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HAIR DRYER BONNET

Original Filed Sept. 11, 1968

FIG. 1

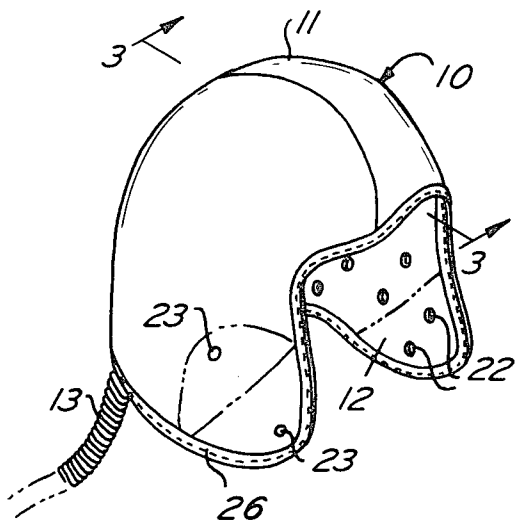


FIG. 2

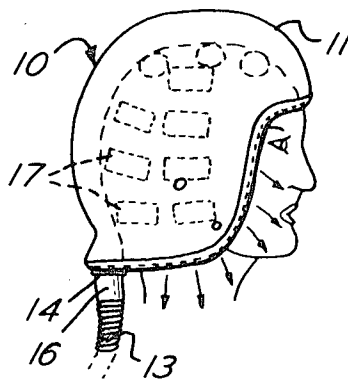
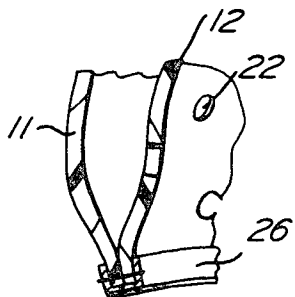


FIG. 5

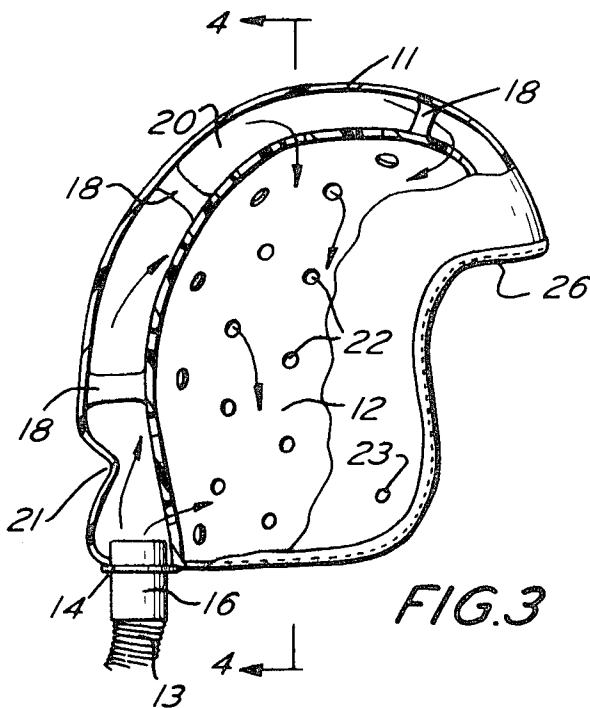


FIG. 3

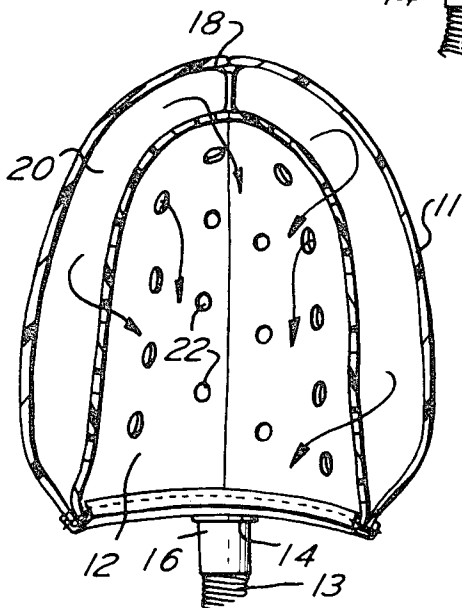


FIG. 4

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1

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HAIR DRYER BONNET

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1968. This application June 1, 1970, Ser. No. 41,729

Int. Cl. A54d 20/18

U.S. Cl. 34—99

4 Claims

ABSTRACT OF THE DISCLOSURE

A self-supporting inflatable hair dryer bonnet of flexible material that in use does not require draw strings, elastic bands, chin straps or a support frame to maintain it on the head of the user. The bonnet is adapted to engage the frontal portion of the head of the user and freely exhaust expended air from its interior into the atmosphere through a loose fit that is maintained about the facial, neck and shoulder areas of the user. The bonnet is readily adjustable to accommodate various size heads.

This is a continuation of application Ser. No. 759,176, filed Sept. 11, 1968.

BACKGROUND OF THE INVENTION

The present invention relates generally to apparatus for hair drying and more particularly it pertains to an improved bonnet for use with a home-type hair dryer.

In the conventional type of hair drying apparatus, a continuous flow of heated air is applied to the damp hair of the user in order to vaporize the moisture and to remove same from the region of the hair. While the most basic form of hair dryer is a hand held blower with a discharge duct containing an electrical resistance heating element which in use is directed toward the damp hair of the user, the majority of hair dryers in use today employ a hood or bonnet which encompasses the scalp area of the head so that forced heated air can be directed toward and distributed throughout the damp hair of the user without the user having to hold any apparatus.

While the commercial type of hair dryer and some intended for home use employ the familiar rigid dome-shaped hood that is seen in beauty parlors, in recent years the compact portable hair dryer has become extremely popular due to its low cost and inherent capability of being easily stored and carried. For the most part, these small portable hair dryers employ a non-rigid bonnet that is connected to a hot air blower by a length of flexible hose and which in many dryers of this type, can be easily folded and stored within the housing containing the blower. This housing is often designed to resemble a small piece of luggage, hat box or the like.

In the operation of the aforementioned conventional commercial type hair dryer employing a rigid dome-shaped hood, the forced heated air is distributed throughout the scalp area by means of an inner shell having a plurality of small openings therein and the expended air laden with the vaporized moisture from the hair is discharged into the atmosphere at the bottom of the hood. Since the flexible type of bonnets of the type presently used with small portable hair dryers are not rigidly supported, they must rely on some form of engagement with the user. While shoulder engaging wire frames and chin

2

straps have been tried in the past, the type most commonly used at the present time relies on a draw string or elastic band incorporated in the bonnet to engage the users head in the vicinity of the hair line. As can be readily appreciated, this arrangement is far from satisfactory since it has been found that the pressure exerted on the head by the elastic band or draw string tends to cause extreme discomfort in a number of individuals. Additionally, and more important in terms of performance, is that this type of bonnet cannot freely expel the air laden with the vaporized moisture from the hair about its bottom as it is in the rigid type of supported hood. Accordingly, a plurality of holes or a large single opening communicating the inside of the bonnet to the outside air is provided in these types of bonnets to expel the vapor laden expended air therein. In actual use, however, this type of bonnet has been found to be less efficient in terms of drying time than the rigid type of hood since the discharge rate of the expended vapor laden air in these types of flexible bonnets is appreciably reduced.

SUMMARY OF THE INVENTION

It is the general aim of the present invention to provide a new and improved non-rigid type of hair dryer bonnet which is comfortable to use, readily foldable for storage, low in cost, yet wherein the internal air distribution and discharge of expended air produces a faster drying of the hair than has previously been possible in the use of non-rigid types of hair dryer bonnets.

It is another object of the invention to provide a non-rigid type of hair dryer bonnet that can be readily used with all types of hair settings, including those incorporating large diameter rollers.

BRIEF DESCRIPTION OF THE DRAWING

Additional objects and advantages of the invention will appear from the following description taken in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of an exemplary hair dryer bonnet embodying the features of the present invention;

FIG. 2 is a side elevation of the bonnet shown in FIG. 1 with the inner lines of same and setting rollers on the head of the user both indicated by broken lines;

FIG. 3 is a side elevation, partially in section of the bonnet shown in FIG. 1;

FIG. 4 is a sectional view taken substantially along the lines 4—4 of FIG. 3; and

FIG. 5 is an enlarged fragmentary section of the junction of the inner and outer walls of the bonnet illustrated in FIG. 4.

While the present invention is susceptible of various modifications and alternative constructions, illustrative embodiments are shown in the drawings and will herein be described in detail. It should be understood however, that it is not to be intended to limit the invention to the particular forms disclosed, but, on the contrary, the intention is to cover all modifications, equivalents, and alternative construction falling within the spirit and scope of the invention as expressed in the appended claims.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIGS. 1 and 2, an exemplary hair dryer bonnet generally indicated at 10 is illustrated, the

3

bonnet including an outer wall 11, and an inner wall 12. A flexible hose 13 is also shown connected at a lower rear portion of the bonnet 10. In order to connect the hose 13 to the bonnet 10, a grommet 14 is provided at the lower rear portion of the bonnet to receive a detachable coupling 16 on the end of the hose 13. The other end of the hose 13 is connected to an air moving and heating source of the conventional type (not shown) utilized in home hair dryers.

In accordance with one of the important aspects of the present invention, provision is made for introducing forcibly moving heated air into the bonnet 10, distributing it uniformly throughout the damp hair of the user therein, and expelling same into the atmosphere therefrom in a free flowing and unrestricted manner upon its becoming laden with water vapor from the hair. This is accomplished by the bonnet 10 being maintained in a semi-rigid configuration during use by means of air pressure and being sized to fit the head of a user in a generally loose manner and primarily supported by its engagement with the frontal portion of the scalp area of the user or with hair setting implements such as curlers or rollers 17 (FIG. 2) which are disposed about the head of the user. The semi-rigid configuration of the bonnet during use is brought about by spacing the inner wall 12 of the bonnet 10 from the outer wall 11 by means of tabs 18 to provide an air space 20 therebetween. As best seen in FIG. 3, the hose receiving grommet 14 which is disposed at the lower rear portion of the bonnet 10 directs the heated air forcibly flowing through the hose 13 into the air space 20 inflating same, thus providing rigidity and support to the bonnet 10. In addition, the location of the hose receiving grommet 14 allows the weight of the hose to assist in supporting the bonnet 10 on the head of the user, thus eliminating the need providing bonnet 10 with bands, straps, ties or the like for fastening or support purposes. By supporting the bonnet 10 in the above manner, the clearance it maintains with the face, neck and shoulder areas of a user will be of a magnitude so as to allow expended vapor-laden air to be freely expelled thereabout from the inside of the bonnet.

In order to uniformly distribute the heated air throughout the damp hair of the user, a plurality of holes 22 are provided throughout the inner surface 12 of the bonnet 10 which communicates the interior of the bonnet with the air space 20. As best seen by referring to the arrows diagrammatically depicting flowing air in FIGS. 3 and 4, upon a flow of forcibly moving heated air being introduced into the bonnet 10 from the hose 13, the air enters from the lower portion of the air space 20 and fills this entire space, resulting in the aforementioned inflating action. Since only a small portion of the air pressure created in the air space 20 by the entry of the heated air from the hose 13 is required to maintain this inflated condition, under a continuous flow, the air within the air space forcibly flows through all the holes 22 into the interior of the bonnet (FIGS. 2 and 3). The heated air thus contacts the moist hair of the user, vaporizing a portion of this moisture and carrying it out of the bonnet as it is expelled from the bonnet about the shoulder, neck and face area of user as depicted diagrammatically in FIG. 2. The tabs 18 also prevent an excessive degree of inflation of the air space 20 which would result in a deformation of the intended operative configuration of the bonnet 10.

In the case where the bonnet 10 is used by a child or individual with a small head, provision is made to fold the lower forward portion of the bonnet 10 back to accommodate the smaller head in a comfortable manner without restricting the flow of moist air being expelled therefrom. To accomplish this, fasteners 23 (FIG. 1) preferably of the snap type are provided in the outer wall 11 so that when fastened, the bonnet 10 assumes the configuration indicated by the phantom lines in FIG. 1.

4

To insure that the heated air forcibly entering the air space 20 will be uniformly distributed therein so that all the holes 22 will be generally equivalent in effectiveness, a deflector 21 (FIG. 3) is provided in the outer wall 11. As seen in FIG. 3, this deflector 24 is achieved in the exemplary bonnet 10 by providing a crease or depression in the outer wall 11.

In constructing the exemplary bonnet 10, it is contemplated that it will be fabricated basically out of four parts, with two parts forming the inner wall 12 and two parts forming the outer wall 11 with the connecting seam of each being located in a manner wherein each half of either wall will be substantially the mirror image of the other half. In order to further simplify assembly, the tabs 18 are incorporated as an integral part of one of the halves. To assemble the bonnet 10 about the seams, any of the conventional means such as adhesive, solvent, or sewing can be employed; however, heat sealing has been found to be the most effective method and can also be employed to attach the grommet 14.

In addition, a binding 26 (FIG. 5) can be employed about the outer seams of the bonnet for reinforcement and styling purposes.

In view of the foregoing description, it will be readily apparent that to use the bonnet 10, the user does not have to tie a draw string or stretch an elastic band about the scalp but merely set the bonnet 10 on the head and activate the air moving and heating source. The bonnet 10 will immediately attain its operative shape and rigidity and dry the hair on the head of the user in a rapid and highly efficient manner as heretofore described in detail.

What I claim is:

1. A hair dryer bonnet adapted to encompass part of a user's head comprising an inner wall of flexible material and an outer wall of flexible material generally coextensive with said inner wall, said inner and outer walls being sealed together about their peripheries to define an air space therebetween, said bonnet having a downwardly extending frontal portion and being inflatable when a continuous flow of air is introduced to the air space thereof, at least a part of the inner wall of said frontal portion, in operation, being in engagement with the frontal portion of the user's head or with at least one hair setting implement attached to the hair adjacent the frontal portion of the user's head, means connecting said inner and outer walls at the top portion of the bonnet for limiting the degree of inflation of said air space, air inlet means located in the lower rear portion of said bonnet connected to a flexible conduit, said conduit adapted for connection to an air moving source providing said continuous flow, a plurality of spaced air outlet apertures formed in said inner wall to discharge air from said air space into the interior of said bonnet, and said bonnet, in operation, being positioned without rigid support and being out of substantial contact with the facial and neck areas of the user so as to define the sole air discharge opening through which the air in the interior of the bonnet is exhausted to the atmosphere in a free flowing and unrestricted manner.

2. The hair dryer bonnet as set forth in claim 1 further comprising deflector means positioned upstream of said inlet means whereby air entering said air space will be distributed throughout said air space.

3. The hair dryer bonnet as set forth in claim 2 further comprising means for retaining at least one portion of said bonnet adjacent to the facial area of a user in a folded back position so as to allow said bonnet to accommodate various size human heads without restricting the facial area of smaller size heads.

4. The hair dryer bonnet as set forth in claim 1 further comprising means for retaining at least one portion of said bonnet adjacent to the facial area of a user in a folded back position so as to allow said bonnet to accommodate various size human heads without restricting the facial area of smaller size heads.

5

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6

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