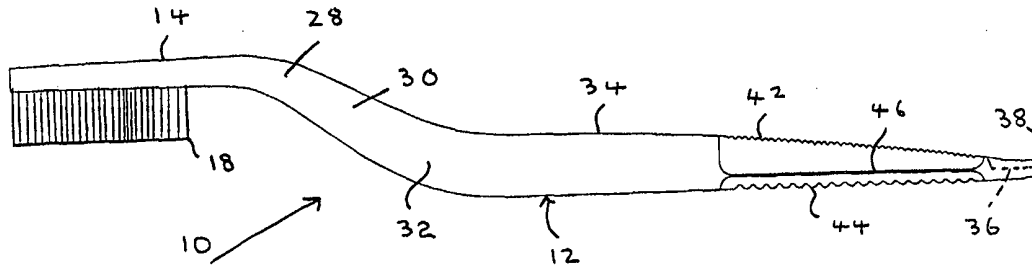




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : A46B 15/00, 5/02</p>	<p>A1</p>	<p>(11) International Publication Number: WO 99/49754</p> <p>(43) International Publication Date: 7 October 1999 (07.10.99)</p>
<p>(21) International Application Number: PCT/ZA99/00010</p> <p>(22) International Filing Date: 31 March 1999 (31.03.99)</p> <p>(30) Priority Data: 98/0696 31 March 1998 (31.03.98) ZA</p> <p>(71)(72) Applicant and Inventor: BRITTON, Anthony, Sidney [ZA/ZA]; 202 Corlett Drive, Bramley 2090 (ZA).</p> <p>(74) Agents: DUNLOP, Alan, J., S. et al.; Hahn & Hahn Inc., 222 Richard Street, Hatfield, Pretoria 0083 (ZA).</p>	<p>(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i></p>	

(54) Title: A HYGIENIC DEVICE



(57) Abstract

A tongue cleaner (10) is disclosed which comprises an elongate element (12) which constitutes a handle for a tooth brush. Two sets of ribs (42, 44) are provided. The set of ribs (42) is a fine set and the other set of ribs (44) a coarser set. The ribs extend across the handle. Two flanks (48) meet to form a tongue scraping edge (46). A depression (36) is bounded by a part circular edge (38) constituted by inner and outer curving flanks which intersect to bound the part circular edge.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

A HYGIENIC DEVICE

FIELD OF THE INVENTION

THIS INVENTION relates to a hygienic device in the form of a tongue
5 cleaner.

BACKGROUND TO THE INVENTION

It is known that a coating on the tongue can give rise to halitosis. The
present invention seeks to provide an efficient tongue cleaner.
10

BRIEF DESCRIPTION OF THE INVENTION

According to the present invention there is provided a tongue cleaner
which comprises an elongate element having a scraping edge which extends in the
direction of the length of the element, a set of parallel ribs which extend transversely
15 of the element and a circular depression in said element at one end thereof, at least
a part of the periphery of said depression being bounded by a curving inner flank
and by a curving outer flank, the curving flanks intersecting to provide a curving
tongue cleaning edge.

20 In a preferred form there are two sets of parallel ribs, the pitch, and the
root to crest dimension, of one set of parallel ribs being greater than the pitch and
root to crest dimensions of the other set. Said sets of ribs can be on opposed faces
of said elongate element.

The cleaner can include a pair of flanks extending in the direction of the length of the elongate element of the tongue cleaner, the flanks intersecting to provide said scraping edge which extends along the element.

5 BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of the present invention, and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawings in which:-

10 Figure 1 is a plan view of the underside of a combined tongue cleaner and tooth brush; and

Figure 2 is a side elevation of the combined tongue cleaner and tooth brush.

DETAILED DESCRIPTION OF THE DRAWINGS

15 The tongue cleaner 10 illustrated comprises an elongate element 12 which is of moulded synthetic plastics material and is in the form of a tooth brush handle. One end of the element is in the form of a flat head 14 with holes 16 in it for receiving groups of tooth brush bristles 18 (Figure 2).

20 The element 12 is curved in two planes. When viewed in plan (Figure 1) it has two curves therein. The first curve starts at the head 14 and, as viewed in Figure 1, is a right hand curve 20. The right hand curve 20 merges by way of a generally straight section 22 with a left hand curve 24.

The element 12 is at its narrowest closest to the head 14 and becomes progressively wider through the section 22 and curve 24 to reach a maximum width of the zone 26. The element becomes slightly narrower at the end remote from the
5 head 14.

When viewed in side elevation the handle has a downward bend 28 immediately adjacent the head 14. A sloping portion 30 leads downwardly from the bend 28 to a second bend 32 of opposite hand. Thus the head 14, and the portion
10 34 which is beyond the bend 32, are generally parallel to one another but in different planes.

At the end of the element 12 remote from the head 14 there is, in the top face thereof, a circular depression 36. The depression 36 is bounded by a part
15 circular raised edge 38 which is itself bounded by an inner curving flank and an outer curving flank. The edge 38, as viewed in Figure 1, merges at each end thereof with a ribbed section 40 of the cleaner 10. The edge 38 is constituted by said curving flanks which met at a relatively sharp angle and extend through approximately 270 degrees.

A portion 40 extends from the widest zone 26 to the depression 38 and comprises two sets of parallel spaced ribs 42 and 44. Each rib of each set extends obliquely to the length of the portion 34 of the element. The ribs 42 are relatively close together as compared to the ribs 44, that is, the pitch of the ribs 42 is less than the pitch of the ribs 44. In addition the root to crest dimension of the ribs 42 is smaller than the root to crest dimension of the ribs 44. The ribs 42 extend across the top face of the element 12 and the ribs 44 across the underface.

10 An edge 46 extends in the direction of the length of the portion 34 from the region of the circular wall 38 and along the inside of the curve 24. The edge 46 is bounded by flanks 48 which intersect so that the edge 46 is relatively sharp. The ribs 44 extend from one of the flanks 48, across the underface of the element 12 to the outside of the curve 24. The ribs 42 extend from the other flank 48 across the top face of the handle and terminate at the outside edge of the curve 24.

15

CLAIMS:

1. A tongue cleaner which comprises an elongate element having a scraping edge which extends in the direction of the length of the element, a set of
5 parallel ribs which extend transversely of the element and a circular depression in said element at one end thereof, at least a part of the periphery of said depression being bounded by a curving inner flank and by a curving outer flank, the curving flanks intersecting to provide a curving tongue cleaning edge.
- 10 2. A tongue cleaner according to claim 1 and including two sets of parallel ribs, the pitch, and the root to crest dimension, of one set of parallel ribs being greater than the pitch and root to crest dimensions of the other set.
3. A tongue cleaner according to claim 2, wherein said sets of ribs are on
15 opposed faces of said elongate element.
4. A tongue cleaner as claimed in claim 1 and including a pair of flanks which are elongate in the direction of the length of said elongate element, the flanks intersecting to provide said scraping edge.
20
5. A tongue cleaner as claimed in claim 1, 2, 3 or 4 and including tooth cleaning bristles at the other end of said element.

6. A tongue cleaner as claimed in claim 1, substantially as herein described and illustrated.

7. A new tongue cleaner substantially as herein described.

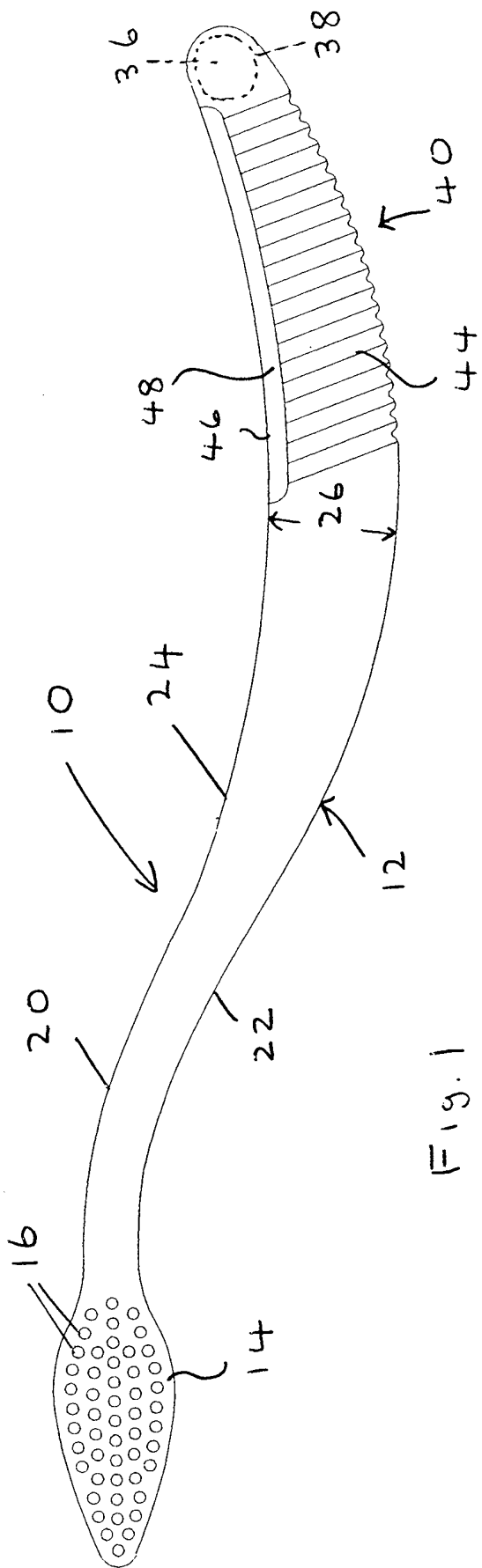


Fig. 1

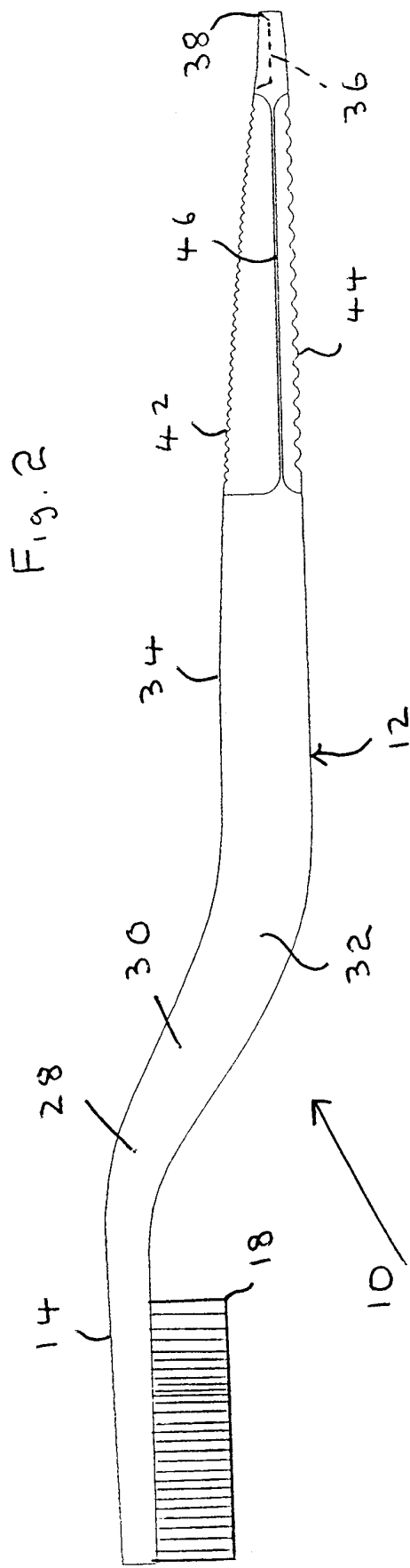


Fig. 2

INTERNATIONAL SEARCH REPORT

International Application No

PCT/ZA 99/00010

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 A46B15/00 A46B5/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A46B A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 610 043 A (VEZJAK WILLIAM) 9 September 1986 (1986-09-09) column 2, line 6 - line 58; figures 1-3 ----	1,7
A	US 2 583 750 A (RUNNELS G D) 29 January 1952 (1952-01-29) claim 1; figures 1,2 ----	1,7
A	US 4 356 585 A (WARD HOWARD L ET AL) 2 November 1982 (1982-11-02) abstract; figure 1 -----	1,7

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- | | |
|--|--|
| <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> | <p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>"&" document member of the same patent family</p> |
|--|--|

Date of the actual completion of the international search	Date of mailing of the international search report
7 July 1999	15/07/1999

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <p style="text-align: center;">Wehr, W</p>
--	--

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ZA 99/00010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4610043 A	09-09-1986	NONE	
US 2583750 A	29-01-1952	NONE	
US 4356585 A	02-11-1982	NONE	