VACUUM ATTACHMENT FOR AN ELECTRIC HAIR CLIPPER

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ABSTRACT OF THE DISCLOSURE

A vacuum attachment for an existing electric hair clipper which carries hair clippings away from the cutting blades of the clipper. The attachment is a suitably shaped part having a top wall and opposed side walls which cooperate with the upper portion of the clipper to form a duct, one end of the duct terminating adjacent the clipper blades and the other end of the duct connected to a low pressure generator. The free edge portions of the opposed side walls of the attachment are angled outwardly and tapered in cross section to terminate in yieldable thin edges which engage the upper portion of the clipper in sealing manner. The attachment has forward yieldable tabs which exert inward pressure on the clipper and in some cases bosses adapted to enter recesses in the upper portion of the clipper, both to aid in positioning the attachment longitudinally on the clipper. Atmospheric pressure is the sole agency holding the attachment to the clipper during clipper operation.

This invention relates to a vacuum attachment for an electric hair clipper, the attachment effective to prevent clippings from contaminating either the barber or his patron.

One object of the invention is to provide a vacuum attachment wherein the existing upper portion of an associated hair clipper constitutes one wall of an air duct which carries hair clippings away from the cutting blades of the clipper.

Another object is to provide a vacuum attachment which readily and quickly can be applied to and removed from an associated hair clipper, atmospheric air pressure being effective to maintain the attachment in place on the clipper during clipper operation.

A further object is to provide a vacuum attachment for a hair clipper which can be made inexpensively and will have a long and useful life.

Other objects, advantages and details of the invention will be apparent as the description proceeds, reference being had to the accompanying drawings wherein a preferred form of the attachment is shown. It is to be understood that the description and drawings are illustrative only, and that the scope of the invention is to be measured by the appended claims.

In the drawings:

FIG. 1 is a perspective view of a vacuum attachment embodying the invention, the attachment shown mounted on the associated hair clipper illustrative in broken line.

FIG. 2 is another perspective view of the attachment, the flexible hose thereof omitted.

FIG. 3 is a longitudinal sectional view through the attachment, an associated hair clipper being shown in broken line.

FIG. 4 is a transverse sectional view on line 4—4 of FIG. 3.

FIG. 5 is a transverse sectional view on line 5—5 of FIG. 3.

Referring to the drawings, the vacuum attachment is designated 10 in the several figures.

Attachment 10 comprises an elongated member 12 formed of suitable material such as molded plastic. Member 12 has a top wall 13 and opposed side walls 14 and 15 which form three walls of a duct 16 substantially rectangular in cross section in the forward portion. Rear portion 18 of member 12 is tubular in cross section, a reinforcing ring 20 surrounding the end of this portion.

Member 12 is generally curved in longitudinal direction, conforming in profile to the upper portion 22 of an associated hair clipper 25 on which attachment 10 is adapted to be mounted. Side walls 14 and 15 engage upper clipper portion 22. As best shown in FIG. 3, upper clipper portion 22 constitutes the fourth wall of duct 16, and, as will be seen, atmospheric air pressure on the attachment exterior is effective to hold the attachment in place on clipper 25 during use of the clipper and attachment.

The free edge portions 28 and 29 (FIGS. 2 and 4) of opposed side walls 14 and 15 preferably are slightly yieldable so as readily to establish a sealed relation with upper portion 22 of an associated clipper 25. In preferred form, these free edge portions 28 and 29 taper in cross section and terminate in thin edges, thereby enhancing the sealed relationship.

As best shown in FIG. 2, side walls 14 and 15 at the forward ends thereof are provided respectively with tabs 32 and 33, which during assembly function to guide and locate elongate member 10 in place on an associated clipper 25. In preferred form tabs 32 and 33 are yieldable, exerting inward pressure on clipper 25 to aid in holding elongated member 12 in place.

As further shown in FIG. 2, side walls 14 and 15 in the forward end portions flare outwardly as shown in 34 and 35, thereby providing a mouth for duct 16 which is coextensive in width with blades 36 of associated clipper 25. The forward lateral edges of top wall 13 also flare outwardly to join the flared end portions 34 and 35 of the side walls.

The forward ends of top wall 13 and side walls 14 and 15 of member 12 are spaced slightly from the associated clipper blades 36, as best shown in FIGS. 1 and 3. This spacing adjacent the mouth of duct 16 provides a path adjacent the blades for moving air to enter duct 16. The entering air, of course, picks up the clippings and carries them away from the blades.

One end of a lightweight flexible hose 40 telescopes the tubular rear portion 18 of member 12, and is secured in suitable manner as by cooperating corrugations on the hose and end portion. The other end of hose 40 is adapted to be connected to a subatmospheric pressure system (not shown).

The negative pressure system, of course, establishes a sub-atmospheric pressure condition in duct 16, thereby generating an airflow through the duct to carry hair clippings away from associated blades 36. As previously mentioned, the sub-atmospheric condition in duct 16 causes the atmospheric pressure exterior of member 12 to hold the member securely in place on an associated clipper during use.

A home vacuum cleaner or the like is well capable of providing the sub-atmospheric pressure required for the attachment.

A resilient band 24 (FIG. 1) surrounding member 12 and an associated clipper 25 may be used to insure that the attachment remains in place on the clipper at times when the sub-atmospheric pressure system is not in operation. It is desirable that the resilient band be oriented as shown in FIG. 1 so as to exert a rearward bias on member 12.

In many clippers with which the attachment may be used the upper clipper portion is a detachable casing lid secured to the clipper body by means of countersunk...
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screws. In the case of an attachment designed for such clippers it is desirable to form bosses 44 and 45 (FIG. 2) on the inner surfaces of the opposed side walls 14 and 15. The free ends of these bosses are adapted to enter the countersunk screw holes in the clipper lid, thereby serving further to position member 12 on the associated clipper.

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. A vacuum attachment for an electric hair clipper comprising:
   an elongated member having a top wall and opposed side walls forming three walls of a duct substantially rectangular in cross section in the forward portion thereof, the rear portion of said member tubular in cross section, said member generally curved in longitudinal direction conforming in shape to the shape of the upper portion of an associated hair clipper on which the attachment is adapted to be mounted, the free edge portions of said opposed side walls being angled outwardly and tapered in cross section to terminate in yieldable thin edges, said upper clipper portion constituting the fourth wall of said rectangular duct and being engaged in sealing manner by the yieldable thin edges of said opposed side walls, the forward ends of said top and side walls spaced slightly from the clipper blades; and
   a flexible hose connected to said tubular rear portion of said elongated member, said hose adapted to be connected to a sub-atmospheric pressure system whereby atmospheric pressure is effective to maintain said member in place on an associated clipper and establish an air stream through said duct to carry hair clippings away from the blades of the clipper.

2. The attachment of claim 1 with the addition of a yieldable tab at the forward end of each said side wall, said tabs exerting inward pressure on an associated clipper and serving to position the elongated member on the clipper.

3. The attachment of claim 1 with the addition of a boss on the inner surface of each opposed side wall, each boss adapted to enter a recess in the upper portion of an associated clipper as an aid in positioning the member on the clipper.

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