



US00D872227S

(12) **United States Design Patent** (10) **Patent No.:** **US D872,227 S**
Ladwig et al. (45) **Date of Patent:** **** Jan. 7, 2020**

(54) **HANDHELD SPRAY DEVICE**
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854,094 A 5/1907 Klein
926,929 A 7/1909 Dusseau
1,001,842 A 8/1911 Greenfield
1,003,037 A 9/1911 Crowe
1,018,143 A 2/1912 Vissering
(Continued)

FOREIGN PATENT DOCUMENTS

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CA 659510 3/1963
CA 2341041 8/1999
(Continued)

(**) Term: **15 Years**

OTHER PUBLICATIONS

(21) Appl. No.: **29/644,769**

(22) Filed: **Apr. 20, 2018**

Author Unknown, "Flipside: The Bold Look of Kohler," 1 page, at least as early as Jun. 2011.

(51) **LOC (12) Cl.** **23-01**

(Continued)

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

USPC **D23/223**

(58) **Field of Classification Search**

USPC D23/213, 223, 226, 228
CPC .. B05B 1/00; B05B 1/02; B05B 1/005; B05B 1/14; B05B 1/18; B05B 1/185

See application file for complete search history.

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(57) **CLAIM**

We claim the ornamental design for a handheld spray device, as shown and described.

(56) **References Cited**

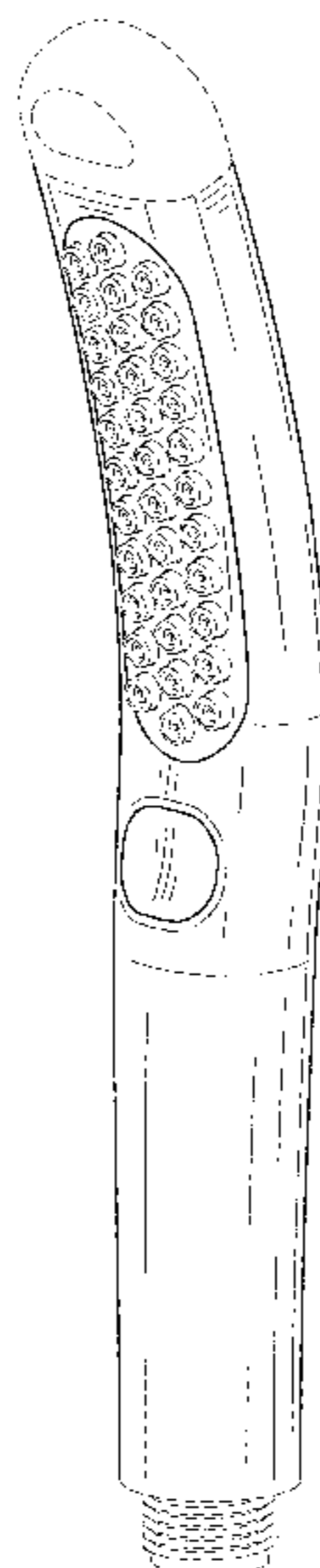
U.S. PATENT DOCUMENTS

203,094 A 4/1878 Wakeman
204,333 A 5/1878 Josias
309,349 A 12/1884 Hart
428,023 A 5/1890 Schoff
432,712 A 7/1890 Taylor
445,250 A 1/1891 Lawless
453,109 A 5/1891 Dreisorner
486,986 A 11/1892 Schinke
566,384 A 8/1896 Engelhart
566,410 A 8/1896 Schinke
570,405 A 10/1896 Jerguson et al.
694,888 A 3/1902 Pfluger
800,802 A 10/1905 Franquist
832,523 A 10/1906 Andersson
835,678 A 11/1906 Hammond
845,540 A 2/1907 Ferguson

DESCRIPTION

FIG. 1 is a front isometric view of a handheld spray device, showing our new design.
FIG. 2 is a rear isometric view thereof.
FIG. 3 is a front elevation view thereof.
FIG. 4 is a rear elevation view thereof.
FIG. 5 is a right side elevation view thereof.
FIG. 6 is a left side elevation view thereof.
FIG. 7 is a top plan view thereof; and,
FIG. 8 is a bottom plan view thereof.
The broken lines illustrate portions of the handheld spray device that form no part of the claimed design.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

1,046,573 A	12/1912	Ellis	2,992,437 A	7/1961	Nelson et al.
1,130,520 A	3/1915	Kenney	3,007,648 A	11/1961	Fraser
1,203,466 A	10/1916	Benson	D192,935 S	5/1962	Becker
1,217,254 A	2/1917	Winslow	3,032,357 A	5/1962	Shames et al.
1,218,895 A	3/1917	Porter	3,034,809 A	5/1962	Greenberg
1,255,577 A	2/1918	Berry	3,037,799 A	6/1962	Mulac
1,260,181 A	3/1918	Garnero	3,081,339 A	3/1963	Green et al.
1,276,117 A	8/1918	Riebe	3,092,333 A	6/1963	Gaiotto
1,284,099 A	11/1918	Harris	3,098,508 A	7/1963	Gerdes
1,327,428 A	1/1920	Gregory	3,103,723 A	9/1963	Becker
1,451,800 A	4/1923	Agner	3,104,815 A	9/1963	Schultz
1,459,582 A	6/1923	Dubee	3,104,827 A	9/1963	Aghnides
1,469,528 A	10/1923	Owens	3,111,277 A	11/1963	Grimsley
1,500,921 A	7/1924	Bramson et al.	3,112,073 A	11/1963	Larson et al.
1,560,789 A	11/1925	Johnson et al.	3,143,857 A	8/1964	Eaton
1,597,477 A	8/1926	Panhorst	3,196,463 A	7/1965	Farneth
1,633,531 A	6/1927	Keller	3,231,200 A	1/1966	Heald
1,669,949 A	5/1928	Reynolds	3,236,545 A	2/1966	Parkes et al.
1,692,394 A	11/1928	Sundh	3,239,152 A	3/1966	Bachli et al.
1,695,263 A	12/1928	Jacques	3,266,059 A	8/1966	Stelle
1,724,147 A	8/1929	Russell	3,272,437 A	9/1966	Coson
1,724,161 A	8/1929	Wuesthoff	3,273,359 A	9/1966	Fregeolle
1,736,160 A	11/1929	Jonsson	3,306,634 A	2/1967	Groves et al.
1,754,127 A	4/1930	Srulowitz	3,323,148 A	6/1967	Burnon
1,758,115 A	5/1930	Kelly	3,329,967 A	7/1967	Martinez et al.
1,778,658 A	10/1930	Baker	3,341,132 A	9/1967	Parkison
1,821,274 A	9/1931	Plummer	3,342,419 A	9/1967	Weese
1,849,517 A	3/1932	Fraser	3,344,994 A	10/1967	Fife
1,890,156 A	12/1932	Konig	3,363,842 A	1/1968	Burns
1,906,575 A	5/1933	Goeriz	3,383,051 A	5/1968	Fiorentino
1,934,553 A	11/1933	Mueller et al.	3,389,925 A	6/1968	Gottschald
1,946,207 A	2/1934	Haire	3,393,311 A	7/1968	Dahl
2,011,446 A	8/1935	Judell	3,393,312 A	7/1968	Dahl
2,024,930 A	12/1935	Judell	3,404,410 A	10/1968	Sumida
2,033,467 A	3/1936	Groeniger	3,492,029 A	1/1970	French et al.
2,044,445 A	6/1936	Price et al.	3,516,611 A	6/1970	Piggott
2,085,854 A	7/1937	Hathaway et al.	3,546,961 A	12/1970	Marton
2,096,912 A	10/1937	Morris	3,550,863 A	12/1970	McDermott
2,117,152 A	5/1938	Crosti	3,552,436 A	1/1971	Stewart
D113,439 S	2/1939	Reinecke	3,565,116 A	2/1971	Gabin
2,196,783 A	4/1940	Shook	3,566,917 A	3/1971	White
2,197,667 A	4/1940	Shook	3,580,513 A	5/1971	Martin
2,216,149 A	10/1940	Weiss	3,584,822 A	6/1971	Oram
D126,433 S	4/1941	Enthof	3,596,835 A	8/1971	Smith et al.
2,251,192 A	7/1941	Krumsiek et al.	3,612,577 A	10/1971	Pope
2,268,263 A	12/1941	Newell et al.	3,637,143 A	1/1972	Shames et al.
2,285,831 A	6/1942	Pennypacker	3,641,333 A	2/1972	Gendron
2,342,757 A	2/1944	Roser	3,647,144 A	3/1972	Parkison et al.
2,402,741 A	6/1946	Draviner	3,663,044 A	5/1972	Contreras et al.
D147,258 S	8/1947	Becker	3,669,470 A	6/1972	Deurloo
D152,584 S	2/1949	Becker	3,672,648 A	6/1972	Price
2,467,954 A	4/1949	Becker	3,682,392 A	8/1972	Kint
2,518,709 A	8/1950	Mosby, Jr.	3,685,745 A	8/1972	Peschcke-koedt
2,546,348 A	3/1951	Schuman	D224,834 S	9/1972	Laudell
2,567,642 A	9/1951	Penshaw	3,711,029 A	1/1973	Bartlett
2,581,129 A	1/1952	Muldoon	3,722,798 A	3/1973	Bletcher et al.
D166,073 S	3/1952	Dunkelberger	3,722,799 A	3/1973	Rauh
2,648,762 A	8/1953	Dunkelberger	3,731,084 A	5/1973	Trevorrow
2,664,271 A	12/1953	Arutunoff	3,754,779 A	8/1973	Peress
2,671,693 A	3/1954	Hyser et al.	D228,622 S	10/1973	Juhlin
2,676,806 A	4/1954	Bachman	3,762,648 A	10/1973	Deines et al.
2,679,575 A	5/1954	Haberstump	3,768,735 A	10/1973	Ward
2,680,358 A	6/1954	Zublin	3,786,995 A	1/1974	Manoogian et al.
2,726,120 A	12/1955	Bletcher et al.	3,801,019 A	4/1974	Trenary et al.
2,759,765 A	8/1956	Pawley	3,810,580 A	5/1974	Rauh
2,776,168 A	1/1957	Schweda	3,826,454 A	7/1974	Zieger
2,792,847 A	5/1957	Spencer	3,840,734 A	10/1974	Oram
2,873,999 A	2/1959	Webb	3,845,291 A	10/1974	Portyrata
2,930,505 A	3/1960	Meyer	3,860,271 A	1/1975	Rodgers
2,931,672 A	4/1960	Merritt et al.	3,861,719 A	1/1975	Hand
2,935,265 A	5/1960	Richter	3,865,310 A	2/1975	Elkins et al.
2,949,242 A	8/1960	Blumberg et al.	3,869,151 A	3/1975	Fletcher et al.
2,957,587 A	10/1960	Tobin	3,887,136 A	6/1975	Anderson
2,966,311 A	12/1960	Davis	3,896,845 A	7/1975	Parker
D190,295 S	5/1961	Becker	3,902,671 A	9/1975	Symmons
			3,910,277 A	10/1975	Zimmer
			D237,708 S	11/1975	Grohe
			3,929,164 A	12/1975	Richter
			3,929,287 A	12/1975	Givler et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

3,958,756 A	5/1976	Trenary et al.	4,467,964 A	8/1984	Kaeser
D240,322 S	6/1976	Staub	4,495,550 A	1/1985	Visciano
3,963,179 A	6/1976	Tomaro	4,527,745 A	7/1985	Butterfield et al.
3,967,783 A	7/1976	Halsted et al.	4,540,202 A	9/1985	Amphoux et al.
3,979,096 A	9/1976	Zieger	4,545,081 A	10/1985	Nestor et al.
3,994,443 A	11/1976	Shenker	4,553,775 A	11/1985	Halling
3,997,116 A	12/1976	Moen	D281,820 S	12/1985	Oba et al.
3,998,390 A	12/1976	Peterson et al.	4,561,593 A	12/1985	Cammack et al.
3,999,714 A	12/1976	Lang	4,564,889 A	1/1986	Bolson
4,005,880 A	2/1977	Anderson et al.	4,571,003 A	2/1986	Roling et al.
4,006,920 A	2/1977	Sadler et al.	4,572,232 A	2/1986	Gruber
4,023,782 A	5/1977	Eifer	D283,645 S	4/1986	Tanaka
4,042,984 A	8/1977	Butler	4,587,991 A	5/1986	Chorkey
4,045,054 A	8/1977	Arnold	4,588,130 A	5/1986	Trenary et al.
D245,858 S	9/1977	Grube	4,598,866 A	7/1986	Cammack et al.
D245,860 S	9/1977	Grube	4,614,303 A	9/1986	Moseley, Jr. et al.
4,068,801 A	1/1978	Leutheuser	4,616,298 A	10/1986	Bolson
4,081,135 A	3/1978	Tomaro	4,618,100 A	10/1986	White et al.
4,084,271 A	4/1978	Ginsberg	4,629,124 A	12/1986	Gruber
4,091,998 A	5/1978	Peterson	4,629,125 A	12/1986	Liu
D249,356 S	9/1978	Nagy	4,643,463 A	2/1987	Halling et al.
4,117,979 A	10/1978	Lagarelli et al.	4,645,244 A	2/1987	Curtis
4,129,257 A	12/1978	Eggert	RE32,386 E	3/1987	Hunter
4,130,120 A	12/1978	Kohler, Jr.	4,650,120 A	3/1987	Kress
4,131,233 A	12/1978	Koenig	4,650,470 A	3/1987	Epstein
4,133,486 A	1/1979	Fanella	4,652,025 A	3/1987	Conroy, Sr.
4,135,549 A	1/1979	Baker	4,654,900 A	4/1987	McGhee
D251,045 S	2/1979	Grube	4,657,185 A	4/1987	Rundzaitis
4,141,502 A	2/1979	Grohe	4,669,666 A	6/1987	Finkbeiner
4,151,955 A	5/1979	Stouffer	4,669,757 A	6/1987	Bartholomew
4,151,957 A	5/1979	Gecewicz et al.	4,674,687 A	6/1987	Smith et al.
4,162,801 A	7/1979	Kresky et al.	4,683,917 A	8/1987	Bartholomew
4,165,837 A	8/1979	Rundzaitis	4,703,893 A	11/1987	Gruber
4,167,196 A	9/1979	Morris	4,717,180 A	1/1988	Roman
4,174,822 A	11/1979	Larsson	4,719,654 A	1/1988	Blessing
4,185,781 A	1/1980	O'Brien	4,733,337 A	3/1988	Bieberstein
4,190,207 A	2/1980	Fienhold et al.	D295,437 S	4/1988	Fabian
4,191,332 A	3/1980	De Langis et al.	4,739,801 A	4/1988	Kimura et al.
4,203,550 A	5/1980	On	4,749,126 A	6/1988	Kessener et al.
4,209,132 A	6/1980	Kwan	D296,582 S	7/1988	Haug et al.
D255,626 S	7/1980	Grube	4,754,928 A	7/1988	Rogers et al.
4,219,160 A	8/1980	Allred, Jr.	D297,160 S	8/1988	Robbins
4,221,338 A	9/1980	Shames et al.	4,764,047 A	8/1988	Johnston et al.
4,239,409 A	12/1980	Osrwo	4,778,104 A	10/1988	Fisher
4,243,253 A	1/1981	Rogers, Jr.	4,778,111 A	10/1988	Leap
4,244,526 A	1/1981	Arth	4,787,591 A	11/1988	Villacorta
D258,677 S	3/1981	Larsson	4,790,294 A	12/1988	Allred, III et al.
4,254,914 A	3/1981	Shames et al.	4,801,091 A	1/1989	Sandvik
4,258,414 A	3/1981	Sokol	4,809,369 A	3/1989	Bowden
4,272,022 A	6/1981	Evans	4,839,599 A	6/1989	Fischer
4,274,400 A	6/1981	Baus	4,841,590 A	6/1989	Terry
4,275,843 A	6/1981	Moen	4,842,059 A	6/1989	Tomek
4,282,612 A	8/1981	King	D302,325 S	7/1989	Charet et al.
D261,300 S	10/1981	Klose	4,850,616 A	7/1989	Pava
D261,417 S	10/1981	Klose	4,854,499 A	8/1989	Neuman
4,303,201 A	12/1981	Elkins et al.	4,856,822 A	8/1989	Parker
4,319,608 A	3/1982	Raikov et al.	4,865,362 A	9/1989	Holden
4,324,364 A	4/1982	Buzzi et al.	D303,830 S	10/1989	Ramsey et al.
4,330,089 A	5/1982	Finkbeiner	4,871,196 A	10/1989	Kingsford
D266,212 S	9/1982	Haug et al.	4,896,658 A	1/1990	Yonekubo et al.
4,350,298 A	9/1982	Tada	D306,351 S	2/1990	Charet et al.
4,353,508 A	10/1982	Butterfield et al.	4,901,927 A	2/1990	Valdivia
4,358,056 A	11/1982	Greenhut et al.	4,903,178 A	2/1990	Englot et al.
D267,582 S	1/1983	Mackay et al.	4,903,897 A	2/1990	Hayes
D268,359 S	3/1983	Klose	4,903,922 A	2/1990	Harris, III
D268,442 S	3/1983	Darmon	4,907,137 A	3/1990	Schladitz et al.
D268,611 S	4/1983	Klose	4,907,744 A	3/1990	Jousson
4,383,554 A	5/1983	Merriman	4,909,435 A	3/1990	Kidouchi et al.
4,396,797 A	8/1983	Sakuragi et al.	4,914,759 A	4/1990	Goff
4,398,669 A	8/1983	Fienhold	4,946,202 A	8/1990	Perricone
4,425,965 A	1/1984	Bayh, III et al.	4,951,329 A	8/1990	Shaw
4,432,392 A	2/1984	Paley	4,953,585 A	9/1990	Rollini et al.
D274,457 S	6/1984	Haug	4,964,573 A	10/1990	Lipski
4,461,052 A	7/1984	Mostul	4,972,048 A	11/1990	Martin
4,465,308 A	8/1984	Martini	D313,267 S	12/1990	Lenci et al.
			4,976,460 A	12/1990	Newcombe et al.
			D314,246 S	1/1991	Bache
			D315,191 S	3/1991	Mikol
			4,998,673 A	3/1991	Pilolla

(56)

References Cited

U.S. PATENT DOCUMENTS

5,004,158 A	4/1991	Halem et al.	D341,220 S	11/1993	Eagan
D317,348 S	6/1991	Geneve et al.	5,263,646 A	11/1993	McCauley
5,020,570 A	6/1991	Cotter	5,265,833 A	11/1993	Heimann et al.
5,022,103 A	6/1991	Faist	5,268,826 A	12/1993	Greene
D317,968 S	7/1991	Tsai	5,276,596 A	1/1994	Krenzel
5,032,015 A	7/1991	Christianson	5,277,391 A	1/1994	Haug et al.
5,033,528 A	7/1991	Volcani	5,286,071 A	2/1994	Storage
5,033,897 A	7/1991	Chen	5,288,110 A	2/1994	Allread
D319,294 S	8/1991	Kohler, Jr. et al.	5,294,054 A	3/1994	Benedict et al.
D320,064 S	9/1991	Presman	5,297,735 A	3/1994	Heimann et al.
5,046,764 A	9/1991	Kimura et al.	5,297,739 A	3/1994	Allen
D321,062 S	10/1991	Bonbright	D345,811 S	4/1994	Van Deursen et al.
5,058,804 A	10/1991	Yonekubo et al.	D346,426 S	4/1994	Warshawsky
D322,119 S	12/1991	Haug et al.	D346,428 S	4/1994	Warshawsky
D322,681 S	12/1991	Yuen	D346,430 S	4/1994	Warshawsky
5,070,552 A	12/1991	Gentry et al.	D347,262 S	5/1994	Black et al.
D323,545 S	1/1992	Ward	D347,265 S	5/1994	Gottwald
5,082,019 A	1/1992	Tetrault	5,316,216 A	5/1994	Cammack et al.
5,086,878 A	2/1992	Swift	D348,720 S	7/1994	Haug et al.
5,090,624 A	2/1992	Rogers	5,329,650 A	7/1994	Zaccai et al.
5,100,055 A	3/1992	Rokitenetz et al.	D349,947 S	8/1994	Hing-Wah
D325,769 S	4/1992	Haug et al.	5,333,787 A	8/1994	Smith et al.
D325,770 S	4/1992	Haug et al.	5,333,789 A	8/1994	Garneys
5,103,384 A	4/1992	Drohan	5,340,064 A	8/1994	Heimann et al.
D326,311 S	5/1992	Lenci et al.	5,340,165 A	8/1994	Sheppard
D327,115 S	6/1992	Rogers	D350,808 S	9/1994	Warshawsky
5,121,511 A	6/1992	Sakamoto et al.	5,344,080 A	9/1994	Matsui
D327,729 S	7/1992	Rogers	5,349,987 A	9/1994	Shieh
5,127,580 A	7/1992	Fu-I	5,356,076 A	10/1994	Bishop
5,134,251 A	7/1992	Martin	5,356,077 A	10/1994	Shames
D328,944 S	8/1992	Robbins	D352,092 S	11/1994	Warshawsky
5,141,016 A	8/1992	Nowicki	D352,347 S	11/1994	Dannenberg
D329,504 S	9/1992	Yuen	D352,766 S	11/1994	Hill et al.
5,143,300 A	9/1992	Cutler	5,368,235 A	11/1994	Drozdoff et al.
5,145,114 A	9/1992	Monch	5,369,556 A	11/1994	Zeller
5,148,556 A	9/1992	Bottoms et al.	5,370,427 A	12/1994	Hoelle et al.
D330,068 S	10/1992	Haug et al.	5,385,500 A	1/1995	Schmidt
D330,408 S	10/1992	Thacker	D355,242 S	2/1995	Warshawsky
D330,409 S	10/1992	Raffo	D355,703 S	2/1995	Duell
5,153,976 A	10/1992	Benchaar et al.	D356,626 S	3/1995	Wang
5,154,355 A	10/1992	Gonzalez	5,397,064 A	3/1995	Heitzman
5,154,483 A	10/1992	Zeller	5,398,872 A	3/1995	Joubran
5,161,567 A	11/1992	Humpert	5,398,977 A	3/1995	Berger et al.
5,163,752 A	11/1992	Copeland et al.	5,402,812 A	4/1995	Moineau et al.
5,171,429 A	12/1992	Yasuo	5,405,089 A	4/1995	Heimann et al.
5,172,860 A	12/1992	Yuch	5,414,879 A	5/1995	Hiraishi et al.
5,172,862 A	12/1992	Heimann et al.	5,423,348 A	6/1995	Jezeq et al.
5,172,866 A	12/1992	Ward	5,433,384 A	7/1995	Chan et al.
D332,303 S	1/1993	Klose	D361,399 S	8/1995	Carbone et al.
D332,994 S	2/1993	Huen	D361,623 S	8/1995	Huen
D333,339 S	2/1993	Klose	5,441,075 A	8/1995	Clare
5,197,767 A	3/1993	Kimura et al.	5,449,206 A	9/1995	Lockwood
D334,794 S	4/1993	Klose	D363,360 S	10/1995	Santarsiero
D335,171 S	4/1993	Lenci et al.	5,454,809 A	10/1995	Janssen
5,201,468 A	4/1993	Freier et al.	5,468,057 A	11/1995	Megerle et al.
5,206,963 A	5/1993	Wiens	D364,935 S	12/1995	deBlois
5,207,499 A	5/1993	Vajda et al.	D365,625 S	12/1995	Bova
5,213,267 A	5/1993	Heimann et al.	D365,646 S	12/1995	deBlois
5,220,697 A	6/1993	Birchfield	5,476,225 A	12/1995	Chan
D337,839 S	7/1993	Zeller	D366,309 S	1/1996	Huang
5,228,625 A	7/1993	Grassberger	D366,707 S	1/1996	Kaiser
5,230,106 A	7/1993	Henkin et al.	D366,708 S	1/1996	Santarsiero
D338,542 S	8/1993	Yuen	D366,709 S	1/1996	Szymanski
5,232,162 A	8/1993	Chih	D366,710 S	1/1996	Szymanski
D339,492 S	9/1993	Klose	5,481,765 A	1/1996	Wang
D339,627 S	9/1993	Klose	D366,948 S	2/1996	Carbone
D339,848 S	9/1993	Gottwald	D367,315 S	2/1996	Andrus
5,246,169 A	9/1993	Heimann et al.	D367,333 S	2/1996	Swyst
5,246,301 A	9/1993	Hirasawa	D367,696 S	3/1996	Andrus
D340,376 S	10/1993	Klose	D367,934 S	3/1996	Carbone
5,253,670 A	10/1993	Perrott	D368,146 S	3/1996	Carbone
5,253,807 A	10/1993	Newbegin	D368,317 S	3/1996	Swyst
5,254,809 A	10/1993	Martin	5,499,767 A	3/1996	Morand
D341,007 S	11/1993	Haug et al.	D368,539 S	4/1996	Carbone et al.
D341,191 S	11/1993	Klose	D368,540 S	4/1996	Santarsiero
			D368,541 S	4/1996	Kaiser et al.
			D368,542 S	4/1996	deBlois et al.
			D369,204 S	4/1996	Andrus
			D369,205 S	4/1996	Andrus

(56)

References Cited

U.S. PATENT DOCUMENTS

5,507,436 A	4/1996	Ruttenberg	D385,334 S	10/1997	Caroen et al.
D369,873 S	5/1996	deBlois et al.	D385,616 S	10/1997	Dow et al.
D369,874 S	5/1996	Santarsiero	D385,947 S	11/1997	Dow et al.
D369,875 S	5/1996	Carbone	D387,230 S	12/1997	von Buelow et al.
D370,052 S	5/1996	Chan et al.	5,697,557 A	12/1997	Blessing et al.
D370,250 S	5/1996	Fawcett et al.	5,699,964 A	12/1997	Bergmann et al.
D370,277 S	5/1996	Kaiser	5,702,057 A	12/1997	Huber
D370,278 S	5/1996	Nolan	D389,558 S	1/1998	Andrus
D370,279 S	5/1996	deBlois	5,704,080 A	1/1998	Kuhne
D370,280 S	5/1996	Kaiser	5,707,011 A	1/1998	Bosio
D370,281 S	5/1996	Johnstone et al.	5,718,380 A	2/1998	Schorh et al.
5,517,392 A	5/1996	Rouso et al.	D392,369 S	3/1998	Chan
5,521,803 A	5/1996	Eckert et al.	5,730,361 A	3/1998	Thonnes
D370,542 S	6/1996	Santarsiero	5,730,362 A	3/1998	Cordes
D370,735 S	6/1996	deBlois	5,730,363 A	3/1998	Kress
D370,987 S	6/1996	Santarsiero	5,742,961 A	4/1998	Casperson et al.
D370,988 S	6/1996	Santarsiero	D394,490 S	5/1998	Andrus et al.
D371,448 S	7/1996	Santarsiero	5,746,375 A	5/1998	Guo
D371,618 S	7/1996	Nolan	5,749,552 A	5/1998	Fan
D371,619 S	7/1996	Szymanski	5,749,602 A	5/1998	Delaney et al.
D371,856 S	7/1996	Carbone	D394,899 S	6/1998	Caroen et al.
D372,318 S	7/1996	Szymanski	D395,074 S	6/1998	Neibrook et al.
D372,319 S	7/1996	Carbone	D395,075 S	6/1998	Kolada
5,531,625 A	7/1996	Zhong	D395,142 S	6/1998	Neibrook
5,539,624 A	7/1996	Dougherty	5,764,760 A	6/1998	Grandbert et al.
D372,548 S	8/1996	Carbone	5,765,760 A	6/1998	Kuo
D372,998 S	8/1996	Carbone	5,769,802 A	6/1998	Wang
D373,210 S	8/1996	Santarsiero	5,772,120 A	6/1998	Huber
5,547,132 A	8/1996	Grogran	5,778,939 A	7/1998	Hok-Yin
5,547,374 A	8/1996	Coleman	5,788,157 A	8/1998	Kress
D373,434 S	9/1996	Nolan	D398,370 S	9/1998	Purdy
D373,435 S	9/1996	Nolan	5,806,771 A	9/1998	Loschelder et al.
D373,645 S	9/1996	Johnstone et al.	5,819,791 A	10/1998	Chronister et al.
D373,646 S	9/1996	Szymanski et al.	5,820,574 A	10/1998	Henkin et al.
D373,647 S	9/1996	Kaiser	5,823,431 A	10/1998	Pierce
D373,648 S	9/1996	Kaiser	5,823,442 A	10/1998	Guo
D373,649 S	9/1996	Carbone	5,826,803 A	10/1998	Cooper
D373,651 S	9/1996	Szymanski	5,833,138 A	11/1998	Crane et al.
D373,652 S	9/1996	Kaiser	5,839,666 A	11/1998	Heimann et al.
5,551,637 A	9/1996	Lo	D402,350 S	12/1998	Andrus
5,552,973 A	9/1996	Hsu	D403,754 S	1/1999	Gottwald
5,558,278 A	9/1996	Gallorini	D404,116 S	1/1999	Bosio
D374,271 S	10/1996	Fleischmann	5,855,348 A	1/1999	Fornara
D374,297 S	10/1996	Kaiser	5,860,599 A	1/1999	Lin
D374,298 S	10/1996	Swyst	5,862,543 A	1/1999	Reynoso et al.
D374,299 S	10/1996	Carbone	5,862,985 A	1/1999	Neibrook et al.
D374,493 S	10/1996	Szymanski	D405,502 S	2/1999	Tse
D374,494 S	10/1996	Santarsiero	5,865,375 A	2/1999	Hsu
D374,732 S	10/1996	Kaiser	5,865,378 A	2/1999	Hollinshead et al.
D374,733 S	10/1996	Santarsiero	5,873,647 A	2/1999	Kurtz et al.
5,560,548 A	10/1996	Mueller et al.	D408,893 S	4/1999	Tse
5,567,115 A	10/1996	Carbone	D409,276 S	5/1999	Ratzlaff
D375,541 S	11/1996	Michaluk	D410,276 S	5/1999	Ben-Tsur
5,577,664 A	11/1996	Heitzman	5,918,809 A	7/1999	Simmons
D376,217 S	12/1996	Kaiser	5,918,811 A	7/1999	Denham et al.
D376,860 S	12/1996	Santarsiero	D413,157 S	8/1999	Ratzlaff
D376,861 S	12/1996	Johnstone et al.	5,937,905 A	8/1999	Santos
D376,862 S	12/1996	Carbone	5,938,123 A	8/1999	Heitzman
5,605,173 A	2/1997	Arnaud	5,941,462 A	8/1999	Sandor
D378,401 S	3/1997	Neufeld et al.	5,947,388 A	9/1999	Woodruff
5,613,638 A	3/1997	Blessing	D415,247 S	10/1999	Haverstraw et al.
5,613,639 A	3/1997	Storm et al.	5,961,046 A	10/1999	Joubran
5,615,837 A	4/1997	Roman	5,967,417 A	10/1999	Mantel
5,624,074 A	4/1997	Parisi	5,979,776 A	11/1999	Williams
5,624,498 A	4/1997	Lee et al.	5,992,762 A	11/1999	Wang
D379,212 S	5/1997	Chan	D418,200 S	12/1999	Ben-Tsur
D379,404 S	5/1997	Spelts	5,997,047 A	12/1999	Pimentel et al.
5,632,049 A	5/1997	Chen	6,003,165 A	12/1999	Loyd
D381,405 S	7/1997	Waidele et al.	D418,902 S	1/2000	Haverstraw et al.
D381,737 S	7/1997	Chan	D418,903 S	1/2000	Haverstraw et al.
D382,936 S	8/1997	Shfaram	D418,904 S	1/2000	Milrud
5,653,260 A	8/1997	Huber	6,016,975 A	1/2000	Amaduzzi
5,667,146 A	9/1997	Pimentel et al.	D421,099 S	2/2000	Mullenmeister
D385,332 S	10/1997	Andrus	6,021,960 A	2/2000	Kehat
D385,333 S	10/1997	Caroen et al.	D422,053 S	3/2000	Brenner et al.
			6,042,027 A	3/2000	Sandvik
			6,042,155 A	3/2000	Lockwood
			D422,336 S	4/2000	Haverstraw et al.
			D422,337 S	4/2000	Chan

(56)

References Cited

U.S. PATENT DOCUMENTS

D423,083 S	4/2000	Haug et al.	D453,370 S	2/2002	Lindholm et al.
D423,110 S	4/2000	Cipkowski	D453,551 S	2/2002	Lindholm et al.
D424,160 S	5/2000	Haug et al.	6,349,735 B2	2/2002	Gul
D424,161 S	5/2000	Haug et al.	D454,617 S	3/2002	Curbbun et al.
D424,162 S	5/2000	Haug et al.	D454,938 S	3/2002	Lord
D424,163 S	5/2000	Haug et al.	6,375,342 B1	4/2002	Koren et al.
D426,290 S	6/2000	Haug et al.	D457,937 S	5/2002	Lindholm et al.
D427,661 S	7/2000	Haverstraw et al.	6,382,531 B1	5/2002	Tracy
D428,110 S	7/2000	Haug et al.	D458,348 S	6/2002	Mullenmeister
D428,125 S	7/2000	Chan	6,412,711 B1	7/2002	Fan
6,085,780 A	7/2000	Morris	D461,224 S	8/2002	Lobermeier
D430,267 S	8/2000	Milrud et al.	D461,878 S	8/2002	Green et al.
6,095,801 A	8/2000	Spiewak	6,450,425 B1	9/2002	Chen
D430,643 S	9/2000	Tse	6,454,186 B2	9/2002	Haverstraw et al.
6,113,002 A	9/2000	Finkbeiner	6,463,658 B1	10/2002	Larsson
6,123,272 A	9/2000	Havican et al.	6,464,265 B1	10/2002	Mikol
6,123,308 A	9/2000	Faisst	D465,552 S	11/2002	Tse
D432,624 S	10/2000	Chan	D465,553 S	11/2002	Singtoroj
D432,625 S	10/2000	Chan	6,484,952 B2	11/2002	Koren
D433,096 S	10/2000	Tse	D468,800 S	1/2003	Tse
D433,097 S	10/2000	Tse	D469,165 S	1/2003	Lim
6,126,091 A	10/2000	Heitzman	6,502,796 B1	1/2003	Wales
6,126,290 A	10/2000	Veigel	6,508,415 B2	1/2003	Wang
D434,109 S	11/2000	Ko	6,511,001 B1	1/2003	Huang
6,164,569 A	12/2000	Hollinshead et al.	D470,219 S	2/2003	Schweitzer
6,164,570 A	12/2000	Smeltzer	6,516,070 B2	2/2003	Macey
D435,889 S	1/2001	Ben-Tsur et al.	D471,253 S	3/2003	Tse
D439,305 S	3/2001	Slothower	D471,953 S	3/2003	Colligan et al.
6,199,580 B1	3/2001	Morris	6,533,194 B2	3/2003	Marsh et al.
6,202,679 B1	3/2001	Titus	6,537,455 B2	3/2003	Farley
D440,276 S	4/2001	Slothower	D472,958 S	4/2003	Ouyoung
D440,277 S	4/2001	Slothower	6,550,697 B2	4/2003	Lai
D440,278 S	4/2001	Slothower	6,585,174 B1	7/2003	Huang
D441,059 S	4/2001	Fleischmann	6,595,439 B1	7/2003	Chen
6,209,799 B1	4/2001	Finkbeiner	6,607,148 B1	8/2003	Marsh et al.
D443,025 S	5/2001	Kollmann et al.	6,611,971 B1	9/2003	Antoniello et al.
D443,026 S	5/2001	Kollmann et al.	6,637,676 B2	10/2003	Zieger et al.
D443,027 S	5/2001	Kollmann et al.	6,641,057 B2	11/2003	Thomas et al.
D443,029 S	5/2001	Kollmann et al.	D483,837 S	12/2003	Fan
6,223,998 B1	5/2001	Heitzman	6,659,117 B2	12/2003	Gilmore
6,230,984 B1	5/2001	Jager	6,659,372 B2	12/2003	Marsh et al.
6,230,988 B1	5/2001	Chao et al.	D485,887 S	1/2004	Luetzgen et al.
6,230,989 B1	5/2001	Haverstraw et al.	D486,888 S	2/2004	Lobermeier
D443,335 S	6/2001	Andrus	6,691,338 B2	2/2004	Zieger
D443,336 S	6/2001	Kollmann et al.	6,691,933 B1	2/2004	Bosio
D443,347 S	6/2001	Gottwald	D487,301 S	3/2004	Haug et al.
6,241,166 B1	6/2001	Overington et al.	D487,498 S	3/2004	Blomstrom
6,250,572 B1	6/2001	Chen	6,701,953 B2	3/2004	Agosta
D444,846 S	7/2001	Cross	6,715,699 B1	4/2004	Greenberg et al.
D444,865 S	7/2001	Gottwald	6,719,218 B2	4/2004	Cool et al.
D445,871 S	7/2001	Fan	D489,798 S	5/2004	Hunt
6,254,014 B1	7/2001	Clearman et al.	D490,498 S	5/2004	Golichowski
6,270,278 B1	8/2001	Mauro	6,736,336 B2	5/2004	Wong
6,276,004 B1	8/2001	Bertrand et al.	6,739,523 B2	5/2004	Haverstraw et al.
6,283,447 B1	9/2001	Fleet	6,739,527 B1	5/2004	Chung
6,286,764 B1	9/2001	Garvey et al.	D492,004 S	6/2004	Haug et al.
D449,673 S	10/2001	Kollmann et al.	D492,007 S	6/2004	Kollmann et al.
D450,370 S	11/2001	Wales et al.	6,742,725 B1	6/2004	Fan
D450,805 S	11/2001	Lindholm et al.	D493,208 S	7/2004	Lin
D450,806 S	11/2001	Lindholm et al.	D493,864 S	8/2004	Haug et al.
D450,807 S	11/2001	Lindholm et al.	D494,655 S	8/2004	Lin
D451,169 S	11/2001	Lindholm et al.	D494,661 S	8/2004	Zieger et al.
D451,170 S	11/2001	Lindholm et al.	D495,027 S	8/2004	Mazzola
D451,171 S	11/2001	Lindholm et al.	6,776,357 B1	8/2004	Naito
D451,172 S	11/2001	Lindholm et al.	6,789,751 B1	9/2004	Fan
6,321,777 B1	11/2001	Wu	D496,987 S	10/2004	Glunk
6,322,006 B1	11/2001	Guo	D497,974 S	11/2004	Haug et al.
D451,583 S	12/2001	Lindholm et al.	D498,514 S	11/2004	Haug et al.
D451,980 S	12/2001	Lindholm et al.	D500,121 S	12/2004	Blomstrom
D452,553 S	12/2001	Lindholm et al.	6,827,039 B1	12/2004	Nelson
D452,725 S	1/2002	Lindholm et al.	D500,549 S	1/2005	Blomstrom
D452,897 S	1/2002	Gillette et al.	D501,242 S	1/2005	Blomstrom
6,336,764 B1	1/2002	Liu	D502,760 S	3/2005	Zieger et al.
6,338,170 B1	1/2002	De Simone	D502,761 S	3/2005	Zieger et al.
D453,369 S	2/2002	Lobermeier	D503,211 S	3/2005	Lin
			D503,463 S	3/2005	Hughes et al.
			6,863,227 B2	3/2005	Wollenberg et al.
			6,869,030 B2	3/2005	Blessing et al.
			D503,774 S	4/2005	Zieger

(56)

References Cited

U.S. PATENT DOCUMENTS

D503,775 S	4/2005	Zieger	D566,229 S	4/2008	Rexach
D503,966 S	4/2005	Zieger	D567,328 S	4/2008	Spangler et al.
6,899,292 B2	5/2005	Titinet	D567,335 S	4/2008	Huang
D506,243 S	6/2005	Wu	7,360,723 B2	4/2008	Lev
D507,037 S	7/2005	Wu	7,364,097 B2	4/2008	Okuma
6,935,581 B2	8/2005	Titinet	7,374,112 B1	5/2008	Bulan et al.
D509,280 S	9/2005	Bailey et al.	7,384,007 B2	6/2008	Ho
D509,563 S	9/2005	Bailey et al.	D577,099 S	9/2008	Leber
D510,123 S	9/2005	Tsai	D577,793 S	9/2008	Leber
D511,809 S	11/2005	Haug et al.	D578,604 S	10/2008	Wu et al.
D512,119 S	11/2005	Haug et al.	D578,605 S	10/2008	Wu et al.
6,981,661 B1	1/2006	Chen	D578,608 S	10/2008	Wu et al.
D516,169 S	2/2006	Wu	D580,012 S	11/2008	Quinn et al.
7,000,854 B2	2/2006	Malek et al.	D580,513 S	11/2008	Quinn et al.
7,004,409 B2	2/2006	Okubo	D581,013 S	11/2008	Citterio
7,004,410 B2	2/2006	Li	D581,014 S	11/2008	Quinn et al.
D520,109 S	5/2006	Wu	D581,485 S *	11/2008	Kollmann D23/223
7,040,554 B2	5/2006	Drennow	D586,426 S	2/2009	Schoenherr et al.
7,048,210 B2	5/2006	Clark	7,503,345 B2	3/2009	Paterson et al.
7,055,767 B1	6/2006	Ko	D590,048 S	4/2009	Leber et al.
D525,341 S	7/2006	Bossini	7,520,448 B2	4/2009	Luetttgen et al.
7,070,125 B2	7/2006	Williams et al.	D592,276 S	5/2009	Shoenherr et al.
7,077,342 B2	7/2006	Lee	D592,278 S	5/2009	Leber
D527,440 S	8/2006	Macan	7,537,175 B2	5/2009	Miura et al.
7,093,780 B1	8/2006	Chung	D599,883 S *	9/2009	Tippens D23/223
7,097,122 B1	8/2006	Farley	D600,777 S	9/2009	Whitaker et al.
D527,790 S	9/2006	Hughes et al.	D603,935 S	11/2009	Leber
D528,631 S	9/2006	Gillette et al.	7,617,990 B2	11/2009	Huffman
7,100,845 B1	9/2006	Hsieh	D605,731 S	12/2009	Leber
7,111,795 B2	9/2006	Thong	D606,623 S	12/2009	Whitaker et al.
7,111,798 B2	9/2006	Thomas et al.	D606,626 S	12/2009	Zore
D529,986 S *	10/2006	Chan D23/213	D608,412 S	1/2010	Barnard et al.
D530,389 S	10/2006	Glenslak et al.	D608,413 S	1/2010	Barnard et al.
D530,392 S	10/2006	Tse	D616,061 S	5/2010	Whitaker et al.
D531,259 S	10/2006	Hsieh	7,721,979 B2	5/2010	Mazzola
7,114,666 B2	10/2006	Luetttgen et al.	D617,419 S	6/2010	Lee
D533,253 S	12/2006	Luetttgen et al.	D617,873 S	6/2010	Lee
D534,239 S	12/2006	Dingler et al.	7,740,186 B2	6/2010	Macan et al.
D535,354 S	1/2007	Wu	D621,904 S	8/2010	Yoo et al.
D536,060 S	1/2007	Sadler	D621,905 S	8/2010	Yoo et al.
7,156,325 B1	1/2007	Chen	7,770,820 B2	8/2010	Clearman et al.
7,182,043 B1	2/2007	Nelson	7,770,822 B2	8/2010	Leber
D538,391 S	3/2007	Mazzola	D624,156 S	9/2010	Leber
D538,395 S *	3/2007	Starck D23/223	7,789,326 B2	9/2010	Luetttgen et al.
D540,424 S	4/2007	Kirar	D625,776 S	10/2010	Williams
D540,425 S	4/2007	Endo et al.	7,832,662 B2	11/2010	Gallo
D540,426 S	4/2007	Cropelli	D628,676 S	12/2010	Lee
D540,427 S	4/2007	Bouroullec et al.	D629,867 S	12/2010	Rexach et al.
D542,391 S	5/2007	Gilbert	7,871,020 B2	1/2011	Nelson et al.
D542,393 S	5/2007	Haug et al.	D633,174 S *	2/2011	Lee D23/213
D544,573 S	6/2007	Dingler et al.	D637,694 S *	5/2011	Lammel D23/213
7,229,031 B2	6/2007	Schmidt	D641,830 S	7/2011	Alexander
7,243,863 B2	7/2007	Glunk	D641,831 S	7/2011	Williams
7,246,760 B2	7/2007	Marty et al.	7,992,807 B2	8/2011	Pan
D552,713 S	10/2007	Rexach	8,020,787 B2	9/2011	Leber
7,278,591 B2	10/2007	Clearman et al.	8,020,788 B2	9/2011	Luetttgen et al.
D556,295 S	11/2007	Genord et al.	8,028,935 B2	10/2011	Leber
7,299,510 B2	11/2007	Tsai	D652,108 S *	1/2012	Eads D23/223
D557,763 S	12/2007	Schoenherr et al.	D652,110 S *	1/2012	Nichols D23/223
D557,764 S	12/2007	Schoenherr et al.	D652,114 S	1/2012	Yoo
D557,765 S	12/2007	Schoenherr et al.	D652,894 S	1/2012	Nichols
D558,301 S	12/2007	Hoernig	8,109,450 B2	2/2012	Luetttgen et al.
7,303,151 B2	12/2007	Wu	D655,389 S *	3/2012	Schoenherr D23/223
D559,357 S	1/2008	Wang et al.	D656,582 S	3/2012	Flowers et al.
D559,945 S	1/2008	Patterson et al.	8,132,745 B2	3/2012	Leber et al.
D560,269 S	1/2008	Tse	8,146,838 B2	4/2012	Luetttgen et al.
D562,937 S	2/2008	Schoenherr et al.	D660,940 S *	5/2012	Flowers D23/213
D562,938 S	2/2008	Blessing	8,220,726 B2	7/2012	Qui et al.
D562,941 S	2/2008	Pan	D667,531 S	9/2012	Romero et al.
7,331,536 B1	2/2008	Zhen et al.	D669,158 S	10/2012	Flowers et al.
7,347,388 B2	3/2008	Chung	8,292,200 B2	10/2012	Macan et al.
D565,699 S	4/2008	Berberet	8,297,534 B2	10/2012	Li et al.
D565,702 S	4/2008	Daunter et al.	D672,433 S	12/2012	Yoo et al.
D565,703 S	4/2008	Lammel et al.	D673,649 S	1/2013	Quinn et al.
D566,228 S	4/2008	Neago	D673,650 S *	1/2013	Chibitty D23/223
			D674,047 S	1/2013	Yoo et al.
			D674,050 S	1/2013	Quinn et al.
			8,348,181 B2	1/2013	Whitaker
			8,366,024 B2	2/2013	Leber

(56)

References Cited

FOREIGN PATENT DOCUMENTS

U.S. PATENT DOCUMENTS			CH		
				234284	3/1963
D678,463	S	3/2013 Quinn et al.	CN	200920182881	9/2009
D678,467	S	3/2013 Quinn et al.	CN	201940296 U	8/2011
8,640,973	B2	2/2014 Gansebom	CN	201230021930	2/2012
D731,026	S *	6/2015 Bahler D23/223	CN	201530310992	8/2015
D737,931	S	9/2015 Schoenherr	CN	201730640606.6	9/2018
D744,612	S	12/2015 Peterson	DE	352813	5/1922
9,295,997	B2	3/2016 Harwanko et al.	DE	848627	9/1952
D753,794	S *	4/2016 Starck D23/223	DE	854100	10/1952
D755,346	S	5/2016 Yan	DE	2360534	6/1974
9,387,493	B2	7/2016 Lev	DE	2806093	8/1979
9,399,860	B2	7/2016 Lev	DE	3107808	9/1982
D765,222	S	8/2016 Norris	DE	3246327	6/1984
D778,402	S	2/2017 Schoenherr	DE	3440901	7/1985
D778,403	S	2/2017 Schoenherr	DE	3706320	3/1988
D778,404	S	2/2017 Schoenherr	DE	8804236	6/1988
9,566,593	B2 *	2/2017 Marty B05B 1/185	DE	4034695	5/1991
D787,634	S *	5/2017 Eads D23/223	DE	19608085	9/1996
D793,529	S *	8/2017 Garland D23/223	DE	10034818 A1	1/2002
9,744,548	B2	8/2017 Gopalarao et al.	DE	202005000881	3/2005
D803,981	S	11/2017 Thurgood	DE	102006032017	1/2008
D811,523	S *	2/2018 Andrew D23/223	DE	202008009530	9/2008
D828,906	S *	9/2018 Lu D23/223	DE	202013101201	3/2013
D832,975	S *	11/2018 Garuti D23/213	EP	0167063	6/1985
2001/0042797	A1	11/2001 Shrigley	EP	0478999	4/1992
2002/0109023	A1	8/2002 Thomas et al.	EP	0514753	11/1992
2003/0042332	A1	3/2003 Lai	EP	0435030	7/1993
2003/0062426	A1	4/2003 Gregory et al.	EP	0617644	10/1994
2003/0121993	A1	7/2003 Haverstraw et al.	EP	0683354	11/1995
2004/0074993	A1	4/2004 Thomas et al.	EP	0687851	12/1995
2004/0118949	A1	6/2004 Marks	EP	0695907	2/1996
2004/0217209	A1	11/2004 Bui	EP	0700729	3/1996
2004/0244105	A1	12/2004 Tsai	EP	0719588	7/1996
2005/0001072	A1	1/2005 Bolus et al.	EP	0721082	7/1996
2005/0284967	A1	12/2005 Korb	EP	0733747	9/1996
2006/0016908	A1	1/2006 Chung	EP	0808661	11/1997
2006/0016913	A1	1/2006 Lo	EP	0726811	1/1998
2006/0102747	A1	5/2006 Ho	EP	2164642	10/2010
2006/0163391	A1	7/2006 Schorn	EP	2260945	12/2010
2006/0219822	A1	10/2006 Miller et al.	FR	538538	6/1922
2006/0272086	A1	12/2006 Mesa	FR	873808	7/1942
2007/0040054	A1	2/2007 Farzan	FR	1039750	10/1953
2007/0200013	A1	8/2007 Hsiao	FR	1098836	8/1955
2007/0246577	A1	10/2007 Leber	FR	2591099	6/1987
2007/0252021	A1	11/2007 Cristina	FR	2596492	10/1987
2007/0272770	A1	11/2007 Leber et al.	FR	2695452	3/1994
2008/0073449	A1	3/2008 Haynes et al.	GB	10086	4/1894
2008/0083844	A1	4/2008 Leber et al.	GB	3314	12/1914
2008/0121293	A1	5/2008 Leber et al.	GB	129812	7/1919
2008/0156897	A1	7/2008 Leber	GB	204600	10/1923
2008/0223957	A1	9/2008 Schorn	GB	634483	3/1950
2008/0272591	A1	11/2008 Leber	GB	971866	10/1964
2009/0039181	A1	2/2009 Auer, Jr.	GB	1111126	4/1968
2009/0200404	A1	8/2009 Cristina	GB	2066074	1/1980
2009/0218420	A1	9/2009 Mazzola	GB	2066704	7/1981
2009/0307836	A1	12/2009 Blattner et al.	GB	2068778	8/1981
2009/0308951	A1	12/2009 Suter	GB	2121319	12/1983
2010/0127096	A1	5/2010 Leber	GB	2155984	10/1985
2011/0000983	A1	1/2011 Chang	GB	2156932 A	10/1985
2011/0011953	A1	1/2011 Macan et al.	GB	2199771	7/1988
2011/0121098	A1	5/2011 Luetzgen et al.	GB	2298595	11/1996
2012/0048968	A1	3/2012 Williams	GB	2337471	11/1999
2012/0222207	A1	9/2012 Slothower et al.	IT	327400	7/1935
2013/0126646	A1	5/2013 Wu	IT	350359	7/1937
2013/0147186	A1	6/2013 Leber	IT	563459	5/1957
2014/0252138	A1	9/2014 Wischstadt et al.	JP	S63-181459	11/1988
2014/0367482	A1	12/2014 Cacka	JP	H2-78660	6/1990
2015/0165452	A1	6/2015 Luetzgen et al.	JP	4062238	2/1992
2015/0211728	A1	12/2015 Zhadanov	JP	4146708	5/1992
2016/0015000	A1	1/2016 Diez	NL	8902957	6/1991
2017/0216854	A1	8/2017 Thurgood	WO	WO93/12894	7/1993
2018/0065131	A1	3/2018 Rogers et al.	WO	WO93/25839	12/1993
			WO	WO96/00617	1/1996
			WO	WO98/30336	7/1998
			WO	WO99/59726	11/1999

(56)

References Cited

FOREIGN PATENT DOCUMENTS

WO	WO00/10720	3/2000
WO	WO08/082699	7/2008
WO	WO10/04593	1/2010

OTHER PUBLICATIONS

Color Copy, Labeled 1A, Gemlo, available at least as early as Dec. 2, 1998.

Color Copy, Labeled 1B, Gemlo, available at least as early as Dec. 2, 1998.

International Search Report, PCT/US07/88962, 9 pages, Jun. 10, 2008.

International Search Report, PCT/US07/67141, 8 pages, Jul. 2, 2008.

EZ Wash Wand, accessed at least as early as Feb. 2016, <http://www.ezwashwand.com>.

WashWands, accessed at least as early as Feb. 2016, <http://www.washwand.com>.

Woof Washer, accessed at least as early as Feb. 2016, <http://www.woofwasher.com>.

* cited by examiner

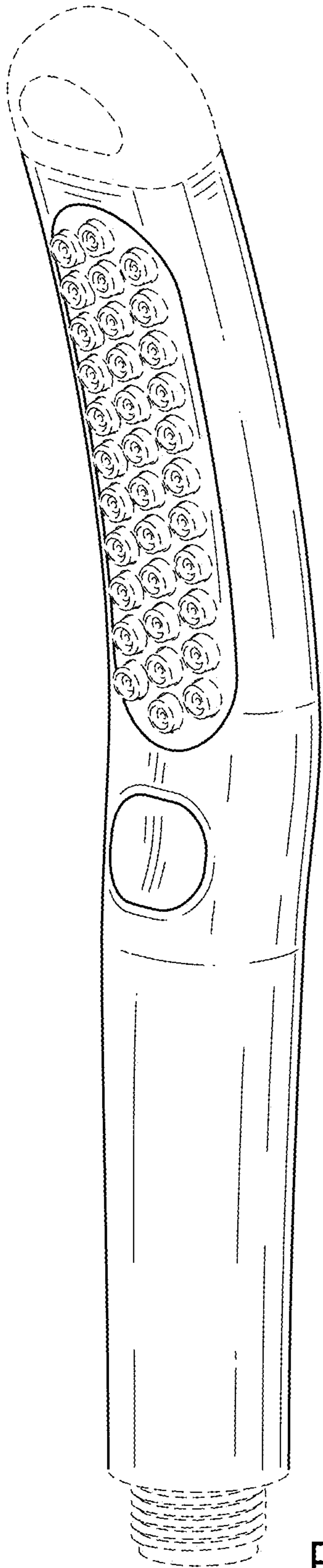


FIG. 1



FIG. 2

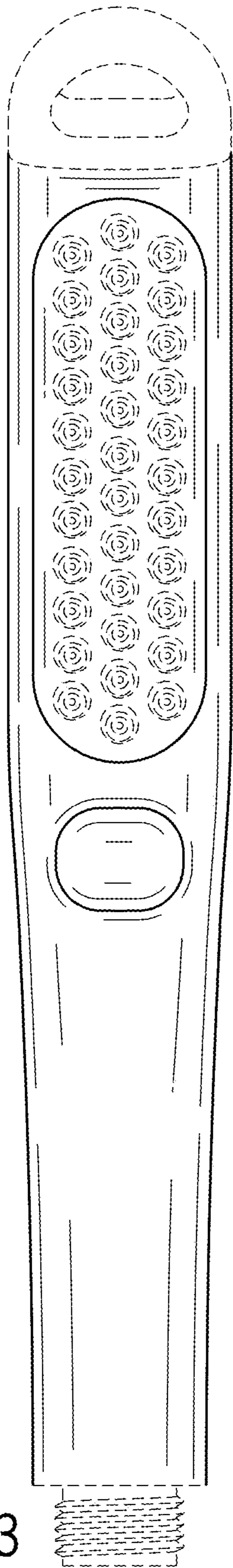


FIG. 3

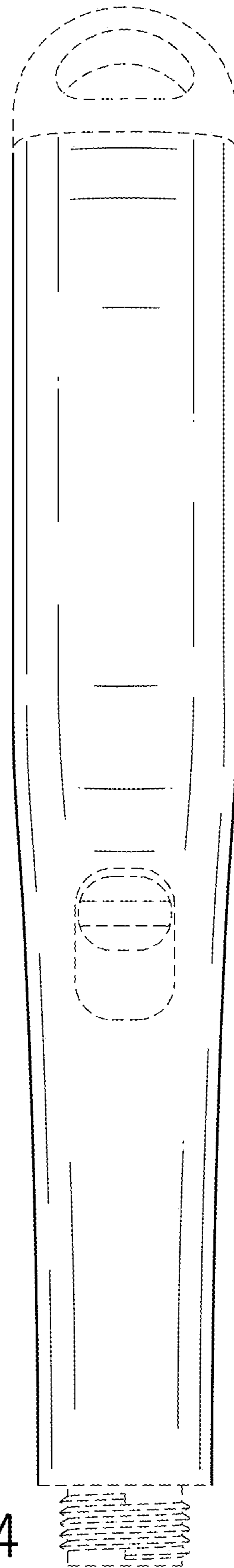


FIG. 4

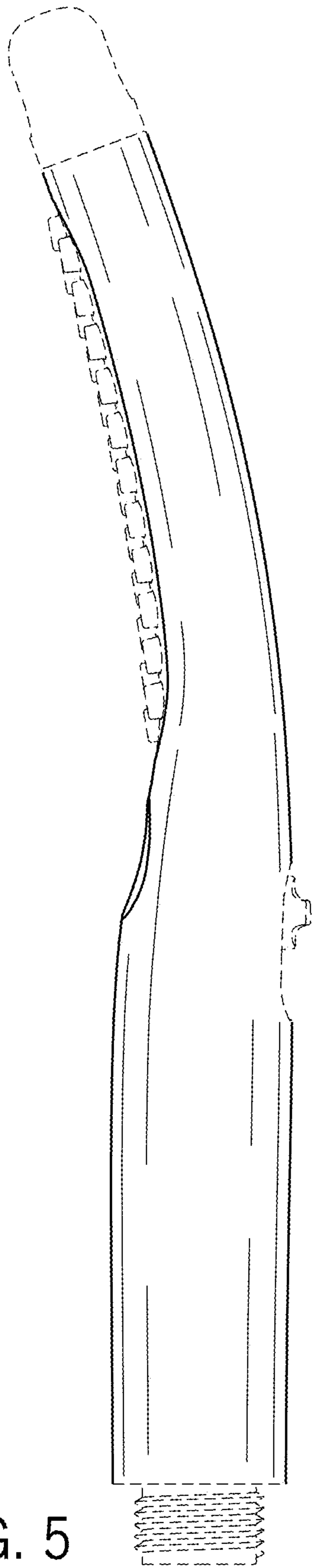


FIG. 5

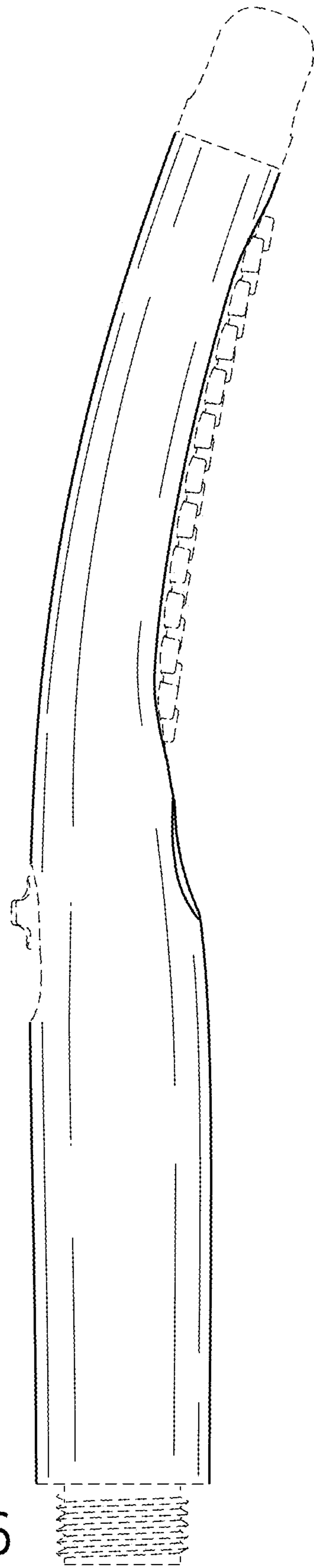


FIG. 6

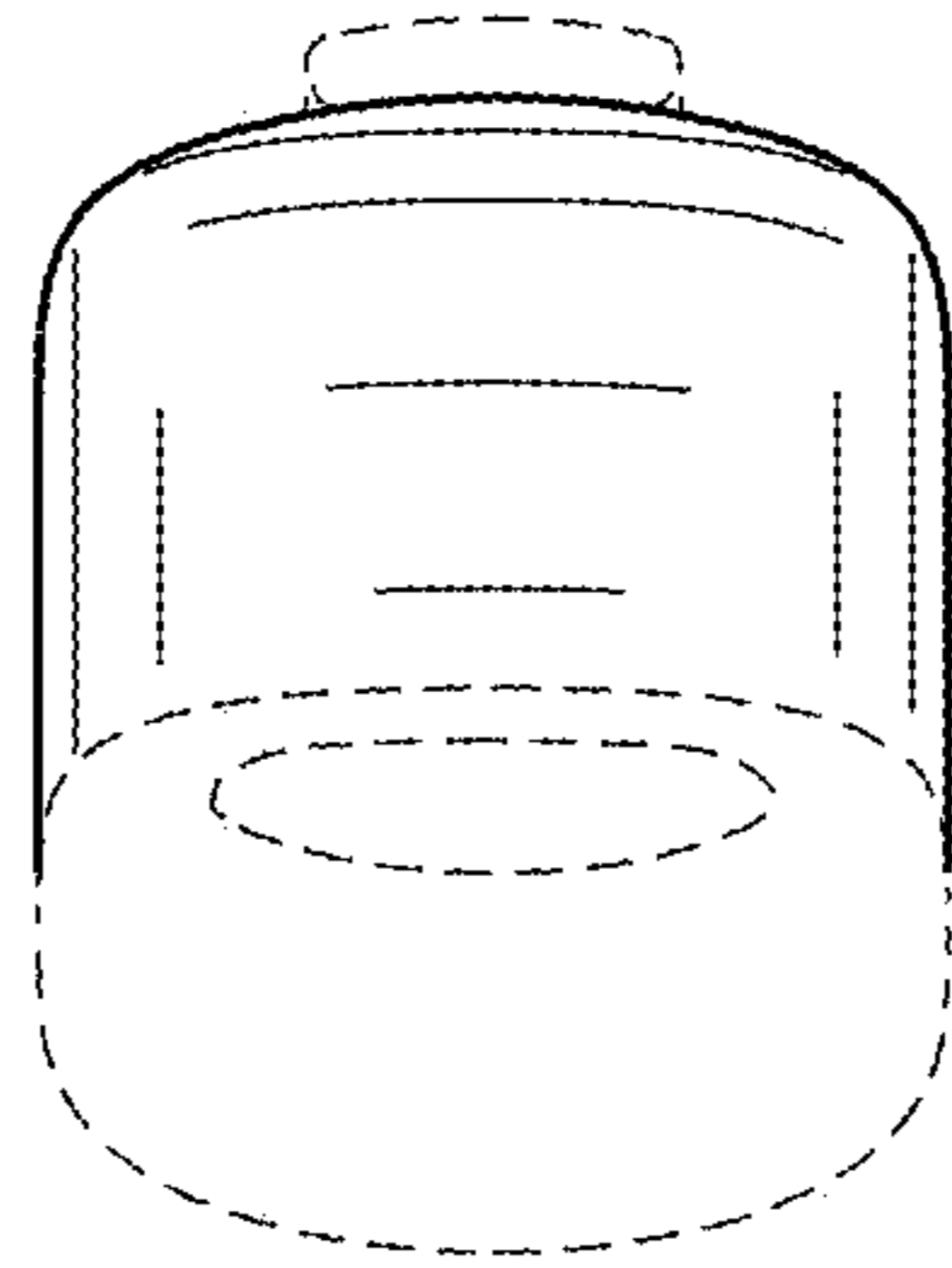


FIG. 7

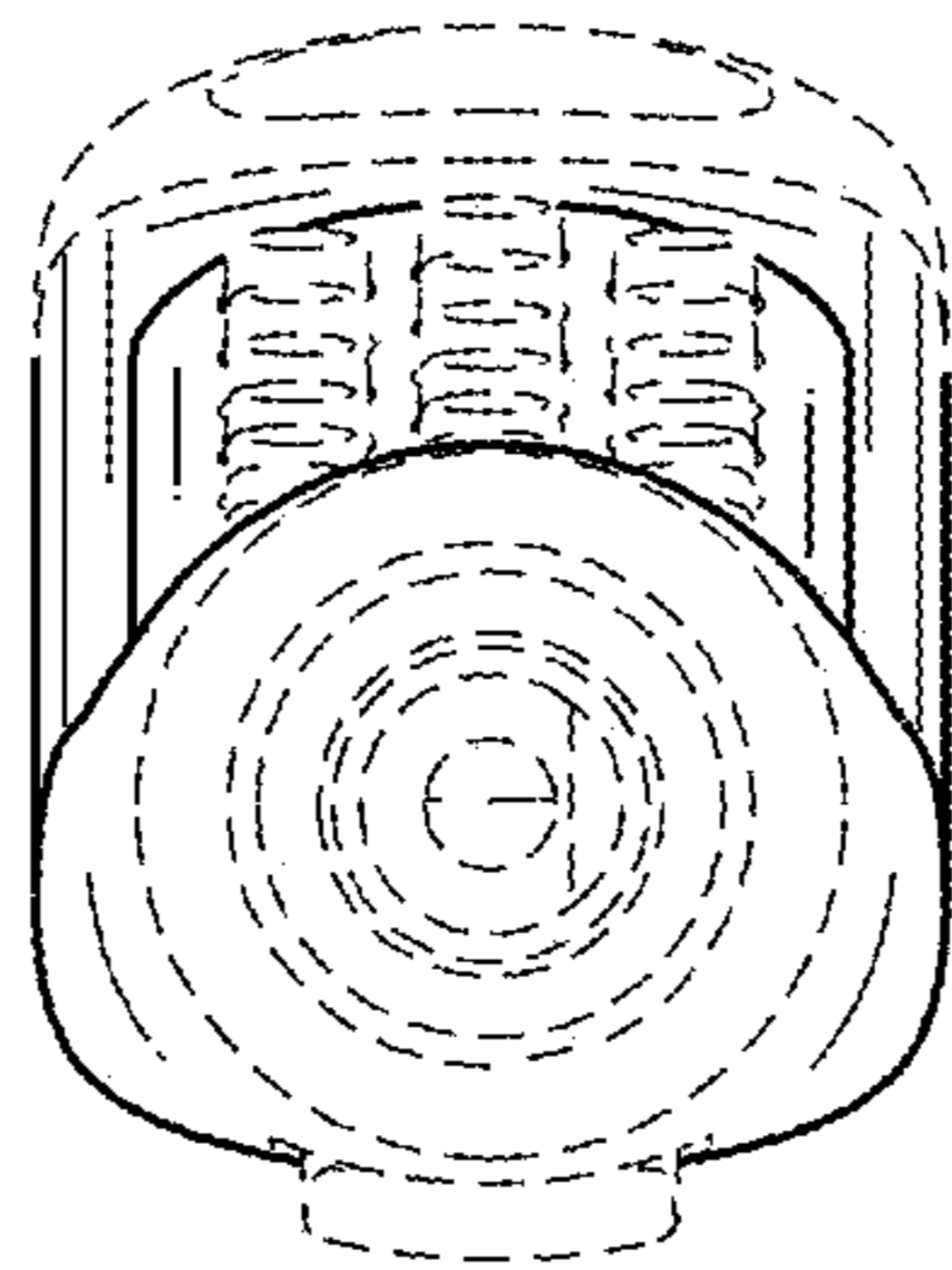


FIG. 8