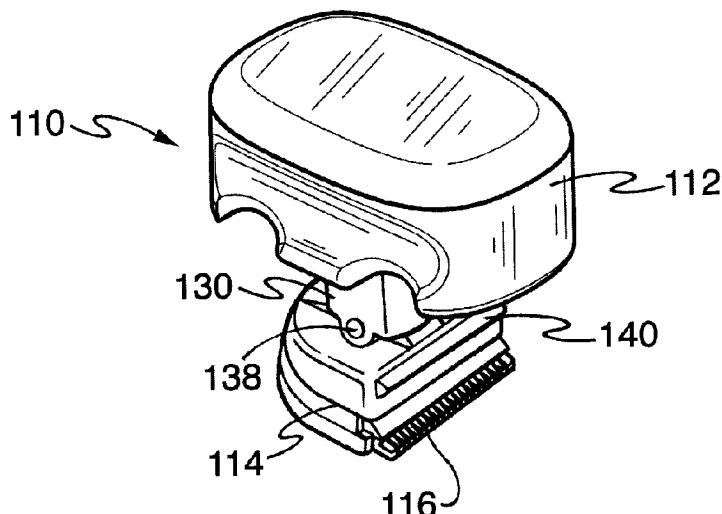




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(54) Titre : TONDEUSE A CHEVEUX ELECTRIQUE
(54) Title: ELECTRIC HAIR CLIPPER



(57) **Abrégé/Abstract:**

An electric hair clipper (10) includes a housing (12) containing an electrical source and drive-related components. A clipper mechanism (14) having a reciprocating clipper (16) is located beneath the bottom of the housing (12) but is spaced therefrom by a pivotal central hub (118) that extends downwardly from the bottom of the housing. The housing (12), central hub (118) and clipper mechanism (14) are arranged such that a person can hold the electric hair clipper by placing his or her fingers in the space between the housing (12) and the clipper mechanism (14) with the central hub (118) lying between two fingers and with the back of the person's fingers resting in a pair of elongated spaced apart recesses (26, 28) formed in the bottom of the housing (12) on opposite sides of the hub (118).

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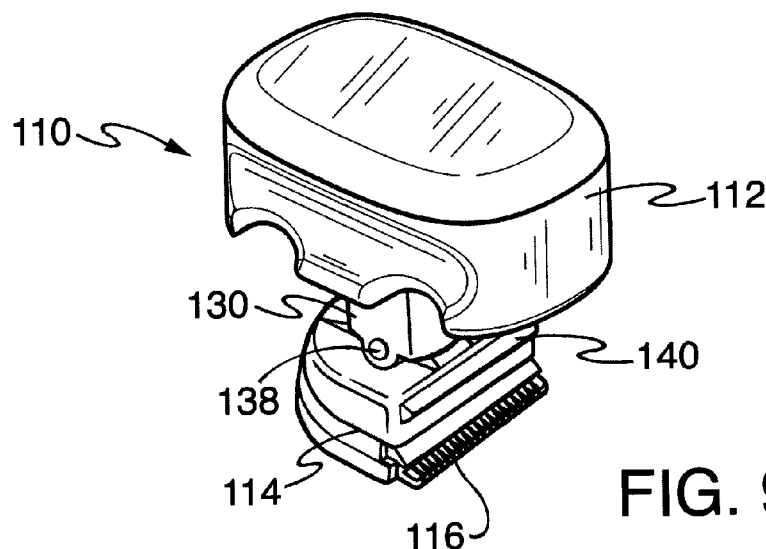


FIG. 9

(57) Abstract: An electric hair clipper (10) includes a housing (12) containing an electrical source and drive-related components. A clipper mechanism (14) having a reciprocating clipper (16) is located beneath the bottom of the housing (12) but is spaced therefrom by a pivotal central hub (118) that extends downwardly from the bottom of the housing. The housing (12), central hub (118) and clipper mechanism (14) are arranged such that a person can hold the electric hair clipper by placing his or her fingers in the space between the housing (12) and the clipper mechanism (14) with the central hub (118) lying between two fingers and with the back of the person's fingers resting in a pair of elongated spaced apart recesses (26, 28) formed in the bottom of the housing (12) on opposite sides of the hub (118).



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Description

ELECTRIC HAIR CLIPPER

Technical Field

10

The present invention is directed toward electric hair clippers or trimmers and, more particularly, toward electric hair clippers that allow a person to trim his or her own hair in areas such as the back of the neck that are otherwise difficult to do with conventional clippers.

15

Background Art

Electric hair clippers generally include a hand-held housing that contains a motor and power supply-related components that drive a
20 reciprocating trimming blade. The housing also provides a form that fits the user's hand sufficiently as a grip so as to allow the user to manipulate the hair clipper. Various types of clippers are well known in the art. In general, the clippers comprise an elongated housing with a reciprocating trimming blade at one end with the blade being perpendicular to the axis of the housing. While
25 such conventional clippers are relatively easy to manipulate when trimming another person's hair, they are awkward to use on one's own hair and particularly the back of one's neck.

There is, therefore, a need for an electric hair clipper that allows a person to trim his or her own hair in areas such as the back of the neck that are otherwise difficult to do with conventional clippers.

5

Disclosure of the Invention

The present disclosure relates to an electric hair clipper that includes a housing containing an electrical source and drive-related components.

10 A clipper mechanism having a reciprocating clipper is located beneath the bottom of the housing but is spaced therefrom by a central hub that extends downwardly from the bottom of the housing. The housing, central hub and clipper mechanism are arranged such that a person can hold the electric hair clipper by placing his or her fingers in the space between the housing and the
15 clipper mechanism with the central hub lying between two fingers and with the back of the person's fingers resting in a pair of elongated spaced apart recesses formed in the bottom of the housing on opposite sides of the hub.

When the electric hair clipper of the present invention is held in the above described manner, it is possible to easily either grip the hair clipper with
20 two fingers as between the thumb and index finger, or between the index and middle fingers and properly orient cutting clipper. This allows the person to easily trim areas such as the back of the neck that are otherwise difficult to do.

Other objects, features, and advantages of the invention will be readily apparent from the following detailed description of a preferred
25 embodiment thereof taken in conjunction with the drawings.

Brief Description of the Drawings

For the purpose of illustrating the invention, there is shown in the accompanying drawings forms that are presently preferred; it being understood
5 that the invention is not intended to be limited to the precise arrangements and instrumentalities shown.

Figure 1 is a top perspective view of a first embodiment of an electric hair clipper in accordance with the invention;

Figure 2 is a bottom perspective view thereof;

10 Figure 3 is a top plan view thereof;

Figure 4 is a bottom plan view thereof;

Figure 5 is a left side elevational view thereof, the right side being the mirror image thereof;

Figure 6 is a rear elevational view thereof;

15 Figure 7 is a front elevational view thereof;

Figure 8 is a perspective view showing how the electric clipper of the invention is held and used to trim one's hair;

Figure 9 is a top perspective view of a second embodiment of an electric hair clipper in accordance with the invention;

20 Figure 10 is a bottom perspective view of the second embodiment;

Figure 11 is a left side elevational view of the second embodiment, the right side being the mirror image thereof;

Figure 12 is a rear elevational view of the second embodiment, and

Figure 13 is a front elevational view thereof.

25

Best Mode for Carrying Out the Invention

A more complete understanding of the components, processes, and apparatuses disclosed herein can be obtained by reference to the
30 accompanying figures. These figures are intended to demonstrate the present disclosure and are not intended to show relative sizes and dimensions or to limit the scope of the exemplary embodiments.

Although specific terms are used in the following description, these terms are intended to refer only to particular structures in the drawings and are not intended to limit the scope of the present disclosure. It is to be understood
5 that like numeric designations refer to components of like function.

The term "about" when used with a quantity includes the stated value and also has the meaning dictated by the context. For example, it includes at least the degree of error associated with the measurement of the particular quantity. When used in the context of a range, the term "about" should also be
10 considered as disclosing the range defined by the absolute values of the two endpoints. For example, the range "from about 2 to about 4" also discloses the range "from 2 to 4."

In one embodiment, the present disclosure relates to a hair clipper that comprises a gripping means and a cutting clipper or trimmer, configured in
15 such a manner that allows the hair clipper to be oriented with the grip portion above the cutter portion with space between them for a persons fingers, thus making it anatomically convenient to hold the hair clipper and trim one's own hair.

Referring now to the drawings in detail wherein like reference
20 numerals have been used throughout the various figures to designate like elements, there is shown in Figures 1 - 8 a first embodiment of an electric hair clipper or trimmer constructed in accordance with the principles of the present invention and designated generally as 10.

The hair clipper 10 comprises an upper portion 12 that provides a
25 substantially rectangularly shaped housing for a power source and motor related components, and a trimmer mechanism 14 that includes a reciprocating straight line trimmer 16. The connection between the motor and the trimmer head passes through the central hub 18 which may have an enlarged lower portion 20. The straight line trimmer 16 is, per se, conventional and is well known in the art. The
30 motor (not shown) is also mechanically coupled to the trimmer 16 in a known manner.

The motor, power supply and other related components along with the trimmer are not, per se, part of the present inventive concept. They are all individually common and well known in the art. Accordingly, detailed descriptions of the same are not believed to be necessary.

The housing 12 further comprises a particular form that provides a gripping means, and fits the hand in a comfortable manner. The gripping means includes a pair of elongated recesses in the form of parallel concave surfaces 22 and 24 formed on either side of the housing 12. The concave surfaces define a plane that is parallel to the line formed by the trimmer 16. A second pair of elongated recesses in the form of concave surfaces 26 and 28 are formed in the under surface of the housing 12 above the trimmer 16. The second pair of concave surfaces 26 and 28 are arranged to be perpendicular to the first pair of concave surfaces 22 and 24 and also define a plane that is parallel to the line defined by the trimmer 16.

Concave surfaces 22 and 24 are configured to allow the hair clipper 10 to be gripped between the thumb and tips of several of one's remaining fingers with the palm of one's hand overlying the housing 12. Holding the trimmer 10 in this manner will allow the user to trim sideburns or other easy to reach facial hairs. However, when it is desired to trim harder to reach areas such as the back of one's neck, the clipper 10 is held in the manner shown in Figure 8.

As shown, the person places his or her fingers in the space between the housing 12 and the clipper mechanism 14 with the central hub 18 lying between two fingers and with the back of the person's fingers resting in the concave recesses or grooves 26 and 28. The person's fingers are also gripping the central hub 18. When the clipper is held in this manner, it can be seen that the clipper or trimmer 16 is in line with the person's fingers making it easy for the person to trim the back of his or her neck.

The second embodiment 110 of the invention shown in Figures 9 to 13 is very similar to the first embodiment shown in Figures 1 to 8 and operates in the same manner. The difference is primarily in the central hub section shown at

118. In the first embodiment, the central 18 was fixed. In the second embodiment, the central hub is comprised of two parts hinged or pivoted together.

5 More particularly, the central hub 118 is comprised of upper hub portion 130 and lower hub portion 120. Lower hub portion 120 includes an upwardly extending tongue 132 and the upper hub portion 130 includes a pair of downwardly extending ears 134 and 136 lying on either side of the tongue 132. A pin 138 extends through apertures (not shown) located in the tongue 132 and
10 ears 134 and 136. This pivot or hinge arrangement allows for limited pivotal movement forward and back (as viewed in Figure 11) between the housing 112 and the trimmer mechanism 114.

 In addition, and as best seen in Figures 9, 11 and 13, a rib 140 extends forwardly across the front wall 142 of the lower hub portion 120 just
15 above the trimmer 116. In the preferred embodiment, the rib 140 extends entirely across the width of the lower hub portion 120. When the electric hair clipper or trimmer 110 is held, for example, in the manner shown in Figure 8, the rib 140 functions to advise the user that his finger is close to the trimmer 116. This lets the user know that he is using the trimmer 110 properly and helps to prevent
20 injuries.

 The present disclosure has been described with reference to exemplary embodiments. Obviously, modifications and alterations will occur to others upon reading and understanding the preceding detailed description. It is intended that the present disclosure be construed as including all such
25 modifications and alterations insofar as they come within the scope of the appended claims or the equivalents thereof.

CLAIMS:

1. An electric hair clipper comprising:
 - a housing for containing an electrical source and drive-related
 - 5 components, said housing including two substantially opposed and substantially parallel sides and a bottom;
 - a clipper mechanism located beneath said bottom of said housing and spaced therefrom;
 - a central hub extending from said bottom of said housing to said
 - 10 clipper mechanism and connecting said clipper mechanism to said housing;
 - said clipper mechanism including a reciprocating clipper defining a line;
 - a first pair of elongated recesses formed on said sides of said housing, said first pair of elongated recesses being substantially parallel to each
 - 15 other and lying in a plane that is spaced apart from the line of said clipper, and
 - a second set of elongated spaced apart recesses formed in said bottom of said housing, the recesses of said second set being located on opposite sides of said hub and extending perpendicular to said first pair of recesses.
 - 20
2. The electric hair clipper as claimed in Claim 1 wherein each of said recesses is defined by a concave surface adapted to accommodate a portion of a user's fingers therein.
- 25 3. An electric hair clipper comprising:
 - a housing for containing an electrical source and drive-related
 - components, said housing having a top surface and a bottom surface;
 - a clipper mechanism located beneath said bottom surface of said housing and spaced therefrom, said clipper mechanism including a reciprocating
 - 30 clipper defining a straight line;
 - a central hub having an upper portion connected to and extending downwardly from said bottom surface of said housing, said central hub having a

lower portion connected to said clipper mechanism;

said housing, central hub and clipper mechanism being arranged such that a person can hold the electric hair clipper by placing his or her fingers in the space between said housing and said clipper mechanism with the central
5 hub lying between two fingers and with the bottom of the housing contacting the back of the person's fingers, and

further including a pair of elongated spaced apart recesses formed in said bottom of said housing and being located on opposite sides of said hub and wherein the back of said person's fingers rest in said recesses.

10

4. An electric hair clipper comprising:

a housing for containing an electrical source and drive-related components, said housing having a top surface and a bottom surface;

a clipper mechanism located beneath said bottom surface of said
15 housing and spaced therefrom, said clipper mechanism including a reciprocating clipper defining a straight line;

a central hub having an upper portion connected to and extending downwardly from said bottom surface of said housing, said central hub having a lower portion connected to said clipper mechanism;

20 pivot means located between said upper portion and said lower portion of said central hub permitting said clipper mechanism to pivot relative to said housing;

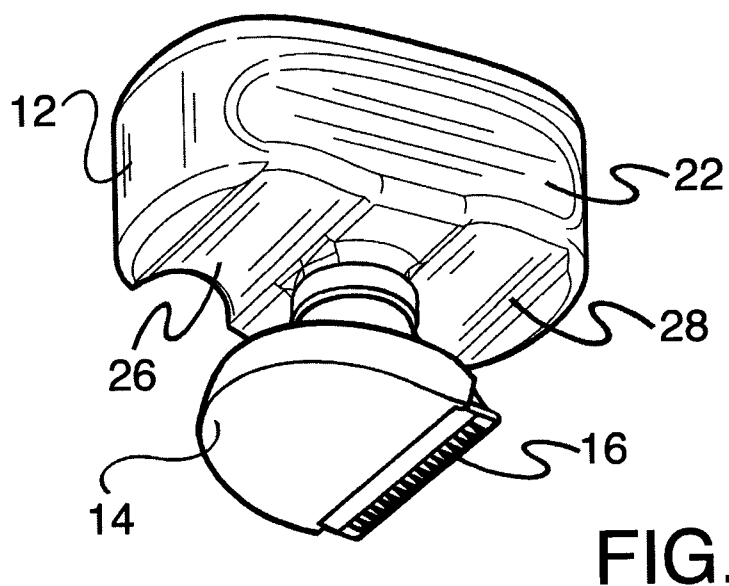
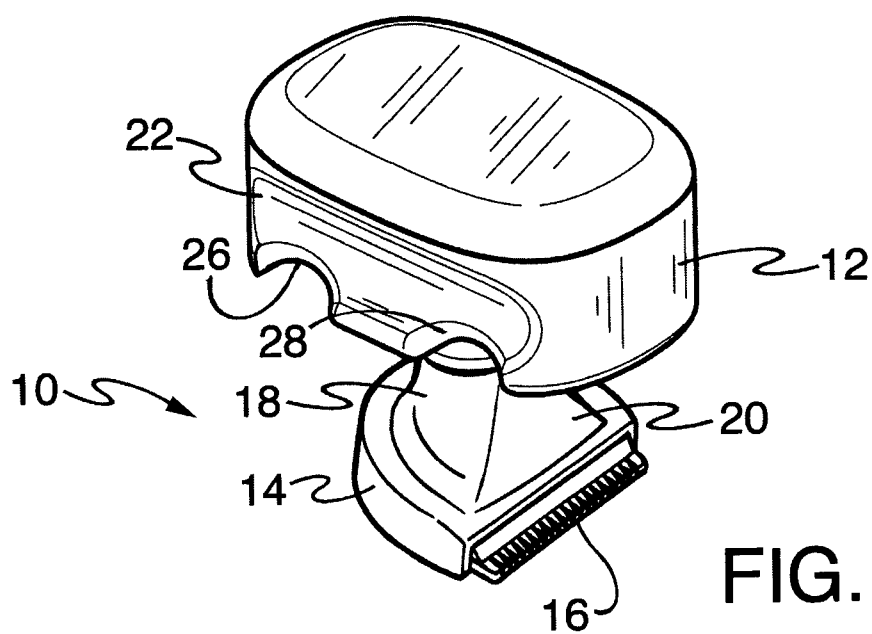
said housing, central hub and clipper mechanism being arranged such that a person can hold the electric hair clipper by placing his or her fingers in the space between said housing and said clipper mechanism with the central
25 hub lying between two fingers and with the bottom of the housing contacting the back of the person's fingers, and

further including a pair of elongated spaced apart recesses formed in said bottom of said housing and being located on opposite sides of said hub
30 and wherein the back of said person's fingers rest in said recesses.

5. The electric hair clipper as claimed in Claim 4 further including a rib on said lower portion of said hub between said pivot means and said reciprocating clipper, said rib being engagable by a person's finger to indicate that the reciprocating clipper is near.

5

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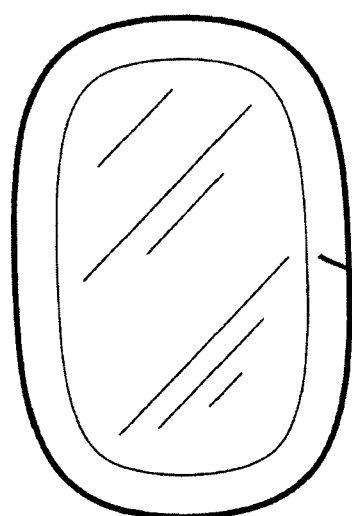


FIG. 3

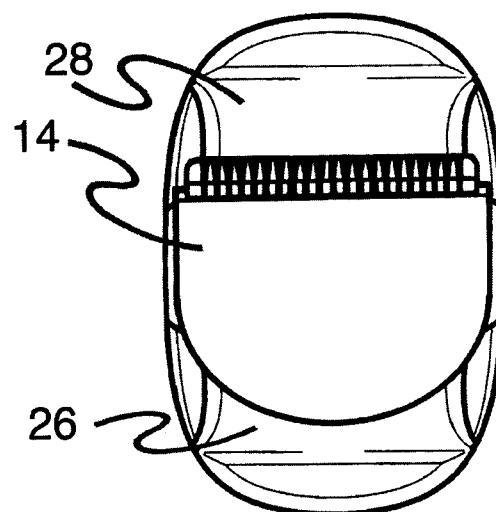


FIG. 4

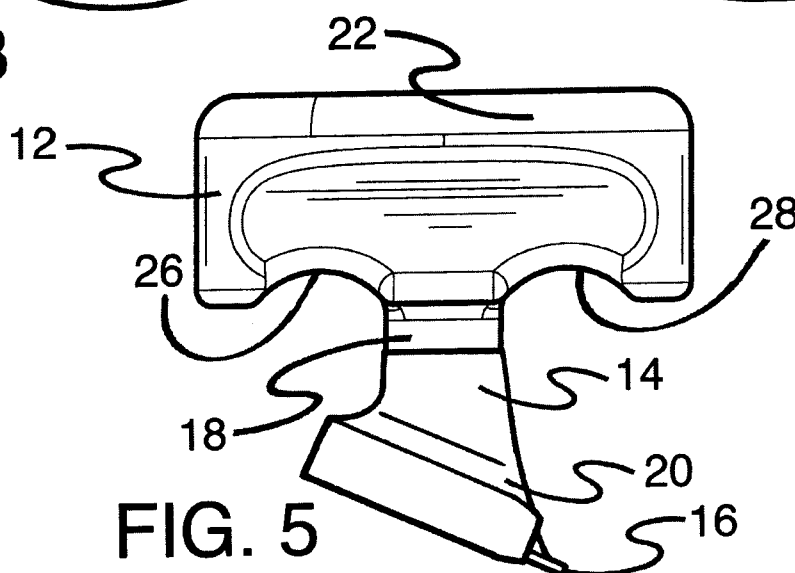


FIG. 5

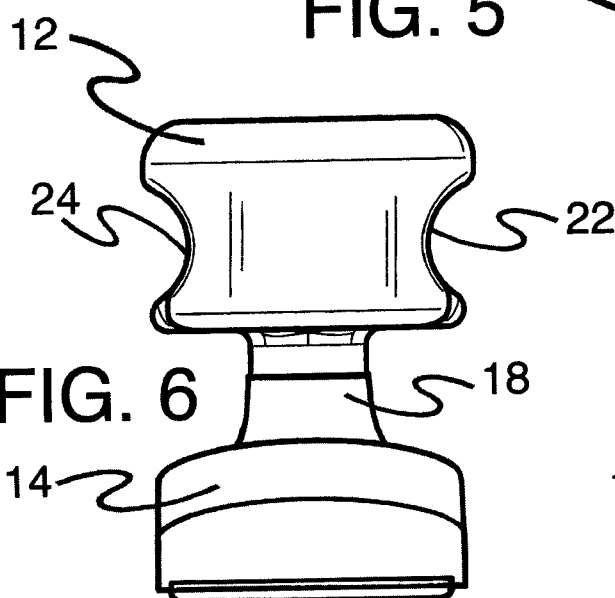


FIG. 6

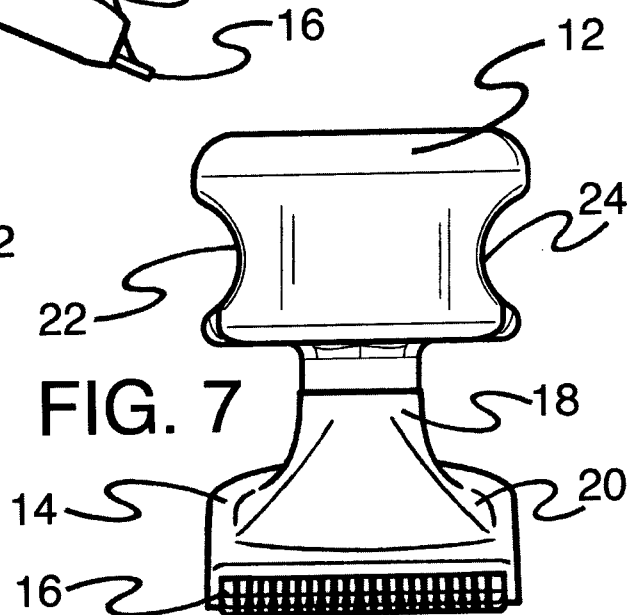


FIG. 7

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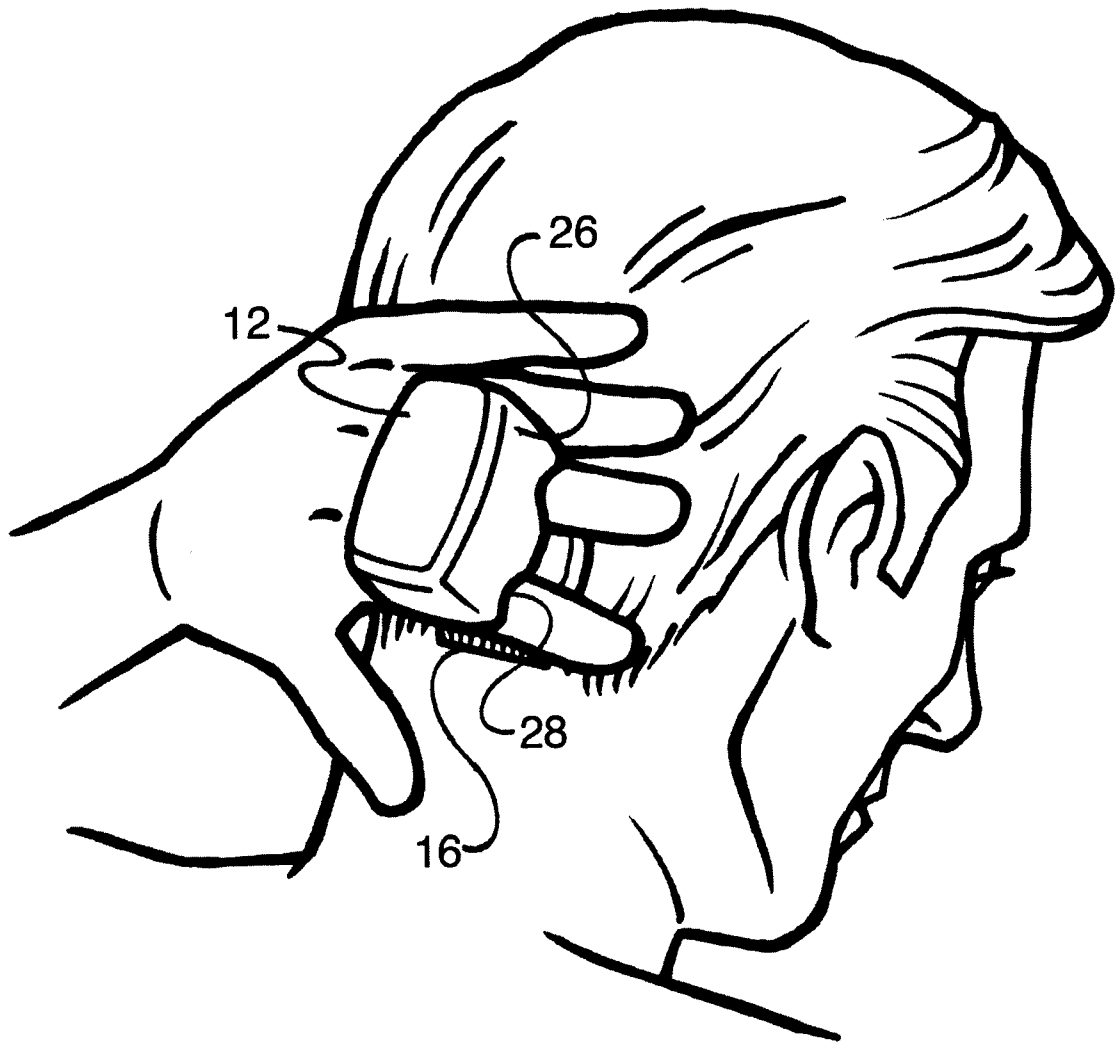


FIG. 8

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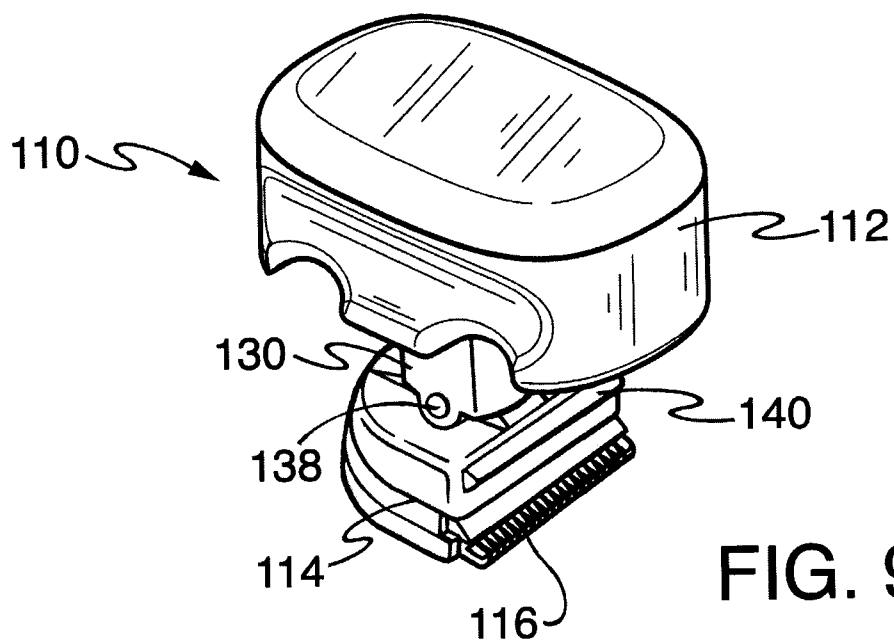


FIG. 9

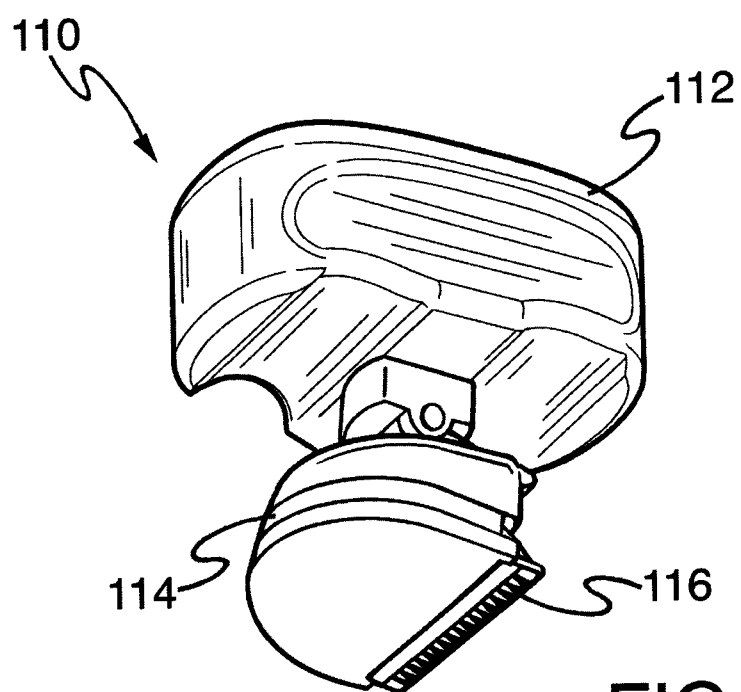


FIG. 10

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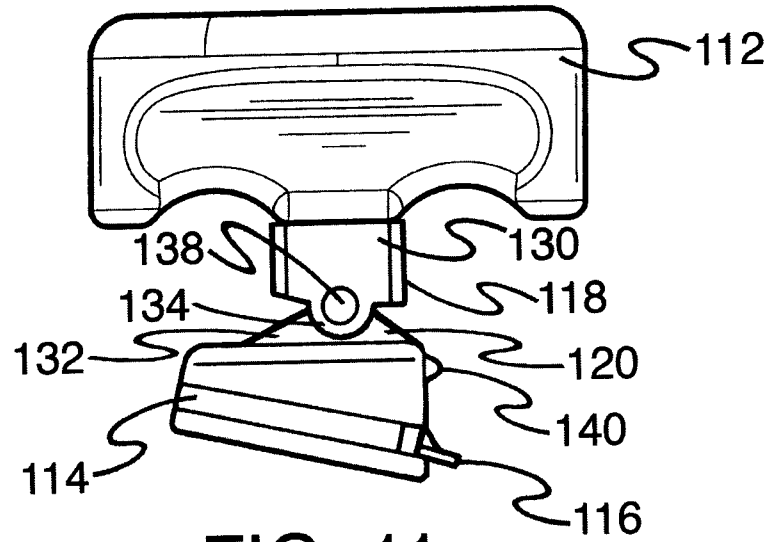


FIG. 11

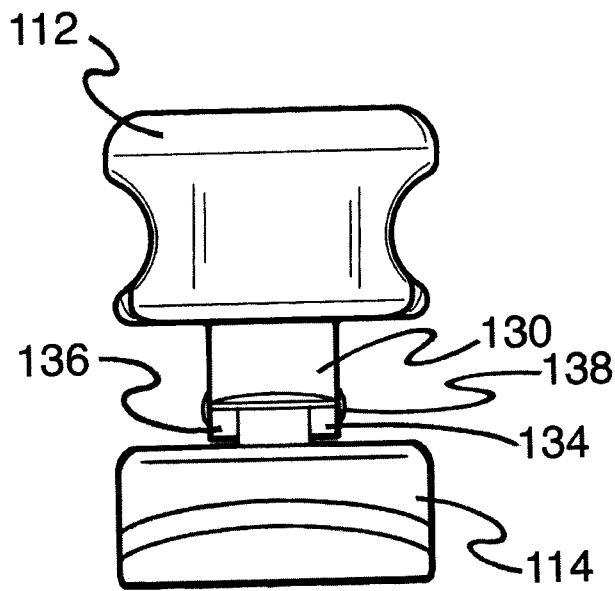


FIG. 12

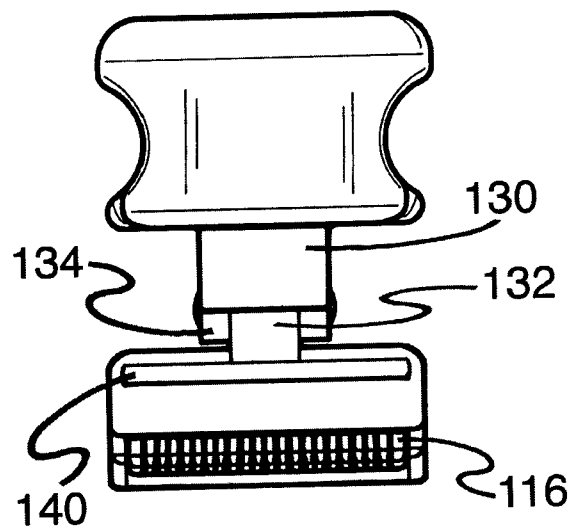


FIG. 13

