TITLE: ARTIFICIAL EYELASH HAIRS WITH DECORATIVE APPLIQUE

Abstract: A decorative artificial eyelash hair (10) has an artificial eyelash hair (12) with a base portion (14), a tip portion (16) and an outer surface (18). A decorative applique (20) is adhered to at least a portion of the outer surface (18) of the artificial eyelash hair (12). The applique includes a decorative component (28) fixed to the outer surface (18) of the hair (12) by an adhesive (24). The decorative component (28) is made of very small, reflective particles adhered to the outer surface of the individual artificial eyelash hair. The reflective particles (28) are accomplished using plastic film and colored crystals of different colors, hues and reflectivity. The particles (28) were adhered to the individual artificial eyelash hairs (10) with an adhesive: ethoxy-ethyl cyanoacrylate. The decorative artificial eyelash hair (10) can be practiced as artificial eyelash single hair extensions (10a), or it can be practiced on the individual artificial eyelash hairs of an artificial eyelash set (10b).
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APPLICATION FOR LETTERS PATENT

Artificial Eyelash Hairs with Decorative Applique

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The present application claims the benefit of prior filed US Provisional application serial no. 60/909,046, filed 30 March 2007, which application is incorporated herein by reference.

Field of the Invention

The present invention is in the field of cosmetic devices and methods used by persons in making their toilet (Class 132), i.e., device specifically adapted for treating, dressing or manipulating the hair (subclass 212), the devices including artificial eyelashes (subclass 53). More particularly, the present invention relates personal grooming and artificial eyelash devices specifically adapted for attachment on hair growing from an eyelid (subclass 216).

Background of the Invention

Prosthetic eyelashes, commonly known as false or artificial eyelashes have existed for many years. The cosmetic use of artificial eyelashes by persons in the making of their toilet is old in the art. Because cosmetic compositions and materials are typically intended for use by persons, it is important that the cosmetic materials and composition be clearly suitable for human use, and that the materials and methods used be very simple to practice, or that they be designated and controlled for practice by individuals trained in their safe application, especially
adhesive compositions and solvents. This is particularly important for cosmetic products intended for use in the area of a subject's eyes because of the sensitive and delicate nature of the organs and tissues involved. So, it is important in the field to provide materials and compositions appropriate for human use, and also important to provide education and training in the proper use of such materials and compositions.

Typically, artificial eyelashes are applied as a group or cluster to the skin of a wearer's lower and/or upper eyelid. Some examples include US patent publication no. 2005/0061341 to Choe, US patent publication no. 2002/0056465 to Shin and US patent no. 6,029,674 to Han. The field has even been motivated to combine the cosmetic effect of artificial eyelashes and eyeliner, as in US patent no. 4,029,111 to Barton. In addition to adhering other decorative cosmetic devices such as glitter flakes, costume gems, etc. to the skin of the wearer's eyelids is also known in the field to adhere decorative devices to a subject's eyelashes, as illustrated in US patent publication no. 2003/0005941 to Iosilevich. However, these references do not teach or disclose the application of artificial eyelashes to the existing natural eyelashes of a subject wearer. It would be beneficial to the field to have available decorative eyelash devices which provided a safe decorative lash applique that can be applied on a lash-by-lash basis to a wearer's natural eyelashes.

**Summary of the Invention**

The present invention comprises individual eyelash hairs each of which has a decorative applique on at least a portion of its outer surface. The decorative applique is disposed as an applique on the surface of the artificial eyelash hair. The decorative applique is made up of a plurality of individual decorative components. The individual decorative components can be all the same (i.e., have the same size, shape, color, reflectivity, etc.), or the applique can made up of a mix of different decorative components of different
colors, hues and reflectivity, etc., and can contrast the artificial eyelash hair on which the applique is fixed. The present individual artificial eyelash hairs with decorative applique can be embodied using artificial eyelash single hair extensions, or it can be embodied on the individual artificial eyelash hairs of an artificial eyelash set. Examples of these two embodiments are illustrated in FIGs. IA and IB.

The decorative component of the applique material are comprised of very small, reflective particles adhered to the outer surface of an individual artificial eyelash hair. The reflective particles of the decorative component in the embodiments exemplified herein were accomplished using a plastic (polyester, Mylar™) film, as well as colored crystals. The color and hue of the reflective particles, while not limited, include at least the following: pink, gold, purple, black, brown, green and blue. The applique was formed by adhering the decorative element to the individual artificial eyelash hairs with an adhesive: ethoxy-ethyl cyanoacrylate.

When appliqueing artificial eyelash single hair extensions, preferably only about the first two-thirds of the length of the hair from its tip receives the adhesive to which the reflective particles of the decorative component are applied. The remaining portion of the hair proximate the base portion of the hair preferably does not receive the applique materials. The benefit of this is to reduce the bulk/size of the joint between the base of the single hair extension and the natural eyelash of a wearer when the single hair extension is glued (by its base) to the natural eyelash of the wearer.

When the applique is applied to an artificial eyelash set (i.e., the individual artificial eyelash hairs are mounted to a support strip), the adhesive to which the reflective particles of the decorative component are applied can cover substantially the full length of the individual hairs protruding from the support strip.
**Brief Description of the Drawings**

**FIG. IA** is a side view of an artificial lash, single hair extension having a decorative applique at its tip portion, and no applique at its base portion.

**FIG. IB** is a perspective view of a portion an artificial eyelash set showing the individual artificial eyelash hairs of the set with the present decorative applique applied to substantially the entire exposed outer surface of each hair.

**FIG. 2A** is a cross-sectional view of a lash hair body with an adhesive layer on the lash hair body and a decorative member applied to the hair's surface.

**FIG. 2B** is a cross-sectional view of a lash hair body with an adhesive layer on a decorative member and the decorative member applied to hair's surface.

**FIG. 2C** is a cross-sectional view of a lash hair body with the decorative member covered with the adhesive and applied to hair's surface.

**FIG. 3** is a top view of a self-adhesive artificial eyelash set of the present invention, wherein only a few of the hairs have the applique applied to them.

**Detailed Description of the Invention**

Referring now to the drawings, the details of preferred embodiments of the present invention are graphically and schematically illustrated. Like elements in the drawings are represented by like numbers, and any similar elements are represented by like numbers with a different lower case letter suffix.

In a preferred embodiment exemplified by **FIG. IA**, the present decorative artificial eyelash hair 10 comprises an artificial eyelash hair 12 with a decorative
applique 20 adhered to at least a portion of its outer surface 18. The artificial eyelash hair 12 has a base portion 14 proximate a base end 14a, a tip portion 16 at a tip end 16a and an outer surface 18. The decorative applique 20 is disposed on the outer surface 18 of the body of the hair 12. The decorative applique 20 comprises a decorative component 28 fixed to the outer surface 18 of the hair 12, and an adhesive 24 fixing the decorative components 28 to the outer surface 18 of the hair 12. As shown in FIG. IA, the decorative artificial eyelash hair 10 can be practiced on an artificial lash, single hair extension 10a having a decorative applique 20 proximate its tip portion 16, and no applique at its base portion 14.

Preferably, the tip portion 16 of the artificial eyelash hair 12 tapers towards its tip end 16a as shown in the figure.

The decorative applique 20 is adhered to about the two-thirds of the outer surface 18 of the artificial eyelash hair 12 proximate the tip end 16a. This leaves the base portion 14 free of the decorative applique 20 at its base end 14a. This feature is beneficial when the present invention 10 is embodied as an artificial eyelash single hair extension 10a. Specifically, this feature facilitates the gluing of the single hair extension 10a by its base portion to the natural eyelash of a wearer (in a lash-by-lash extension procedure) to provide an otherwise more streamlined glue joint between the natural and the artificial lashes. The preferred length $L$ for these lashes is 10mm to 20mm, with the short base portion 14 of each lash hair 12 left bare of decorative applique 20 and glue 24. This bare part can be trimmed to determine the final length of the lash.

The artificial eyelash hair 12 has a largest diameter $D$ of less than about 0.2mm, and preferably the largest diameter is less than about 0.16mm. Optionally, the lash hair 12 may be curved as shown in the figures, but may also be substantially straight. The artificial lash hair 12 can be made of a synthetic material or can be made of hair from a natural source. It is well within the scope and capabilities of those skilled in the art to obtain suitable artificial lash hair 12 for practice in the present invention. Over the course of this time, experimentation
with several thicknesses of lash hairs -including 0.15mm, 0.20mm and 0.25mm-
lash extensions, showed that diameters of 0.15mm optimal, and that larger
diameters became increasingly too thick after the applique was applied.

The decorative applique 20 of the decorative artificial eyelash hair (10) includes a decorative component 28 and an adhesive 24 to fix it to the outer surface 18 of the lash hair 12. The decorative component is a plurality of small, reflective particles 28. Preferably, the plurality of small, reflective particles 28 is a mix of small, reflective particles (28a-x) having different characteristics. See FIG. 1B. The reflective particles 28 of the decorative component should be visually distinguishable from the body of the artificial lash hair 12. The decorative component 28 may be distinguishable from the artificial lash hair 12 by having a different color than the lash hair 12 or the adhesive 14, or can extend outward from the artificial lash hair 12, thereby being visually perceptible due to their geometry. The small, reflective particles (28a-x) comprises reflective crystals and/or flake-like particles securable to the outside surface 18 of the artificial lash hair 12. This includes composite materials having a reflective outer surface. The mix of small, reflective particles (28a-x) preferably have different characteristics, such as having different sizes, shapes, colors, hues, or reflectivity. The small, reflective particles (28a-x) can be made of any cosmetic use compatible reflective material, such as reflective materials consisting of: a plastic material and a crystal material, a polymeric material, polyester flakes, calcium crystals, quartz crystals, foil material or a combination thereof. The dimensions of the reflective particles (28a-x) are selected to present the desired visual effect when the particles are disposed on the lash hair 12. One example of a member surface dimension is 6 by 6 microns but size can vary from 4 by 4 to 8 by 8 microns and any substantially similar dimensions. Examples of colors for the decorative component 28 include pink, gold, purple, black, brown, green, blue, and preferably combinations thereof.

The choice of materials for use as the decorative component 28 was not obvious. After long period of searching and substantial trial and error, a first
success was had in accomplishing decorative appliques on artificial eyelash hairs after discovering a glitter powder, which was crystal material. It was found that this crystal material in combination with certain finely cut glitter flakes (cut small enough to be used on the lashes) of different colors provided the desired effect when utilized as the decorative component 28 in the decorative applique 20. Unexpectedly, it was discovered that black polyester cut glitter was an ingredient that common to all the various decorative component 28 colors. Each effective decorative component 28 color had the several other colors of polyester cut glitter plus the crystalline glitter powder. The crystalline glitter powder is a calcium borosilicate powder. The cut glitter is added for color and to include larger reflective particles that reflect a little more light. Alone, the cut polyester glitter is too large in size, and thus must be mixed with a more finely-ground crystalline glitter powder.

As shown in FIGs. 2A to 2C, an adhesive 24 is disposed to fix the decorative components 28 to the artificial lash hair 12. In the embodiment of FIG. 2A, the adhesive 24 covers a portion of the outside surface 18 of the lash hair 12, and a small, reflective particle 28 is partially embedded in the adhesive 24. In FIG. 2B, the adhesive 24 is only between the small, reflective particle 28 and the outside surface 18 of the lash hair 12. In FIG. 2C, the adhesive 24 covers a portion of the outside surface 18 of the lash hair 12 and the small, reflective particle 28 is completely embedded in the adhesive 24. In this embodiment, the adhesive 24 is at least partially transparent to light. The adhesive 24 may have the same or a different color from the lash hair 12 and/or the small, reflective particle 28. An example of a adhesive suitably practiced in the present invention is an ethoxy-ethyl cyanoacrylate composition. This selection was the result of several months of experimentation with several types of glues, including clear non-viscous cyanoacrylate, black non-viscous cyanoacrylate and viscous-black-rubberized cyanoacrylate. Specifically, it was determined that a low-viscosity, black
cyanoacrylate adhesive was appropriate. The other glues and compositions of cyanoacrylate did not work as well. The adhesive layer thickness should be monitored, a layer that is too thick will produce a thicker covering of decorative applique 20, which is not as aesthetically pleasing. A layer of adhesive 24 that is too thin may cause the decorative components 28 to displace from the outside surface 18 of the eyelash hair 12 during normal use. However those skilled in the art may determine a proper layer thickness without undue experimentation.

FIG. 1B is an example of portion of an artificial eyelash set 10b and shows the individual artificial eyelash hairs 12 of the set with the present decorative applique 20 applied to substantially the entire exposed outer surface of each hair. In this embodiment, the base portion 14 of the lash hairs 10b are embedded in the support 40 which typically is adhered to a wearer's eyelid closely proximate the wearer's natural lashes. In this embodiment of the decorative artificial eyelash hairs 10, the decorative applique 20 is adhered to substantially all of the outer surface 18 of the artificial eyelash hair 12 that is exposed.

FIG. 3 illustrates an self-adhesive artificial eyelash set 10 b, wherein only a few of the hairs of the lash set 10b have the decorative applique 20 applied to them. This example illustrates that conservative, but aesthetically effective results can be accomplished with a scattering of just a few the present decorative artificial eyelash hair 10 in a field of otherwise typical artificial eyelashes.

**Example**

In one non-limiting example of use, production of an eyelash extension 10 in accordance with the present disclosure is discussed. The production method comprises thoroughly mixing on a flat clean surface a combination of colored crystals with a knife or any similar utensil. One can typically use 3 or 4 colors to produce the finished color. There are literally an infinite number of combinations possible. A few cubic centimeters are sufficient for hundreds of lashes. Most
combinations of the colored elements should contain black. Black provides depth and gives the lashes the desired darker look.

Adhesive is then poured out, six drops should be enough for about 100 lashes. Since the adhesive will dry over time, the amount poured should be metered to ensure excess adhesive is not poured and subsequently wasted. Using tweezers individual lashes are retrieved by their respective blunt ends and immersed in the adhesive until a thin coat of adhesive evenly covers the body surface. For example, when the extension comprises a 12 mm lash, the glue coverage should begin at the tapered end and extend about 75% of its length. The last quarter of the lash, the blunt end, should be free of glue as this is the part of the lash that will attach fully on the real or natural lash.

Once adhesive has been applied to the extension, the decorative elements may be applied to its outer surface. The elements may be dispersed in an even fashion on the body surface, or at any interval or random pattern. The decorative elements should instantaneously bond to the extension. Still holding the extension with the tweezers, moderately tap it on the surface several times to dislodge any loose elements (or crystals). The lash should then appear covered with crystals but not perfectly smooth. Set the lash aside on a flat clean surface to dry. Depending on the adhesive used, it should be completely dry in about 20 minutes.

Embodiments of the methods and devices described herein, therefore, are well adapted to carry out the objects and attain the ends and advantages mentioned, as well as others inherent therein. While a presently preferred embodiment has been given for purposes of disclosure, numerous changes exist in the details of procedures for accomplishing the desired results. For example, the extension herein described may be used with any follicle type element. Optionally, the decorative members may be admixed into the adhesive and the combination may then be sprayed onto the body outer surface. These and other similar modifications will readily suggest themselves to those skilled in the art, and are intended to be encompassed within the spirit of the present invention.
disclosed herein and the scope of the appended claims.

While the above description contains many specifics, these should not be construed as limitations on the scope of the invention, but rather as exemplifications of one or another preferred embodiment thereof. Many other variations are possible, which would be obvious to one skilled in the art. Accordingly, the scope of the invention should be determined by the scope of the appended claims and their equivalents, and not just by the embodiments.

WHAT IS CLAIMED IS:
Claims

1. A decorative artificial eyelash hair (10) comprising:
   - an artificial eyelash hair (12) having a base portion (14) proximate a base end (14a), a tip portion (16) at a tip end (16a) and an outer surface (18); and
   - a decorative applique (20) adhered to at least a portion of the outer surface (18) of the artificial eyelash hair (12), the applique being a decorative component (28) fixed to the outer surface (18) of the hair (12), and an adhesive (24) fixing the decorative components (28) to the outer surface (18) of the hair (12).

2. The decorative artificial eyelash hair (10) of claim 1, wherein the tip portion (16) of the artificial eyelash hair (12) tapers to the tip end (16a).

3. The decorative artificial eyelash hair (10) of claim 1, wherein the decorative applique (20) is adhered to about the two-thirds of the outer surface (18) of the artificial eyelash hair (12) proximate the tip end (16a).

4. The decorative artificial eyelash hair (10) of claim 1, wherein the decorative applique (20) is adhered to substantially all of the outer surface (18) of the artificial eyelash hair (12) that is exposed.

5. The decorative artificial eyelash hair (10) of claim 1, wherein the decorative component (28) of the decorative applique (20) is a plurality of small, reflective particles (28).

6. The decorative applique (20) of claim 5, wherein the plurality of small, reflective particles (28) of the decorative component (28) is a mix of small, reflective particles (28a-x) having different characteristics.
7. The decorative applique (20) of claim 6, wherein the plurality of small, reflective particles (28) of the decorative component (28) is a mix of small, reflective particles (28a-x) having different characteristics selected from the group of characteristics consisting of size, shape, color, hue, or reflectivity.

8. The decorative applique (20) of claim 6, wherein the small, reflective particles (28a-x) of the decorative component (28) are made of a reflective material selected from the group of reflective materials consisting of: a plastic material and a crystal material, a polymeric material, polyester flakes, calcium crystals, quartz crystals, foil material or a combinations thereof.

9. The decorative artificial eyelash hair (10) of claim 1, wherein the decorative applique (20) is applied to an eyelash hair selected from the group of eyelash hairs consisting of: an artificial eyelash single hair extension 10a, or an individual artificial eyelash hairs of an artificial eyelash set 10b.

10. A decorative artificial eyelash comprising: an elongated body formed to resemble an eyelash; a decorative component; and an adhesive disposed between the body and the element.

11. The decorative artificial eyelash of claim 10 wherein the decorative component is selected from the list consisting of polymeric materials, polyester flakes, calcium crystals, quartz, foil and combinations thereof.

12. The decorative artificial eyelash of claim 10, wherein the adhesive comprises a cyanoacrylate.

13. The decorative artificial eyelash of claim 10, wherein the decorative component is visually distinguishable from the body.
14. The decorative artificial eyelash of claim 10, wherein the body includes a blunt end and a tapered end, and the adhesive extends from the tapered end along about 75% of the body length.

15. The decorative artificial eyelash of claim 10, wherein the body has a length ranging from about 8 mm to about 20 mm.

16. The decorative artificial eyelash of claim 10, wherein the body has a largest diameter of less than about 0.2 mm.

17. The decorative artificial eyelash of claim 10, wherein the body has a largest diameter of less than about 0.16 mm.

18. A method of forming a decorative artificial eyelash comprising the step of:
- applying an adhesive to the body of an artificial eyelash; and
- adhering a decorative component to the adhesive.
INTERNATIONAL SEARCH REPORT

International application No
PCT/US 08/58843

A CLASSIFICATION OF SUBJECT MATTER
IPC(8) - A45D 40/30 (2008.04)
USPC - 132/216

According to International Patent Classification (IPC) or to both national classification and IPC

B FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
USPC 132/201

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC 132/53, 200, 201, 216.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST, Google Scholar Search Terms Eyelash, lash, ornament, ornamental decorative, decorate adorn adornment particle bit piece, part cyanoacrylate, length, millimeter, novalash, false, false, artificial, synthetic, shiny, reflect, reflective, sparkle, applique, coat, color, attach

C DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
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<tr>
<td>X</td>
<td>US 2003/0005942 A1 (IOSILEVICH) 3 January 2003 (03 01 2003) Paragraphs [0003]-[0004], [0007], [0015]-[0017], [0038], Figures 8-14</td>
<td>18 1-17</td>
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<td>Y</td>
<td>US 3,559,657 A1 (BAU) 2 February 1971 (02 02 1971) Abstract, Column 1, lines 7-12 and 23-25, Figures 9, 12</td>
<td>1-17</td>
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Further documents are listed in the continuation of Box C

* Special categories of cited documents
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