United States Patent [19]

Hamrick

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[45] **Jan. 16, 1973**

[54] **HAIR PIECE LINER**

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[22] Filed: **Jan. 28, 1971**

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[52] **U.S. Cl.** **34/95,** 132/53

[51] **Int. Cl.** **F25b 19/00**

[58] **Field of Search** 34/95; 132/53, 54, 55

[56] **References Cited**

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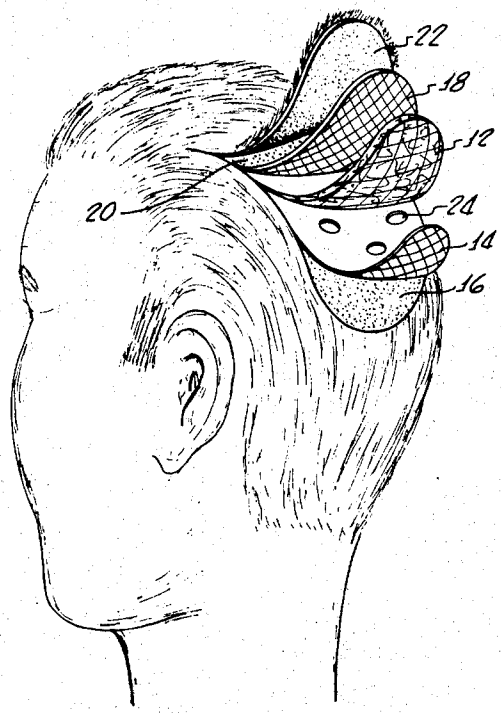
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Primary Examiner—John J. Camby
Attorney—Robert E. Strauss

[57] **ABSTRACT**

A disposable absorbent layer of material is attached by adhesive to a person's scalp and to a hair piece to absorb scalp perspiration and thereby prolong effectiveness of the adhesive. The adhesive is initially protected by a sheet which is removed when the liner is to be used. In one arrangement, the absorbent material is confined between backing sheets of moisture impervious material with a pattern of holes being formed in the lower sheet to permit moisture to reach the absorbent material. In another arrangement, a liner comprises a sheet of material having a pattern of canals permanently formed in its lower surface with the canals being open to the person's scalp to permit moisture and air circulation, thereby protecting the adhesive used to attach the liner to the scalp by adhesive.

13 Claims, 9 Drawing Figures



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SHEET 1 OF 2

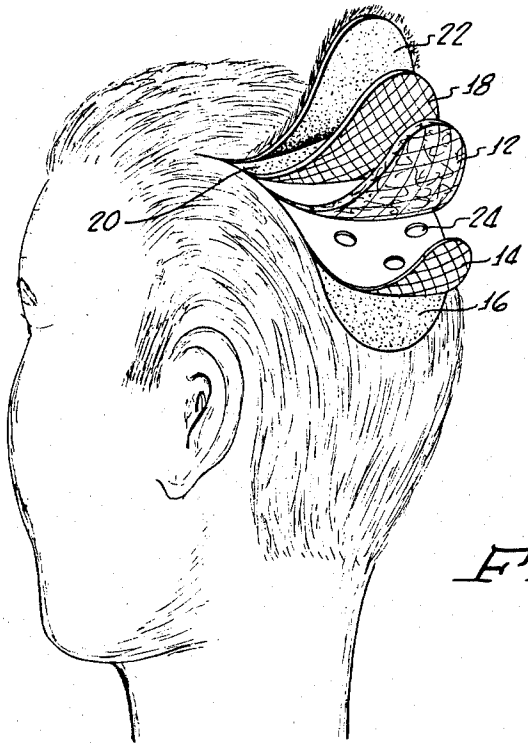


FIG. 1.

FIG. 2.

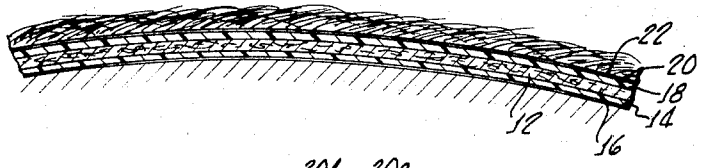
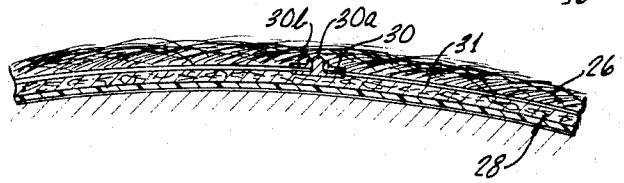


FIG. 3.



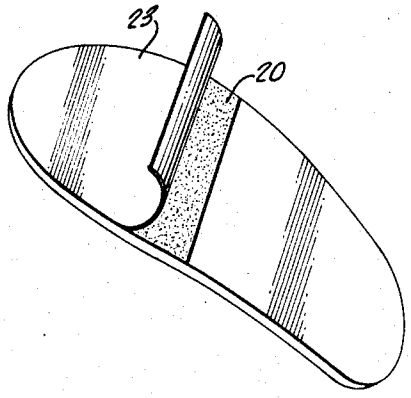


FIG. 9.

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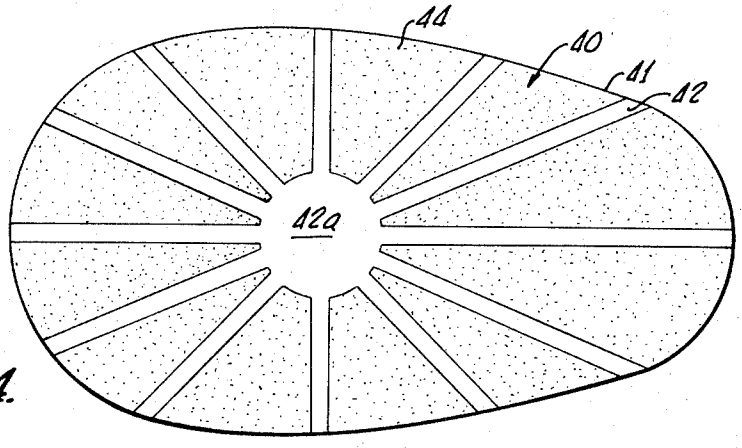


FIG. 4.

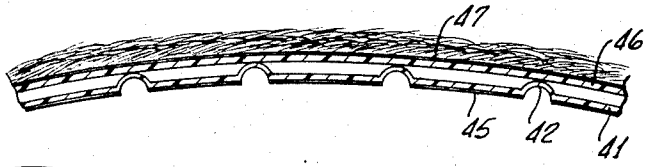


FIG. 5.

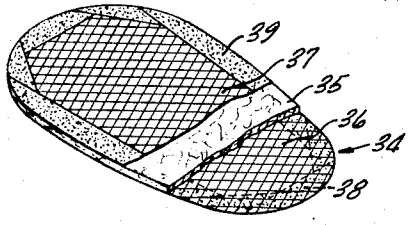


FIG. 6.

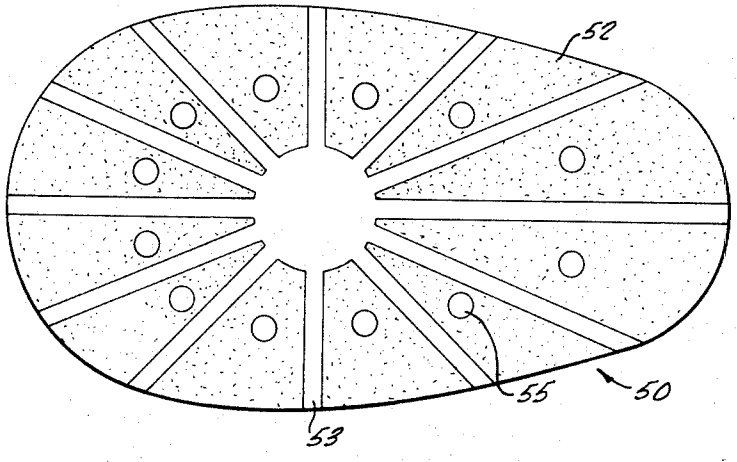


FIG. 7.

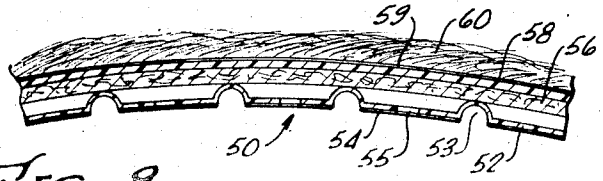


FIG. 8.

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HAIR PIECE LINER

This invention relates to artificial hair pieces and more particularly to an improved liner for use with a hair piece.

In recent years the use of artificial hair pieces has increased considerably. However, one problem which has always limited the acceptance of such items is the difficulty of conveniently attaching the hair piece to the scalp in a manner such that the hair piece will remain in place for a reasonable period of time without concern for having the hair piece inadvertently loosen from the scalp. Related to this is the problem of how to deal with scalp perspiration in a manner so that it will not adversely affect the attachment of the hair piece to the head and will not damage the hair piece. Also involved is user comfort.

The arrangement most commonly used for attaching a hair piece to the scalp is to employ a thin layer of gauze or netting attached to the hair piece, and then to glue the netting around its periphery to the user's scalp. Although the netting is flesh colored, a major difficulty with this approach is that the net itself is somewhat visible to a person close to the wearer of the hair piece. Also, it is somewhat difficult to apply a hair piece in this manner. Moreover, unless adequate provision is made for perspiration, the hair piece can be damaged and be quite hot to the user.

Another method of attachment of a hair piece employs back-to-back adhesive layers applied to the hair piece and to the person's scalp. However, no provision is made for perspiration, and this tends to loosen the adhesive. Perspiration is particularly bad in the area of the scalp near the forehead, which is the area requiring the strongest attachment force. Consequently, the hair piece must be reinstalled at frequent intervals because of loosening.

In accordance with the present invention, these problems are minimized by utilizing a liner between the scalp and the hair piece with the primary component of the liner being an absorbent pad or layer of material which will absorb perspiration that might otherwise tend to loosen an adhesive connection between the scalp and the liner. The absorbent layer is attached by adhesive or mechanical connecting means to the hair piece. Thus the user can remove the hair piece while leaving the liner in position, such as while sleeping.

In a preferred embodiment of the invention, the absorbent material is sandwiched between upper and lower backing sheets that are relatively impervious to moisture. A pattern of holes is formed in the lower sheet so as to permit perspiration to reach the absorbent layer. Adhesive is applied during manufacture to the lower surface of the lower sheet for attaching the liner to the scalp. An additional protective sheet or strip may be employed to cover the adhesive until it is ready to be used, at which time the protective sheet can be easily removed and disposed of. A similar arrangement can be used on the upper surface of the upper backing sheet for attaching the hair piece to the liner. Or, in the alternative, mechanical means such as snaps may be used for attaching the liner to the hair piece.

Another liner that can be utilized with or without the use of absorbent material, comprises a sheet of material having a pattern of canals permanently formed therein and opening toward the scalp. Adhesive located between adjacent canals is utilized for attaching the

sheet to the scalp. The canals extend to the edge of the liner to permit perspiration to flow freely from beneath the liner, thus protecting the adhesive areas and protecting the hair piece. Again, the liner can be attached to the hair piece either by adhesive or by mechanical means. If an absorbent layer is to be utilized, it is positioned on top of the sheet having the canals, with a pattern of holes being formed in the sheet to permit moisture to reach the absorbent material.

For a more thorough understanding of the invention, refer now to the following detailed description and drawings in which:

FIG. 1 is a perspective view of the liner and the hair piece positioned on a person's head with the various layers of material being peeled back to illustrate the construction;

FIG. 2 is a cross-sectional view of the construction of FIG. 1;

FIG. 3 is a cross-sectional view of a construction like that of FIG. 1, but with snaps used to attach the liner to the hair piece;

FIG. 4 is a bottom plan view of the canal type liner of the invention;

FIG. 5 is a cross-sectional view of the liner of FIG. 4;

FIG. 6 is a perspective view of an embodiment of a liner having an absorbent pad held between layers of netting;

FIG. 7 is a plan view of a canal type liner in combination with an absorbent layer;

FIG. 8 is a cross-sectional view of the liner of FIG. 7; and

FIG. 9 is a perspective view illustrating an arrangement for protecting the adhesive used to attach the liner to the scalp and the hair piece.

Referring to FIGS. 1 and 2, the liner of the invention includes a layer or pad 12, a lower backing sheet 14 having an adhesive surface 16 for attaching the hair piece to the scalp, and an upper backing sheet 18 having an adhesive surface 20 for attaching the liner to a hair piece 22. The layer 12 is made of suitable absorbent material such as cotton or some other such fabric and in a desired thickness. The absorbent pad 12 is confined between the upper and lower backing sheets 14 and 18 at the time of manufacture. This can be accomplished in a variety of ways such as by non-water soluble glues or simply by confining the material within an envelope formed by the two backing sheets. Also, the adhesive surfaces 16 and 20 which are similar to the sticky surface on the well-known adhesive tape are applied to the respective backing sheets at the time of manufacture of the liner.

Referring to FIG. 9, the adhesive is protected at the time of manufacture by protective sheets 23 which can be easily removed and disposed of when the liner has to be used.

Since the backing sheet 14 is preferably made of material which is impervious to moisture such as plastic, it is necessary to provide a pattern of holes 24 through the backing sheet 14 to enable moisture from the scalp to reach the absorbent pad.

In use, it is only necessary to remove the protective strips 23 from the adhesive surfaces, place the liner into the hair piece 22, and position the combined unit on the scalp. Preferably the adhesive layer 16 is slightly stronger or more effective than the adhesive 20 so that

the hair piece 22 can be removed, such as for sleeping, while the liner remains on the scalp. Thus, when the hair piece needs to be replaced, it can be simply properly positioned on the liner and pressed in place.

It has been found that with this arrangement, scalp moisture will be absorbed by the pad with the result that the adhesive connection between the liner and the scalp remains effective for several days. After the adhesive connection does loosen or the absorbent material 12 of the liner becomes soiled due to use, it can be easily removed and disposed of and a new liner installed. This arrangement is quite convenient and saves wear and cleaning costs on the more expensive hair piece itself.

Referring now to FIG. 3, the arrangement shown is identical to that of FIGS. 1 and 2 with the exception that a hair piece 26 is mechanically connected to a liner 28 rather than by adhesive. More specifically, a plurality of snaps 30 are utilized. The male half 30*a* of the snap is attached to the upper backing sheet 31 of the liner while the female half 30*b* of the snap 30 is attached to the hair piece.

In the arrangement of FIG. 6, a liner 34 is shown in which a layer of absorbent material 35 is sandwiched between upper and lower lightweight backing sheets 36 and 37 through which moisture can pass. Preferably the sheets are made of fine mesh nylon netting. Adhesive strips 38 and 39 are applied to the nylon netting to secure the liner to the head and the hair piece. Since scalp perspiration is absorbed by the material 35, the adhesive connection between the scalp and the liner is long lasting.

Referring now to FIGS. 4 and 5, there is shown a liner 40 including a layer of material 41 made of a type of plastic capable of having a plurality of canals 42 permanently molded into the material at the time of manufacture. When the hair piece 40 is installed, the canals 42 open downwardly towards the scalp. As can be seen, the canals 42 are arranged in the form of a pattern stemming from an intersection 42*a* in the center of the liner and radiating outwardly to the edge of the liner. On the lower surface of the sections 44 between the canals 42, an adhesive 45 is applied at the time of manufacture to secure the liner to the head. An upper backing sheet 46 is attached by suitable means to the canal sheet 40, and the upper surface of the upper sheet 46 is provided with an adhesive for securing the liner to the hair piece 47. The liner 40 is preferably formed during manufacture with a curvature which conforms to a person's scalp.

In use, the liner 40 is attached to the scalp and the hair piece in the same fashion as the previously described liners. Moisture from the scalp will not collect on the scalp, but instead will be ducted away by means of the canals 42 to the periphery of the liner where it can simply flow by gravity out from beneath the liner and the hair piece. Also, the canals permit a limited amount of air circulation which evaporates perspiration. It is important that the canals extend completely to the edge of the liner so as to permit this circulation.

The arrangement of FIGS. 7 and 8 combines the construction of FIGS. 4 and 5 with that of FIGS. 1 and 2. More specifically, a liner 50 is formed with a lower backing sheet 52 having formed in its lower surface a canal pattern 53 similar to that shown in FIG. 4 and having adhesive 54 applied in the spaces between the canals. Also, this lower backing sheet 52 is provided with a pattern of apertures 55 similar to that shown for FIG. 1. The liner further includes an absorbent layer 56 similar to the layer 12 used in the liner of FIG. 1 and an upper backing sheet 58 similar to the sheet 18 used with the arrangement of FIG. 1. That is, the backing sheet 58 has adhesive 59 on its upper surface for securing the liner to a hair piece 60, or the adhesive on the sheet 58 may be replaced by the snap arrangement of FIG. 3 if desired. Thus, it can be seen that the embodiment of FIGS. 7 and 8 provide both the features of handling the moisture by way of canals as well as having absorbent pad for any moisture that might evaporate upwardly towards the hair piece.

What is claimed is:

1. A hair piece liner comprising a pad of moisture absorbent material, an adhesive covering only portions of the liner's lower surface for removable attachment of said liner to a person's scalp while permitting perspiration from the scalp to reach and be absorbed by the absorbent material and the upper surface of the liner having means thereon for the temporary and removable attachment of the liner to a hair piece.

2. The liner of claim 1 including a lower backing sheet adjacent the lower surface of the pad and having the adhesive formed thereon for attaching the liner to the scalp, the backing sheet having holes therethrough which permit moisture to reach the absorbent material.

3. The liner of claim 2 including a disposable protective sheet initially engaging the adhesive but which can be easily removed to expose the adhesive when the liner is to be installed.

4. The liner of claim 1 wherein a layer of adhesive is formed on the upper surface of said upper backing sheet, and a protective sheet is attached to the upper backing sheet to protect the adhesive but is readily removable when the liner is to be attached to a hair piece.

5. The liner of claim 1 including mechanical fastening means mounted on the upper backing sheet to be connected to mating connecting means on the lower surface of a hair piece.

6. The liner of claim 1 wherein the pad of absorbent material is confined between upper and lower layers of fine mesh netting which permits moisture to reach the pad.

7. A hair piece liner comprising a sheet of material having a pattern of canals permanently formed in its lower surface and opening downwardly to a person's scalp when placed in use, the canals being open to the outer periphery of the sheet so that moisture can duct from beneath the liner and so that air can circulate beneath the liner, the lower surface of the sheet being adapted to be attached to a person's scalp, and the upper surface of the sheet being adapted to be attached to a hair piece.

8. The liner of claim 7 wherein said lower sheet is made of generally moisture impervious materials but the sheet is formed with a pattern of apertures for permitting moisture to be transmitted to the absorbent material.

9. The liner of claim 8 wherein said apertures are located between adjacent canals.

10. The liner of claim 7 wherein a layer of adhesive is applied to the lower surface of the sheet between the canals for attaching the sheet to a person's scalp.

11. The liner of claim 7 wherein the canals extend from the periphery of the liner to a central intersection.

12. A hair piece liner comprising a pad of absorbent material, an adhesive covering only portions of the liner's lower surface for removable attachment of said liner to a person's scalp whereby perspiration from the scalp can reach and be absorbed by the absorbent material, an upper backing sheet adjacent the upper surface of the pad and means thereon for attaching the liner to a hair piece.

13. A hair piece liner comprising a pad of absorbent material, a first adhesive covering only portions of the liner's lower surface for removable attachment of said liner to a person's scalp whereby perspiration from the scalp can reach and be absorbed by the absorbent material, a second adhesive which is not as strong as the first adhesive on the upper surface of said liner for attachment of said liner to a hair piece.

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