



Fig. 5.

INVENTOR.
Robert J. Tolmie

BY

Arthur J. Keane

ATTORNEY.

HAIR-STYLING DEVICE

BACKGROUND OF INVENTION

This invention relates to new and useful improvement in hair styling and drying devices and in particular to hair-curling attachments therefor.

Hair-styling instruments such as portable hand-held hair-drying devices provided with means for discharging heated air outwardly thereof through attachments such as hair combs, brushes and hair dryer hoods are well known. Certain hair-drying devices as used by women in the home for example are equipped with a flexible hose hot air conduit detachably connected to a hair dryer hood and are provided with attachments for connection to the dryer hose when the hood is detached for dispersing the heated air to the interior of hair roller. In use of the latter type attachments, the user first winds a damp lock of hair about the outer surface of a hollow open-ended hair roller. The end of the hair dryer hose is adapted to be brought into communication with or other wise coupled to the open end of the hair roller and heated air is dispersed into the interior of the roller and thence outwardly thereof to the exterior of the roller through slots in the roller wall. In this manner the lock of hair wound on the roller is dried and a tight curl is formed when the roller is removed from the hair.

Inconveniences are encountered in use of these known hand-manipulated devices. In a single operation of setting hair, a woman will necessarily use and place a number of hair rollers in the hair at one time, with the size and number of rollers varying with the particular needs of the user. It is necessary in known devices to attach or locate the heated air output means such as the end of the dryer hose with the hair roller either prior to or when the roller is in the hair. The manipulation of the hose and coupling attachment about the head results in a tiresome and cumbersome operation. Further even though the user might sit before a mirror time is unnecessarily lost and annoyances caused by the known means in the process of coupling and locating the heated air output means with the entry end of the hair roller.

It is the object of the present invention to provide a novel hair-styling device.

It is a further object to provide a novel hair-styling device for use with hair rollers having means for readily dispersing heated air to the interior of the hair roller.

Another object is to provide a novel hair-styling and curling attachment for a hair styler device and which attachment is adapted for ready manipulation in use in locating and entering a hair roller for curling hair wound about the roller.

A still further object is to provide a novel hair styling and curling attachment for a hair dryer and which attachment includes means for guiding the attachment into the interior of a hair roller.

SUMMARY OF THE INVENTION

The present invention contemplates a novel hair-styling device. In one embodiment the device comprises an attachment for a hand-held hair dryer having means for generating and dispersing heated air. The attachment comprises a conical-shaped probe member having tapered inwardly extending slotted sidewalls. The conical casing is adapted for insertion into a hair roller and provided with means for controlling and venting the flow of heated air from the hair dryer outwardly of the hair roller through openings in the surface of the roller.

The above and other objects and advantages of the present invention will appear more fully hereinafter from a consideration of the detailed description which follows taken together with the accompanying drawing wherein one embodiment of the invention is illustrated.

DESCRIPTION OF THE DRAWING

In the drawing;

FIG. 1 is a side elevational view of a portable hair styling and dryer device and to which device is attached one embodiment of a novel hair-curling attachment incorporating the present invention;

FIG. 2 is an enlarged transverse cross-sectional view taken on the line 2-2 of FIG. 3 of the hair curler attachment showing the interior thereof and a fragmentary portion of the forward end of the hair styling and dryer device;

FIG. 3 is a sectional view taken on the line 3-3 of FIG. 2;

FIG. 4 is a perspective view of the hair curler attachment.

FIG. 5 is a sectional view of hollow hair roller and having inserted therein the hair curler attachment, and

FIG. 6 is a sectional view taken on the line 6-6 of FIG. 5.

DETAILED DESCRIPTION

Referring now to the drawing for a more detailed description of the present invention and more particularly to FIG. 1, a novel hair-curling device made according thereto is generally indicated by the reference numeral 10 and which device 10 is shown in FIG. 1 as connected to one end of a portable hand-held hair styling and drying device whose casing is generally indicated by the reference numeral 11.

The hair dryer device of FIG. 1 is of a known type and includes within casing 11 thereof a motor 15, a fan 16, and a heating element 17, diagrammatically shown in FIG. 1. The forward end of casing 11 is provided with a socket 19 (FIG. 2). Socket 19 surrounds air discharge opening or outlet means 20 in casing 11. Hair dryer devices of this type usually include a number of attachments adapted to be mounted on casing 11 in socket 19 such as brushes or combs (not shown) and which items when secured to casing 11 provide an extension thereof for styling and drying the user's hair. With appliance cord 21 (partially shown in FIG. 1) connected to a suitable electrical outlet, motor 15 and fan 16, are operated to dispense heated air generated by heating element 17 outwardly through opening 20 onto the brush or comb (not shown).

As mentioned it is an object of the present invention to provide a novel attachment for curling hair. To this end hair curler device 10 is shown attached to hair dryer casing 11. Attachment 10 includes an elongated hollow open ended casing 22 made of a suitable plastic material. Casing 22 includes an enlarged tubular-shaped base portion 23 (FIG. 2 and 4) which conforms in configuration to the forward end of hair dryer casing 11 and is provided with an axial passage 20a communicating with opening 20 in casing 11. An elongated conical-shaped probe portion 24 extends from base 23 and is provided with a plurality of elongated vent slots 25 extending from base 23 and circumferentially arranged around the probe and separated from each other by ribs 26 (FIGS. 3 and 4). Slots 25 terminate adjacent blunt end 27 (FIG. 4) of conical portion 24.

A plug portion 29 of reduced diameter to base 23 projects from base 23. A pair of locking slots 30 (FIG. 3) are formed in plug 29 and each of which slots 30 (FIGS. 3 and 4) adapted for a twist locking engagement with a corresponding lug 31 formed on the wall of socket portion 19 of casing 11. In this manner attachment 10 is securely and easily mounted on casing 11 and can be readily substituted for other attachments as desired. A metal collar 33 is press fitted into the interior of casing 22 in plug portion 29 and reinforces plug 29 to assure a tight fit between attachment 10 and the hair-drying casing 11.

In FIGS. 5 and 6 a hair roller 35 of a usual type is shown and which roller 35 comprises a tubular-shaped member having a base 36 and an open end portion 37. A plurality of openings 38 are provided in the walls of roller 35. In use hair roller 35 supports a damp strand of hair wound about the outer surface thereof as illustrated in FIGS. 5 and 6 and is secured in position on the user's head in any suitable manner such as by a suitable clip member (not shown).

In utilization of the novel hair curler attachment 10 described above with roller 35, a woman will set her hair by placing a plurality of rollers 35 in her hair at different loca-

tions in accordance with the desired hair setting. Attachment 10 is secured to hair dryer casing 11 in the manner described. Upon operation of hair dryer 11 heated air is dispersed outwardly through opening 20 in casing to the interior of attachment casing 22 through passage 20a. The user gripping casing 11 in her hand manipulates probe portion 24 of attachment 10 into and out of the open ends 37 of hair rollers 35 while the same is on the user's head as illustrated with respect to one such roller 35 in FIG. 5. The heated air moves outwardly of probe 24 through to venting slots 25 and to the exterior surface of roller 35 through openings 38 in roller 35 to dry and set the hair. The length of time required to produce a curl varies with the hair texture and degree of wetness of the hair. The probe portion 24 of casing 22 is readily moved from one hair roller to the other with a minimum amount of effort. Conical shaped probe 24 provides ready means for locating and entering the open end of the hair roller. Engagement of base 23 of casing 22 with base 39 (FIG. 5) of roller 35 limits the inward movement of conical portion. The ends of slots 26 indicated at 40 in FIG. 5 extend into base 23 whereby slots 26 are not completely covered by roller 35 when a probe 24 is inserted therein. Gently rotative movement of probe 24 in this engaged position about the interior of the roller 35 effects a turbulence of heated air as indicated by the arrows in FIG. 6 which hastens the drying of the hair on the outer surface of the roller.

It is apparent from the foregoing that the novel hair-curling device has many advantages in use. One advantage is that a novel probelike wand is provided for ready manipulation into and out of hair rollers whereby the same may be conveniently used with a number of hair rollers in the user's hair. In addition the elongated vent slot arrangement provides for an efficient and effective dispersment of the heated air into the interior of hair roller to produce curling and drying of the hair in a minimum amount of time.

Although one embodiment of the present invention has been illustrated and described in detail, it is to be expressly understood that the invention is not limited thereto. Various changes can be made in the design and arrangement of parts without departing from the spirit and scope of the invention as the same will now be understood by those skilled in the art.

What I claim is:

1. A hair curler device for an appliance having heated air-generating means and outlet means for discharging the heated air, said hair curler device comprising,

- a. an elongated hollow casing extending a substantial length from said outlet means and of preselected dimensions to permit insertion of the substantially greater portion of the length thereof into different sized hollow hair rollers, and
- b. vent means in said casing extending longitudinally along the length and arranged circumferentially around the axis thereof for discharging streams of heated air received in said casing from said outlet means around and along said elongated casing.

2. The device of claim 1 wherein said elongated casing is conical-shaped having sidewalls tapering inwardly from the outlet means.

3. The device of claim 1, wherein said vent means comprise a plurality of longitudinally extending elongated slots formed in the sidewalls of said casing and circumferentially positioned in relation to one another.

4. The device of claim 2 wherein means are provided in said casing to limit the depth of penetration thereof into a hair roller and wherein one end of said elongated slots extends beyond said limiting means to be positioned without said roller when the depth of penetration is determined by the limiting means.

5. The device of claim 4 wherein said limiting means comprises peripheral wall portions of the base of said conical-shaped casing.

6. A hair curler attachment adapted for connection to a hand-held hair styler device having heated air-operating means and an outlet opening for said heated air, said hair curler attachment comprising,

- a. an elongated casing having a longitudinal axis,
- b. means on the outlet opening end of said casing for detachably connecting said casing to a hair styler device,
- c. said elongated casing extending a substantial length from said outlet opening end and being of preselected dimensions to permit insertion of the substantially greater portion of the length thereof into different size hollow hair rollers, and
- d. vent means and arranged around the longitudinal axis in said casing along the length thereof for discharging streams of heated air received in said casing from the orifice of said hair styler device.

7. The device of claim 6 wherein said elongated casing is conical-shaped and provided with sidewall portions extending inwardly from said orifice and wherein the vent means comprise elongated venting slots in the sidewalls, said slots of length at least equal to the longitudinal length of the hair roller.

8. The device of claim 7 wherein said venting slots are spaced one from the other by narrow ribs, said ribs extending from the apex of said conical casing into the base thereof.

9. The device of claim 7 wherein said means for detachably securing said hair curler attachment to said hair styler including ready releasable latch means having complementary portions on each of said casings.

10. The device of claim 9 wherein said conical casing is provided with a base portion, a plug on one end of said base adapted for insertion into the outlet orifice of said hair styler, said latching means formed on said plug portion and adjacent surfaces of said hair styler, a plurality of ribs projecting outwardly from the other end of said base and tapering inwardly toward the apex of said casing and defining therebetween said elongated venting slots.

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