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ABSTRACT

An artificial hair spinning nozzle includes a nozzle body having a spinning hole extending into the nozzle body. In a cross-sectional view, the spinning hole includes a core section formed at the center of the nozzle body, and three branch sections each formed to radially protrude in an arc shape from the core section at a predetermined angle. The arc shape is bent along one direction to form an outer contour of the spun artificial hair. The branch section includes a convex circular part protruding in a convex circular shape on the end side of the branch section, and a concave circular part recessed between adjacent branch sections in a concave circular sectional shape circumscribed to circles of the convex circular part and the core section.

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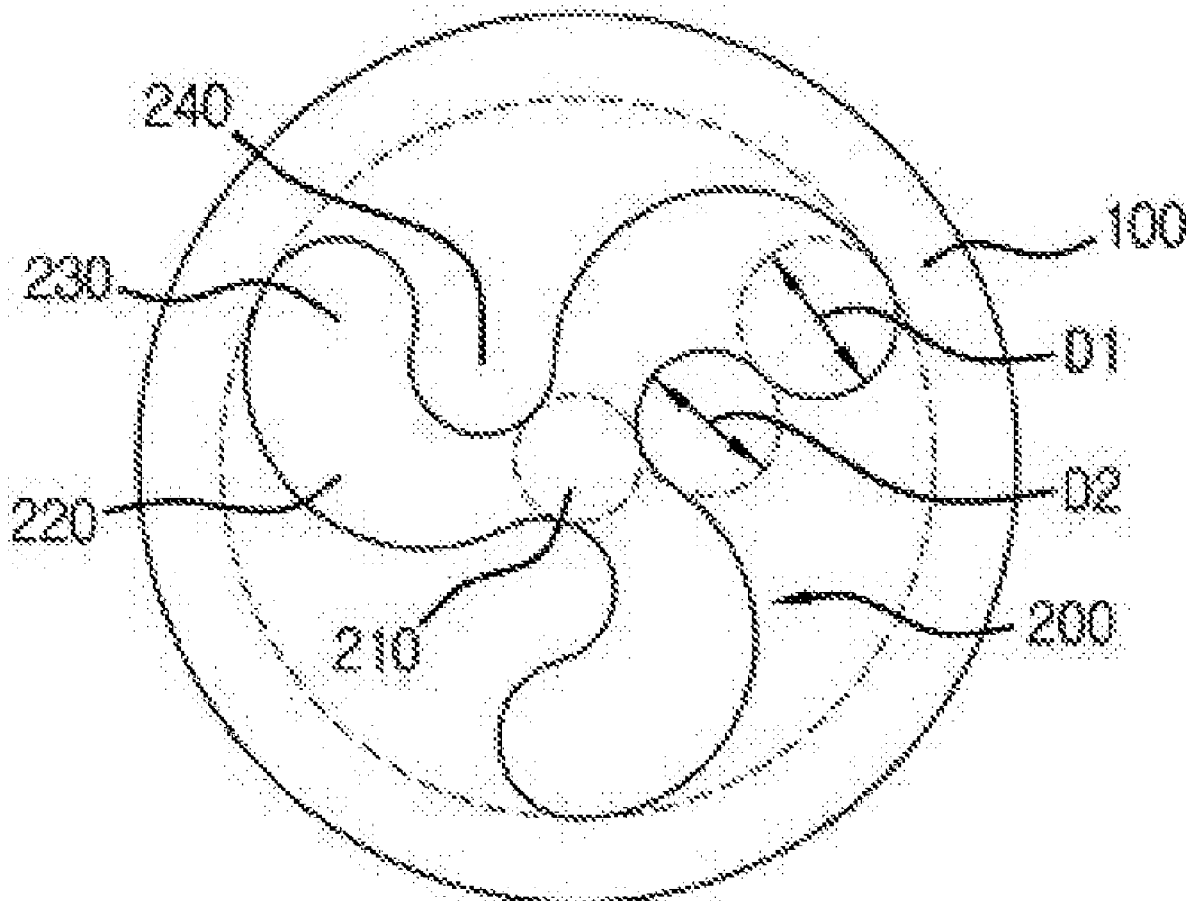
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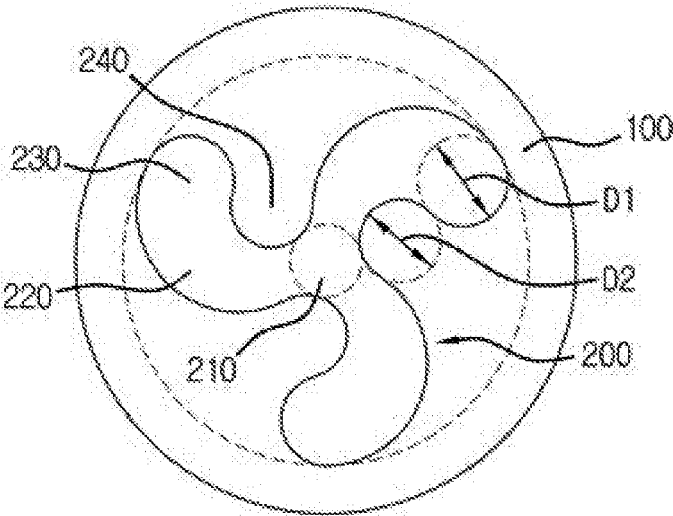


FIG. 1

ARTIFICIAL HAIR SPINNING NOZZLE AND ARTIFICIAL HAIR PRODUCT MANUFACTURED USING SAME

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present disclosure relates to an artificial hair spinning nozzle for manufacturing artificial hair used in wigs, hairpieces, braids, or the like, and an artificial hair product manufactured using the same. Particularly, the present disclosure relates to an artificial hair spinning nozzle for manufacturing artificial hair that realizes a specific external gloss provided by spread reflection of light and specific gravity close to that of human hair over existing artificial hair, and an artificial hair product manufactured using the same.

Description of the Related Art

[0002] As artificial hair fibers, acrylic fibers, polyester fibers, nylon fibers, polypropylene fibers, and the like are widely used.

[0003] These fibers are applied in fields such as wigs, hairpieces, weaves, braids, doll hair, and extension hair. Gloss, tactility, ease of combing, and curl generation and retention are developed and improved to give the necessary specialty as hair fibers.

[0004] Existing synthetic fibers generally have a monotonous fiber surface, so when used as they are, they do not exhibit a natural gloss effect and are not suitable as hair fibers. In order to solve this problem, a method of adding a 'light-extinction agent' to the fibers has been developed, but there is a limit to naturalness such as human hair because it is only effective in reducing gloss.

[0005] On the other hand, polyester fibers are fibers with excellent curl generation and retention, which is necessarily required as artificial hair fibers, and are widely used for wigs, weaves, and the like. Due to a high specific gravity, however, they give a feeling of weight when used.

[0006] In addition, in the field of braids, a type of product that extends hair in a pigtail ribbon-braiding manner and requires tying a knot at the end of the pigtail ribbon is provided. In the case where the end of the ribbon is treated, since most of the existing hair fibers are in the shape of a crowbar or Y-type, there are problems in that the hair become twisted and they are not restored to their original shape when the ribbon is released. In other words, there is a problem that is vulnerable to straightness, which is a necessary element of hair.

[0007] The foregoing is intended merely to aid in the understanding of the background of the present disclosure, and is not intended to mean that the present disclosure falls within the purview of the related art that is already known to those skilled in the art.

DOCUMENTS OF RELATED ART

[0008] (Patent Document 1) Japanese Patent Application Publication No. 1996-296115 (published on Nov. 12, 1996)

[0009] (Patent Document 2) Japanese Patent Registration No. 3365141 (registered on Nov. 1, 2002)

SUMMARY OF THE INVENTION

[0010] Accordingly, the present disclosure has been made keeping in mind the above problems occurring in the related art, and an objective of the present disclosure is to provide an artificial hair spinning nozzle for manufacturing artificial hair that realizes a specific external gloss provided by spread reflection of light and specific gravity close to that of human hair over the existing artificial hair, and an artificial hair product manufactured using the same.

[0011] In order to achieve the above objective, according to one aspect of the present disclosure, there is provided an artificial hair spinning nozzle including: a nozzle body **100** extending a predetermined length with a predetermined outer diameter and having a hollow spinning hole **200** extending into the nozzle body **100** in a longitudinal direction and into which a synthetic resin is injected to longitudinally spin artificial hair, wherein in a cross-sectional view, the spinning hole includes: a core section **210** formed in a circular shape at the center of the nozzle body **100** to serve as the center of the spun artificial hair, wherein the circular shape has a size smaller than the outer diameter of the nozzle body **100**; and a branch section **220** composed of three branch sections formed to radially protrude in an arc shape from the core section **210** at a predetermined angle, wherein the arc shape is bent along one direction to form an outer contour of the spun artificial hair, wherein the branch section includes: a convex circular part **230** located outside the core section **210** and protruding in a convex circular shape on the end side of the branch section **220** so as to form the end side of a branch section of the spun artificial hair; and a concave circular part **240** recessed between adjacent branch sections **220** in a concave circular sectional shape circumscribed to circles of the convex circular part **230** and the core section **210**, respectively, serving to form the inner side of the branch section of the spun artificial hair.

[0012] Here, a diameter D1 of a convex circle forming the convex circular part **230** is larger than a diameter D2 of a concave circle forming the concave circular part **240**, and the diameter D2 of the concave circle forming the concave circular part **240** is 25% to 85% of the diameter D1 of the convex circle forming the convex circular part **230**.

[0013] The diameter of a circle inscribed with the convex circle of the convex circular part **230** may be 1 mm to 2 mm.

[0014] A total area of the spinning hole **200** may be 55% to 75% of an area of a circle inscribed with the convex circular part **230** of the branch section **220**.

[0015] The artificial hair spun by the artificial hair spinning nozzle having the above-mentioned configuration according to the present disclosure has a directional feature of bending in one direction while forming three branch sections, so it is possible to maintain curl generation and retention, and to give more hair volume, and since three types of different gloss due to spread reflection of light are blended for the three branch sections, it is possible to realize a natural gloss unlike the conventional artificial hair that reduces gloss by using an extinction agent.

[0016] In addition, the artificial hair formed with the three branches can facilitate combing, unlike the simple conventional artificial hair having a circular or rectangular shape. Further, since the artificial hair forms the branch section **220** of three branches and has a directional feature of bending (rotating) along one direction, there is an effect of improving the straightness of the artificial hair compared to the conventional artificial hair.

[0017] Furthermore, the three-pronged branch section 220 not only allows the hair thickness to be maintained similar to that of human hair, but also allows the hair weight to be reduced, and the amount of synthetic resin consumed for spinning the artificial hair can be reduced, resulting in cost reduction.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] The above and other objectives, features, and advantages of the present disclosure will be more clearly understood from the following detailed description when taken in conjunction with the accompanying drawing, in which:

[0019] FIG. 1 is a cross-sectional view illustrating an artificial hair spinning nozzle according to an exemplary embodiment of the present disclosure.

DETAILED DESCRIPTION OF THE INVENTION

[0020] Hereinafter, an artificial hair spinning nozzle according to the present disclosure will be described with reference to the accompanying drawing.

[0021] FIG. 1 is a cross-sectional view illustrating an artificial hair spinning nozzle according to an exemplary embodiment of the present disclosure.

[0022] The artificial hair spinning nozzle according to the present disclosure includes a nozzle body 100 that extends a predetermined length with a predetermined outer diameter and has a hollow spinning hole 200 that extends into the nozzle body 100 in a longitudinal direction and into which a synthetic resin is injected to longitudinally spin artificial hair. The synthetic resin injected into the spinning hole 200 uses a known polyester having excellent curl generation and retention, which is necessarily required as an artificial hair fiber.

[0023] The artificial hair spinning nozzle according to the present disclosure may be separately manufactured so that the spinning nozzle may be inserted and fixed to a spinning plate, or otherwise the nozzle body 100 may be integrally formed with the spinning plate. A plurality of artificial hair spinning nozzles according to the present disclosure is installed side by side so that artificial hairs can be spun therethrough.

[0024] As illustrated in FIG. 1, the cross-sectional shape of the artificial hair spinning nozzle includes a core section 210 and branch sections 220 each having a convex circular part 230 and a concave circular part 240.

[0025] The core section 210 is a section that is formed at the center of the nozzle body 100 to serve as the center of the spun artificial hair, with a circular shape having a size smaller than the outer diameter of the nozzle body 100.

[0026] The branch section 220 consists of three branch sections that are formed to outwardly protrude in an arc shape from the core section 210 at a certain angle, that is, 120 degrees, so that the arc shape is bent along one direction to form the outer contour of the spun artificial hair. Here, the diameter of the arc is larger than the diameter of the convex circular part 230 and smaller than the diameter of the nozzle body 100.

[0027] The outer surface of the artificial hair spun through the branch section 220 has natural gloss obtained by spread reflection of light. In addition, the shape of the branch section serves to give volume to hair.

[0028] The outer surface of the artificial hair spun through the convex circular part of the branch section 220 can realize a deep color together with the inner surface of the artificial hair spun through the concave circular part 240 of the branch section to be described later. That is, the outer surface of the artificial hair spun through the convex circular part of the branch section 220 and the inner surface of the artificial hair spun through the concave circular part 240 of the branch section bring different gloss due to the spread reflection, so that a deep color can be realized.

[0029] The convex circular part 230 is located outside the core section 210 and protrudes in a convex circular shape on the end portion of the branch section 220 so as to form the end side of a branch section of the spun artificial hair.

[0030] Since the end side of a branch section 220 of the artificial hair is spun in a circular form through the convex circular part 230, the artificial hair has soft tactility like a real hair, as well as more hair volume.

[0031] The concave circular part 240 is recessed between the inner side and outer side of the branch section 220 in a concave circular sectional shape that is circumscribed to the circles of the convex circular part 230 and the core section 210, respectively, serving to form the inner side of the branch section of the spun artificial hair.

[0032] As described above, according to the present disclosure, since the three branch sections 220 each have a direction in which the branch section 220 is bent (rotated) along one direction, it is possible to maintain curl generation and retention, to provide more hair volume, and to realize a natural gloss unlike the conventional artificial hair that reduces gloss by using an extinction agent since the three types of different gloss due to spread reflection of light are blended for three branch sections 220. In addition, the artificial hair formed with the three branches can facilitate combing, unlike the simple conventional artificial hair having the crowbar or Y-shape. Further, since the artificial hair forms the branch section 220 of three branches and has a directional feature of bending (rotating) along one direction, there is an effect of improving the straightness of the artificial hair compared to the conventional artificial hair. Furthermore, the three-pronged branch section 220 not only allows the hair thickness to be maintained similar to that of human hair, but also allows the hair weight to be reduced, and the amount of synthetic resin consumed for spinning the artificial hair can be reduced, resulting in cost reduction.

[0033] According to the present disclosure, the diameter D1 of a convex circle forming the convex circular part 230 is larger than the diameter D2 of a concave circle forming the concave circular part 240, wherein the diameter D2 of the concave circle forming the concave circular part 240 is preferably 25% to 85% of the diameter D1 of the convex circle forming the convex circular part 230.

[0034] When the diameter D2 of the concave circle forming the concave circular part 240 is less than 25% of the diameter D1 of the convex circle forming the convex circular part 230, there is a problem in that the core section 210 becomes much larger, the branch sections 220 become less elastic, and the hair weight increases.

[0035] When the diameter D2 of the concave circle forming the concave circular part 240 is more than 85% of the diameter D1 of the convex circle forming the convex circular part 230, there is a problem in that the elasticity of the branch sections 220 is large, a curl generation and retention feature becomes much deteriorated, and although

the hair weight decreases due to a reduction in the size of core section **210**, such a reduction causes detachment of the branch sections, resulting in a damage to the hair.

[0036] It is preferable that the diameter of a circle inscribed with the convex circle of the convex circular part **230** be 1 mm to 2 mm.

[0037] If the diameter of the circle inscribed with the convex circle of the convex circular part **230** is less than 1 mm, it is difficult to manufacture the artificial hair spinning nozzle. In addition, if the diameter of the circle inscribed with the convex circle of the convex circular part **230** is more than 2 mm, the elasticity of the branch section of the spun artificial hair decreases and the hair becomes stiff, thereby greatly degrading the softness of the hair.

[0038] It is preferable that the total area of the spinning hole **200** be 55% to 75% of the area of the circle inscribed with the convex circular part **230** of the branch section **220**.

[0039] When the total area of the spinning hole **200** is less than 55% of the area of the circle inscribed with the convex circular part **230** of the branch section **220**, the elasticity of the branch sections **220** is large, a curl generation and retention feature becomes much deteriorated, and although the hair weight decreases due to a reduction in the size of core section **210**, such a reduction causes detachment of the branch sections **220**, resulting in a damage to the hair.

[0040] When the total area of the spinning hole **200** is more than 75% of the area of the circle inscribed with the convex circular part **230** of the branch section **220**, the core section **210** becomes much larger, the branch sections **220** become less elastic, and the hair weight increases.

[0041] The artificial hair spun by the artificial hair spinning nozzle according to the present disclosure is used for hair ornaments such as wigs, hairpieces, and braids.

[0042] Although the present disclosure has been described and illustrated with respect to the specific embodiments, those skilled in the art will appreciate that various improvements and modifications are possible, without departing from the scope and spirit of the present disclosure as disclosed in the accompanying claims.

What is claimed is:

1. An artificial hair spinning nozzle comprising:

- a nozzle body extending a predetermined length with a predetermined outer diameter and having a hollow spinning hole extending into the nozzle body in a longitudinal direction and into which a synthetic resin is injected to longitudinally spin artificial hair, wherein in a cross-sectional view, the spinning hole comprises:
 - a core section formed in a circular shape at the center of the nozzle body to serve as the center of the spun artificial hair, wherein the circular shape has a size smaller than the outer diameter of the nozzle body; and
 - a branch section composed of three branch sections formed to radially protrude in an arc shape from the core section at a predetermined angle, wherein the arc shape is bent along one direction to form an outer contour of the spun artificial hair, wherein the branch section includes:
 - a convex circular part located outside the core section and protruding in a convex circular shape on the end side of the branch section so as to form the end side of a branch section of the spun artificial hair; and
 - a concave circular part recessed between adjacent branch sections in a concave circular sectional shape circumscribed to circles of the convex circular part and the core section, respectively, serving to form the inner side of the branch section of the spun artificial hair,

wherein a diameter of a convex circle forming the convex circular part is larger than a diameter of a concave circle forming the concave circular part, wherein the diameter of the concave circle forming the concave circular part is 25% to 85% of the diameter of the convex circle forming the convex circular part.

2. The artificial hair spinning nozzle according to claim 1, wherein the diameter of a circle inscribed with the convex circle of the convex circular part is 1 mm to 2 mm.

3. The artificial hair spinning nozzle according to claim 1, wherein a total area of the spinning hole is 55% to 75% of an area of a circle inscribed with the convex circular part of the branch section.

4. An artificial hair product spun through the artificial hair spinning nozzle according to claim 1.

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