US00D940861S

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

(10) **Patent No.: US D940,861 S**
(45) **Date of Patent: ** Jan. 11, 2022**

(54) **CONNECTOR FOR A RESPIRATORY SYSTEM CONDUIT**

(71) Applicant: **Fisher & Paykel Healthcare Limited**, Auckland (NZ)

(72) Inventors: **Rachel Nicole Mosen**, Auckland (NZ); **Andrew James Webb**, Auckland (NZ); **Hugo Max Treherne James**, Auckland (NZ); **Bruce Gordon Holyoake**, Auckland (NZ); **Andrew William White**, Auckland (NZ); **Clodagh Mary Moran**, Auckland (NZ); **Graeme Matthew Smith**, Auckland (NZ); **Craig Karl White**, Auckland (NZ); **Jojo Santos Badenas**, Auckland (NZ)

(73) Assignee: **FISHER & PAYKEL HEALTHCARE LIMITED**, Auckland (NZ)

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

(21) Appl. No.: **29/726,457**

(22) Filed: **Mar. 3, 2020**

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

(52) **U.S. Cl.**
USPC **D24/129**; D24/112; D24/110

(58) **Field of Classification Search**
USPC ... D24/108, 110, 110.1, 110.4, 110.5, 110.6, D24/112, 127, 129
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,589,684 A 5/1986 Nowacki et al.
4,601,495 A 7/1986 Webb
(Continued)

FOREIGN PATENT DOCUMENTS

CN 101380497 A 3/2009
CN 102019014 4/2011
(Continued)

OTHER PUBLICATIONS

Huapa Mini Hose Connector for CPAP Hose CPAP Accessories Resmed Air Nasal Masks, Amazon.com, [First Posted Oct. 9, 2018], [Site visited Aug. 18, 2021], Seen at the URL: https://amzn.to/3z62sdy (Year: 2018).*
(Continued)

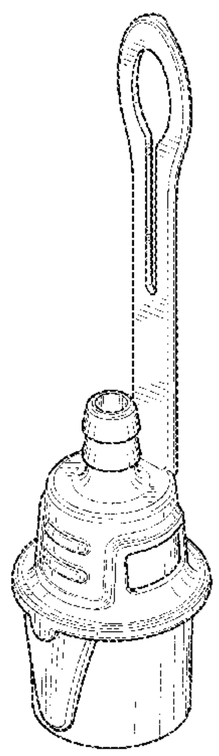
Primary Examiner — Natasha Vujcic
Assistant Examiner — Gilbert B Ford
(74) *Attorney, Agent, or Firm* — Knobbe, Martens, Olson & Bear LLP

(57) **CLAIM**

The ornamental design for a connector for a respiratory system conduit, as shown and described.

DESCRIPTION

FIG. **1** is a front perspective view of a connector for a respiratory system conduit which embodies our design.
FIG. **2** is a right side view thereof.
FIG. **3** is a front view thereof.
FIG. **4** is a left side view thereof.
FIG. **5** is a rear view thereof.
FIG. **6** is a bottom view thereof.
FIG. **7** is a top view thereof.
FIG. **8** is a front perspective view of a connector for a respiratory system conduit which embodies our design;
FIG. **9** is a right side view thereof;
FIG. **10** is a front view thereof;
FIG. **11** is a left side view thereof;
FIG. **12** is a rear view thereof;
FIG. **13** is a bottom view thereof; and,
FIG. **14** is a top view thereof.
The broken lines in the drawings illustrate portions of the connector for a respiratory system conduit which form no part of the claimed design.
The surface shading is an artefact of filing in the United States of America and does not necessarily form part of the claimed design.
The references to "left", "right", "front", "rear", "top" and "bottom" in the figure descriptions are not meant to require
(Continued)



certain in-use orientation; the connector for a respiratory system conduit according to the claimed design may be used on any orientation.

1 Claim, 14 Drawing Sheets

(58) **Field of Classification Search**
CPC A61M 16/08; A61M 16/10; A61M 16/16; A61B 5/087; A61B 5/097
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,661,110	A	4/1987	Fortier et al.	
D300,271	S	3/1989	Rudolph et al.	
D300,272	S	3/1989	Rudolph et al.	
D363,541	S	10/1995	Cottone, Sr. et al.	
5,529,284	A	6/1996	Berger et al.	
5,735,271	A	4/1998	Lorenzen et al.	
D424,687	S	5/2000	Hoenig et al.	
D431,634	S	10/2000	Mantz	
6,484,724	B1	11/2002	Sloan	
D468,015	S	12/2002	Horppu	
D472,316	S	3/2003	Douglas et al.	
D472,630	S	4/2003	Douglas et al.	
6,893,055	B2	5/2005	Thomas et al.	
6,915,705	B1	7/2005	Truitt	
D570,457	S *	6/2008	Brown	D23/262
7,458,615	B2 *	12/2008	White	A61M 16/08 285/272
7,785,300	B2	8/2010	Ishii et al.	
D631,542	S	1/2011	DeGross	
D645,547	S	9/2011	Lombardi et al.	
D654,573	S	2/2012	Lombardi et al.	
D661,785	S	6/2012	Johnson	
D672,037	S	12/2012	Miller	
8,439,039	B2	5/2013	Gunaratnam et al.	
D692,555	S	10/2013	Maksym et al.	
D698,440	S *	1/2014	Lombardi, III	D24/129
D757,259	S *	5/2016	Duck	D24/129
D757,933	S	5/2016	Lev et al.	
D781,417	S *	3/2017	Ingram	D24/127
D785,789	S	5/2017	Turturro et al.	
D790,054	S	6/2017	Prentice et al.	
D791,938	S *	7/2017	Becker	D24/129
9,808,612	B2	11/2017	Gulliver et al.	
D805,629	S	12/2017	Fiorenza	
D809,656	S	2/2018	Lau et al.	
9,884,176	B2	2/2018	Fangrow	
D832,431	S	10/2018	Turturro	
D835,260	S *	12/2018	Lisberg	D24/110
10,265,492	B2	4/2019	Amarasinghe et al.	
10,335,583	B2	7/2019	Gulliver et al.	
D857,880	S *	8/2019	Lau	D24/110
D861,162	S	9/2019	Gulliver et al.	
D867,586	S	11/2019	Kemps et al.	
D879,956	S	3/2020	Klenner et al.	
D887,577	S	6/2020	Shor et al.	
D896,758	S	9/2020	Watkins et al.	
D896,929	S	9/2020	Vranish	
10,835,733	B1	11/2020	Gulliver et al.	
D910,840	S *	2/2021	Klenner	D24/129
D917,690	S *	4/2021	Lau	D24/110
D925,734	S *	7/2021	Park	D24/129
2004/0090066	A1	5/2004	Hoffmann	
2004/0103686	A1	6/2004	Fehr et al.	
2004/0108218	A1	6/2004	Stubergh	
2006/0107960	A1	5/2006	Smart	
2008/0041391	A1	2/2008	Worley	
2008/0093846	A1	4/2008	Sparks et al.	
2008/0183153	A1 *	7/2008	Enns	A61M 39/20 604/533
2008/0264413	A1	10/2008	Doherty et al.	
2009/0223523	A1	9/2009	Chang	
2013/0167841	A1	7/2013	Sheffer et al.	
2013/0264821	A1 *	10/2013	Duck	F16L 37/02 285/397
2013/0284167	A1	10/2013	Porteous et al.	
2015/0021909	A1	1/2015	Gulliver et al.	
2015/0167877	A1	6/2015	Kendrick	
2016/0228668	A1 *	8/2016	Martin	A61M 16/085
2019/0022344	A1	1/2019	Lau et al.	
2019/0321617	A1	5/2019	Gulliver et al.	
2019/0167935	A1	6/2019	Siew et al.	
2020/0129724	A1 *	4/2020	Nelson	A61M 16/0611
2020/0345997	A1	11/2020	Gulliver et al.	

FOREIGN PATENT DOCUMENTS

CN	103180650	A	6/2013
CN	103764213	A	4/2014
CN	103857432	A	6/2014
CN	104853796	A	8/2015
CN	104870042	A	8/2015
DE	37 09 122	A1	9/1988
DE	10 2007 063 556	A1	7/2009
EM	008110019-0001	*	9/2020
EP	1181945	A1	2/2002
EP	0809768	B1	7/2002
EP	1 314 446		8/2002
EP	1408313	A2	4/2004
EP	1520599	A1	10/2004
EP	1479405	A1	11/2004
EP	1933074		6/2018
EP	3344319		7/2018
GB	2328260		2/1999
JP	2007-236567		9/2007
JP	2010-527276		8/2010
JP	2014-516601		7/2014
JP	2014-521471		8/2014
WO	WO 2003/082406		10/2003
WO	WO 2004/108218		12/2004
WO	WO 2005/079670		9/2005
WO	WO 2008/144447	A2	11/2008
WO	WO 2011/079226	A1	6/2011
WO	WO 2013/022356		2/2013
WO	WO 2014/097145		6/2014
WO	WO 2014/129912		8/2014

OTHER PUBLICATIONS

Fisher & Paykel Healthcare Limited, Junior Tube and Chamber Kit brochure, 900PT531, 2012.
Photos of current commercial connector illustrated in Reference 1 in 3 pages.

* cited by examiner

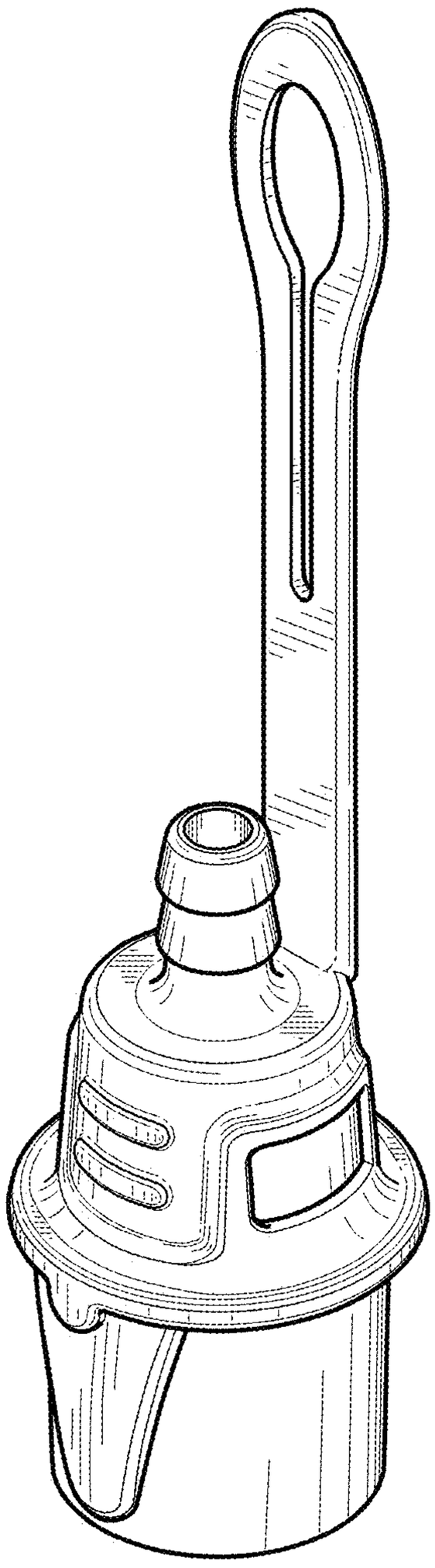


FIG. 1

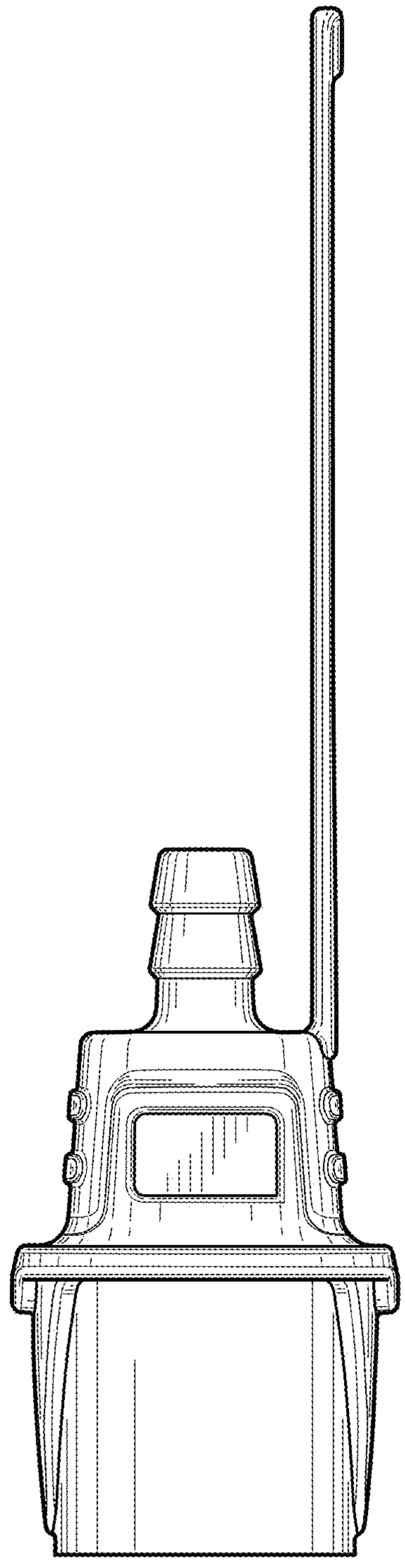


FIG. 2

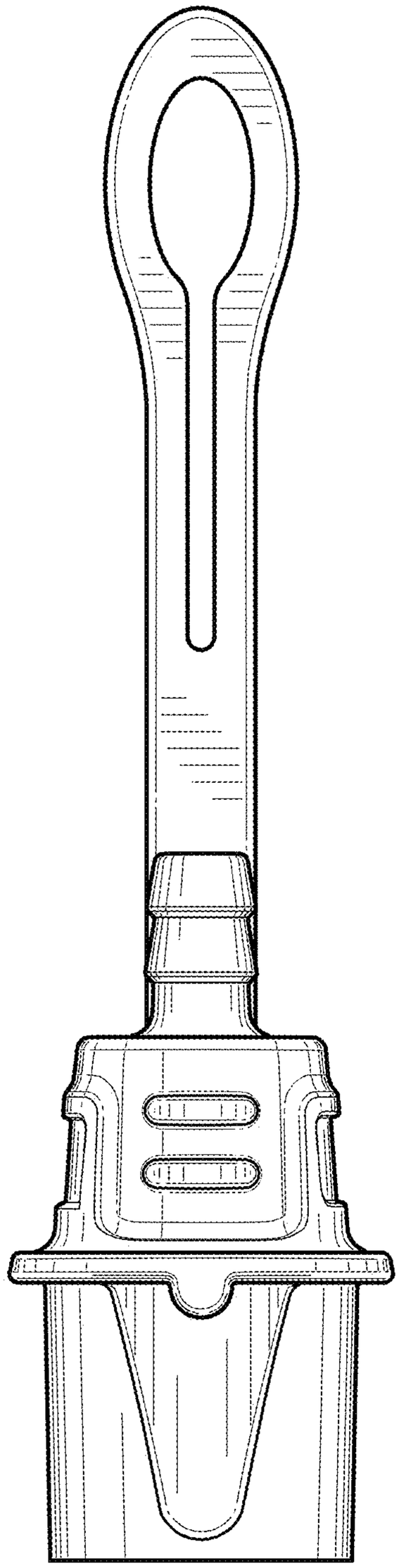


FIG. 3

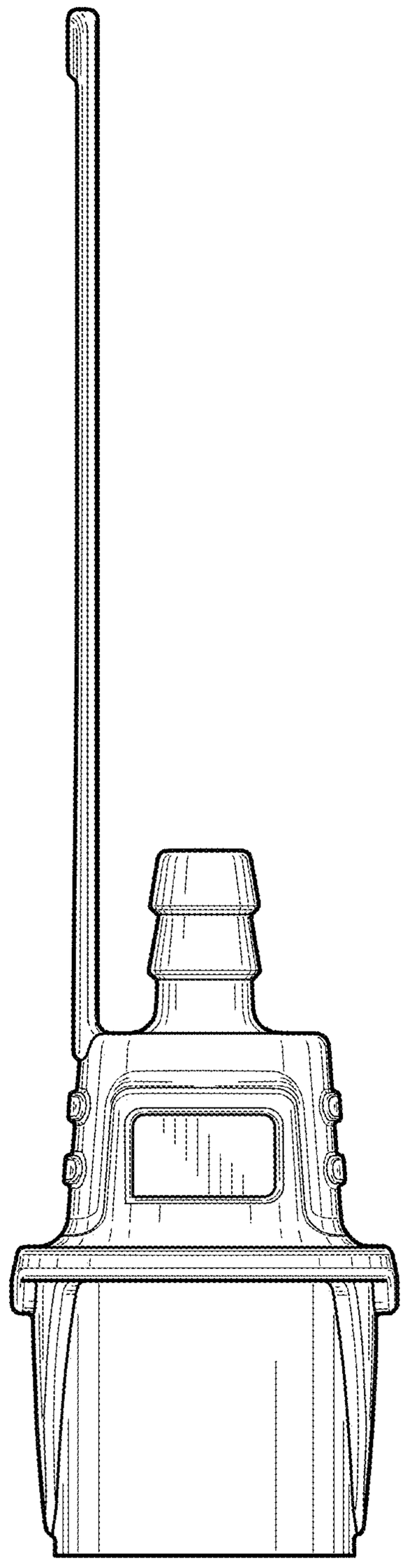


FIG. 4

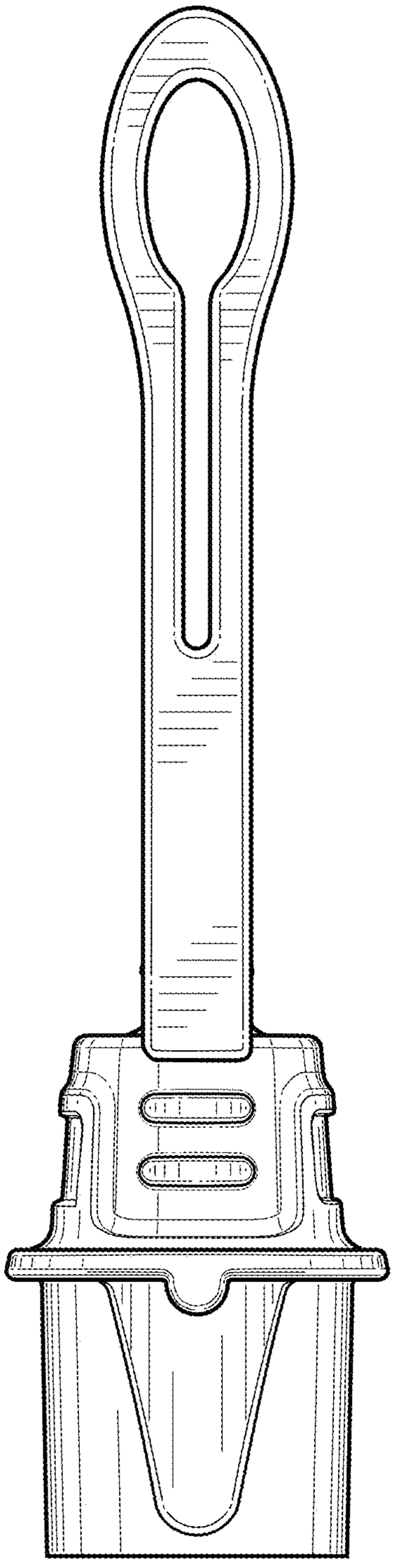


FIG. 5

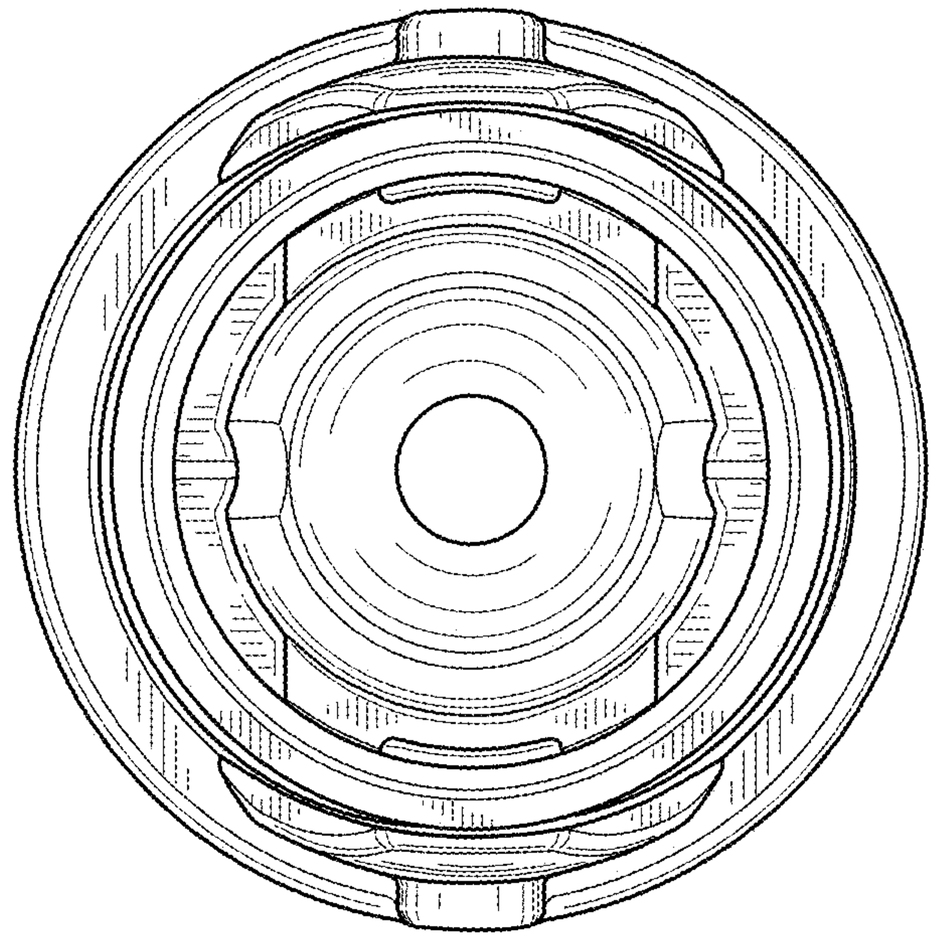


FIG. 6

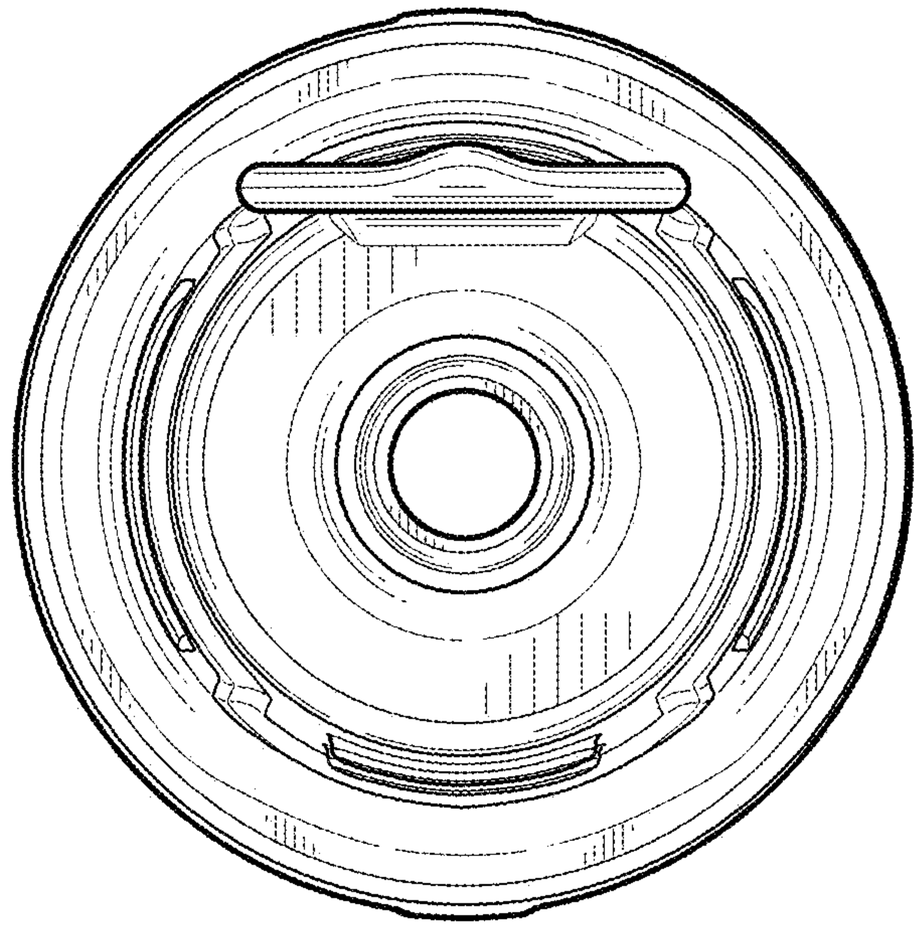


FIG. 7

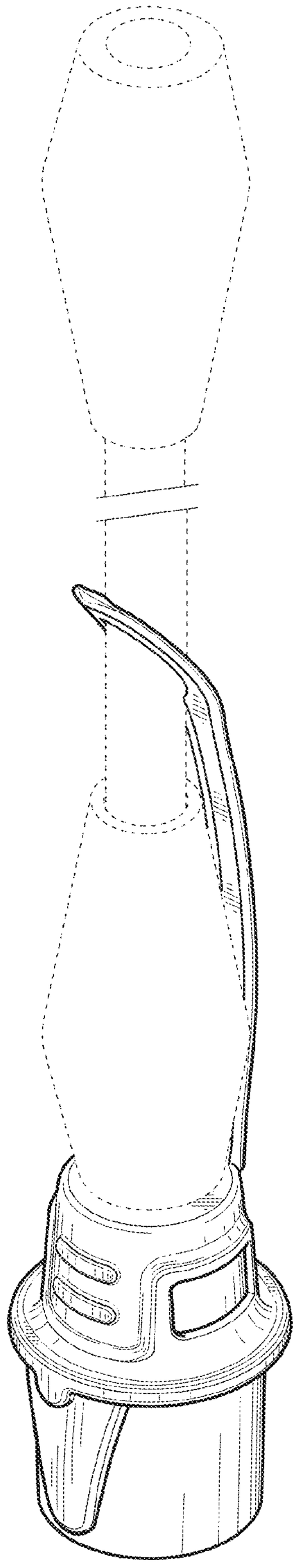


FIG. 8

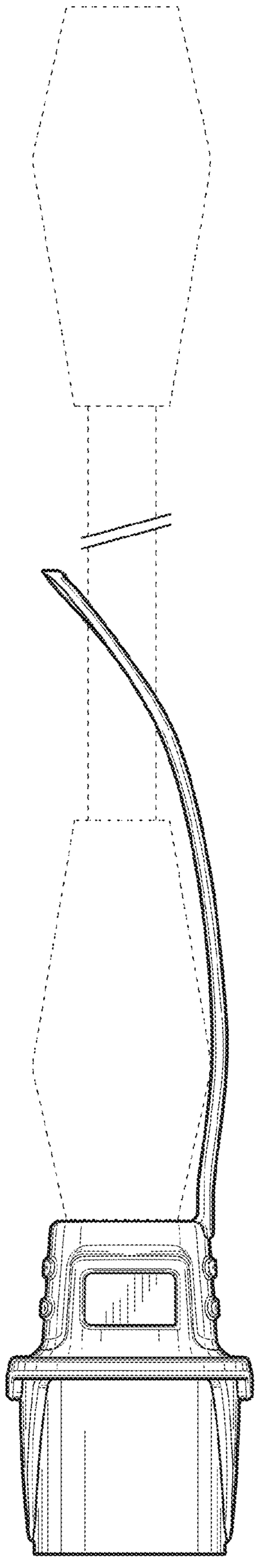


FIG. 9

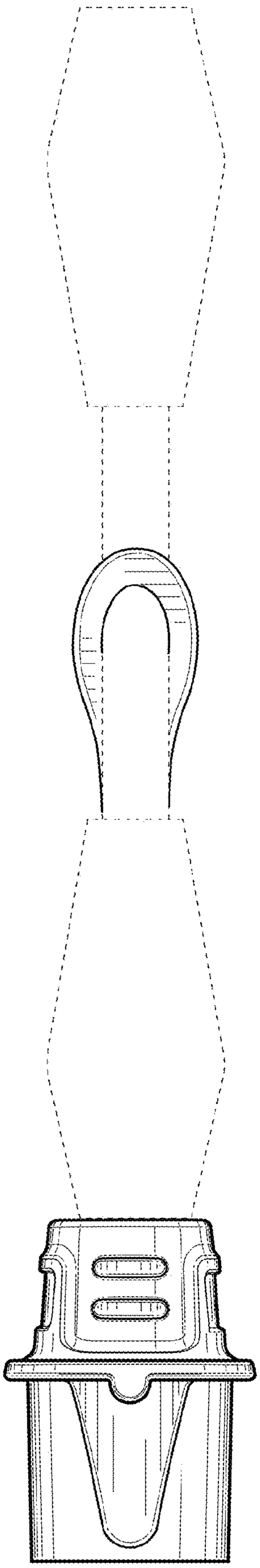


FIG. 10

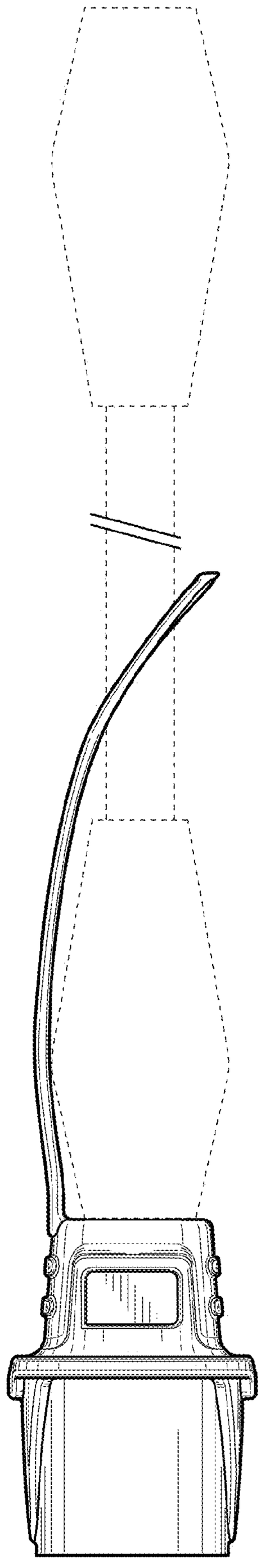


FIG. 11

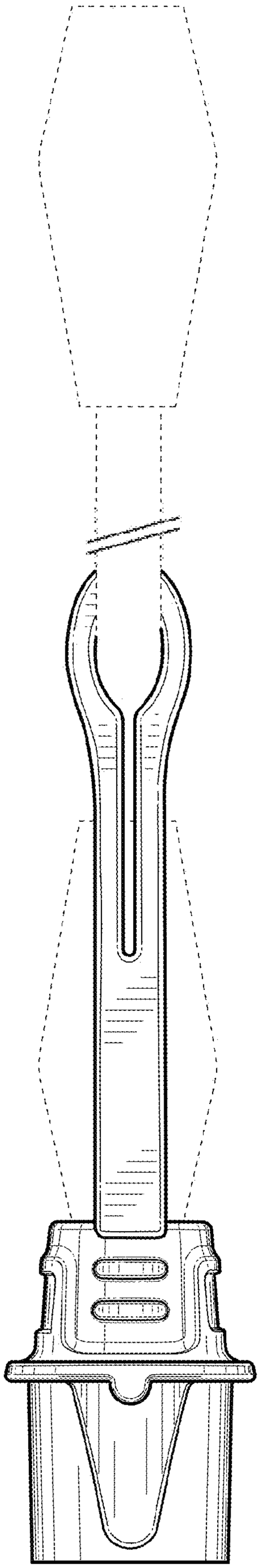


FIG. 12

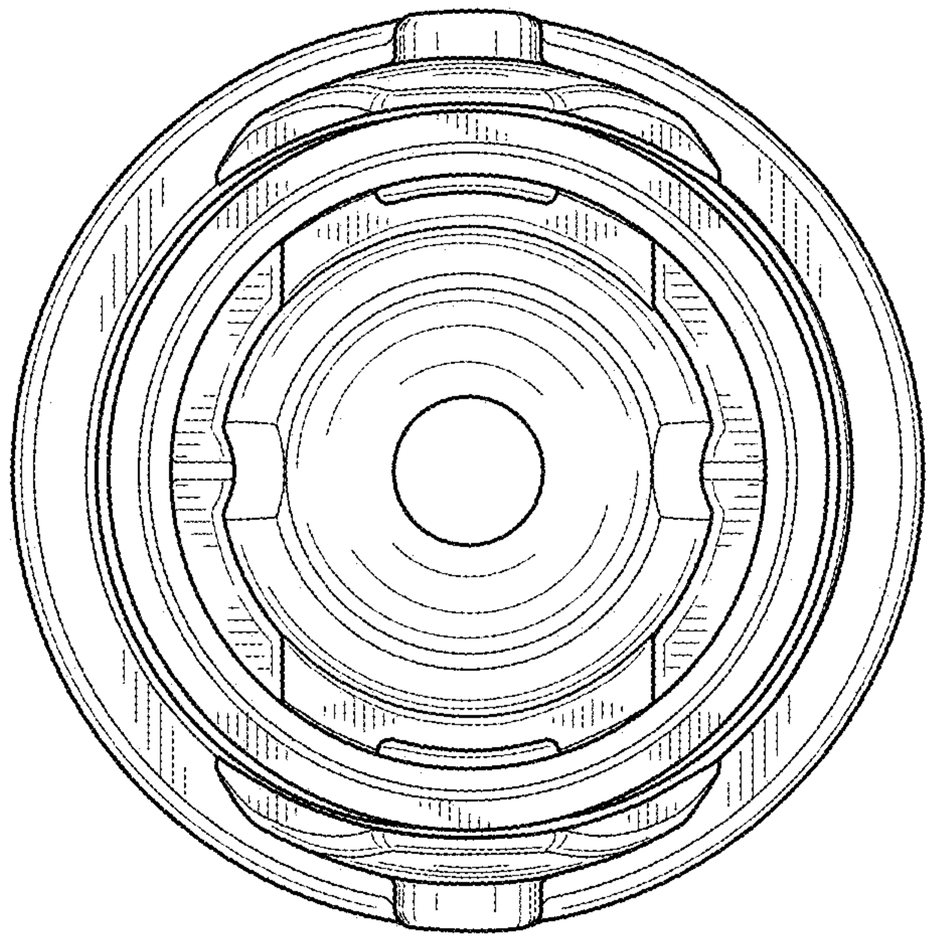


FIG. 13

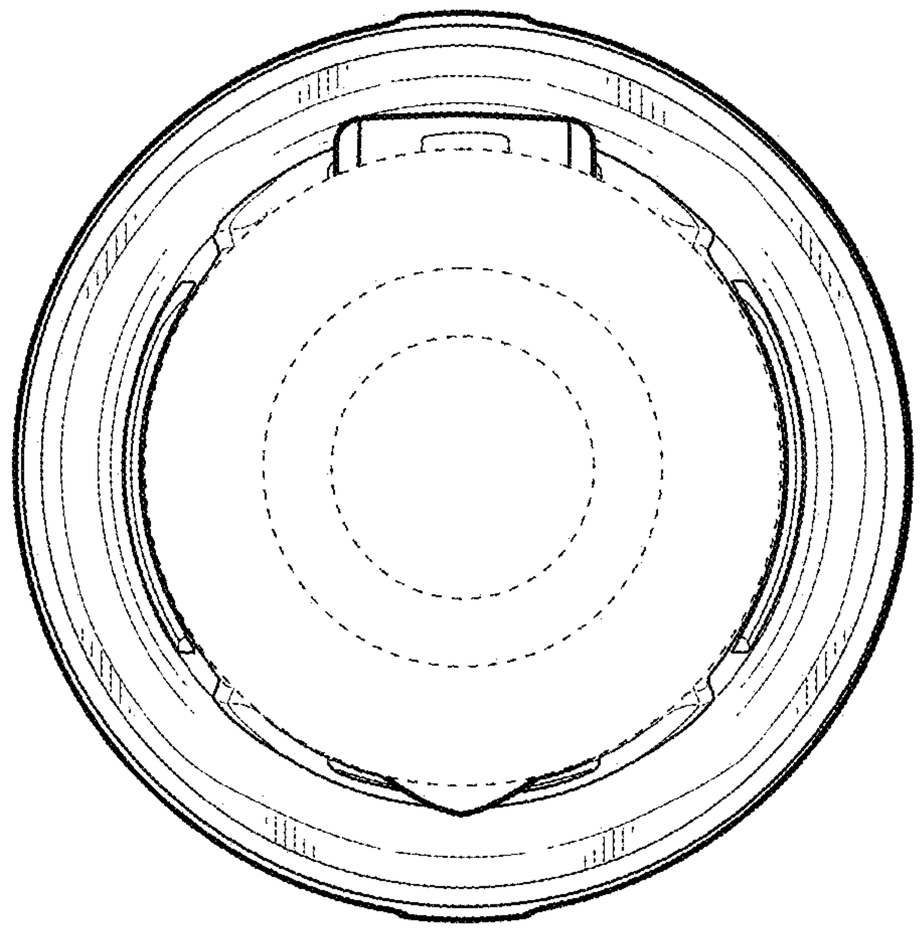


FIG. 14