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Reber et al.

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(54) **TEST TUBE**

(71) Applicant: **Lucira Health, Inc.**, Emeryville, CA (US)

(72) Inventors: **Clay David Reber**, Berkeley, CA (US); **Christopher Frank Kelly**, Larkspur, CA (US); **Frank Benson Myers, III**, Richmond, CA (US); **Ragheb El Khaja**, Oakland, CA (US); **John Robert Waldeisen**, Berkeley, CA (US); **Debkishore Mitra**, Emeryville, CA (US)

(73) Assignee: **Lucira Health, Inc.**, Emeryville, CA (US)

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(52) **U.S. Cl.**
USPC **D24/224**

(58) **Field of Classification Search**
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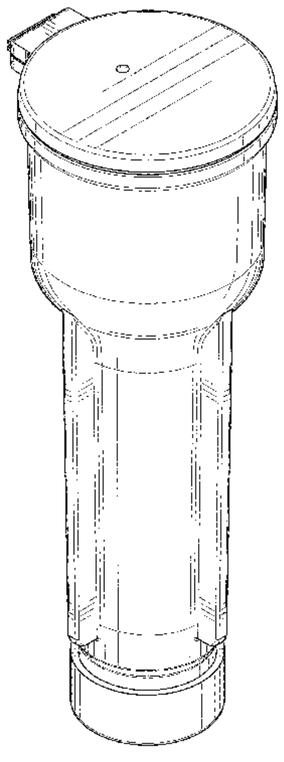
CPC B01L 3/021–0237; B01L 3/508–50825
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D244,555	S *	5/1977	Wiedmann	D24/224
4,310,488	A *	1/1982	Rahm	B01L 3/5082 215/399
4,379,848	A	4/1983	Yeaw	
4,624,929	A	11/1986	Ullman	
4,849,340	A	7/1989	Oberhardt	
4,859,610	A *	8/1989	Maggio	A61B 10/0038 436/518
4,936,682	A	6/1990	Hoyt	
D334,065	S	3/1993	Collister	
D371,605	S	7/1996	Wong et al.	
5,580,794	A	12/1996	Allen	
5,830,714	A	11/1998	Swaminathan et al.	
5,837,546	A	11/1998	Allen et al.	
5,888,826	A	3/1999	Ostgaard et al.	
6,074,606	A	6/2000	Sayles	
6,180,395	B1	1/2001	Skiffington et al.	
6,198,107	B1	3/2001	Seville	
6,336,900	B1	1/2002	Alleckson et al.	
6,352,838	B1	3/2002	Krulevitch et al.	
6,564,968	B1	5/2003	Terrell et al.	
6,565,808	B2	5/2003	Hudak et al.	
6,817,256	B2	11/2004	Mehra et al.	
6,900,059	B1	5/2005	Shinn et al.	
D507,351	S *	7/2005	Birnboim	D24/216
7,156,809	B2	1/2007	Quy	
D559,996	S	1/2008	Okamoto et al.	
D560,812	S	1/2008	Powell et al.	
D561,905	S	2/2008	Ramel et al.	
D574,507	S *	8/2008	Muir	D24/224
7,438,852	B2	10/2008	Tung et al.	
7,452,667	B2	11/2008	Liew et al.	
D608,885	S *	1/2010	Sneddon	D24/127
7,850,922	B2 *	12/2010	Gallagher	B01L 3/5029 422/501
D659,848	S *	5/2012	TerMaat	D24/224
D669,375	S	10/2012	Kao et al.	
D686,311	S	7/2013	Mori	
D687,564	S *	8/2013	Yang	D24/224
8,719,989	B1	5/2014	Qanaei	
9,034,606	B2	5/2015	Tanner et al.	
9,074,243	B2	7/2015	Tanner et al.	
9,074,249	B2	7/2015	Tanner et al.	
D743,571	S *	11/2015	Jackson	D24/216
D748,813	S *	2/2016	Ishiguro	D24/224
D749,420	S *	2/2016	Kahlau	D9/521
D773,069	S *	11/2016	Curry	D24/224
9,546,358	B2	1/2017	Tanner et al.	
D791,952	S	7/2017	Florescu et al.	
9,739,743	B2	8/2017	Athanasiou et al.	
D800,912	S	10/2017	Uzri et al.	
D808,833	S	1/2018	Abbott et al.	
10,146,909	B2	12/2018	Dimov et al.	
D838,379	S *	1/2019	Trump	D24/216
10,253,357	B2	4/2019	Mitra et al.	
D855,212	S	7/2019	Komuro	
D859,683	S *	9/2019	Harding	D24/216
D860,472	S *	9/2019	Blake	D24/224
D865,212	S *	10/2019	Kakuda	D24/224
D867,584	S *	11/2019	Zercher	A61B 10/007 D24/122
10,549,275	B2	2/2020	Myers et al.	
D879,319	S *	3/2020	Kakuda	D24/224
D879,320	S *	3/2020	Kakuda	D24/224
2003/0123994	A1	7/2003	Weng et al.	



2003/0157503	A1	8/2003	McGarry et al.	
2004/0018634	A1*	1/2004	Hajizadeh	G01N 1/02 436/174
2004/0052689	A1	3/2004	Yao	
2004/0118189	A1	6/2004	Karp et al.	
2004/0166569	A1	8/2004	Marziali et al.	
2004/0209275	A1	10/2004	Liew et al.	
2005/0022895	A1	2/2005	Barth et al.	
2005/0221281	A1	10/2005	Ho	
2006/0078929	A1	4/2006	Bickel et al.	
2006/0094004	A1	5/2006	Nakajima et al.	
2006/0166354	A1	7/2006	Vvikswo et al.	
2006/0245977	A1	11/2006	Bodner	
2007/0166200	A1	7/2007	Zhou	
2007/0183934	A1	8/2007	Diercks et al.	
2007/0217963	A1	9/2007	Elizarov et al.	
2008/0000892	A1	1/2008	Hirano	
2008/0038713	A1	2/2008	Gao et al.	
2008/0149840	A1	6/2008	Handique et al.	
2008/0204380	A1	8/2008	Shin et al.	
2008/0233015	A1	9/2008	Turner	
2009/0004732	A1	1/2009	Labarre et al.	
2009/0048115	A1	2/2009	Liew et al.	
2009/0071911	A1	3/2009	Folden et al.	
2009/0151864	A1	6/2009	Burke et al.	
2009/0203973	A1	8/2009	Donoghue et al.	
2009/0305315	A1	12/2009	Gandola et al.	
2009/0308185	A1	12/2009	Wu et al.	
2009/0320684	A1	12/2009	Weaver et al.	
2010/0015611	A1	1/2010	Webster et al.	
2010/0229956	A1	9/2010	Luyendijk	
2010/0331219	A1	12/2010	Munenaka	
2011/0003330	A1	1/2011	Durack	
2011/0124098	A1	5/2011	Rose et al.	
2011/0151432	A1	6/2011	Zappia et al.	
2011/0294112	A1	12/2011	Bearinger et al.	
2011/0294205	A1	12/2011	Hukari et al.	
2012/0100624	A1	4/2012	Hara et al.	
2012/0105837	A1	5/2012	Ingber	
2012/0285562	A1	11/2012	Richardson	
2013/0003162	A1	1/2013	Leoni et al.	
2013/0130232	A1	5/2013	Weibel et al.	
2013/0244241	A1	9/2013	Carrera Fabra et al.	
2013/0266948	A1	10/2013	Bird et al.	
2013/0295663	A1	11/2013	Weight et al.	
2013/0323738	A1	12/2013	Tanner et al.	
2013/0323793	A1	12/2013	Tanner et al.	
2014/0031248	A1	1/2014	Tanner et al.	
2014/0057268	A1	2/2014	Tanner et al.	
2014/0073043	A1	3/2014	Holmes	
2014/0188089	A1	7/2014	Midgette et al.	
2014/0228773	A1	8/2014	Burkholz	
2014/0242612	A1	8/2014	Wang et al.	
2014/0335505	A1	11/2014	Holmes	
2015/0024436	A1	1/2015	Eberhart et al.	
2015/0111201	A1	4/2015	Ozcan et al.	
2015/0132795	A1	5/2015	Griswold et al.	
2015/0151300	A1	6/2015	Williams et al.	
2015/0240293	A1	8/2015	Tanner et al.	
2015/0298118	A1	10/2015	Chard et al.	
2015/0321193	A1	11/2015	Sprague et al.	
2015/0328638	A1	11/2015	Handique et al.	
2015/0359458	A1	12/2015	Erickson et al.	
2016/0077015	A1	3/2016	Holmes et al.	
2016/0194685	A1	7/2016	Unger et al.	
2016/0216287	A1	7/2016	Holmes et al.	
2016/0275149	A1	9/2016	Majumdar et al.	
2016/0334403	A1	11/2016	Gibbons et al.	
2017/0044599	A1	2/2017	Mitra et al.	
2018/0293350	A1	10/2018	Dimov et al.	
2019/0050988	A1	2/2019	Dimov et al.	
2019/0060895	A1	2/2019	Myers, III et al.	
2019/0076841	A1	3/2019	Myers, III et al.	
2019/0083975	A1	3/2019	Mitra et al.	
2019/0094114	A1	3/2019	Myers, III et al.	
2019/0309356	A1	10/2019	Mitra et al.	
2020/0030798	A1	1/2020	Mitra et al.	
2020/0122142	A1	4/2020	Myers et al.	

FOREIGN PATENT DOCUMENTS

AU	2003272465	A1	4/2004
CA	2495252	A1	3/2004
CN	104937108	A	9/2015
CN	105441312	A	3/2016
CN	201930535293.7	*	9/2019
EP	0056241	A1	7/1981
EP	1661988	A1	5/2006
EP	2251435	A1	11/2010
WO	9712681	A1	4/1997
WO	1997/041421	A1	11/1997
WO	2004/024892	A2	3/2004
WO	2008/107014	A1	9/2008
WO	2010/091080	A2	8/2010
WO	2011/110873	A1	9/2011
WO	2011/123064	A1	10/2011
WO	2012/045889	A1	4/2012
WO	2013/008042	A1	1/2013
WO	2013/080154	A1	6/2013
WO	2014/018828	A1	1/2014
WO	2014/020326	A2	2/2014
WO	2014/031783	A1	2/2014
WO	2015164770	A1	10/2015
WO	2015/184360	A1	12/2015
WO	2017/160836	A1	9/2017
WO	2017/160838	A1	9/2017
WO	2017/160839	A1	9/2017
WO	2017/160840	A1	9/2017
WO	2018185573	A1	10/2018
WO	2019/055135	A1	3/2019

OTHER PUBLICATIONS

Patent Cooperation Treaty, International Search Report and Written Opinion of the International Searching Authority, nternational Patent Application No. PCT/US2017/022300, Jul. 10, 2017, 15 pages.

Patent Cooperation Treaty, International Search Report and Written Opinion of the International Searching Authority, International Patent Application No. PCT/US2017/022304, Jul. 25, 2017, 20 pages.

Patent Cooperation Treaty, International Search Report and Written Opinion of the International Searching Authority, International Patent Application No. PCT/US2017/022306, Jun. 5, 2017, 18 pages.

Patent Cooperation Treaty, International Search Report and Written Opinion of the International Searching Authority, International Patent Application No. PCT/US2017/022305, Jul. 19, 2017, 20 pages.

PCT International Search Report and Written Opinion for PCT/US2018/044044, Sep. 26, 2018, 13 pages.

Patent Cooperation Treaty, International Search Report and Written Opinion of the International Searching Authority, International Patent Application No. PCT/US2015/027556, Sep. 15, 2015, 18 pages.

Westcott, S.L, et al., "Broadband optical absorbance spectroscopy using a whispering gallery mode microsphere—resonator," Review of Scientific Instruments, vol. 79, No. 3, Mar. 13, 2008, 9 pages.

Goto., M., et al, "Colorimetric detection of loop-mediated isothermal amplification reaction by using hydroxy haphthol blue", Biotechniques, Mar. 1, 2009, pp. 167-172, vol. 46, No. 3.

Supplementary European Search Report for European Patent Application No. EP 15783787, Nov. 28, 2017, 8 pages.

Patent Cooperation Treaty, International Search Report and Written Opinion of the International Searching Authority, International Patent Application No. PCT/US19/55365, Feb. 5, 2020, 20 pages.

Supplementary European Search Report for European Patent Application No. EP 17767338.1, Jan. 10, 2020, 13 pages.

European Search Report for European Patent Application No. EP 19178796.9, Oct. 9, 2019, 7 pages.

PCT International Search Report and Written Opinion for PCT/1132018/051326, Jun. 26, 2018, 15 pages.

Canadian Office Action for Application No. 2,944,994, Aug. 8, 2019, 3 pages.

Partial Supplemental European Search Report for European Patent Application No. EP 17767338.1, dated Oct. 10, 2019, 15 pages.
European Application No. 17767336.5, Extended European Search Report dated Sep. 26, 2019, 14 pages.
European Application No. 17767337.3, Extended European Search Report dated Sep. 18, 2019, 6 pages.
European Application No. 17767339.9, Extended European Search Report dated Oct. 4, 2019, 11 pages.
Non-Final Office Action for U.S. Appl. No. 15/306,240, Jul. 24, 2018, 8 pages.
Non-Final Office Action for U.S. Appl. No. 16/359,913, Oct. 1, 2019, 9 pages.
Non-Final Office Action for U.S. Appl. No. 29/674,581, Jan. 8, 2020, 11 pages.

* cited by examiner

Primary Examiner — Susan Bennett Hattan
Assistant Examiner — Omeed Agilee
(74) *Attorney, Agent, or Firm* — Goodwin Procter LLP

(57) **CLAIM**

The ornamental design for a test tube, as shown and described.

DESCRIPTION

FIG. **1** is a top, left, front perspective view of a first embodiment of a test tube in a closed configuration;

FIG. **2** is a bottom, right, rear perspective view thereof;
FIG. **3** is a front view thereof;
FIG. **4** is a rear view thereof;
FIG. **5** is a left side elevational view thereof;
FIG. **6** is a right side elevational view thereof;
FIG. **7** is a top plan view thereof;
FIG. **8** is a bottom plan view thereof;
FIG. **9** is a top, left, rear perspective view of a test tube in an open configuration.
FIG. **10** is top, left, front perspective view of a second embodiment of a test tube;
FIG. **11** is a bottom, right, rear perspective view thereof;
FIG. **12** is a front view thereof;
FIG. **13** is a rear view thereof;
FIG. **14** is a left side elevational view thereof;
FIG. **15** is a right side elevational view thereof;
FIG. **16** is a top plan view thereof; and,
FIG. **17** is a bottom plan view thereof.

The broken lines in the drawings depict portions of the test tube that form no part of the claimed design. The broken lines shown in FIGS. **11** and **17** immediately inside the shaded edge on the bottom and the broken lines shown in FIG. **9** depict the boundaries of the claim and form no part thereof.

1 Claim, 17 Drawing Sheets

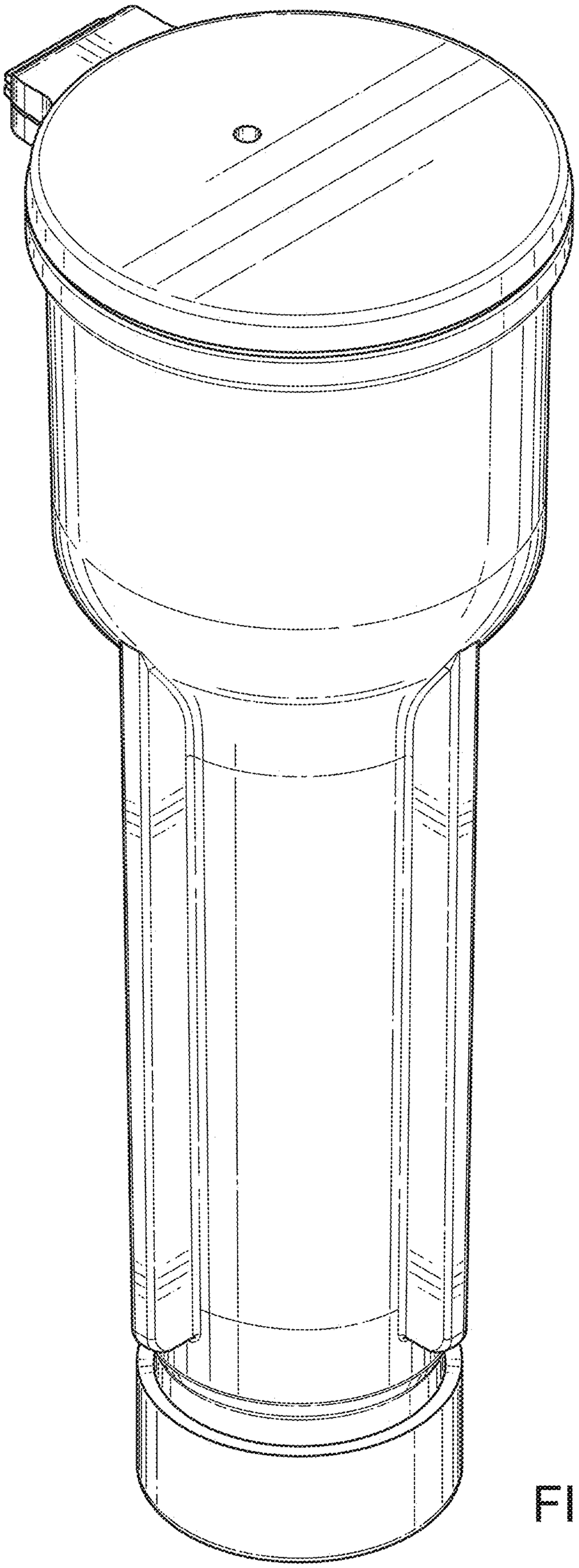


FIG. 1

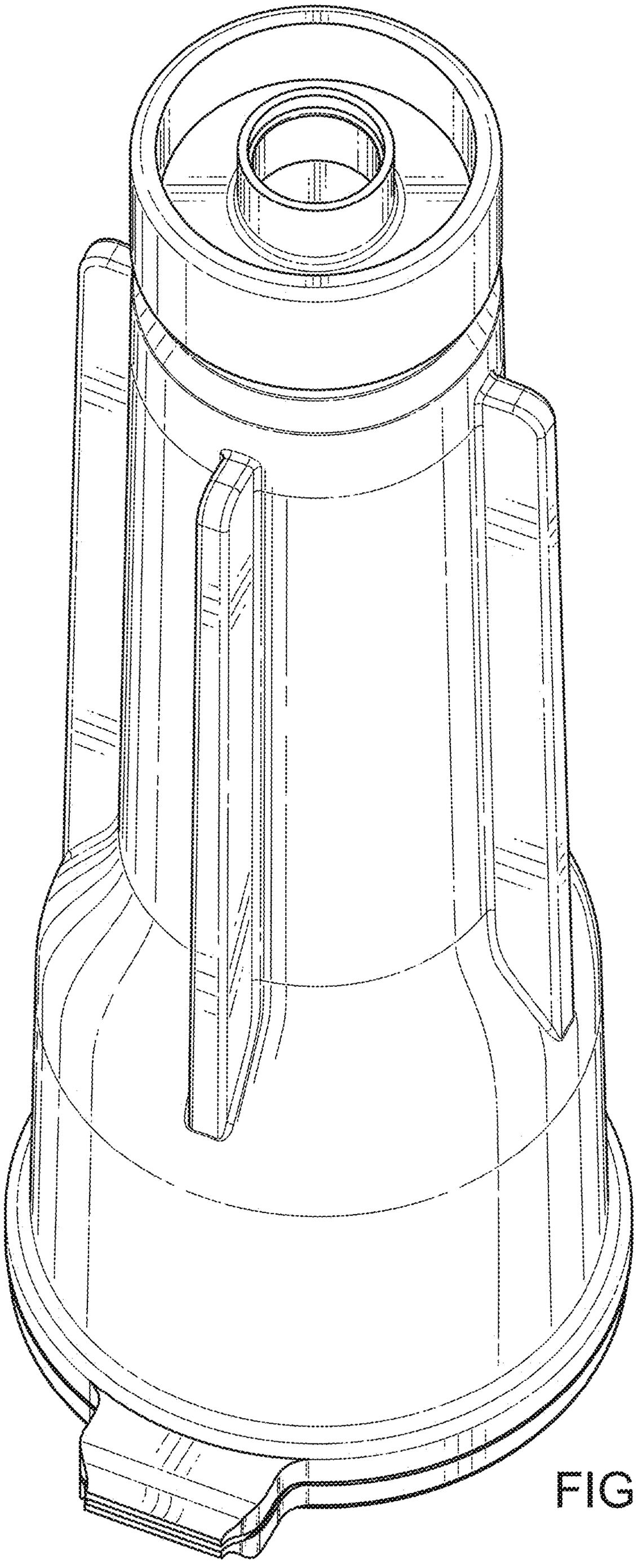


FIG. 2

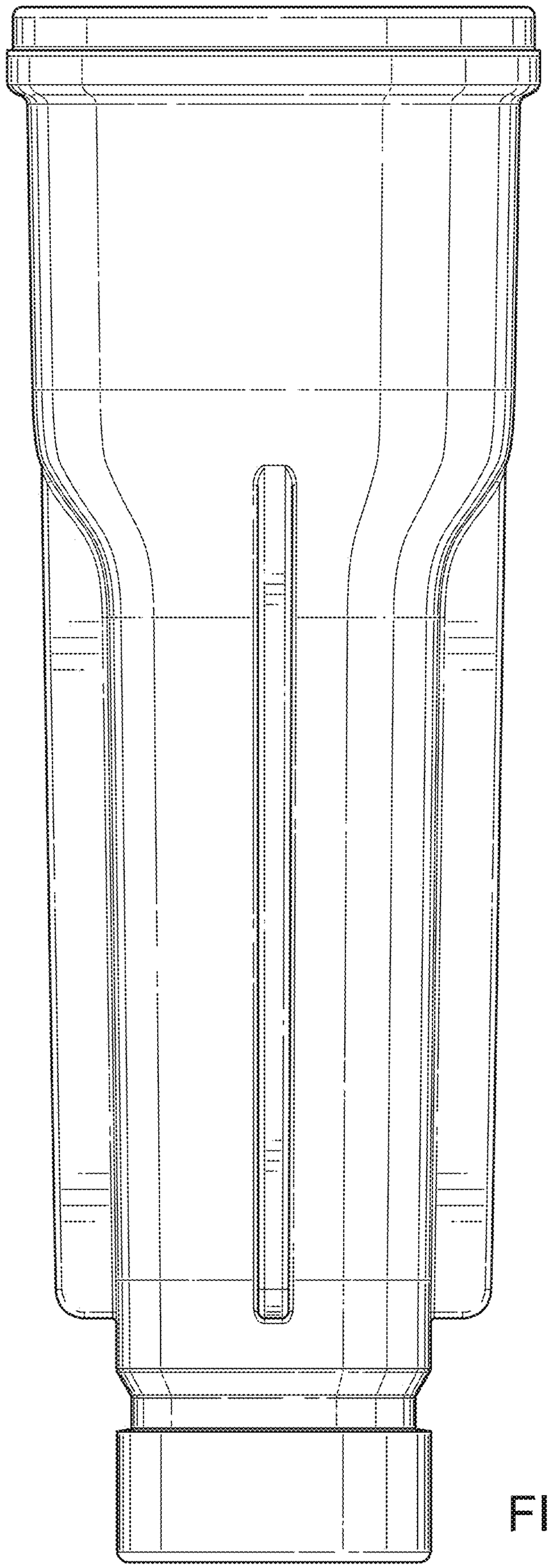


FIG. 3

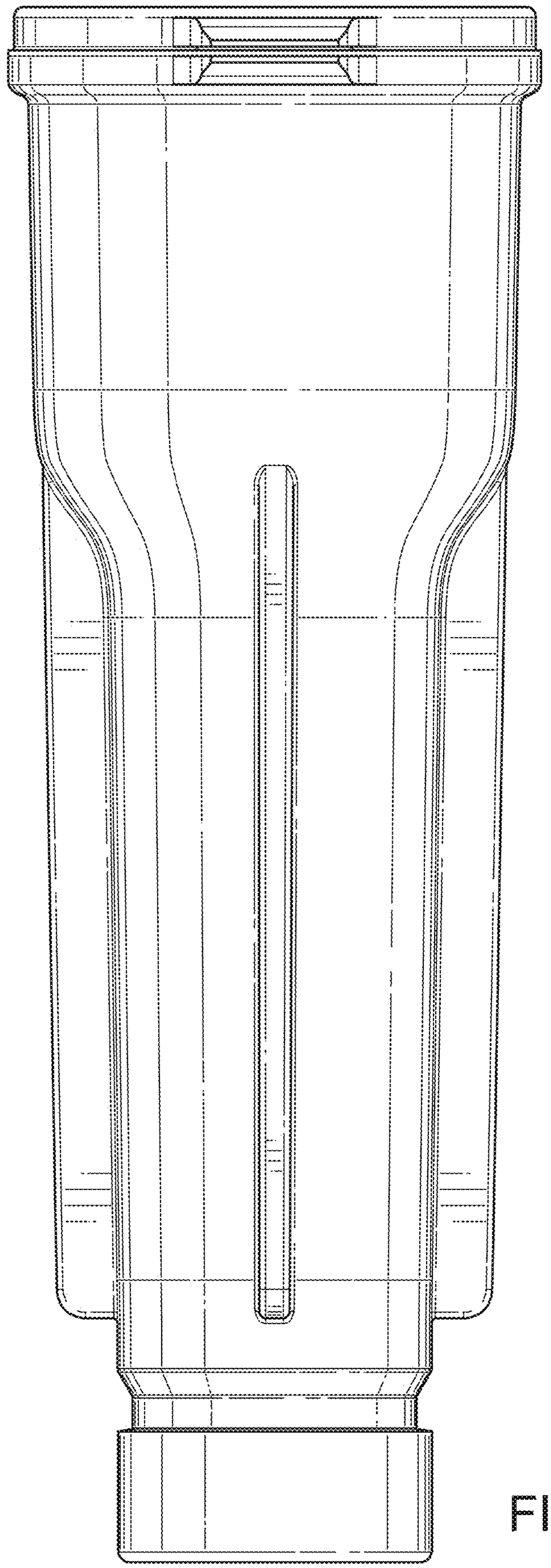


FIG. 4

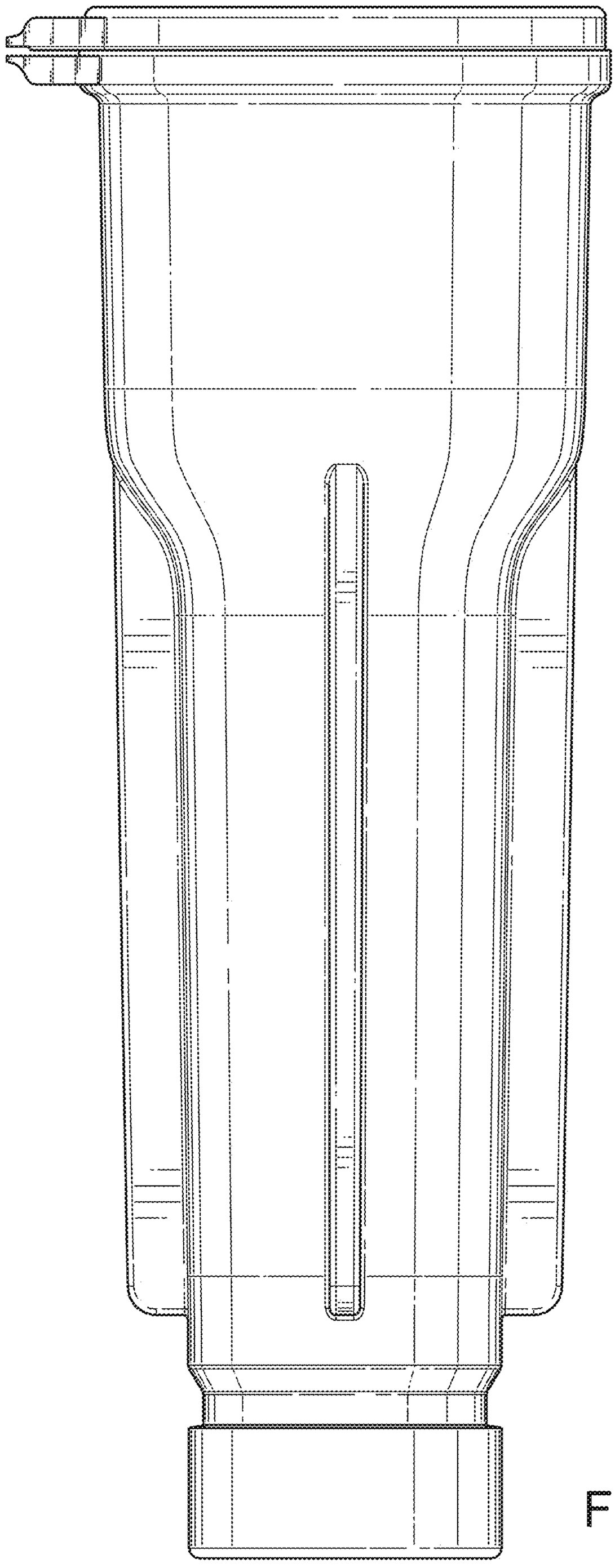
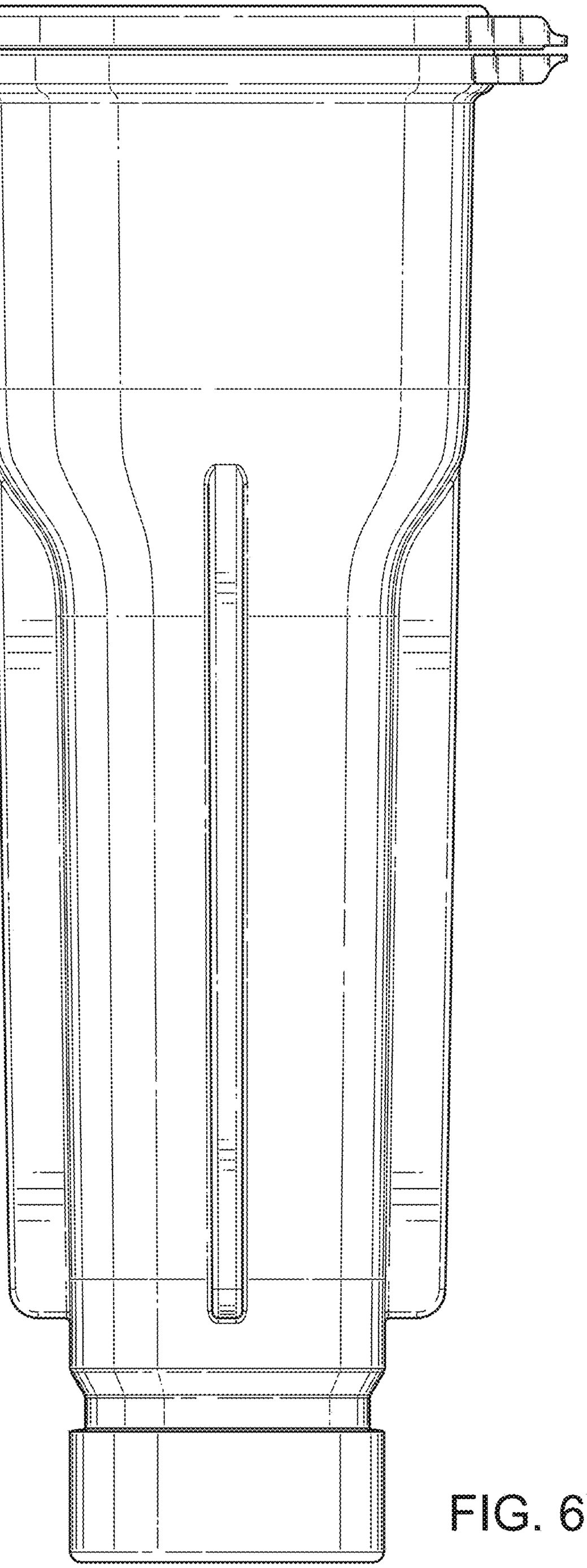


FIG. 5



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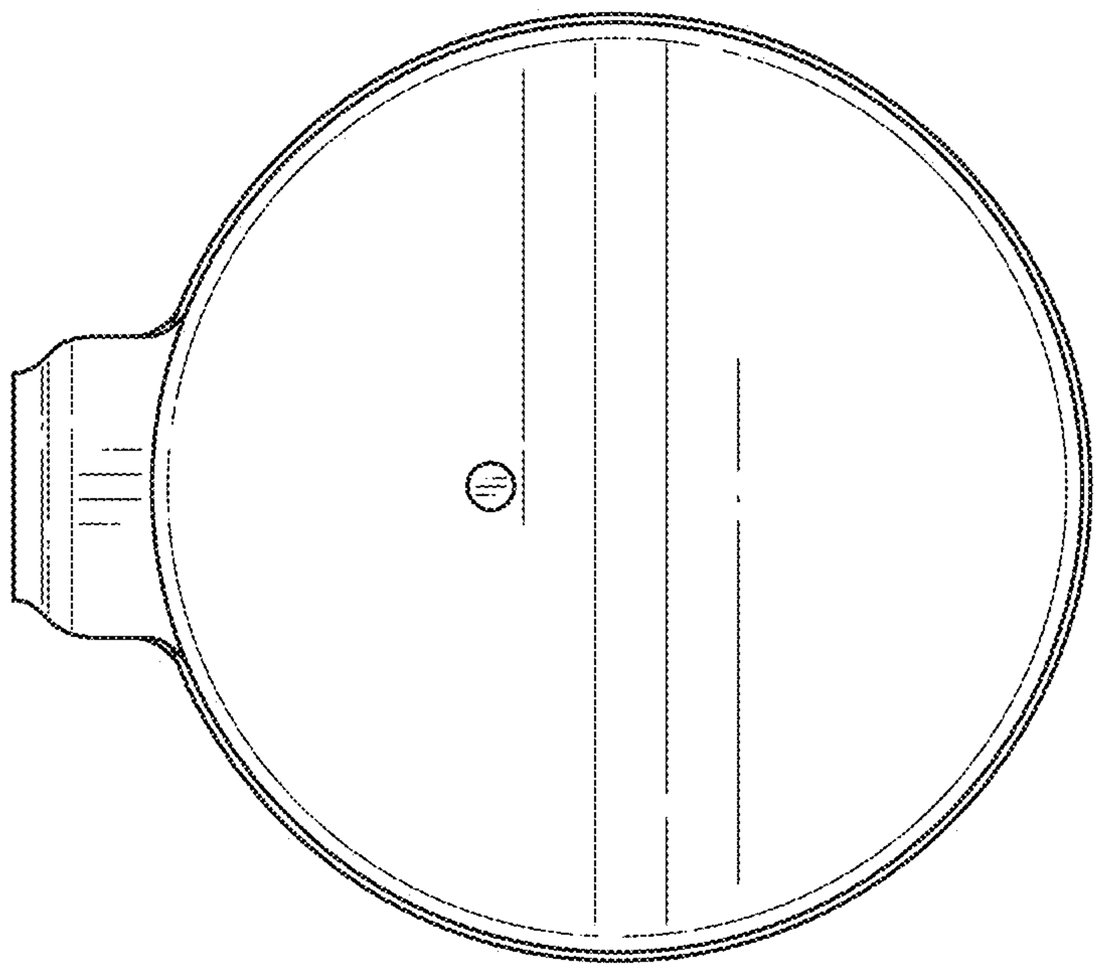

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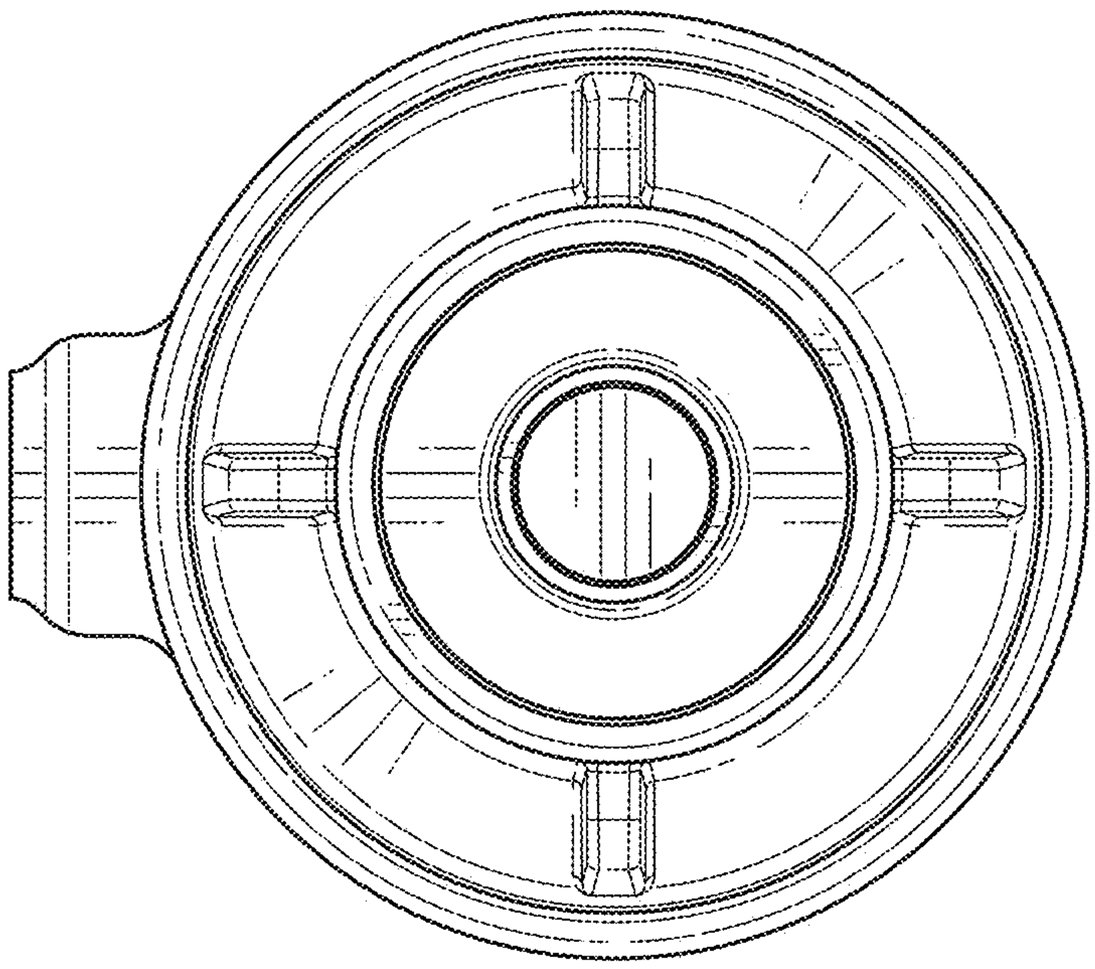
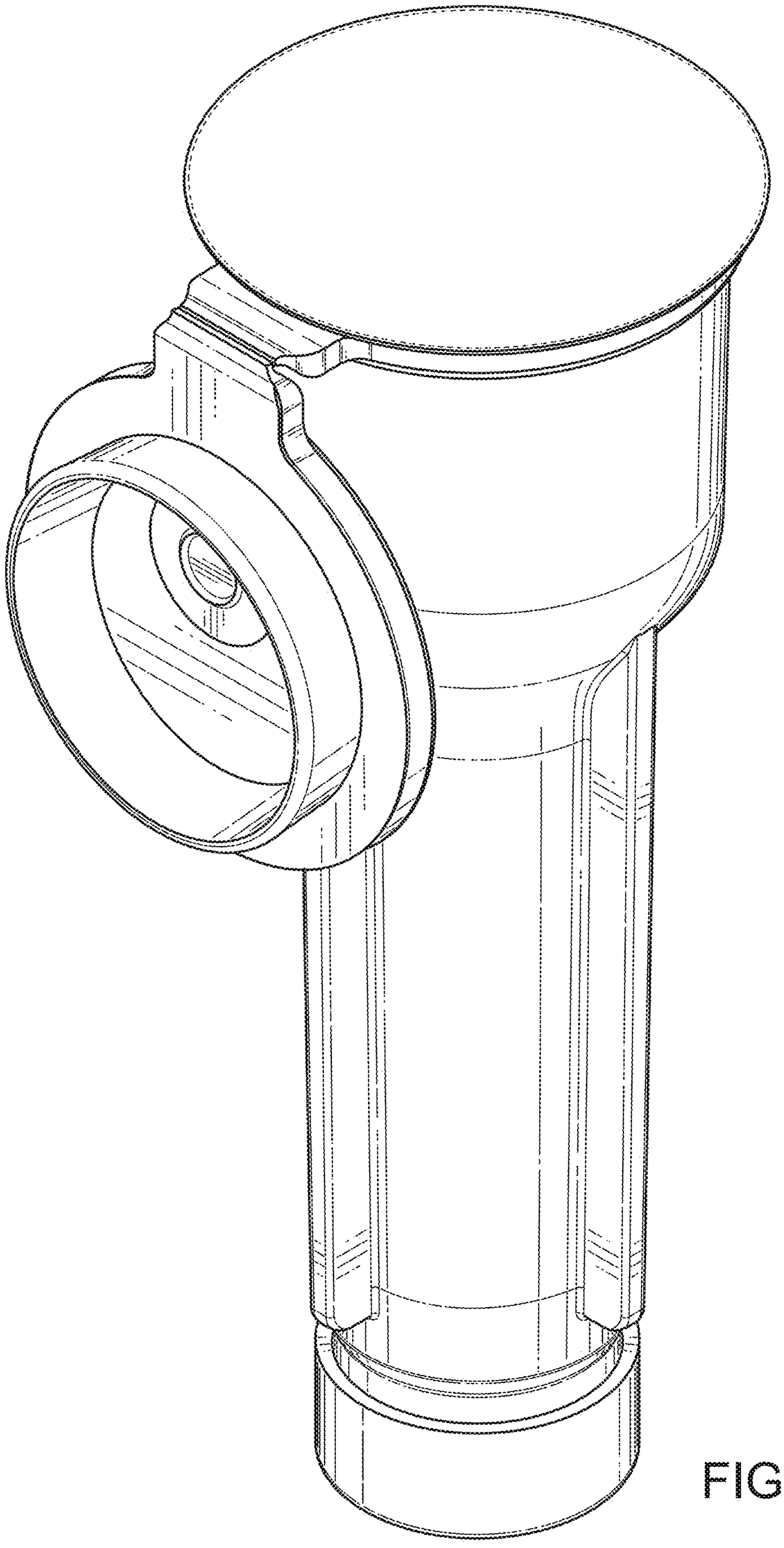


FIG. 8



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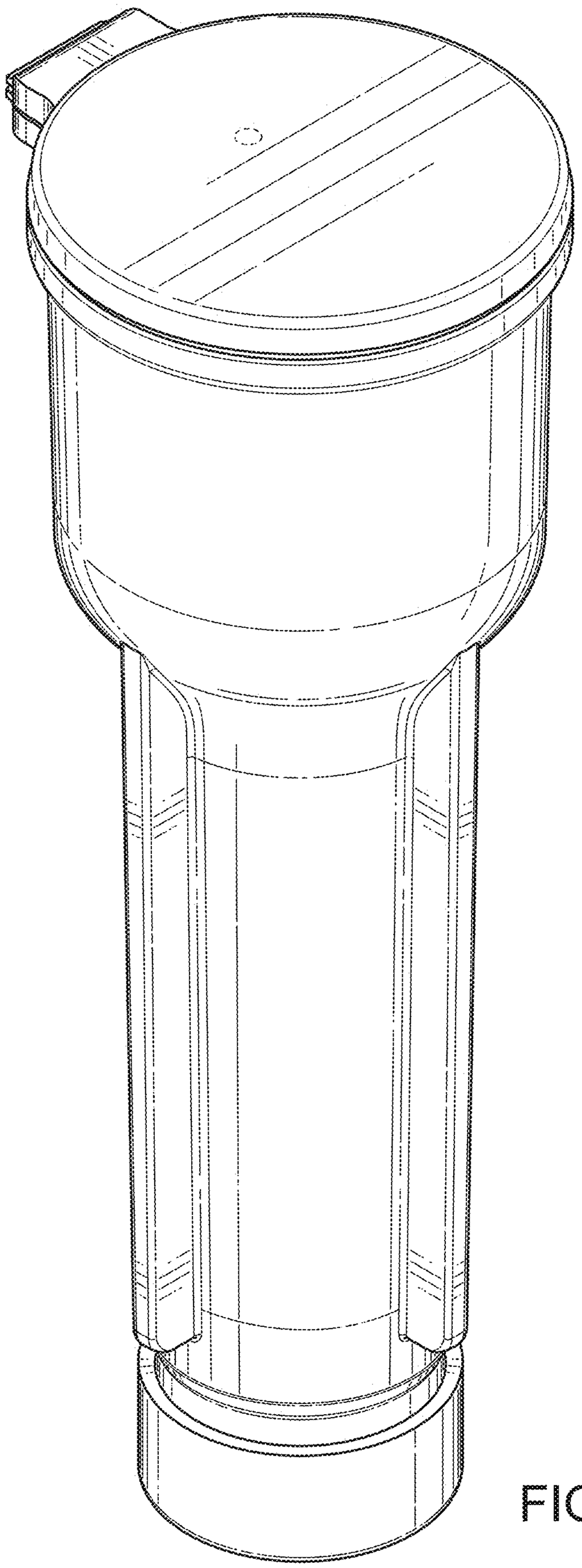

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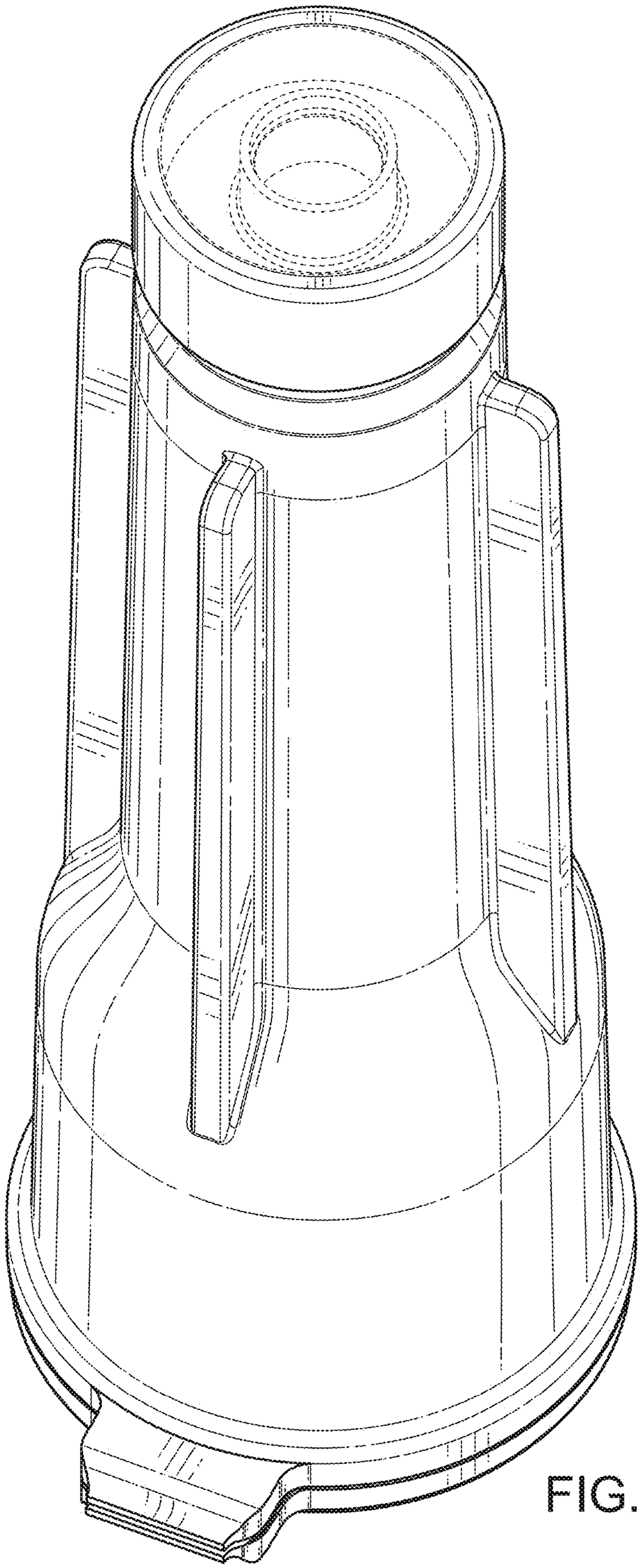
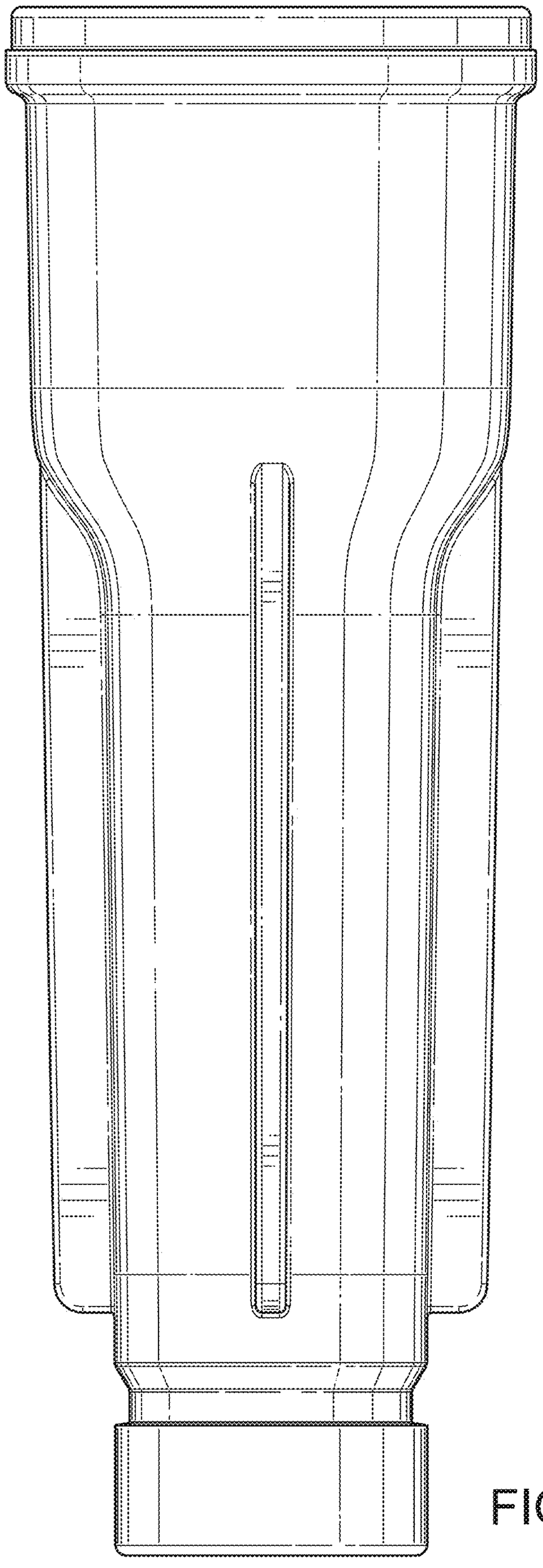


FIG. 11



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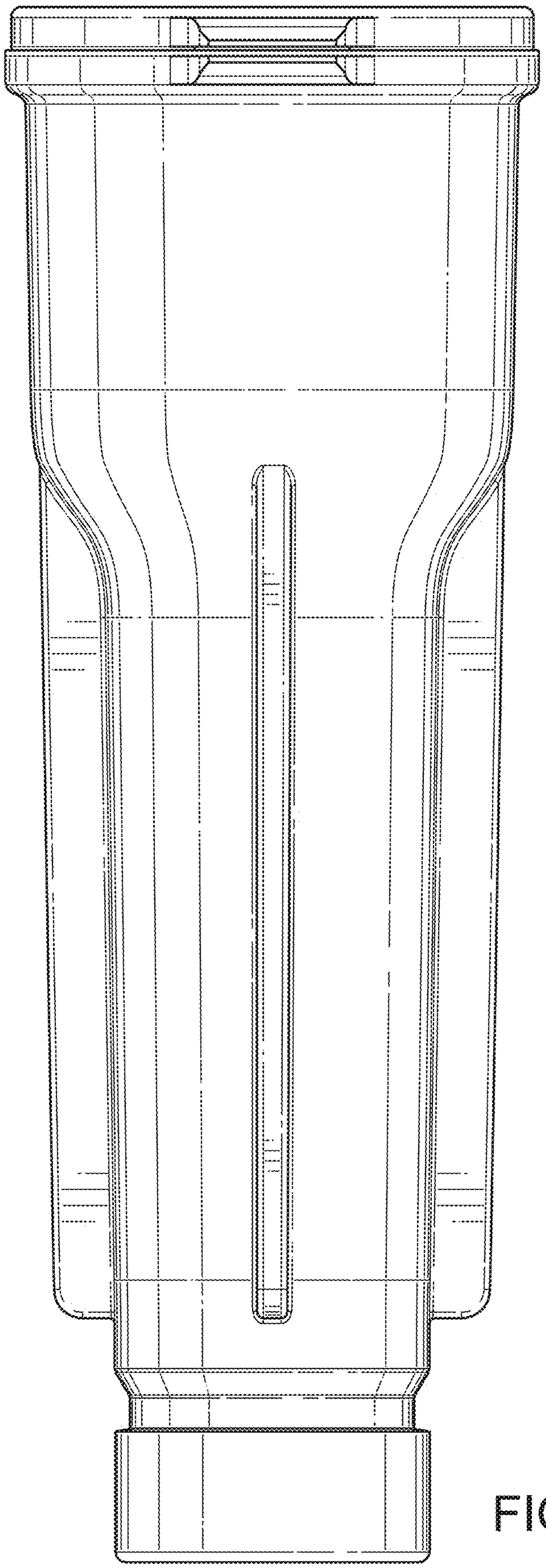

FIG. 13

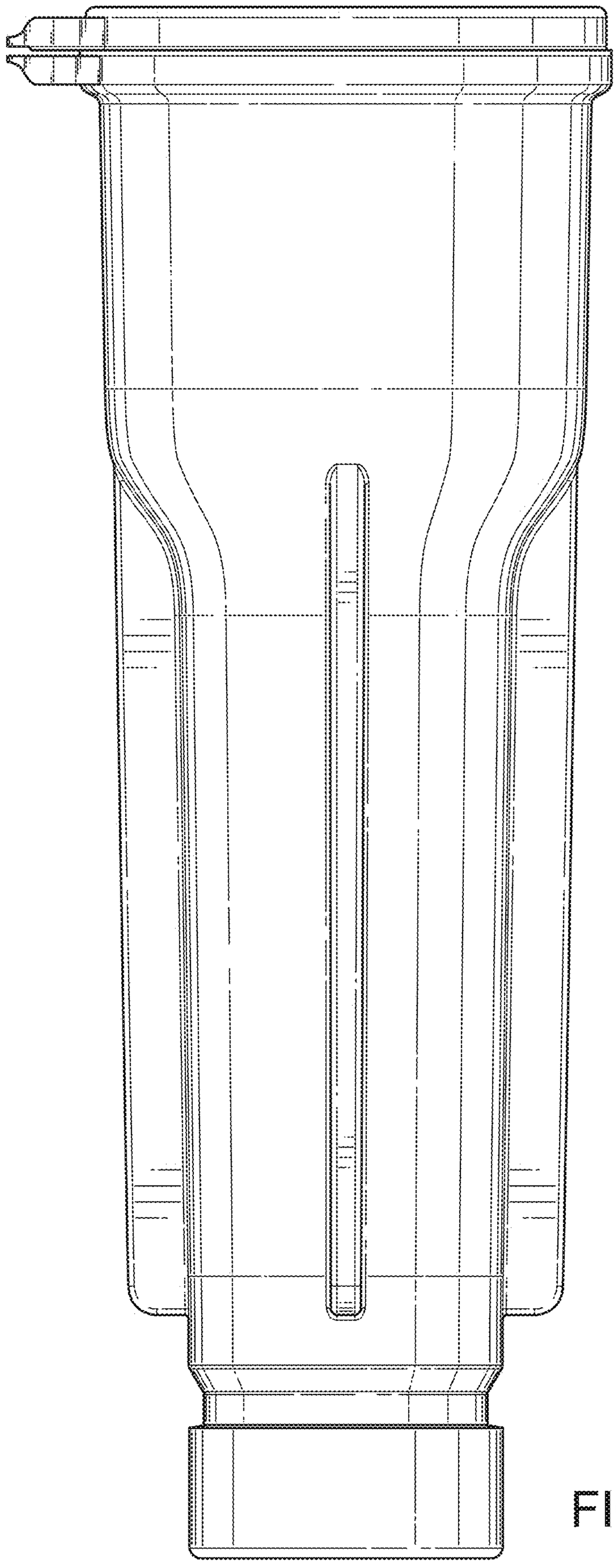

FIG. 14

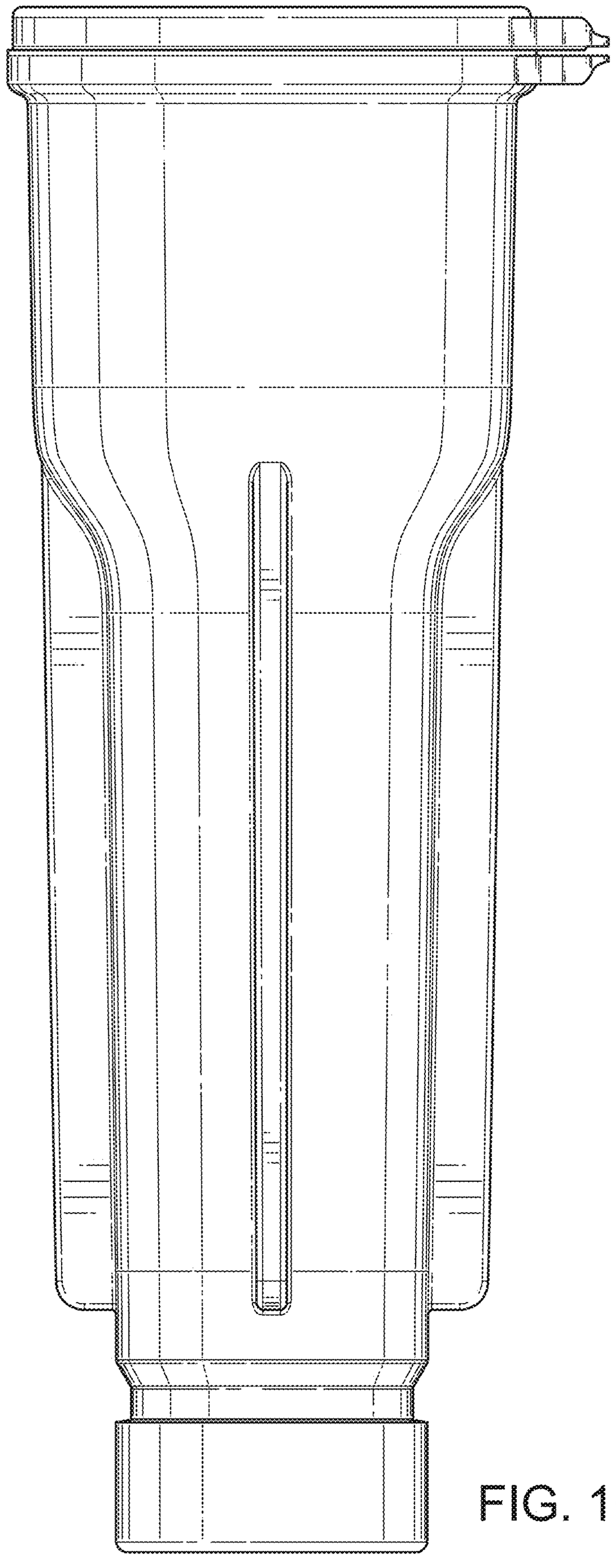

FIG. 15

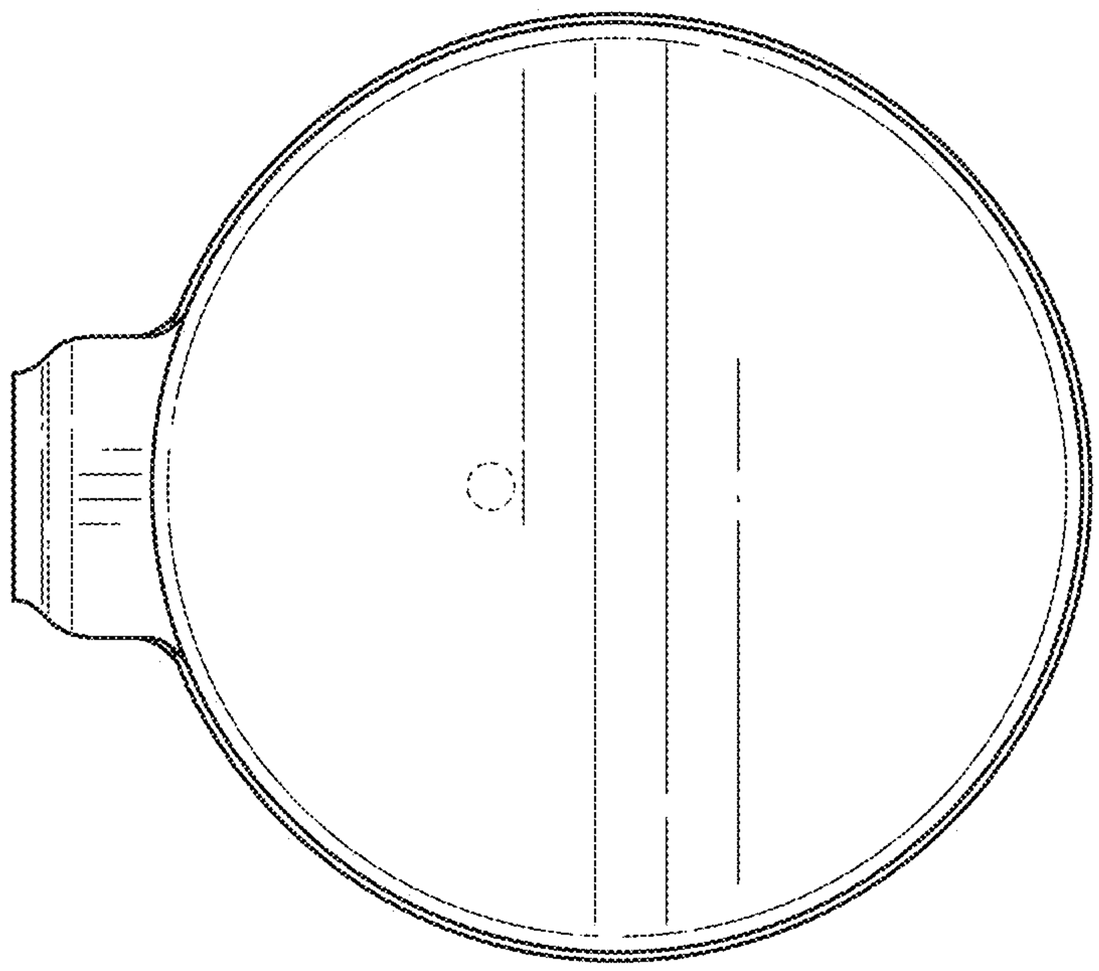

FIG. 16

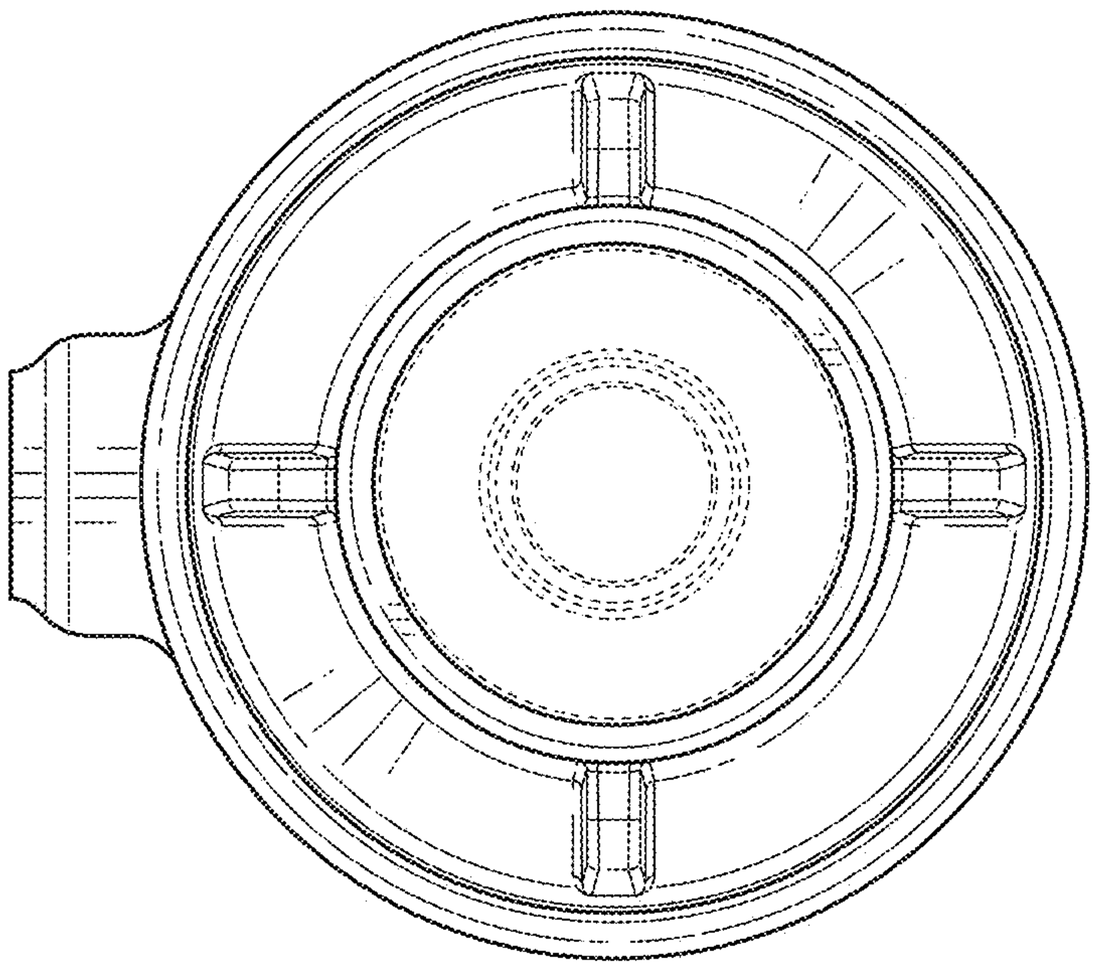

FIG. 17