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(12) **United States Design Patent**
Au et al.

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(54) **ORAL IRRIGATOR**

FOREIGN PATENT DOCUMENTS

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CA 851479 9/1970
CH 655237 4/1986

(Continued)

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OTHER PUBLICATIONS

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(52) **U.S. Cl.**

(57) **CLAIM**

USPC **D24/111**

The ornamental design for an oral irrigator, as shown and described.

(58) **Field of Classification Search**

DESCRIPTION

USPC D24/108, 111–113, 133, 152, 176; D4/101, 138

FIG. 1 is a front isometric view of an oral irrigator showing our new design.

CPC A61C 17/0205; A61C 17/0202; A61C 17/224; A61C 17/20; A61C 17/005; A61C 17/028; A61C 17/02; A61C 17/36; A61C 17/00; A61C 17/0211; A61C 17/0214; A61C 17/28; A61C 17/043; A61C 17/22; A61C 17/222; A61C 17/225

FIG. 2 is a rear isometric view of the oral irrigator of FIG. 1.

See application file for complete search history.

FIG. 3 is a front elevation view of the oral irrigator of FIG. 1.

FIG. 4 is a rear elevation view of the oral irrigator of FIG. 1.

(56) **References Cited**

U.S. PATENT DOCUMENTS

555,588 A	3/1896	Spencer
1,278,225 A	9/1918	Schamberg
1,464,419 A	8/1923	Gill
1,498,267 A	6/1924	Hachman
1,650,686 A	11/1927	Binks
1,669,889 A	5/1928	Andrews et al.
1,681,320 A	8/1928	Bergl et al.
1,933,454 A	10/1933	Sidney

FIG. 5 is a left side elevation view of the oral irrigator of FIG. 1.

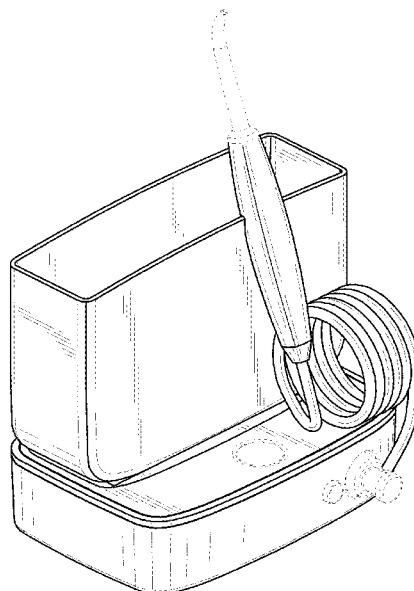
FIG. 6 is a right side elevation view of the oral irrigator of FIG. 1.

FIG. 7 is a top plan view of the oral irrigator of FIG. 1; and, FIG. 8 is a bottom plan view of the oral irrigator FIG. 1.

The broken lines in the drawings illustrate portions of the oral irrigator that form no part of the claimed design.

(Continued)

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2,107,686	A	2/1938	Bramsen et al.	3,943,628	A	3/1976	Kronman et al.
2,669,233	A	2/1954	Friend	3,959,883	A	6/1976	Walls et al.
2,783,919	A	3/1957	Ansell	3,973,558	A	8/1976	Stouffer et al.
2,794,437	A	6/1957	Tash	3,977,084	A	8/1976	Sloan
2,870,932	A	1/1959	Davis	4,001,526	A	1/1977	Olson
2,984,452	A	5/1961	Hooper	4,004,302	A	1/1977	Hori
3,089,490	A	5/1963	Goldberg	4,007,739	A	2/1977	Bron et al.
3,096,913	A	7/1963	Jousson	4,052,002	A	10/1977	Stouffer et al.
3,144,867	A	8/1964	Trupp et al.	D246,667	S	12/1977	Mackay et al.
3,209,956	A	10/1965	McKenzie	4,060,870	A	12/1977	Cannarella
3,216,619	A	11/1965	Richards et al.	4,075,761	A	2/1978	Behne et al.
3,225,759	A	12/1965	Drapen et al.	4,078,558	A	3/1978	Woog et al.
3,227,158	A	1/1966	Mattingly	4,108,167	A	8/1978	Hickman et al.
3,266,623	A	8/1966	Poferl	4,108,178	A	8/1978	Betush
3,297,558	A	1/1967	Hillquist	4,109,650	A	8/1978	Peclard
D208,778	S	10/1967	Koch	4,122,845	A	10/1978	Stouffer et al.
D209,204	S	11/1967	St. Clair et al.	4,135,501	A	1/1979	Leunissan
D209,395	S	11/1967	Gilbert	4,141,352	A	2/1979	Ebner et al.
D210,018	S	1/1968	Mattingly et al.	4,144,646	A	3/1979	Takemoto et al.
D210,019	S	1/1968	Johnson et al.	4,149,315	A	4/1979	Page, Jr. et al.
3,370,214	A	2/1968	Aymar	4,154,375	A	5/1979	Bippus
3,391,696	A	7/1968	Woodward	4,160,383	A	7/1979	Rauschenberger
3,393,673	A	7/1968	Mattingly et al.	4,182,038	A	1/1980	Fleer
3,400,999	A	9/1968	Goldstein	4,201,200	A	5/1980	Hubner
3,418,552	A	12/1968	Holmes	4,215,476	A	8/1980	Armstrong
3,420,228	A	1/1969	Kalbfeld	4,219,618	A	8/1980	Leonard
3,425,410	A	2/1969	Cammack	4,227,878	A	10/1980	Lohn
3,453,969	A	7/1969	Mattingly	4,229,634	A	10/1980	Hickman et al.
3,465,751	A	9/1969	Powers	4,236,889	A	12/1980	Wright
3,467,083	A	9/1969	Mattingly	4,248,589	A	2/1981	Lewis
3,487,828	A	1/1970	Troy	4,249,899	A	2/1981	Davis
3,489,268	A	1/1970	Meierhoefer	4,257,458	A	3/1981	Kondo et al.
3,495,587	A	2/1970	Freedman	4,262,799	A	4/1981	Perrett
3,496,933	A	2/1970	Lloyd	4,266,934	A	5/1981	Pernot
3,499,440	A	3/1970	Gibbs	4,276,023	A	6/1981	Phillips et al.
3,500,824	A	3/1970	Gilbert	4,276,880	A	7/1981	Malmin
3,501,203	A	3/1970	Falk	4,302,186	A	11/1981	Cammack et al.
3,502,072	A	3/1970	Stillman	4,303,064	A	12/1981	Buffa
3,517,669	A	6/1970	Buono et al.	4,303,070	A	12/1981	Ichikawa et al.
D218,270	S	8/1970	Soper	4,315,741	A	2/1982	Reichl
3,522,801	A	8/1970	Robinson	4,319,568	A	3/1982	Tregoning
3,532,221	A	10/1970	Kaluhiokalani et al.	4,331,422	A	5/1982	Heyman
3,536,065	A	10/1970	Moret	4,337,040	A	6/1982	Cammack et al.
3,537,444	A	11/1970	Garn	4,340,365	A	7/1982	Pisanu
3,538,950	A	11/1970	Porteners	4,340,368	A	7/1982	Lococo
3,547,110	A	12/1970	Balamuth	D266,117	S	9/1982	Oberheim
3,561,433	A	2/1971	Kovach	4,353,694	A	10/1982	Pelerin
D220,334	S	3/1971	Mackay et al.	4,363,626	A	12/1982	Schmidt et al.
3,572,375	A	3/1971	Rosenberg	4,365,376	A	12/1982	Oda et al.
3,578,884	A	5/1971	Jacobson	4,370,131	A	1/1983	Banko
3,583,609	A	6/1971	Oppenheimer	4,374,354	A	2/1983	Petrovic et al.
3,590,813	A	7/1971	Roszyk	4,382,167	A	5/1983	Maruyama et al.
3,608,548	A	9/1971	Lewis	4,382,786	A	5/1983	Lohn
D222,862	S	1/1972	Cook	D270,000	S	8/1983	Ketler
3,636,947	A	1/1972	Balamuth	4,412,823	A	11/1983	Sakai et al.
3,651,576	A	3/1972	Massa	4,442,830	A	4/1984	Markau
3,669,101	A	6/1972	Kleiner	4,442,831	A	4/1984	Trenary
3,703,170	A	11/1972	Ryckman, Jr.	4,452,238	A	6/1984	Kerr
3,747,595	A	7/1973	Grossan	4,454,866	A	6/1984	Fayen
3,768,472	A	10/1973	Hodosh et al.	4,512,769	A	4/1985	Kozam et al.
3,783,364	A	1/1974	Gallanis et al.	4,517,962	A	5/1985	Heckele
3,809,506	A	5/1974	Malcosky	4,531,912	A	7/1985	Schuss et al.
3,809,977	A	5/1974	Balamuth et al.	4,531,913	A	7/1985	Taguchi
3,811,432	A	5/1974	Moret	4,534,340	A	8/1985	Kerr et al.
3,820,532	A	6/1974	Eberhardt et al.	4,552,130	A	11/1985	Kinoshita
3,827,147	A	8/1974	Condon	4,561,214	A	12/1985	Inoue
3,837,166	A	9/1974	Hiraoka	D283,374	S	4/1986	Cheuk-Yiu
3,840,795	A	10/1974	Roszyk et al.	4,585,415	A	4/1986	Hommann
3,847,145	A	11/1974	Grossan	4,591,777	A	5/1986	McCarty et al.
3,854,209	A	12/1974	Franklin et al.	4,592,728	A	6/1986	Davis
3,863,628	A	2/1975	Vit	4,602,906	A	7/1986	Grunenfelder
3,871,560	A	3/1975	Crippa	4,607,627	A	8/1986	Leber et al.
				4,613,074	A	9/1986	Schulze
				4,619,009	A	10/1986	Rosenstatter
				4,619,612	A	10/1986	Weber et al.
				4,629,425	A	12/1986	Detsch
				4,636,198	A	1/1987	Stade
				4,642,037	A	2/1987	Fritchman
				4,644,937	A	2/1987	Hommann

A61C 1/0084
222/325

(56)

References Cited

U.S. PATENT DOCUMENTS

4,645,488	A	2/1987	Matukas	5,098,676	A	3/1992	Brooks, Jr.
4,647,831	A	3/1987	O'Malley et al.	5,100,319	A	3/1992	Baum
4,648,838	A	3/1987	Schlachter	5,117,871	A	6/1992	Gardner et al.
4,650,475	A	3/1987	Smith et al.	5,125,835	A	6/1992	Young
4,655,198	A	4/1987	Hommann	5,127,831	A	7/1992	Bab
4,669,453	A	6/1987	Atkinson et al.	5,142,723	A	9/1992	Lustig et al.
4,672,953	A	6/1987	DiVito	5,150,841	A	9/1992	Silvenis et al.
4,673,396	A	6/1987	Urbaniak	5,172,810	A	12/1992	Brewer
D291,354	S	8/1987	Camens	5,173,273	A	12/1992	Brewer
4,716,352	A	12/1987	Hurn et al.	5,183,035	A	2/1993	Weir
4,749,340	A	6/1988	Ikeda et al.	5,197,458	A	3/1993	Ito et al.
4,770,632	A	9/1988	Ryder et al.	5,197,460	A	3/1993	Ito et al.
4,783,321	A	11/1988	Spence	5,199,871	A	4/1993	Young
4,787,845	A	11/1988	Valentine	5,203,697	A	4/1993	Malmin
4,787,847	A	11/1988	Martin et al.	5,203,769	A	4/1993	Clement et al.
4,798,292	A	1/1989	Hauze	5,204,004	A	4/1993	Johnston et al.
4,803,974	A	2/1989	Powell	5,208,933	A	5/1993	Lustig et al.
4,804,364	A	2/1989	Dieras et al.	5,215,193	A	6/1993	Dennis
4,818,229	A	4/1989	Vasile	5,218,956	A	6/1993	Handler et al.
4,820,152	A	4/1989	Warrin et al.	5,220,914	A	6/1993	Thompson
4,821,923	A	4/1989	Skorka	5,228,646	A	7/1993	Raines
4,824,368	A	4/1989	Hickman	5,230,624	A	7/1993	Wolf et al.
4,826,431	A	5/1989	Fujimura et al.	5,232,687	A	8/1993	Geimer
4,827,551	A	5/1989	Maser et al.	5,235,968	A	8/1993	Woog
4,832,683	A	5/1989	Idemoto et al.	5,241,714	A	9/1993	Barry
4,854,869	A	8/1989	Lawhorn	5,246,367	A	9/1993	Ito et al.
4,861,340	A	8/1989	Smith et al.	5,252,064	A	10/1993	Baum et al.
4,862,876	A	9/1989	Lih-Sheng	D341,200	S	11/1993	Yoshimoto
4,869,720	A	9/1989	Chernack	5,257,933	A	11/1993	Jousson
4,880,382	A	11/1989	Moret et al.	5,261,448	A	11/1993	Furuya et al.
4,886,452	A	12/1989	Lohn	D341,943	S	12/1993	Si-Hoe
4,900,252	A	2/1990	Liefke et al.	5,267,586	A	12/1993	Jankavaara
4,902,225	A	2/1990	Lohn	5,269,684	A	12/1993	Fischer
4,903,687	A	2/1990	Lih-Sheng	5,281,137	A	1/1994	Jousson
4,906,187	A	3/1990	Amadera	5,281,139	A	1/1994	Frank et al.
4,907,744	A	3/1990	Jousson	5,282,745	A	2/1994	Wiltrout et al.
4,925,450	A	5/1990	Imonti et al.	5,286,192	A	2/1994	Dixon
4,928,675	A	5/1990	Thornton	5,286,201	A	2/1994	Yu
4,930,660	A	6/1990	Porteous	5,297,962	A	3/1994	O'Connor et al.
4,941,459	A	7/1990	Mathur	D346,212	S	4/1994	Hosl
4,950,159	A	8/1990	Hansen	5,301,381	A	4/1994	Klupt
4,958,629	A	9/1990	Peace et al.	5,302,123	A	4/1994	Bechard
4,958,751	A	9/1990	Curtis et al.	5,317,691	A	5/1994	Traeger
4,959,199	A	9/1990	Brewer	5,321,865	A	6/1994	Kaerer
4,961,698	A	10/1990	Vlock	5,331,704	A	7/1994	Rosen et al.
4,966,551	A	10/1990	Betush	5,344,317	A	9/1994	Pacher et al.
4,969,874	A	11/1990	Michel et al.	5,346,677	A	9/1994	Risk
4,973,247	A	11/1990	Varnes et al.	D351,892	S	10/1994	Wolf et al.
4,973,250	A	11/1990	Milman	5,360,338	A	11/1994	Waggoner
4,975,054	A	12/1990	Esrock	5,368,548	A	11/1994	Jousson
4,979,503	A	12/1990	Chernack	5,370,534	A	12/1994	Wolf et al.
4,979,504	A	12/1990	Mills	D354,168	S	1/1995	Hartwein
4,989,590	A	2/1991	Baum et al.	5,378,149	A	1/1995	Stropko
4,998,880	A	3/1991	Nerli	5,380,201	A	1/1995	Kawata
5,013,241	A	5/1991	Von Gutfeld et al.	D356,864	S	3/1995	Woog
5,014,884	A	5/1991	Wunsch	5,399,089	A	3/1995	Eichman et al.
5,019,054	A	5/1991	Clement et al.	D358,883	S	5/1995	Vos
5,027,798	A	7/1991	Primiano	5,456,672	A	10/1995	Diederich et al.
5,029,576	A	7/1991	Evans, Sr.	5,465,445	A	11/1995	Yeh
5,033,617	A	7/1991	Hartwein et al.	5,467,495	A	11/1995	Boland et al.
5,033,961	A	7/1991	Kankler et al.	5,468,148	A	11/1995	Ricks
D318,918	S	8/1991	Hartwein	5,470,305	A	11/1995	Arnett et al.
5,046,486	A	9/1991	Grulke et al.	5,474,450	A	12/1995	Chronister
5,049,071	A	9/1991	Davis et al.	5,474,451	A	12/1995	Dalrymple et al.
5,060,825	A	10/1991	Palmer et al.	5,476,379	A	12/1995	Disel
5,062,795	A	11/1991	Woog	5,484,281	A	1/1996	Renow et al.
5,064,168	A	11/1991	Raines et al.	5,487,877	A	1/1996	Choi
D322,314	S	12/1991	Ohbayashi	5,490,779	A	2/1996	Malmin
5,071,346	A	12/1991	Domaas	5,505,916	A	4/1996	Berry, Jr.
5,082,115	A	1/1992	Hutcheson	D369,656	S	5/1996	Vos
5,082,443	A	1/1992	Lohn	5,525,058	A	6/1996	Gallant et al.
5,085,317	A	2/1992	Jensen et al.	5,526,841	A	6/1996	Detsch et al.
5,086,756	A	2/1992	Powell	5,540,587	A	7/1996	Malmin
5,095,893	A	3/1992	Rawden, Jr.	5,547,374	A	8/1996	Coleman
5,098,291	A	3/1992	Curtis et al.	D373,631	S	9/1996	Maeda et al.
				5,554,014	A	9/1996	Becker
				5,554,025	A	9/1996	Kinsel
				5,556,001	A	9/1996	Weissman et al.
				5,564,629	A	10/1996	Weissman et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

D377,091	S	12/1996	Scott, Sr.		6,475,173	B1	11/2002	Bachman et al.
5,616,028	A	4/1997	Hafele et al.		6,485,451	B1	11/2002	Roberts et al.
5,634,791	A	6/1997	Matsuura et al.		6,497,375	B1	12/2002	Srinath et al.
5,636,987	A	6/1997	Serfaty		6,497,572	B2	12/2002	Hood et al.
5,640,735	A	6/1997	Manning		6,502,584	B1	1/2003	Fordham
5,653,591	A	8/1997	Loge		D470,660	S	2/2003	Schaber
5,659,995	A	8/1997	Hoffman		6,558,344	B2	5/2003	McKinnon et al.
5,667,483	A	9/1997	Santos		6,561,808	B2	5/2003	Neuberger et al.
D386,576	S	11/1997	Wang et al.		D475,346	S	6/2003	McCurrach et al.
5,683,192	A	11/1997	Kilfoil		6,589,477	B1	7/2003	Frieze et al.
5,685,829	A	11/1997	Allen		6,602,071	B1	8/2003	Ellion et al.
5,685,851	A	11/1997	Murphy et al.		6,632,091	B1	10/2003	Cise et al.
5,697,784	A	12/1997	Hafele et al.		D482,451	S	11/2003	Page et al.
D388,612	S	1/1998	Stutzer et al.		6,640,999	B2	11/2003	Peterson
D388,613	S	1/1998	Stutzer et al.		6,647,577	B2	11/2003	Tam
5,709,545	A	1/1998	Johnston et al.		6,659,674	B2	12/2003	Carlucci et al.
5,716,007	A	2/1998	Nottingham et al.		6,669,059	B2	12/2003	Mehta
5,718,668	A	2/1998	Arnett et al.		D484,971	S *	1/2004	Hartwein D24/111
5,746,595	A	5/1998	Ford		6,681,418	B1	1/2004	Bierend
5,749,726	A	5/1998	Kinsel		D486,573	S	2/2004	Callaghan et al.
5,759,502	A	6/1998	Spencer et al.		6,689,078	B1	2/2004	Rehkemper et al.
5,779,471	A *	7/1998	Tseng	A61C 19/063 433/80	6,699,208	B2	3/2004	Bachman et al.
5,779,654	A	7/1998	Foley et al.		6,719,561	B2	4/2004	Gugel et al.
5,795,153	A	8/1998	Rechmann		D489,183	S	5/2004	Akahori et al.
5,796,325	A	8/1998	Lundell et al.		6,739,782	B1	5/2004	Rehkemper et al.
5,833,065	A	11/1998	Burgess		6,740,053	B2	5/2004	Kaplowitz
5,836,030	A	11/1998	Hazeu et al.		D490,899	S	6/2004	Gagnon
D402,744	S	12/1998	Zuege		D491,728	S	6/2004	Jimenez
5,851,079	A	12/1998	Horstman et al.		D492,996	S	7/2004	Rehkemper et al.
D403,511	S	1/1999	Serbinski		6,761,324	B2	7/2004	Chang
D406,334	S	3/1999	Rosenthal et al.		6,766,549	B2	7/2004	Klupt
5,876,201	A	3/1999	Wilson et al.		D495,142	S	8/2004	Berde
D408,511	S	4/1999	Allen et al.		D495,143	S	8/2004	Berde
5,901,397	A	5/1999	Hafele et al.		6,779,216	B2	8/2004	Davies et al.
5,934,902	A	8/1999	Abahusayn		6,783,004	B1	8/2004	Rinner
D413,975	S	9/1999	Maeda		6,783,505	B1	8/2004	Lai
D417,082	S	11/1999	Classen et al.		6,796,796	B2	9/2004	Segal
5,993,402	A	11/1999	Sauer et al.		D498,643	S	11/2004	Pryor
6,030,215	A	2/2000	Ellion et al.		6,814,259	B1	11/2004	Foster et al.
6,038,960	A	3/2000	Fukushima et al.		D499,885	S	12/2004	Xi
6,039,180	A	3/2000	Grant		6,835,181	B2	12/2004	Hippensteel
6,047,429	A	4/2000	Wu		D500,599	S	1/2005	Callaghan
D425,615	S	5/2000	Bachman et al.		6,837,708	B2	1/2005	Chen et al.
D425,981	S	5/2000	Bachman et al.		6,884,069	B2	4/2005	Goldman
6,056,710	A	5/2000	Bachman et al.		6,902,337	B1	6/2005	Kuo
D426,633	S	6/2000	Bachman et al.		6,907,879	B2	6/2005	Drinan et al.
6,089,865	A	7/2000	Edgar		D509,585	S	9/2005	Kling et al.
6,116,866	A	9/2000	Tomita et al.		D513,638	S	1/2006	Pan
6,120,755	A *	9/2000	Jacobs	A61C 1/0084 424/49	D522,652	S	6/2006	Massey
6,124,699	A	9/2000	Suzuki et al.		7,080,980	B2	7/2006	Klupt
D434,500	S	11/2000	Pollock et al.		D529,661	S	10/2006	Schmidt
6,159,006	A	12/2000	Cook et al.		D530,010	S	10/2006	Luetzgen et al.
6,164,967	A	12/2000	Sale et al.		7,117,555	B2	10/2006	Fattori et al.
D435,905	S	1/2001	Bachman et al.		7,131,838	B2	11/2006	Suzuki et al.
D437,049	S	1/2001	Hartwein		D533,720	S	12/2006	Vu
6,193,512	B1	2/2001	Wallace		7,147,468	B2	12/2006	Snyder et al.
6,193,932	B1	2/2001	Wu et al.		D538,474	S	3/2007	Sheppard et al.
6,199,239	B1	3/2001	Dickerson		D548,334	S	8/2007	Izumi
6,200,134	B1	3/2001	Kovac		D550,097	S	9/2007	Lepoitevin
D439,781	S	4/2001	Spore		7,276,035	B2	10/2007	Lu
6,217,835	B1	4/2001	Riley et al.		7,314,456	B2	1/2008	Shaw
D441,861	S	5/2001	Hafliker		D565,175	S	3/2008	Boyd et al.
6,233,773	B1	5/2001	Karge et al.		7,344,510	B1	3/2008	Yande
6,234,205	B1	5/2001	D'Amelio et al.		D565,713	S	4/2008	Gao
6,237,178	B1	5/2001	Krammer et al.		7,367,803	B2	5/2008	Egeresi
6,247,929	B1	6/2001	Bachman et al.		D574,952	S	8/2008	Boyd et al.
D448,236	S	9/2001	Murray		D577,198	S	9/2008	Jimenez
6,293,792	B1	9/2001	Hanson		D577,814	S	9/2008	Seki et al.
D449,884	S	10/2001	Tobin et al.		D581,279	S	11/2008	Oates
D453,453	S	2/2002	Lun		7,455,521	B2	11/2008	Fishburne, Jr.
6,363,565	B1	4/2002	Paffrath		7,469,440	B2	12/2008	Boland et al.
D464,799	S	10/2002	Crossman et al.		7,500,584	B2	3/2009	Schutz
6,468,482	B1	10/2002	Frieze et al.		D590,492	S	4/2009	Powell
					D595,136	S	6/2009	Canamasas Puigbo
					D601,694	S *	10/2009	Rocklin D24/111
					D601,697	S	10/2009	Sobiech et al.
					D603,708	S	11/2009	Handy
					7,670,141	B2	3/2010	Thomas et al.
					7,677,888	B1	3/2010	Halm

(56)

References Cited

U.S. PATENT DOCUMENTS

D613,550 S 4/2010 Picozza et al.
D621,949 S 8/2010 Seki et al.
7,814,585 B1 10/2010 Reich
D629,884 S 12/2010 Stephens
7,857,623 B2 12/2010 Grez
7,862,536 B2 1/2011 Chen et al.
7,959,597 B2 6/2011 Baker et al.
D640,872 S 7/2011 Nanda
D648,539 S 11/2011 Wai
8,113,832 B2 2/2012 Snyder et al.
8,220,726 B2 7/2012 Qiu et al.
D666,912 S 9/2012 Kawai
8,256,979 B2 9/2012 Hilscher et al.
D669,169 S 10/2012 Washington et al.
8,297,534 B2 10/2012 Li et al.
D670,373 S 11/2012 Taylor et al.
D670,958 S 11/2012 Picozza et al.
D671,637 S 11/2012 Gebski et al.
8,366,024 B2 2/2013 Leber
8,403,577 B2 3/2013 Khoshnevis
8,403,665 B2 3/2013 Thomas et al.
8,408,483 B2 4/2013 Boyd et al.
D707,350 S 6/2014 Woodard
8,801,667 B2 8/2014 Taylor
D717,427 S 11/2014 Kim
D731,640 S 6/2015 Kim et al.
9,050,157 B2 6/2015 Boyd et al.
2002/0090252 A1 7/2002 Hall et al.
2002/0108193 A1 8/2002 Gruber
2002/0119415 A1 8/2002 Bailey
2002/0152565 A1 10/2002 Klupt
2003/0098249 A1 5/2003 Rollock
2003/0204155 A1 10/2003 Egeresi
2003/0213075 A1 11/2003 Hui et al.
2004/0045107 A1 3/2004 Egeresi
2004/0076921 A1 4/2004 Gofman et al.
2004/0122377 A1 6/2004 Fischer et al.
2004/0126730 A1 7/2004 Panagotacos
2004/0209222 A1 10/2004 Snyder
2005/0049620 A1 3/2005 Chang
2005/0064371 A1 3/2005 Soukos et al.
2005/0101894 A1 5/2005 Hippensteel
2005/0102773 A1 5/2005 Obermann et al.
2005/0144745 A1 7/2005 Russell
2005/0177079 A1 8/2005 Pan
2005/0271531 A1 12/2005 Brown et al.
2006/0008373 A1 1/2006 Schutz
2006/0010624 A1 1/2006 Cleland
2006/0021165 A1 2/2006 Boland et al.
2006/0026784 A1 2/2006 Moskovich et al.
2006/0057539 A1 3/2006 Sodo
2006/0078844 A1 4/2006 Goldman et al.
2006/0079818 A1 4/2006 Yande
2007/0082316 A1 4/2007 Zhadanov et al.
2007/0082317 A1* 4/2007 Chuang A61C 17/0202
433/80
2007/0113360 A1 5/2007 Tsai
2007/0202459 A1 8/2007 Boyd et al.
2007/0203439 A1 8/2007 Boyd et al.
2007/0254260 A1 11/2007 Alden
2008/0008979 A1 1/2008 Thomas et al.
2008/0189951 A1 8/2008 Molema et al.
2009/0070949 A1 3/2009 Sagel et al.
2009/0082706 A1 3/2009 Shaw
2009/0124945 A1 5/2009 Reich et al.
2009/0163839 A1 6/2009 Alexander
2009/0281454 A1 11/2009 Baker et al.
2010/0015566 A1 1/2010 Shaw
2010/0190132 A1 7/2010 Taylor et al.
2010/0239998 A1 9/2010 Snyder et al.
2010/0261134 A1 10/2010 Boyd et al.
2010/0261137 A1 10/2010 Boyd et al.
2010/0326536 A1 12/2010 Nan
2010/0330527 A1 12/2010 Boyd et al.
2011/0027749 A1 2/2011 Syed

2011/0076090 A1 3/2011 Wu et al.
2011/0097683 A1 4/2011 Boyd et al.
2011/0139826 A1 6/2011 Hair et al.
2011/0144588 A1 6/2011 Taylor et al.
2011/0184341 A1 7/2011 Baker et al.
2012/0021374 A1 1/2012 Cacka et al.
2012/0045730 A1 2/2012 Sayder et al.
2012/0064480 A1 3/2012 Hegemann
2012/0077145 A1 3/2012 Tsurukawa
2012/0141952 A1 6/2012 Snyder et al.
2012/0189976 A1 7/2012 McDonough et al.
2012/0266396 A1 10/2012 Leung
2012/0277677 A1 11/2012 Taylor et al.
2012/0277678 A1 11/2012 Taylor et al.
2012/0295220 A1 11/2012 Thomas et al.
2014/0106296 A1 4/2014 Woodard et al.
2014/0193774 A1 7/2014 Snyder et al.
2014/0272782 A1 9/2014 Luettgen et al.
2015/0147717 A1 5/2015 Taylor et al.
2015/0173850 A1 6/2015 Garrigues et al.

FOREIGN PATENT DOCUMENTS

DE 1466963 5/1969
DE 2409752 9/1975
DE 2545936 4/1977
DE 2714876 10/1978
DE 2910982 2/1980
EP 0023672 7/1980
EP 0515983 2/1992
FR 2556954 6/1985
FR 2654627 5/1991
GB 1182031 2/1970
GB 2018605 10/1979
JP 2-134150 5/1990
JP 2009-39455 2/2009
WO WO95/16404 6/1995
WO WO01/10327 2/2001
WO WO2004/021958 3/2004
WO WO2004/039205 5/2004
WO WO2004/060259 7/2004
WO WO2008/157585 12/2008
WO WO2013/124691 8/2013

OTHER PUBLICATIONS

The Right Tool, Electron Fusion Devices, Inc., 2 pages, at least as early as Feb. 1991.
Japanese Packaging, 2 pages, at least as early as Dec. 2002.
Japanese Instruction Brochure, 20 pages, at least as early as Dec. 2002.
Brochure: Woog International, "You have a 98% chance of getting gum disease. Unless you read this.", Lancaster, Pennsylvania, 5 pages, Feb. 1987.
Brochure: Woog International, "We put the control of home dental care back into the hands of the professional", Lancaster, Pennsylvania, 2 pages, Feb. 1987.
Brochure: WOOG International, "Products at a Glance: Home Dental Care System" WOOG ORAJET, 3 pages, at least as early as Dec. 18, 1998.
Website: http://www.just4teeth.com/product/Panasonic/Panasonic_Portable_Irrigator.htm, 2 pages, at least as early as Jun. 20, 2003.
Website: http://www.videodirectstore.com/store/merchant.mv?Screen=PROD&Product_Code=EW1'..., 2 pages, at least as early as Jun. 20, 2003.
Website: <http://products.consumerguide.com/cp/family/review/index.cfm/id/18742>, 2 pages, at least as early as Jun. 20, 2003.
Website: <http://www.racekarteng.com/images/walbroparts.gif> and <http://www.muller.net/mullermachine/docs/walbro1.html>, 4 pages, at least as early as Jun. 20, 2003.
European Search Report, EPO Application No. 07250799.9, Jul. 5, 2007.
European Search Report, EPO Application No. 07252693.2, 14 pages, Apr. 28, 2008.

(56)

References Cited

OTHER PUBLICATIONS

European Examination Report, EPO Application No. 07250799.9, Feb. 5, 2009.

International Search Report, Application No. PCT/US2010/028180, 2 pages, May 18, 2010.

International Search Report, PCT/US2010/060800, 2 pages, Feb. 11, 2011.

International Search Report, PCT/US2011/052795, 10 pages, Jan. 17, 2012.

Waterpik SinuSense Website: <http://www.insightsbyapril.com/2012/03/waterpik-natural-remedy-for-sinus.html>, 8 pages, retrieved on May 31, 2012.

Website: <https://www.waterpik.com/about-us/>, 3 pages.

* cited by examiner

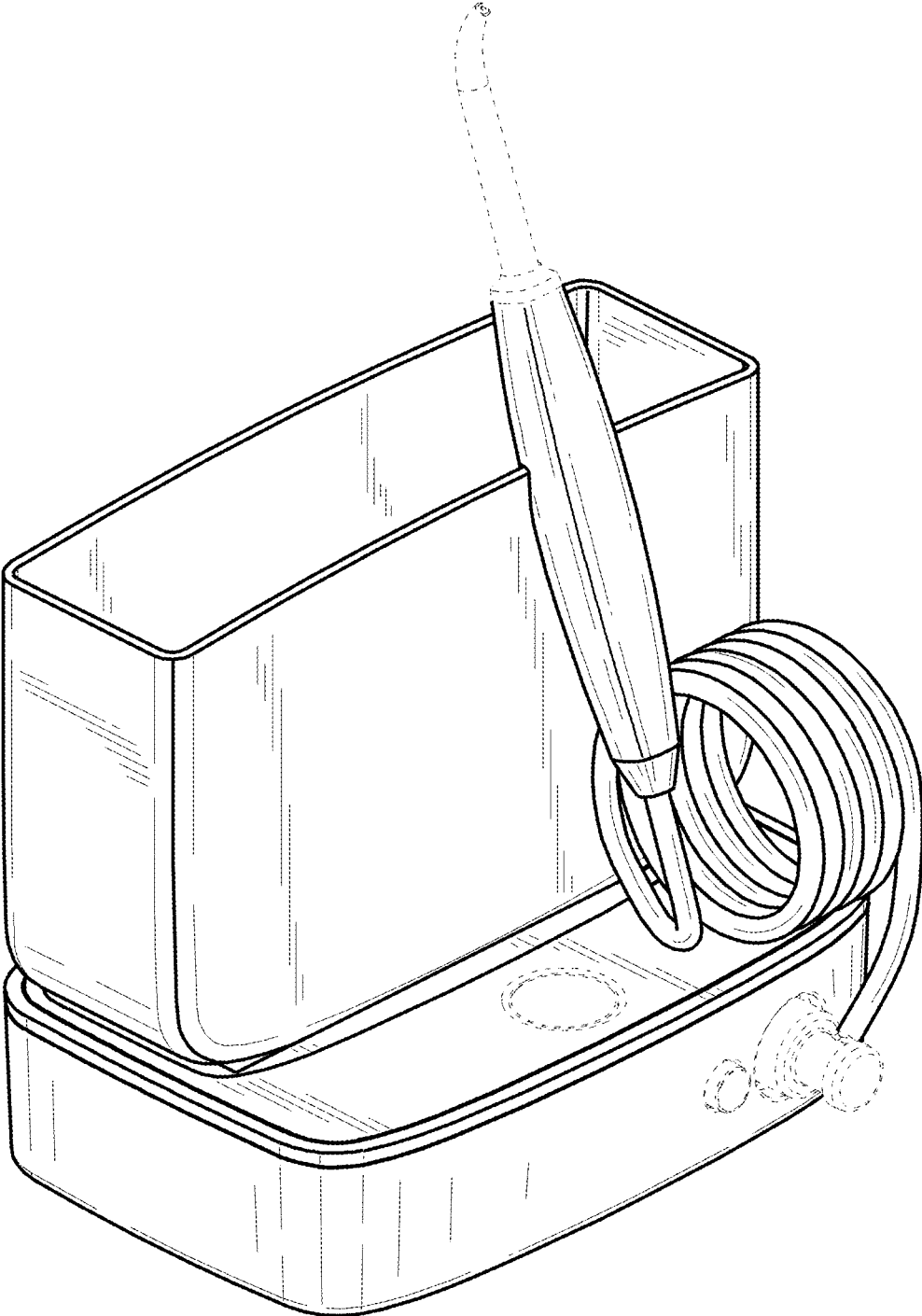


FIG. 1

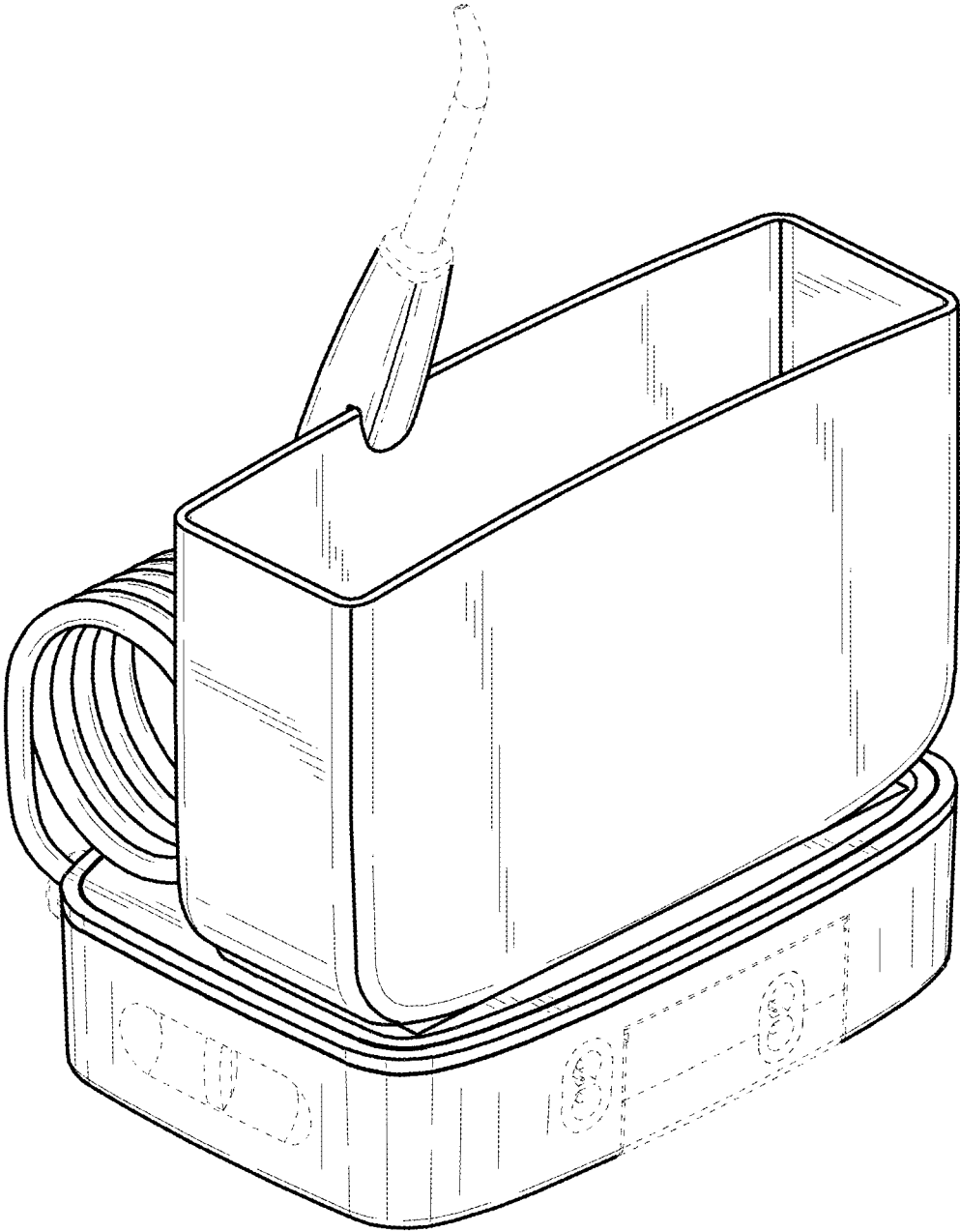


FIG. 2

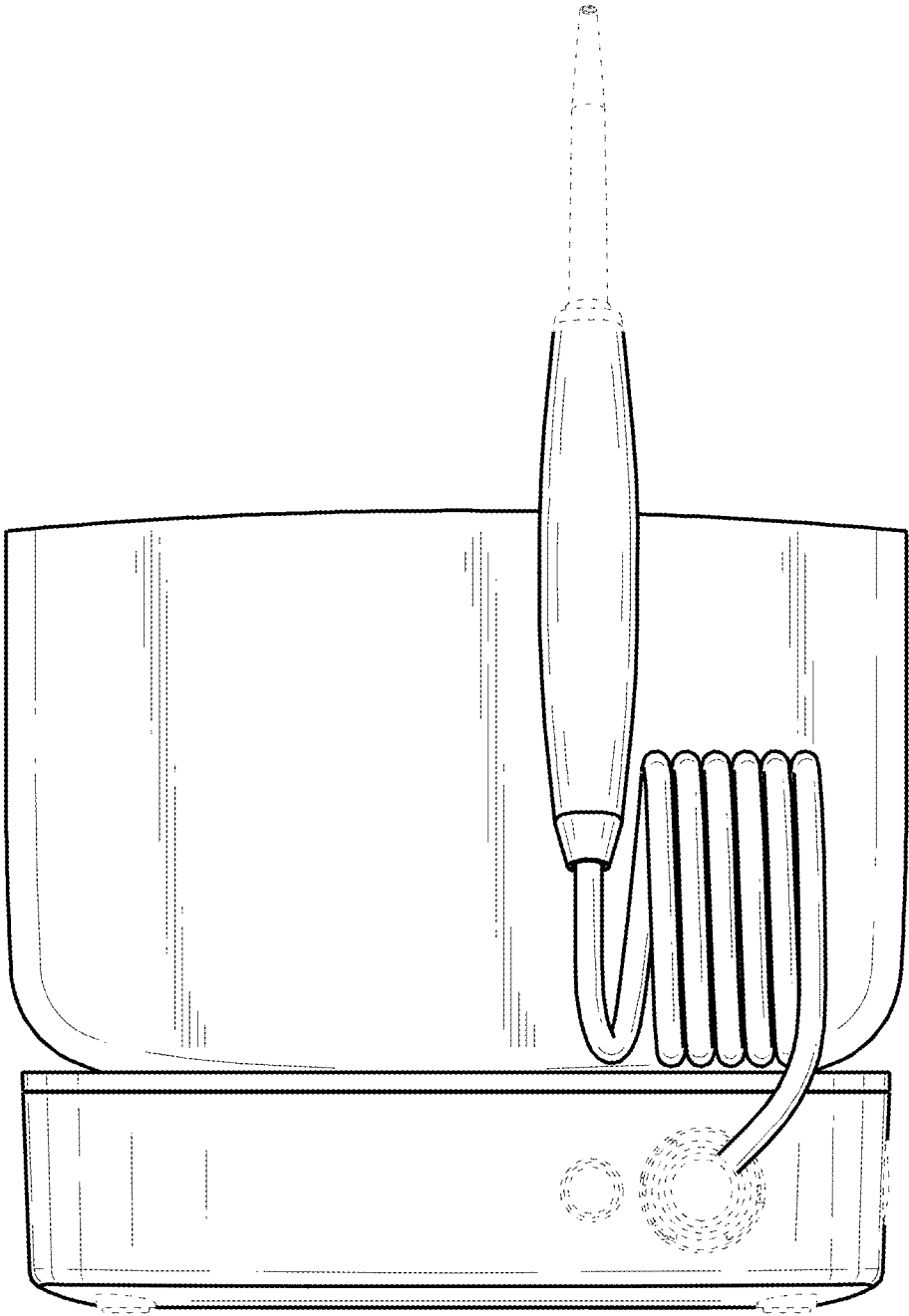


FIG. 3

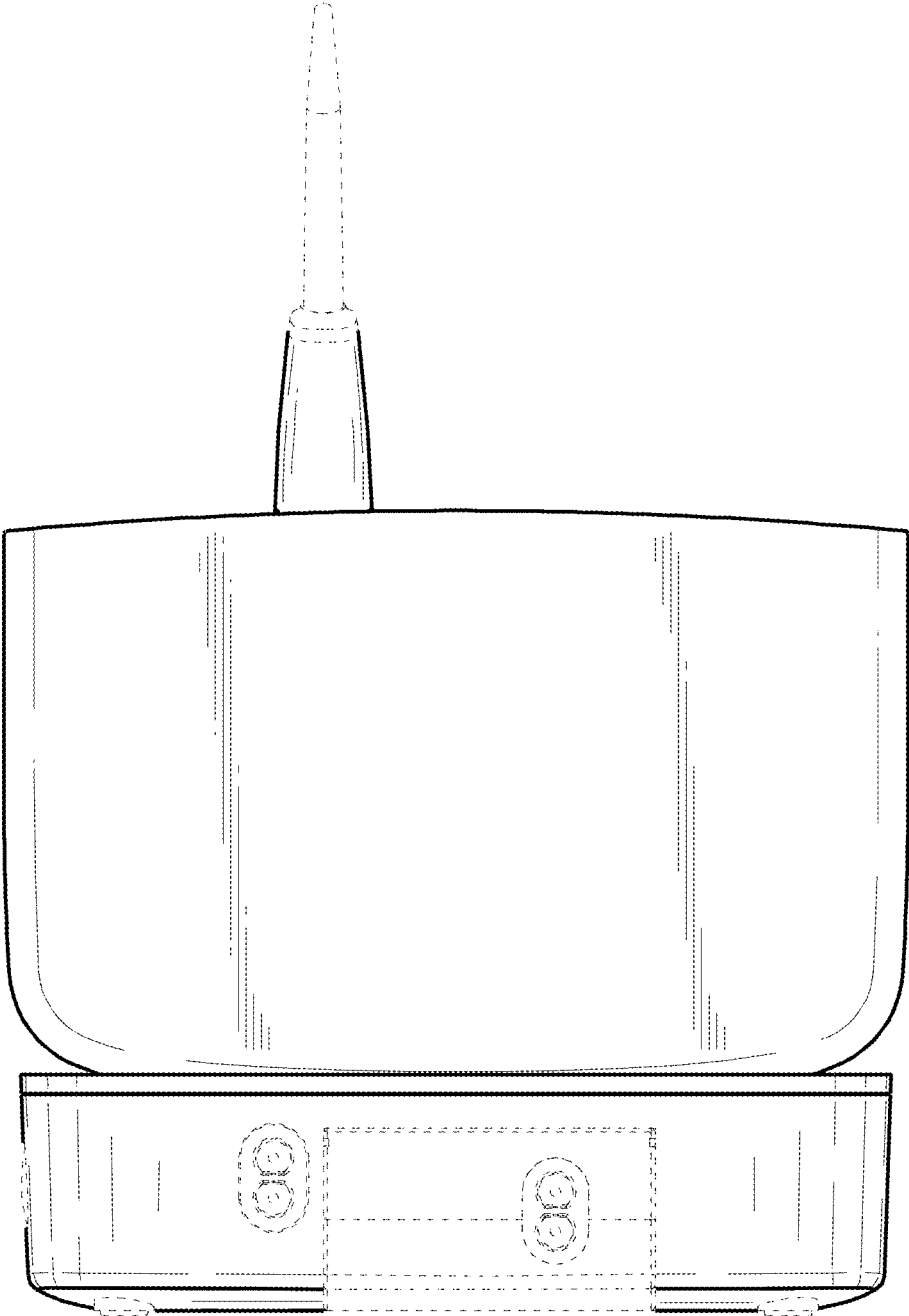


FIG. 4

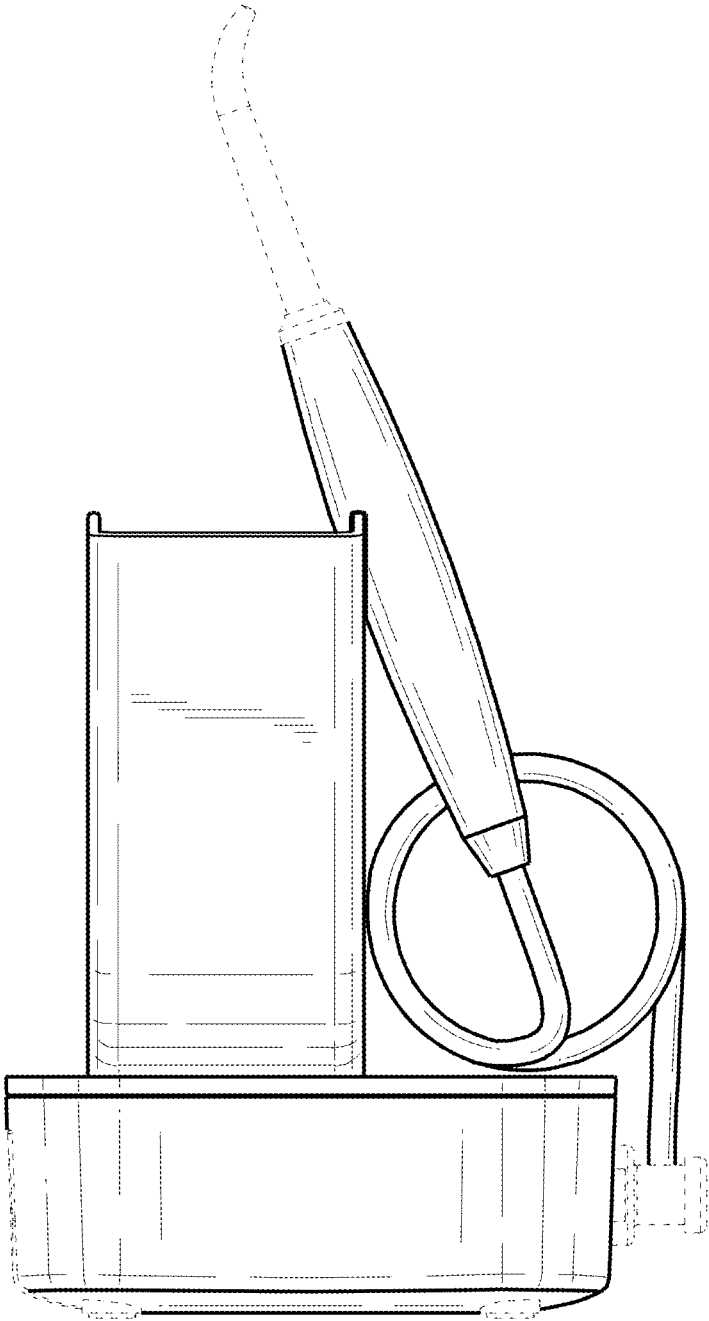


FIG. 5

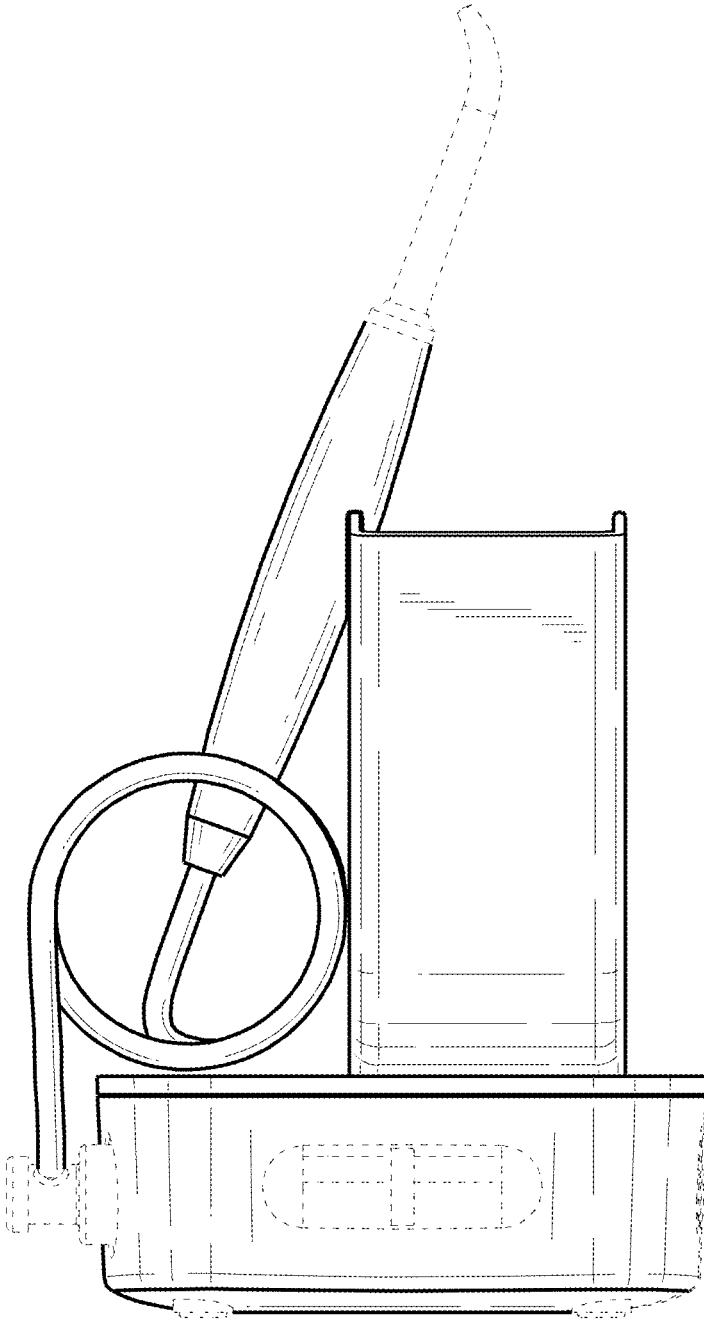


FIG. 6

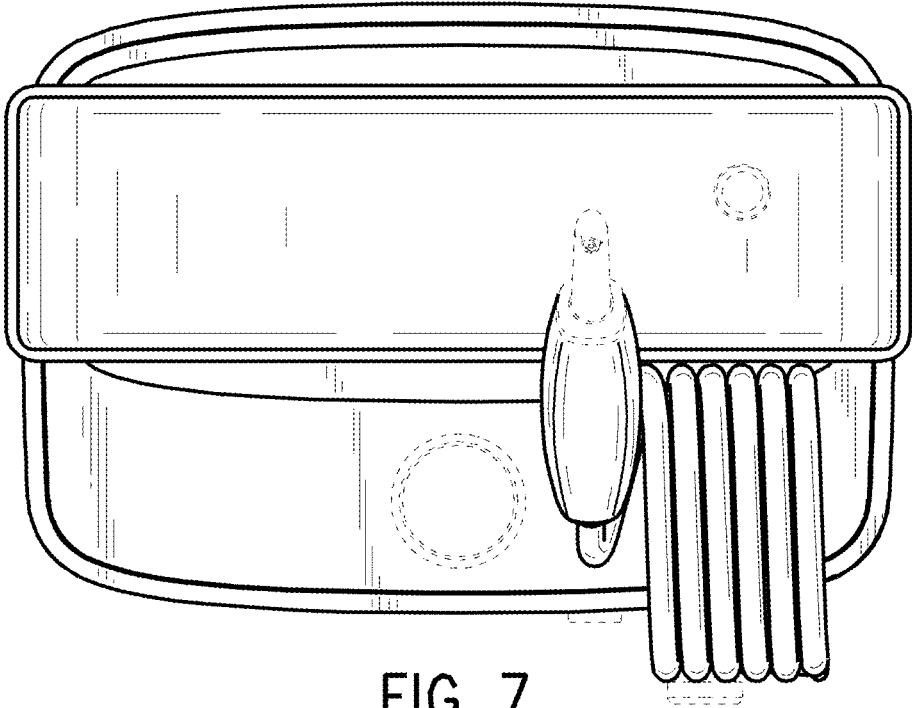


FIG. 7

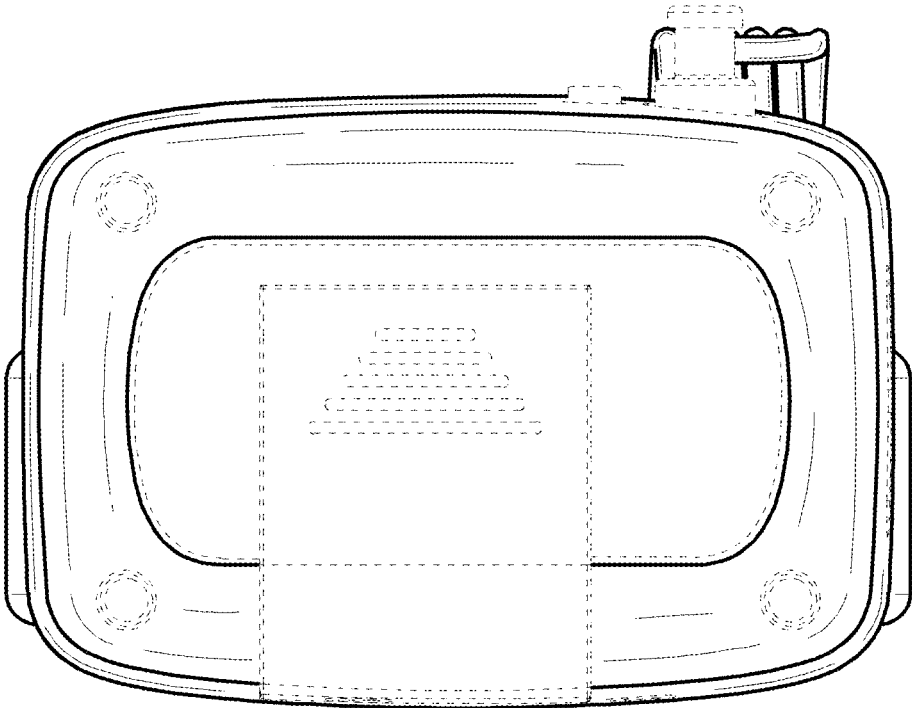


FIG. 8