US 20040065338A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0065338 A1**

Colacioppo et al. (43) **Pub. Date: Apr. 8, 2004**

(54) **HAIR TREATMENT APPLICATOR**

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(21) Appl. No.: **10/678,206**

(22) Filed: **Oct. 3, 2003**

Related U.S. Application Data

(60) Provisional application No. 60/416,163, filed on Oct. 4, 2002.

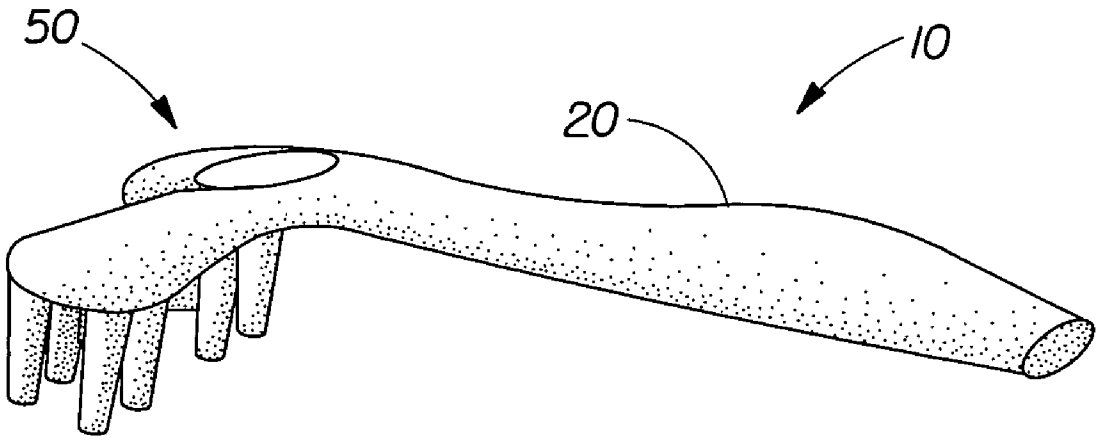
Publication Classification

(51) **Int. Cl.**[7] **A45D 24/04**

(52) **U.S. Cl.** **132/126**

(57) **ABSTRACT**

A hair treatment applicator is provided. The applicator has a handle, a first head connected to the handle, a second head connected to the handle and a separation volume. The first head has a plurality of first tines forming a first retaining volume and the second head has a plurality of second tines forming a second retaining volume. The first and second retaining volumes are separated by the separation volume, and the first and second retaining volumes hold the hair treatment.



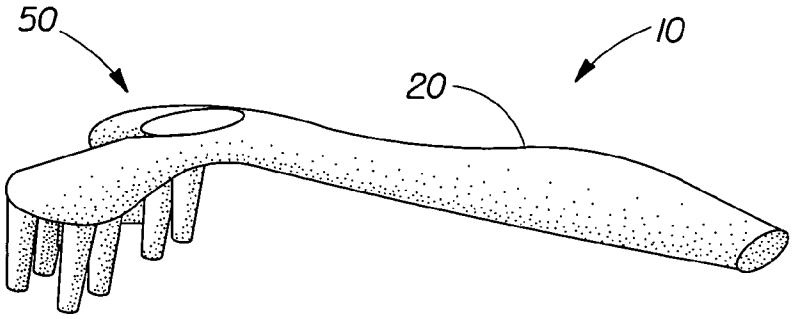


Fig. 1

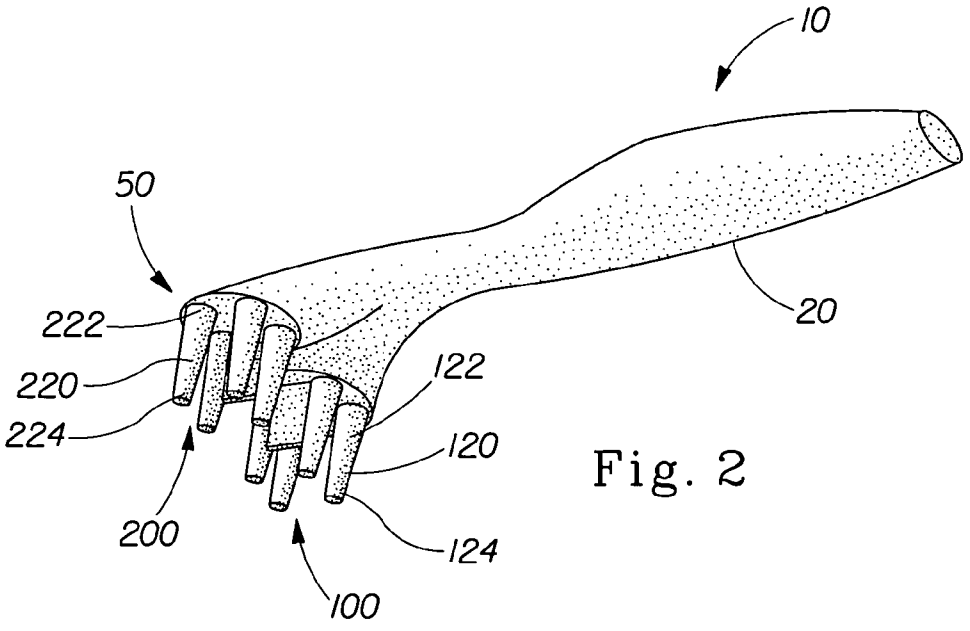


Fig. 2

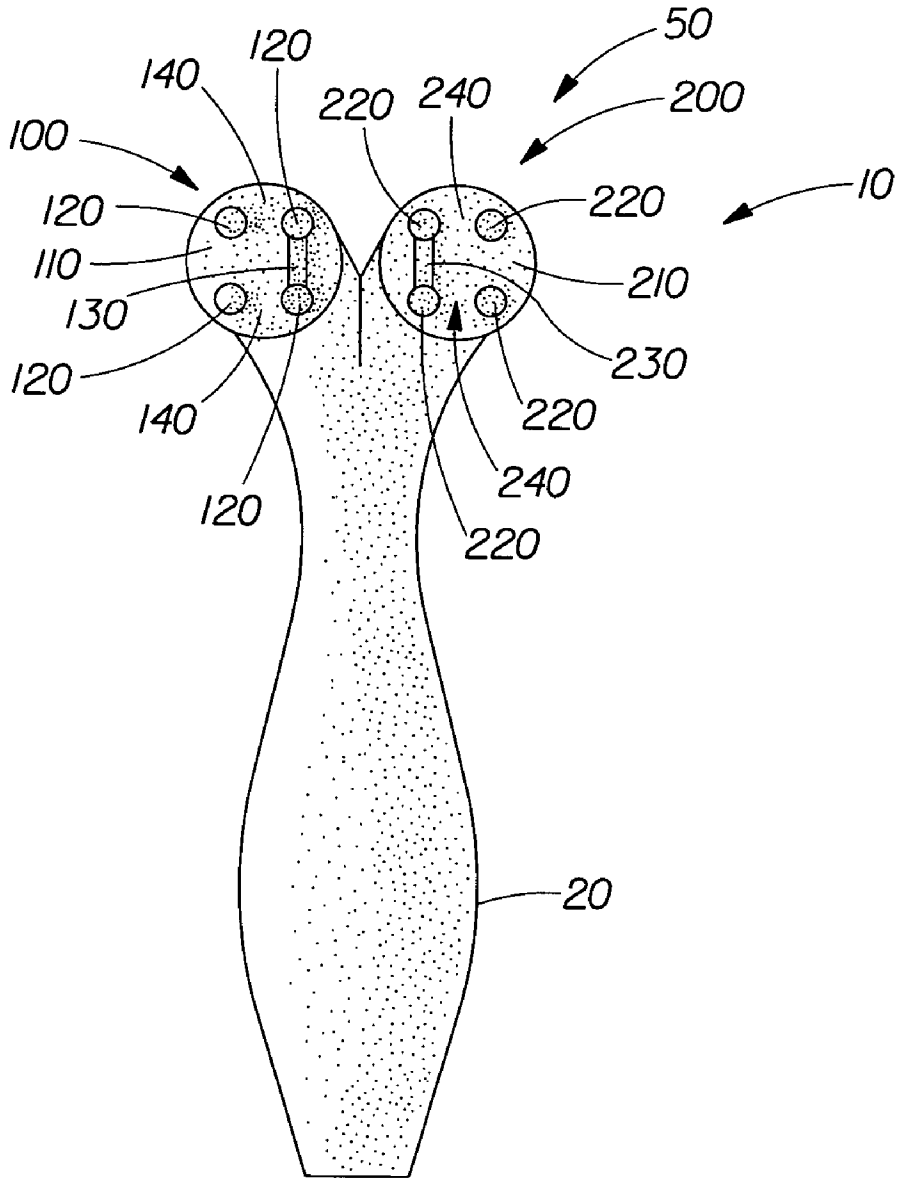

50
120
140
220
240
200
100
10
120
220
110
210
130
230
120
140
220
240
120
220
20

Fig. 3

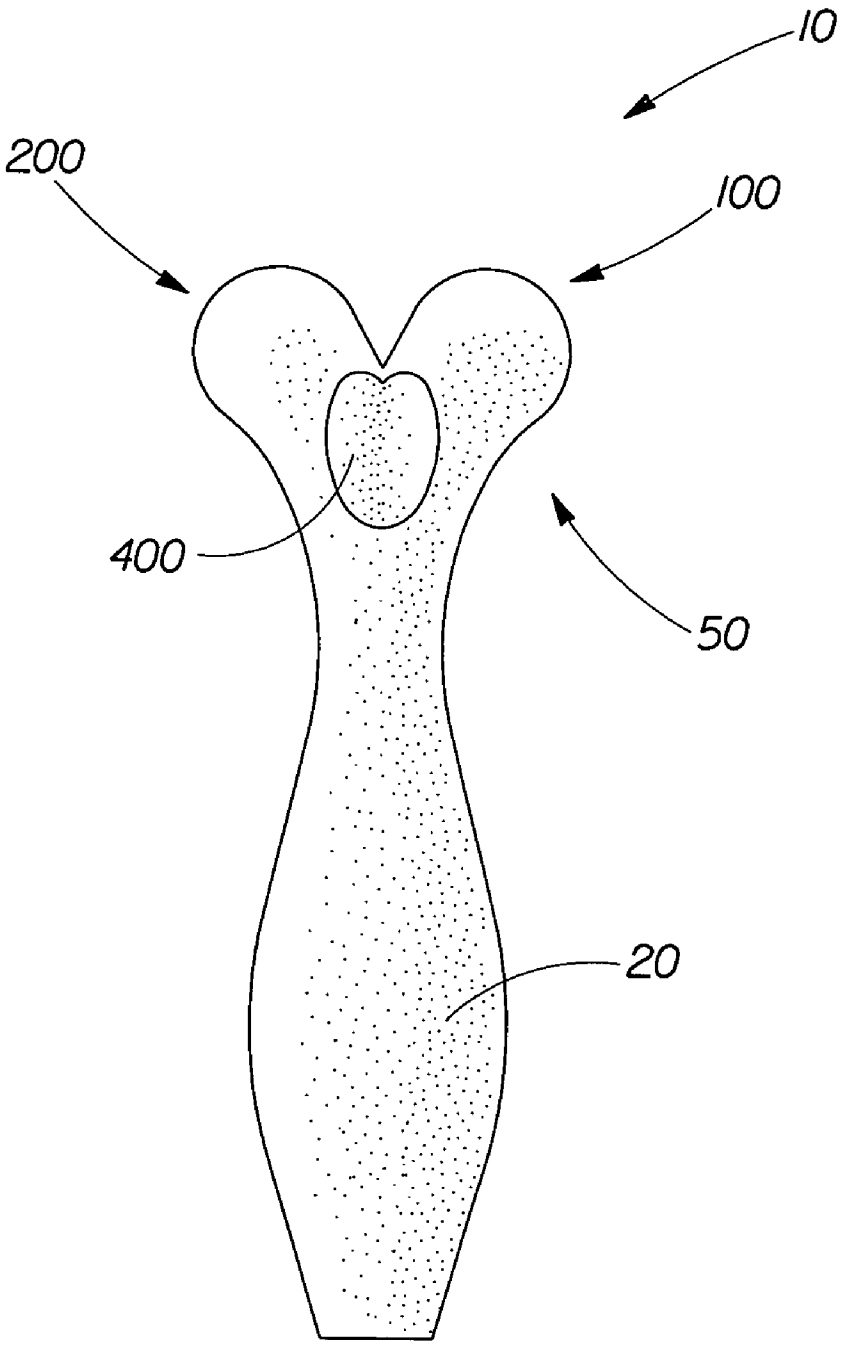


Fig. 4

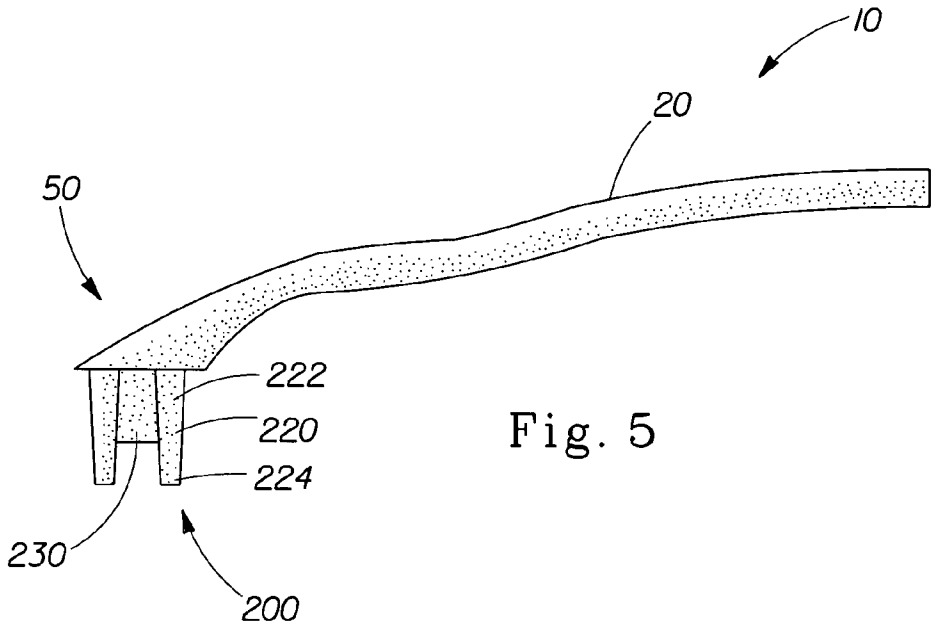


Fig. 5

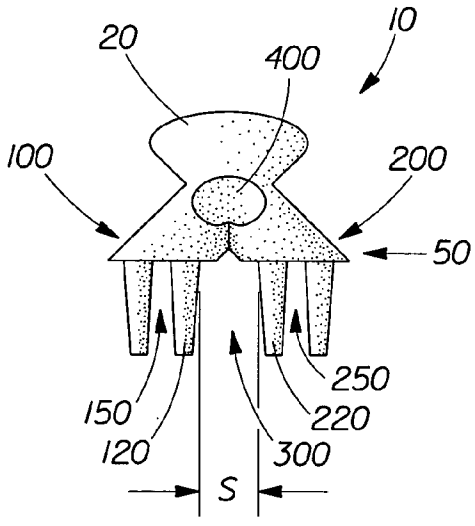


Fig. 6

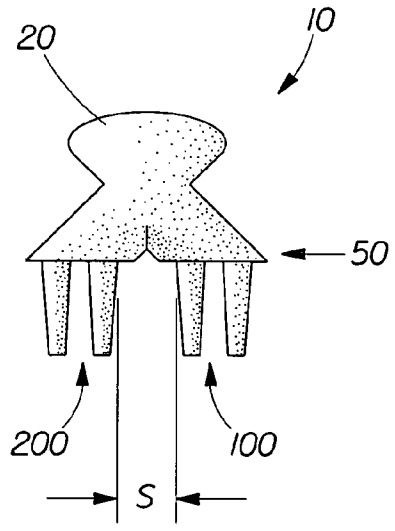


Fig. 7

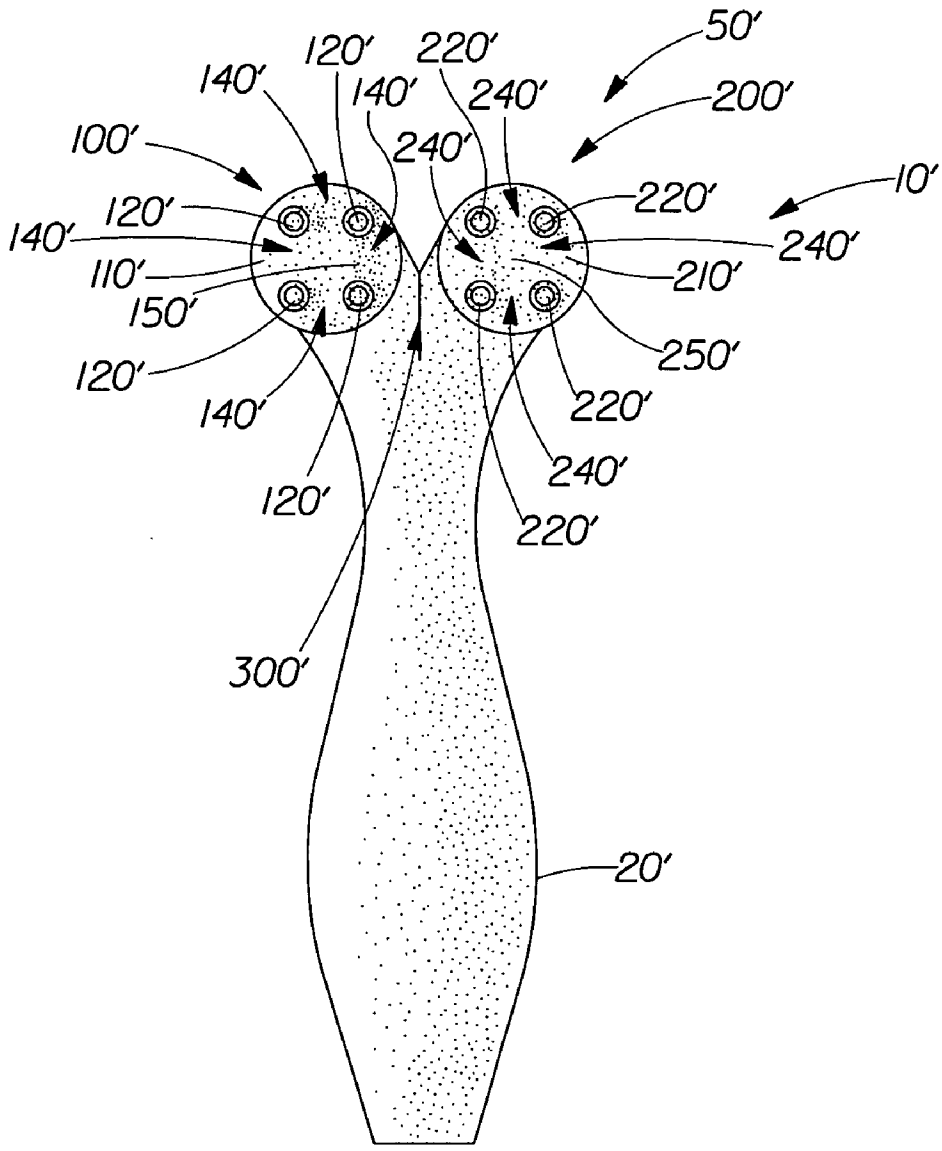

50'
120'
220'
140'
140'
240'
200'
100'
240'
10'
220'
120'
140'
240'
110'
210'
150'
250'
120'
140'
220'
240'
120'
220'
300'
20'

Fig. 8

HAIR TREATMENT APPLICATOR

CROSS REFERENCE TO RELATED APPLICATION

[0001] The application claims the benefit of U.S. Provisional application Serial No. 60/416,163 (Case 9049P), filed on Oct. 4, 2002, and U.S. Design application Ser. No. 29/168,576 (Case D808), filed on Oct. 4, 2002.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to hair treatment devices. More particularly, the present invention relates to hair treatment applicators and a method of applying hair treatment to hair.

[0004] 2. Description of the Prior Art

[0005] Hair treatment or hair color applicators are known. Such hair treatment applicators allow a user to apply a hair product, such as a highlighter, to hair.

[0006] In U.S. Pat. No. 6,079,420 to Musum, a highlighting comb is disclosed. The comb has a plurality of tines that are secured to a spine, which is connected to a handle. The tines are disposed adjacent to each other along a straight line. The user of the comb places the treatment material into retaining areas that are disposed between each of the respective adjacent tines and then passes the tines through the hair. The disclosed comb suffers from the drawback of failing to provide a separation between the retaining areas through which hair may pass that will be untreated.

[0007] In U.S. Pat. No. 6,142,157 to de Laforcade, an applicator system is disclosed. The applicator has a handle with a brush, and a plurality of brush members extending from a first side of the brush. The brush members are disposed along the first side of the brush in parallel and perpendicular rows. A user places the hair product onto the brush members and passes the applicator along a lock of hair so that the brush members transfer the hair product to the hair. The disclosed applicator suffers from the drawback of failing to allow for a separation between treated and untreated hair.

SUMMARY OF THE INVENTION

[0008] It is an object of the present invention to provide a hair treatment applicator that applies hair treatment to a plurality of sections of hair.

[0009] It is another object of the present invention to provide such an applicator that provides for a separate and distinct set of treated hair or highlights over two distinctly separate sections of hair.

[0010] It is yet another object of the present invention to provide such an applicator that provides a separate, untreated section of hair in between two treated sections of hair.

[0011] These and other objects and advantages of the present invention are provided by a hair treatment applicator that has a handle and a plurality of retaining structures connected to the handle. Each of the plurality of retaining structures is separated from each other of the plurality of retaining structures by a separation volume. The plurality of retaining structures holds the hair treatment.

[0012] The present invention is also a hair treatment applicator for applying hair treatment to hair that has a handle, a plurality of heads connected to the handle, and a retaining structure connected to each of the plurality of heads. Each head of the plurality of heads is separated from each other head of the plurality of heads by a separation volume. The retaining structures hold the hair treatment.

[0013] The present invention is also a hair treatment applicator for applying hair treatment to hair that has a handle, a first head connected to the handle with the first head having a plurality of first tines forming a first retaining volume, a second head connected to the handle with the second head having a plurality of second tines forming a second retaining volume, and a separation volume. The first retaining volume and the second retaining volume are separated by the separation volume. The first and second retaining volumes hold the hair treatment.

[0014] Other and further objects, advantages and features of the present invention will be understood by reference to the following.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] **FIG. 1** is a top perspective view of the hair treatment applicator of the present invention;

[0016] **FIG. 2** is a bottom perspective view of the applicator of **FIG. 1**;

[0017] **FIG. 3** is a bottom view of the applicator of **FIG. 1**;

[0018] **FIG. 4** is a top view of the applicator of **FIG. 1**;

[0019] **FIG. 5** is a side view of the applicator of **FIG. 1**;

[0020] **FIG. 6** is a front view of the applicator of **FIG. 1**;

[0021] **FIG. 7** is a rear view of the applicator of **FIG. 1**; and

[0022] **FIG. 8** is a bottom view of another embodiment of the hair treatment applicator of the present invention.

DESCRIPTION OF THE INVENTION

[0023] Referring to the drawings and, in particular, **FIGS. 1 and 2**, there is shown an embodiment of a hair treatment applicator of the present invention generally represented by reference numeral **10**. Applicator **10** has a handle **20** and a head **50** connected to the handle. Preferably, handle **20** and head **50** are integrally molded or formed together.

[0024] Handle **20** is an elongated handle that a user grasps in his or her hand when passing head **50** along the user's hair, as will be discussed later in detail. Handle **20** can be any type of handle known in the art that is secured to, or integrally molded or formed with, head **50**. Handle **20** is preferably ergonomically designed and contoured to maximize comfort and efficiency for a user due to the repetitive motion of applicator **10** as it passes along or strokes the user's hair.

[0025] Referring to **FIGS. 1 through 7**, head **50** has a bilaterally symmetrical shape and preferably has a heart-like shape. Head **50** has a first comb **100** and a second comb **200**.

In this embodiment, applicator **10** has two combs **100, 200**. However, as will be discussed later in detail, any number of combs can be used with the present invention.

[**0026**] Combs **100, 200** have bases **110, 210**, respectively. Preferably, bases **110, 210** are circular in shape. Comb **100** has a plurality of tines **120** extending from base **110** and comb **200** has a plurality of tines **220** extending from base **210**. Preferably, tines **120** are four tines that are disposed along base **110** in a square pattern and tines **220** are four tines that are disposed along base **210** in a square pattern. More preferably, tines **120, 220** are perpendicular to bases **110, 210**.

[**0027**] Tines **120, 220** are preferably substantially cylindrical in shape, having proximal ends **122, 222** and distal ends **124, 224**. Proximal ends **122, 222** are connected to bases **110, 210**, respectively. More preferably, tines **120, 220** have a frusto-conical shape or are tapered from proximal ends **122, 222** to distal ends **124, 224**, respectively. Distal ends **124, 224** preferably have a flat end surface but other than flat end surfaces can be used, such as, for example, a pointed or sharply tapered end, to facilitate initially inserting tines **120, 220** through the section or lock of hair to be treated.

[**0028**] Preferably, tines **120, 220** have a height of between about ¼ inches to about 1.0 inches.

[**0029**] More preferably, tines **120, 220** have a height of between about ⅜ inches to about ¾ inches.

[**0030**] Preferably, proximal ends **122, 222** have a diameter of between about 1/16 inches to about 5/16 inches. More preferably, proximal ends **122, 222** have a diameter of between about ⅛ inches to about ¼ inches. Preferably, distal ends **124, 224** have a diameter of between about 1/16 inches to about ⅜ inches. More preferably, distal ends **124, 224** have a diameter of between about 1/16 inches to about 5/16 inches.

[**0031**] While this embodiment has four tines **120** and four tines **220**, alternative numbers of tines **120, 220** can also be used. Additionally, this embodiment arranges tines **120, 220** in square patterns along bases **110, 210** with each tine disposed in a corner of the square. Tines **120, 220** are disposed along bases **110, 210** such that the sides of the square pattern are either substantially parallel or perpendicular to the longitudinal axis of handle **20**.

[**0032**] In use, hair flow is between tines **120, 220** parallel to the longitudinal axis of handle **20**. The square pattern of tines **120, 220** is preferred because it provides for a more even distribution of the hair treatment that is held between the tines. The square pattern also facilitates the passage of hair through spaces **140, 240** between tines **120, 220**, respectively, because the tines are evenly spaced apart and spaces **140, 240** are perpendicular to the hair flow (along the longitudinal axis of handle **20**) so as to limit the resistance of the tines to the hair flow. However, alternative patterns or shapes for the arrangement of tines **120, 220** along bases **110, 210** can also be used, including rectangular patterns. Preferably, spaces **140, 240** are between about 1/32 inches to about 5/16 inches. More preferably, spaces **140, 240** are between about 1/16 inches to about 3/16 inches.

[**0033**] Combs **100, 200** also have baffles **130, 230**. Baffles **130, 230** are preferably formed between the inner or inside pairs of tines **120, 220** such that the baffles are substantially parallel to the longitudinal axis of handle **20** and parallel to the path of hair flow through spaces **140, 240**. Preferably, the height of baffles **130, 230** is between about ⅛ inches to about 1.0 inches. More preferably, the height of baffles **130, 230** is between about ¼ inches to about ⅜ inches.

[**0034**] In the preferred embodiment, comb **100**, base **110**, tines **120** and baffle **130** form a retaining volume **150**. Similarly, comb **200**, base **210**, tines **220** and baffle **230** form a retaining volume **250**. In use, retaining volumes **150, 250** are filled with the hair treatment that is to be applied to the user's hair and the hair passes through the retaining volumes through spaces **140, 240**.

[**0035**] Head **50** also has a separation volume **300** and a grip **400**. Separation volume **300** is formed by inner tines **120** of comb **100** and inner tines **220** of comb **200**. Separation volume **300** provides for a path for hair that will not be treated with the hair product. In use, hair flow is through retaining volume **150**, separation volume **300** and retaining volume **250**. Hair treatment is placed in both retaining volume **150** and retaining volume **250**. The middle or center strands of hair pass through separation volume **300** without being exposed to the hair treatment, while the outer strands of hair pass through retaining volume **150** and retaining volume **250** where the hair treatment is applied. This provides for a separate and distinct set of treated hair or highlights over two distinctly separate sections of hair with a separate, untreated section of hair in between.

[**0036**] Referring to **FIGS. 6 and 7**, separation volume **300** has a width S. Preferably, width S is a minimum of about ¼ inches. This minimum for width S allows for distinct, separate hair treatments or highlights with a distinct, separate untreated section in between.

[**0037**] Previous applicators suffer from the drawback of applying the hair product in a single, wide stripe. At the time of application, it appears to the user of such an applicator that there are multiple stripes because the strands of hair are temporarily being separated by the tines or teeth of the applicator, as it passes through the hair.

[**0038**] Grip **400** of head **50** is an indent or recess that is formed in a center portion of the rear of the head. Grip **400** allows a user to position his or her finger in the grip for better handling and control of applicator **10**.

[**0039**] In the preferred embodiment, baffles **130, 230** assist in retaining the hair treatment in retaining volumes **150, 250** so that the hair treatment does not enter separation volume **300**. Baffles **130, 230** also prevent strands of hair that are passing through separation volume **300** from making contact with any hair treatment that is on the outer periphery of retaining volumes **150, 250**. This provides for a more even and uniform application of the hair treatment to the hair, and straighter lines of separation between the treated and untreated sections of hair.

[**0040**] In the preferred embodiment, applicator **10** has first comb **100** and second comb **200** with separation volume **300** therebetween. However, any number of a plurality of combs **100, 200** can be used in the present invention to form any number of separation volumes **300**. Additionally, applicator **10** has two separate combs **100, 200** with separation volume **300** therebetween. Alternatively, a single comb **100** can be used having tines **120** arranged in a plurality of square or

other patterns, which form one or more separation volumes **300** therebetween, so that hair can flow through the one or more separation volumes to create a separate, distinct untreated section of hair between the treated sections of hair.

[**0041**] Applicator **10** is preferably injection molded as a single piece. Applicator **10** can be made from any moldable material, such as, for example, polyethylene or polypropylene.

[**0042**] Referring to **FIG. 8**, there is shown an alternative embodiment of a hair treatment applicator of the present invention generally represented by reference numeral **10'**. Applicator **10'** has a handle **20'** and a head **50'** connected to the handle. Head **50'** has combs **100'**, **200'** having tines **120'**, **220'**. Tines **120'**, **220'** are arranged in a square pattern with the sides of the square being either parallel or perpendicular to the longitudinal axis of applicator **10'**.

[**0043**] In the alternative embodiment, inner tines **120'**, **220'** do not have any baffle or wall structures therebetween. Combs **100'**, **200'** have spaces **140'**, **240'** that are both perpendicular to and parallel to the longitudinal axis of handle **20'**. This allows a user to pass hair between tines **120**, **220'** along a path that is parallel to the longitudinal axis of handle **20'** and create separate, distinct highlights or hair treatments. The user could also pass the hair between tines **120**, **220'** along a path that is perpendicular to the longitudinal axis of handle **20'** and create a single, wide highlight or hair treatment, as is done with contemporary applicators.

[**0044**] In this alternative embodiment, the hair treatment has a high enough viscosity that it remains in retaining volumes **150'**, **250'** without the need for a baffle or other separating structure. Preferably, a hair treatment product with a minimum viscosity of about 8000 cps would remain in retaining volumes **150'**, **250'** without the use of baffles or walls between combs **100'**, **200'** and separation volume **300'**.

[**0045**] The present invention having been thus described with particular reference to the preferred forms thereof, it will be obvious that various changes and modifications may be made therein without departing from the spirit and scope of the present invention as defined herein.

[**0046**] All documents cited in the Detailed Description of the Invention are, in relevant part, incorporated herein by reference; the citation of any document is not to be construed as an admission that it is prior art with respect to the present invention.

[**0047**] While particular embodiments of the present invention have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the invention. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of this invention.

What is claimed is:

1. A hair treatment applicator for applying a hair treatment to hair, the applicator comprising:

a handle; and

a plurality of retaining structures connected to said handle, wherein each of said plurality of retaining structures is separated from each other of said plurality of retaining structures by a separation volume, and wherein said plurality of retaining structures hold the hair treatment.

2. A hair treatment applicator for applying a hair treatment to hair, the applicator comprising:

a handle;

a plurality of heads being connected to said handle; and

a retaining structure being connected to each of said plurality of heads, wherein each head of said plurality of heads is separated from each other head of said plurality of heads by a separation volume, and wherein said retaining structure holds the hair treatment.

3. A hair treatment applicator for applying a hair treatment to hair, the applicator comprising:

a handle;

a first head being connected to said handle, said first head having a plurality of first tines forming a first retaining volume;

a second head being connected to said handle, said second head having a plurality of second tines forming a second retaining volume; and

a separation volume, wherein said first retaining volume and said second retaining volume are separated by said separation volume, and wherein said first and second retaining volumes hold the hair treatment.

* * * * *