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(54) **Oral care kit**

(57) Oral care kit comprising a toothbrush and a plaque disclosing tablet, wherein said toothbrush comprises a handle and a head, the head having bristle tufts attached thereto, characterised in that the bristle tufts are made from extruded monofilaments which are con-

joined at a tuft base end, said tuft base end, including a portion of said monofilament structure, being surrounded by the material of the toothbrush head.

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Description

[0001] The present invention relates to an oral care kit comprising a toothbrush and a plaque disclosing composition.

[0002] Toothbrushes have been sold in the past with plaque disclosing compositions. However, typically the toothbrushes made available with plaque disclosing compositions are not ideally designed for use with plaque disclosing tablets since small particles of tablet often get stuck in small recesses in the brush, especially in the tuft holes. Their colourful nature then renders them clearly visible long after rinsing.

[0003] Faced with this problem we have designed a toothbrush which is specifically catered for brushing the teeth after a plaque disclosing tablet has been used.

[0004] Accordingly, the present invention provides an oral care kit comprising a toothbrush and a plaque disclosing tablet, wherein said toothbrush comprises a handle and a head, the head having bristle tufts attached thereto, characterised in that the bristle tufts are made from extruded monofilaments which are conjoined at a tuft base end, said tuft base end, including a portion of said monofilament structure, being surrounded by the material of the toothbrush head.

[0005] By surrounded by the material of the toothbrush head is meant that the tuft hole closely conforms to the actual tuft. Preferably, this means that there are no further recesses around the toothbrush tuft caused by, for example, anchoring any staple to hold the tuft in place.

[0006] The provision of tuft mounting means which closely fit the tufts of monofilament mean that the tablets can be used without fear of small parts lodging in between the holes and the tufts. It also means that the metals used in typical tuft anchors are not able to react with flavour components of the plaque disclosing tablet.

[0007] Preferably, during manufacture the bristle tufts are gathered in a tuft hole template which keeps the tufts in the required formation. The monofilaments of the bristle tufts are then melted such that they become broader than the tuft holes; the template retaining the tufts in place.

[0008] The template can either be removed before moulding of the material of the head or retained as described in EP-A1-0 972 464.

[0009] Preferably, the monofilaments are made from an extruded monofilament comprising polyethylene terephthalate or nylon.

[0010] Preferably, the plaque disclosing tablet comprises a phenol group-containing flavour. Phenol groups are the most likely to react with any metal in the anchor. Accordingly, where a toothbrush is tufted according to the invention it is possible to use these preferred materials.

[0011] Further, preferred materials in the plaque disclosing tablet includes a flavour which includes at least one of eugenol, methyl salicylate, vanillin, ethyl vanillin

and thymol.

[0012] The plaque disclosing tablet is preferably stored in a hermetically sealed container such as a sachet.

5 [0013] The kit preferably comprises a plaque disclosing tablet and toothbrush in a blister pack.

[0014] The combination of plaque disclosing tablet and toothbrush increases the probability that the tablet will be used properly by the consumer.

10 [0015] The invention will now be described with reference to the following non-limiting drawings in which figures 1 and 2 are plan views of a tuft hole in a first comparative toothbrush which is in the prior art and a further toothbrush which is in the scope of the claims.

15 [0016] Figure 1 is a plan view of a toothbrush which is in the public domain. The tuft hole (1) has bristle monofilaments (2) projecting therefrom. The hole is contiguous with an anchor aperture (4) which is created by the depression of a staple (3) into the tuft hole (1) to hold down the folded monofilaments (2).

20 [0017] Figure 2 is a plan view of a tuft hole of a toothbrush according to the invention. The hole (5) closely fits the bristle tuft monofilaments (6) such that there is no gap for any tablet particles to lodge.

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Claims

- 30 1. Oral care kit comprising a toothbrush and a plaque disclosing tablet, wherein said toothbrush comprises a handle and a head, the head having bristle tufts attached thereto, **characterised in that** the bristle tufts are made from extruded monofilaments which are conjoined at a tuft base end, said tuft base end, including a portion of said monofilament structure, being surrounded by the material of the toothbrush head.
- 35 2. Oral care kit according to claim 1, wherein the moulded tuft base is held in place by the toothbrush head moulded around it.
- 40 3. Oral care kit according to claim 1, wherein any one moulded tuft base is contiguous with at least one other moulded tuft base and each base being held in place by a retaining plate which is separate from but fixedly attached to the brush head.
- 45 4. Oral care kit according to claim 1 to 3, wherein the brush head comprises tuft holes which match the relative dimensions of the respective bristle tufts.
- 50 5. Oral care kit comprising a toothbrush and a plaque disclosing tablet, wherein said toothbrush comprises a handle and a head, the head having bristle tufts attached thereto, **characterised in that** the bristle tufts are anchored to the head by anchorless technology.
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6. Oral care kit according to any preceding claim,
wherein the extruded monofilaments are nylon or
polyethylene terephthalate.
7. Oral care kit according to any preceding claim, ⁵
wherein the plaque disclosing tablet comprises a
phenol group-containing flavour.
8. Oral care kit according to any preceding claim,
wherein the plaque disclosing tablet comprises a ¹⁰
flavour which includes at least one of eugenol, me-
thyl salicylate, vanillin, ethyl vanillin and thymol.

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Fig.1.

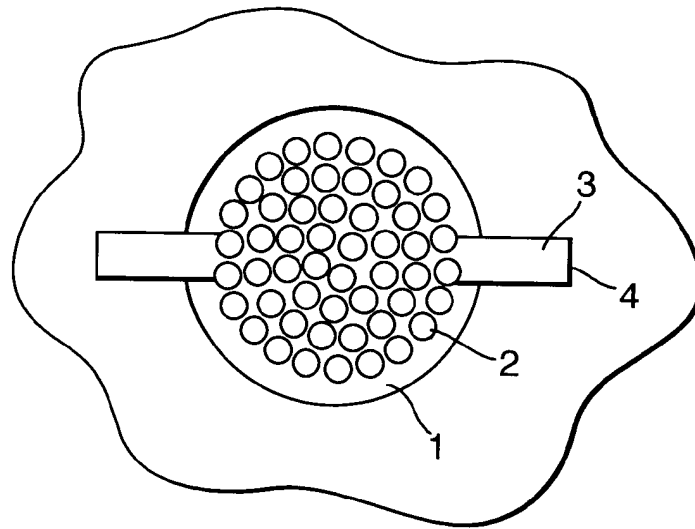
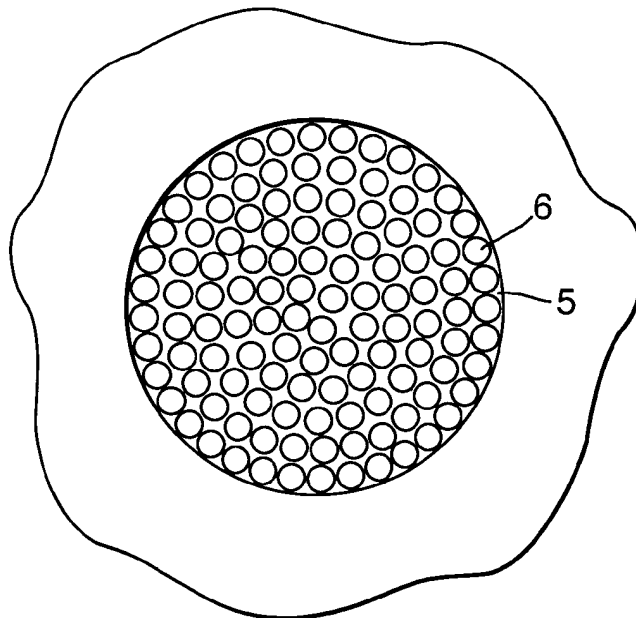


Fig.2.





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Application Number
EP 04 07 7236

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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		7 September 2004	Neiller, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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