



US00D881410S

(12) **United States Design Patent**
Motadel et al.

(10) **Patent No.:** **US D881,410 S**
(45) **Date of Patent:** **** *Apr. 14, 2020**

(54) **FLUID HANDLING TUBE**

(71) Applicant: **BIOTIX, INC.**, San Diego, CA (US)

(72) Inventors: **Arta Motadel**, San Diego, CA (US);
Peter Paul Blaszcak, San Diego, CA (US);
Juan Martin Mendez Padilla, Tijuana (MX)

(73) Assignee: **BIOTIX, INC.**, San Diego, CA (US)

(*) Notice: This patent is subject to a terminal disclaimer.

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

(21) Appl. No.: **29/634,345**

(22) Filed: **Jan. 19, 2018**

(51) **LOC (12) Cl.** **24-02**

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

(58) **Field of Classification Search**
USPC D24/107, 121–123, 216–232; D3/230.1;
D10/81; D9/420, 503, 516, 519–521,
D9/542, 558

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D198,734 S * 7/1964 McWayne D24/112
D286,570 S * 11/1986 Williams D24/112

(Continued)

FOREIGN PATENT DOCUMENTS

CN 201530203369 6/2015
CN 201630360111 * 8/2016

(Continued)

OTHER PUBLICATIONS

Biotix—63300040—MCT Tube Sterile Low Retention 2ML PK500 (Case of 500). Online, published date unknown. Retrieved on Mar.

6, 2019 from URL: https://www.neobits.com/biotix_63300040_mct_tube_sterile_low_retention_2ml_p14179891.html?atc=gbp&gclid=EAlalQobChMItZGVtPvu4AIVIODICh1rqw9nEAYYBCABEgLFV_D_BwE.*

(Continued)

Primary Examiner — Susan Bennett Hattan
Assistant Examiner — Omeed Agilee

(74) *Attorney, Agent, or Firm* — Grant IP, Inc.

(57) **CLAIM**

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

DESCRIPTION

FIG. 1 shows a top perspective view of a fluid handling tube in which the cap is not engaged with the tube body.

FIG. 2 shows an enlarged view of the cap region encircled by the broken line circle shown in FIG. 1.

FIG. 3 shows a bottom perspective view of the fluid handling tube shown in FIG. 1.

FIG. 4 shows a top view thereof.

FIG. 5 shows a side view thereof.

FIG. 6 shows a bottom view thereof.

FIG. 7 shows a back view thereof.

FIG. 8 shows a front view thereof.

FIG. 9 shows a top perspective view of a fluid handling tube in which the cap is engaged with the tube body.

FIG. 10 shows an enlarged view of the region encircled by the broken line circle shown in FIG. 9.

FIG. 11 shows a bottom perspective view of the fluid handling tube shown in FIG. 9.

FIG. 12 shows an enlarged view of the region encircled by the broken line circle shown in FIG. 11.

FIG. 13 shows a top view thereof.

FIG. 14 shows a side view thereof.

FIG. 15 shows a bottom view thereof.

FIG. 16 shows a back view thereof.

FIG. 17 shows a front view thereof.

FIG. 18 shows another top perspective view of the fluid handling tube shown in FIG. 9; and,

(Continued)

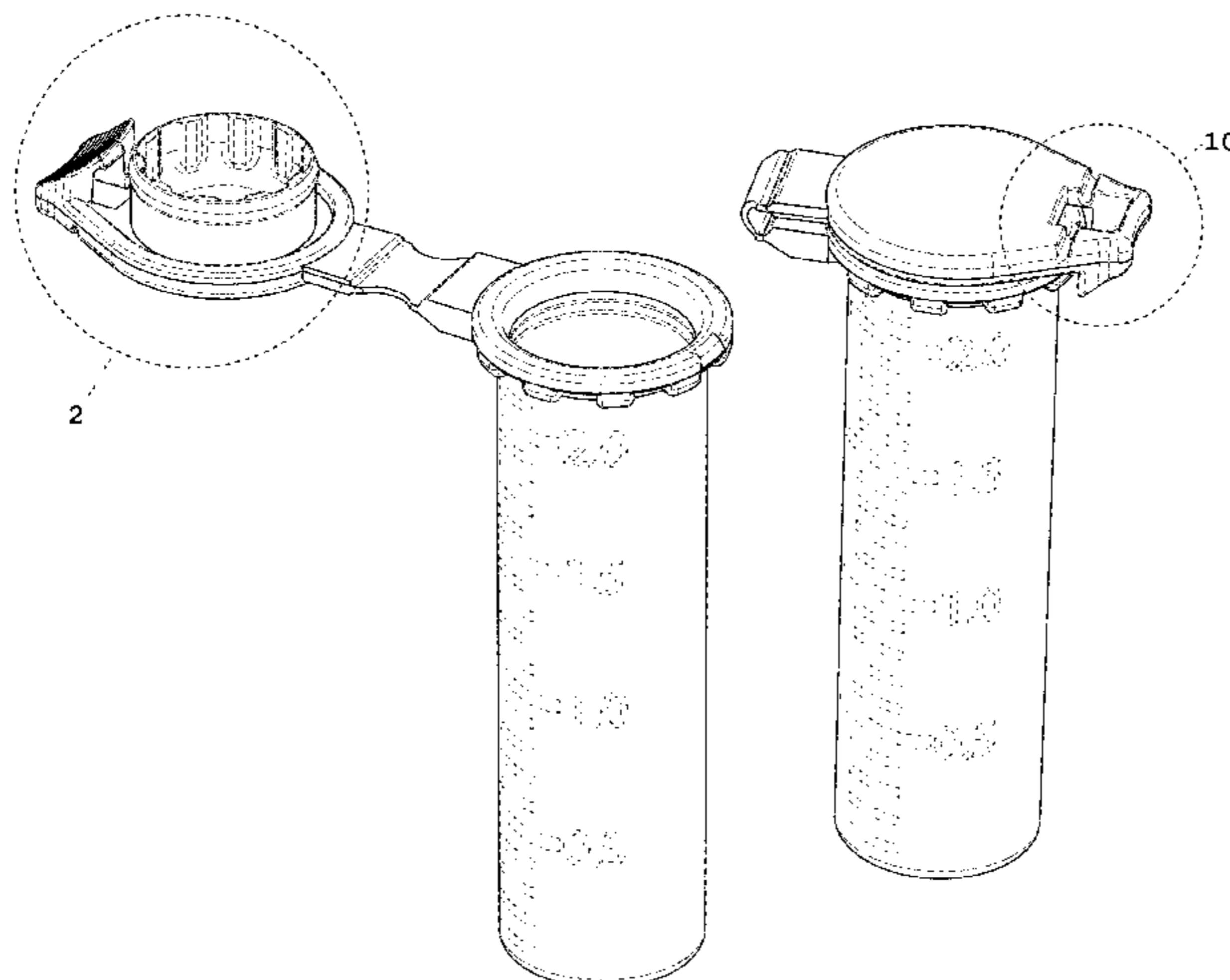


FIG. 19 shows an enlarged view of the region encircled by the broken line circle shown in FIG. 18.

The circular boundaries shown with broken lines in FIGS. 1, 2, 9-12, 18, and 19 depict boundaries of the enlarged views and form no part of the claimed design. All the other broken lines in the drawings depict portions of the fluid handling tube that form no part of the claimed design.

JP	D1466332	4/2013
JP	D1466471	4/2013
JP	D1489333	2/2014
JP	D1489973	2/2014
JP	D1491049	2/2014
JP	2014-507256	3/2014
WO	WO 2010/008737	1/2010
WO	WO 2010/054337	5/2010
WO	WO 2015/035949	3/2015

1 Claim, 15 Drawing Sheets

(58) **Field of Classification Search**
CPC B01L 3/00; B01L 3/5021; B01L 3/50825
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,713,219	A	12/1987	Gerken et al.	
4,874,102	A *	10/1989	Jessop	B01L 3/5021 215/273
4,953,741	A *	9/1990	Jessop	B01L 3/5021 220/273
D335,184	S *	4/1993	Mastropierro	D24/194
5,225,165	A *	7/1993	Perlman	B01L 3/5021 206/815
5,254,314	A *	10/1993	Yu	B01L 3/5457 215/237
5,354,539	A	10/1994	Hovatter	
D395,239	S *	6/1998	Davis	D9/521
6,007,778	A	12/1999	Cholewa	
D425,625	S *	5/2000	Niermann	D24/122
6,669,910	B1	12/2003	Bienhaus et al.	
D548,329	S *	8/2007	Cimino	D24/108
D576,286	S *	9/2008	Yoon	D24/224
D668,778	S *	10/2012	Motadel	D24/224
D687,567	S *	8/2013	Jungheim	D24/224
8,540,948	B2	9/2013	Loehn	
D723,181	S *	2/2015	Kawamura	D24/224
D732,684	S *	6/2015	Ooi	D24/224
D749,420	S *	2/2016	Kahlau	D9/420
2003/0102323	A1	6/2003	Lohn	
2012/0164038	A1	6/2012	Loehn et al.	
2014/0260118	A1 *	9/2014	Knight	B01L 3/50825 53/492
2015/0031040	A1 *	1/2015	Calanca	B01L 3/5021 435/6.12
2018/0333715	A1	11/2018	Motadel et al.	
2018/0333716	A1	11/2018	Motadel et al.	
2018/0333717	A1	11/2018	Motadel et al.	

FOREIGN PATENT DOCUMENTS

CN	201730036785	2/2017
CN	201830250559	5/2018
DE	813301	9/1951
DE	1011307	6/1957
EP	2 468 404	6/2012
GB	539 891	9/1941
JP	37-68	1/1937
JP	12-16787	3/1937
JP	60-183362	9/1985
JP	63-79349	5/1988
JP	2001-513586	9/2001
JP	3163511 (U)	10/2010
JP	2012-140184	7/2012
JP	D1458208	12/2012

OTHER PUBLICATIONS

Office Action dated Oct. 22, 2018 in U.S. Appl. No. 16/023,794, filed Jun. 29, 2018 and published as US 2018/0333717 on Nov. 22, 2018.

Office Action dated Oct. 25, 2018 in U.S. Appl. No. 16/023,779, filed Jun. 29, 2018 and published as US 2018/0333716 on Nov. 22, 2018.

Eppendorf North America, Eppendorf Flex-Tubes, product available at https://online-shop.eppendorf.us/US-en/Laboratory-Consumables-44512/Tubes-44515/Flex-Tubes-PF-9186.html?_ga=1.107716362.929334266.1465916839&gclid=EalalQobChMI3lb1stXL2QIVEJpCh35JwPZEAQYASABEgJAzvD_BwE, page visited Mar. 5, 2018.

Simport, MicrocentriTubes, product available at http://www.simport.com/documents/MicrocentriTubesBig/WithSnapCap/t330_15Transparent.jpg, page visited Mar. 5, 2018.

Scientific Specialties Inc., SSI Bio, MCT Infographic, product available at <http://www.ssibio.com/mct-infographic>, page visited Mar. 5, 2018.

International Search Report and Written Opinion dated Jul. 19, 2018 for International Application No. PCT/US2018/019748, filed on Feb. 26, 2018.

Office Action dated Jul. 23, 2018 in U.S. Appl. No. 15/885,662, filed Jan. 31, 2018.

Office Action dated Apr. 19, 2019 in U.S. Appl. No. 16/023,794, filed Jun. 29, 2018 and published as US 2018/0333717 on Nov. 22, 2018.

Office Action dated Mar. 1, 2019 in U.S. Appl. No. 16/023,779, filed Jun. 29, 2018 and published as US 2018/0333716 on Nov. 22, 2018.

Laboratory Container shown in p. 110 of "Products and 2012/2013 Applications for the Laboratory", which was received on May 7, 2012 by National Center for Industrial Property Information and Training. (Patent Office Design Division Known Document No. HC24007335).

Laboratory Container shown in p. 110 of "Products and 2012/2013 Applications for the Laboratory", which was received on May 7, 2012 by National Center for Industrial Property Information and Training. (Patent Office Design Division Known Document No. HC24007336).

Office Action dated Mar. 18, 2019 in U.S. Appl. No. 29/627,895, filed Nov. 30, 2017.

Microcentrifuge Tube Market Report for Period 2018 till 2024 Biosigma, Thermo Fisher, Coming, Sarstedt, Biotix, Camlab, Brand, VWR, Eppendorf and Others. Online, published date May 25, 2018. Retrieved on Feb. 11, 2019 from URL: <https://www.openpr.com/news/1062014/Microcentrifuge-Tube-Market-Report-for-Period-2018-till>.

Office Action dated Jun. 12, 2019 in U.S. Appl. No. 16/023,779, filed Jun. 29, 2018 and published as US 2018/0333716 on Nov. 22, 2018.

Office Action dated Jul. 12, 2019 in U.S. Appl. No. 29/627,895, filed Nov. 30, 2017.

Office Action dated Oct. 2, 2019 in U.S. Appl. No. 16/023,794, filed Jun. 29, 2018 and published as US 2018/0333717 on Nov. 22, 2018.

* cited by examiner

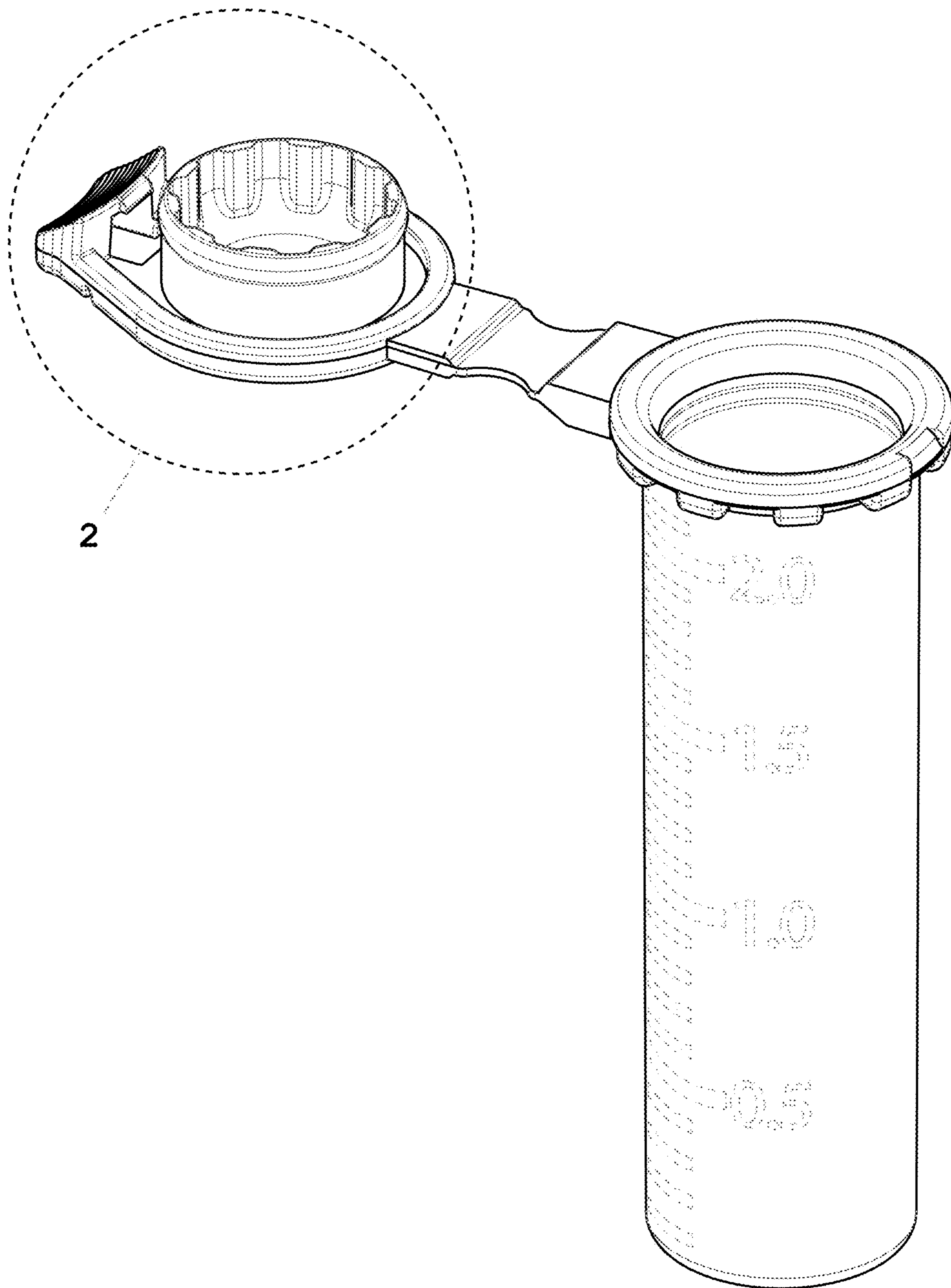


FIG. 1

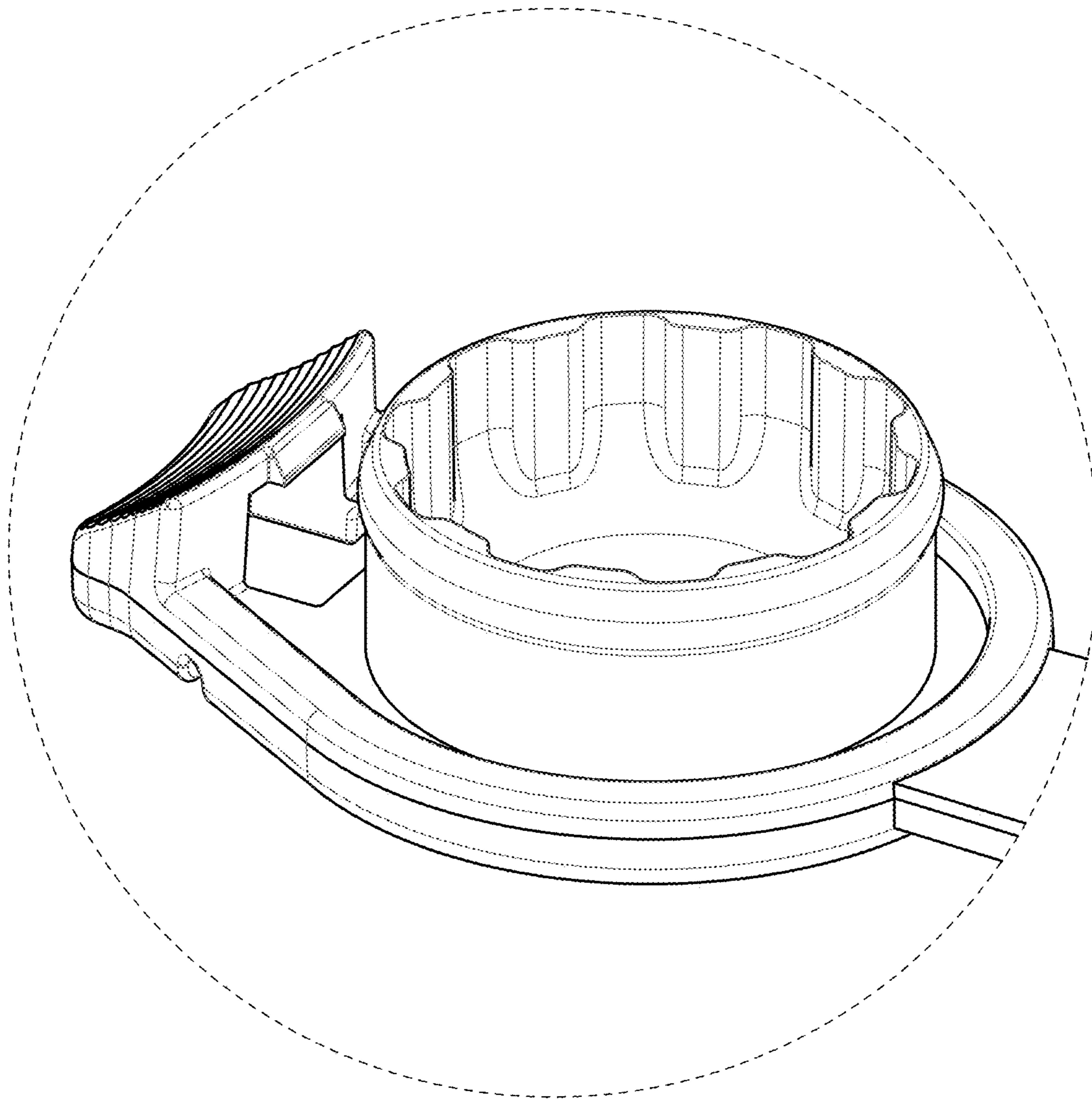


FIG. 2

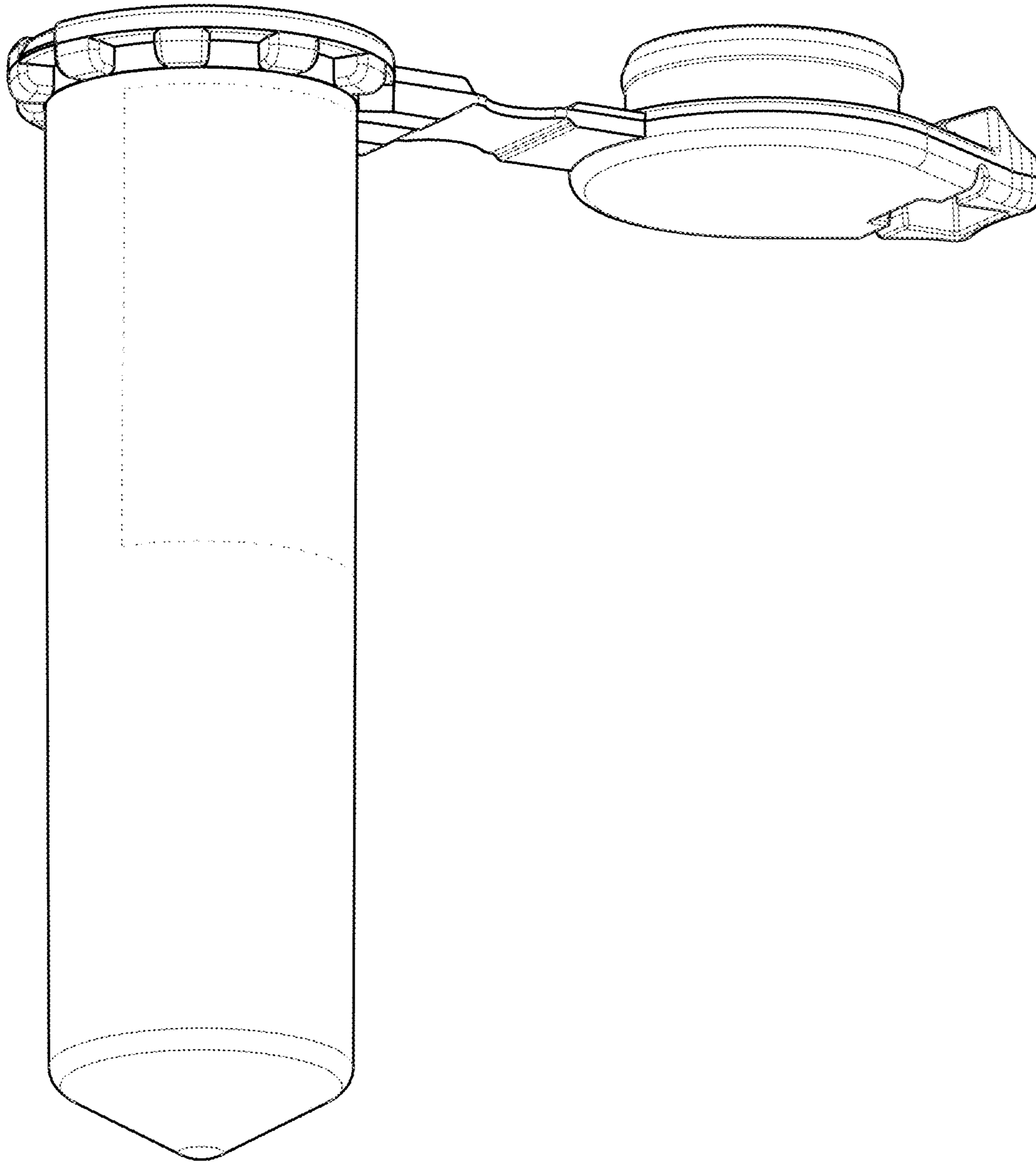


FIG. 3

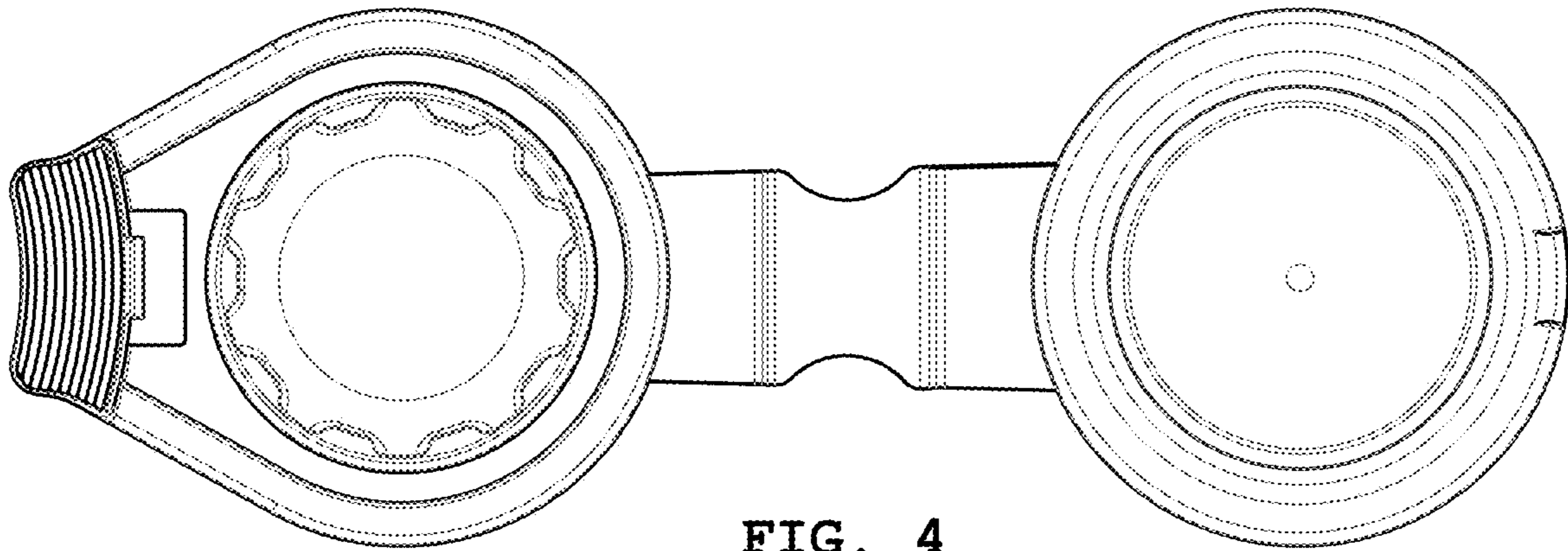


FIG. 4

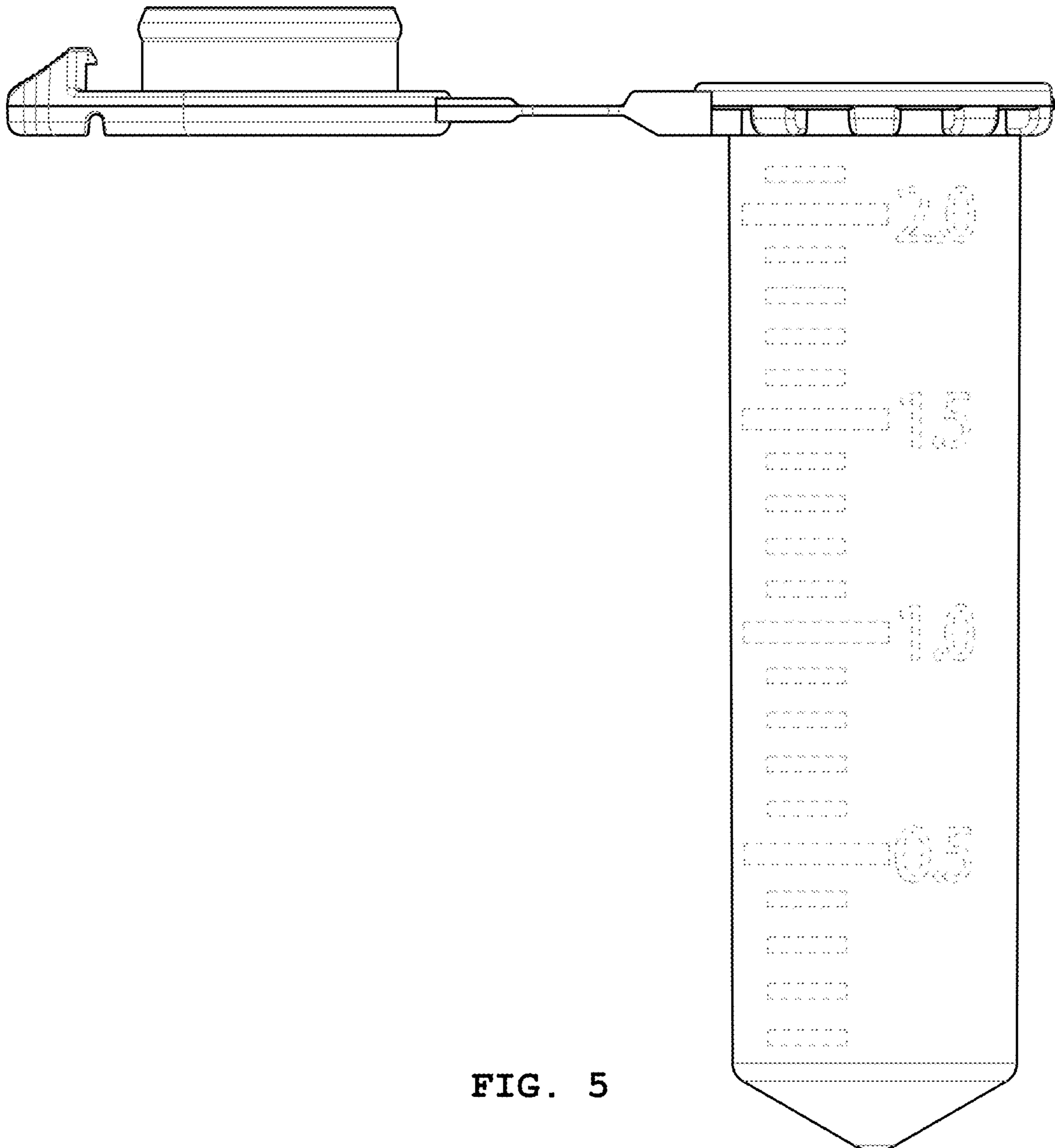


FIG. 5

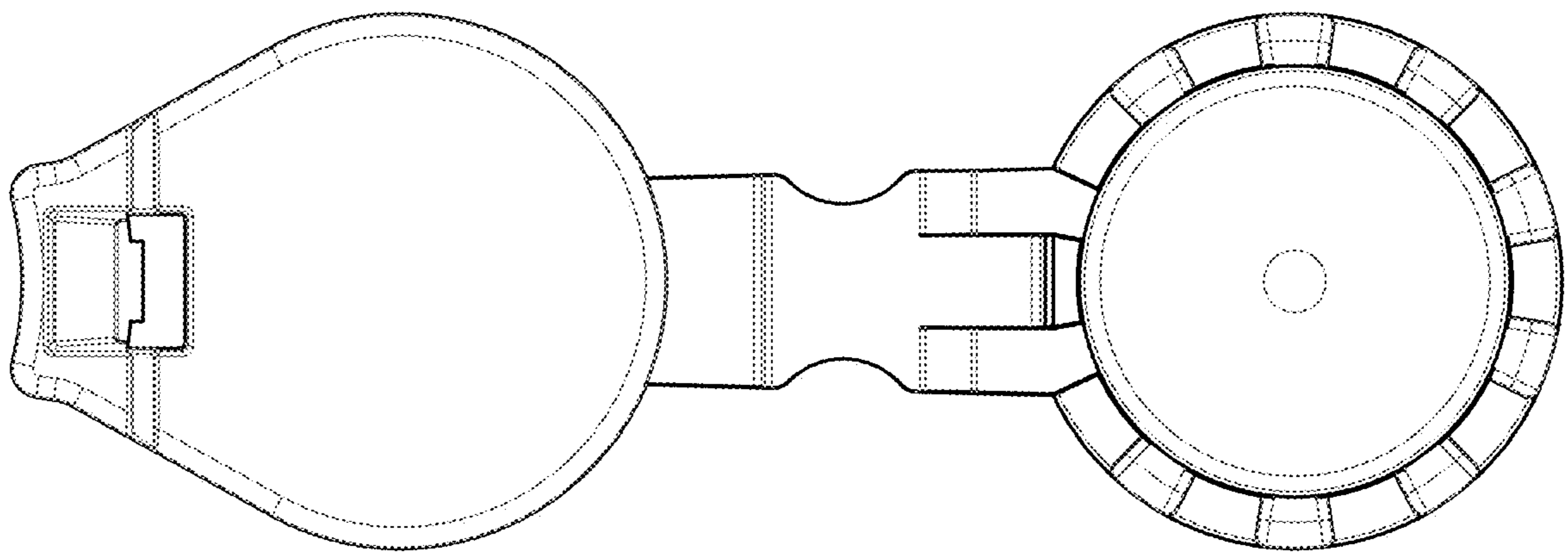


FIG. 6

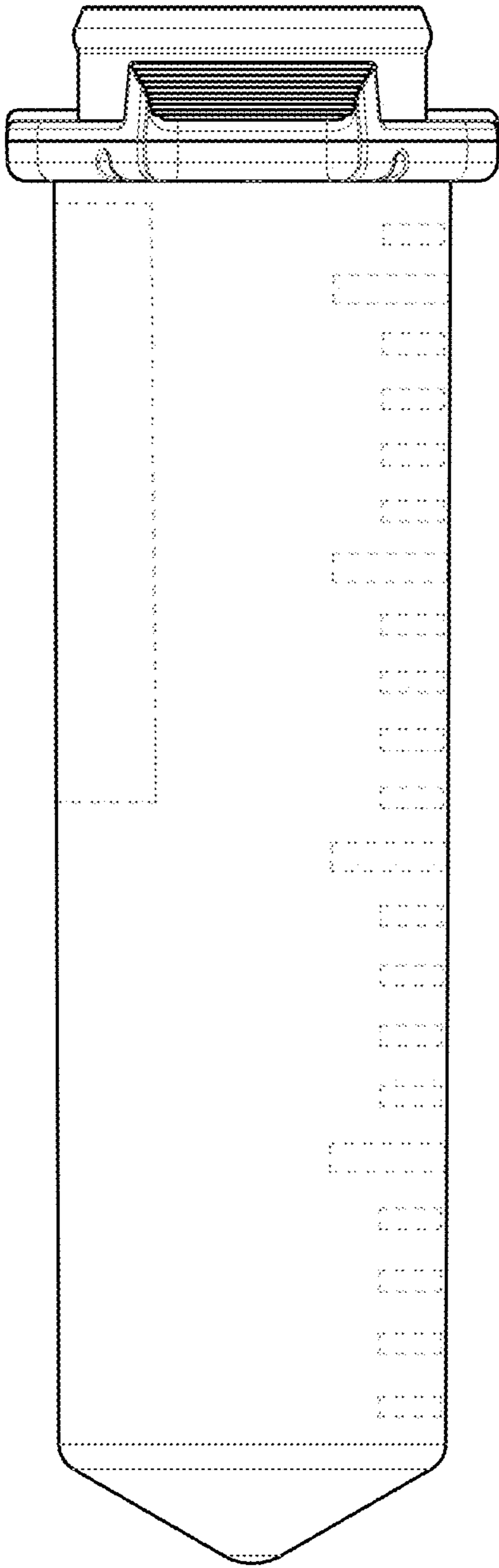


FIG. 7

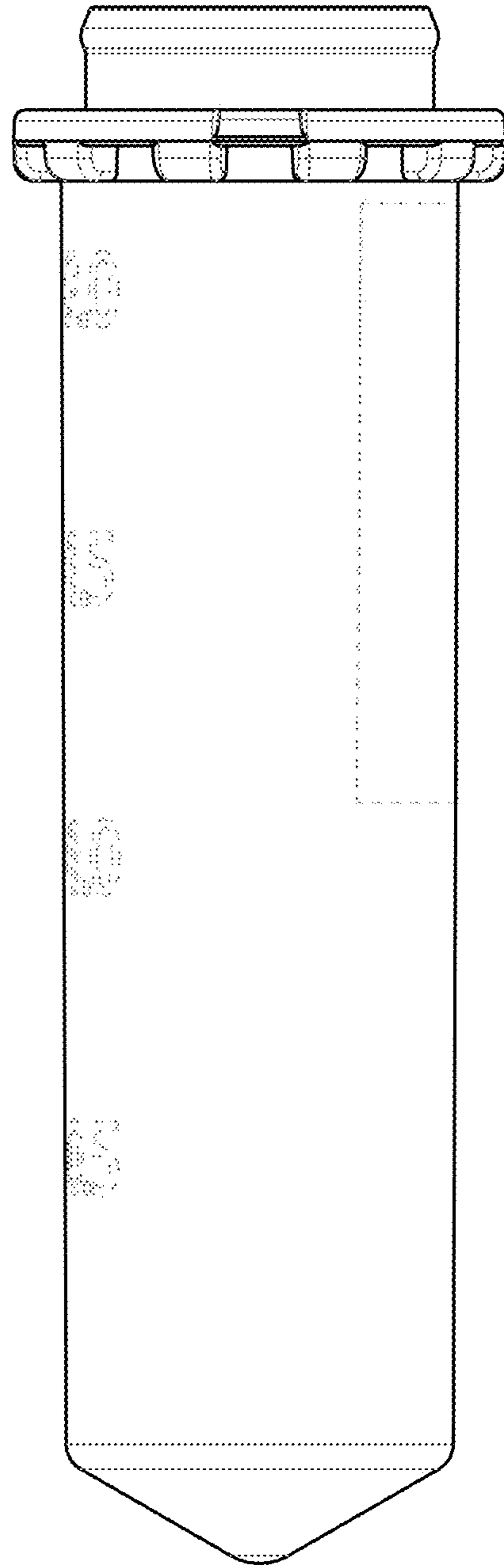


FIG. 8

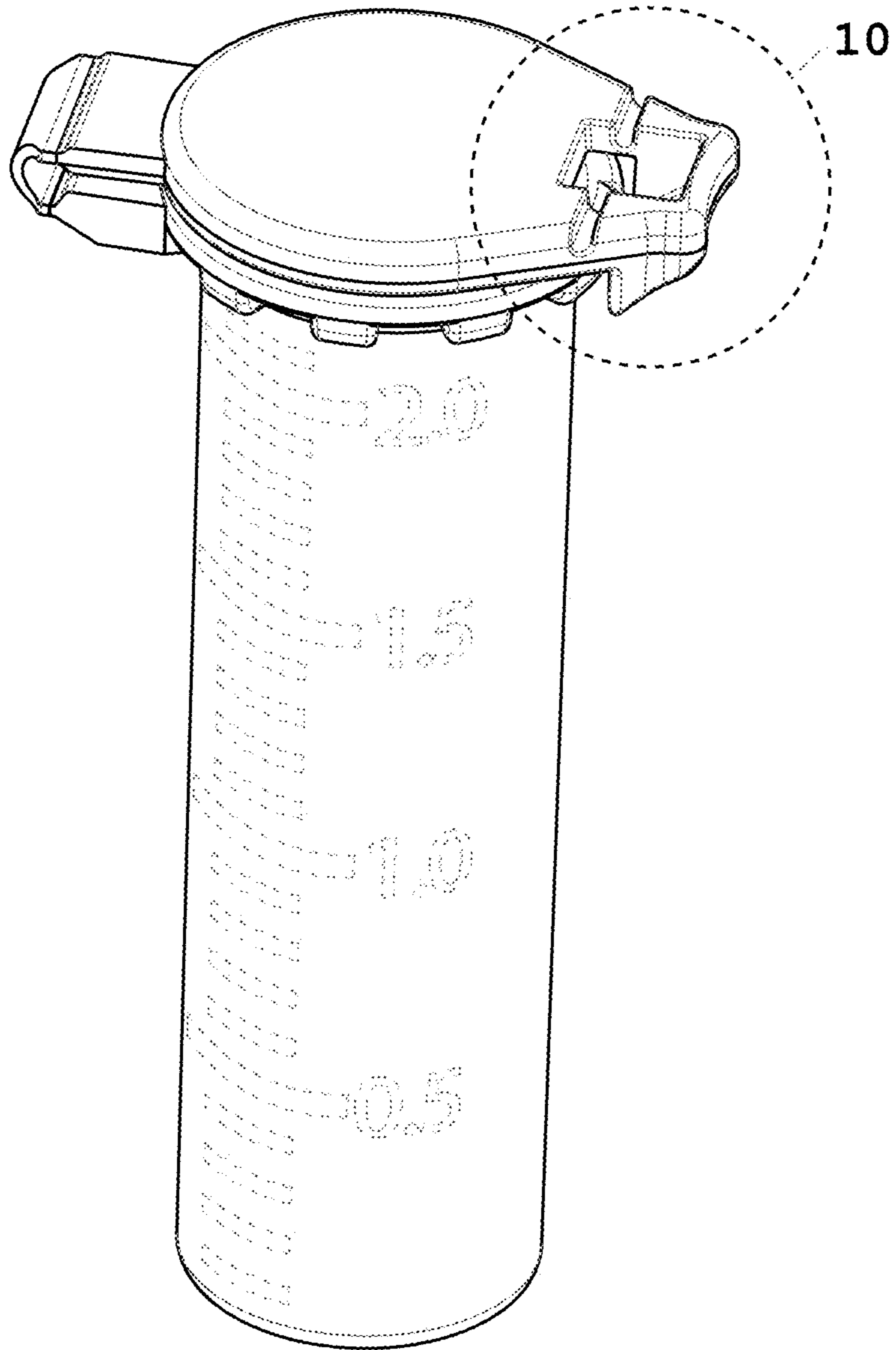


FIG. 9

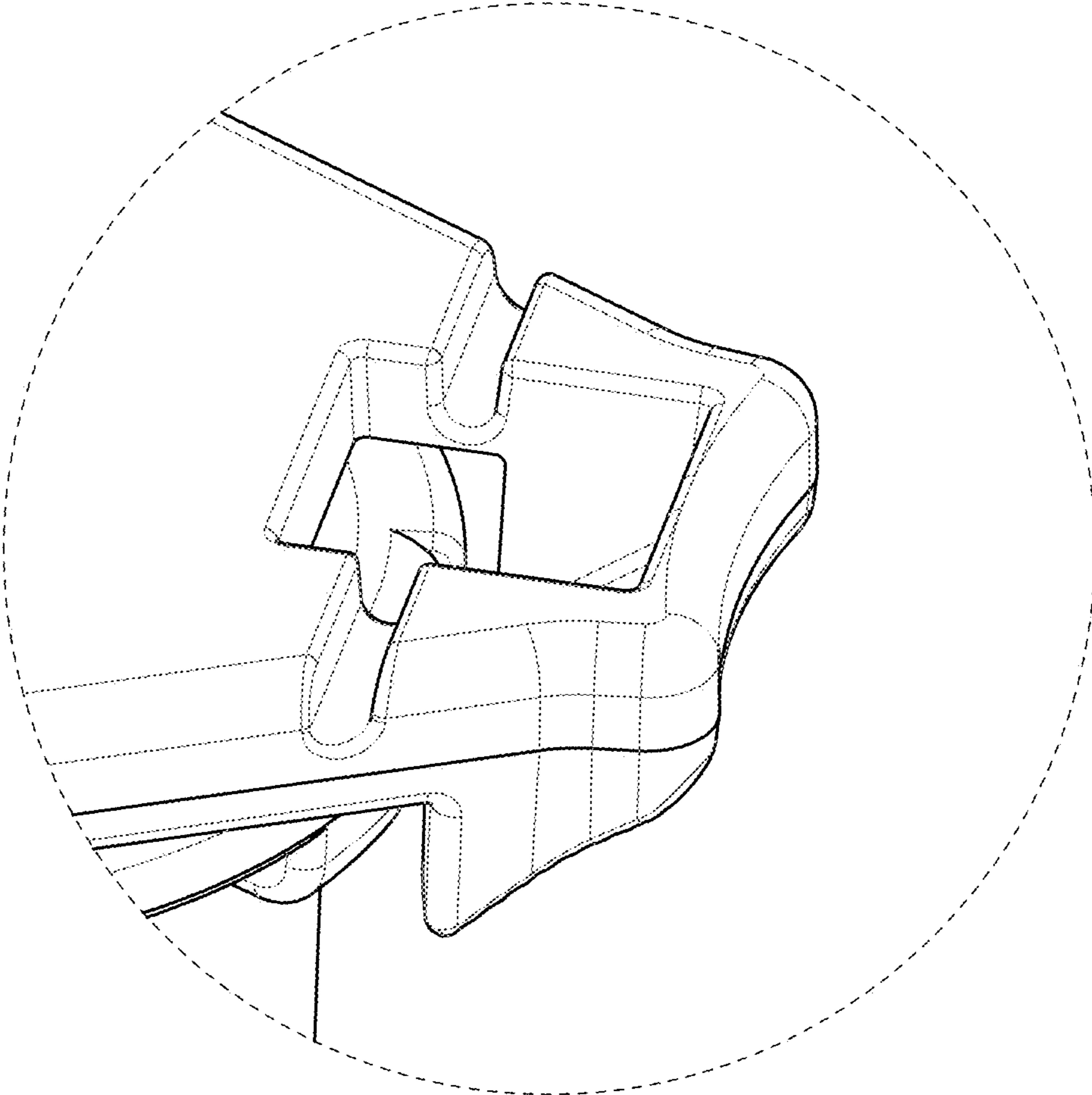


FIG. 10

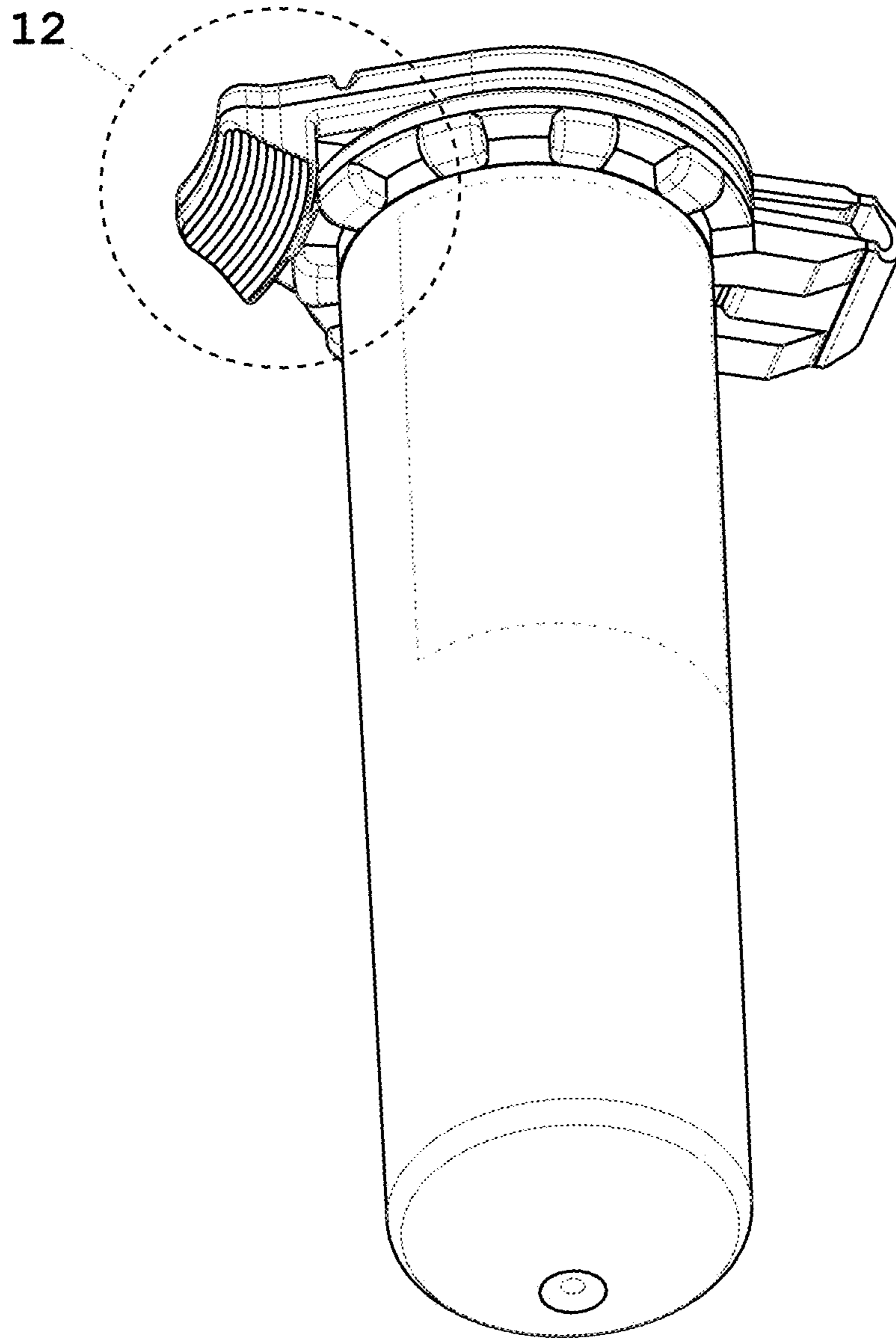


FIG. 11

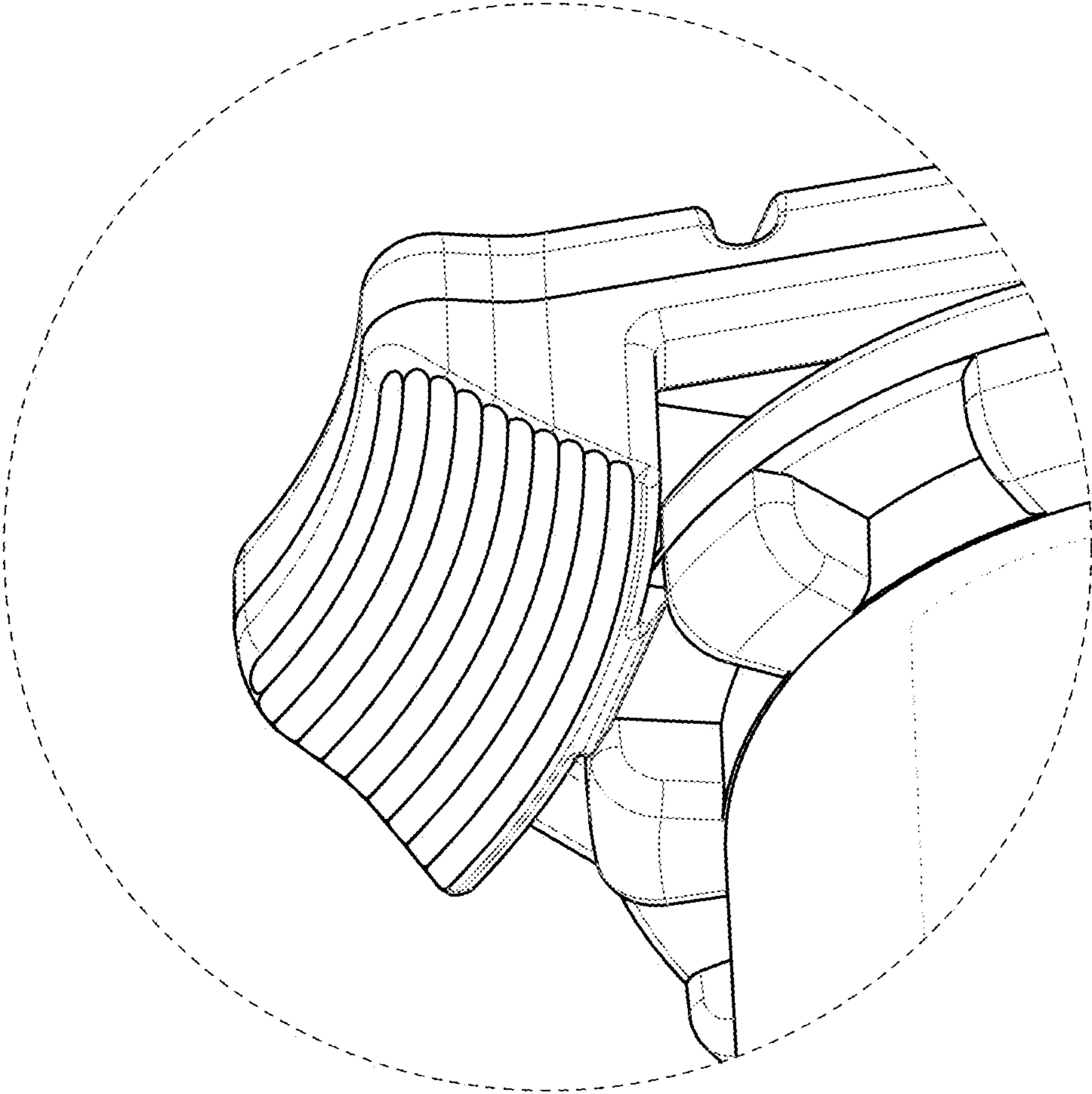


FIG. 12

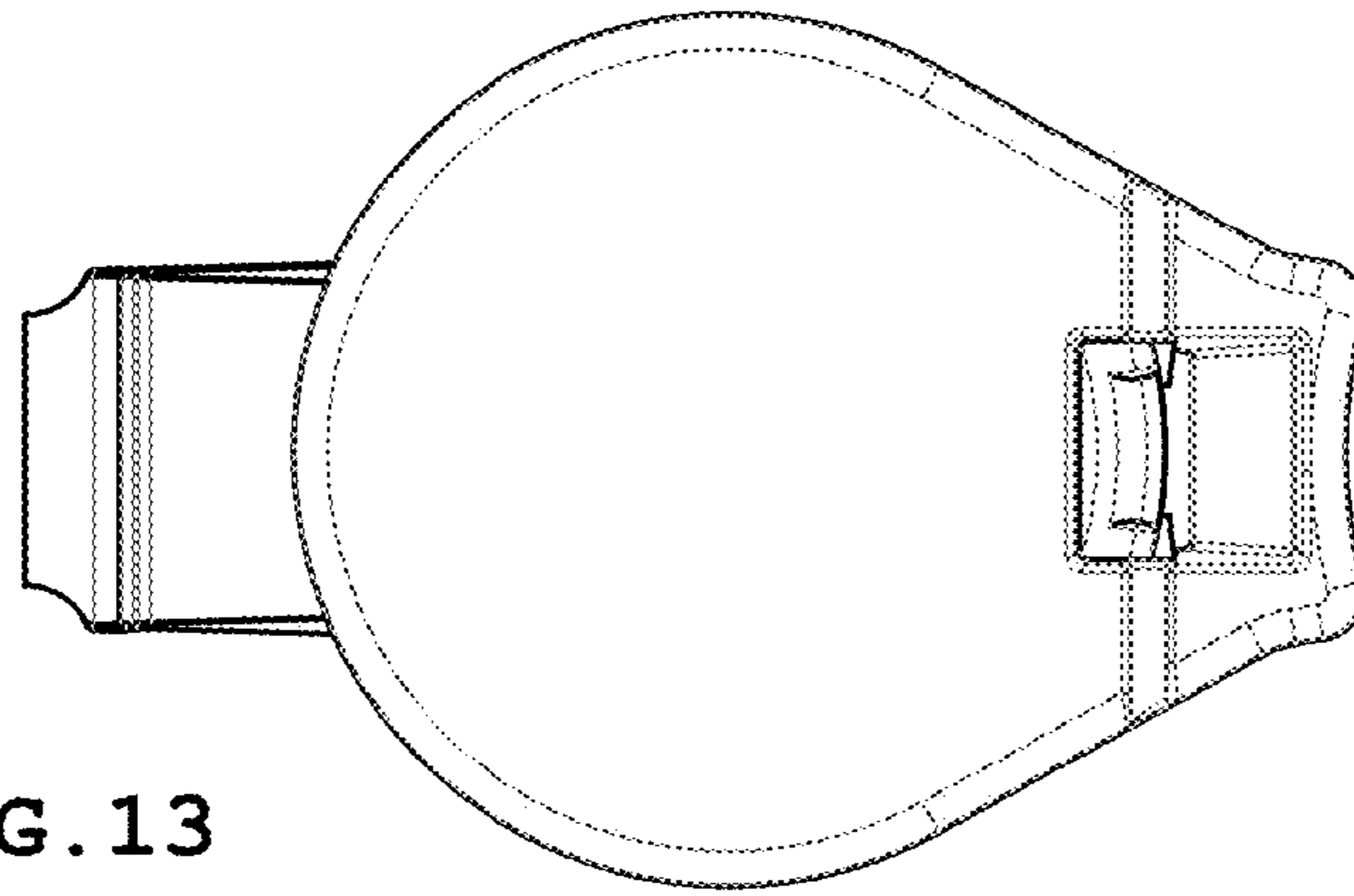


FIG. 13

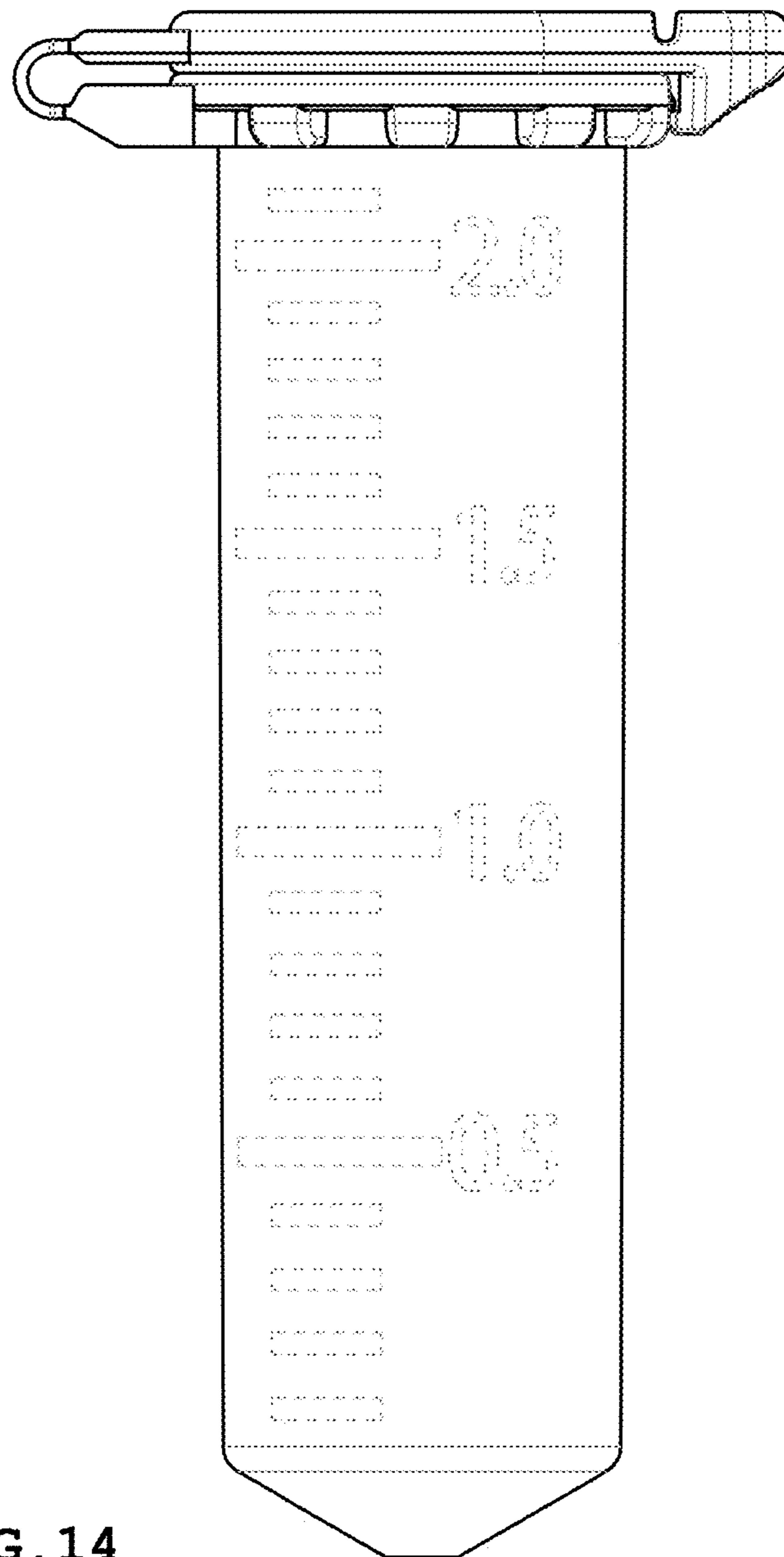


FIG. 14

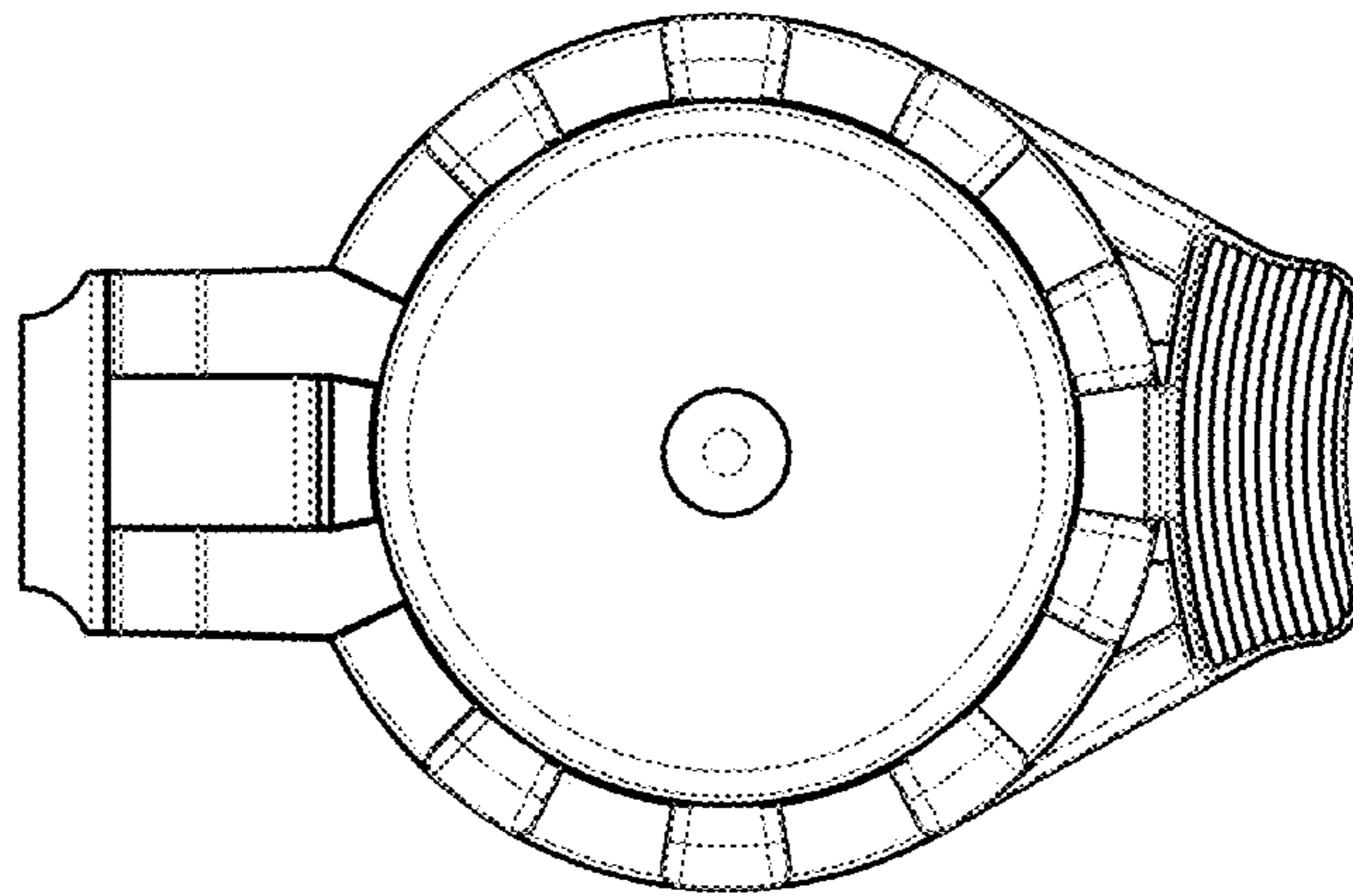


FIG. 15

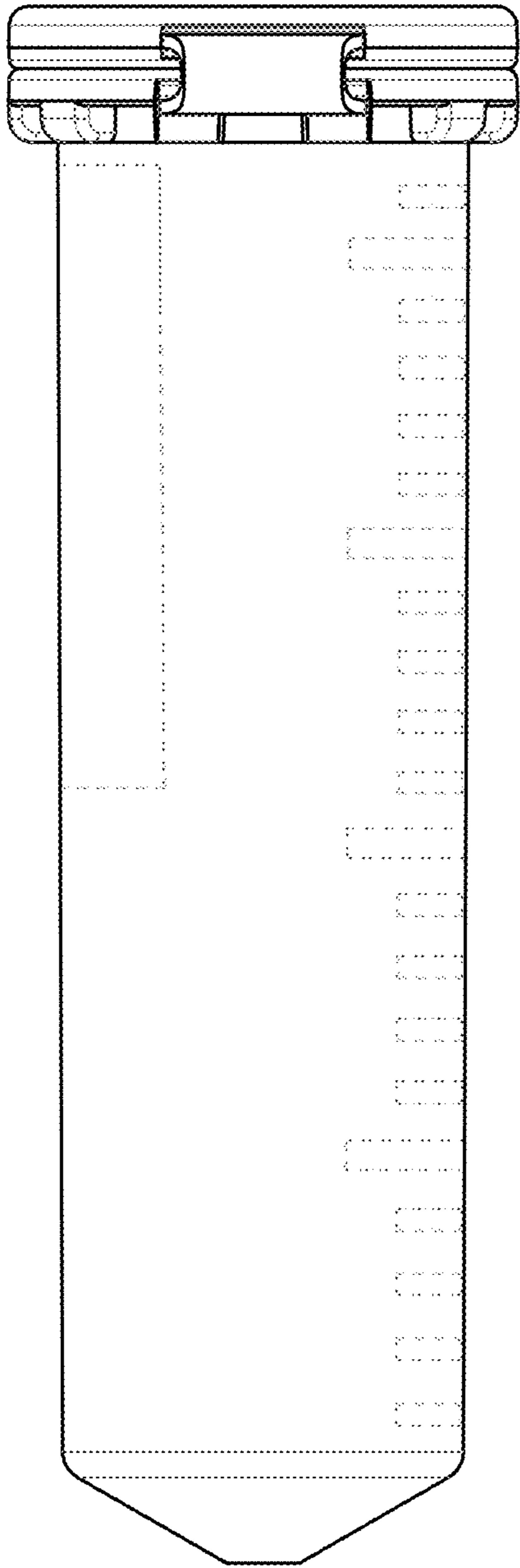


FIG. 16

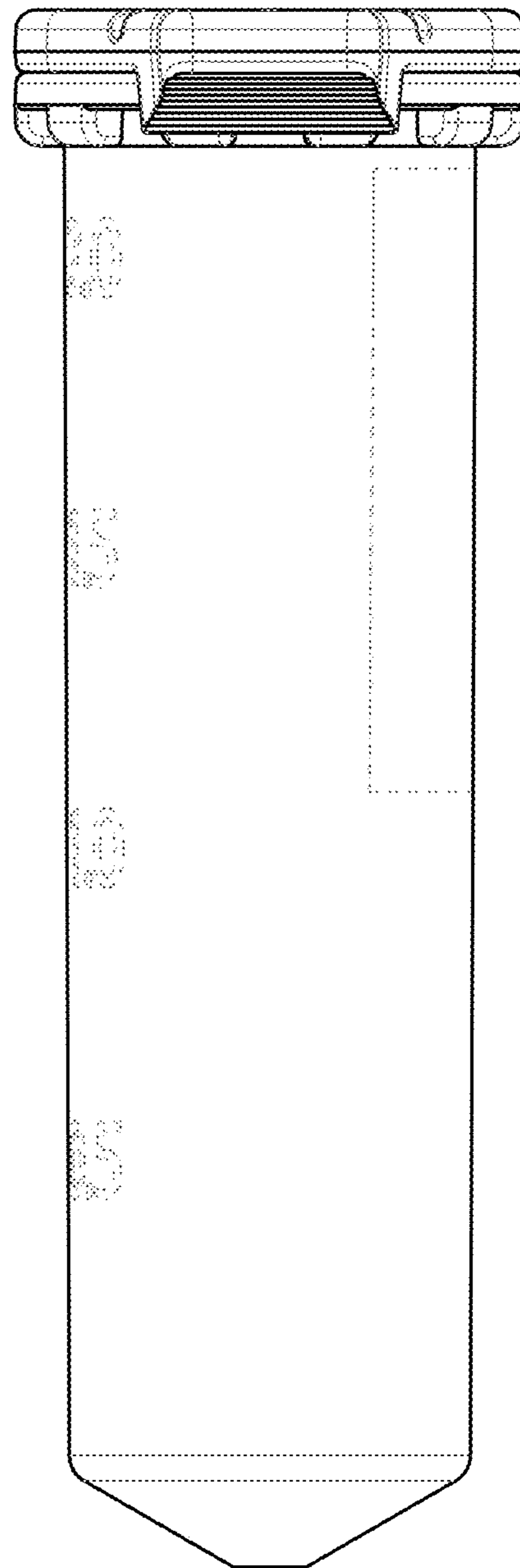


FIG. 17

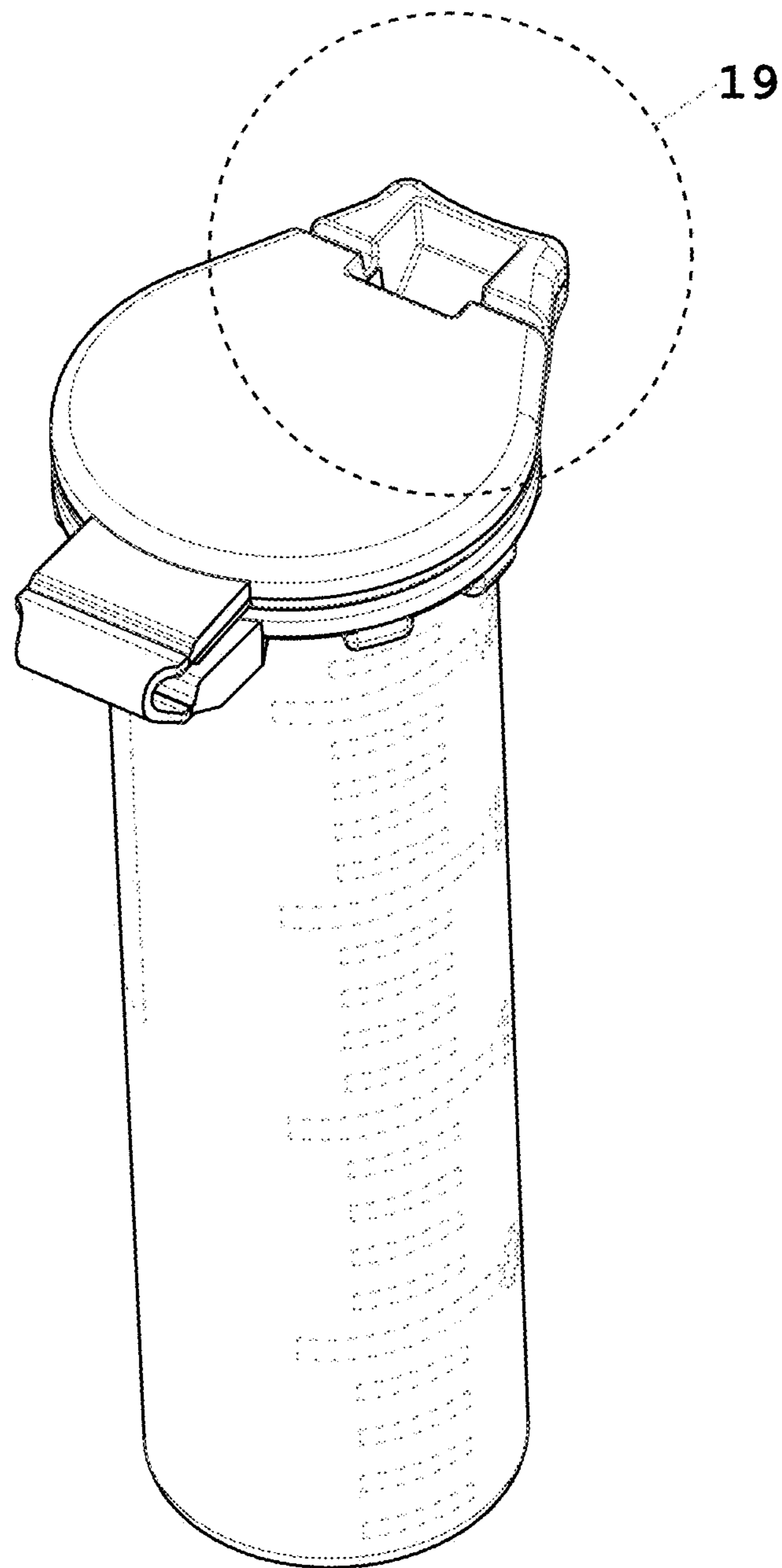


FIG. 18

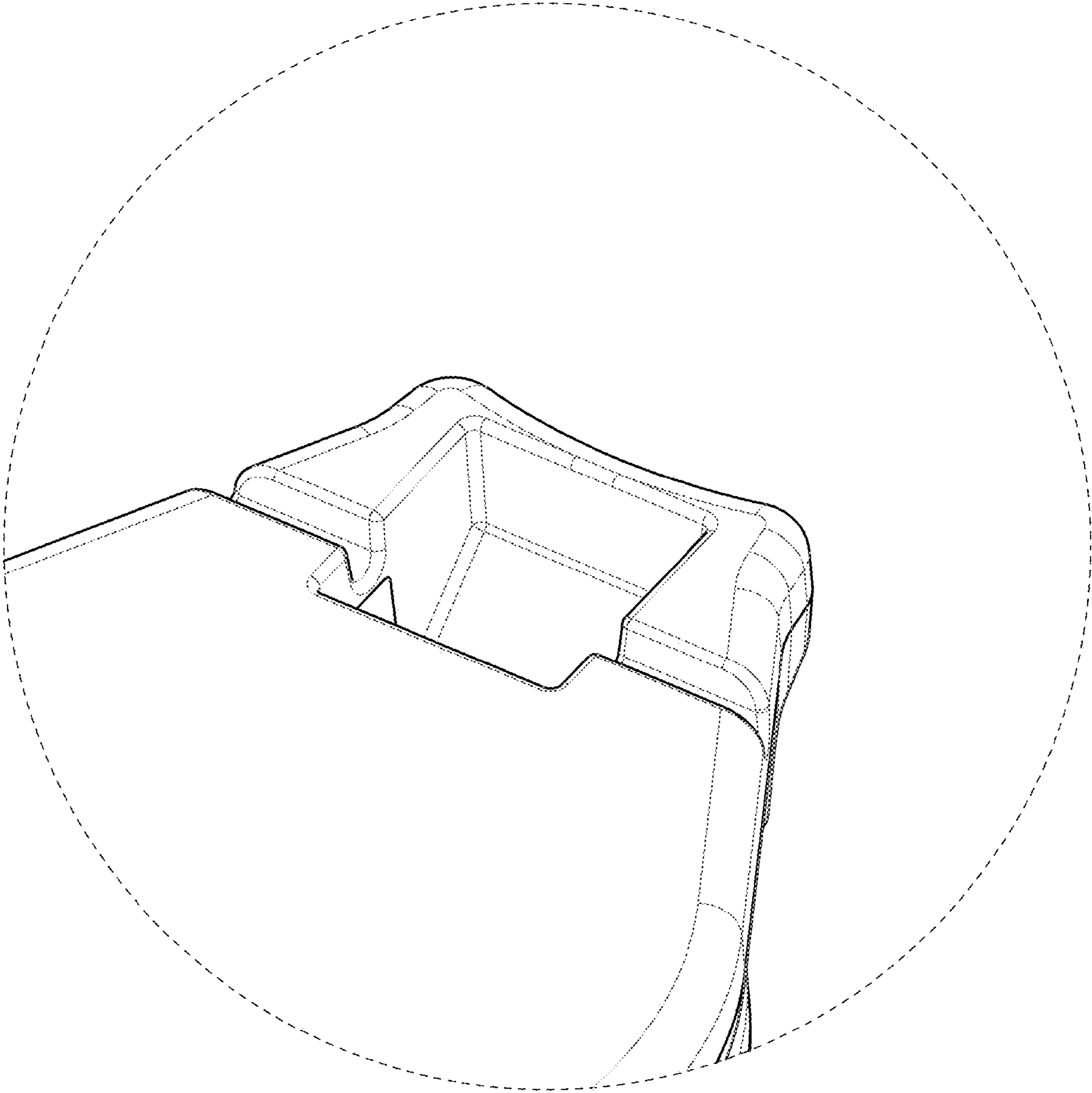


FIG. 19