

THE PARTIES

1. Church & Dwight is a corporation with its principal place of business in this district at 469 North Harrison Street, Princeton, NJ 08543-5297.

2. Upon information and belief, Asher is an individual residing at 50 Falcon Hills Drive, Highlands Ranch, Colorado 80126, and engaging in the practice of dentistry in Englewood, Colorado.

FACTUAL BACKGROUND AND JURISDICTION

3. United States Patent No. 5,735,011 (“the ‘011 Patent”) names Asher as the sole inventor, and on its face indicates that it issued on April 7, 1998. The ‘011 Patent is attached as Exhibit A.

4. On or about April 30, 1999, Asher executed an assignment (hereafter “the First Assignment”) in which he assigned all right, title and interest in the ‘011 Patent to Asher Innovations, Inc. (“Asher Innovations”).

5. On or about May 3, 1999, Asher recorded the First Assignment with the United States Patent and Trademark Office (“USPTO”).

6. On or about August 7, 2007, Asher Innovations executed an assignment (hereafter “the Second Assignment”) that purports to transfer all right, title and interest in the ‘011 Patent to Asher.

7. On or about August 9, 2007, Asher recorded the Second Assignment with the USPTO.

8. Prior to August 7, 2007, Asher attempted to enforce the '011 Patent against several companies that sell toothbrushes in this district and/or that are headquartered or have a principal place of business in this district. Asher contends that those toothbrushes infringe the '011 patent.

9. On or about January 23, 2004, Asher filed suit against Johnson & Johnson for alleged infringement of the '011 patent based upon, *inter alia*, its manufacturing, use, sale, offer for sale, and importation of various toothbrushes.

10. On information and belief, Johnson & Johnson ("J&J") has a principal place of business in, resides in, and transacts substantial business in this district. On information and belief, the J&J toothbrushes accused by Asher of infringement were sold in this district.

11. On information and belief, Asher (or his representatives) negotiated with J&J (or its representatives) for a license to the '011 Patent in this district. Asher did so at a time when Asher Innovations and not Asher owned the '011 Patent.

12. On information and belief, Asher has licensed the '011 Patent to encompass activities in this district, including to J&J.

13. On information and belief, the licensees of the '011 Patent, including J&J, transact business in this State and in this district.

14. On or about August 9, 2005, counsel representing Asher sent a letter

to Unilever, which is located in this district, asking Unilever to engage in licensing negotiations in connection with the '011 Patent and the MENTADENT White & Clean toothbrush.

15. Asher or his representatives have sent similar letters regarding opening licensing negotiations related to the '011 patent for the sale of certain toothbrushes. On information and belief, those toothbrushes are sold in this district.

16. On or about August 23, 2005, a representative of Unilever sent a letter in response to the letter dated August 9, 2005.

17. On or about August 31, 2005, a representative of Church & Dwight sent a letter to counsel for Asher informing counsel that, among other things, Church & Dwight currently sells the MENTADENT White & Clean toothbrush, and that the toothbrush does not practice the '011 patent.

18. Church & Dwight has a warehouse in North Brunswick, New Jersey. It has stored a substantial number of MENTADENT White & Clean Toothbrushes at that warehouse that were later distributed, offered for sale, and/or sold throughout the United States.

19. Church & Dwight conducts substantial activities related to the marketing, sale, offer for sale, distribution, purchase and importation of the MENTADENT White & Clean Toothbrushes from this district, including from its

headquarters at 469 North Harrison Street, Princeton, NJ 08543-5297.

20. Asher or his representatives and Church & Dwight and its representatives have exchanged communications related to the grant of a release and/or license under the '011 patent.

21. On February 16, 2007, Asher filed a patent infringement action in the District of Colorado alleging that Church & Dwight infringes the '011 patent by, *inter alia*, manufacturing, distributing, advertising, marketing and selling the MENTADENT White & Clean Toothbrush (hereinafter, "the Colorado action"). The suit also named The Procter & Gamble Co., Conair Corporation, and GlaxoSmithKline as defendants, and accused those other defendants of infringing the '011 patent based upon activities related to toothbrushes other than the MENTADENT White & Clean Toothbrush. On information and belief, some or all of the accused toothbrushes are marketed, offered for sale, and sold in this district. Asher Innovations was not named as a party in that action.

22. On March 2, 2007, Asher filed an amended complaint in the District of Colorado alleging that Church & Dwight infringes the '011 patent by, *inter alia*, manufacturing, distributing, advertising, marketing and selling the MENTADENT White & Clean Toothbrush.

23. On information and belief, Asher did not have standing to bring the Colorado action, because at the time that action was filed, Asher did not own all

right, title and interest in the '011 Patent. On information and belief, Asher Innovations owned all right, title and interest in the '011 Patent at the time the Colorado action was filed.

24. Under controlling law, the standing deficiency in the Colorado action cannot be corrected through amendment. Church & Dwight and The Procter & Gamble Co. have moved to dismiss the Colorado action for lack of subject matter jurisdiction.

25. This is a declaratory judgment action arising under the patent laws of the United States. This Court has jurisdiction over the claims in this action under the Declaratory Judgments Act, 28 U.S.C. §§ 2201 and 2202, and under 28 U.S.C. §§ 1331 and 1338(a), and can properly preside over the parties to this action, *see* 28 U.S.C. § 1391(b).

26. A justiciable controversy exists between the parties as to whether Church & Dwight infringes the '011 patent, and as to whether the patent is valid and enforceable. Church & Dwight contends that it had and continues to have the right to engage in the conduct Asher accuses of infringing the '011 patent, and that the '011 patent is invalid and unenforceable.

COUNT I

**(Declaratory Judgment of Non-Infringement, Invalidity, and
Unenforceability)**

27. Church & Dwight hereby refers to and incorporates by reference Paragraphs 1-26 above, as if fully set forth herein.

28. Church & Dwight has not infringed, and does not infringe, the '011 patent by making, using, selling, offering to sell, or importing the MENTADENT White & Clean toothbrush.

29. Church & Dwight has not indirectly infringed, and does not indirectly infringe, the '011 Patent by performing any activities related to the MENTADENT White & Clean toothbrush.

30. The claims of the '011 Patent are invalid, *inter alia*, for failure to comply with one or more of the provisions set forth in the Patent Laws of the United States Code, Title 35.

31. The '011 Patent is unenforceable by virtue of various legal and equitable doctrines, including, but not limited to, laches, equitable estoppel, and/or patent misuse.

32. Any damages that Asher alleges he is owed related to the '011 Patent and the MENTADENT White & Clean toothbrushes are limited by the doctrines of laches, equitable estoppel, patent misuse, and/or 35 U.S.C. § 287.

PRAYER FOR RELIEF

Church & Dwight respectfully prays that the Court:

- A. enter a declaratory judgment pursuant to 28 U.S.C. § 2201 that Church & Dwight has not infringed any claim of U.S. Patent No. 5,735,011;
- B. enter a declaratory judgment pursuant to 28 U.S.C. § 2201 that the claims of U.S. Patent No. 5,735,011 are invalid;
- C. enter a declaratory judgment pursuant to 28 U.S.C. § 2201 that U.S. Patent No. 5,735,011 is unenforceable;
- D. enter a declaratory judgment pursuant to 28 U.S.C. § 2201 that Church & Dwight does not owe Asher any damages for any activities related to the MENTADENT White & Clean toothbrush;
- E. enjoin Asher from asserting infringement of U.S. Patent No. 5,735,011 against Church & Dwight;
- F. adjudge and decree that this case is exceptional and award Church & Dwight its reasonable attorneys' fees, expenses and costs in this action; and
- G. grant Church & Dwight such other and further relief that this Court deems just and proper.

L.Civ.R. 11.2 CERTIFICATION

Currently pending in the District of Colorado is a patent infringement action entitled, *Randall S. Asher v. GlaxoSmithKline, The Proctor & Gamble Company*,

Conair Corporation, and Church & Dwight Co., Inc., Civil Action No. 07-cv-00339-WYD-KLM (D. Col.). In that action, the issues of whether the '011 patent is infringed, valid, and enforceable are in dispute. Because Church & Dwight believes that Randall S. Asher did not have standing to bring suit in that action, a motion to dismiss has been filed.

Respectfully submitted,

Dated: September 5, 2007

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Co., Inc.*

EXHIBIT A



US005735011A

United States Patent [19][11] **Patent Number:** **5,735,011****Asher**[45] **Date of Patent:** **Apr. 7, 1998**[54] **PLAQUE REMOVING TOOTHBRUSH**[76] **Inventor:** **Randall S. Asher**, 8756 S. Aberdeen Cir., Highlands Ranch, Colo. 80126

4,571,768 2/1986 Kawashima .
 5,040,260 8/1991 Michaels .
 5,337,436 8/1994 Saxer et al. .
 5,534,336 7/1996 Nomura et al. .
 5,604,951 2/1997 Shipp 15/110
 5,678,275 10/1997 Derfner 15/167.1

[21] **Appl. No.:** **751,388**[22] **Filed:** **Nov. 19, 1996**[51] **Int. Cl.⁶** **A46B 9/04**[52] **U.S. Cl.** **15/167.1; 15/110; 15/207.2; 15/DIG. 6**[58] **Field of Search** 15/110, 111, 114, 15/167.1, 188, 207.2, DIG. 6; 601/141[56] **References Cited****U.S. PATENT DOCUMENTS**

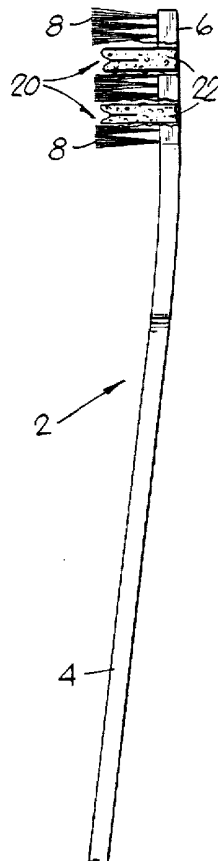
564,497 7/1896 Babis .
 1,128,139 2/1915 Hoffman 15/111
 1,694,636 12/1928 Barker .
 2,702,914 3/1955 Kittle 15/110
 3,007,441 11/1961 Eyer .
 3,103,027 9/1963 Birch .
 3,133,546 5/1964 Dent .
 3,230,562 1/1966 Birch .
 3,717,898 2/1973 Jones .
 3,985,147 10/1976 Ricketts et al. .
 4,288,883 9/1981 Dolinsky 15/110

OTHER PUBLICATIONS

Macklanburg-Duncan Brochure, Date unknown.
 Henry Schein Dental '97-'97 Catalog, Sep. 15.—March 14.

Primary Examiner—Terrence Till*Attorney, Agent, or Firm*—Klaas, Law, O'Meara & Malkin, P.C.; Joseph J. Kelly, Esq.[57] **ABSTRACT**

A toothbrush capable of removing plaque from teeth wherein a plurality of plaque removing members formed from a mixture of a relatively soft elastomeric material and particles of an abrasive material project outwardly from a support portion of the toothbrush and each plaque removing member is surrounded by a plurality of tufts of bristles formed from conventional materials and wherein each plaque removing member has a base portion and a plurality of spaced apart projections with each projection having an outer surface with a plurality of crevices formed therein.

20 Claims, 1 Drawing Sheet

U.S. Patent

Apr. 7, 1998

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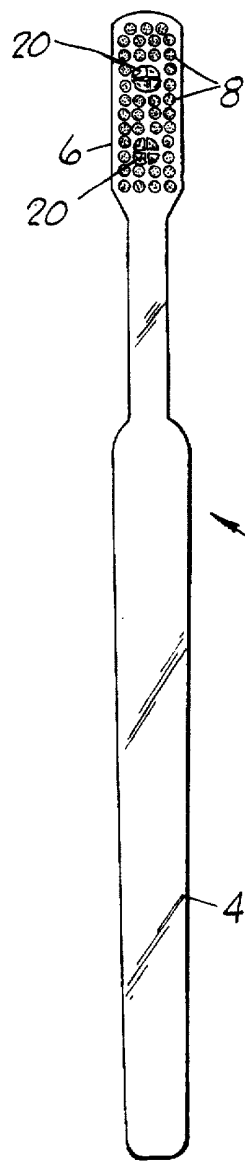


FIG. 1

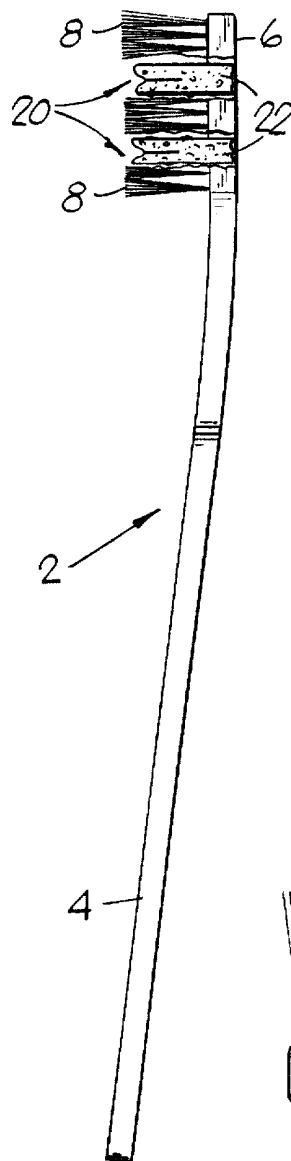


FIG. 2

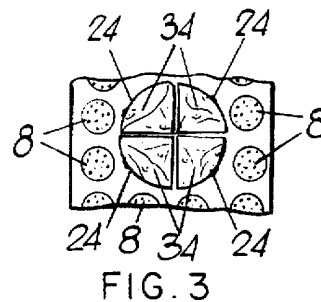


FIG. 3

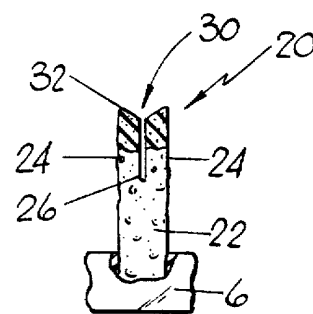


FIG. 4

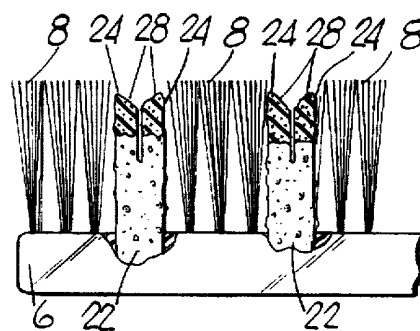


FIG. 5

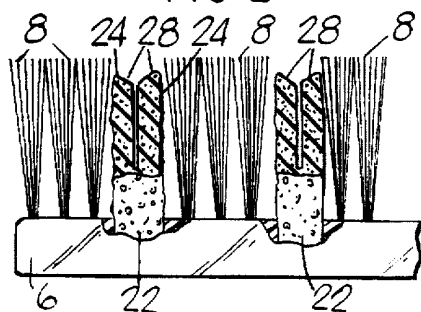


FIG. 6

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PLAQUE REMOVING TOOTHBRUSH**FIELD OF THE INVENTION**

This invention relates generally to toothbrushes for the cleaning of human teeth and relates specifically to a toothbrush for the cleaning of human teeth that is provided with special plaque removing properties.

BACKGROUND OF THE INVENTION

Convention toothbrushes using a plurality of spaced apart tufts of bristles have been used for ages in the cleaning of human teeth. The bristles have been formed from various materials that have been classified from hard to soft. However classified, a bristle remains a bristle. Several attempts have been made to improve these conventional toothbrushes. U.S. Pat. Nos. 3,103,027 and 3,230,562 disclose toothbrushes having conventional bristles with a plurality of gum massaging tips or wedges interspersed therewith. U.S. Pat. No. 4,571,768 discloses a toothbrush having conventional bristles and a plurality of resilient projecting elements interspersed therewith. Each projecting element comprises a hollow silicone rubber tube having one closed end with a magnet adjacent to the closed end and a thin synthetic resin piece is inserted into the hollow tube to improve the strength and resiliency thereof against bending. U.S. Pat. No. 5,040,260 discloses a toothbrush having a plurality of projections each formed from a thermoplastic elastomer. The inner projections are truncated cylinders with the free ends thereof of a beveled configuration. The outer projections have a conical configuration having a tip as the free end. U.S. Pat. No. 3,985,147 discloses an implement for removing stains and plaque from teeth and has a wheel formed from a hardened rubber, plastic or similar material with an abrasive material, such as Carborundum particles, pumice or the like embedded therein. As far as applicant is aware of, none of the above-described patented toothbrushes have been commercially successful.

BRIEF DESCRIPTION OF THE INVENTION

This invention provides a toothbrush for the cleaning of human teeth and removing the plaque therefrom wherein a plaque removing member or members are each surrounded by a plurality of conventional bristles, all of which project outwardly from a support portion of a conventional toothbrush handle.

In a preferred embodiment of the invention, a conventional toothbrush handle has a support portion having a plurality of spaced apart tufts of conventional bristles, formed from natural or synthetic materials, secured in and projecting outwardly from the support portion. At least one plaque removing member, preferably two or more plaque removing members, is secured to and projects outwardly from the support portion. Each plaque removing member is surrounded by a plurality of the spaced apart tufts of conventional bristles. Each plaque removing member is formed from a mixture of an elastomeric material, such as a silicone rubber, a thermoplastic elastomer or other materials having similar characteristics, and particles of an abrasive material, such as pumice or other materials having similar characteristics. The conventional bristles in the plurality of the spaced apart tufts preferably extend outwardly from the support portion for a distance greater than the distance that the plaque removal member or members project from the support portion.

In a preferred embodiment of the invention, the ratio in the mixture from which the plaque removing member is formed is between about 5.0 and 20.0 parts of the elastomeric material to 1.0 part of the abrasive material by

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volume. Also, the elastomeric material preferably is a silicone rubber such as that marketed by Macklanburg-Duncan under the trade designation SILICONE 100% Silicone Rubber Sealant and the abrasive material preferably comprises particles of pumice such as those marketed by HENRY SCHEIN under the trade designation flour, fine or medium. The plaque removing member may be formed by mixing the above-described preferred materials in a blender and then pressed into a mold and allowed to cure. However, since the wear of the plaque removal member or members is minimal, it may only be necessary to embed the abrasive materials into the exposed outer portion of the plaque removing member or members.

Each plaque removing member has a transverse cross-sectional area that is substantially larger than the transverse cross-sectional area of a tuft of the conventional bristles. Also, each plaque removing member preferably comprises a base portion secured to the support portion and a plurality of spaced apart projections extending outwardly from the base portion, which projections are preferably four in number. The outer surface of the combined projections preferably has a central portion recessed inwardly from an outer rim portion. The outer surface of each projection preferably has a plurality of crevices formed therein and some of the crevices may have a connecting portion. The longitudinal length of each projection may vary between about one-quarter of the overall length of the plaque removing member to about three-quarters of the overall length of the plaque removing member.

BRIEF DESCRIPTION OF THE DRAWINGS

Illustrative and presently preferred embodiments of the invention are illustrated in the accompanying drawing in which:

FIG. 1 is a top plan view of a toothbrush of this invention;

FIG. 2 is a side elevational view of FIG. 1 with parts removed;

FIG. 3 is an enlarged top plan view of a portion of FIG. 1;

FIG. 4 is an enlarged side elevational view of a plaque removing member of this invention;

FIG. 5 is an enlarged side elevational view with parts removed of a portion of FIG. 1 of one preferred embodiment of the invention; and

FIG. 6 is an enlarged side elevational view with parts removed of a portion of FIG. 1 of another preferred embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

In FIGS. 1 and 2, there is disclosed a toothbrush 2 of this invention which has a handle portion 4 and a support portion 6 formed from conventional materials. A plurality of tufts 8 of bristles formed from conventional materials are secured to and project outwardly from the support portion 6 and are in a spaced apart relationship.

At least one and preferably two or more plaque removing members 20 have a base portion 22 which is secured to and projects outwardly from the support portion 6 and are each located to be surrounded by a plurality of the plurality of tufts 8 of bristles. Each plaque removing member 20 has a plurality of spaced apart projections 24 which are integral with and extend outwardly from the base portion 22. A groove 26 separates one projection 24 from another projection 24. Each projection 24 has a longitudinal length in the ratio of about 0.25 and 0.75 of the length of the plaque removing member 20 that extends from the support portion 6. Each projection 24 has an outer surface 28 which, when

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the four illustrated projections 24 are considered, has a central portion 30 that is recessed inwardly from an outer rim 32. The outer surface of each projection 24 has a plurality of crevices 34, FIG. 3, formed therein.

Each plaque removing member 20 is preferably formed from a mixture of an elastomeric material and an abrasive material. The elastomeric material preferably comprises a silicone rubber or a thermoplastic elastomer such as those described in U.S. Pat. No. 5,040,260. The abrasive material preferably comprises particles of pumice or Carborundum such as those described above in U.S. Patent No. 3,985,147. The ratio of the elastomeric material and the abrasive material, when the elastomeric material is a silicone rubber marketed by Macklanburg-Duncan and the abrasive material is pumice marketed by HENRY SCHEIN under the trade designation flour, is preferably in the range of between about 5.0 and 20.0 parts of the elastomeric material by volume to 1.0 part of the abrasive material by volume and preferably comprises 10.0 parts of the elastomeric material by volume to 1.0 part of the abrasive material by volume. The foregoing ratios are based on the procedure wherein the elastomeric material and the abrasive material are mixed together so that the particles of the abrasive material are generally evenly spaced apart in the elastomeric material. However, since the plaque removing material is subject to minimal wear, it may be possible to embed fewer quantities of the particles of the abrasive material into the outer surface portions of the plaque removing member that contacts the teeth and gums of the user while retaining the benefit of the mixture.

The toothbrush of this invention is used in a conventional manner. After applying toothpaste, the toothbrush is moved over the teeth while applying pressure thereto. The projections move away from each other and contact a wide surface area of each tooth. Each projection provide a wiping action on each tooth that combines with the abrasive particles to disrupt the plaque on each tooth. Since the projections are spread apart, this provides openings for the removal of the plaque from the cleaning area. The nature of the mixture of the elastomeric material and the particles of the abrasive material in the plaque removing member is such that the particles of the abrasive material have no deleterious effect on the teeth. While the illustrated shape of the plaque removing member is preferred, it is understood that it can be of other configurations.

It is contemplated that the inventive concepts herein described may be variously otherwise embodied and it is intended that the appended claims be construed to include alternative embodiments of the invention except insofar as limited by the prior art.

What is claimed is:

1. A toothbrush having a plurality of bristles supported on and projecting outwardly from a support portion of a conventional toothbrush handle in a spaced apart relationship which bristles are formed from conventional relatively hard materials comprising:
 - at least one plaque removing member supported on and projecting outwardly from said support portion;
 - said at least one plaque removing member surrounded by a plurality of said plurality of bristles;
 - said at least one plaque removing member being formed from a mixture of relatively soft elastomeric material and particles of an abrasive material.
2. A toothbrush as in claim 1 wherein:
 - said at least one plaque removing member comprises a plurality of plaque removing members.
3. A toothbrush as in claim 1 wherein:
 - said plurality of bristles project outwardly from said support portion for a distance greater than the distance said at least one plaque removing member projects from said support portion.

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4. A toothbrush as in claim 3 wherein:

said mixture comprises between about 5.0 and 20.0 parts of said elastomeric material by volume to 1.0 part of said particles of an abrasive material by volume.

5. A toothbrush as in claim 4 wherein:

said thermoplastic elastomer is a silicone rubber; and
said abrasive material is pumice.

6. A toothbrush as in claim 3 wherein:

said mixture comprises about 10.0 parts of said elastomeric material by volume to 1.0 part of said particles of an abrasive material by volume.

7. A toothbrush as in claim 6 wherein:

said elastomeric material is a silicone rubber.

8. A toothbrush as in claim 1 wherein:

said plurality of bristles comprises a plurality of spaced apart tufts of bristles with each tuft having a plurality of bristles each formed from a relatively hard material.

9. A toothbrush as in claim 8 wherein said at least one plaque removing member comprises:

a base portion secured to said support and projecting outwardly from said support; and

a plurality of spaced apart projections outwardly extending outwardly from said base portion.

10. A toothbrush as in claim 9 wherein:

each of said projections having a transverse cross-sectional area substantially greater than the cross-sectional area of one of said plurality of bristles.

11. A toothbrush as in claim 10 wherein:

said at least one plaque removing member comprises a plurality of plaque removing members.

12. A toothbrush as in claim 11 wherein:

said plurality of bristles projecting outwardly from said support a distance greater than the distance each of said plurality of plaque removing members project outwardly from said support.

13. A toothbrush as in claim 12 and further comprising:
 - each of said projection having an outer surface; and
 - said outer surface having a plurality of crevices formed therein.

14. A toothbrush as in claim 9 and further comprising:

each of said projections having an outer surface; and
said outer surface having a plurality of crevices formed therein.

15. A toothbrush as in claim 9 wherein:

said at least one plaque removing member comprises a plurality of plaque removing members.

16. A toothbrush as in claim 15 wherein:

said mixture comprises between about 5.0 and 20.0 parts of said elastomeric material by volume to 1.0 part of said abrasive material by volume.

17. A toothbrush as in claim 15 wherein:

said mixture comprises about 10.0 parts of said elastomeric material by volume to 1.0 part of said abrasive material by volume.

18. A toothbrush as in claim 17 wherein:

said elastomeric material comprises a thermoplastic elastomer.

19. A toothbrush as in claim 17 and further comprising:

each of said projections having an outer surface; and
said outer surface having a plurality of crevices formed therein.

20. A toothbrush as in claim 17 wherein:

said thermoplastic elastomer is a silicone rubber; and
said abrasive material is pumice.

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