

[54] **ELECTRIC HAIR CLIPPER AND COMB FOR ANIMAL HAIR**

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[51] Int. Cl. **B26b 19/20, B26b 19/24**

[58] Field of Search **30/200, 201; 132/45**

[56] **References Cited**

UNITED STATES PATENTS

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[57]

ABSTRACT

An electric hair clipper and associated comb for animal hair which cooperate to determine the length of cut hair and enable the cutting blades of the clipper to move smoothly through thick, tangled, or matted hair without objectionable discomfort. The associated comb is made up of comb guide members arranged in side by side uniformly spaced relation and a suitable attaching means for mounting the members on the clipper in effective relation with the clipper blades. Each comb guide member has a thin lateral dimension for ease of passing through and guiding hair, and a vertical dimension which determines the length of the cut hair. The comb guide members extend forwardly beyond the clipper blades and include return portions which extend upwardly and rearwardly so that hair is lifted, supported and guided by said members to the cutting plane of the clipper blades, and cut before the hair, due to movement of the clipper and comb guide members through the hair, travels to the rearward ends of the members.

1 Claim, 5 Drawing Figures

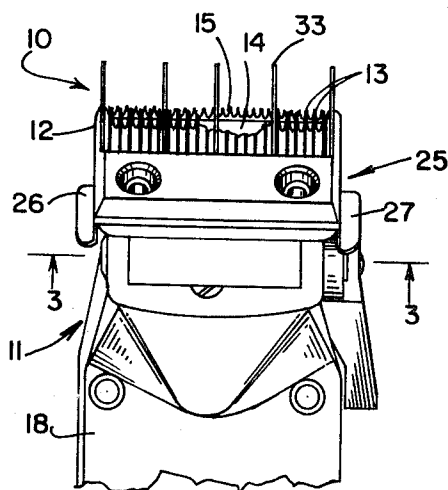


FIG. 1

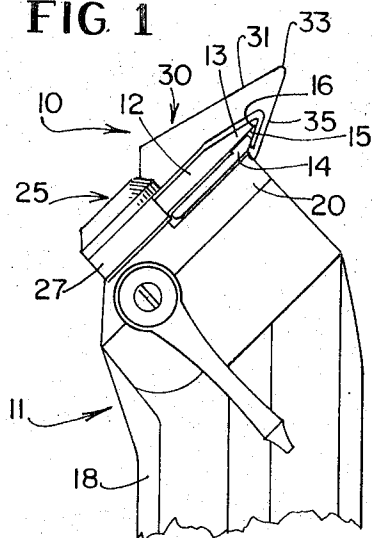


FIG. 2

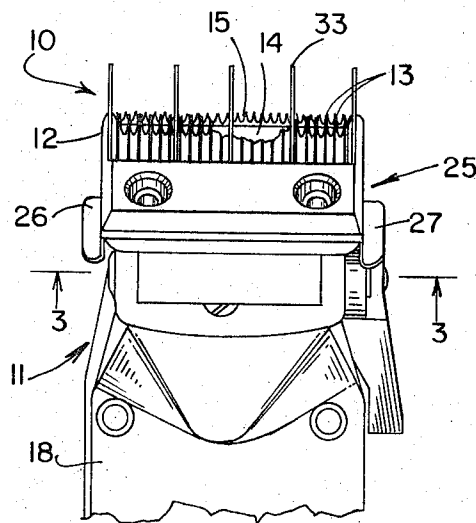


FIG. 4

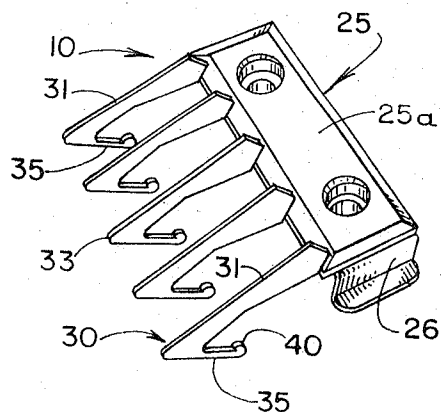


FIG. 3

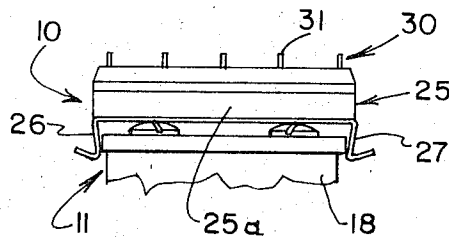
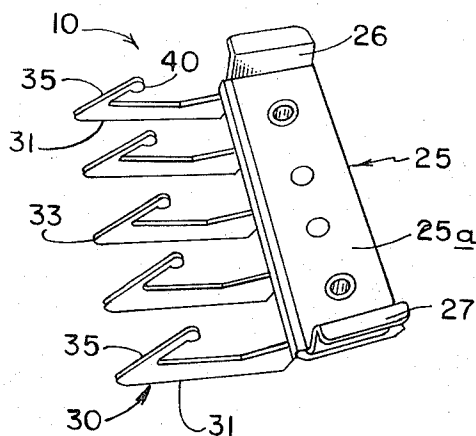


FIG. 5



ELECTRIC HAIR CLIPPER AND COMB FOR ANIMAL HAIR

BACKGROUND OF THE INVENTION

This invention relates to an electric hair clipper and associated comb for animal hair, and more particularly to a clipper and comb which establish the length of the cut hair and cooperate to enable the clipper to move smoothly through usually thick, tangled, or matted hair without objectionable discomfort.

The electric clipper and comb of the invention cause an animal hair clipping operation to be significantly more comfortable to the subject than otherwise.

Hair clipper combs of plastic and metal have been devised for establishing the length of cut hair, but such combs have not been satisfactory when used for cutting animal hair. Thick, tangled, or matted hair tends to bunch up with such combs and not be fed into and cut by the clipper blades, causing extreme discomfort in many cases.

The closest prior art known to applicants is believed to be U.S. Pat. No. 2,731,717, disclosing a razor blade type human hair cutter provided with a cage or guard to prevent skin cutting and to establish varying lengths of cut.

SUMMARY OF THE INVENTION

The invention contemplates an electric hair clipper and associated comb for thick, tangled, matted animal hair, the clipper having lower stationary and upper movable blades with cutting teeth meeting to form a cutting plane. The comb comprises a number (usually less than two-thirds the number of teeth in the lower clipper blade) of comb guide members arranged in side by side uniformly spaced relation and a suitable attaching means for mounting the members on the clipper in effective relation with the clipper blades.

Each comb guide member has smooth surfaces with rounded edges and a thin lateral dimension for ease of entering and guiding hair, and a lower portion spaced vertically from the cutting plane of the teeth a distance to obtain a desired cut length. The lower portion of each member extends forwardly beyond the clipper blades and merges into a return portion extending upwardly and rearwardly above and beyond the teeth of the movable blade, whereby hair, due to movement of clipper and comb guide members through the hair, is lifted, supported and guided by the members into the cutting plane of the blades and cut by the blade teeth before the hair travels to the rearward ends of the return portions of the members.

The vertical dimension of the return portion of each comb guide member desirably is as small as reasonably possible, so hair may be guided with minimal resistance into the cutting plane of the teeth. Also, the return portion is particularly smooth and burr-free, whereby hair may slide along same with minimal resistance.

The return portion of at least one of the comb guide members engages the housing of the clipper as an aid in positioning. Also, the return portion of at least one of the comb guide members is adapted to engage a portion of the hair clipper in response to forces tending to separate the comb guide members from the clipper, whereby such tendency is resisted.

Inasmuch as hair is cut before reaching the end of the return portions of the comb guide members, there is no

snagging of hair and clipper when the latter is withdrawn from a hair mass.

In more detailed aspect, highly satisfactory commercial embodiments of the invention have a stationary blade with about twenty teeth and about five-ten comb guide members.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a fragmentary side elevational view of a hair clipper and associated comb embodying the invention.

FIG. 2 is a fragmentary bottom view of the clipper and comb shown in FIG. 1.

FIG. 3 is a rear elevational view of the comb, taken generally on line 3—3 of FIG. 2, showing the comb in mounted position on the clipper.

FIGS. 4 and 5 are perspective views of the comb shown in FIGS. 1—3.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1—3, a comb 10 is shown mounted on a hair clipper 11 having a lower stationary blade 12 with cutting teeth 13 (FIG. 2) and an upper movable blade 14 with cutting teeth 15 (FIG. 2). The cutting teeth 13 and 15 meet in bearing relation to form a cutting plane 16 (FIG. 1) therebetween.

Clipper 11 includes a housing 18 having a part 20 (FIG. 1) which overlies a portion of movable blade 14, leaving exposed the forward portion of the blade including teeth 15.

Referring to FIGS. 3—5, comb 10 includes an attaching means 25 for mounting the comb on clipper 11 in effective relation with clipper blades 12 and 14 (FIGS. 1 and 2). As shown by way of example, attaching means 25 is a transverse member 25a having spring clips 26 and 27 at opposite ends, the latter adapted to clamp onto hair clipper 11, for example onto stationary blade 12.

A plurality of comb guide members 30 are secured as by insert molding, for example, to attaching means 25 in side by side uniformly spaced relation. Comb guide members 30, as shown, are five in number. The precise number is subject to variation, and should be less than two-thirds the number of teeth 13 in lower blade 12 so comb 10 will have low resistance to entering hair. The number of teeth in lower blade 12 may be about twenty, for example.

Each comb guide member 30 has a thin lateral dimension for ease of entering and guiding hair, and a lower portion 31 which is spaced vertically from cutting plane 16 (FIG. 1) a distance to obtain desired cut length. This distance, of course, will vary for combs providing different cut lengths.

Lower portion 31 of each comb guide member 30 extends forwardly beyond the ends of blades 12 and 14, as shown at 33 in FIG. 1, and merges at 33 with an arcuate apex into a return portion 35 extending upwardly and rearwardly above and beyond teeth 15 of movable cutting blade 14, again as best shown in FIG. 1. The vertical dimension of return portion 35 desirably is as small as reasonably possible so hair may be lifted and guided with minimal resistance into the cutting plane between the blade teeth.

Comb 10 has return portion 35 of at least one comb guide member 30 of such length as to engage housing

part 20, as shown in FIG. 1. Such engagement aids in positioning comb 10.

Also, return edge portion 35 of at least one comb guide member 30 has a lower edge 40 adapted to engage a part of clipper 11 in response to forces tending to separate comb 10 from the clipper, thereby resisting the tendency and maintaining comb 10 in place.

In a preferred embodiment, comb guide members 30 are stampings from hardened stainless steel sheet stock of thickness about 0.020 inch, deburred and polished, which are secured to attaching means 25 by insert molding.

From the above description it is thought that the construction and advantages of this invention will be readily apparent to those skilled in the art. Various changes in detail may be made without departing from the spirit or losing the advantages of the invention.

Having thus described the invention, what is claimed as new and desired to secure by Letters Patent is:

1. An electric hair clipper and associated comb for thick, tangled, matted animal hair, comprising:
 - an electric hair clipper having a housing, a lower stationary blade with cutting teeth and an upper movable blade with cutting teeth, the teeth of the two blades engaging to form a cutting plane;
 - comb guide members arranged side by side in uniformly spaced relation transversely of said blades, the number of comb guide members being about one-fourth the number of cutting teeth in said stationary blade;

attaching means interconnecting said comb guide members and detachably mounting them on said clipper in effective relation with said blades;

said comb guide members each having smooth surfaces, rounded edges and a thin lateral dimension for ease of passing through said guiding hair, a lower portion spaced from said cutting plane a distance to obtain desired cut length, said lower portion extending forwardly a distance beyond said cutting teeth and merging into a return portion extending upwardly and rearwardly above and beyond the teeth of said movable blade, said return portion of vertical dimension as small as reasonably possible to minimize resistance to entering hair;

the return portion of at least one of said comb guide members engaging said housing to aid in positioning said comb guide members;

the return portion of at least one of said comb guide members engaging a portion of said clipper in response to forces tending to separate said comb guide members from said clipper, whereby such tendency is resisted;

whereby thick, tangled, or matted hair, due to movement of said comb guide members through the hair, is lifted, supported and guided by said members into said cutting plane and cut by said teeth before traveling to the rearward ends of said return portions of said members.

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