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STRETCH WIG AND CAP CONSTRUCTION THEREFOR

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FIG. 1

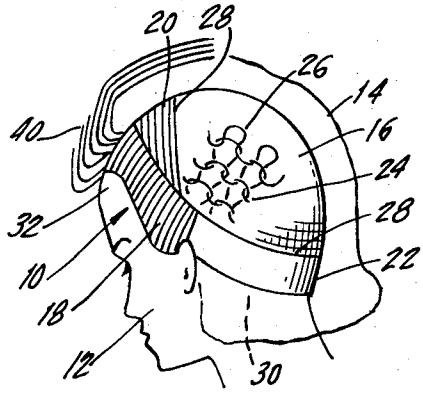


FIG. 3

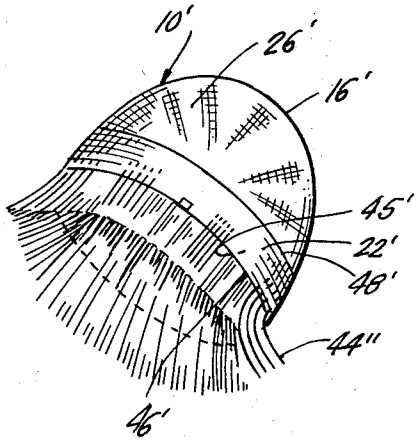
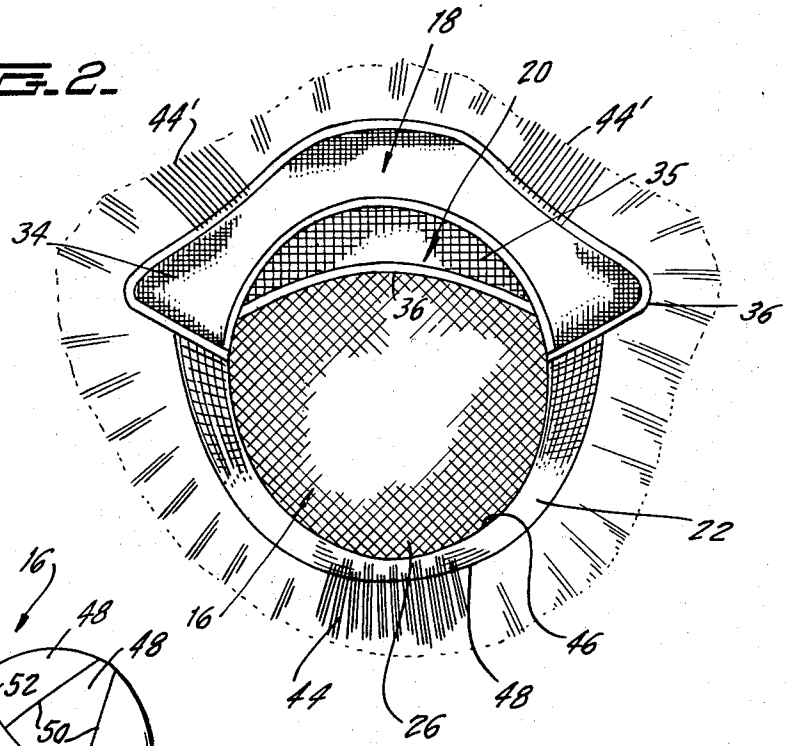


FIG. 2



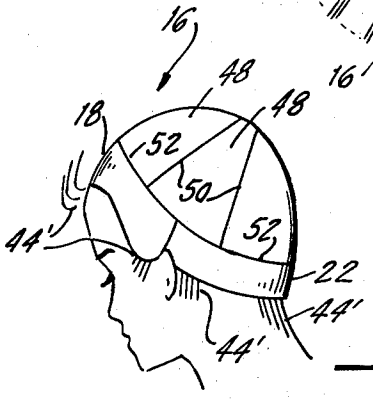


FIG. 4

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STRETCH WIG AND CAP CONSTRUCTION THEREFOR

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U.S. Cl. 132—53 6 Claims

ABSTRACT OF THE DISCLOSURE

A wig including a cap therefor which includes a plurality of sections interwoven from strands of elastic material so knit as to provide various degrees of tightness in accordance with the functions that the various sections will perform when the cap is eventually worn on the head.

This invention relates to wigs and more particularly relates to improvements in the cap construction therefor.

In recent years, the wig industry has experienced a tremendous boom. Not only do people use wigs when they have lost their hair, but to a greater degree, wigs are being used by both men and women almost to the extent of a piece of clothing or apparel, the color and styling of which can be varied with the whims of the user. However, people still have a great aversion to wearing wigs which present an unnatural appearance. Thus, a wig which presents an unnatural hairline, in the sense that either the crown portion or rear neck portion is artifically perfect or wherein either the crown portion and/or the rear neck portion fails to conform to the contour of the wearer's head (i.e. separates therefrom), is considered unnatural and undesirable.

As appreciated by those skilled in the art, many of the above noted problems are inherently related to the construction of the underlying cap to which the hair, whether it be human or artificially produced, is secured, Thus the industry has long felt the need for a cap construction and wig constructed therefrom which would most accurately simulate the human hairlines, both at the critical crown portion and at the rear neck line.

Simultaneously, and somewhat of a conflicting requirement, is the desire by wig manufacturers that a single wig be capable of fitting a variety of different sized wearers. In this manner the necessity of individually producing a wig for a particular buyer is avoided, and consequently the cost reducing methods of mass production can be employed. The requirement that a wig be adaptable to various sized heads is conflicting to the requirement that the wig realistically simulate human hairlines in the sense that the obvious method of enlarging the spectrum of users is to construct the cap of the wig of an elastic material. However, when selecting an elasticity for the cap which will accommodate a relatively large head it is inherent that if the wig eventually ends up for the head of a smaller sized person, then a certain degree of looseness and separation cannot be avoided, especially at the crown and neck portions of the head.

Accordingly the wig industry has been confronted with a problem heretofore throught unsolvable because of diametrically opposed requirements of providing a wig capable of use on various sized heads; while at the same time, and regardless of size of the head of the eventual purchaser, will always stick closely to the human contour to eliminate the artificial look prevalent in the prior art.

The instant invention has solved the above noted problen by providing a wig cap which is comprised of a plurality of sections of graduated elasticity dependent upon the various functions the sections are to perform.

Thus, in a preferred embodiment, the novel cap of the instant invention includes a rather large central portion which conforms generally to the shape of the human head. This central portion is constructed of a plurality of strands of elastic material loosely knit or interwoven to define relatively large interstitial areas between the threads thereof. In this manner the relatively large central portion of the cap is sufficiently elastic to accommodate various sized heads. However, since the relatively large central portion of the cap and the hair secured thereto is covering only the central portion of the head and does not define either the crown or rear hairlines, the problems of appearance which would normally stem from the looseness of an elastic cap, when worn on a small head, are avoided.

Further in accordance with the instant invention, a crown portion of the cap is joined to the central portion, with such crown portion consisting of a much tighter interwoven knit of strands of silk mesh material defining relatively smaller interstitial areas. The crown portion is held against the forehead of the wearer by an elastic band which circumvents the rear of the central portion of the cap. In this manner, although general elasticity of the cap has been provided by the relatively elastic central portion, the relatively tighter knit crown portion of the cap will always stick closely and conform to the crown or forehead portion of the wearer thereby avoiding the relatively loose, separated look of crown hairlines of wigs of the prior art.

As a further feature of the instant invention, the graduated nature of the interstices formed in the central and crown portions of the cap of the instant invention lends itself to the natural concentration of hair on the human head. Thus it may be appreciated that most people wear their hair such that it flows from the front of the head towards the rear. Therefore, in accordance with the instant invention, a greater density or concentration of hair, be it human or artificial, is secured toward the front of the cap (i.e., on the aforementioned crown portion) and is allowed to flow toward the rear thereby accurately simulating the human head while at the same time concealing the relatively large interstitial areas of the central portion of the cap.

As a further feature of the instant invention there is provided an intermediate portion joining the aforementioned crown portion and central portion with the intermediate portion consisting of interwoven strands of the elastic material knit with a tightness intermediate that of the crown portion and the central portion such as to provide a relatively smooth transition between the two extremes.

Finally, to assure a natural-looking rear neckline, the aforementioned elastic band closely adheres to the rear contour of the human head. Furthermore, and in accordance with the instant invention, a plurality of hairs are secured to the inner surface of such band such that the band itself maintains such plurality of hairs closely in contact with the rear or neck portion of the human head thereby creating the appearance that the hairs are growing out of the scalp. Additionally, and as a preferred embodiment, such plurality of hairs are located at various positions between the side edges of such cap to more accurately simulate the irregular human hairline at the neck portion of the head.

In an alternative embodiment of the instant invention, the central portion of the wig cap is formed in a plurality of wedge-shaped sections which are sewn together along their abutting edges. In this manner the unsightly and bulky gathering which occassionally results when utilizing a one-piece central portion can be easily eliminated.

Accordingly, it is an object of the instant invention to provide a wig cap which is capable of accommodating

various sized wearers while at the same time will adequately maintain critical portions thereof in close conformance with the contour of the human head.

Another object of the instant invention is to provide such a wig cap which is comprised of a plurality of sections interwoven in graduated degrees of tightness in accordance with the functions such sections perform within the wig.

Still another object of the instant invention is to provide such a wig cap which includes a relatively loosely knit central portion closely conforming to the general shape of the human head which central portion, because of the knitting thereof, is inherently capable of stretching to accommodate various wearers, and a crown portion more tightly knit than the aforementioned central portion such as to guarantee the close adherence of the crown portion of the cap to the crown of the wearer thereby eliminating unsightly artificial looking hairlines prevalent in the wig construction of the prior art.

Another object of the instant invention is to provide such a wig cap which includes an elastic band along an arcuate portion of the aforementioned central portion, which band performs a dual function in that (1) it provides a natural-looking rear neckline while (2) at the same time aids in maintaining the aforementioned crown portion in close contact with the forehead of the wearer.

Yet another object of the instant invention is to provide such a wig cap construction which includes an intermediate portion joining the aforementioned crown and central portions with such intermediate portion consisting of an interwove mesh of elastic strands knit at a tightness intermediate the tightness of the crown and central portion such as to provide a smooth transition therebetween.

Still another object of the instant invention is to provide such a wig cap wherein hair is secured to the inner surface of the band thereof such that it appears that such hair emanates from the scalp of the wearer.

Yet another object of the instant invention is to provide such a wig cap wherein hairs secured to the inner surface of the band thereof are located at various positions along the width of the cap to more accurately simulate the irregular human hairline.

Still another object of the instant invention is to provide such a wig cap which includes a central portion comprised of a plurality of wedge-like sections which eliminates unsightly gatherings prevalent in the prior art.

Other objects and a fuller understanding of the instant invention may be had by referring to the following description and drawings, in which:

FIG. 1 shows a wig cap of the instant invention worn on the human head;

FIG. 2 shows the wig cap of the instant invention viewed from the undersurface thereof;

FIG. 3 represents an alternative embodiment of the wig cap of the instant invention; and

FIG. 4 represents an alternative embodiment of the wig cap of the instant invention.

Referring specifically to FIG. 1, there is shown a wig cap **10** of the instant invention being worn by a human **12**, preferably shown as a woman. However, it is to be understood that the instant invention is equally applicable to wigs for men and that the schematic representation **14** of a woman's hair-do is for purposes of illustration only.

For ease of identification, the cap **10** of FIG. 1 may be said to include three distinct sections, identified as a relatively large central portion **16** which conforms generally to the shape of the head **12**; a crown portion **18** intended to fit over the forehead or crown portion of the head **12**; and an intermediate portion **20** joining the crown portion **18** and the central portion **16**. Additionally, a band of elastic material **22** is secured along an arcuate portion of the periphery of the central portion **16**.

In its preferred construction, the crown portion **18** is woven of a silk mesh, while the remainder of the cap **10**, with the exception of the elastic band **20**, is formed by interweaving or knitting strands of elastic material such as nylon or other material having the requisite elasticity. Such strands are schematically illustrated at **24**, interwoven to form a knit or mesh structure having interstitial areas or spaces **26** therein. It will be appreciated that the showing of an interwoven or knit fabric at **24**, **26** in the central portion **16** of the cap **10** is for the purpose of illustration only and in no way limits the type of knitting which might be utilized in the practice of the instant invention. Similarly, it is to be understood that although the illustrated knit section is shown only in the central portion **16**, a similar interwoven knit or mesh structure would form the crown portion **18** and the intermediate portion **20**, the only difference therebetween being explained immediately below with respect to FIG. 2.

Thus, and in accordance with the instant invention, the portions **16**, **18** and **20** have a graduated degree of elasticity so chosen to perform various functions when the cap and wig defined thereon are eventually situated on the head such as **12**. Specifically, the central and major surface area portion **16** of the cap **10** is so interwoven with the strands **24** of elastic material as to provide a relatively loose mesh fabric; that is, the interstitial areas **26** of the portion **16** are relatively large compared to the crown portion **18** and the intermediate portion **20**. Because of this relatively loose knitting, the central portion **16** will have an inherently greater degree of elasticity or stretchability than the intermediate portion **20**. Thus the central portion **16** will be capable of stretching to fit various sized heads such that each purchaser does not have to be individually measured and a cap custom manufactured therefor. To the contrary, because of the inherent elastic nature of the central portion **16**, caps constructed in accordance with the instant invention may be mass produced at substantial savings for a wide range of head sizes.

It may be appreciated that no portion of the periphery, indicated at **28** in FIG. 1, of the central portion **16** represents an extremity of the cap **10**. That is, it is the band **22** and the crown portion **18** which terminate at the rear or neck portion **30** and the temple or forehead **32** of the wearer, respectively, to define the critical hairline at these points. Therefore, it will be appreciated that even in that extreme situation where the eventual purchaser of a wig, employing the wig cap **10**, has what may be said to be the smallest head within the range that the cap **10** is designed for, the somewhat inherent and unavoidable looseness of the central portion **16** in that situation would not be objectionable since there would be no point on either the neck or the forehead of the wearer at which this looseness and consequential separation could be visually observed.

However, and in further accordance with the teachings of the instant invention, the crown portion **18** of the cap **10** is tightly interwoven from strands of a silk mesh material or its equivalent. Thus, and as schematically illustrated in FIG. 2, the interstitial areas **34** which result in the crown portion **18** are significantly smaller than the interstitial areas **26** of the central portion **16**. These small interstitial areas together with the inelastic nature of silk mesh make the crown portion **18** inelastic relative to the central portion **16**. The elastic band **22**, joined to the extremities of the crown portion, helps keep the crown portion **18** tightly fitting on the forehead. Therefore, regardless of the head size of the eventual purchaser, the crown portion **18**, being relatively inelastic, will closely conform to and adhere to the forehead or temple portion **32** of the wearer. In this manner there will be no unsightly separation occurring at the junction of the crown portion **18** and the forehead **32**.

Finally, the intermediate portion **20** is interwoven at a tightness somewhere intermediate the degrees to which crown portion **18** and central portion **16** were knit, such that, as illustrated in FIG. 2, the interstitial spaces **35**

thereof are of an intermediate size relative to the extremes presented by the crown portion **18** and central portion **16**. The main purpose of the intermediate portion **20** is to provide the smooth transition between the relatively tightly knit inelastic crown portion **18** and the relatively loosely knit central portion **16** such that there will be no visible demarcation therebetween. In this respect it may be noted that bound edges, such as **36**, delineate the various sections and that in the manufacturing process preferably the individual sections such as **16**, **18** and **20** are individually formed and sewn together along such bound edges.

Turning now to the securement of hair to the cap **10**, it may be initially pointed out that the instant invention contemplates that either natural hair strands or synthetic monofilaments, such as for Dynel, may be secured by any appropriate method to the cap **10**. However, and as will be explained immediately below, the graduated nature of the weaving of the various portions of the cap of the instant invention readily lends itself to pecular concentrations of hair which most accurately simulate the human head. Thus most people wear their hair long in the front and allow it to flow toward the rear. Accordingly a relatively dense concentration of hair, either human or artificial, schematically illustrated at **40**, is secured to the crown portion **18** and is allowed to flow toward the rear to conceal the larger interstitial areas **26**.

Finally, turning to the band **22** it is noted that the relatively tight elastic material and hair secured thereto will adhere closely to the contour of the rear or neck portion of the human head thereby avoiding the unsightly separated rear hairline prevalent in wigs of the prior art. (As already noted, the band **22** aids in maintaining the crown portion **18** on the forehead.) Furthermore, and in accordance with the instant invention, and as most clearly seen in FIG. 2, a plurality of hairs **44** are secured to the band **22** on the inner surface thereof such that the band itself will maintain the hair **44** against the neck of the human wearing the wig. This gives the effect that the hair **44** actually emanates from the scalp of the human rather than from a wig, thereby making the rear hairline even more natural looking. Furthermore, by locating the hair **44** at various positions along the width of the band **22**, that is at various positions between the side edges **46** and **48**, the relatively irregular neck hairline of a human being is most accurately simulated.

Also shown in FIG. 2 is the manner in which hairs **44'** may be secured to the leading edge and undersurface of the crown portion **18** to give the impression that the hair emanates from the scalp at the forward end of the wig.

Turning to FIG. 3 there is shown an alternative embodiment of the instant invention in which the cap **10'** includes a one-piece member **16'** interwoven from strands of elastic material in approximately the same degree of tightness as the section **16** of FIG. 1. In this manner the interstitial areas **26'** are relatively large and thereby inherently provide a stretchable cap capable of being worn by persons with various sized heads. However, in order to maintain the peripheral portions of the cap in close conformity with the human head, especially at the critical forehead and neck portions **32** and **30**, respectively, shown in FIG. 1, an elastic band **22'** is provided. The band **22'** may be an elastic tape in nature or, if desired, interwoven in the manner similar to section **16'**, but with a much greater degree of tightness. Furthermore, and in accordance with the instant invention, the plurality of hairs **44''** are secured to the inner surface **45** thereof, thereby giving the impresion that the hair **44''** originates in the human scalp rather than on a wig. Finally the hairs **44''** are variously positioned between the edges **46'** and **48'** of the band **22'** in order to simulate the irregular hairline of the human being where the scalp joins the neck. Additionally, hair such as **44'** of FIG. 2 may be secured to the inner surface of the band **22'** at its forward end to simulate a more natural look on the crown of the wearer.

Turning to FIG. 4, there is shown an alternative embodiment of the wig cap of the instant invention wherein the central oprtion such as **16** of FIG. 1 is formed of a plurality of wedge-shaped sections **48**, sewn together along their common edges **50**. By utilizing a plurality of such sections **48**, the gathering of material **52**, which sometimes occurs at the juncture of the central portion **16** and the segment **18** and **22**, respectively, can be simply and easily eliminated. Furthermore, FIG. 4 also illustrates the utilization of hair **44'** sewn along the inside surfaces of the crown portion **18** and the band **22**. As indicated previously, the portions **18** and **22** continually press such hair as **44'** against the scalp and give the outward appearance that the hairs are eminating from the scalp.

Thus there has been described a cap and wig construction built thereupon which has a plurality of sections, of various degrees of elasticity dependent upon the function that the various sections will perform when the wig is eventually worn. By way of the instant invention, a stretchable cap capable of being worn by purchasers with different sized heads is provided while at the same time unsightly artificial looking hairlines which are prevalent in the prior art are avoided. Although specific embodiments of the instant invention have been shown, it is to be understood that various modifications are possible within the scope of the instant invention. Thus, although the utilization of an intermediate portion **20** is particularly useful from the point of view of providing a smooth transition between the crown portion **18** and central portion **16**, such intermediate portion **20** might be eliminated if desired. Similarly, although the cap of the instant invention has been shown as comprising a plurality of discrete sections, preferably manufactured individually and sewn together, it is to be understood that the instant invention could be practiced by knitting the entire cap in one step, it being required only that the various gradations of knitting be carefully controlled such as to end up with a cap that has distinct sections performing the various functions which have been outlined above. Similarly, the band **22** may be either of the elastic tape type material shown or, if desired, could be an interwoven mesh knit extremely tight. Therefore, the instant invention is not to be limited by the specific disclosure but only by the claims appended hereto.

The embodiments of the invention in which an exclusive privilege or property is claimed are defined as follows:

1. In a wig for a human being, incorporating a cap to which a plurality of hairs are secured and which is adapted to closely conform to the contour of the human head without discomfort to the wearer, the improvement comprising providing such cap of a first elastic stretch fabric capable of stretching to conform to and fit various size heads, and a second, relatively tighter elastic stretch fabric secured to said first fabric along its entire rear periphery and defining a wide elastic edge band, said elastic band holding the cap against the forehead of the wearer to provide a front hairline and additionally defining a rear portion which adheres closely to the rear neck portion of the wearer's head, thereby retaining the cap in place without slippage or discomfort, and

wherein a number of individual hairs are secured to said second, relatively tighter elastic stretch fabric at different points intermediate the inner and outer edges of the band defined thereby, with the hairs being secured to the portion of said band which is in close juxtaposition to the rear neck portion of the wearer's head to define a rear hairline accurately simulating that of the wearer.

2. The improvement as defined in claim **1** wherein the hairs secured to the portions of said band are se-

cured on the inner surface thereof such that said band maintains the individual hairs against the rear neck portion of the wearer to present the effect that the hairs actually emanate from the scalp of the wearer rather than from a wig.

3. The improvement as defined in claim 2 wherein said first elastic stretch fabric includes a central portion generally shaped to conform to the human head and consisting of loosely knit interwoven strands of elastic material defining relatively large interstitial spaces therein, and wherein said first elastic stretch fabric also includes a crown portion joined to said central portion and with said crown portion consisting of relatively tighter knit interwoven strands of material defining smaller interstitial spaces relative to the interstitial spaces of said central portion.

4. The improvement as defined in claim 3 wherein said second, relatively tighter elastic stretch fabric is secured to said first fabric along an arcuate portion of the periphery of said central portion to define the rear portion of the cap which adheres closely to the rear neck portion of the wearer's head.

5. The improvement as defined in claim 4 wherein said first, elastic stretch fabric further includes an intermediate portion joining said central portion and said

crown portion, with said intermediate portion consisting of interwoven strands of elastic material more tightly knit than said central portion and less tightly knit than said crown portion to define interstitial areas smaller than the interstitial areas of said central portion and larger than the interstitial areas of said crown portion.

6. The improvement as defined in claim 5, wherein the ends of said bank defined by said second, relatively tighter elastic stretch fabric are secured to the crown portion of said first, elastic stretch fabric to maintain said crown portion in intimate contact with the wearer's head.

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