



US00D697510S

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

(10) **Patent No.:** **US D697,510 S**

(45) **Date of Patent:** **** Jan. 14, 2014**

(54) **SCANNER WITH PROJECTOR**

(75) Inventors: **Yukihiko Sato**, Nagoya (JP); **Yusuke Nakata**, Kounan (JP); **Tomoyuki Nanno**, Nagoya (JP)

(73) Assignee: **Brother Industries, Ltd.**, Nagoya (JP)

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

(21) Appl. No.: **29/401,676**

(22) Filed: **Sep. 14, 2011**

(30) **Foreign Application Priority Data**

Mar. 23, 2011 (JP) 2011-6575

(51) **LOC (10) Cl.** **14-02**

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

USPC **D14/420**

(58) **Field of Classification Search**

USPC D14/433, 240, 125, 385, 383, 384, 386, D14/149-151, 130, 137, 140, 140.1, 140.8, D14/141.1, 141.3, 142, 158, 159, 168, 171, D14/172, 188, 211, 214, 225, 226, 243, 251, D14/253, 336, 215, 167, 210, 212, 509, 162, D14/233, 218, 496, 432, 434, 217, 191, 388, D14/357, 358, 420, 421, 356, 135, 136, 156, D14/239, 242, 256, 299-301, 313, 348, D14/349-354, 361, 363, 366-368, 401, 344, D14/453, 422, 423; 235/380, 382, 382.5, 235/472.01, 451, 486, 375, 441, 492; 355/64, 65, 75, 81; 250/556; 710/301, 710/303; 361/679.26, 679.32, 679.33, 361/679.46, 687, 695, 697, 700, 702, 704, 361/709-711, 719, 680-686, 836, 679, 361/679.01, 752, 679.31, 679.38, 679.45, 361/800; D13/179, 107, 108, 168, 177, D13/110, 118, 133, 162, 184, 199, 137.2, D13/137; 165/80.3, 104.33, 151, 122, 185; 257/706, 707, 718-722; 379/387.01, 379/338.02, 420.02, 447, 453, 434, 176, 379/167.14, 167.05, 156, 155, 220.1, 379/221.09, 220.14, 25, 93.09, 93.15, 900, 379/338, 339, 433.01-433.13, 419, 379/428.01-428.04, 420.01, 440-442, 379/413.04, 412, 413; 381/16, 375, 124; 455/351, 575.2, 73, 90.3, 347, 455/500-575; 713/182; 348/156; 340/326, 340/425.5, 426, 825, 825.22,

340/825.23-825.25, 825.31, 825.32, 340/825.36, 825.58, 825.69, 825.72, 10.3; D10/106, 72, 106.5, 81; D3/266, 247, D3/218, 900; D21/333, 324, 369, 385; 273/148 B; 463/1, 29-35, 46, 47, 463/16-22; 345/905, 156; 307/150; 363/141, 144, 146; 439/170, 176, 439/171-173, 483, 518, 668, 956, 638, 639, 439/650, 652, 928, 490, 910, 159, 501; 123/179.2; 341/176; 438/928; D16/235; 353/119, 122; D18/36-39; 360/69; 607/36; 349/65; D24/231, 209; 312/223.1, 223.2; D26/2, 72, 60, 88, D26/89, 85, 37, 104; D22/122; D9/732, D9/504; D23/369, 366

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D26,314 S * 11/1896 Mileer D9/504

(Continued)

Primary Examiner — Susan Moon Lee

(74) *Attorney, Agent, or Firm* — Oliff & Berridge, PLC

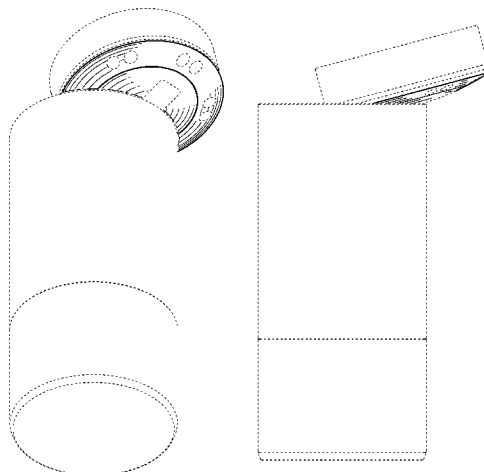
(57) **CLAIM**

The ornamental design for a scanner with projector, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a scanner with projector;
FIG. 2 is a front view thereof;
FIG. 3 is a top view thereof;
FIG. 4 is a left-side view thereof, the right-side view being a mirror image of the left-side view;
FIG. 5 is a rear view thereof;
FIG. 6 is a bottom view thereof;
FIG. 7 is another perspective view thereof;
FIG. 8 is a cross-sectional view thereof taken along lines 8-8 in FIG. 2;
FIG. 9 is another front view thereof in a closed configuration; and,
FIG. 10 is another cross-sectional view thereof taken along lines 10-10 in FIG. 9.
Broken lines and portions contained within broken line are not claimed.

1 Claim, 10 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D26,315 S *	11/1896	Miller	D9/504	4,485,582 A *	12/1984	Morris	43/131
662,353 A *	11/1900	Clement	222/553	D278,121 S *	3/1985	Sussman	D9/504
D56,552 S *	11/1920	Cardinet	D22/122	D281,027 S *	10/1985	Hisken et al.	D30/132
1,540,621 A *	6/1925	Hanson et al.	43/131	D282,380 S *	1/1986	King	D19/75
D76,636 S *	10/1928	Ryan	D26/123	D282,630 S *	2/1986	Braun	D9/504
1,713,110 A *	5/1929	Wilson	362/490	D283,407 S *	4/1986	Fenne	D10/106.5
D79,855 S *	11/1929	Schnell	D26/36	D283,891 S *	5/1986	Parshad et al.	D14/228
1,797,743 A *	3/1931	Wesson	43/121	D284,660 S *	7/1986	Montague et al.	D14/144
1,856,200 A *	5/1932	Tippey	43/131	D285,909 S *	9/1986	Lamson	D10/72
D96,018 S *	6/1935	Cannon	D14/251	D286,446 S *	10/1986	Caroli et al.	D26/123
D98,308 S *	1/1936	Floraday	D26/36	D288,560 S *	3/1987	Anderson	D14/212
D99,105 S *	3/1936	Arenberg	D26/124	D288,593 S *	3/1987	Campbell	D13/102
D107,878 S *	1/1938	Levy	D26/74	D292,283 S *	10/1987	Matsuda et al.	D14/240
D115,820 S *	7/1939	Keim	D22/122	D297,252 S *	8/1988	Pressnall	D22/122
D115,970 S *	8/1939	Stewart	D26/124	4,761,912 A *	8/1988	Dyer et al.	43/121
D117,173 S *	10/1939	Gruenberg	D22/122	D298,160 S *	10/1988	Gatarz	D22/122
2,255,431 A *	9/1941	Marden et al.	313/485	4,804,101 A *	2/1989	Heath	220/504
D144,379 S *	4/1946	Hocker	D22/122	4,804,972 A *	2/1989	Schudel	343/840
D160,640 S *	10/1950	Mageyoch	D26/74	D300,322 S *	3/1989	Lam	D14/189
2,549,681 A *	4/1951	Goldstaub	206/528	D300,528 S *	4/1989	Drane	D13/171
2,653,784 A *	9/1953	Wasselle	248/316.5	D300,678 S *	4/1989	Barrault	D32/73
D173,253 S *	10/1954	Ayoub	D22/122	4,876,554 A *	10/1989	Tubbs	343/780
2,710,485 A *	6/1955	Starr	43/131	D304,944 S *	12/1989	Behringer	D14/188
2,774,466 A *	12/1956	Liska	206/538	D305,503 S *	1/1990	Bormioli	D9/504
2,878,425 A *	3/1959	Kudoh	315/284	D308,647 S *	6/1990	Mayo	D10/104.1
2,931,896 A *	4/1960	Mikola, Jr.	362/368	D308,947 S *	7/1990	Downing	D10/106.5
3,001,658 A *	9/1961	Herter	215/200	D311,397 S *	10/1990	Cheng	D14/149
3,048,526 A *	8/1962	Boswell	424/472	D315,562 S *	3/1991	Brown	D14/213
D204,756 S *	5/1966	Farrell	D23/369	D318,346 S *	7/1991	Bakic	D28/82
3,257,696 A *	6/1966	Miller et al.	24/116 A	D319,897 S *	9/1991	Bakic	D28/82
D211,472 S *	6/1968	Dreyfuss	D14/149	D321,785 S *	11/1991	Garrity	D3/209
D217,065 S *	3/1970	Gugelot et al.	D26/37	D322,753 S *	12/1991	Sussman	D9/504
D220,105 S *	3/1971	Small	D14/300	D325,582 S *	4/1992	Emmons et al.	D14/218
D221,893 S *	9/1971	Peasley	D26/85	D327,479 S *	6/1992	Britz	D14/225
D222,117 S *	9/1971	Baatz	D25/102	D327,690 S *	7/1992	Ogawa et al.	D14/230
D222,500 S *	10/1971	Gugalot et al.	D26/37	D331,060 S *	11/1992	Emmons et al.	D14/218
3,722,739 A *	3/1973	Blumberg	221/3	5,174,462 A *	12/1992	Hames	220/87.1
D228,795 S *	10/1973	Peasley	D26/85	D334,975 S *	4/1993	Bunce et al.	D23/366
D232,863 S *	9/1974	Tong	D14/192	5,203,845 A *	4/1993	Moore	248/118
D235,584 S *	6/1975	Hall	D3/207	D336,144 S *	6/1993	Galati	D26/26
D239,163 S *	3/1976	Dearling	D23/369	D337,846 S *	7/1993	Fiorato	D26/85
D240,320 S *	6/1976	Anderson	D26/85	5,229,590 A *	7/1993	Harden et al.	235/462.45
D241,824 S *	10/1976	Mackay	D10/106.5	5,243,430 A *	9/1993	Emmons	348/734
D246,316 S *	11/1977	Hadtke	D23/369	D341,442 S *	11/1993	Shapiro	D26/118
D246,317 S *	11/1977	Heath et al.	D23/369	D342,808 S *	12/1993	Bakic	D28/82
D246,635 S *	12/1977	Boldt et al.	D10/106.5	D343,019 S *	1/1994	Garrity	D26/37
D247,098 S *	1/1978	Ferrante	D9/504	D343,250 S *	1/1994	Fouke et al.	D26/88
4,069,942 A *	1/1978	Marshall et al.	221/4	D346,598 S *	5/1994	McCay et al.	D14/137
4,078,661 A *	3/1978	Thomas	206/533	D346,869 S *	5/1994	Houssian	D26/26
4,083,452 A *	4/1978	Rossmo	206/533	D347,485 S *	5/1994	Kira	D26/67
D249,481 S *	9/1978	Conforti et al.	D10/106.5	D348,773 S *	7/1994	Kutzera	D3/207
D253,014 S *	9/1979	Shibashi	D26/26	D348,918 S *	7/1994	Lin	D22/122
D253,786 S *	12/1979	Montague	D21/324	5,325,626 A *	7/1994	Jackson	43/124
D255,047 S *	5/1980	Muller et al.	D23/369	D350,192 S *	8/1994	Patel et al.	D23/369
4,202,510 A *	5/1980	Stanish	242/384.7	5,357,709 A *	10/1994	Lin	43/131
4,203,518 A *	5/1980	Current	206/380	D352,988 S *	11/1994	Jan	D22/120
D255,215 S *	6/1980	Ellinwood	D9/504	D355,416 S *	2/1995	McCay et al.	D14/137
D256,674 S *	9/1980	Hoyt	D9/443	D360,374 S *	7/1995	Tice et al.	D10/106.5
D258,068 S *	1/1981	Ostrom	D17/5	D360,842 S *	8/1995	Hu	D10/106.6
D258,158 S *	2/1981	Bunke	D21/444	D362,897 S *	10/1995	Cohen et al.	D22/122
D258,751 S *	3/1981	Lindley	D22/122	D362,920 S *	10/1995	Schwartz	D26/39
D260,975 S *	9/1981	Lam	D10/106.5	D363,110 S *	10/1995	Cohen	D22/122
D262,464 S *	12/1981	Vernon, Jr.	D21/324	D363,569 S *	10/1995	Lai	D28/82
D263,120 S *	2/1982	Fossella et al.	D9/550	D363,935 S *	11/1995	McGreevy	D14/230
D265,974 S *	8/1982	Gombert	D9/504	D364,108 S *	11/1995	DeWitt	D10/106.5
4,344,116 A *	8/1982	Martin	362/644	D365,371 S *	12/1995	Dunlap	D20/28
D268,600 S *	4/1983	Lee	D21/324	5,486,845 A *	1/1996	Chait	345/163
4,378,885 A *	4/1983	Leopoldi et al.	206/540	D367,274 S *	2/1996	Gobindram	D14/149
4,382,548 A *	5/1983	van der Heijden	239/56	5,491,618 A *	2/1996	Vakil	362/147
D271,572 S *	11/1983	Creelman	D10/106.5	D367,622 S *	3/1996	DeWitt	D10/106.5
D271,671 S *	12/1983	Thornton, Jr.	D10/106.5	D367,623 S *	3/1996	DeWitt	D10/106.5
D271,843 S *	12/1983	Ferdinand et al.	D8/312	D368,987 S *	4/1996	Boucheron	D28/78
D274,048 S *	5/1984	Wong et al.	D10/106.1	D369,348 S *	4/1996	Hu	D13/165
4,452,393 A *	6/1984	Schimanski et al.	239/57	D371,857 S *	7/1996	Gismondi	D26/85
D276,417 S *	11/1984	Fenne	D10/106.5	5,535,108 A *	7/1996	Logsdon	362/183
				D374,703 S *	10/1996	Dickson et al.	D22/122
				D375,350 S *	11/1996	Patel et al.	D23/366
				D376,215 S *	12/1996	Gomm et al.	D26/38
				D376,593 S *	12/1996	Riggs	D14/137

(56)

References Cited

U.S. PATENT DOCUMENTS

- 5,585,616 A * 12/1996 Roxby et al. 235/462.06
D377,961 S * 2/1997 Dickson et al. D22/122
5,629,826 A * 5/1997 Roca et al. 361/118
D380,566 S * 7/1997 Chen D26/37
D381,019 S * 7/1997 Muller et al. D24/231
D381,124 S * 7/1997 Blachut D28/78
D381,867 S * 8/1997 Jeppesen et al. D7/401.1
D381,976 S * 8/1997 Sandor et al. D14/420
D382,175 S * 8/1997 Green D7/538
D382,255 S * 8/1997 Moffatt D14/358
D382,257 S * 8/1997 Yamazaki D14/365
D382,307 S * 8/1997 Sharpe et al. D21/405
D382,823 S * 8/1997 Newland et al. D10/106.5
D382,825 S * 8/1997 Amlashi D10/106.5
D386,802 S * 11/1997 Kim D26/51
D387,734 S * 12/1997 Hawkins et al. D13/158
D387,988 S * 12/1997 Fitten et al. D9/504
5,700,150 A * 12/1997 Morin 439/4
D389,592 S * 1/1998 Reiser D26/36
D390,999 S * 2/1998 Gaskins et al. D26/85
D391,184 S * 2/1998 Kawabata D10/106.5
D391,943 S * 3/1998 Han D14/356
D391,944 S * 3/1998 Han D14/356
D392,797 S * 3/1998 Kampe D3/207
D392,945 S * 3/1998 Barry et al. D13/168
D393,093 S * 3/1998 Fiorato D26/85
5,730,520 A * 3/1998 Hsu et al. 362/545
D394,258 S * 5/1998 Fitzgerald D14/150
5,752,658 A * 5/1998 Gibbs et al. 239/56
D395,494 S * 6/1998 Becker D23/369
5,762,199 A * 6/1998 Aguilera 206/533
D396,852 S * 8/1998 Chao D14/358
D397,233 S * 8/1998 Bassford D26/67
5,793,352 A * 8/1998 Greenberg et al. 345/699
D398,659 S * 9/1998 Yokoi D21/333
5,826,842 A * 10/1998 Paulse et al. 248/118.1
D401,594 S * 11/1998 Nishimura et al. D14/230
D402,269 S * 12/1998 Waters D13/171
D402,894 S * 12/1998 Elia D9/504
D404,459 S * 1/1999 Furner et al. D22/122
D405,079 S * 2/1999 Oikawa D14/401
D405,206 S * 2/1999 Taylor et al. D26/67
D406,674 S * 3/1999 Zuege D26/85
D407,985 S * 4/1999 Pimentel D10/104.2
D408,591 S * 4/1999 Litton et al. D28/82
D410,295 S * 5/1999 Lueken et al. D26/74
D411,649 S * 6/1999 Bakic D28/82
D412,040 S * 7/1999 Hudak et al. D26/87
D412,222 S * 7/1999 Bakic D28/82
5,921,395 A * 7/1999 Alexander 206/538
5,946,610 A * 8/1999 Hama 455/351
D414,480 S * 9/1999 Brian D14/420
D415,212 S * 10/1999 Hornsby et al. D21/330
D415,480 S * 10/1999 Kendall et al. D14/460
5,988,520 A * 11/1999 Bitner 239/6
D417,452 S * 12/1999 Wu D14/192
D418,837 S * 1/2000 Ishii D14/218
D420,056 S * 2/2000 Mauldin, Jr. D21/324
D420,172 S * 2/2000 Thorpe D28/82
D421,439 S * 3/2000 Giuntoli D14/230
6,042,251 A * 3/2000 McCarthy et al. 362/308
D422,381 S * 4/2000 Gobe D28/82
D422,521 S * 4/2000 Morrow D10/106.5
D424,086 S * 5/2000 Choi D16/203
D424,465 S * 5/2000 Davidson D10/106.1
D424,943 S * 5/2000 Kokenge et al. D9/504
D425,477 S * 5/2000 Buckle D13/103
D426,239 S * 6/2000 Adachi D14/420
D426,482 S * 6/2000 Sakurai et al. D10/106.5
D426,515 S * 6/2000 Buckle D13/103
D427,993 S * 7/2000 Seal D14/218
D427,996 S * 7/2000 Heiligenstein et al. D14/230
D428,209 S * 7/2000 Kudo et al. D28/78
6,089,732 A * 7/2000 Wright et al. 362/364
D430,143 S * 8/2000 Renk D14/218
6,102,345 A * 8/2000 Mori 248/118.5
D432,499 S * 10/2000 Stekelenburg D13/139.6
D432,723 S * 10/2000 Crosta D28/82
6,126,010 A * 10/2000 Kogen 206/570
D433,994 S * 11/2000 Jobs et al. D13/110
D434,324 S * 11/2000 Gobe D9/504
D435,543 S * 12/2000 Nakamura D14/218
D437,441 S * 2/2001 Shoemaker et al. D26/63
D439,376 S * 3/2001 Lerolle D28/82
D439,561 S * 3/2001 Lee et al. D13/103
D441,160 S * 4/2001 Lin D34/7
D441,350 S * 5/2001 Nakamura et al. D14/509
D442,168 S * 5/2001 Warner et al. D14/231
D443,590 S * 6/2001 Vende D13/137.4
D443,726 S * 6/2001 Faillant-Dumas D28/82
D443,727 S * 6/2001 Faillant-Dumas D28/82
D444,784 S * 7/2001 Hsin D14/385
D447,551 S * 9/2001 A'Court D23/366
D447,829 S * 9/2001 Bradford et al. D26/85
6,288,498 B1 * 9/2001 Cheng 315/185 S
6,302,777 B1 * 10/2001 Zoldan 453/54
D451,080 S * 11/2001 Kataoka D14/509
D452,509 S * 12/2001 Allsop D14/458
6,325,241 B1 * 12/2001 Garde et al. 221/87
D453,329 S * 2/2002 Muramatsu D14/230
6,350,046 B1 * 2/2002 Lau 362/364
D454,406 S * 3/2002 Chang D26/67
D454,558 S * 3/2002 Song D14/245
6,354,711 B1 * 3/2002 McCoy 362/101
D455,854 S * 4/2002 Smith D26/37
D456,383 S * 4/2002 Chen D14/188
6,382,410 B1 * 5/2002 Magid et al. 206/38.1
D458,249 S * 6/2002 Hayashi D14/218
D458,395 S * 6/2002 Piepgras et al. D26/26
D459,307 S * 6/2002 Nieto D13/139.8
6,401,384 B1 * 6/2002 Contadini et al. 43/132.1
D459,725 S * 7/2002 Lee et al. D14/358
D460,218 S * 7/2002 Thorpe D28/82
D462,942 S * 9/2002 Murakami D14/509
D463,628 S * 9/2002 Thorpe D28/82
D464,347 S * 10/2002 Floyd D14/363
D464,630 S * 10/2002 Woodworth D13/171
D464,759 S * 10/2002 Thompson D26/89
6,471,991 B2 * 10/2002 Robinson et al. 424/464
D465,469 S * 11/2002 Heath D14/167
D466,579 S * 12/2002 Spiro et al. D22/122
D466,814 S * 12/2002 Hurlburt D9/504
D467,892 S * 12/2002 Lewis D14/203.6
D468,058 S * 12/2002 Thorpe D28/82
D471,458 S * 3/2003 Booth et al. D9/504
D471,539 S * 3/2003 Warner et al. D14/231
D472,175 S * 3/2003 Welsh D10/106.5
D473,516 S * 4/2003 Gresham et al. D13/139.4
D473,793 S * 4/2003 Paster D9/521
D474,169 S * 5/2003 Fletcher D14/159
D474,405 S * 5/2003 Togasawa D9/504
D474,974 S * 5/2003 Bakic D9/504
D477,776 S * 7/2003 Pontaoe D8/396
6,588,920 B2 * 7/2003 Agro 362/287
D481,357 S * 10/2003 Stekelenburg D13/139.8
D481,370 S * 10/2003 Popowski et al. D14/150
D482,020 S * 11/2003 Olson et al. D14/216
D482,484 S * 11/2003 Benghozi D26/85
D482,486 S * 11/2003 Demers D26/85
D482,653 S * 11/2003 Cho D13/110
D482,672 S * 11/2003 Takagi D14/509
D483,506 S * 12/2003 Yen D26/37
D484,270 S * 12/2003 Yiu D26/89
6,669,022 B2 * 12/2003 Donegan 206/531
D487,529 S * 3/2004 Kowitz D26/85
6,712,076 B2 * 3/2004 Alexander et al. 132/300
D488,142 S * 4/2004 Wang et al. D14/138 AB
6,471,571 B2 * 4/2004 Chen 345/157
6,726,502 B1 * 4/2004 Hayes 439/422
D490,182 S * 5/2004 Benensohn D26/89
D490,183 S * 5/2004 Benensohn D26/89
D491,247 S * 6/2004 Chuang et al. D22/122
D493,246 S * 7/2004 Benensohn D26/89
D493,907 S * 8/2004 Benensohn D26/89

(56)

References Cited

U.S. PATENT DOCUMENTS

D494,235	S *	8/2004	Edwards	D21/710	D544,117	S *	6/2007	Coushaine	D26/37
D494,633	S *	8/2004	Nussberger et al.	D21/324	D544,128	S *	6/2007	Carro	D26/74
D495,075	S *	8/2004	Oas	D26/37	D544,618	S *	6/2007	Coushaine	D26/37
6,778,091	B2 *	8/2004	Qualey et al.	340/628	D544,706	S *	6/2007	Rimon	D3/207
D495,676	S *	9/2004	Slevin et al.	D14/150	D544,979	S *	6/2007	Hartmann et al.	D26/74
D495,773	S *	9/2004	Duston et al.	D22/122	D544,988	S *	6/2007	Benensohn	D26/89
D496,004	S *	9/2004	Borsboom	D13/168	D549,313	S *	8/2007	Kelnhofner	D23/360
D496,751	S *	9/2004	Lin	D26/85	D550,077	S *	9/2007	Lagrecia et al.	D9/652
D497,882	S *	11/2004	Huang	D13/168	D551,362	S *	9/2007	Ottosson et al.	D26/26
6,836,676	B2 *	12/2004	Lloyd et al.	455/569.1	D551,795	S *	9/2007	Compton et al.	D26/89
D501,652	S *	2/2005	Pierson et al.	D13/171	D552,277	S *	10/2007	Chue	D26/37
D501,848	S *	2/2005	Uehara et al.	D14/240	D553,123	S *	10/2007	Solland	D14/217
D503,692	S *	4/2005	Basta	D13/184	D553,274	S *	10/2007	Hill et al.	D26/37
D503,823	S *	4/2005	Yurich	D26/89	D553,278	S *	10/2007	Moore	D26/39
D503,993	S *	4/2005	Yurich	D26/89	D553,355	S *	10/2007	Mosteller	D3/247
D503,994	S *	4/2005	Yurich	D26/89	D553,659	S *	10/2007	Kweon	D16/203
6,877,875	B2 *	4/2005	Yu et al.	362/105	D554,292	S *	10/2007	Thorpe	D28/82
D505,739	S *	5/2005	Hajianpour	D26/37	D554,361	S *	11/2007	Bates et al.	D3/207
D507,078	S *	7/2005	Greenfield	D28/82	D555,184	S *	11/2007	Rodriguez et al.	D16/230
D507,373	S *	7/2005	Kim	D26/80	D556,618	S *	12/2007	Campagna	D10/111
D507,569	S *	7/2005	Tagliabue et al.	D14/356	D557,208	S *	12/2007	Solland	D13/108
D508,458	S *	8/2005	Solland et al.	D13/108	D558,208	S *	12/2007	Ikeda et al.	D14/434
D508,548	S *	8/2005	Soner et al.	D22/122	D558,209	S *	12/2007	Ikeda et al.	D14/434
D509,016	S *	8/2005	Benghozi	D26/74	7,303,327	B2 *	12/2007	Copeland et al.	362/640
D509,507	S *	9/2005	Myles et al.	D14/420	D558,692	S *	1/2008	Neveu	D13/174
D509,617	S *	9/2005	Benghozi	D26/89	D558,764	S *	1/2008	Kuo et al.	D14/358
D511,985	S *	11/2005	Kelly, Jr.	D10/106.1	D560,209	S *	1/2008	Kim et al.	D14/215
D512,060	S *	11/2005	Wang et al.	D14/480.1	D561,220	S *	2/2008	Alm et al.	D16/203
D512,417	S *	12/2005	Hirakawa et al.	D14/223	D561,470	S *	2/2008	Jalet	D3/294
D512,718	S *	12/2005	Mori et al.	D14/434	D561,707	S *	2/2008	Neveu	D13/174
6,979,107	B1 *	12/2005	Benensohn	362/374	D561,732	S *	2/2008	Motoishi et al.	D14/509
D514,095	S *	1/2006	Wilson et al.	D14/223	D561,925	S *	2/2008	Levine	D26/72
6,991,110	B2 *	1/2006	Flynn et al.	206/725	D562,224	S *	2/2008	Bonnaud	D13/102
D514,655	S *	2/2006	Rodgers et al.	D22/119	D563,866	S *	3/2008	Bonnaud	D13/102
D514,656	S *	2/2006	Jean	D22/122	D564,124	S *	3/2008	Dickson	D26/85
D515,516	S *	2/2006	Mayo et al.	D13/171	D565,212	S *	3/2008	Butler	D26/37
D516,031	S *	2/2006	Han et al.	D13/147	D565,232	S *	3/2008	Butler	D26/85
D516,043	S *	2/2006	Jacoby et al.	D13/165	D565,780	S *	4/2008	Campagna	D26/85
D517,439	S *	3/2006	Black et al.	D10/106.5	D566,095	S *	4/2008	Davis	D14/144
D518,016	S *	3/2006	Hirano	D14/509	D566,697	S *	4/2008	Nielsen et al.	D14/224
D518,030	S *	3/2006	Lin	D14/218	D567,987	S *	4/2008	Khubani	D26/85
D518,819	S *	4/2006	Gray	D14/230	D567,994	S *	4/2008	Chan et al.	D26/104
D519,918	S *	5/2006	Wilson et al.	D13/103	D568,304	S *	5/2008	Park	D14/240
D521,460	S *	5/2006	Shimizu	D13/168	D570,528	S *	6/2008	Thompson	D26/89
D521,512	S *	5/2006	Kunzi et al.	D14/388	D570,532	S *	6/2008	Camarota	D26/120
7,044,302	B2 *	5/2006	Conley	206/538	D571,034	S *	6/2008	Goetz-Schaefer	D26/85
D522,234	S *	6/2006	Murphy	D3/209	D571,497	S *	6/2008	Chan et al.	D26/74
D522,995	S *	6/2006	Iijima	D14/509	D572,170	S *	7/2008	Nielsen	D11/207
D524,469	S *	7/2006	Pitot et al.	D26/37	D572,794	S *	7/2008	Chen	D22/122
D526,736	S *	8/2006	Blackman	D26/76	D574,095	S *	7/2008	Hill et al.	D26/26
D527,008	S *	8/2006	Greenrod	D14/420	D574,538	S *	8/2008	Sanoner	D26/67
D527,017	S *	8/2006	Kim	D14/203.6	D574,607	S *	8/2008	Kelleghan	D3/207
7,086,569	B2 *	8/2006	Stravitz	222/157	D574,877	S *	8/2008	Schoenert et al.	D16/230
D527,627	S *	9/2006	Liebe	D9/428	D575,900	S *	8/2008	Summerford et al.	D26/128
7,104,417	B2 *	9/2006	Hilliard	221/25	D576,338	S *	9/2008	Levine	D26/85
7,109,874	B2 *	9/2006	Pilkington	340/628	D576,612	S *	9/2008	Wilson et al.	D14/228
D530,037	S *	10/2006	Bucher et al.	D26/67	D577,009	S *	9/2008	Wilson et al.	D14/225
D530,184	S *	10/2006	Oas	D8/333	D577,301	S *	9/2008	Johnson et al.	D10/81
D531,159	S *	10/2006	Park	D14/203.3	D577,458	S *	9/2008	Chan et al.	D26/104
7,125,146	B2 *	10/2006	Willis et al.	362/267	D578,246	S *	10/2008	Levine	D26/113
7,128,213	B2 *	10/2006	Tung et al.	206/538	D578,299	S *	10/2008	Dennis	D2/976
D533,799	S *	12/2006	Thalhammer et al.	D10/106.1	D578,686	S *	10/2008	Dalton	D26/37
D534,889	S *	1/2007	Cheng	D14/138 R	D578,703	S *	10/2008	Levine	D26/113
D535,262	S *	1/2007	Saito et al.	D13/180	D579,572	S *	10/2008	Wittenbrock et al.	D24/209
D535,416	S *	1/2007	O'Dell	D26/37	D580,510	S *	11/2008	Berger et al.	D22/122
D535,740	S *	1/2007	Brown et al.	D26/24	D580,575	S *	11/2008	Shiu	D26/60
7,159,720	B2 *	1/2007	Pearson	206/533	D581,081	S *	11/2008	Mier-Langner	D26/72
D537,072	S *	2/2007	Kim et al.	D14/215	D581,572	S *	11/2008	Levine	D26/63
D541,228	S *	4/2007	Thursfield	D13/168	D582,601	S *	12/2008	Levine	D26/113
7,198,169	B2 *	4/2007	Silk	220/288	D583,920	S *	12/2008	Yamamoto	D23/366
D542,234	S *	5/2007	Shimizu	D13/168	D583,967	S *	12/2008	Leunis	D26/24
D542,273	S *	5/2007	Park et al.	D14/215	7,462,993	B2 *	12/2008	Sotiriou	315/291
D542,786	S *	5/2007	Karlsson et al.	D14/302	D584,295	S *	1/2009	Kellar	D14/228
D543,458	S *	5/2007	Dittmer et al.	D9/504	D585,129	S *	1/2009	Huang	D23/366
D543,975	S *	6/2007	McCown	D14/230	D585,537	S *	1/2009	Weggelaar	D23/366
					D585,580	S *	1/2009	Riffel et al.	D26/72
					D585,898	S *	2/2009	Skurdal	D14/434
					D586,491	S *	2/2009	Levine	D26/63
					D589,463	S *	3/2009	Sykes	D13/169

(56)

References Cited

U.S. PATENT DOCUMENTS

- D589,776 S * 4/2009 Camp D8/312
D590,391 S * 4/2009 Sumii D14/356
D591,269 S * 4/2009 Kim et al. D14/216
D591,301 S * 4/2009 Ho et al. D14/408
D591,678 S * 5/2009 Whitley et al. D13/133
D591,914 S * 5/2009 Witham D30/199
D594,404 S * 6/2009 Kuo et al. D13/107
7,543,718 B2 * 6/2009 Simon 221/13
D595,670 S * 7/2009 Glassman et al. D13/168
D595,828 S * 7/2009 Schwartz et al. D23/366
D596,514 S * 7/2009 Luzar et al. D10/65
D596,561 S * 7/2009 Chon et al. D13/108
D596,622 S * 7/2009 Lee D14/218
D596,647 S * 7/2009 Levy D14/496
D596,974 S * 7/2009 Watson D10/106.5
7,562,995 B1 * 7/2009 Levine 362/197
D597,514 S * 8/2009 Gencarella et al. D14/138 AC
D598,003 S * 8/2009 Park D14/149
D598,018 S * 8/2009 Sumii D14/356
D598,583 S * 8/2009 Levine D26/25
D598,595 S * 8/2009 Levine D26/63
D598,873 S * 8/2009 Tseng D13/180
D601,022 S * 9/2009 Zamberlan et al. D9/503
D601,537 S * 10/2009 Wang et al. D14/138 R
D601,564 S * 10/2009 Maeno D14/400
D601,565 S * 10/2009 Maeno D14/400
D602,388 S * 10/2009 Killo et al. D10/106.1
D602,911 S * 10/2009 Wang et al. D14/216
D602,915 S * 10/2009 Song et al. D14/218
D602,916 S * 10/2009 Won et al. D14/218
D603,022 S * 10/2009 Schonherr et al. D23/245
D603,441 S * 11/2009 Wada et al. D16/203
D603,456 S * 11/2009 Brodsky D20/28
D603,457 S * 11/2009 Julskjer et al. D21/324
7,618,150 B2 * 11/2009 Chien 362/35
D606,232 S * 12/2009 Sabernig D26/85
D606,236 S * 12/2009 Sabernig D26/93
D606,517 S * 12/2009 Nousiainen et al. D14/216
D606,593 S * 12/2009 Wilm D21/324
D606,595 S * 12/2009 Levy et al. D21/405
D607,437 S * 1/2010 Kamo D14/216
D607,596 S * 1/2010 Copeland D26/80
D607,597 S * 1/2010 Choi D26/80
D607,600 S * 1/2010 Keith D26/85
D608,277 S * 1/2010 Cano et al. D13/108
D608,671 S * 1/2010 Treharne D10/106.5
7,651,281 B2 * 1/2010 Wen 396/427
D609,213 S * 2/2010 Yeo D14/203.1
D611,587 S * 3/2010 Dineen D23/366
D611,588 S * 3/2010 Jorgensen D23/366
D612,832 S * 3/2010 Li et al. D14/150
D612,923 S * 3/2010 Wu D23/366
D613,271 S * 4/2010 Painter D14/218
D614,795 S * 4/2010 van Klinken D26/92
7,699,492 B2 * 4/2010 Levine 362/191
D616,032 S * 5/2010 Maraia D20/28
D616,851 S * 6/2010 Roka D14/138 AD
D617,459 S * 6/2010 Bogue D24/155
D617,492 S * 6/2010 Dordoni D26/85
D617,847 S * 6/2010 Royer et al. D21/333
D617,925 S * 6/2010 Coushaine et al. D26/37
D618,121 S * 6/2010 Penix et al. D10/106.9
D618,667 S * 6/2010 Chiu D14/218
7,740,494 B2 * 6/2010 Lin et al. 439/131
D619,896 S * 7/2010 Iwazu et al. D9/504
D620,164 S * 7/2010 Chen D26/60
D620,191 S * 7/2010 Feigenbaum D26/142
D620,577 S * 7/2010 Hsiao D23/366
D620,884 S * 8/2010 Lee et al. D13/108
D621,081 S * 8/2010 Abernethy et al. D26/60
D621,495 S * 8/2010 Li D23/366
D621,547 S * 8/2010 Wirgler et al. D28/82
D621,923 S * 8/2010 Koenig et al. D23/366
D621,971 S * 8/2010 Yamamoto et al. D26/2
D622,003 S * 8/2010 Naughton et al. D28/82
D623,283 S * 9/2010 Dunn et al. D23/366
D623,607 S * 9/2010 Andrews et al. D13/180
D624,518 S * 9/2010 Li D14/138 AD
7,800,498 B2 * 9/2010 Leonard et al. 340/568.2
D625,030 S * 10/2010 Yamamoto et al. D26/2
D625,031 S * 10/2010 Yamamoto et al. D26/2
D625,192 S * 10/2010 Kooser et al. D9/504
D625,295 S * 10/2010 Nogueira et al. D14/218
D626,963 S * 11/2010 Kim D14/420
D627,306 S * 11/2010 Charleux D13/168
D627,492 S * 11/2010 Yamamoto et al. D26/2
D627,493 S * 11/2010 Yamamoto et al. D26/2
D627,670 S * 11/2010 Gonzales D10/81
D627,671 S * 11/2010 Gonzales D10/81
D628,203 S * 11/2010 Noble D14/447
D628,722 S * 12/2010 Yamamoto et al. D26/2
7,857,478 B1 * 12/2010 Keller 362/103
D630,665 S * 1/2011 Yamakawa D16/219
D630,719 S * 1/2011 Wu D23/366
D631,327 S * 1/2011 Maraia D8/356
D631,379 S * 1/2011 Sutton D10/106.5
D631,770 S * 2/2011 Killo et al. D10/106.5
D631,954 S * 2/2011 Bertassi et al. D23/366
D632,005 S * 2/2011 Munstermann D26/113
D632,262 S * 2/2011 Feldstein et al. D13/164
D632,265 S * 2/2011 Choi et al. D13/168
D632,281 S * 2/2011 Hoehn et al. D14/218
D633,231 S * 2/2011 Morrison D26/24
D633,645 S * 3/2011 Verelst D26/89
D633,931 S * 3/2011 Ham D16/203
D634,053 S * 3/2011 Guercio D26/89
D634,057 S * 3/2011 Nguyen et al. D26/89
D634,202 S * 3/2011 Zamberlan et al. D9/504
D634,203 S * 3/2011 Mongeon et al. D9/504
D634,660 S * 3/2011 Sahibzada D10/106.2
D634,714 S * 3/2011 Kim D13/162
D635,476 S * 4/2011 Killo et al. 1/1
D636,105 S * 4/2011 Gielen D26/63
D636,380 S * 4/2011 Valeur D14/218
D636,611 S * 4/2011 Duma D6/309
D636,805 S * 4/2011 Anneback et al. D16/203
D637,178 S * 5/2011 Chiu D14/218
D637,189 S * 5/2011 Hemming et al. D14/385
D638,001 S * 5/2011 Nakhjiri et al. D14/242
D639,497 S * 6/2011 Ogawa et al. D26/120
D639,783 S * 6/2011 Murayama et al. D14/218
D639,784 S * 6/2011 Murayama et al. D14/218
D640,199 S * 6/2011 Wilson D13/139.7
D640,645 S * 6/2011 Andrews et al. D13/182
D640,692 S * 6/2011 Waisman-Diamond D14/358
7,967,468 B2 * 6/2011 Levine 362/197
D640,976 S * 7/2011 Matsuoka D13/108
D641,464 S * 7/2011 De Haan et al. D23/366
D641,517 S * 7/2011 Sprengers D26/89
D642,252 S * 7/2011 Paolazzi et al. D23/366
D642,722 S * 8/2011 Oberpriller D26/67
D643,022 S * 8/2011 Hou D14/216
D643,412 S * 8/2011 Brady et al. D14/218
D643,844 S * 8/2011 Akana et al. D14/447
D644,210 S * 8/2011 Chiu D14/218
RE42,686 E * 9/2011 Shimizu D13/168
D645,352 S * 9/2011 Bore D9/504
D645,750 S * 9/2011 Lee D9/504
D645,818 S * 9/2011 Guccione et al. D13/108
D647,189 S * 10/2011 Mochizuki et al. D23/366
D647,227 S * 10/2011 Kaule et al. D26/24
D647,532 S * 10/2011 Busch D14/480.3
8,033,422 B2 * 10/2011 Estrada 221/89
D648,329 S * 11/2011 Woo et al. D14/225
D649,237 S * 11/2011 Bilko et al. D23/366
8,057,434 B2 * 11/2011 Burroughs et al. 604/131
D650,005 S * 12/2011 Perks D17/99
D652,537 S * 1/2012 Wada et al. D26/2
D653,574 S * 2/2012 Gonzales D10/106.5
D653,575 S * 2/2012 Treharne et al. D10/106.5
D654,431 S * 2/2012 Stephanchick et al. D13/108
D655,457 S * 3/2012 In D28/82
D655,846 S * 3/2012 Sabernig D26/83
D655,847 S * 3/2012 Sabernig D26/83

(56)

References Cited

U.S. PATENT DOCUMENTS

D655,850	S *	3/2012	Sabernig	.....	D26/85
D656,130	S *	3/2012	Bailey	.....	D14/227
8,138,942	B2 *	3/2012	Otsuka et al.	.....	340/815.78
D656,980	S *	4/2012	Liao et al.	.....	D16/235
D658,327	S *	4/2012	Meise et al.	.....	D26/74
8,155,692	B1 *	4/2012	Roka	.....	455/550.1
D658,640	S *	5/2012	Ivaskevicius	.....	D14/242
D659,093	S *	5/2012	Schmid et al.	.....	D13/108
D660,711	S *	5/2012	Watabe	.....	D9/529
8,188,842	B2 *	5/2012	Otsuka et al.	.....	340/12.22
D662,120	S *	6/2012	Deurwaarder	.....	D16/203
D662,648	S *	6/2012	Whiting et al.	.....	D26/89
D662,939	S *	7/2012	Akana et al.	.....	D14/447
D663,064	S *	7/2012	Couvreux et al.	.....	D26/72
D664,279	S *	7/2012	Meise et al.	.....	D26/74
D664,460	S *	7/2012	Aurongzeb et al.	.....	D10/106.6
D664,698	S *	7/2012	Meise et al.	.....	D26/74
8,228,184	B2 *	7/2012	Blakeley et al.	.....	340/539.1
D664,853	S *	8/2012	Kipry et al.	.....	D9/504
D664,930	S *	8/2012	Sedic	.....	D13/168
D665,290	S *	8/2012	Bhate et al.	.....	D10/106.6
D666,175	S *	8/2012	Yamada	.....	D14/218
D666,176	S *	8/2012	Yamada	.....	D14/218
D666,204	S *	8/2012	Han	.....	D14/447
D666,350	S *	8/2012	Lee	.....	D26/89
D666,353	S *	8/2012	Lin et al.	.....	D26/124
8,251,263	B2 *	8/2012	DeMarco et al.	.....	222/483
D668,811	S *	10/2012	Peter	.....	D26/89
D669,206	S *	10/2012	Yu	.....	D26/85
D669,848	S *	10/2012	Andresen	.....	D13/102
D671,006	S *	11/2012	Presche et al.	.....	D9/504
D671,096	S *	11/2012	Song et al.	.....	D14/223
D671,921	S *	12/2012	Beall et al.	.....	D14/230
D673,641	S *	1/2013	Robinson	.....	D22/122
D673,704	S *	1/2013	Davies	.....	D26/36
D675,304	S *	1/2013	Valentino et al.	.....	D23/366
8,356,920	B2 *	1/2013	Levine	.....	362/421
D675,616	S *	2/2013	Ahmed et al.	.....	D14/385
D676,540	S *	2/2013	Sanders	.....	D23/366
D676,590	S *	2/2013	Fang	.....	D26/80
D676,887	S *	2/2013	Nakashima et al.	.....	D16/203
8,382,335	B2 *	2/2013	Harbers et al.	.....	362/294
D677,438	S *	3/2013	Miller et al.	.....	D30/152
D677,822	S *	3/2013	Yu	.....	D26/85
D678,284	S *	3/2013	Coulter	.....	D14/412
D678,285	S *	3/2013	Chen	.....	D14/433
D678,588	S *	3/2013	Fang	.....	D26/80
D679,046	S *	3/2013	Hoshino et al.	.....	D26/120
D679,101	S *	4/2013	Pitot	.....	D6/309
D679,276	S *	4/2013	Coulter	.....	D14/412
D680,015	S *	4/2013	Hauser et al.	.....	D10/106.9
D680,541	S *	4/2013	Lee et al.	.....	D14/434
D681,573	S *	5/2013	Andrews et al.	.....	D13/182
D682,131	S *	5/2013	Bhate et al.	.....	D10/106.6
D682,451	S *	5/2013	Hardy	.....	D26/60
D683,350	S *	5/2013	Jarosinski et al.	.....	D14/480.5
D683,843	S *	6/2013	Cudworth	.....	D24/109
D684,136	S *	6/2013	Ohno	.....	D14/203.6
D684,269	S *	6/2013	Wang et al.	.....	D24/209
D684,673	S *	6/2013	Caroen et al.	.....	D23/366
D685,074	S *	6/2013	Caroen et al.	.....	D23/366
D685,076	S *	6/2013	Gordon	.....	D23/366
D685,328	S *	7/2013	Kirtland	.....	D13/137.2
D685,505	S *	7/2013	Yamamoto et al.	.....	D26/2
D685,790	S *	7/2013	Tang	.....	D14/388
D686,512	S *	7/2013	Hamilton	.....	D9/732
D686,513	S *	7/2013	Henriksson	.....	D9/772
D686,719	S *	7/2013	Lin	.....	D23/366
D686,721	S *	7/2013	Wirz	.....	D23/366
D687,009	S *	7/2013	Song et al.	.....	D14/155
D687,328	S *	8/2013	Clymer et al.	.....	D10/70
D689,536	S *	9/2013	Li et al.	.....	D16/218
D689,997	S *	9/2013	Caroen et al.	.....	D23/366
2001/0038337	A1 *	11/2001	Wickstead et al.	.....	340/628
2002/0037668	A1 *	3/2002	Tseng et al.	.....	439/660
2002/0124458	A1 *	9/2002	Clark	.....	43/124
2002/0149566	A1 *	10/2002	Sarkissian	.....	345/168
2003/0053620	A1 *	3/2003	Chen	.....	379/447
2003/0093931	A1 *	5/2003	Cuff	.....	40/1.6
2003/0122698	A1 *	7/2003	Horie et al.	.....	341/176
2004/0001322	A1 *	1/2004	Cho	.....	361/752
2005/0094355	A1 *	5/2005	Mori et al.	.....	361/600
2005/0094395	A1 *	5/2005	Rosenberg	.....	362/249
2005/0205393	A1 *	9/2005	Bricaud et al.	.....	200/5 R
2005/0205458	A1 *	9/2005	Pearson	.....	206/538
2005/0245254	A1 *	11/2005	Hall	.....	455/426.1
2005/0258066	A1 *	11/2005	Conley	.....	206/538
2006/0092637	A1 *	5/2006	Yeh	.....	362/249
2007/0047224	A1 *	3/2007	Lee	.....	362/132
2008/0084474	A1 *	4/2008	Bergstrom et al.	.....	348/143
2009/0154151	A1 *	6/2009	Levine	.....	362/184
2009/0196034	A1 *	8/2009	Gherardini et al.	.....	362/235
2010/0053464	A1 *	3/2010	Otsuka	.....	348/734
2011/0181970	A1 *	7/2011	Aiba	.....	359/819

* cited by examiner

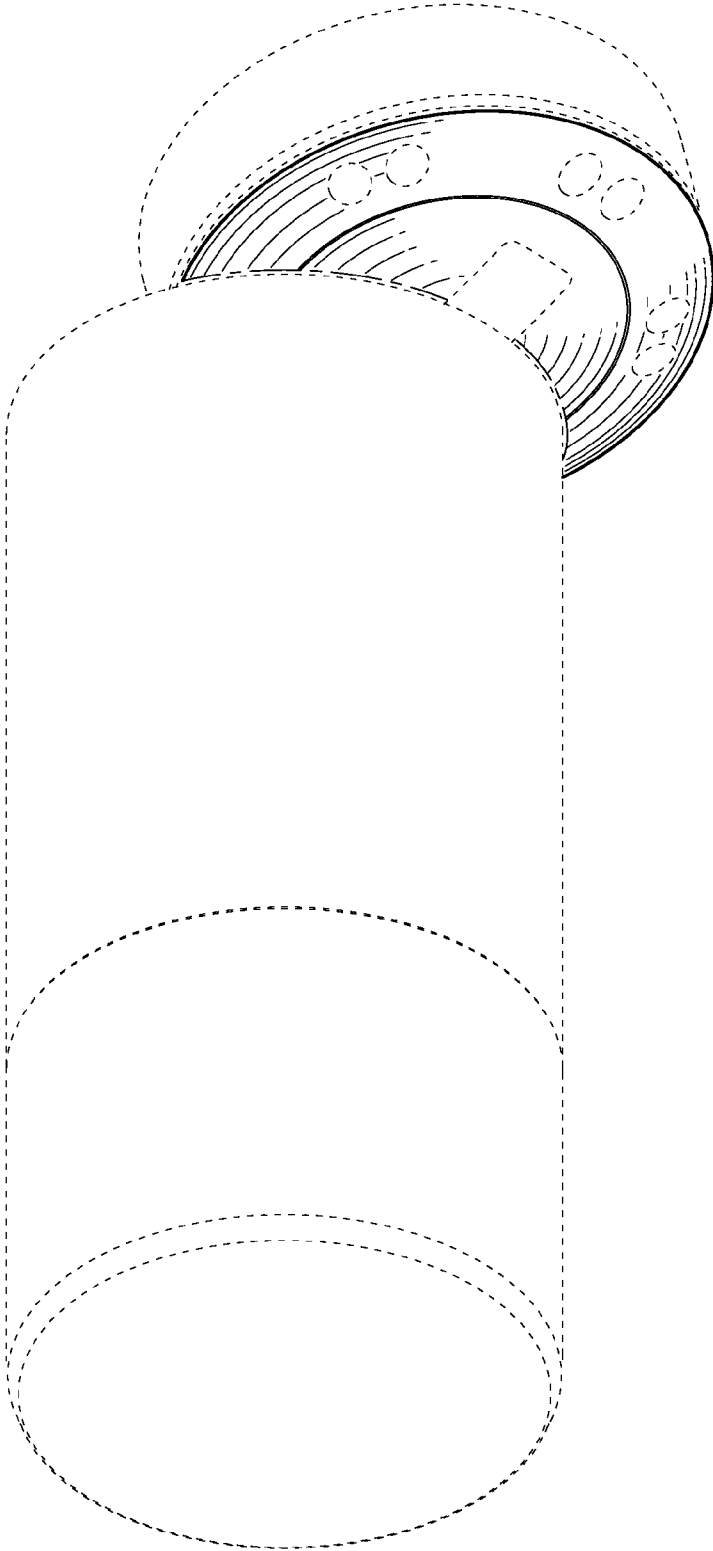


FIG. 1

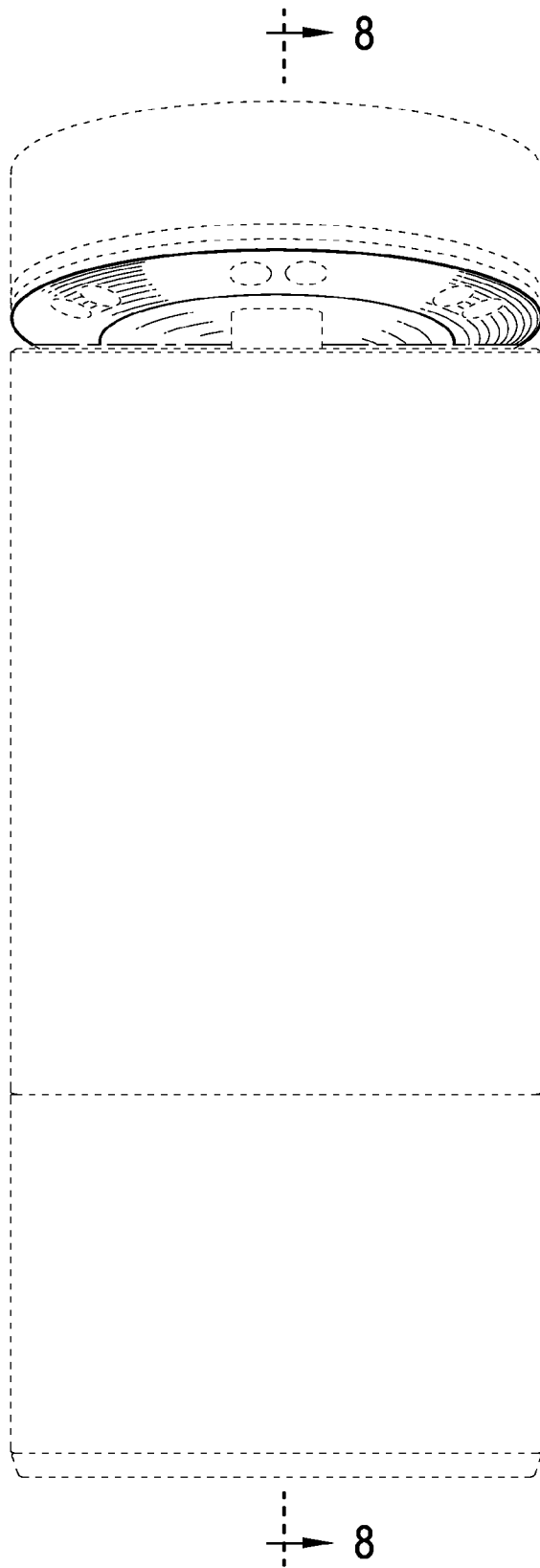


FIG. 2

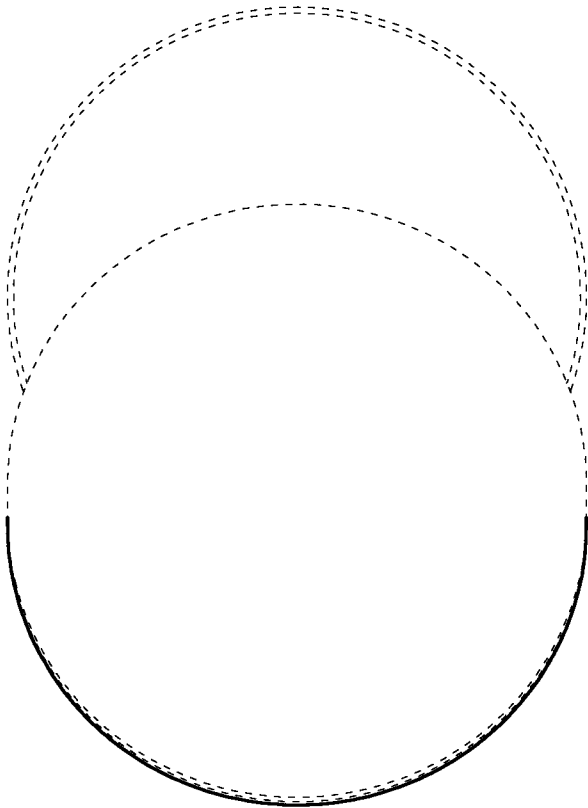


FIG. 3



FIG. 4



FIG. 5

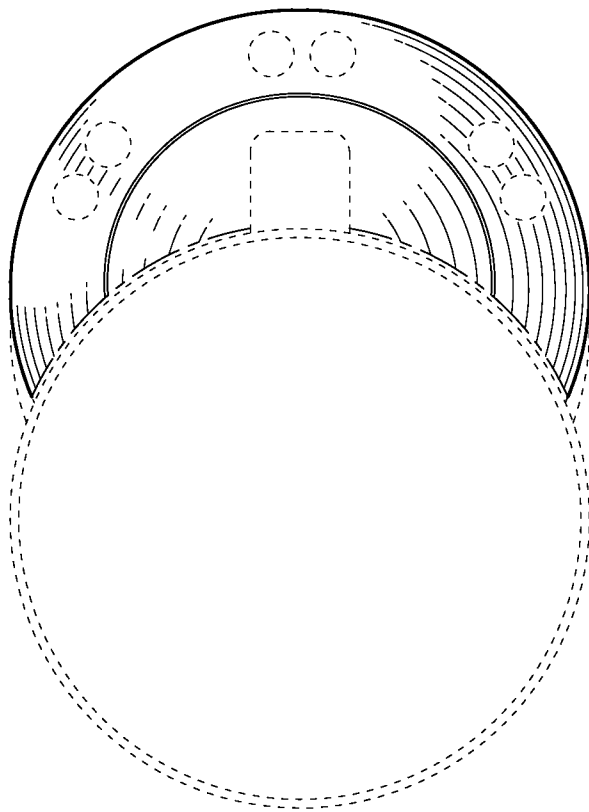


FIG. 6

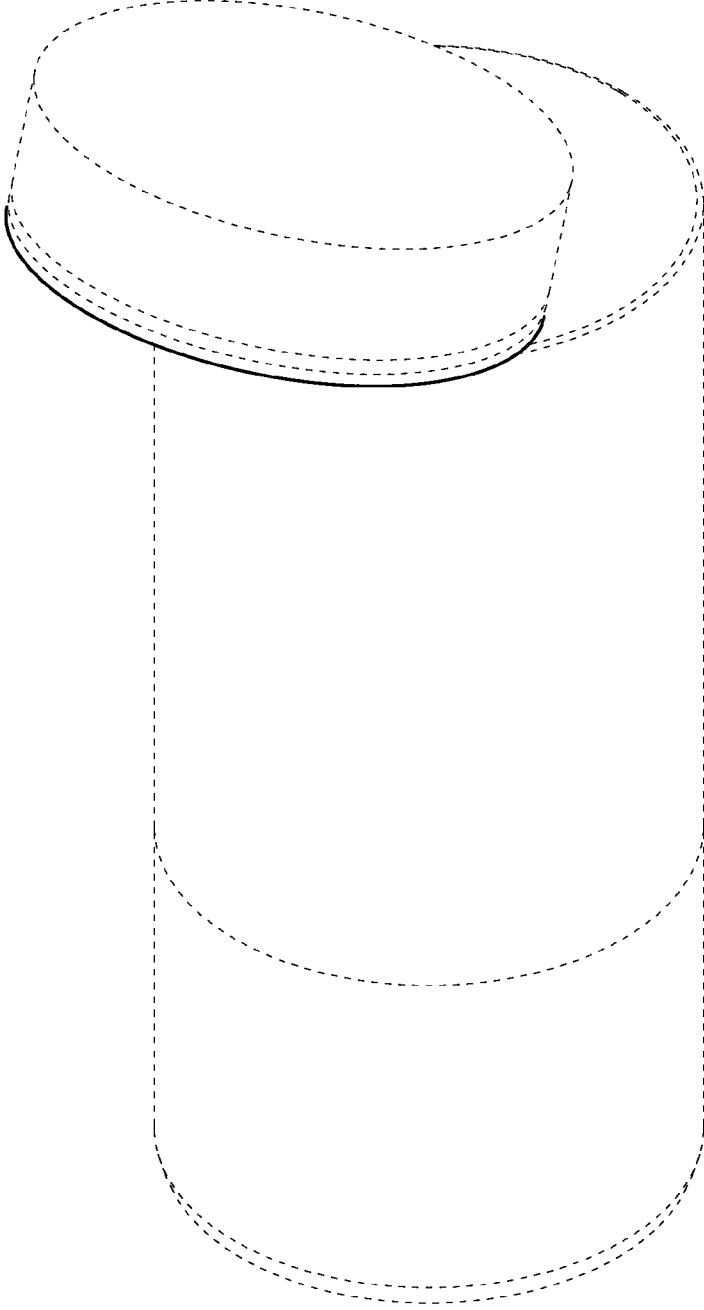


FIG. 7

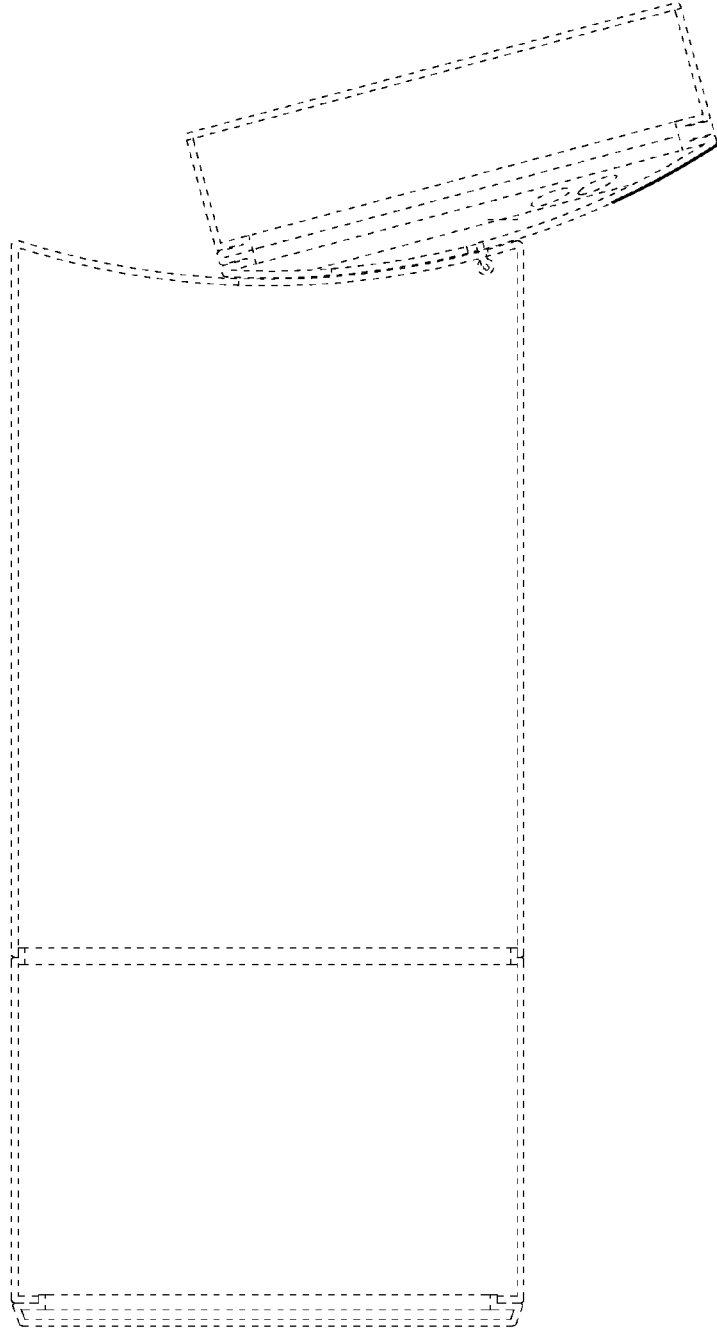


FIG. 8



FIG. 9

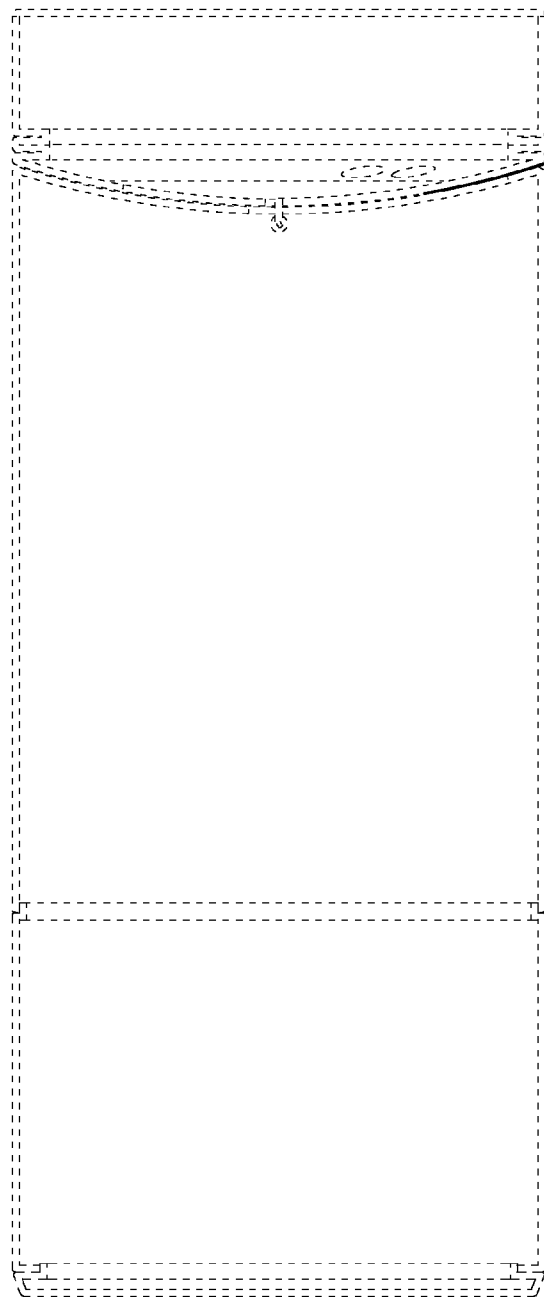


FIG. 10