

US00D527440S

(12) **United States Design Patent**
Macan

(10) **Patent No.:** **US D527,440 S**

(45) **Date of Patent:** **** Aug. 29, 2006**

(54) **DRENCHING SHOWER HEAD**

(75) Inventor: **Aaron Damian Macan**, Loveland, CO (US)

(73) Assignee: **Water Pik, Inc.**, Fort Collins, CO (US)

(**) Term: **14 Years**

(21) Appl. No.: **29/212,512**

(22) Filed: **Sep. 1, 2004**

(51) **LOC (8) Cl.** **23-01**

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

(58) **Field of Classification Search** D23/213,
D23/229, 230, 223; 239/282, 283
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
309,349	A	12/1884	Hart
428,023	A	5/1890	Schoff
445,250	A	1/1891	Lawless
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
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

(Continued)

FOREIGN PATENT DOCUMENTS

CA	659510	3/1963
CH	234248	3/1963
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	4034695	5/1991
DE	19608085	9/1996
EP	0167063	6/1985
EP	0478999	4/1992
EP	0617644	10/1994
EP	0683354	11/1995
EP	0687851	12/1995

(Continued)

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.

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

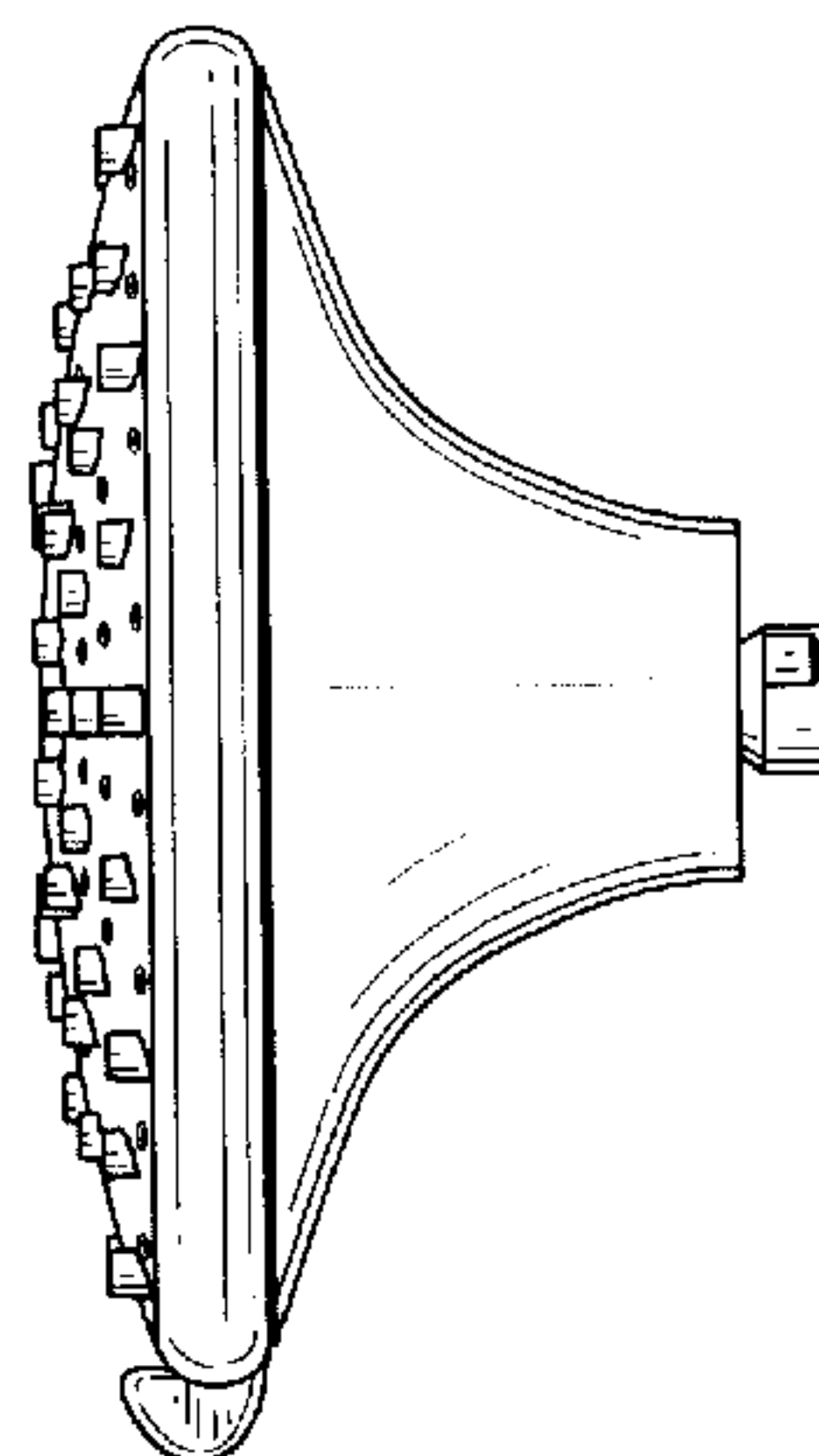
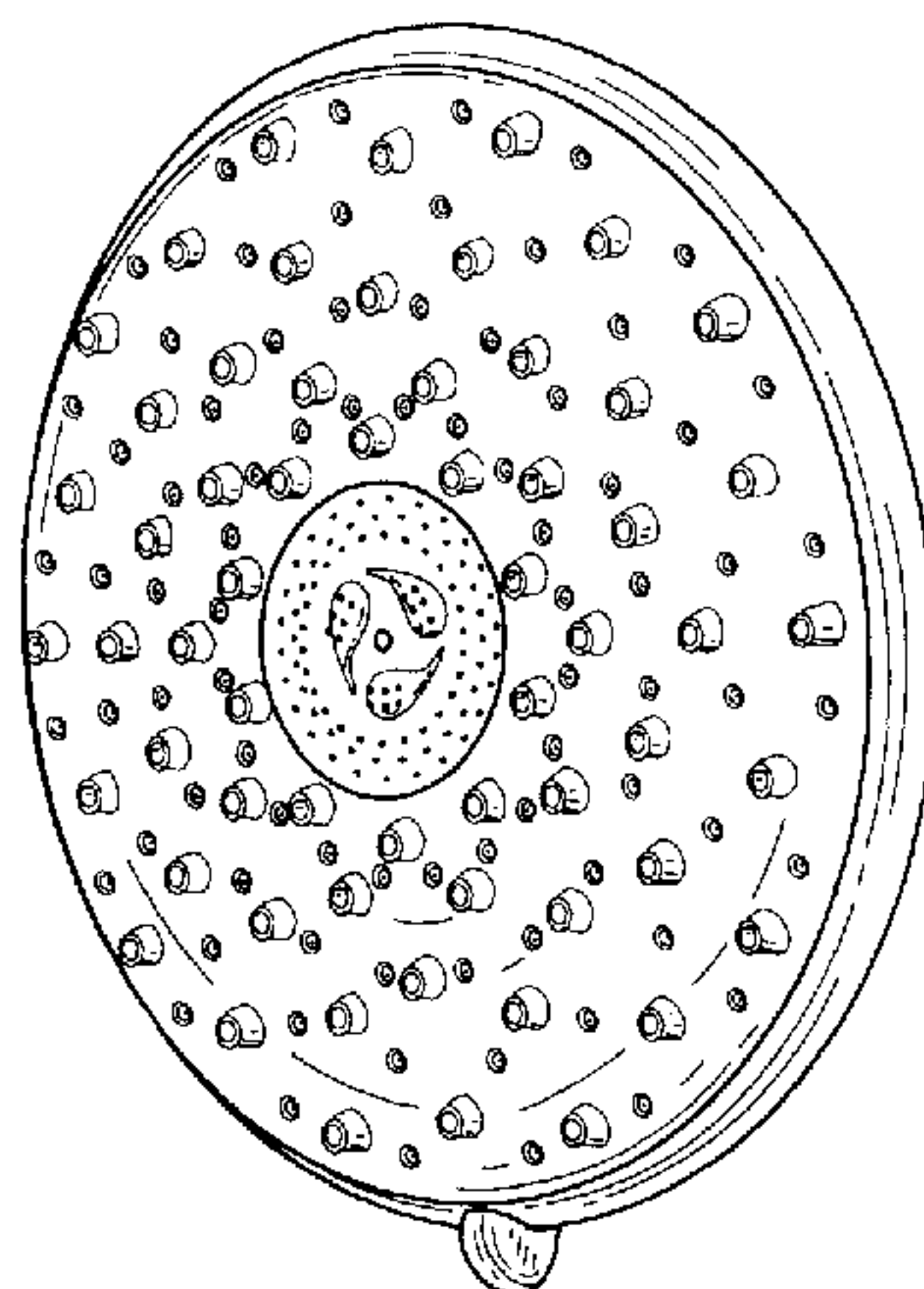
(57) **CLAIM**

The ornamental design for a drenching shower head, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view showing the bottom and left sides of a drenching shower head;
FIG. 2 is a bottom plan view of the drenching shower head depicted in FIG. 1;
FIG. 3 is a top plan view of the drenching shower head depicted in FIG. 1;
FIG. 4 is a left side view of the drenching shower head depicted in FIG. 1;
FIG. 5 is a right-side view of the drenching shower head depicted in FIG. 1;
FIG. 6 is a front plan view of the drenching shower head depicted in FIG. 1; and,
FIG. 7 is a back plan view of the drenching shower head depicted in FIG. 1.

1 Claim, 4 Drawing Sheets



US D527,440 S

Page 2

U.S. PATENT DOCUMENTS					
			3,111,277 A	11/1963	Grimsley
			3,143,857 A	8/1964	Eaton
			3,196,463 A	7/1965	Farneth
			3,239,152 A	3/1966	Bachli et al.
			3,266,059 A	8/1966	Stelle
			3,306,634 A	2/1967	Groves et al.
			3,329,967 A	7/1967	Martinez et al.
			3,341,132 A	9/1967	Parkison
			3,342,419 A	9/1967	Weese
			3,344,994 A	10/1967	Fife
			3,383,051 A	5/1968	Fiorentino
			3,389,925 A	6/1968	Gottschald
			3,393,312 A	7/1968	Dahl
			3,393,331 A	7/1968	Dahl
			3,404,410 A	10/1968	Sumida
			3,492,029 A	1/1970	French et al.
			3,516,611 A	6/1970	Piggott
			3,546,961 A	12/1970	Marton
			3,550,863 A	12/1970	McDermott
			3,565,116 A	2/1971	Gabin
			3,584,822 A	6/1971	Oram
			3,596,835 A	8/1971	Smith et al.
			3,612,577 A	10/1971	Pope
			3,641,333 A	2/1972	Gendron
			3,663,044 A	5/1972	Contreras et al.
			3,669,470 A	6/1972	Deurloo
			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
			3,722,798 A	3/1973	Bletcher et al.
			3,722,799 A	3/1973	Rauh
			3,731,084 A	5/1973	Trevorrow
			3,754,779 A	8/1973	Peress
			3,768,735 A	10/1973	Ward
			3,786,995 A	1/1974	Manoogian et al.
			3,801,019 A	4/1974	Trenary et al.
			3,810,580 A	5/1974	Rauh
			3,826,454 A	7/1974	Zieger
			3,860,271 A	1/1975	Rodgers
			3,861,719 A	1/1975	Hand
			3,865,310 A	2/1975	Elkins et al.
			3,869,151 A	3/1975	Fletcher et al.
			3,896,845 A	7/1975	Paker
			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
			3,958,756 A	5/1976	Trenary et al.
			D240,322 S	6/1976	Staub
			3,967,783 A	7/1976	Halsted et al.
			3,979,096 A	9/1976	Zieger
			3,998,390 A	12/1976	Peterson et al.
			3,999,714 A	12/1976	Lang
			4,005,880 A	2/1977	Anderson et al.
			4,006,920 A	2/1977	Sadler et al.
			4,023,782 A	5/1977	Eifer
			4,045,054 A	8/1977	Arnold
			D245,858 S	9/1977	Grube
			D245,860 S	9/1977	Grube
			4,068,801 A	1/1978	Leutheuser
			4,081,135 A	3/1978	Tomaro
			4,084,271 A	4/1978	Ginsberg
			4,091,998 A	5/1978	Peterson
			D249,356 S	9/1978	Nagy
			4,117,979 A	10/1978	Lagarelli et al.
			4,133,486 A	1/1979	Fanella
			D251,045 S	2/1979	Grube
			4,141,502 A	2/1979	Grohe
			4,151,955 A	5/1979	Stouffer
			4,151,957 A	5/1979	Gecewicz et al.
1,018,143 A	2/1912	Vissering			
1,046,573 A	12/1912	Ellis			
1,203,466 A	10/1916	Benson			
1,217,254 A	2/1917	Winslow			
1,218,895 A	3/1917	Porter			
1,255,577 A	2/1918	Berry			
1,260,181 A	3/1918	Garnero			
1,276,117 A	8/1918	Riebe			
1,284,099 A	11/1918	Harris			
1,327,428 A	1/1920	Gregory			
1,451,800 A	4/1923	Agner			
1,459,582 A	6/1923	Dubee			
1,469,528 A	10/1923	Owens			
1,500,921 A	7/1924	Bramson et al.			
1,560,789 A	11/1925	Johnson et al.			
1,597,477 A	8/1926	Panhorst			
1,633,531 A	6/1927	Keller			
1,692,394 A	11/1928	Sundh			
1,695,263 A	12/1928	Jacques			
1,724,147 A	8/1929	Russell			
1,724,161 A	8/1929	Wuesthoff			
1,736,160 A	11/1929	Jonsson			
1,754,127 A	4/1930	Srulowitz			
1,758,115 A	5/1930	Kelly			
1,778,658 A	10/1930	Baker			
1,821,274 A	9/1931	Plummer			
1,890,156 A	12/1932	Konig			
1,906,575 A	5/1933	Goeriz			
2,011,446 A	8/1935	Judell			
2,024,930 A	12/1935	Judell			
2,044,445 A	6/1936	Price et al.			
2,117,152 A	5/1938	Crosti			
2,196,783 A	4/1940	Shook			
2,197,667 A	4/1940	Shook			
2,216,149 A	10/1940	Weiss			
D126,433 S	4/1941	Enthof			
2,251,192 A	7/1941	Krumsiek et al.			
2,268,263 A	12/1941	Newell et al.			
2,342,757 A	2/1944	Roser			
2,402,741 A	6/1946	Draviner			
D147,258 S	8/1947	Becker			
D152,584 S	2/1949	Becker			
2,467,954 A	4/1949	Becker			
2,546,348 A	3/1951	Schuman			
2,567,642 A	9/1951	Penshaw			
2,581,129 A	1/1952	Muldoon			
D166,073 S	3/1952	Dunkelberger			
2,648,762 A	8/1953	Dunkelberger			
2,664,271 A	12/1953	Arutunoff			
2,671,693 A	3/1954	Hyser et al.			
2,676,806 A	4/1954	Bachman			
2,679,575 A	5/1954	Haberstump			
2,680,358 A	6/1954	Zublin			
2,726,120 A	12/1955	Bletcher et al.			
2,759,765 A	8/1956	Pawley			
2,776,168 A	1/1957	Schweda			
2,873,999 A	2/1959	Webb			
2,931,672 A	4/1960	Merritt et al.			
2,935,265 A	5/1960	Richter			
2,966,311 A	12/1960	Davis			
D190,295 S	5/1961	Becker			
3,007,648 A	11/1961	Fraser			
D192,935 S	5/1962	Becker			
3,032,357 A	5/1962	Shames et al.			
3,034,809 A	5/1962	Greenberg			
3,037,799 A	6/1962	Mulac			
3,092,333 A	6/1963	Gaiotto			
3,098,508 A	7/1963	Gerdes			
3,103,723 A	9/1963	Becker			
3,104,827 A	9/1963	Aghnides			

US D527,440 S

4,162,801 A	7/1979	Kresky et al.	D297,160 S	*	8/1988	Robbins	D23/213
4,165,837 A	8/1979	Rundzaitis	4,778,104 A		10/1988	Fisher	
4,174,822 A	11/1979	Larsson	4,787,591 A		11/1988	Villacorta	
4,185,781 A	1/1980	O'Brien	4,790,294 A		12/1988	Allred, III et al.	
4,190,207 A	2/1980	Fienhold et al.	4,801,091 A		1/1989	Sandvik	
4,191,332 A	3/1980	De Langis et al.	4,809,369 A		3/1989	Bowden	
4,203,550 A	5/1980	On	4,839,599 A		6/1989	Fischer	
4,209,132 A	6/1980	Kwan	4,842,059 A		6/1989	Tomek	
D255,626 S	7/1980	Grube	D302,325 S		7/1989	Charet et al.	
4,219,160 A	8/1980	Allred, Jr.	4,850,616 A		7/1989	Pava	
4,221,338 A	9/1980	Shames et al.	4,856,822 A		8/1989	Parker	
4,243,253 A	1/1981	Rogers, Jr.	4,865,362 A		9/1989	Holden	
4,244,526 A	1/1981	Arth	4,871,196 A		10/1989	Kingsford	
D258,677 S	3/1981	Larsson	D306,351 S		2/1990	Charet et al.	
4,254,914 A	3/1981	Shames et al.	4,901,927 A		2/1990	Valdivia	
4,258,414 A	3/1981	Sokol	4,903,178 A		2/1990	Englot et al.	
4,272,022 A	6/1981	Evans	4,903,897 A		2/1990	Hayes	
4,274,400 A	6/1981	Baus	4,903,922 A		2/1990	Harris, III	
4,282,612 A	8/1981	King	4,907,137 A		3/1990	Schladitz et al.	
D261,300 S	10/1981	Klose	4,914,759 A		4/1990	Goff	
D261,417 S	10/1981	Klose	4,946,202 A		8/1990	Perricone	
4,303,201 A	12/1981	Elkins et al.	4,951,329 A		8/1990	Shaw	
4,319,608 A	3/1982	Raikov et al.	4,953,585 A		9/1990	Rollini et al.	
4,330,089 A	5/1982	Finkbeiner	4,964,573 A		10/1990	Lipski	
D266,212 S	9/1982	Haug et al.	4,972,048 A		11/1990	Martin	
4,350,298 A	9/1982	Tada	D313,267 S		12/1990	Lenci et al.	
4,353,508 A	10/1982	Butterfield et al.	D314,246 S		1/1991	Bache	
D267,582 S	1/1983	Mackay et al.	D315,191 S		3/1991	Mikol	
D268,442 S	3/1983	Darmon	D317,348 S		6/1991	Geneve et al.	
D268,611 S	4/1983	Klose	5,022,103 A		6/1991	Faist	
4,383,554 A	5/1983	Merriman	5,032,015 A		7/1991	Christianson	
4,396,797 A	8/1983	Sakuragi et al.	5,033,528 A		7/1991	Volcani	
4,398,669 A	8/1983	Fienhold	5,033,897 A		7/1991	Chen	
4,425,965 A	1/1984	Bayh, III et al.	D320,064 S		9/1991	Presman	
D274,457 S	6/1984	Haug	5,046,764 A		9/1991	Kimura et al.	
4,461,052 A	7/1984	Mostul	D321,062 S		10/1991	Bonbright	
4,465,308 A	8/1984	Martini	D322,119 S		12/1991	Haug et al.	
4,467,964 A	8/1984	Kaeser	D322,681 S		12/1991	Yuen	
4,495,550 A	1/1985	Visciano	5,070,552 A		12/1991	Gentry et al.	
4,527,745 A	7/1985	Butterfield et al.	D323,545 S		1/1992	Ward	
4,540,202 A	9/1985	Amphoux et al.	5,082,019 A		1/1992	Tetrault	
4,545,081 A	10/1985	Nestor et al.	5,086,878 A		2/1992	Swift	
4,553,775 A	11/1985	Halling	5,090,624 A		2/1992	Rogers	
D281,820 S	12/1985	Oba et al.	5,100,055 A		3/1992	Rokitenetz et al.	
4,561,593 A	12/1985	Cammack et al.	D325,769 S		4/1992	Haug et al.	
4,571,003 A	2/1986	Roling et al.	D325,770 S		4/1992	Haug et al.	
D283,645 S	4/1986	Tanaka	5,103,384 A		4/1992	Drohan	
4,587,991 A	5/1986	Chorkey	D326,311 S		5/1992	Lenci et al.	
4,588,130 A	5/1986	Trenary et al.	D327,729 S		7/1992	Rogers	
4,598,866 A	7/1986	Cammack et al.	5,134,251 A		7/1992	Martin	
4,614,303 A	9/1986	Moseley, Jr. et al.	D328,944 S		8/1992	Robbins	
4,618,100 A	10/1986	White et al.	5,141,016 A		8/1992	Nowicki	
4,629,124 A	12/1986	Gruber	D329,504 S		9/1992	Yuen	
4,629,125 A	12/1986	Liu	5,143,300 A		9/1992	Cutler	
4,643,463 A	2/1987	Halling et al.	5,145,114 A		9/1992	Monch	
4,645,244 A	2/1987	Curtis	D330,068 S		10/1992	Haug et al.	
4,650,120 A	3/1987	Kress	D330,408 S		10/1992	Thacker	
4,650,470 A	3/1987	Epstein	D330,409 S		10/1992	Raffo	
4,652,025 A	3/1987	Conroy, Sr.	5,153,976 A		10/1992	Benchaar et al.	
4,657,185 A	4/1987	Rundzaitis	5,154,355 A		10/1992	Gonzalez	
4,669,666 A	6/1987	Finkbeiner	5,154,483 A		10/1992	Zeller	
4,669,757 A	6/1987	Bartholomew	5,163,752 A		11/1992	Copeland et al.	
4,674,687 A	6/1987	Smith et al.	5,172,860 A		12/1992	Yuch	
4,683,917 A	8/1987	Bartholomew	5,172,862 A		12/1992	Heimann et al.	
4,703,893 A	11/1987	Gruber	5,172,866 A		12/1992	Ward	
4,719,654 A	1/1988	Blessing	D332,303 S		1/1993	Klose	
4,733,337 A	3/1988	Bieberstein	D332,994 S		2/1993	Huen	
D295,437 S	4/1988	Fabian	D333,339 S		2/1993	Klose	
4,739,801 A	4/1988	Kimura et al.	5,197,767 A		3/1993	Kimura et al.	
D296,582 S	7/1988	Haug et al.	D334,794 S		4/1993	Klose	
4,754,928 A	7/1988	Rogers et al.	D335,171 S		4/1993	Lenci et al.	

US D527,440 S

5,201,468 A	4/1993	Freier et al.	D366,710 S	1/1996	Szymanski
5,213,267 A	5/1993	Heimann et al.	5,481,765 A	1/1996	Wang
5,220,697 A	6/1993	Birchfield	D366,948 S	2/1996	Carbone
D337,839 S	7/1993	Zeller	D367,315 S	2/1996	Andrus
5,228,625 A	7/1993	Grassberger	D367,333 S	2/1996	Swyst
D338,542 S	8/1993	Yuen	D367,696 S	3/1996	Andrus
5,232,162 A	8/1993	Chih	D367,934 S	3/1996	Carbone
D339,492 S	9/1993	Klose	D368,146 S	3/1996	Carbone
D339,627 S	9/1993	Klose	D368,317 S	3/1996	Swyst
D339,848 S	9/1993	Gottwald	5,499,767 A	3/1996	Morand
5,246,169 A	9/1993	Heimann et al.	D368,539 S	4/1996	Carbone et al.
D340,376 S	10/1993	Klose	D368,540 S	4/1996	Santarsiero
5,254,809 A	10/1993	Martin	D368,541 S	4/1996	Kaiser et al.
D341,007 S	11/1993	Haug et al.	D368,542 S	4/1996	deBlois et al.
D341,191 S	11/1993	Klose	D369,204 S	4/1996	Andrus
D341,220 S	11/1993	Eagan	D369,205 S	4/1996	Andrus
5,263,646 A	11/1993	McCauley	5,507,436 A	4/1996	Ruttenberg
5,265,833 A	11/1993	Heimann et al.	D369,873 S	5/1996	deBlois et al.
5,268,826 A	12/1993	Greene	D369,874 S	5/1996	Santarsiero
5,276,596 A	1/1994	Krenzel	D369,875 S	5/1996	Carbone
5,277,391 A	1/1994	Haug et al.	D370,052 S	5/1996	Chan et al.
5,286,071 A	2/1994	Storage	D370,250 S	5/1996	Fawcett et al.
5,288,110 A	2/1994	Allread	D370,277 S	5/1996	Kaiser
5,294,054 A	3/1994	Benedict et al.	D370,278 S	5/1996	Nolan
5,297,735 A	3/1994	Heimann et al.	D370,279 S	5/1996	deBlois
D345,811 S	4/1994	Van Deursen et al.	D370,280 S	5/1996	Kaiser
D346,426 S	4/1994	Warshawsky	D370,281 S	5/1996	Johnstone et al.
D346,428 S	4/1994	Warshawsky	5,517,392 A	5/1996	Rouso et al.
D346,430 S	4/1994	Warshawsky	5,521,803 A	5/1996	Eckert et al.
D347,262 S	5/1994	Black et al.	D370,542 S	6/1996	Santarsiero
D347,265 S	5/1994	Gottwald	D370,735 S	6/1996	deBlois
5,316,216 A	5/1994	Cammack et al.	D370,987 S	6/1996	Santarsiero
D348,720 S	7/1994	Haug et al.	D370,988 S	6/1996	Santarsiero
D349,947 S	8/1994	Hing-Wah	D371,448 S	7/1996	Santarsiero
5,333,787 A	8/1994	Smith et al.	D371,618 S	7/1996	Nolan
5,340,064 A	8/1994	Heimann et al.	D371,619 S	7/1996	Szymanski
5,340,165 A	8/1994	Sheppard	D371,856 S	7/1996	Carbone
D350,808 S	9/1994	Warshawsky	D372,318 S	7/1996	Szymanski
5,344,080 A	9/1994	Matsui	D372,319 S	7/1996	Carbone
5,349,987 A	9/1994	Shieh	5,531,625 A	7/1996	Zhong
5,356,077 A	10/1994	Shames	D372,548 S	8/1996	Carbone
D352,347 S	11/1994	Dannenberg	D372,998 S	8/1996	Carbone
D352,766 S	11/1994	Hill et al.	D373,210 S	8/1996	Santarsiero
5,368,235 A	11/1994	Drozdoiff et al.	D373,434 S	9/1996	Nolan
5,369,556 A	11/1994	Zeller	D373,435 S	9/1996	Nolan
5,370,427 A	12/1994	Hoelle et al.	D373,645 S	9/1996	Johnstone et al.
5,385,500 A	1/1995	Schmidt	D373,646 S	9/1996	Szymanski et al.
D355,242 S	2/1995	Warshawsky	D373,647 S	9/1996	Kaiser
D355,703 S	2/1995	Duell	D373,648 S	9/1996	Kaiser
D356,626 S	3/1995	Wang	D373,649 S	9/1996	Carbone
5,397,064 A	3/1995	Heitzman	D373,651 S	9/1996	Szymanski
5,398,872 A	3/1995	Joubran	D373,652 S	9/1996	Kaiser
5,398,977 A	3/1995	Berger et al.	5,551,637 A	9/1996	Lo
5,402,812 A	4/1995	Moineau et al.	5,558,278 A	9/1996	Gallorini
5,405,089 A	4/1995	Heimann et al.	D374,271 S	10/1996	Fleischmann
5,423,348 A	6/1995	Jezek et al.	D374,297 S	10/1996	Kaiser
5,433,384 A	7/1995	Chan et al.	D374,298 S	10/1996	Swyst
D361,399 S	8/1995	Carbone et al.	D374,299 S	10/1996	Carbone
D361,623 S	8/1995	Huen	D374,493 S	10/1996	Szymanski
5,449,206 A	9/1995	Lockwood	D374,494 S	10/1996	Santarsiero
D363,360 S	10/1995	Santarsiero	D374,732 S	10/1996	Kaiser
5,454,809 A	10/1995	Janssen	D374,733 S	10/1996	Santarsiero
5,468,057 A	11/1995	Megerle et al.	5,560,548 A	10/1996	Mueller et al.
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	Szmanski	D378,401 S	3/1997	Neufeld et al.

US D527,440 S

5,613,638 A	3/1997	Blessing	D422,337 S	4/2000	Chan	
5,613,639 A	3/1997	Storm et al.	D423,083 S	4/2000	Haug et al.	
5,615,837 A	4/1997	Roman	D424,160 S	5/2000	Haug et al.	
5,624,074 A	4/1997	Parisi	D424,161 S	5/2000	Haug et al.	
5,624,498 A	4/1997	Lee et al.	D427,661 S	7/2000	Haverstraw et al.	
D379,212 S	5/1997	Chan	D428,110 S	7/2000	Haug et al.	
D379,404 S	5/1997	Spelts	D428,125 S	7/2000	Chan	
5,632,049 A	5/1997	Chen	6,095,801 A	8/2000	Spiewak	
D381,405 S	7/1997	Waidele et al.	6,123,272 A	9/2000	Havican et al.	
D381,737 S	7/1997	Chan	D432,624 S	10/2000	Chan	
D382,936 S	8/1997	Shfaram	D433,096 S	10/2000	Tse	
5,653,260 A	8/1997	Huber	D433,097 S	10/2000	Tse	
5,667,146 A	9/1997	Pimentel et al.	6,126,091 A	10/2000	Heitzman	
D385,332 S	10/1997	Andrus	D434,109 S	11/2000	Ko	
D385,333 S	10/1997	Caroen et al.	6,164,569 A	12/2000	Hollinshead et al.	
D385,334 S	10/1997	Caroen et al.	6,164,570 A	12/2000	Smeltzer	
D385,616 S	10/1997	Dow et al.	D435,889 S	1/2001	Ben-Tsur et al.	
D385,947 S	11/1997	Dow et al.	D443,025 S	5/2001	Kollmann et al.	
D387,230 S	12/1997	von Buelow et al.	D443,029 S	5/2001	Kollmann et al.	
5,699,964 A	12/1997	Bergmann et al.	6,230,984 B1	5/2001	Jager	
5,702,057 A	12/1997	Huber	6,230,988 B1	5/2001	Chao et al.	
D389,558 S	1/1998	Andrus	6,230,989 B1	5/2001	Haverstraw et al.	
5,704,080 A	1/1998	Kuhne	6,250,572 B1	6/2001	Chen	
5,718,380 A	2/1998	Schorn et al.	6,254,014 B1	7/2001	Clearman et al.	
D392,369 S	3/1998	Chan	6,270,278 B1	8/2001	Mauro	
5,730,361 A	3/1998	Thonnes	6,276,004 B1	8/2001	Bertrand et al.	
5,730,362 A	3/1998	Cordes	D450,370 S	11/2001	Wales et al.	
5,730,363 A	3/1998	Kress	D450,805 S	11/2001	Lindholm et al.	
5,742,961 A	4/1998	Casperson et al.	D450,806 S	11/2001	Lindholm et al.	
D394,490 S	5/1998	Andrus et al.	D450,807 S	11/2001	Lindholm et al.	
5,746,375 A	5/1998	Guo	D451,169 S	11/2001	Lindholm et al.	
5,749,552 A	5/1998	Fan	D451,170 S	11/2001	Lindholm et al.	
5,749,602 A	5/1998	Delaney et al.	D451,171 S	11/2001	Lindholm et al.	
D394,899 S	6/1998	Caroen et al.	D451,172 S	11/2001	Lindholm et al.	
D395,074 S	6/1998	Neibrook et al.	D451,583 S	12/2001	Lindholm et al.	
D395,142 S	6/1998	Neibrook et al.	D451,980 S	12/2001	Lindholm et al.	
5,765,760 A	6/1998	Kuo	D452,553 S	12/2001	Lindholm et al.	
5,769,802 A	6/1998	Wang	D452,725 S	1/2002	Lindholm et al.	
5,772,120 A	6/1998	Huber	D452,897 S	1/2002	Gillette et al.	
5,778,939 A	7/1998	Hok-Yin	D453,370 S	2/2002	Lindholm et al.	
5,788,157 A	8/1998	Kress	D453,551 S	2/2002	Lindholm et al.	
D398,370 S	9/1998	Purdy	D457,937 S	5/2002	Lindholm et al.	
5,806,771 A	9/1998	Loschelder et al.	6,454,186 B1	9/2002	Haverstraw et al.	
5,819,791 A	10/1998	Chronister et al.	6,464,265 B1	10/2002	Mikol	
5,820,574 A	10/1998	Henkin et al.	D468,800 S	1/2003	Tse	
5,839,666 A	11/1998	Heimann et al.	D471,953 S	3/2003	Colligan et al.	
D402,350 S	12/1998	Andrus et al.	6,533,194 B1	3/2003	Marsh et al.	
D404,116 S	1/1999	Bosio	6,641,057 B1	11/2003	Thomas et al.	
5,855,348 A	1/1999	Fornara	D485,887 S	1/2004	Luetzgen et al.	
5,860,599 A	1/1999	Lin	D487,498 S	3/2004	Blomstrom	
5,862,543 A	1/1999	Reynoso et al.	D490,498 S	5/2004	Golichowski	
5,862,985 A	1/1999	Neibrook et al.	6,739,523 B1	5/2004	Haverstraw et al.	
D405,502 S	2/1999	Tse	D492,007 S	6/2004	Kollmann et al.	
5,865,375 A	2/1999	Hsu	6,742,725 B1	6/2004	Fan	
5,865,378 A	2/1999	Hollinshead et al.	D493,208 S *	7/2004	Lin D23/213	
D408,893 S	4/1999	Tse	D496,987 S	10/2004	Glunk	
D409,276 S	5/1999	Ratzlaff	D497,974 S	11/2004	Haug et al.	
D410,276 S	5/1999	Ben-Tsur	D498,514 S	11/2004	Haug et al.	
5,918,811 A	7/1999	Denham et al.	D500,121 S	12/2004	Blomstrom	
5,937,905 A	8/1999	Santos	D500,549 S *	1/2005	Blomstrom D23/229	
5,947,388 A	9/1999	Woodruff	D501,242 S *	1/2005	Blomstrom D23/229	
D415,247 S	10/1999	Haverstraw et al.	2004/0074993 A1	4/2004	Thomas et al.	
5,992,762 A	11/1999	Wang	2004/0195381 A1	10/2004	Luetzgen et al.	
D418,200 S	12/1999	Ben-Tsur	2005/0061896 A1	3/2005	Luetzgen et al.	
5,997,047 A	12/1999	Pimentel et al.	2005/0082824 A1	4/2005	Luetzgen et al.	
D418,902 S	1/2000	Haverstraw et al.				
D418,903 S	1/2000	Haverstraw et al.				
D422,053 S	3/2000	Brenner et al.				
6,042,027 A	3/2000	Sandvik	EP	0695907	2/1996	
6,042,155 A	3/2000	Lockwood	EP	0719588	7/1996	
D422,336 S	4/2000	Haverstraw et al.	EP	0721082	7/1996	
			EP	0733747	9/1996	

FOREIGN PATENT DOCUMENTS

US D527,440 S

Page 6

EP	0808661	11/1997	GB	2156932 A	10/1985
EP	0726811	1/1998	GB	2199771	7/1988
FR	538538	6/1922	GB	2298595	11/1996
FR	873808	7/1942	IT	327400	7/1935
FR	1039750	10/1953	IT	350359	7/1937
FR	1098836	8/1955	IT	563459	5/1957
FR	2695452	3/1994	JP	S63-181459	11/1988
GB	10086	of 1894	JP	H2-78660	6/1990
GB	3314	of 1914	NE	8902957	6/1991
GB	129812	7/1919	WO	WO93/12894	7/1993
GB	204600	10/1923	WO	WO93/25839	12/1993
GB	634483	3/1950	WO	WO98/30336	7/1998
GB	971866	10/1964			
GB	2066074	1/1980			
GB	2066704	7/1981			

* cited by examiner

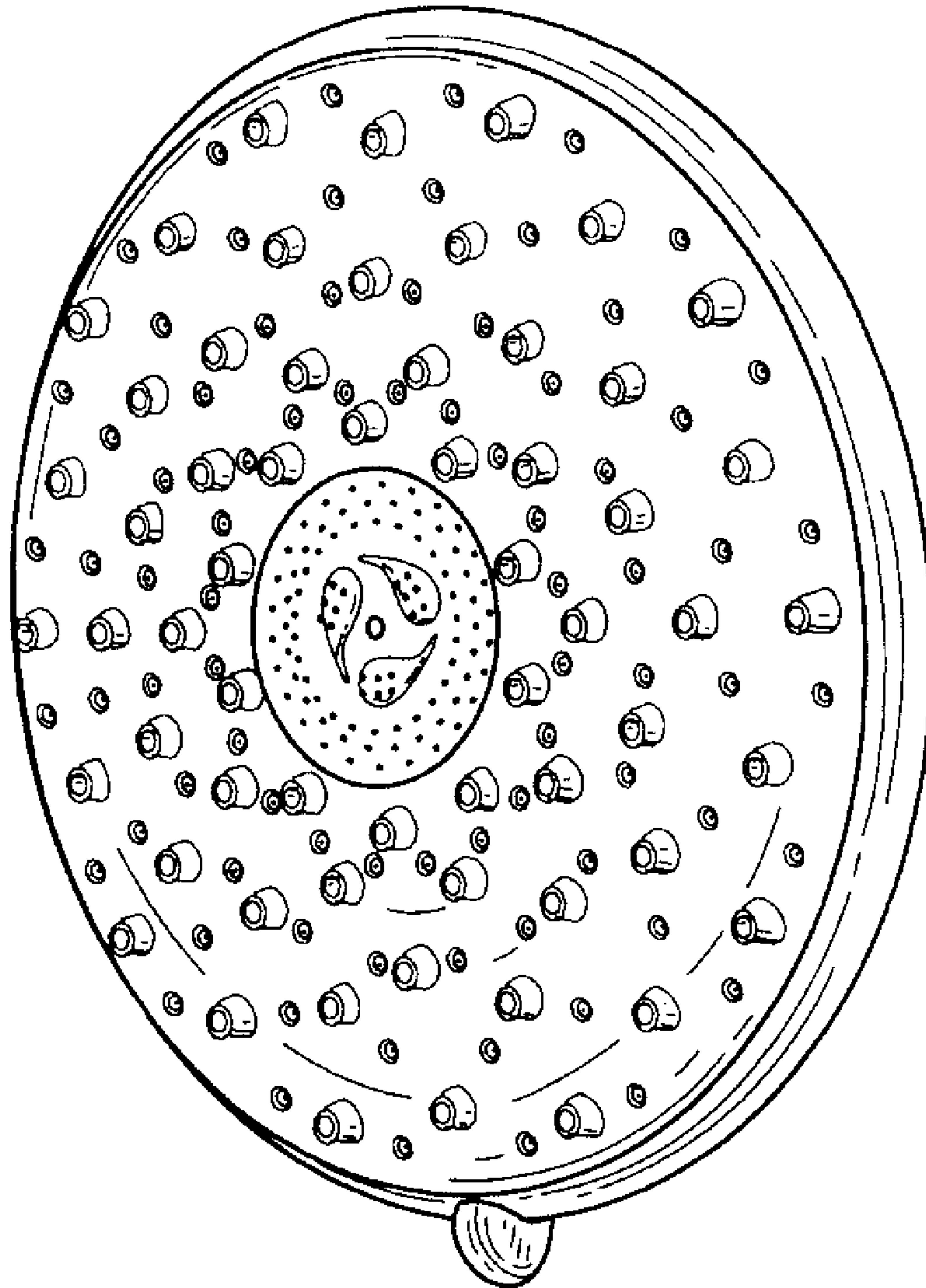


FIG. 1

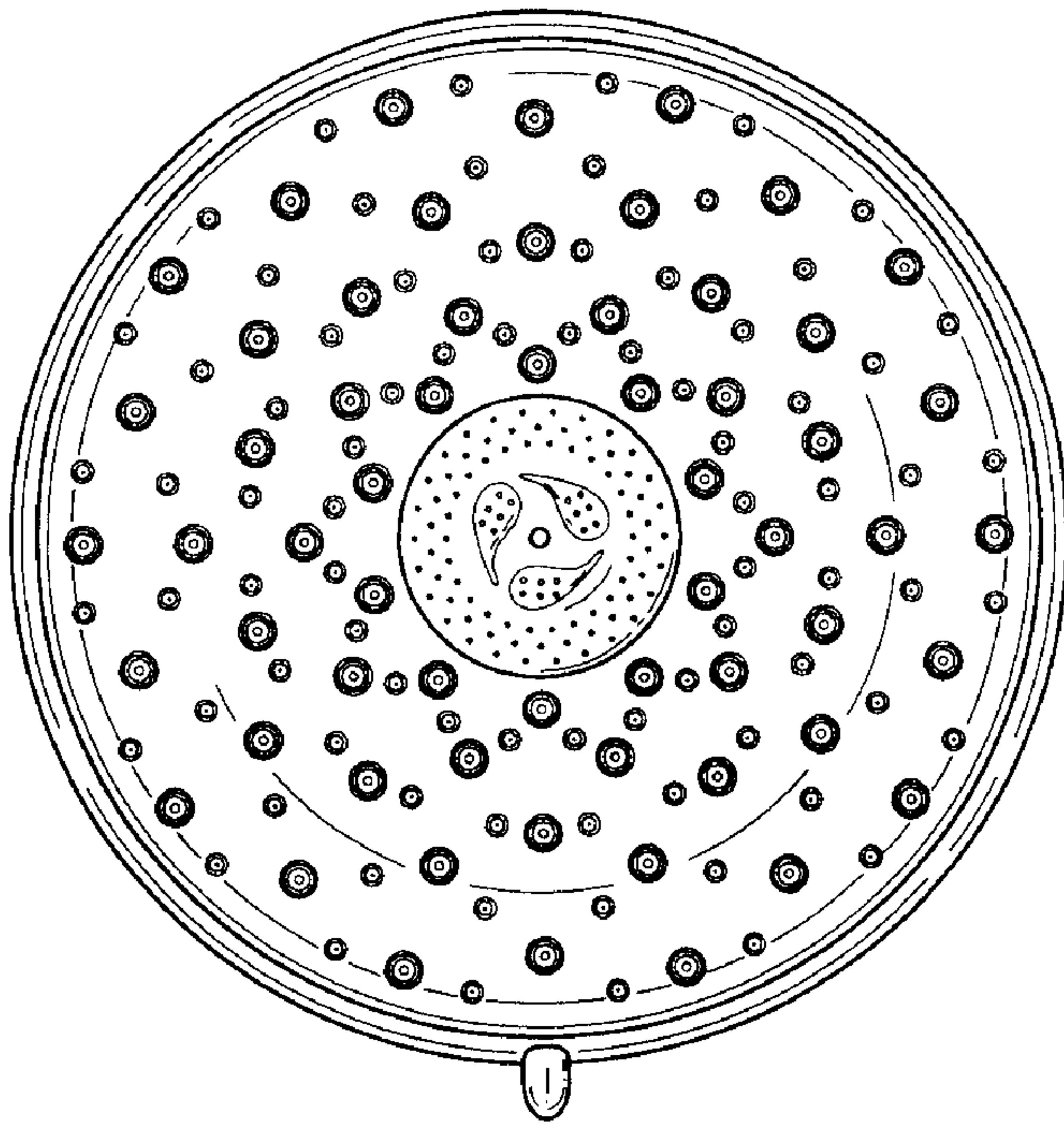


FIG.2

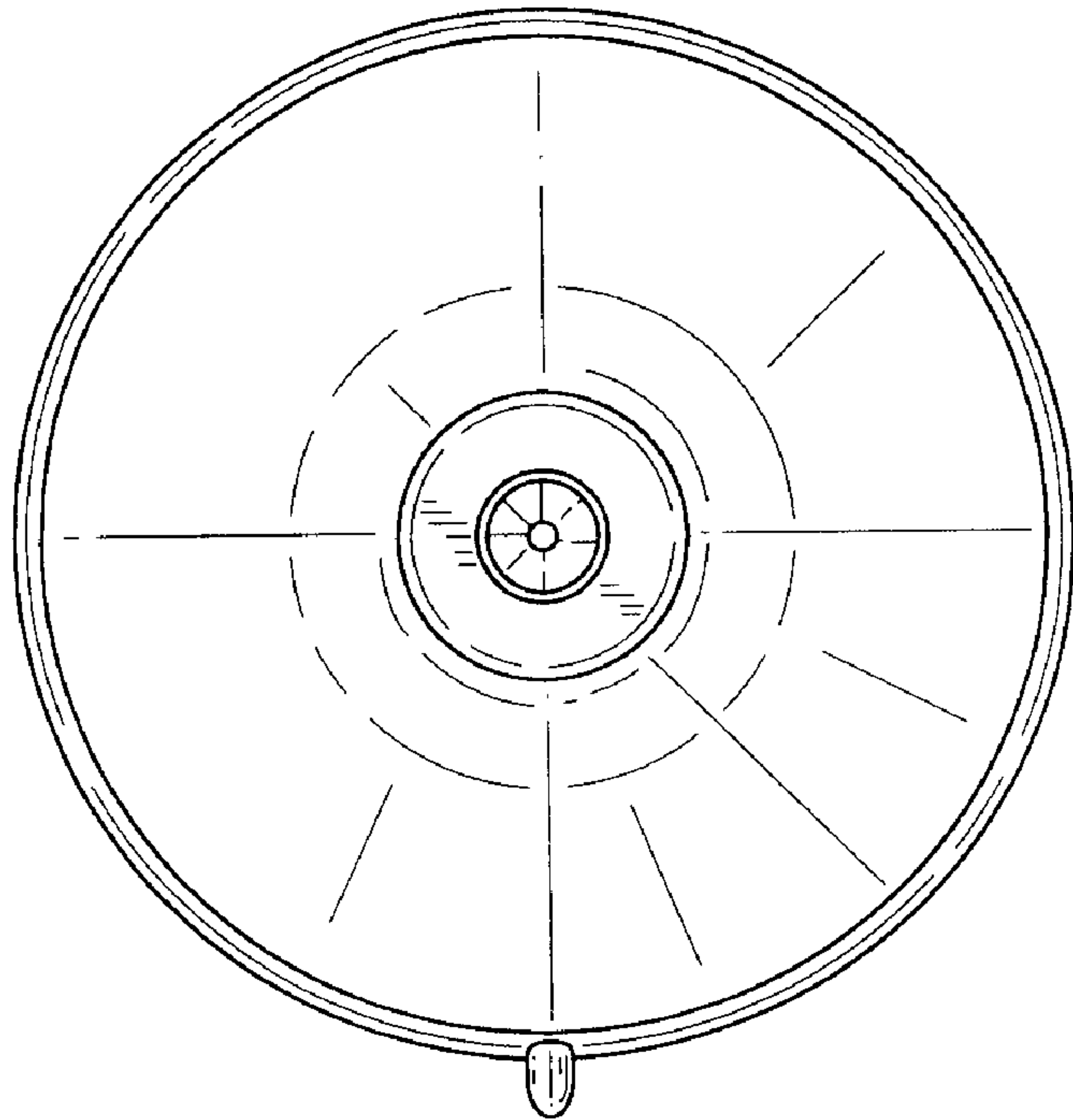


FIG.3

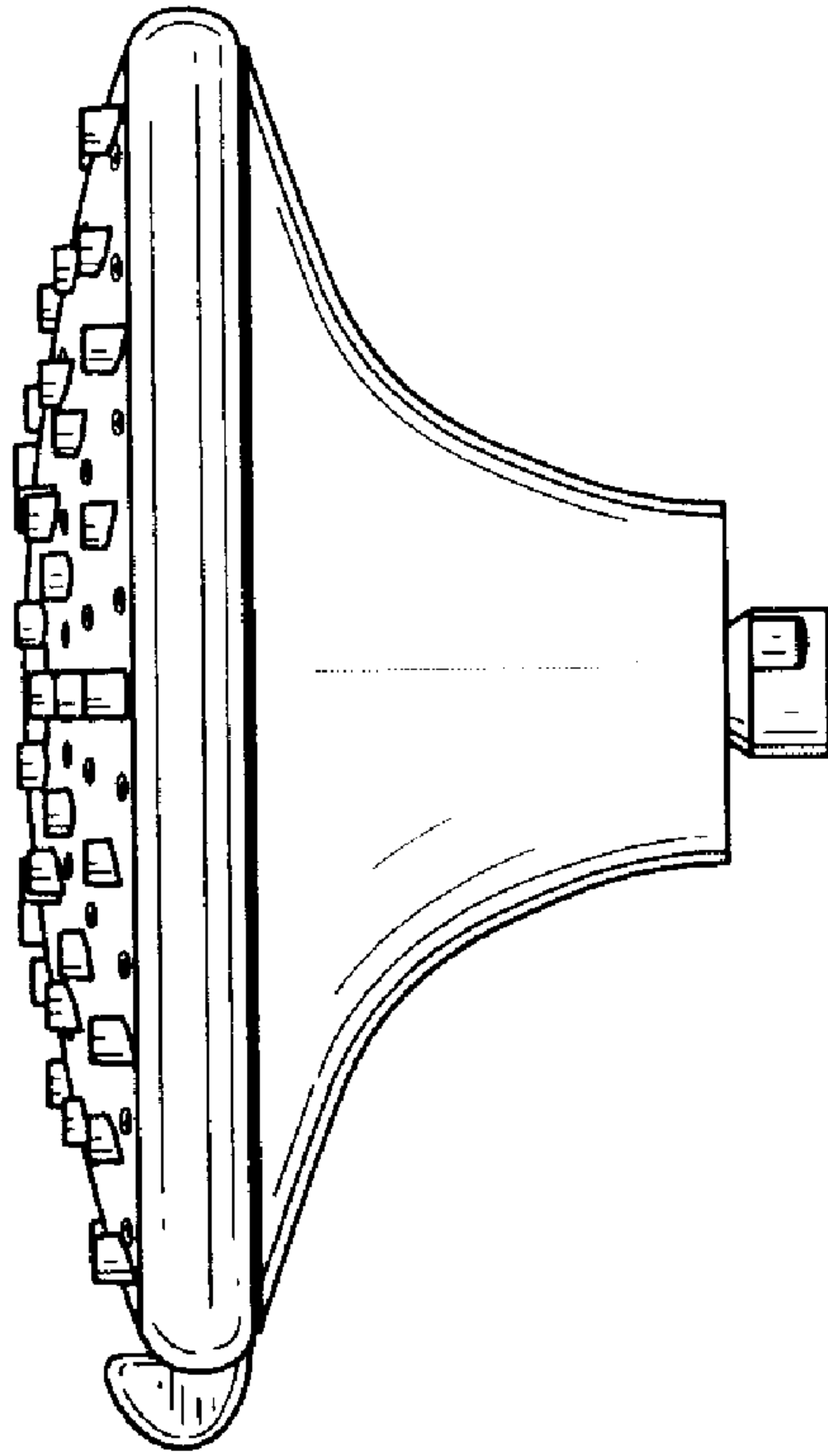


FIG. 4

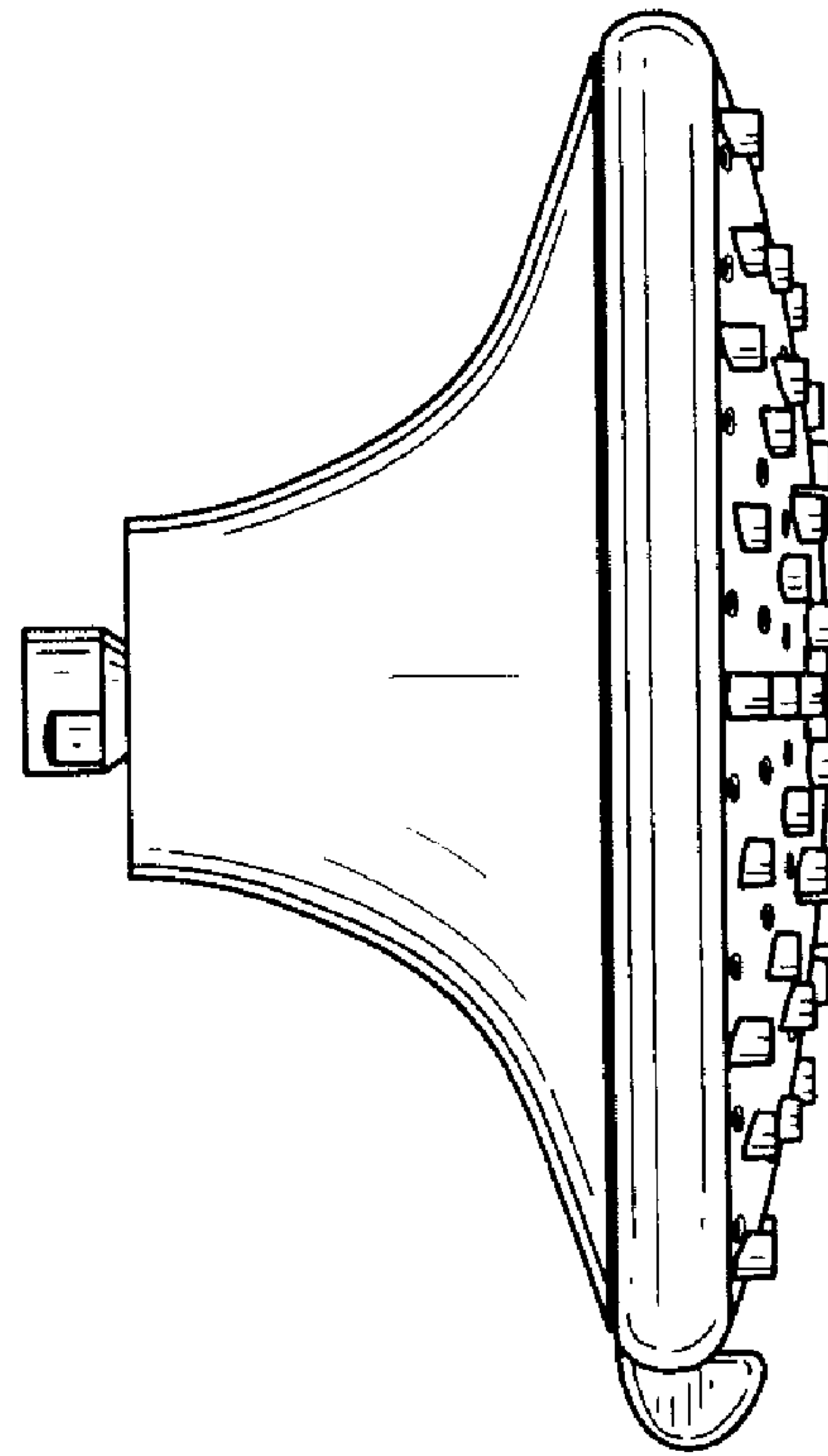


FIG. 5

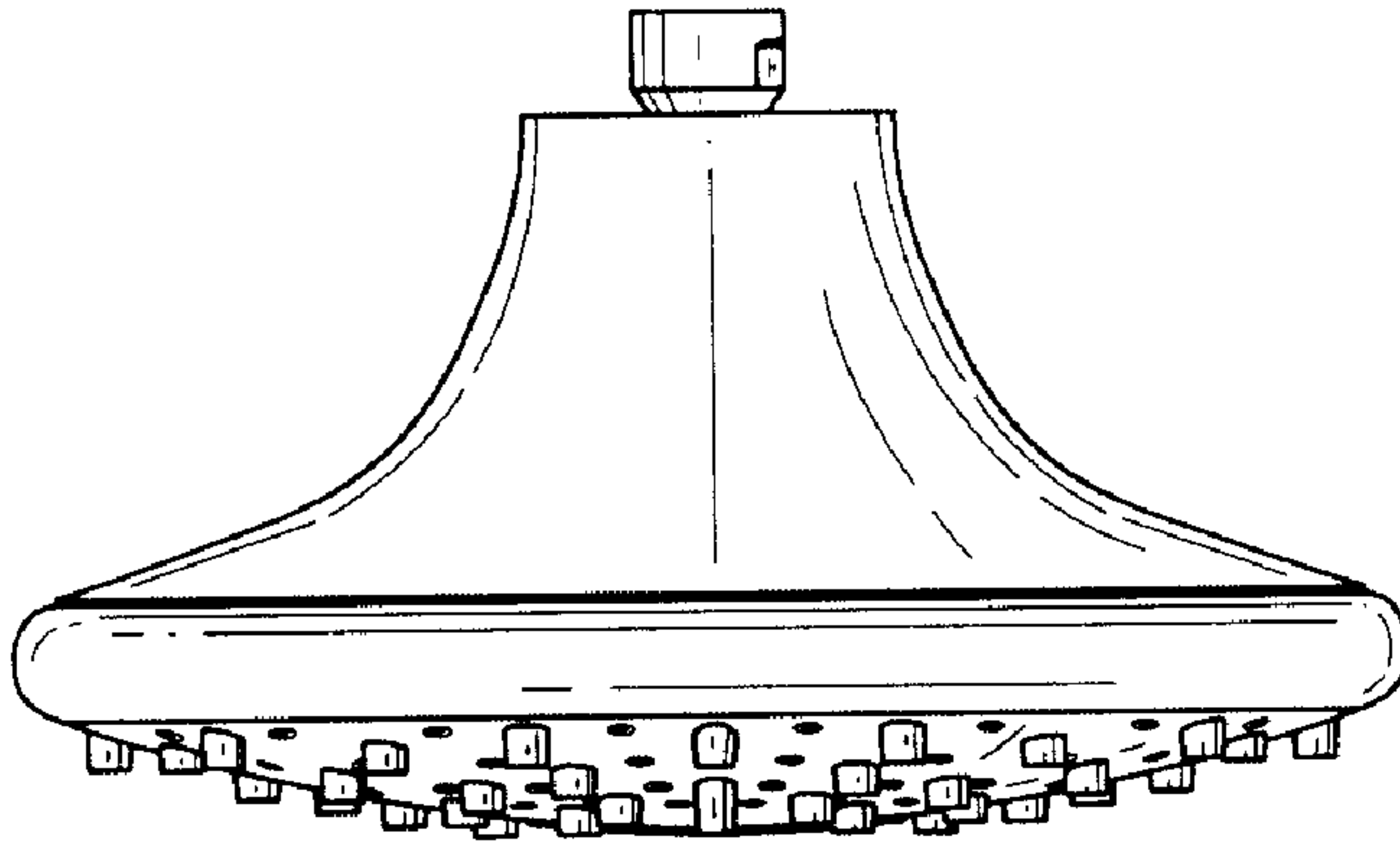


FIG. 6

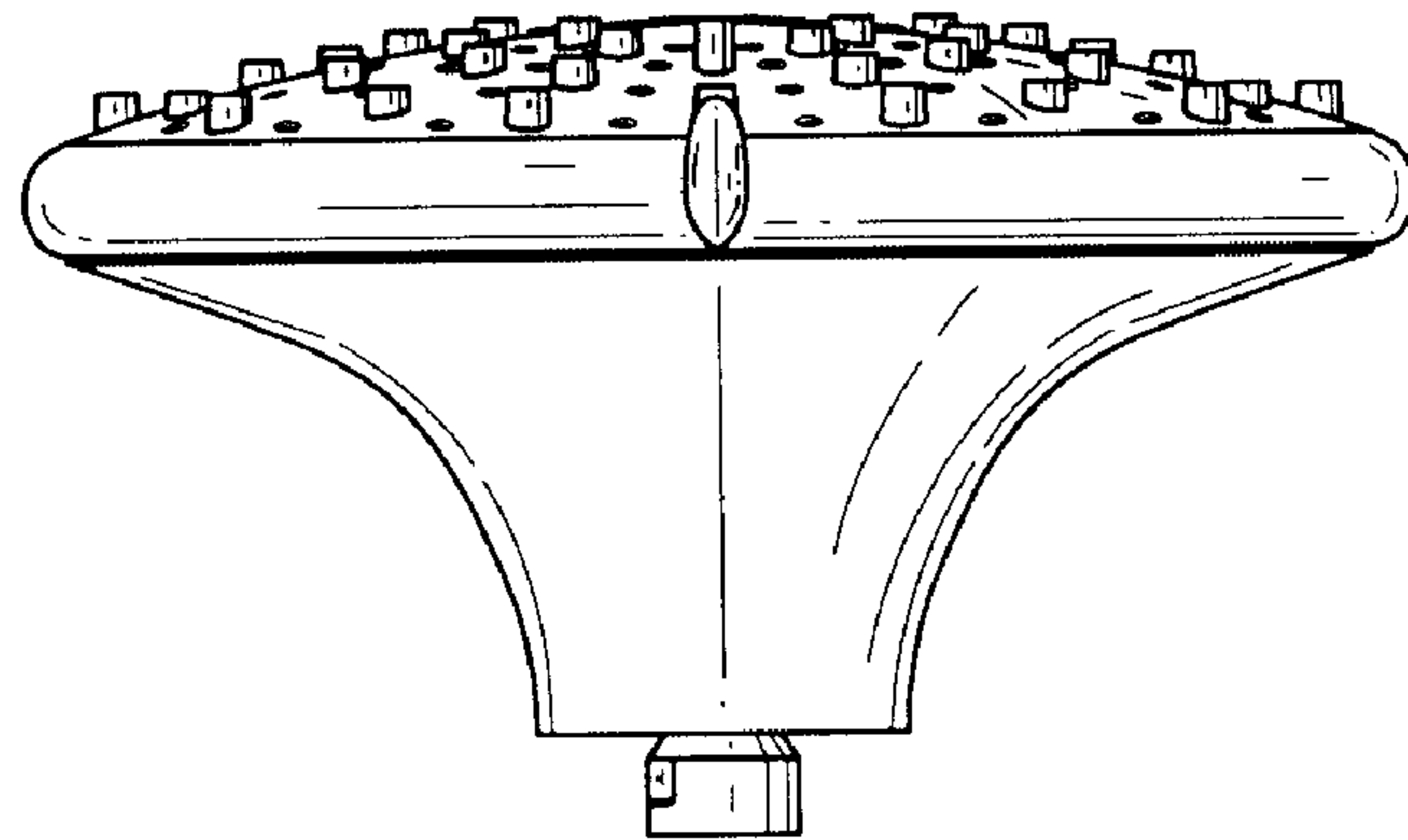


FIG. 7