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(12) **United States Design Patent** (10) **Patent No.:** **US D858,024 S**  
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(54) **TRASH CAN**  
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2,759,625 A 8/1956 Ritter  
2,796,309 A 6/1957 Taylor  
2,888,307 A 5/1959 Graves et al.  
2,946,474 A 7/1960 Knapp  
3,008,604 A 11/1961 Garner  
3,023,922 A 3/1962 Arrington et al.  
3,137,408 A 6/1964 Taylor  
(Continued)

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FOREIGN PATENT DOCUMENTS  
AU 622536 4/1992  
CA 2182840 9/1997  
(Continued)

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

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(58) **Field of Classification Search**  
USPC ..... D34/1, 7, 9  
CPC ..... B65F 1/163; B65F 1/08; B65F 1/1632;  
B65F 1/1607; B65F 1/1615; B65F 1/062;  
B65F 1/16; Y10S 220/908

(57) **CLAIM**

The ornamental design for a trash can, as shown and described.

See application file for complete search history.

**DESCRIPTION**

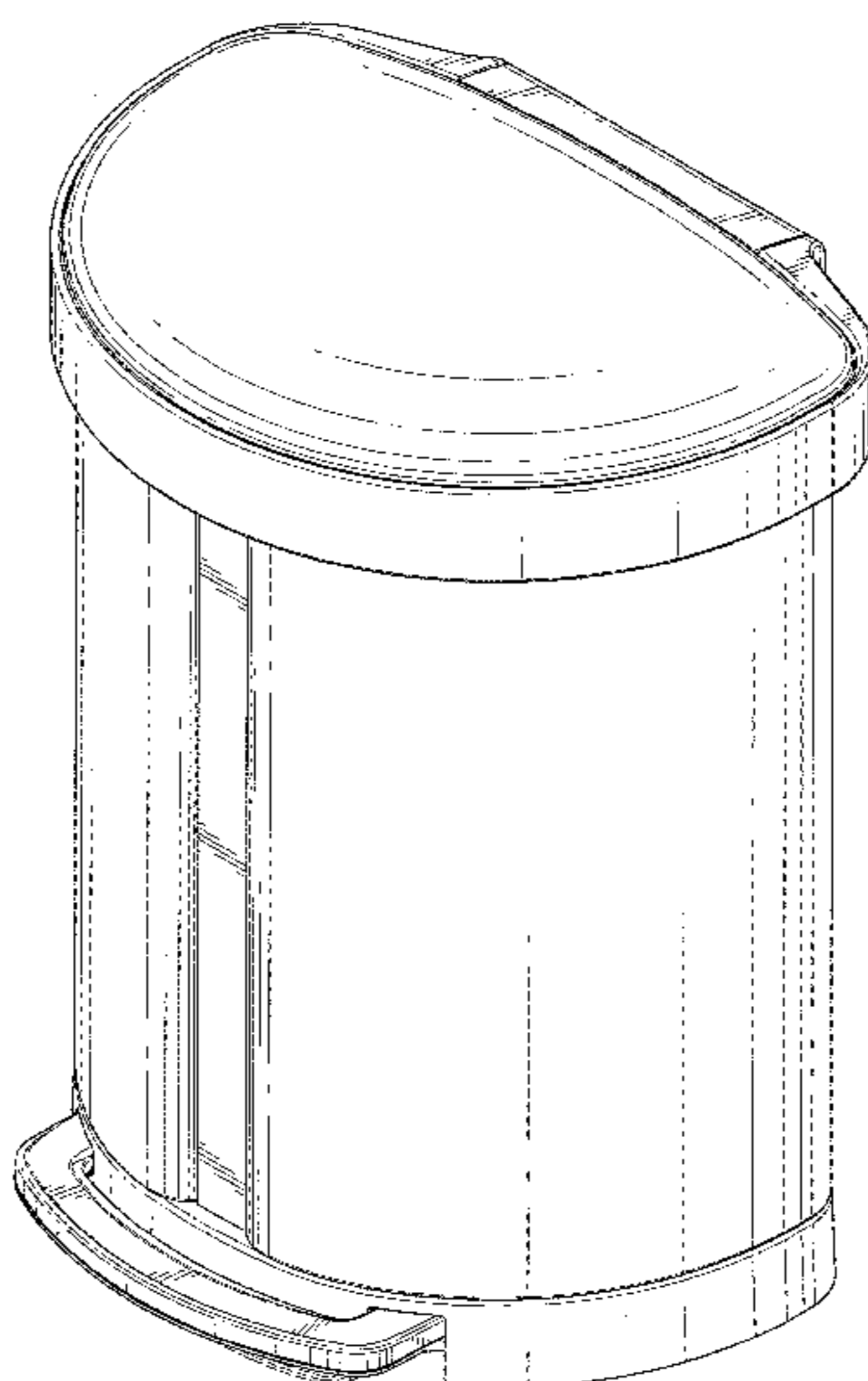
(56) **References Cited**

U.S. PATENT DOCUMENTS

830,182 A 9/1906 Skov  
1,426,211 A 8/1922 Pausin  
1,461,253 A 7/1923 Owen  
1,754,802 A 4/1930 Raster  
1,820,555 A 8/1931 Buschman  
1,891,651 A 12/1932 Padelford et al.  
1,922,729 A 8/1933 Geibel  
1,980,938 A 11/1934 Geibel  
2,308,326 A 1/1943 Calcagno  
D148,825 S 2/1948 Snider  
2,457,274 A 12/1948 Rifken

FIG. 1 is a top, front, left-side perspective view of a trash can embodying our design;  
FIG. 2 is a front elevation view thereof;  
FIG. 3 is a rear elevation view thereof;  
FIG. 4 is a right-side elevation view thereof;  
FIG. 5 is a left-side elevation view thereof;  
FIG. 6 is a top plan view thereof; and,  
FIG. 7 is a bottom plan view thereof.  
The broken lines are included for the purpose of illustrating portions of the trash can which form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



(56)

## References Cited

## U.S. PATENT DOCUMENTS

3,300,082 A	1/1967	Patterson	D329,929 S	9/1992	Knoedler et al.
3,392,825 A	7/1968	Gale et al.	5,147,055 A	9/1992	Samson et al.
3,451,453 A	6/1969	Heck	5,156,290 A	10/1992	Rodrigues
3,654,534 A	4/1972	Fischer	D331,097 S	11/1992	Sieren
3,800,503 A	4/1974	Maki	5,170,904 A	12/1992	Neuhaus
3,820,200 A	6/1974	Myers	5,174,462 A	12/1992	Hames
3,825,150 A	7/1974	Taylor	D332,852 S	1/1993	Delmerico
3,825,215 A	7/1974	Borglum	D335,562 S	5/1993	Evans
3,886,425 A	5/1975	Weiss	5,213,272 A	5/1993	Gallagher et al.
3,888,406 A	6/1975	Nippes	5,222,704 A	6/1993	Light
3,891,115 A	6/1975	Ono	D337,181 S	7/1993	Warman
4,014,457 A	3/1977	Hodge	5,226,558 A	7/1993	Whitney et al.
4,027,774 A	6/1977	Cote	5,230,525 A	7/1993	Delmerico et al.
4,081,105 A	3/1978	Dagonnet et al.	5,242,074 A	9/1993	Conaway et al.
4,189,808 A	2/1980	Brown	D340,333 S	10/1993	Duran et al.
4,200,197 A	4/1980	Meyer et al.	5,249,693 A	10/1993	Gillispie et al.
4,217,616 A	8/1980	Jessup	5,261,553 A	11/1993	Mueller et al.
4,303,174 A	12/1981	Anderson	5,265,511 A	11/1993	Itzov
4,320,851 A	3/1982	Montoya	5,295,607 A	3/1994	Chang
4,349,123 A	9/1982	Yang	5,305,916 A	4/1994	Suzuki et al.
4,357,740 A	11/1982	Brown	5,314,151 A	5/1994	Carter-Mann
4,416,197 A	11/1983	Kehl	5,322,179 A	6/1994	Ting
4,417,669 A	11/1983	Knowles et al.	5,329,212 A	7/1994	Feigleson
4,457,483 A	7/1984	Gagne	5,348,222 A	9/1994	Patey
4,535,911 A	8/1985	Goulter	5,353,950 A	10/1994	Taylor et al.
4,570,304 A	2/1986	Montreuil et al.	5,372,272 A	12/1994	Jennings
4,576,310 A	3/1986	Isgar et al.	5,381,588 A	1/1995	Nelson
D284,320 S	6/1986	Kubic et al.	5,385,258 A	1/1995	Sutherlin
4,609,117 A	9/1986	Pamment	5,390,818 A	2/1995	LaBuda
4,630,332 A	12/1986	Bisbing	5,404,621 A	4/1995	Heinke
4,630,752 A	12/1986	DeMars	5,407,089 A	4/1995	Bird et al.
4,664,347 A	5/1987	Brown et al.	5,419,452 A	5/1995	Mueller et al.
4,697,312 A	10/1987	Froyer	5,471,708 A	12/1995	Lynch
4,711,161 A	12/1987	Swin et al.	5,474,201 A	12/1995	Liu
4,729,490 A	3/1988	Ziegenbein	5,501,358 A	3/1996	Hobday
4,753,367 A	6/1988	Miller et al.	5,520,067 A	5/1996	Gaba
4,763,808 A	8/1988	Guhl et al.	5,520,303 A	5/1996	Bernstein et al.
4,765,548 A	8/1988	Sing	5,531,348 A	7/1996	Baker et al.
4,765,579 A	8/1988	Robbins, III et al.	5,535,913 A	7/1996	Asbach et al.
4,785,964 A	11/1988	Miller et al.	5,558,254 A	9/1996	Anderson et al.
4,792,039 A	12/1988	Dayton	5,560,283 A	10/1996	Hannig
4,794,973 A	1/1989	Perisic	5,584,412 A	12/1996	Wang
4,813,592 A	3/1989	Stolzman	D377,554 S	1/1997	Adriaansen
4,823,979 A	4/1989	Clark, Jr.	5,611,507 A	3/1997	Smith
4,834,260 A	5/1989	Auten	5,628,424 A	5/1997	Gola
4,863,053 A	9/1989	Oberg	5,632,401 A	5/1997	Hurd
4,867,339 A	9/1989	Hahn	5,636,416 A	6/1997	Anderson
4,869,391 A	9/1989	Farrington	5,636,761 A	6/1997	Diamond et al.
4,884,717 A	12/1989	Bussard et al.	5,644,111 A	7/1997	Cerny et al.
4,888,532 A	12/1989	Josson	5,645,186 A	7/1997	Powers et al.
4,892,223 A	1/1990	DeMent	5,650,680 A	7/1997	Chula
4,892,224 A	1/1990	Graham	D383,277 S	9/1997	Peters
D307,344 S	4/1990	Massonnet	5,662,235 A	9/1997	Nieto
4,913,308 A	4/1990	Culbertson	5,671,847 A	9/1997	Pedersen et al.
4,915,347 A	4/1990	Iqbal et al.	5,690,247 A	11/1997	Boover
4,918,568 A	4/1990	Stone et al.	5,695,088 A	12/1997	Kasbohm
D308,272 S	5/1990	Koepsell	5,699,929 A	12/1997	Ouno
4,923,087 A	5/1990	Burrows	D388,922 S	1/1998	Peters
4,944,419 A	7/1990	Chandler	D389,631 S	1/1998	Peters
4,948,004 A	8/1990	Chich	5,704,511 A	1/1998	Kellams
4,964,523 A	10/1990	Bieltvedt et al.	5,724,837 A	3/1998	Shin
4,972,966 A	11/1990	Craft, Jr.	5,730,312 A	3/1998	Hung
4,996,467 A	2/1991	Day	5,732,845 A	3/1998	Armaly, Jr.
5,031,793 A	7/1991	Chen et al.	5,735,495 A	4/1998	Kubota
5,048,903 A	9/1991	Loblein	5,738,239 A	4/1998	Triglia
5,054,724 A	10/1991	Hutcheson	5,770,935 A	6/1998	Smith et al.
5,065,272 A	11/1991	Owen et al.	5,799,909 A	9/1998	Ziegler
5,065,891 A	11/1991	Casey	5,816,431 A	10/1998	Giannopoulos
5,076,462 A	12/1991	Perrone	5,816,640 A	10/1998	Nishimura
D323,573 S	1/1992	Schneider	D401,383 S	11/1998	Gish
5,090,585 A	2/1992	Power	D401,719 S	11/1998	Van Leeuwen et al.
5,090,785 A	2/1992	Stamp	5,873,643 A	2/1999	Burgess, Jr. et al.
5,100,087 A	3/1992	Ashby	5,881,896 A	3/1999	Presnell et al.
5,111,958 A	5/1992	Witthoeft	5,881,901 A	3/1999	Hampton
D327,760 S	7/1992	Donnelly	5,884,237 A	3/1999	Kanki et al.
			5,887,748 A	3/1999	Nguyen
			D412,552 S	8/1999	Burrows
			5,961,105 A	10/1999	Ehrnsberger et al.
			5,967,392 A	10/1999	Niemi et al.



(56)

References Cited

U.S. PATENT DOCUMENTS

5,987,708	A	11/1999	Newton	7,163,591	B2	1/2007	Kim et al.
6,000,569	A	12/1999	Liu	7,168,591	B1	1/2007	Miller
6,010,024	A	1/2000	Wang	D537,223	S	2/2007	Lin
6,024,238	A	2/2000	Jaros	D537,599	S	2/2007	Lin
6,036,050	A	3/2000	Ruane	D537,601	S	2/2007	Lin
6,102,239	A	8/2000	Wien	D537,999	S	3/2007	Lin
6,105,859	A	8/2000	Stafford	D538,995	S	3/2007	Lin
6,123,215	A	9/2000	Windle	D539,498	S	3/2007	Yang et al.
D431,700	S	10/2000	Roudebush	D539,499	S	3/2007	Yang et al.
6,126,031	A	10/2000	Reason	D540,001	S	4/2007	Zimmerman
6,129,233	A	10/2000	Schiller	D542,001	S	5/2007	Yang et al.
6,131,861	A	10/2000	Fortier, Jr. et al.	D542,995	S	5/2007	Lin
D435,951	S	1/2001	Yang et al.	D543,673	S	5/2007	Yang et al.
6,209,744	B1	4/2001	Gill	D544,170	S	6/2007	Lin
6,211,637	B1	4/2001	Studer	D544,171	S	6/2007	Lin
6,234,339	B1	5/2001	Thomas	D544,671	S	6/2007	Saunders et al.
6,250,492	B1	6/2001	Verbeek	D545,024	S	6/2007	Liao
D445,980	S	7/2001	Tjugum	7,225,943	B2	6/2007	Yang et al.
6,286,706	B1	9/2001	Tucker	D547,020	S	7/2007	Chen
6,328,320	B1	12/2001	Walski et al.	7,243,811	B1	7/2007	Ramsey
6,345,725	B1	2/2002	Lin	D550,918	S	9/2007	Wang et al.
6,364,147	B1	4/2002	Meinzinger et al.	D552,319	S	10/2007	Gusdorf
6,386,386	B1	5/2002	George	D552,321	S	10/2007	Yang et al.
6,390,321	B1	5/2002	Wang	D552,823	S	10/2007	Yang et al.
6,401,958	B1	6/2002	Foss et al.	D552,824	S	10/2007	Zimmerman
6,519,130	B1	2/2003	Breslow	D552,825	S	10/2007	Yang et al.
6,557,716	B1	5/2003	Chan	D555,320	S	11/2007	Yang et al.
D476,456	S	6/2003	Englert et al.	D559,494	S	1/2008	Yang et al.
6,596,983	B2	7/2003	Brent	D559,495	S	1/2008	Yang et al.
6,626,316	B2	9/2003	Yang	D562,522	S	2/2008	Daams
6,626,317	B2	9/2003	Pfiefer et al.	7,328,842	B2	2/2008	Wagner et al.
6,632,064	B1	10/2003	Walker et al.	D564,169	S	3/2008	Wang
D481,846	S	11/2003	Lin	D564,723	S	3/2008	Yang et al.
D482,169	S	11/2003	Lin	D566,367	S	4/2008	Lin
6,659,407	B2	12/2003	Asaro	D566,369	S	4/2008	Shek
6,681,950	B2	1/2004	Miller, Jr. et al.	D566,923	S	4/2008	Lin
D488,604	S	4/2004	Yang et al.	D567,468	S	4/2008	Yang et al.
D488,903	S	4/2004	Yang et al.	D568,572	S	5/2008	Yang et al.
D489,503	S	5/2004	Lin	D569,720	S	5/2008	Lablaine
D489,857	S	5/2004	Yang et al.	7,374,060	B2	5/2008	Yang et al.
D490,583	S	5/2004	Yang et al.	D571,520	S	6/2008	Lin
D490,954	S	6/2004	Brand	7,395,990	B1	7/2008	Stevens
D491,706	S	6/2004	Yang et al.	7,398,913	B2	7/2008	McClure
6,758,366	B2	7/2004	Bourgund et al.	7,404,499	B1	7/2008	Ramsey
D493,930	S	8/2004	Wang	D574,569	S	8/2008	Yang et al.
D494,723	S	8/2004	Lin	D576,371	S	9/2008	Zimmerman
6,812,655	B1	11/2004	Wang et al.	D578,265	S	10/2008	Presnell
6,814,249	B2	11/2004	Lin	D578,266	S	10/2008	Yang et al.
D499,450	S	12/2004	Goodman et al.	D578,268	S	10/2008	Yang et al.
6,837,393	B1	1/2005	Kuo	D578,722	S	10/2008	Yang et al.
6,857,538	B2	2/2005	Lin	7,438,199	B1	10/2008	Tidrick
6,859,005	B2	2/2005	Boliver	D580,120	S	11/2008	Lin
D503,021	S	3/2005	Yang et al.	D580,613	S	11/2008	Yang et al.
6,866,826	B2	3/2005	Moore et al.	D580,615	S	11/2008	Yang et al.
6,883,676	B2	4/2005	Lin	D581,622	S	11/2008	Presnell et al.
D507,090	S	7/2005	Yang et al.	D584,470	S	1/2009	Bizzell et al.
6,920,994	B2	7/2005	Lin	D585,171	S	1/2009	Bizzell et al.
6,974,948	B1	12/2005	Brent	D585,618	S	1/2009	Yang et al.
D513,445	S	1/2006	Lin	D586,070	S	2/2009	Lin
6,981,606	B2	1/2006	Yang et al.	7,494,021	B2	2/2009	Yang et al.
D517,764	S	3/2006	Wang	D587,874	S	3/2009	Lin
D517,767	S	3/2006	Yang et al.	D593,271	S	5/2009	Yang et al.
D518,266	S *	3/2006	Yang ..... D34/9	7,530,578	B2	5/2009	Niemeyer et al.
7,017,773	B2	3/2006	Gruber et al.	7,540,396	B2	6/2009	Yang et al.
7,044,323	B2	5/2006	Yang	7,543,716	B2	6/2009	Lin
D525,756	S *	7/2006	Yang ..... D34/9	7,559,433	B2	7/2009	Yang et al.
7,073,677	B2	7/2006	Richardson et al.	D599,074	S	8/2009	Bizzell et al.
7,077,283	B2	7/2006	Yang et al.	D603,119	S	10/2009	Yang et al.
7,080,750	B2	7/2006	Wein et al.	7,607,552	B2	10/2009	Efstathiou
7,086,550	B2	8/2006	Yang et al.	D604,472	S	11/2009	Blanks et al.
D528,726	S *	9/2006	Lin ..... D34/9	7,614,519	B2	11/2009	Krauth et al.
7,121,421	B2	10/2006	Yang et al.	7,621,420	B2	11/2009	Bandoh et al.
D531,499	S	11/2006	Zaidman	7,656,109	B2	2/2010	Yang et al.
D535,799	S	1/2007	Epps	D611,216	S *	3/2010	Yang ..... D34/7
D535,800	S	1/2007	Yang et al.	D611,217	S	3/2010	Bizzell et al.
				D611,671	S	3/2010	Yang et al.
				7,694,838	B2	4/2010	Yang et al.
				7,703,622	B1	4/2010	Bynoe
				D615,270	S *	5/2010	Yang ..... D34/9



(56)

References Cited

U.S. PATENT DOCUMENTS

D615,722 S	5/2010	Yang et al.	9,586,755 B1	3/2017	Yang et al.
7,712,285 B2	5/2010	Stravitz et al.	D787,828 S	5/2017	Thoma et al.
7,741,801 B2	6/2010	Fukuizumi	D790,145 S	6/2017	Chen
7,748,556 B2	7/2010	Yang et al.	D793,642 S	8/2017	Yang et al.
7,781,995 B2	8/2010	Yang et al.	D798,016 S *	9/2017	Yang ..... D34/9
D623,817 S	9/2010	Yang et al.	D804,133 S	9/2017	Yang et al.
D625,068 S	10/2010	Shannon	9,751,692 B2	9/2017	Yang et al.
7,806,285 B2	10/2010	Yang et al.	9,790,025 B2	10/2017	Yang et al.
D627,533 S	11/2010	Yang et al.	9,856,080 B2	1/2018	Yang et al.
D627,944 S	11/2010	Wang et al.	D820,544 S	6/2018	Joseph
D629,172 S	12/2010	Liao	D825,876 S *	8/2018	Chen ..... D34/1
D630,404 S	1/2011	Yang et al.	D829,400 S	9/2018	Yang et al.
D631,221 S	1/2011	Yang et al.	D830,029 S *	10/2018	Greenspon ..... D34/9
D632,039 S	2/2011	Yang et al.	D835,374 S	12/2018	Yang et al.
D632,864 S	2/2011	Yang et al.	D835,376 S	12/2018	Yang et al.
D634,911 S	3/2011	Yang et al.	2001/0002690 A1	6/2001	Rosky
D635,319 S	3/2011	Meyerhoffer	2001/0020619 A1	9/2001	Pfeifer et al.
7,896,187 B2	3/2011	Haibel	2001/0045512 A1	11/2001	Brent
7,922,024 B2	4/2011	Yang et al.	2002/0066736 A1	6/2002	Pyles
7,950,543 B2	5/2011	Yang et al.	2002/0092853 A1	7/2002	Wang
D644,390 S	8/2011	Smeets et al.	2002/0096523 A1	7/2002	Pyles
7,992,742 B1	8/2011	Kim	2002/0096524 A1	7/2002	Hardesty
8,006,857 B2	8/2011	Lin	2002/0104266 A1	8/2002	Ranaudo
D644,806 S *	9/2011	Yang ..... D34/1	2002/0116924 A1	8/2002	Winkelmann et al.
D644,807 S	9/2011	Yang et al.	2003/0089719 A1	5/2003	Berger
D649,728 S	11/2011	Campbell	2003/0102316 A1	6/2003	Forest
8,074,833 B2	12/2011	Yang et al.	2003/0201265 A1	10/2003	Lin
8,096,445 B2	1/2012	Yang et al.	2003/0205979 A1	11/2003	Papari et al.
D655,061 S	2/2012	Scaturro	2003/0230576 A1	12/2003	Lin
8,136,688 B2	3/2012	Lee et al.	2004/0016756 A1	1/2004	Lin
D657,108 S	4/2012	Yang et al.	2004/0134924 A1	7/2004	Hansen et al.
D657,109 S	4/2012	Liao	2004/0140782 A1	7/2004	Okabe et al.
8,297,470 B2	10/2012	Yang et al.	2004/0164077 A1	8/2004	Kuo
8,317,055 B2	11/2012	Zawrotny et al.	2004/0174268 A1	9/2004	Scott et al.
D672,520 S *	12/2012	Yang ..... D34/7	2004/0175303 A1	9/2004	Lin
D673,750 S	1/2013	Quan	2004/0199401 A1	10/2004	Wagner
D675,802 S	2/2013	Yang et al.	2004/0200938 A1	10/2004	Forlivio
D675,803 S	2/2013	Yang et al.	2004/0206758 A1	10/2004	Lin
8,418,869 B2	4/2013	Yang et al.	2004/0206760 A1	10/2004	Gagnebin
D689,255 S	9/2013	Sun Ting Kung et al.	2004/0251746 A1	12/2004	Ichimaru et al.
8,567,630 B2	10/2013	Yang et al.	2005/0017006 A1	1/2005	Kuo
8,569,980 B2	10/2013	Yang et al.	2005/0017010 A1	1/2005	Siegel et al.
8,575,537 B2	11/2013	Yao et al.	2005/0029281 A1	2/2005	Westermann et al.
8,672,171 B2	3/2014	Wynn et al.	2005/0129803 A1	6/2005	Umeda et al.
8,678,219 B1	3/2014	Wang et al.	2005/0258177 A1	11/2005	Woodson
8,686,676 B2	4/2014	Yang et al.	2005/0258794 A1	11/2005	Fukuizumi
D704,406 S	5/2014	Kern	2006/0027579 A1	2/2006	Yang et al.
8,716,969 B2	5/2014	Yang et al.	2006/0103086 A1	5/2006	Niemeyer et al.
8,720,728 B2	5/2014	Yang et al.	2006/0138149 A1	6/2006	Tracy
D709,662 S	7/2014	Yang et al.	2006/0163257 A1	7/2006	Golbert
8,766,582 B2	7/2014	Yang et al.	2006/0175336 A1	8/2006	Wang
8,807,378 B2	8/2014	Kaberna	2006/0186121 A1 *	8/2006	Yang ..... B65F 1/163 220/263
8,807,379 B1	8/2014	Hammond	2006/0196874 A1	9/2006	Yang
D714,510 S	9/2014	Yang et al.	2006/0237641 A1	10/2006	Moeller et al.
D715,575 S	10/2014	Williams et al.	2006/0249510 A1	11/2006	Lin
D716,015 S *	10/2014	van de Leest ..... D34/9	2006/0278643 A1	12/2006	Chiou
8,851,316 B2	10/2014	Barrett et al.	2007/0012699 A1	1/2007	Yang et al.
8,872,459 B2	10/2014	Yang et al.	2007/0034334 A1	2/2007	Ramsey et al.
D725,860 S	3/2015	Spivey et al.	2007/0045326 A1	3/2007	Tramontina et al.
D725,861 S *	3/2015	Yang ..... D34/7	2007/0090112 A1	4/2007	Kalman et al.
D730,008 S	5/2015	Yang et al.	2007/0114847 A1	5/2007	Ichimaru et al.
9,051,093 B2	6/2015	Yang et al.	2007/0181579 A1	8/2007	Kuo et al.
D755,461 S	5/2016	Wall	2007/0209846 A1	9/2007	Wilson
D758,686 S *	6/2016	Beumer ..... D34/8	2007/0215622 A1	9/2007	Perez
D759,934 S	6/2016	Yang et al.	2007/0241109 A1	10/2007	Lin
D762,037 S	7/2016	Chen	2007/0266637 A1	11/2007	McGowan
D765,937 S	9/2016	Chen	2007/0272691 A1	11/2007	Wang et al.
D766,998 S	9/2016	Kao et al.	2007/0289972 A1	12/2007	Wynn et al.
9,434,538 B2	9/2016	Yang et al.	2008/0011754 A1	1/2008	Ramsey
D770,121 S	10/2016	Chen	2008/0011910 A1	1/2008	Ramsey
D771,344 S	11/2016	Yang et al.	2008/0041863 A1	2/2008	Forest
D773,145 S	11/2016	Yang et al.	2008/0083756 A1	4/2008	Daniels
9,481,515 B2	11/2016	Yang et al.	2008/0083757 A1	4/2008	Parker et al.
D773,769 S	12/2016	Chen	2008/0099274 A1	5/2008	Seel
9,573,759 B2	2/2017	Yang et al.	2008/0128428 A1	6/2008	Beckerman
			2008/0164257 A1	7/2008	Boll et al.
			2008/0236275 A1	10/2008	Breed et al.
			2008/0257889 A1	10/2008	Kovacevich et al.



(56)

References Cited

U.S. PATENT DOCUMENTS

2008/0257890 A1 10/2008 Kovacevich et al.  
 2008/0257891 A1 10/2008 Kovacevich et al.  
 2008/0264948 A1 10/2008 Kovacevich et al.  
 2008/0264950 A1 10/2008 Kovacevich et al.  
 2008/0272119 A1 11/2008 Efstathiou  
 2008/0272127 A1 11/2008 Kovacevich et al.  
 2009/0071959 A1 3/2009 Cheung  
 2009/0084788 A1 4/2009 Yang et al.  
 2009/0136341 A1 5/2009 Kenyon  
 2009/0230131 A1 9/2009 McDuffie et al.  
 2009/0261105 A1 10/2009 Cunningham et al.  
 2009/0266836 A1 10/2009 Mobley  
 2010/0006572 A1 1/2010 Chiou  
 2010/0084235 A1 4/2010 Lu  
 2010/0096894 A1 4/2010 Fukai  
 2010/0122985 A1 5/2010 Peters et al.  
 2010/0147865 A1 6/2010 Yang et al.  
 2010/0170904 A1 7/2010 Kalman et al.  
 2010/0178105 A1 7/2010 Monneret  
 2010/0193518 A1\* 8/2010 Tontarelli ..... B65F 1/08  
 220/263  
 2010/0237074 A1 9/2010 Yang et al.  
 2010/0252557 A1 10/2010 Clements  
 2010/0294769 A1 11/2010 Lee et al.  
 2011/0017735 A1 1/2011 Wang et al.  
 2011/0049149 A1 3/2011 Shih  
 2011/0056952 A1 3/2011 Borowski et al.  
 2011/0139781 A1 6/2011 Jin et al.  
 2011/0220655 A1\* 9/2011 Yang ..... B65F 1/004  
 220/495.09  
 2011/0272409 A1 11/2011 Kasbohm  
 2012/0145932 A1 6/2012 Yao et al.  
 2012/0234849 A1 9/2012 Hughes et al.  
 2012/0261423 A1 10/2012 Zawrotny et al.  
 2013/0048641 A1\* 2/2013 Romano ..... B65F 1/06  
 220/495.08  
 2013/0097809 A1 4/2013 Weber et al.  
 2013/0098913 A1 4/2013 Yang et al.  
 2013/0105487 A1 5/2013 Baik  
 2013/0233857 A1\* 9/2013 Yang ..... B65F 1/04  
 220/495.08  
 2013/0240592 A1 9/2013 Woodruff  
 2013/0248535 A1 9/2013 Wolfe et al.  
 2013/0300119 A1 11/2013 Anzalon et al.  
 2014/0183193 A1 7/2014 Hammond et al.  
 2014/0238989 A1 8/2014 Wang et al.  
 2014/0305946 A1 10/2014 Han  
 2014/0345453 A1 11/2014 Oh et al.  
 2015/0251849 A1 9/2015 Yang et al.  
 2015/0259139 A1 9/2015 Yang et al.  
 2015/0321841 A1 11/2015 Salas et al.  
 2017/0050404 A1\* 2/2017 Henken ..... B65F 1/068  
 2017/0096299 A1\* 4/2017 Yang ..... B65F 1/1638  
 2017/0127669 A1 5/2017 Yang et al.  
 2017/0166167 A1 6/2017 Heller et al.  
 2017/0253429 A1 9/2017 Yang et al.  
 2018/0093827 A1 4/2018 Yang et al.  
 2018/0178978 A1 6/2018 Yang et al.  
 2018/0305120 A1 10/2018 Yang et al.  
 2019/0077595 A1\* 3/2019 Wang ..... B65F 1/1638

FOREIGN PATENT DOCUMENTS

CA 2519295 3/2007  
 CN 2075182 U 4/1991  
 CN 101177946 A 5/2008  
 CN 201105898 Y 8/2008  
 CN 201372076 Y 12/2009  
 CN 201447201 U 5/2010  
 CN 201512253 U 6/2010  
 CN 201597962 U 10/2010  
 CN 103207416 A 7/2013  
 CN 103303618 9/2013  
 CN 205169479 U 4/2016

DE 1610087 7/1950  
 DE 822376 11/1951  
 DE 1283741 7/1966  
 DE 8436939 3/1985  
 DE 9108341 10/1991  
 DE 4225936 2/1994  
 DE 19525885 3/1997  
 DE 19617823 11/1997  
 DE 19809331 5/1999  
 DE 29918687 3/2000  
 DE 19933180 1/2001  
 DE 10148997 4/2003  
 DE 20217561 3/2004  
 DE 10337806 A1 3/2005  
 EP 0582240 7/1993  
 EP 0903305 A1 3/1999  
 EP 0906876 A2 4/1999  
 EP 1094017 A1 4/2001  
 EP 1361176 A1 11/2003  
 EP 1136393 B1 4/2004  
 EP 1447342 A2 8/2004  
 EP 1600373 A2 11/2005  
 EP 1647503 A1 4/2006  
 EP 1686073 A1 8/2006  
 EP 1918223 A1 5/2008  
 EP 1700799 B1 8/2009  
 EP 2343250 A1 7/2011  
 EP 3042864 A1 7/2016  
 FR 2887152 12/2006  
 GB 191004921 6/1910  
 GB 2384418 7/2003  
 JP 02-152670 6/1990  
 JP H06-56011 8/1994  
 JP 06-272888 9/1994  
 JP 2004-106713 4/2004  
 JP 2004-231237 8/2004  
 JP D1300450 5/2007  
 JP D1300451 5/2007  
 JP D1322056 2/2008  
 JP D1398668 10/2010  
 KR 3003841370000 6/2005  
 KR 3004095430000 3/2006  
 KR 3004095430001 7/2006  
 NL 6908550 12/1970  
 TW 230977 9/1994  
 TW D112733 9/2008  
 TW D129485 7/2009  
 TW D133678 3/2010  
 WO WO 92/02430 A1 2/1992  
 WO WO 96/33671 10/1996  
 WO WO 2005/080232 A1 9/2005  
 WO WO 2006/079263 A1 8/2006  
 WO WO 2007/139570 12/2007  
 WO WO 2009/114495 A1 9/2009  
 WO WO 2015/134902 A1 9/2015  
 WO WO 2015/138625 A1 9/2015  
 WO WO 2016/054109 A1 4/2016

OTHER PUBLICATIONS

U.S. Appl. No. 29/584,385, filed Nov. 14, 2016, Yang et al.  
 U.S. Appl. No. 15/476,285, filed Mar. 31, 2017, Yang et al.  
 U.S. Appl. No. 29/583,627, filed Jun. 22, 2017, Yang et al.  
 U.S. Appl. No. 29/608,587, filed Jun. 22, 2017, Yang et al.  
 U.S. Appl. No. 29/610,345, filed Jul. 11, 2017, Yang et al.  
 U.S. Appl. No. 15/809,218, filed Nov. 10, 2017, Yang et al.  
 U.S. Appl. No. 29/633,369, filed Jan. 12, 2018, Yang et al.  
 simplehuman Liner Rim Dual Bucket Rectangular Recycler with  
 Liner Pocket, Stainless Steel, 58 Liter / 15 Gallon, Item No.  
 CW2025, www.Amazon.com, site visited Dec. 29, 2015.  
 Trento Corner 23 Trash Can, Hailo product webpage, May 2008,  
[http://www.hailo.de/html/default.asp?site=12\\_71\\_107&lang=en](http://www.hailo.de/html/default.asp?site=12_71_107&lang=en).  
 Web page showing picture of Hero Bullet trash can, archived Nov.  
 17, 2004, downloaded from <http://web.archive.org/web/>

(56)

**References Cited**

OTHER PUBLICATIONS

20041117003115/http://www.simplehuman.com/images/hero\_bullet.  
jpg.

\* cited by examiner

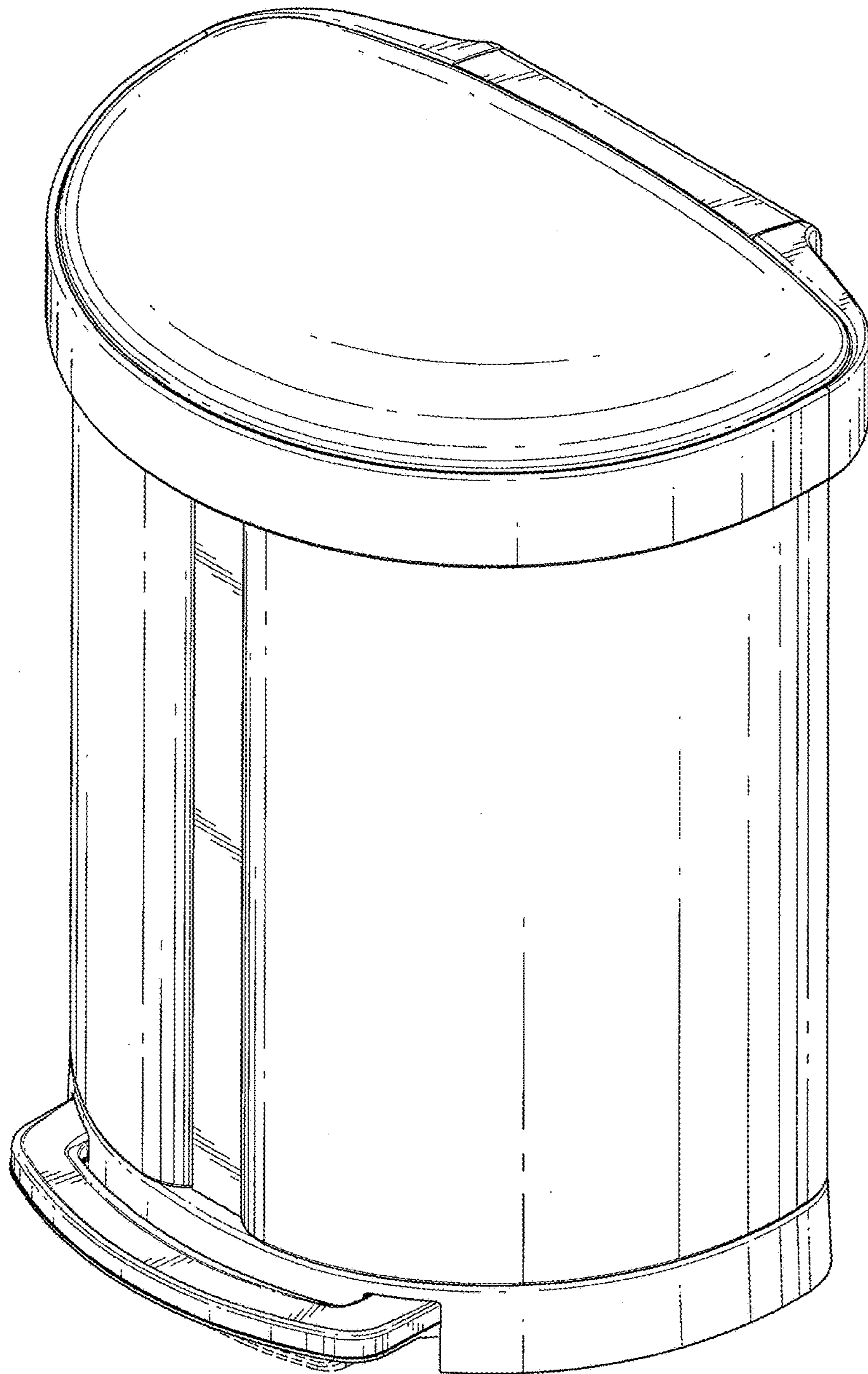


FIG. 1



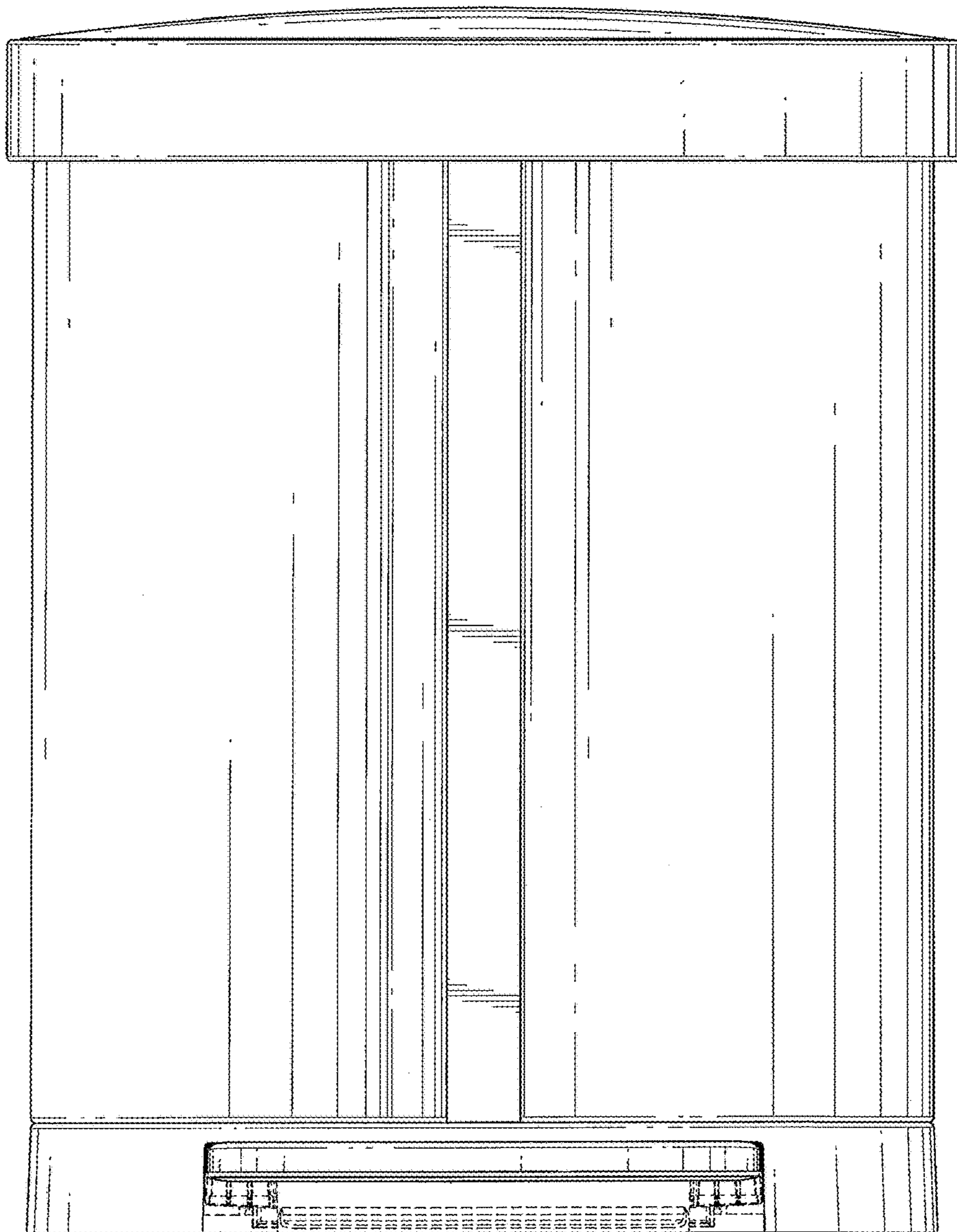


FIG. 2



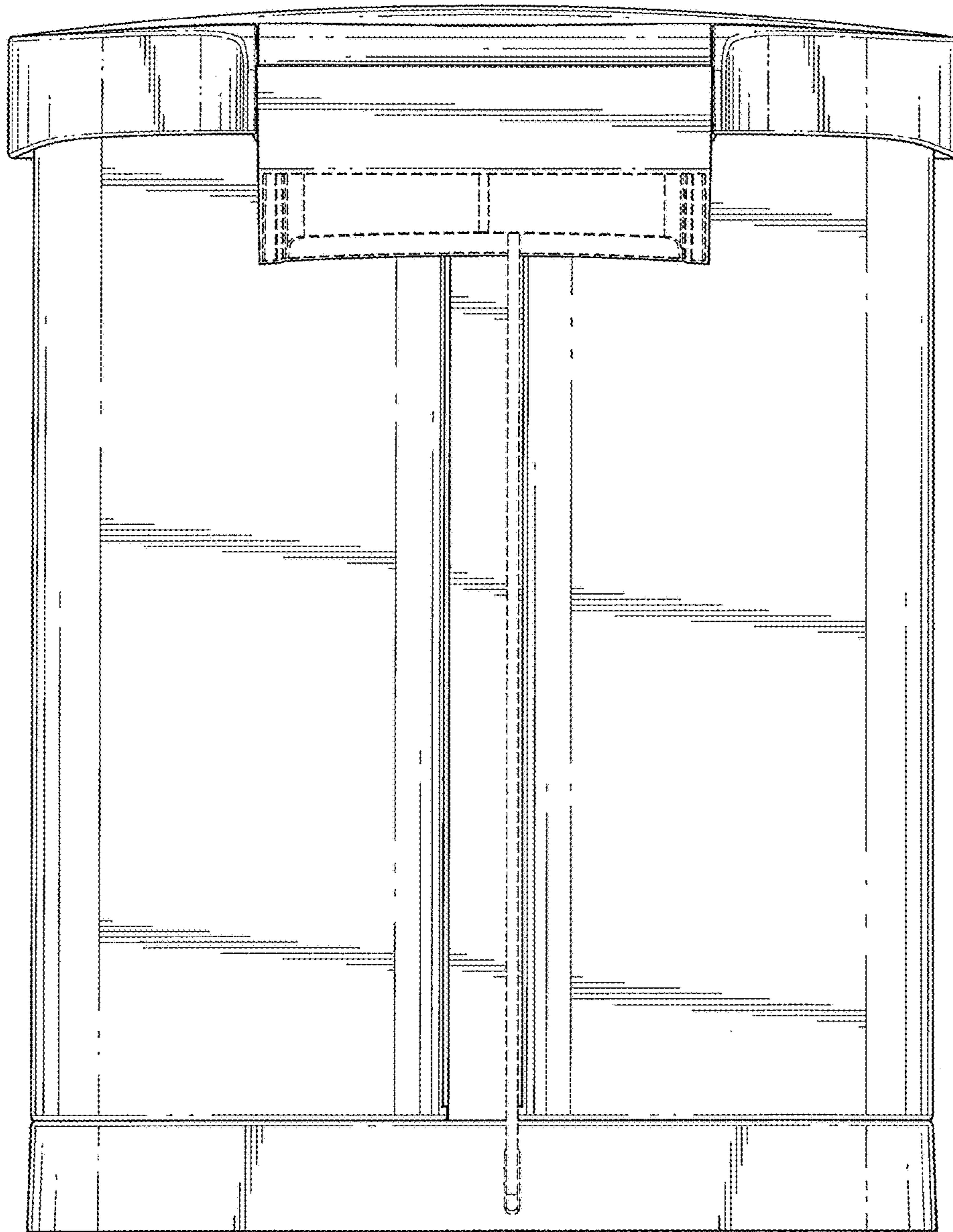


FIG. 3



FIG. 4



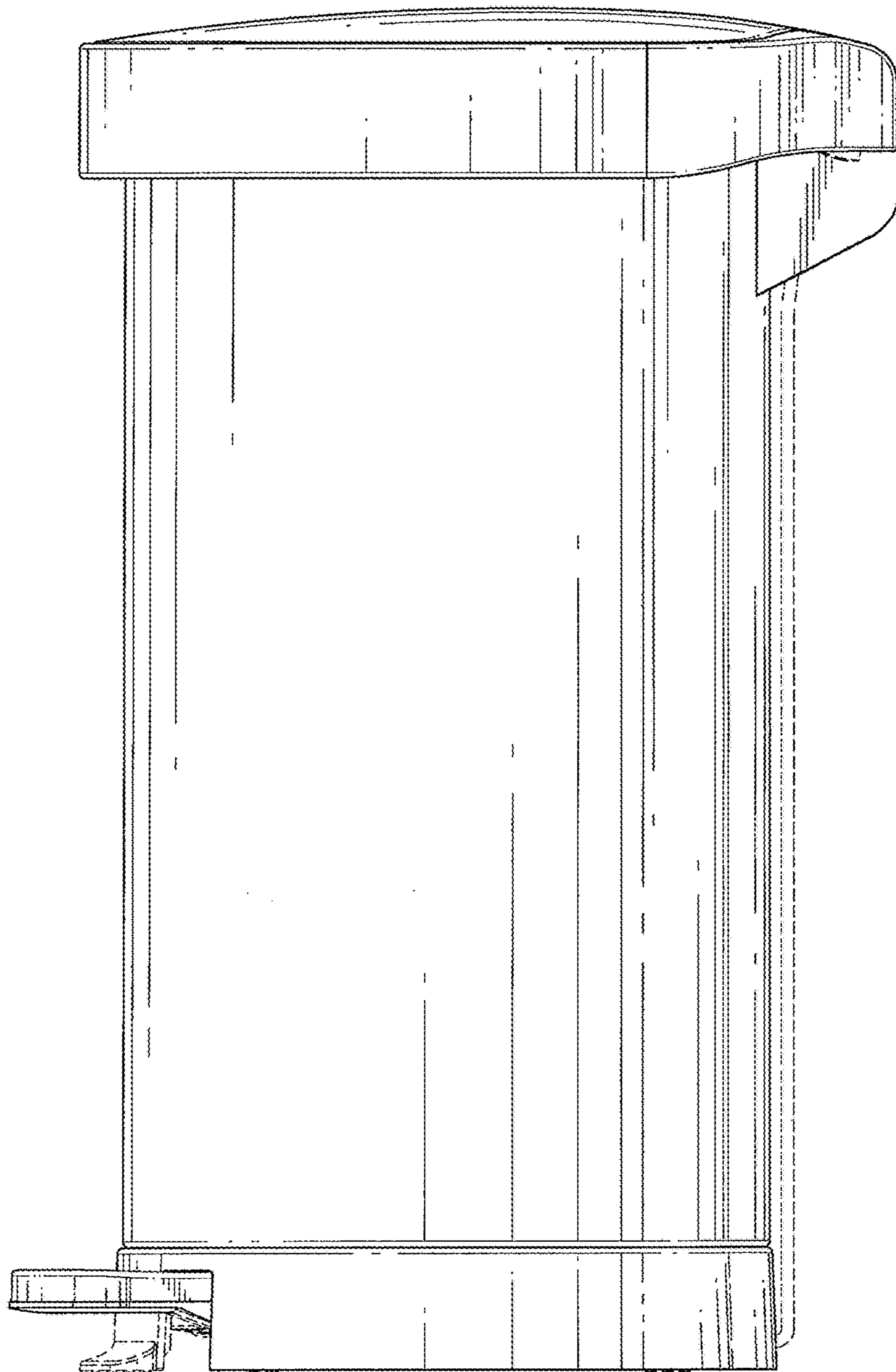
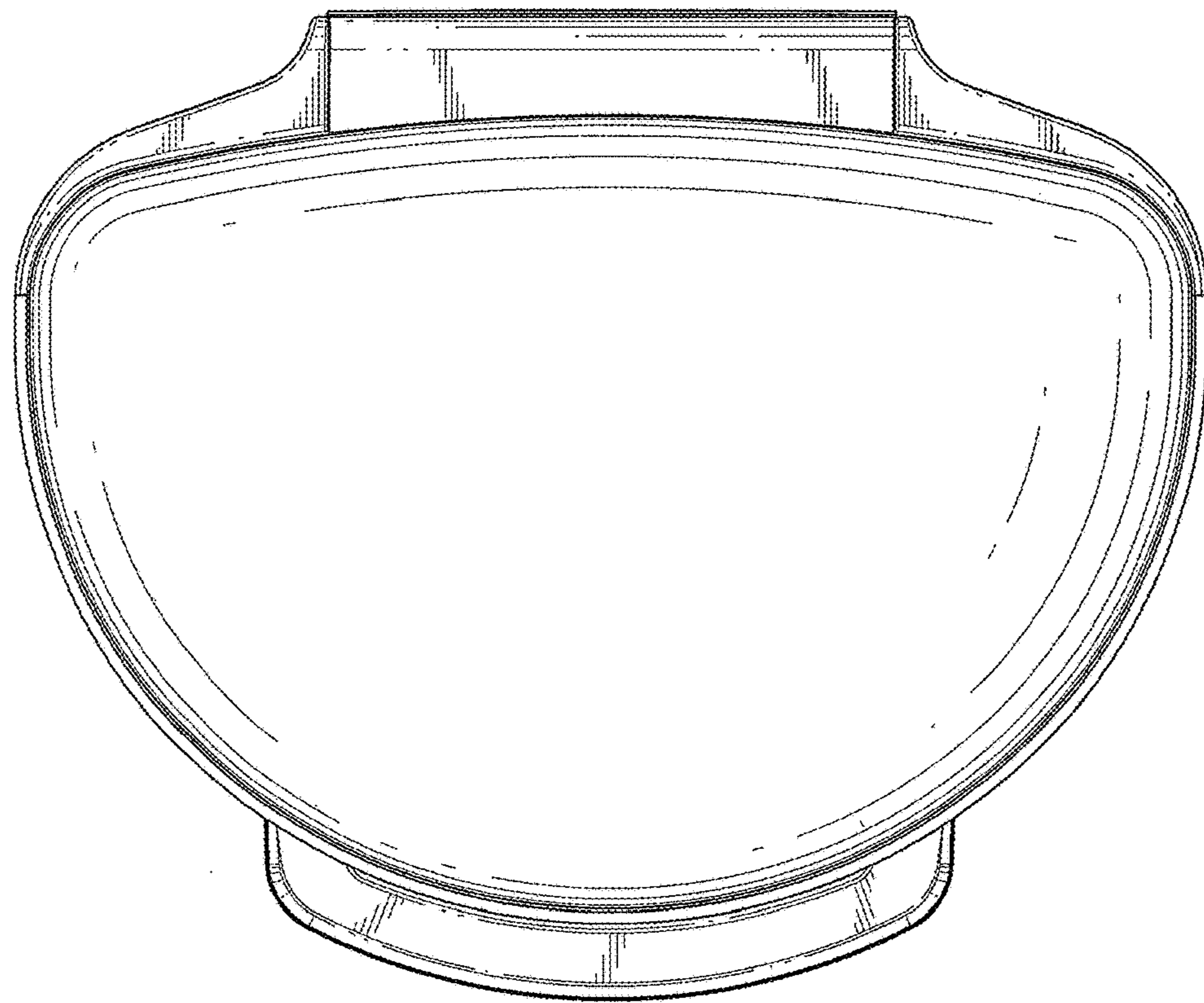


FIG. 5



*FIG. 6*



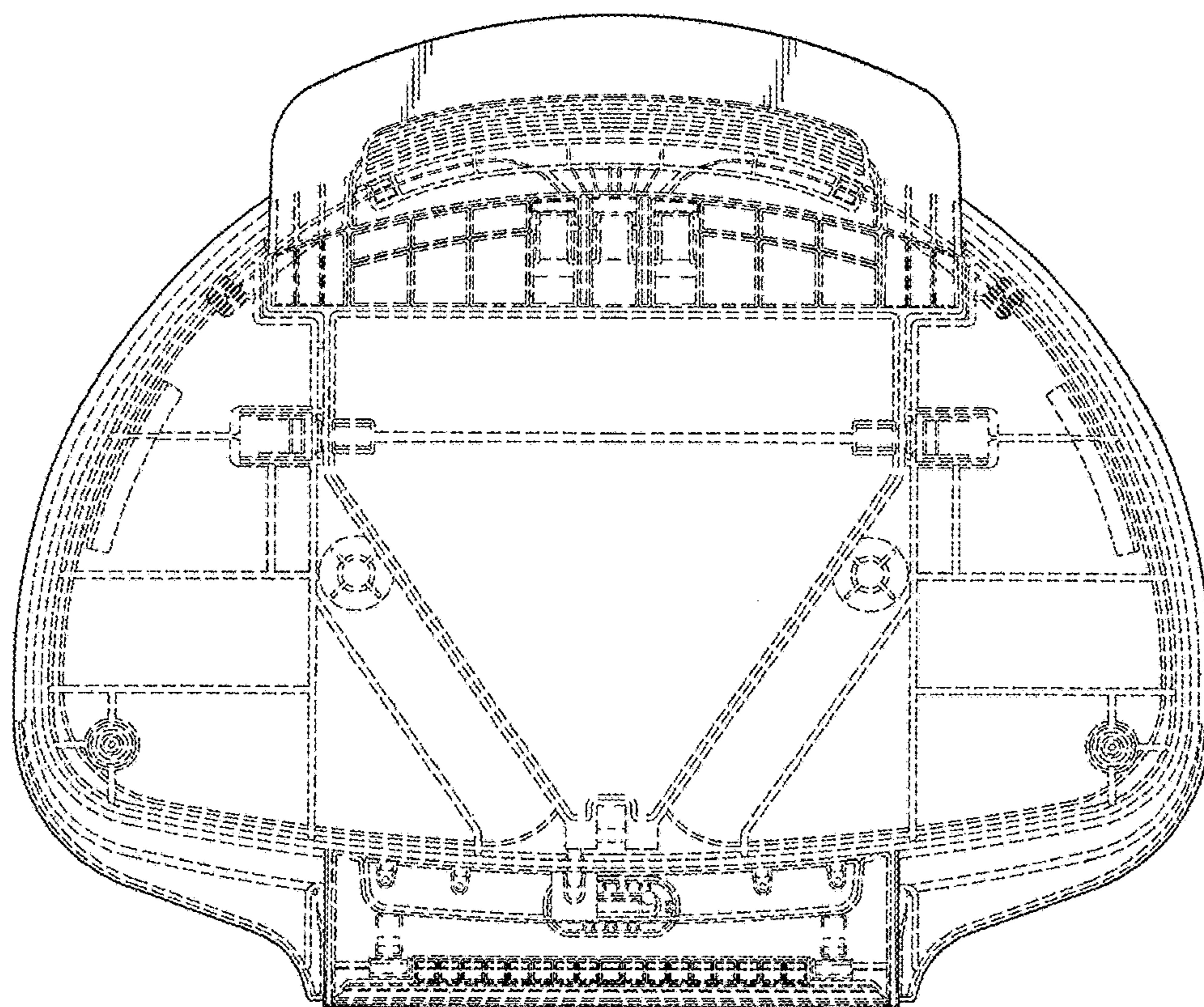


FIG. 7