TITLE OF INVENTION: TOOTHBRUSH STRUCTURE

BACKGROUND

Technical Field

[0001] The present disclosure relates to an improved structure, and more particularly relates to a toothbrush structure with improved bristles of a toothbrush.

Description of Related Art

[0002] In general, bundles of nylon thread-like bristle structures of a traditional toothbrush are attached to a brush head at the upper end of the toothbrush and provided for cleaning teeth in oral cavity. Although the nylon-thread bristles of the traditional toothbrush head usually come with a soft bristle structure and a hard bristle structure, the nylon thread-like bristle structures are neither suitable for children's oral cavity, nor suitable for people with sensitive and fragile oral cavity. The traditional toothbrush cannot meet the requirements of comfort and softness in use and has difficulties in cleaning the dirt on tooth enamel. Therefore, the function of the traditional toothbrush is greatly limited, which greatly reduces its practicality, and this problem is what those skilled in the art and consumers are eager to break through.

SUMMARY

[0003] In view of the aforementioned deficiencies of the related art, it is a primary objective of the present disclosure to overcome the deficiencies of the related art by providing an improved toothbrush structure. The improved toothbrush structure includes a toothbrush head disposed at an upper end of a handle, and the toothbrush head has a cleaning device including but not limited to a sponge cleaning device, a non-woven fiber cleaning device, a nylon fiber cleaning device, a plant fiber cleaning device, a functional fabric cleaning device or a plastic cleaning device.

[0004] A secondary objective of this disclosure is to provide an improved toothbrush structure which uses a cleaning device including but not limited to a sponge cleaning device, a non-woven fiber cleaning device, a nylon fiber cleaning device, a plant fiber cleaning device, a functional fabric cleaning device or a plastic cleaning device to provide softness and comfort for the use of the toothbrush, and facilitate users to clean the dirt of the tooth enamel. The toothbrush structure of this disclosure is suitable for the use by children and people with sensitive oral cavity.

[0005] A third objective of this disclosure is to provide an improved toothbrush structure that effectively enhances its use and provides more options and functions to users.

[0006] The problem to be solved by this disclosure is to overcome the deficiencies of the traditional toothbrush, wherein the toothbrush head on the upper end of the traditional toothbrush is tied with bundles of nylon-thread bristle structures (regardless of the soft bristle structures or the hard bristle structures), the nylon-thread bristle structures are neither suitable for children's oral cavity, nor suitable for people with sensitive oral cavity, and such traditional toothbrush fails to meet the requirements of comfort and softness in use and has difficulties to clean the dirt of tooth enamel, and the function of the toothbrush is limited which greatly reduces its practicality.

[0007] To achieve the aforementioned and other objective, this disclosure provides an improved toothbrush structure including a handle, and a toothbrush head disposed at an upper end of the handle, characterized in that a groove is formed on a side of the toothbrush head, the groove includes a cleaning device, a glue is provided for fixing and adhering the groove of the toothbrush head and the cleaning device with each other, and the cleaning device includes but not limited to a sponge cleaning device, a non-woven fiber cleaning device, a nylon fiber cleaning device, a plant fiber cleaning device, a functional fabric cleaning device or a plastic cleaning device.

[0008] In this disclosure, the cleaning device has an end surface in a shape including but

not limited to a flat shape or a wavy shape.

[0009] Compared with the related art, this disclosure has the toothbrush head arranged at the upper end of the handle, and the toothbrush head includes the cleaning device including but not limited to a sponge cleaning device, a non-woven fiber cleaning device, a nylon fiber cleaning device, a plant fiber cleaning device, a functional fabric cleaning device or plastic cleaning device, and the glue is provided for fixing and adhering the toothbrush head and the cleaning device with each other, so as to achieve the effect of using the cleaning device including but not limited to the sponge cleaning device, non-woven fiber cleaning device, nylon fiber cleaning device, plant fiber cleaning device, functional fabric cleaning device or plastic cleaning device to provide a soft and comfortable use of the toothbrush and facilitate cleaning the dirt of the tooth enamel. The toothbrush structure of this disclosure is suitable for children and people with sensitive oral cavity, and has the advantages of providing more options and functions of the toothbrush to meet user requirements.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1 is an exploded view of this disclosure;

FIG. 2 is a perspective view of this disclosure;

FIG. 3 is a cross-sectional view of this disclosure; and

FIG. 4 is a schematic view of a cleaning device in a wavy shape in accordance with an embodiment of this disclosure.

DESCRIPTION OF THE EMBODIMENTS

[0011] This disclosure will now be described in more detail with reference to the accompanying drawings that show various embodiments of this disclosure. It is intended that the embodiments and drawings disclosed herein are to be considered illustrative rather than restrictive, and also noteworthy that the drawings are not necessary drawn

according to the real proportion and precise configuration and these attached drawings should not limit the scope of the patent of this disclosure in actual implementation.

[0012] With reference to FIGS. 1 to 4 for an improved toothbrush structure in accordance with a preferred embodiment of this disclosure, the toothbrush structure includes: a handle 1 with a toothbrush head 2 disposed at an upper end of the handle 1, and the handle 1 and the toothbrush head 2 of this embodiment are formed by plastic injection molding. This disclosure is characterized in that a groove 21 is formed on a side of the toothbrush head 2, and provided with a cleaning device 3, and the cleaning device 3 of the toothbrush head 2 includes but not limited to a sponge cleaning device, a non-woven fiber cleaning device, a nylon fiber cleaning device, a plant fiber cleaning device, a functional fabric cleaning device or a plastic cleaning device. Besides the above-mentioned materials, the cleaning device 3 may also be made of other materials. A glue 4 (as shown in FIGS. 1, 2 and 3) is provided for fixing and adhering the groove 21 of the toothbrush head 2 and the cleaning device 3 with each other. Besides the combination and fixation of the groove 21 of the toothbrush head 2 and the cleaning device 3 by the glue 4, the toothbrush head 2 and the cleaning device 3 may also be combined and fixed by plastic injection molding. The end surface of the cleaning device 3 is in a shape including but not limited to a flat shape (as shown in FIGS. 1, 2 and 3) or a wavy shape (as shown in FIG. 4). In this embodiment, the cleaning device 3 is installed in the groove 21 of the toothbrush head 2 and tested by a pull test to ensure that the structure has a sufficient pulling force and will not fall off easily.

[0013] This disclosure has the following advantages:

(1) Providing users more options of the cleaning device 3.

(2) Providing more functions of the toothbrush through the cleaning device 3.

(3) Providing a soft and comfortable toothbrush.

(4) Providing an easier way of cleaning the dirt of tooth enamel.

(5) Suitable for children and people with sensitive oral cavity.

(6) Benefiting the general public.

[0014] This disclosure has the toothbrush head 2 arranged at the upper end of the handle 1, and the toothbrush head 2 has the cleaning device 3 including but not limited to the sponge cleaning device, non-woven fiber cleaning device, nylon fiber cleaning device, plant fiber cleaning device, functional fabric cleaning device or plastic cleaning device, and the glue 4 is provided for fixing and adhering the toothbrush head 2 and the cleaning device 3 with each other, so as to achieve the effects of using the cleaning device 3 including but not limited to the sponge cleaning device, non-woven fiber cleaning device, nylon fiber cleaning device, plant fiber cleaning device, functional fabric cleaning device or plastic cleaning device to provide a soft and comfortable use of the toothbrush and facilitate cleaning the dirt of tooth enamel. The toothbrush structure of this disclosure is suitable for children and people with sensitive oral cavity and has the advantages of providing more options and functions of the toothbrush to meet user requirements.

WHAT IS CLAIMED IS:

[Claim 1]

An improved toothbrush structure, comprising: a handle with a toothbrush head disposed at an upper end of the handle, characterized in that a groove is formed on a side of the toothbrush head and provided with a cleaning device, and a glue for fixing and adhering the groove of the toothbrush head and the cleaning device with each other, and the cleaning device includes but not limited to a sponge cleaning device, a non-woven fiber cleaning device, a nylon fiber cleaning device, a plant fiber cleaning device, a functional fabric cleaning device or a plastic cleaning device.

[Claim 2]

The improved toothbrush structure according to claim 1, wherein the cleaning device has an end surface in a shape including but not limited to a flat shape or a wavy shape.