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(71) Applicant: Jiangmen Fu Rong Electrical Products
Jiang Men, Guangdong (CN)

(72) Inventor: NG, KI CHURK
JIANG MEN, Guangdong (CN)

(74) Representative: Kayahan, Senem et al Yalciner Patent and Consulting Ltd.

Tunus Cad. No: 85/3-4 Kavaklidere Cankaya 06680 Ankara (TR)

Remarks:

Amended claims in accordance with Rule 137(2)

EPC.

(54) NOVEL MAGNET COMB WITH SINGLE MAGNET OR DOUBLE MAGNETS

(57) The present invention discloses a novel magnet comb with a single magnet or double magnets, including an electric clipper body and an electric clipper comb. A push switch is provided on an upper side of a middle portion of a handle of the electric clipper body. A groove is provided on a lower side of a front end sloped surface of the electric clipper body. A first magnet is provided on a lower portion of the front end sloped surface of the electric clipper body. Comb teeth are provided on an upper end of the electric clipper comb. Second magnets are symmetrically provided on both sides of a bottom of the electric clipper comb. The novel magnet comb with

a single magnet or double magnets is provided with a first magnet and a second magnet, and the mutual attraction between the first magnet and the second magnet facilitates the assembly and disassembly of the electric clipper comb. Furthermore, the groove and the convex block are configured to achieve the preliminary connection to each other, the groove and the convex block together act on the electric clipper comb with the first magnet and the second magnet, so that the electric clipper comb is firmly installed, and the disassembly of the electric clipper comb is not affected.

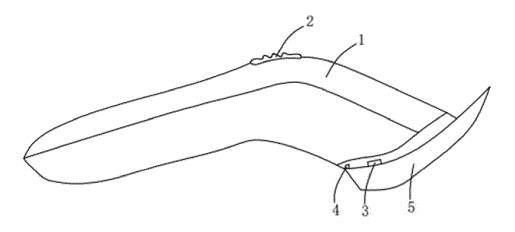


Fig. 1

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Technical Field

[0001] The present invention pertains to the technical field of electric clippers, and in particular relates to a novel magnet comb with a single magnet or double magnets.

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Background

[0002] In the existing electric clippers, the combs are installed by means of clamping. Since a majority of the materials of the combs are hard plastics, not only is the assembly and disassembly of the comb inconvenient, but also connection portion during installation is prone to be damaged. Therefore, a magnet comb of an electric clipper with magnet structures is designed.

Summary

[0003] An objective of the present invention is to provide a novel magnet comb with a single magnet or double magnets to solve the problems mentioned in the above background.

[0004] In order to achieve the above-mentioned objective, the present invention provides the technical solution as follows: a novel magnet comb with a single magnet or double magnets and includes an electric clipper body and an electric clipper comb, wherein a push switch is provided on an upper side of a middle portion of a handle of the electric clipper body; a groove is provided on a lower side of a front end sloped surface of the electric clipper body; a first magnet is provided on a lower portion of the front end sloped surface of the electric clipper body; comb teeth are provided on an upper end of the electric clipper comb; and second magnets are symmetrically provided on both sides of a bottom of the electric clipper comb.

[0005] Preferably, a number of the first magnets on the electric clip body is equal to a number of the second magnets on the electric clipper comb, the first magnets correspond to the second magnets, and magnetic properties of opposite faces are opposite.

[0006] The two magnets in such an arrangement are attracted to each other, which is used for conveniently installing the electric clipper comb on the electric clipper body.

[0007] Preferably, an edge of the second magnet is provided with an arc-shaped clamping block, and the second magnet is clamped on an inner side of the arc-shaped clamping block.

[0008] Three arc-shaped blocks in such an arrangement are provided, which are convenient to install the second magnet, and facilitate the production and manufacturing.

[0009] Preferably, a convex block is provided in a middle of the bottom of the electric clipper comb, and the convex block is inserted into the groove.

[0010] The arrangement of the convex block is convenient to fix an initial position of the electric clipper comb, and the convex block cooperates with the first magnet and the second magnet to prevent the electric clipper comb from accidentally sliding.

[0011] Preferably, the number of the second magnets is one or two.

[0012] The technical effects and advantages of the present invention: the novel magnet comb with a single magnet or double magnets is provided with the first magnet and the second magnet, and the mutual attraction between the first magnet and the second magnet facilitates the assembly and disassembly of the electric clipper comb. Furthermore, the groove and the convex block are provided to achieve a preliminary connection to each other, the groove and the convex block act together with the first magnet and the second magnet on electric clipper comb, so that the electric clipper is firmly installed, and the disassembly of the electric clippers is not influenced.

Brief Description of the Drawings

[0013]

Fig. 1 is a structural schematic diagram of the present invention:

Fig. 2 is a structural schematic diagram showing the electric clipper comb in Embodiment 1 of the present invention; and

Fig. 3 is a structural schematic diagram showing the electric clipper comb in Embodiment 2 of the present invention.

[0014] In the figures: 1: electric clipper body, 2: push switch, 3: first magnet, 4: groove, 5: electric clipper comb, 6: comb teeth, 7: second magnets, 8: arc-shaped clamping block, and 9: convex block.

Detailed Description of the Embodiments

[0015] The technical solutions in the embodiments of the present invention are clearly and completely described hereinafter with reference to the drawings in the embodiments of the present invention. It is obvious that the described embodiments are only some of the embodiments of the present invention instead of all embodiments. All other embodiments obtained by the ordinary person skilled in the art based on the embodiments of the present invention without creative efforts are within the protection scope of the present invention.

Embodiment 1

[0016] As shown in Figs. 1-2, a novel magnet comb with a single magnet or double magnets includes an electric clipper body 1 and an electric clipper comb 5. A push

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switch 2 is provided on an upper side of a middle portion of a handle of the electric clipper body 1. A groove 4 is provided on a lower side of a front end sloped surface of the electric clipper body 1. A first magnet 3 is provided on a lower portion of the front end sloped surface of the electric clipper body 1. Comb teeth 6 are provided on an upper end of the electric clipper comb 5. Second magnets 7 are symmetrically provided on both sides of a bottom of the electric clipper comb 5, and a number of the second magnets 7 is one.

[0017] Specifically, a number of the first magnets 3 on the electric clip body 1 is equal to the number of the second magnets 7 on the electric clipper comb 5. The first magnets 3 correspond to the second magnets 7, and magnetic properties of opposite faces are opposite.

[0018] Specifically, an arc-shaped clamping block 8 is provided on an edge of the second magnet 7, and the second magnet 7 is clamped on an inner side the arc-shaped clamping block 8.

[0019] Specifically, a convex block 9 is provided on a middle of the bottom of the electric clipper comb 5, and the convex block 9 is inserted and connected to the groove 4.

Embodiment 2

[0020] As shown in Figs. 1 and 3, a novel magnet comb with a single magnet or double magnets includes an electric clipper body 1 and an electric clipper comb 5. A push switch 2 is provided on an upper side of a middle portion of a handle of the electric clipper body 1. A groove 4 is provided on a lower side of a front end sloped surface of the electric clipper body 1. A first magnet 3 is provided on a lower portion of the front end sloped surface of the electric clipper body 1. Comb teeth 6 are provided on an upper end of the electric clipper comb 5. Second magnets 7 are symmetrically provided on both sides of a bottom of the electric clipper comb 5, and a number of the second magnets 7 is two.

[0021] Specifically, a number of the first magnets 3 on the electric clip body 1 is equal to the number of the second magnets 7 on the electric clipper comb 5. The first magnets 3 correspond to the second magnets 7, and magnetic properties of opposite faces are opposite.

[0022] Specifically, an arc-shaped clamping block 8 is provided on an edge of the second magnet 7, and the second magnet 7 is clamped on an inner side the arc-shaped clamping block 8.

[0023] Specifically, a convex block 9 is provided on a middle of the bottom of the electric clipper comb 5, and the bump 9 is inserted and connected to the groove 4.

the bump 9 is inserted and connected to the groove 4. **[0024]** It should be illustrated that the above descriptions are only preferred embodiments of the present invention, and not intended to limit the present invention. Although the present invention has been described in detail with reference to the above-mentioned embodiments, for the ordinary person skilled in the art, modifications may be made to the technical solutions described

in the above-mentioned embodiments, or equivalent substitutions may be made to some of the technical features. Any modifications, equivalent substitutions or improvements according to the spirit and principles of the present invention should be considered to fall within the protection scope of the present invention.

Claims

- 1. A novel magnet comb with a single magnet or double magnets, comprising: an electric clipper body (1) and an electric clipper comb (5), and a push switch (2) provided on an upper side of a middle portion of the handle of the electric clipper body (1), characterized in that, a groove (4) is provided on a lower side of a sloped surface of a front end of the electric clipper body (1); a first magnet (3) is provided on a lower portion of the sloped surface of the front end of the electric clipper body (1); comb teeth (6) are provided on an upper end of the electric clipper comb (5); and the second magnets (7) are symmetrically provided on both sides of a bottom of the electric clipper comb (5).
- 2. The novel magnet comb with the single magnet or the double magnets according to claim 1, characterized in that, a number of the first magnets (3) on the electric clipper body (1) is equal to a number of the second magnets (7) on the electric clipper comb (5); the first magnet (3) corresponds to the second magnet (7); and magnetic properties of opposite faces are opposite.
- 35 3. The novel magnet comb with the single magnet or the double magnets according to claim 1, characterized in that, an arc-shaped clamping block (8) is provided on an edge of the second magnet (7); and the second magnet (7) is clamped on an inner side of the arc-shaped clamping block (8).
 - 4. The novel magnet comb with the single magnet or the double magnets according to claim 1, characterized in that, a convex block (9) is provided on a middle portion of the bottom of the electric clipper comb (5); and the convex block (9) is inserted and connected to the groove (4).
 - 5. The novel magnet comb with the single magnet or the double magnets according to claim 1, characterized in that, the number of the second magnets (7) is one or two.
 - Amended claims in accordance with Rule 137(2) EPC.
 - 1. A novel magnet comb with a single magnet or double

magnets, comprising: an electric clipper body (1) and an electric clipper comb (5), and a push switch (2) provided on an upper side of a middle portion of the handle of the electric clipper body (1), wherein a first magnet (3) is provided on a lower portion of the sloped surface of the front end of the electric clipper body (1); comb teeth (6) are provided on an upper end of the electric clipper comb (5); and the second magnets (7) are symmetrically provided on both sides of a bottom of the electric clipper comb (5), characterized in that, a groove (4) is provided on a lower side of a sloped surface of a front end of the electric clipper body (1); a convex block (9) is provided on a middle portion of the bottom of the electric clipper comb (5); the convex block (9) is inserted and connected to the groove (4); and an upper surface of the electric clipper comb (5) is sloped.

2. The novel magnet comb with the single magnet or the double magnets according to claim 1, **characterized in that**, a number of the first magnets (3) on the electric clipper body (1) is equal to a number of the second magnets (7) on the electric clipper comb (5); the first magnet (3) corresponds to the second magnet (7); and magnetic properties of opposite fac-

3. The novel magnet comb with the single magnet or the double magnets according to claim 1, **characterized in that**, an arc-shaped clamping block (8) is provided on an edge of the second magnet (7); and the second magnet (7) is clamped on an inner side of the arc-shaped clamping block (8).

es are opposite.

4. The novel magnet comb with the single magnet or the double magnets according to claim 1, characterized in that, the number of the second magnets (7) is one or two.

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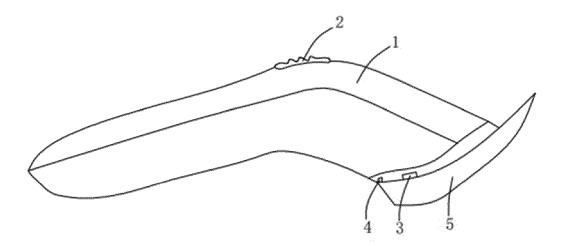


Fig. 1

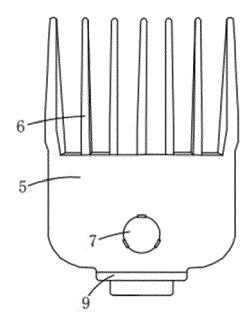


Fig. 2

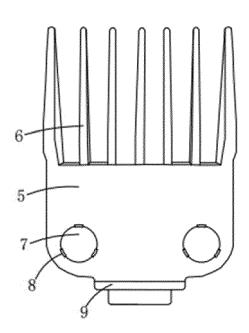


Fig. 3



Category

EUROPEAN SEARCH REPORT

DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document with indication, where appropriate, of relevant passages

Application Number

EP 19 15 1543

CLASSIFICATION OF THE APPLICATION (IPC)

Relevant

to claim

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	Of relevant passi	1963	to claim	
Υ	US 2009/019706 A1 (AL) 22 January 2009 * figures 1-11 * * paragraphs [0025]		1-5	INV. B26B19/20
Υ	US 2017/291320 A1 (ET AL) 12 October 2 * paragraph [0215] * figures 5-6 *		1-5	
Υ	EP 2 808 134 A1 (WA 3 December 2014 (20 * paragraphs [0022] * figures 1-6 *		1-5	
Α	US 1 628 421 A (PAT 10 May 1927 (1927-0 * the whole documen	5-10)	1-5	
				TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims Place of search Date of completion of the search		1	Examiner	
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EP 19 15 1543

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11-04-2019

)	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
	US 2009019706 A1	22-01-2009	NONE	
5	US 2017291320 A1	12-10-2017	US 2016107324 A1 US 2017291320 A1	21-04-2016 12-10-2017
	EP 2808134 A1	03-12-2014	CN 104209964 A EP 2808134 A1 US 2014352158 A1	17-12-2014 03-12-2014 04-12-2014
)	US 1628421 A	10-05-1927	NONE	
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