

United States Patent

Strzelczyk

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[54] **HAIR DRYER**

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[30] **Foreign Application Priority Data**

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[58] Field of Search.....34/96, 97, 98, 99, 100, 101;
132/9; 128/256; 4/165

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[57] **ABSTRACT**

A hair dryer of the hood type wherein the hood or bonnet is collapsible into such a position after use so as to take up a minimal of storage space.

The bonnet is constructed of both stiff and flexible parts arranged on either side of a thin substantially rectangular casing. When the bonnet is used the parts fold outwardly from either side of the case forming a full sized hair dryer. When the bonnet is stored the parts are folded inwardly forming a volume similar to a small attache case.

3 Claims, 5 Drawing Figures

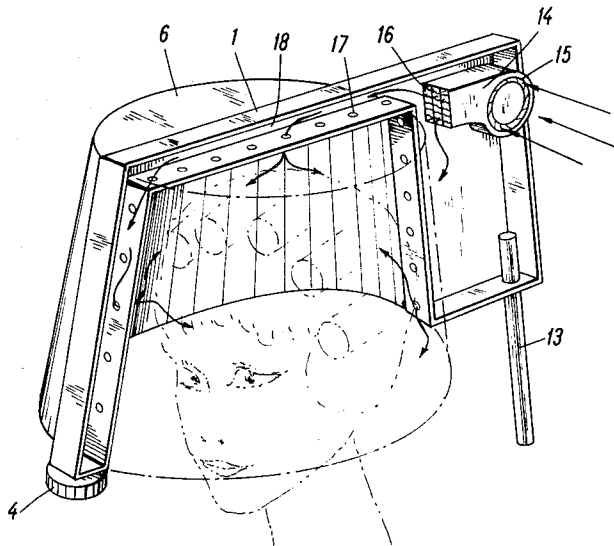


Fig. 1

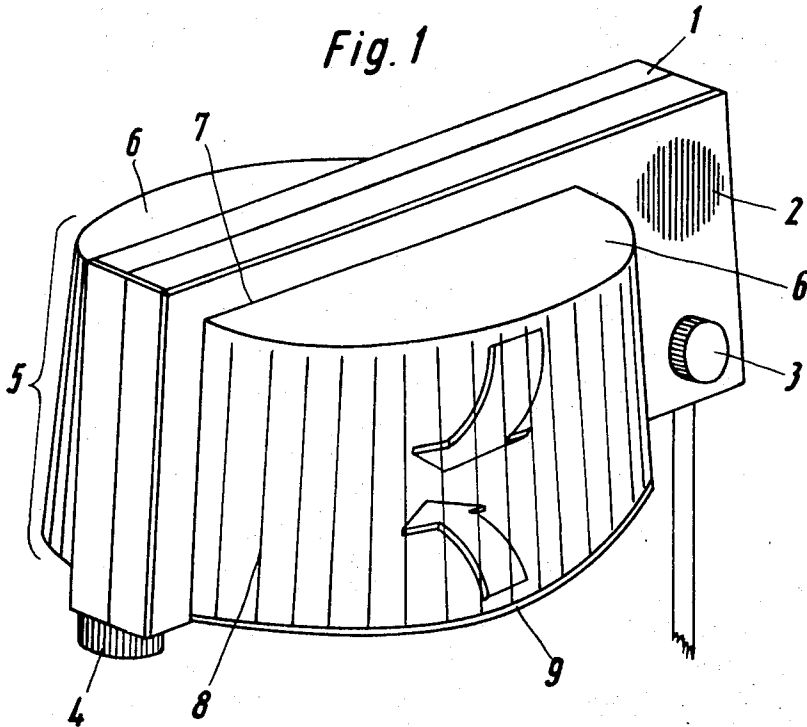
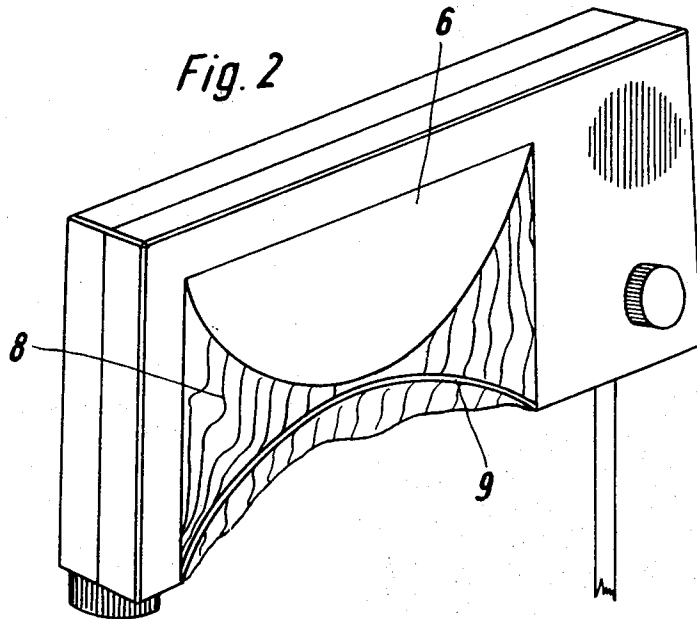


Fig. 2



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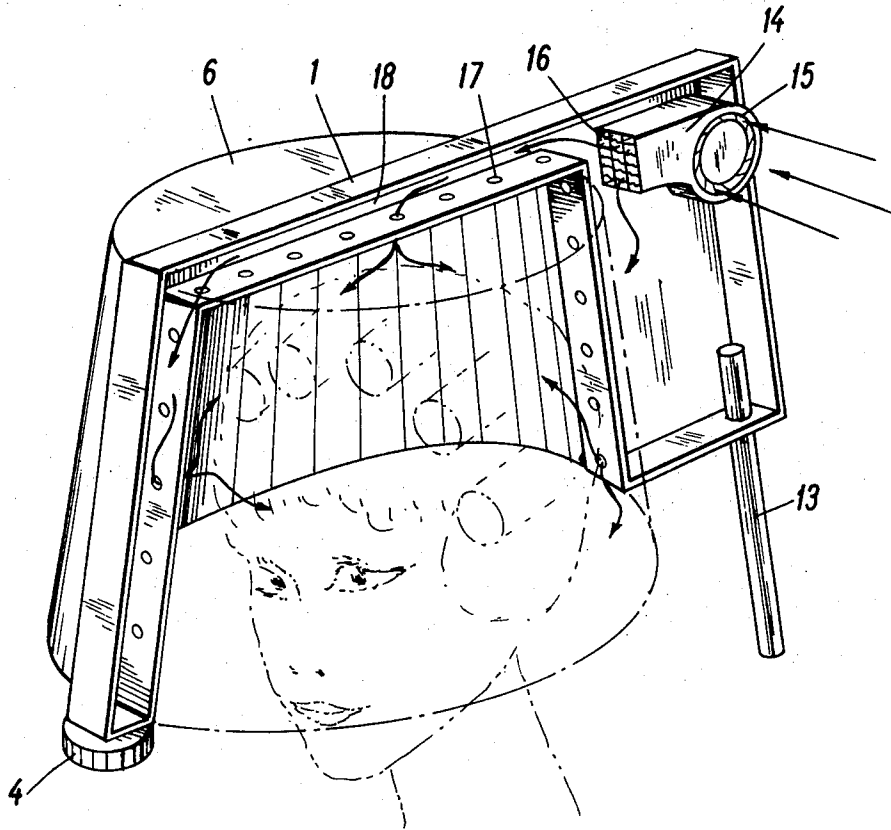


FIG. 1a

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Fig. 3

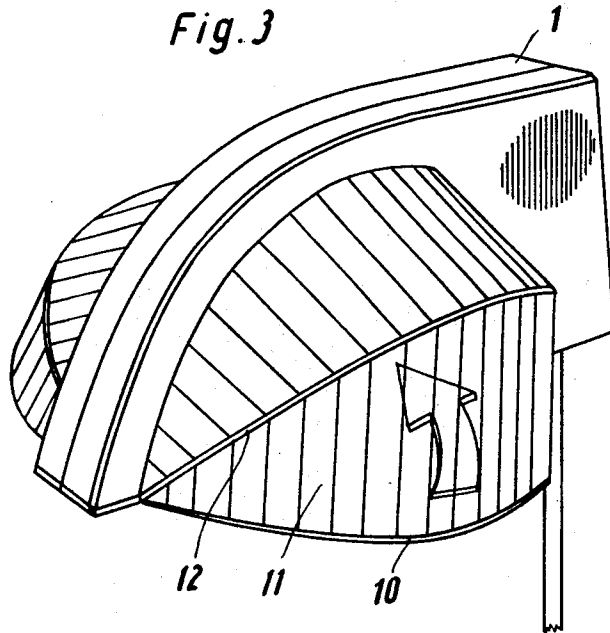
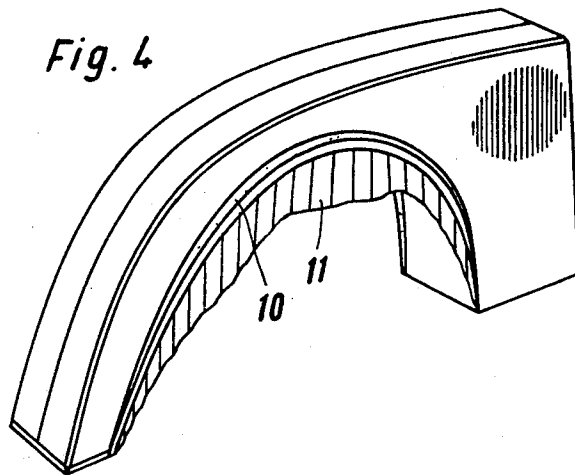


Fig. 4



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HAIR DRYER

The invention relates to a hair dryer of the hood type for home use which has the efficiency and other characteristics of a professional hair dryer when in use and particularly to a bonnet composed of stiff and flexible parts which allows the hair dryer to be folded into a flat volume of minimal size for storage after use.

BACKGROUND

There are known hair dryers of the general kind above referred to. For instance, there are known hair dryers of the hood type having a rigid bonnet made either of sheet metal or plastic. Other known hair dryers of this general type have foldable or telescoping bonnets in order to minimize storage space when not in use.

It has been found that notwithstanding the fact that the hair dryers with foldable or telescoping bonnets need less storage space when not in use as when being used, that these hair dryers still require too much space for storage because the hair dryer when collapsed is no smaller than its greatest diameter.

THE INVENTION

It is a broad object of the invention to provide a novel and improved hair dryer of the general kind referred above to which has enough efficiency when in use but which can be readily stored in smallest space when not in use.

In accordance with the invention the hair dryer comprises a housing having an air inlet and an air outlet duct, a communicating duct connecting the inlet and outlet ducts, a fan driven by an electric motor for drawing air through the inlet into the connecting duct, an electric heating unit within the connecting duct heating the air flowing through said connecting duct whereby said fan discharges the heated air flowing through the outlet duct, a collapsible hollow bonnet of a size to accommodate the head of a person when in operative position, whereby said bonnet comprises both stiff and flexible parts capable of being folded into a storage position whereby said parts of said bonnet are placed within the outer limitations of said housing, and mounting means for detachably securing the bonnet to a standard in operative position.

According to a preferred embodiment of the invention the hair dryer comprises a bonnet having at each half at least one reinforcing member which could be folded out of the case at approximately 90°.

In another specific embodiment of the invention the hair dryer has a bonnet with platelike stiff parts forming an upper wall of the bonnet when folded into its operative position.

A more specific object of the invention is to provide a novel and improved hair dryer in which the plates of the bonnet are joined to the housing pivotally and whereby preferably the plates are of the same material as the housing. The plate and/or the hinges are preferably made of plastic.

Another more specific object of the invention is to provide a novel and improved bonnet for a hair dryer in which at the lower end of the bonnet at either side of the housing at least one further reinforcement member, for instance a curved piece, is pivotally connected to the housing. The semicircular plates are omitted in that case.

Another more specific object of the invention is to provide a hair dryer in which the housing is the shape of an inverted "U" overriding the bonnet, whereby the motor-fan unit of the blower-type hair dryer is provided within the housing.

Still another more specific object of the invention is a hair dryer which on one end of the housing is provided with a control member for regulating the drying temperature and/or time. The scale of the control member and/or the position of the control member itself may be readable from below.

It is another object of the invention to have the heater unit provided within the housing and that on the interior wall thereof (next to the bonnet) air outlet ducts are provided.

According to another more specific object of the invention the bonnet is provided with at least one air-discharge ring or

bow. Instead of providing specific air-discharge bows it is possible to provide one or more reinforcement bows and/or semicircular plates which are constructed as air-discharge members.

One further object of the invention is to provide a novel and improved hair dryer having a double-walled bonnet.

In the accompanying drawings several preferred embodiments of the invention are shown by way of illustration and not by way of limitation.

In the drawings:

FIG. 1 is a perspective view of the hair dryer according to one embodiment of the invention in operative position.

FIG. 1a shows part of the bonnet removed to illustrate the air blowing and heating means of the dryer.

FIG. 2 is a view to a hair dryer according to FIG. 1 in a partially folded position.

FIG. 3 is a perspective view of a hair dryer according to another embodiment of the invention in operative position.

FIG. 4 is a view to a hair dryer according to FIG. 3 in storage position.

Referring now to the figures more in detail FIG. 1 and 2 exemplify a hair dryer of the hood type comprised of an inverted U-shaped hollow housing preferably made of a suitable plastic.

In the operative position the main housing 1 is oriented as an inverted "U." The bonnet or hood 5 is provided with two foldable semicircular halves on either side of the housing 1.

Each half of the bonnet consists of a lower semicircular bow 9, a foldable part 8, for instance, of a soft plastic and a semicircular plate 6.

The plate 6 is hinged to the housing 1, for instance, by means of an integral plastic hinge 7.

The bows 9 and the plates 6 can fold into the housing within the direction of the arrows shown in FIG. 1. When parts 6 and 9 are swung inwardly the soft material of part 8 folds in between.

When not in use the hair dryer according to the invention forms a flat case requiring a minimal of storage space.

All parts essential for the use of the hair dryer are mounted within the housing 1. The motor-fan-unit draws dry air through air intake ducts 2.

The means for directing flows of hot air into the bonnet should be visualized as conventional. As shown in FIG. 1a, they may comprise a suction fan 14 having a fan blade 15 which sucks in cold air through inlet 2. The sucked-in air is heated by suitable heating means indicated by a grid 16 and directed into a duct 18 within the housing. From this duct the air escapes through a plurality of openings 17 into the bonnet.

Fixture 3 attaches the hair dryer to a mounting standard 13. When using a telescopic standard this can be inserted into the housing 1.

The control member 4 for controlling or setting the temperature is mounted on to the lower side of the housing 1 in a manner such that it can be read from below.

An additional heating unit can be installed within the semicircular plates, when additional performance is desired.

The air distribution system is not shown in details since there are known many suitable embodiments. For instance all or part of the inner three walls of the housing 1 can be provided with apertures as slots which distribute the air within the bonnet relatively uniformly in all directions. It is further possible to provide the plates 6 with air outlets on their outer circumference. Plates 6 may be made either of one piece of plastic or of two pieces. A further possibility is to make the bonnet double-walled and thus using it for distribution and discharge of the air.

In the embodiment of FIGS. 3 and 4 is provided at least one further reinforcing bow 12 between the housing 1 and the bow 10. Collapsing of the bonnet is effected by swinging the bows 10 and 12 in the direction of the arrow as shown in FIG. 3. The storage position of the hair dryer is shown in FIG. 4.

The mounting of the motor-fan unit including the heater may be the same as shown in FIGS. 1 and 2. The location of

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the temperature and/or time control 4 is similar to FIGS. 1 and 2 in that the setting and reading of this control can be made from below while the hair dryer is in use.

The method of warm air distribution is in principle identical to FIGS. 1 and 2.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom as to modifications which may be obvious to those skilled in the art.

What is claimed is:

1. A hair dryer comprising in combination:

a generally U-shaped substantially rigid housing having air inlet and air outlet openings and including air-blowing and heating means for causing heated air flows to escape from said outlet openings; and

a collapsible hood attached to said housing, said hood having two halves disposed on opposite sides of the housing, each of said halves comprising:

substantially rigid first stretching members having a width substantially equal to the inner distance between the two branches of the U-shaped housing and substantially rigid second stretching members also having a width substan-

tially equal to the inner distance between the two branches of the housing, each of said first stretching members being in the form of a plate hinged at one edge to the base of said U-shaped housing and each of said second stretching members being a bow member hinged at its ends to the branches of said U-shaped housing for pivotal movement between a first position in which the stretching members protrude laterally from the housing and a second position in which the stretching members are located substantially within the outline of the housing, and flexible substantially air-impervious sheet material secured to said housing and to said stretching members along the lengths thereof,

said first position of the stretching members constituting the open position of the hood and said second position the collapsed position thereof.

2. The hair dryer according to claim 1 wherein each of said plates is semicircularly shaped and hinged with its straight edge to the base of the U-shaped frame.

3. The hair dryer according to claim 1 wherein said plates are made of the same material as the frame.

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