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(54) **PLASTIC DEEP ELECTRICAL JUNCTION BOX**

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(58) **Field of Classification Search**

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174/659, 58, 483

CPC H02G 3/185; H02G 3/125; H02G 3/0625
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,133,535 A	3/1915	Cain et al.
1,471,340 A	10/1923	Knight
1,856,356 A	5/1932	Owen
2,038,784 A	4/1936	Ghadiali
2,179,161 A	11/1939	Rambusch
2,197,737 A	4/1940	Appleton
2,352,913 A	7/1944	Morrill
2,528,989 A	11/1950	Ammells
2,597,595 A	5/1952	Ordas
2,642,246 A	6/1953	Larry
2,670,919 A	3/1954	Vincent
2,697,535 A	12/1954	Olson
2,758,810 A	8/1956	Good
D180,844 S	8/1957	Poliakoff

2,802,933 A	8/1957	Harry
2,998,512 A	8/1961	Duchene et al.
3,023,920 A	3/1962	Cook et al.
3,057,993 A	10/1962	Gellert
3,104,087 A	9/1963	Joseph et al.
3,422,261 A	1/1969	McGinty
3,460,299 A	8/1969	Wilson
3,650,046 A	3/1972	Skinner
3,675,807 A	7/1972	Lund et al.
3,700,885 A	10/1972	Bobrick

(Continued)

FOREIGN PATENT DOCUMENTS

CA	2243934 C	6/2002
CA	2502637 A1	9/2005

(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 15/637,742, filed Jun. 29, 2017, Kopitzke, IV.

(Continued)

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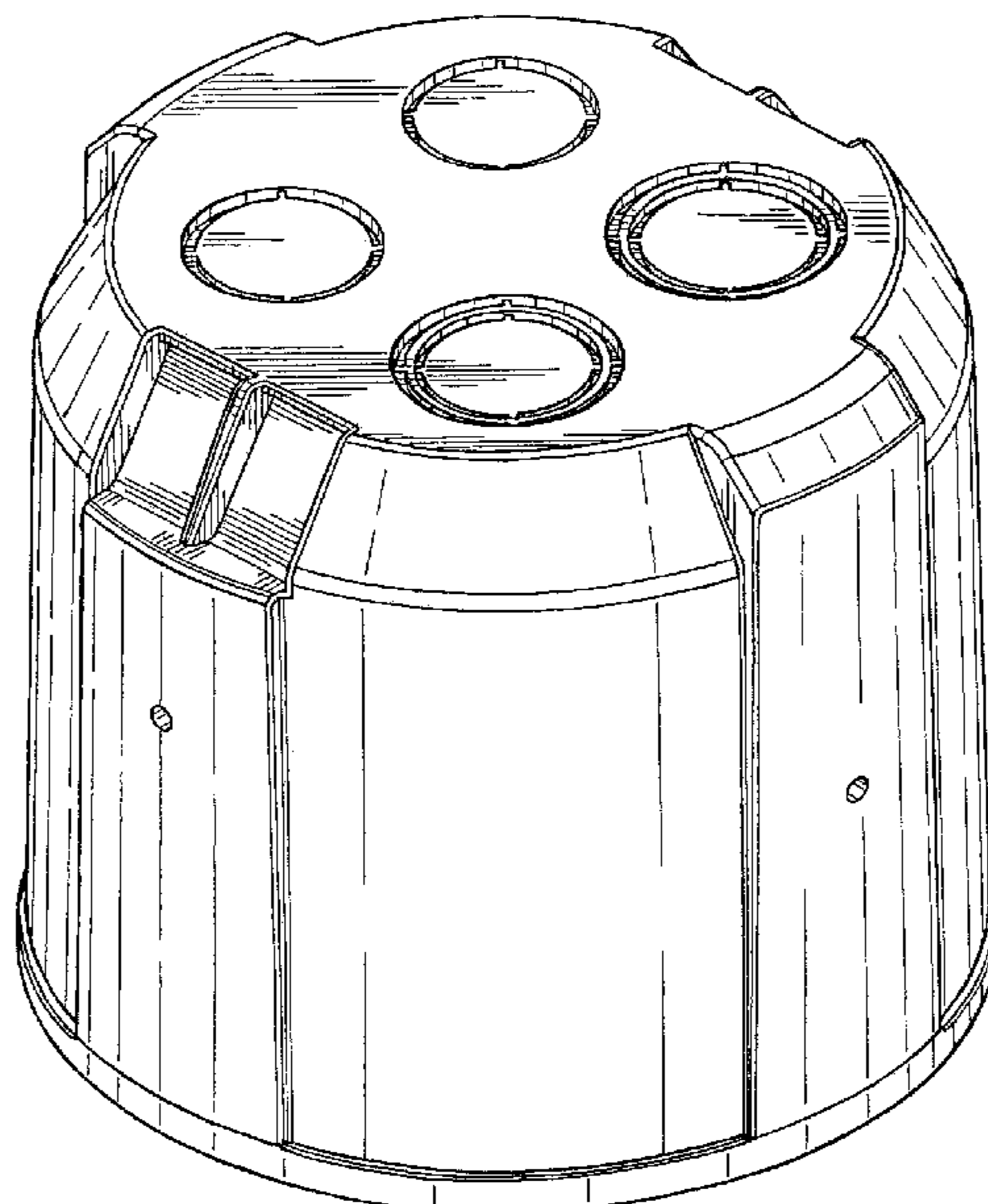
CLAIM

The ornamental design for a plastic deep electrical junction box, as shown and described.

DESCRIPTION

FIG. 1 is a top plan view for a plastic deep electrical junction box, showing our new design;
FIG. 2 is a bottom plan view thereof;
FIG. 3 is a rear elevation view thereof, the front elevation view being a mirror image thereof;
FIG. 4 is a right-side elevation view thereof;
FIG. 5 is a top, rear, right-side perspective view thereof; and,
FIG. 6 is a bottom, front, left-side perspective view thereof.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

3,711,053	A	1/1973	Drake	6,474,846	B1	11/2002	Kelmelis et al.
D227,989	S	7/1973	Geisel	6,491,413	B1	12/2002	Benesohn
3,773,968	A	11/1973	Copp	D468,697	S	1/2003	Straub, Jr.
3,812,342	A	5/1974	Mcnamara	D470,970	S	2/2003	Huang
3,836,766	A	9/1974	Auerbach	6,515,313	B1	2/2003	Ibbetson et al.
3,874,035	A	4/1975	Schuplin	6,521,833	B1	2/2003	DeFreitas
3,913,773	A	10/1975	Copp et al.	D471,657	S	3/2003	Huang
D245,905	S	9/1977	Taylor	6,583,573	B2	6/2003	Bierman
4,088,827	A	5/1978	Kohaut	6,585,389	B2	7/2003	Bonazzi
4,154,218	A	5/1979	Hulet	6,600,175	B1	7/2003	Baretz et al.
4,154,219	A	5/1979	Gupta et al.	D478,872	S *	8/2003	Heggem D13/152
4,176,758	A	12/1979	Glick	6,632,006	B1	10/2003	Rippel et al.
4,280,169	A	7/1981	Allen	6,657,236	B1	12/2003	Thibeault et al.
4,399,497	A	8/1983	Druffel	6,666,419	B1	12/2003	Vrame
4,450,512	A	5/1984	Kristofek	D487,600	S	3/2004	Fickas
4,520,435	A	5/1985	Baldwin	D488,583	S	4/2004	Benghozi
4,539,629	A	9/1985	Poppenheimer	6,719,438	B2	4/2004	Sevack et al.
4,601,145	A	7/1986	Wilcox	6,758,578	B1	7/2004	Chou
4,667,840	A	5/1987	Lindsey	6,777,615	B1	8/2004	Gretz
4,723,747	A	2/1988	Karp et al.	6,779,908	B1	8/2004	Ng
4,729,080	A	3/1988	Fremont et al.	6,827,229	B2	12/2004	Dinh et al.
4,754,377	A	6/1988	Wenman	6,838,618	B2	1/2005	Newbold et al.
4,770,311	A	9/1988	Wang	6,906,352	B2	6/2005	Edmond et al.
4,880,128	A	11/1989	Jorgensen	D509,314	S	9/2005	Rashidi
4,910,651	A	3/1990	Montanez	6,948,829	B2	9/2005	Verdes et al.
4,919,292	A	4/1990	Hsu	6,958,497	B2	10/2005	Emerson et al.
4,929,187	A	5/1990	Hudson et al.	6,964,501	B2	11/2005	Ryan
4,930,054	A	5/1990	Krebs	6,967,284	B1	11/2005	Gretz
5,216,203	A	6/1993	Gower	D516,235	S	2/2006	Rashidi
5,222,800	A	6/1993	Chan et al.	7,025,476	B2	4/2006	Leadford
5,239,132	A	8/1993	Bartow	7,025,477	B2	4/2006	Blessing
5,250,269	A	10/1993	Langer et al.	7,064,269	B2	6/2006	Smith
5,266,050	A *	11/1993	O'Neil H02G 3/0625 174/659	D528,673	S	9/2006	Maxik et al.
5,303,894	A	4/1994	Deschamps et al.	7,102,172	B2	9/2006	Lynch
5,382,752	A	1/1995	Reyhan et al.	D531,740	S	11/2006	Maxik
5,420,376	A	5/1995	Rajacki et al.	D532,532	S	11/2006	Maxik
5,444,606	A	8/1995	Barnes et al.	7,148,420	B1 *	12/2006	Johnson H02G 3/125 174/58
5,465,199	A	11/1995	Bray et al.	7,148,632	B2	12/2006	Berman et al.
5,505,419	A	4/1996	Gabrius	7,152,985	B2	12/2006	Benitez et al.
5,544,870	A	8/1996	Kelly et al.	7,154,040	B1	12/2006	Tompkins
5,562,343	A	10/1996	Chan et al.	7,170,015	B1	1/2007	Roesch et al.
5,571,993	A	11/1996	Jones et al.	D536,349	S *	2/2007	Humber D15/89
5,580,158	A	12/1996	Aubrey et al.	D537,039	S	2/2007	Pincek
5,588,737	A	12/1996	Kusmer	7,181,378	B2	2/2007	Benitez et al.
5,603,424	A	2/1997	Bordwell et al.	D539,229	S	3/2007	Murphey
5,609,408	A	3/1997	Targetti	7,186,008	B2	3/2007	Patti
5,613,338	A	3/1997	Esposito	7,190,126	B1	3/2007	Paton
D381,111	S	7/1997	Lecluze	7,211,833	B2	5/2007	Slater, Jr. et al.
5,662,413	A	9/1997	Akiyama et al.	7,213,940	B1	5/2007	Van De Ven et al.
D386,277	S	11/1997	Lecluze	7,234,674	B2	6/2007	Rippel et al.
5,690,423	A	11/1997	Hentz et al.	D547,889	S	7/2007	Huang
D387,466	S	12/1997	Lecluze	D552,969	S	10/2007	Bobrowski et al.
5,738,436	A	4/1998	Cummings et al.	D553,267	S	10/2007	Yuen
5,836,678	A	11/1998	Wright et al.	D555,106	S *	11/2007	Pape D13/158
5,942,726	A	8/1999	Reiker	D556,144	S *	11/2007	Dinh D13/152
5,944,412	A	9/1999	Janos et al.	7,297,870	B1	11/2007	Sartini
5,957,573	A	9/1999	Wedekind et al.	7,312,474	B2	12/2007	Emerson et al.
5,975,323	A	11/1999	Turan	7,320,536	B2	1/2008	Petrakis et al.
6,082,878	A	7/2000	Doubek et al.	D561,372	S	2/2008	Yan
6,105,334	A	8/2000	Monson et al.	D561,373	S	2/2008	Yan
6,161,910	A	12/2000	Reisenauer et al.	7,335,920	B2	2/2008	Denbaars et al.
6,170,685	B1	1/2001	Currier	D563,896	S	3/2008	Greenslate
6,170,965	B1	1/2001	Kotovskiy	7,347,580	B2	3/2008	Blackman et al.
6,174,076	B1	1/2001	Petrakis et al.	D570,012	S	5/2008	Huang
6,176,599	B1	1/2001	Farzen	7,374,308	B2	5/2008	Sevack et al.
6,267,491	B1	7/2001	Parrigin	D570,504	S	6/2008	Maxik et al.
6,332,597	B1	12/2001	Korcz et al.	D570,505	S	6/2008	Maxik et al.
6,350,043	B1	2/2002	Gloisten	7,399,104	B2	7/2008	Rappaport
6,350,046	B1	2/2002	Lau	7,429,025	B1	9/2008	Gretz
6,364,511	B1	4/2002	Cohen	D578,677	S	10/2008	Huang
6,375,338	B1	4/2002	Cummings et al.	7,431,482	B1	10/2008	Morgan et al.
6,402,112	B1	6/2002	Thomas et al.	7,432,440	B2	10/2008	Hull et al.
D461,455	S	8/2002	Forbes	7,442,883	B2 *	10/2008	Jolly H02G 3/185 174/483
6,461,016	B1	10/2002	Jamison et al.	7,446,345	B2	11/2008	Emerson et al.
				7,470,048	B2	12/2008	Wu
				7,473,005	B2	1/2009	O'Brien
				7,488,097	B2	2/2009	Reisenauer et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

7,494,258 B2	2/2009	McNaught	D660,814 S	5/2012	Wilson
7,503,145 B2	3/2009	Newbold et al.	8,182,116 B2	5/2012	Zhang et al.
7,524,089 B2	4/2009	Park	8,201,968 B2	6/2012	Maxik et al.
D591,894 S	5/2009	Flank	D663,058 S	7/2012	Pan
7,534,989 B2	5/2009	Suehara et al.	D663,466 S	7/2012	Rashidi
D596,154 S	7/2009	Rivkin	D664,274 S	7/2012	de Visser et al.
7,566,154 B2	7/2009	Gloisten et al.	D664,705 S	7/2012	Kong et al.
D599,040 S	8/2009	Alexander et al.	8,215,805 B2	7/2012	Cogliano et al.
D600,836 S	9/2009	Hanley et al.	8,220,970 B1	7/2012	Khazi et al.
7,588,359 B2	9/2009	Coushaine et al.	8,226,270 B2	7/2012	Yamamoto et al.
7,592,583 B2	9/2009	Page et al.	8,235,549 B2	8/2012	Gingrich, III et al.
7,625,105 B1	12/2009	Johnson	8,238,050 B2	8/2012	Minano et al.
7,628,513 B2	12/2009	Chiu	8,240,630 B2	8/2012	Wronski
7,651,238 B2	1/2010	O'Brien	D667,155 S	9/2012	Rashidi
7,654,705 B2	2/2010	Czech et al.	8,262,255 B1	9/2012	Rashidi
D611,650 S	3/2010	Broekhoff	D668,809 S	10/2012	Rashidi
7,670,021 B2	3/2010	Chou	D669,198 S	10/2012	Qui
7,673,841 B2	3/2010	Wronski	D669,199 S	10/2012	Chuang
7,677,766 B2	3/2010	Boyer	D669,620 S	10/2012	Rashidi
7,692,182 B2	4/2010	Bergmann et al.	8,277,090 B2	10/2012	Fryzek et al.
7,704,763 B2	4/2010	Fujii et al.	D671,668 S	11/2012	Rowlette, Jr. et al.
D616,118 S	5/2010	Thomas et al.	8,308,322 B2	11/2012	Santiago et al.
7,722,208 B1	5/2010	Dupre et al.	D672,899 S	12/2012	Ven et al.
7,722,227 B2	5/2010	Zhang et al.	D673,869 S	1/2013	Yu
7,735,795 B2	6/2010	Wronski	D676,263 S	2/2013	Birke
7,735,798 B2	6/2010	Kojima	D676,814 S	2/2013	Paul
7,748,887 B2	7/2010	Zampini, II et al.	8,376,593 B2	2/2013	Bazydola et al.
7,766,518 B2	8/2010	Piepgras et al.	D677,417 S	3/2013	Rashidi
7,769,192 B2	8/2010	Takagi et al.	D677,634 S *	3/2013	Korcz D13/152
7,771,082 B2	8/2010	Peng	D679,044 S	3/2013	Jeswani et al.
7,771,094 B2	8/2010	Goode	D679,047 S	3/2013	Tickner et al.
7,784,754 B2	8/2010	Nevers et al.	8,403,533 B1	3/2013	Paulsel
D624,691 S	9/2010	Zhang et al.	8,403,541 B1	3/2013	Rashidi
D624,692 S	9/2010	Mackin et al.	D681,259 S	4/2013	Kong
D625,847 S	10/2010	Maglica	8,408,759 B1	4/2013	Rashidi
D625,876 S	10/2010	Chen et al.	D683,063 S	5/2013	Lopez et al.
D627,727 S	11/2010	Alexander et al.	D683,890 S	6/2013	Lopez et al.
7,828,465 B2	11/2010	Roberge et al.	D684,269 S	6/2013	Wang et al.
D629,366 S	12/2010	Ericson et al.	D684,287 S	6/2013	Rashidi
7,857,275 B2	12/2010	de la Borbolla	D684,719 S	6/2013	Rashidi
7,871,184 B2	1/2011	Peng	D685,118 S	6/2013	Rashidi
7,874,539 B2	1/2011	Wright et al.	D685,120 S	6/2013	Rashidi
7,874,709 B1	1/2011	Beadle	8,454,204 B1	6/2013	Chang et al.
D633,224 S	2/2011	Lee	D685,507 S	7/2013	Sun
D636,903 S	4/2011	Torenbeek	D687,586 S	8/2013	Rashidi
D637,339 S	5/2011	Hasan et al.	D687,587 S	8/2013	Rashidi
D637,340 S	5/2011	Hasan et al.	D687,588 S	8/2013	Rashidi
7,950,832 B2	5/2011	Tanaka et al.	D687,980 S	8/2013	Gravely et al.
D639,499 S	6/2011	Choi et al.	D688,405 S	8/2013	Kim et al.
7,956,546 B2	6/2011	Hasnain	8,506,127 B2	8/2013	Russello et al.
7,959,332 B2	6/2011	Tickner et al.	8,506,134 B2	8/2013	Wilson et al.
7,967,480 B2	6/2011	Pickard et al.	D690,049 S	9/2013	Rashidi
D642,317 S	7/2011	Rashidi	D690,864 S	10/2013	Rashidi
7,972,035 B2	7/2011	Boyer	D690,865 S	10/2013	Rashidi
7,972,043 B2	7/2011	Schutte	D690,866 S	10/2013	Rashidi
D642,536 S	8/2011	Robinson	D691,314 S	10/2013	Rashidi
D643,970 S	8/2011	Kim et al.	D691,315 S	10/2013	Samson
8,002,425 B2	8/2011	Russo et al.	D691,763 S	10/2013	Hand et al.
D646,011 S	9/2011	Rashidi	8,550,669 B2	10/2013	Macwan et al.
8,013,243 B2	9/2011	Korcz et al.	D693,043 S	11/2013	Schmalfuss et al.
8,038,113 B2	10/2011	Fryzek et al.	D693,517 S	11/2013	Davis
D648,476 S	11/2011	Choi et al.	D694,456 S	11/2013	Rowlette, Jr. et al.
D648,477 S	11/2011	Kim et al.	D695,441 S	12/2013	Lui et al.
D650,115 S	12/2011	Kim et al.	D695,941 S	12/2013	Rashidi
8,070,328 B1	12/2011	Knoble et al.	D696,446 S	12/2013	Huh
8,096,670 B2	1/2012	Trott	D696,447 S	12/2013	Huh
D654,205 S	2/2012	Rashidi	D696,448 S	12/2013	Huh
D656,262 S	3/2012	Yoshinobu et al.	8,602,601 B2	12/2013	Khazi et al.
D656,263 S	3/2012	Ogawa et al.	D698,067 S	1/2014	Rashidi
8,142,057 B2	3/2012	Roos et al.	D698,068 S	1/2014	Rashidi
8,152,334 B2	4/2012	Krogman	8,622,361 B2	1/2014	Wronski
D658,788 S	5/2012	Dudik et al.	D698,985 S	2/2014	Lopez et al.
D658,802 S	5/2012	Chen	D699,384 S	2/2014	Rashidi
D659,862 S	5/2012	Tsai	D699,687 S	2/2014	Baldwin et al.
D659,879 S	5/2012	Rashidi	D700,387 S	2/2014	Snell
			8,641,243 B1	2/2014	Rashidi
			8,659,034 B2	2/2014	Baretz et al.
			D701,175 S	3/2014	Baldwin et al.
			D701,466 S	3/2014	Clifford et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

8,672,518 B2	3/2014	Boomgaarden et al.	D769,501 S	10/2016	Jeswani et al.
D702,867 S	4/2014	Kim et al.	D770,065 S	10/2016	Tittle
D703,843 S	4/2014	Cheng	9,476,552 B2	10/2016	Myers et al.
8,684,569 B2	4/2014	Pickard et al.	9,488,324 B2	11/2016	Shum et al.
D705,472 S	5/2014	Huh	D776,324 S	1/2017	Gierl et al.
8,727,582 B2	5/2014	Brown et al.	9,534,751 B2	1/2017	Maglica et al.
8,777,449 B2	7/2014	Ven et al.	D778,241 S	2/2017	Holbrook et al.
D710,529 S	8/2014	Lopez et al.	D778,484 S	2/2017	Guzzini
8,801,217 B2	8/2014	Oehle et al.	9,581,302 B2	2/2017	Danesh
8,820,985 B1	9/2014	Tam et al.	9,599,315 B1	3/2017	Harpenau et al.
8,833,013 B2	9/2014	Harman	9,605,842 B1	3/2017	Davis
8,845,144 B1	9/2014	Davies et al.	9,605,910 B2	3/2017	Swedberg et al.
D714,989 S	10/2014	Rowlette, Jr. et al.	D785,228 S	4/2017	Guzzini
8,870,426 B2	10/2014	Biebl et al.	D786,472 S	5/2017	Redfern
8,888,332 B2	11/2014	Martis et al.	D786,474 S	5/2017	Fujisawa
8,890,414 B2	11/2014	Rowlette, Jr. et al.	D788,330 S	5/2017	Johnson et al.
D721,845 S	1/2015	Lui et al.	D790,102 S	6/2017	Guzzini
8,926,133 B2	1/2015	Booth	9,673,597 B2	6/2017	Lee
8,939,418 B2	1/2015	Green et al.	9,689,541 B2	6/2017	Wronski
D722,296 S *	2/2015	Taylor D13/152	D791,709 S *	7/2017	Holton D13/152
D722,977 S	2/2015	Hagarty	D791,711 S *	7/2017	Holton D13/152
D722,978 S	2/2015	Hagarty	D791,712 S	7/2017	Holton
8,950,898 B2	2/2015	Catalano	9,696,021 B2	7/2017	Wronski
D723,781 S	3/2015	Miner	9,702,516 B1	7/2017	Vasquez et al.
D723,783 S	3/2015	Miner	D795,820 S *	8/2017	Wengreen D13/155
D725,359 S	3/2015	Miner	9,732,904 B1	8/2017	Wronski
D726,363 S	4/2015	Danesh	9,739,464 B2	8/2017	Wronski
9,004,435 B2	4/2015	Wronski	D799,105 S	10/2017	Eder et al.
9,039,254 B2	5/2015	Danesh	D800,957 S	10/2017	Eder et al.
D731,689 S	6/2015	Bernard et al.	9,791,111 B1	10/2017	Huang et al.
9,062,866 B1	6/2015	Christ et al.	9,797,562 B2	10/2017	Dabiet et al.
9,065,264 B2	6/2015	Cooper et al.	9,803,839 B2	10/2017	Visser et al.
9,068,719 B2	6/2015	Van De Ven et al.	D805,660 S	12/2017	Creasman et al.
9,068,722 B2	6/2015	Wronski et al.	D809,176 S	1/2018	Partington
D735,012 S	7/2015	Cowie	9,860,961 B2	1/2018	Chemel et al.
D735,142 S	7/2015	Hagarty	9,863,619 B2	1/2018	Mak
9,078,299 B2	7/2015	Ashdown	D809,465 S	2/2018	Keirstead
9,109,760 B2	8/2015	Shum et al.	9,964,266 B2	5/2018	Danesh
D739,355 S	9/2015	D'Aubeterre	D820,494 S	6/2018	Cohen
D739,590 S	9/2015	Redfern	D821,615 S	6/2018	Trice
9,140,441 B2	9/2015	Goelz et al.	D821,627 S	6/2018	Ko
D742,325 S	10/2015	Leung	9,995,441 B2	6/2018	Power et al.
9,151,457 B2	10/2015	Pickard et al.	D822,505 S	7/2018	Gibson et al.
9,151,477 B2	10/2015	Pickard et al.	D824,494 S	7/2018	Martins et al.
D744,723 S	12/2015	Yoo	D825,829 S	8/2018	Guo
9,217,560 B2	12/2015	Harbers et al.	10,041,638 B2	8/2018	Vasquez et al.
9,222,661 B2	12/2015	Kim et al.	D832,218 S	10/2018	Wronski et al.
9,239,131 B1	1/2016	Wronski et al.	D833,977 S	11/2018	Danesh et al.
9,285,103 B2	3/2016	Van De Ven et al.	10,125,959 B2	11/2018	Cohen
9,291,319 B2	3/2016	Kathawate et al.	10,139,059 B2	11/2018	Danesh
9,301,362 B2	3/2016	Dohn et al.	D836,976 S	1/2019	Reese et al.
D754,078 S *	4/2016	Baldwin D13/156	D847,414 S	4/2019	Danesh et al.
D754,079 S *	4/2016	Baldwin D13/156	D847,415 S	4/2019	Danesh et al.
D754,605 S *	4/2016	McMillan D13/133	10,247,390 B1	4/2019	Kopitzke et al.
9,303,812 B2	4/2016	Green et al.	D848,375 S	5/2019	Danesh et al.
9,310,038 B2	4/2016	Athalye	10,281,131 B2	5/2019	Cohen
9,310,052 B1	4/2016	Shum	10,295,163 B1	5/2019	Cohen
9,322,543 B2	4/2016	Hussell et al.	D851,046 S	6/2019	Peng et al.
D756,025 S	5/2016	Wronski et al.	10,408,395 B2	9/2019	Danesh
9,347,655 B2	5/2016	Boomgaarden et al.	10,408,396 B2	9/2019	Wronski et al.
9,360,190 B1	6/2016	Shum et al.	D864,877 S	10/2019	Danesh
9,366,418 B2	6/2016	Gifford	10,488,000 B2	11/2019	Danesh et al.
9,371,966 B2	6/2016	Rowlette, Jr. et al.	10,551,044 B2	2/2020	Peng et al.
D762,181 S	7/2016	Lin	10,563,850 B2	2/2020	Danesh
9,395,051 B2	7/2016	Hussell et al.	2002/0172047 A1	11/2002	Ashley
D762,906 S	8/2016	Jeswani et al.	2003/0006353 A1	1/2003	Dinh et al.
D764,079 S	8/2016	Wu	2003/0016532 A1	1/2003	Reed
9,404,639 B2	8/2016	Bailey et al.	2003/0021104 A1	1/2003	Tsao
9,417,506 B1	8/2016	Tirosh	2003/0161153 A1	8/2003	Patti
D766,185 S	9/2016	Hagarty	2004/0001337 A1	1/2004	Defouw et al.
D767,199 S	9/2016	Wronski et al.	2004/0120141 A1	6/2004	Beadle
9,447,917 B1	9/2016	Wronski et al.	2004/0156199 A1	8/2004	Rivas et al.
9,447,953 B2	9/2016	Lawlor	2005/0225966 A1	10/2005	Hartmann et al.
D768,325 S	10/2016	Xu	2005/0227536 A1	10/2005	Gamache et al.
D768,326 S	10/2016	Guzzini	2005/0231962 A1	10/2005	Koba et al.
			2005/0237746 A1	10/2005	Yiu
			2006/0005988 A1	1/2006	Jorgensen
			2006/0158873 A1	7/2006	Newbold et al.
			2006/0198126 A1	9/2006	Jones

(56)

References Cited

U.S. PATENT DOCUMENTS

2006/0215408	A1	9/2006	Lee	2012/0162994	A1	6/2012	Wasniewski et al.
2006/0221620	A1	10/2006	Thomas	2012/0182744	A1	7/2012	Santiago et al.
2006/0237601	A1	10/2006	Rinderer	2012/0188762	A1	7/2012	Joung et al.
2006/0243877	A1	11/2006	Rippel	2012/0243237	A1	9/2012	Toda et al.
2006/0250788	A1	11/2006	Hodge et al.	2012/0266449	A1	10/2012	Krupa
2006/0262545	A1	11/2006	Piepgas et al.	2012/0268688	A1	10/2012	Sato et al.
2007/0035951	A1	2/2007	Tseng	2012/0287625	A1	11/2012	Macwan et al.
2007/0185675	A1	8/2007	Papamichael et al.	2012/0305868	A1	12/2012	Callahan et al.
2007/0200039	A1	8/2007	Petak	2013/0009552	A1	1/2013	Page
2007/0206374	A1	9/2007	Petrakis et al.	2013/0010476	A1	1/2013	Pickard et al.
2008/0002414	A1	1/2008	Miletich et al.	2013/0016864	A1	1/2013	Ivey et al.
2008/0019138	A1	1/2008	Otte et al.	2013/0033872	A1	2/2013	Randolph et al.
2008/0112168	A1	5/2008	Pickard et al.	2013/0051012	A1	2/2013	Oehle et al.
2008/0112170	A1	5/2008	Trott	2013/0141913	A1	6/2013	Sachsenweger
2008/0112171	A1	5/2008	Patti et al.	2013/0155681	A1	6/2013	Nall et al.
2008/0130308	A1	6/2008	Behr et al.	2013/0163254	A1	6/2013	Chang et al.
2008/0137347	A1	6/2008	Trott et al.	2013/0170232	A1	7/2013	Park et al.
2008/0165545	A1	7/2008	O'Brien	2013/0170233	A1	7/2013	Nezu et al.
2008/0170404	A1	7/2008	Steer et al.	2013/0227908	A1	9/2013	Gulbrandsen et al.
2008/0232116	A1	9/2008	Kim	2013/0258677	A1	10/2013	Fryzek et al.
2008/0247181	A1	10/2008	Dixon	2013/0265750	A1	10/2013	Pickard et al.
2008/0285271	A1	11/2008	Roberge et al.	2013/0271989	A1	10/2013	Hussell et al.
2009/0003009	A1	1/2009	Tessnow et al.	2013/0294084	A1	11/2013	Kathawate et al.
2009/0034261	A1	2/2009	Grove	2013/0301252	A1	11/2013	Hussell et al.
2009/0080189	A1	3/2009	Wegner	2013/0322062	A1	12/2013	Danesh
2009/0086484	A1	4/2009	Johnson	2013/0322084	A1	12/2013	Ebisawa
2009/0097262	A1	4/2009	Zhang et al.	2013/0335980	A1	12/2013	Nakasuji et al.
2009/0135613	A1	5/2009	Peng	2014/0036497	A1	2/2014	Hussell et al.
2009/0141500	A1	6/2009	Peng	2014/0049957	A1	2/2014	Goelz et al.
2009/0141506	A1	6/2009	Lan et al.	2014/0063776	A1	3/2014	Clark et al.
2009/0141508	A1	6/2009	Peng	2014/0071679	A1	3/2014	Booth
2009/0147517	A1	6/2009	Li	2014/0071687	A1	3/2014	Tickner et al.
2009/0161356	A1	6/2009	Negley et al.	2014/0140490	A1	5/2014	Roberts et al.
2009/0237924	A1	9/2009	Ladewig	2014/0063818	A1	6/2014	Randolph et al.
2009/0280695	A1	11/2009	Sekela et al.	2014/0159616	A1	6/2014	Wang et al.
2009/0283292	A1	11/2009	Lehr	2014/0233246	A1	8/2014	Lafreniere et al.
2009/0290343	A1	11/2009	Brown et al.	2014/0254177	A1	9/2014	Danesh
2010/0002320	A1	1/2010	Minano et al.	2014/0265933	A1	9/2014	Melanson et al.
2010/0014282	A1	1/2010	Danesh	2014/0268836	A1	9/2014	Thompson
2010/0061108	A1	3/2010	Zhang et al.	2014/0268869	A1	9/2014	Blessitt et al.
2010/0110690	A1	5/2010	Hsu et al.	2014/0299730	A1	10/2014	Green et al.
2010/0110698	A1	5/2010	Harwood et al.	2014/0313775	A1	10/2014	Myers et al.
2010/0110699	A1	5/2010	Chou	2014/0321122	A1	10/2014	Domagala et al.
2010/0148673	A1	6/2010	Stewart et al.	2014/0347848	A1	11/2014	Pisavadia et al.
2010/0149822	A1	6/2010	Cogliano et al.	2015/0009676	A1	1/2015	Danesh
2010/0165643	A1	7/2010	Russo et al.	2015/0029732	A1	1/2015	Hatch
2010/0244709	A1	9/2010	Steiner et al.	2015/0078008	A1	3/2015	He
2010/0246172	A1	9/2010	Liu	2015/0138779	A1	5/2015	Livesay et al.
2010/0259919	A1	10/2010	Khazi et al.	2015/0184837	A1	7/2015	Zhang et al.
2010/0270903	A1	10/2010	Jao et al.	2015/0198324	A1	7/2015	O'Brien et al.
2010/0284185	A1	11/2010	Ngai	2015/0219317	A1	8/2015	Gatof et al.
2010/0302778	A1	12/2010	Dabiet et al.	2015/0233556	A1	8/2015	Danesh
2011/0043040	A1	2/2011	Porter et al.	2015/0241039	A1	8/2015	Fryzek
2011/0063831	A1	3/2011	Cook	2015/0263497	A1	9/2015	Korcz et al.
2011/0068687	A1	3/2011	Takahasi et al.	2015/0276185	A1	10/2015	Bailey et al.
2011/0069499	A1	3/2011	Trott et al.	2015/0308662	A1	10/2015	Vice et al.
2011/0080750	A1	4/2011	Jones et al.	2015/0345761	A1	12/2015	Lawlor
2011/0116276	A1	5/2011	Okamura et al.	2015/0362159	A1	12/2015	Ludyjan
2011/0121756	A1	5/2011	Thomas et al.	2016/0084488	A1	3/2016	Wu et al.
2011/0134634	A1	6/2011	Gingrich, III et al.	2016/0126860	A1	5/2016	Summerland
2011/0134651	A1	6/2011	Berman	2016/0209007	A1	7/2016	Belmonte et al.
2011/0140633	A1	6/2011	Archenhold	2016/0218626	A1	7/2016	Del Carmen
2011/0170294	A1	7/2011	Mier-Langner et al.	2016/0238225	A1	8/2016	Doust
2011/0194299	A1	8/2011	Crooks et al.	2016/0308342	A1	10/2016	Witherbee et al.
2011/0216534	A1	9/2011	Tickner et al.	2016/0312987	A1	10/2016	Danesh
2011/0226919	A1	9/2011	Fryzek et al.	2016/0348860	A1	12/2016	Bailey et al.
2011/0241557	A1	10/2011	Grotkowski et al.	2016/0348861	A1	12/2016	Bailey et al.
2011/0255292	A1	10/2011	Shen	2016/0366738	A1	12/2016	Boulanger et al.
2011/0267828	A1	11/2011	Bazydola et al.	2017/0003007	A1	1/2017	Wronski
2011/0285314	A1	11/2011	Carney et al.	2017/0045213	A1	2/2017	Williams et al.
2012/0020104	A1	1/2012	Biebl et al.	2017/0059135	A1	3/2017	Jones
2012/0074852	A1	3/2012	Delnoij	2017/0138576	A1	5/2017	Peng et al.
2012/0106176	A1	5/2012	Lopez et al.	2017/0138581	A1	5/2017	Doust
2012/0113642	A1	5/2012	Catalano	2017/0167672	A1	6/2017	Stauner et al.
2012/0140442	A1	6/2012	Woo et al.	2017/0167699	A1	6/2017	Schubert et al.
				2017/0198896	A1	7/2017	May
				2017/0307188	A1	10/2017	Oudina et al.
				2018/0112857	A1	4/2018	Wronski et al.
				2018/0142871	A1	5/2018	Morales

(56)

References Cited

U.S. PATENT DOCUMENTS

2018/0216809 A1 8/2018 Cohen
 2018/0224095 A1 8/2018 Cohen
 2018/0231197 A1 8/2018 Danesh
 2018/0283677 A1 10/2018 Cohen
 2018/0372284 A1 12/2018 Danesh et al.
 2019/0032874 A1 1/2019 Bonnetto et al.
 2019/0049080 A1 2/2019 Danesh
 2019/0063701 A1 2/2019 Lotfi et al.
 2019/0093836 A1 3/2019 Danesh
 2020/0182420 A1 6/2020 Cohen et al.

FOREIGN PATENT DOCUMENTS

CA 2691480 C 4/2012
 CA 2734369 A1 10/2013
 CA 2561459 A1 11/2013
 CA 2815067 11/2013
 CA 2848289 A1 10/2014
 CN 2182475 Y 11/1994
 CN 201059503 Y 5/2008
 CN 201259125 Y 6/2009
 CN 101608781 A 12/2009
 CN 201636626 U 11/2010
 CN 102062373 A 5/2011
 CN 202014067 U 10/2011
 CN 202392473 U 8/2012
 CN 202733693 U 2/2013
 CN 103307518 A 9/2013
 CN 103322476 A 9/2013
 CN 203202661 U 9/2013
 CN 203215483 U 9/2013
 CN 101498411 B 11/2013
 CN 203273663 U 11/2013
 CN 203297980 U 11/2013
 CN 203628464 U 12/2013
 CN 203641919 U 6/2014
 CN 204300818 U 4/2015
 CN 104654142 A 5/2015
 CN 204513161 U 7/2015
 CN 204611541 U 9/2015
 CN 204786225 U 11/2015
 CN 204829578 U 12/2015
 CN 103712135 B 4/2016
 CN 205606362 U 9/2016
 CN 206130742 U 4/2017
 CN 103154606 B 5/2017
 CN 206222112 U 6/2017
 CN 107013845 A 8/2017
 CN 107084343 A 8/2017
 DE 9109828 U1 2/1992
 DE 199 47 208 5/2001
 EP 1 589 289 10/2005
 EP 1 672 155 A1 6/2006
 EP 1688663 8/2006
 EP 2 095 938 A1 2/2008
 EP 2 306 072 A1 4/2011
 EP 2 453 169 A2 5/2012
 EP 2 193 309 B1 7/2012
 EP 2 735 787 A1 5/2014
 EP 3 104 024 A1 12/2016
 GB 2325728 12/1998
 GB 2427020 A 12/2006
 GB 2466875 7/2010
 GB 2471929 1/2014
 GB 2509772 A 7/2014
 JP H02113002 U 9/1990
 JP 2007091052 A 4/2007
 JP 2007265961 A 10/2007
 JP 2011060450 A2 3/2011
 JP 2012064551 A2 3/2012
 JP 2015002027 A2 1/2015
 JP 2015002028 A2 1/2015
 JP 2016219335 A 12/2016
 JP 2017107699 A2 6/2017
 KR 1020110008796 1/2011

KR 1020120061625 6/2012
 MX 2011002947 A 9/2011
 TW 474382 U 1/2002
 WO WO 2013/128896 A1 9/2013
 WO WO 2015/000212 A1 1/2015
 WO WO 2016152166 A2 9/2016

OTHER PUBLICATIONS

U.S. Appl. No. 15/688,266, filed Aug. 28, 2017, Gaskarimahalle.
 U.S. Appl. No. 15/853,400, filed Dec. 22, 2017, Kashani.
 U.S. Appl. No. 15/901,738, filed Feb. 21, 2018, Danesh.
 U.S. Appl. No. 15/947,065, filed Apr. 6, 2018, Danesh.
 U.S. Appl. No. 29/638,259, filed Feb. 26, 2018, Danesh.
 U.S. Appl. No. 29/541,565, filed Oct. 5, 2015, Peng.
 U.S. Appl. No. 29/645,941, filed Apr. 30, 2018, Danesh et al.
 2006 International Building Code, Section 712 Penetrations, 2006, 4 pages.
 Acrich COB Zhaga Module, Product Description, Seoul Semiconductor, Nov. 2016, 39 pages.
 <<https://www.zhagastandard.org/books/book18/>>, Mar. 2017, 5 pages.
 Bortz, J. C. et al., "Optimal design of a nonimaging TIR doublet lens for an illumination system using an LED source", Proc. SPIE 5529, Nonimaging Optics and Efficient Illumination Systems, (Sep. 29, 2004); doi: 10.1117/12.562598; <https://doi.org/10.1117/12.562598>, 10 pages.
 BXUV.GuideInfo, Fire Resistance Ratings—ANSI/UL 263, UL Online Certifications Directory, last updated Nov. 3, 2016, 27 pages.
 CEYY.GuideInfo, Outlet Boxes and Fittings Certified for Fire Resistance, UL Online Certifications Directory, last updated May 16, 2013, 2 pages.
 Carlon® Zip Box® Blue™ Switch and Outlet Boxes, Product Brochure, <http://www.carlonsales.com/brochures.php>, 2006, 22 pages.
 DME Series Installation Instructions, Oct. 18, 2011, 2 pages.
 DMF, Inc., "dmfLighting: LED Recessed Lighting Solutions," Info sheets, Mar. 15, 2012, 4 pages.
 DMF, Inc., "dmfLighting: LED Recessed Downlighting," DRD2 Product Brochure, Oct. 23, 2014, 50 pages.
 DMF, Inc., "dmfLighting: LED Recessed Downlighting," Product Catalog, Aug. 2012, 68 pages.
 Dross, O. et al., "Review of SMS design methods and real-world applications", Proc. SPIE 5529, Nonimaging Optics and Efficient Illumination Systems, (Sep. 29, 2004); doi: 10.1117/12.561336; <https://doi.org/10.1117/12.561336>, 14 pages.
 Final Office Action dated Apr. 27, 2016 from U.S. Appl. No. 14/184,601, 19 pages.
 Final Office Action dated Jul. 26, 2017 from U.S. Appl. No. 14/184,601, 18 pages.
 Final Office Action dated Jan. 29, 2016 from U.S. Appl. No. 14/183,424, 21 pages.
 Final Office Action dated Jun. 23, 2016 from U.S. Appl. No. 13/484,901, 18 pages.
 Final Office Action dated Apr. 2, 2015 from U.S. Appl. No. 13/484,901, 13 pages.
 Halo, Halo LED H4 H7 Collection, SustainabLEDesign, Cooper Lighting, (emphasis on p. 18 "H7 Collection LED Modules—Halo LED H7 Module Features,") Mar. 28, 2012, 52 pages.
 Halo, H7 LED Downlight Trims 49x Series, 6-inch LED Trims for Use with MI7x LED Modules, Cooper Lighting, ADV110422, rev. Aug. 12, 2011, 15 pages.
 Halo, LED Module ML706x, Cooper Lighting, General Installation for All Modules/p. 1; Tether Installation/pp. 2-3; Installation into Halo H750x Series LED—only (Non-Screw Based), Recessed Fixture, p. 4, Oct. 20, 2009, 4 pages.
 Medvedev, V. et al., "Uniform LED illuminator for miniature displays," Proc. SPIE 3428, Illumination and Source Engineering, (Oct. 20, 1998); doi: 10.1117/12.327957; <https://doi.org/10.1117/12.327957>, 13 pages.
 "Membrane Penetrations in Fire-Resistance Rated Walls," https://www.ul.com/wp-content/uploads/2014/04/ul_MembranePenetrations.pdf, Issue 1, 2009, 2 pages.
 "Metallic Outlet Boxes," UL 514A, Underwriters Laboratories, Inc., Feb. 16, 2004 (Title Page Reprinted Aug. 10, 2007), 106 pages.

(56)

References Cited

OTHER PUBLICATIONS

“Metallic and Non-metallic Outlet Boxes Used in Fire-rated Assembly,” <https://iaeimagazine.org/magazine/2000/09/16/metallic-and-non-metallic-outlet-boxes-used-in-fire-rated-assembly/>, Sep. 16, 2000, 5 pages.

Notice of Allowance dated Mar. 26, 2018 for U.S. Appl. No. 14/184,601, 10 pages.

Non-Final Office Action dated Mar. 15, 2010 from U.S. Appl. No. 12/100,148, 8 pages.

Non-Final Office Action dated Apr. 30, 2010 from U.S. Appl. No. 12/173,232, 13 pages.

Non-Final Office Action dated Sep. 5, 2014 from U.S. Appl. No. 13/791,087, 8 pages.

Non-Final Office Action dated Jul. 20, 2015 from U.S. Appl. No. 14/184,601, 16 pages.

Non-Final Office Action dated Dec. 15, 2016 from U.S. Appl. No. 14/184,601, 18 pages.

Non-Final Office Action dated Feb. 6, 2018 from U.S. Appl. No. 15/167,682, 9 pages.

Non-Final Office Action dated Sep. 15, 2015 from U.S. Appl. No. 13/484,901, 16 pages.

Non-Final Office Action dated Oct. 16, 2014 from U.S. Appl. No. 13/484,901, 11 pages.

Non-Final Office Action dated Sep. 6, 2017 from U.S. Appl. No. 14/726,064, 8 pages.

Non-Final Office Action dated May 17, 2017 from U.S. Appl. No. 14/183,424, 20 pages.

Non-Final Office Action dated Jun. 2, 2015 from U.S. Appl. No. 14/183,424, 20 pages.

Non-Final Office Action dated Apr. 12, 2018 for U.S. Appl. No. 29/638,259, 5 pages.

Non-Final Office Action dated May 16, 2018 for U.S. Appl. No. 15/132,875, 18 pages.

Notice of Allowance dated Jan. 30, 2015 from U.S. Appl. No. 13/791,087, 9 pages.

Notice of Allowance dated Jan. 16, 2015 from U.S. Appl. No. 29/467,026, 9 pages.

Notice of Allowance dated Oct. 21, 2016 from U.S. Appl. No. 13/484,901, 7 pages.

Notice of Allowance dated Mar. 24, 2016 from U.S. Appl. No. 14/247,149, 8 pages.

Notice of Allowance dated May 22, 2018 from U.S. Appl. No. 14/183,424, 9 pages.

Notice of Allowance dated May 10, 2018 from U.S. Appl. No. 14/726,064, 7 pages.

“Outlet Boxes for Use in Fire Rated Assemblies,” https://www.ul.com/wp-content/uploads/2014/04/UI_outletboxes.pdf, 2011, 2 pages. Parkyn, W. A. et al., “New TIR lens applications for light-emitting diodes”, Proc. SPIE 3139, Nonimaging Optics: Maximum Efficiency Light Transfer IV, (Oct. 3, 1997); doi: 10.1117/12.290217, 7 pages.

Schreiber, P. et al., “Microoptics for homogeneous LED-illumination”, Proc. SPIE 6196, Photonics in Multimedia, 61960P (Apr. 21, 2006); doi: 10.1117/12.663084; <https://doi.org/10.1117/12.663084>, 11 pages.

Van Giel, B. V. et al., “Design of axisymmetrical tailored concentrators for LED light source applications”, Proc. SPIE 6196, Photonics in Multimedia, 619603 (Apr. 21, 2006); doi: 10.1117/12.660115; <https://doi.org/10.1117/12.660115>, 11 pages.

Zhen, Y. et al., “The optimal design of TIR lens for improving LED illumination uniformity and efficiency”, Proc. SPIE 6834, Optical Design and Testing III, 68342K (Nov. 28, 2007); doi: 10.1117/12.756101, 9 pages.

Zou, H. et al., “58.1: Single-Panel LCOS Color Projector with LED Light Sources”, SID Symposium, vol. 36, Issue 1, 4 pages. (May 2005).

RACO 4 in. Octagon Welded Concrete Ring, 3-1/2 in. Deep with 1/2 and 3/4 in. Knockouts and includes 890 cover (20-Pack). Model # 280. Accessed at <https://www.homedepot.com/p/RACO-4-in->

<https://www.homedepot.com/p/RACO-4-in-> Octagon-Welded-Concrete-Ring-3-1-2-in-Deep-with-1-2-and-3-4-in-Knockouts-and-ilcludes-890-cover-20-Pack-280/203638679 on Jan. 18, 2019. 3 pages.

RACO 4 in. Octagon Welded Concrete Ring, 6 in. Deep with 1/2 and 3/4 in. Knockouts (10-Pack). Model # 276. Accessed at <https://www.homedepot.com/p/RACO-4-in-Octagon-Welded-Concrete-Ring-6-in-Deep-with-1-2-and-3-4-in-Knockouts-10-Pack-276/203638675> on Jan. 16, 2019. 4 pages.

Notice of Allowance dated Feb. 8, 2019 from U.S. Appl. 29/543,565, 5 pages.

Non-Final Office Action dated Febraury 7, 2019 from U.S. Appl. No. 16/200,393, 32 pages.

Notice of Allowance dated Jan. 28, 2019 from U.S. Appl. No. 29/664,471, 8 pages.

Non-Final Office Action dated Jul. 24, 2018 from U.S. Appl. No. 29/638,259, 5 pages.

Final Office Action dated Mar. 15, 2019 from U.S. Appl. No. 15/132,875, 15 pages.

International Search Report and Written Opinion in International Patent Application No. PCT/US18/62868 dated Mar. 14, 2019, 13 pages.

CS&E PCT Collaborative Search and Examination Pilot Upload Peer Contribution dated Mar. 14, 2019, 61 pages.

U.S. Appl. No. 29/678,478, filed Jan. 29, 2019, Danesh et al.

U.S. Appl. No. 29/678,482, filed Jan. 29, 2019, Danesh et al.

Civil Action No. 2:18-cv-07090. Complaint for Infringement and Unfair Competition. *DMF, Inc. v. AMP Plus, Inc. d/b/a ELCO Lighting*. 52 pages. Dated Aug. 15, 2018.

U.S. Appl. No. 16/016,040, filed Jun. 22, 2018, Danesh.

U.S. Appl. No. 16/200,393, filed Nov. 26, 2018, Danesh.

U.S. Appl. No. 29/664,471, filed Sep. 25, 2018, Danesh et al.

“Advanced LED Solutions,” Imtra Marine Lighting. 2011. 39 pages.

“Cree LMH2 LED Module with TrueWhite Technology,” Cree Product Family Data Sheet. 2011. 3 pages.

“Cree LMH2 LED Modules Design Guide,” Cree Product Design Guide. 2011. 20 pages.

“Portland Bi-Color, Warm White/Red,” item:ILIM30941.Imtra Marine Products. 2012. 3 pages.

“Undercabinet Pucks, Xyris Mini LED Puck Light,” ELCO Lighting. Sep. 2018. 1 page.

“VERSI LED Mini Flush,” Lithonia Lghting. 6 pages.

Cree LED Lamp Family Sales Sheet—Better light is beautiful light , Apr. 24, 2017, 2 pages.

International Search Report and Written Opinion in International Patent Application No. PCT/US18/39048 dated Dec. 14, 2018 24 pages.

International Search Report and Written Opinion in PCT/US2018/048357 dated Nov. 14, 2018, 13 pages.

Non-Final Office Action dated Dec. 5, 2018 from U.S. Appl. No. 14/942,937, 13 pages.

Non-Final Office Action dated Jun. 25, 2018 for U.S. Appl. No. 29/541,565, 10 pages.

Non-Final Office Action dated Oct. 24, 2018 for U.S. Appl. No. 15/688,266, 14 pages.

Notice of Allowance dated Jan. 2, 2019 from U.S. Appl. No. 29/541,565, 6 pages.

Notice of Allowance dated Nov. 27,2018 from U.S. Appl. No. 15/167,682.

Notice of Allowance dated Oct. 4, 2018 from U.S. Appl. No. 15/947,065 , 9 pages.

Notice of Allowance dated Sep. 19, 2018 from U.S. Appl. No. 15/167,682 , 7 pages.

Notice of Allowance dated Sep. 21, 2018 from U.S. Appl. No. 29/645,941, 5 pages.

OneFrame Recessed LED Downlight. Dmflighting.com. Published Jun. 6, 2018. Retrieved at <https://www.dmflighting.com/productioneframe> on Jun. 6, 2018. 11 pages.

U.S. Appl. No. 29/683,730, filed Mar. 15, 2019, Danesh et al.

4" Octagon Concrete Boxes and Back Plates. Appleton. Accessed at www.appletonelec.com on May 6, 2019. 1 page.

(56)

References Cited

OTHER PUBLICATIONS

Cooper Lighting HALO ML56 LED System Product Sheet. Mar. 2, 2015. Accessed at http://www.cooperindustries.com/content/dam/public/lighting/products/documents/halo/spec_sheets/halo-m156600-80cri-141689-sss.pdf. 8 pages.

CS&E PCT Collaborative Search and Examination Pilot Upload Peer Contribution in International Patent Application No. PCT/US18/67614 dated Apr. 24, 2019, 53 pages.

Ex-Parte Quayle Action dated Jun. 27, 2019 from U.S. Appl. No. 29/683,730, 5 pages.

Final Office Action dated Jun. 6, 2019 from U.S. Appl. No. 15/688,266, 7 pages.

IC1JB Housing 4" IC-Rated New Construction Junction Box Housing. AcuityBrands. Accessed at <https://www.acuitybrands.com/en/products/detail/845886/juno/ic1jb-housing/4-ic-rated-new-construction-junction-box-housing> on Jun. 27, 2019.

Imtra Marine Lighting 2008 Catalog. 40 pages.

Imtra Marine Lighting 2009 Catalog. 32 pages.

Imtra Marine Lighting Spring 2007 Catalog. 36 pages.

International Search Report and Written Opinion in International Patent Application No. PCT/US18/67614 dated Apr. 25, 2019, 20 pages.

Kwikbrace@ New Construction Braces for Lighting Fixtures or Ceiling Fans 1-1/2 in. Depth. Hubbel. Accessed at <https://hubbellcdn.com/specsheet/926.pdf> on Jun. 27, 2019. 1 page.

Non-Final Office Action dated Jun. 11, 2019 from U.S. Appl. No. 15/901,738, 6 pages.

Notice of Allowance dated Apr. 17, 2019 from U.S. Appl. No. 29/678,478, 7 pages.

Notice of Allowance dated Jun. 12, 2019 from U.S. Appl. No. 16/016,040, 8 pages.

RACO Commercial, Industrial and Residential Electrical Products. Hubbell. Accessed at www.Hubbell-RTB.com on May 6, 2019. 356 pages.

Specification & Features 4" Octagonal Concrete Box Covers. Orbit Industries, Inc. Accessed at <https://www.orbitelectric.com> on May 6, 2019. 1 page.

Non-Final Office Action dated Apr. 4, 2019 from U.S. Appl. No. 29/678,482, 8 pages.

Notice of Allowance dated Apr. 1, 2019 from U.S. Appl. No. 15/167,682. 7 pages.

Supplemental Notice of Allowance dated Aug. 5, 2019 from U.S. Appl. No. 15/947,065, 2 pages.

Corrected Notice of Allowability dated Oct. 25, 2018 from U.S. Appl. No. 14/183,424, 3 pages.

DMF DRD2 Recessed LED Downlight General Retrofit Junction Box Dated: Dec. 18, 2015 Downloaded Jul. 28, 2018, from <https://www.alconlighting.com/specsheets/DMF/DRD2-Junction-Box-Retrofit-Spec-Sheet.pdf>, 6 pages.

DMF DRD2 Recessed LED Downlight General New Construction 4", 5", 6" Aperture Dated: Aug. 31, 2016 Downloaded Jul. 28, 2018, from https://www.cansandfans.com/sites/default/files/DRD2-General-New-Construction-Spec-Sheet_7_0.pdf, 9 pages.

Mar. 5, 2016—The DMF Lighting DRD2 Recessed LED Downlight General Retrofit Junction Box—Wet Location Rated is the ideal solution for Commercial LED recessed lighting retrofit applications. web cache <https://www.alconlighting.com/dmf-drd2m.html> (downloaded Jul. 28, 2018), 6 pages.

Ex Parte Quayle Office Action dated Oct. 16, 2018 for U.S. Appl. No. 29/663,037, 7 pages.

Notice of Allowance dated Nov. 19, 2018 from U.S. Appl. No. 29/663,037, 5 pages.

Notice of Allowance dated Nov. 15, 2018 from U.S. Appl. No. 29/663,040, 5 pages.

LED modules advance in performance, standardization questions persist (Magazine). LEDs Magazine. Oct. 29, 2013. Accessed at <https://www.ledsmagazine.com/leds-ssl-design/modular-light-engines/article/16695073/led-modules-advance-in-performance-standardization-questions-persist-magazine>. 9 pages.

Notice of Allowance dated Jul. 20, 2020 from U.S. Appl. No. 29/648,046, 5 pages.

Octagon Concrete Box Cover with (3) 1/2 in. & (2) 3/4 in. Conduit Knockouts. Garvin. Accessed at https://www.garvinindustries.com/covers-and-device-rings/concrete-slab-box-covers-adaptor-rings/flat-covers-all-styles/cbp?gclid=CjOKCQjw9b_4BRCMARIsADMUlypJc0K8OUHdDTI9C5m4BDzR3U87PRYV1NdQ1BFxEWQ21_3otTCTqEkaAi_DEALw_wcB on Jul. 20, 2020. 1 page.

U.S. Appl. No. 29/688,172, filed Apr. 18, 2019, Danesh et al.

U.S. Appl. No. 29/688,143, Apr. 18, 2019, Danesh et al.

U.S. Appl. No. 14/713,340, dated Oct. 23, 1923, Knight.

Notice of Allowance dated Jul. 31, 2019 from U.S. Appl. No. 15/167,682, 7 pages.

Supplemental Notice of Allowance dated Aug. 5, 2019 from U.S. Appl. No. 15/947,065, 2 pages.

International Search Report and Written Opinion in International Patent Application No. PCT/US19/32281 dated Aug. 2, 2019, 18 pages.

Notice of Allowance dated Sep. 19, 2019 from U.S. Appl. No. 16/016,040, 7 pages.

Corrected Notice of Allowance dated Sep. 27, 2019 from U.S. Appl. No. 15/167,682, 2 pages.

Final Office Action dated Sep. 27, 2019 from U.S. Appl. No. 16/200,393, 34 pages.

Notice of Allowance dated Feb. 15, 2019 from U.S. Appl. No. 15/947,065, 9 pages.

Notice of Allowance dated Oct. 1, 2019 from U.S. Appl. No. 14/942,937, 7 pages.

Final Office Action dated Oct. 3, 2019 from U.S. Appl. No. 29/678,482, 6 pages.

Delhi Rehab & Nursing Facility ELM16-70884. Vertex Innovative Solutions Feb. 25, 2016. 89 pages.

SlimSurface surface mount downlighting. Philips Lightolier 2018. 8 pages.

Be seen in the best light. Lightolier by signify. Comprehensive 2019 Lighting Catalog. 114 pages.

Corrected Notice of Allowance dated Oct. 10, 2019 from U.S. Appl. No. 16/016,040, 2 pages.

Cree® LMR2 LED Module. Product Family Data Sheet Cree 2011. 3 pages.

Notice of Allowance dated Oct. 16, 2019 from U.S. Appl. No. 15/132,875, 12 pages.

International Search Report and Written Opinion in International Patent Application No. PCT/US2019/036477 dated Oct. 17, 2019, 15 pages.

ML56 LED Lighting System 600 / 900 / 1200 Series Halo. Cooper Lighting Brochure 2015. Accessed at <https://images.homedepot-static.com/catalog/pdfimages/06/06d28f93-41o16-45be-a35a-a0239606f227.pdf>. 41 pages.

Switch and Outlet Boxes and Covers Brochure. Appelton 2010. 77 pages.

Non-Final Office Action dated Dec. 30, 2019 from U.S. Appl. No. 16/653,497, 8 pages.

Notice of Allowance dated Feb. 5, 2020 from U.S. Appl. No. 15/901,738, 8 pages.

Notice of Allowance dated Feb. 5, 2020 from U.S. Appl. No. 29/678,482, 13 pages.

Maxim Lighting Wafer Trifold Brochure LMXBRO1711 2017. Accessed at <https://www.maximlighting.com/Upload/download/brochure/pdf/LMXBRO1711.pdf> on Feb. 13, 2020. 2 pages.

Maxim Convert Fixture. LMXCAT1805 Maxim Main Catalog 2018 p. 639.

Maxim Wafer. LMXCAT1805 Maxim Main Catalog 2018 pp. 636-638.

Maxim Lighting Trim Trifold LMXBRO1905 2019. Accessed at <https://www.maximlighting.com/Upload/download/brochure/pdf/LMXBRO1905.pdf> on Feb. 13, 2020. 2 pages.

International Search Report and Written Opinion in International Patent Application No. PCT/US2019/054220 dated Feb. 24, 2020, 23 pages.

Final Office Action dated Mar. 17, 2020 for U.S. Appl. No. 29/653,142, 13 pages.

(56)

References Cited

OTHER PUBLICATIONS

LED Book Price Guide 2012. DMF Light. Issued Jun. 26, 2013. 3 pages.

DLER411 4" Recessed LED Retrofit Module. DMF Light. Issued Jun. 15, 2011. 1 page.

DLEI411 4" Recessed LED New Construction, IC. DMF Light. Issued Nov. 30, 2011. 1 page.

DLEIR411 4" Recessed LED Remodel, IC. DMF Light. Issued Jun. 15, 2011. 1 page.

3 & 4" DLE Series LED Sample Case Now Available. DMF Light. Issued Jan. 6, 2012. 1 page.

DLEI3 3" Recessed LED New Construction, IC. DMF Light. Issued Nov. 30, 2011. 2 pages.

Ridgway-Barnes, SlimSurface Led Downlight: One of the thinnest LED surface mount downlights in the market. Philips Lighting Blog. Oct. 28, 2014. Accessed at <http://applications.nam.lighting.philips.com/blog/index.php/2014/10/28/slimsurface-led-downlight-one-of-the-thinnest-led-surface-mount-downlights-in-the-market/>. 3 pages.

SlimSurface LED SSR, S7R & S10R Round 5", 7" and 10" Apertures. Lightolier by Signify. Nov. 2018. 9 pages.

Non-Final Office Action dated Apr. 2, 2020 for U.S. Appl. No. 16/522,275, 21 pages.

Notice of Allowance dated May 18, 2020 from U.S. Appl. No. 15/901,738, 7 pages.

Non-Final Office Action dated May 20, 2020 for U.S. Appl. No. 15/688,266, 6 pages.

Non-Final Office Action dated May 26, 2020 for U.S. Appl. No. 16/719,361, 10 pages.

International Search Report and Written Opinion in PCT/US2020/017331 dated Jun. 22, 2020, 16 pages.

Taiwan Office Action and translation thereof dated Jun. 12, 2020 from Taiwan Application No. 108116564, 8 pages.

Access Lighting Installation Instructions. No. 20870LEDD/20871LEDD/20872LEDD. Dec. 16, 2019. 2 pages.

Model No. 20870LEDD-LEDD-WH/ACR Infinite Specification Sheet. Access Lighting. Apr. 9, 2020. 1 page.

Notice of Allowance dated Jul. 10, 2020 from U.S. Appl. No. 29/694,475, 6 pages.

Petition for Inter Partes Review of U.S. Pat. No. 9,964,266 Pursuant to 37 C.F.R. § 42.100 et seq. AMP Plus Inc. dbd *ELCO Lighting v. DMF, Inc.*, IPR2019-01094 filed May 17, 2019, 108 pages.

IPR2019-01094 Exhibit 1005. Imtra 2011 Marine Lighting Catalog—Advanced LED Solutions (“Imtra 2011”). 40 pages.

IPR2019-01094 Exhibit 1006. Imtra 2007 Marine Lighting Catalog (“Imtra 2007”). 36 pages.

IPR2019-01094 Exhibit 1010. Illuminating Engineering Society, ANSI RP-16-10, Nomenclature and Definitions for Illuminating Engineering (approved as an American National Standard Jul. 15, 2005, approved by the IES Board of Directors Oct. 15, 2005). 4 pages.

IPR2019-01094 Exhibit 1011. Underwriters Laboratories Inc. Standard for Safety, Standard UL-8750, entitled Light Emitting Diode (LED) Equipment for Use in Lighting (1st ed. 2009). 5 pages.

IPR2019-01094 Exhibit 1013. Illuminating Engineering Society of North America, IES Lighting Handbook (John E. Kaufman and Howard Haynes eds., Application vol. 1981) (“Lighting Handbook”). 5 pages.

IPR2019-01094 Exhibit 1014. California Energy Commission, PIER Lighting Research Program: Project 2.3 Low-profile LED Luminaires Final Report (Prepared by Lighting Research Center, Jan. 2005) (“PIER LRP”). 70 pages.

IPR2019-01094 Exhibit 1015. Jim Sinopoli, Using DC Power to Save Energy and End the War on Currents, GreenBiz (Nov. 15, 2012), <https://www.greenbiz.com/news/2012/11/15/using-dc-power-save-energy-end-war-currents> (“Sinopoli”). 6 pages.

IPR2019-01094 Exhibit 1016. Robert W. Johnson, “Thought Leadership White Paper: AC Versus DC Power Distribution” (Nov. 2012) (“Johnson”). 10 pages.

IPR2019-01094 Exhibit 1017. Lumileds, Luxeon Rebel General Purpose Product Datasheet, Specification DS64 (2016) (“Luxeon Rebel”). 26 pages.

IPR2019-01094 Exhibit 1019. U.S. Department of Energy, Caliper Benchmark Report: Performance of Incandescent A-Type and Decorative Lamps and LED Replacements (prepared by Pacific National Laboratory, Nov. 2008) (“CALiPER 2008”). 25 pages.

IPR2019-01094 Exhibit 1021. U.S. Department of Energy, CALiPER Application Summary Report 16: LED BR30 and R30 Lamps (prepared by Pacific Northwest National Laboratory, Jul. 2012) (“CALiPER 2012”). 26 pages.

IPR2019-01094 Exhibit 1022. Sandia National Laboratories, Sandia Report: “The Case for a National Research Program on Semiconductor Lighting” (Jul. 2000) (“Haitz”). 24 pages.

IPR2019-01094 Exhibit 1023. Sylvania, Post Top Street Light LED Retrofit Kit Specification, LED40POST (2009) (“Sylvania”). 4 pages.

IPR2019-01094 Exhibit 1024. Webster’s New Collegiate Dictionary (1973) (“Webster’s”). 2 pages.

IPR2019-01094 Exhibit 1025. 3M Wire Connectors and Tools Catalog 2013 (“3M Catalog”). 22 pages.

IPR2019-01094 Exhibit 1026. Wakefield Semiconductor Heat Sinks and Thermal Products 1974 Catalog (“Wakefield”). 3 pages.

IPR2019-01094 Exhibit 1027. U.S. Department of Energy, Solid-State Lighting Research and Development Portfolio: Multi-Year Program Plan FY’07-FY’12 (prepared by Navigant Consulting, Inc., Mar. 2006) (“DOE 2006”). 129 pages.

IPR2019-01094 Exhibit 1028. U.S. Department of Energy, Solid-State Lighting Research and Development: Multi-Year Program Plan (Apr. 2013) (“DOE 2013”). 89 pages.

Declaration of Colby Chevalier from Central District of California Civil Docket for Case #: 2:18-cv-07090-CAS-GJS filed Jun. 3, 2019, signed Jun. 3, 2019. 2 pages.

Docket Listing in Inter Partes Review of U.S. Pat. No. 9,964,266. Docket Navigator AMP Plus, Inc. d/b/a *Elco Lighting et al v. DMF, Inc.* PTAB-IPR2019-01094. Downloaded Mar. 25, 2020. 4 pages.

Petition for Inter Partes Review of U.S. Pat. No. 9,964,266 Pursuant to 37 C.F.R. § 42.100 et seq. AMP Plus Inc. dbd *Elco Lighting v. DMF, Inc.*, PTAB-IPR2019-01500 filed Aug. 14, 2019. 99 pages.

Docket Listing in Inter Partes Review of U.S. Pat. No. 9,964,266. AMP Plus, Inc. d/b/a *Elco Lighting et al v. DMF, Inc.* PTAB-IPR2019-01500. Downloaded Mar. 25, 2020. 3 pages.

Docket Listing in Civil Action No. 2:18-cv-07090. *DMF, Inc. v. AMP Plus, Inc. d/b/a Elco Lighting et al* CDCA-2-18-cv-07090. Downloaded on Mar. 25, 2020. 39 pages.

Civil Action no. 2:19-cv-4519. Complaint for Patent Infringement. *DMF, Inc. v. AMP Plus, Inc. d/b/a Elco Lighting*. 52 pages. dated May 22, 2019. 23 pages.

Docket Listing in Civil Action No. 2:19-cv-4519. *DMF Inc v. AMP Plus, Inc. d/b/a ELCO Lighting et al* CDCA-2-19-cv-04519. Downloaded on Mar. 25, 2020. 3 pages.

Decision Denying Institution of Inter Partes Review of U.S. Pat. No. 9,964,266 in IPR2019-01500 dated Mar. 17, 2020. 21 pages.

Defendants’ Notice of Prior Art Pursuant to 35 U.S.C. § 282 in Civil Action No. 2:18-cv-07090-CAS-GJS dated Feb. 28, 2020. 7 pages.

Defendant AMP Plus, Inc.’s Opposition to DMF’s Motion for Summary Judgement in Civil Action No. 2:18-cv-07090-CAS-GJS filed Feb. 10, 2020. 32 pages.

Declaration of Eric Bretschneider, Ph.D in Support of Amp Plus, Inc.’s Opposition to Dmf, Inc.’s Motion for Partial Summary Judgment in Civil Action No. 2:18-cv-07090-CAS-GJS filed Feb. 10, 2020. 210 pages.

Plaintiff DMF’s Reply in Support of Motion for Partial Summary Judgment in Civil Action No. 2:18-cv-07090-CAS-GJS filed Feb. 18, 2020. 33 pages.

Declaration of James R. Benya in Support of Plaintiff DMF’s Motion for Summary Judgment in Civil Action No. 2:18-cv-07090-CAS-GJS filed Feb. 3, 2020. 193 pages.

Underwriters Laboratories Inc. Standard for Safety. UL 1598. Luminaires Jan. 11, 2020. 12 pages.

Exceptional LED Lighting Technology Product Portfolio. LightingScience 2012. 11 pages.

(56)

References Cited

OTHER PUBLICATIONS

“Cree LMH2 LED Modules,” Mouser Electronics. Sep. 9, 2012. 4 pages.

Slim Line Disc. Eye LEDs Specification Sheet 2012.2 pages.

HiBay LED Heat Sink. Wakefield-vette. Dec. 11, 2017. 1 pages.

Thermal Management of Cree® XLamp® LEDs. Cree Application Note. 2004. 19 pages.

Imtra Marine Lighting Fall 2007 Catalog. 32 pages.

* cited by examiner

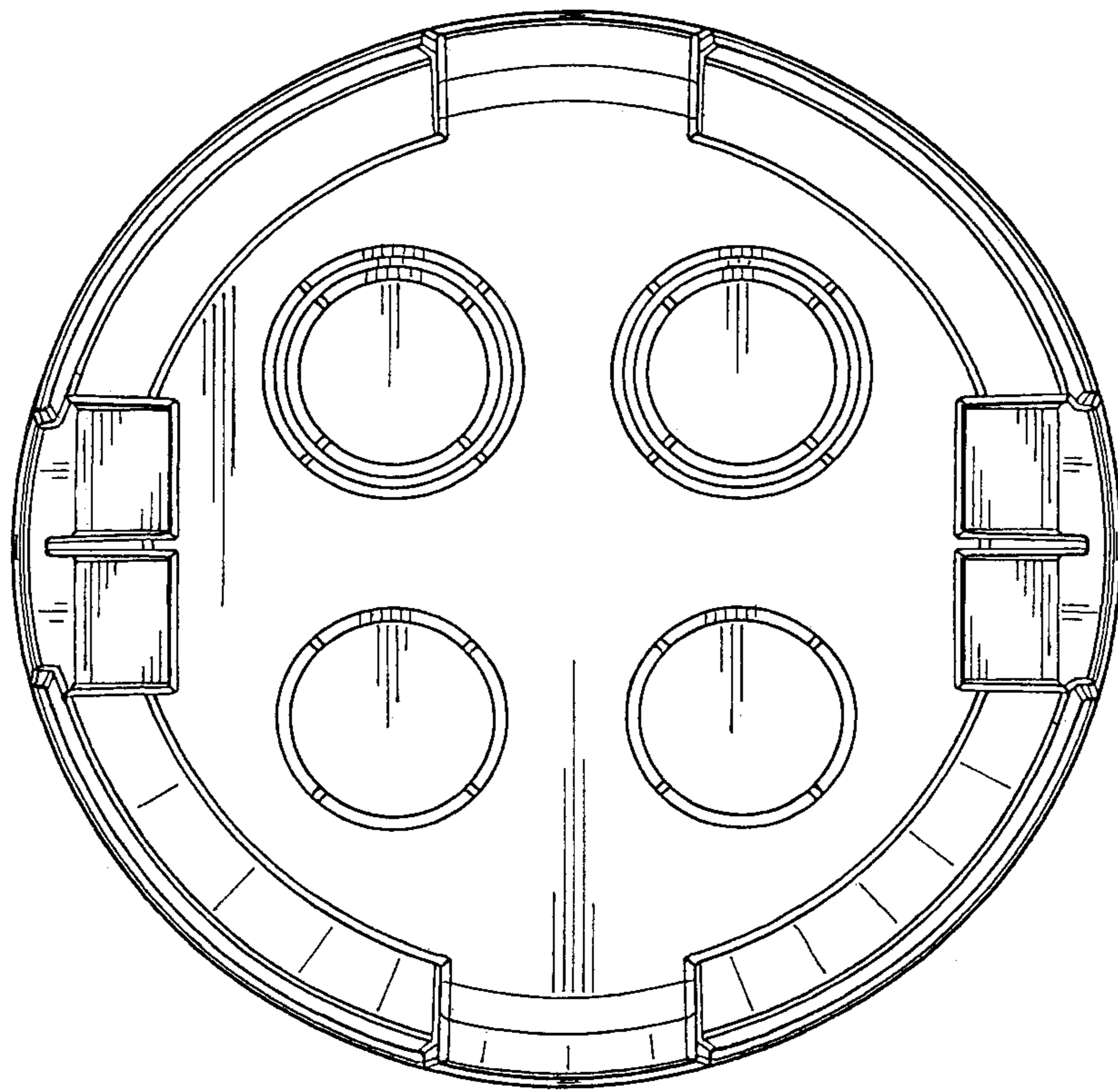


FIG. 1

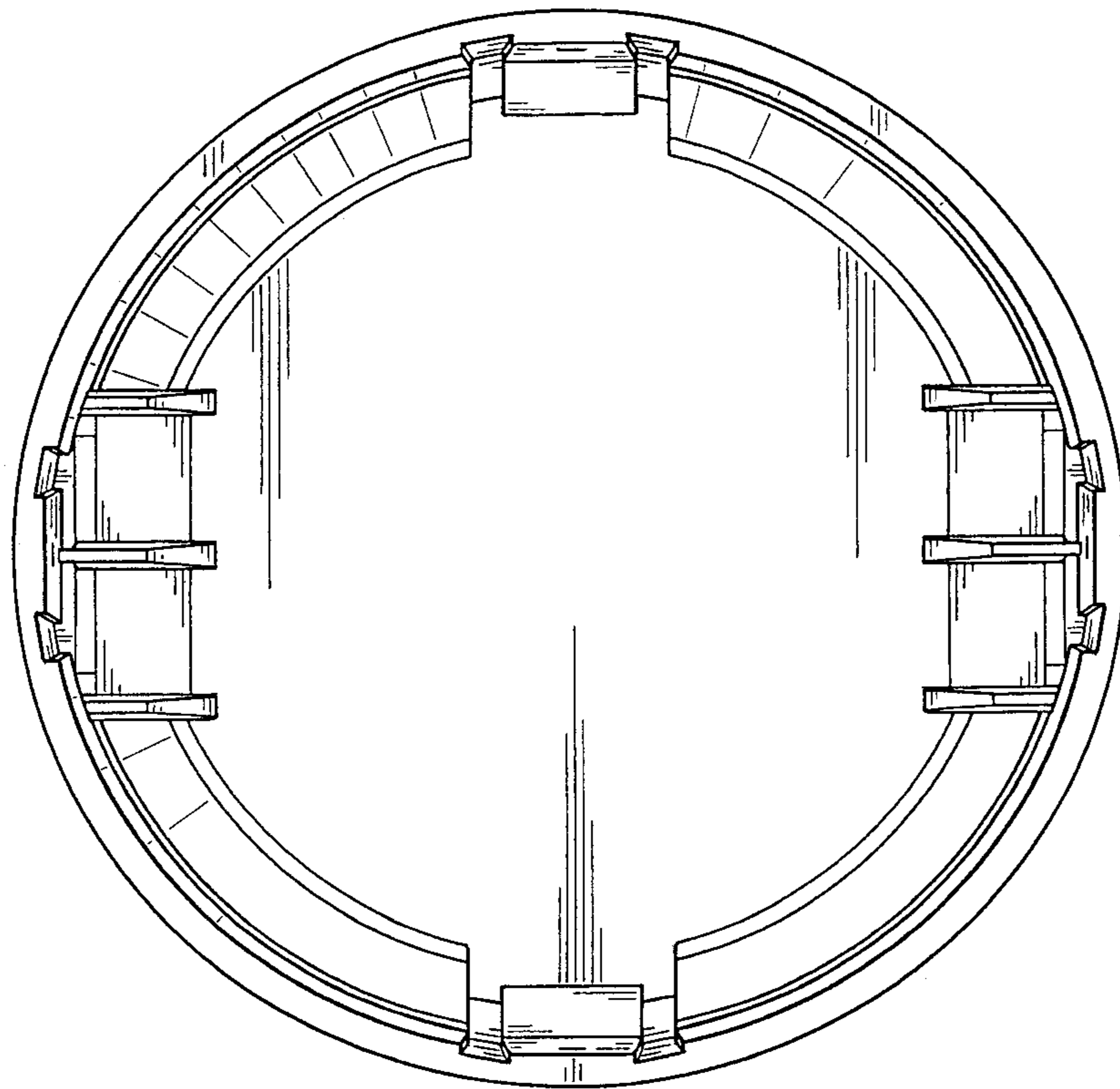


FIG. 2

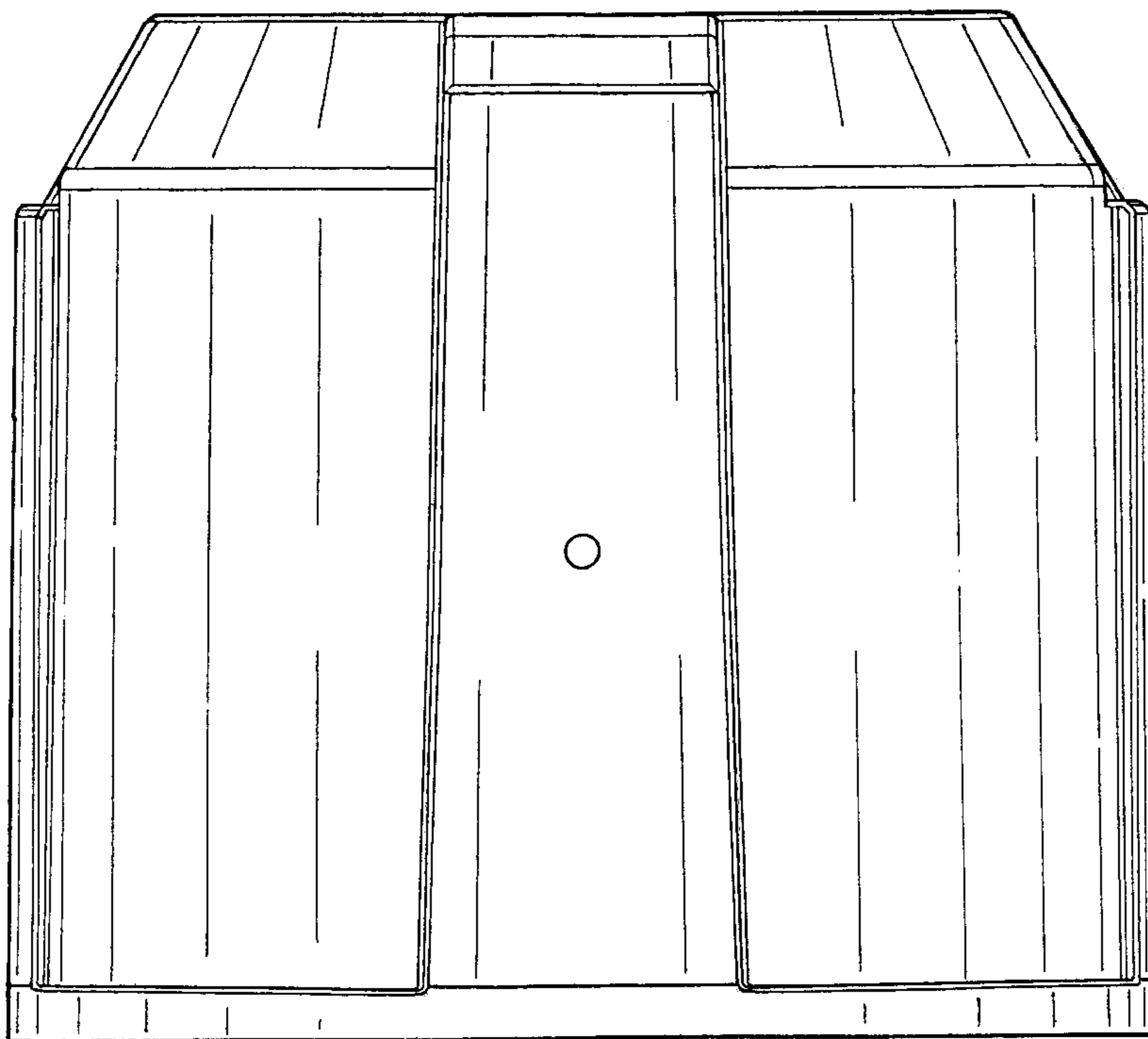


FIG. 3

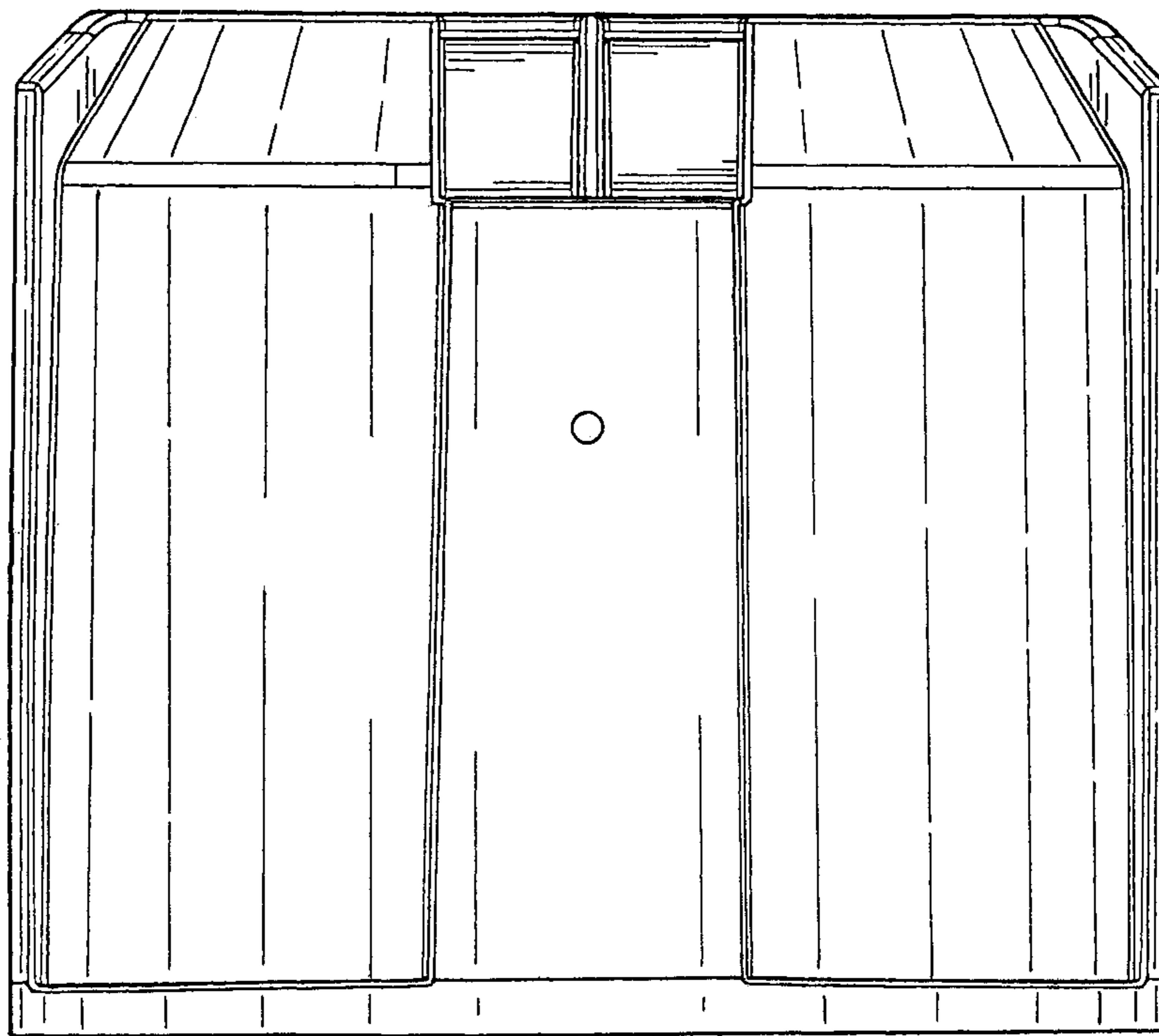


FIG. 4

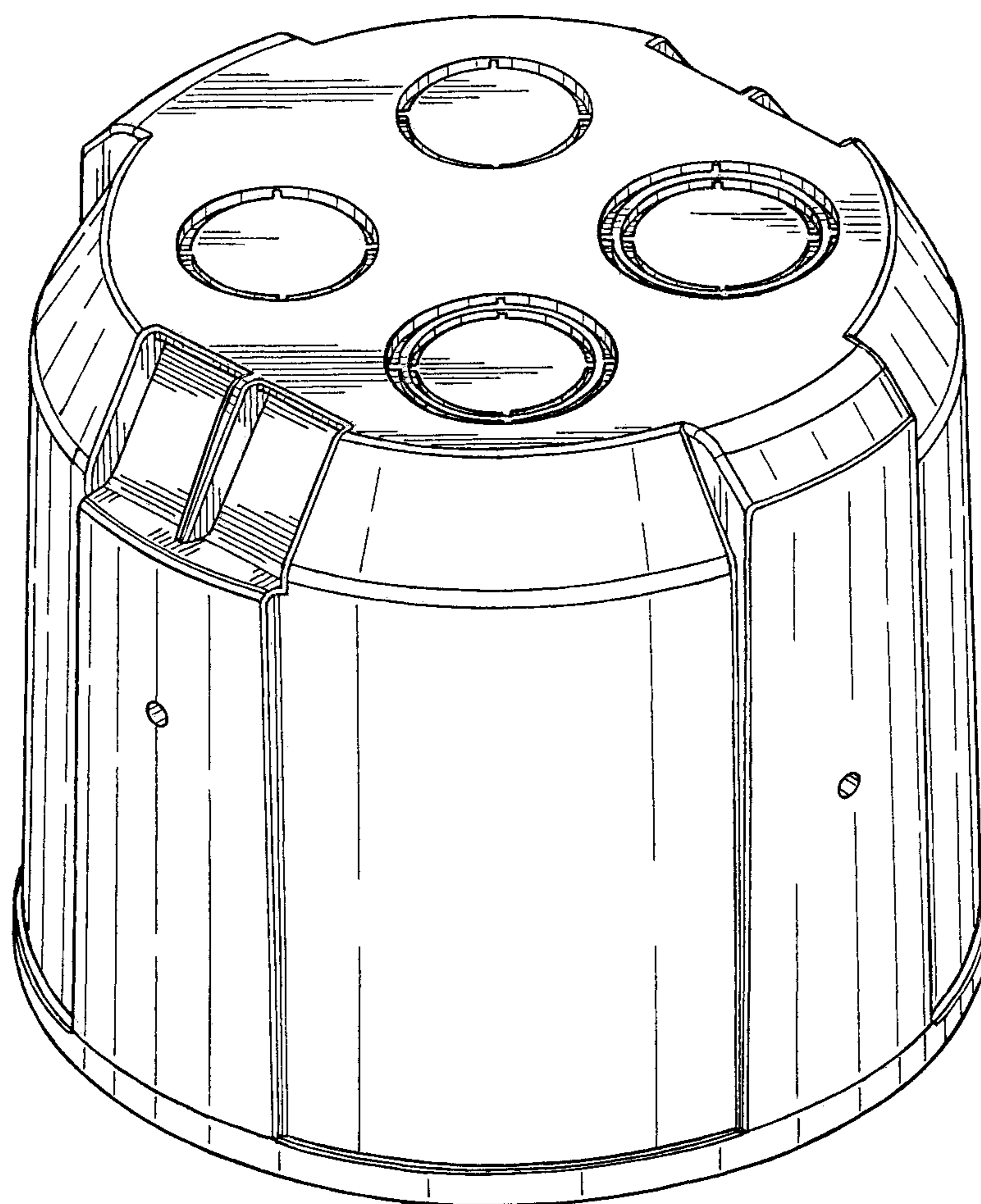


FIG. 5

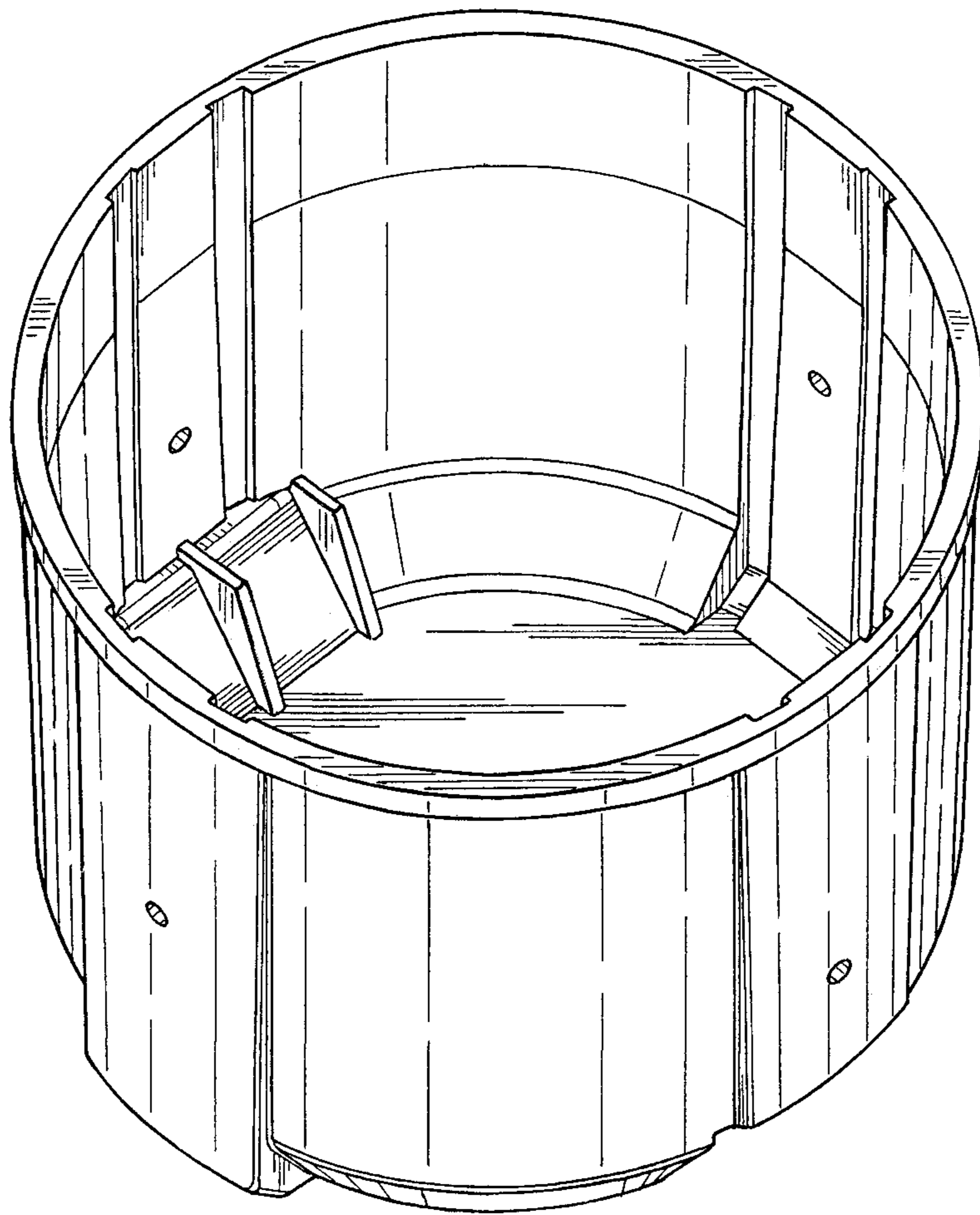


FIG. 6