

May 26, 1970

B. F. ZIEGLER

3,513,563

HAIR DRYER HOOD

Filed Jan. 15, 1968

3 Sheets-Sheet 1

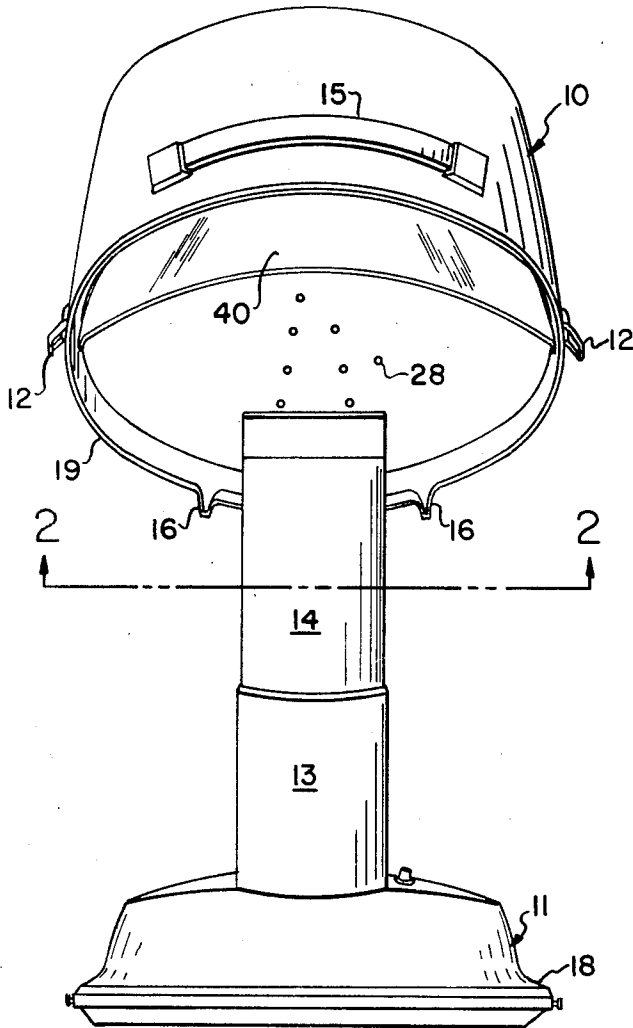


Fig. 1

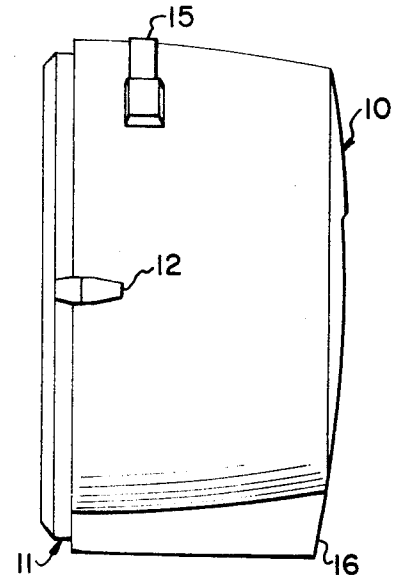


Fig. 3

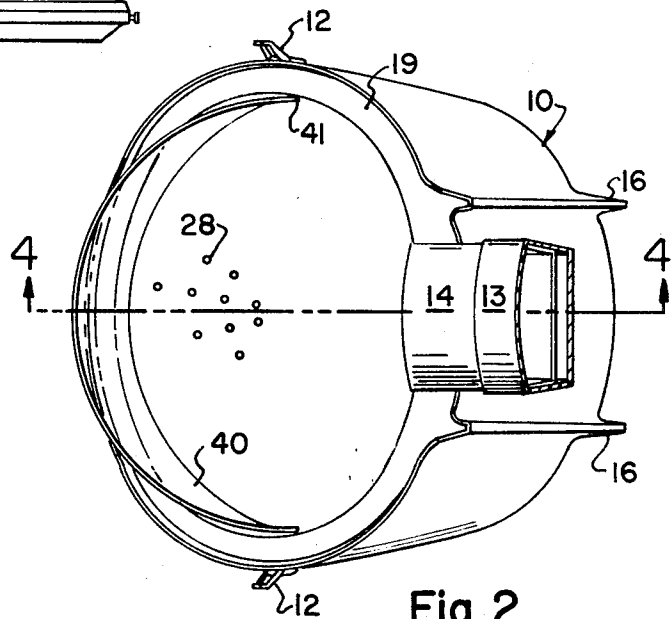


Fig. 2

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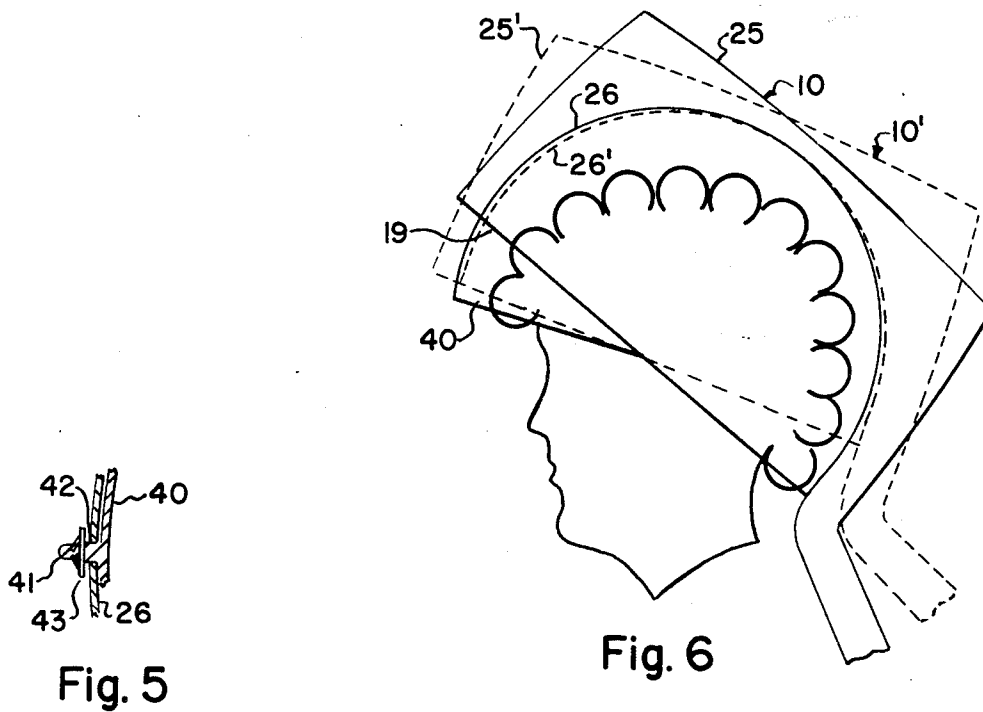
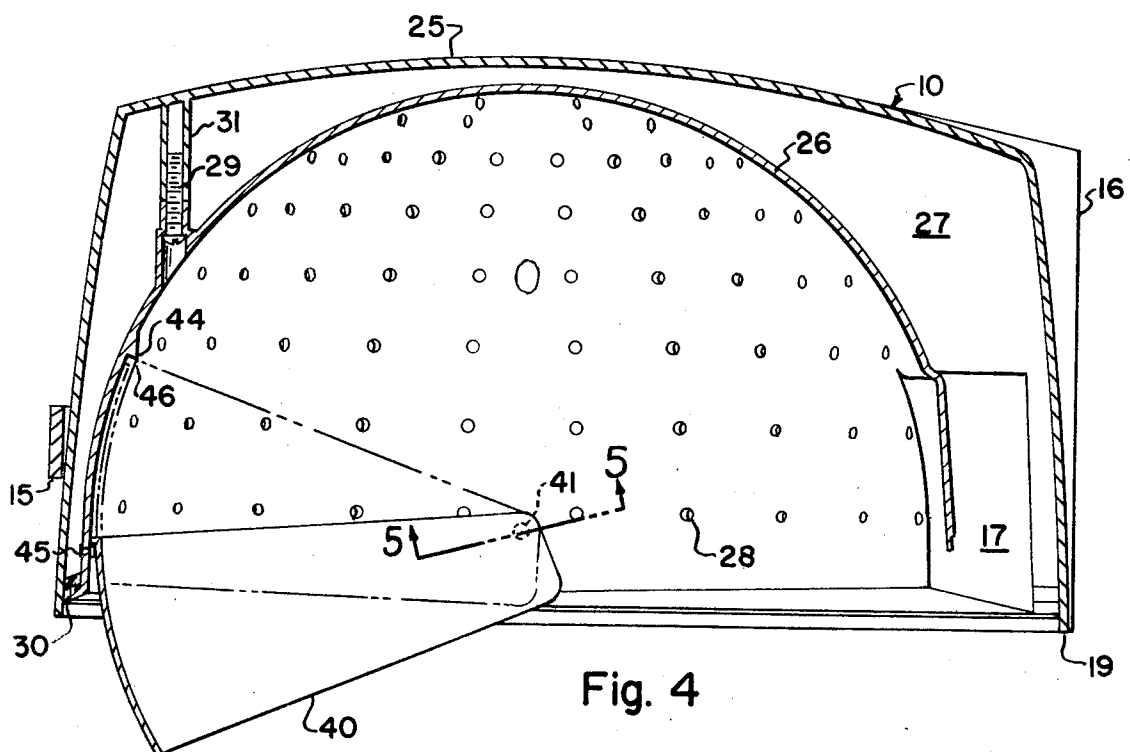
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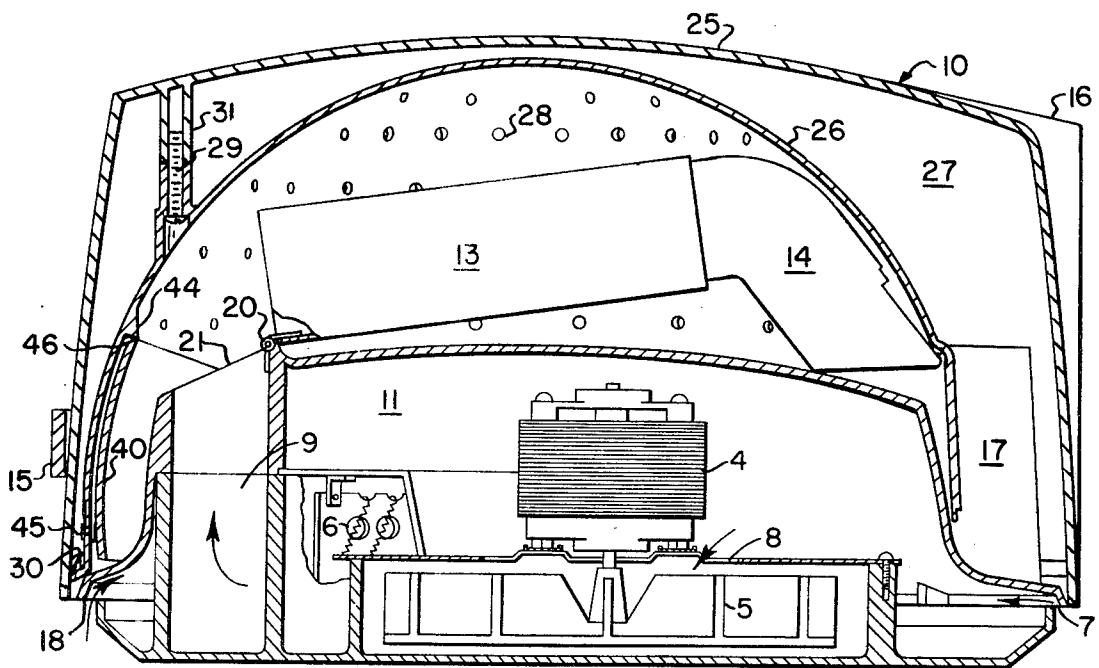


Fig. 7

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3,513,563

HAIR DRYER HOOD

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mesne assignments, to The Hoover Company, Wilming-
ton, Del., a corporation of Delaware
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U.S. Cl. 34—99

8 Claims

ABSTRACT OF THE DISCLOSURE

A hair dryer hood for use on a stand-type hair dryer and which is stored on the base unit, characterized in that a hood extension member increases the volume of the hood in operating position and reduces the volume of the hood in the storage position by retracting inside the hood when it is stored.

BACKGROUND OF THE INVENTION

The popularity of the home stand-type hair dryer having a rigid hood has increased recently. In this type hair dryer, the motor-fan unit assembly is placed on a table and a short air conduit supports the hood at a convenient height for the user when sitting in a chair. Also, in the last few years large diameter hair rollers have become popular which require larger hoods to encompass the pinned-up hair. This has increased the already existent problem of storage and carrying of the unit. Prior solutions included storing the hood on the base element with the supporting air duct trapped between these two basic elements. The U.S. patent to Niemiec et al. 3,267,587 (class 34—99) discloses this type of hair dryer generally.

SUMMARY OF THE INVENTION

In accordance with the present invention, a hood for a stand-type hair dryer is provided with an extensible head enclosure member to increase the volume of the head enclosure but which at the same time does not increase the overall depth of the hood when it is stored on its base unit.

It is an object of my invention to provide a rigid hard hair dryer hood in which the overall depth of the hood is reduced without reducing the volume of the hood in its operating position.

A still further object is to provide an extensible extension for a hair dryer hood which automatically moves to a position to increase the hair enclosing volume of the hood when the hood is placed in operative position and which automatically moves to a retracted position when the hood is placed on the base assembly for the motor-fan heater unit for storage and/or carrying.

A still further object of my invention is to provide a hair dryer which is easier to carry because of the decreased volume of the stored unit.

In a preferred embodiment of my invention, an extension for a hair dryer hood is pivoted at the sides of the hood to increase the hair enclosing volume at the front of the user's head.

DESCRIPTION OF THE DRAWINGS

The invention may be put into practice in various ways and one embodiment is described by way of example with reference to the accompanying drawings in which:

FIG. 1 is a front elevation view of a rigid bonnet type of hair dryer in operative position.

FIG. 2 is a bottom view of the rigid bonnet taken along the section line 2—2 of FIG. 1.

FIG. 3 is a side elevational view of a rigid bonnet hair dryer in storage position.

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FIG. 4 is an enlarged side sectional view of the rigid bonnet taken along the section line 4—4 of FIG. 2.

FIG. 5 is a sectional view taken along section line 5—5 of FIG. 4.

FIG. 6 is a side elevation silhouette view of the hard bonnet of the present invention compared to a hard bonnet without a pivoted extension which is shown in dotted lines.

FIG. 7 is an enlarged side elevation view of the hair dryer in stored position with the hood and base housing cut away and shown in section.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The hair dryer has a semi-spherical shaped hood 10 and a base housing 11 which are latched together by the latches 12 when being transported or stored (FIG. 3). A carrying handle 15 is provided for the hair dryer and supporting feet 16 are integrally molded as part of the hood 10 to provide a stable base for the hair dryer in storage position. The hood 10 is removable from the base 11 and in operating position (FIG. 1) the hood 10 is supported by the telescoping air conduits 13 and 14. In the operating position the base housing 11 is set on a table or desk which brings the hood 10 into a position to enclose the user's head as is well known in hair dryers on the market.

The base housing 11 encloses a motor 4, an air circulating fan 5, and an electrical heater 6 (see FIG. 7). The switch for the motor and heater, a thermostat for the heater and the electrical service cord are not shown, being well known in the art. Air enters the base housing 11 through an annular opening 7, passes over the motor, through the fan eye 8, through the fan 6 where it is discharged tangentially over the heater 6 and into the duct 9 which connects to the outlet opening 21. The heated air then passes through the conduits 13 and 14 when they are placed in operating position as shown in FIG. 1.

The air conduit 13 is pivotally mounted to the base housing 11 at pivot 20 and telescopically engages a second air conduit 14. The hood 10 is removably positioned on the air conduit 14 by means of a socket 17 formed in the hood assembly 10 (FIG. 4). Thus the means to support the hood assembly 10 as well as the means to convey the heated air from the base housing 11 to the hood assembly 10 is articulated and by sliding the air conduit 14 into the air conduit 13 it is extensible as well. In this manner the hood assembly can be adjusted in height to correctly position the hood on the head of the user.

To store the hair dryer, the hood assembly 10 is first lifted from the air duct 14 since the duct telescopically engages in the socket 17 of the hood assembly 10 and then the hood 10 is free from the supporting conduit. Then, air conduit 14 may be pushed into the air duct 13 to give the minimum length of the two telescoping conduits 13 and 14. The two conduits 13 and 14 are pivoted as a unit about hinge pin 20 located adjacent the top surface of the base housing so that the conduits overlie the top of the base housing 11. Then the hood assembly 10 is placed over the base housing 11 where it seats on the surface 18 of the base housing, it being understood that the circular seat 18 conforms to the generally circular configuration of the bottom edge or perimeter 19 of the hood assembly 10. In this manner the hood encloses the folded up air conduits sections 13 and 14 as shown in FIG. 7. The latches 12 hold the hood assembly 10 rigid with the base housing 11 for carrying and storing the hair dryer.

The hood assembly 10 is shown in detail in FIGS. 2, 4 and 7 and comprises an outer imperforate rigid shell 25

and an inner perforate rigid shell 26 spaced from the outer shell 25 to define an air chamber 27 therebetween. A plurality of holes or perforations 28 in the inner shell 26 direct the heated air to the head of the user. The air chamber 27 which is hemispherically shaped is open to the socket 17 which receives the end of the upper duct 14 and thus heated air from the base housing 11 is directed into the confines of the hood 10 and through the perforations 28 to the hair of the user.

The inner shell 26 of the bonnet is attached to the outer shell 25 by means of a plurality of screws 29 which are threaded into integrally molded bosses 31 on the inside of the outer shell 25. Two of the screws and bosses are evident in FIGS. 4 and 7. Air leakage from the hair dryer hood at the periphery edges of the outer and inner shells 25 and 26 is prevented by the gasket 30.

The present invention is directed to a pivoted extension 40 for the hood which increases the volume of the head enclosing capacity of the rigid bonnet 10 in the operating position and at the same time decreases the overall height of the bonnet 10 when it is stored on its base. The pivoted extension 40 has a spherical shape to closely fit the inside dimensions of the inner shell 26. The extension in side elevation projects a generally triangular shape as is shown in FIG. 4 and it pivots on two pins 41 located at each side of the extension. The pins are molded integrally as part of the extension member 40 and extend through holes 42 in the inner shell 26 as shown in FIG. 5. A well-known snap-on clip 43 retains the pivot pins 41 in the holes 42.

The pivoted enclosure member 40 is free to pivot upwardly as viewed in FIG. 4 until the lower edge thereof lies approximately flush with the bottom edge 19 of the hood assembly. The pivoted motion upwardly is controlled by a stop 44 which is an integrally molded shoulder in the inner shell 26. The pivoted action of the enclosure member 40 in the downward direction is limited by a shouldered rivet 45, which is arranged to contact an integrally molded flange or shoulder 46 on the pivoted enclosure member. The enclosure member 40 preferably is made of plastic and it is assembled to the inner shell 26 before the inner shell is assembled to the outer shell 25. The pivoted enclosure 40 being made of plastic can be deformed sufficiently by pressing the sides thereof inwardly to allow the pins 41 to snap in the holes 42 after which the push-on clips 43 are attached to the pins 41.

Generally, it has been found desirable to have the enclosure member 40 freely pivoted so that it drops down to its extended position when the hood 10 is removed from the base and likewise easily pivots upwardly inside the hood when the hood 10 is placed on the base housing 11. Thus, the enclosure member 40 automatically assumes its extended position when the hood is placed in its operative position and the enclosure member 40 automatically moves to its retracted position when the hood is stored on the base housing 11.

Likewise, I prefer to make the pivoted enclosure 40 of transparent plastic but as can be seen in FIG. 6, it normally does not project below the eyes of the user and the extension can be made with opaque materials equally as well. The important consideration is to have the pivoted enclosure 40 closely fit the inside contour of the inner shell 26 so heated air does not escape at the sliding joint of these two parts. If for some reason it is desired to have the extension member positioned in an intermediate position this can be accomplished by having the clips 43 pushed on further on the pins 41 to provide friction between clips 43, inner shell 26 and the extension member 40.

In describing the hair dryer hood 10, the front is that portion adjacent the face of the user and the rear is that portion located adjacent the back of the neck and the sides are adjacent the ears (FIG. 6). The pivoted enclosure 40 increases the area of the head subject to the effects of the heated air at the front of the hood 10 and

this increased area extends in a diminishing extent to the sides of the hood. The heated air issuing from the holes 28 at the front half of the hood passes down along the inside of the pivoted enclosure 40.

FIG. 6 brings out the advantages of my hair dryer hood. The silhouette view in solid lines shows the outside shell 25, inner shell 26 and pivoted enclosure 40 and it is to be noted that the area of the hood enclosing the hair as viewed in side elevation adequately covers the hair from front to rear. The dotted line silhouette view shows a similar hood 10' having an outer shell 25' and an inner shell 26' identical to the shells 25 and 26 but it does not have the pivoted enclosure 40. To make the comparison, the angle of the dotted lines hood 10 is rotated clockwise to bring the front of the two hoods at approximately the same place on the user's head. It is readily apparent that the hood 10 while covering the front portion of the head as well as hood 10', extends much lower than hood 10' does at the back of the head. The significant increase in the volume is readily apparent.

In actual practice it has been found to be advantageous to use a portion of the increase in volume and coverage of the hair as shown in FIG. 6 to reduce the overall depth of the hood 10. This can be visualized as moving the bottom edge 19 of the hood 10 up toward the crown of the hood and thus reduce the overall depth of the hood 10 when in stored position on the base housing 11. Thus it becomes a smaller package to carry and store which adds to the convenience of the appliance. Preferably then, the volume can be increased as well as the width of the stored unit.

Although the pivoted enclosure is shown and described at the front half of the hood, it is possible to apply the same idea to the back half of the hood in a similar manner. Thus the pivot pins 41 would be located at approximately the same place as shown but the increased area and volume would be obtained at the back of the hood.

Those skilled in the art will readily appreciate the novel and advantageous feature of the pivoted enclosure for a hair dryer hood of the present invention. While only one embodiment of the present invention has been shown, it is to be understood that it is only illustrative and not to be taken in a limiting sense. The present invention includes all equivalent variations of the embodiment disclosed and is limited only by the scope of the claims.

I claim:

1. In a portable hair dryer hood adapted to be connected to a source of heated air comprising a rigid imperforate outer shell and a smaller rigid perforated inner shell with a space therebetween for distribution of heated air, said hood having a head-receiving opening having a perimeter lying in a single plane, said hood being capable of being stored on said perimeter, the improvement comprising a hood extension member freely mounted in said hood so as to freely move through the single plane of said perimeter from a retracted position to an extended position, said extension member in said extended position protruding below said hood thereby to direct a portion of the heated air over a greater extent of the hair of the user and then to atmosphere, and to provide an internal volume greater than the volume bounded by said inner shell and the single plane, said extension member being free to retract within said hood to said retracted position when said hood is stored on said perimeter of said head-receiving opening.

2. The hair dryer of claim 1 wherein said extension member is pivotally mounted on the sides of said inner shell with the pivotal axis of said extension member substantially on a center line parallel to the plane of said hood perimeter.

3. The hair dryer hood of claim 1 wherein said hood extension member is pivotally mounted at the sides of said hood and stop means limit the travel of said extension member in the extended and retracted positions.

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4. The hair dryer hood of claim 3 wherein a stop member is integrally molded in said inner shell to limit the upward travel of said extension member.

5. The hair dryer hood of claim 3 wherein the stop means to limit the travel of said extension member in its extended position comprises cooperating abutment means on said inner shell and said extension member.

6. In a portable hair dryer, a rigid hood shaped to conform to the user's head, a base housing having a seating means for storage of said hood on said base housing, said housing including air heating and air circulating means, air conduit means adapted to support said hood in operating position on said air conduit, said hood having a head-receiving opening having a perimeter lying in a single plane, said hood capable of being stored on said perimeter when stored with said perimeter engaging said seating means, said hood having a rigid outer imperforate shell and a smaller inner perforate shell nested inside said outer shell to provide an air distributing space between said outer and inner shells, the improvement comprising an extension enclosure member for said hood being automatically extended through said single plane when said hood is in operating position so as to increase the internal volume of said hood to direct a portion of heated

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air over a greater extent of the hair of the user, and automatically retracted when said hood is stored on said seating means of said base housing so as to reduce the volume of said hair dryer hood when stored.

7. The device of claim 6 wherein said extension enclosure member is freely pivoted to said inner perforated shell of said hood.

8. The device of claim 6 wherein stop means limit the travel of said extension enclosure member in the extended and retracted positions.

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