommodated therein through a wave crest and a wave valley of each of the two adjacent first and second comb teeth 32, 42. Thus, when the hair passes through the accommodating space between the two adjacent first and second comb teeth 32, 42, the hair are loaded a reasonable pulling force and heated at a reasonable temperature to realize a straightening purpose. In addition, the wavy-shaped electric straightening comb can prevent the user to be scalded for a wrong operation by provide the heat shield 6, which further has two baffles 62 at two ends of the heat shield 6. Thus, the operation for the user is easy and convenient, and the special design of the wavy-shaped electric straightening comb can assure the straightening effects. In use, the interval between the adjacent first and second comb teeth 32, 42 can be 0.25mm, 0.5mm, 1.0 mm, 1.2 mm, or 1.5mm. The producer can choose different intervals according to different user.

It is believed that the embodiments and their advantages will be understood from the foregoing description, and it will be apparent that various changes may be made thereto without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the examples hereinbefore described merely being preferred or exemplary embodiments of the invention.

CLAIMS

1. A wavy-shaped electric straightening comb, comprising a comb part (2) and a handle (1), which are connected together in sequence, the comb part (2) comprising a heating equipment and a plurality of comb teeth extending outwardly, wherein the comb part (2) comprises a first comb (3) and a second comb (4), which the first comb (3) keeps close to the heating equipment and conducts heat energy to the second comb (4), and the first comb (3) comprises a first fixing plate (21) and a plurality of first comb teeth (32) disposed on the first fixing plate (21) at a regularly intervals, and the second comb (4) comprises a second fixing plate (41), a plurality of second comb teeth (42), a plurality of through holes, each formed between two adjacent second comb teeth (42) defined on the second fixing plate (41), which the plurality of first comb teeth (32) of the first comb (3) respectively drills through the plurality of through holes of the second comb (4), and each first comb tooth (32) is disposed between two corresponding adjacent second comb teeth (42), for assembling the first comb (2) and the second comb (4) together， and each of the first comb teeth (32) and the second comb teeth (42) defines a wavy-shaped cross-section, and two adjacent first and second comb teeth (32), (42) keep an interval from 0.25mm to 1.5mm and define a wavy-shaped hair accommodating space.

2. The wavy-shaped electric straightening comb as claimed in claim 1, wherein the comb part (2) further comprises a front cover (5), disposed before the handle (1), and a heat shield (6) on the front cover (5), which the heat shield (6) comprises a plurality of comb-shaped sheath (61), each of the comb-shaped sheath being a hollow structure, respectively corresponding to each of the first comb teeth (32) and the second comb teeth (42), and respectively surrounding an outer peripheral face of each of the first comb teeth (32) and the second comb teeth (42).

3. The wavy-shaped electric straightening comb as claimed in claim 2, wherein the handle (1) comprises a front cover (7), a rear cover (8), and a cable (9) formed at an end of the front cover (7), a PCB (10) disposed on a rear part of the front cover (7), a light shield (11) on a front part of the PCB (10), and a button module (12) on a rear part of the PCB (10), which the rear cover (8) comprises a light guider (13), and a plurality button holes (14), respectively corresponding to the light shield (11) and the button module (12), and the front cover (7), the rear cover (8) and the cable (9) are assembled together through a cable ring (15).

4. The wavy-shaped electric straightening comb as claimed in claim 3, wherein the heating equipment comprises a holder (16) being accommodated in the handle (1), a heating element (17) disposed on the holder (16), two contact terminals (180 electrically connecting the heating element (17) to the PCB (10), which the heating element (17) defines a heating area (19), being attached to the first comb (3).

5. The wavy-shaped electric straightening comb as claimed in claim 3, further comprising an antiskid cover (20) on the rear part of the front cover (7), and a front decoration cover (21) set on the antiskid cover (20).

6. The wavy-shaped electric straightening comb as claimed in claim 3, wherein the rear cover (8) further provides a rear decoration cover (22), which comprises a plurality of openings respectively corresponding to the button hole (14) and the light guider (13).

7. The wavy-shaped electric straightening comb as claimed in claim 1, wherein a width of each of the first comb teeth (32) and the second comb teeth (42) gradually decreases from it's root end to it's top end.

8. The wavy-shaped electric straightening comb as claimed in claim 2, wherein the heat shield (6) further comprises two baffles (62) at two ends of the heat shield (6).

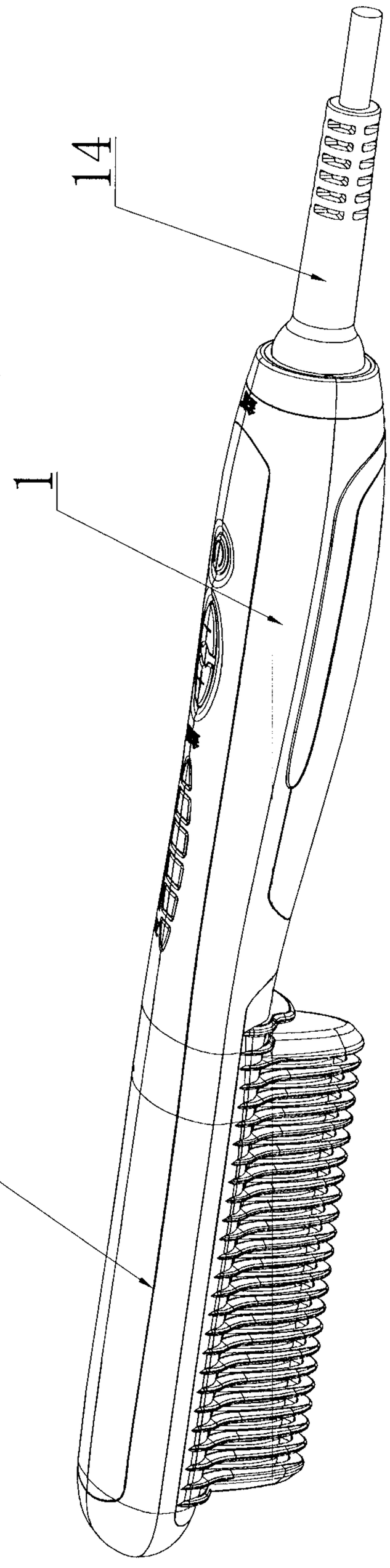


FIG. 1

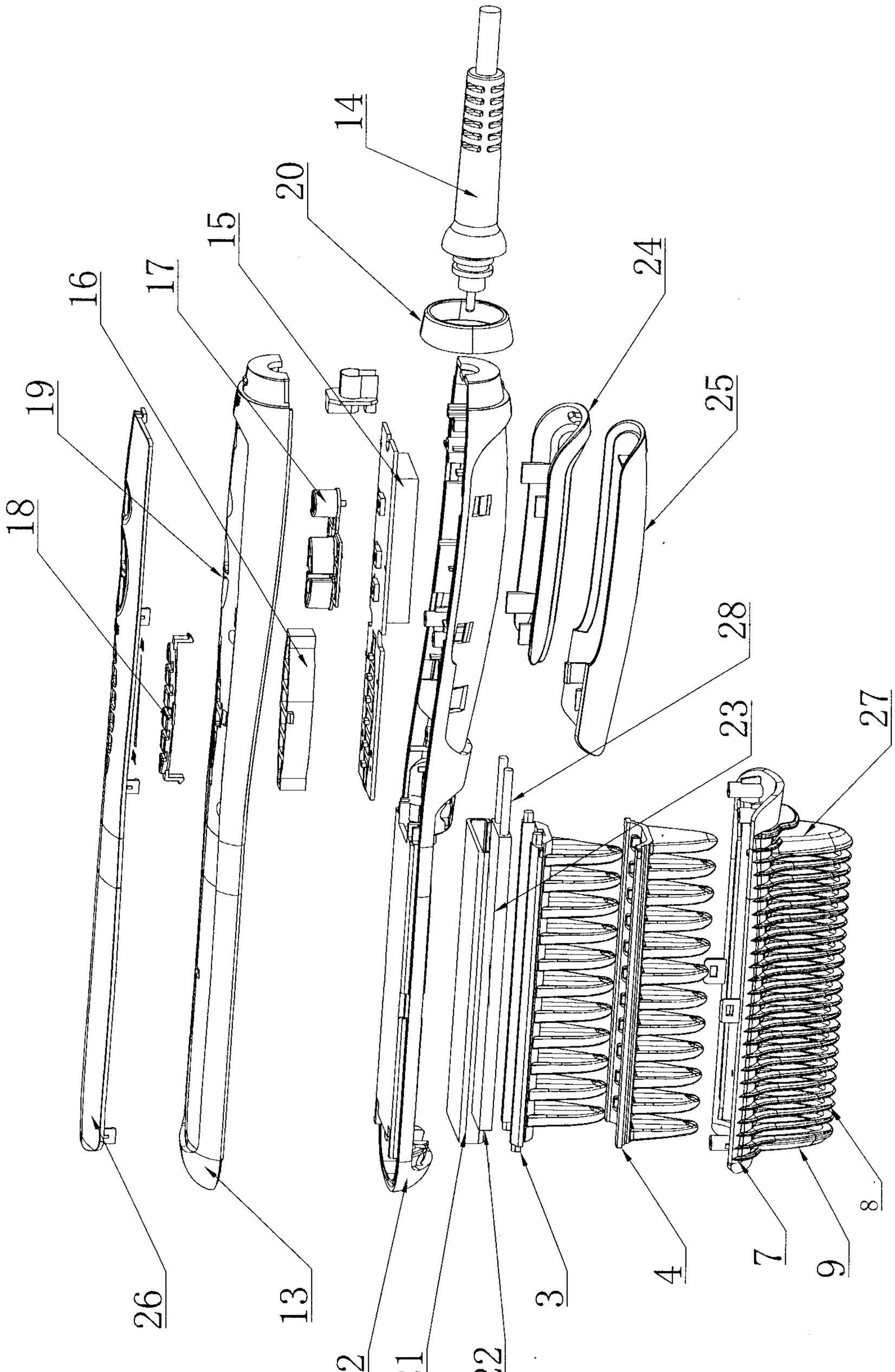


FIG. 2

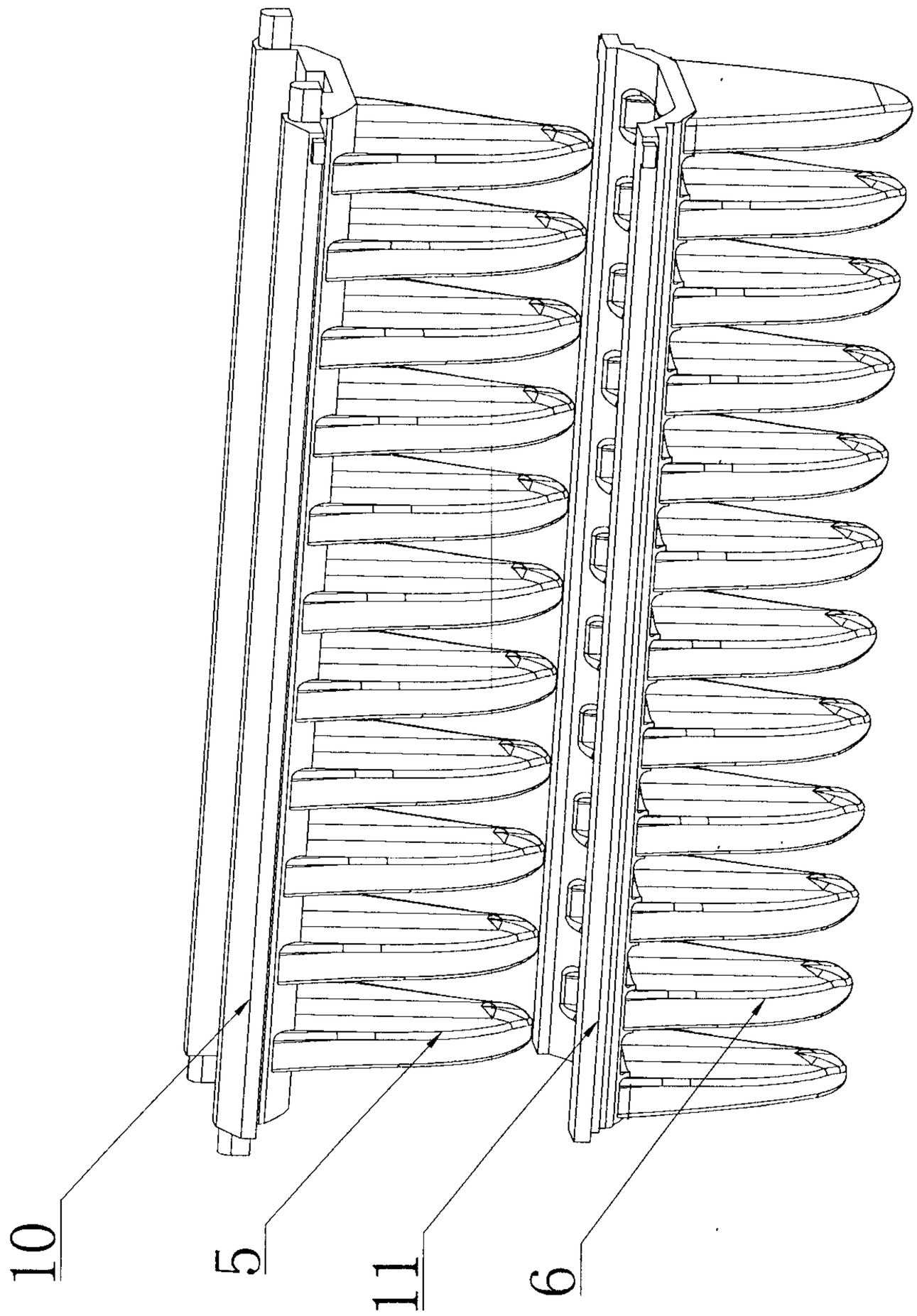


FIG. 3

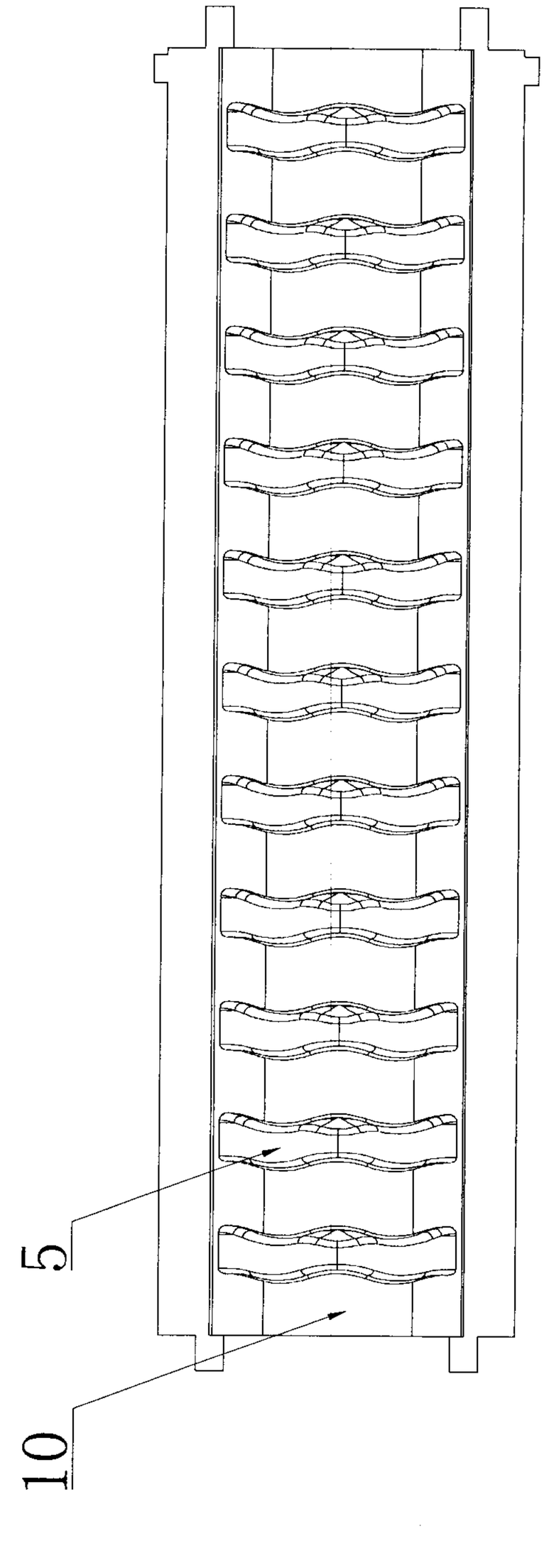
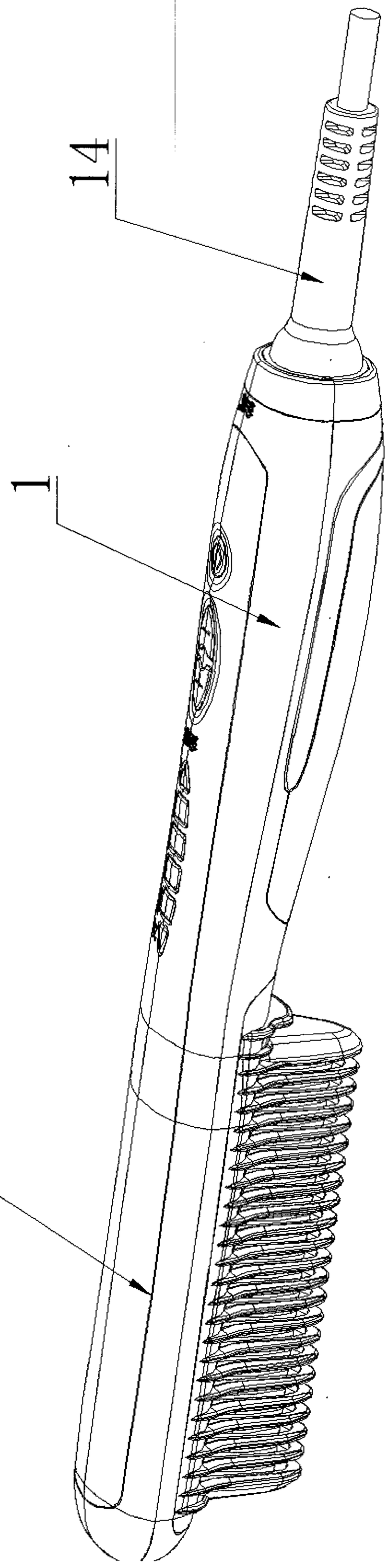


FIG. 4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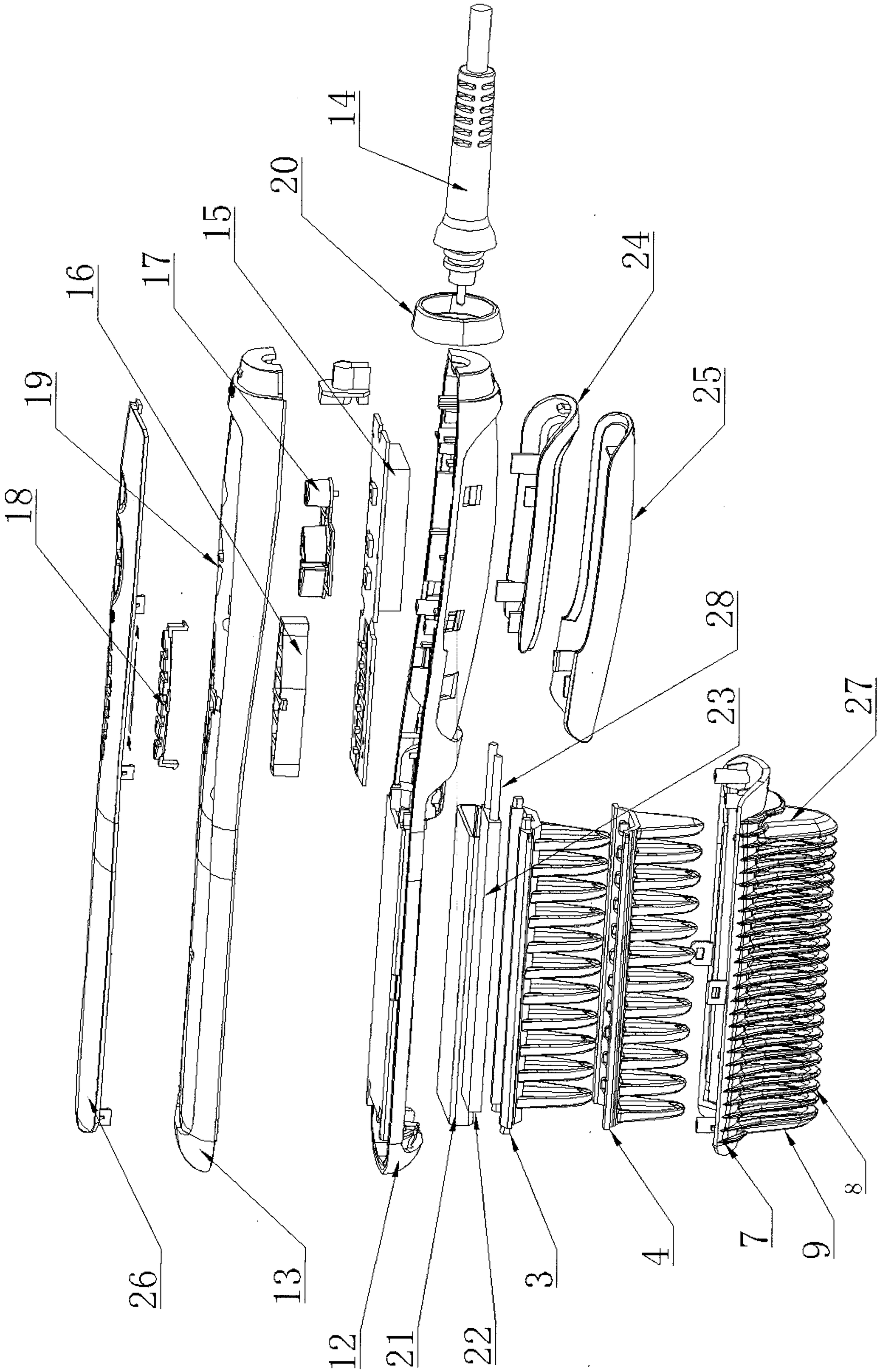
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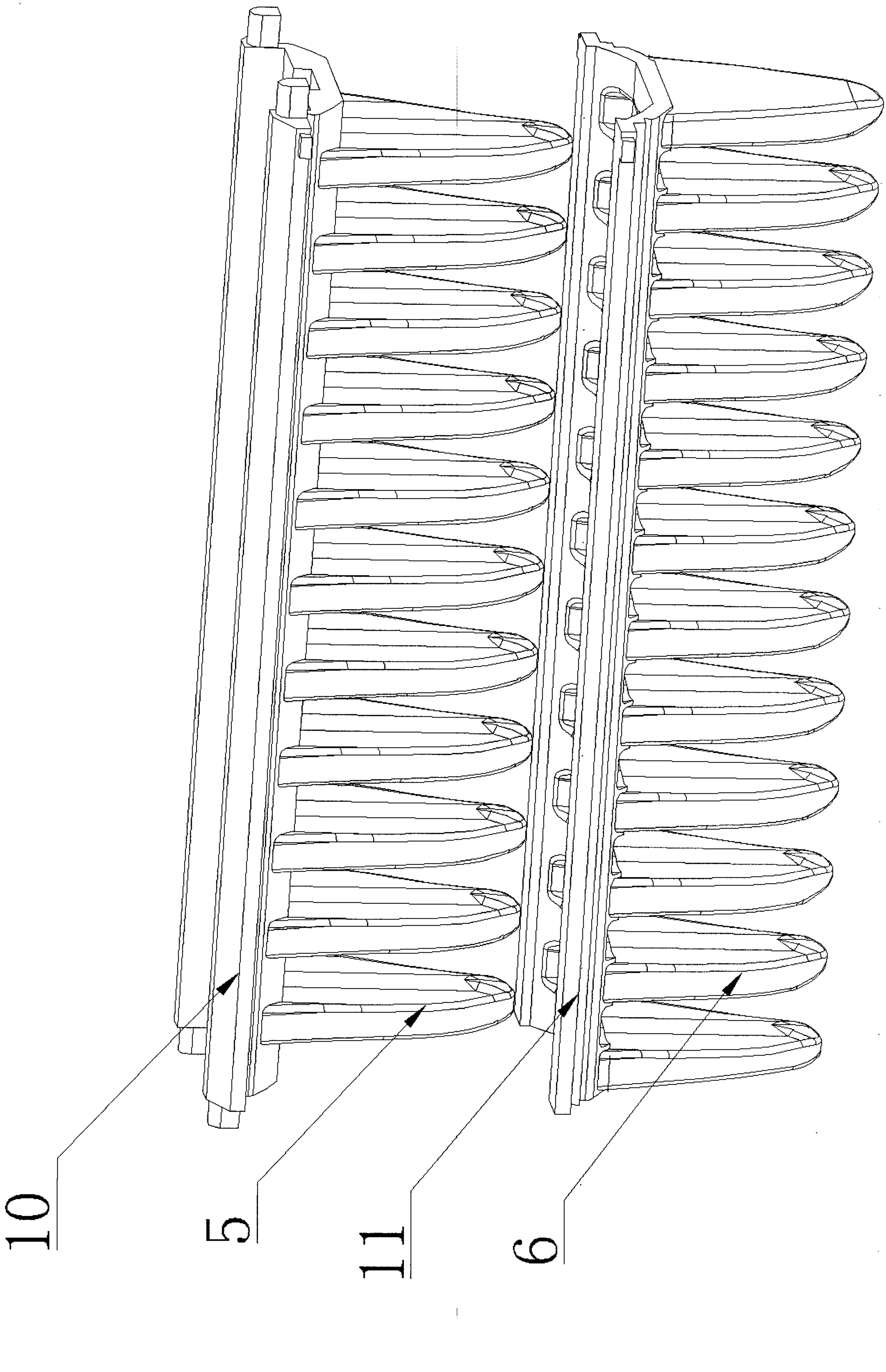
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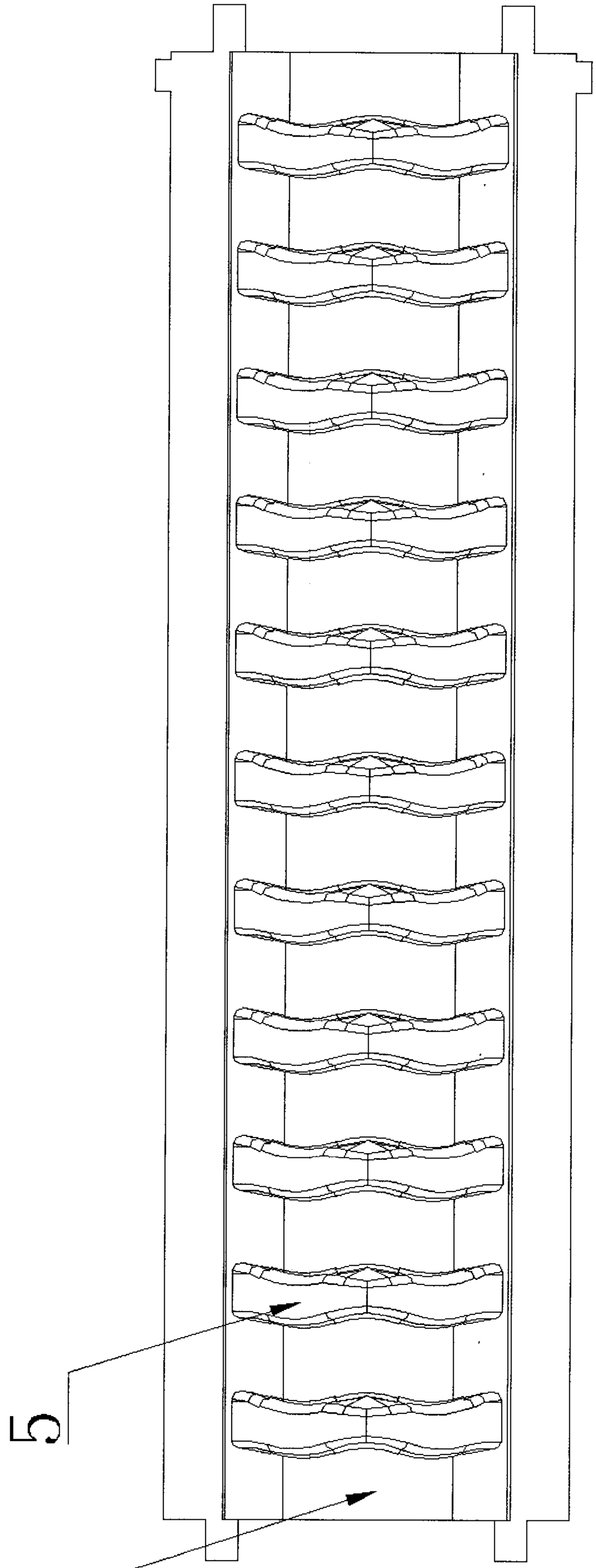
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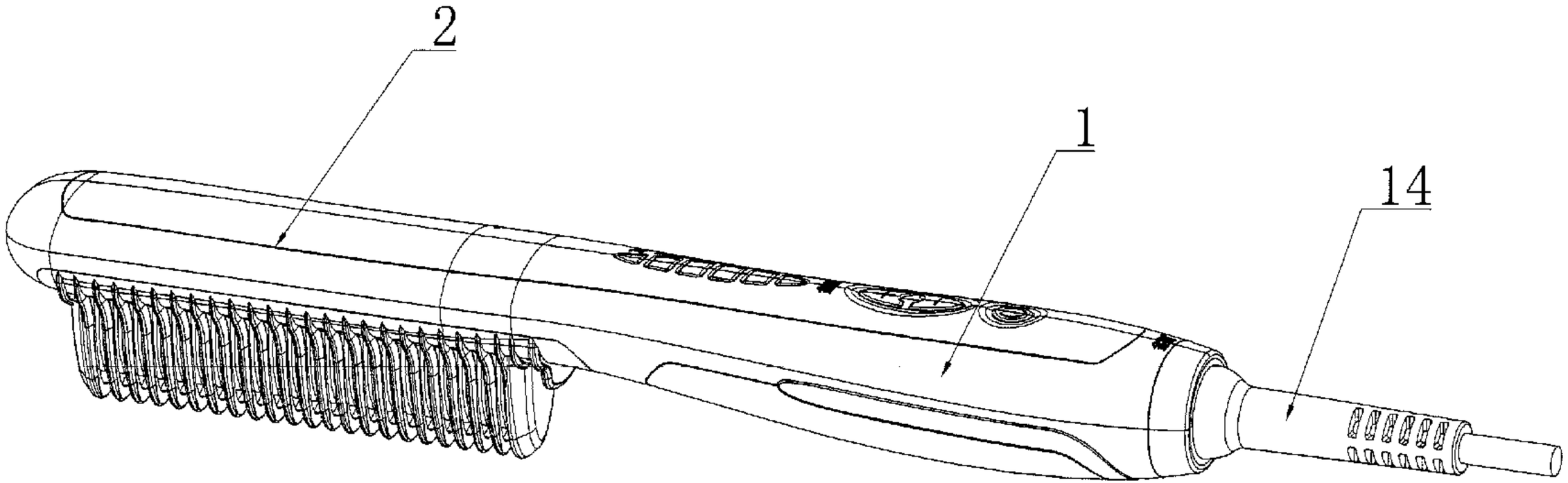

FIG. 1