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(12) **United States Design Patent**  
**Zollinger**

(10) **Patent No.:** **US D983,367 S**  
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(54) **MANIFOLD HOUSING FOR A MEDICAL WASTE COLLECTION DEVICE**

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

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**Related U.S. Application Data**

(63) Continuation of application No. 29/781,723, filed on Apr. 30, 2021, now Pat. No. Des. 956,967, which is a continuation of application No. 29/735,366, filed on May 20, 2020, which is a continuation-in-part of application No. 29/712,742, filed on Nov. 11, 2019, (Continued)

(51) **LOC (14) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/129**

(58) **Field of Classification Search**  
USPC ..... D24/127-131, 112-114, 133, 186, 118; 606/181, 185; 604/264, 523-528, 272, 604/187, 158, 164.01-164.11, 181, 184, 604/227  
CPC ..... A61M 1/0056; A61M 1/0023; A61M 1/0086; A61M 2205/125; A61M 2209/084; A61M 1/00; A61B 2217/005  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

2,784,717 A 3/1957 Thompson  
2,854,027 A 9/1958 Kaiser et al.

(Continued)

**OTHER PUBLICATIONS**

ASTM, "Designation: F 960-86, Standard Specification for Medical and Surgical Suction and Drainage Systems", 2000, 8 pages.  
(Continued)

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(74) *Attorney, Agent, or Firm* — Howard & Howard Attorneys PLLC

(57) **CLAIM**

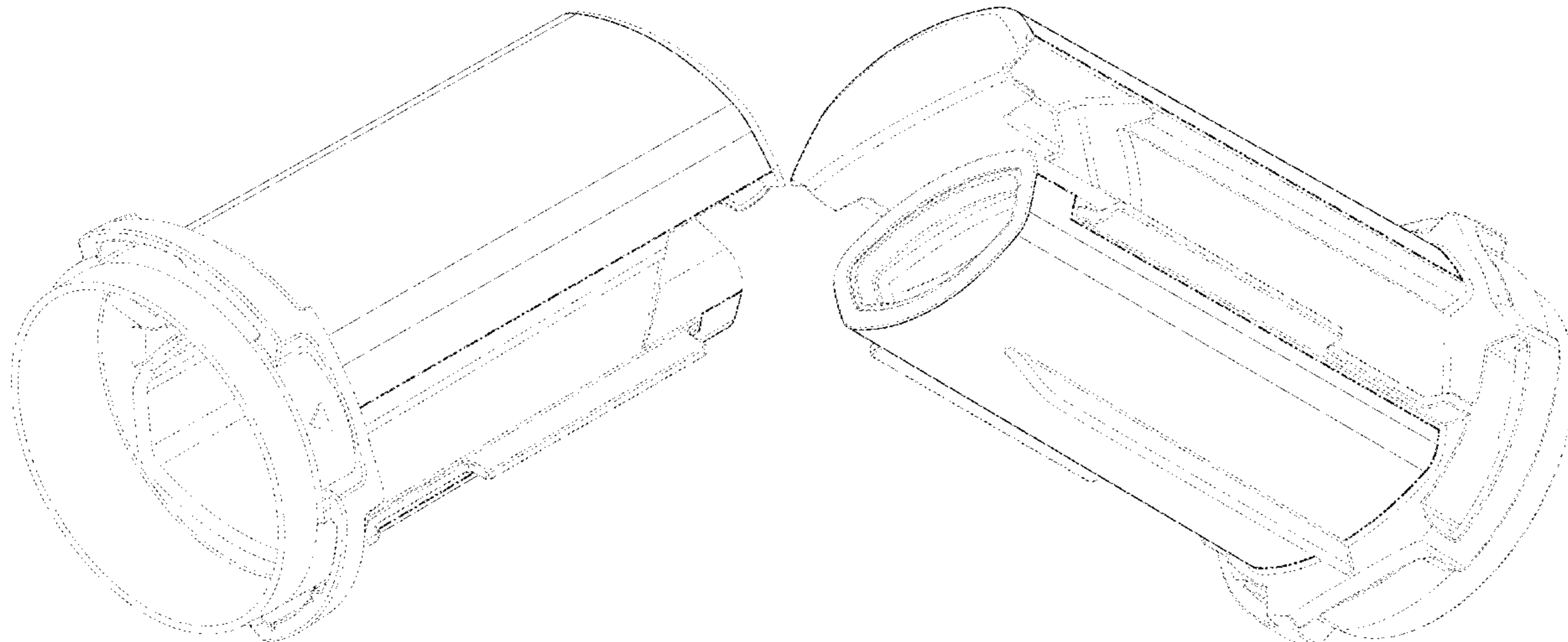
The ornamental design for a manifold housing for a medical waste collection device, as shown and described.

**DESCRIPTION**

FIG. 1 is a rear, top, left side perspective view of a manifold housing for a medical waste collection device; FIG. 2 is another rear, top, left side perspective view thereof; FIG. 3 is a front, bottom, right side perspective view thereof; FIG. 4 is a left side perspective view thereof; FIG. 5 is a front, bottom perspective view thereof; FIG. 6 is a rear, bottom perspective view thereof; FIG. 7 is a left side view thereof; FIG. 8 is a right side view thereof; FIG. 9 is a rear view thereof; FIG. 10 is a front view thereof; FIG. 11 is a top view thereof; and, FIG. 12 is a bottom view thereof.

The dotted lines in the drawings depict portions of a manifold housing for a medical waste collection device that form no part of the claimed design. The dash dot lines immediately adjacent to the claimed areas in the views represent the boundaries of the claimed design and does not exist in the reality of the manifold housing. None of the broken lines form any part of the claimed design.

**1 Claim, 11 Drawing Sheets**



**Related U.S. Application Data**

now Pat. No. Des. 919,799, said application No. 29/781,723 is a continuation of application No. 29/712,742, filed on Nov. 11, 2019, now Pat. No. Des. 919,799.

5,914,047 A 6/1999 Griffiths  
 5,922,196 A 7/1999 Baumann  
 5,928,935 A 7/1999 Reuss, Jr. et al.  
 5,941,857 A \* 8/1999 Nguyen ..... A61M 5/3213  
 604/263

(56)

**References Cited**

U.S. PATENT DOCUMENTS

3,044,491 A	7/1962	Sangster	5,947,954 A	9/1999	Bonaldo
3,085,689 A	4/1963	Hering et al.	5,968,032 A	10/1999	Sleister
3,161,891 A	12/1964	Bauman	5,997,733 A	12/1999	Wilbur et al.
3,415,086 A	12/1968	Trainer	6,024,720 A	2/2000	Chandler et al.
3,540,062 A	11/1970	Leone	6,027,490 A	2/2000	Radford et al.
3,612,089 A	10/1971	Beguiristain	6,045,596 A	4/2000	Holland, Jr. et al.
3,844,407 A	10/1974	Buie	6,056,731 A	5/2000	Koetke et al.
3,936,031 A	2/1976	Berman et al.	6,058,731 A	5/2000	Byczynski et al.
4,014,329 A	3/1977	Welch et al.	D426,302 S	6/2000	Wilkinson
4,063,556 A	12/1977	Thomas et al.	6,070,751 A	6/2000	Mejias
4,291,706 A	9/1981	Voges et al.	6,180,000 B1	1/2001	Wilbur et al.
4,376,053 A	3/1983	Bullock et al.	6,187,188 B1	2/2001	Janik et al.
4,475,904 A	10/1984	Wang	6,222,283 B1	4/2001	Regia
4,643,197 A	2/1987	Greene et al.	6,244,311 B1	6/2001	Hand et al.
4,653,493 A	3/1987	Hoppough	6,273,296 B1	8/2001	Brown
4,655,754 A	4/1987	Richmond et al.	6,299,763 B1	10/2001	Ashman
4,658,707 A	4/1987	Hawkins et al.	D452,311 S	12/2001	Guala
4,728,006 A	3/1988	Drobish et al.	6,331,246 B1	12/2001	Beckham et al.
4,729,764 A	3/1988	Gualtier	6,375,625 B1	4/2002	French et al.
4,735,610 A	4/1988	Akkas et al.	D457,954 S *	5/2002	Wallace ..... D24/130
4,737,148 A	4/1988	Blake	6,391,102 B1	5/2002	Bodden et al.
4,744,785 A	5/1988	Rosenthal et al.	6,400,141 B1	6/2002	Apel et al.
4,857,063 A	8/1989	Glenn	D460,178 S *	7/2002	Courteix ..... D24/130
4,863,446 A	9/1989	Parker	D461,557 S	8/2002	Courteix
4,870,975 A	10/1989	Cronk et al.	6,488,675 B1	12/2002	Radford et al.
4,915,688 A	4/1990	Bischof et al.	D469,178 S	1/2003	Courteix
4,941,975 A	7/1990	Schewe	6,506,168 B1	1/2003	Fathallah et al.
4,990,137 A	2/1991	Graham	6,551,286 B1	4/2003	Claessens
5,074,334 A	12/1991	Onodera	6,562,233 B1	5/2003	Schilling et al.
5,108,381 A	4/1992	Kolozsi	6,579,455 B1	6/2003	Muzik et al.
5,112,019 A	5/1992	Metzler et al.	6,673,055 B2	1/2004	Bemis et al.
5,115,842 A	5/1992	Crafts et al.	6,695,891 B2	2/2004	Reid
5,182,542 A	1/1993	Adelman et al.	6,749,319 B1	6/2004	Muse
5,195,961 A	3/1993	Takahashi et al.	D494,677 S	8/2004	Garvin
5,201,417 A	4/1993	Outlaw, III	6,770,061 B2	8/2004	Wildman
5,223,151 A	6/1993	Rojas	6,788,211 B2	9/2004	Kouznetsov et al.
5,242,434 A	9/1993	Terry	6,837,267 B2	1/2005	Weis et al.
5,242,474 A	9/1993	Herbst et al.	6,875,193 B1	4/2005	Bonnette et al.
5,256,160 A	10/1993	Clement	6,893,056 B2	5/2005	Guala
5,284,621 A	2/1994	Kaufman	6,893,425 B2	5/2005	Dunn et al.
5,308,583 A	5/1994	Sanuki	6,902,673 B2	6/2005	Smit et al.
5,312,377 A	5/1994	Dalton	6,918,893 B2	7/2005	Houde et al.
5,312,479 A	5/1994	Weinstein et al.	6,935,459 B2	8/2005	Austin et al.
5,363,860 A	11/1994	Nakao et al.	6,951,228 B2	10/2005	Steigerwalt et al.
5,383,234 A	1/1995	Russell	7,090,663 B2	8/2006	Dunn et al.
5,419,687 A	5/1995	Adahan	7,153,294 B1	12/2006	Farrow
5,458,138 A	10/1995	Gajo	7,244,236 B2	7/2007	Merkle
5,464,042 A	11/1995	Haunhorst	7,258,711 B2	8/2007	Dunn et al.
5,476,447 A	12/1995	Noda et al.	7,294,256 B2	11/2007	Happel et al.
5,575,293 A	11/1996	Miller et al.	D557,814 S	12/2007	Glenn et al.
5,601,712 A	2/1997	Adams et al.	7,347,828 B2	3/2008	Francese et al.
5,613,966 A	3/1997	Makower et al.	D565,732 S	4/2008	Pech et al.
5,624,417 A	4/1997	Cook et al.	D581,049 S *	11/2008	Sudo ..... D24/130
5,624,418 A	4/1997	Shepard	7,459,078 B2	12/2008	Klein et al.
5,637,103 A	6/1997	Kerwin et al.	7,497,340 B2	3/2009	Hershberger et al.
5,681,742 A	10/1997	MersKelly et al.	7,615,037 B2	11/2009	Murray et al.
5,725,516 A	3/1998	Cook et al.	7,621,898 B2	11/2009	Lalomia et al.
5,736,098 A	4/1998	Kerwin et al.	D612,493 S	3/2010	Claessens et al.
5,792,126 A	8/1998	Tribastone et al.	7,758,556 B2	7/2010	Perez-Cruet et al.
5,807,359 A	9/1998	Bemis et al.	7,981,049 B2	7/2011	Ritchie et al.
5,817,068 A	10/1998	Urrutia	D647,627 S *	10/2011	Wilkinson ..... D24/224
5,830,199 A	11/1998	Chaffringeon	8,088,079 B2	1/2012	Kaye et al.
5,863,443 A	1/1999	Mainwaring	8,088,291 B2	1/2012	Hershberger et al.
5,871,476 A	2/1999	Hand	D655,407 S	3/2012	Adams
5,885,240 A	3/1999	Bradbury et al.	8,137,329 B2	3/2012	Romano et al.
5,901,717 A	5/1999	Dunn et al.	8,216,199 B2	7/2012	Murray et al.
5,911,786 A	6/1999	Nielsen et al.	8,349,181 B2	1/2013	Nonnenmacher
			8,382,660 B2	2/2013	Okada
			8,465,439 B2	6/2013	Parks
			8,485,987 B2	7/2013	Videbaek et al.
			D687,563 S	8/2013	Tamura
			8,509,736 B2	8/2013	Hodge
			8,518,002 B2	8/2013	Murray et al.
			8,696,674 B2	4/2014	Howard et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

RE44,920 E 6/2014 Dunn et al.  
 8,740,866 B2 6/2014 Reasoner et al.  
 8,801,682 B2 8/2014 Kensy  
 D713,029 S \* 9/2014 Shiraiishi ..... D24/130  
 8,858,518 B2 10/2014 Schafer et al.  
 8,877,146 B2 11/2014 Williamson, IV et al.  
 8,915,897 B2 12/2014 Murray et al.  
 8,974,399 B2 3/2015 Teixeira et al.  
 9,089,801 B1 7/2015 Gavlak et al.  
 9,143,610 B2 9/2015 Hodge  
 D747,458 S \* 1/2016 Sonderegger ..... D24/111  
 D747,459 S \* 1/2016 Sonderegger ..... D24/111  
 D751,192 S 3/2016 She et al.  
 9,272,127 B2 3/2016 Rada et al.  
 9,457,135 B2 10/2016 Neatrou et al.  
 D771,832 S 11/2016 Yeager et al.  
 9,532,796 B2 1/2017 Dubois et al.  
 9,579,428 B1 2/2017 Reasoner et al.  
 D787,053 S 5/2017 Huang et al.  
 D787,669 S 5/2017 Huang et al.  
 9,671,318 B1 6/2017 Bedoe et al.  
 9,782,524 B2 10/2017 Reasoner et al.  
 9,788,818 B2 10/2017 Parks  
 9,795,723 B2 10/2017 Gavlak et al.  
 D804,023 S 11/2017 Huang et al.  
 D805,636 S 12/2017 Pike  
 9,854,291 B2 12/2017 Minnick  
 D810,280 S 2/2018 Tharp et al.  
 D814,025 S 3/2018 Zumbrum  
 9,909,103 B2 3/2018 Howard et al.  
 9,943,291 B2 4/2018 VanderWoude et al.  
 D825,749 S 8/2018 Huang et al.  
 10,105,470 B2 10/2018 Reasoner et al.  
 D834,187 S \* 11/2018 Ryan ..... A61M 39/162  
 D24/130  
 D834,532 S 11/2018 Maroney et al.  
 D838,363 S \* 1/2019 Katagiri ..... D24/127  
 D846,737 S 4/2019 Karasawa  
 D852,356 S 6/2019 Steele et al.  
 D858,756 S \* 9/2019 Katagiri ..... D24/130  
 10,471,188 B1 11/2019 Zollinger et al.  
 D879,956 S 3/2020 Klenner et al.  
 10,603,416 B1 3/2020 Zollinger et al.  
 D881,392 S 4/2020 Pujara et al.  
 D892,319 S 8/2020 Park et al.  
 D902,386 S 11/2020 Guala  
 D905,867 S 12/2020 Robinson et al.  
 D911,518 S 2/2021 Shi  
 D913,522 S 3/2021 Robinson et al.  
 D919,799 S 5/2021 Zollinger et al.  
 D925,734 S 7/2021 Park et al.  
 D930,850 S 9/2021 Zollinger et al.  
 D955,565 S \* 6/2022 Moleda ..... D24/112  
 2001/0040123 A1 11/2001 Beckham  
 2002/0026160 A1 2/2002 Takahashi et al.  
 2003/0021735 A1 1/2003 House  
 2003/0073928 A1 4/2003 Kortenbach et al.  
 2003/0078548 A1 4/2003 Kobayashi  
 2003/0125639 A1 7/2003 Fisher et al.  
 2003/0164600 A1 9/2003 Dunn et al.  
 2003/0213733 A1 11/2003 Beckham et al.  
 2004/0016691 A1 1/2004 Smit et al.  
 2004/0055470 A1 3/2004 Strauser et al.  
 2004/0079418 A1 4/2004 Weis et al.  
 2004/0102743 A1 5/2004 Walker  
 2004/0138632 A1 7/2004 Bemis et al.  
 2004/0143227 A1 7/2004 Rollin et al.  
 2004/0163884 A1 8/2004 Austin et al.  
 2004/0261525 A1 12/2004 Chen  
 2005/0004537 A1 1/2005 Dunn et al.  
 2005/0010179 A1 1/2005 Dunn et al.  
 2005/0127212 A1 6/2005 Kassanits  
 2005/0139532 A1 6/2005 Hershberger et al.  
 2005/0171495 A1 8/2005 Austin et al.  
 2005/0173638 A1 8/2005 Powell

2005/0183780 A1 8/2005 Michaels et al.  
 2005/0187529 A1 8/2005 Reasoner et al.  
 2005/0189288 A1 9/2005 Hershberger et al.  
 2005/0209585 A1 9/2005 Nord et al.  
 2006/0189950 A1 8/2006 Rogers et al.  
 2006/0231508 A1 10/2006 Marzett et al.  
 2007/0135778 A1 6/2007 Murray et al.  
 2007/0135779 A1 6/2007 Lalomia et al.  
 2007/0191731 A1 8/2007 Kaye  
 2008/0177201 A1 7/2008 Deadwyler et al.  
 2009/0234192 A1 9/2009 Okada  
 2010/0030132 A1 2/2010 Niezgoda et al.  
 2011/0106029 A1 5/2011 Garren et al.  
 2012/0316462 A1 12/2012 Enos et al.  
 2014/0323914 A1 10/2014 VanderWoude et al.  
 2014/0336599 A1 11/2014 Patel et al.  
 2014/0338529 A1 11/2014 Reasoner et al.  
 2015/0086441 A1 \* 3/2015 She ..... A61L 2/18  
 422/294  
 2016/0066895 A1 3/2016 Schwyn et al.  
 2017/0028110 A1 2/2017 Smith et al.  
 2017/0043064 A1 2/2017 Reasoner et al.  
 2017/0060726 A1 3/2017 Glistvain  
 2017/0160169 A1 6/2017 Bedoe et al.  
 2017/0304511 A1 10/2017 Harpham et al.  
 2018/0221804 A1 8/2018 Reasoner et al.  
 2018/0235583 A1 8/2018 VanderWoude et al.  
 2018/0243487 A1 8/2018 Murray et al.  
 2018/0256790 A1 9/2018 Murray et al.  
 2018/0333520 A1 11/2018 Mills et al.  
 2019/0038195 A1 2/2019 Peterson et al.

OTHER PUBLICATIONS

English language abstract for JP 2003-534088 extracted from espacenet.com database on Feb. 26, 2018, 2 pages.  
 English language abstract and machine-assisted English translation for EP 1 380 316 extracted from espacenet.com database on Feb. 26, 2018, 21 pages.  
 English language abstract and machine-assisted English translation for FR 2 744 359 extracted from espacenet.com database on Feb. 26, 2018, 6 pages.  
 English language abstract and machine-assisted English translation for JP 2001-017489 extracted from espacenet.com database on Feb. 26, 2018, 27 pages.  
 English language abstract and machine-assisted English translation for JP 2003-325658 extracted from espacenet.com database on Feb. 26, 2018, 20 pages.  
 English language abstract and machine-assisted English translation for JPH 02-145393 extracted from PAJ database on Feb. 26, 2018, 2 pages.  
 English language abstract and machine-assisted English translation for JPH 06-178780 extracted from espacenet.com database on Feb. 26, 2018, 28 pages.  
 English language abstract for EP 0 882 440 extracted from espacenet.com database on Feb. 26, 2018, 1 page.  
 English language abstract for JP 2007-209764 extracted from espacenet.com database on Nov. 13, 2017, 2 pages.  
 English language abstract for JPH 08-500763 extracted from espacenet.com database on Feb. 26, 2018, 2 pages.  
 English language abstract for JPH 10-501145 extracted from espacenet.com database on Feb. 26, 2018, 1 page.  
 English language abstract for JPH 10-503391 extracted from espacenet.com database on Feb. 26, 2018, 2 pages.  
 English language abstract for JPH 11392 extracted from espacenet.com database on Feb. 26, 2018, 1 page.  
 English language abstract for WO 2004/075740 extracted from espacenet.com database on Nov. 13, 2017, 2 pages.  
 English language abstract not found for JP 2009-519776; however, see English language equivalent U.S. Pat. No. 9,782,524. Original document extracted from espacenet.com database on Nov. 13, 2017, 5 pages.  
 International Search Report for Application No. PCT/US2007/063253 dated Dec. 5, 2007, 5 pages.

(56)

**References Cited**

## OTHER PUBLICATIONS

International Search Report for PCT/US2006/047531 dated Aug. 23, 2007, 6 pages.

International Search Report for PCT/US2006/061791 dated Jan. 23, 2008, 5 pages.

International Search Report for PCT/US2012/069516 dated Apr. 5, 2013, 3 pages.

International Search Report for PCT/US2017/014128 dated Jun. 13, 2017, 3 pages.

Invitation to Pay Additional Fees and Communication Relating to the Results of the Partial International Search for PCT/US2006/061791 dated Sep. 9, 2007, 3 pages.

LMS, "Medi-Flo Valves Specification Sheets", Nov. 2005, 7 pages.

LMS, "V33 SureFlo Valve", 2005, 1 page.

Machine-assisted English translation for CH 391963 extracted from espacenet.com database on Feb. 26, 2018, 11 pages.

Machine-assisted English translation for JPS 55-39296 extracted from espacenet.com database on Nov. 13, 2017, 7 pages.

Portable Suction Sources, Health Devices, vol. 7, No. 5, Mar. 1978, pp. 119-141.

*Stryker Corporation et al. v. Poseidon Surgical, LLC*, "Defendants/Counterclaimants Initial Invalidation and Unenforceability Contentions", United States District Court, Western District of Michigan, Southern Division, Civil Action No. 1:16-cv-01199, Mar. 29, 2017, 40 pages.

Stryker Instruments, "Neptune Waste Management System, Instructions for Use, Neptune Gold Rover, REF 700-2, Neptune Docking Station, REF 700-6", Sep. 2005, 20 pages.

The Merriam-Webster Dictionary, "Definition of Disk or Disc", Eleventh Edition, p. 206, 2 pages.

Therapak, "Commode Collection System Webpage", <https://therapak.com/catalog/specimen-collection>, 2021, 1 page.

Design U.S. Appl. No. 29/712,742, filed Nov. 11, 2019.

Design U.S. Appl. No. 29/713,993, filed Nov. 20, 2019.

Design U.S. Appl. No. 29/735,366, filed May 20, 2020.

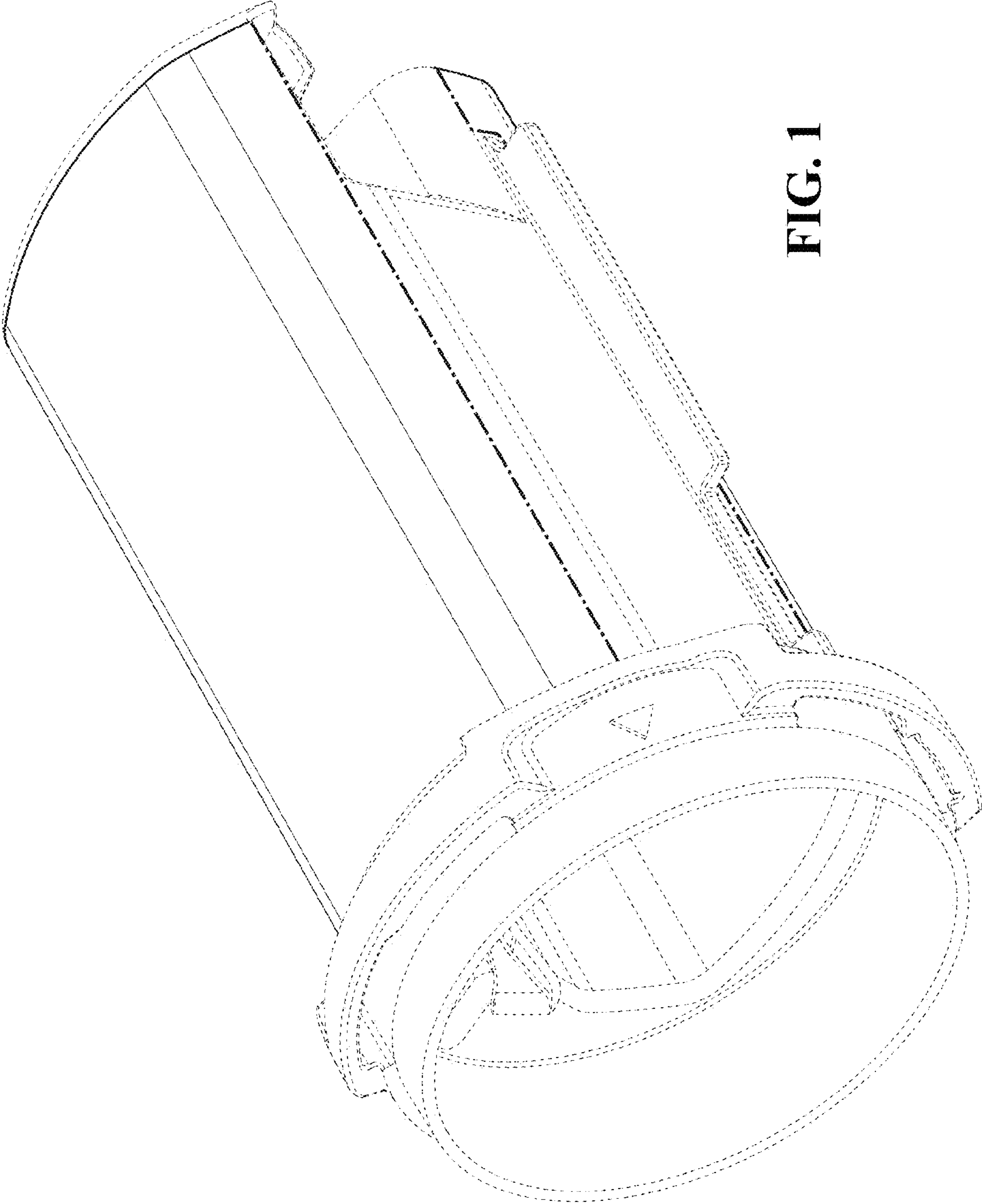
U.S. Appl. No. 16/399,026, filed Apr. 30, 2019.

U.S. Appl. No. 16/522,066, filed Jul. 25, 2019.

Vernay Laboratories, "Valve Specification Sheets", Nov. 2005, 6 pages.

Design U.S. Appl. No. 29/803,572, filed Aug. 13, 2021.

\* cited by examiner



**FIG. 1**

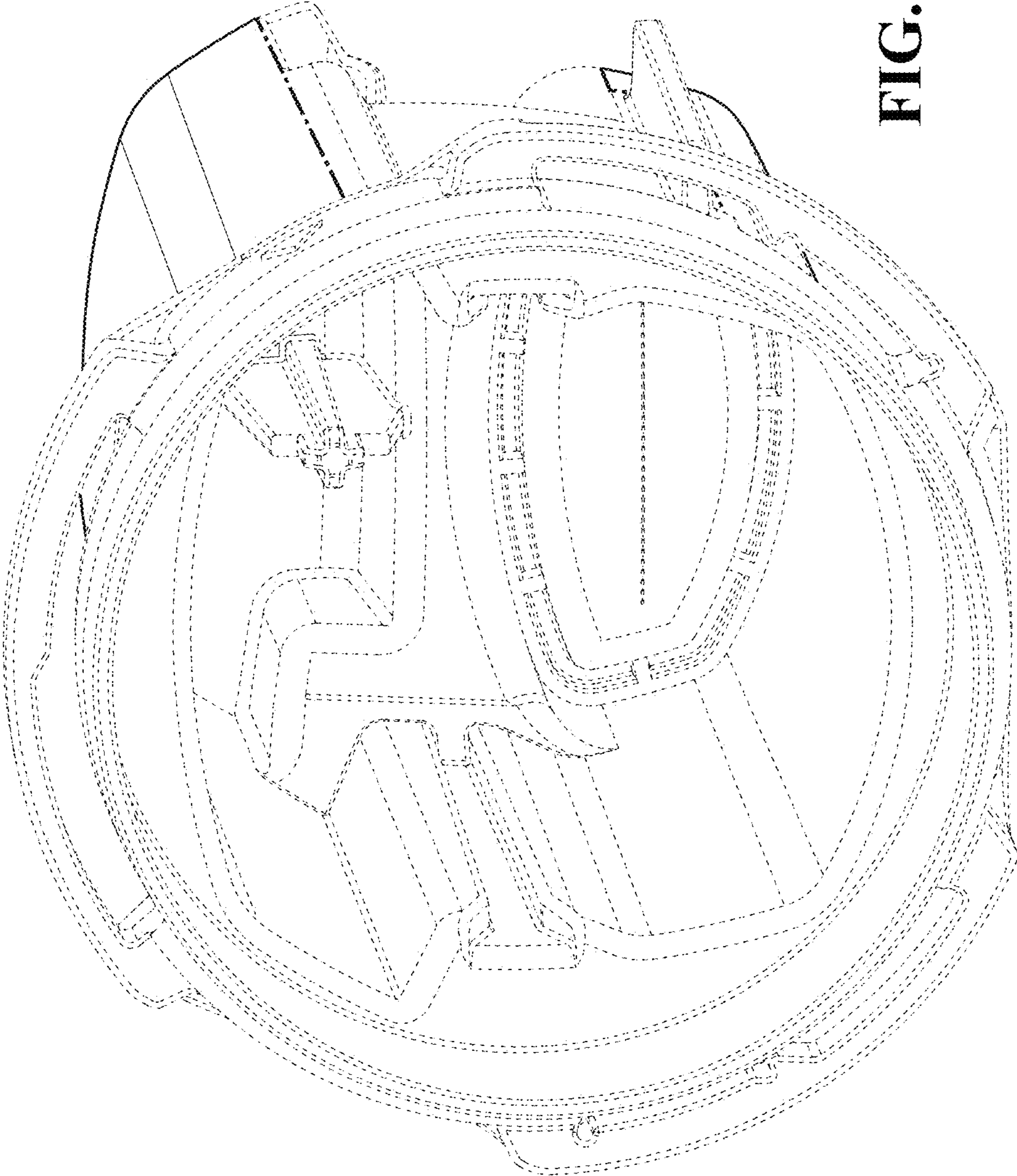


FIG. 2

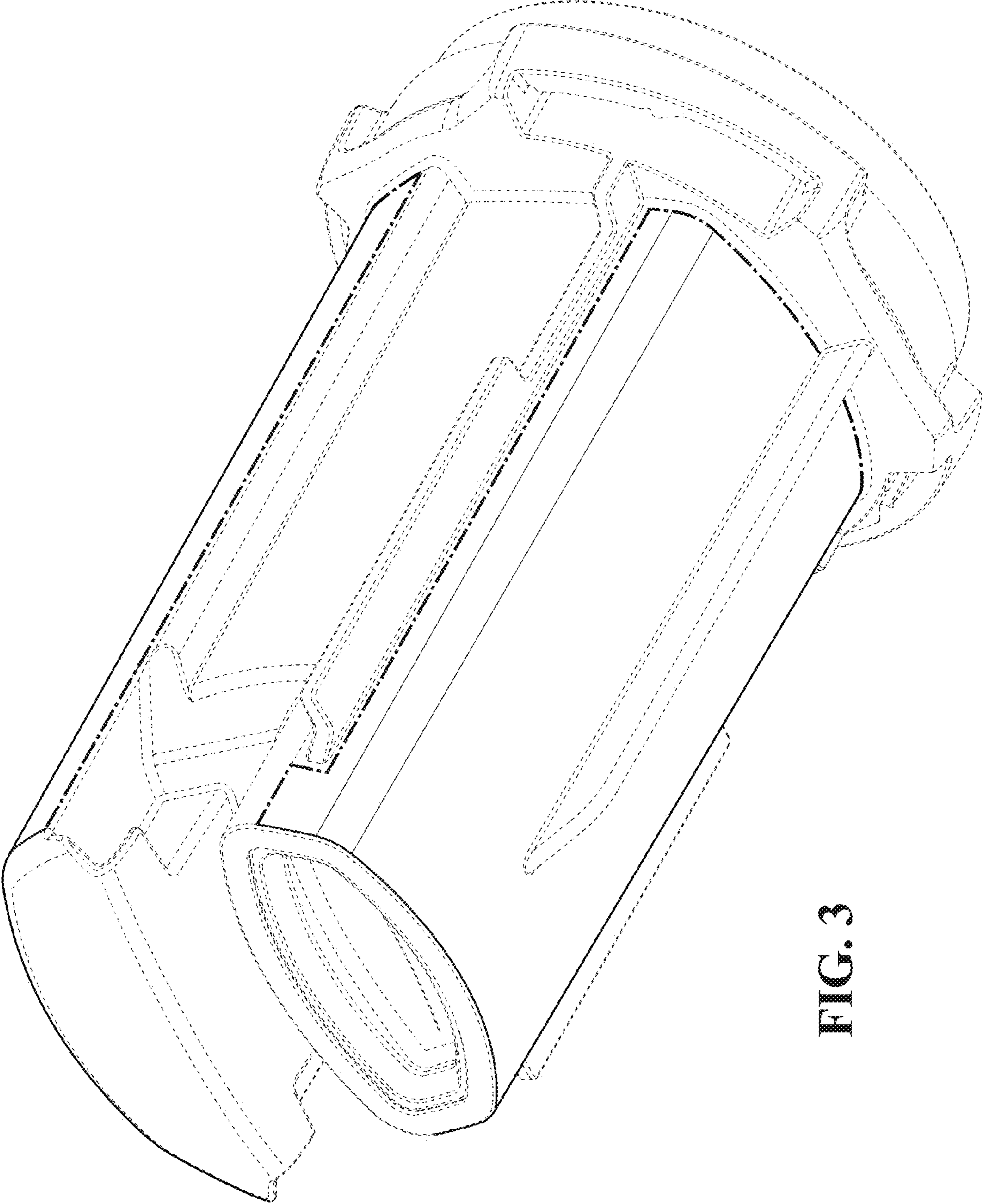


FIG. 3

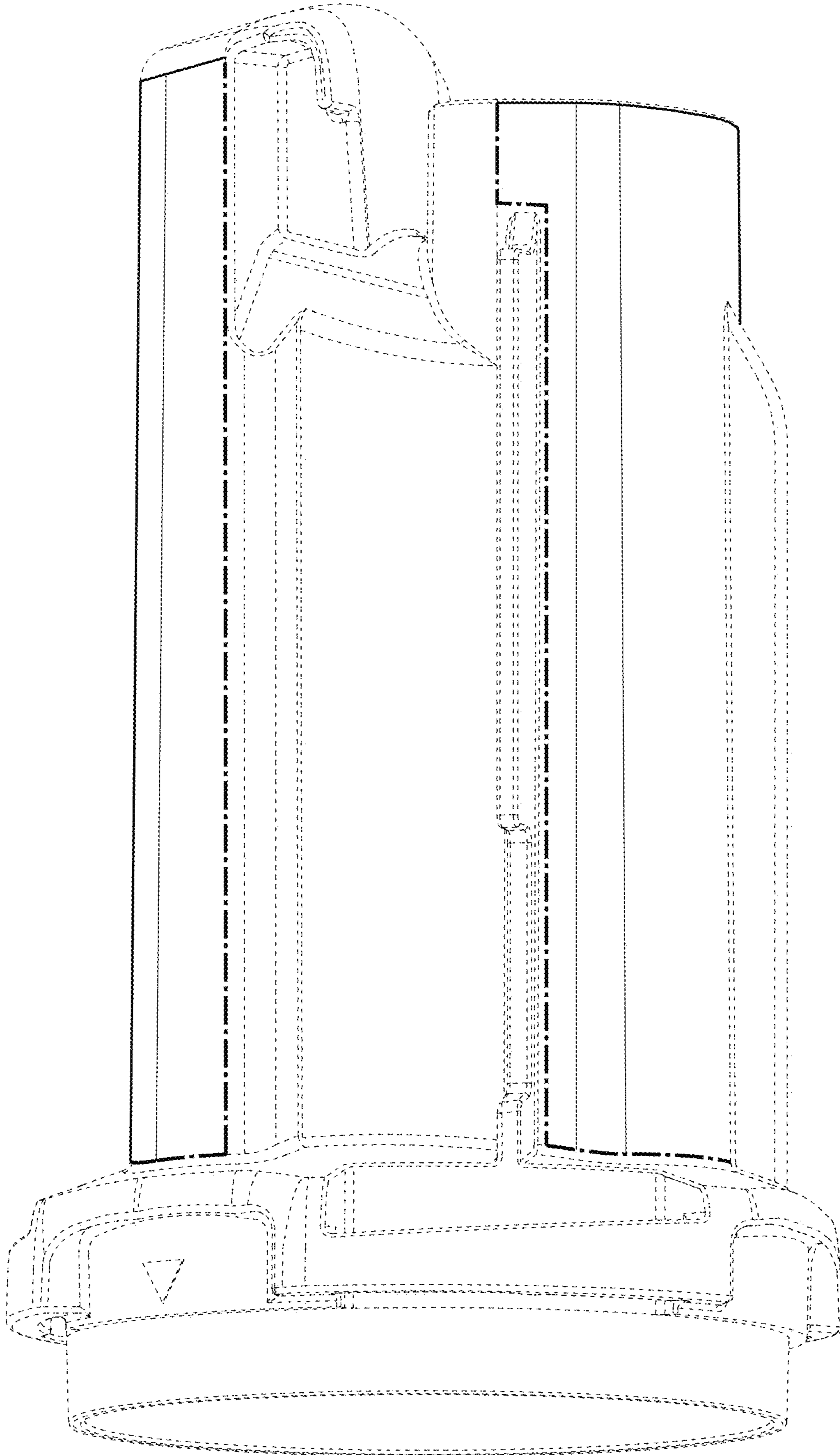
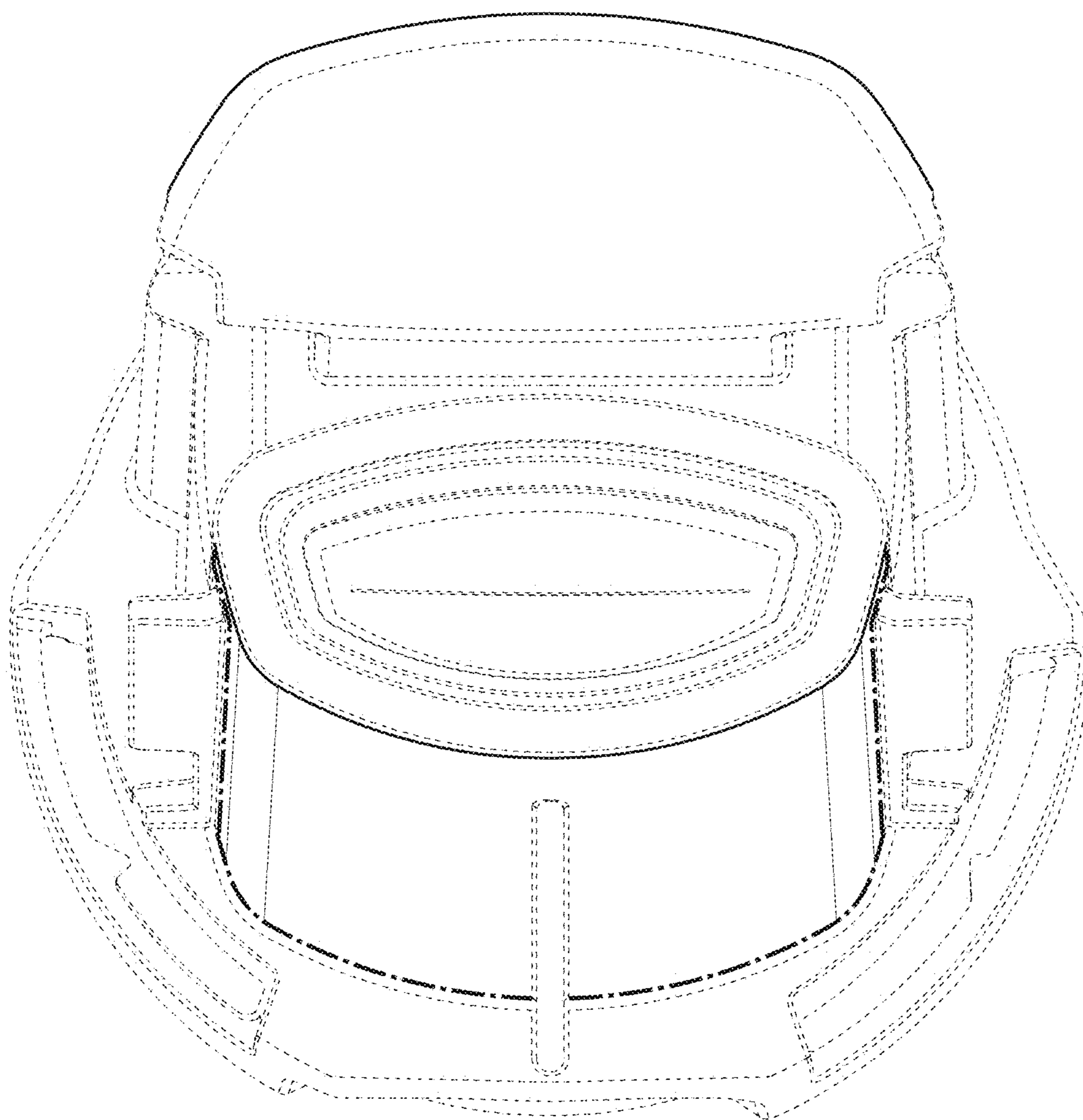
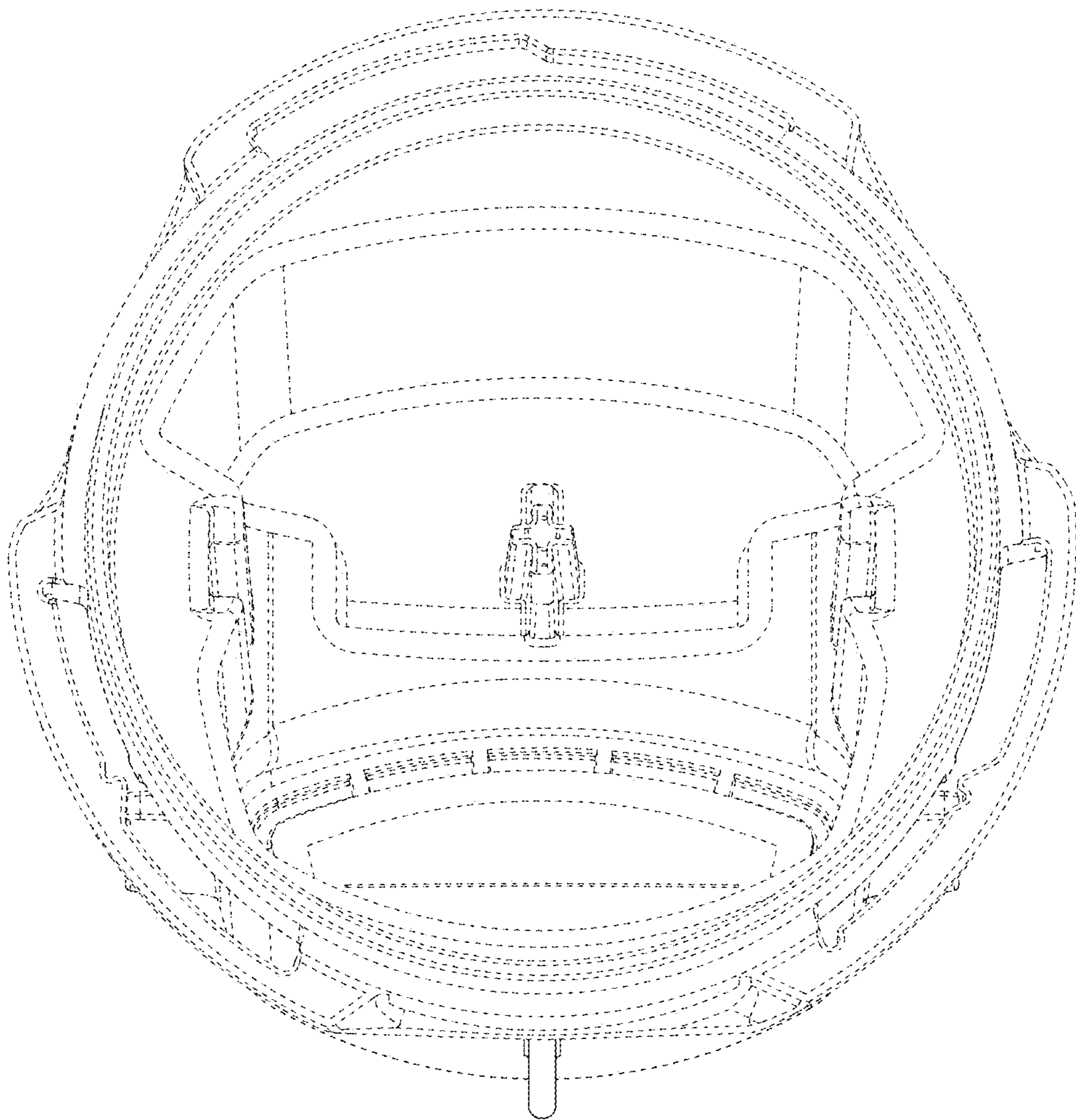


FIG. 4





**FIG. 5**



**FIG. 6**

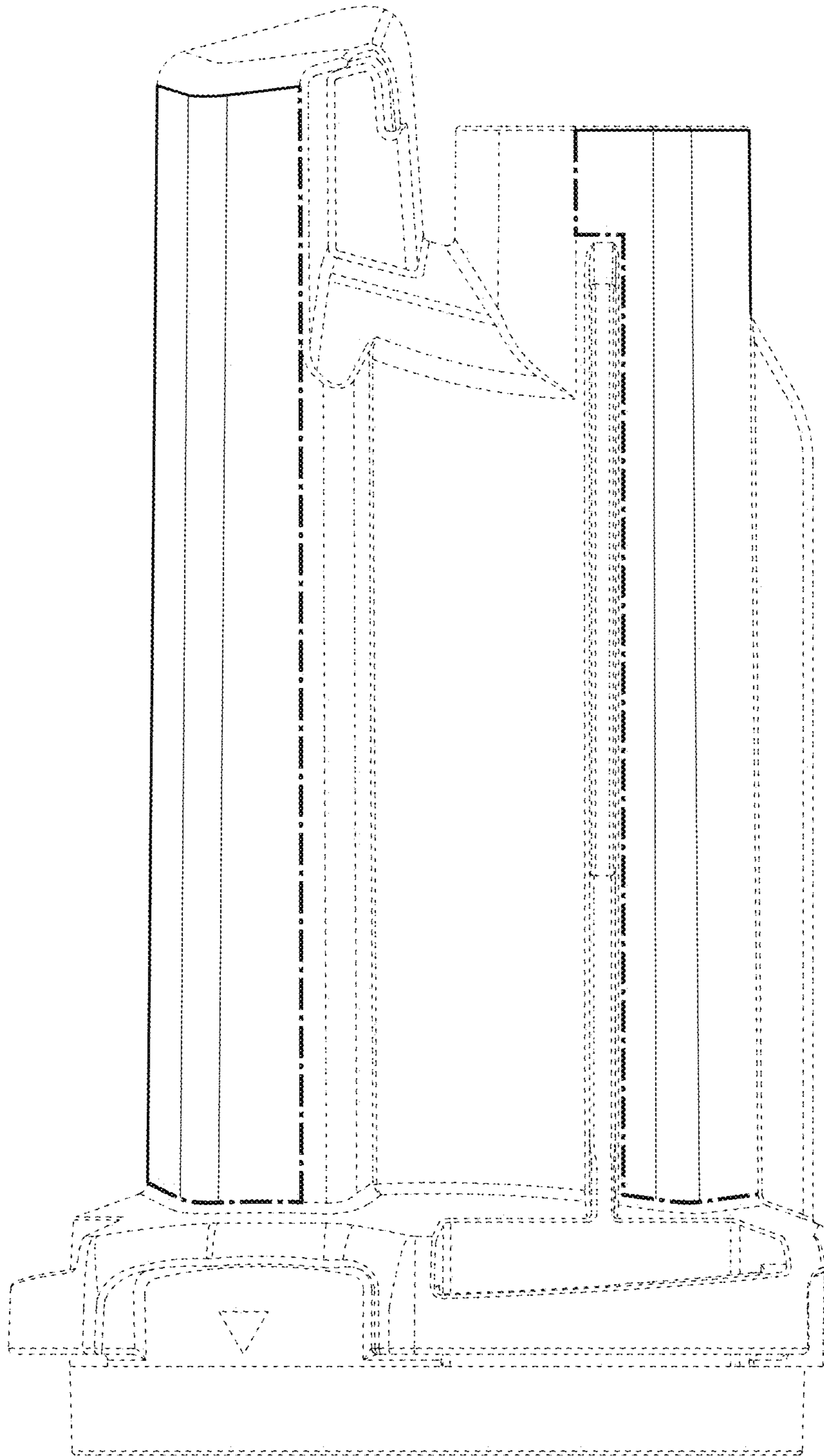


FIG. 7

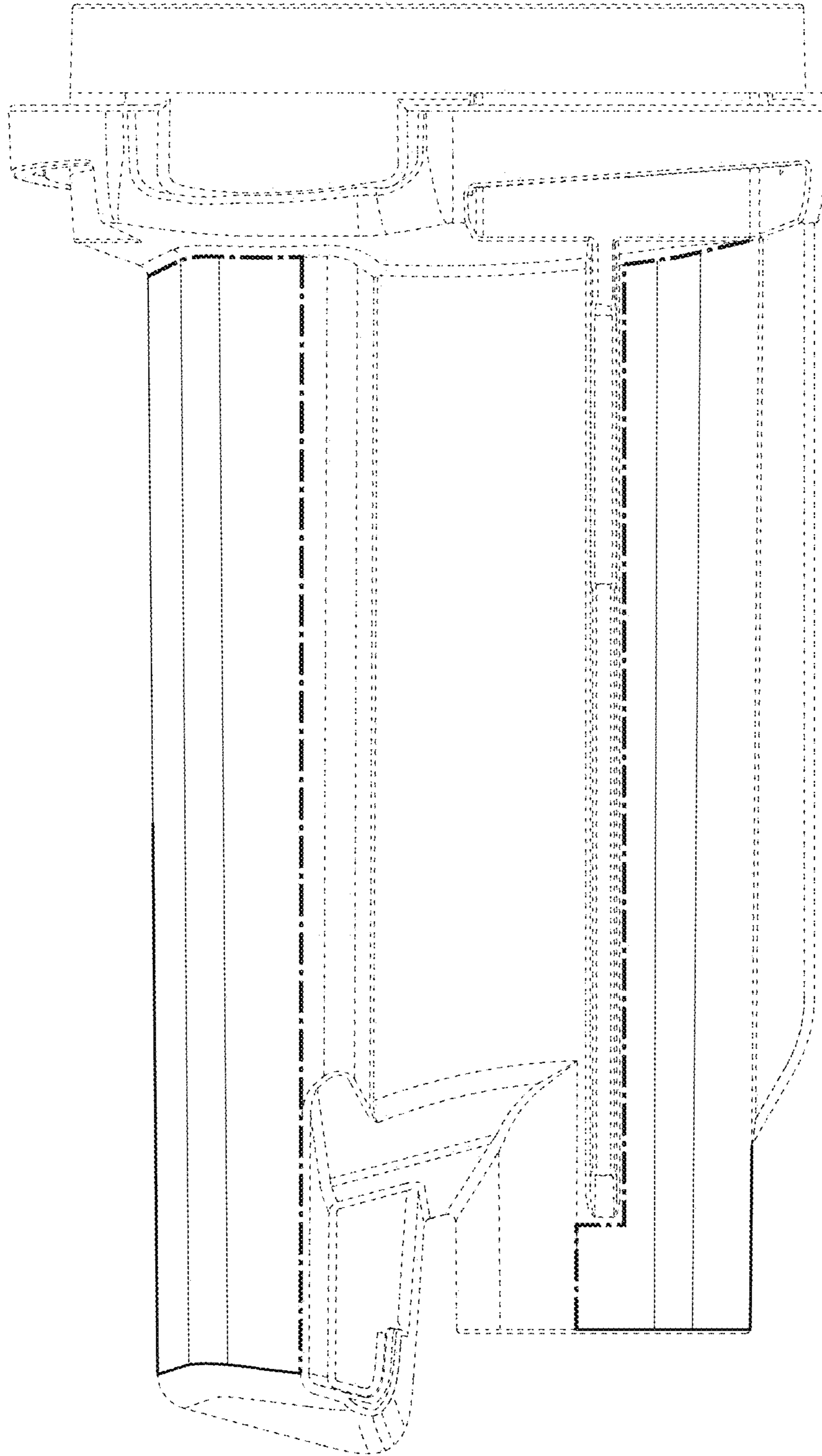
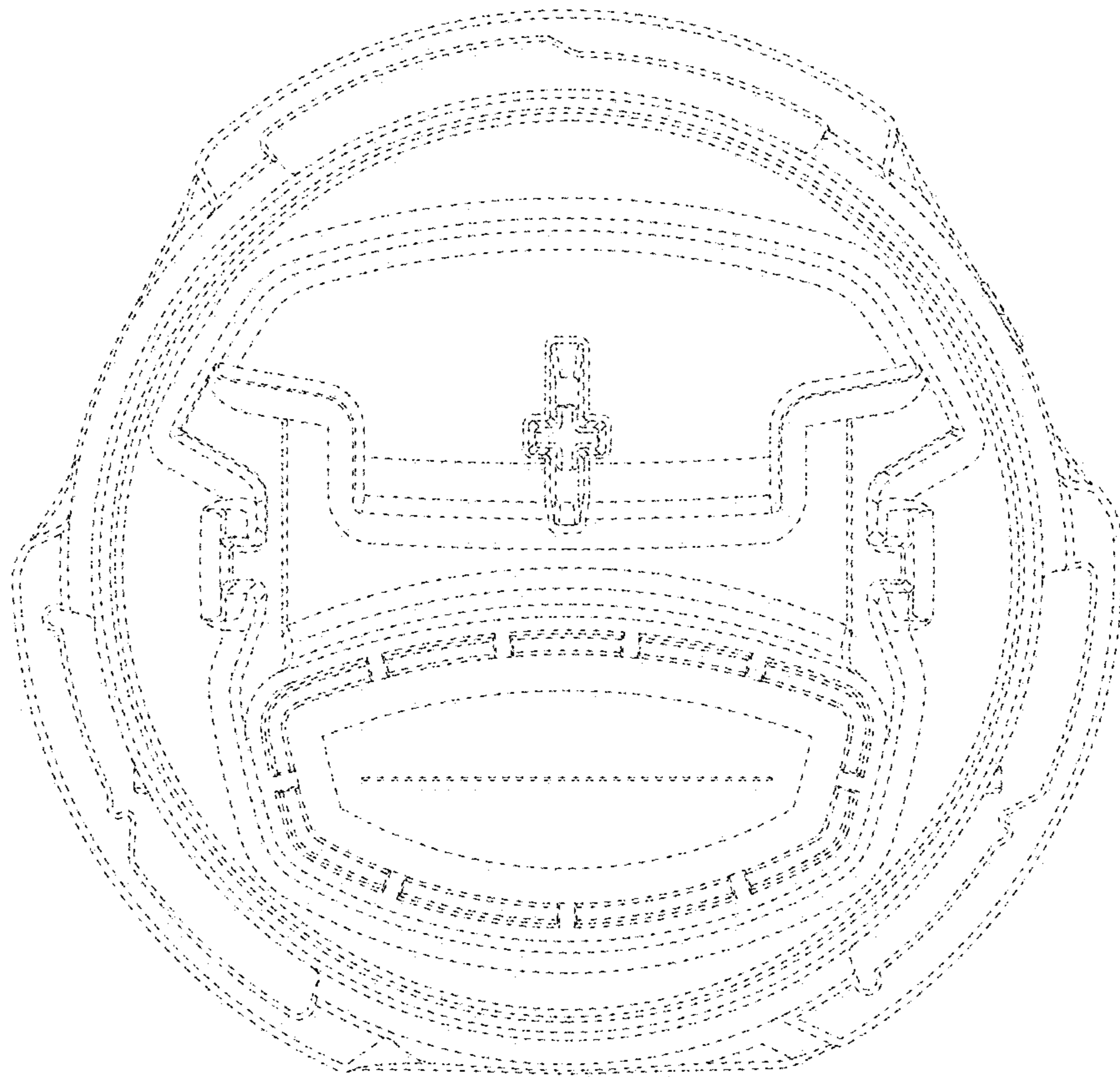
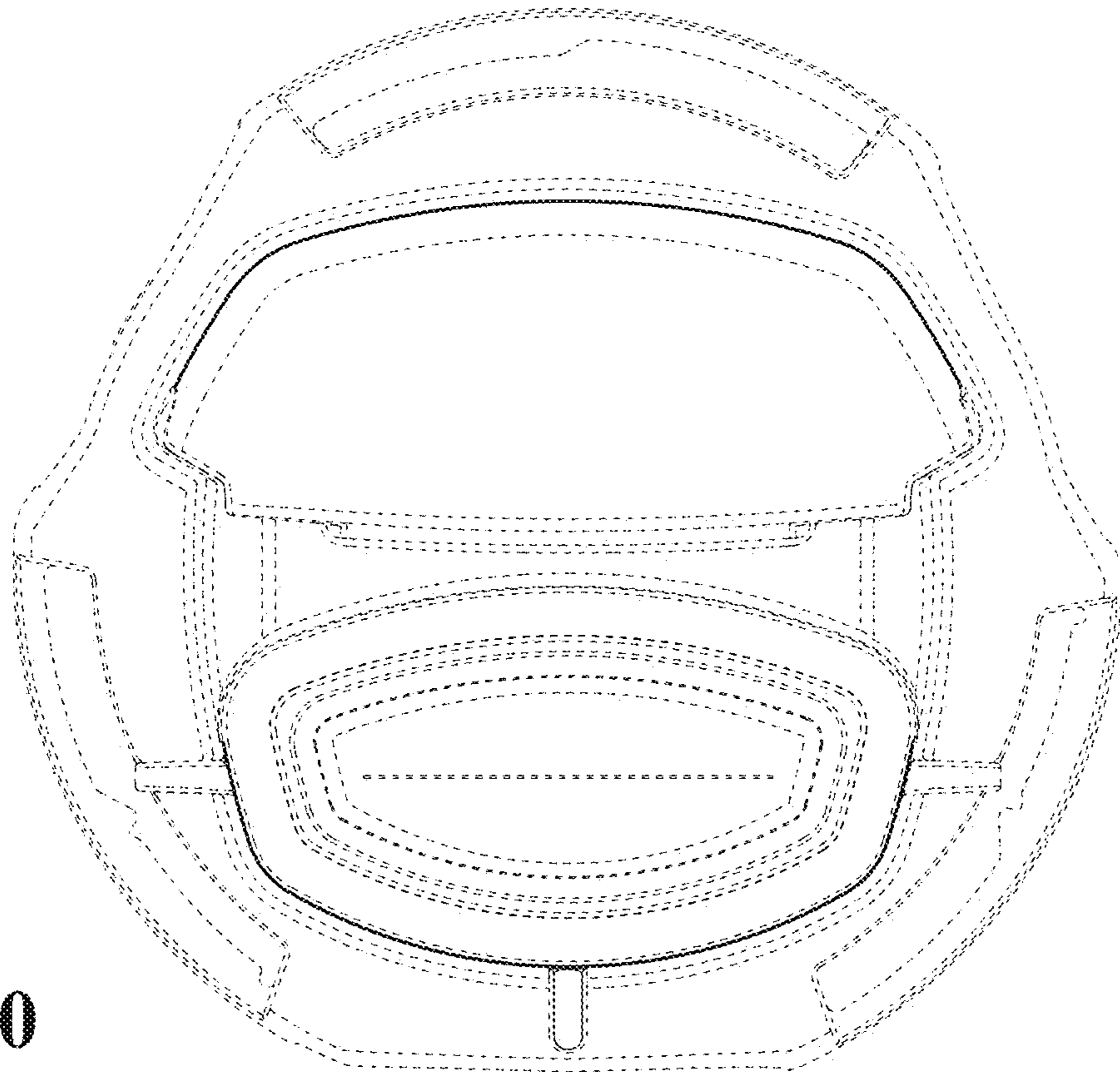


FIG. 8

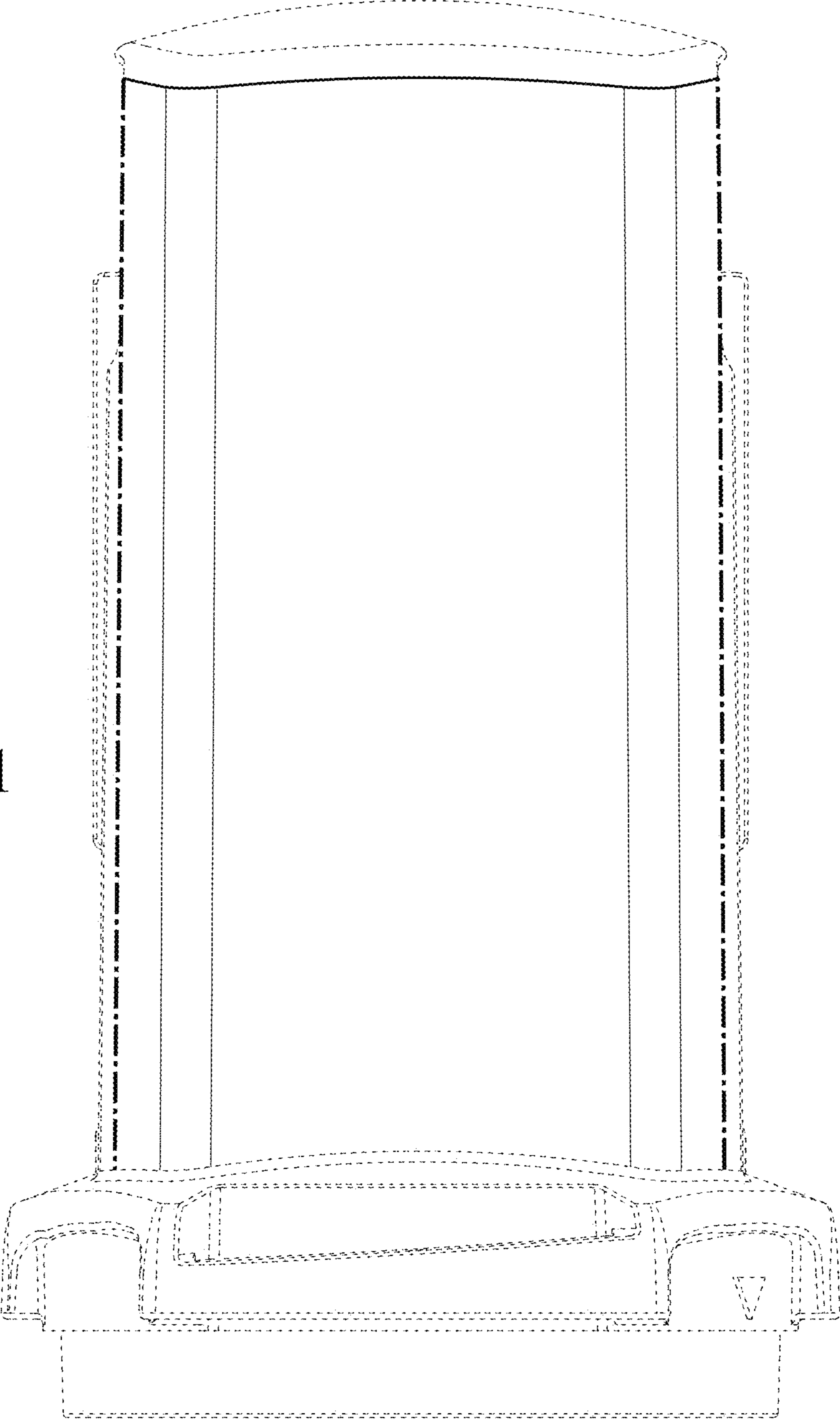


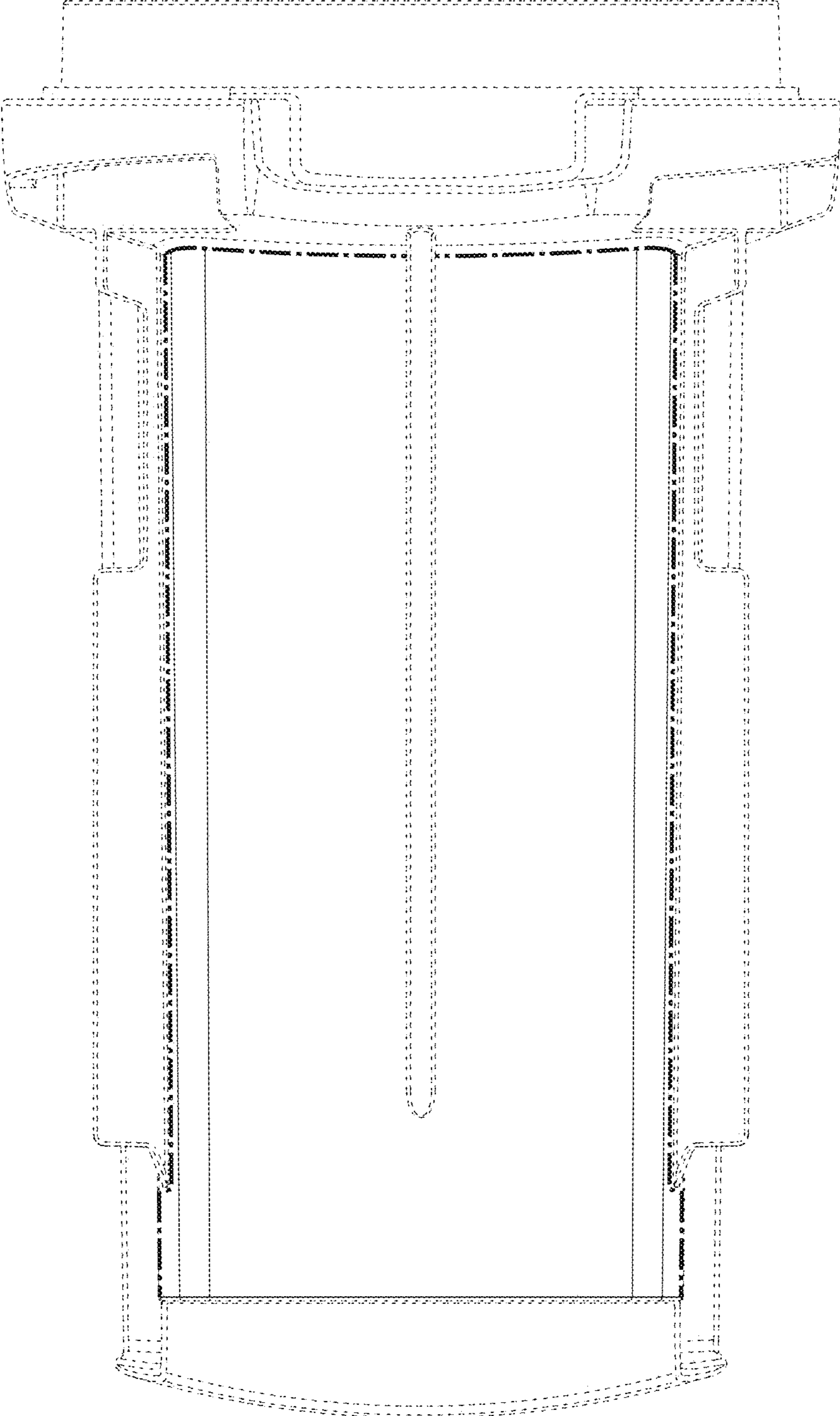
**FIG. 9**



**FIG. 10**

**FIG. 11**





**FIG. 12**