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## **EUROPEAN PATENT APPLICATION**

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#### (54)Combined scissor for cutting hair

(57) Combined scissor for cutting hair, which includes:

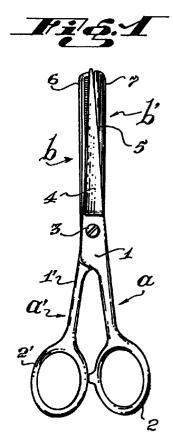
a) a pair of elongated pieces (1,1') and affixed that, crossed in an articulate manner in an intermediate axis (3), constitute corresponding levers (a,a') of first type:

b) a pair of knives (4,5) of opposed sharp borders (4',5') that constitute the respective arms of resistance of said levers (a,a');

c) in the opposed part of said knives (4,5), a pair of eyelets (2,2') of digital insert that, as a means command of the mentioned knives (4,5), constitute the power arms of said levers (a,a'); said combined scissor characterized because:

d) each one of said levers (a,a') of first type possesses an arm of double resistance (b,b') composed by two anterior semi-arms ùone anterior (4,5) and other posterior (6,7) that, being approximately parallel and proximal to each other, faces two by two with the semi-arms of the remaining lever; and

e) a blade (6) of jagged border (6') opposed to the sharp border (7') of a complementary knife (7) with which constitutes the posterior resistance semiarms, while the semi-arms of anterior resistance are constituted by said pair of knives (4,5) of sharp borders (4',5').



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### Description

## Scope of the Invention

**[0001]** The present invention consists on a combined scissor for hair that allows making different operations at the same time without having to change instrument, as well as producing a better conditioning of the lock of hair being cut.

### **Background of the Invention**

**[0002]** As it is known, hairdressing is a specialty applied to the treatment of hair by means of which its length and disposition is changed, or it simply is fixed and conditioned, mainly for aesthetic effects.

**[0003]** This specialty includes a series of processes, among which the cutting operation, shaving, thinning, curling, coloring, straightening (ie. making curly hair straight), etc.

**[0004]** To carry out the mentioned operations, the barbers have a group of cutting instruments among which razors, cutting machines and, mainly, a great variety of scissors can be mentioned.

[0005] The latter, as it is known, are usually an instrument composed of two movable elongated pieces embedded one against other and that intersect in an intermediate area, in which they are articulate and joined by means of an intermediate axis. By one of its ends, each elongated piece conforms a eyelet of digital insert, while by the opposed part it defines a knife of sharp border, opposed to the sharp border of the remaining elongated piece.

**[0006]** In fact, these elongated pieces constitute levers of the first type which, having as fulcrum said intermediate axis, they have as power arms the eyelets of digital insert and as resistance, the knives of sharp border.

**[0007]** Although numerous variants exist, most of the well-known scissors are based on the described operation of articulate levers.

[0008] Particularly, in the case of the scissors for the treatment of hair, units are known that differ for their length, for the conformation of the insert eyelets or for the constitution of the knives. Among those most used ones there are the conventional scissors of knives with opposed sharp borders and several scissors with blades and jagged knives. Thus, the specialist has an instrumental that, besides making the cut of the hair, it allows the operator to carry out operations like thinning or reducing of the tips of the locks of hair.

[0009] However, one of the problems that are presented is that scissors should be changed several times to complete the conditioning of each processed area of hair. This permanent change of scissors is not only extremely annoying, but rather it also implies a loss of time, factor of great importance when it comes to establishments where numerous people converge and have

to wait their turn.

[0010] Due to the abovementioned the present scissor has been designed which allows carry out with only one an instrument what up to now required of two or more units.

#### Description of the Invention

[0011] The present invention consists on a combined scissor for hair cutting, composed by a pair of elongated pieces that constitute levers whose power arms, similar to the traditional ones, consist on eyelets of digital insert, while their resistance arms are double, since they are compound by anterior semi-arms and posterior semi-arms that face by twos.

[0012] The mentioned semi-arms are knives of sharp borders, while the posterior semi-arms include a jagged blade and a complementary knife. When applying this combined scissor to a lock of hair, the first and second knives carry out the cut of the end of said lock, at the same time that the jagged blade and the complementary knife close trapping the adjacent area to the cut. Once the cut is made and when the operator pulls the lock of hair, the mentioned jagged blade and its complementary knife, that are the posterior semi-arms, make a thinning or reduction of hair until reaching the area of the cut made by the anterior semi-arms.

**[0013]** Thus, one not only works more efficiently, but also the termination of the work is of better quality than the one obtained using the conventional means.

### Brief description of the drawings

**[0014]** For better clarity and understanding of the invention, it is illustrated with several figures in which it has been represented in one in their its preferred embodiments, everything simply titleas an illustrative example, not limitative:

Figure 1 is an anterior front view previous of the combined scissor in closed position that allows to appreciate its general conformation.

Figure 2 is an inferior view in which the separation between the anterior semi-arms and the posterior ones can be seen.

Figure 3 is another anterior front view but with the scissor in open position.

**[0015]** From behind of the knives that compose the anterior semi-arms, they are reached to distinguish the jagged blade and the complementary knife that constitute the posterior semi-arms.

**[0016]** In the different figures, the same reference numbers indicate same or corresponding parts, and the groups of various elements have been pointed out with letters.

[0017] Listing of the main references:

- (a) First lever.
- (a') Second lever.
- (b) First arm of double resistance [in the first piece (a)].
- (b') Second arm of double resistance [in the second 5 piece (a ')].
- (x) Separation space among the double arms (b) and (b').
- (1) First elongated piece.
- (1') Second elongated piece.
- (2) First eyelet of digital insert.
- (2') Second eyelet of digital insert.
- (3) Intermediate axis of intercrossing.
- (4) First knife [first anterior semi-arm].
- (4') sharp border of the first knife (4).
- (5) Second knife [second anterior semi-arm].
- (5') Sharp border of the second knife (5).
- (6) Jagged blade [first posterior semi-arm].
- (6') Jagged border of the knife (6).
- (7) Complementary knife [second posterior semiarm].
- (7') Sharp border of the complementary knife (7).

**[0018]** To the specified ends the present combined scissor for hair cutting includes:

- a) a pair of elongated pieces (1,1') and affixed that, crossed in an articulate manner in an intermediate axis (3), constitute corresponding levers (a,a') of first type;
- b) a pair of knives (4,5) of opposed sharp borders (4',5') that constitute the respective arms of resistance of said levers (a,a');
- c) in the opposed part of said knives (4,5), a pair of eyelets (2,2') of digital insert that, as a means command of the mentioned knives (4,5), constitute the power arms of said levers (a,a'); said combined scissor characterized because:
- d) each one of said levers (a,a') of first type possesses an arm of double resistance (b,b') composed by two anterior semi-arms ùone anterior (4,5) and other posterior (6,7)ù that, being approximately parallel and proximal to each other, faces two by two with the semi-arms of the remaining lever; and
- e) a blade (6) of jagged border (6') opposed to the sharp border (7') of a complementary knife (7) with which constitutes the posterior resistance semiarms, while the semi-arms of anterior resistance are constituted by said pair of knives (4,5) of sharp borders (4',5').

### Description of the preferred embodiments

[0019] In general terms the present invention consists on a combined scissor for hair cutting compound by a pair of elongated pieces (1,1') that constitute levers (a,a') whose power arms consist in eyelets (2,2') of dig-

ital insert, while its double resistance arms (b,b') are compound by anterior semi-arms (4,5) [of sharp borders (4',5')] and posterior semi-arms (6,7) [one (6) of the jagged border (6')] that face two by two.

[0020] More particularly, the present combined scissor includes a pair of elongated pieces (1,1 ') affixed one against the other and that they intercross in an articulate manner by means of an intermediate axis (3). Thus, these elongated pieces (1,1') constitute respective levers (a,a ') of first type that have as fulcrum the mentioned intermediate axis (3).

**[0021]** Both elongated pieces (1,1'), toward one of its ends, finish in respective eyelets (2,2') of digital insert that constitute command means, for that that which these eyelets (2,2') compose the power arms of the respective levers (a,a').

[0022] In the opposed end to that of the eyelets (2,2'), the levers (a,a') have respective double resistance arms (b,b'). Thus the first elongated piece (1) constitutes a first lever (a) that, while in an end it conforms a first eyelet (2) of digital insert, in the opposed end it has a first arm of double resistance (b) composed by an anterior semi-arm and another anterior semi-arm that are proximal and parallel to each other. The anterior semi-arm consists on a first knife (4) of sharp borders (4') and the posterior semi-arm is given by a jagged blade (6). In different embodiments this jagged blade (6) can have a jagging (6') in the area adjacent to the border, or to have a jagging (6') that, exceeding the area of the border, affects a substantial part of the body of the blade (6).

[0023] In the case of the second elongated piece (1'), the same constitutes a second lever (a') that, while in an end it conforms a second eyelet (2') of digital insert, in the opposed end it has a second arm of double resistance (b') composed by an anterior semi-arm, and another posterior semi-arm, parallel and proximal. The anterior semi-arm consists on a second knife (5) of sharp borders (5') and the posterior semi-arm conforms a complementary knife (7) ùof sharp borders (7 ')ù. In accordance with the constitution described described, the semi-arms (4,6) corresponding to the first arm of double resistance (b) face two by two with the semiarms (5,7), corresponding to the second arm of double resistance (b'). Due to the same the first knife (4) is opposable to the second (5), their respective sharp borders (4',5') being opposed. On the other hand, the jagged blade (6) is opposite to the complementary knife (7), for which the jagged border (6') of the first faces the sharp border (7') of second.

[0024] In a favorite embodiment, the anterior semiarms (4,5) and the posterior ones (6,7) are separated by a distance (x) of 5 millimeters.

[0025] The group works in the following way:

[0026] Once the operator has inserted his/her fingers in the respective eyelets (2,2') of insert, the combined scissor is applicable to a lock of hair so that the anterior semi-arms (4,5) remain at the side of the free end of said lock of hair, while the posterior semi-arms (6,7) are

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at the side of the roots.

[0027] Under those conditions, the first one (4) and second (5) knives carry out the cut of the end of the lock of hair, at the same time the jagged blade (6) and the complementary knife (7) close trapping the area adjacent to the cut. When the operator pulls the mentioned blade (6) and complementary knife (7) that are the posterior semi-arms, they make a thinning or reduce of the hair until reaching the area of the cut made before by the anterior semi-arms (4,5).

[0028] It is certain that being the present invention taken to the practice, modifications will be able to be introduced respecting certain construction ans form, without implying to part from the fundamental principles that are clearly exposed in the claim clauses that follow: 15

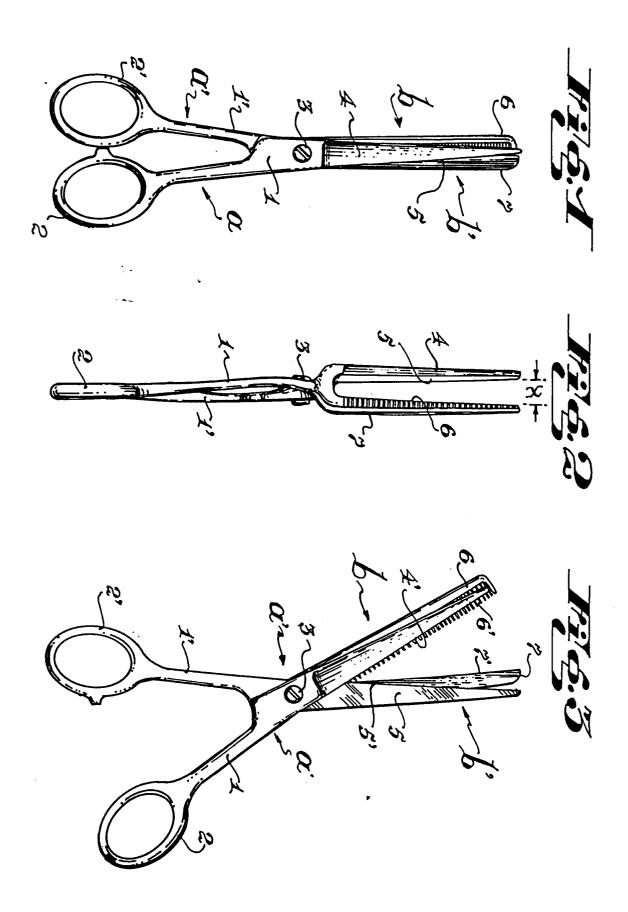
**Claims** 

1. Combined scissor for hair cutting, which includes:

a) a pair of elongated pieces (1,1') and affixed that, crossed in an articulate manner in an intermediate axis (3), constitute corresponding levers (a,a') of first type;

b) a pair of knives (4,5) of opposed sharp borders (4',5') that constitute the respective arms of resistance of said levers (a,a');

- c) in the opposed part of said knives (4,5), a pair of eyelets (2,2') of digital insert that, as a means command of the mentioned knives (4,5), constitute the power arms of said levers (a,a'); said combined scissor characterized because:
- d) each one of said levers (a,a') of first type possesses an arm of double resistance (b,b') composed by two anterior semi-arms ùone anterior (4,5) and other posterior (6,7)ù that, being approximately parallel and proximal to each other, faces two by two with the semi-arms of the remaining lever; and
- e) a blade (6) of jagged border (6') opposed to the sharp border (7') of a complementary knife (7) with which constitutes the posterior resistance semi-arms, while the semi-arms of anterior resistance are constituted by said pair of knives (4,5) of sharp borders (4',5').
- 2. Combined scissor for hair cutting according to claim 1, wherein between the anterior semi-arms and the posterior ones there is a separation of 5 millimeters.
- 3. Combined scissor for hair cutting in accordance with claim 1, wherein the jagged blade has a jagging that, exceeding the adjacent area to the border, it affects a substantial part of the body of said blade.
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**Application Number** EP 98 50 0212

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