



US00D950011S

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

(10) **Patent No.:** **US D950,011 S**
(45) **Date of Patent:** **** Apr. 26, 2022**

(54) **SHOWERHEAD WITH DUAL OSCILLATING MASSAGE**

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

(21) Appl. No.: **29/701,010**

(22) Filed: **Aug. 7, 2019**

Related U.S. Application Data

(60) Continuation of application No. 16/355,952, filed on Mar. 18, 2019, now Pat. No. 11,084,047, which is a (Continued)

(51) **LOC (13) Cl.** **23-01**

(52) **U.S. Cl.**
USPC **D23/213**

(58) **Field of Classification Search**
USPC D23/213, 214, 215, 223, 224, 226, 229, D23/230
CPC A61H 9/0021; A61H 33/00; B05B 1/00; B05B 1/14; B05B 1/185; B05B 1/08; B05B 1/02; B05B 1/26; B05B 12/002; B05B 1/18; B05B 9/01
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

203,094 A 4/1878 Wakeman
204,333 A 5/1878 Josias

(Continued)

FOREIGN PATENT DOCUMENTS

CA 659510 3/1963
CA 2341041 8/1999

(Continued)

OTHER PUBLICATIONS

LOKBY High-Pressure Handheld Shower Head, Mar. 15, 2019, amazon.com, Dec. 22, 2021, Dec. 22, 2021, URL: <https://www.amazon.com/High-Pressure-Handheld-Shower-Head-6-Setting/dp/B07KZVKTDG> (Year: 2019).*

(Continued)

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(57) **CLAIM**

We claim the ornamental design for a showerhead with dual oscillating massage, as shown and described.

DESCRIPTION

FIG. 1 is a left, front isometric view of a showerhead with dual oscillating massage.

FIG. 2 is a right, front isometric view thereof.

FIG. 3 is a front elevation view thereof.

FIG. 4 is a rear elevation view thereof.

FIG. 5 is a left side elevation view thereof.

FIG. 6 is a right side elevation view thereof.

FIG. 7 is a top plan view thereof.

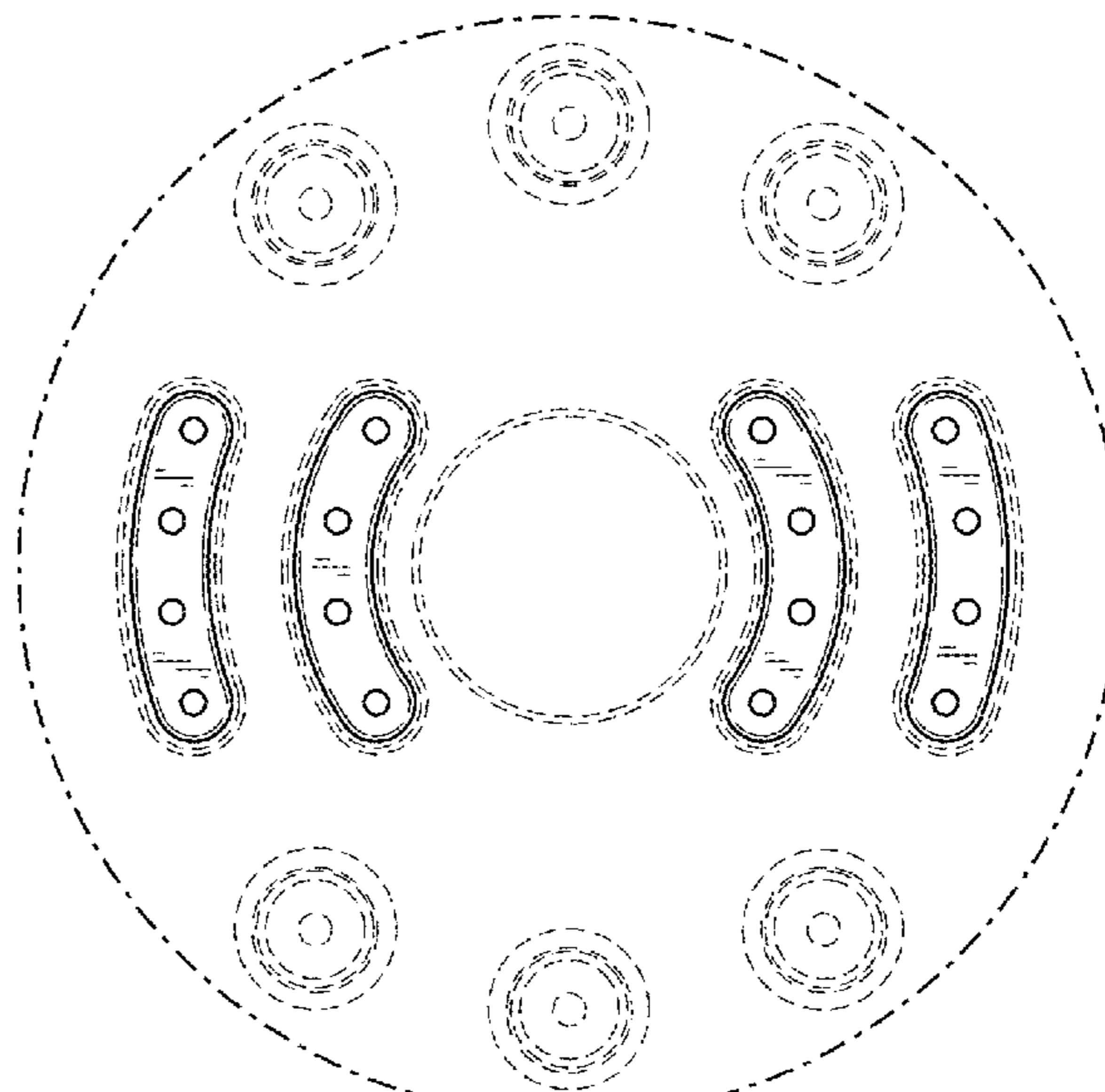
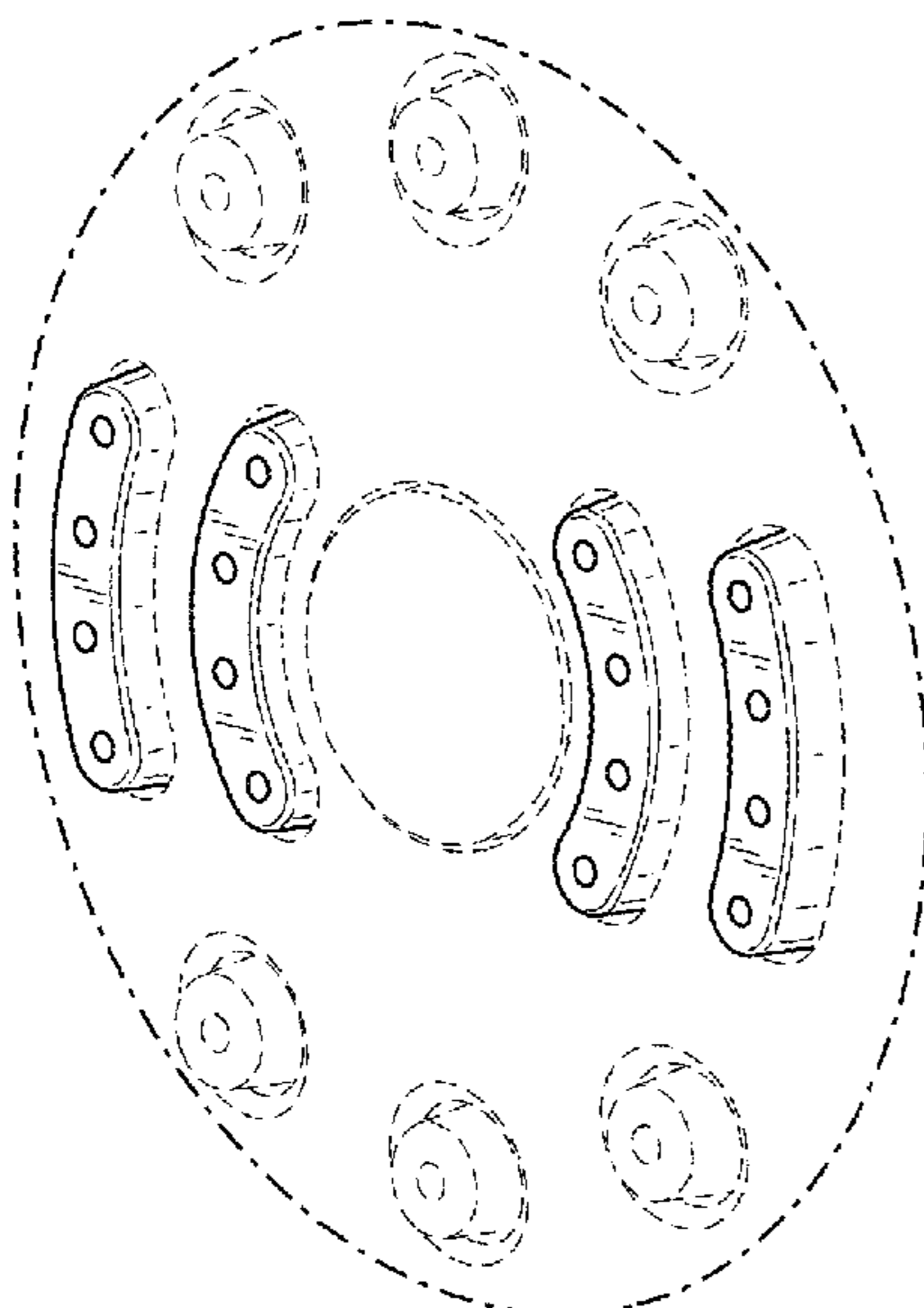
FIG. 8 is a bottom plan view thereof.

FIG. 9 is an enlarged fragmentary view thereof taken along detail line 9-9 of FIG. 2; and,

FIG. 10 is an enlarged fragmentary view thereof taken along detail line 10-10 of FIG. 3.

The broken lines illustrate portions of the showerhead with dual oscillating massage that form no part of the claimed design.

1 Claim, 8 Drawing Sheets



Related U.S. Application Data

division of application No. 15/483,742, filed on Apr. 10, 2017, now Pat. No. 10,265,710.

(56)

References Cited

U.S. PATENT DOCUMENTS

309,349 A	12/1884	Hart	2,467,954 A	4/1949	Becker
428,023 A	5/1890	Schoff	2,518,709 A	8/1950	Mosby, Jr.
432,712 A	7/1890	Taylor	2,546,348 A	3/1951	Schuman
445,250 A	1/1891	Lawless	2,567,642 A	9/1951	Penshaw
453,109 A	5/1891	Dreisorner	2,581,129 A	1/1952	Muldoon
486,986 A	11/1892	Schinke	D166,073 S	3/1952	Dunkelberger
566,384 A	8/1896	Engelhart	2,648,762 A	8/1953	Dunkelberger
566,410 A	8/1896	Schinke	2,664,271 A	12/1953	Arutunoff
570,405 A	10/1896	Jerguson et al.	2,671,693 A	3/1954	Hyser et al.
694,888 A	3/1902	Pfluger	2,676,806 A	4/1954	Bachman
800,802 A	10/1905	Franquist	2,679,575 A	5/1954	Haberstump
832,523 A	10/1906	Andersson	2,680,358 A	6/1954	Zublin
835,678 A	11/1906	Hammond	2,726,120 A	12/1955	Bletcher et al.
845,540 A	2/1907	Ferguson	2,759,765 A	8/1956	Pawley
854,094 A	5/1907	Klein	2,776,168 A	1/1957	Schweda
926,929 A	7/1909	Dusseau	2,792,847 A	5/1957	Spencer
1,001,842 A	8/1911	Greenfield	2,873,999 A	2/1959	Webb
1,003,037 A	9/1911	Crowe	2,930,505 A	3/1960	Meyer
1,018,143 A	2/1912	Vissering	2,931,672 A	4/1960	Merritt et al.
1,046,573 A	12/1912	Ellis	2,935,265 A	5/1960	Richter
1,130,520 A	3/1915	Kenney	2,949,242 A	8/1960	Blumberg et al.
1,203,466 A	10/1916	Benson	2,957,587 A	10/1960	Tobin
1,217,254 A	2/1917	Winslow	2,966,311 A	12/1960	Davis
1,218,895 A	3/1917	Porter	D190,295 S	5/1961	Becker
1,255,577 A	2/1918	Berry	2,992,437 A	7/1961	Nelson et al.
1,260,181 A	3/1918	Garnero	3,007,648 A	11/1961	Fraser
1,276,117 A	8/1918	Riebe	D192,935 S	5/1962	Becker
1,284,099 A	11/1918	Harris	3,032,357 A	5/1962	Shames et al.
1,327,428 A	1/1920	Gregory	3,034,809 A	5/1962	Greenberg
1,451,800 A	4/1923	Agner	3,037,799 A	6/1962	Mulac
1,459,582 A	6/1923	Dubee	3,081,339 A	3/1963	Green et al.
1,469,528 A	10/1923	Owens	3,092,333 A	6/1963	Gaiotto
1,500,921 A	7/1924	Bramson et al.	3,098,508 A	7/1963	Gerdes
1,560,789 A	11/1925	Johnson et al.	3,103,723 A	9/1963	Becker
1,597,477 A	8/1926	Panhorst	3,104,815 A	9/1963	Schultz
1,633,531 A	6/1927	Keller	3,104,827 A	9/1963	Aghnides
1,669,949 A	5/1928	Reynolds	3,111,277 A	11/1963	Grimsley
1,692,394 A	11/1928	Sundh	3,112,073 A	11/1963	Larson et al.
1,695,263 A	12/1928	Jacques	3,143,857 A	8/1964	Eaton
1,724,147 A	8/1929	Russell	3,196,463 A	7/1965	Farneth
1,724,161 A	8/1929	Wuesthoff	3,231,200 A	1/1966	Heald
1,736,160 A	11/1929	Jonsson	3,236,545 A	2/1966	Parkes et al.
1,754,127 A	4/1930	Srulowitz	3,239,152 A	3/1966	Bachli et al.
1,758,115 A	5/1930	Kelly	3,266,059 A	8/1966	Stelle
1,778,658 A	10/1930	Baker	3,272,437 A	9/1966	Coson
1,821,274 A	9/1931	Plummer	3,273,359 A	9/1966	Fregeolle
1,849,517 A	3/1932	Fraser	3,306,634 A	2/1967	Groves et al.
1,890,156 A	12/1932	Konig	3,323,148 A	6/1967	Burnon
1,906,575 A	5/1933	Goeriz	3,329,967 A	7/1967	Martinez et al.
1,934,553 A	11/1933	Mueller et al.	3,341,132 A	9/1967	Parkison
1,946,207 A	2/1934	Haire	3,342,419 A	9/1967	Weese
2,011,446 A	8/1935	Judell	3,344,994 A	10/1967	Fife
2,024,930 A	12/1935	Judell	3,363,842 A	1/1968	Burns
2,033,467 A	3/1936	Groeniger	3,383,051 A	5/1968	Fiorentino
2,044,445 A	6/1936	Price et al.	3,389,925 A	6/1968	Gottschald
2,085,854 A	7/1937	Hathaway et al.	3,393,311 A	7/1968	Dahl
2,096,912 A	10/1937	Morris	3,393,312 A	7/1968	Dahl
2,117,152 A	5/1938	Crosti	3,404,410 A	10/1968	Sumida
D113,439 S	2/1939	Reinecke	3,492,029 A	1/1970	French et al.
2,196,783 A	4/1940	Shook	3,516,611 A	6/1970	Piggott
2,197,667 A	4/1940	Shook	3,546,961 A	12/1970	Marton
2,216,149 A	10/1940	Weiss	3,550,863 A	12/1970	McDermott
D126,433 S	4/1941	Enthof	3,552,436 A	1/1971	Stewart
2,251,192 A	7/1941	Krumsiek et al.	3,565,116 A	2/1971	Gabin
2,268,263 A	12/1941	Newell et al.	3,566,917 A	3/1971	White
2,285,831 A	6/1942	Pennypacker	3,580,513 A	5/1971	Martin
2,342,757 A	2/1944	Roser	3,584,822 A	6/1971	Oram
2,402,741 A	6/1946	Draviner	3,596,835 A	8/1971	Smith et al.
D147,258 S	8/1947	Becker	3,612,577 A	10/1971	Pope
D152,584 S	2/1949	Becker	3,637,143 A	1/1972	Shames et al.
			3,641,333 A	2/1972	Gendron
			3,647,144 A	3/1972	Parkison et al.
			3,663,044 A	5/1972	Contreras et al.
			3,669,470 A	6/1972	Deurloo
			3,672,648 A	6/1972	Price
			3,682,392 A	8/1972	Kint
			3,685,745 A	8/1972	Peschcke-koedt
			D224,834 S	9/1972	Laudell
			3,711,029 A	1/1973	Bartlett

(56)

References Cited

U.S. PATENT DOCUMENTS

3,722,798 A	3/1973	Bletcher et al.	4,275,843 A	6/1981	Moen
3,722,799 A	3/1973	Rauh	4,282,612 A	8/1981	King
3,731,084 A	5/1973	Trevorrow	D261,300 S	10/1981	Klose
3,754,779 A	8/1973	Peress	D261,417 S	10/1981	Klose
D228,622 S	10/1973	Juhlin	4,303,201 A	12/1981	Elkins et al.
3,762,648 A	10/1973	Deines et al.	4,319,608 A	3/1982	Raikov et al.
3,768,735 A	10/1973	Ward	4,324,364 A	4/1982	Buzzi et al.
3,786,995 A	1/1974	Manoogian et al.	4,330,089 A	5/1982	Finkbeiner
3,801,019 A	4/1974	Trenary et al.	D266,212 S	9/1982	Haug et al.
3,810,580 A	5/1974	Rauh	4,350,298 A	9/1982	Tada
3,826,454 A	7/1974	Zieger	4,353,508 A	10/1982	Butterfield et al.
3,840,734 A	10/1974	Oram	4,358,056 A	11/1982	Greenhut et al.
3,845,291 A	10/1974	Portyrata	D267,582 S	1/1983	Mackay et al.
3,860,271 A	1/1975	Rodgers	D268,359 S	3/1983	Klose
3,861,719 A	1/1975	Hand	D268,442 S	3/1983	Darmon
3,865,310 A	2/1975	Elkins et al.	D268,611 S	4/1983	Klose
3,869,151 A	3/1975	Fletcher et al.	4,383,554 A	5/1983	Merriman
3,887,136 A	6/1975	Anderson	4,396,797 A	8/1983	Sakuragi et al.
3,896,845 A	7/1975	Parker	4,398,669 A	8/1983	Fienhold
3,902,671 A	9/1975	Symmons	4,425,965 A	1/1984	Bayh, III et al.
3,910,277 A	10/1975	Zimmer	4,432,392 A	2/1984	Paley
D237,708 S	11/1975	Grohe	D274,457 S	6/1984	Haug
3,929,164 A	12/1975	Richter	4,461,052 A	7/1984	Mostul
3,929,287 A	12/1975	Givler et al.	4,465,308 A	8/1984	Martini
3,958,756 A	5/1976	Trenary et al.	4,467,964 A	8/1984	Kaesar
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
			4,842,059 A	6/1989	Tomek
			D302,325 S	7/1989	Charet et al.
			4,850,616 A	7/1989	Pava
			4,854,499 A	8/1989	Neuman

(56)

References Cited

U.S. PATENT DOCUMENTS

4,856,822 A	8/1989	Parker	5,197,767 A	3/1993	Kimura et al.
4,865,362 A	9/1989	Holden	D334,794 S	4/1993	Klose
D303,830 S	10/1989	Ramsey et al.	D335,171 S	4/1993	Lenci et al.
4,871,196 A	10/1989	Kingsford	5,201,468 A	4/1993	Freier et al.
4,896,658 A	1/1990	Yonekubo et al.	5,206,963 A	5/1993	Wiens
D306,351 S	2/1990	Charet et al.	5,207,499 A	5/1993	Vajda et al.
4,901,927 A	2/1990	Valdivia	5,213,267 A	5/1993	Heimann et al.
4,903,178 A	2/1990	Englot et al.	5,220,697 A	6/1993	Birchfield
4,903,897 A	2/1990	Hayes	D337,839 S	7/1993	Zeller
4,903,922 A	2/1990	Harris, III	5,228,625 A	7/1993	Grassberger
4,907,137 A	3/1990	Schladitz et al.	5,230,106 A	7/1993	Henkin et al.
4,907,744 A	3/1990	Jousson	D338,542 S	8/1993	Yuen
4,909,435 A	3/1990	Kidouchi et al.	5,232,162 A	8/1993	Chih
4,914,759 A	4/1990	Goff	D339,492 S	9/1993	Klose
4,946,202 A	8/1990	Perricone	D339,627 S	9/1993	Klose
4,951,329 A	8/1990	Shaw	D339,848 S	9/1993	Gottwald
4,953,585 A	9/1990	Rollini et al.	5,246,169 A	9/1993	Heimann et al.
4,964,573 A	10/1990	Lipski	5,246,301 A	9/1993	Hirasawa
4,972,048 A	11/1990	Martin	D340,376 S	10/1993	Klose
D313,267 S	12/1990	Lenci et al.	5,253,670 A	10/1993	Perrott
4,976,460 A	12/1990	Newcombe et al.	5,253,807 A	10/1993	Newbegin
D314,246 S	1/1991	Bache	5,254,809 A	10/1993	Martin
D315,191 S	3/1991	Mikol	D341,007 S	11/1993	Haug et al.
4,998,673 A	3/1991	Pilolla	D341,191 S	11/1993	Klose
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	Drozdoiff 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	Jezek 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
			5,449,206 A	9/1995	Lockwood
			D363,360 S	10/1995	Santarsiero
			5,454,809 A	10/1995	Janssen
			5,468,057 A	11/1995	Megerle et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

D364,935 S	12/1995	deBlois	5,567,115 A	10/1996	Carbone
D365,625 S	12/1995	Bova	D375,541 S	11/1996	Michaluk
D365,646 S	12/1995	deBlois	5,577,664 A	11/1996	Heitzman
5,476,225 A	12/1995	Chan	D376,217 S	12/1996	Kaiser
D366,309 S	1/1996	Huang	D376,860 S	12/1996	Santarsiero
D366,707 S	1/1996	Kaiser	D376,861 S	12/1996	Johnstone et al.
D366,708 S	1/1996	Santarsiero	D376,862 S	12/1996	Carbone
D366,709 S	1/1996	Szymanski	5,605,173 A	2/1997	Arnaud
D366,710 S	1/1996	Szymanski	D378,401 S	3/1997	Neufeld et al.
5,481,765 A	1/1996	Wang	5,613,638 A	3/1997	Blessing
D366,948 S	2/1996	Carbone	5,613,639 A	3/1997	Storm et al.
D367,315 S	2/1996	Andrus	5,615,837 A	4/1997	Roman
D367,333 S	2/1996	Swyst	5,624,074 A	4/1997	Parisi
D367,696 S	3/1996	Andrus	5,624,498 A	4/1997	Lee et al.
D367,934 S	3/1996	Carbone	D379,212 S	5/1997	Chan
D368,146 S	3/1996	Carbone	D379,404 S	5/1997	Spelts
D368,317 S	3/1996	Swyst	5,632,049 A	5/1997	Chen
5,499,767 A	3/1996	Morand	D381,405 S	7/1997	Waidele et al.
D368,539 S	4/1996	Carbone et al.	D381,737 S	7/1997	Chan
D368,540 S	4/1996	Santarsiero	D382,936 S	8/1997	Shfaram
D368,541 S	4/1996	Kaiser et al.	5,653,260 A	8/1997	Huber
D368,542 S	4/1996	deBlois et al.	5,667,146 A	9/1997	Pimentel et al.
D369,204 S	4/1996	Andrus	D385,332 S	10/1997	Andrus
D369,205 S	4/1996	Andrus	D385,333 S	10/1997	Caroen et al.
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	Schorn 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
			D409,276 S	5/1999	Ratzlaff
			D410,276 S	5/1999	Ben-Tsur
			5,918,809 A	7/1999	Simmons
			5,918,811 A	7/1999	Denham et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

D413,157 S	8/1999	Ratzlaff	6,254,014 B1	7/2001	Clearman et al.
5,937,905 A	8/1999	Santos	6,270,278 B1	8/2001	Mauro
5,938,123 A	8/1999	Heitzman	6,276,004 B1	8/2001	Bertrand et al.
5,941,462 A	8/1999	Sandor	6,283,447 B1	9/2001	Fleet
5,947,388 A	9/1999	Woodruff	6,286,764 B1	9/2001	Garvey et al.
D415,247 S	10/1999	Haverstraw et al.	D449,673 S	10/2001	Kollmann et al.
5,961,046 A	10/1999	Joubran	D450,370 S	11/2001	Wales et al.
5,967,417 A	10/1999	Mantel	D450,805 S	11/2001	Lindholm et al.
5,979,776 A	11/1999	Williams	D450,806 S	11/2001	Lindholm et al.
5,992,762 A	11/1999	Wang	D450,807 S	11/2001	Lindholm et al.
D418,200 S	12/1999	Ben-Tsur	D451,169 S	11/2001	Lindholm et al.
5,997,047 A	12/1999	Pimentel et al.	D451,170 S	11/2001	Lindholm et al.
6,003,165 A	12/1999	Loyd	D451,171 S	11/2001	Lindholm et al.
D418,902 S	1/2000	Haverstraw et al.	D451,172 S	11/2001	Lindholm et al.
D418,903 S	1/2000	Haverstraw et al.	6,321,777 B1	11/2001	Wu
D418,904 S	1/2000	Milrud	6,322,006 B1	11/2001	Guo
6,016,975 A	1/2000	Amaduzzi	D451,583 S	12/2001	Lindholm et al.
D421,099 S	2/2000	Mullenmeister	D451,980 S	12/2001	Lindholm et al.
6,021,960 A	2/2000	Kehat	D452,553 S	12/2001	Lindholm et al.
D422,053 S	3/2000	Brenner et al.	D452,725 S	1/2002	Lindholm et al.
6,042,027 A	3/2000	Sandvik	D452,897 S	1/2002	Gillette et al.
6,042,155 A	3/2000	Lockwood	6,336,764 B1	1/2002	Liu
D422,336 S	4/2000	Haverstraw et al.	6,338,170 B1	1/2002	De Simone
D422,337 S	4/2000	Chan	D453,369 S	2/2002	Lobermeier
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
			D490,498 S	5/2004	Golichowski
			6,736,336 B2	5/2004	Wong
			6,739,523 B2	5/2004	Haverstraw et al.
			6,739,527 B1	5/2004	Chung

(56)

References Cited

U.S. PATENT DOCUMENTS

D492,004 S	6/2004	Haug et al.	7,243,863 B2	7/2007	Glunk
D492,007 S	6/2004	Kollmann et al.	7,246,760 B2	7/2007	Marty et al.
6,742,725 B1	6/2004	Fan	D552,713 S	10/2007	Rexach
D493,208 S	7/2004	Lin	7,278,591 B2	10/2007	Clearman et al.
D493,864 S	8/2004	Haug et al.	D556,295 S	11/2007	Genord et al.
D494,655 S	8/2004	Lin	7,299,510 B2	11/2007	Tsai
D494,661 S	8/2004	Zieger et al.	D557,763 S	12/2007	Schonherr et al.
D495,027 S	8/2004	Mazzola	D557,764 S	12/2007	Schonherr et al.
6,776,357 B1	8/2004	Naito	D557,765 S	12/2007	Schonherr et al.
6,789,751 B1	9/2004	Fan	D558,301 S	12/2007	Hoernig
D496,987 S	10/2004	Glunk	7,303,151 B2	12/2007	Wu
D497,974 S	11/2004	Haug et al.	D559,357 S	1/2008	Wang et al.
D498,514 S	11/2004	Haug et al.	D559,945 S	1/2008	Patterson et al.
D500,121 S	12/2004	Blomstrom	D560,269 S	1/2008	Tse
6,827,039 B1	12/2004	Nelson	D562,937 S	2/2008	Schonherr et al.
D500,549 S	1/2005	Blomstrom	D562,938 S	2/2008	Blessing
D501,242 S	1/2005	Blomstrom	D562,941 S	2/2008	Pan
D502,760 S	3/2005	Zieger et al.	7,331,536 B1	2/2008	Zhen et al.
D502,761 S	3/2005	Zieger et al.	7,347,388 B2	3/2008	Chung
D503,211 S	3/2005	Lin	D565,699 S	4/2008	Berberet
D503,463 S	3/2005	Hughes et al.	D565,702 S	4/2008	Daunter et al.
6,860,437 B1	3/2005	Amendt et al.	D565,703 S	4/2008	Lammel et al.
6,863,227 B2	3/2005	Wollenberg et al.	D566,228 S	4/2008	Neagoe
6,869,030 B2	3/2005	Blessing et al.	D566,229 S	4/2008	Rexach
D503,774 S	4/2005	Zieger	D567,328 S	4/2008	Spangler et al.
D503,775 S	4/2005	Zieger	D567,335 S	4/2008	Huang
D503,966 S	4/2005	Zieger	7,360,723 B2	4/2008	Lev
6,899,292 B2	5/2005	Titinet	7,364,097 B2	4/2008	Okuma
D506,243 S	6/2005	Wu	7,374,112 B1	5/2008	Bulan et al.
D507,037 S	7/2005	Wu	7,384,007 B2	6/2008	Ho
6,935,581 B2	8/2005	Titinet	D577,099 S	9/2008	Leber
D509,280 S	9/2005	Bailey et al.	D577,793 S	9/2008	Leber
D509,563 S	9/2005	Bailey et al.	D578,604 S	10/2008	Wu et al.
D510,123 S	9/2005	Tsai	D578,605 S	10/2008	Wu et al.
D511,809 S	11/2005	Haug et al.	D578,608 S	10/2008	Wu et al.
D512,119 S	11/2005	Haug et al.	D580,012 S	11/2008	Quinn et al.
6,981,661 B1	1/2006	Chen	D580,513 S	11/2008	Quinn et al.
D516,169 S	2/2006	Wu	D581,013 S	11/2008	Citterio
7,000,854 B2	2/2006	Malek et al.	D581,014 S	11/2008	Quinn et al.
7,004,409 B2	2/2006	Okubo	D586,426 S	2/2009	Schoenherr et al.
7,004,410 B2	2/2006	Li	7,503,345 B2	3/2009	Paterson et al.
D520,109 S	5/2006	Wu	D590,048 S	4/2009	Leber et al.
7,040,554 B2	5/2006	Drennow	7,520,448 B2	4/2009	Luetzgen et al.
7,048,210 B2	5/2006	Clark	D592,276 S	5/2009	Shoenherr et al.
7,055,767 B1	6/2006	Ko	D592,278 S	5/2009	Leber
D525,341 S	7/2006	Bossini	7,537,175 B2	5/2009	Miura et al.
7,070,125 B2	7/2006	Williams et al.	D600,777 S	9/2009	Whitaker et al.
7,077,342 B2	7/2006	Lee	D603,935 S	11/2009	Leber
D527,440 S	8/2006	Macan	7,617,990 B2	11/2009	Huffman
7,093,780 B1	8/2006	Chung	D605,731 S	12/2009	Leber
7,097,122 B1	8/2006	Farley	D606,623 S	12/2009	Whitaker et al.
D527,790 S	9/2006	Hughes et al.	D606,626 S	12/2009	Zore
D528,631 S	9/2006	Gillette et al.	D608,412 S	1/2010	Barnard et al.
7,100,845 B1	9/2006	Hsieh	D608,413 S	1/2010	Barnard et al.
7,111,795 B2	9/2006	Thong	D616,061 S	5/2010	Whitaker et al.
7,111,798 B2	9/2006	Thomas et al.	7,721,363 B2	5/2010	Huang
D530,389 S	10/2006	Glenslak et al.	7,721,979 B2	5/2010	Mazzola
D530,392 S	10/2006	Tse	D617,419 S	6/2010	Lee
D531,259 S	10/2006	Hsieh	D617,873 S	6/2010	Lee
7,114,666 B2	10/2006	Luetzgen et al.	7,740,186 B2	6/2010	Macan et al.
D533,253 S	12/2006	Luetzgen et al.	D621,904 S	8/2010	Yoo et al.
D534,239 S	12/2006	Dingier et al.	D621,905 S	8/2010	Yoo et al.
D535,354 S	1/2007	Wu	7,770,820 B2	8/2010	Clearman et al.
D536,060 S	1/2007	Sadler	7,770,822 B2	8/2010	Leber
7,156,325 B1	1/2007	Chen	D624,156 S	9/2010	Leber
7,182,043 B1	2/2007	Nelson	7,789,326 B2	9/2010	Luetzgen et al.
D538,391 S	3/2007	Mazzola	D625,776 S	10/2010	Williams
D540,424 S	4/2007	Kirar	7,832,662 B2	11/2010	Gallo
D540,425 S	4/2007	Endo et al.	D628,676 S	12/2010	Lee
D540,426 S	4/2007	Cropelli	D629,867 S	12/2010	Rexach et al.
D540,427 S	4/2007	Bouroullec et al.	7,871,020 B2	1/2011	Nelson et al.
D542,391 S	5/2007	Gilbert	D641,830 S	7/2011	Alexander
D542,393 S	5/2007	Haug et al.	D641,831 S	7/2011	Williams
D544,573 S	6/2007	Dingler et al.	8,020,787 B2	9/2011	Leber
7,229,031 B2	6/2007	Schmidt	8,020,788 B2	9/2011	Luetzgen et al.
			8,028,935 B2	10/2011	Leber
			D652,108 S	1/2012	Eads
			D652,110 S	1/2012	Nichols
			D652,114 S	1/2012	Yoo

(56)

References Cited

U.S. PATENT DOCUMENTS

D652,894 S 1/2012 Nichols
 8,109,450 B2 2/2012 Luetzgen et al.
 D656,582 S 3/2012 Flowers et al.
 8,132,745 B2 3/2012 Leber et al.
 8,146,838 B2 4/2012 Luetzgen et al.
 8,220,726 B2 7/2012 Qui et al.
 D667,531 S 9/2012 Romero et al.
 D669,158 S 10/2012 Flowers et al.
 8,292,200 B2 10/2012 Macan et al.
 8,297,534 B2 10/2012 Li et al.
 D672,433 S 12/2012 Yoo et al.
 D673,649 S 1/2013 Quinn et al.
 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
 D678,463 S 3/2013 Quinn et al.
 D678,467 S 3/2013 Quinn et al.
 D681,776 S * 5/2013 Cutler D23/223
 8,640,973 B2 2/2014 Gansebom
 D737,931 S 9/2015 Schoenherr
 D744,612 S 12/2015 Peterson
 9,295,997 B2 3/2016 Harwanko et al.
 D755,346 S 5/2016 Yan
 9,387,493 B2 7/2016 Lev
 9,399,860 B2 7/2016 Lev
 D778,402 S 2/2017 Schoenherr
 D778,403 S 2/2017 Schoenherr
 D778,404 S 2/2017 Schoenherr
 D803,351 S * 11/2017 Ladwig D23/223
 D842,431 S * 3/2019 Cacka D23/213
 10,265,710 B2 4/2019 Cacka et al.
 D855,757 S * 8/2019 Cacka D23/213
 D913,419 S * 3/2021 Ladwig D23/223
 D928,282 S * 8/2021 Rogers D23/213
 D928,283 S * 8/2021 Peterson D23/213
 2001/0042797 A1 11/2001 Shrigley
 2002/0109023 A1 8/2002 Thomas et al.
 2003/0042332 A1 3/2003 Lai
 2003/0062426 A1 4/2003 Gregory et al.
 2003/0121993 A1 7/2003 Haverstraw et al.
 2004/0074993 A1 4/2004 Thomas et al.
 2004/0118949 A1 6/2004 Marks
 2004/0217209 A1 11/2004 Bui
 2004/0244105 A1 12/2004 Tsai
 2005/0001072 A1 1/2005 Bolus et al.
 2005/0284967 A1 12/2005 Korb
 2006/0016908 A1 1/2006 Chung
 2006/0016913 A1 1/2006 Lo
 2006/0102747 A1 5/2006 Ho
 2006/0163391 A1 7/2006 Schorn
 2006/0219822 A1 10/2006 Miller et al.
 2006/0272086 A1 12/2006 Mesa
 2007/0040054 A1 2/2007 Farzan
 2007/0200013 A1 8/2007 Hsiao
 2007/0246577 A1 10/2007 Leber
 2007/0252021 A1 11/2007 Cristina
 2007/0272770 A1 11/2007 Leber et al.
 2008/0073449 A1 3/2008 Haynes et al.
 2008/0083844 A1 4/2008 Leber et al.
 2008/0121293 A1 5/2008 Leber et al.
 2008/0121771 A1 5/2008 Sen et al.
 2008/0156897 A1 7/2008 Leber
 2008/0156902 A1 7/2008 Luetzgen et al.
 2008/0223957 A1 9/2008 Schorn
 2008/0272591 A1 11/2008 Leber
 2009/0039181 A1 2/2009 Auer, Jr.
 2009/0200404 A1 8/2009 Cristina
 2009/0218420 A1 9/2009 Mazzola
 2009/0307836 A1 12/2009 Blattner et al.
 2010/0127096 A1 5/2010 Leber
 2010/0258695 A1 10/2010 Wu
 2010/0320295 A1 12/2010 Mang
 2011/0000983 A1 1/2011 Chang
 2011/0011953 A1 1/2011 Macan et al.

2011/0073678 A1 3/2011 Qiu et al.
 2011/0121098 A1 5/2011 Luetzgen et al.
 2011/0179566 A1 7/2011 Yang
 2012/0048968 A1 3/2012 Williams
 2012/0187320 A1 7/2012 Lu
 2012/0222207 A1 9/2012 Slothower et al.
 2013/0126646 A1 5/2013 Wu
 2013/0147186 A1 6/2013 Leber
 2014/0252138 A1 9/2014 Wischstadt et al.
 2014/0367482 A1 * 12/2014 Cacka B05B 1/1654
 239/11
 2015/0165452 A1 6/2015 Luetzgen et al.
 2015/0211728 A1 * 7/2015 Zhadanov B05B 1/185
 362/96
 2015/0233101 A1 8/2015 Andersen
 2016/0015000 A1 1/2016 Diez
 2017/0297039 A1 * 10/2017 Cacka B05B 1/185
 2018/0065131 A1 3/2018 Rogers et al.
 2019/0210045 A1 7/2019 Cacka et al.

FOREIGN PATENT DOCUMENTS

CH 234284 3/1963
 CN 201260999 Y 6/2009
 CN 200920182881 9/2009
 CN 101628263 A 1/2010
 CN 101773880 A 7/2010
 CN 201940296 U 8/2011
 CN 201230021930 2/2012
 CN 201530310992 8/2015
 DE 352813 5/1922
 DE 848627 9/1952
 DE 854100 10/1952
 DE 2360534 6/1974
 DE 2806093 8/1979
 DE 3107808 9/1982
 DE 3246327 6/1984
 DE 3440901 7/1985
 DE 3706320 3/1988
 DE 8804236 6/1988
 DE 4034695 5/1991
 DE 19608085 9/1996
 DE 10034818 A1 1/2002
 DE 202005000881 3/2005
 DE 102006032017 1/2008
 DE 202008009530 9/2008
 DE 202013101201 3/2013
 EP 0167063 6/1985
 EP 0478999 4/1992
 EP 0514753 11/1992
 EP 0435030 7/1993
 EP 0617644 10/1994
 EP 0683354 11/1995
 EP 0687851 12/1995
 EP 0695907 2/1996
 EP 0700729 3/1996
 EP 0719588 7/1996
 EP 0721082 7/1996
 EP 0733747 9/1996
 EP 0808661 11/1997
 EP 0726811 1/1998
 EP 1921214 5/2008
 EP 2164642 10/2010
 EP 2260945 12/2010
 FR 538538 6/1922
 FR 873808 7/1942
 FR 1039750 10/1953
 FR 1098836 8/1955
 FR 2591099 6/1987
 FR 2596492 10/1987
 FR 2695452 3/1994
 GB 10086 4/1894
 GB 3314 12/1914
 GB 129812 7/1919
 GB 204600 10/1923
 GB 634483 3/1950
 GB 971866 10/1964
 GB 1111126 4/1968
 GB 2066074 1/1980

(56)

References Cited

FOREIGN PATENT DOCUMENTS

GB	2066704	7/1981
GB	2068778	8/1981
GB	2121319	12/1983
GB	2155984	10/1985
GB	2156932 A	10/1985
GB	2199771	7/1988
GB	2298595	11/1996
GB	2337471	11/1999
IT	327400	7/1935
IT	350359	7/1937
IT	563459	5/1957
JP	S63-181459	11/1988
JP	H2-78660	6/1990
JP	4062238	2/1992
JP	4146708	5/1992
JP	2004278194 A	10/2004
NL	8902957	6/1991
WO	WO93/12894	7/1993
WO	WO93/25839	12/1993
WO	WO96/00617	1/1996
WO	WO98/30336	7/1998
WO	WO99/59726	11/1999
WO	WO00/10720	3/2000
WO	WO08/082699	7/2008
WO	WO10/04593	1/2010

OTHER PUBLICATIONS

AquaDance High Pressure 6-Setting 4.15" Chrome Face Hand Held Shower Head, Nov. 20, 2016, amazon.com, Dec. 22, 2021, URL:

https://www.amazon.com/dp/B01MYMSDAI/ref=sbl_dpx_home-improvement-bathroom-handheld-showerheads_B07KZVKTDG_0 (Year: 2016).*

American Standard 1660207.002 Hydrofocus 6-Function Hand Shower, May 11, 2016, amazon.com, Dec. 22, 2021, URL: https://www.amazon.com/dp/B01FHSEEOM/ref=sbl_dpx_home-improvement-bathroom-handheld-showerheads_B07DRHBQBF_0 (Year: 2016).*

ShowerMaxx, Elite Series, 6 Spray Settings 5 inch Adjustable High Pressure Shower Head, Aug. 9, 2018, amazon.com, Dec. 22, 2021, URL: <https://www.amazon.com/dp/B07GBCKFZN/> (Year: 2018).* Author Unknown, "Flipside: The Bold Look of Kohler," 1 page, at least as early as Jun. 2011.

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>.

U.S. Appl. No. 10/265,710, filed Apr. 23, 2019.

U.S. Appl. No. 16/355,952, filed Mar. 18, 2019.

* cited by examiner

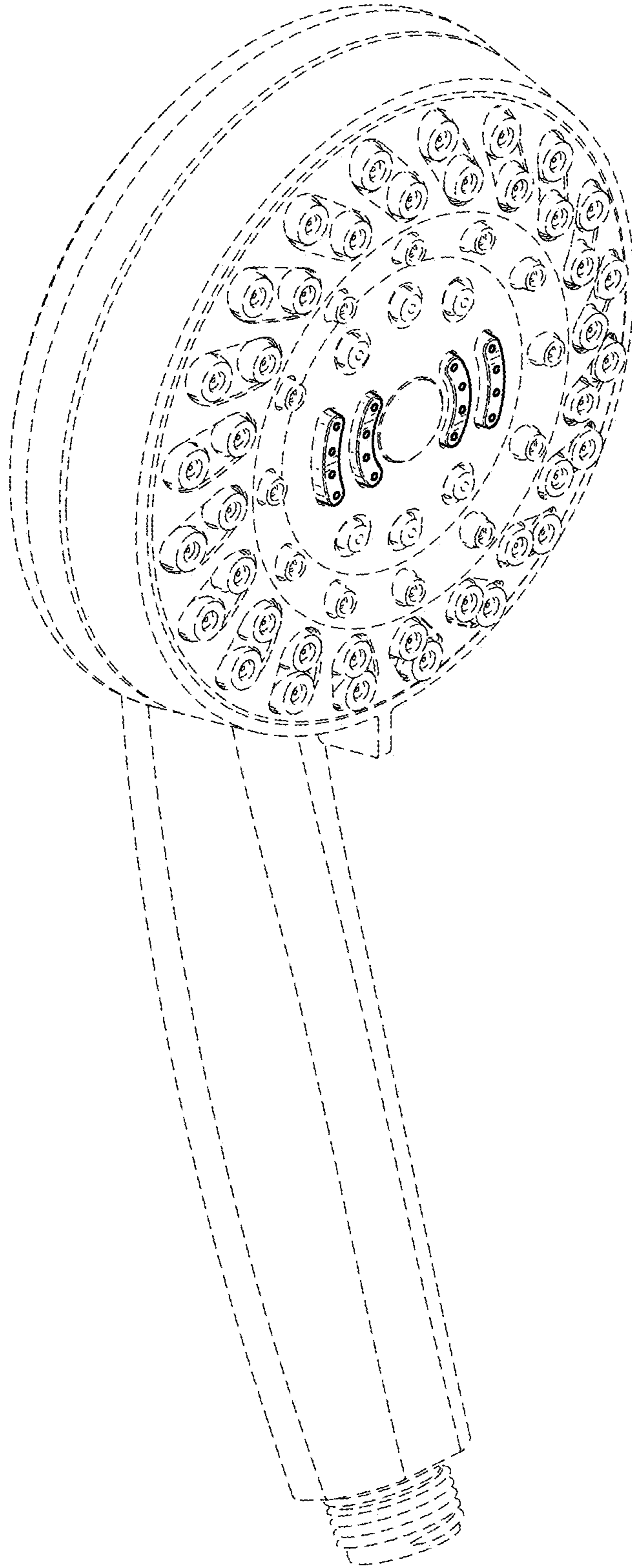
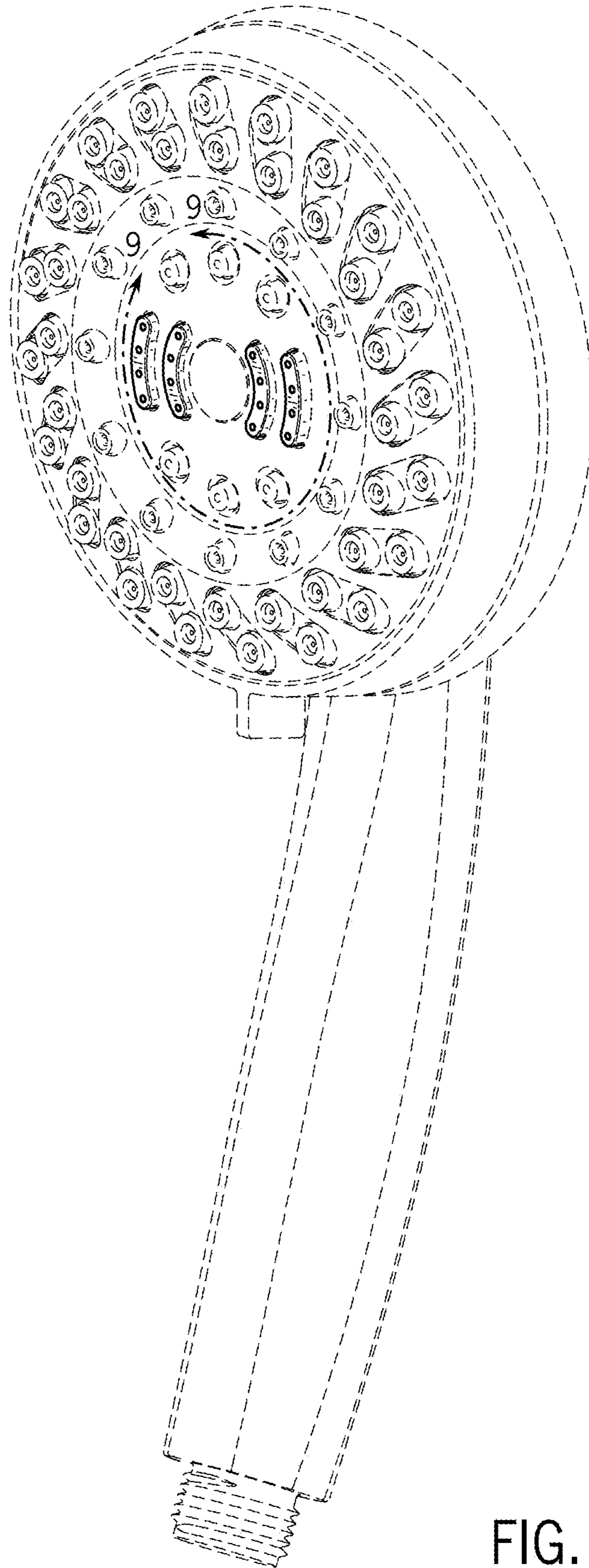


FIG. 1



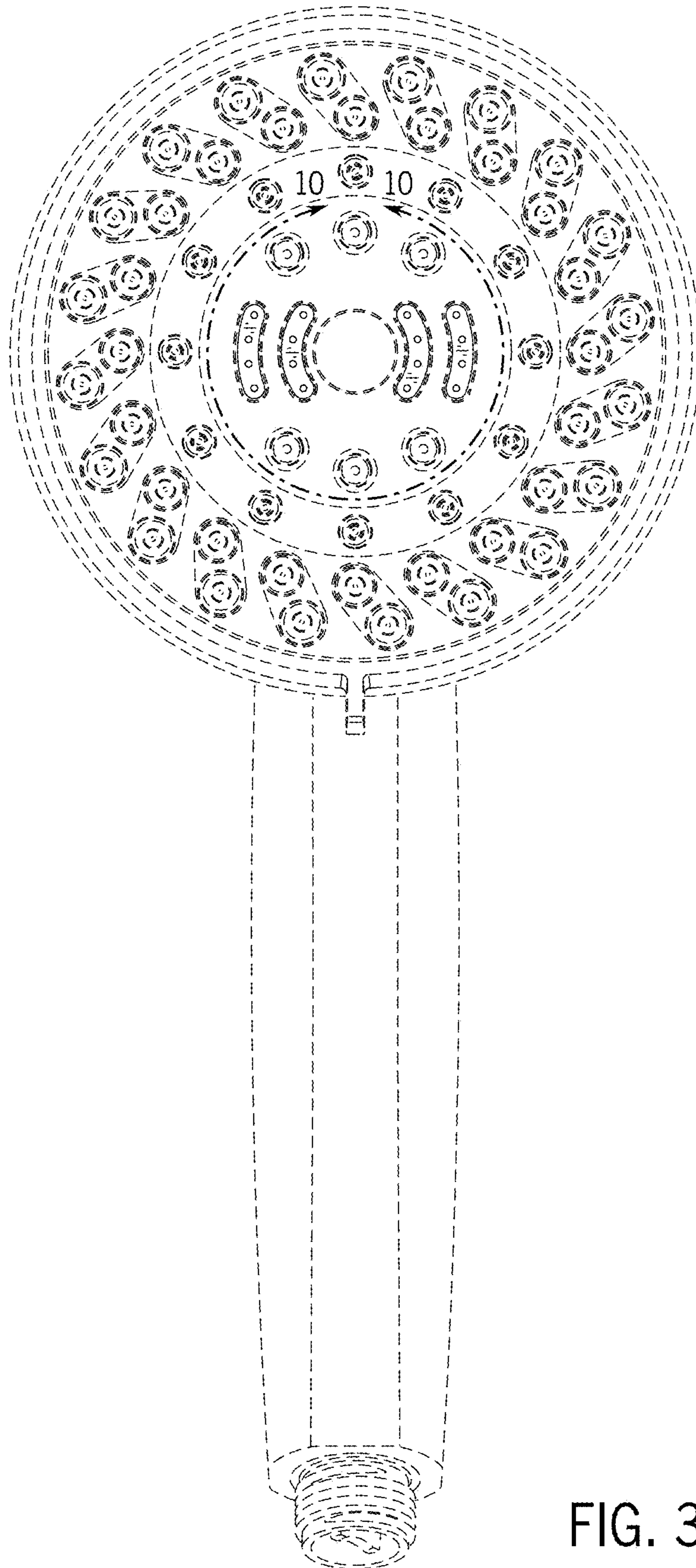


FIG. 3

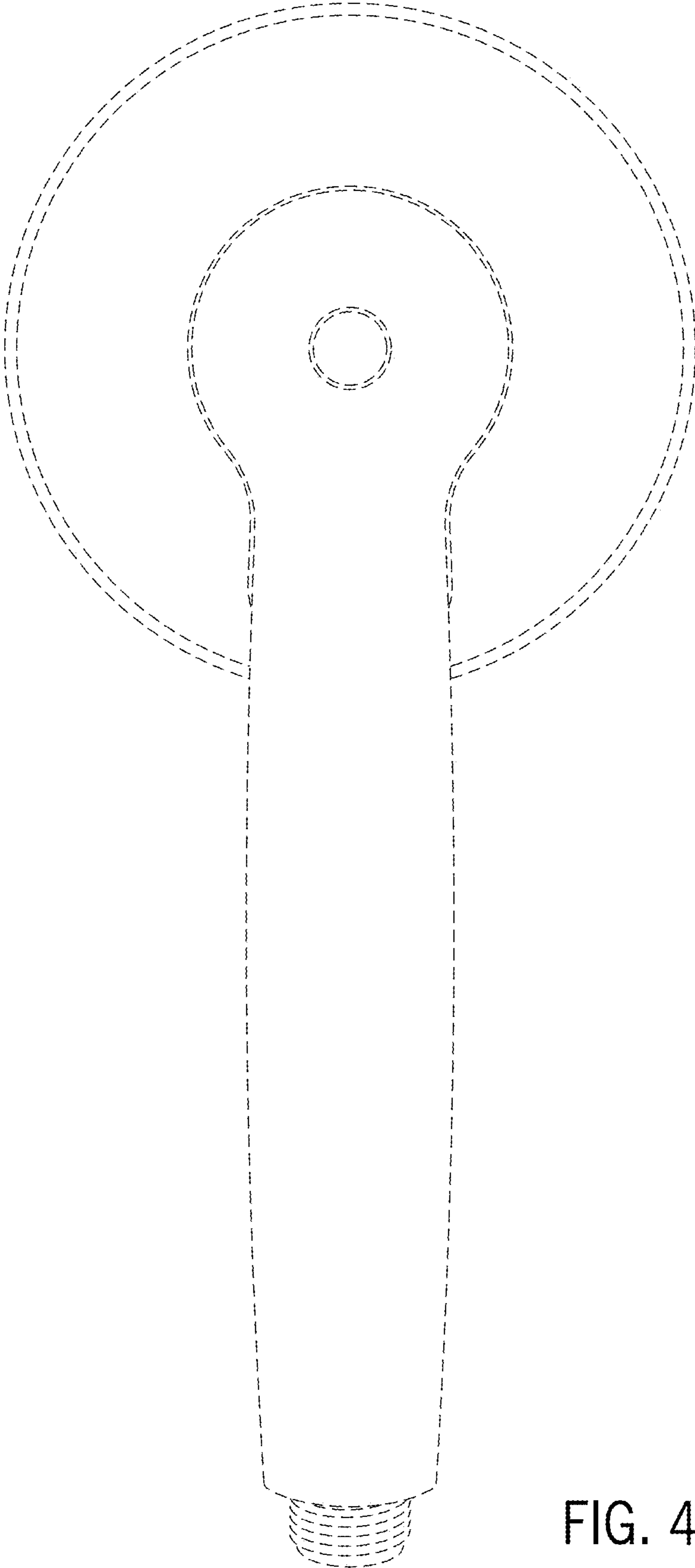


FIG. 4

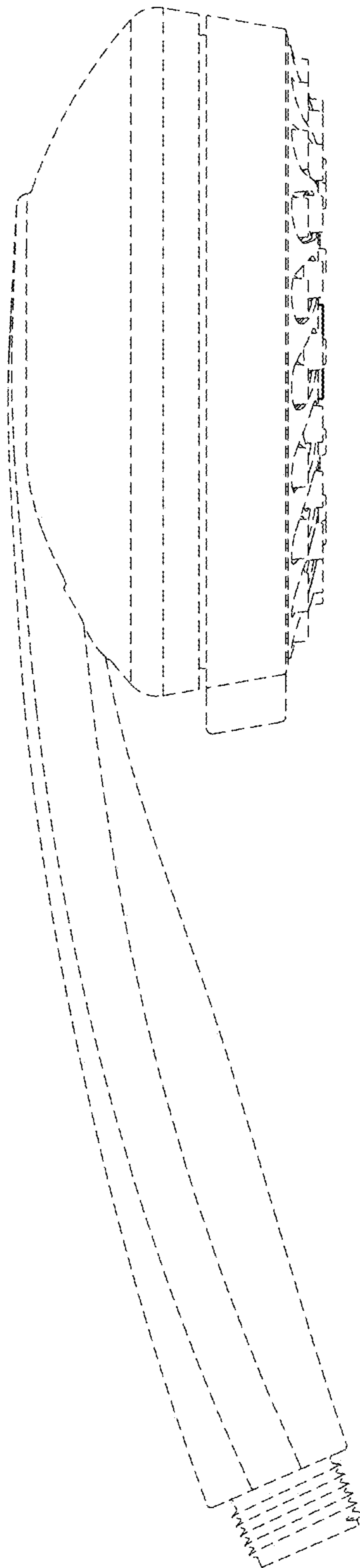


FIG. 5

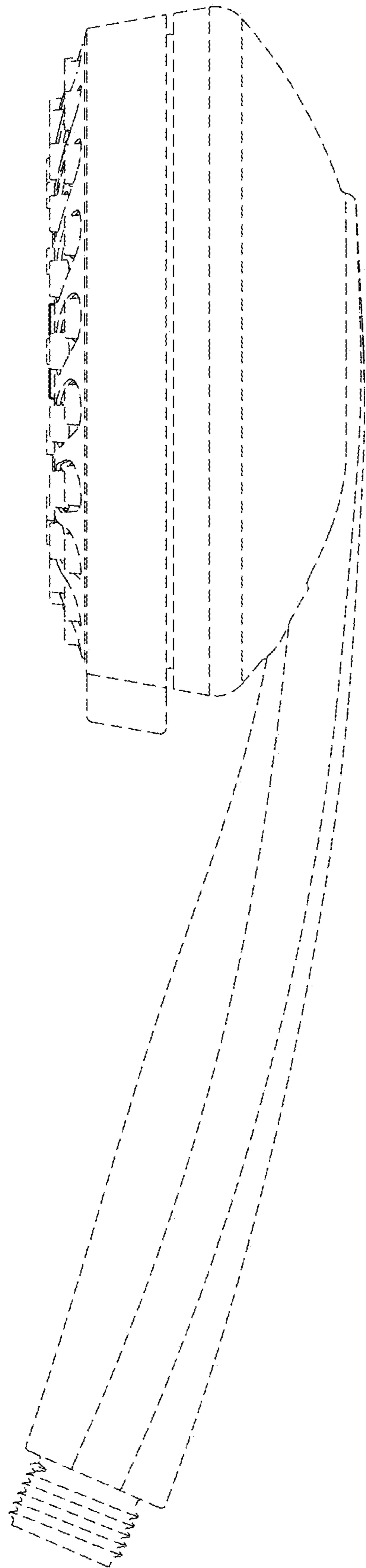


FIG. 6

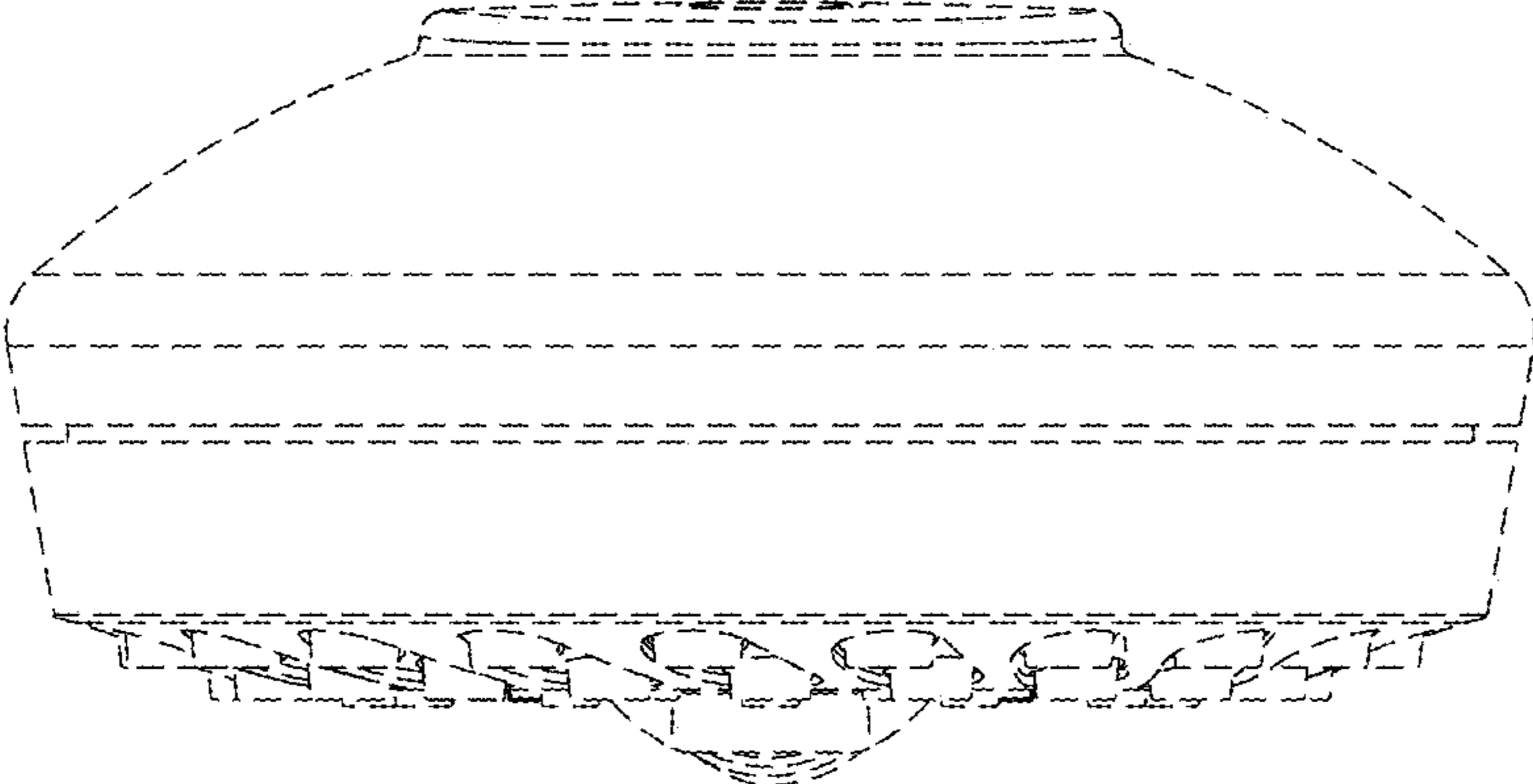


FIG. 7

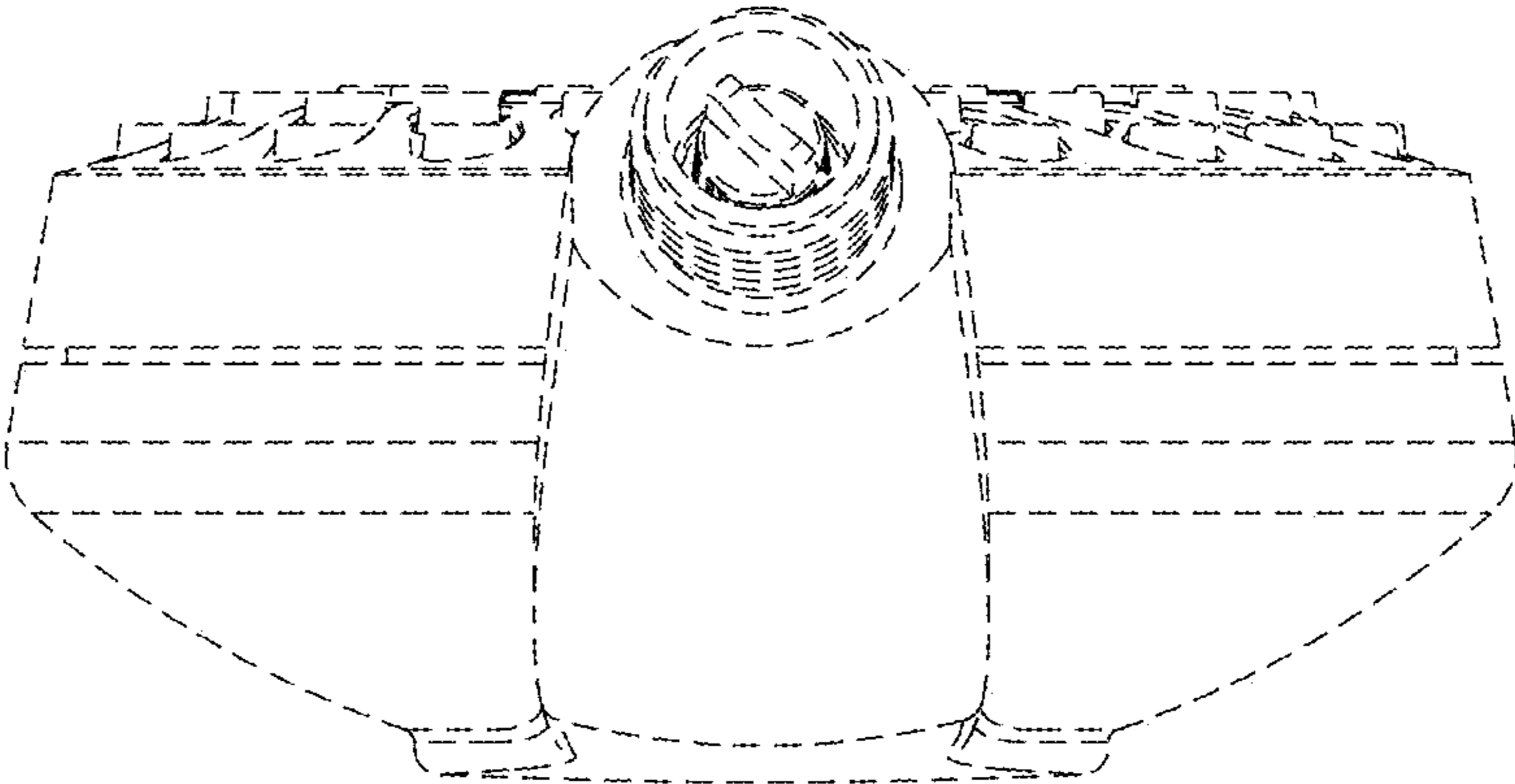


FIG. 8

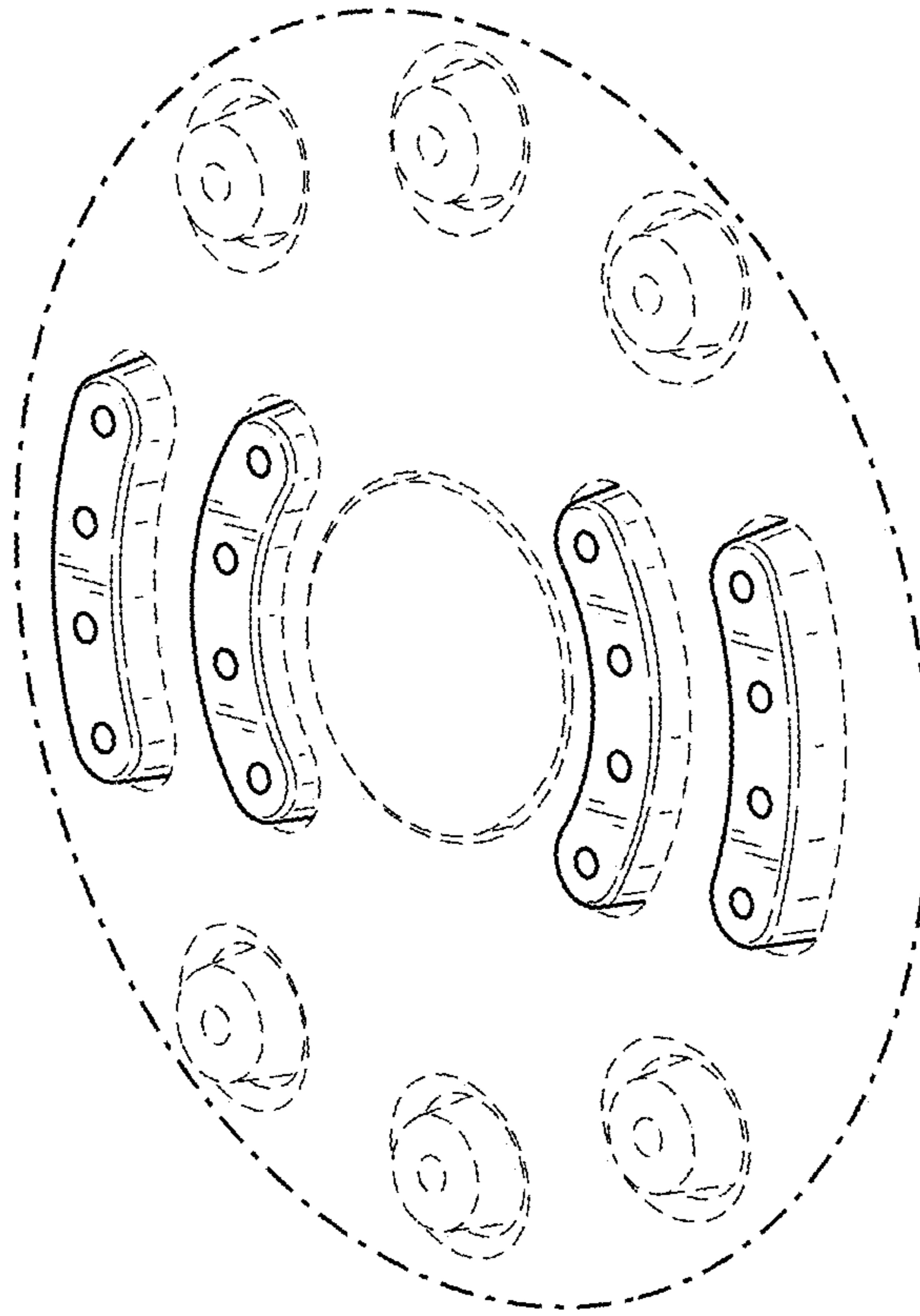


FIG. 9

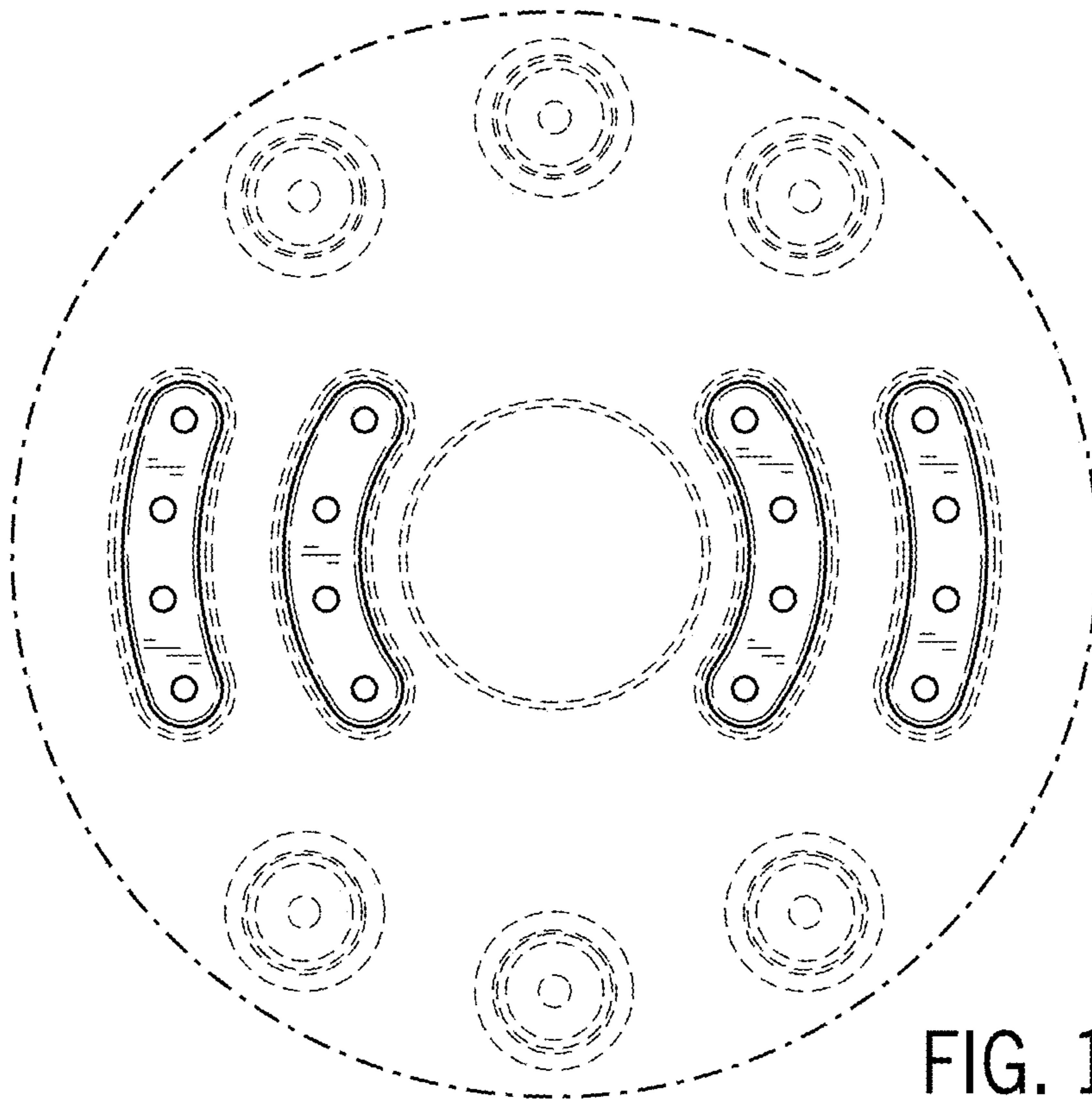


FIG. 10