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(54) **HAIRBRUSH FOR STRAIGHTENING LONG HAIR**

(57) The present invention relates to a hair brush for straightening long hair, comprising a holding handle (2) and a head (3) provided with bristles (4) which is axially prolonged from the handle (2), and wherein said head (3) is formed by two arms (31) provided with bristles (4),

said arms (31) being arranged parallel and separated from one another by an intermediate space (32) without bristles (4) in the arms (31), suitable for passing a lock of hair (p) to be brushed therethrough and tensioning it between both arms (31), such that one arm (31) styles the hair on one side and the other arm (31) styles it on the other side.

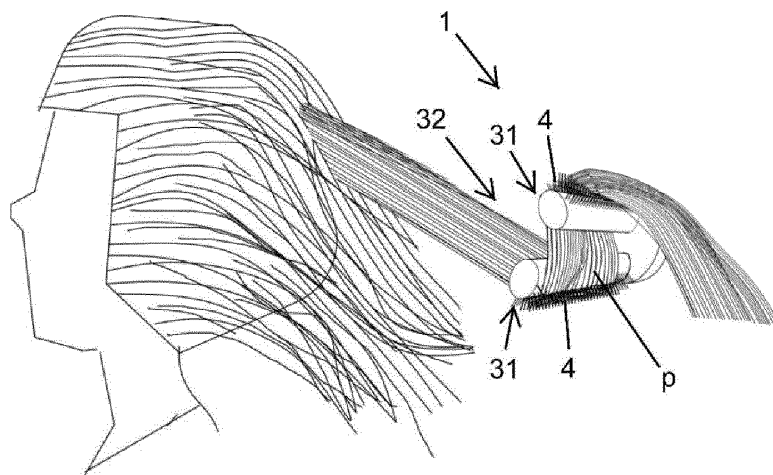


FIG. 4

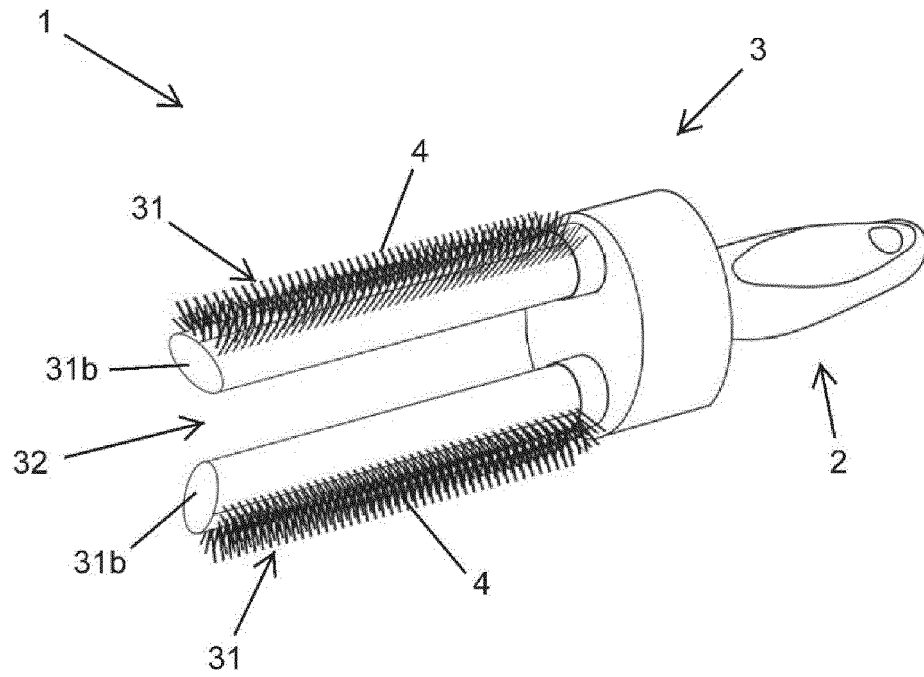


FIG. 3

Description

Technical field

[0001] The field of application of the present invention falls within the sector of the industry dedicated to the manufacture of accessories for everyday use, focusing particularly on the field of hair brushes.

State of the art

[0002] As is known, when straightening long hair, a round brush is traditionally used to gather a lock of hair and stretch it. Since the comb alone would leave the hair loose and only brush part of it, the hairdresser must place his/her other hand on the lock of hair to ensure that the hair is straightened and to control the force being applied, as well as the glide by means of the play of brush and hand.

[0003] In this process, the hair usually has products such as protective oil, which causes the hairdresser to stain his/herself or to remove part of the product. Likewise, it forces the hairdresser to use both hands, preventing him/her from applying more lotions or performing other actions.

[0004] Therefore, the objective of the present invention is to provide a brush having an improved design for solving said problems.

Object of the invention

[0005] The hair brush for straightening long hair proposed by the invention is configured as the appropriate solution to the aforementioned objective, the characterizing details that make it possible and that distinguish it being conveniently included in the final claims that accompany this description.

[0006] Specifically, the invention provides a hair brush made up of a preferably cylindrical head, which is prolonged from the holding handle, which is essentially distinguished by said head being formed by two parallel arms that are separated from one another by an intermediate space without bristles, preferably having a constant width throughout the entire extent thereof, which is specially designed to enable passing a lock of long hair held between both arms therethrough and tensioning same such that, when the brush is caused to glide with the lock of hair intertwined, one arm styles the hair on one side and the other arm styles it on the opposite side, which makes it easier to straighten long hair with a hand-held dryer since friction is increased, and all this furthermore allowing the possibility of using the brush in a conventional manner, since said arms continue to maintain the external circular shape of a cylindrical head.

[0007] The invention provides a new type of head having two arms to perform the function of a comb and a hand. In this way, the lock of hair glides between the two arms, with one exerting force downwards and the other

upwards (like the hand and the comb). The inclination of the two arms with respect to the hair will determine the degree of pressure application, causing it to be minimum while level and maximum while in perpendicular.

[0008] For all this, and more specifically, the brush object of the invention comprises:

- a holding handle, and
- a preferably cylindrical head with bristles, which is axially prolonged from the handle and which is in turn formed by two parallel arms provided with bristles and separated from one another by an intermediate space without bristles in the arms, preferably having a constant width throughout the entire extension thereof, suitable for passing a lock of hair to be brushed between both arms and such that it can be tensioned, such that one arm styles the hair on one side and the other arm styles it on the other side. In this sense, it is conceived that the width of the intermediate space is preferably greater than or equal to the width of the holding handle.

[0009] Preferably, each arm is defined by a particularly rigid and elongated cylindrical body with a rounded cross-section, that is, without angles on the side edges, being provided with emerging bristles at least on a portion of the surface of its outer half. Likewise, the cross section of said outer surface provided with bristles of both arms preferably describes, as a whole, the circumference of the cylindrical head. In the context of the present invention, rounded cross-section should in particular be understood to mean without angles on the side edges, for example, oval. It should be noted that the curvature of the cross-section, for example, the diameter of said circumference may vary, and be larger or smaller, depending on the dimensions of the brush and user preferences, for example, for longer or shorter hair.

[0010] Furthermore, the distal end of the body defining both arms has an inclined symmetrical shape therebetween, that is, a V shape, and the purpose of which is to make it easier to introduce the lock of hair to be styled between both.

[0011] Moreover, in one embodiment, the body of both arms making up the cylindrical head may be of the type consisting of a solid body, for example made of plastic or wood, from which the bristles emerge on the outer part. Furthermore, in another embodiment, the body of both arms making up the cylindrical head may be of the type consisting of a preferably metallic hollow tubular body on which a series of perforations have been made through which the bristles emerge, which allows reducing the weight of the brush and therefore making it easier to handle.

[0012] With all the foregoing, it is possible to solve the aforementioned problems faced by hairdressers when brushing and straightening long hair, that is, the need to have a certain amount of friction given that, even with

the bristles of a cylindrical brush, it is sometimes necessary for the hairdressers to place their fingers on the hair so that it does not glide too fast, or to wrap the hair around the brush twice in order to increase friction, but this does not help in the straightening process because it tangles the hair, with the addition that sometimes an oil (heat protector) is applied to protect the hair from the temperature of the dryer and this complicates the friction even more.

[0013] With the brush that has been described, it is possible to make a small rotation and apply the necessary force so that the hair does not slip and so that it is unnecessary to use fingers to hold the hair or wrap it around twice, and in this way work is performed quicker, avoiding bad postures and burns.

[0014] Specifically, the use of the brush object of the invention consists of introducing the intertwined lock of hair in the space existing between the two parallel arms of the brush head and, by making a small rotation so that the lock of hair grips both arms, getting it caught in the bristles of the outer area thereof such that, by controlling the friction, the lock of hair can be stretched and styled.

[0015] In addition, the fact of maintaining the outer circumference (diameter) of the brush head with both arms allows the brush to also be used as a conventional brush with a round or cylindrical head, since it only works if the lock of hair is introduced in the intermediate space existing between the two arms of the head.

[0016] Moreover, an additional advantage is achieved given that, as a result of the position in which the hair is held, the hair is brushed from above and from below at the same time, thus achieving a better and faster styling of the hair.

Description of the figures

[0017] To complete the description provided herein, and for the purpose of helping to make the features of the invention more readily understandable, this description is accompanied by drawings constituting an integral part of the same, which by way of illustration and not limitation represent the following:

Figure 1 shows a side elevational view of an embodiment of the hair brush for straightening long hair object of the invention;

Figure 2 shows a cross-sectional view of the head of the hair brush for straightening long hair of the invention, according to the example shown in Figure 1;

Figure 3 shows a perspective view of the example of the brush of the invention shown in the preceding figures; and

Figure 4 shows a perspective view of the way of using the brush of the invention.

Detailed description of the invention

[0018] In view of the aforementioned figures, and in accordance with the adopted numbering, one may observe therein a non-limiting embodiment of the hair brush for straightening long hair of the invention, comprising that which is described in detail below.

[0019] Thus, as seen in said figures, the brush (1) of the invention comprises:

- a holding handle (2), and
- a cylindrical head (3) provided with bristles (4) which is axially prolonged from the handle (2) which is distinguished by the fact that it is in turn formed by:
 - two parallel arms (31) separated from one another by an intermediate space (32) without bristles (4), having a fixed and constant width (a) throughout the extension thereof, suitable for passing a lock of hair (p) to be brushed there-through and tensioning same between both arms (31), such that one arm (31) styles the hair on one side and the other arm styles it on the other side, as seen in Figure 4,
 - wherein each arm (31) is defined by a rigid and elongated body with a rounded cross-section (as shown in Figure 2), that is, without angles on the side edges, and provided with bristles (4) that emerge from at least one portion of the semicircular surface of the outer part (31a) of each arm (31), and
 - wherein the cross-section of said outer semicircular surface (31a) provided with the bristles (4) of both arms (31) describes, as a whole, the circumference of the cylindrical head (3).

[0020] Preferably, the diameter (d) of the circumference of the cylindrical head (3) jointly defined by the outer semicircular surface (31a) of both arms (31) is of variable size.

[0021] Preferably, the distal end (31b) of the body that defines the arms (31) of the head (3) of the brush (1) has an inclined and symmetrical shape between both arms (31), that is, a V shape, in order to make it easier to introduce the lock of hair (p) to be styled in the intermediate space (32) between them.

[0022] In one embodiment, the body of both arms (31) that make up the cylindrical head (3) of the brush (1) is made up of a solid body, preferably made of plastic or wood, from which the bristles (4) emerge.

[0023] Furthermore, in another embodiment, the body of both arms (31) that make up the cylindrical head (3) of the brush (1) is a preferably metallic hollow tubular body, that has a series of perforations through which the bristles (4) emerge.

[0024] Having sufficiently described the nature of the present invention, as well as the ways in which it may be implemented, it is not considered necessary to elaborate on the explanation thereof in order for a person skilled in the art to understand the scope of the invention and the advantages derived therefrom. 5

Claims

1. A hair brush for straightening long hair, comprising a holding handle (2) and a head (3) provided with bristles (4) which is axially prolonged from the handle (2), **characterized in that** said head (3) is formed by two arms (31) provided with bristles (4), said arms (31) being arranged parallel and separated from one another by an intermediate space (32) without bristles (4) in the arms (31), suitable for passing a lock of hair (p) to be brushed therethrough and tensioning it between both arms (31), such that one arm (31) styles the hair on one side and the other arm (31) styles it on the other side. 10 15 20
2. The hair brush for straightening long hair according to claim 1, **characterized in that** each arm (31) is defined by a cylindrical body with a rounded cross-section. 25
3. The hair brush for straightening long hair according to one of the preceding claims, **characterized in that** the width (a) of the intermediate space is constant throughout the entire extent thereof. 30
4. The hair brush for straightening long hair according to one of the preceding claims, **characterized in that** the width (a) of the intermediate space is greater than or equal to the width of the holding handle (2). 35
5. The hair brush for straightening long hair according to one of the preceding claims, **characterized in that** the distal end (31b) of the body defined by the arms (31) of the head (3) has an inclined and symmetrical shape between both arms (31) in a V shape. 40
6. The hair brush for straightening long hair according to any of the preceding claims, **characterized in that** the body of both arms (31) is made up of a solid body from which the bristles (4) emerge. 45
7. The hair brush for straightening long hair according to one of claims 1 to 5, **characterized in that** the body of both arms (31) making up the cylindrical head (3) is made up of a hollow tubular body having a series of perforations through which the bristles (4) emerge. 50 55

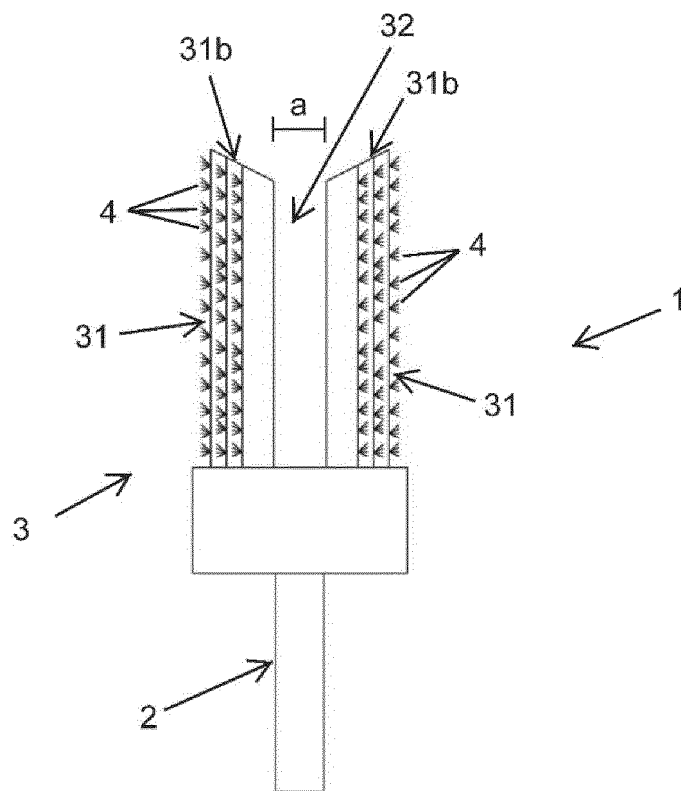


FIG. 1

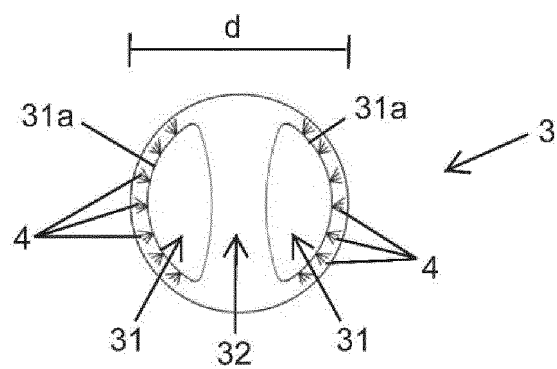


FIG. 2

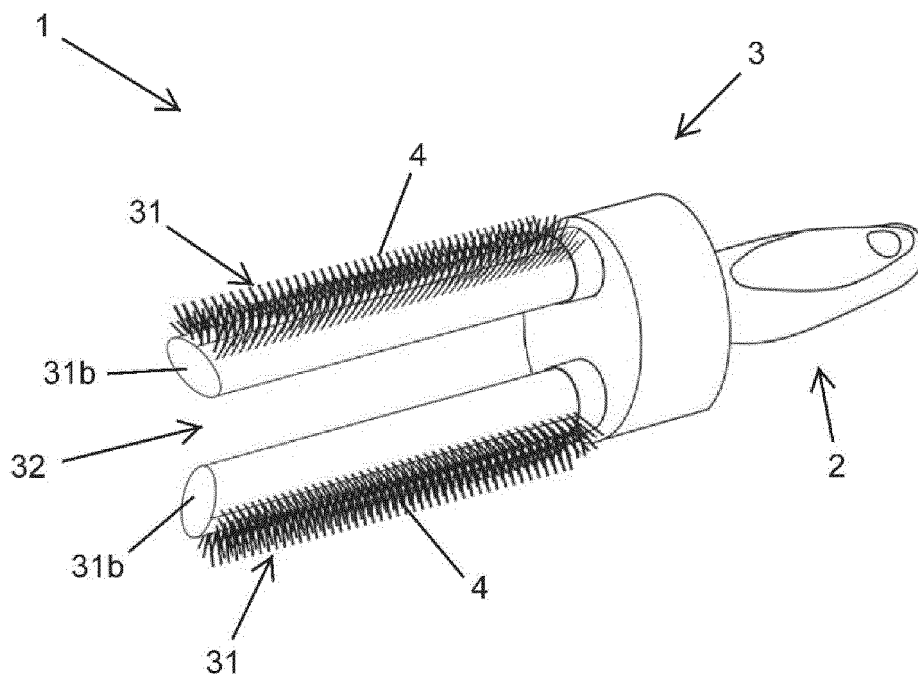


FIG. 3

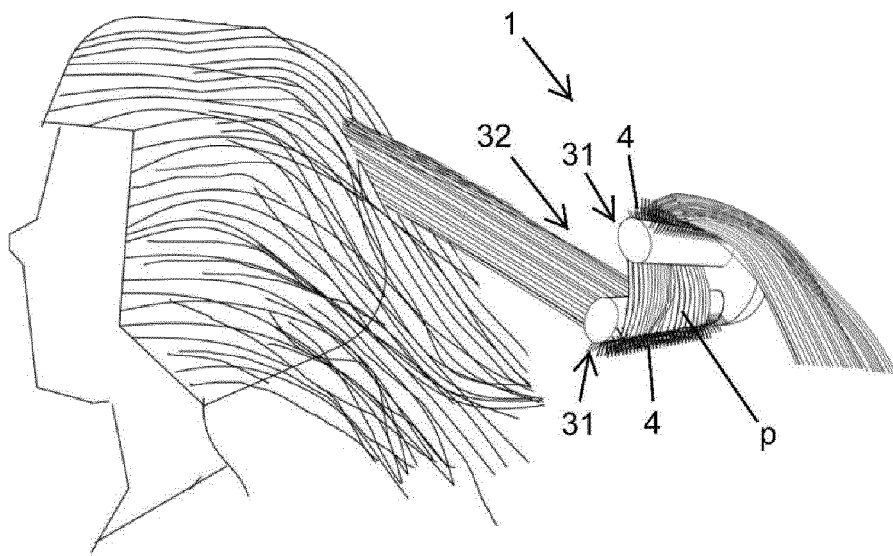


FIG. 4

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2022/070267

A. CLASSIFICATION OF SUBJECT MATTER

A45D20/52 (2006.01)

A46B5/00 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A45D, A46B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, INVENES, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2001112542 A (KAJIZUKA KAZUO) 24/04/2001, Retrieved from EPODOC the 09/08/2022. Access N° JP-29348599-A. Abstract from DataBase. Figures	1-2
X	US 2011139172 A1 (GONCALVES DA SILVA, D.) 16/06/2011, the whole document, particularly figures 2, 4, 7, 9-10, 12-13	1
X	FR 2571944 A1 (LYON, M.) 25/04/1986, the whole document, particularly figures 3, 5-8	1

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

10/08/2022

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES2022/070267

Information on patent family members

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
JP2001112542 A	24.04.2001	NONE	
US2011139172 A1	16.06.2011	MX2010013077 A CA2725970 A1 WO2009143593 A1 EP2293699 A1 EP2293699 A4 BRPI0802096 A2 BRPI0802096E E2	24.05.2011 03.12.2009 03.12.2009 16.03.2011 02.11.2011 25.08.2009 16.03.2010
FR2571944 A1	25.04.1986	NONE	

Form PCT/ISA/210 (patent family annex) (January 2015)