



Patent Application For: Brush Tuft

Description

G00001



Background to the invention:

Dental brushes, also commonly called "toothbrushes" have been around for a long time. They come in all shapes and sizes, manual or electric, with various configurations in bristle technology, material used and compound combinations.

While brushing our teeth, some actions performed are:

1. Brush away debris stuck between teeth and on teeth
2. Brush off hardened plaque build-up which develops over time
3. Polishing and clearing of plaque deposits or light stains from teeth
4. Massage gums to maintain health.

Dental plaque has been identified as the main cause of tooth decay. The objective of good dental hygiene is to remove plaque as thoroughly as possible on a regular basis. Debris stuck on teeth is breeding grounds for higher plaque build-up. It is common knowledge that proper flossing and brushing techniques with appropriate dental brushes and dentifrices will remove the dental plaque and keep teeth better protected against carries. The scope of the current invention examines how improved tuft design of Dental Brushes assists in achieving better dental plaque removal.

Currently, tufts on dental brushes are made out of nylon or natural fiber. Each tuft is made of many filaments crimped together at the base with an anchor. Current practice of manufacturing brush heads is to put each tuft into a small hole at the base of the dental brush head. These tufts are made of one size filament, say 5mil, 6mil and so forth. Certain manufacturers put 2 size or more of filaments on one

brush head, but this still means that each tuft has only one size, but done in combination according to design. Our contention is:

1. That each size of filament has differing efficacy for the actions to be performed while brushing teeth.
2. That not all tufts reach all teeth equally.

For various filaments to effectively reach each and every area brushed, each tuft must have multi-sized filaments. This way, no area in the mouth is missed out for reach and efficacy in cleaning.

Challenges to be Overcome by Invention

Faced with such challenges, the solution offered by this invention must serve the following criteria:

1. That a single Dental Brush be used
2. That the filaments of each tuft be multi-size so the various actions performed while brushing is done efficiently and effectively.
3. The final product is about the same price as an average Dental Brush on the market.

Description of Invention

The current invention is the use of 2 or more differing size filament in a single tuft on a brush head. This technology can be used for dental brushes or any other uses

where a brush head requires the cleaning capability of filaments of differing sizes on the same tuft. The filament can be of various material and grade. No expensive or unusual components are involved in its manufacture since readily available dental grade materials can be used. This allows the price of the invention to match market prices for similar products in every country in the world.

Summary of Invention

The Invention:

A multi-filament tuft used in brush heads, especially dental brushes. A Tuft, which comprises of:

1. A base anchor portion, and the filament portion.
2. Where the filament used is NOT of one type of material, size or grade; but of two (2) or more.
3. A Tuft for Dental Brush substantially as described in conjunction with the drawings

Uses of invention

A multi-filament tuft used in brush heads, especially dental brushes. A Tuft, which comprises of:

1. A base anchor portion, and the filament portion.

2. Where the filament used is NOT of one type of material, size or grade; but of two (2) or more.
3. A Tuft for Dental Brush substantially as described in conjunction with the drawings

While brushing our teeth, some actions performed and the appropriate type of filaments used for those actions are:

No.	Action performed	Filament Type
1	Brush away debris stuck between teeth and on teeth	Thick filaments, low flexibility
2	Brush off hardened plaque build-up which develops over time	Medium filament, average flexibility
3	Polishing and clearing of plaque deposits or light stains from teeth	Thin filament, high flexibility
4	Massage gums to maintain health	Composition of all 3 types of filaments, relative to each other.

This invention can be used for the above purpose or any other such purpose where differing filaments are required on one tuft to provide comprehensive cleaning ability.

The Tuft has its use primarily as a component of a brush instrument of dental hygiene in use by humans, whether they are young or old. The invention may be used at home, in schools, offices, travels or any other area where the use of a multi filament Tuft is required. Additionally, the innovation can also be used on household brushes and other types of brushes where the use of varying size, material and grade of filaments on each tuft is needed.

Claims

CLAIMS

The Invention:

A Multi Filament Tuft, used in brush heads, especially dental brushes. A Tuft, which comprises of:

1. A base anchor portion, and the filament portion.
2. Where the filament used is NOT of one type of material, size or grade; but of two (2) or more.
3. A Tuft for Dental Brush substantially as described in conjunction with the drawings

Figure 1: Multi Filament Tuft Brush

Figure 2: One Multi Filament Tuft

Abstract & Drawings

Figure 1: Multi Filament Tuft Brush

A Dental Brush head comprising the Brush Head portion, Tuft holes on brush head and a single Tuft.

Figure 2: One Multi Filament Tuft

Close up view showing the differing size of filaments in each single Multi Filament Tuft, Small, Medium and Large.