



US00D785197S

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

(10) **Patent No.:** **US D785,197 S**

(45) **Date of Patent:** **** *Apr. 25, 2017**

(54) **GAS SPARGING DEVICE**

B03D 1/1431; B03D 1/1493; B03D 1/24;
B03D 1/242; B03D 1/245; B03D 1/247

See application file for complete search history.

(71) Applicant: **EVOQUA WATER TECHNOLOGIES LLC**, Warrendale, PA (US)

(56) **References Cited**

(72) Inventors: **Roger Phelps**, Kings Langley (AU);
Joan-Amanda Lenting, Pennant Hills (AU); **William Davis**, Brookfield, WI (US)

U.S. PATENT DOCUMENTS

(73) Assignee: **Evoqua Water Technologies LLC**, Warrendale, PA (US)

4,368,060	A *	1/1983	Yanagiako et al.	95/226
5,382,358	A *	1/1995	Yeh	210/221.2
7,267,232	B2 *	9/2007	Khan et al.	209/170
D588,693	S *	3/2009	Strong et al.	D24/129
D649,242	S *	11/2011	Kosinski et al.	D24/129
D657,462	S *	4/2012	Siroky	D24/130
D663,023	S *	7/2012	Strong et al.	D24/130
D740,412	S *	10/2015	Strong	D24/130
9,304,070	B2 *	4/2016	Scott	B01D 61/18
2015/0265973	A1 *	9/2015	Phelps	B01D 61/20
				210/636
2016/0103045	A1 *	4/2016	Scott	B01D 61/18
				436/178
2016/0310877	A1 *	10/2016	Levitt	B01D 65/02

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

(**) Term: **14 Years**

(21) Appl. No.: **29/450,953**

* cited by examiner

(22) Filed: **Mar. 26, 2013**

Primary Examiner — Wan Laymon

(30) **Foreign Application Priority Data**

(57) **CLAIM**

Sep. 27, 2012 (AU) 14822/2012

We claim the ornamental design for a gas sparging device, as shown and described.

(51) **LOC (10) Cl.** **24-01**

DESCRIPTION

(52) **U.S. Cl.**

USPC **D24/232**

(58) **Field of Classification Search**

USPC D24/232, 117, 121, 127-129, 112, 114, D24/222, 224, 227, 231, 130; 209/170, 209/168-169, 730, 733-734; 210/221.2; 96/216; D10/81, 103; 95/226, 53, 95/93-94; 134/31-32, 11, 61

CPC B01D 47/00; B01D 47/02; B01D 47/05; B01D 65/02; B01D 65/00; B01D 61/18; B01D 61/20; B01D 61/10; B01D 61/14; B01D 17/00; B01D 17/12; B03D 1/14;

FIG. 1 is a bottom plan view of a gas sparging device; FIG. 2 is a cross-section side elevation view of the gas sparging device taken along the line A-A in FIG. 1; FIG. 3 is a perspective view of a bell of the gas sparging device of FIG. 2 with a skirt removed; and, FIG. 4 is a perspective view of the skirt and bell of the gas sparging device of FIG. 2.

The broken lines shown in the figures represent portions of the gas sparging device that form no part of the claimed design.

1 Claim, 4 Drawing Sheets

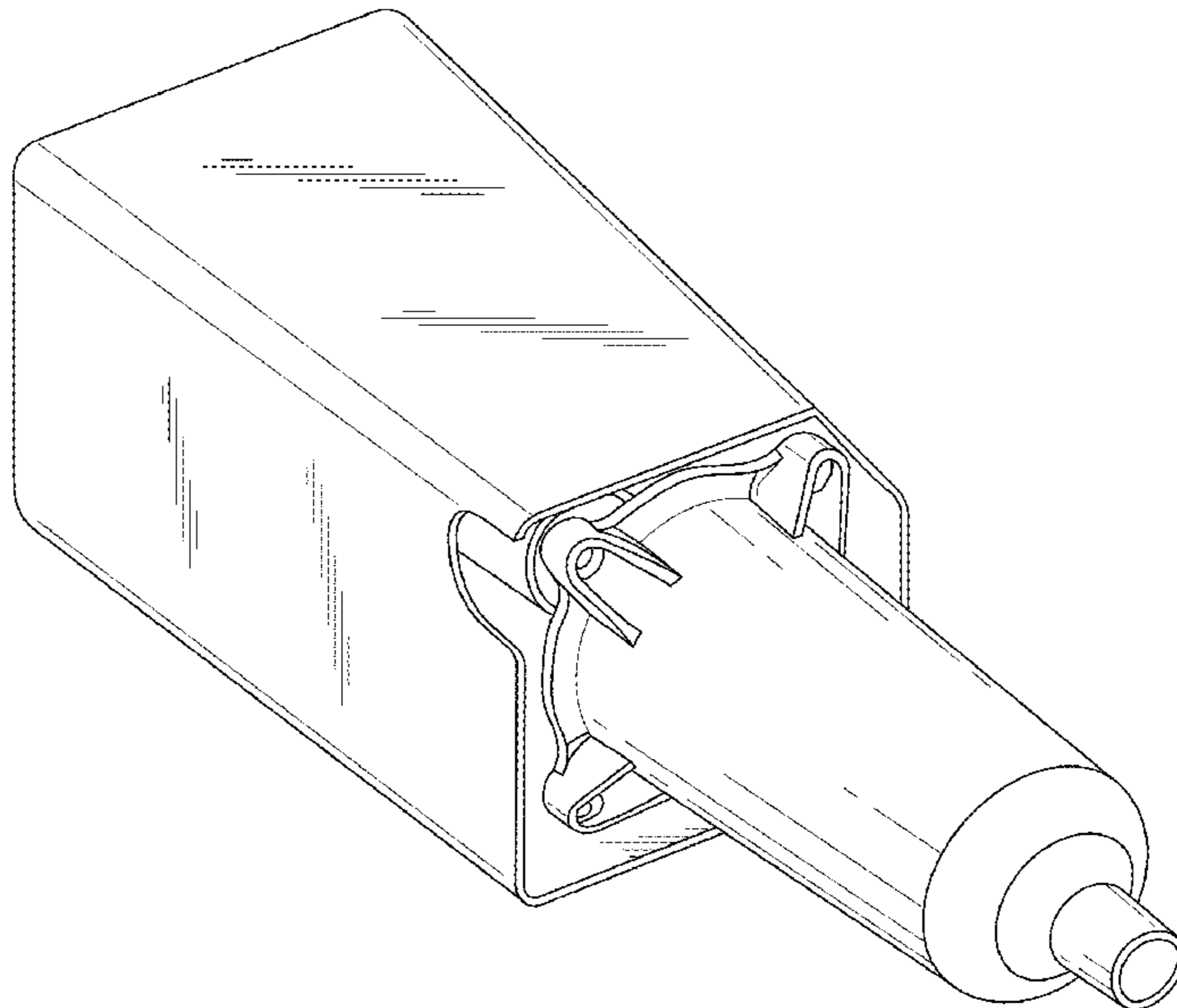
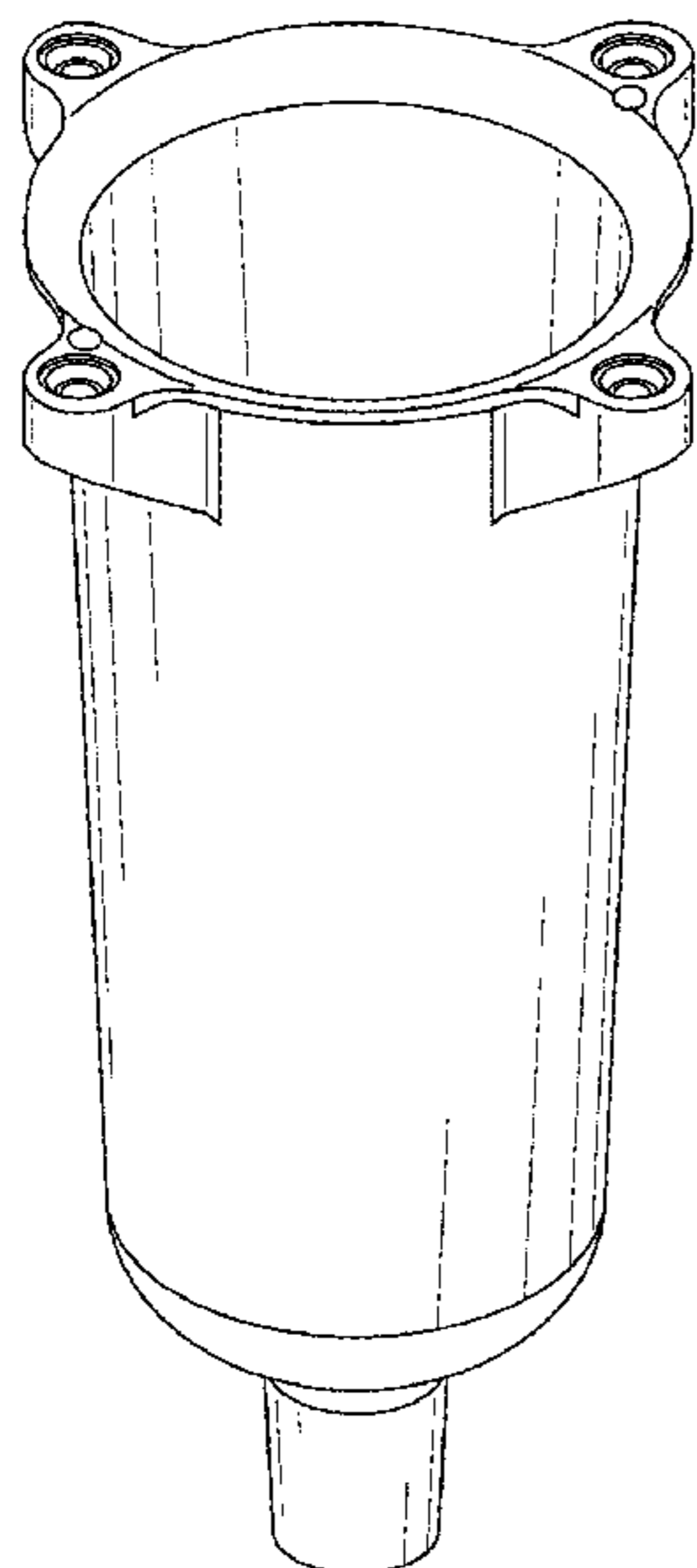


FIG. 1

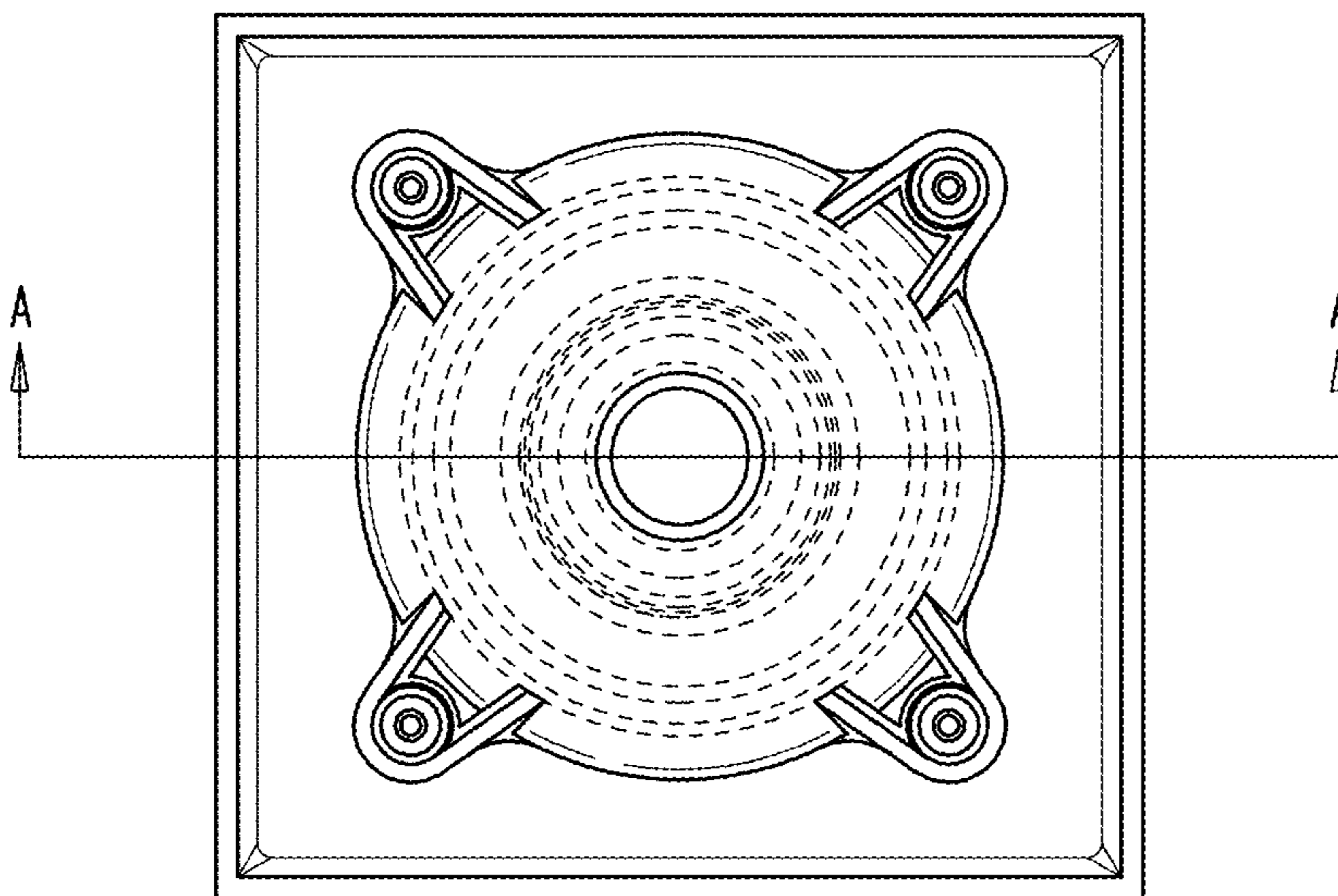


FIG. 2

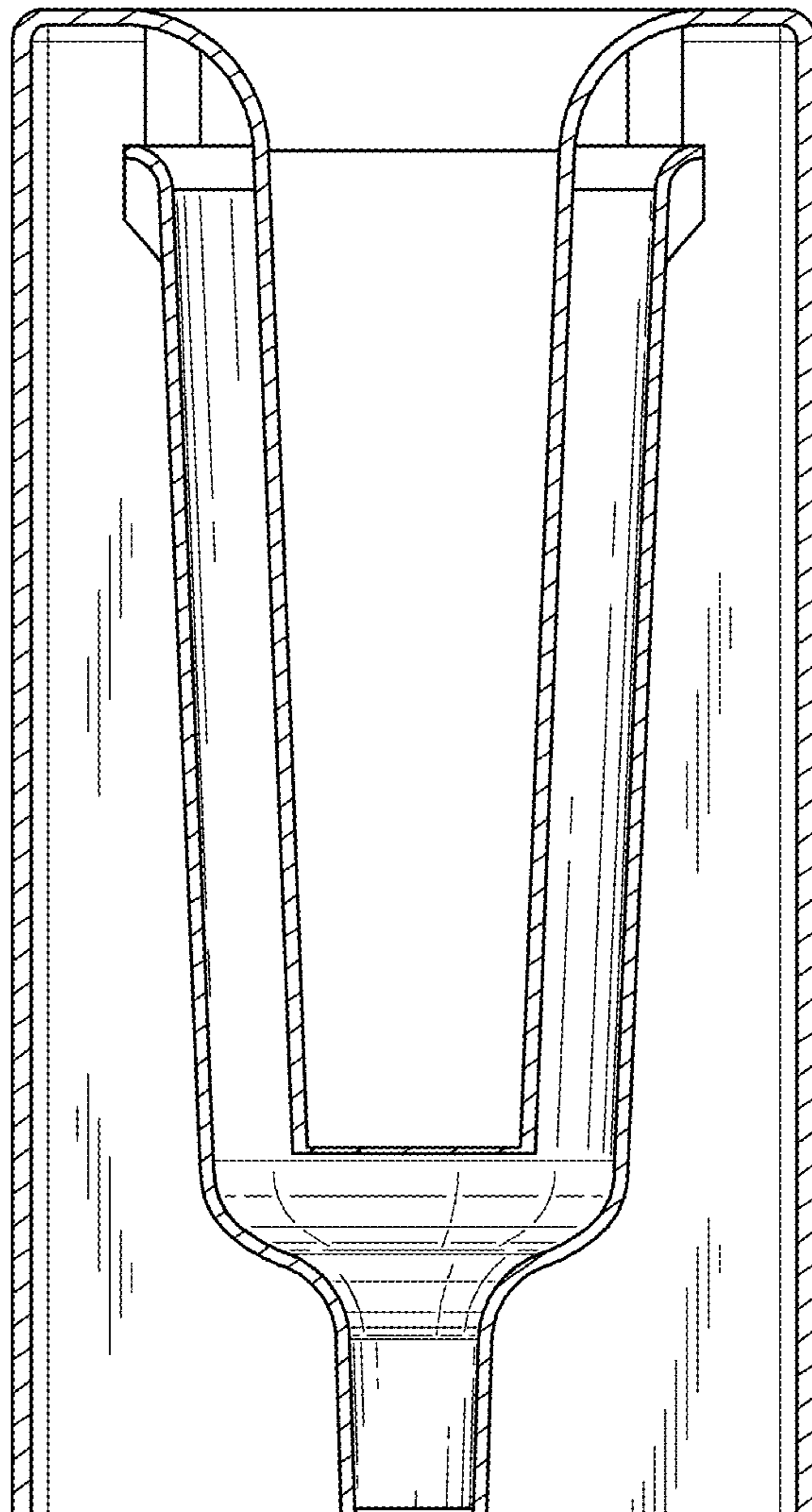


FIG. 3

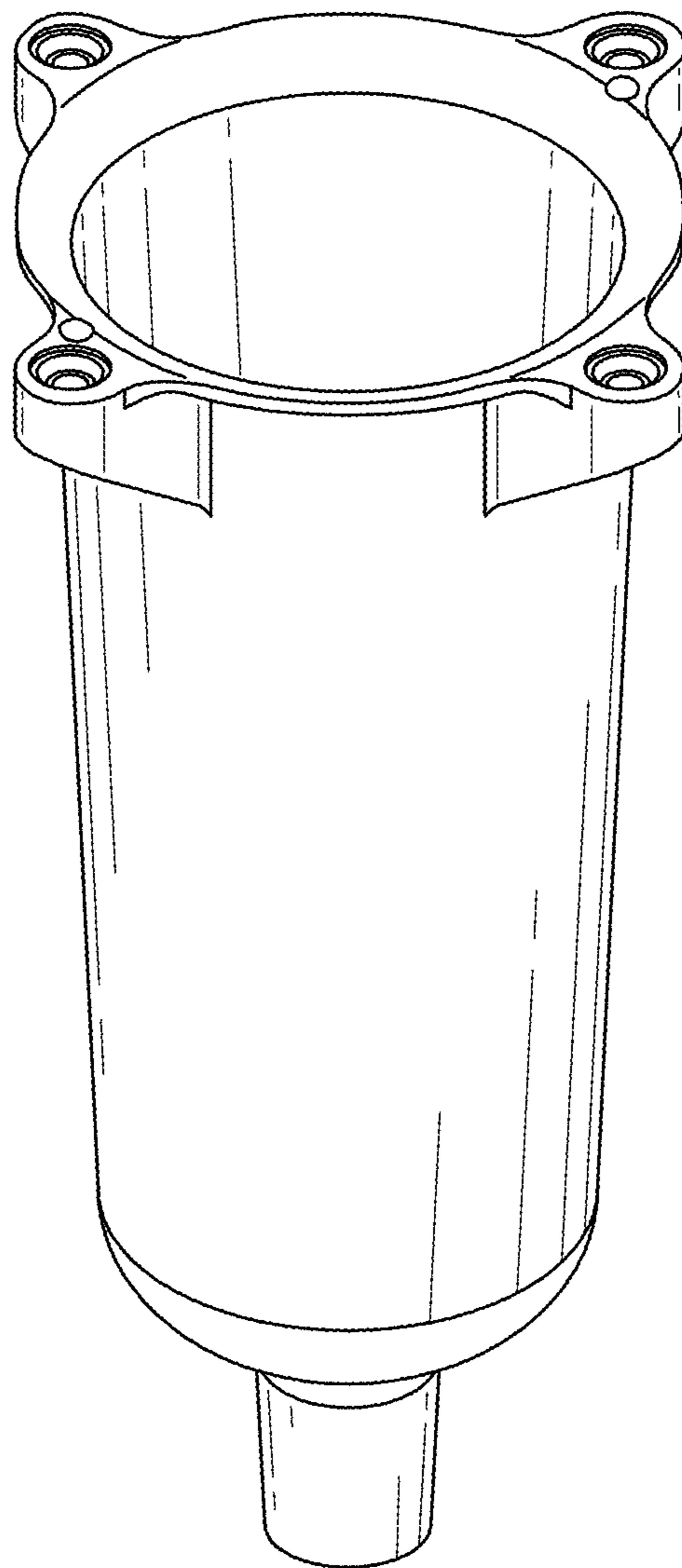


FIG. 4

