



US00D956967S

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

(10) **Patent No.:** **US D956,967 S**  
(45) **Date of Patent:** **\*\* Jul. 5, 2022**

(54) **MANIFOLD HOUSING FOR A MEDICAL WASTE COLLECTION DEVICE**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Stryker Corporation**, Kalamazoo, MI (US)

CH 391963 A 5/1965  
EP 0184629 A2 6/1986  
(Continued)

(72) Inventor: **Michael Zollinger**, Chelsea, MI (US)

OTHER PUBLICATIONS

(73) Assignee: **Stryker Corporation**, Kalamazoo, MI (US)

English language abstract for JP 2003-534088 extracted from espacenet.com database on Feb. 26, 2018, 2 pages.  
(Continued)

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

(21) Appl. No.: **29/781,723**

*Primary Examiner* — Nathan M Johnston  
(74) *Attorney, Agent, or Firm* — Howard & Howard Attorneys PLLC

(22) Filed: **Apr. 30, 2021**

**Related U.S. Application Data**

(57) **CLAIM**

(63) Continuation of application No. 29/735,366, filed on May 20, 2020, which is a continuation-in-part of  
(Continued)

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

(51) **LOC (13) Cl.** ..... **24-02**

**DESCRIPTION**

(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.

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.

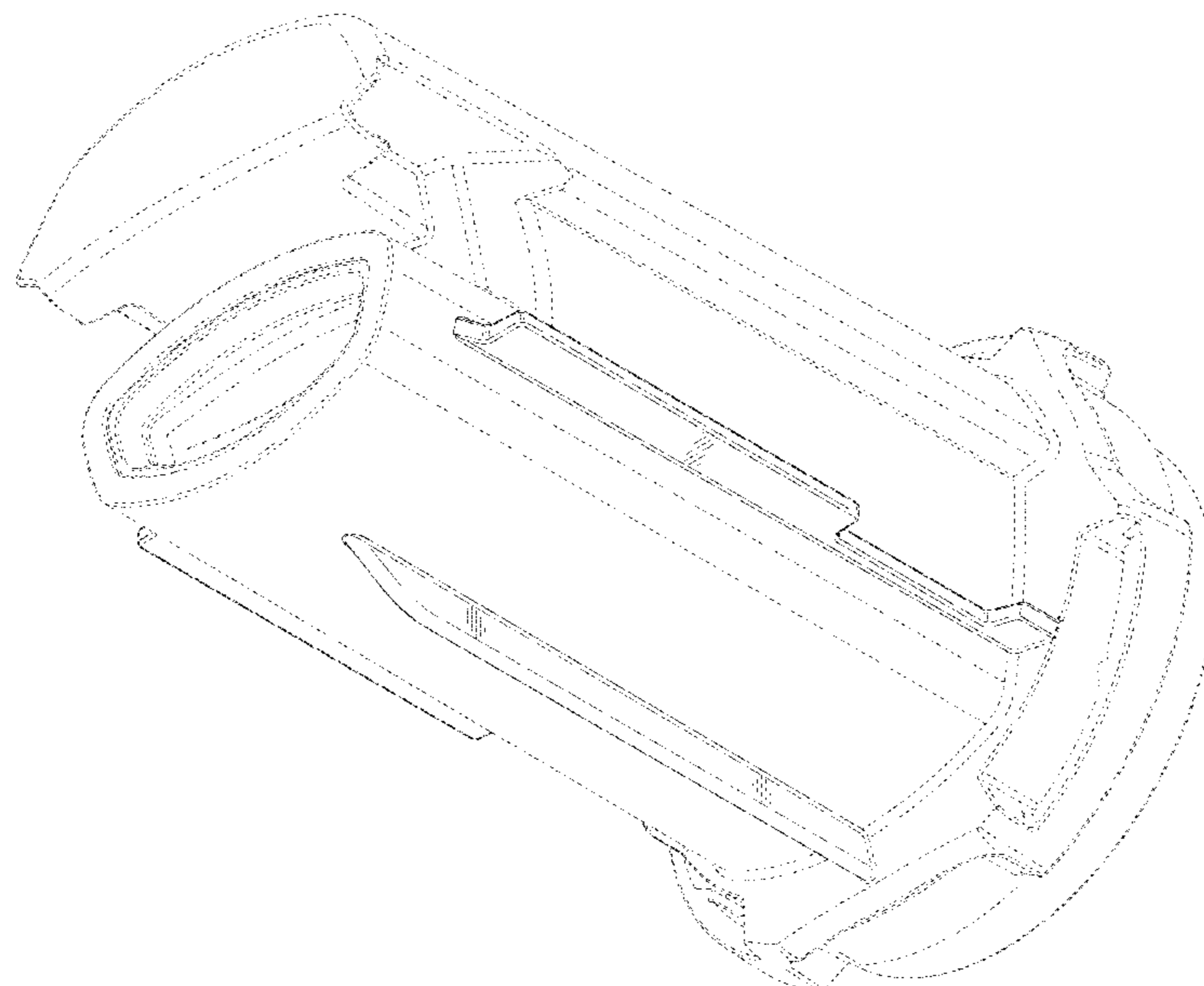
(56) **References Cited**

U.S. PATENT DOCUMENTS

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

The dotted broken lines in the drawings depict portions of a manifold housing for a medical waste collection device that form no part of the claimed design.

**1 Claim, 11 Drawing Sheets**



**Related U.S. Application Data**

application No. 29/712,742, filed on Nov. 11, 2019,  
now Pat. No. Des. 919,799.

(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	Regla
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 ..... D24/112
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.	6,391,102 B1	5/2002	Bodden et al.
4,737,148 A	4/1988	Blake	6,400,141 B1	6/2002	Apel et al.
4,744,785 A	5/1988	Rosenthal et al.	D461,557 S	8/2002	Courteix
4,857,063 A	8/1989	Glenn	6,488,675 B1	12/2002	Radford et al.
4,863,446 A	9/1989	Parker	D469,178 S	1/2003	Courteix
4,870,975 A	10/1989	Cronk et al.	6,506,168 B1	1/2003	Fathallah et al.
4,915,688 A	4/1990	Bischof et al.	6,551,286 B1 *	4/2003	Claessens ..... A61M 5/3202 128/919
4,941,975 A	7/1990	Schewe	6,562,233 B1	5/2003	Schilling et al.
4,990,137 A	2/1991	Graham	6,579,455 B1	6/2003	Muzik et al.
5,074,334 A	12/1991	Onodera	6,673,055 B2	1/2004	Bemis et al.
5,108,381 A	4/1992	Kolozsi	6,695,891 B2	2/2004	Reid
5,112,019 A	5/1992	Metzler et al.	6,749,319 B1	6/2004	Muse
5,115,842 A	5/1992	Crafts et al.	D494,677 S *	8/2004	Garvin ..... D24/130
5,182,542 A	1/1993	Adelman et al.	6,770,061 B2	8/2004	Wildman
5,195,961 A	3/1993	Takahashi et al.	6,788,211 B2	9/2004	Kouznetsov et al.
5,201,417 A	4/1993	Outlaw, III	6,837,267 B2	1/2005	Weis et al.
5,223,151 A	6/1993	Rojas	6,875,193 B1	4/2005	Bonnette et al.
5,242,434 A	9/1993	Terry	6,893,056 B2	5/2005	Guala
5,242,474 A	9/1993	Herbst et al.	6,893,425 B2	5/2005	Dunn et al.
5,256,160 A	10/1993	Clement	6,902,673 B2	6/2005	Smit et al.
5,284,621 A	2/1994	Kaufman	6,918,893 B2	7/2005	Houde et al.
5,308,583 A	5/1994	Sanuki	6,935,459 B2	8/2005	Austin et al.
5,312,377 A	5/1994	Dalton	6,951,228 B2	10/2005	Steigerwalt et al.
5,312,479 A	5/1994	Weinstein et al.	7,090,663 B2	8/2006	Dunn et al.
5,363,860 A	11/1994	Nakao et al.	7,153,294 B1	12/2006	Farrow
5,383,234 A	1/1995	Russell	7,244,236 B2	7/2007	Merkle
5,419,687 A	5/1995	Adahan	7,258,711 B2	8/2007	Dunn et al.
5,458,138 A	10/1995	Gajo	7,294,256 B2	11/2007	Happel et al.
5,464,042 A	11/1995	Haunhorst	D557,814 S	12/2007	Glenn et al.
5,476,447 A	12/1995	Noda et al.	7,347,828 B2	3/2008	Francese et al.
5,575,293 A	11/1996	Miller et al.	D565,732 S	4/2008	Pech et al.
5,601,712 A	2/1997	Adams et al.	7,459,078 B2	12/2008	Klein et al.
5,613,966 A	3/1997	Makower et al.	7,497,340 B2	3/2009	Hershberger et al.
5,624,417 A	4/1997	Cook et al.	7,615,037 B2	11/2009	Murray et al.
5,624,418 A	4/1997	Shepard	7,621,898 B2	11/2009	Lalomia et al.
5,637,103 A	6/1997	Kerwin et al.	D612,493 S	3/2010	Claessens et al.
5,681,742 A	10/1997	MersKelly et al.	7,758,556 B2	7/2010	Perez-Cruet et al.
5,725,516 A	3/1998	Cook et al.	7,981,049 B2	7/2011	Ritchie et al.
5,736,098 A	4/1998	Kerwin et al.	8,088,079 B2	1/2012	Kaye et al.
5,792,126 A	8/1998	Tribastone et al.	8,088,291 B2	1/2012	Hershberger et al.
5,807,359 A	9/1998	Bemis et al.	D655,407 S	3/2012	Adams
5,817,068 A	10/1998	Urrutia	8,137,329 B2	3/2012	Romano et al.
5,830,199 A	11/1998	Chaffringeon	8,216,199 B2	7/2012	Murray et al.
5,863,443 A	1/1999	Mainwaring	8,349,181 B2	1/2013	Nonnenmacher
5,871,476 A	2/1999	Hand	8,382,660 B2	2/2013	Okada
5,885,240 A	3/1999	Bradbury et al.	8,465,439 B2	6/2013	Parks
5,901,717 A	5/1999	Dunn et al.	8,485,987 B2	7/2013	Videbaek et al.
5,911,786 A	6/1999	Nielsen et al.	D687,563 S *	8/2013	Tamura ..... D24/222
5,914,047 A	6/1999	Griffiths	8,509,736 B2	8/2013	Hodge
5,922,196 A	7/1999	Baumann	8,518,002 B2	8/2013	Murray et al.
5,928,935 A	7/1999	Reuss, Jr. et al.	8,696,674 B2	4/2014	Howard et al.
			RE44,920 E	6/2014	Dunn et al.
			8,740,866 B2	6/2014	Reasoner et al.
			8,801,682 B2	8/2014	Kensy
			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.

(56)

References Cited

U.S. PATENT DOCUMENTS

9,143,610 B2 9/2015 Hodge  
 D751,192 S \* 3/2016 She ..... D24/127  
 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 Zumbum ..... D24/129  
 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.  
 D834,532 S \* 11/2018 Maroney ..... D13/133  
 D846,737 S 4/2019 Karasawa  
 D852,356 S \* 6/2019 Steele ..... D24/129  
 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 ..... D24/129  
 D902,386 S \* 11/2020 Guala ..... D24/112  
 D905,867 S 12/2020 Robinson et al.  
 D911,518 S \* 2/2021 Shi ..... D24/130  
 D913,522 S 3/2021 Robinson et al.  
 D919,799 S 5/2021 Zollinger et al.  
 D925,734 S \* 7/2021 Park ..... D24/129  
 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 ..... A61M 5/3216  
 604/263  
 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.  
 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.

FOREIGN PATENT DOCUMENTS

EP 0691279 A2 1/1996  
 EP 0882440 A2 12/1998  
 EP 1166805 A2 1/2002  
 EP 1099854 B1 5/2002  
 EP 1380316 A1 1/2004  
 EP 2100550 A1 9/2009  
 EP 2359878 A2 8/2011  
 EP 2359879 A2 8/2011  
 EP 2364736 A2 9/2011  
 EP 2384776 A1 11/2011  
 EP 2384777 A1 11/2011  
 EP 2388024 A1 11/2011  
 EP 2388025 A1 11/2011  
 FR 2744359 A1 8/1997  
 GB 2058227 A 4/1981  
 JP S5539296 A 3/1980  
 JP H02145393 U 12/1990  
 JP H06178780 A 6/1994  
 JP H08500763 A 1/1996  
 JP H10501145 A 2/1998  
 JP H10503391 A 3/1998  
 JP H11000392 A 1/1999  
 JP 2001017489 A 1/2001  
 JP 2003325658 A 11/2003  
 JP 2003534088 A 11/2003  
 JP 2007209764 A 8/2007  
 JP 2009519776 A 5/2009  
 WO 9308897 A1 5/1993  
 WO 9626750 A1 9/1996  
 WO 9900154 A1 1/1999  
 WO 03075821 A2 9/2003  
 WO 2004075740 A1 9/2004  
 WO 2005042061 A1 5/2005  
 WO 2005079947 A2 9/2005  
 WO 2007070570 A2 6/2007  
 WO 2007079319 A2 7/2007  
 WO 2007103842 A2 9/2007  
 WO 2013090579 A1 6/2013  
 WO 2014066337 A2 5/2014  
 WO 2017112684 A1 6/2017  
 WO 2017127541 A1 7/2017  
 WO 2018088892 A1 5/2018  
 WO 2018170233 A1 9/2018  
 WO 2018175389 A1 9/2018  
 WO 2019222655 A2 11/2019

OTHER PUBLICATIONS

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.

(56)

**References Cited**

## OTHER PUBLICATIONS

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.

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.

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 Invalidity 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.

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.

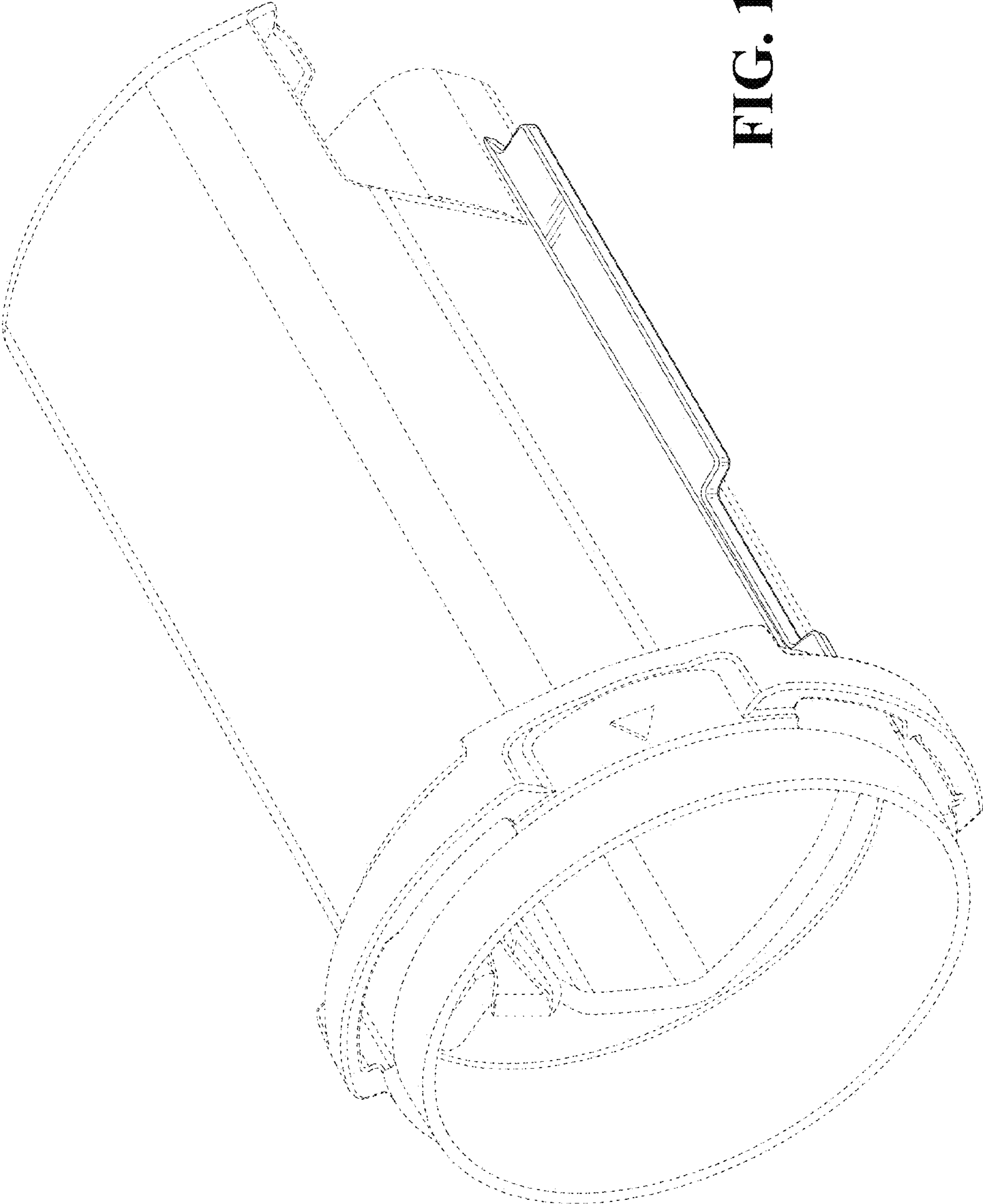
Vernay Laboratories, "Valve Specification Sheets", Nov. 2005, 6 pages.

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

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

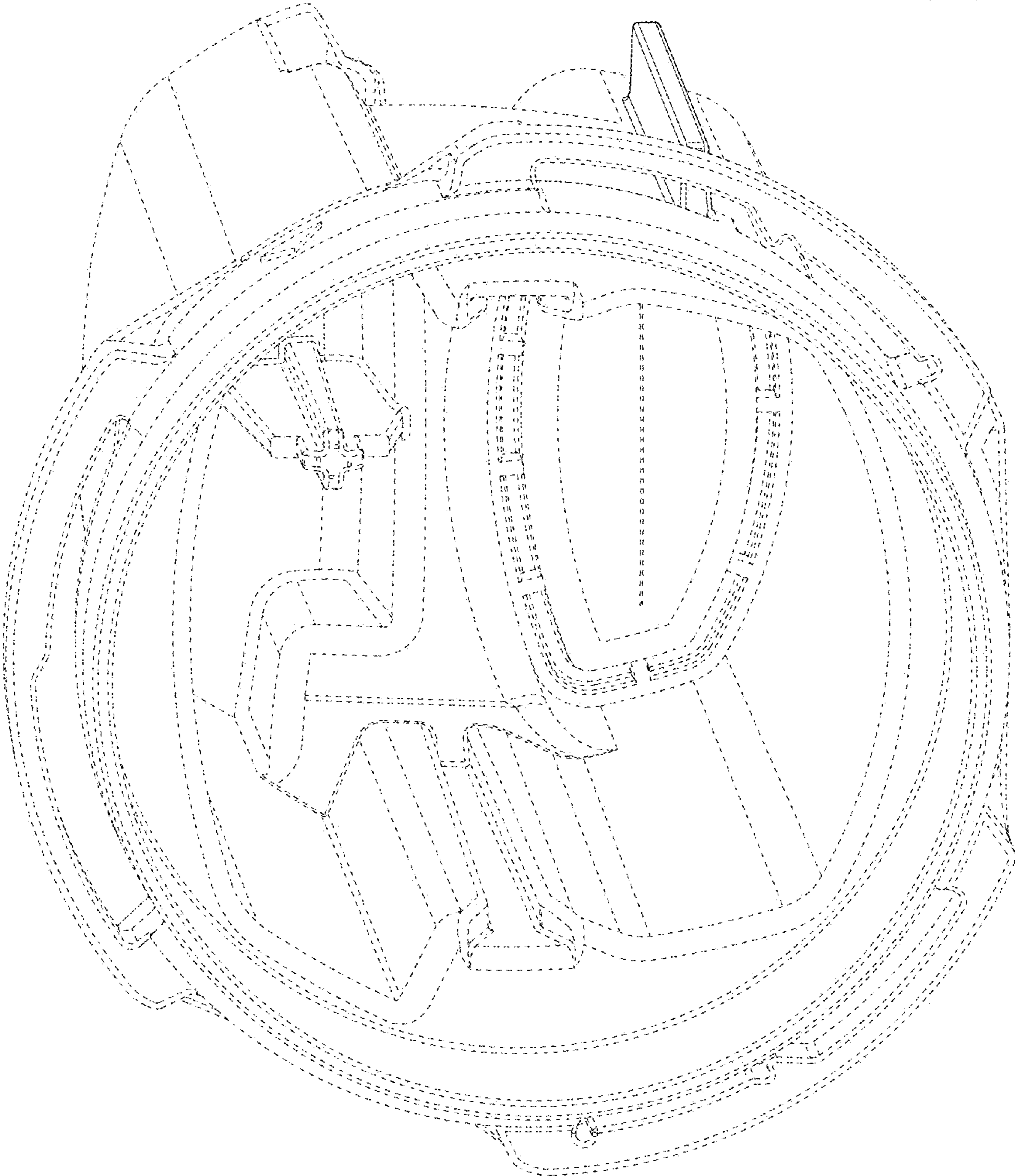
LMS, "V33 SureFlo Valve", 2005, 1 page.

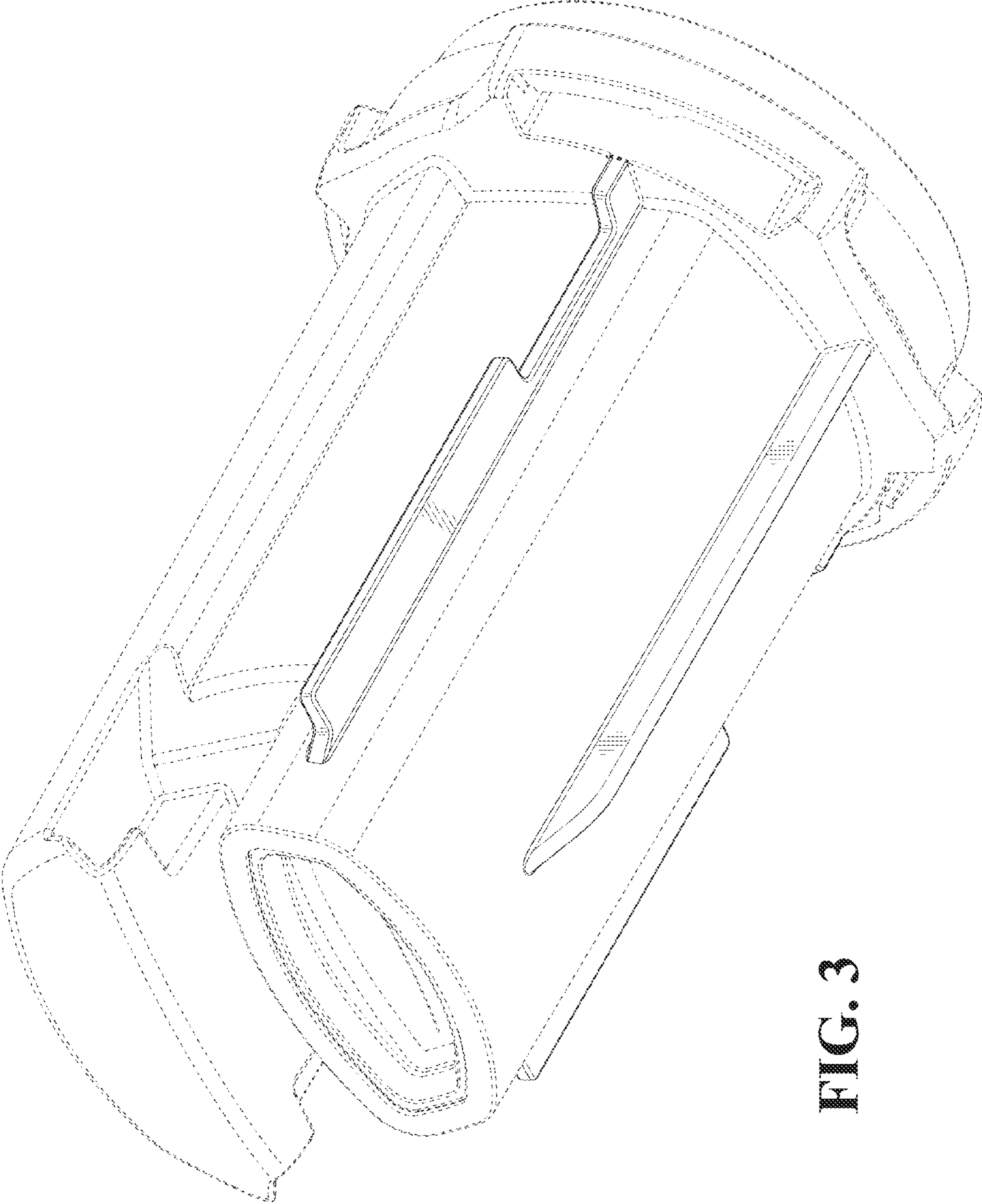
\* cited by examiner



**FIG. 1**

**FIG. 2**





**FIG. 3**

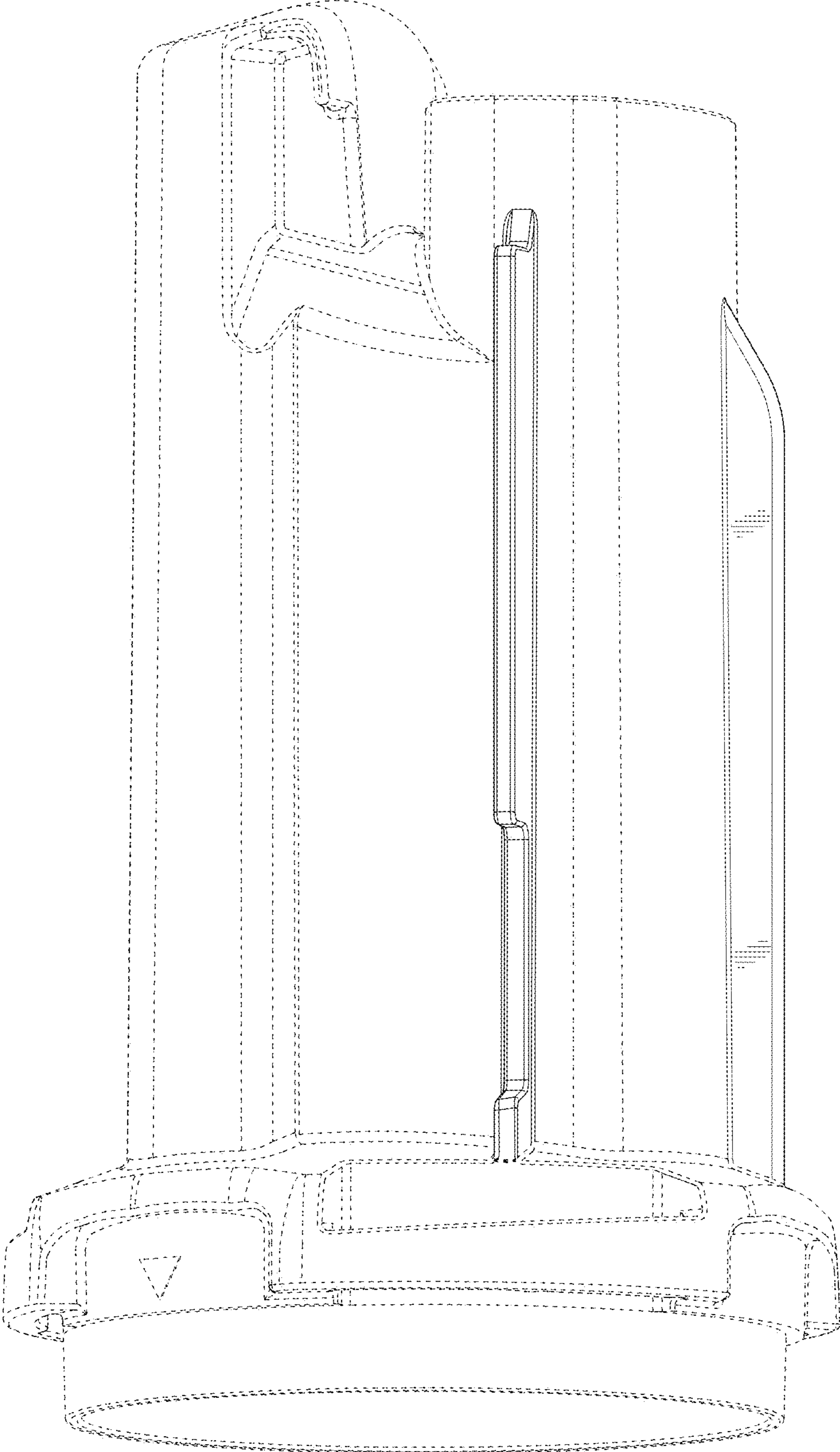
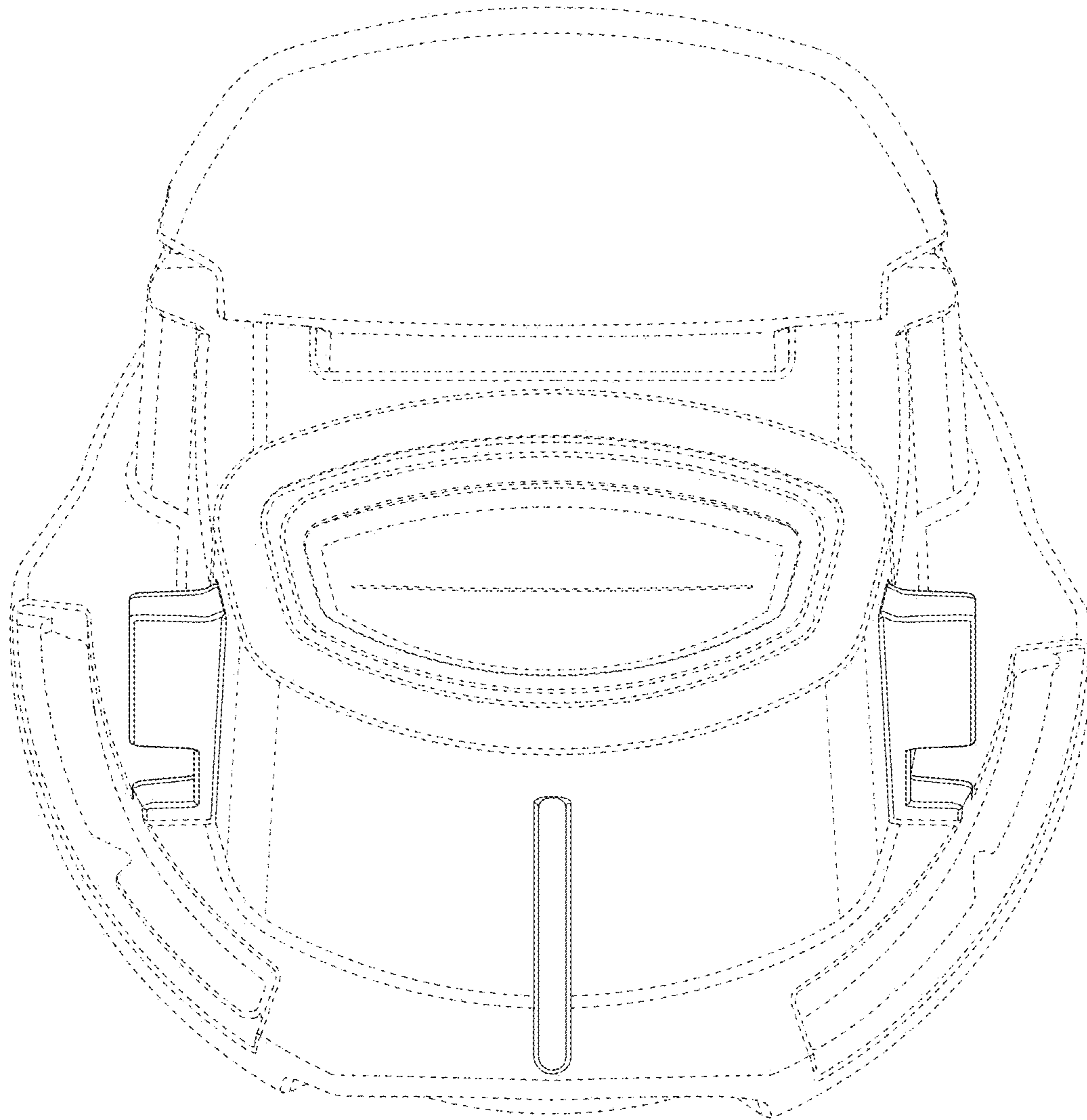
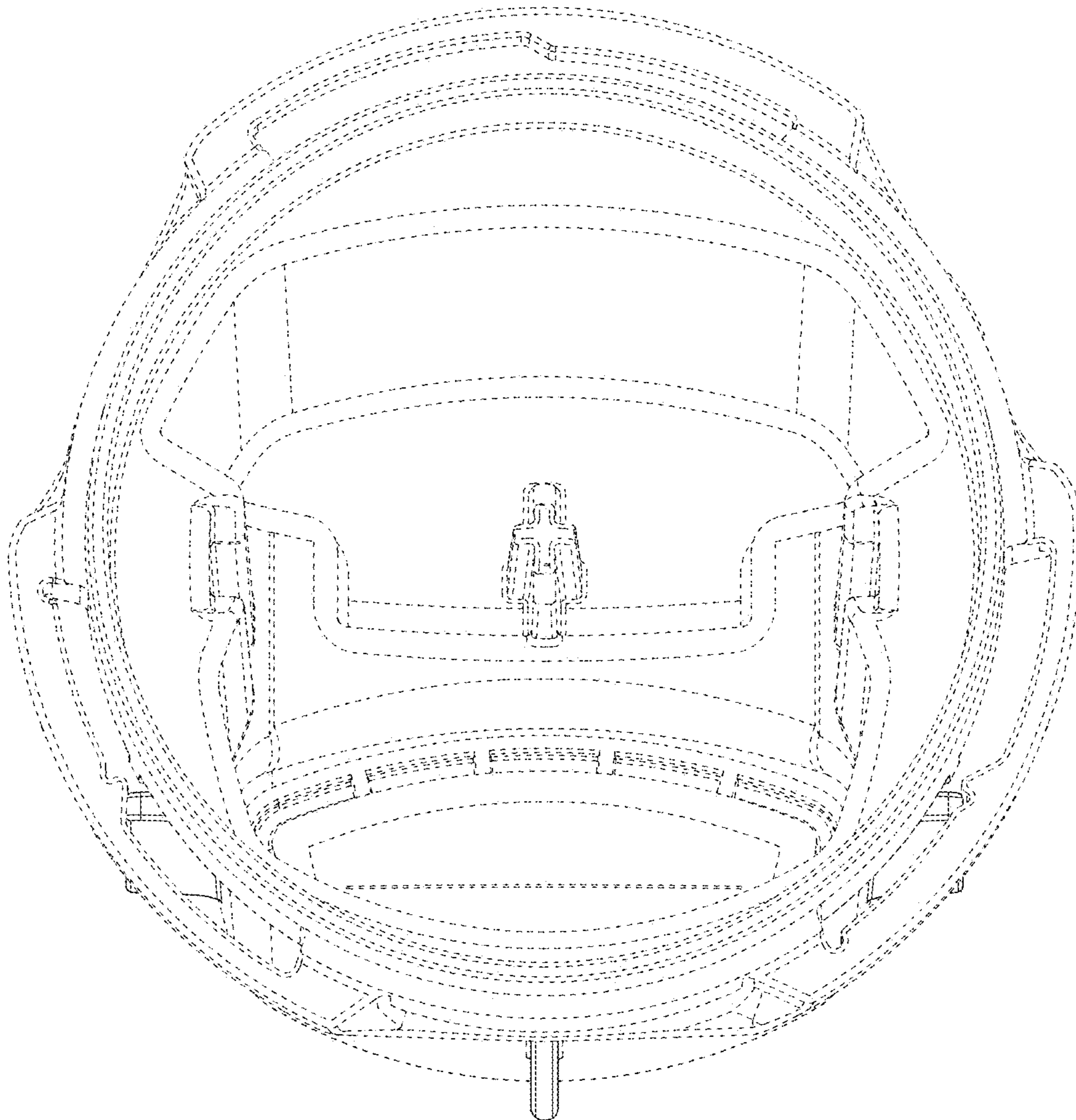


FIG. 4

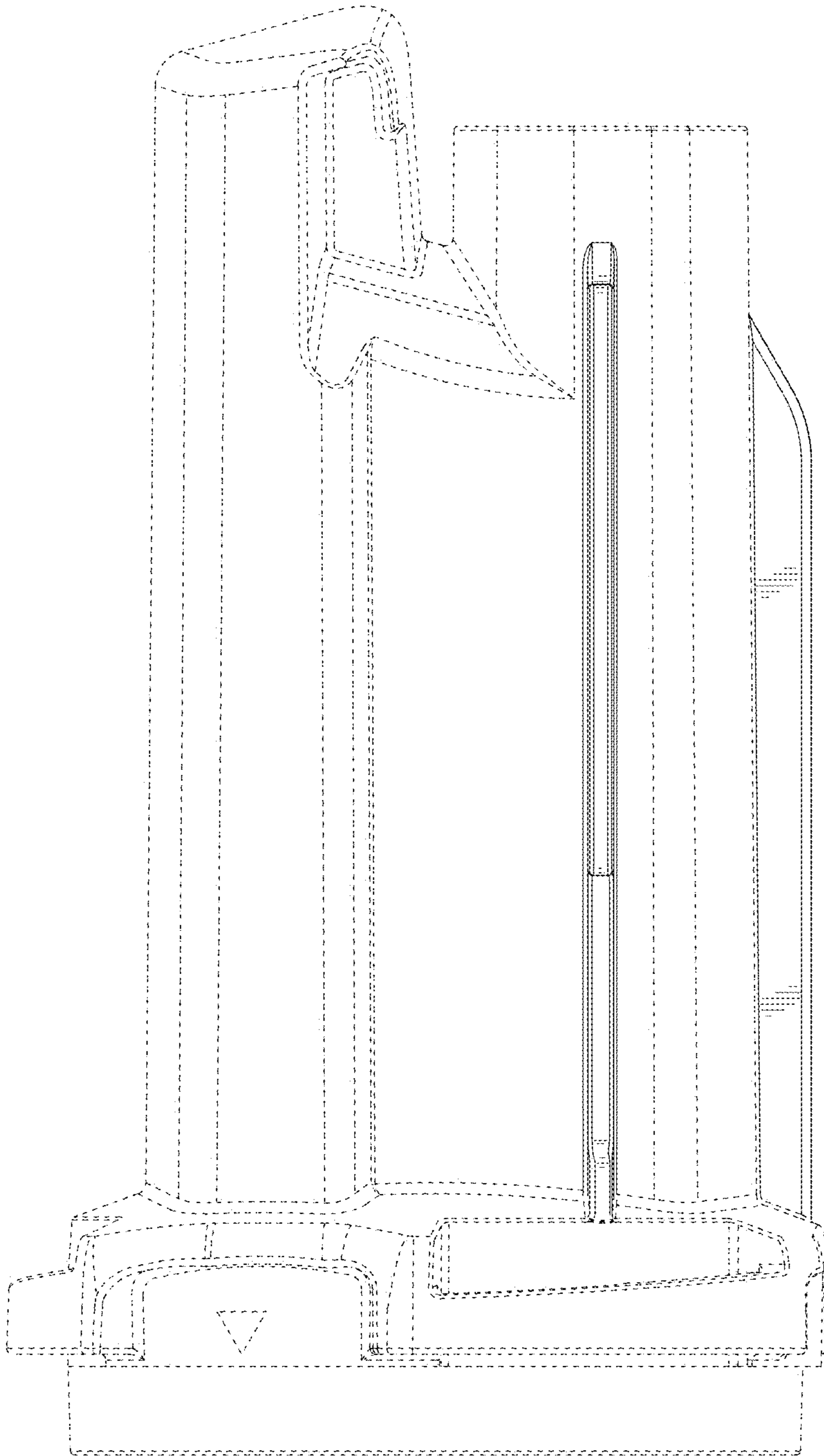




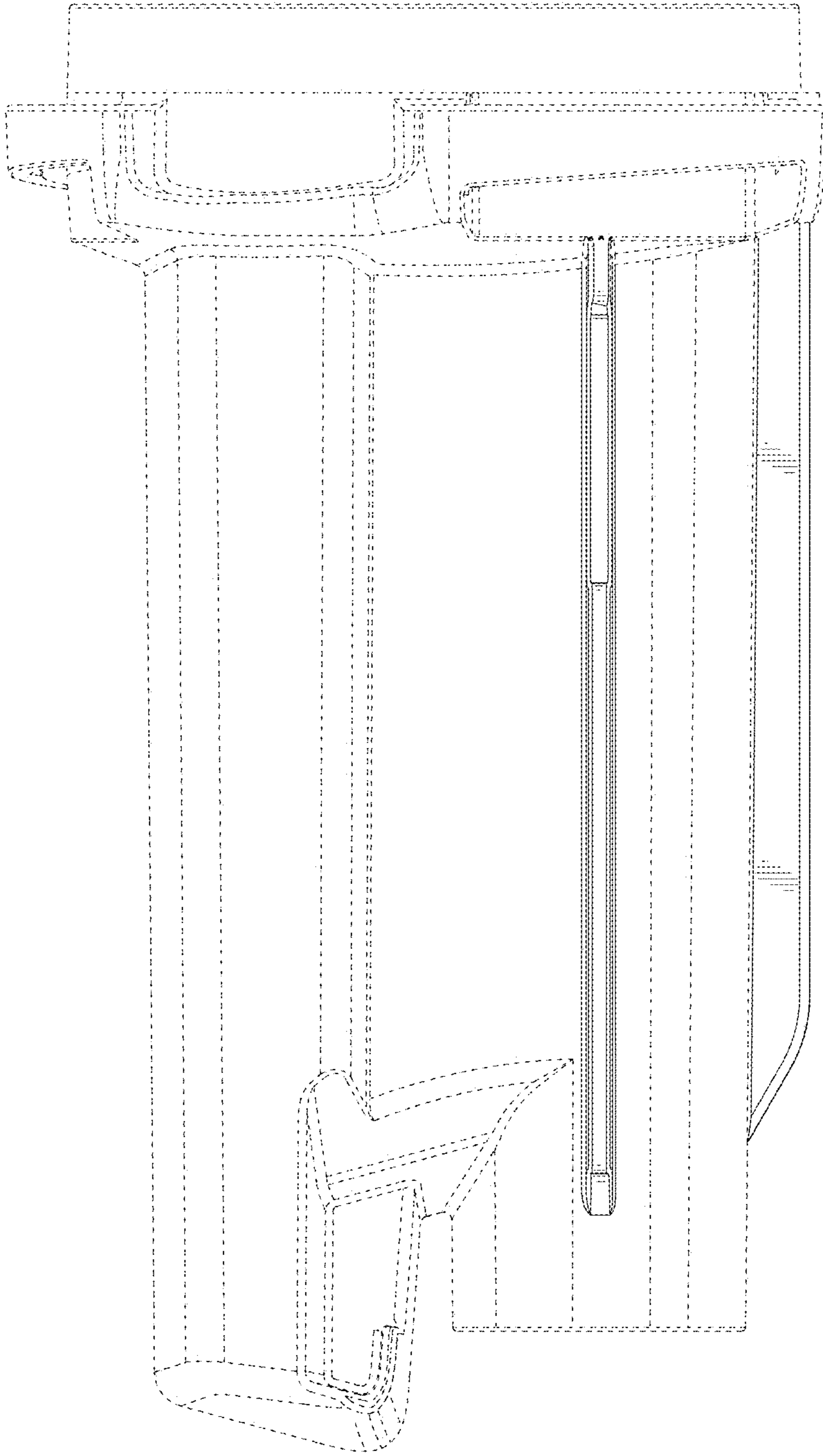
**FIG. 5**



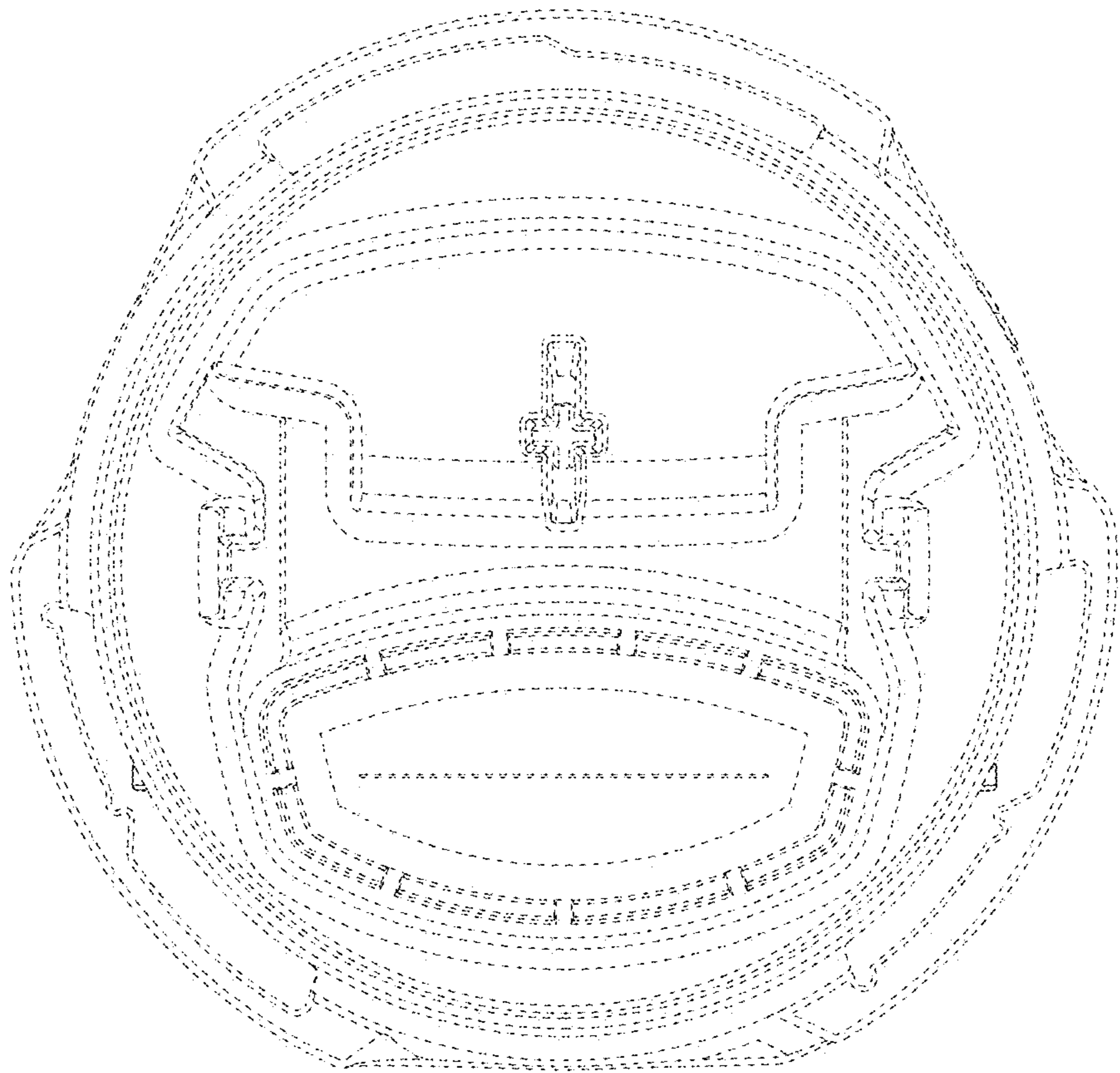
**FIG. 6**



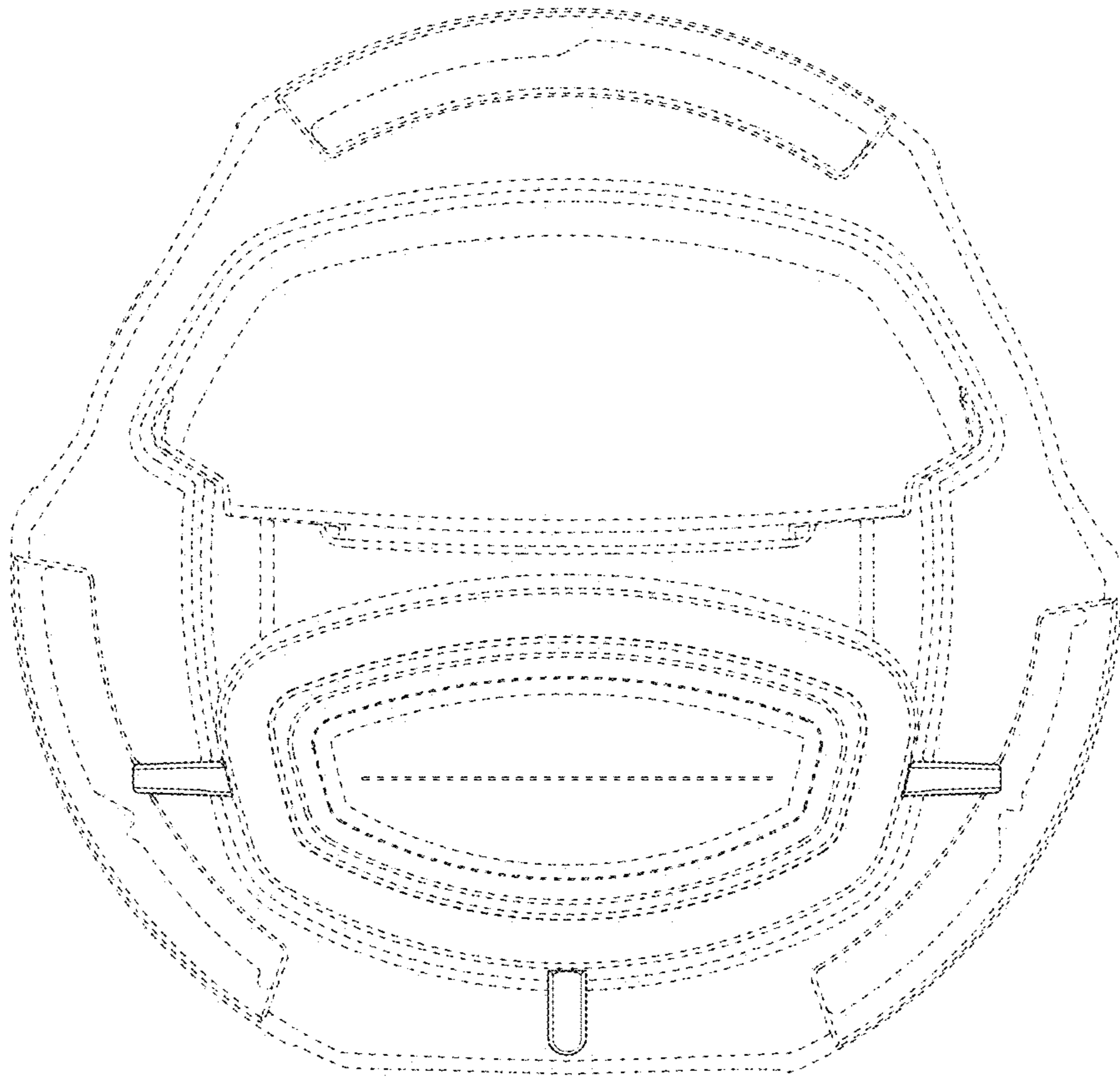
**FIG. 7**



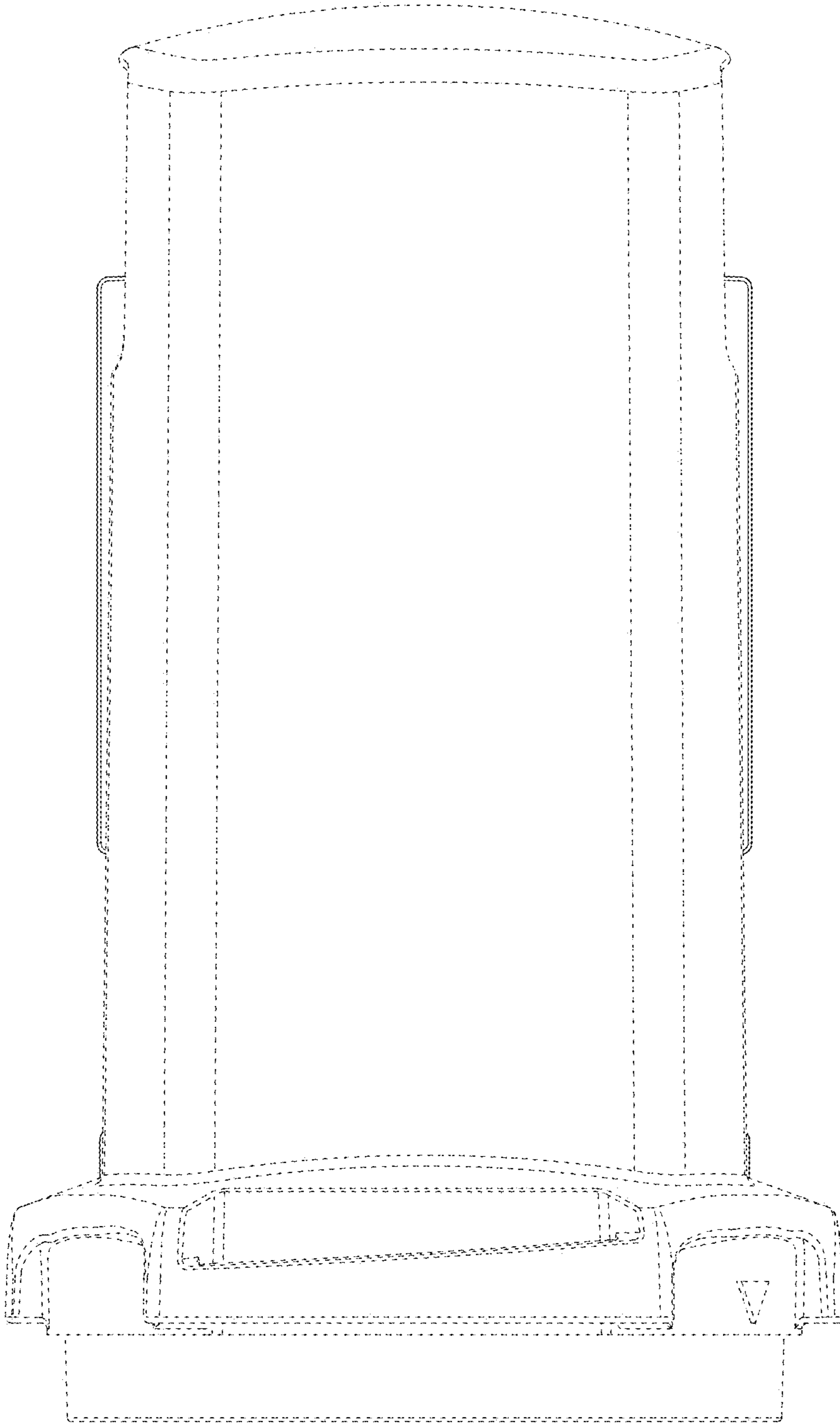
**FIG. 8**



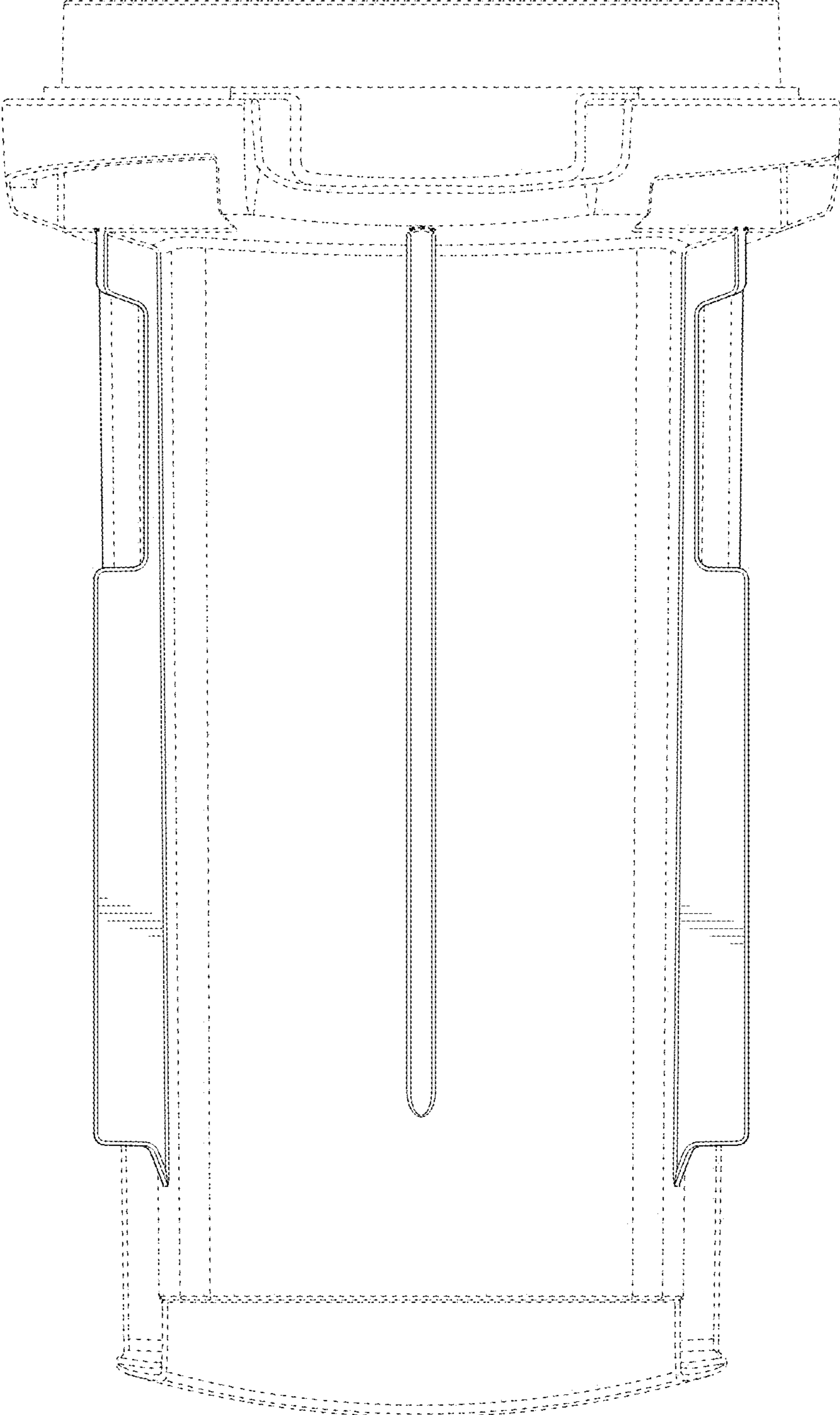
**FIG. 9**



**FIG. 10**



**FIG. 11**



**FIG. 12**