Nov. 8, 1955 P. D. McAULIFFE 2,722,741

COMB FOR HAIR CLIPPER AND ADJUSTABLE SUPPORT THEREFOR

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FIG. 1.

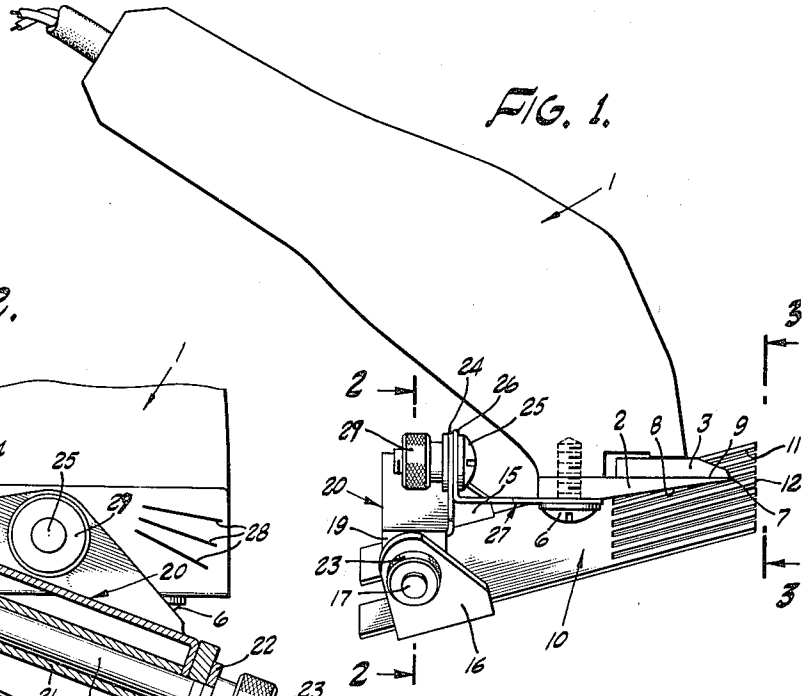


FIG. 2.

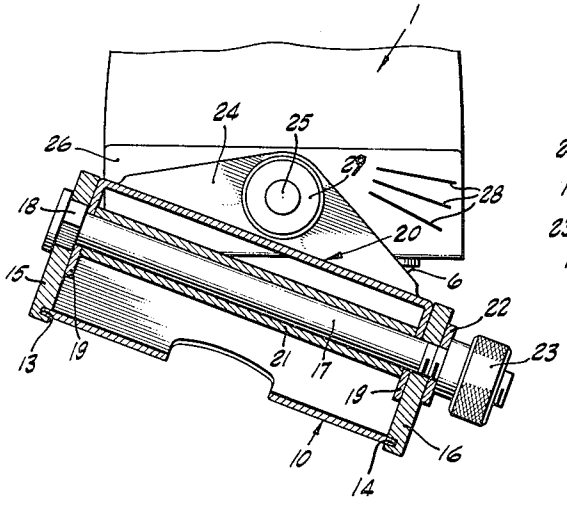


FIG. 3.

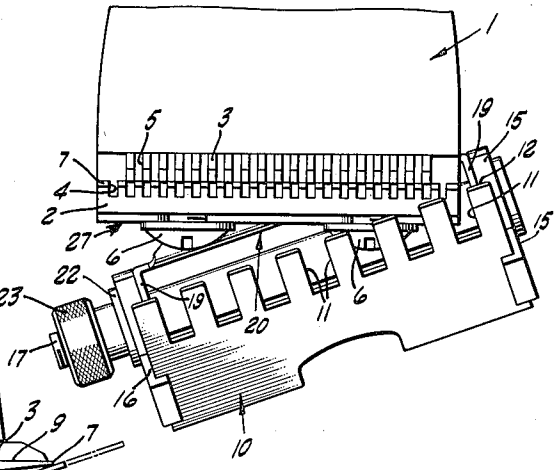
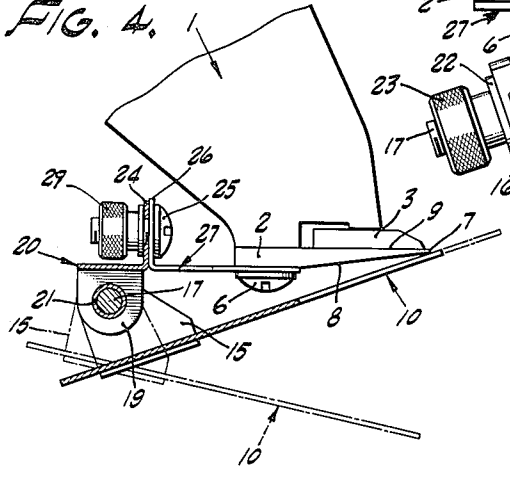


FIG. 4.



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COMB FOR HAIR CLIPPER AND ADJUSTABLE SUPPORT THEREFOR

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15 Claims. (Cl. 30—201)

This invention relates to apparatus for clipping hair, and particularly to the well known type in which a pair of slotted blades are moved relatively to each other in a direction to cause the clipping to occur between the edges of the opposed slots.

Such blades are usually quite wide, of the order of one or two inches, to clip the hair along a relatively wide strip. It has been common, in the past, to provide an adjustable comb to determine how closely the hair is to be cut. By this means, a uniform length of hair is left along the path of the clipper.

In some instances, such as near the temples and behind the ears, it is highly desirable that the hair be of minimum length at the hair line, and have a gradually increasing length as the top of the head is approached. These results have usually been effected by proper skilled manipulation of shears or scissors.

It is one of the objects of this invention to make it possible to obtain these effects in a simple manner, without requiring other than ordinary skill. More particularly, the invention contemplates the provision of an adjustable attachment for a hair clipper to obtain these results.

It is another object of this invention to provide an attachment for this purpose which is adjustable to vary the relative lengths of the cut hair at opposite edges of the blades. Thus, in some instances, the difference in the length of the hair left in the path of the clippers at one side of the path and the other may be readily predetermined, as well as the absolute length of the hair at one of the sides.

It is still another object of this invention to make it possible to clip the hair more closely than heretofore with the usual type of hair clipper.

This invention possesses many other advantages, and has other objects which may be made more clearly apparent from a consideration of one embodiment of the invention. For this purpose there is shown a form in the drawings accompanying and forming part of the present specification. The form will now be described in detail, illustrating the general principles of the invention; but it is to be understood that this detailed description is not to be taken in a limiting sense, since the scope of this invention is best defined by the appended claims.

Referring to the drawings:

Figure 1 is a side elevation of an attachment, including an adjustable comb plate, mounted upon a clipper, and incorporating the invention, the comb plate being cut at an angle with respect to the lower cutting blade;

Fig. 2 is a sectional view, taken along a plane corresponding to line 2—2 of Fig. 1;

Fig. 3 is a view taken from a plane corresponding to line 3—3 of Fig. 1; and

Fig. 4 is a fragmentary side view, similar to Fig. 1, showing another adjusted position of the comb plate, and still other positions being indicated in phantom lines.

In the present instance, an electrically driven clipper 1 is shown, having a stationary lower blade 2 and a

vibratory upper blade 3. The vibrations are in a direction parallel to the leading edges of the blades. These blades are provided with cooperating slots 4 and 5 (Fig. 3) between which hair to be cut protrudes, and which is cut as the clipper is operated. Since this action is well known, further description is considered unnecessary.

The lower blade 2 is appropriately attached to the lower portion of the clipper 1, as, for example, by the aid of the screws 6.

By the superimposed position of the blades 2 and 3 and a vibratory movement in a direction parallel to the front edge 7 of the stationary blade 2, the desired cutting action is produced.

The front edge 7 is, in this instance, made relatively narrow, and the blade 2 has a lower surface 8 (Fig. 4) which slopes with respect to the upper cutting surface 9. This lower surface converges with the upper surface to produce the narrow edge 7. The thickness of the blade 2 therefore increases gradually toward the rear of the blade. In this way, a very close clipping action can be produced.

A comb plate 10 of flat sheet metal, or other appropriate material, is provided to cooperate with the blades 2 and 3. This comb plate is provided with a series of deep slots 11 to form the comb construction. The forward edge 12 of this comb plate, as described hereinafter, may be adjusted forwardly or rearwardly in order to provide an adjustable guard.

The manner of mounting the comb plate 10 is such that it may be slanted to approach one longitudinal edge of the blade 2, as well as to be spaced considerably from the other edge. This is indicated in Fig. 3.

In this figure, the right-hand portion of the plate 10 approaches more closely to the right-hand edges of the blades 2 and 3 than to the left-hand edges.

In this way, the comb plate 10 can be used to cut a path through the hair in which the hair is left longer along one edge of the path (the left-hand edge in this instance) than along the other on the opposite edge. Accordingly, a gradually increasing length of hair is left. This is useful, for example, in cutting hair back of the ears, causing hair to be closely clipped immediately behind the ears while, at the same time, the places farther away from the base of the ear are left substantially and progressively longer.

The angularity of the comb plate 10 is made adjustable. This is effected by the aid of the supporting structure of the comb plate 10, which will now be described.

The opposite edges of the comb plate 10 are, in this instance, received in slots 13 and 14 (Fig. 2) disposed in the clamp members 15 and 16, respectively. These clamp members are urged to clamping position by the aid of a bolt 17. This bolt 17 has a non-circular portion 18 fitting a corresponding non-circular aperture in the clamp member 15. It also passes through the spaced depending ears 19 formed integrally with a bracket 20. Interposed between the ears 19 and around bolt 17, is a spacer sleeve 21. A washer 22 is disposed on the bolt 17 and on the outer surface of the member 16. A thumb nut 23, engaging the right-hand threaded end of the bolt 17, is used for urging the parts together so as to hold the edges of the plate 10 in firm adjusted position.

In this way, the plate 10 can be angularly adjusted about the axis of the bolt 17 when the nut 23 is loosened. At the same time, the position of the forward edge of the comb plate 10, with respect to the blades 2 and 3, may also be adjusted as indicated by the phantom lines in Fig. 4. This is effected by appropriate sliding of the plate 10 with respect to the grooves 13 and 14 while the nut 23 is loosened.

In order to provide the angular adjustment of the plate

10 with respect to the longitudinal edges of the plates 2 and 3, the bracket 20 is pivotally mounted with respect to the clipper 1. For this purpose, the bracket 20 is provided with an ear 24. This ear is apertured for the reception of a screw 25 which also passes through an ear 26 of a support 27. This support 27 is firmly attached to the lower surface of the blade 2 by the screws 6. The screw 25 is provided with a knurled thumb nut 29 for loosening and tightening bracket 20 with respect to the support 27. By the aid of this screw 25, the angular position of the bracket on an axis corresponding to the axis of the screw 25 can thus be effected. The axis of the screw 25 is in a direction substantially perpendicular to the forward edge 7 of the blade 2. Furthermore, graduation marks 28 are provided on the ear 26 to indicate the degree of angularity of the plate 10.

The position of the plate 10 in Figs. 1, 2, and 3 is shown as at an oblique angle about the axis 25 to bring the comb plate 10 to the position indicated in Fig. 3. The comb plate is also adjustable about the axis of bolt 17, so that the longitudinal edges of plate 10 may be made oblique to any desired degree with respect to the longitudinal edges of blades 2 and 3.

In Fig. 4, the plate 10 is shown in intermediate position, lying closely to the tapered surface 8 of the blade 2. The adjustment of the plate 10 in a direction forward or rearward, with respect to the edge 7, is effected by adjusting its position in the grooves 13 and 14. The angular position about the axis of the bolt 17 is similarly adjustable by the aid of the bolt 17.

The inventor claims:

1. In a device of the character described: a hair clipper having a pair of superposed relatively movable blades; a comb plate adapted to underlie one of the blades; and universal mounting means securing said plate on the clipper for angular adjustment about axes transverse to and parallel with the forward edges of the blades.

2. In a device of the character set forth in claim 1, the universal mounting means including two individually adjustable pivotal means for adjusting the plate about the two axes.

3. In a device of the character set forth in claim 1, the universal mounting means being located rearwardly of the blades, and means for spacing the rear portion of the comb plate adjacent the rear of the blades a substantial distance below the plane of the blades to enable substantial pivotal movement of said plate about the axis transverse to the forward edges of the blades.

4. In an attachment for a hair clipper having a pair of superposed relatively movable blades: a comb plate adapted to underlie one of the blades; a support adapted to be secured to the clipper; and a bracket for the plate and pivotally mounted on the support for securement to the clipper on an axis transverse to the forward edges of the blades; said bracket having means clamping opposite edges of the plate.

5. In an attachment for a hair clipper having a pair of superposed relatively movable blades; a comb plate adapted to underlie one of the blades; a support adapted to be secured to the clipper; and a bracket for the plate and pivotally mounted on the support for securement to the clipper on an axis transverse to the forward edges of the blades; said bracket including a pivot member extending transversely of said axis, and clamping means for the edges of the plate.

6. In an attachment for a hair clipper having a pair of superposed relatively movable blades; a comb plate adapted to underlie one of the blades; a support adapted to be secured to the clipper; and a bracket for the plate and pivotally mounted on the support for securement to the clipper on an axis transverse to the forward edges of the blades; said bracket including a pair of clamping elements engaging opposite edges of the plate, as well as means for urging the elements to clamping position and

for pivoting said elements about an axis substantially parallel to the forward edges of the blades.

7. In a device of the character described: a comb plate; a pair of clamp elements engaging opposite edges of the plate; a bolt for urging the clamp elements toward each other; a support for the bolt; and means for angularly adjusting the support about an axis transverse to the bolt axis.

8. In a device of the character described: a comb plate; a pair of clamp elements engaging opposite edges of the plate; a bolt for urging the clamp elements toward each other; a support having a pair of ears through which the bolt passes; a sleeve interposed between the ears; and means for angularly adjusting the support about an axis transverse to the bolt axis.

9. In an attachment for hair clippers having a pair of superposed relatively movable blades: a bracket adapted to be secured to the clipper for angular adjustment about an axis transverse to the edges of the blades; a pair of opposed clamp elements carried by the bracket; means securing the clamp elements on the bracket for angular adjustment about an axis transverse to said axis of adjustment of said bracket; and a comb plate between the clamp elements and held therebetween.

10. In an attachment for hair clippers having a pair of superposed relatively movable blades: a bracket adapted to be secured to the clipper for angular adjustment about an axis transverse to the edges of the blades; a pair of opposed clamp elements carried by the bracket; means securing the clamp elements on the bracket for angular adjustment about an axis transverse to said axis of adjustment of said bracket; and a comb plate having an end edge; said comb plate being adjustably held by said elements for movement of said comb plate in a direction transverse to the axis of adjustment of said clamp elements on said bracket.

11. In combination: hair clippers having a pair of superposed relatively movable blades; a bracket angularly adjustably secured to said clipper for movement about an axis substantially normal to the edges of said blades; a comb plate beneath the blades; and means secured to the bracket for angular adjustment about an axis extending in a direction substantially normal to the direction of said axis of angular adjustment of said bracket for mounting said comb plate.

12. In combination: hair clippers having a pair of superposed relatively movable blades; a bracket angularly adjustably secured to said clipper for movement about an axis substantially normal to the edges of said blades; a comb plate beneath the blades; and means secured to the bracket for angular adjustment about an axis extending in a direction substantially normal to the direction of said axis of angular adjustment of said bracket for mounting said comb plate; said comb plate being adjustable with respect to said means for movement in a direction transverse to the axis of adjustment of said means on said bracket.

13. In an attachment for hair clippers: a bracket; a pair of clamp elements; means mounting the clamp elements for movement about an axis fixed with respect to the bracket; said clamp elements having opposed surfaces respectively having elongate slots; a comb plate having opposite lateral edges received in the slots respectively; and means for securing the clamp elements in an adjusted position and for moving the clamp elements toward each other; said bracket having an ear extending in a direction transverse to said axis for mounting said bracket on said clipper.

14. In combination: hair clippers having a pair of relatively movable blades; a bracket; a pair of clamp elements; means mounting the clamp elements for movement about an axis fixed with respect to the bracket; said clamp elements having opposed surfaces respectively having elongate slots; a comb plate having opposite lateral edges received in the slots respectively; means for

securing the clamp elements in an adjusted position and for moving the clamp elements toward each other; said bracket having an ear extending in a direction transverse to said axis for mounting said bracket on said clipper; and means cooperating with the ear for securing said bracket to said clipper for angular adjustment about an axis extending in a direction substantially normal to the edges of said blades.

15. In a device of the character described a hair clipper having a pair of superposed relatively movable blades; a comb plate having an operative edge and adapted to underlie one of the blades; and a bracket for the plate having mounting means for permitting angular adjustment of the plate about an axis extending in a direction substantially longitudinally of and about an axis extending substantially normal to said edge; the rear edge of the plate being spaced from the said one of the blades.

References Cited in the file of this patent

UNITED STATES PATENTS

233,695	Priest	Oct. 26, 1880
757,359	Stevens	Apr. 12, 1904
1,596,241	Donnellon	Aug. 17, 1926
2,006,493	Andis	July 2, 1935
2,381,046	Giorgi	Aug. 7, 1945
2,517,999	Giorgi	Aug. 8, 1950

FOREIGN PATENTS

11,170	Great Britain	July 11, 1889