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(72) Inventors:
• **JEONG, Woo Yong**
Seoul 06051 (KR)
• **LIM, Yongmi**
Seoul 06051 (KR)

(74) Representative: **Isarpatent**
Patent- und Rechtsanwälte
Barth Hassa Peckmann & Partner mbB
Friedrichstraße 31
80801 München (DE)

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(71) Applicant: **Dentistory Co., Ltd.**
Incheon 22760 (KR)

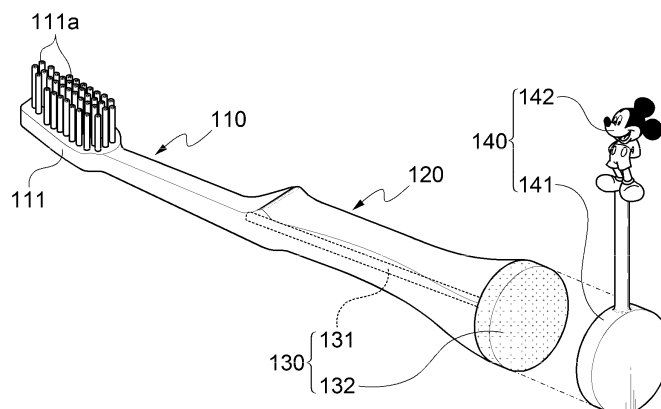
(54) **TOOTHBRUSH AND TOOTHBRUSH SET**

(57) Provided are a toothbrush and a toothbrush set, comprising: a toothbrush head comprising a brush portion having a plurality of bristles; a toothbrush handle having an end connected to the toothbrush head; and an attention-inducing member comprising a detachable por-

tion detachably provided at the other end of the toothbrush handle and an image portion extending from the detachable portion and having a character embodied therein.

FIG. 1

100



Description**TECHNICAL FIELD**

[0001] The present invention relates to a toothbrush and toothbrush set provided with an attention-inducing member that may stimulate interest in brushing, thereby facilitating the development of toothbrushing habits in young children.

BACKGROUND ART

[0002] Generally, a toothbrush is an oral hygiene tool used for brushing with toothpaste to maintain oral cleanliness and dental health. The toothbrush consists of a head with bristles mounted on one end of a long stick-shaped handle, which the user inserts into the mouth to brush their teeth.

[0003] However, if the user of the toothbrush is typically a toddler or a child, they often dislike and get bored with brushing, so it is necessary to spark their curiosity and help them focus to encourage a brushing habit.

[0004] In response to this, most toothbrushes simply have various decorations on the handle, but as toothbrushes with such decorations are actually obscured by the hand and may not be seen during brushing. In other words, even when one starts brushing their teeth out of curiosity due to the decoration, they quickly become bored and find it difficult to thoroughly finish brushing because they may not see the decoration while brushing.

[0005] Even if one holds the handle to see the decorations, children have difficulty focusing on the decorations easily because they have to strain their eyes to look down.

[0006] And when a guardian brushes a child's teeth, the child must open their mouth as wide as possible so that the guardian can see the inside of the molars. However, as time passes, the mouth tends to close naturally, or the child, bored of brushing, may intentionally change the shape of their mouth to disrupt the brushing process. Therefore, continuous attention and motivation are necessary to ensure that the child maintains appropriate mouth shapes such as 'ah' or 'ee' while brushing their teeth. However, decorations drawn or attached to the handle of the toothbrush did not help to draw attention while brushing.

[0007] Additionally, the decorations attached to the handle of the toothbrush could not be replaced until the toothbrush's lifespan ended, leading to a decrease in interest over time.

[0008] On the other hand, in the case of family members including infants or children, toothbrushes of family members are commonly stored together on a toothbrush holder provided in the bathroom sink, etc. However, when multiple toothbrushes are stored, the bristles of each toothbrush can come into contact with each other as the head with the bristles is positioned in the storage space of the toothbrush holder, which is an unhygienic

issue.

DISCLOSURE OF THE INVENTION**TECHNICAL PROBLEM**

[0009] The present invention is to provide a toothbrush and toothbrush set including a detachable attention-inducing member, which remains easily visible during brushing to stimulate the child's curiosity and induce daily brushing habits.

[0010] The present invention is to provide a toothbrush and toothbrush set including a detachable attention-inducing member, which may be periodically replaced with various characters that capture a child's interest, thus continuously inducing the child's daily brushing habits.

[0011] The present invention is to provide a toothbrush which has excellent identifiability and may be easily stored in a toothbrush holder without interfering with other toothbrushes when not in use, providing a highly hygienic, and a toothbrush set.

TECHNICAL SOLUTION

[0012] According to an embodiment, provided is a toothbrush including a toothbrush head including a brush portion having a plurality of bristles; a toothbrush handle having an end connected to the toothbrush head; and an attention-inducing member including a detachable portion detachably provided at the other end of the toothbrush handle and an image portion extending from the detachable portion and having a character embodied therein.

[0013] Here, the toothbrush according to the present embodiment may include a coupling member provided with a support portion of which one end extends from the other end of the toothbrush handle into the toothbrush handle toward the toothbrush head so as to be fixed, and a mounting portion provided on the other end of the support portion and fixed to the other end of the toothbrush handle.

[0014] Here, the detachable portion of the attention-inducing member may be detachably provided on the mounting portion of the coupling member through magnetic force.

[0015] Also, the toothbrush handle may be detachably coupled to the toothbrush head, and during the coupling, the support portion of the coupling member extends to be inserted from one end of the toothbrush handle into the toothbrush head.

[0016] Here, either one of the mounting portion of the coupling member and the detachable portion of the attention-inducing member may be provided as a magnet and the other is made of a metal that is detachable by a magnetic force of the magnet, or both the mounting portion of the coupling member and the detachable portion of the attention-inducing member are provided as magnets that are detachable by magnetic force.

[0017] Meanwhile, instead of the structure including the coupling member and which is detachable through the magnetic force, the toothbrush according to the present embodiment may include a rotation support member which is rotatably provided on the other end of the toothbrush handle using a longitudinal direction, in which the toothbrush head and the toothbrush handle are connected to each other, as a rotational axis, wherein the detachable portion of the attention-inducing member is detachably provided on the rotation support member.

[0018] In this case, a coupling groove may be defined in the rotation support member, and the detachable portion of the attention-inducing member may be provided as a coupling projection inserted into the coupling groove.

[0019] Here, a stepped portion may be provided inside the coupling groove, and a hooking portion, which is hooked with the stepped portion, is provided on the coupling projection.

[0020] Thus, the coupling projection may be inserted into the coupling groove along the rotational axis of the rotation support member or along a direction perpendicular to the rotational axis.

[0021] Meanwhile, a coupling groove may be defined in the other end of the toothbrush handle, and a coupling projection, which is detachably coupled to the coupling groove, is provided on the detachable portion of the attention-inducing member, or a coupling groove is defined in the detachable portion of the attention-inducing member, and a coupling projection, which is detachably coupled to the coupling groove, is provided on the other end of the toothbrush handle.

[0022] Additionally, the detachable portion of the attention-inducing member may have a cap shape which is detachably coupled to the other end of the toothbrush handle while surrounding the other end of the toothbrush handle, or the other end of the toothbrush handle may have a cap shape which is detachably coupled to the detachable portion of the attention-inducing member while surrounding the detachable portion.

[0023] Meanwhile, the image portion of the attention-inducing member may be provided as at least one of an image, picture, or a 3D model, such as a character or a toy.

[0024] Here, the image portion the image portion may be manufactured using a lenticular printing technique.

[0025] The toothbrush according to the present embodiment may further include a light-emitting unit disposed on the attention-inducing member to irradiate light to the outside.

[0026] According to another embodiment, provided is a toothbrush set including: a toothbrush including: a toothbrush head comprising a plurality of bristles; a toothbrush handle with one end connected to the toothbrush head; a coupling member, including: a support portion of which one end extends from the other end of the toothbrush handle into the toothbrush handle toward the toothbrush head so as to be fixed; and a mounting portion provided

on the other end of the support portion and fixed to the other end of the toothbrush handle; and an attention-inducing member including: a detachable portion detachably provided on the mounting portion of the coupling member through magnetic force; and an image portion extending from the detachable portion and having a character embodied therein, and a toothbrush holder which is provided on a wall or mirror in a space, in which the toothbrush is used, and to which the detachable portion of the attention-inducing member is detachably provided through the magnetic force.

ADVANTAGEOUS EFFECTS

[0027] The toothbrush may have the advantage of being able to naturally induce the child's brushing habit by capturing the child's interest with the detachable attention-inducing member provided thereon.

[0028] The detachable member may be moved significantly upward from the end of the toothbrush to align with the eye level of the child and may be rotated 360 degrees, allowing the child to comfortably see the detachable member with the naked eyes during the entire brushing time.

[0029] By taking advantage of the feature that the detachable member may be visible during brushing, the guardian may become the character and engage in role-playing or continue imaginary conversations with the child, stimulating the child's imagination and guiding them to make the appropriate mouth movements.

[0030] There is an advantage of being able to regularly replace the attention-inducing member having various characters, which continuously induces brushing habits in young children without causing boredom.

[0031] The attention-inducing member may maximize the identifiability of the toothbrush, and when not in use, the toothbrush may be conveniently stored in the toothbrush holder without interference from other toothbrushes, thereby improving hygiene.

BRIEF DESCRIPTION OF THE DRAWINGS

[0032] This disclosure can be easily understood through the following detailed description in conjunction with the accompanying drawings, where the reference numerals indicate structural elements.

FIG. 1 is a schematic perspective view of a toothbrush according to an embodiment.

FIG. 2 is a schematic perspective view of a detachable coupling structure in which a toothbrush handle and a toothbrush head are separable in FIG. 1.

FIG. 3 is a schematic perspective view illustrating a state in which a child's gaze is focused on an attention-inducing member.

FIG. 4 is a schematic perspective view illustrating a state in which the toothbrush in FIG. 1 is detachably provided on a toothbrush holder through magnetic

force.

FIG. 5 is a schematic perspective view of a toothbrush according to another embodiment.

FIG. 6 is a schematic cross-sectional view of a main portion of a longitudinal direction connecting a toothbrush handle and a toothbrush head of FIG. 5.

FIG. 7 is a cross-sectional view taken along line I-I' of FIG. 6.

FIG. 8 is a schematic perspective view of main portions of a rotation support member and an attention-inducing member according to another embodiment. FIG. 9 is a cross-sectional view taken along line II-II' of FIG. 8.

FIG. 10 is a schematic perspective view of a toothbrush according to another embodiment.

FIG. 11 is a schematic perspective view of a toothbrush according to another embodiment.

FIG. 12 is a schematic perspective view of a toothbrush according to further another embodiment.

BEST MODE FOR CARRYING OUT THE INVENTION

[0033] Provided is a toothbrush including: a toothbrush head including a brush portion having a plurality of bristles; a toothbrush handle having an end connected to the toothbrush head; and an attention-inducing member including a detachable portion detachably provided at the other end of the toothbrush handle and an image portion extending from the detachable portion and having a character embodied therein.

MODE FOR CARRYING OUT THE INVENTION

[0034] Hereinafter, various embodiments will be described in detail with reference to the drawings. The embodiments described below may be modified and implemented in various different forms. In order to more clearly describe the characteristics of the embodiments, detailed explanations of well-known matters in the technical field to which the following embodiments belong will be omitted.

[0035] In the specification, when one part is referred to as being connected to another part, this includes a case where the one part is directly connected to another part, but also a case where the one part is connected to another part with intervening elements therebetween. Also, when one configuration is said to "include" another configuration, it means that it may also include other configurations, unless specifically stated otherwise, and does not exclude other configurations.

[0036] Also, terms including ordinals such as 'first' or 'second' used in this specification can be used to describe various components, but these components should not be limited by these terms. These terms are only used to distinguish one element from another element.

[0037] FIG. 1 is a schematic perspective view of a toothbrush according to an embodiment, and FIG. 2 is

a schematic perspective view of a detachable coupling structure in which a toothbrush handle and a toothbrush head are separable in FIG. 1. FIG. 3 is a schematic perspective view illustrating a state in which a child's gaze is focused on an attention-inducing member, and FIG. 4 is a schematic perspective view illustrating a state in which the toothbrush in FIG. 1 is detachably provided on a toothbrush holder through magnetic force.

[0038] Referring to FIG. 1, a toothbrush 100 according to an embodiment includes a toothbrush head 110 including a toothbrush portion 111 provided with a plurality of bristles 111a, a toothbrush handle 120, having one end connected to the toothbrush head 110, coupling member 130 including a support portion 131 extending inward the toothbrush handle 120 and fixed in place and a mounting portion 132 disposed on the other end of the support portion 131 and fixed to the other end of the toothbrush handle 120, and an attention-inducing member 140 including a detachable portion 141 that is detachably provided on the mounting portion 132 of the coupling member 130 through magnetic force and an image portion 142 extending from the detachable portion 141 and having a character embodied therein.

[0039] Here, the support portion 131 of the coupling member 130 may have one end that is fixed to and extended from the other end of the toothbrush head 110 along a direction of the toothbrush head 110 and may be provided on the toothbrush handle 120 by a double injection molding method.

[0040] Here, referring to FIG. 2 again, the toothbrush handle 120 may be detachably coupled to the toothbrush head 110.

[0041] That is, the toothbrush handle 120 may be manufactured separately from the toothbrush head 110, and have a structure in which when the toothbrush handle 120 and the toothbrush head 110 are coupled to each other, the support portion 131 of the coupling member 130 is extended from one end of the toothbrush handle 120 and inserted into the toothbrush head 110.

[0042] Thus, when bristles 111a provided on the toothbrush portion 111 of the toothbrush head 110 wear out due to repeated brushing, the toothbrush head 110 may be easily replaced and combined with the toothbrush handle 120 for use.

[0043] On the other hand, the mounting portion 132 of the coupling member 130 and the detachable portion 141 of the attention-inducing member 140 may be detachably coupled to each other through magnetic force. Here, one of the two may be provided as a magnet, while the other may be provided as metal that is detachable through the magnetic force of the magnet.

[0044] Alternatively, the mounting portion 132 of the coupling member 130 and the detachable portion 141 of the attention-inducing member 140 may both be provided as magnets that are detachable through magnetic force.

[0045] Also, the image portion 142 of the attention-inducing member 140 may be made of at least one of an image, a photo, or a 3D model such as a character or a

toy.

[0046] Alternatively, the image portion 142 may also be provided with the user's name individually or in addition to the image to improve identifiability.

[0047] Here, the image portion 142 may be manufactured using a lenticular printing technique to enhance the visual effect.

[0048] Meanwhile, in the toothbrush 100 according to the embodiment, the toothbrush head 110 and the toothbrush handle 120 are separately manufactured and coupled to each other through the support portion 131 of the coupling member 130, but it is not limited thereto. The toothbrush head and toothbrush handle may be integrally injection-molded, and during integral injection molding, a magnet may be inserted at an end of the toothbrush handle instead of the coupling member, allowing for simpler production through plastic injection molding.

[0049] Thus, the toothbrush 100 according to the embodiment may capture the interest of infants or children through the image portion 42 of the attention-inducing member 140, allowing infants or children to enjoy brushing, whether they brush themselves or with the help of guardian.

[0050] At this time, referring to FIG. 3, in case of rotating the toothbrush 100 to brush lower teeth after brushing upper teeth, the image portion 142 of the attention-inducing member 140 may rotate together, while the detachable portion 141 of the attention-inducing member 140 remains attached to the mounting portion 132 of the coupling member 130. This allows the infant or child's gaze to remain continuously focused on the image portion 142.

[0051] Meanwhile, although it is not illustrated in detail, the toothbrush 100 according to the present embodiment may further include a light-emitting unit, which irradiates light to the outside, on the attention-inducing member 140.

[0052] Here, the light-emitting unit may include an LED Light Emitting Diode that is accommodated inside the image portion 142 of the attention-inducing member 140, and a battery that supplies current to the LED. In this case, the image portion 142 may be made of a transparent material so that the light emitted through the LED is irradiated to the outside. In such cases, the attention-inducing member 140 may have a structure in which the image portion 142 is detachable from the detachable portion 141 to facilitate the mounting or replacement of the LED.

[0053] Accordingly, when a child or infant is brushing their teeth in a dark environment, the toothbrush 100 according to the present embodiment may emit light through the light-emitting unit, not only capturing the child's or infant's interest but also helping them brush correctly.

[0054] Meanwhile, referring to FIG. 4, the toothbrush 100 according to the present embodiment may be provided with a toothbrush set 10 including a toothbrush

holder 200 provided on a wall or mirror of a space where the toothbrush 100 is used.

[0055] More specifically, the toothbrush holder 200 may be separably fixed to a wall or mirror in the space where the toothbrush 100 is used, such as a bathroom. The attention-inducing member 140 of the toothbrush 100, i.e., the detachable portion 141, may be detachably fixed to one side of the toothbrush holder 200 through magnetic force.

[0056] Here, if the detachable portion 142 of the attention-inducing member 140 is made of a magnet, the toothbrush holder 200 may be made of a metal that is detachable through magnetic force. Additionally, if the detachable portion 142 of the attention-inducing member 140 is made of a metal, the toothbrush holder 200 may be provided as a magnet.

[0057] Accordingly, the toothbrush 100 may be detachably fixed to the toothbrush holder 200 by attaching the mounting portion 132 of the coupling member 130 to the detachable portion 142 through magnetic force in a state in which the attention-inducing member 140 is fixed to the toothbrush holder 200 by the detachable portion 141.

[0058] Alternatively, the toothbrush 100 may also be detachably fixed directly to the toothbrush holder 200 by the mounting portion 132.

[0059] That is, when the mounting portion 132 of the coupling member 130 is made of a metal, the toothbrush holder 200 may be provided as a magnet, allowing the mounting portion 132 to be attached to one side of the toothbrush holder 200 through magnetic force. This enables the toothbrush 100 to be directly and detachably fixed to the toothbrush holder 200 without involving the attention-inducing member 140.

[0060] Here, when the mounting portion 132 of the coupling member 130 is made of a metal and, correspondingly, the detachable portion 141 of the attention-inducing member 140 is provided as a magnet, it is preferable that the toothbrush holder 200 is provided as a magnet that is detachable through magnetic force from the detachable portion 141.

[0061] Therefore, in the toothbrush set 10 according to the present embodiment, the toothbrush 100 may be easily fixed to and detached from the toothbrush holder 200. Here, the toothbrush head 110 may maintain an independent floating state in a front space of the toothbrush holder 200 without external interference or contact, thereby allowing the bristles 111a to dry quickly and improving hygiene.

[0062] In this embodiment, although the structure in which the toothbrush 100 is horizontally fixed to the toothbrush holder 200 has been disclosed, it is not limited thereto. A structure in which the toothbrush 100 is vertically fixed to the toothbrush holder 200 may also be applied.

[0063] That is, by increasing the area in the direction of the toothbrush handle 120 towards the mounting portion 132 of the coupling member 130 or the detachable portion 141 of the attention-inducing member 140, the in-

creased portion allows the toothbrush 100 to be fixed and detached vertically to the toothbrush holder 200. In this case, a detachable structure using magnets and metal may be applied to the increased portion and the toothbrush holder 200.

[0064] Alternatively, the toothbrush holder 200 may be fixed to a mirror or wall in a horizontal plate shape or in a bent shape consisting of a vertical plate and a horizontal plate, allowing the mounting portion 132 of the coupling member 130 or the detachable portion 141 of the attention-inducing member 140 to be fixed to a top surface or bottom surface of the horizontal plate. This allows the toothbrush 100 to be fixed or detached in the vertical direction, and in this case, the detachable structure may be applied using magnets and metal.

[0065] Alternatively, apart from the mounting portion 132 of the coupling member 130 or the detachable portion 141 of the attention-inducing member 140, a separate magnet or metal may be installed on one side surface of the toothbrush handle 120 so that the toothbrush 100 may be fixed or detached vertically to the toothbrush holder 200 through the magnet and metal.

[0066] FIG. 5 is a schematic perspective view of a toothbrush according to another embodiment, and FIG. 6 is a schematic cross-sectional view of a main portion of a longitudinal direction connecting a toothbrush handle and a toothbrush head of FIG. 5. FIG. 7 is a cross-sectional view taken along line I-I' of FIG. 6, FIG. 8 is a schematic perspective view of main portions of a rotation support member and an attention-inducing member according to another embodiment, and FIG. 9 is a cross-sectional view taken along line II- II' of FIG. 8.

[0067] Referring to FIG. 5, a toothbrush 300 according to another embodiment includes a toothbrush head 310 including a toothbrush portion 311 provided with a plurality of bristles 311a, a toothbrush handle 320 having one end connected to the toothbrush head 310, a rotation support member 330 rotatably provided on the other end of the toothbrush handle 320 using a longitudinal direction connecting the toothbrush head 310 to the toothbrush handle 320 as a rotation axis, a detachable portion 341 detachably provided on the rotation support member 330, and an attention-inducing member 340 having an image portion 342 extending from the detachable portion 341 and having a character embodied therein.

[0068] Here, the rotation support member 330 may have a roughly cylindrical shape with a "I"-shaped coupling projection 331 that is inserted and coupled to a coupling groove 321 defined in the other end of the toothbrush handle 320, but, it is not limited thereto. The coupling projection may be provided on the toothbrush handle 320, and a corresponding coupling groove in which the coupling projection is inserted and fixed may be defined in the rotation support member 330.

[0069] Also, the rotation support member 330 may have a coupling groove 332a, defined in one side of the outer circumferential surface 332, into which the detachable portion 341 of the attention-inducing member

340 is detachably inserted, with the surface exposed when the rotation support member 330 is inserted and fixed to the other end of the toothbrush handle 320.

[0070] Thus, the detachable portion 341 of the attention-inducing member 340 may be provided as a coupling projection 341a that is inserted into the coupling groove 332a. That is, the coupling projection 341a constituting the detachable portion 341 may be inserted into the coupling groove 332a along a direction approximately perpendicular to a rotational axis of the rotation support member 330.

[0071] Here, a stepped portion 332a-1 may be provided inside the coupling groove 332a, and a hooking portion 341a-1 that is hooked with the stepped portion 332a-1 may be provided on the coupling projection 341a.

[0072] Additionally, in the attention-inducing member 340, the hooking portion 341a-1 may be made of an elastic rubber material or a flexible resin material and is detachable for replacement from the rotation support member 330.

[0073] Alternatively, instead of providing the hooking portion 341a-1, the coupling projection 341a may be made of an elastic rubber material or a flexible resin material, and the coupling projection 341a may be configured to be inserted to or removed from the coupling groove 332a by a press-fit manner.

[0074] Also, although it is not illustrated in detail, a coupling projection may be provided on one side of the rotation support member 330 instead of the coupling groove 332a, and a corresponding coupling groove may be defined in the detachable portion 341 of the attention-inducing member 340. Accordingly, the attention-inducing member 340 may be fixed to or detached from the rotation support member 330 by inserting or removing the coupling projection of the rotation support member 330 into or from the coupling groove defined in the detachable portion 341 of the attention-inducing member 340.

[0075] Also, the rotation support member 330 may have a coupling groove 332a, defined in one side of the outer circumferential surface 332, into which the detachable portion 341 of the attention-inducing member 340 is detachably inserted, with the surface exposed when the rotation support member 330 is inserted and fixed to the other end of the toothbrush handle 320.

[0076] Thus, the detachable portion 341 of the attention-inducing member 340 may be provided as the coupling projection 341a that is inserted into the coupling groove 332a. That is, the coupling projection 341a constituting the detachable portion 341 may be inserted into the coupling groove 332a along a direction approximately perpendicular to a rotational axis of the rotation support member 330.

[0077] Meanwhile, referring to FIGS. 6 and 7, the rotation support member 330 may have at least one fixing projection 331a provided on an outer circumferential surface of the coupling projection 331 in a circumferential direction. Accordingly, a plurality of fixing grooves 321a

corresponding to the at least one fixing projection 331a may be defined in an inner circumferential surface of the coupling groove 121 of the toothbrush handle 320 in the circumferential direction.

[0078] Here, while the at least one fixing projection 331a may be coupled to and separated from the plurality of fixing grooves 321a in a forced insertion manner by rotating the rotation support member 330, it is not limited thereto. The at least one fixing projection 331a may also be coupled to and separated through an elastic mechanism, whereby it is elastically compressed during rotation of the rotation support member 330 and then resiliently returns to its original position within the plurality of fixing grooves 321a.

[0079] Eventually, the rotation support member 330 may be arbitrarily fixed in a position at which at least one fixing projection 331a is coupled to any one of the plurality of fixing grooves 321a when rotated around the longitudinal axis connecting the toothbrush head 310 to the toothbrush handle 320 in a state in which the coupling projection 331 is inserted and fixed to the coupling groove 321.

[0080] Also, the image portion 342 of the attention-inducing member 340 may be made of at least one of an image, a photo, or a 3D model such as a character or a toy.

[0081] Alternatively, the image portion 342 may also be provided with the user's name individually or in addition to the image to improve identifiability.

[0082] Here, the image portion 342 may be manufactured using a lenticular printing technique to enhance the visual effect.

[0083] Thus, the toothbrush 300 according to the embodiment may capture the interest of infants or children through the image portion 342 of the attention-inducing member 340, allowing infants or children to enjoy brushing, whether they brush themselves or with the help of guardian.

[0084] Here, in case of rotating the toothbrush 300 to brush the lower teeth after brushing the upper teeth, when the rotation support member 330 is rotated in a state in which the detachable portion 341 of the attention-inducing member 340 is fixed to the rotation support member 330, the image portion 342 may be continuously located in the line of sight of the infant or child being brushed.

[0085] Meanwhile, although it is not illustrated in detail, the toothbrush 300 according to the present embodiment may further include a light-emitting unit, which irradiates light to the outside, on the attention-inducing member 340.

[0086] Here, the light-emitting unit may include an LED Light Emitting Diode that is accommodated inside the image portion 342 of the attention-inducing member 340, and a battery that supplies current to the LED. In this case, the image portion 342 may be made of a transparent material so that the light emitted through the LED is irradiated to the outside. In such cases, the attention-

inducing member 340 may have a structure in which the image portion 342 is detachable from the detachable portion 341 to facilitate the mounting or replacement of the LED.

[0087] Accordingly, when a child or infant is brushing their teeth in a dark environment, the toothbrush 300 according to the present embodiment may emit light through the light-emitting unit, not only capturing the child's or infant's interest but also helping them brush correctly.

[0088] Meanwhile, as shown in FIGS. 8 and 9, the toothbrush according to the present embodiment, instead of defining a coupling groove in the outer circumferential surface of the rotation support member, a coupling groove 433a may be defined in a center of an end surface 433, which is in contact with the outer circumferential surface 432 of a rotation support member 430. Accordingly, a detachable portion 441 of an attention-inducing member 440 may be provided with a coupling projection 441a protruding in a lateral direction approximately perpendicular to the longitudinal direction of the attention-inducing member 440.

[0089] That is, the coupling projection 441a constituting the detachable portion 441 may be inserted into the coupling groove 433a along a rotational axis of the rotation support member 430.

[0090] Here, as described in the above embodiments, a stepped portion 433a-1 may be provided inside the coupling groove 433a, and a hooking portion 441a-1 that is hooked with the stepped portion 433a-1 may be provided on the coupling projection 441a.

[0091] Additionally, in the attention-inducing member 440, the hooking portion 441a-1 may be made of an elastic rubber material or a flexible resin material and is detachable for replacement from the rotation support member 430.

[0092] Alternatively, instead of providing the hooking portion 441a-1, the coupling projection 441a may be made of an elastic rubber material or a flexible resin material, and the coupling projection 441a may be configured to be inserted to or removed from the coupling groove 433a by a press-fit manner.

[0093] On the other hand, although it is not illustrated in detail, instead of providing the rotation support member on the other end of the toothbrush handle, a coupling groove may be defined in the other end of the toothbrush handle, and a coupling protrusion corresponding to the coupling groove may be provided on the detachable portion of the attention-inducing member, allowing the attention-inducing member to be detachably coupled directly to the other end of the toothbrush handle by coupling the coupling protrusion to the coupling groove.

[0094] Alternatively, a coupling groove may be defined in the detachable portion of the detachable portion of the attention-inducing member, and a coupling protrusion corresponding to the coupling groove may be provided on the other end of the toothbrush handle, allowing the coupling protrusion to be detachably coupled to the cou-

pling groove.

[0095] Here, in both cases, the coupling protrusion may be rotatably provided while being inserted into the coupling groove, allowing the attention-inducing member to rotate 360 degrees around the toothbrush handle, so that the attention-inducing member may be located at the child's eye level throughout the brushing time.

[0096] FIG. 10 is a schematic perspective view of a toothbrush according to another embodiment.

[0097] Referring to FIG. 10, a toothbrush 500 according to another embodiment discloses that a toothbrush handle 520 and an attention-inducing member 540 are provided to be coupled or separated by a press-fit manner.

[0098] In other words, a detachable portion 541 of the attention-inducing member 540 may be coupled to or detached from an end of the toothbrush handle 520 in a press-fit manner, similar to a cap. Conversely, the end of the toothbrush handle 520 may also be coupled to or detached from the detachable portion 541 of the attention-inducing member 540 in a press-fit manner, similar to the cap.

[0099] Also, the detachable portion 541 of the attention-inducing member 540 may be rotated while being press-fitted to the end of the toothbrush handle 520.

[0100] Therefore, when rotating the toothbrush 500 according to a brushing position, the detachable portion 541 may be rotated to match the line of sight of the infant or child who is the target of brushing, so that an image portion 542 extended from the detachable portion 541 may be continuously located at the line of sight of the brushing target.

[0101] Although it is not illustrated in detail, a plurality of fixing grooves or fixing projections may be provided on a circumference of the end of the toothbrush handle 520 at intervals, and corresponding fixing protrusions or fixing grooves may also be provided on an inner circumferential surface of the detachable portion 541 that corresponds to these fixing grooves or fixing protrusions.

[0102] Accordingly, it is possible to increase a coupling force of the attention-inducing member 540, and in particular, to securely maintain the rotated state of the attention-inducing member 540 by rotating the detachable portion 541 of the attention-inducing member 540 at a predetermined angle at the end of the toothbrush handle 540 and then using the coupling force of the projection and groove.

[0103] FIG. 11 is a schematic perspective view of a toothbrush according to another embodiment.

[0104] Referring to Fig. 11, a toothbrush 600 according to an embodiment discloses a structure in which a toothbrush handle 620 and an attention-inducing member 640 are coupled to or separated from in a fitting manner.

[0105] In other words, a lower end portion of a detachable portion 641 of the attention-inducing member 640 is provided in a bent and protruding shape to have a fitting projection 641a, and a fitting hole 620a may be defined in an end of the toothbrush handle 620, where the fitting

projection 641a is coupled to or separated from in a fitting manner.

[0106] Thus, the attention-inducing member 640 may rotate around the fitting hole 620a of the toothbrush handle 620 while being coupled through the fitting projection 641a.

[0107] Therefore, when rotating the toothbrush 600 according to a brushing position, the attention-inducing member 640 may be rotated to match the line of sight of the infant or child who is the target of brushing, so that an image portion 642 extended from the detachable portion 641 may be continuously located at the line of sight of the brushing target.

[0108] FIG. 12 is a schematic perspective view of a toothbrush according to another embodiment.

[0109] Referring to FIG. 12, a toothbrush 700 according to an embodiment, similar to the above-described toothbrush 600 of FIG. 11, discloses a structure in which a toothbrush handle 720 and an attention-inducing member 740 are coupled to or separated from in a fitting manner.

[0110] In detail, the toothbrush 700 according to this embodiment is similar in the fitting manner to the toothbrush 600 of FIG. 11 described above. However, instead of the fitting hole, a fitting projection 720a may be provided on an end of the toothbrush handle 720, and a fitting hole 741a into which the fitting projection 720a is coupled to or separated from may be defined in the detachable portion 741 of the attention-inducing member 740.

[0111] Thus, in a state in which the fitting projection 720a of the toothbrush handle 720 is inserted into the fitting hole 741a of the attention-inducing member 740, the attention-inducing member 740 may rotate around the fitting hole 741a.

[0112] Therefore, when rotating the toothbrush 700 according to a brushing position, the attention-inducing member 740 may be rotated to match the line of sight of the infant or child who is the target of brushing, so that an image portion 742 extended from the detachable portion 741 may be continuously located at the line of sight of the brushing target.

[0113] The above descriptions of the embodiments have been provided in detail, but the scope of the present invention is not limited thereto, and various modifications and improvements by those skilled in the art using the basic concepts of the present invention defined in the following claims also fall within the scope of the present invention.

Claims

1. A toothbrush comprising:

- a toothbrush head comprising a brush portion having a plurality of bristles;
- a toothbrush handle having an end connected to the toothbrush head; and

- an attention-inducing member comprising a detachable portion detachably provided at the other end of the toothbrush handle and an image portion extending from the detachable portion and having a character embodied therein.
2. The toothbrush of claim 1, further comprising a coupling member provided with a support portion of which one end extends from the other end of the toothbrush handle into the toothbrush handle toward the toothbrush head so as to be fixed, and a mounting portion provided on the other end of the support portion and fixed to the other end of the toothbrush handle, wherein the detachable portion of the attention-inducing member is detachably provided on the mounting portion of the coupling member through magnetic force.
 3. The toothbrush of claim 1, wherein the toothbrush handle is detachably coupled to the toothbrush head, and during the coupling, the support portion of the coupling member extends to be inserted from one end of the toothbrush handle into the toothbrush head.
 4. The toothbrush of claim 2, wherein either one of the mounting portion of the coupling member and the detachable portion of the attention-inducing member is provided as a magnet and the other is made of a metal that is detachable by a magnetic force of the magnet, or both the mounting portion of the coupling member and the detachable portion of the attention-inducing member are provided as magnets that are detachable by magnetic force.
 5. The toothbrush of claim 1, further comprising a rotation support member which is rotatably provided on the other end of the toothbrush handle using a longitudinal direction, in which the toothbrush head and the toothbrush handle are connected to each other, as a rotational axis, wherein the detachable portion of the attention-inducing member is detachably provided on the rotation support member.
 6. The toothbrush of claim 5, wherein a coupling groove is defined in the rotation support member, and the detachable portion of the attention-inducing member is provided as a coupling projection inserted into the coupling groove.
 7. The toothbrush of claim 6, wherein a stepped portion is provided inside the coupling groove, and a hooking portion, which is hooked with the stepped portion, is provided on the coupling projection.
 8. The toothbrush of claim 5 or 6, wherein the coupling
- projection is inserted into the coupling groove along the rotational axis of the rotation support member or along a direction perpendicular to the rotational axis.
9. The toothbrush of claim 1, wherein a coupling groove is defined in the other end of the toothbrush handle, and a coupling projection, which is detachably coupled to the coupling groove, is provided on the detachable portion of the attention-inducing member, or a coupling groove is defined in the detachable portion of the attention-inducing member, and a coupling projection, which is detachably coupled to the coupling groove, is provided on the other end of the toothbrush handle.
 10. The toothbrush of claim 1, wherein the detachable portion of the attention-inducing member has a cap shape which is detachably coupled to the other end of the toothbrush handle while surrounding the other end of the toothbrush handle, or the other end of the toothbrush handle has a cap shape which is detachably coupled to the detachable portion of the attention-inducing member while surrounding the detachable portion.
 11. The toothbrush of any one of claims 2, 5, 9 or 10, wherein the image portion of the attention-inducing member is provided as at least one of an image, picture, or a 3D model, such as a character or a toy.
 12. The toothbrush of any one of claims 2, 5, 9 or 10, wherein the image portion is manufactured using a lenticular printing technique.
 13. The toothbrush of any one of claims 2, 5, 9 or 10, further comprising a light-emitting unit disposed on the attention-inducing member to irradiate light to the outside.
 14. The toothbrush of claim 1, wherein a magnet is integrally provided on the other end of the toothbrush handle in an insert-injection manner, and the detachable portion of the attention-inducing member is detachably provided on the other end of the toothbrush handle through magnetic force of the magnet.
 15. The toothbrush of claim 1, wherein a fitting hole is defined in an end of the toothbrush handle, and a fitting projection, which is coupled to or separated from the fitting hole in a fitting manner, is provided on the detachable portion of the attention-inducing member, or a fitting projection is provided on an end of the toothbrush handle, and a fitting hole, to/from which the fitting projection is coupled or separated, is defined in the detachable portion of the attention-inducing member.
 16. A toothbrush set comprising:

a toothbrush comprising:

a toothbrush head comprising a plurality of bristles;

a toothbrush handle with one end connected to the toothbrush head;

a coupling member, comprising:

a support portion of which one end extends from the other end of the toothbrush handle into the toothbrush handle toward the toothbrush head so as to be fixed; and

a mounting portion provided on the other end of the support portion and fixed to the other end of the toothbrush handle; and

an attention-inducing member comprising:

a detachable portion detachably provided on the mounting portion of the coupling member through magnetic force; and

an image portion extending from the detachable portion and having a character embodied therein, and

a toothbrush holder which is provided on a wall or mirror in a space, in which the toothbrush is used, and to which the detachable portion of the attention-inducing member is detachably provided through magnetic force.

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FIG. 1

100

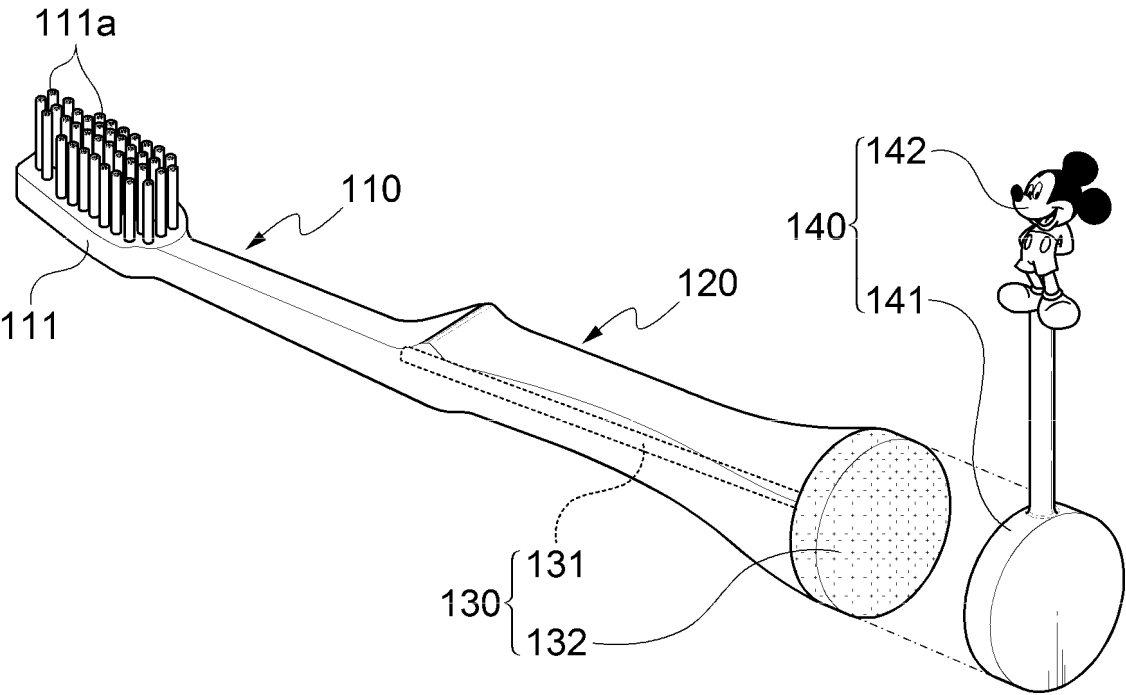


FIG. 2

100

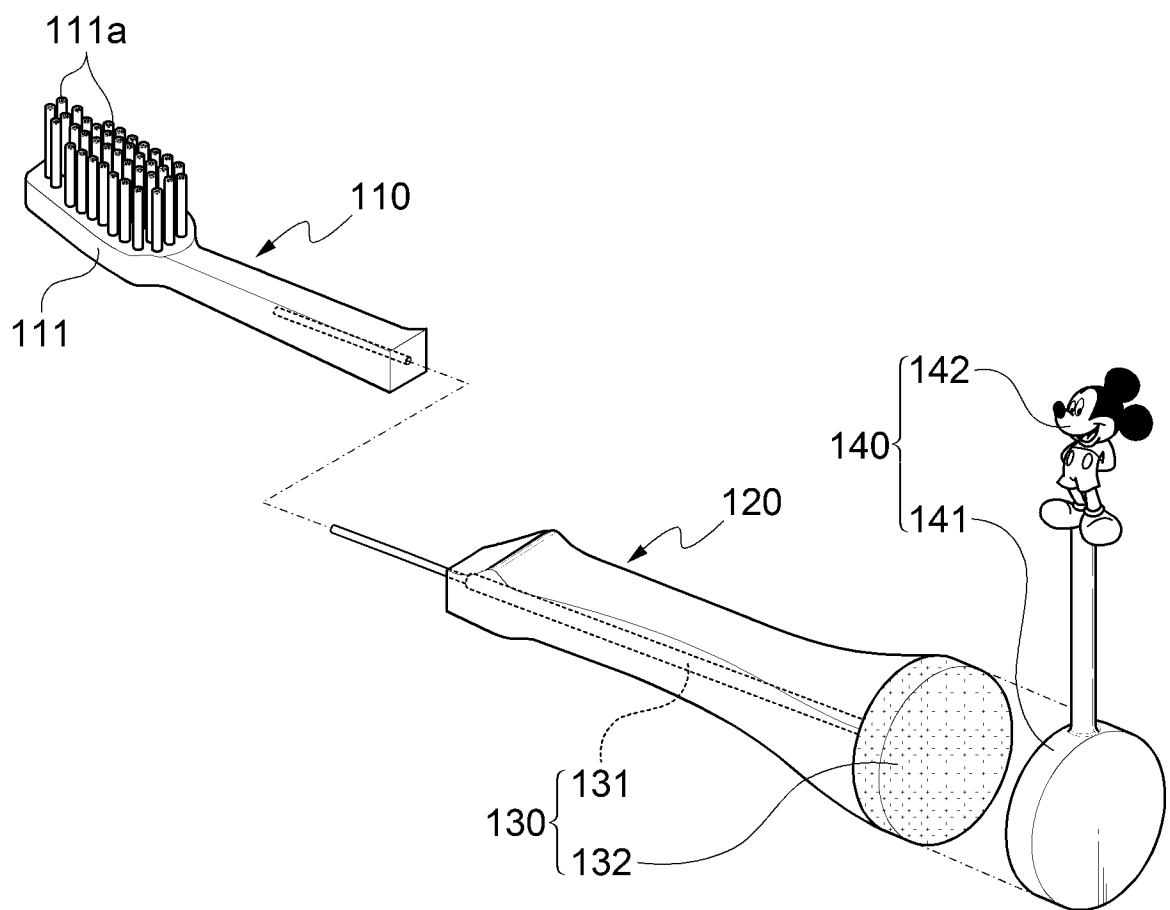


FIG. 3

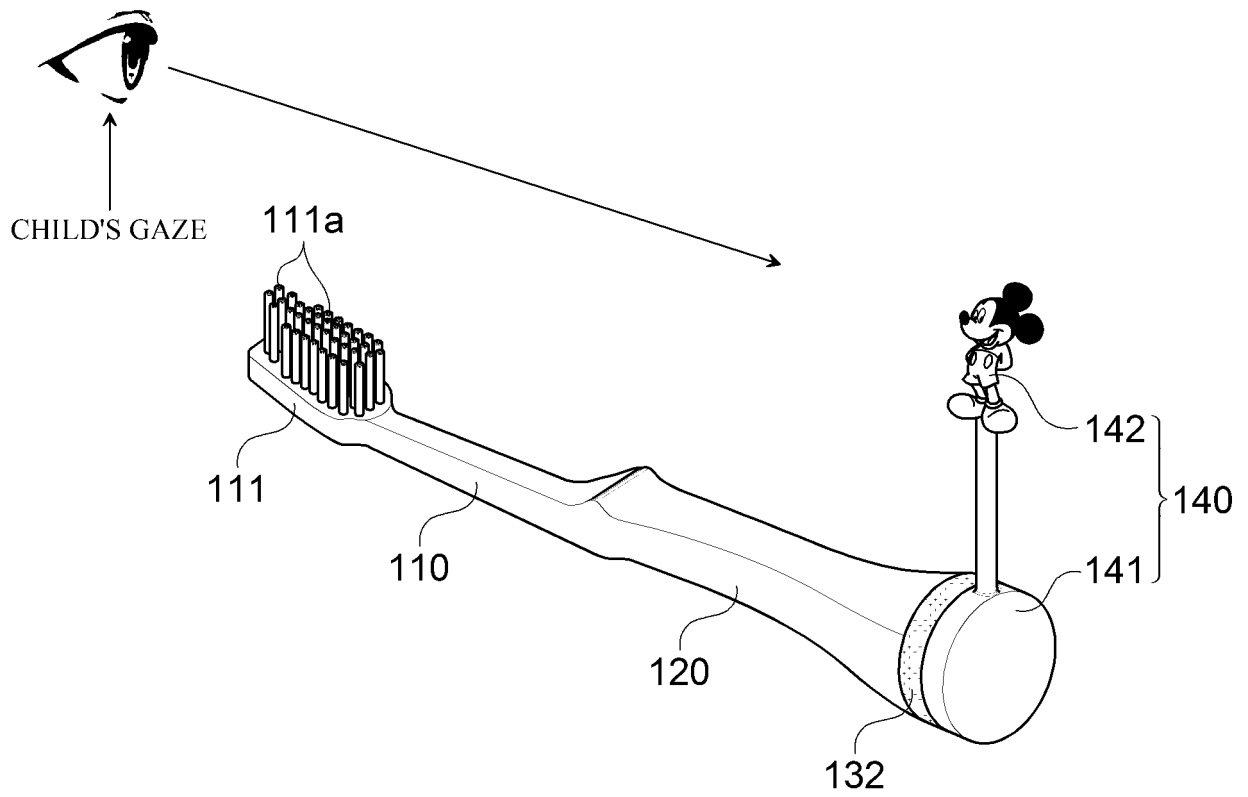


FIG. 4

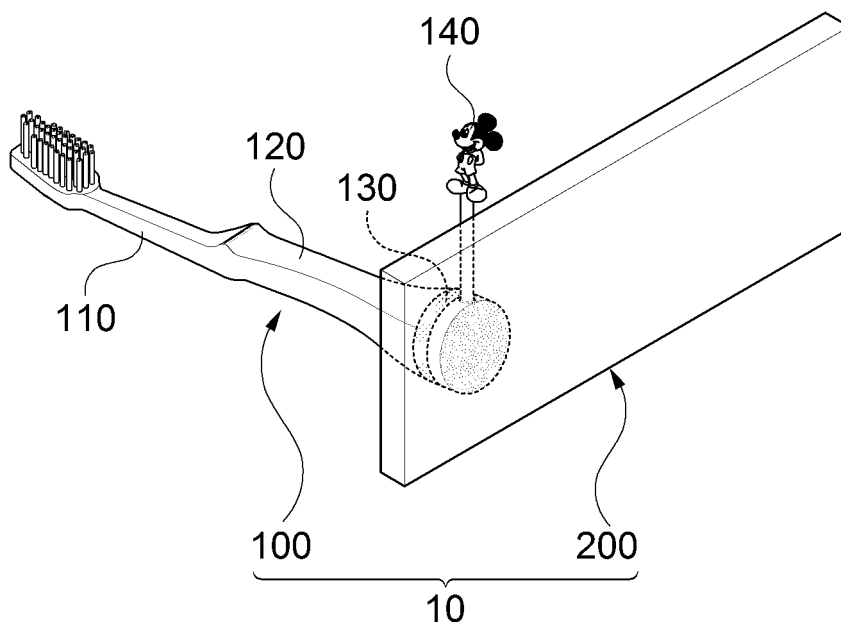


FIG. 5

300

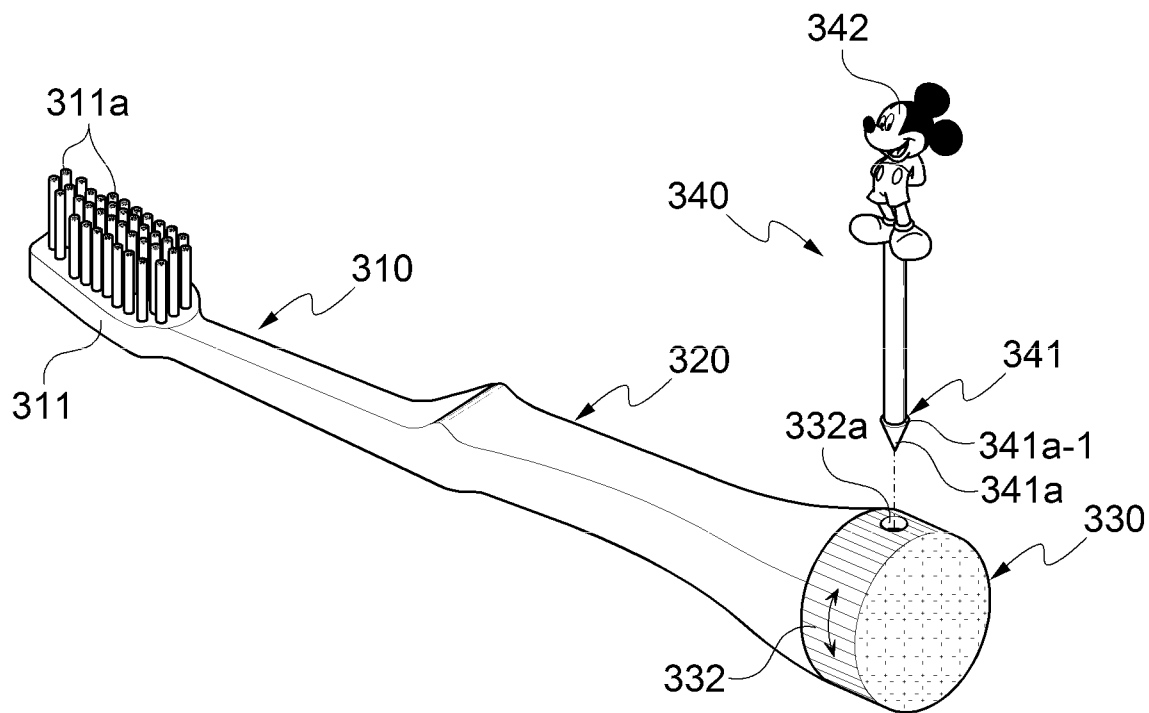


FIG. 6

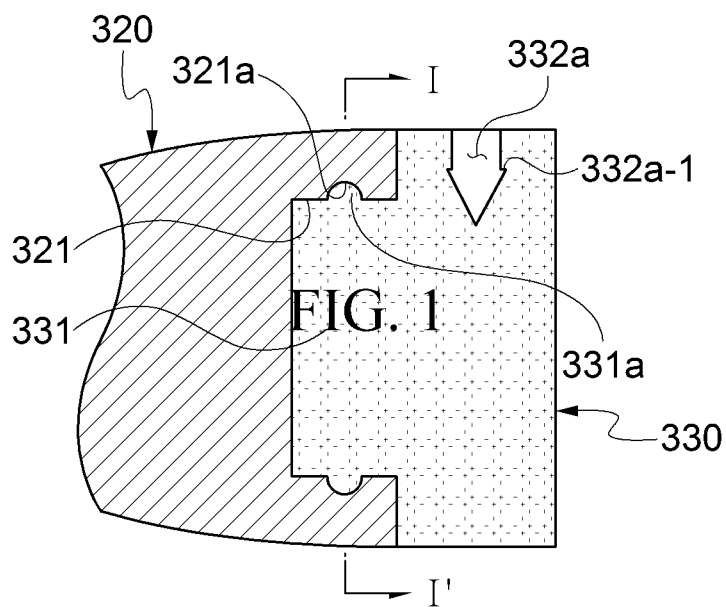


FIG. 7

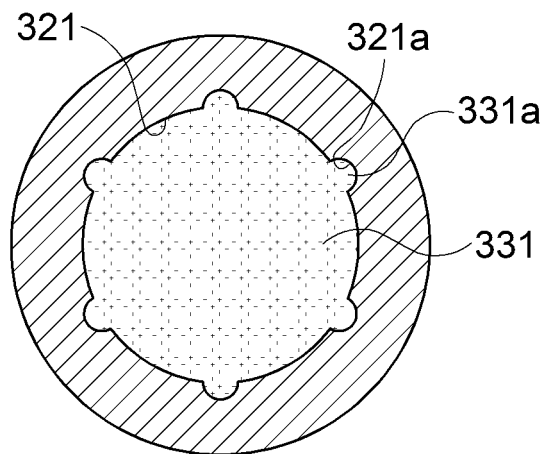


FIG. 8

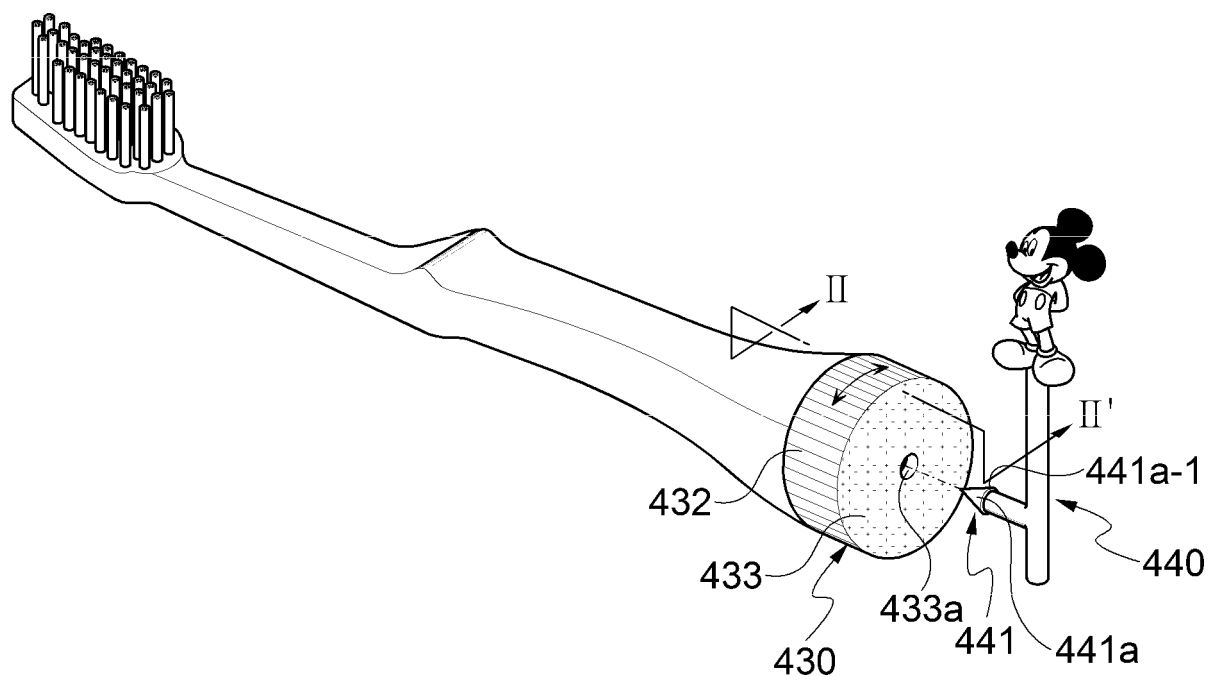


FIG. 9

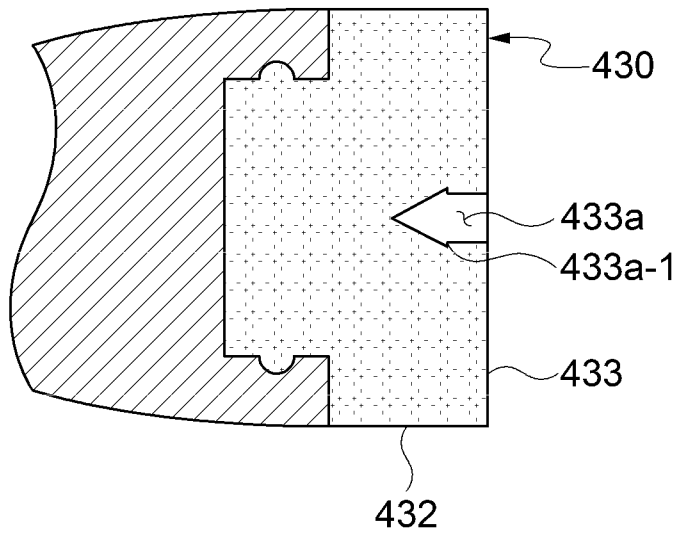


FIG. 10

500

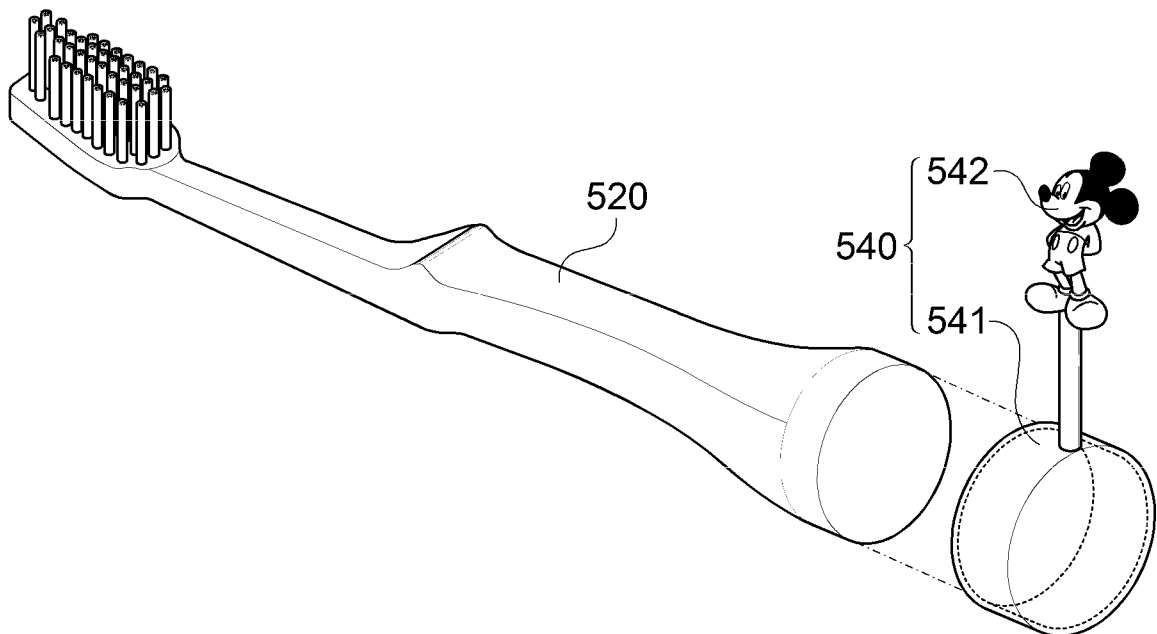


FIG. 11

600

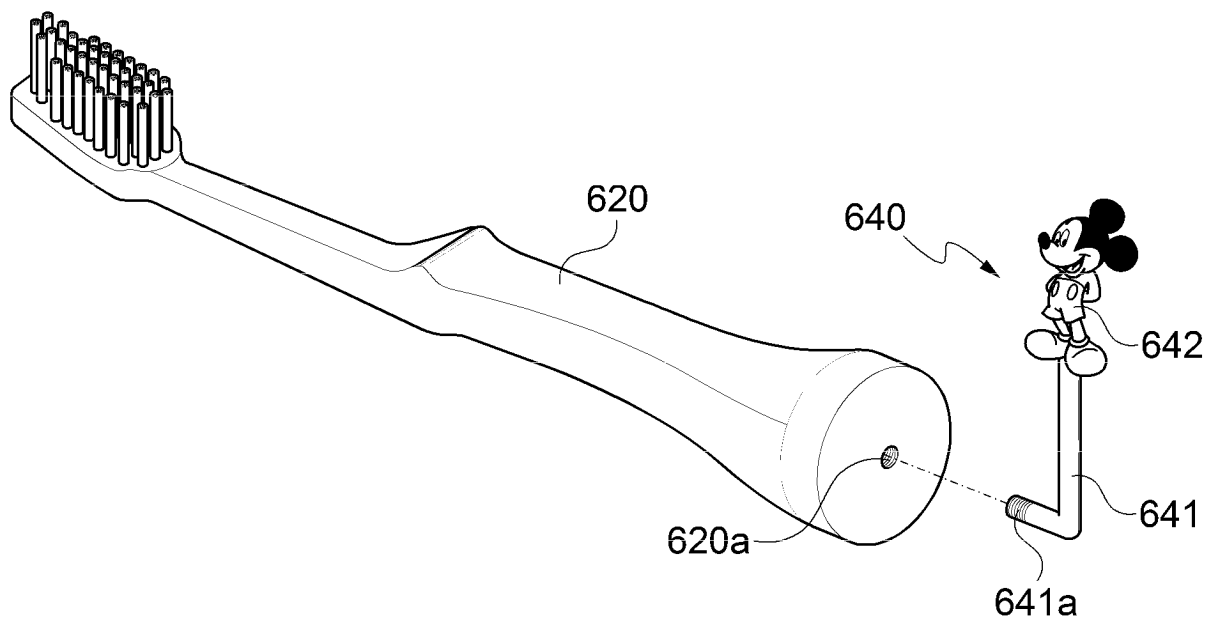


FIG. 12

700

