

Final Diploma

FD3 Amendment of Specifications

Wednesday 29 October 2025

10:00 to 13:20 UK GMT

Examination time: 3 hours 20 minutes plus 10 minutes upload time

The 3 hours 20 minutes is allocated as follows:

10 minutes – Downloading and printing the question paper;

3 hours – Answering the questions;

10 minutes – Two screen breaks of 5 minutes each.

At 13.20 you MUST immediately stop answering the questions. You then have **10 minutes** in which to upload your Answer document to the PEBX system.

You MUST upload your Answer document to the PEBX system by 13.30. After 13.30 you will not be able to upload it and your examination will be void.

INSTRUCTIONS TO CANDIDATES

1. The whole assessment task is to be attempted.
2. The marks to be awarded are given at the end of the assessment task.
3. The total number of marks available for this paper is 100.
4. Start each part of your answer on a new sheet of paper.
5. You must use the Answer document for your answers.
6. Do not attempt to change the font style, font size, font colour, line spacing or any other pre-set formatting.
7. Start each part of your answer on a new page. Press the control key and the enter key simultaneously to begin a new page.
8. Do not state your name anywhere in the answers.
9. This question paper consists of **19 sheets**, including this sheet, and comprises:
 - Assessment task (1 sheet)
 - Client letter (1 sheet)
 - Document A Examination Report (1 sheet)
 - Document B Client application GB 2323232.3 (7 sheets including 2 sheets of drawings)
 - Document C Prior art reference D1 – GB 2222222 B (7 sheets including 3 sheets of drawings)
 - A spare set of Claims (Document B) to use in your answer if you wish (1 sheet)

AT THE END OF THE EXAMINATION

10. Save your Answer document and any hand-annotated claims to your hard drive. Then follow the instructions for uploading your document onto the PEBX system.

Assessment task

You have received the letter and documents listed on the Instructions to Candidates sheet regarding United Kingdom patent application number GB 2323232.3, which was filed at the UK Intellectual Property Office on 16 December 2023 with no claim to priority. All necessary documents for the application procedure have been received by the UK Intellectual Property Office (UK IPO).

The UK IPO issued a Search and Examination Report, of which the Examination Report is attached. The Report was duly sent to the client, the UK company Hair Today Ltd, the applicant. You have received brief comments in correspondence from your client, which is also attached.

Your task is to prepare:

- 1. a letter to the UK Intellectual Property Office (UK IPO) in response to the Examination Report;**
- 2. a set of amended claims, if considered necessary;**
- 3. notes on which you would base advice to your client, in which you:**
 - i) explain the actions you have taken;**
 - ii) provide full reasoning for your actions;**
 - iii) outline future actions, if any, that your client could take to secure full protection of its commercial interests.**

Your advice should take into account that further information may be required.

Your notes should only relate to the invention(s) outlined in the client's correspondence to you.

Your notes should be directed to patent matters only.

Note the following:

- a) You are NOT required to make any amendments to the description of the client's patent application.
- b) You should accept the facts given to you and base your answer on those facts.
- c) You should not make use of any other special knowledge that you may have of the subject matter concerned.
- d) You should assume that the prior art referred to is complete.
- e) You should identify clearly any amended claim set and/or divisional claim(s).

Allocation of Marks

Letter: 34 marks
Claims: 35 marks
Notes: 31 marks
Total: 100 marks

Client letter

Ursula R Worthitt, CPA, EPA

22 October 2025

Dear Ursula,

Thank you for sending the report from the Patent Office. I gather that your colleague, Mr Barber, has now retired, and you are looking after this patent. As Mr Barber will have explained, I operate a salon employing several staff and we have a well-established business. Many of our customers come to us for highlighting, i.e. selective colouring or bleaching of the hair, which is quite a long process, but quite a few have said that they would like to be able to do some minor highlighting or touching up at home, which is why I came up with my idea.

It seems I was not the first to think of a tong- or pincer-like gadget, and Haircraft had a similar idea some time ago. I don't think I have seen any in the trade press, so maybe it does not work as well as they hoped. My guess is that, despite what they say, when you close the tongs so that the prongs pass through the hair into the groove, some hair is trapped, which can be painful, and even if the hair is not actually trapped, the resistance to pulling the hair through the device is quite high and makes the process uncomfortable. With my design, the hair is positioned comfortably in the U-shaped guide and the brush is pressed down against the hair on the tray to the side of the guide, which is more comfortable.

The exchangeable brushes and receivers of my device are quite a nice feature, and I use them in the salon. However, customers, who have been trying out a few prototypes for me for the last nine months or so, say they are fiddly to keep track of in the home, and for a minor refresh at home they are not worth the trouble. However, I am hopeful that other salons will in time be interested.

I hope that this is enough information for you; please let me know what you think is the best way to respond.

Yours sincerely

Penelope Pitstock

Hair Today Ltd

Document A – Examination Report

Intellectual

Property

Office

Your ref:		Examiner:	Dai Gold
Application no:	2323232.3	Tel:	01633 811112
Applicant:	Hair Today Ltd	Date of report:	15 May 2024
Latest date for reply:	23 January 2026	Page:	1/1

Patents Act 1977

Combined Search and Examination report under Sections 17 and 18(3)

[Extract of relevant part; the search report cites only one document, D1.]

Exclusions from patentability

1. The invention as claimed in claim 8 appears not to be patentable, being a method of treatment (PA 1977 Section 4(2)).

Novelty

2. The invention as claimed in claim 1 is not new, being disclosed in D1 (GB 2222222). This shows a similar tong-like device for hair with flexible handles 2, 3, with ends 12 and 15, brushes 30 and a receiver 13/31.
3. Claim 3 is similarly not novel, the D1 device being integral.

Inventive Step

4. Claim 2 does not appear to be inventive: making a device like that in D1 out of tubing would apparently be logical if weight was a concern.
5. In the hairdressing trade, exchangeable parts, such as for trimmers, are commonplace, and applying a similar idea to the present device would not on the face of it appear inventive, in which case claims 4, 5, 6 and 7 would not satisfy Section 3 of the Patents Act 1977.

Clarity

6. The dependency of claim 4 appears to need correction.

Client application

GB 2323232.3

APPARATUS FOR APPLYING HAIR HIGHLIGHTS

FIELD OF THE INVENTION

The present invention relates to providing a simple device for colour-treating selected strands of hair of different thickness and lengths that can be used at home.

5 BACKGROUND OF THE INVENTION

In recent years, it has become increasingly popular to treat hair, and particularly women's hair, by colouring or tinting selected strands of hair separately and isolated from the remaining hair. The processes for carrying out such hair treatment are generally termed 'highlighting', 'tinting', 'streaking', 'frosting', or the like.

- 10 Many prior art at-home hair highlighting devices are both cumbersome and awkward to use. As a result, highlighting selected strands of hair has traditionally been a process typically done in professional hair salons. It has been a complicated process, usually requiring a skilled stylist's assistance. **FIG. 1** shows one typical way in which a stylist adds highlights to selected sections of hair, carefully avoiding colouring the entire head of hair. The stylist
- 15 parts hair into sections by combing part of the hair over the top of the head, placing a protective sheet or foil 100 over the hair that remains hanging down, and pulls strands 110 of hair on to the protective sheet. A brush 120 is used to brush dye streaks onto the strands of hair that lie on the protective sheet. Another protective sheet is placed over those dyed strands, and the process is repeated for every successive layer of highlighting. In a variant
- 20 of this method, a paddle or board (not shown) is used, instead of foil, on which to lay the strands that are to be painted or bleached. However, the dye may still potentially reach other hair that it is not intended to reach.

- A second known procedure for highlighting is placement of a cap, having a number of holes, onto the head and pulling strands of hair through the holes. The exposed strands are then
- 25 coloured. It may be difficult to ascertain exactly which hairs are being pulled for treatment, and uneven highlighting may result.

There is an existing need for improved devices for the at-home application of highlighting solution to the hair that will allow the user control over the particular strands of hair that will be highlighted, the number of strands of hair affected by the solution, the thickness of the

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highlights and the amount of dye dispensed, while keeping the colouring agent(s) away from the scalp and from the rest of the hair.

SUMMARY OF THE INVENTION

5 The present invention, as defined in claim 1, provides a simple and effective device for use in treating, in particular selectively colouring, hair. The device can securely hold hair of various lengths and thickness, and simultaneously apply a colouring agent with precision.

10 The hair highlighting device comprises a tong-like flexible handle having two opposite ends, a first end and a second end; a detachable brush having a plurality of bristle rows attached to the first end for receiving a colour treating agent; and a removable hair guide attached to the second end for receiving selected strands of hair to be treated for highlighting, wherein the hair guide has a predetermined width for receiving the selected strands of hair to be treated.

The handheld device can be supplied with interchangeable bristle heads or brushes to match highlights of increased or decreased thickness.

15 The device is used by applying a quantity of hair colouring agent to the brush part, which has a plurality of bristles to absorb the agent; selecting strands of hair to be highlighted; placing the strands of the customer's or user's hair into the hair guide located at the end opposite the brush of the tong-like device; squeezing the tong-like device with one hand so that the two ends contact and the hair strand is held in the guide; and pulling the tong-like device
20 from the scalp to the end of the length of selected strands so that the colour treating agent is continuously applied during the pulling of the tong-like device.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of the invention, an embodiment will now be described in conjunction with the accompanying drawings, in which:

- 25 FIG. 1 shows a typical salon process for highlighting;
- FIG. 2 is a perspective view of an embodiment of the present invention for use particularly in self-highlighting;
- FIG. 3 is a side view of the device of Figure 2;
- FIGS. 4A–4B are elevational views of the hair guide of the device; and
- 30 FIG. 5 is a depiction of how the device of the present invention is to be used.

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DETAILED DESCRIPTION

As shown in **FIG. 2**, the tong-like device or tool 1 of the present invention has a handle 40 that may be made of one continuous tubing or sheet of metal, plastic or any other flexible, durable material. The tong-like handle 40 has two opposing ends 42, 44 and is shown in its resting configuration with the ends facing each other in the vertical direction (with the tool held in its normal orientation) but separated. At the first end 42 of the tong-like handle 40 of the present invention 1 is located a detachable brush 10 that may consist of one or more rows of bristles, the rows extending longitudinally. Preferably, as shown in **FIG. 3**, the central (as seen in the longitudinal direction, lower left to upper right in FIG. 2) bristles in a row are shorter than the outer bristles, forming a kind of arch or recess. The brush 10 accepts dye or colouring agent for application to selected hair strands of the user. The brush 10 is attached to the handle 40 by a fastener 15, such as Velcro® straps, snaps or clips.

At the second end 44 of the tong-like handle 40 of the present invention 1 is a removable hair securer or receiver 20, similarly secured by a fastener 35, such as Velcro® straps, clips or snaps. The second end 44, on the bottom half of the tong-like handle 40, is where the hair will lie as it is held in the hair receiver 20.

As shown in **FIGS. 4A and 4B**, the hair receiver 20 includes a base 25 that is slightly concave, or is tray-shaped with shallow side walls, to help capture excess highlighting solution, and an end wall 75 constituting a U-shaped guide for the strand of hair, having an indenting gap 80 in its centre. In this version, as shown in **FIG. 4B**, the guide 75 may be removed from the base 25 and replaced by a guide with a different-sized indent 80, depending on the amount of hair to be treated at a time. In a simpler form, the guide 75 is integral with the hair receiver. The hair receiver 20 (and the brush, though less so) will generally have a greater extent in the transverse direction than the handle 40 itself, say by two or three times, in order to have a sufficient carrying capacity for hair product.

In use, when the device is closed, the brush 10 descends until it lies to one side (in the transverse direction) of the end wall or guide 75 opposite the indent 80; that is, it overlaps the guide, as seen in the transverse direction. The brush is thus applied to the strand of hair as it passes smoothly through the guide and over the tray, encountering little resistance. Comfort and uniformity of application are additionally promoted by the arch shape of the bristles.

In a preferred form, several different bristle configurations, i.e. brushes 10, can be provided, from which a person may choose one to attach to the tongs of the present invention. There

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can be, for instance, three interchangeable brushes of differing extent in the transverse direction, any of which may be attached to the device by the upper fastener 15, depending on the amount of dye or colouring agent a person wishes to use. The more hair that is held in the hair guide 20, the longer the brush should be for the amount of colouring agent to be applied to the selected strands of hair without a person having to re-dip the brush in the dye.

In yet another embodiment, not shown, the handle of the present invention may be made of two pieces with ends 42, 44 like those shown in FIG. 2 but being pivotally attached to each other scissor-fashion, preferably urged apart by a spring.

In operation, the selected hair guide 20 is attached to the surface 44 by the fastener 35. The brush is likewise applied and then is dipped in the agent to be used. Then the user picks a strand or tress of hair and clamps the tongs around it. The hair is then drawn through the device, or rather the device is drawn past the hair, in the transverse direction from the roots to the ends. During this process, the end wall 75 with the tray 25 helps apply highlighting solution and capture any excess.

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CLAIMS

1. A hair-colouring tool suitable for use in applying hair treatment preparations such as hair colouring and highlighting products to selected strands of hair, the hair-colouring tool comprising:

a tong-like flexible handle (40) having two opposite ends, a first end (42) and a second end (44):

a brush (10) having a plurality of bristle rows attached to the first end for receiving a colour treating agent; and

a hair receiver (20) attached to the second end for receiving selected strands of hair to be treated for highlighting, laid transversely to the handle, in such a way that the tool can be closed so as to apply the brush to the hair, whereupon the device is drawn along the strand of hair.
2. A hair-colouring tool according to claim 1, wherein the tong-like handle (40) is made of plastic tubing.
3. A hair-colouring tool according to claim 1 or 2, wherein the brush (10) is integrally formed as part of the first handle portion.
4. A hair-colouring tool according to any preceding claim, wherein the brush (10) is removably attached to the distal end of the first handle portion.
5. A hair-colouring tool according to claim 4, further comprising a plurality of replaceable brushes of different dimensions, wherein the brushes can be interchanged between, or during, hair treatment sessions to achieve differing hair treatment effects.
6. A hair-colouring tool according to claim 1, wherein the hair receiver (20) is removably attached to the second handle portion.
7. A hair-colouring tool according to any preceding claim, further comprising a plurality of replaceable hair guide portions (75) forming grooves of different widths, wherein the different replaceable hair guides can be interchanged to treat different volumes of hair.
8. A method for treating hair, using a hair-colouring tool according to any preceding claim.

Application drawings

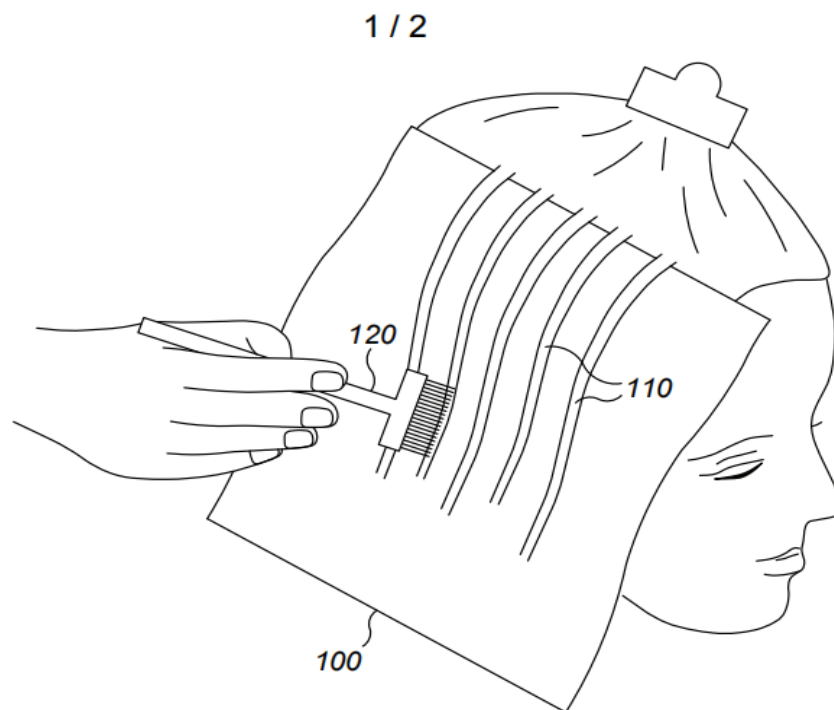


FIG. 1

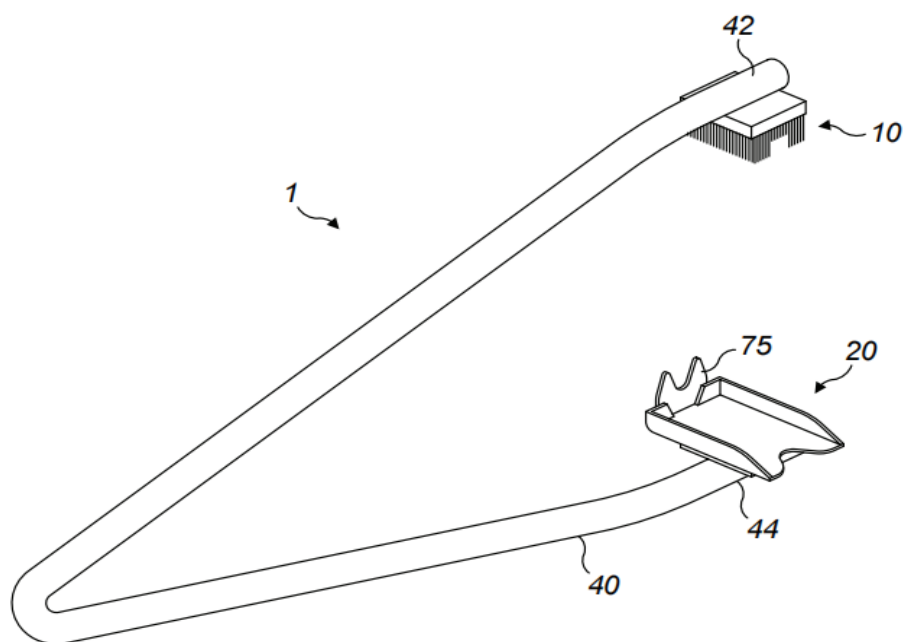


FIG. 2

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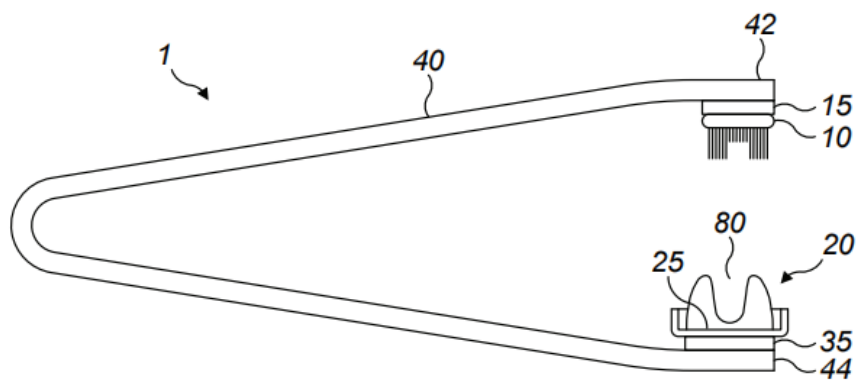


FIG. 3

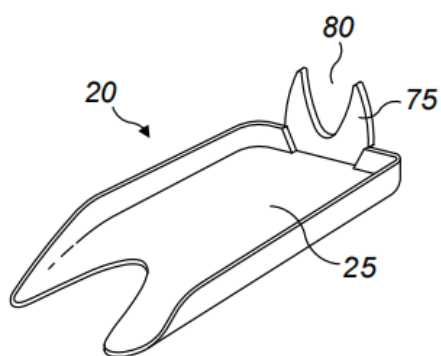


FIG. 4A

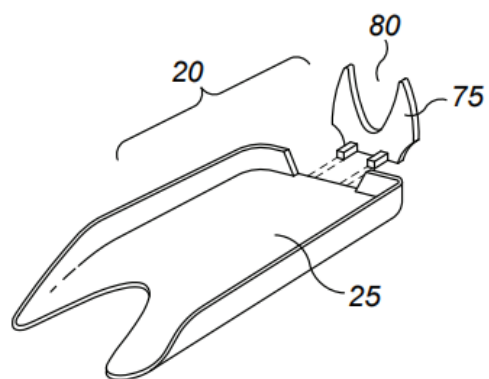


FIG. 4B

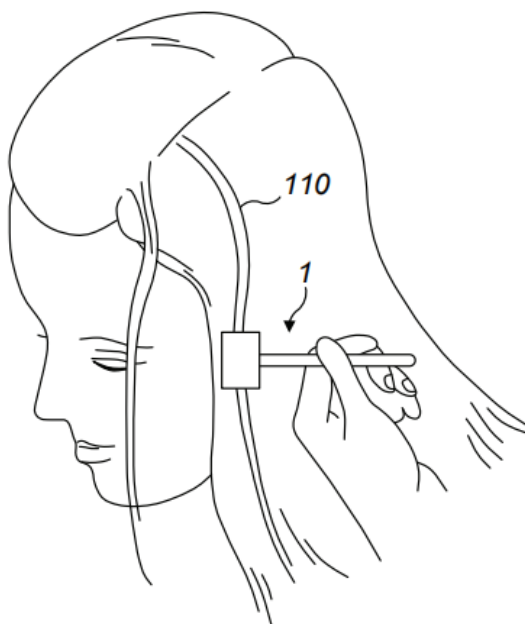


FIG. 5

Granted 11 September 2001

Haircraft Ltd

HIGHLIGHTING DEVICE

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a device for applying a hair product to tresses or strands of hair. The invention is especially suitable for applying a tress colouring product.

2. Description of the Related Art

Hair dye and other such products can be applied to the whole head, wherein the head of hair is entirely impregnated with the product, or a more partial use, sometimes termed ‘in tresses’, often referred to as ‘highlights’ and ‘lowlights’, where only certain portions of the head of hair are steeped with the product, so as to obtain a nonhomogeneous colour effect.

In one technique for highlighting, a ‘tress cap’ is used which tightly covers the head of hair. The tresses to be coloured are taken out of the cap through holes regularly distributed over the surface of the cap by means of a hook-type device and applied by a brush. After the treatment has been completed, the cap is removed and the coloured hair falls back into its natural position.

The tress cap technique is tedious and sometimes painful, and tends to flatten the hair and lead to uneven results. Also, it is difficult to go as far as the roots of the hair, which is detrimental to the natural aspect of the result.

SUMMARY OF THE INVENTION

In accordance with the invention, a tong-like device is proposed for applying a hair product to tresses or stands of hair, comprising application means such as a sponge or brush loaded with a hair product, at one of the ends of the tongs, and retaining means at the other end, for keeping the tress in application contact with the application means. Thus, with a single movement, without having to handle the tress with their fingers, the user takes up a precise

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tress of the desired size and positions it automatically opposite the application means.

The user closes the tongs, thus keeping the tress in contact with the application means; the application means is then displaced relative to the tress to apply the product. With this configuration, the tress is 'pinched' between two parts of the device without being held too tightly, so as to permit the device to slide along the tress from its root to as far as its tip.

Advantageously, the device has a pointed end for separating the tress from the rest of the head of hair before the treatment of a given tress and positioning it appropriately relative to the application means.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the invention will be described below, by way of example, with reference to the attached Figures, wherein:

FIG. 1 shows a perspective view of a device embodying the invention;

FIG. 2 is a section through the device of FIG. 1 when closed; and

FIGS. 3A–3C illustrate the functioning of the device illustrated in FIGS. 1 and 2.

DETAILED DESCRIPTION

FIGS. 1 and 2 illustrate a device in accordance with the invention. This device 1 is composed of first and second tong-like upper and lower parts 2, 3, the first part or leg 2 carrying an application means 4 at one end 15, the second part 3 being articulated to the first (around an articulation A) so as to be folded onto the first part and thus to trap the tress to be treated, so as to keep it in contact with the application means 4. Advantageously, the device is obtained by moulding a thermoplastic material such as polyethylene or polypropylene in a single piece. The articulation A is constituted by a film hinge.

Between the application means 4 and the articulation A there is provided a reinforcement or guide groove 6 designed to receive a convex boss 7 provided on a corresponding portion of the second part 3. Thus, when passing from the open position to the closed position shown in FIG. 2, the boss 7 enters into the groove 6, thus guiding the folding movement of the second part 3 onto the first part 2. This ensures proper positioning of the application means 4 relative to the corresponding receiving means provided on the second part 3.

The application means 4 is disposed on the free end of the first part 2 and includes a row of

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integral teeth 5, the row being situated centrally and parallel to the axis of the device. The teeth have a length of, say, 10 mm to 15 mm.

Within the application means 4, adjacent teeth have between them a tuft of bristles 30 whose length is preferably slightly less than the length of the teeth 5 which surround it. By way of example, for teeth whose length may be of the order of 9 to 10 mm, the length of the bristles is of the order of 7 to 8 mm. The function of the tufts of bristles is to retain the product P, shown as dots in FIG. 3, and to spread it more evenly over the whole length of the treated tress. They progressively release the product which they convey, ensuring a uniform deposit of the product over the whole length of the tress.

The lower part 3 has a section 13 constituting a receiving means including a groove 31 aligned to come opposite the application means. It has a width in the transverse direction enough to accommodate the row of teeth 5 and the bristles, so that by folding the first part 2 onto the second part 3, the groove encloses the row of teeth 5, thus allowing a tress of hair to be enclosed between the parts 2, 3 of the device. This receiving means 13 is capable of keeping the tress in application contact with the teeth 5 and bristles 30 of the device.

In a simpler form of the device, the tufts of bristles may be omitted, but they help to carry enough hair product for smooth application. The teeth can even be omitted if the bristles are stiff enough. Moreover, the device can be made with more than one row of teeth and bristles, if space allows.

A shoulder 10 and a stop 11 define a limiting means 9 disposed adjacent to the receiving means 13 and between the receiving means and the boss 7. The means 9 has a twofold function. On the one hand, the shoulder 10 prevents a tress, picked up in a way described in greater detail below, from sliding in the direction towards the articulation or film hinge A. On the other hand, the stop 11 limits the descent of the teeth into the groove 31 so that the hairs are not trapped.

In using this device, as shown in FIGS. 3A–3C, having prepared a colouring composition (in a bowl, for example), the user grips the applicator device 1 at the second part 3, keeping the applicator unfolded. They dip the application means 4 into the composition so that a quantity of the mixture sufficient for one tress is held on the brushes and between and around the teeth 5. The liquid, usually fairly viscous, adheres essentially by surface tension or capillary action.

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Subsequently, the user selects the tress 21 which they wish to treat by using the pointed tip 12 (FIG. 3A), which permits very high precision in the choice and selection of the tress in its width and depth. The stop 9 prevents the selected tress from sliding further forward towards the hinge A, thus keeping it opposite the receiving means 13.

Thereafter, the user closes the applicator device 1 onto itself (FIG. 3B) by causing it to pivot around the axis defined by the film hinge A. In the closed position, the boss 7 penetrates into the guide groove 6 to align the parts 2 and 3, thus allowing the row of teeth 5 to be positioned accurately in the groove 31. The tress 21 is thus trapped in the space defined by the surface supporting the teeth 5 and by the groove surrounding the teeth 5. The user draws the applicator along the tress in the direction of the arrow, thus applying product P. The selected tress 21 is then 'steeped' from its root by the colouring product.

Thus, with the application device in accordance with the invention, the treated tress 21 is completely controlled and held during the whole of its treatment. At the end of the movement, that is, when the applicator arrives at the tip of the tress, it is carefully repositioned on the head for the next highlight.

[claims omitted]

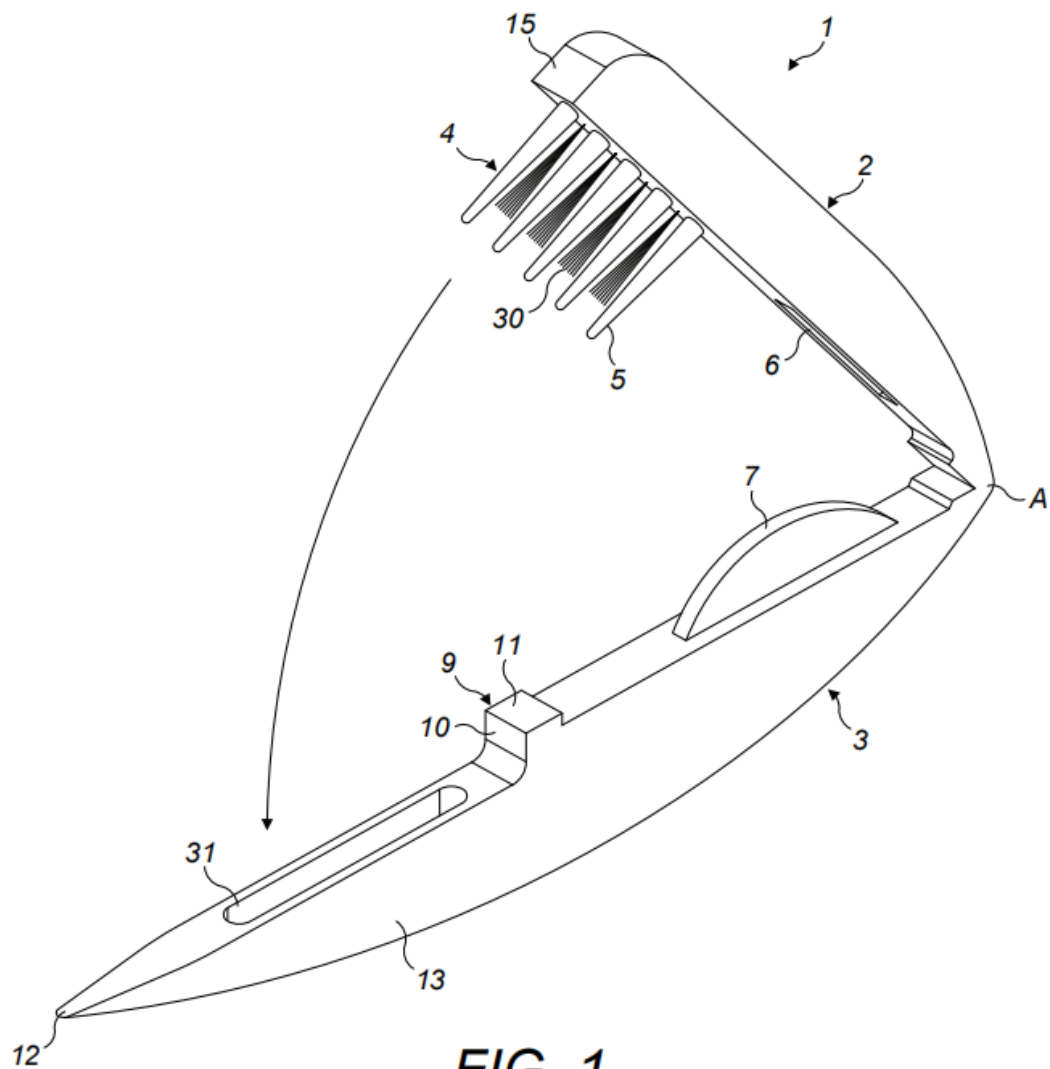


FIG. 1

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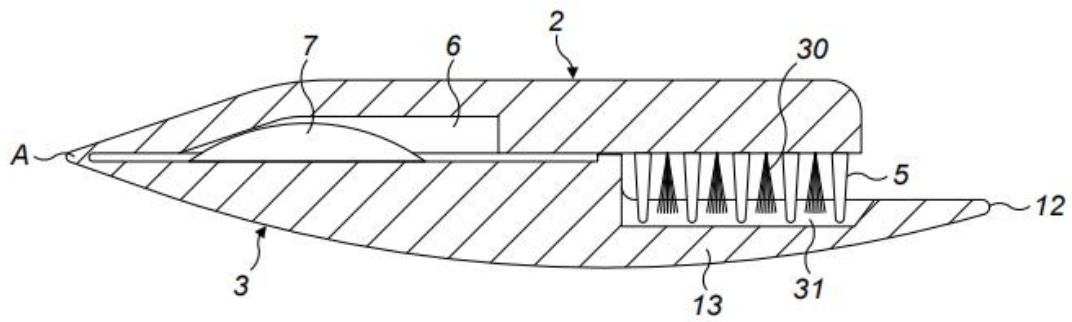


FIG. 2

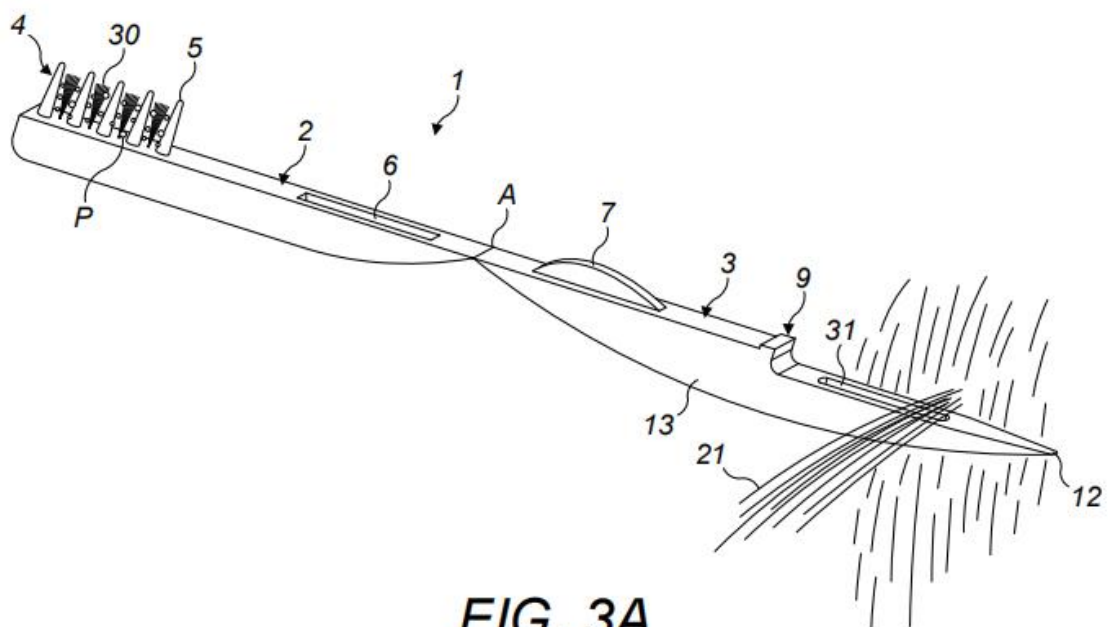


FIG. 3A

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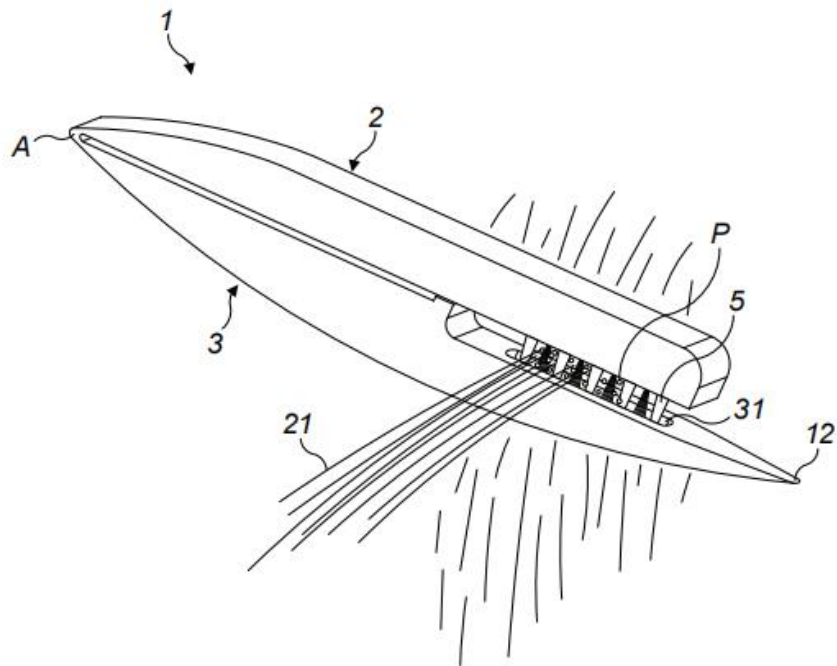


FIG. 3B

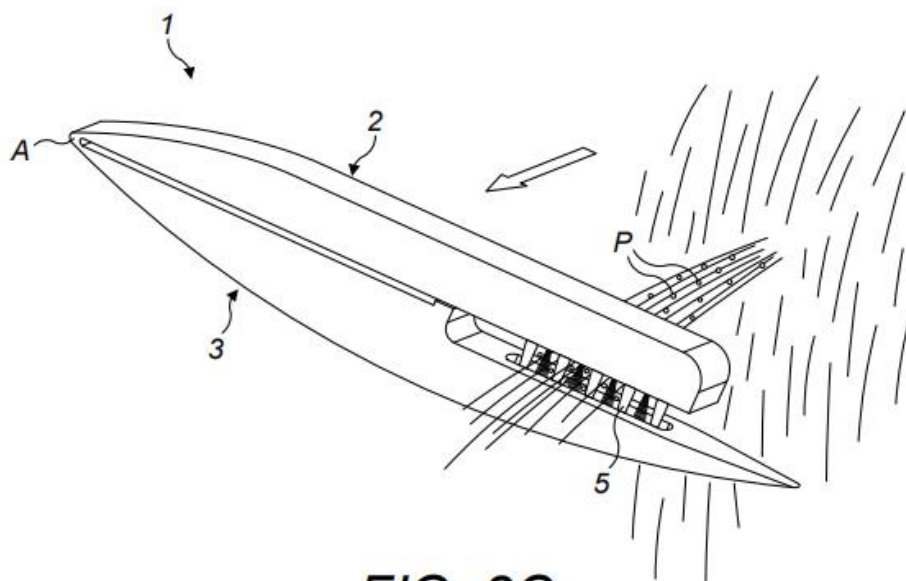


FIG. 3C

CLAIMS

1. A hair-colouring tool suitable for use in applying hair treatment preparations such as hair colouring and highlighting products to selected strands of hair, the hair-colouring tool comprising:
a tong-like flexible handle (40) having two opposite ends, a first end (42) and a second end (44):
a brush (10) having a plurality of bristle rows attached to the first end for receiving a colour treating agent; and
a hair receiver (20) attached to the second end for receiving selected strands of hair to be treated for highlighting, laid transversely to the handle, in such a way that the tool can be closed so as to apply the brush to the hair, whereupon the device is drawn along the strand of hair.
2. A hair-colouring tool according to claim 1, wherein the tong-like handle (40) is made of plastic tubing.
3. A hair-colouring tool according to claim 1 or 2, wherein the brush (10) is integrally formed as part of the first handle portion.
4. A hair-colouring tool according to any preceding claim, wherein the brush (10) is removably attached to the distal end of the first handle portion.
5. A hair-colouring tool according to claim 4, further comprising a plurality of replaceable brushes of different dimensions, wherein the brushes can be interchanged between, or during, hair treatment sessions to achieve differing hair treatment effects.
6. A hair-colouring tool according to claim 1, wherein the hair receiver (20) is removably attached to the second handle portion.
7. A hair-colouring tool according to any preceding claim, further comprising a plurality of replaceable hair guide portions (75) forming grooves of different widths, wherein the different replaceable hair guides can be interchanged to treat different volumes of hair.
8. A method for treating hair, using a hair-colouring tool according to any preceding claim.