

TITLE OF THE INVENTION

BASE FOR A WIG

BACKGROUND OF THE INVENTION

5 FIELD OF THE INVENTION

[0001] The present invention relates to a base for a wig, on which imitation hairs (artificial hairs or natural hairs) are to be planted for making the wig. Specifically, the present invention relates to a base for a wig, which is
10 configured to be put on user's own hairs remaining on the user's head.

[0002]

DESCRIPTION OF THE RELATED ART

Originally, a wig has been used for covering a bald head.
15 In such the wigs, there have been proposed many inventions, which would make hairline look naturally.

[0003] In a Patent Document 1 (Japanese patent No. 5005918), it is disclosed that a front edge of a wig base itself is made in irregular convexo-concave shape. In a
20 Patent Document 2 (Japanese laid-open patent publication No. 1986-231204), it is disclosed that a waved-member (wire and the like) is fixed to a front edge of a wig base by a support.

[0004] These prior arts are intended to be applied to
25 the case that user's own hairs do not remain at all on a

front area of the head, or the case that only very few hairs remain, in order to make the hairline look naturally.

[0005] On the other hand, apart from the above-mentioned original wigs, a new type of wigs are being popular recently among women, which is intended for supplementing poor hair volume, or reducing the number of hair-dyeing for lowering the hair damages.

These new type of wigs are different from the original wigs covering the bald head, in that they are put on user's remaining own hairs in which wigs are not absolutely necessary.

[0006] Therefore, an object of the present invention is, regarding a wig base to be put on the user's remaining own hairs, to make the border portion look naturally between the imitation hairs planted on the edge portion of the wig base and the user's own hairs remaining on the head.

SUMMARY OF THE INVENTION

[0007] According to the present invention, there is provided a base for a wig having the following featured. The wig base according to the present invention is to make a wig by planting imitation hairs thereto and comprises "a base body which is put on a user's head", "a camouflage net which is placed on an outer periphery of the base body, so as to extend outwardly beyond the outer periphery of the base body", "a sheet for attaching line-member which is

placed on the camouflage net", "a line-member having shape-maintaining characteristic which is placed on the sheet, and meanders like waves so as to partially extend outwardly beyond the camouflage net", and "a reinforce layer which is placed on the outer periphery of the base body over the line-member". Total thickness of "the base body", "the camouflage net", and "the sheet" provides a certain distance "h" between bottom faces of the base body and the line-member.

10 The above mentioned term "shape-maintaining characteristic" means a characteristic that, when an external force is applied to a member and deforms it, the deformed member can maintain its deformed shape to some extent.

15 **[0008]**

EFFECT OF INVENTION

According to the wig base of the present invention configured as mentioned above, thanks to a gap of the distance "h" existing, the following effects can be obtained: that is, the user's own hairs right below an edge of the wig base can rise up from root by some distance. As a result, the edge region of the wig base can be effectively hidden from outside by the own hairs which rise up, thereby realizing a natural appearance.

—25— **[0009]**

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a schematic plan view of a wig base, according to an embodiment of the present invention.

Fig. 2 is an exploded view of the wig base in Fig. 1, schematically showing the piling construction.

Figs. 3a-3c are enlarged cross sectional views, showing the front side region in the 3-3 cross-section in Fig. 1.

Fig. 4 is a schematic view, wherein there is illustrated one example of the relationship between the base body 10 and the line member 40 and the sizes.

Figs. 5 and 6 are showing some variations of the wig bases of the present invention.

[0010]

15 DETAILED DESCRIPTION OF THE EMBODIMENT

Embodiments of the present invention are explained below, with reference to the accompanying drawings. Fig. 1 is a schematic plan view showing a wig base 1 from the above, according to an embodiment of the present invention. Imitation hairs (artificial hairs or natural hairs) are planted to the wig base 1, to make a wig (not illustrated).

[0011] Fig. 2 is an exploded view of the wig base in Fig. 1, schematically showing the piling construction. In Fig. 2, every element including the base body 10 and the like is illustrated as if they are flat. However, this is for the

sake of simple representation, and actually they are formed in a curved configuration so as to conform to the user's head. While the details are explained below, a camouflage net 20 is placed on the outer periphery of the wig base 10, and a line-member 40 is placed over the camouflage net 20 with using a sheet 30 for attaching line-member being sandwiched between the camouflage net 20 and the line-member 40, and then a reinforce layer 50 is placed on the top of them.

10 **[0012]**

 «Base Body 10»

 The base body 10 is a kind of foundation of the wig base 1, and having a curved configuration conforming to the user's head. In the illustrated embodiment, whole of the base body 10 is made of net material. However, the base body 10 can be made of synthetic resin sheet, or combination of net material and synthetic resin sheet, or the like. The net material may be superior in its air permeability.

20 **[0013]**

 «Camouflage Net 20»

 As illustrated in Fig. 3(a) in large scale, the camouflage net 20 is placed on the outer periphery of the base body 10, so as to extend beyond its outer edge. The amount of the extension "g" may be, for example, 1-2 mm.

Thanks to the fact that the camouflage net 20 extends beyond the outer edge of the base body 10, it can effectively prevent the edge of the base body 10 from being recognized from outside. In a view point of such the function of the camouflage net 20, it may be preferable that the camouflage net 20 extends covering the whole periphery of the base body 10, but in some cases, the camouflage net 20 can be placed covering only a part of the periphery of the base body 10.

Regarding the mesh shape in the camouflage net 20, it is not limited to particular one. But, the hexagon mesh, which can provide a good camouflage effect, would be preferable. In the illustrated embodiment, the camouflage net 20 is folded into a double-layer construction. But, a flat single-layer construction of a camouflage net could be also used.

[0014]

《Sheet 30 for attaching line-member, and Line-Member 40》

the line-member 40 which has a shape-maintaining characteristic is placed on the camouflage net 20, with the sheet 30 for attaching line-member being located between the camouflage net 20 and the line-member 40 and. In the present invention, the term "shape-maintaining characteristic" means a characteristic that, when an external force is applied to a member and deforms it, the

deformed member can maintain its deformed shape to some extent. Such the "shape-maintaining characteristic" could be realized by a line-member made of metal, synthetic resin and the like. However, a line-member disclosed in Japanese
5 patent no. 3582854 (patentee: Mitsui Chemicals, Inc.) is preferably used, which is made of a plastically deformable polyethylene material and having a diameter of about 0.7-0.9 mm.

[0015] Firstly, the sheet 30 for attaching line-member
10 is placed on the camouflage net 20, and the line-member 40 is placed thereon. The sheet 30 is intended for helping the positioning of the line-member 40 relative to the base body 10, and also intended for assuring a gap "h" which is explained later (refer to Fig. 3b). Further, thanks to the
15 existence of the sheet 30, the line-member 40 can be more stably fixed.

For example, in the case that the base body 10 is made of net material with a large sized mesh, by using the sheet 30 with a smaller sized mesh, the line-member 40 can be
20 easily sewed on, and stably fixed thereto. The sheet 30 for attaching line-member is not necessarily be a net material, and can be a sheet material without mesh (fabric, synthetic resin, and the like). But, the net material may be superior in its lightness and air permeability.

25 **[0016]** In the illustrated embodiment, the line-member 40

is placed only on an area corresponding to the user's forehead, on the wig base 1. However, in the present invention, the location of the line-member 40 is not limited to particular one, and can be selected conveniently.

5 The sheet 30 for attaching line-member should be at least in the area where the line-member 40 exists.

[0017] Fig. 4 illustrates one example of the location and size of the line member 40. The line member 40 meanders like waves, and is positioned such that the parts
10 of the line member 40 (spaced some mountains) extend outwardly beyond the front edges of the base body 10 and the camouflage net 20.

In the example of Fig. 4, "lower mountains" and "higher mountains" appear in repeated and alternate manner. The
15 pitch "a" of the waving line member 40 is 5 mm. The amount of the extension "b" of the "lower mountains" from the front edge of the base body 10 is 3 mm, and the amount of the extension "c" of the "higher mountains" from the front edge of the base body 10 is 5 mm. Further, the line-member
20 40 is secured to the base body 10, such that the line-member 40 extends inwardly by the distance "d" of 10 mm from the front edges of the base body 10 (the detailed manner of securing is explained later).

The above mentioned case is only one example, and the
-25- size, the number and the height of mountains can be

conveniently selected to provide some variations.

[0018] As illustrated in Fig. 3b, since the line-member 40 is placed on the base body 10 with using the camouflage net 20 and the sheet 30, a certain distance "h" can be assured between the bottom faces of the base body 10 and the line-member 40. The effect of the distance "h" is explained, with reference to Fig. 3c.

[0019]

«Effects of the distance "h"»

10 In Fig. 3c, both the wig base 1 and the user's own hairs remaining on the scalp are illustrated schematically (for the simplicity, the scalp is also drawn flat and own hairs are partially illustrated).

Thanks to a gap of the distance "h" existing, the own hairs "X" right below the front edge of the wig base can rise up from roots by some distance. As a result, the front edge region "Y" of the wig base can be effectively hidden from outside by the own hairs "X", thereby achieving a natural appearance. In Fig. 3c, although imitation hairs planted on the wig base are not illustrated, the imitation hairs together with the user's own hairs rising up can provide a natural appearance.

Supposing if such the gap of the distance "h" does not exist, the own hairs "X" right below the front edge of the wig base could not rise up, and could not hide the front

edge region "Y" of the wig base, such that artificial and unnatural border would be recognized from outside.

The distance "h" would be preferably within a certain size range (about 0.80-1.00 mm). That is because if the distance "h" is too small, the own hairs could not sufficiently rise up. If the distance "h" is too large, the border of the own hairs would become distinguishable and unnatural.

Note that, in figures, every element is drawn with larger sizes than actual, for the sake of a good explanation.

[0020]

《Reinforce Layer 50》

The reinforce layer 50 is placed over the line-member 40 (refer to Fig. 2). The reinforce layer 50 is intended for securing the line-member 40 from above, and intended for reinforcing the whole periphery of the wig base including the line-member 40. However, in some cases, the reinforce layer 50 can be placed on a limited region, rather than whole periphery of the wig base.

The material of the reinforce layer 50 is not limited to particular one, as long as the above intention can be achieved. In the producing steps explained below, the same net material as the base body 10 is used for the reinforce layer 50. In the case, the producing steps can be

simplified and the cost can be lowered.

[0021]

«One embodiment of producing steps»

One example of producing steps of the wig base 1 is
5 explained below.

(1) Two sheets of net material forming the base body
are stacked on a plaster head, which has been molded
replicating a user's head. The periphery of the stacked
sheets are fixed with staples (the portion fixed with
10 staples is periphery region of the net material, which
finally does not constitute the base body, and cut away
later).

In this condition, the plaster head is heated in a hot
air dryer, so that the shape of the net material on the
15 plaster head is made conforming to the user's head.

Only one sheet of the net material is removed from the
plaster head, and the other sheet is left on the plaster
head (removed one sheet is used for the reinforce layer 50,
as explained later).

20 (2) On the plaster head, a contour line is previously
marked, which corresponds to the final shape of the base
body 10. Onto the net material on the plaster head, the
camouflage net 20 is temporary fixed along to the contour
line (temporary fixing can be done by an appropriate means,
such as ultrasonic waves, marking pin, and the like).
25

This net material is removed from the plaster head, and the camouflage net 20 is completely fixed by sewing. At this moment, as illustrated in Fig. 3a, the camouflage net 20 is positioned on the base body 10, so as to extend
5 beyond the edge of the base body 10 by the distance "g".

(3) After the camouflage net 20 is completely fixed, the sheet 30 for attaching line-member is placed thereon and fixed by sewing. The sheet 30 is positioned, so as not to extend beyond the edge of the base body 10. This is
10 because, the extended camouflage net 20 should not be hidden by the sheet 30, for assuring the camouflaging effect. Then, the line-member 40 is positioned on the sheet 30 as illustrated in Fig.4, and is fixed by sewing.

As explained before, with using the sheet 30, fixing
15 the line-member 40 can be made easier. For example, when the base body 10 is made of net material having a larger mesh, the sheet 30 made of net material having a smaller mesh placed on the base body 10 would make the sewing work of the line-member 40 easier. Further, thanks to the
20 existence of the sheet 30, the above-mentioned distance "h" can be assured.

(4) The other net material, which has been removed from the plaster head in the above (1), is put over the line-member 40 from above, and the whole components are
---25--- temporary fixed onto the plaster head with staples, and

then finally fixed by sewing. After final fixing, only the central region of this net material (only the region within the sewing line II, described later) is cut out to complete the reinforce layer 50, which is extending along with the whole periphery of the wig base. That is, in this embodiment, the base body 10 and the reinforce layer 50 are made of the same net material, and thanks to this, the number of steps and the cost for producing the wig base can be lowered.

10 (5) In the above mentioned explanation, "the camouflage net 20", "the sheet 30 for attaching line-member", "the line-member 40", and "the reinforce layer 50" are fixed on "the base body 10" by sewing. It is preferable that the sewing is done along the whole periphery of the wig base
15 (or partially) at the sewing lines I, II illustrated in Fig. 3a. In the above mentioned embodiment, each element is fixed by sewing individually. But, in another way, all elements can be fixed by sewing at once after they are stacked.

20 **[0022]** According to the above mentioned steps, the wig base 1 is completed. Then, imitation hairs (artificial hairs or natural hairs) are planted on this wig base 1 so as to complete a wig (not illustrated). Regarding the specific manner for planting the imitation hairs, generally
--25-- known ones can be conveniently employed. For example,

planting the imitation hairs to the line-member 40 can be done as disclosed in Japanese laid-open patent publication No. 2012-082566, wherein a main imitation hair 42 serving as a basis is provided, and some sub imitation hairs 43 are
 5 planted on this main imitation hair 42 like branches, such that rich hair volume can be realized (refer to Fig. 4). Note that, in Fig. 4, only one main imitation hair and two sub imitation hairs are illustrated.

[0023]

10 «Examples of variation»

In the present invention, the size of the wig base 1, or the configuration of the projecting mountains of the line-member 40 are not limited to the particular one, and some variations can be provided.

15 Fig. 5 illustrates the plan view and the perspective view of one of such the variations (variation "B"). The variation illustrated in Fig. 5 has a maximum width L of about 12 cm, and 9 mountains. Further, the variations "A" to "E" including the variation "B" are illustrated in Fig.
 20 6. Other than those illustrated, many variations could be provided.

[0024]

<<Description of reference numbers>>

1 Base for a wig

10 Base body

20	Camouflage net
30	Sheet 30 for attaching line-member
40	Line-member
42	Main imitation hair
5 43	Sub imitation hair
50	Reinforce layer

WHAT IS CLAIMED IS:

1. A wig base to make a wig by planting imitation hairs thereto, comprising:

a base body (10) which is put on a user's head;

5 a camouflage net (20) which is placed on an outer periphery of the base body (10), so as to extend outwardly beyond the outer periphery of the base body (10);

a sheet (30) for attaching line-member, which is placed on the camouflage net (20);

10 a line-member (40) having shape-maintaining characteristic which is placed on the sheet (30), the line-member (40) meandering like waves so as to partially extend outwardly beyond the camouflage net (20); and

a reinforce layer (50) which is placed on the outer
15 periphery of the base body (10) over the line-member (40), wherein:

total thickness of the base body (10), the camouflage net (20), and the sheet (30) provides a certain distance "h" between bottom faces of the base body (10) and the
20 line-member (40).

2. The wig base according to claim 1, wherein:

whole of the base body (10) and the sheet (30) are made of net material, and mesh of the sheet (30) is smaller
—25— than that of the base body (10).

3. The wig base according to claim 1 or 2, wherein:
the base body (10) and the reinforce layer (50) are
made of same net material.

5

4. The wig base according to one of claims 1 to 3,
wherein:
the line-member (40) is placed at a region
corresponding to a forehead of a user on the base body (10).

10

5. A wig, which is obtained by planting imitation hairs
made of artificial hairs or natural hairs on the wig base
according to one of claims 1 to 4.