



US 20170208883A1

(19) **United States**

(12) **Patent Application Publication**

Russell

(10) **Pub. No.: US 2017/0208883 A1**

(43) **Pub. Date: Jul. 27, 2017**

(54) **HAIR REPLACEMENT APPARATUS AND METHOD OF USE**

(60) Provisional application No. 61/875,129, filed on Sep. 9, 2013.

(71) Applicant: **Barbara J Russell**, Odessa, FL (US)

(72) Inventor: **Barbara J Russell**, Odessa, FL (US)

(21) Appl. No.: **15/309,443**

(22) PCT Filed: **Sep. 7, 2015**

(86) PCT No.: **PCT/US15/48764**

§ 371 (c)(1),

(2) Date: **Nov. 7, 2016**

Publication Classification

(51) **Int. Cl.**
A41G 3/00 (2006.01)

A41G 5/00 (2006.01)

(52) **U.S. Cl.**
CPC *A41G 3/005* (2013.01); *A41G 3/0025* (2013.01); *A41G 5/008* (2013.01)

(57) **ABSTRACT**

A hair replacement apparatus, system and method of use for hair replacement comprising a user-fitted mold, covering all or a portion of the crown of the user's head, upon which an anchor base is sized wherein the user's own hair acts as additional multiple points of contact to keep the anchor base in place.

Related U.S. Application Data

(63) Continuation of application No. 14/479,496, filed on Sep. 8, 2014, now abandoned.

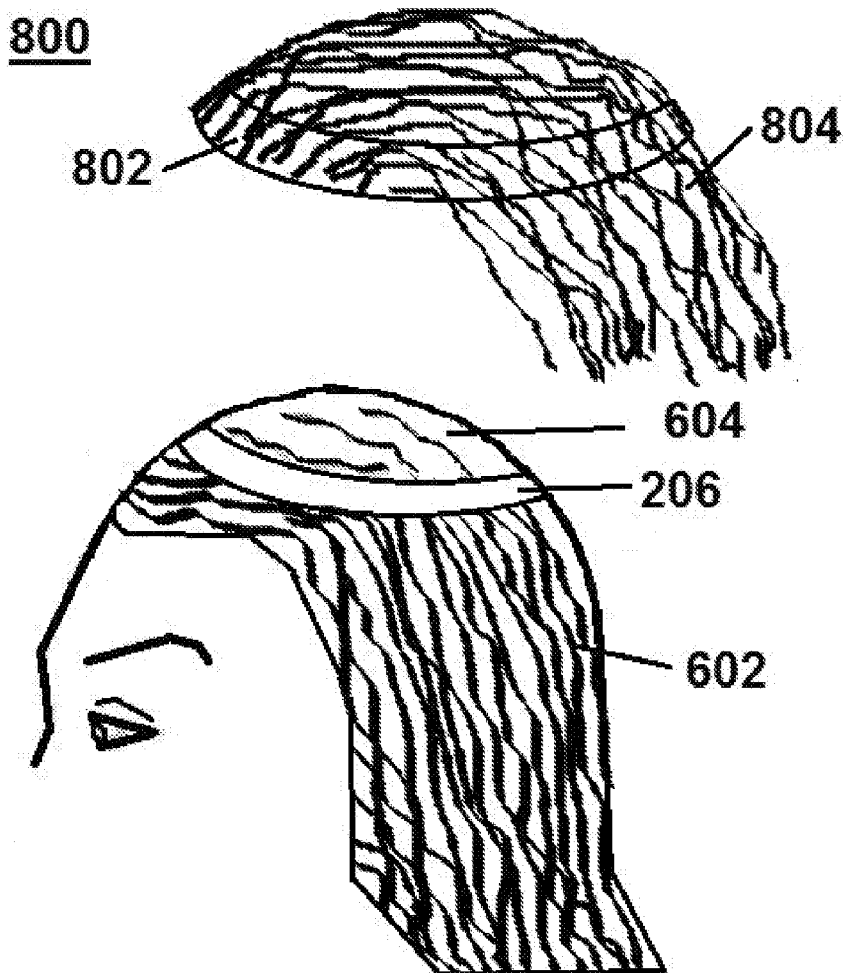


FIG. 1

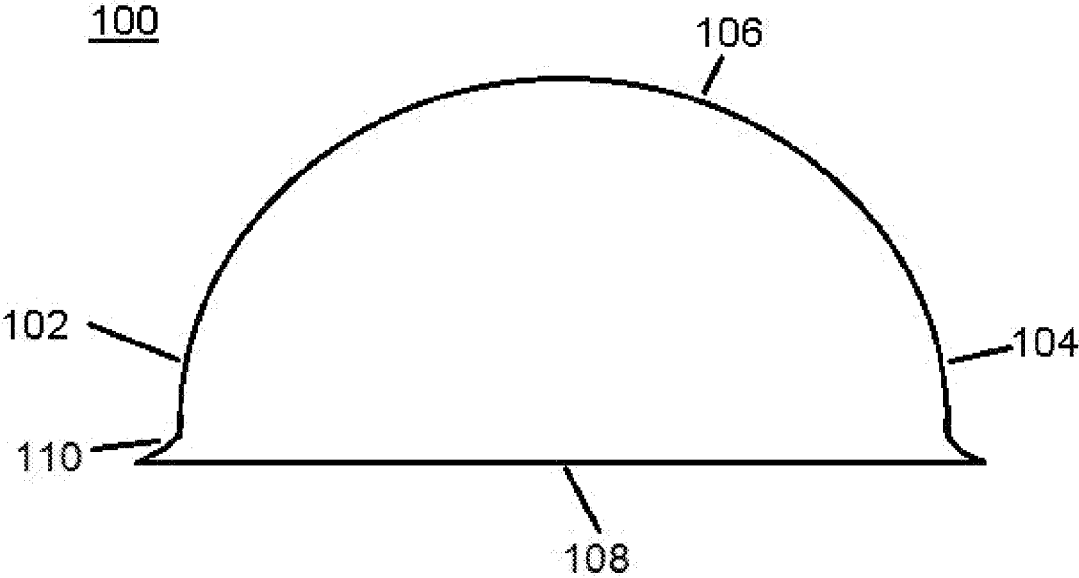


FIG. 2

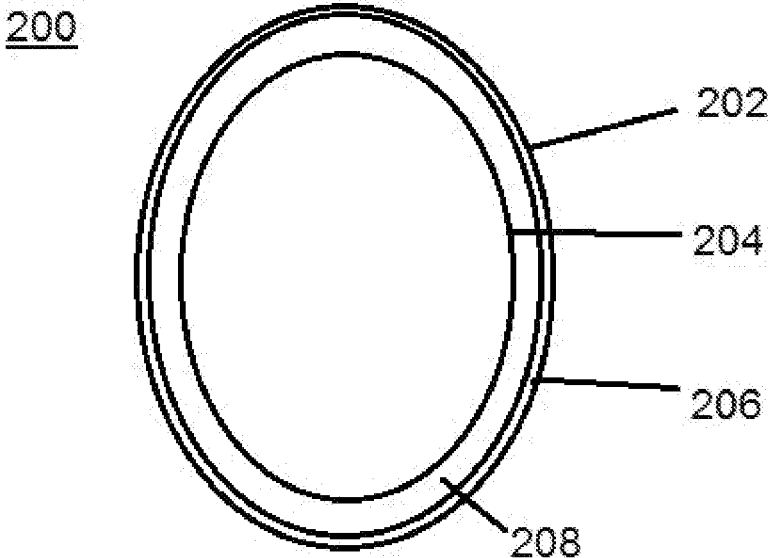


FIG. 3

300

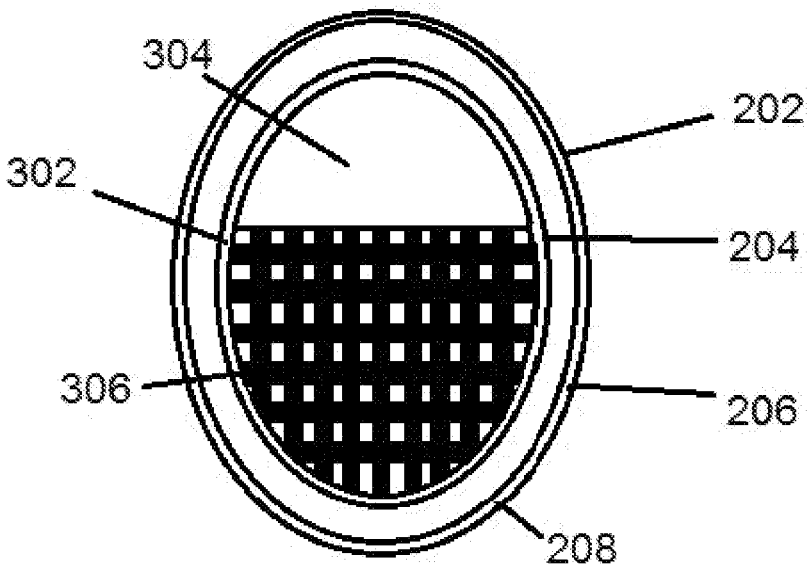


FIG. 4

400

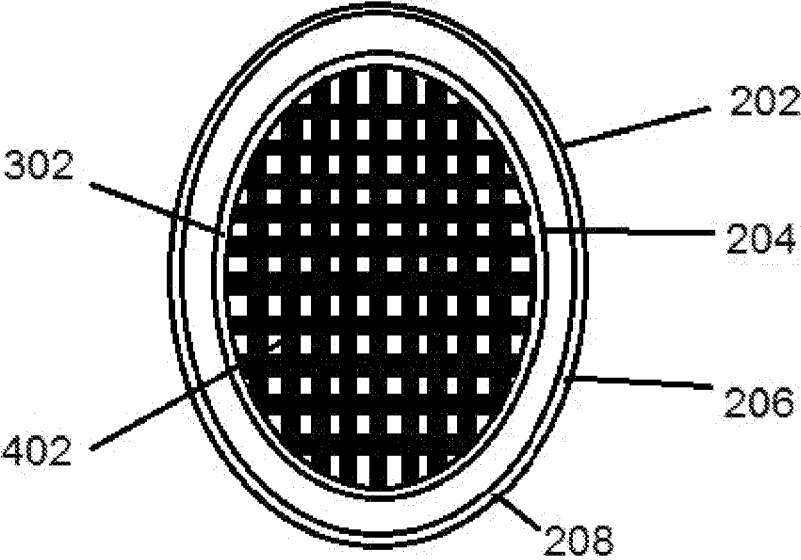


FIG. 5

500

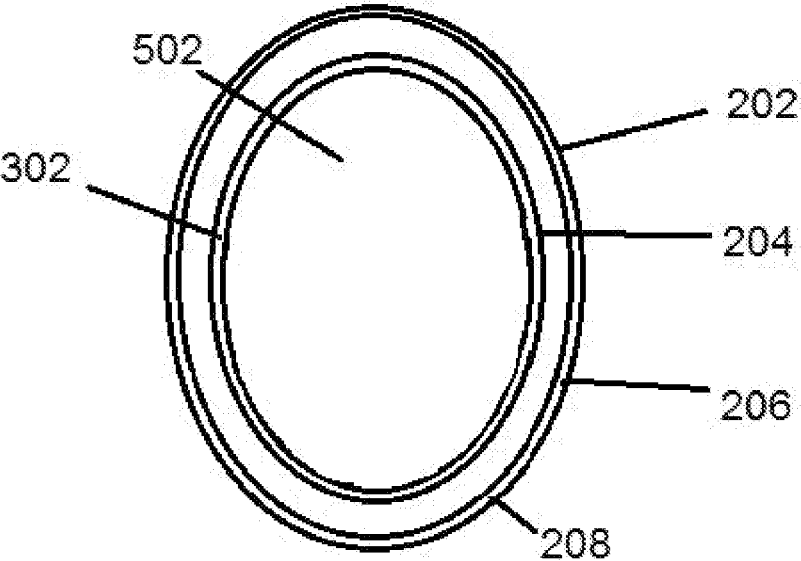


FIG. 6

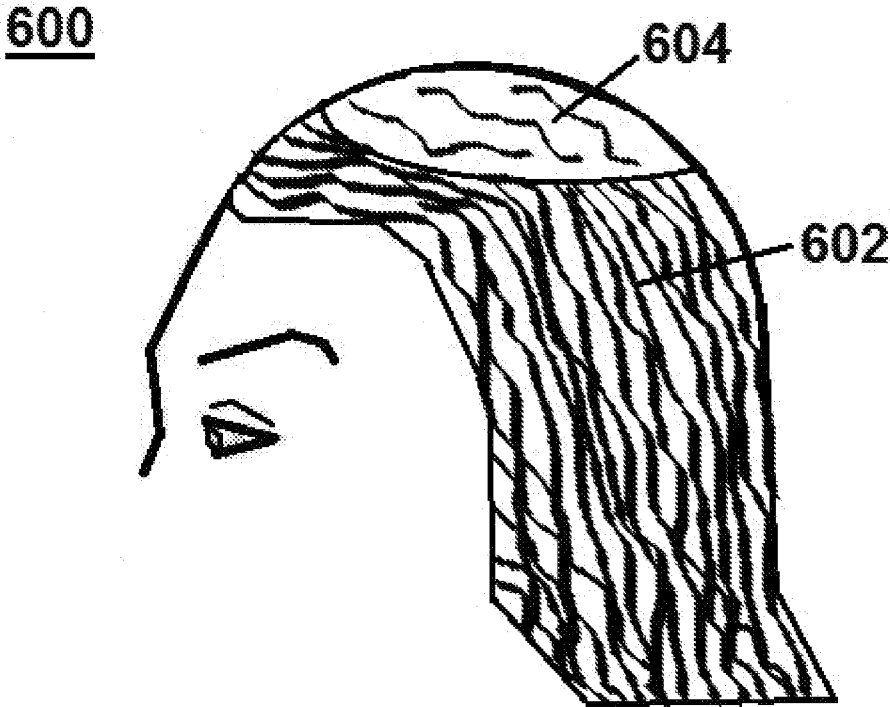


FIG. 7

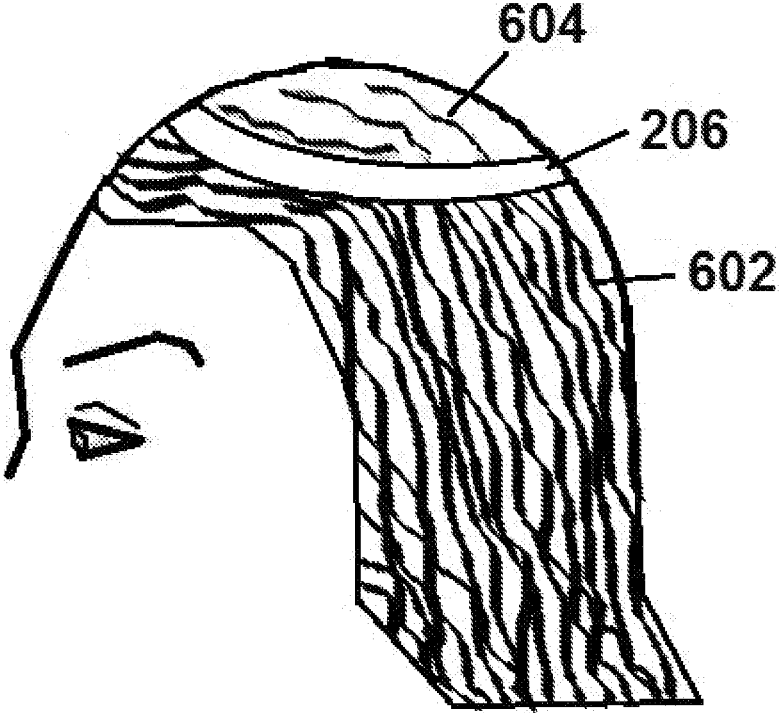


FIG. 8

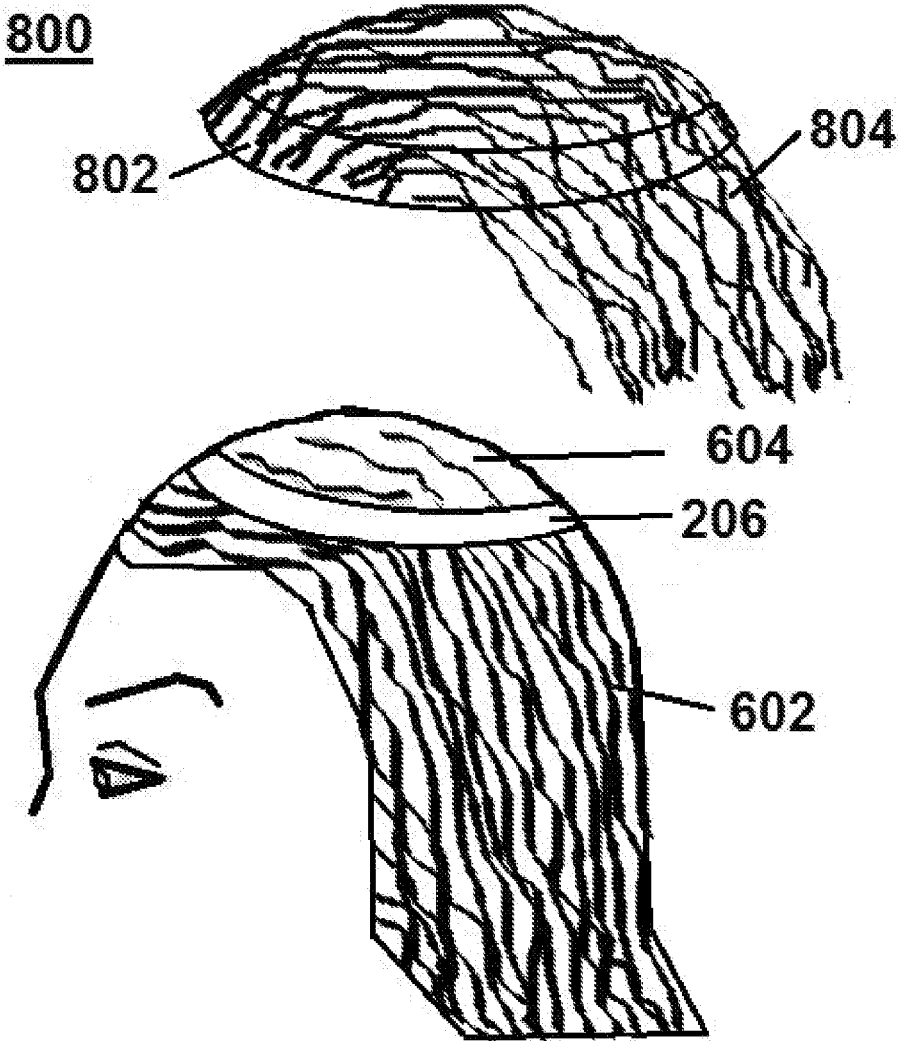


FIG. 9

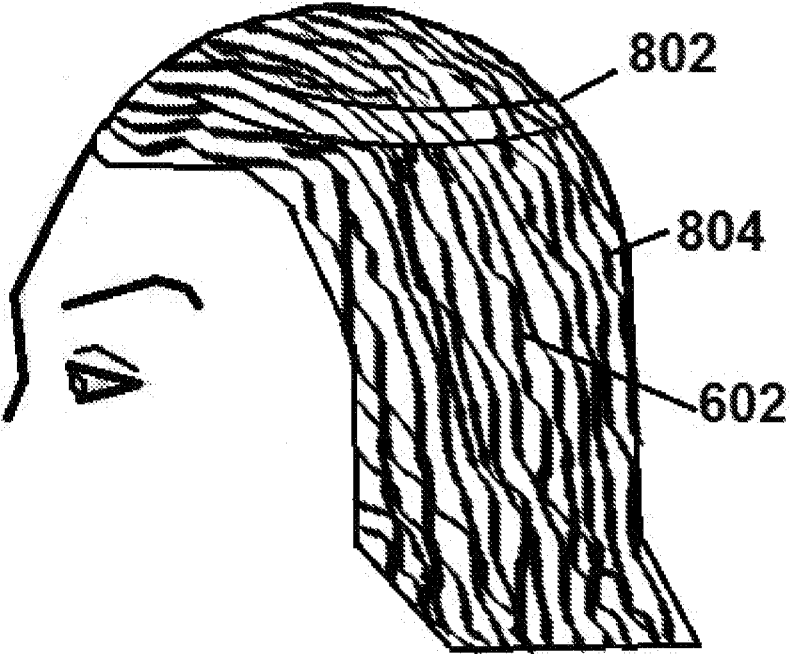


FIG. 10

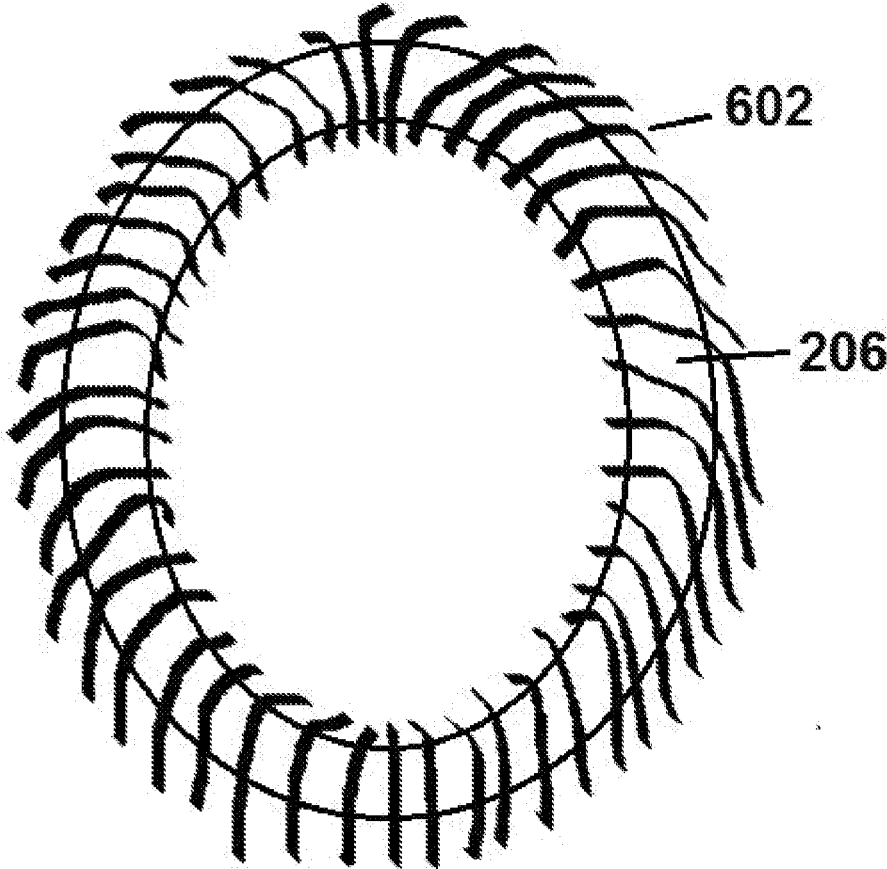


FIG. 11

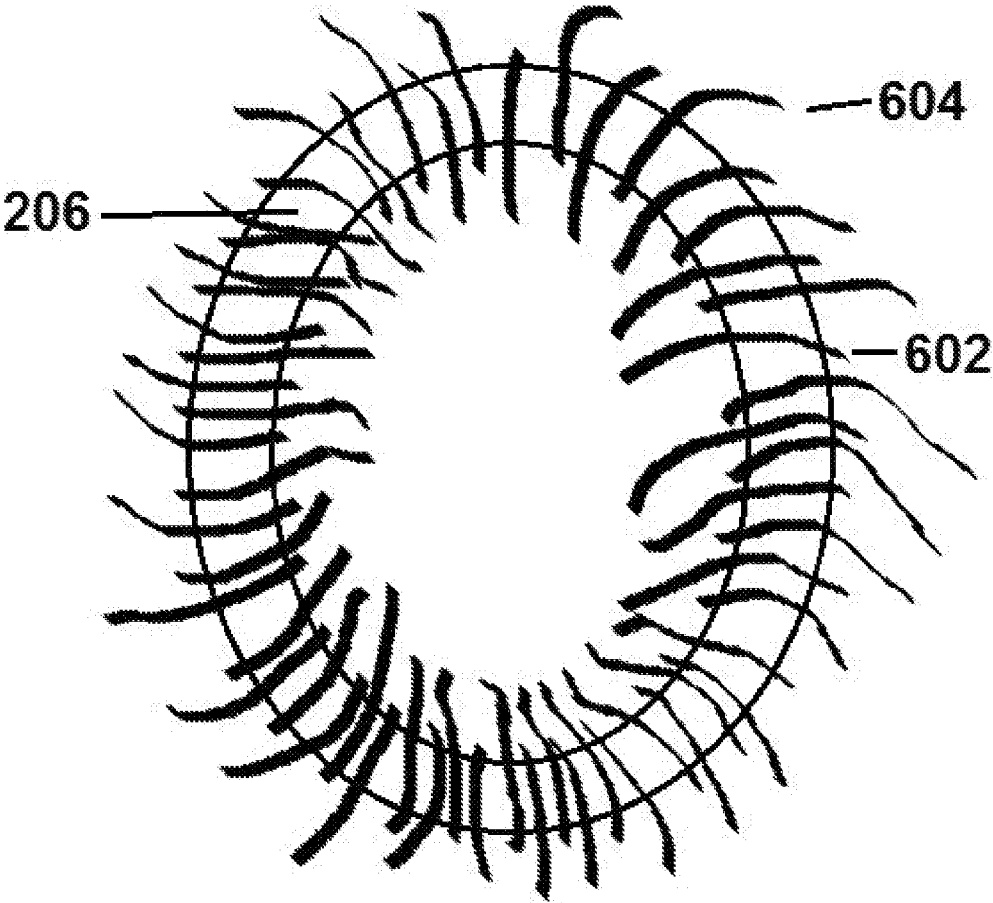


FIG. 12

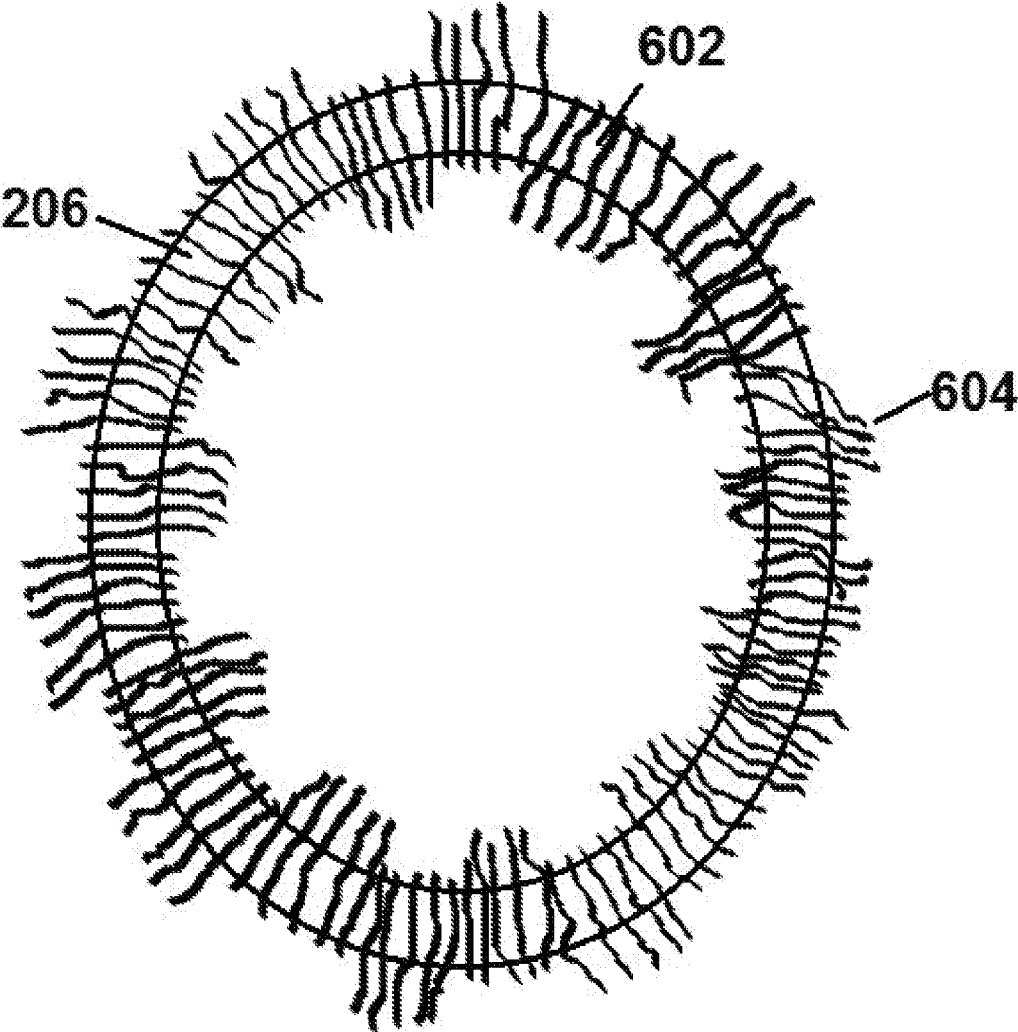
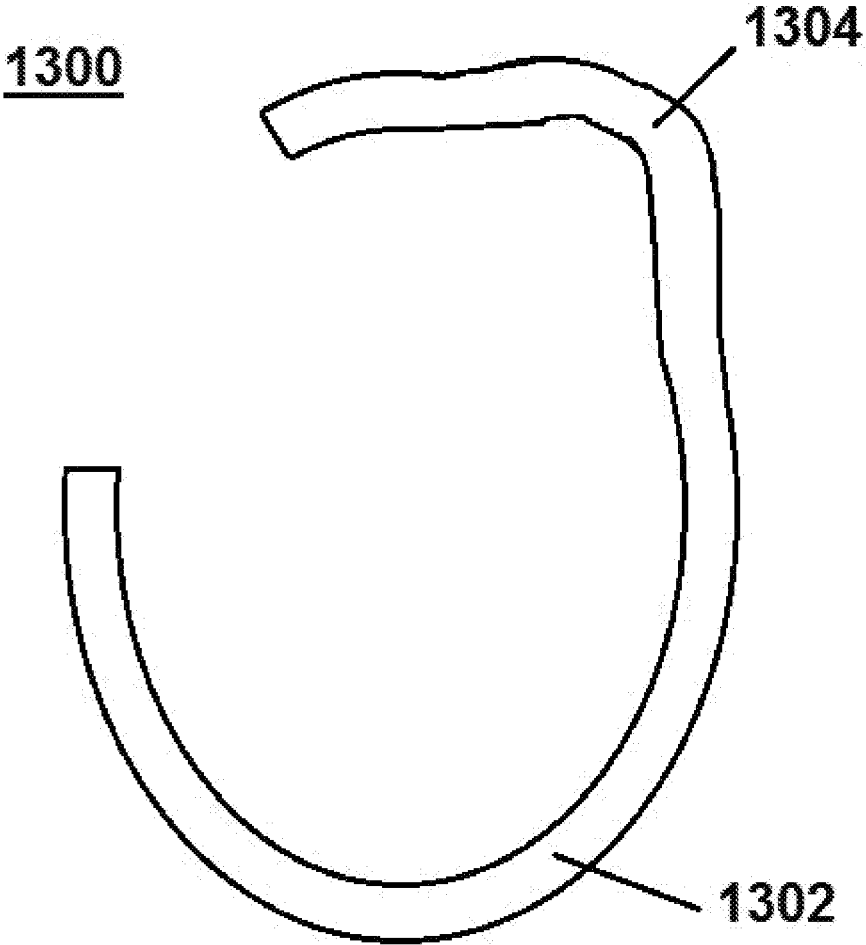


FIG. 13



HAIR REPLACEMENT APPARATUS AND METHOD OF USE

FIELD OF THE INVENTION

[0001] The present invention relates generally to the field of hair replacement and extension apparatuses, systems and methods of use, or the like.

BACKGROUND OF THE INVENTION

[0002] Hair replacement devices and wigs are known in the art. Wigs typically are constructed for placement on top of an individual's remaining hair and other hair replacement devices typically are constructed to augment an individual's remaining hair.

[0003] Wigs generally require a relatively tight fit on the scalp, particularly around the periphery of the wig, for stability. Wigs generally are constructed from materials simulating skin, from mesh or netlike materials, or from plastic frameworks. Some of the problems associated with wigs include excessive heat at the scalp and pressure or pinching from the required tight fit. The more open framework designs, including mesh or net wigs, developed to resolve these problems have been only partially successful. The continuing requirement for stability made some of the wig designs bulky and uncomfortable, and the less bulky, more open designs frequently did not maintain their shape over time.

[0004] Many men and women suffer from hair growth related maladies. This may be full or partial baldness, spotty areas of growth and even just premature or unusual thinning of their hair. These people often don't know where to turn, whether to their doctor or their own hair salon.

[0005] However, not every person will benefit from the types of re-growth or transplanting that is the medical practice's usual treatment. Additionally, because many hair replacement techniques are complex and their attachment methods difficult to master, the hair replacement industry is and continues to be a separate industry from the full service salon.

[0006] Hair replacement may be a complete head of hair, partial replacement or even extensions. However, the fastening technique is crucial to the success of the hair replacement and, when not done properly, it leaves the wearer feeling insecure about the attachment and often deters the use of such systems.

[0007] Currently, some of the more common types of hair replacement or extension fastening methods include clips, bonding, micro-linking, weaving, micro-lines and taping. There may be concerns with each of these methods, however.

[0008] Clips, or any tension-type attachment, can cause bald spots because the clips are attached to the same area over and over. In addition, the comb part of the clip may cause scratching or scarring of the scalp with repeated use in the same area.

[0009] Bonding uses glue and grafting solutions on the skin, if the hair is shaved down, and on the hair itself, if hair is not cut down. This method can be very messy, be difficult to adjust, and may cause allergic reactions.

[0010] Micro-linking is an on-point attachment that uses small metal tubes fastened to the natural hair. The hair piece is then attached to those point attachments. A downside of this method is that, if improperly applied, the sharp metal

clips will cut, rather than bind on, the user's hair. This method is also susceptible to the same problems as a tension attachment, which may be painful or cause bald spots.

[0011] Weaving is a braiding and sewing method of attaching wefts of hair. This method may not be appropriate for all users because the end result may be bulky. It is not recommended for soft, smooth hair because the hair slips and falls out of the weave. Because the initial weave is very tight, the tension can also be very uncomfortable and can cause bald spots or cause traction alopecia.

[0012] Another type of attachment is known within the industry as "micro-line" and is a glue or glue mixture on a coned string that is melted to the user's hair to hold on a hair piece.

[0013] Taping is yet another method of attachment where tape is either integrated into the hair piece or is fastened to another means of attachment, which is, in turn attached to the head or hair of the user. Some of the more common taping methods do not close at the front of the hair piece. This method gets loose very quickly and requires clips or tape on the skin on the front of the hair piece. Current methods of taping hair to the scalp have a very high degree of difficulty for successful application due to the high learning curve.

[0014] Of the previous methods, skin bonding has long been the preferred method for attaching additional hair pieces because it allows for a secure fit. In addition, it is preferred that a method of applying hair that does not require shaving or the cutting of a women's existing natural hair.

[0015] Additionally, it is desirable to have a hair replacement apparatus, system and method that may add hair that would act like a skin bond without shaving or removing a women's existing hair and to eliminate the need for multiple attachment points in order to eliminate tension which causes hair loss and breakage.

[0016] Furthermore, it is desirable that the hair replacement apparatus is versatile enough to be used with multiple hair pieces and that it lasts as long as existing non-bonded methods of application.

[0017] Finally, it is desirable for such a hair replacement apparatus, system and method to be hypoallergenic, to minimize its effect on the user.

[0018] As a result of the above-stated problems and desires, there is a need for a hair replacement apparatus, system and method of us, without the limitations of the current hair replacement apparatuses, systems, and methods.

[0019] In this respect, before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and to the arrangement of the components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments and of being practiced and carried out in various ways. In addition, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting.

SUMMARY OF INVENTION

[0020] The present invention comprises an apparatus, system and method for hair replacement. The apparatus comprises a user-fitted mold, covering all or a portion of the crown of the user's head, upon which an anchor base is sized. The user-fitted mold may also be sized for a group of users, for example: male, female, small, medium, large, etc.

The user-fitted mold may further comprise a thin wall. The thin wall may be made of a plastic or semi-plastic material, such as plastic, polyurethane, fiberglass, or other materials with similar characteristics.

[0021] In one or more embodiments, the anchor base has an inner and outer diameter and is generally ovoid in shape. The size and width of the anchor base may be individually sized to the user or to a group of users.

[0022] The underside of the anchor base further includes a fastening means. The fastening means may be double-sided adhesive tape, a liquid adhesive, a semi-liquid adhesive, a suction attachment, a hook and pile attachment, a surgical attachment, or another means of attachment with similar characteristics.

[0023] In one or more embodiments, the anchor base is not a regular ovoid, but may be custom made to fit a particular contour.

[0024] In one or more embodiments, the anchor base is not a closed ring, but a curved line of unitary or individual segments.

[0025] In one or more embodiments, the anchor base may be multiple sections in a generally circular, semi-circular or ovoid shape.

[0026] In one or more embodiments, the anchor base may be two or more semi-circular sections.

[0027] In one or more embodiments, the anchor base is fastened to the user's head using the fastening means on the underside of the anchor base.

[0028] The user's hair may be brought over the top of the anchor base and fastened to the anchor base with the fastening means on top of the anchor base. The user's own hair acts as additional multiple points of contact to keep the anchor base in place. A replacement hair piece or extension is then attached to the anchor base to supplement the user's own hair.

[0029] In one or more embodiments, the user's hair is brought over the top of the anchor base from the inside of the ring, towards the outside of the ring.

[0030] In one or more embodiments, the user's hair is brought over the top of the anchor base from the outside of the ring, towards the inside of the ring.

[0031] In one or more embodiments, the user's hair is brought over the top of the anchor base from both the inside of the ring, towards the outside of the ring and from the outside of the ring, towards the inside of the ring.

[0032] In one or more embodiments, the user's hair is brought over the anchor base strand by strand.

[0033] In one or more embodiments, the user's hair is brought over the anchor base in a multiple strand by strand fashion.

[0034] In one or more embodiments, the user's hair is brought over the anchor base in alternating sections.

[0035] The area described by the inner rim of the anchor base may be further lined with a mesh ribbon fastened to the anchor base. The mesh ribbon may be glass silk PU medium gauge or a material with similar physical characteristics.

[0036] The area described by the lining of the mesh ribbon may then include a full-mesh region, a partial mesh region or a full-integration region. The mesh and mesh ribbons comprising the area enclosed by the mesh ribbon may be glass silk PU medium gauge or a material with similar physical characteristics.

[0037] In one embodiment of the invention, the full integration embodiment, a lattice-work of mesh ribbon covers

the interior of the anchor base and is attached either to the inner rim of the anchor base or to the mesh ribbon lining. The full integration embodiment is used when the user has sufficient hair to pull through the latticework, but may require additional areas of thickness or supplementation to increase the consistency of the entire head of hair.

[0038] In one embodiment of the invention, the partial mesh embodiment, the integration portion of the interior functions as described above, with the user's own hair being integration or pulled through the lattice-work mesh. The mesh portion of the invention then allows for additional, i.e. non-user, hair to be woven into the mesh portion to complement or replace the user's own hair.

[0039] In one embodiment of the invention, the full mesh embodiment, the entire mesh portion of the invention then allows for additional, i.e. non-user, hair to be woven into the mesh portion to supplement or replace the user's own hair.

[0040] With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention. Therefore, the foregoing is considered as illustrative only of the principles of the invention.

[0041] Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

[0042] Other objectives, features and advantages of the invention will become apparent from the following description and drawings wherein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0043] FIG. 1 is a side view of the mold form assembly.
[0044] FIG. 2 is a bottom view of one embodiment of the anchor base.

[0045] FIG. 3 is a bottom view of the half-mesh embodiment of the invention.

[0046] FIG. 4 is a bottom view of the full-mesh embodiment of the invention.

[0047] FIG. 5 is a bottom view of the full-integration embodiment of the invention.

[0048] FIG. 6 is a side view of an exemplary user.

[0049] FIG. 7 is a side view of an exemplary user with an attached anchor base.

[0050] FIG. 8 is an exploded side view of a user with an attached anchor base and exemplary hair piece.

[0051] FIG. 9 is a side view of an exemplary user with an attached hair piece.

[0052] FIG. 10 is a top view of one embodiment of the attachment method of the anchor base.

[0053] FIG. 11 is a top view of another embodiment of the attachment method of the anchor base.

[0054] FIG. 12 is a top view of a further embodiment of the attachment method of the anchor base.

[0055] FIG. 13 is a top view of another embodiment of the anchor base.

DETAILED DESCRIPTION OF THE
PREFERRED EMBODIMENT

[0056] Various embodiments or examples may be implemented in numerous ways, including as a system, a process, or an apparatus. A detailed description of one or more examples is provided below along with the accompanying figures. The detailed description is provided in connection with such examples, but is not limited to any particular example. The scope is limited only by the claims and numerous alternatives, modifications, and equivalents are encompassed.

[0057] Numerous specific details are set forth in the following description in order to provide a thorough understanding. These details are provided for the purpose of example and the described techniques may be practiced according to the claims without some or all of these specific details. For clarity, technical material that is known in the technical fields related to the examples has not been described in detail to avoid unnecessarily obscuring the description.

[0058] Referring now to FIG. 1, mold form assembly **100** comprises a thin wall encompassing the crown of the head of, and particularly sized for, each individual user, or a group of users. The thin wall may be made of a plastic or semi-plastic material, such as plastic, polyurethane, fiberglass, or other materials with similar characteristics.

[0059] In one or more embodiments, the mold form assembly may **100** be individually or custom sized.

[0060] In one or more embodiments, the mold form assembly **100** may be sized for a group of users, for example: male, female, small, medium, large, etc.

[0061] Mold form assembly **100** is further comprised of a front portion **102** and a rear portion **104**. The front portion **102** is generally oriented to the front of the user's head, and the rear portion **104** is generally oriented towards the rear of the user's head. A top portion **106** generally covers the top of the user's head and a bottom edge **108** creates a lower rim around the crown of the user's head.

[0062] In one or more embodiments, a curved or angled portion **110** allows easy removal from the user's head.

[0063] Referring now to FIG. 2, anchor base assembly **200** is comprised of an outer rim **202** and an inner rim **204** describing an exemplary ovoid anchor base **206**.

[0064] In one or more embodiments, anchor base assembly **200** further comprises an attachment means **208** to removably attach anchor base **206** to the head of the user.

[0065] In one or more embodiments, the means to attach **208**, may be one or more of the group of double-sided adhesive tape, a liquid adhesive, a semi-liquid adhesive, a suction attachment, a hook and pile attachment, a surgical attachment, or another means of attachment with similar characteristics.

[0066] Referring now to FIG. 3, the partial mesh assembly **300** is comprised of a mesh ribbon **302** which is attached to the inner rim **204** of the anchor base **206**, a tight-knit mesh portion **304**, and an integration portion **306**, both connected to the ribbon mesh **302**, and to each other, such that the entire area enclosed by the anchor piece **206** is covered, either by the tight-knit portion **304** or the integration portion **306**.

[0067] In one or more embodiments, the mesh material of the ribbon mesh **302**, the tight-knit portion **304**, and the

integration portion **306** may be further comprised of glass silk PU medium gauge or a material with similar physical characteristics.

[0068] In one or more embodiments, the integration piece may be further comprised of an m-mesh ribbon.

[0069] In one or more embodiments, the integration portion **306** may be further comprised of one quarter inch m-mesh ribbon.

[0070] Referring now to FIG. 4, the full integration assembly **400** is comprised of a mesh ribbon **302** which is attached to the inner rim **204** of the anchor base **206** and a full integration portion **402**, such that the entire area enclosed by the anchor piece **206** is covered by the full integration portion **402**.

[0071] In one or more embodiments, the mesh material of the full integration portion **402** may be further comprised of glass silk PU medium gauge or a material with similar physical characteristics.

[0072] In one or more embodiments, the full integration portion **402** may be further comprised of an m-mesh ribbon.

[0073] In one or more embodiments, the full integration portion **402** may be further comprised of one quarter inch m-mesh ribbon.

[0074] Referring now to FIG. 5, the full mesh assembly **500** is comprised of a mesh ribbon **302** which is attached to the inner rim **204** of the anchor base **206** and a full mesh portion **502**, such that the entire area enclosed by the anchor piece **206** is covered by the full mesh portion **502**.

[0075] In one or more embodiments, the mesh material of the full mesh portion **502** may be further comprised of glass silk PU medium gauge or a material with similar physical characteristics.

[0076] Referring now to FIG. 6, an exemplary user **600** has a portion of healthy growth hair **602** requiring no modifications and a portion of low or no-growth hair **604**.

[0077] Referring now to FIG. 7, anchor base **206** is positioned advantageously between the portions of hair **602**, **604**.

[0078] Referring now to FIG. 8, replacement hair assembly **800** is comprised of a rim portion **802** which is appropriately sized to cover and match the shape and contour of anchor base **206**, and a hair portion **804**, which is appropriately cut, styled and coloured to match the user's hair portions **602**, **604**.

[0079] Referring now to FIG. 9, rim portion **802** has been attached to the anchor base portion **206** (not pictured) and the hair portion **804** has been incorporated on top of and into the user hair portion **602**.

[0080] Referring now to FIG. 10, hair portion **602** is shown covering anchor base **206** from the inside to the outside of anchor base **206** to help position and attach anchor base **206** to the user's head.

[0081] Referring now to FIG. 11, alternating strands of hair portion **602** and hair portion **604** are shown covering anchor base **206** from the inside to the outside of anchor base **206** and from the outside to the inside of anchor base **206**, respectively, to help position and attach anchor base **206** to the user's head.

[0082] Referring now to FIG. 12, alternating sections of hair portion **602** and hair portion **604** are shown covering anchor base **206** from the inside to the outside of anchor base **206** and from the outside to the inside of anchor base **206**, respectively, to help position and attach anchor base **206** to the user's head.

[0083] Referring now to FIG. 13, a customized anchor base 1300 is not a closed form, but comprises a regular ovoid curve portion 1302, a non-regular curve portion 1304.

We claim:

1. A hair replacement apparatus comprising:

- a. an anchor base, with an first inner rim, a second outer rim, a first top surface and a second bottom surface,
- b. a first attachment means disposed between the first and second rim on the top surface,
- c. a second attachment means disposed between the first and second rim on the bottom surface, and
- d. a hair piece;

wherein the hair piece is removably attached to the top surface by the first attachment means and the second attachment means is used to removably attach the bottom surface to the user's head.

2. The hair replacement apparatus of claim 1, wherein the first and second attachment means further comprise an adhesive means.

3. The hair replacement apparatus of claim 1, wherein the user's hair is disposed across one or more portions of the first attachment means to assist in removably attaching the anchor base to the user's head.

4. The hair replacement apparatus of claim 1, wherein the user's hair is disposed across one or more portions of the first attachment means from the first rim to the second rim.

5. The hair replacement apparatus of claim 1, wherein the user's hair is disposed across one or more portions of the first attachment means from the second rim to the first rim.

6. The hair replacement apparatus of claim 1, wherein the user's hair is disposed across one or more portions of the first attachment means alternatively from the first rim to the second rim and the second rim to the first rim.

7. The hair replacement apparatus of claim 1, wherein the anchor base is a generally closed ovoid curve.

8. The hair replacement apparatus of claim 1, wherein the anchor base is an unclosed curve.

9. The hair replacement apparatus of claim 1, wherein the hair piece covers the area described by the first rim of the anchor base.

10. The hair replacement apparatus of claim 1, wherein the hair piece covers a portion of the area described by the first rim of the anchor base.

11. A method for hair replacement comprising:

- a. providing an anchor base, with an first inner rim, a second outer rim, a first top surface and a second bottom surface,

- b. providing a first attachment means disposed between the first and second rim on the top surface,

- c. providing a second attachment means disposed between the first and second rim on the bottom surface, and

- d. providing a hair piece;

wherein the hair piece is removably attached to the top surface by the first attachment means and the second attachment means is used to removably attach the bottom surface to the user's head.

12. The hair replacement method of claim 9, wherein the step of providing a first and second attachment means further comprises the step of providing an adhesive means.

13. The hair replacement method of claim 9, wherein step of removably attaching the anchor base to the user's head further comprises the step of disposing the user's hair across one or more portions of the first attachment means to assist in removably attaching the anchor base to the user's head.

14. The hair replacement apparatus of claim 9, wherein the step of removably attaching the anchor base to the user's head further comprises the step of disposing the user's hair across one or more portions of the first attachment means from the first rim to the second rim.

15. The hair replacement apparatus of claim 9, wherein the step of removably attaching the anchor base to the user's head further comprises the step of disposing the user's hair across one or more portions of the first attachment means from the second rim to the first rim.

16. The hair replacement apparatus of claim 9, wherein the step of removably attaching the anchor base to the user's head further comprises the step of disposing the user's hair across one or more portions of the first attachment means alternatively from the first rim to the second rim and the second rim to the first rim.

17. The hair replacement method of claim 9, wherein the step of providing a hair piece further comprises providing a hair piece that covers the area described by the first inner rim.

18. The hair replacement method of claim 9, wherein the step of providing a hair piece further comprises providing a hair piece that covers a portion the area described by the first inner rim.

19. The hair replacement method of claim 9, wherein the step of providing a hair piece that covers a portion the area described by the first inner rim and further comprises the step of utilizing the user's hair in the portion of the area described by the first inner rim and not covered by the hair piece.

* * * * *