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ELECTRIC SHAVER

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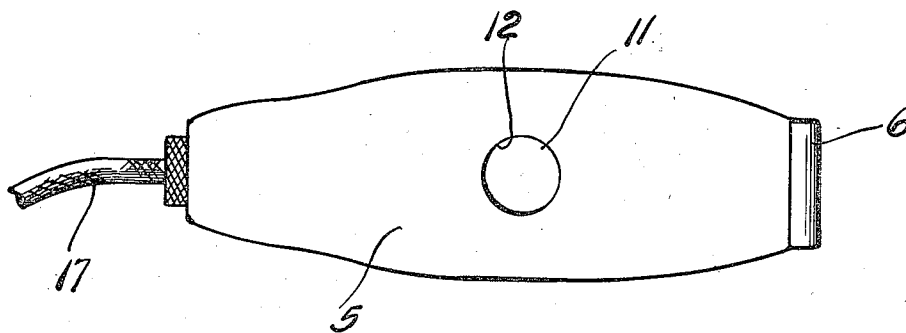


Fig. 1

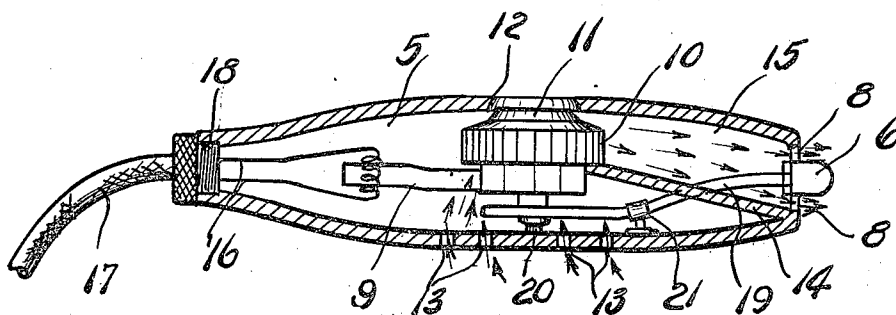


Fig. 2

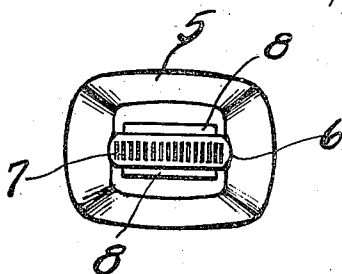


Fig. 3

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ELECTRIC SHAVER

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2 Claims. (Cl. 30-34)

This invention relates to electric shavers provided with a perforated shearing blade and cutting head, the shearing blade being of extreme thinness so that the rapidly driven cutting blade produces a shearing action on the minute particles of hair projecting through the perforations of the extremely thin shearing blade when the latter is pressed against the skin.

One of the prime objects of the invention is to provide an attachment to the conventional positively driven electric razor so that air may be blown from the shaver at opposite sides of the head for drying perspiration and cooling skin during the shaving operation.

Another object is to provide an electric razor having a blower or fan incorporated therein, and which is automatically operated when the razor motor is energized, thus cooling the motor proper as well as the skin with which the razor comes in contact. This cooling and drying of the skin also keeps the cutting head dry, eliminates stickiness and clogging of the shearing blade, because the head proper and the severed whiskers or hair are dry and readily blow clear of the head; this cooling feature further providing a razor which is pleasant to use and which can be readily and comfortably handled.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts, hereinafter more fully described, illustrated in the accompanying drawing, and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportions and minor details of construction, without departing from the spirit, or sacrificing any of the advantages of the invention.

In the drawing:

Fig. 1 is a plan view of my improved air razor;

Fig. 2 is a sectional side elevational view thereof, the arrows indicating the direction of the flow of air; and

Fig. 3 is an end elevational view showing the cutting head.

The shaver shown in the drawing illustrates the preferred form or embodiment of my invention and design for use in shaving beards or face hair. It is of the electrical variety and comprises as essential parts thereof an elongated shell or housing 5 which forms the handle of the razor and in which all of the working parts of the razor are carried. A cutting head 6 forms a closure for the front end of the housing and is preferably formed of a thin strip of metal such as spring steel perforated as shown at 7

for the admission of whiskers or the hair to be cut. This head can be of any desired shape, but is preferably quite wide longitudinally and of limited height so that it is readily adapted to suit shaving conditions, elongated slits 8 being provided above and below the cutter head proper and for a purpose to be presently described.

The operating mechanism can be of any desired design and I do not deem it necessary to show or describe this in detail, as the present invention is directed to the blowing or cooling means and its relation to the head mechanism driving means.

In the instant arrangement there is provided a motor 9 having a conventional blower or fan 10 provided thereon, and a motor starting wheel 11 is secured to or formed integral with said fan and is used for starting purposes when the motor is energized, an opening 12 being provided in the housing to permit ready access to said starting wheel.

A plurality of perforations or openings 13 are provided in the side wall of the housing to supply and admit air to the fan, and a longitudinally disposed partition or wall 14 leads from the fan and forms an air discharge duct or passage 15 which leads from the fan 10 to the air outlets or slits 8 adjacent the cutting head and separates the intake of the fan from the discharge duct. The motor is connected to any suitable source of electrical energy, the conductors 16 being mounted in a flexible sheath or cover 17 and lead through the opening 18 provided in the rear end of the housing, a plug (not shown) being provided on the end of the sheath as usual.

The head operating mechanism can also be of any desired design and is preferably a flexible shaft located in a sheath 19, and is connected to and driven from the motor shaft 20, a bracket 21 being provided in the housing for supporting the sheath in which the flexible shaft is mounted, this sheath leading through a suitable opening provided in the partition wall 14 and is drivingly connected to the cutting blade (not shown) in any desired manner.

In operating the razor, the user plugs the connection into a suitable wall outlet or other source of electrical energy (not shown). The motor starting wheel is actuated and the motor 9 is energized, driving the fan 10 therewith. As the fan operates, air is drawn into the housing 5 through the openings 13, thence being forced outwardly through the duct 15, discharging through the air outlets or slits 8 provided in the head and against the face of the person shaving, thus cooling and drying the skin as the shaving proceeds.

When the weather is warm and humid, the skin is usually damp due to perspiration, and this forced air serves to cool and dry the skin and whiskers, thus automatically eliminating clogging as the cutting head and the severed hair or whiskers will remain dry; therefore, the hair and whiskers will blow free and there will be no tendency to clog the shear plate perforations as occurs at present.

In addition to the above, the air being drawn into the housing serves to cool the motor and also the housing itself, making it much more comfortable to handle and operate.

From the foregoing description, it will be obvious that I have perfected a very simple, practical, and effective arrangement for cooling the motor, maintaining the cutter head dry, and for projecting forced air against the skin of a person during the shaving operation.

What I claim is:

1. In an electric dry shaver, the combination with a hollow shell, a motor mounted in the shell intermediate the length thereof, a fan connected thereto and provided with a starting wheel, an opening in the shell in alignment with said wheel, perforations in the shell adjacent the motor, a cutter head at the front end of the shell, elongated openings in the front end wall of the shell adjacent the opposite edges of the head, a partition wall in the shell leading from the fan to the front end of the shell and forming a tapered air discharge duct in communication with the head and the elongated openings and separating the intake of the fan from the discharge duct, and a head operating mechanism connected to and driven by said motor.

2. In an electric dry shaver, the combination with a hollow shell, a motor mounted in the shell at a point intermediate the length thereof, a fan operatively connected thereto and provided with a starting wheel, an opening in the shell in alignment with said wheel, air intake openings in the shell at a point adjacent the motor, a cutter head mounted in the front end wall of the shell, elongated openings in the wall of the shell and adjacent the opposite edges of the head, a partition wall in the shell leading from the fan to the front end wall of the shell and forming an air duct in communication with the elongated openings and separating the intake of the fan from the discharge duct, and means for connecting the motor to a suitable source of electrical energy.

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