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Luoma, II

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(54) REAGENT CONTAINER

(71) Applicant: Abbott Laboratories, Abbott Park, IL (US)

(72) Inventor: Robert Paul Luoma, II, Colleyville, TX (US)

(73) Assignee: Abbott Laboratories, Abbott Park, IL (US)

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See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

290,225 A 12/1883 Carlson
423,362 A 3/1890 Wells
(Continued)

FOREIGN PATENT DOCUMENTS

CA 2556772 9/2005
CN 1183057 5/1998
(Continued)

OTHER PUBLICATIONS

United States Patent and Trademark Office, “Notice of Allowance and Fee(s) Due,” issued in connection with U.S. Appl. No. 13/801,154, on Oct. 24, 2016, 2 pages.
(Continued)

Primary Examiner — Omeed Agilee
(74) Attorney, Agent, or Firm — Hanley, Flight & Zimmerman, LLC

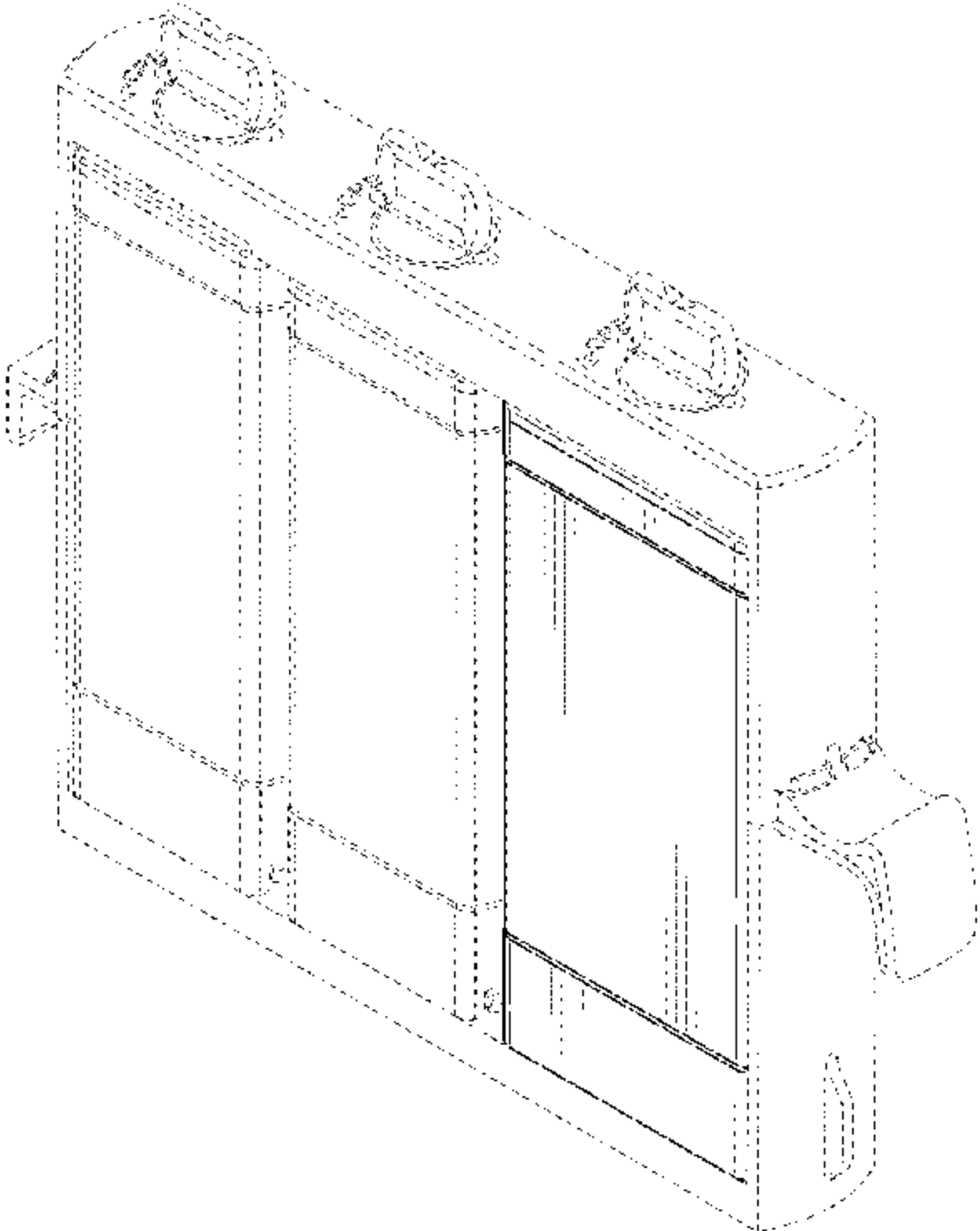
(57) CLAIM

The ornamental design for a reagent container as shown and described.

DESCRIPTION

FIG. 1 is a front right perspective view of a reagent container.
FIG. 2 is a front side view of the reagent container of FIG. 1; and,
FIG. 3 is a rear side view of the reagent container of FIG. 1. The broken lines in the drawings depict portions of the reagent container that form no part of the claimed design.

1 Claim, 3 Drawing Sheets



25, 2015, now Pat. No. Des. 815,299, which is a continuation of application No. 13/801,154, filed on Mar. 13, 2013, now Pat. No. 9,535,082.

U.S. PATENT DOCUMENTS

2,506,864	A		5/1950	Ferguson	
2,514,680	A		7/1950	Stafford	
3,714,056	A		1/1973	Tallent	
3,777,652	A		12/1973	Engel	
D234,683	S		4/1975	Rakacs	
3,994,594	A		11/1976	Sandrock et al.	
4,095,077	A		6/1978	Schneider et al.	
4,127,590	A		11/1978	Endo et al.	
4,227,810	A		10/1980	Sandrock et al.	
4,251,159	A	*	2/1981	White	G01N 21/03 422/547
4,319,996	A		3/1982	Vincent et al.	
D264,127	S	*	4/1982	Peterson	D9/523
4,335,693	A		6/1982	Cowles	
4,390,391	A		6/1983	Fujita et al.	
D273,987	S		5/1984	Holen et al.	
4,515,752	A		5/1985	Miramanda	
4,515,753	A		5/1985	Smith et al.	
4,557,600	A		12/1985	Klose et al.	
4,608,472	A		8/1986	Kato	
D287,638	S	*	1/1987	Moore	D24/224
D290,225	S		6/1987	Carlson	
D290,400	S	*	6/1987	Tong	D24/224
4,684,614	A		8/1987	Krovak et al.	
D291,730	S	*	9/1987	Kelln	D24/224
D292,267	S	*	10/1987	Costa	D9/524
4,705,668	A		11/1987	Kaltenbach et al.	
4,720,374	A		1/1988	Ramachandran	
4,743,423	A		5/1988	Turner et al.	
D296,668	S	*	7/1988	Stavish	D9/530
4,756,877	A		7/1988	Veronesi et al.	
D297,166	S		8/1988	Hollar et al.	
4,774,055	A		9/1988	Wakatake et al.	
4,849,177	A		7/1989	Jordan	
4,883,763	A		11/1989	Holen et al.	
4,913,309	A		4/1990	Fink	
5,005,721	A		4/1991	Jordan	
D322,315	S	*	12/1991	Ushikubo	D24/117
5,075,082	A	*	12/1991	Fechtner	B01L 3/508 206/569
5,128,104	A		7/1992	Murphy et al.	
5,171,538	A		12/1992	Tremmel	
5,244,633	A		9/1993	Jakubowicz et al.	
D341,204	S	*	11/1993	Hansen	D24/224
5,257,650	A		11/1993	Fisk et al.	
5,266,268	A		11/1993	Antocci et al.	
D342,140	S	*	12/1993	Sakagami	B01L 3/523 D9/523
D347,479	S	*	5/1994	Hansen	D24/224
5,324,481	A		6/1994	Dunn et al.	
D350,604	S		9/1994	Weiss et al.	
D353,464	S	*	12/1994	Ushikubo	D9/523
D355,260	S		2/1995	Tomasso	
D358,219	S	*	5/1995	Ushikubo	B01L 3/523 D24/224
D358,468	S		5/1995	Howard	
5,417,922	A		5/1995	Markin et al.	
5,444,152	A		8/1995	Ishikawa et al.	
D363,354	S	*	10/1995	Stark	D24/224
D365,153	S		12/1995	Robertson, Jr.	
5,494,170	A		2/1996	Burns	
5,516,207	A		5/1996	Haicht	
5,538,381	A		7/1996	Erbes	
5,578,272	A		11/1996	Koch et al.	
5,580,524	A		12/1996	Forrest et al.	
5,610,073	A		3/1997	Chu et al.	
5,621,778	A		4/1997	Erbes	
5,632,399	A		5/1997	Palmieri et al.	

5,641,006	A		6/1997	Autrey	
D380,553	S		7/1997	Riekkinen	
5,670,114	A		9/1997	Sakazume et al.	
5,679,309	A		10/1997	Bell	
5,682,026	A		10/1997	Auclair et al.	
5,702,019	A		12/1997	Grimard	
5,758,786	A		6/1998	John	
5,765,490	A		6/1998	Colin et al.	
5,788,928	A		8/1998	Carey et al.	
5,795,784	A		8/1998	Arnquist et al.	
5,811,296	A		9/1998	Chemelli et al.	
D400,263	S	*	10/1998	Shugart	D24/224
5,819,964	A		10/1998	Grimard	
5,830,411	A		11/1998	Gisper-Sauch	
5,843,376	A		12/1998	Ishihara et al.	
D404,831	S		1/1999	Yamazaki et al.	
5,856,194	A		1/1999	Arnquist et al.	
5,876,670	A		3/1999	Mitsumaki et al.	
5,882,594	A		3/1999	Kawaguchi et al.	
D407,826	S		4/1999	Yamazaki et al.	
D411,014	S		6/1999	Berger et al.	
5,908,242	A		6/1999	St. John et al.	
5,927,547	A		7/1999	Papen et al.	
5,947,274	A		9/1999	Taskis et al.	
5,958,791	A		9/1999	Roberts et al.	
5,965,086	A		10/1999	Rose et al.	
5,968,453	A	*	10/1999	Shugart	G01N 35/1002 220/555
5,972,295	A		10/1999	Hanawa et al.	
5,985,218	A	*	11/1999	Goodale	G01N 35/1002 206/569
5,985,672	A		11/1999	Kegelman et al.	
6,002,474	A		12/1999	Thomas et al.	
6,019,945	A		2/2000	Ohishi et al.	
6,021,170	A		2/2000	Reimer et al.	
6,066,300	A		5/2000	Carey et al.	
6,073,732	A		6/2000	Angerfors	
6,123,205	A		9/2000	Dumitrescu et al.	
6,123,819	A		9/2000	Peeters	
D433,149	S		10/2000	Fassbind et al.	
6,149,872	A		11/2000	Mack et al.	
6,190,617	B1		2/2001	Clark et al.	
6,190,619	B1		2/2001	Kilcoin et al.	
6,299,567	B1		10/2001	Forrest et al.	
6,319,719	B1		11/2001	Bhullar et al.	
6,358,752	B1		3/2002	Durst et al.	
6,375,030	B1		4/2002	Spickelmire	
6,375,898	B1		4/2002	Frank	
6,386,749	B1		5/2002	Watts et al.	
6,394,992	B1		5/2002	Sjoeholm	
6,431,388	B1		8/2002	Spicklemire et al.	
6,432,359	B1		8/2002	Carey et al.	
6,458,526	B1		10/2002	Schembri et al.	
6,473,190	B1		10/2002	Dosmann	
6,509,193	B1		1/2003	Tajima	
6,511,634	B1		1/2003	Bradshaw et al.	
6,517,230	B1		2/2003	Afnan et al.	
6,517,783	B2		2/2003	Horner et al.	
6,537,505	B1		3/2003	LaBudde et al.	
6,632,654	B1		10/2003	Gebrian et al.	
D482,454	S		11/2003	Gebrian	
D494,851	S		8/2004	Uchiyama	
6,846,457	B1		1/2005	Tokiwa et al.	
D502,268	S		2/2005	Sakai et al.	
6,866,820	B1		3/2005	Otto et al.	
D517,597	S		3/2006	Andoh	
D531,736	S		11/2006	Gomm et al.	
D532,524	S		11/2006	Gomm et al.	
D533,587	S		12/2006	Andoh	
D533,947	S		12/2006	Gomm et al.	
D534,280	S		12/2006	Gomm et al.	
7,182,912	B2		2/2007	Carey et al.	
7,238,521	B2		7/2007	Hahn et al.	
7,458,483	B2		12/2008	Luoma, II	
7,485,118	B2		2/2009	Blankenstein et al.	
7,615,370	B2		11/2009	Streit et al.	
7,628,954	B2		12/2009	Gomm et al.	
D611,821	S		3/2010	Gabrielsson et al.	
7,731,414	B2		6/2010	Vincent et al.	

(56)

References Cited

U.S. PATENT DOCUMENTS

7,736,907 B2	6/2010	Blankenstein et al.	2006/0087911 A1	4/2006	Herz et al.
D620,603 S	7/2010	Talmer et al.	2006/0116269 A1	6/2006	Lagarde
7,794,656 B2	9/2010	Liang et al.	2006/0119361 A1	6/2006	Karmarkar
D630,765 S	1/2011	Winkenbach et al.	2006/0243591 A1	11/2006	Plotkin et al.
D632,402 S	2/2011	Sattler et al.	2006/0263248 A1	11/2006	Gomm et al.
7,897,379 B2	3/2011	Kenney et al.	2006/0281193 A1	12/2006	Petrilla et al.
D637,731 S	5/2011	Sattler et al.	2006/0286004 A1	12/2006	Jacobs et al.
7,951,344 B2	5/2011	Kikuchi et al.	2006/0290496 A1	12/2006	Peeters
7,964,140 B2	6/2011	Watari	2006/0293200 A1	12/2006	Takayama et al.
D645,973 S	9/2011	Hoenes	2007/0010019 A1	1/2007	Luoma, II
8,017,094 B2	9/2011	Meyer et al.	2007/0116599 A1	5/2007	Walters
8,133,721 B2	3/2012	Yang et al.	2007/0156129 A1	7/2007	Kovalcheck
8,187,558 B2	5/2012	Jacobs et al.	2007/0166193 A1	7/2007	Veen et al.
D665,095 S	8/2012	Wilson et al.	2007/0269893 A1	11/2007	Blankenstein et al.
D666,736 S	9/2012	Kobayashi	2007/0270672 A1	11/2007	Hayter
D672,881 S	12/2012	Kraihanzel	2008/0056948 A1	3/2008	Dale et al.
8,535,624 B2	9/2013	Luoma, II	2008/0064090 A1	3/2008	Whittlinger
D696,419 S	12/2013	Fusellier et al.	2008/0085222 A1	4/2008	Fukuda et al.
9,149,979 B2	10/2015	Sattler et al.	2008/0158552 A1	7/2008	Tokunaga et al.
9,304,140 B2	4/2016	Wakamiya	2008/0213742 A1	9/2008	Asgari et al.
D769,456 S	10/2016	Dulaff	2008/0226513 A1	9/2008	Morbidelli et al.
D774,182 S	12/2016	Davidian et al.	2008/0251490 A1	10/2008	Livingston et al.
9,535,082 B2	1/2017	Luoma, II	2008/0269950 A1	10/2008	Greco et al.
9,539,082 B2	1/2017	Olsen et al.	2008/0297769 A1	12/2008	Bamberg et al.
D782,060 S	3/2017	Luoma, II	2008/0317632 A1	12/2008	Shimasaki et al.
D782,061 S	3/2017	Luoma, II	2009/0004058 A1	1/2009	Liang et al.
D782,062 S *	3/2017	Luoma, II D24/224	2009/0107927 A1	4/2009	Belgrader
D782,063 S	3/2017	Luoma, II et al.	2009/0129987 A1	5/2009	Tanimoto et al.
9,789,454 B2	10/2017	Luoma, II	2009/0148345 A1	6/2009	Hamazumi et al.
D815,299 S	4/2018	Luoma, II	2009/0162247 A1	6/2009	Tokieda et al.
D822,224 S	7/2018	Luoma, II et al.	2009/0207690 A1	8/2009	Curtis et al.
10,058,866 B2	8/2018	Luoma, II et al.	2009/0215159 A1	8/2009	Kirby
D848,636 S	5/2019	Kraemer et al.	2009/0218704 A1	9/2009	Murakami
D875,269 S	2/2020	Luoma, II	2009/0220379 A1	9/2009	Wakamiya et al.
D875,270 S	2/2020	Luoma, II et al.	2009/0325309 A1	12/2009	Favuzzi et al.
10,639,600 B2	5/2020	Luoma, II	2010/0028215 A1	2/2010	Schenk
D892,350 S	8/2020	Luoma, II	2010/0092343 A1	4/2010	Nemeth
D898,573 S	10/2020	Noyori	2010/0107784 A1	5/2010	Stein
D905,866 S *	12/2020	Luoma, II B01F 31/20 D24/224	2010/0111765 A1	5/2010	Gomm et al.
10,926,263 B2	2/2021	Luoma, II et al.	2010/0133292 A1	6/2010	Ware et al.
D921,219 S	6/2021	Johnson	2010/0140149 A1	6/2010	Fulkerson et al.
D924,328 S	7/2021	Adams et al.	2010/0150298 A1	6/2010	Gilmore et al.
D937,435 S	11/2021	Rai et al.	2010/0190265 A1	7/2010	Dufva et al.
D938,612 S	12/2021	Liu et al.	2010/0206226 A1	8/2010	Ishii et al.
D962,471 S	8/2022	Luoma, II et al.	2010/0213080 A1	8/2010	Celentano et al.
D975,311 S *	1/2023	Guiraldenq D24/224	2010/0233035 A1	9/2010	Denawa et al.
D978,375 S *	2/2023	Luoma, II D24/224	2010/0233036 A1	9/2010	Sattler
D981,590 S *	3/2023	Zhang D24/224	2010/0276445 A1	11/2010	Jacobs et al.
D987,849 S *	5/2023	Weymann D24/226	2010/0290952 A1	11/2010	Koike et al.
2002/0127147 A1	9/2002	Kacian et al.	2011/0157580 A1	6/2011	Nogami et al.
2002/0132353 A1	9/2002	Tamura et al.	2011/0162438 A1	7/2011	Tokieda et al.
2002/0134923 A1	9/2002	Watari et al.	2011/0165017 A1	7/2011	Christian et al.
2002/0169518 A1	11/2002	Luoma, II et al.	2011/0165299 A1	7/2011	Sato et al.
2003/0044323 A1	3/2003	Diamond et al.	2011/0188095 A1	8/2011	Shiraishi
2003/0129766 A1	7/2003	Kawamura et al.	2011/0236990 A1	9/2011	Mizutani et al.
2003/0138967 A1	7/2003	Hall et al.	2011/0271773 A1	11/2011	Komatsu et al.
2003/0180815 A1	9/2003	Rawson et al.	2011/0303221 A1	12/2011	Kohnle
2003/0202905 A1	10/2003	Devlin et al.	2012/0087830 A1	4/2012	Wakamiya
2004/0005714 A1	1/2004	Safar et al.	2012/0114526 A1	5/2012	Watanabe et al.
2004/0061160 A1	4/2004	Kumagai et al.	2012/0141339 A1	6/2012	Sattler et al.
2004/0114248 A1	6/2004	Hokazono et al.	2012/0152935 A1	6/2012	Kitaizumi et al.
2004/0131506 A1	7/2004	Zurcher	2012/0156764 A1	6/2012	Kondo
2004/0134750 A1	7/2004	Luoma, II	2012/0195808 A1	8/2012	Arras et al.
2004/0140209 A1	7/2004	Choi	2012/0206713 A1	8/2012	Nogami et al.
2004/0144474 A1	7/2004	Drummond et al.	2012/0218854 A1	8/2012	Behringer et al.
2004/0166043 A1	8/2004	Vandine et al.	2012/0248144 A1	10/2012	Barron
2005/0026295 A1	2/2005	Harding et al.	2012/0301359 A1	11/2012	Kraemer et al.
2005/0106756 A1	5/2005	Blackenstein et al.	2013/0059376 A1	3/2013	Justice et al.
2005/0142040 A1	6/2005	Hanawa et al.	2013/0123089 A1	5/2013	Johns et al.
2005/0153426 A1 *	7/2005	Muller B01F 29/10 422/68.1	2013/0125648 A1	5/2013	Murashie et al.
2005/0169102 A1	8/2005	Manke	2013/0129166 A1	5/2013	Mueller et al.
2005/0175338 A1	8/2005	Ide et al.	2013/0157380 A1	6/2013	Zhou et al.
2005/0230380 A1	10/2005	Yoshino et al.	2013/0167872 A1	7/2013	Weston et al.
			2013/0323758 A1	12/2013	Oguri et al.
			2014/0038307 A1	2/2014	Daub et al.
			2014/0202829 A1	7/2014	Eberhardt et al.
			2014/0260089 A1	9/2014	Luoma, II
			2014/0269158 A1	9/2014	Luoma
			2014/0271411 A1	9/2014	Luoma et al.

(56)

References Cited**U.S. PATENT DOCUMENTS**

2014/0273242	A1	9/2014	Ochranek et al.
2014/0273245	A1	9/2014	Ochranek et al.
2014/0273268	A1	9/2014	Cerra et al.
2014/0305227	A1	10/2014	Johns
2014/0339100	A1	11/2014	Malecha
2015/0010443	A1	1/2015	Hasegawa
2015/0057638	A1	2/2015	Davidian et al.
2015/0207334	A1	7/2015	Mitcheson et al.
2015/0224500	A1	8/2015	Brueckner et al.
2015/0224503	A1	8/2015	Dulaff
2015/0241457	A1	8/2015	Miller
2015/0244852	A1	8/2015	Erickson et al.
2015/0286803	A1	10/2015	Myers et al.
2015/0338429	A1	11/2015	Rousseau et al.
2016/0109350	A1	4/2016	Esaki et al.
2016/0167042	A1	6/2016	Tyrrell et al.
2016/0184826	A1	6/2016	Nemoto
2016/0266156	A1	9/2016	Brennan et al.
2016/0318022	A1	11/2016	Accurso
2016/0320421	A1	11/2016	Trump et al.
2016/0349237	A1	12/2016	Klinec et al.
2016/0352329	A1	12/2016	Southern et al.
2016/0370293	A1	12/2016	Parsons et al.
2018/0028988	A1	2/2018	Luoma, II
2018/0193498	A1	7/2018	Fritchie et al.
2018/0252707	A1 *	9/2018	Zhang B01F 29/10
2018/0353964	A1 *	12/2018	Luoma, II B01L 3/5082
2020/0072857	A1	3/2020	Oda et al.
2020/0080993	A1	3/2020	Zhang et al.
2020/0232982	A1	7/2020	Parsons et al.
2020/0238237	A1	7/2020	Luoma, II
2020/0386751	A1	12/2020	Takulapalli
2021/0102232	A1	4/2021	González-Macia et al.
2021/0113131	A1	4/2021	Lee et al.
2021/0148902	A1	5/2021	Esquivel Bojorquez et al.
2021/0156855	A1	5/2021	Ranzoni et al.
2021/0170414	A1	6/2021	Luoma, II et al.
2021/0199681	A1	7/2021	Tanaka et al.
2022/0250060	A1	8/2022	Werthman
2022/0308049	A1	9/2022	Miller et al.

FOREIGN PATENT DOCUMENTS

CN	1266489	9/2000
CN	1628907 A	6/2005
CN	1726288	1/2006
CN	1980731	6/2007
CN	101334416	12/2008
CN	101391197	3/2009
CN	101439274	5/2009
CN	101484782	7/2009
CN	101489681	7/2009
CN	101541428	9/2009
CN	101583877	11/2009
CN	101646764 A	2/2010
CN	102202776	9/2011
CN	102667489	9/2012
CN	102576030	12/2014
CN	303653066	4/2016
CN	303653066 S	4/2016
CN	303653067	4/2016
CN	303653067 S	4/2016
CN	303838934	9/2016
CN	303838934 S	9/2016
CN	303838935	9/2016
CN	303838935 S	9/2016
CN	105246582	4/2018
CN	105246582 B	4/2018
CN	108452732	8/2018
CN	201830193538	5/2019
CN	201930270519.5	1/2020
CN	201930270002.6	2/2020
CN	108325439	7/2021
CN	108325439 B	10/2021
CN	108452732 B	6/2022

CN	114950220	8/2022
CN	202330677924.5	* 5/2024
DE	19540877	5/1997
DE	10352535 A1	6/2005
DE	202006017454	5/2007
EP	435481	7/1991
EP	831330	3/1998
EP	1855114	11/2007
EP	1687080	6/2008
EP	1733794	9/2010
EP	2255880	12/2010
EP	2969165	5/2019
EP	2969165 B1	5/2019
EP	3915683	1/2021
EP	3560597	7/2021
EP	3560597 B1	7/2021
EP	3536395	1/2022
EP	3981507	4/2022
EP	4109106	12/2022
ES	2115521 A1	6/1998
GB	1307086	2/1973
GB	1307087	2/1973
GB	1307089	2/1973
JP	S527758	3/1977
JP	S56137072	10/1981
JP	S56137072 U	10/1981
JP	S58134773	9/1983
JP	S58134773 U	9/1983
JP	S63182040	7/1988
JP	H03102262 A	4/1991
JP	H03102262	10/1991
JP	H04208864	7/1992
JP	H06253815	9/1994
JP	H07-191039 A	7/1995
JP	H07198561	8/1995
JP	H07-260794 A	10/1995
JP	H09-33535 A	2/1997
JP	H10228689	8/1998
JP	H11515106	12/1999
JP	2000009726	1/2000
JP	2002196006	7/2002
JP	2005017176	6/2003
JP	2003194828	7/2003
JP	2004061160	2/2004
JP	2005502034	1/2005
JP	2005140790	6/2005
JP	2005164509	6/2005
JP	2005181338	7/2005
JP	2006125897	5/2006
JP	2006291848 A	10/2006
JP	3845305	11/2006
JP	2006349683	12/2006
JP	2007524842	8/2007
JP	2007309740	11/2007
JP	2008026221	2/2008
JP	2008096195	4/2008
JP	4268212	5/2009
JP	2009098114 A	5/2009
JP	2009276252	11/2009
JP	2009544959	12/2009
JP	2010509144	3/2010
JP	2011099769	5/2011
JP	20110099769	5/2011
JP	2012159405 A	8/2012
JP	2013502566 A	1/2013
JP	2013510294 A	3/2013
JP	2013242221 A	12/2013
JP	2016516990	6/2016
JP	6092459	3/2017
JP	6105145	3/2017
JP	6463391	1/2019
JP	6790053	11/2020
JP	7073470	5/2022
JP	7144476	9/2022
WO	9634681	11/1996
WO	0-3020427	3/2003
WO	2006119361	11/2006
WO	2007125642	11/2007
WO	2008030961	3/2008

(56)

References Cited

FOREIGN PATENT DOCUMENTS

WO	2008058979	5/2008
WO	2009131705	10/2009
WO	2011091233	7/2011
WO	2014163699	10/2014
WO	2014163700	10/2014

OTHER PUBLICATIONS

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 13/801,154, on Dec. 5, 2016, 2 pages.

United States Patent and Trademark Office, "Advisory Action," issued in connection with U.S. Appl. No. 13/801,451, dated Feb. 24, 2017, 3 Pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 15/347,556, dated Jul. 31, 2017, 2 Pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 15/347,556, dated Aug. 22, 2017, 2 Pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 13/801,451, dated Apr. 13, 2018, 7 Pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 13/801,451, dated Apr. 30, 2018, 2 Pages.

United States Patent and Trademark Office, "Non-Final Office Action," issued in connection with U.S. Appl. No. 29/640,810, dated Jun. 14, 2019, 6 pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 29/640,810, dated Nov. 15, 2019, 2 Pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 15/730,524, dated Mar. 31, 2020, 2 Pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 29/721,476, mailed on Apr. 1, 2020, 7 pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 29/721,479, dated Oct. 5, 2020, 2 pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 29/721,479, dated Nov. 12, 2020, 2 pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 17/180,367, mailed on Apr. 13, 2023, 9 pages.

United States Patent and Trademark Office, "Corrected Notice of Allowance," issued in connection with U.S. Appl. No. 17/180,367, mailed on Apr. 26, 2023, 2 pages.

Invitation to Pay Additional Fees and Where Applicable Protest Fee and Communication Relating to Results of Partial International Search, issued by the International Searching Authority in connection with corresponding International patent application No. PCT/US2013/078034, mailed Jun. 3, 2014.

International Search Report and Written Opinion, issued by the International Searching Authority in connection with corresponding International patent application No. PCT/US2013/078034 mailed Sep. 12, 2014.

Isaacson et al. "Hydrodynamic damping due to baffles in a rectangular tank," Canadian Journal of Civic Engineering, Jul. 21, 2001. International Preliminary Report on Patentability and Written Opinion issued by the International Searching Authority in connection with International Patent Application No. PCT/US2013/078034, mailed Sep. 24, 2015.

Restriction and/or Election Requirement, issued by the United States Patent and Trademark Office in connection with U.S. Appl. No. 29/531,426 on May 16, 2016.

Restriction and/or Election Requirement, issued by the United States Patent and Trademark Office in connection with U.S. Appl. No. 29/531,434 on May 10, 2016.

Notification of Grant of Patent for a Design, issued by the State Intellectual Property Office of the P.R. China, in connection with Chinese Patent Application No. 201630099345.7 on May 19, 2016. Notification of Grant of Patent Right for a Design issued by the State Intellectual Property Office of the P.R. China, in connection with Chinese Patent Application No. 201630099342.3 on May 19, 2016. First Office Action and Search Report issued by the State Intellectual Property Office of the P.R. China, in connection with Chinese Patent Application No. 201380076521.9 on Jul. 13, 2016.

Requirement for Restriction/Election issued by the United States Patent Trademark Office in connection with U.S. Appl. No. 29/531,426 on Aug. 18, 2016.

Restriction and/or Election Requirement, issued by the United States Patent and Trademark Office in connection with U.S. Appl. No. 29/531,434, filed Sep. 6, 2016.

Japanese Patent Office "Notice of Rejection" issued in connection with Japanese Patent Application No. 2016-500148 mailed Sep. 6, 2016.

Japanese Patent Office "Notice of Rejection" issued in connection with Japanese Patent Application No. 2016-500147 mailed Oct. 4, 2016.

State Intellectual Property Office of China "First Office Action," issued in connection with Chinese Patent Application No. 201380076523.8 Oct. 18, 2016.

USPTO "Ex Parte Quayle Action," Issued in connection with U.S. Appl. No. 29/531,434, filed Jan. 26, 2017.

USPTO "Ex Parte Quayle Action," issued in connection with U.S. Appl. No. 29/531,426, filed Dec. 30, 2016.

State Intellectual Property Office of China, "Second Office Action," issued in connection with Chinese Application No. 201380076521.9 Feb. 3, 2017.

United States Patent and Trademark Office "NFOA," issued in connection with U.S. Appl. No. 15/347,556, filed Mar. 7, 2017.

USPTO NOA in connection with U.S. Appl. No. 15/347,556, filed Jun. 14, 2017.

EPO Communication pursuant to Article 94(3) EPC, issued in connection with EP Pat App No. 13 821 411.9 Jun. 7, 2017.

USPTO "Notice of Non-Compliant Amendment," issued in connection with U.S. Appl. No. 29/531,426, filed Jun. 29, 2017.

USPTO "Notice of Non-Compliant Amendment," issued in connection with U.S. Appl. No. 29/531,434, filed Jun. 29, 2017.

State Intellectual Property Office of China "Third Office Action," issued in connection with Chinese Patent Application No. 201380076521.9 Jul. 28, 2017.

State Intellectual Property Office of China, "Second Office Action," issued in connection with Chinese Patent Application No. 201380076523.8 Jun. 12, 2017.

International Searching Authority, "International Search Report and Written Opinion," issued in connection with International Patent Application No. PCT/US2013/078036 Jun. 25, 2014.

International Searching Authority, "Invitation to Pay Additional Fees," issued in connection with International Patent Application No. PCT/US2013/078036 Apr. 23, 2014.

International Bureau, "International Preliminary Report on Patentability," issued in connection with International Patent Application No. PCT/US2013/078036 Sep. 24, 2015.

European Patent Office "Communication pursuant to Rules 161(1) and 162 EPC," issued in connection with European Patent No. 13821412.7 Oct. 28, 2015.

USPTO "Restriction and/or Election Requirement," issued in connection with U.S. Appl. No. 13/801,154 on Jul. 14, 2015.

USPTO "Office Action," issued in connection with U.S. Appl. No. 13/801,154, filed Oct. 5, 2015.

USPTO "Restriction and/or Election Requirement," issued in connection with U.S. Appl. No. 13/801,451 on Jul. 16, 2014.

USPTO "Office Action," issued in connection with U.S. Appl. No. 13/801,451 on Feb. 18, 2015.

USPTO FOA issued in connection with U.S. Appl. No. 13/801,451, filed Aug. 28, 2015.

(56)

References Cited

OTHER PUBLICATIONS

USPTO AA issued in connection with U.S. Appl. No. 13/801,451 on Dec. 7, 2015.

USPTO FOA issued in connection with U.S. Appl. No. 13/801,451, filed Feb. 24, 2017.

USPTO NFOA issued in connection with U.S. Appl. No. 13/801,451, filed Jun. 15, 2017.

USPTO OA issued in connection with U.S. Appl. No. 13/801,451, filed Aug. 12, 2016.

USPTO NOA issued in connection with U.S. Appl. No. 29/531,426 on Dec. 14, 2017.

USPTO NOA issued in connection with U.S. Appl. No. 29/531,426 on Jan. 11, 2018.

USPTO NOA issued in connection with U.S. Appl. No. 29/531,434 on Jan. 3, 2018.

EPO "Communication pursuant to Article 94(3) EPC," issued in connection with European Pat App No. 13 821 411.9 Feb. 26, 2018.

USPTO NOA and Fees Due issued in connection with U.S. Appl. No. 13/801,154, filed Jul. 29, 2016.

USPTO FOA issued in connection with U.S. Appl. No. 13/801,451, filed Dec. 29, 2017.

USPTO NOA issued in connection with U.S. Appl. No. 13/801,154, filed Apr. 5, 2016.

Japanese Patent Office "Notice of Rejection" issued in connection with JP Pat App No. 2017-020086 Nov. 21, 2017 (English Translation).

Japanese Patent Office "Notice of Rejection" issued in connection with Japanese Patent Application No. 2017-035886 Mar. 27, 2018, 12 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 29/531,434, on Jun. 6, 2018, 4 pages.

European Patent Office, "Communication under Rule 71(3) EPC," issued in connection with European Patent No. 19171575.4, dated Jul. 22, 2021, 40 pages.

European Patent Office, "Extended European Search Report," issued in connection with European Patent No. 21184185.3, dated Nov. 4, 2021, 8 pages.

Japanese Patent Office, "Notice of Rejection," issued in connection with Japanese Patent Application No. 2020-062151, mailed on Oct. 19, 2021, 4 pages. (w/English Translation).

Japanese Patent Office, "Notice of Rejection," issued in connection with Japanese Patent Application No. 2020-184185, mailed on Oct. 19, 2021, 13 pages. (w/English Translation).

National Intellectual Property Administration, P. R. China, "Third Office Action," issued in connection with Chinese Patent Application No. 201810204160.6, issued on Aug. 30, 2021, 7 pages.

National Intellectual Property Administration, P. R. China, "Fourth Office Action," issued in connection with Chinese Patent Application No. 201810204160.6, issued on Dec. 22, 2021, 7 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 29/640,815, on Oct. 4, 2019, 15 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 29/640,810, on Oct. 3, 2019, 14 pages.

United States Patent and Trademark Office, "Non-Final Office Action," issued in connection with U.S. Appl. No. 29/721,479, on Apr. 8, 2020, 7 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 29/721,479, on Aug. 14, 2020, 5 pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 29/721,476, on Jun. 24, 2020, 4 pages.

United States Patent and Trademark Office, "Non-Final Office Action," issued in connection with U.S. Appl. No. 29/721,479, on Apr. 8, 2020, 8 pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 29/721,479, on Aug. 14, 2020, 5 pages.

United States Patent and Trademark Office, "Notice of Allowance," issued in connection with U.S. Appl. No. 16/107,826, on Oct. 23, 2020, 9 pages.

National Intellectual Property Administration, P. R. China, "Notification to Grant," issued in connection with Chinese Patent Application No. 201810153773.1, issued on Dec. 21, 2020, 4 pages.

National Intellectual Property Administration, P. R. China, "Third Office Action," issued in connection with Chinese Patent Application No. 201810199910.5, issued on Apr. 9, 2021, 11 pages.

National Intellectual Property Administration, P. R. China, "Second Office Action," issued in connection with Chinese Patent Application No. 201810204160.6, issued on Apr. 16, 2021, 13 pages.

National Intellectual Property Administration, P. R. China, "First Office Action," issued in connection with Chinese Patent Application No. 201810199910.5, issued on Jun. 16, 2020, 22 pages.

National Intellectual Property Administration, P. R. China, "First Office Action," issued in connection with Chinese Patent Application No. 201810204160.6, issued on Jul. 28, 2020, 16 pages.

European Patent Office, "Communication pursuant to Article 94(3) EPC," issued in connection with European Patent Application No. 19171575.4 on Sep. 30, 2020, 5 pages.

Japanese Patent Office, "Notice of Rejection," issued in connection with Japanese Patent Application No. 2020-062151, mailed on Jan. 19, 2021, 6 pages.

European Patent Office, "Communication under Rule 71(3) EPC," issued in connection with European Patent No. 19177884.4, on Feb. 15, 2021, 45 pages.

National Intellectual Property Administration, P. R. China, "Second Office Action," issued in connection with application No. 201810199910.5 on Dec. 7, 2020, 18 pages.

National Intellectual Property Administration, P. R. China, "First Office Action," issued in connection with application No. 201810153773.1 on Jun. 16, 2020, 14 pages.

United States Patent and Trademark Office, "Non-Final Office Action," issued in connection with U.S. Appl. No. 16/107,826 on May 18, 2020, 15 pages.

European Patent Office, "Communication pursuant to Article 94(3) EPC," issued in connection with European Patent No. 13 821 412.7 on Jun. 29, 2018, 5 pages.

European Patent Office, "Communication pursuant to Article 94(3) EPC," issued in connection with European Patent No. 13 821 412.7 on Oct. 17, 2018, 4 pages.

United States Patent and Trademark Office, "Non-Final Office Action," issued in connection with U.S. Appl. No. 29/640,810 on Jun. 14, 2019, 42 pages.

United States Patent and Trademark Office, "Non-Final Office Action," issued in connection with U.S. Appl. No. 29/640,815 on Jun. 14, 2019, 47 pages.

Japanese Patent Office, "Notice of Rejection," issued in connection with Japanese Patent Application No. 2018-121565, mailed Jul. 23, 2019, 12 pages.

European Patent Office, "Extended European Search Report," issued in connection with European Patent No. 19177884.4, dated Sep. 27, 2019, 9 pages.

Japanese Patent Office, "Notice of Rejection," issued in connection with application No. 2018-244230 on Feb. 4, 2020, translation included, 15 pages.

United States Patent and Trademark Office, "Restriction Requirement," issued in connection with U.S. Appl. No. 15/730,524 on Aug. 9, 2019, 5 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 15/730,524 on Jan. 2, 2020, 7 pages.

European Patent Office, "Extended European Search Report," issued in connection with European Patent No. 19171575.4, dated Aug. 2, 2019, 8 pages.

United States Patent and Trademark Office, "Ex Parte Quayle Action," issued in connection with U.S. Appl. No. 29/762,684 on Feb. 3, 2022, 8 pages.

(56)

References Cited

OTHER PUBLICATIONS

Hamilton, 60 ml Black Reagent Reservoir, Self-Standing with Lid, Bulk. Online, published date unknown. Retrieved on Jan. 30, 2022 from URL: <https://www.hamiltoncompany.com/automated-liquid-handling/other-robotics/56694-03>, 1 page.

European Patent Office, "Extended European Search Report," issued in connection with European Patent Application No. 21211248.6, dated Mar. 15, 2022, 46 pages.

United States Patent and Trademark Office, "Non-Final Office Action", issued in connection with U.S. Appl. No. 29/745,034 on Aug. 2, 2022, 6 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due", issued in connection with U.S. Appl. No. 29/762,684 on Mar. 20, 2022, 5 pages.

European Patent Office, "Communication pursuant to Article 94(3) EPC," issued in connection with European Patent Application No. 13821411.9, dated Jun. 7, 2017, 8 pages.

European Patent Office, "Communication pursuant to Article 94(3) EPC," issued in connection with European Patent Application No. 13821411.9, dated Feb. 26, 2018, 8 pages.

United States Patent and Trademark Office, "Corrected Notice of Allowability", issued in connection with U.S. Appl. No. 29/745,034 on Nov. 10, 2022, 4 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due", issued in connection with U.S. Appl. No. 29/745,034 on Nov. 4, 2022, 6 pages.

Japanese Patent Office, "Decision to Grant", issued in connection with application No. 2020-062151 on Jul. 5, 2022, translation included, 5 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due", issued in connection with U.S. Appl. No. 29/762,684 on Jul. 13, 2022, 2 pages.

United States Patent and Trademark Office, "Non-Final Rejection", issued in connection with U.S. Appl. No. 17/180,367 on Nov. 25, 2022, 12 pages.

United States Patent and Trademark Office, "Non-Final Rejection", issued in connection with U.S. Appl. No. 16/848,327 on Jan. 18, 2023, 6 pages.

United States Patent and Trademark Office, "Final Rejection", issued in connection with U.S. Appl. No. 17/180,367 on Mar. 20, 2023, 13 pages.

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due", issued in connection with U.S. Appl. No. 16/848,327 on Mar. 13, 2023, 6 pages.

The State Intellectual Property Office of People's Republic of China, "Notification of grant of patent right for invention," issued in connection with Chinese Patent Application No. 202210630051.7, dated Jun. 26, 2024, 3 pages. [English Translation Included].

European Patent Office, "Decision to grant a European patent," issued in connection with European Patent Application No. 19177884.4, Jul. 1, 2021, 2 pages.

European Patent Office, "Communication Under Rule 71(3) EPC," issued in connection with European Patent Application No. 13821412.7, dated Feb. 27, 2019, 6 pages.

European Patent Office, "Decision to Grant a European Patent Pursuant to Article 97(1) EPC," issued in connection with European Patent Application No. 13821412.7, dated Jul. 18, 2019, 2 pages.

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2017-20086, dated Jun. 12, 2018, 5 pages. [English translation included].

Japan Patent Office, "Notice of Reasons for Refusal," issued in connection with Japanese Patent Application No. 2022-129533, dated Jul. 12, 2023, 11 pages. [English translation included].

Japan Patent Office, "Search Report by Registered Search Organization," issued in connection with Japanese Patent Application No. 2022-129533, dated Jul. 26, 2023, 23 pages. [English translation included].

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2016-500148, dated Jan. 10, 2017, 5 pages. [English Translation Included].

The State Intellectual Property Office of the People's Republic of China, "Notice to Grant," issued in connection with China Patent Application No. 201810199910.5, dated Jul. 1, 2021, 3 Pages. [English translation included].

The State Intellectual Property Office of the People's Republic of China, "Notice to Grant," issued in connection with China Patent Application No. 201810204160.6, dated Mar. 21, 2022, 3 Pages. [English translation included].

The State Intellectual Property Office of the People's Republic of China, "Notice to Grant," issued in connection with China Patent Application No. 201380076521.9, dated Dec. 28, 2017, 3 Pages. [English translation included].

European Patent Office, "Communication Pursuant to Article 94(3) EPC," issued in connection with European Patent Application No. 21211248.6, dated Oct. 31, 2023, 5 pages.

European Patent Office, "Communication Pursuant to Rules 161(1) and 162 EPC," issued in connection with European Patent Application No. 13821411.9, dated Oct. 28, 2015, 2 pages.

European Patent Office, "Communication Under Rule 71(3) EPC," issued in connection with European Patent Application No. 13821411.9, dated Dec. 12, 2018, 5 pages.

European Patent Office, "Decision to Grant a European Patent Pursuant to Article 97(1) EPC," issued in connection with European Patent Application No. 13821411.9, dated Apr. 26, 2019, 2 pages.

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2017-035886, dated Dec. 4, 2018, 5 pages. [English Translation Included].

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2018-244230, dated Oct. 6, 2020, 5 pages. [English translation included].

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2020-184185, dated Apr. 12, 2022, 5 pages. [English translation included].

Japan Patent Office, "Search Report by Registered Search Organization," issued in connection with Japanese Patent Application No. 2022-077342, dated Mar. 22, 2023, 26 pages. [English translation included].

Japan Patent Office, "Notice of Reasons for Refusal," issued in connection with Japanese Patent Application No. 2022-077342, dated Apr. 4, 2023, 8 pages. [English translation included].

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2022-077342, dated Sep. 12, 2023, 5 pages. [English translation included].

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2016-500147, dated Feb. 7, 2017, 5 pages. [English translation included].

China National Intellectual Property Administration, "Notification of Grant of Patent Right for Invention," issued in connection with Chinese Patent Application No. 201380076523.8, dated Dec. 6, 2017, 3 pages. [English translation included].

Japan Patent Office, "Search Report by Registered Search Organization," issued in connection with Japanese Patent Application No. 2017-20086, dated Nov. 24, 2017, 18 pages. [English translation included].

Japan Patent Office, "Search Report by Registered Search Organization," issued in connection with Japanese Patent Application No. 2016-500148, dated Aug. 25, 2016, 13 pages. [English translation included].

China National Intellectual Property Administration, "The First Search Report," issued in connection with Chinese Patent Application No. 202210630051.7, dated Sep. 4, 2023, 1 page.

European Patent Office, "Result of Consultation," issued in connection with European Patent Application No. 19171575.4, dated Jan. 28, 2021, 2 pages.

Japan Patent Office, "Search Report by Registered Search Organization," issued in connection with Japanese Patent Application No. 2018-244230, dated Jan. 30, 2020, 76 pages. [English Translation Included].

Japan Patent Office, "Search Report by Registered Search Organization," issued in connection with Japanese Patent Application No. 2020-184185, dated Oct. 20, 2021, 27 pages. [English Translation Included].

(56)

References Cited

OTHER PUBLICATIONS

Japan Patent Office, "Search Report by Registered Search Organization," issued in connection with Japanese Patent Application No. 2016-500147, dated Sep. 29, 2016, 34 pages. [English Translation Included].

China National Intellectual Property Administration, "Notification of Grant of Patent Right for Design," issued in connection with Chinese Patent Application No. 201530216823.3, dated Jan. 15, 2016, 4 pages. [English Translation Included].

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 29/640,810, dated Oct. 3, 2019, 5 pages.

China National Intellectual Property Administration, "Notification of Grant of Patent Right for Design," issued in connection with Chinese Patent Application No. 201530216571.4, dated Jan. 15, 2016, 4 pages. [English Translation Included].

United States Patent and Trademark Office, "Corrected Notice of Allowability," issued in connection with U.S. Appl. No. 29/640,815, dated Nov. 15, 2019, 3 pages.

Japan Patent Office, "Decision to Grant a Patent," issued in connection with Japanese Patent Application No. 2022-129533, dated Apr. 9, 2024, 5 pages. [English Translation Included].

China National Intellectual Property Administration, "The Second Office Action," issued in connection with Chinese Patent Application No. 202210630051.7, dated Feb. 28, 2024, 9 pages. [English translation included].

United States Patent and Trademark Office, "Notice of Allowance and Fee(s) Due," issued in connection with U.S. Appl. No. 29/848,569, dated Apr. 24, 2025, 8 pages.

* cited by examiner

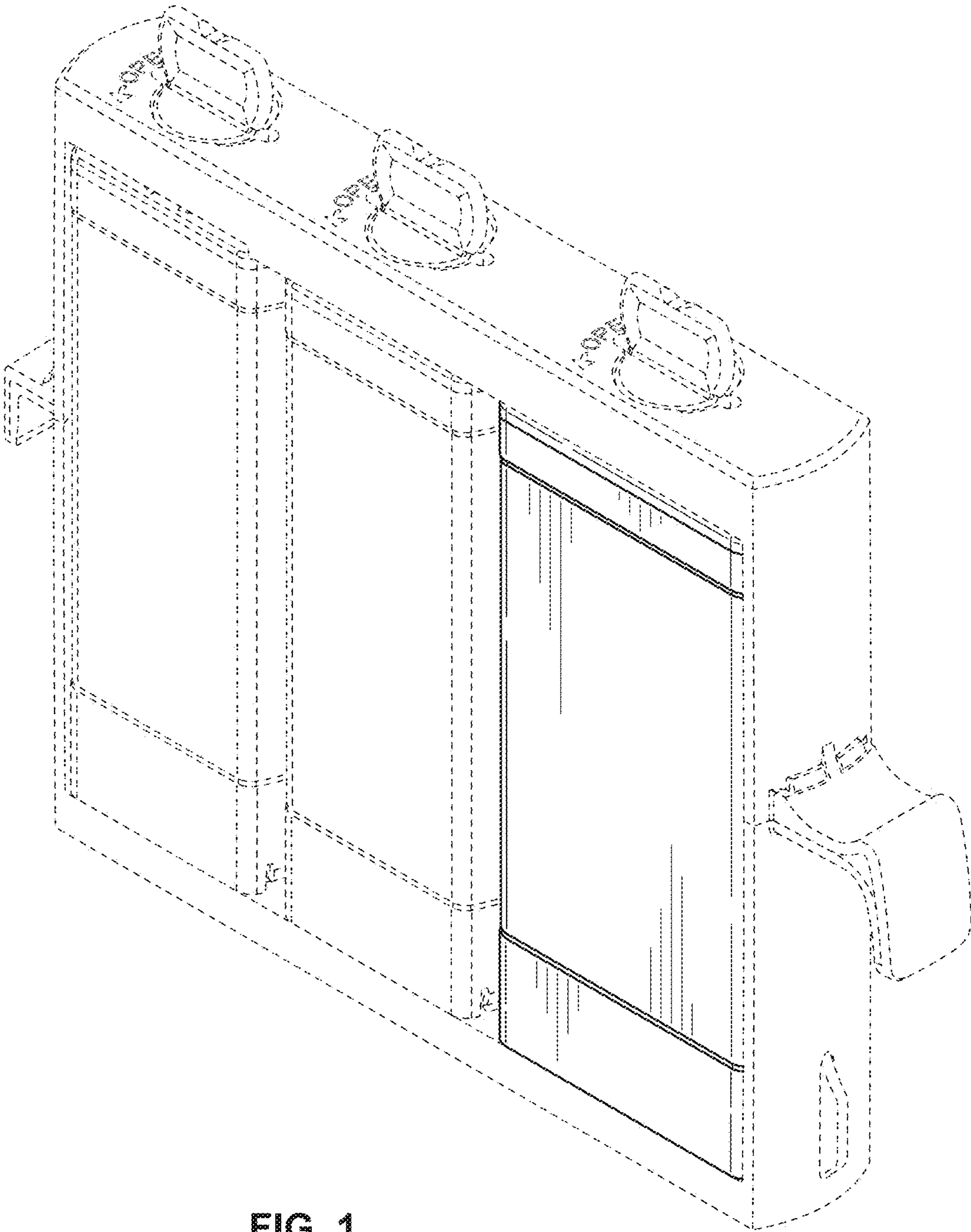


FIG. 1

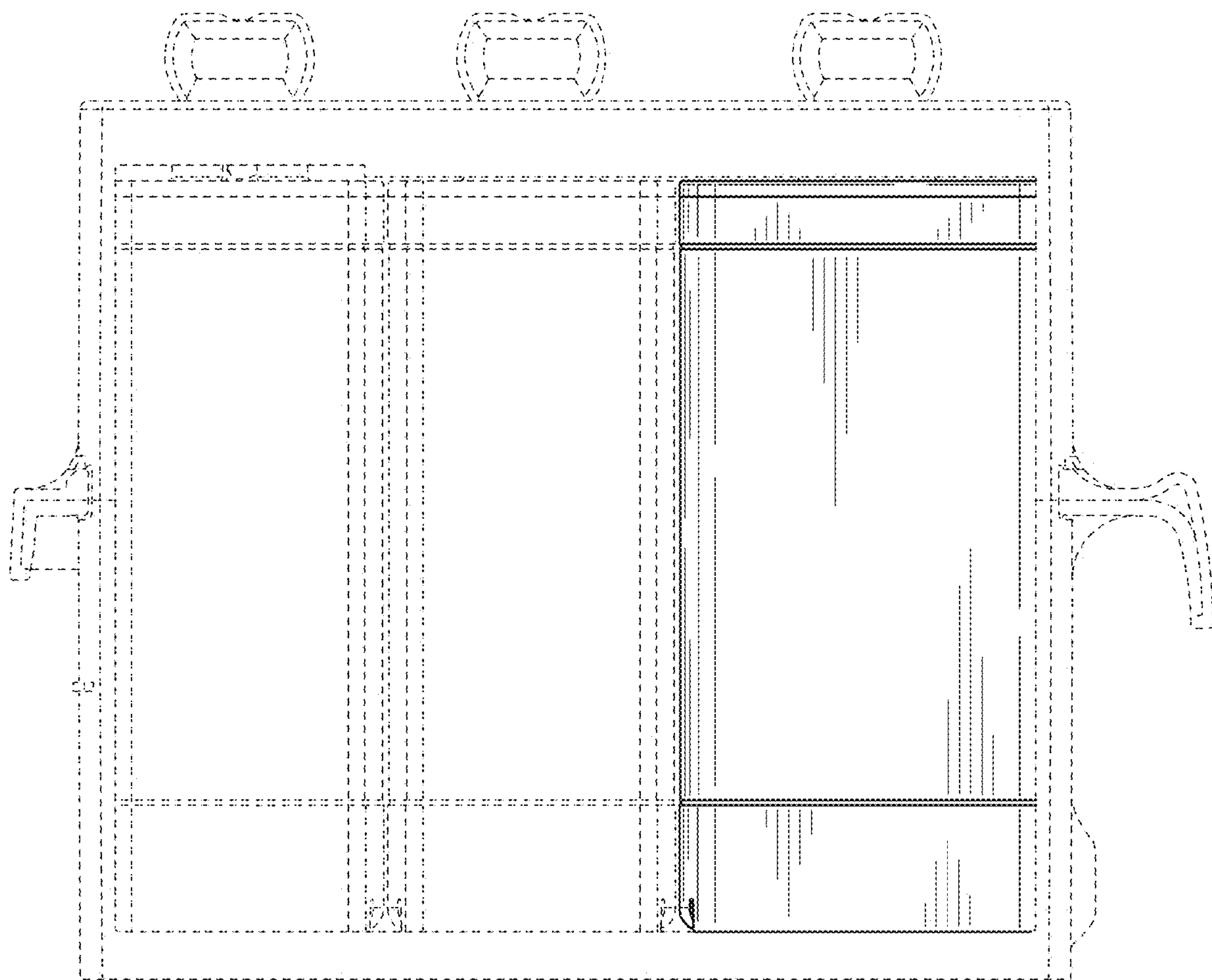


FIG. 2

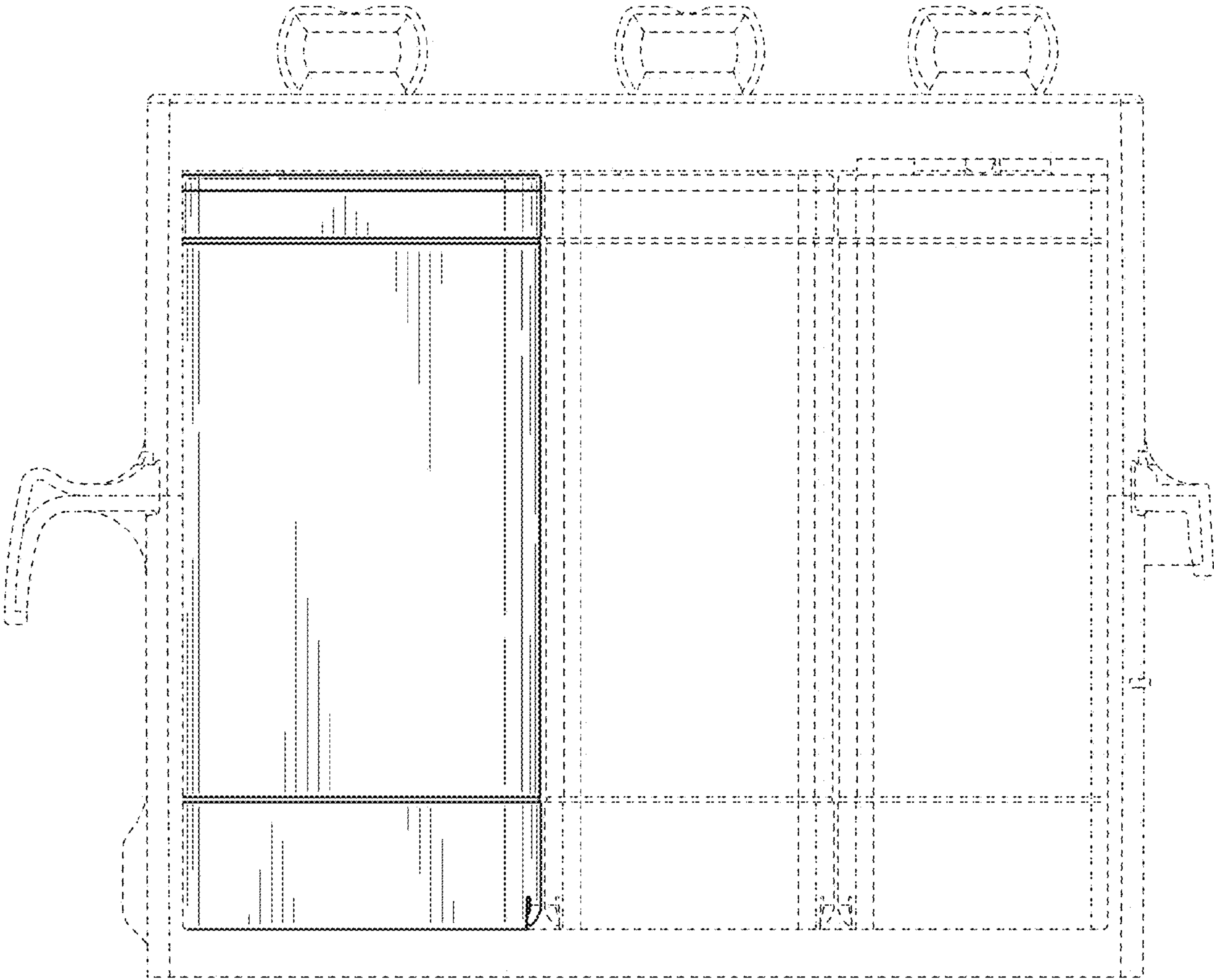


FIG. 3