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(54) **Hair cutter**

(57) A hair cutter comprises a body (2), a cutting unit (3), and a contact member (10) that is located around a tip of the cutting unit and configured to come into contact with a skin of a region on which hair to be cut with the cutting unit grows. The contact member comprises a comb member (13) having comb teeth (12) arranged side by side, and each tip of the comb teeth is a skin contact edge face (11). The cutting unit is arranged so that a part of the cutting unit sticks further out than each skin contact edge face of the comb member.

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Description

Technical Field

[0001] The invention relates to a hair cutter for shearing hair so that the hair is trimmed short.

Background Art

[0002] An electric shaver as shown in FIGS. 7A and 7B is one of the most common hair cutters. When hair (H) is trimmed short, hair is sheared with a cutting unit directly kept in contact with a scalp (G).

[0003] A hair cutter disclosed in Japanese Patent Application Publication No. 8-187374 (hereinafter referred to as a "Document-1") is known as a hair cutter with which hair can be trimmed at home without requiring comparatively a lot of skill.

[0004] The hair cutter of the Document-1 has a cutting unit which is at an end of a body and configured to shear hair, and a supporting member for supporting comb teeth sticking out of the tip of the cutting unit so that the cutting unit is apart from a scalp by a predetermined interval. Hair is cut with the cutting unit while the body is moved from above to below with the tip of the supporting member kept in contact with the scalp. A presser for pushing hair when the hair is sheared by moving the body is provided in parallel with the cutting faces of the cutting unit, and the presser is placed behind the shearing position of the cutting unit. Thereby, any body can shear the whole easily and uniformly with dispatch.

[0005] In the electric shaver of the former, as shown in FIG. 7A, when hair is sheared by moving a body 2 forward (D), the hair can be sheared safely with a cutting unit 3 because an end side of the body 2 comes into contact with the scalp (G). As shown in FIG. 7B, when hair is sheared by drawing (pulling) the body 2 rearward (E) with the tip of the cutting unit 3 kept at right angle with the scalp (G) (draw cutting), there is a possibility of skin damage by the cutting unit 3 because a force for pressing the tip of the cutting unit 3 is liable to concentrate on the scalp (G). Therefore, the draw cutting as shown in FIG. 7B is under the ban through the owner's manual or the like. There is however a use error possibility.

[0006] In the hair cutter of the Document-1, since the predetermined interval is provided between the cutting unit and a scalp, hair cannot be trimmed short.

Summary of Invention

[0007] It is an object of the present invention to shear hair in safety so that the hair is trimmed short with low skin irritation and beautiful finish.

[0008] A hair cutter (1) of the present invention comprises: a body (2); a cutting unit (3) for cutting hair, the cutting unit (3) being placed at an end side of the body (2); and a contact member (10) that is located around a tip of the cutting unit (3) and configured to come into contact with a skin of a region on which hair to be cut with the cutting unit (3) grows. The contact member (10) comprises a comb member (13) having comb teeth (12) arranged side by side. Each tip of the comb teeth (12) is a skin contact edge face (11). The cutting unit (3) is arranged so that a part of the cutting unit (3) sticks further out than each skin contact edge face (11) of the comb member (13).

[0009] In an embodiment, the cutting unit (3) has first and second faces. At least a part of the comb teeth (12) comprises pairs of first and second comb tooth halves (12a, 12b). The first comb tooth halves (12a) and the second comb tooth halves (12b) in the comb member (13) are arranged at the first face side and the second face side of the cutting unit (3), respectively so that the cutting unit (3) is intervened between the first comb tooth halves (12a) and the second comb tooth halves (12b).

[0010] In an embodiment, the contact member (10) is placed so that each edge direction (D, E) of the skin contact edge faces (11) of the comb member (13) and a direction that the part of the cutting unit (3) sticks out are in the shape of a cross.

[0011] In an embodiment, the cutting unit (3) comprises a fixed blade (4) which is a comb blade and a movable blade (5) which is a comb blade and configured to oscillate so that the movable blade (5) slides against the fixed blade (4). The fixed blade (4) is arranged so that a tip of the fixed blade (4) sticks further out than each skin contact edge face (11) of the comb member (13). The movable blade (5) is arranged so that a tip of the movable blade (5) is set further back than each skin contact edge face (11) of the comb member (13).

[0012] In an embodiment, a projection direction (A) of the part of the cutting unit (3) is inclined to be an obtuse angle with the long axis (B) of the body (2). Each skin contact edge face (11) of the comb member (13) is an acute angle (α) with the long axis (B) of the body (2).

[0013] In an embodiment, the body (2) comprises a head (2a) at said end side of the body (2). The head (2a) is provided with the cutting unit (3). The contact member (10) is detachably attached to the head (2a).

[0014] In an embodiment, the comb teeth (12) are flat pieces arranged side by side in parallel with each other along a width direction (F) of the cutting unit (3).

[0015] In an embodiment, the movable blade (5) is configured to oscillate so that a distance between the tooth tips of the comb blade as the movable blade (5) and the tooth tips of the comb blade as the fixed blade (4) is constant.

[0016] In an embodiment, each tooth tip of the comb blade as the fixed blade (4) has an R-chamfer.

[0017] In an embodiment, the body (2) comprises a handle grip (2b) along said long axis (B).

[0018] In an embodiment, each skin contact edge face (11) of the comb member (13) is flush with a plane that is at the acute angle (α) with the long axis (B) of the body (2).

[0019] In the present invention, it is possible to shear

hair in safety so that the hair is trimmed short with low skin irritation and beautiful finish.

Brief Description of Drawings

[0020] Preferred embodiments of the invention will now be described in further details. Other features and advantages of the present invention will become better understood with regard to the following detailed description and accompanying drawings where:

FIG. 1 shows a cross sectional view of an essential part with a contact member attached to an end side of a body of a hair cutter in accordance with an embodiment of the present invention;
FIG. 2A is a perspective view of the whole body in the embodiment and FIG. 2B is a perspective view of the embodiment with the contact member attached to the end side of the body;
FIG. 3 is a perspective view of the contact member and a head in the embodiment;
FIG. 4 is a cross sectional view for showing a positional relation between tips of fixed and movable blades constituting a cutting unit in the body and a skin contact edge face;
FIG. 5A is an explanatory diagram of shearing while moving the body forward and FIG. 5B is an explanatory diagram of shearing while drawing the body rearward;
FIG. 6 is a perspective view of a contact member and a head in an embodiment of the present invention; and
FIGS. 7A and 7B show a usage example of a prior art electric shaver, the former is an explanatory diagram of shearing while moving the electric shaver forward (push cutting), and the latter is an explanatory diagram of shearing while drawing the electric shaver rearward (draw cutting).

Description of Embodiments

[0021] In an embodiment of the present invention, as shown in FIGS. 2A and 2B, a hair cutter 1 is an electric shaver that includes a body 2 and a contact member 10 detachably attached to an end (a first end) 2a side of the body 2. Hereinafter, the first end side of the body 2 is referred to as a head 2a, and a second end side of the body 2 is referred to as a handle grip 2b. The body 2 has a long axis, and has and the handle grip 2b along the long axis. The body 2 also has a first face and a second face that are, for example, a front face and a rear face, respectively. Specifically, the handle grip 2b is in the shape of a cylinder with the long axis and a bottom, and the body 2 has a rectangular cross section with rounded corners in the handle grip 2b. And, one of two sides, in a longitudinal direction, of the body 2 is the first face of the body 2 and the other is the second face. In an example of the FIG. 1, a manual operation button 17 as, for example, a power switch is located at the first face (the front face) of the body 2.

[0022] As shown in FIG. 1, the head 2a is provided with a cutting unit 3 for cutting hair. In the example of FIG. 1, the cutting unit 3 is located at an inner end face of the first end of the body 2 so that a part (a tip) of the cutting unit 3 sticks out in an oblique direction (an obliquely forward and upward) from the inside of the first end of the body 2 (the inside of the upper end of the head 2a) to the first end side in the first surface of the body 2. The cutting unit 3 includes a fixed blade 4 and a movable blade 5 each of which is a comb blade. The movable blade 5 is configured to oscillate (reciprocate) so that the movable blade 5 slides against the fixed blade 4. Each comb blade of the fixed blade 4 and the movable blade 5 is a flat piece of metal having flat blade faces and has a row of teeth along one side edge (a blade edge). Therefore, the cutting unit 3 has a first face and a second face that are the outer blade face of the movable blade 5 and the outer blade face of the fixed blade 4, respectively. The first face and the second face of the cutting unit 3 are located at the first face side and the second face side of the body 2, respectively. Unlike the movable blade 5, each tooth tip of the fixed blade 4 has an R-chamfer, which allows each tooth tip of the fixed blade 4 touch, for example, a human scalp. The movable blade 5 is oscillated through an electrical driving mechanism (not shown) put in the body 2. For example, the driving mechanism includes a battery (e.g., a secondary battery), a motor and a conversion mechanism configured to convert the motor's rotational motion into linear motion. The movable blade 5 is oscillated by the linear motion. Hair can be sheared between the fixed blade 4 and the movable blade 5 by oscillating the movable blade 5. In the embodiment, the movable blade 5 is configured, through the driving mechanism, to oscillate so that a distance between the tooth tips of the movable blade 5 and the tooth tips of the fixed blade 4 is kept constant.

[0023] A contact member 10 is located around a tip (blade edges) of the cutting unit 3, and configured to come into contact with a skin of a region (e.g., a scalp G) on which hair to be cut (sheared) with the cutting unit 3 grows. In the embodiment, the contact member 10 is a comb-shaped head cap of e.g., plastic (hereinafter also referred to as a "cap 10") that is formed to cover the head 2a. The cap 10 is comprised of a cylindrical fixed part 14 detachably attached to the head 2a of the body 2, and a comb member 13 integrally formed at an end of the cylindrical fixed part 14. In FIG. 2, 15 is a cap release button for detaching the cap 10 from the head 2a.

[0024] As shown in FIG. 3, the comb member 13 of the cap 10 includes a plurality of comb teeth 12 arranged side by side, and a contact part 16 as a contact face. The comb teeth 12 are flat pieces arranged side by side in parallel with each other along a width direction (F) of the cutting unit 3. In the example of FIG. 3, the comb teeth 12 are evenly spaced in parallel with each other in a width direction (F) of the blades of the cutting unit 3. Tips of

the comb teeth 12 each are skin contact edge faces 11 which are flush with each other and constitute the contact part 16. Specifically, each skin contact edge face 11 is flush with a plane that is at the acute angle (α) with the long axis (B) of the body 2.

[0025] At least a part of the comb teeth 12 includes pairs of first and second comb tooth halves 12a and 12b. In the example of FIG. 3, the pairs of first and second comb tooth halves 12a and 12b are arranged between two comb teeth 12 located at both ends of the comb member 13. The first comb tooth halves 12a and the second comb tooth halves 12b in the comb member 13 are arranged at the first face side and the second face side of the cutting unit 3, respectively so that the cutting unit 3 is intervened between the first comb tooth halves 12a and the second comb tooth halves 12b. The first face and the second face of the cutting unit 3 are placed at a front side (D) and a rear side (E) of the body 2, respectively. The cap 10 is placed so that each edge direction (E, D) of the skin contact edge faces 11 of the comb member 13 and a direction (A) that the part of the cutting unit 3 sticks out are in the shape of a cross (+). The direction (A) is hereinafter referred to as a "projection direction (A)". Specifically, an edge direction (E, D) of a comb tooth 12 at an end of the comb member 13 and the projection direction (A) is cruciform as seen from the side of the body 2, and an edge direction (E, D) of each pair of comb tooth halves 12a and 12b between both ends of the comb member 13 and the projection direction (A) is also cruciform as seen from the side. In the example of FIG. 1, each skin contact edge face 11 of the comb member 13 is arranged to be substantially at right angle with the projection direction (A) as seen from the side. Each skin contact edge face 11 has a significant function for preventing an excess suppress strength from the tip of the cutting unit 3 onto a skin. The excess suppress strength causes discomfort such as skin damage and skin irritation by excess press of the cutting unit 3 on the skin. Therefore, the skin contact edge faces 11 is provided to reduce such irritation.

[0026] The projection direction (A) of the cutting unit 3 (i.e., the blade edges of the fixed and movable blades 4 and 5) from the head 2a slopes forward (D) (an obliquely forward and downward) with respect to the long axis (B) of the body 2. The cutting unit 3 is arranged so that a part (tip) of the cutting unit 3 (i.e., a part of the blade edge of the fixed blade 5) sticks further out than each skin contact edge face 11 of the comb member 13 by a predetermined little length. In an example of FIG. 4, the fixed blade 4 is arranged so that the tip of the fixed blade 4 sticks further out than each skin contact edge face 11 configured to come into contact with a scalp (G) by a predetermined length (M). The movable blade 5 is arranged so that the tip of the movable blade 5 is set further back than each skin contact edge face 11 by a predetermined length (N). Each of M and N can be appropriately set by change of design.

[0027] As shown in FIG. 5A, if the hair cutter 1 is pushed forward (D), with the handle grip 2b of the body 2 held by hand, so that each skin contact edge face 11 comes into contact with a scalp (G), hair (H) can be cut (push cutting). In this instance, even if the direction (projection direction) of the blade edges of the cutting unit 3 is at a right angle with the scalp (G), each skin contact edge face 11 comes into contact with the scalp (G) and thereby the orientation of the comb member 13 is stabilized, and also skin irritation can be reduced. As shown in FIG. 5B, even when hair (H) is cut by drawing the hair cutter 1 backward (E) (draw cutting), a force for pressing the cutting unit 3 is hard to concentrate on the scalp (G) by the existence of the skin contact edge faces 11, and skin irritation is reduced and skin is hard to be damaged. Even in any of the push cutting and the draw cutting, before hair (H) is cut, the hair to be cut is raised in order to easily make it neat through the skin contact edge faces 11 provided at the tip of the comb member 13 and then is combed with the comb teeth 12, which allows the cutting unit 3 to easily capture hair (H), improving cutting performance. As a result, as well as an expert, anyone can easily obtain a beautiful finish in safety.

[0028] Since the first comb tooth halves 12a and the second comb tooth halves 12b of the comb member 13 are arranged at the front side and the second side of the cutting unit 3, respectively, hair (G) is held by the skin contact edge faces 11 at both sides of the cutting unit 3. Thereby, the orientation of the comb member 13 is stabilized, and irritation can be more reduced.

[0029] The comb member 13 is arranged so that each edge direction of the skin contact edge faces 11 is substantially at a right angle with the projection direction (A) of the cutting unit 3. Accordingly, the guiding performance of hair towards the cutting unit 3 can be secured and also through the skin contact edge faces 11, a scalp (G) is protected from being damaged by the blade edge of the cutting unit 3 (the movable blade 5).

[0030] The fixed blade 4 is arranged so that only the tip of the fixed blade 4 stick further out than the skin contact edge faces 11, and the movable blade 5 is arranged so that the tip of the movable blade 5 does not stick further out than the skin contact edge faces 11. Thereby, it is possible to shear hair (H) with the tip of the fixed blade 4 coming into contact with a scalp (G) while preventing the tip of the movable blade 5 from being pushed on the scalp (G), which allows the scalp (G) to be protected from damage by the tip of the movable blade 5.

[0031] Each gap 120a of the first comb tooth halves 12a and each gap 120b of the second comb tooth halves 12b are at a position in front (D) and rear (E) of the cutting unit 3, respectively. Accordingly, sheared hairs (H) are guided to the gaps 120a of the first comb tooth halves 12a and the gaps 120b of the second comb tooth halves 12b from side edges 121a of the first comb tooth halves 12a and side edges 121b of the second comb tooth halves 12b, respectively (FIG. 1), and the sheared hairs are smoothly discharged without the sheared hairs accumulating near the cutting unit 3. Since the cap 10 in-

cluding the comb member 13 can be detachably attached to the head 2a of the body 2, the cutting unit 3 and the comb member 13 can be easily cleaned.

[0032] The first comb tooth halves 12a and the second comb tooth halves 12b of the comb member 13 are located in front (D) (an obliquely forward and downward) and rear (E) (an obliquely rearward and upward) of the cutting unit 3, respectively but the present invention is not limited to that configuration. For example, in an embodiment of the present invention, the comb member 13 is located at least in front of the cutting unit 3, and the comb member 13 in rear (E) of the cutting unit 3, namely the second comb tooth halves 12b between the two comb teeth 12 at both ends of the comb member 13 may be removed so that the rear side of the two comb teeth 12 function only as the contact part 16. In this instance, the skin contact edge faces 11 of the two comb teeth 12 and the skin contact edge faces 11 of the first comb tooth halves 12a between the two comb teeth 12 function as the contact part 16. For example, the comb teeth 12 of the comb member 13 may be located only in (just) front (D) of the cutting unit 3 in a range that an angle of the long axis (B) of the body 2 with a scalp (G) is an acute angle (α) (see FIG. 4) when a projection direction of the blade edges of the cutting unit 3 is perpendicular to the scalp (G). In this instance, as shown in FIG. 5B and FIG. 7A (prior art), the hair cutter 1 can be moved (push cutting) so that the contact part 16 comes into contact with a scalp. In addition, as shown in FIG. 5A, the hair cutter 1 can be moved (draw cutting) so that the contact part 16 comes into contact with a scalp (G). In this embodiment, it is possible to obtain a reduction performance of skin irritation which the prior art (FIG. 7B) can obtain, and a compact comb member 13 can be obtained.

[0033] In the embodiment, each skin contact edge face 11 is in the shape of a straight line that is substantially an right angle with the projection direction of the cutting unit 3 as seen from the side of the body 2, but the present invention is not limited to that configuration. For example, in an embodiment, as shown in FIG. 6, each skin contact edge face 11 is in the shape of a circular arc as seen from the side of the body 2. That is, each skin contact edge face 11 of the first and second comb tooth halves is in the shape of a circular arc formed so that its own end side near the cutting unit 3 is higher than its own other end side near the upper end of the cylindrical fixed part 14. In this instance, the hair cutter 1 can be easily moved so that each skin contact edge face 11 comes into contact with a narrow scalp behind an ear or the like. Shearing handle-ability can be improved.

[0034] In the aforementioned embodiment, the movable blade 5 is arranged so that the tip (blade edge) of the movable blade 5 does not stick further out than each skin contact edge face 11, but the present invention is not limited to that configuration. For example, the movable blade 5 may be arranged so that the tip of the movable blade 5 sticks further out than each skin contact edge face 11. In short, what is needed is the tip of the movable blade 5 is set further back than the fixed blade 4.

[0035] Although the present invention has been described with reference to certain preferred embodiments, numerous modifications and variations can be made by those skilled in the art without departing from the true spirit and scope of this invention, namely claims.

Claims

1. A hair cutter, comprising:

a body (2);
a cutting unit (3) for cutting hair, the cutting unit (3) being placed at an end side of the body (2); and
a contact member (10) that is located around a tip of the cutting unit (3) and configured to come into contact with a skin of a region on which hair to be cut with the cutting unit (3) grows,

wherein the contact member (10) comprises a comb member (13) having comb teeth (12) arranged side by side, each tip of the comb teeth (12) being a skin contact edge face (11), and
wherein the cutting unit (3) is arranged so that a part of the cutting unit (3) sticks further out than each skin contact edge face (11) of the comb member (13).

2. The hair cutter of claim 1,
wherein the cutting unit (3) has first and second faces,
wherein at least a part of the comb teeth (12) comprises pairs of first and second comb tooth halves (12a, 12b), and
wherein the first comb tooth halves (12a) and the second comb tooth halves (12b) in the comb member (13) are arranged at the first face side and the second face side of the cutting unit (3), respectively so that the cutting unit (3) is intervened between the first comb tooth halves (12a) and the second comb tooth halves (12b).

3. The hair cutter of claim 1, wherein the contact member (10) is placed so that each edge direction (D, E) of the skin contact edge faces (11) of the comb member (13) and a direction that the part of the cutting unit (3) sticks out are in the shape of a cross.

4. The hair cutter of claim 2, wherein the contact member (10) is placed so that each edge direction (D, E) of the skin contact edge face (11) of the comb member (13) and a direction that the part of the cutting unit (3) sticks out are in the shape of a cross.

5. The hair cutter of any one of claims 1-4,
wherein the cutting unit (3) comprises a fixed blade (4) which is a comb blade and a movable blade (5)

which is a comb blade and configured to oscillate so that the movable blade (5) slides against the fixed blade (4),
wherein the fixed blade (4) is arranged so that a tip of the fixed blade (4) sticks further out than each skin contact edge face (11) of the comb member (13), and wherein the movable blade (5) is arranged so that a tip of the movable blade (5) is set further back than each skin contact edge face (11) of the comb member (13).

6. The hair cutter of claim 1, 3 or 4,
wherein a projection direction (A) of the part of the cutting unit (3) is inclined to be an obtuse angle with the long axis (B) of the body (2), and
wherein each skin contact edge face (11) of the comb member (13) is an acute angle (α) with the long axis (B) of the body (2).

7. The hair cutter of claim 5,
wherein a projection direction (A) of the part of the cutting unit (3) is inclined to be an obtuse angle with the long axis (B) of the body (2), and
wherein each skin contact edge face (11) of the comb member (13) is an acute angle (α) with the long axis (B) of the body (2).

8. The hair cutter of claim 1,
wherein the body (2) comprises a head (2a) at said end side of the body (2),
wherein the head (2a) is provided with the cutting unit (3), and wherein the contact member (10) is detachably attached to the head (2a).

9. The hair cutter of claim 2, wherein the comb teeth (12) are flat pieces arranged side by side in parallel with each other along a width direction (F) of the cutting unit (3).

10. The hair cutter of claim 5, wherein the movable blade (5) is configured to oscillate so that a distance between the tooth tips of the comb blade as the movable blade (5) and the tooth tips of the comb blade as the fixed blade (4) is constant.

11. The hair cutter of claim 10, wherein each tooth tip of the comb blade as the fixed blade (4) has an R-chamfer.

12. The hair cutter of claim 6, wherein the body (2) comprises a handle grip (2b) along said long axis (B).

13. The hair cutter of claim 6, wherein each skin contact edge face (11) of the comb member (13) is flush with a plane that is at the acute angle (α) with the long axis (B) of the body (2).

FIG. 1

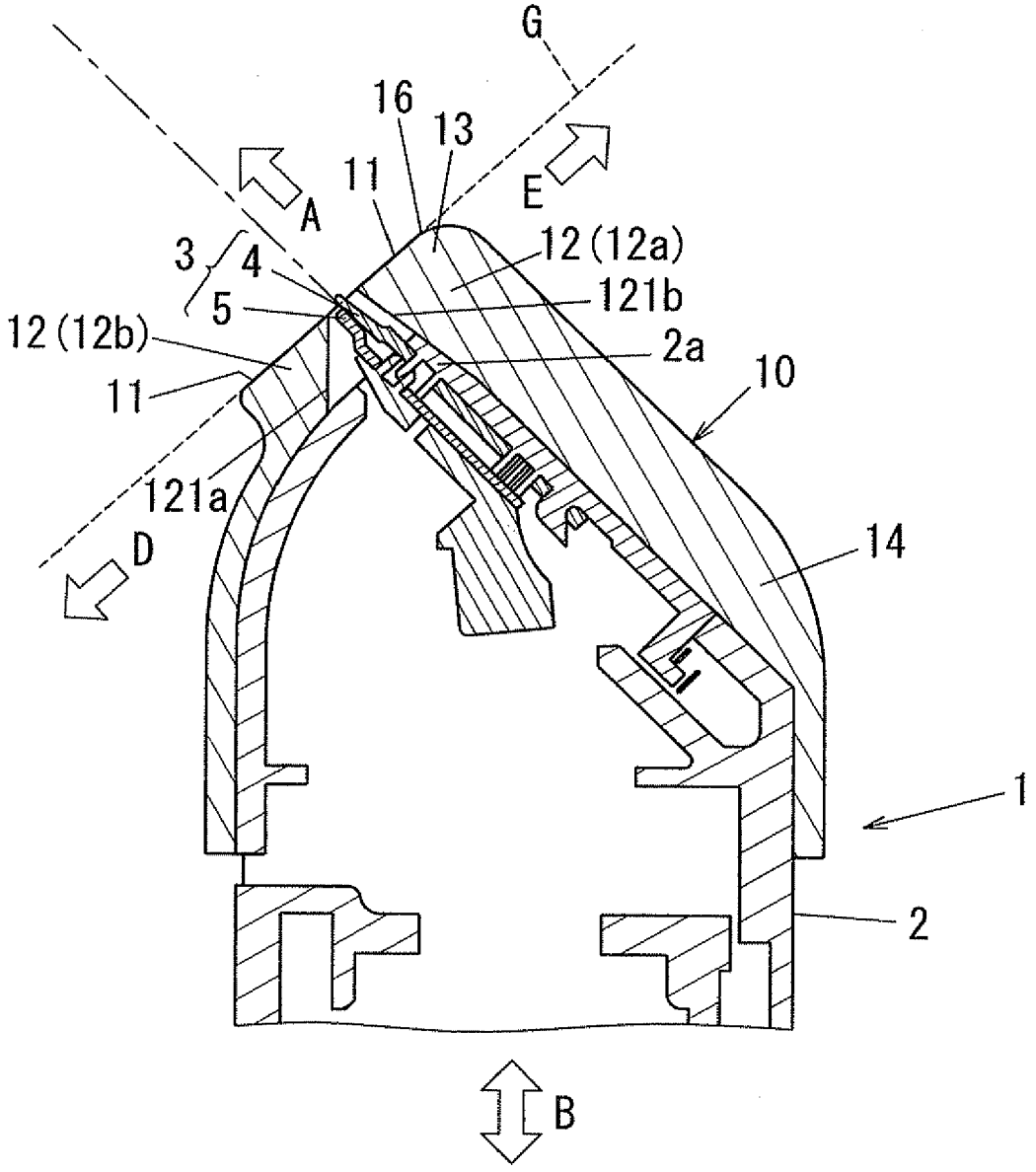


FIG. 2A

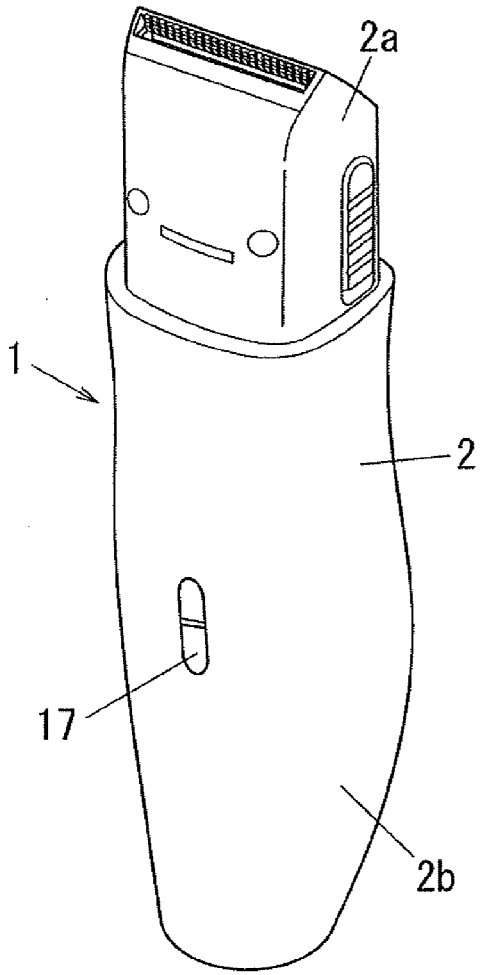


FIG. 2B

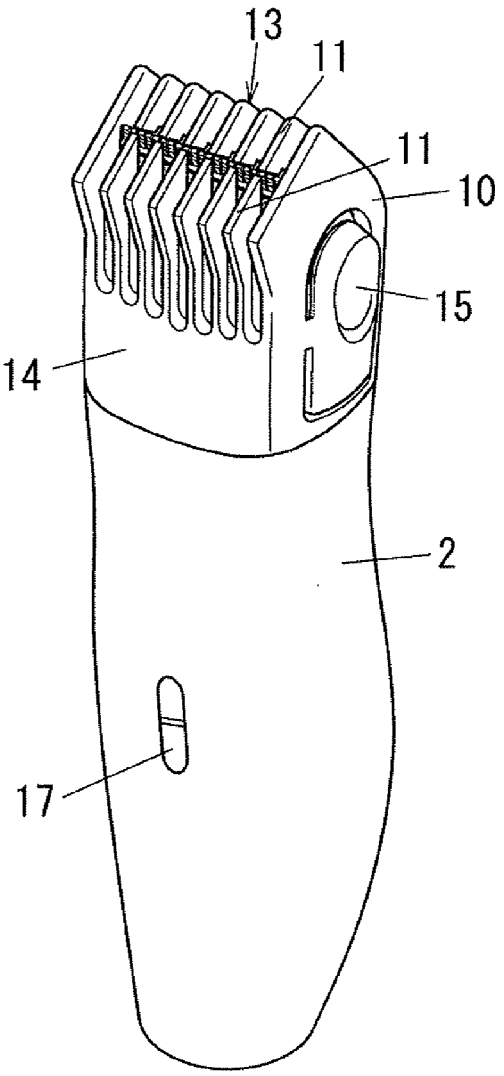


FIG. 3

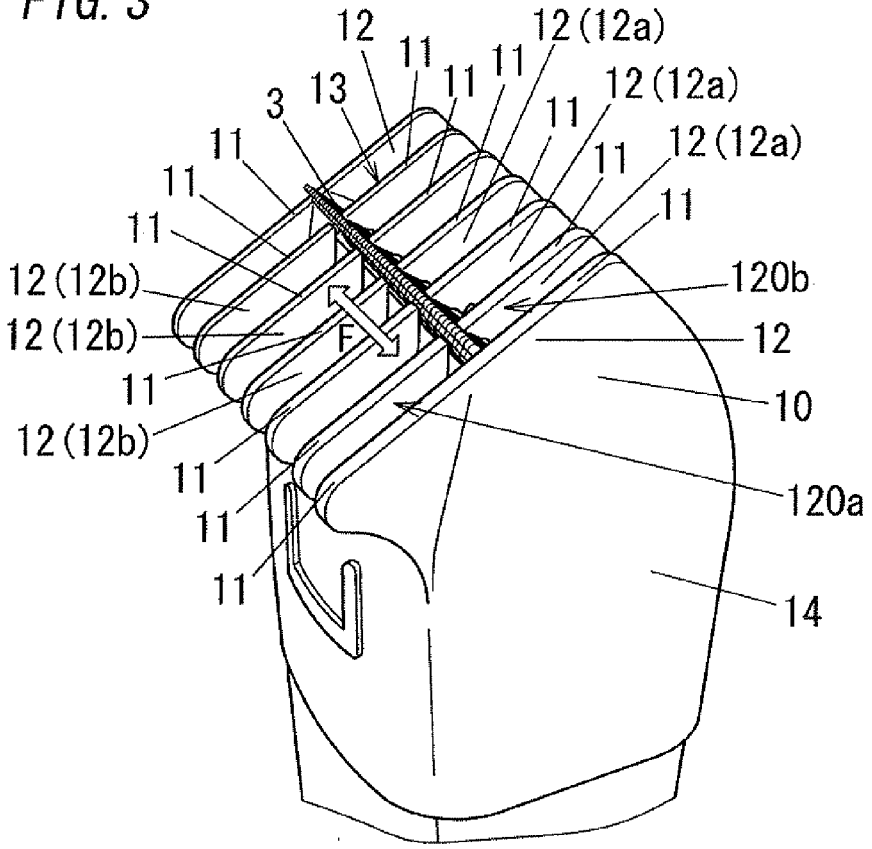

12
11
11
11
12 (12a)
13
3
11
12 (12a)
11
11
12 (12a)
11
11
12 (12b)
120b
12 (12b)
F
12
11
10
12 (12b)
11
120a
11
11
14

FIG. 4

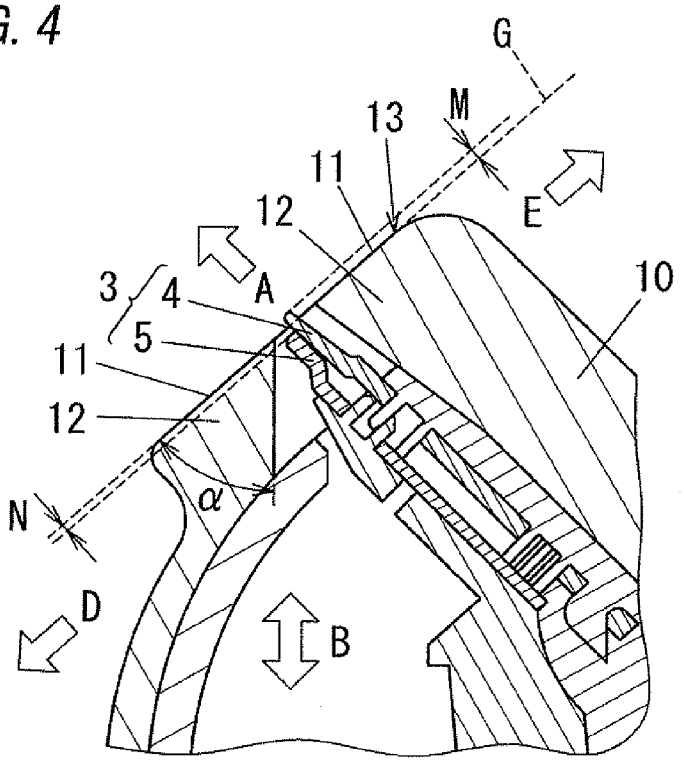

G
13
M
11
E
12
A
10
3
4
5
11
12
α
N
D
B

FIG. 5A

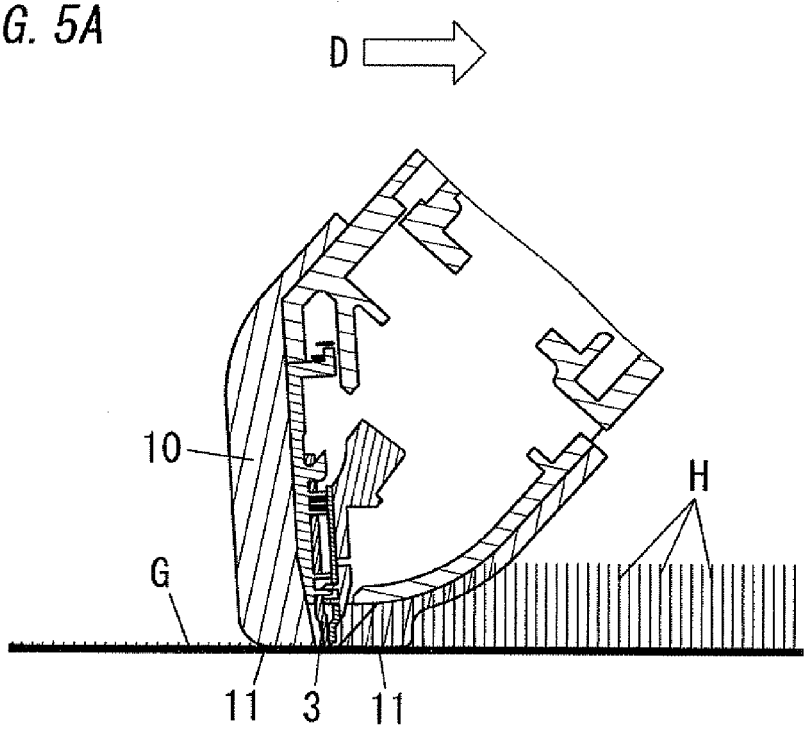


FIG. 5B

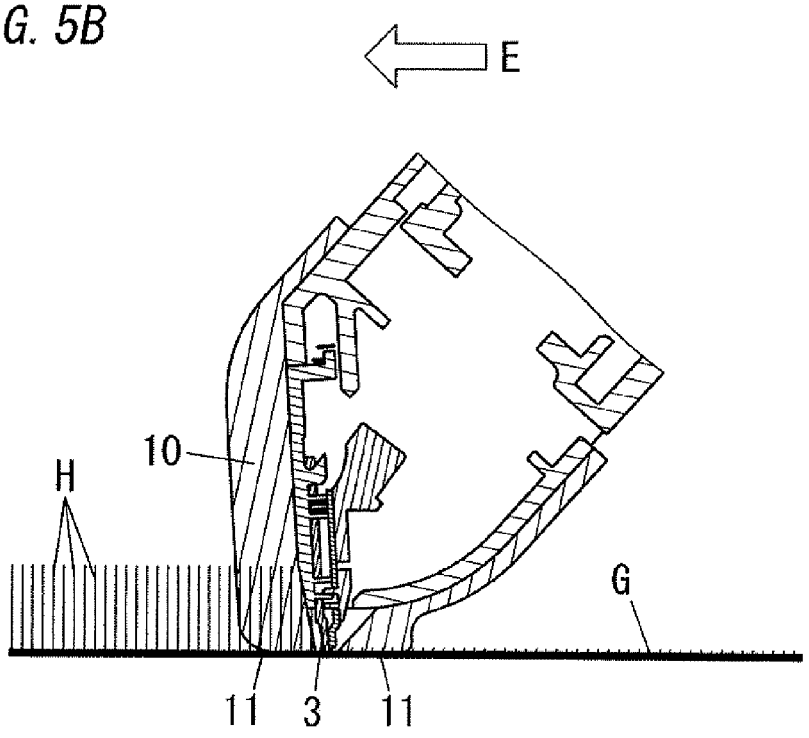


FIG. 6

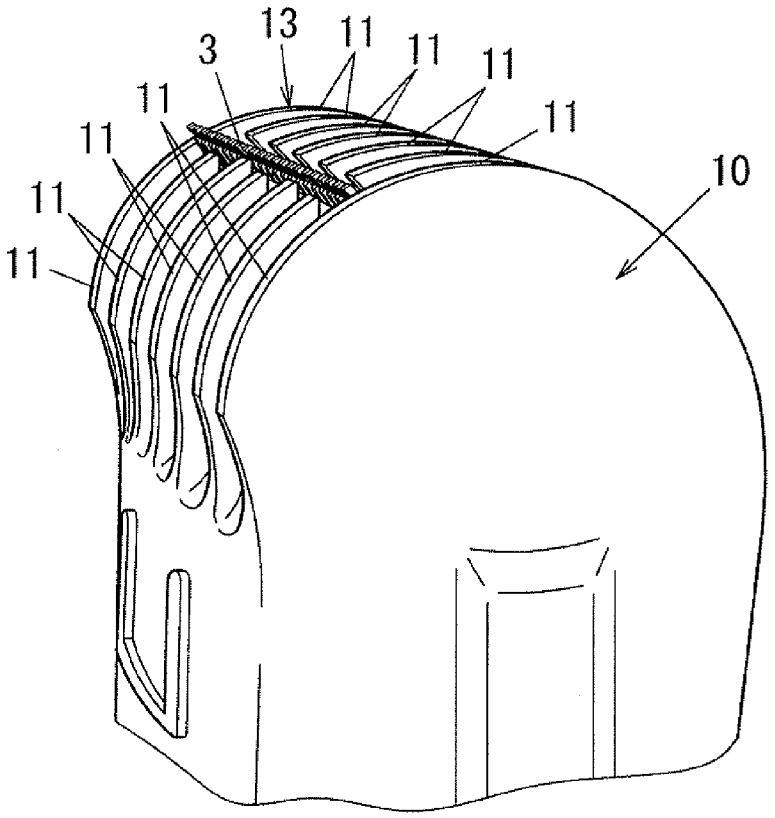


FIG. 7A

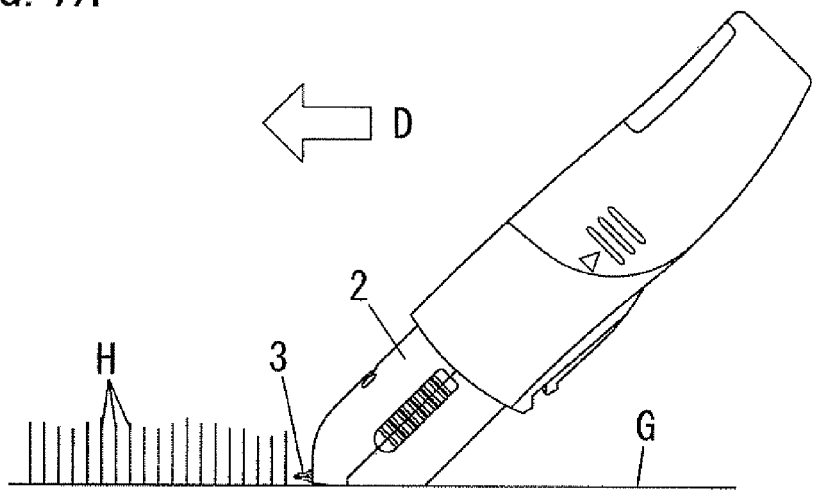
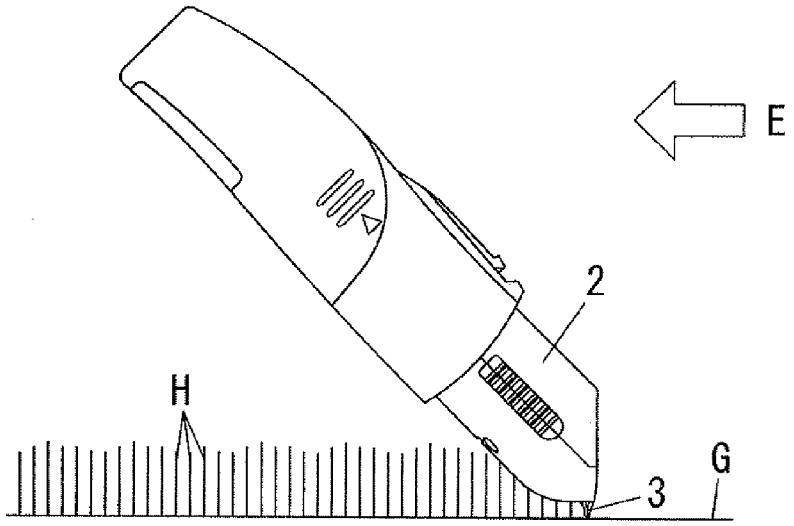


FIG. 7B



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EUROPEAN SEARCH REPORT

Application Number
EP 11 19 0782

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 3 651 570 A (GROVES ERMY W) 28 March 1972 (1972-03-28) * column 1, line 24 - column 2, line 24; figures 1-4 *	1-13	INV. B26B19/20 B26B19/38
Y	US 2 867 902 A (GROVES ERMY W) 13 January 1959 (1959-01-13) * column 1, line 66 - column 2, line 22; figures 1,2,4,5 *	1-13	
Y	DE 25 11 960 A1 (PHILIPS NV) 2 October 1975 (1975-10-02) * page 4, paragraphs 2,3; figures 1,2 * * page 8, paragraph 2 - page 10, paragraph 1; figures 1,2 *	1	
Y	US 3 116 550 A (MARIANO DE-PAOLI) 7 January 1964 (1964-01-07) * column 1, line 49 - column 2, line 6; figures 1,2 *	1	
Y	US 2 880 504 A (JOHN FINN) 7 April 1959 (1959-04-07) * column 2, lines 3-10; figures 1,2 *	1	TECHNICAL FIELDS SEARCHED (IPC) B26B
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	16 March 2012	Rattenberger, B

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 19 0782

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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