



US00D484311S

(12) **United States Design Patent** (10) **Patent No.:** **US D484,311 S**  
**Cacka et al.** (45) **Date of Patent:** **\*\* Dec. 30, 2003**

(54) **DISPOSABLE TOOTHBRUSH**  
(75) Inventors: **Joe W. Cacka**, Berthoud, CO (US);  
**Howell H. Chiles**, Fort Collins, CO  
(US); **Clifford J. Snyder**, Fort Collins,  
CO (US); **Roberta L. Callaghan**, Fort  
Collins, CO (US)

2,806,235 A 9/1957 Carstairs et al.  
2,875,458 A 3/1959 Tsuda  
2,917,758 A 12/1959 Held et al.  
2,931,371 A 4/1960 Petitta  
2,977,614 A 4/1961 Demanuele

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

(73) Assignee: **Water Pik, Inc.**, Fort Collins, CO (US)  
(\*\*) Term: **14 Years**

CH 435 553 10/1967  
CH 609 238 2/1979

**OTHER PUBLICATIONS**

(21) Appl. No.: **29/135,573**  
(22) Filed: **Jan. 12, 2001**

Sonex International: *Brushing with the Ultima—The World’s Only Dual-Frequency Ultrasonic Toothbrush*, Jul. 28, 1999, published at Sonipic.com.  
Teledyne Water Pik “Plaque Control 3000” plaque removal instrument (Jul. 1991).  
American Dentrionics Incorporated “Soniplak” sonic plaque removal system (May 1993).  
Teledyne Water Pik “Sensonic” Toothbrush, sales brochure (at least as early as Sep. 1994).  
Design of a Toothbrush, p. 361, Danish Official Design Gazette, published May 16, 1997.

(51) **LOC (7) Cl.** ..... **04-02**  
(52) **U.S. Cl.** ..... **D4/101**  
(58) **Field of Search** ..... D4/104–112, 132–134,  
D4/138; 15/143.1, 159.1, 160, 167.1, 167.2;  
132/308; 601/139, 141

*Primary Examiner*—Lisa Lichtenstein  
(74) *Attorney, Agent, or Firm*—Dorsey & Whitney LLP

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

1,313,490 A 8/1919 Larson  
1,355,037 A 10/1920 Dziuk  
1,424,879 A 8/1922 Carlstedt  
1,517,320 A 12/1924 Stoddart  
1,696,835 A 12/1928 Burnett  
1,703,642 A 2/1929 Sticht  
1,796,641 A 3/1931 Zimmerman et al.  
1,832,519 A 11/1931 Wheat et al.  
2,016,597 A 10/1935 Drake  
2,044,863 A 6/1936 Sticht  
2,158,738 A 5/1939 Baker et al.  
2,206,726 A 7/1940 Lasater  
2,246,523 A 6/1941 Kulik  
2,278,365 A 3/1942 Daniels  
2,282,700 A 5/1942 Bobbroff  
2,598,275 A 5/1952 Lakin ..... 74/36  
2,705,335 A \* 4/1955 Glassman et al. .... 15/167.1  
2,709,227 A 5/1955 Foley et al.  
2,728,928 A 1/1956 Beeren ..... 15/29  
2,734,139 A 2/1956 Murphy

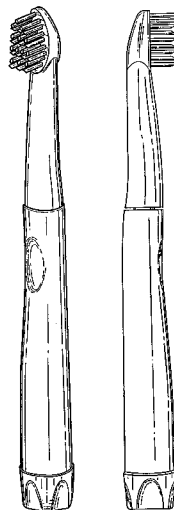
(57) **CLAIM**

The ornamental design for a disposable toothbrush, as shown and described.

**DESCRIPTION**

FIG. 1 is a right side perspective view of a disposable toothbrush showing our new design; FIG. 2 is a front elevation view thereof; FIG. 3 is a rear elevation view thereof; FIG. 4 is left side elevation view thereof; FIG. 5 is right side elevation view thereof; FIG. 6 is top plan view thereof; and, FIG. 7 is a bottom plan view thereof.

**1 Claim, 3 Drawing Sheets**



U.S. PATENT DOCUMENTS		
3,104,405	A	9/1963 Perrinjaquet
3,106,216	A	10/1963 Kirby
D197,048	S	12/1963 Troy
D197,208	S	12/1963 Cassidy et al. .... D9/2
3,143,697	A	8/1964 Springer ..... 320/2
3,145,404	A	8/1964 Fiedler
D199,560	S	11/1964 Thompson
D199,893	S	12/1964 Bond et al.
3,159,859	A	12/1964 Rasmussen
3,181,189	A	5/1965 Leyden ..... 15/22
3,183,538	A	5/1965 Hubner
D202,873	S	11/1965 Husted
D204,127	S	3/1966 Syverson
3,270,416	A	9/1966 Massa
3,316,576	A	5/1967 Urbrush
3,335,443	A	8/1967 Parisi et al.
3,346,748	A	10/1967 McNair
3,358,309	A	12/1967 Richardson
3,371,260	A	2/1968 Jackson et al. .... 320/2
3,375,820	A	4/1968 Kuris et al.
D212,208	S	9/1968 Rogers ..... D4/16
3,418,552	A	12/1968 Holmes ..... 320/2
3,430,279	A	3/1969 Hintze
3,463,994	A	8/1969 Spohr ..... 320/2
3,466,689	A	9/1969 Aurelio et al.
3,472,045	A	10/1969 Nelsen et al.
3,472,247	A	10/1969 Borsum et al.
3,474,799	A	10/1969 Cappello
3,535,726	A	10/1970 Sawyer
3,538,359	A	11/1970 Barowski
3,552,022	A	1/1971 Axelsson
3,559,292	A	2/1971 Weissman
3,563,233	A	2/1971 Bodine
3,588,936	A	6/1971 Duve
D221,823	S	9/1971 Cook ..... D4/15
3,642,344	A	2/1972 Corker
3,651,576	A	3/1972 Massa
3,660,902	A	5/1972 Axelsson
3,672,378	A	6/1972 Silverman
3,676,218	A	7/1972 Sawyer
3,759,274	A	9/1973 Warner
3,760,799	A	9/1973 Crowson
3,809,977	A	5/1974 Balamuth et al.
3,831,611	A	8/1974 Hendricks
3,840,932	A	10/1974 Balamuth et al.
3,882,364	A	5/1975 Wright et al.
3,902,510	A	9/1975 Roth
3,903,601	A	9/1975 Anderson et al.
3,967,617	A	7/1976 Krolik
3,978,852	A	9/1976 Annoni
3,980,906	A	9/1976 Kuris et al.
4,004,344	A	1/1977 Gold et al.
4,005,722	A	2/1977 Bragg
4,008,728	A	2/1977 Sanchez
4,019,522	A	4/1977 Elbreder
4,048,723	A	9/1977 Thorup
4,064,883	A	12/1977 Oldham
4,133,339	A	1/1979 Naslund
4,177,434	A	12/1979 Ida
D254,162	S	2/1980 Barker ..... D4/15
4,192,035	A	3/1980 Kuris
4,203,431	A	5/1980 Abura et al. .... 128/39
4,205,664	A	6/1980 Baccialon ..... 128/39
4,219,619	A	8/1980 Zarow ..... 128/39
4,235,253	A	11/1980 Moore ..... 128/39
RE30,536	E	3/1981 Perdreaux, Jr. .... 128/39
4,255,693	A	3/1981 Keidl ..... 128/39
4,271,382	A	6/1981 Maeda et al. .... 128/39
4,271,384	A	6/1981 Beling et al. .... 128/39
4,275,363	A	6/1981 Mishiro et al.
4,289,486	A	9/1981 Sargeant
4,307,740	A	12/1981 Florindez et al.
4,319,377	A	3/1982 Tarrson et al.
4,319,595	A	3/1982 Ulrich
4,326,547	A	4/1982 Verplank
4,326,548	A	4/1982 Wagner
4,331,422	A	5/1982 Heyman
4,333,197	A	6/1982 Kuris
D265,515	S	7/1982 Levine
4,338,957	A	7/1982 Meibauer
4,347,839	A	9/1982 Youngclaus, Jr.
4,353,141	A	10/1982 Teague, Jr. et al.
4,381,478	A	4/1983 Saijo et al.
4,395,665	A	7/1983 Buchas
4,397,327	A	8/1983 Hadary
D272,565	S	2/1984 Levine
D272,680	S	2/1984 Stocchi ..... D4/25
4,429,997	A	2/1984 Matthews
4,432,729	A	2/1984 Fattaleh
4,434,806	A	3/1984 Givens
4,442,830	A	4/1984 Markau ..... 128/66
4,458,702	A	7/1984 Grollimund ..... 128/66
4,505,678	A	3/1985 Andersson ..... 128/66
4,522,355	A	6/1985 Moran ..... 128/66
4,562,413	A	12/1985 Mishiro et al. .... 128/66
4,564,794	A	1/1986 Kilen et al. .... 128/66
4,576,190	A	3/1986 Youssef ..... 128/66
4,577,649	A	3/1986 Shimenzov ..... 128/66
D283,374	S	4/1986 Cheuk-Yiu ..... D4/101
4,585,415	A	4/1986 Hommann ..... 433/80
4,605,025	A	8/1986 McSpadden ..... 433/80
4,608,019	A	8/1986 Kumabe et al. .... 433/80
4,617,718	A	10/1986 Andersson ..... 433/80
4,634,376	A	1/1987 Mossle et al. .... 433/80
4,644,937	A	2/1987 Hommann ..... 128/66
4,655,198	A	4/1987 Hommann ..... 128/66
4,698,869	A	10/1987 Mierau et al.
D294,885	S	3/1988 Mollenhoff
4,766,630	A	8/1988 Hegemann ..... 15/22 R
4,787,847	A	11/1988 Martin et al.
4,791,940	A	12/1988 Hirshfeld et al. .... 15/22 R
4,811,445	A	3/1989 Lagieski et al. .... 15/22 R
4,820,153	A	4/1989 Romhild et al. .... 15/22 R
4,820,154	A	4/1989 Romhild et al. .... 15/22 R
4,827,550	A	5/1989 Graham et al. .... 15/22 R
4,832,063	A	5/1989 Smole
4,845,795	A	7/1989 Crawford et al. .... 15/22 R
4,856,133	A	8/1989 Sanchez ..... 15/29
D303,876	S	10/1989 Clemens et al. .... D4/101
4,871,396	A	10/1989 Tsujita et al.
4,873,496	A	10/1989 Ohgihara et al.
4,880,382	A	11/1989 Moret et al.
4,887,052	A	12/1989 Murakami et al.
4,913,133	A	4/1990 Tichy
4,922,936	A	5/1990 Buzzi et al.
D308,765	S	* 6/1990 Johnson ..... D4/104
4,974,278	A	12/1990 Hommann ..... 15/22 R
4,989,287	A	2/1991 Scherer ..... 15/22.1
4,991,249	A	2/1991 Suroff
4,995,403	A	2/1991 Beckman et al.
5,000,684	A	3/1991 Odlich
5,002,487	A	3/1991 Tichy
5,007,127	A	4/1991 Paolo ..... 15/29
5,016,660	A	5/1991 Boggs
5,020,179	A	6/1991 Scherer ..... 15/22.1
D319,363	S	8/1991 Uemura et al. .... D6/534
5,050,625	A	9/1991 Siekmann
D321,285	S	11/1991 Hirabayashi
5,067,223	A	11/1991 Bruno
D321,986	S	12/1991 Snyder et al. .... D4/101
5,068,939	A	12/1991 Holland ..... 15/22.1

# US D484,311 S

Page 3

5,069,621 A	12/1991	Paradis		5,459,898 A	10/1995	Bacolot .....	15/106
5,071,348 A	12/1991	Woog		5,467,494 A	11/1995	Muller et al.	
5,072,477 A	12/1991	Pai		5,467,495 A	11/1995	Boland et al. ....	15/28
5,072,482 A	12/1991	Bojar et al. ....	15/180	5,482,466 A	1/1996	Haynes	
5,077,855 A	1/1992	Ambasz .....	15/22.1	5,484,281 A	1/1996	Renow et al. ....	433/80
5,088,145 A	2/1992	Whitefield .....	15/22.1	5,496,256 A	3/1996	Bock et al.	
5,094,256 A	3/1992	Barth		5,499,420 A	3/1996	Boland .....	15/22.1
5,095,470 A	3/1992	Oka et al.		5,504,958 A	4/1996	Herzog .....	15/22.1
5,100,321 A	3/1992	Coss et al.		5,511,270 A	4/1996	Eliachar et al.	
5,120,225 A	6/1992	Amit .....	433/216	5,511,275 A	4/1996	Volpenhein et al. ....	15/167.1
5,123,841 A	6/1992	Millner		D370,125 S	5/1996	Craft et al.	
5,125,837 A	6/1992	Warrin et al.		D370,347 S	6/1996	Heinzelman et al. ....	D4/104
5,133,661 A	7/1992	Euvrard		D371,242 S	7/1996	Shimatsu et al. ....	D4/108
5,138,733 A	8/1992	Bock		5,546,624 A	8/1996	Bock	
5,150,492 A	9/1992	Suroff		D375,841 S	11/1996	Serbinski .....	D4/108
5,165,131 A	11/1992	Staar		5,573,020 A	11/1996	Robinson	
5,169,313 A	12/1992	Kline		5,577,285 A	11/1996	Drossler .....	15/22.1
5,170,809 A	12/1992	Imai et al.		5,579,786 A	12/1996	Wolk et al.	
5,174,314 A	12/1992	Charatan		5,606,984 A	3/1997	Gao	
5,177,826 A	1/1993	Vrignaud et al. ....	15/22.1	5,613,258 A	3/1997	Hilfingier et al. ....	15/22.1
5,180,363 A	1/1993	Idemoto et al.		5,613,259 A	3/1997	Craft et al.	
5,183,063 A	2/1993	Ringle et al.		5,617,601 A	4/1997	McDougall .....	15/22.1
5,189,751 A	3/1993	Giuliani et al.		5,618,275 A	4/1997	Bock	
5,198,732 A	3/1993	Morimoto		5,619,766 A	4/1997	Zhadanov et al. ....	15/29
5,201,092 A	4/1993	Colson .....	15/167.1	5,625,916 A	5/1997	McDougall .....	15/28
5,213,434 A	5/1993	Hahn .....	403/59	5,631,157 A	7/1997	Hahn	
5,214,819 A	6/1993	Kirchner .....	15/22.1	D382,407 S	8/1997	Craft et al.	
5,224,500 A	7/1993	Stella		5,652,990 A	8/1997	Driesen et al. ....	15/28
5,226,206 A	7/1993	Davidovitz et al.		5,678,274 A	10/1997	Liu .....	15/167.1
5,236,358 A	8/1993	Sieffert		5,697,117 A	12/1997	Craft	
5,247,716 A	9/1993	Bock		5,700,146 A	12/1997	Kucar	
5,253,382 A	10/1993	Beny		5,709,233 A	1/1998	Boland et al.	
5,261,430 A	11/1993	Mochel		5,718,667 A	2/1998	Sugimoto et al.	
5,263,218 A	11/1993	Giuliani et al.		5,732,433 A	3/1998	Göcking et al. ....	15/28
D341,943 S	12/1993	Si-Hoe .....	D4/108	5,738,575 A	4/1998	Bock	
D343,064 S	* 1/1994	Reno .....	D4/104	5,742,972 A	4/1998	Bredall et al. ....	15/167.1
5,289,604 A	3/1994	Kressner		5,784,743 A	7/1998	Shek .....	15/22.1
5,293,886 A	3/1994	Czapor		5,787,908 A	8/1998	Robinson	
5,294,896 A	3/1994	Kjellander et al.		5,794,295 A	8/1998	Shen	
5,305,492 A	4/1994	Giuliani et al.		5,815,872 A	10/1998	Meginnis, III et al. ....	15/22.1
5,309,590 A	5/1994	Giuliani et al.		5,827,064 A	10/1998	Bock	
5,309,591 A	5/1994	Hägele et al. ....	15/22.1	D400,713 S	11/1998	Solanki .....	D4/104
5,311,632 A	5/1994	Center		5,836,030 A	11/1998	Hazeu et al. ....	15/22.1
5,311,633 A	5/1994	Herzog et al. ....	15/28	5,842,244 A	12/1998	Hilfingier et al. ....	15/22.1
5,323,796 A	6/1994	Urso		5,850,655 A	12/1998	Göcking et al. ....	15/28
5,337,435 A	8/1994	Krasner et al. ....	15/23	D403,511 S	1/1999	Serbinski .....	D4/108
5,341,534 A	8/1994	Serbinski et al.		5,855,216 A	1/1999	Robinson	
5,353,460 A	10/1994	Bauman .....	15/22.1	5,862,558 A	1/1999	Hilfingier et al. ....	15/28
5,354,246 A	10/1994	Gotman .....	475/248	5,864,915 A	2/1999	Ra .....	15/167.1
5,355,638 A	10/1994	Hoffman .....	451/32	5,867,856 A	2/1999	Herzog .....	15/22.4
5,358,328 A	10/1994	Inoue et al. ....	366/65	5,896,615 A	4/1999	Zaksenberg	
5,359,747 A	11/1994	Amakasu .....	15/22.1	5,899,693 A	5/1999	Himeno et al.	
D353,490 S	12/1994	Hartwein .....	D4/108	D410,787 S	6/1999	Barre et al.	
5,369,831 A	12/1994	Bock		5,908,038 A	6/1999	Bennett .....	132/308
D354,168 S	1/1995	Hartwein .....	D4/108	5,927,300 A	7/1999	Boland et al.	
5,378,153 A	1/1995	Giuliani et al.		5,930,858 A	8/1999	Jung .....	15/22.1
5,383,242 A	1/1995	Bigler et al.		5,931,170 A	8/1999	Wu	
5,393,229 A	2/1995	Ram		5,943,723 A	8/1999	Hilfingier et al. ....	15/22.1
5,404,608 A	4/1995	Hommann		5,944,033 A	8/1999	Robinson	
5,406,664 A	4/1995	Hukuba		D414,937 S	10/1999	Cornu et al. ....	D4/104
5,406,965 A	4/1995	Levina		D414,939 S	10/1999	Pedro, Jr. et al. ....	D4/104
D358,486 S	5/1995	Loew .....	D4/104	5,974,613 A	11/1999	Herzog .....	15/22.1
D358,713 S	5/1995	Perry		5,974,615 A	11/1999	Schwarz-	
D358,801 S	5/1995	Vos .....	D13/108			Hartmann et al. ....	15/22.4
5,411,041 A	5/1995	Ritter		5,987,681 A	11/1999	Hahn et al.	
5,412,827 A	5/1995	Muller et al.		5,991,957 A	11/1999	Watanabe .....	15/167.1
5,416,942 A	5/1995	Baldacci et al. ....	15/22.1	D417,960 S	12/1999	Moskovich et al. ....	D4/104
5,419,346 A	5/1995	Tipp		6,000,083 A	12/1999	Blaustein et al.	
5,419,703 A	5/1995	Warrin et al.		6,009,589 A	1/2000	Driesen et al. ....	15/167.1
5,421,726 A	6/1995	Okada		6,021,538 A	2/2000	Kressner et al. ....	15/28
D363,605 S	10/1995	Kou et al. ....	D4/101	6,032,313 A	3/2000	Tsang .....	15/22.1

# US D484,311 S

Page 4

6,035,476 A	3/2000	Underwood et al.	FR	429447	9/1911
D423,784 S	5/2000	Joulin	FR	1171337	1/1959
6,065,176 A	5/2000	Watanabe et al. .... 15/167.1	GB	477799	1/1938
6,095,811 A	8/2000	Stearns	GB	500517	2/1939
6,165,131 A	12/2000	Cuse et al.	GB	899618	6/1962
6,183,254 B1	2/2001	Cohen ..... 433/92	GB	1583558	8/1977
6,299,444 B1	10/2001	Cohen ..... 433/91	GB	2175494	12/1986
6,349,442 B1	2/2002	Cohen et al. .... 15/22.1	JP	53-33753	3/1978

## FOREIGN PATENT DOCUMENTS

DE	243224	4/1910	WO	324221	5/1970
DE	17 66 651 C2	12/1981	WO	91/13570	9/1991
DE	34 31 481 A1	2/1986	WO	91/19437	12/1991
DE	35 12 190 A1	10/1986	WO	92/10146	6/1992
DE	86 26 725.6	5/1987	WO	92/16160	10/1992
DE	37 36 308 A1	7/1989	WO	93/10721	6/1993
DE	41 42 404 C2	7/1991	WO	93/15628	8/1993
DE	40 03 305 A1	8/1991	WO	94/04093	3/1994
DE	42 23 195 A1	1/1994	WO	94/26144	11/1994
DE	42 23 196 A1	1/1994	WO	95/02375	1/1995
DE	42 26 659 A1	2/1994	WO	95/33419	12/1995
DE	43 09 078 A1	9/1994	WO	01/28452	4/2001
DE	297 15 234 U1	12/1997	WO	01/28452 A1	4/2001
EP	0 354 352	2/1990	WO	01/145582 A1	6/2001
EP	0 661 025 B1	7/1995			

\* cited by examiner

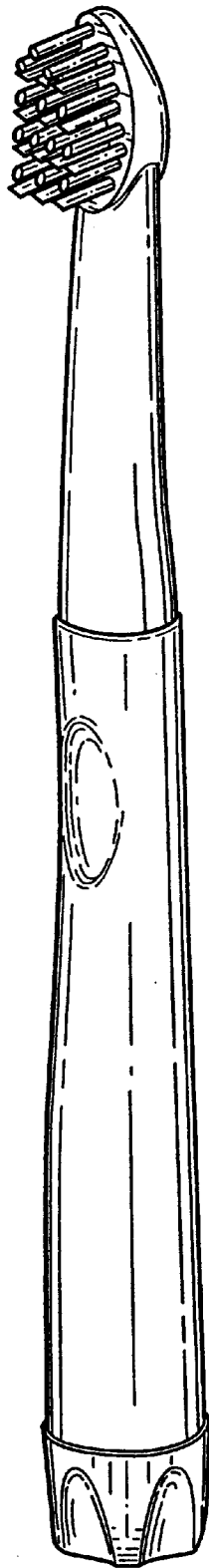


FIG. 1

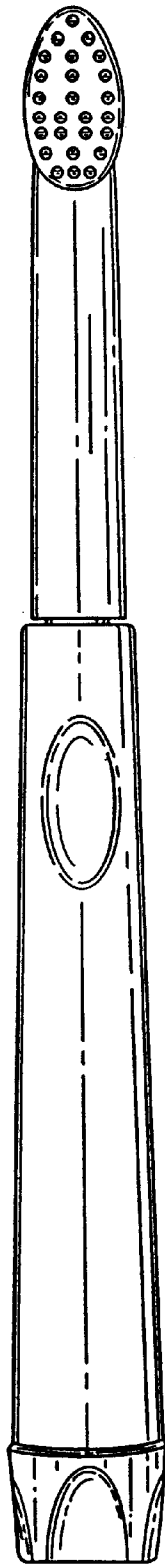


FIG. 2

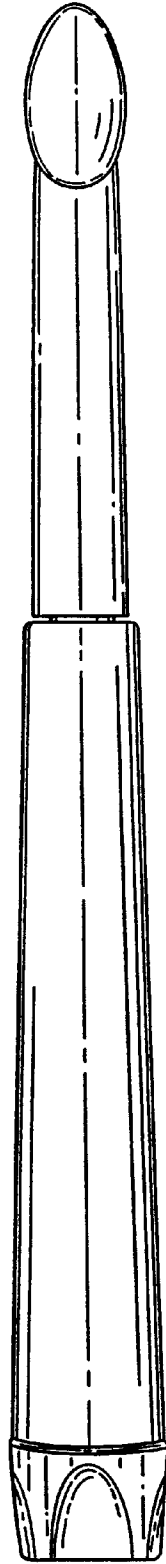


FIG. 3

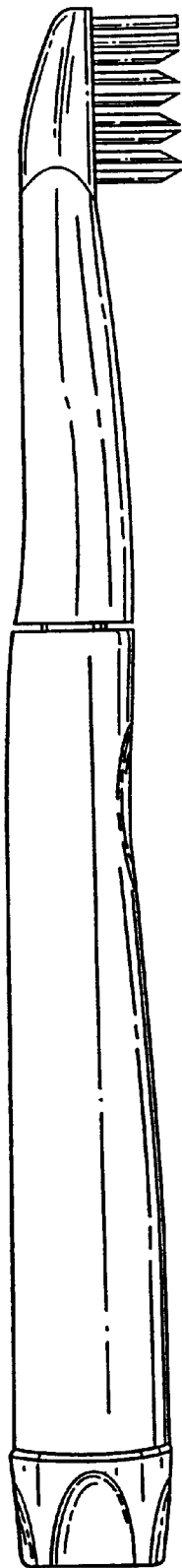


FIG. 5



FIG. 4

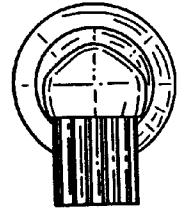


FIG. 6

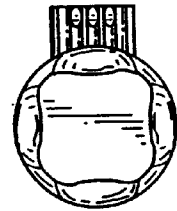


FIG. 7