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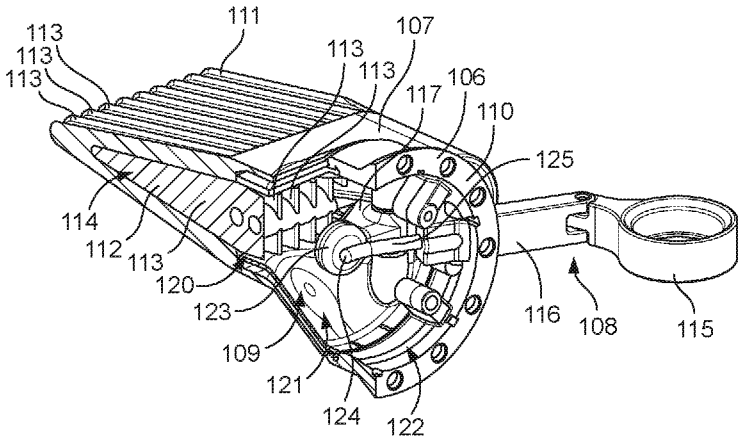


FIG. 1C

(57) Abstract: Disclosed is a hair styling apparatus comprising a body and a hair styling element rotatably mounted to the body so as to be rotatable about a rotational axis. The hair styling element comprises first and second portions and each portion is rotatable with the hair styling element. The second portion is further moveable relative to the first portion. The apparatus further includes a trigger mounted to the body and an actuation mechanism operatively connecting the trigger to the second portion. The operative connection is such that depressing the trigger moves the second portion relative to the first portion.

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HAIR STYLING APPARATUS

Technical Field

The present disclosure relates to a hair styling apparatus for styling hair.

Background

Various types of hair styling apparatuses for styling hair are known. One example of such an apparatus is a hair dryer which is typically handheld by a user and is able to discharge heated air from an outlet onto a user's hair. The most basic use of a hair dryer involves directing the discharged air onto hair to dry the hair. Hair dryers (and similar devices) can, however, be used to apply style to hair through the application of heat. The heat in the discharged air breaks chemical bonds in the hair, which allows the hair to be reshaped (i.e. into a shape other than its natural shape).

To aid in the application of a style using a hair dryer, attachments are known that can be mounted to a hair dryer. For example, some attachments mount to the outlet of the hair dryer (or similar device) and hot air discharged by the hair dryer passes through the attachment and onto a user's hair. In some cases, at least part of the attachment (e.g. a styling element) is intended to come into direct contact with a user's hair so as to physically interact with the hair.

One example of this type of attachment is a comb attachment. A comb attachment typically includes a row of comb teeth that, in use, are passed along a tress of hair while air is discharged between the comb teeth and onto the hair. This can allow the user to style hair in ways that is not possible with a hair dryer alone.

While such attachments allow enhanced styling, they have somewhat limited versatility. Hair types vary greatly across different users (for example, thickness and curliness can vary greatly). An attachment designed to work with one type of hair may not be particularly suited to another type of hair. As an example, a comb having a particular tooth-spacing may provide an optimum tension for one type of hair, but when used with another hair type may provide too little or too much tension (i.e. resulting in poor styling performance).

Further, although the combination of a hair styling apparatus (such as a hair dryer) and an attachment that interacts with a user's hair can provide enhanced styling, this combination often leads to an arrangement that is more cumbersome than each component in isolation. For example, the combination of a hair dryer with a comb attachment is far more cumbersome than a comb in isolation. The cumbersome nature of such combinations makes it more difficult for a user to apply a style to their hair or to someone else's hair.

The present disclosure has been devised in light of the above considerations.

Summary

In a first aspect, there is provided a hair styling apparatus comprising:

a body;

a hair styling element rotatably mounted to the body so as to be rotatable about a rotational axis, the hair styling element comprising first and second portions, each portion rotatable with the hair styling element, the second portion further moveable relative to the first portion; and

a trigger mounted to the body;

an actuation mechanism operatively connecting the trigger to the second portion, the operative connection being such that depressing trigger moves the second portion relative to the first portion.

The provision of a hair styling element that is rotatable relative to a body of the apparatus increases the usability of the apparatus. As an example, the styling element may be in the form of a comb that is passed along a tress of hair in use (such an embodiment is discussed further below). Without such rotation, a user (especially when that user is styling their own hair) may need to adjust the apparatus in their hand or move their wrist into uncomfortable positions to move the comb along a tress of hair in a single continuous motion. Providing a rotatable styling element may reduce or entirely alleviate the need for a user to do this. For example, physical interaction between the hair styling element and the hair (e.g. interaction between comb teeth and hair) may cause rotation of the hair styling element (i.e. the hair may guide rotation of the styling element) so that a user only needs to move the apparatus through the hair (e.g. along a tress of hair) without also having torotate the apparatus at the same time to maintain a suitable orientation.

The provision of first and second portions that are moveable relative to each other can increase the versatility of the apparatus and allow enhanced styling using the apparatus. In one example, the first and second portions may include rows of comb teeth that are moveable relative to one another (this is discussed further below). Hair may be trapped between the moving comb teeth and thus the movement may allow a user to adjust the tension applied to a tress of hair as the hair styling element is moved along the tress. In this way, providing a moveable second portion increases the adjustability of the apparatus and allows a user to adjust the apparatus, for example, depending on the type of hair being styled.

The second portion rotates as part of the hair styling element and is further moveable (i.e. in addition to the rotation) relative to the first portion. Providing a trigger on the body that is not

rotatable with the hair styling element ensures that a user wishing to move the second portion can do so without adjusting their hand with rotation of the hair styling element (having to do so would at least partly negate the advantage provided by the rotation of the hair styling element). The provision of the actuation mechanism allows this to occur. It provides movement of the second portion by depressing the trigger but does so in a manner that permits independent rotation of the hair styling element (and thus the second portion). In this way, the actuation mechanism ensures that the advantages of both the rotation of the hair styling element and the further movement of the second portion are provided by the apparatus.

Optional features will now be set out. These are applicable singly or in any combination with any aspect.

The actuation mechanism may comprise a cam surface. The trigger may comprise an engagement portion configured to abut against and move the cam surface when the trigger is actuated. In operation, the engagement portion may slide along the cam surface as it abuts and moves the cam surface. The cam surface may be planar. The cam surface may have a curvature.

The cam surface and the engagement portion may not be attached to one another (i.e. may be unattached/unconnected). That is, the cam surface and engagement portion may be in contact but not fixed to one another (i.e. so that one is able to move independently of the other). In other embodiments the cam surface and engagement portion may be attached, but may be rotatable relative to one another about the rotational axis of the hair styling element.

The combination of an engagement portion and cam surface (e.g. unattached) that abut against one another provides significant freedom of movement between the trigger and the actuation mechanism while allowing the trigger to move the actuation mechanism. For example, the cam surface may be rotatable relative to (i.e. independently of) the engagement portion (e.g. about the same rotational axis as the hair styling element).

The point or region of contact between the cam surface and engagement portion may move as the cam surface is moved. Thus, for example, the engagement portion may slide across the cam surface as it abuts and moves the cam surface. Alternatively, or additionally, the cam surface may slide across the engagement portion as the cam surface and engagement portion move together.

In some embodiments, the cam surface may be pivotably connected to the hair styling element. In this way, the cam surface may move along an arcuate path as it is moved by the engagement portion. For example, the cam surface may form part of a rocker linkage. The rocker linkage may be pivotably mounted to the hair styling element. The rocker linkage may pivot about a rocker pivot axis. The rocker pivot axis may be substantially perpendicular to the rotational axis of the hair styling element.

The rocker linkage may be moveably mounted to the second portion. The mounting may be such that pivoting of the rocker linkage causes linear movement of the second portion. For example, the second portion may be slideably mounted to the hair styling element (i.e. to the remainder of the hair styling element). That is, the mounting may be configured to convert a pivoting (i.e. arcuate) movement to a linear movement. The linear movement may be along an axis that is substantially perpendicular to the rocker pivot axis.

To facilitate such conversion of movement, one of the rocker linkage and the second portion may comprise a pin and the other of the rocker linkage and the second portion may comprise a slot for receipt of the pin.

In some embodiments, the cam surface may be configured to move along a linear axis when moved by the engagement portion. The linear axis may be parallel (e.g. collinear) with the rotational axis of the hair styling element.

The cam surface may form part of a collar. The collar may be mounted to a shaft slideably mounted to the hair styling element. For example, the body may comprise an annular guide through which the shaft extends (and through which the shaft may slide). The body may comprise two annular guides spaced along the shaft (the shaft extending through central apertures of both guides). The collar may be disposed between the annular guides. One or both guides may act as a stop feature (i.e. limiting movement of the collar).

The engagement portion of the trigger may be bifurcated so as to extend both sides of the shaft. In other words, the engagement portion may comprise first and second fingers defining a space therebetween in which the shaft is received.

The actuation mechanism may comprise a terminal linkage. The terminal linkage may be configured to convert the movement of the shaft from an axial movement (i.e. parallel to the rotational axis of the hair styling element) to a transverse movement. A first end of the terminal linkage may be pivotably connected to the shaft, and an opposite second end of the terminal linkage may be pivotably connected to the second portion. Each pivotable connection may be configured to provide pivoting about an axis that is perpendicular to the rotational axis of the hair styling element.

The trigger may be pivotably mounted to the body. The mounting of the trigger may be such that the trigger pivots about an axis that is perpendicular to the rotational axis of the hair styling element. The trigger may be pivotably mounted so as to pivot about an axis that is in a circumferential/tangential direction with respect to rotation of the hair styling element.

The second portion may be moveable along a linear movement axis that is perpendicular to the rotational axis of the hair styling element. The linear movement axis may intersect the rotational axis.

As described above, the apparatus is configured such that depressing the trigger from an undepressed position to a depressed position causes movement of the second portion. Thus, when the trigger is in the undepressed position the second portion is in a first position, and when the trigger is in the depressed position the second portion is in a second position. The apparatus may comprise biasing means (e.g. a spring) arranged to urge the second portion into the first position (and/or the trigger into the undepressed position).

The apparatus may be in the form of an attachment for mounting to a hair styling device. In this case the body of the apparatus may comprise a mounting portion configured for releasable mounting of the body of the apparatus to a hair styling device. The mounting portion may, for example, be releasably engageable by way of a bayonet mechanism, arrangement of magnets, snap fit mechanism, etc.

The apparatus may, for example, be configured to be releasably mounted to a hair styling device of the type that discharges a flow of air (e.g. a flow of hot air) from an outlet (the apparatus may be e.g. a hair dryer). The mounting portion may be configured for mounting the apparatus to the outlet (or at the outlet).

In such cases, the apparatus may comprise an inlet for receipt of an airflow from a hair styling device to which it may be mounted, an outlet for discharging the airflow, and a passage connecting the inlet and the outlet. The actuation mechanism may be disposed within the passage.

Alternatively, the apparatus may be in the form of a hair styling device. The body of the device may comprise opposed forward and rearward ends. The hair styling element may be provided at the forward end. The apparatus may further comprise a handle projecting outwardly from the body of the apparatus at a location between the forward and rearward ends. For example, the handle may project radially with respect to an axis that extends between the forward and rearward ends.

The apparatus (in the form of a device) may, for example, be configured to discharge air (e.g. hot air) from an outlet thereof. The styling element may be provided at the outlet (e.g. such that air flows across the styling element). The apparatus may comprise an air mover, such as a fan, and may comprise an air heater for heating an airflow subsequently discharged from the outlet.

The hair styling element may be a comb. Each of the first and second portions may comprise a transversely extending row of comb teeth. Each row of comb teeth may be arranged to receive an airflow from an outlet of the apparatus (e.g. may extend across the outlet). The rows of comb teeth may be adjacent one another, and the row of comb teeth of the second portion may be moveable along the transverse axis relative to the first portion.

For example, each tooth of the first portion may define an opening for receipt of a corresponding tooth of the second portion. In other words, the row of teeth of the first portion may define a passage along which the teeth of the second portion move. In this way, a user can clamp hair between the teeth of the two rows of teeth by movement of the second portion.

Brief Summary of the Figures

Embodiments will now be discussed with reference to the accompanying figures in which:

Figures 1A and 1B are perspective views of a first embodiment of a hair styling apparatus mounted to a hair styling device;

Figures 1C and 1D are perspective section views of the first embodiment of the hair styling apparatus;

Figures 1E and 1F are section views of the first embodiment of the hair styling apparatus with a trigger of the apparatus in undepressed and depressed positions;

Figure 2A is a perspective section view of a second embodiment of a hair styling apparatus; and

Figures 2B and 2C are section views of the second embodiment of the hair styling apparatus with a trigger of the apparatus in undepressed and depressed positions.

Detailed Description

Aspects and embodiments will now be discussed with reference to the accompanying figures. Further aspects and embodiments will be apparent to those skilled in the art.

Figures 1A to 1F illustrate a first embodiment of a hair styling apparatus 100, which is provided in the form of an attachment for mounting to a hair styling device. Figures 1A and 1B show the apparatus 100 mounted to such a hair styling device 101, which is in the form of a hair dryer.

The device 101 includes a cylindrical device body 102 having forward 103 and rearward 104 ends. The forward end 103 of the device body 102 tapers inwardly (so as to have a frustoconical shape) to an opening defining an outlet (not shown) of the device 101. The device 101 also includes a cylindrical handle 105 that extends radially outward from the device body 102 (in Figure 2A, the handle 105 extends downwardly) at a location between the forward 103 and rearward 104 ends.

The hair styling apparatus 100 is releasably mounted at the forward end 103 of the device 101 and includes an annular body 106, a hair styling element 107, a trigger 108 and an internal actuation mechanism 109 (shown in Figures 1C to 1F). To provide the releasable mounting to the device 101, the body 106 includes a mounting portion 110 in the form of an annular flange of the body 106 which comprises a plurality of magnets for releasable mounting to the device 101 (which includes a ferromagnetic portion for interaction with the magnets). Alternatively, a

single annular magnet may be provided. As should be appreciated, releasable mounting may otherwise be provided by e.g. a bayonet mechanism, snap fit mechanism, etc.

Although not shown, the outlet of the device may be annular and may surround a central recess (or bore) formed in the device. A spigot may be provided that projects from the body 106 into the recess of the device 101. The spigot may fit closely within inner walls of the recess of the device 101 so as to restrict movement between the body 106 and the device 101 (i.e. providing a more robust connection between the apparatus 100 and the device 101).

The hair styling element 107 is rotatably mounted to the body 106 of the apparatus 100 so as to be rotatable about a rotational axis (which is parallel to a central axis of the device 101). This is most apparent from Figures 1A and 1B in which the hair styling element 107 is shown in two different orientations, perpendicular to one another. Figures 1C and 1D also show two different orientations (albeit with the trigger 108, rather than the body 106, appearing rotated). While only two orientations are shown, it should be appreciated that the hair styling element 107 is fully rotatable about the rotational axis (i.e. can rotate a full 360 degrees about the rotational axis). Accordingly, the orientation of the hair styling element 107 is not fixed in relation to the handle 105 of the device 101. This improves usability of the device, because it avoids the need for a user to move the handle 105 into potentially awkward positions to maintain a desired orientation of the hair styling element 107 (instead, the hair styling element 107 can rotate as required).

The hair styling element 107 comprises first 111 and second 112 portions. Both of these portions 111, 112 are rotatable with the hair styling element 107. However, as will be described further below, the second portion 112 is further moveable (along a linear axis) relative to the first portion 112.

In this embodiment, the apparatus 100 is in the form of a comb attachment such that the hair styling element 107 is in the form of a comb. Each of the first 111 and second 112 portions of the hair styling element 107 comprises a respective transversely extending row of comb teeth 113. Each tooth 113 of the first portion 111 defines an inner triangular opening 114 in which a triangular tooth 113 of the second portion 112 is received. Thus, the row of teeth 113 of the first portion 111 together define a transverse passage along which the row of teeth 113 of the second portion 112 move. In use, hair received between the teeth 113 can be clamped by movement of the second portion 112 relative to the first portion 111. The clamping force applied to the hair is dependent on the amount of displacement of the second portion 112. In this way, a user can adjust the tension applied to e.g. a tress of hair by altering the amount of displacement of the second portion 112.

Each row of comb teeth 113 extends across an outlet 120 of the apparatus 100. An internal passage 121 of the apparatus 100 fluidly connects the outlet 120 to a circular inlet 122 of the

apparatus 100. The inlet 122 is defined within the mounting portion 110 of the body 106, such that when the body 106 is mounted to the device 101, the inlet 122 receives a heated airflow from an outlet of the device 101. This heated airflow passes through the passage 121 and is discharged from the outlet 120 of the apparatus 100, between the teeth 113 of the first 111 and second 112 portions. In this way, in operation, heated air can be discharged onto hair that is clamped between the teeth 113 of the first 111 and second 112 portions.

A user is able to control movement of the second portion 112 by depressing the trigger 108, which is pivotably mounted to the body 106 of the apparatus 100. By mounting the trigger 108 to the body 106 (rather than the hair styling element 107), the trigger 108 remains fixed relative to the device 101 (and thus relative to the handle 105 of the device 101). The trigger 108 includes an annular grip portion 115 pivotably connected to an elongate lever 116 (which is in turn pivotably mounted to the body 106).

The trigger 108 is operatively connected to the second portion 112 by the actuation mechanism 109. The actuation mechanism 109 is configured to permit movement of the second portion 112 by the trigger 108 regardless of the rotational orientation of the hair styling element 107.

The actuation mechanism 109 includes a rocker linkage 117, which is pivotably mounted to the hair styling element 107, so as to pivot about a pivot axis that extends perpendicularly to the rotational axis of the hair styling element 107. As is apparent from Figures 1E and 1F, this pivotable mounting is provided by a bore 118 extending through the rocker linkage 117 and a pin 119 that extends through the bore 118 across the internal passage 121 of the apparatus.

The rocker linkage 117 has a generally triangular shape. The bore 118 is formed proximate to one apex of the rocker linkage 117. A planar cam surface 123 is formed proximate to another of the apices of the rocker linkage 117 and is arranged such that it faces towards the inlet 122 of the apparatus 100 (i.e. in an upstream direction). The cam surface 123 is positioned generally centrally within the internal passage 121 such that it is in contact with, but not attached to, an engagement portion 124 of the trigger 108. The engagement portion 124 forms part of a rod 125 that extends from an end of the lever 116 of the trigger 108. The engagement portion 124 of the rod extends on an angle with respect to the remainder of the rod 125.

The contact between the engagement portion 124 and the rocker linkage 117 means that when the trigger 108 is pivoted (by a user depressing the trigger 108) the engagement portion 124 engages the cam surface 123 and causes the rocker linkage 117 to pivot. Because the cam surface 123 and the engagement portion 124 are detached from one another, the engagement portion 124 is able to rotate relative to the cam surface 123 (i.e. with rotation of the hair styling element 107). Likewise, the arrangement of the cam surface 123 and the engagement portion 124 is such that the rocker linkage 117 pivots in the same manner regardless of the rotational

position of the hair styling element 107 (providing a consistent movement regardless of the position of the hair styling element 107).

The remaining apex of the rocker linkage 117 (i.e. that not proximate with the cam surface 123 or the bore 118) comprises a slot 126, best seen in Figures 1E and 1F. The second portion 112 includes a pin 127 that is received in the slot 126. As the rocker linkage 117 is pivoted (by depression of the trigger 108), the pin 127 is moved by way of its receipt in the slot 126. This causes the second portion 112 to move transversely relative to the first portion 111. The movement of the second portion 112 is facilitated, in particular, by the slideable mounting of the second portion 112 to two support bars 128 that extend transversely across the outlet 120 of the apparatus 100.

Accordingly, depressing the trigger 108 causes linear transverse movement of the second portion 112 regardless of the rotational position of the hair styling element 107.

Figures 2A, 2B and 2C depict a hair styling apparatus 100' according to a second embodiment. This hair styling apparatus 100' has many of the same features as the previously described embodiment and the same reference numerals are therefore used. For brevity, only differences are discussed below.

The actuation mechanism 109 of the apparatus comprises a collar 136 mounted to an elongate shaft 129. The shaft 129 extends centrally within the hair styling element 107 and is collinear with the rotational axis of the hair styling element 107. The shaft 129 is supported in this position by a guide 130 that projects inwardly from a peripheral wall 131 of the hair styling element 107 and which includes a circular aperture 132 through which the shaft 129 extends. The shaft 129 is slideably mounted in the aperture 132 so as to be moveable in a direction along the rotational axis of the hair styling element 107.

An end of the shaft 129 proximate the second portion 112 is pivotably connected to a terminal linkage 133, which extends from the shaft 129 to the second portion 112, and which is also pivotably connected to the second portion 112. The pivotable connections of the terminal linkage 133 to the shaft 129 and the second portion 112 are arranged so as to have pivot axes that are parallel to one another and that are both perpendicular to the direction of movement of the second portion 112 in use.

An end of the lever 116 of the trigger 108 (which is pivotably mounted to the body 106) is bifurcated so as to include two fingers 134 that define a space therebetween in which the shaft 129 is received. When the trigger 108 is depressed, the lever 116 pivots and the fingers 134 engage a cam surface 123 of the collar 136 (a surface of the collar 136 facing the inlet 122). In particular, collar-facing surfaces 135 of the fingers 134 abut the cam surface 123 to move the cam surface 123. To provide a consistent rate of movement, the collar-facing surfaces 135 are curved and convex.

Movement of the cam surfaces 123, results in movement of the collar 136 and the shaft 129 in a direction along the rotational axis of the hair styling element 107 towards the outlet 120 of the apparatus 100'. This causes the terminal linkage 133 to move the second portion 112 along the support bars 128. Figure 2C shows the apparatus 100 in this depressed position.

In this way, transverse movement of the second portion 112 is provided by depressing the trigger 108 (and causing the lever 116 of the trigger 108 to pivot). As should be appreciated, because the lever 116 is not attached to the cam surface 123, the cam surface 123 is able to rotate relative to the lever 116 when the hair styling element 107 is rotated. In this way, regardless of the orientation of the hair styling element 107 depressing the trigger results in movement of the second portion.

The exemplary embodiments set forth above are considered to be illustrative and not limiting. Various changes to the described embodiments may be made without departing from the spirit and scope of the invention.

For the avoidance of any doubt, any theoretical explanations provided herein are provided for the purposes of improving the understanding of a reader. The inventors do not wish to be bound by any of these theoretical explanations.

Throughout this specification, including the claims which follow, unless the context requires otherwise, the word "comprise" and "include", and variations such as "comprises", "comprising", and "including" will be understood to imply the inclusion of a stated integer or step or group of integers or steps but not the exclusion of any other integer or step or group of integers or steps.

It must be noted that, as used in the specification and the appended claims, the singular forms "a," "an," and "the" include plural referents unless the context clearly dictates otherwise. Ranges may be expressed herein as from "about" one particular value, and/or to "about" another particular value. When such a range is expressed, another embodiment includes from the one particular value and/or to the other particular value. Similarly, when values are expressed as approximations, by the use of the antecedent "about," it will be understood that the particular value forms another embodiment. The term "about" in relation to a numerical value is optional and means for example +/- 10%.

Claims:

1. A hair styling apparatus comprising:

   a body;

   a hair styling element rotatably mounted to the body so as to be rotatable about a rotational axis, the hair styling element comprising first and second portions, each portion rotatable with the hair styling element, the second portion further moveable relative to the first portion;

   a trigger mounted to the body; and

   an actuation mechanism operatively connecting the trigger to the second portion, the operative connection being such that depressing the trigger moves the second portion relative to the first portion.

2. A hair styling apparatus according to any one of the preceding claims wherein the actuation mechanism comprises a cam surface and the trigger includes an engagement portion configured to abut against and move the cam surface when the trigger is actuated.

3. A hair styling apparatus according to claim 2 wherein the cam surface and engagement portion are not attached to one another.

4. A hair styling apparent according to claim 3 wherein the cam surface is pivotably connected to the hair styling element.

5. A hair styling apparatus according to claim 4 wherein the cam surface forms part of a rocker linkage, the rocker linkage pivotably mounted to the hair styling element.

6. A hair styling apparatus according to claim 5 wherein the rocker linkage is moveably mounted to the second portion, the mounting being such that pivoting of the rocker linkage causes linear movement of the second portion.

7. A hair styling apparatus according to claim 6 wherein one of the rocker linkage and the second portion comprises a pin and the other of the rocker linkage and the second portion comprises a slot for receipt of the pin.

8. A hair styling apparatus according to claim 2 or 3 wherein the cam surface is configured to move along a linear axis when moved by the engagement portion.

9. A hair styling apparatus according to claim 8 wherein the linear axis along which the cam surface moves in use is substantially collinear with the rotational axis of the hair styling element.

10. A hair styling apparatus according to claim 8 or 9 wherein the cam surface forms part of a collar mounted to a shaft slideably mounted to the hair styling element.

11. A hair styling apparatus according to claim 10 wherein the engagement portion of the trigger is bifurcated so as to extend both side of the shaft.

12. A hair styling apparatus according to claim 11 wherein the actuation mechanism comprises a terminal linkage, a first end of the terminal linkage pivotably connected to the shaft and an opposite second end of the terminal linkage pivotably connected to the second portion.

13. A hair styling apparatus according to any one of the preceding claims wherein the trigger is pivotably mounted to the body.

14. A hair styling apparatus according to any one of the preceding claims wherein the second portion is moveable along a linear movement axis that is perpendicular to the rotational axis.

15. A hair styling apparatus according to claim 14 wherein the linear movement axis intersects the rotational axis.

16. A hair styling apparatus according to any one of the preceding claims wherein the styling element is a comb and each of the first and second portions comprising a transversely extending row of comb teeth, wherein the rows of comb teeth are adjacent to one another, and wherein the second portion is moveable along the transverse axis relative to the first portion in response to the trigger being depressed.

17. A hair styling apparatus according to any one of the preceding claims that is in the form of a hair styling attachment, the body comprising a mounting portion for releasable mounting of the body to a hair styling device.

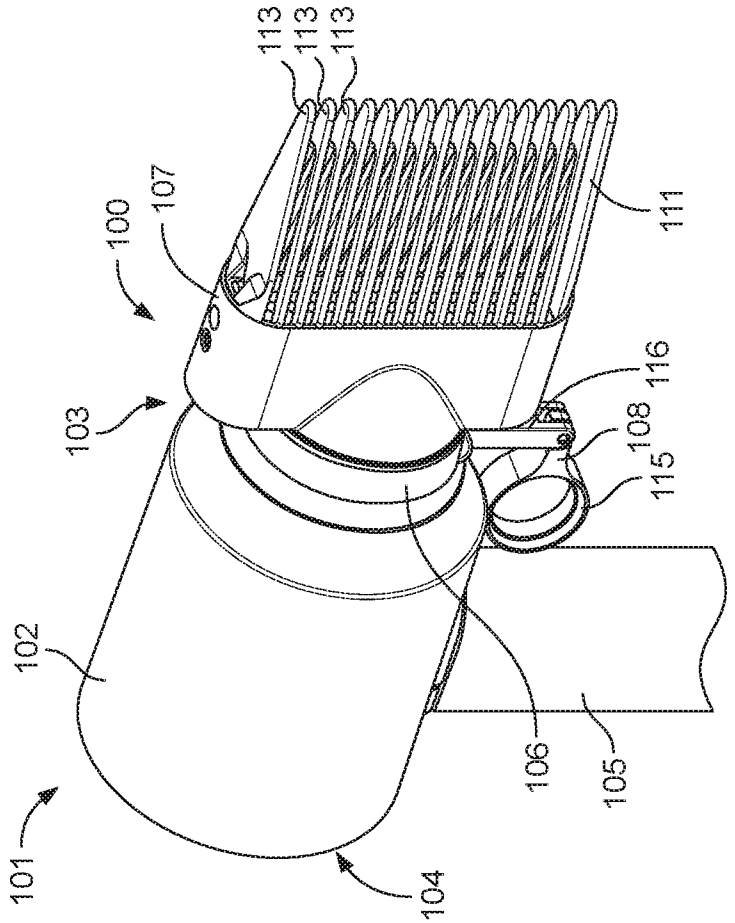

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FIG. 1B

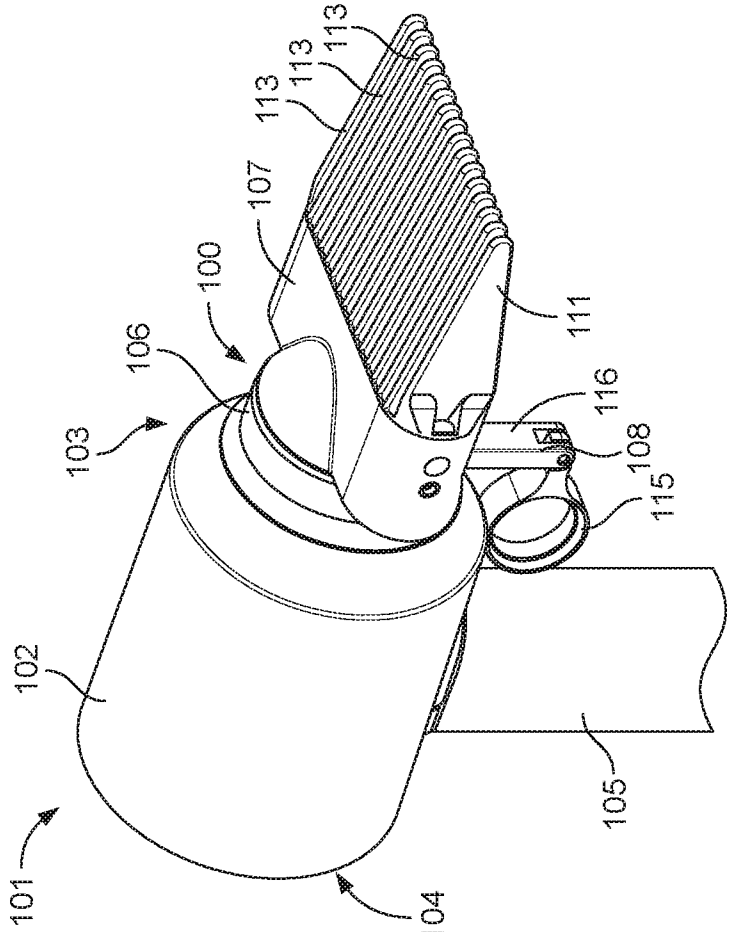

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FIG. 1A

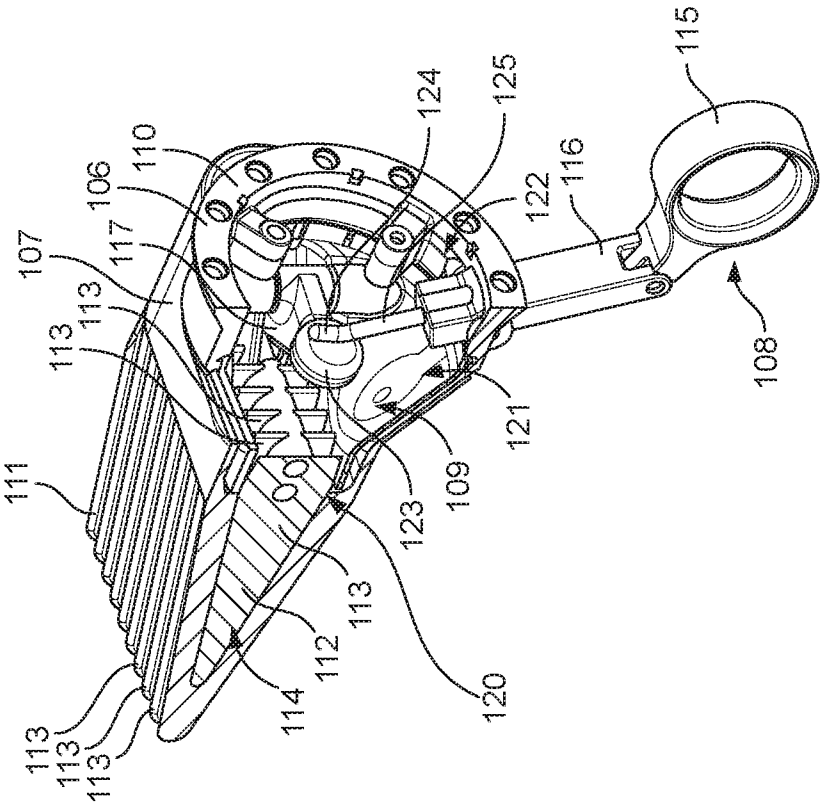

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FIG. 1D

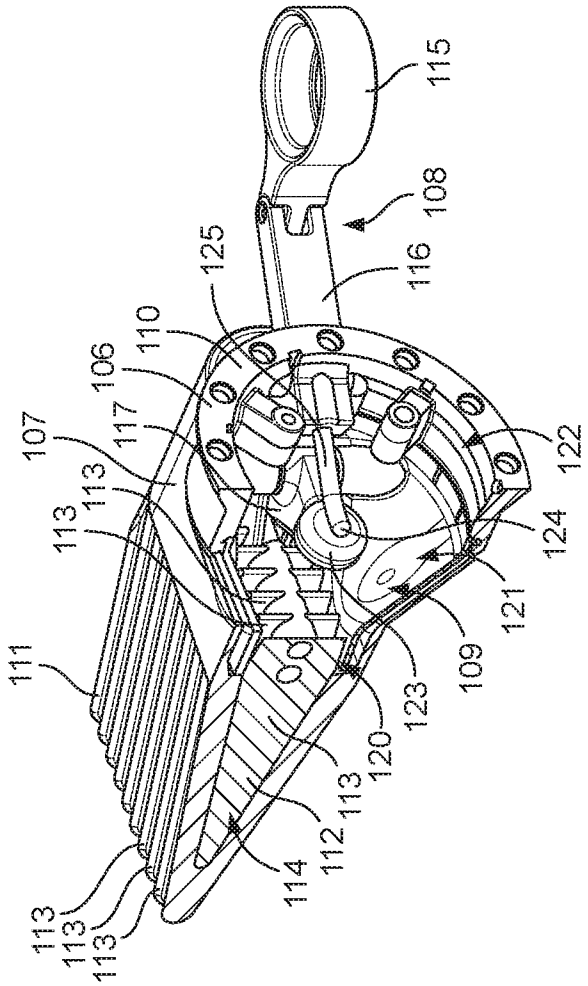

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FIG. 1C

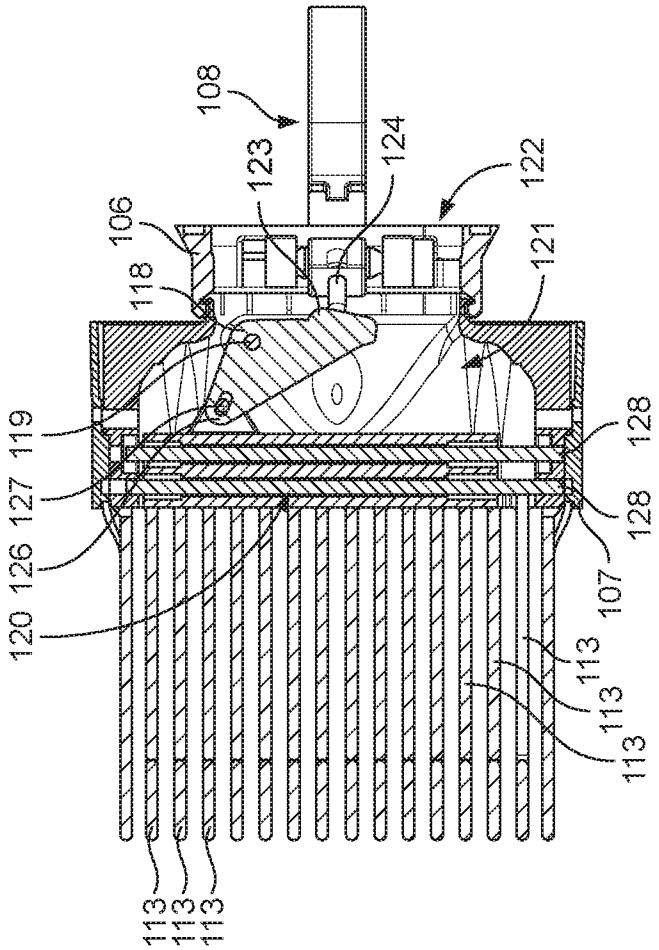

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FIG. 1F

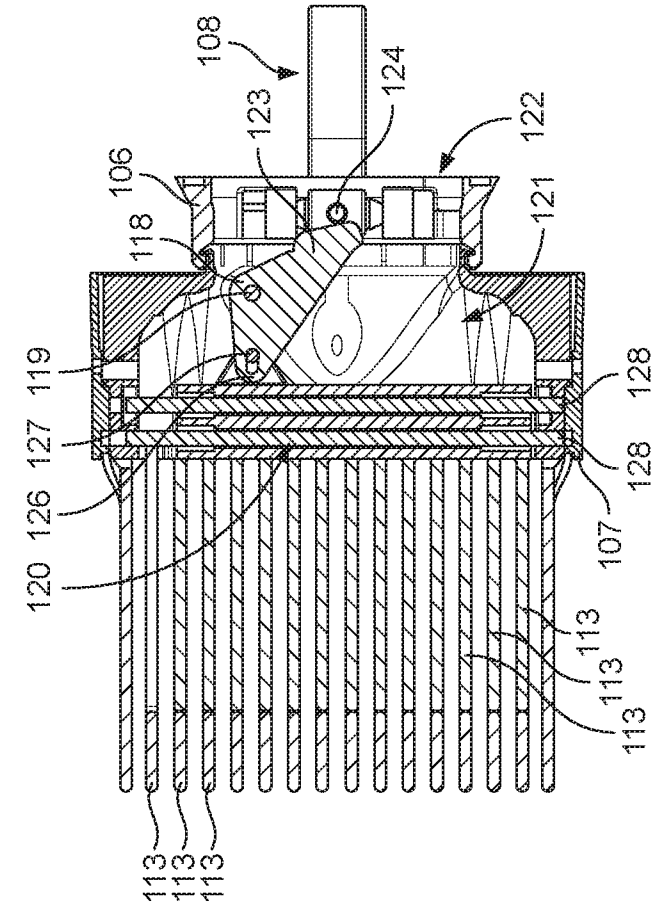

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FIG. 1E

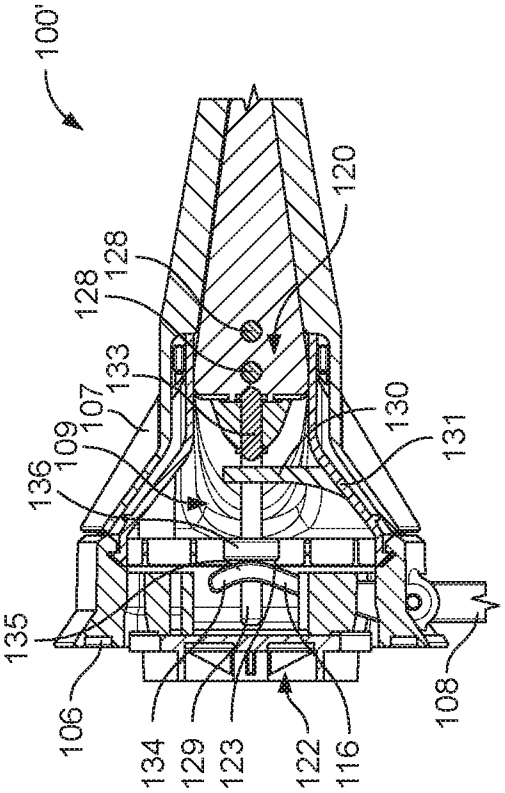


FIG. 2B

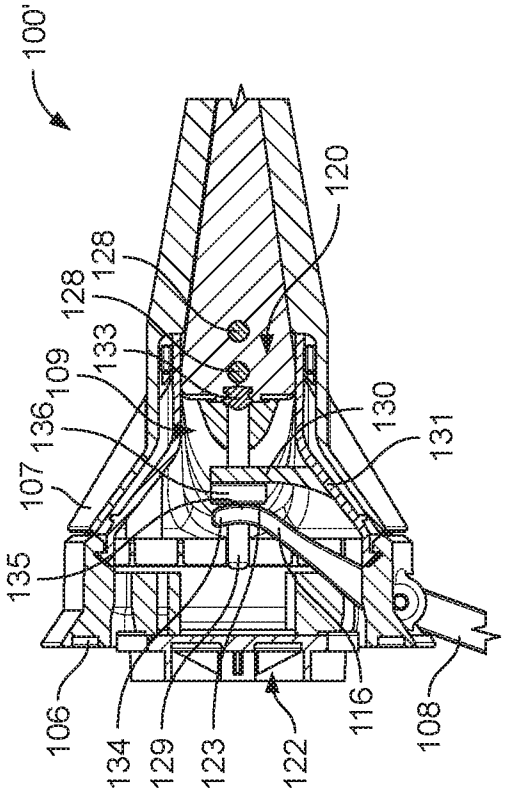


FIG. 2C

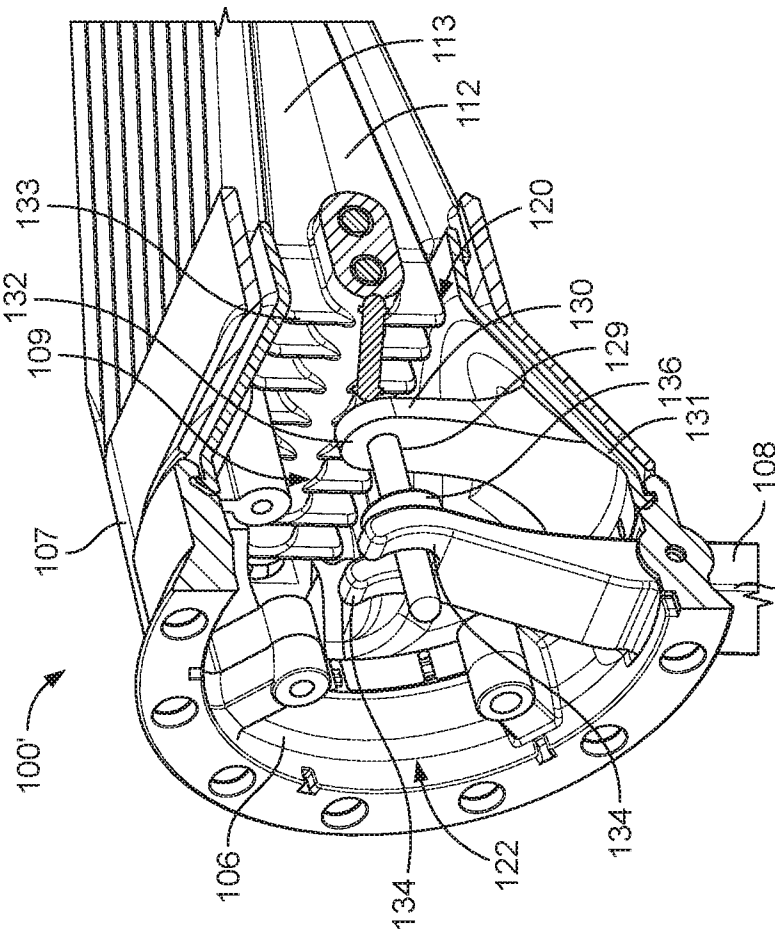


FIG. 2A

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2023/050921

A. CLASSIFICATION OF SUBJECT MATTER
INV. A45D20/12
ADD.

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

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)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 553 632 A (BURKHARDT CHARLES W [US]) 10 September 1996 (1996-09-10) column 2 - column 4; figures	1,13,14, 16
X	US 4 442 849 A (KAWABE SHINICHI [JP]) 17 April 1984 (1984-04-17) column 3 - column 5; figures	1-5,13
X	WO 88/08240 A1 (ROBERT IND INC [US]) 20 October 1988 (1988-10-20) pages 5-8; figures	1-5,13
X	CN 215 899 065 U (XIAN MIAOQU NETWORK TECH CO LTD) 25 February 2022 (2022-02-25) the whole document	1,13

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
28 June 2023	05/07/2023

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Dinescu, Daniela

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2023/050921

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		WO 8808240 A1	20-10-1988
CN 215899065 U	25-02-2022	NONE	