



US00D673826S

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

(10) **Patent No.:** **US D673,826 S**  
(45) **Date of Patent:** **\*\* Jan. 8, 2013**

(54) **SPRINKLER PROTECTIVE CAP REMOVAL TOOL**

(75) Inventor: **Yasuaki Koiwa**, Tokyo (JP)

(73) Assignee: **Senju Sprinkler Co., Ltd.**, Tokyo (JP)

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

(21) Appl. No.: **29/425,468**

(22) Filed: **Jun. 22, 2012**

(30) **Foreign Application Priority Data**

Apr. 18, 2012 (JP) ..... 2012-009040

(51) **LOC (9) Cl.** ..... **08-05**

(52) **U.S. Cl.** ..... **D8/14**

(58) **Field of Classification Search** ..... D8/14,  
D8/29; 294/209-210; 81/176.15, 176.2  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

1,658,017	A *	1/1928	Grinnell	81/53.11
1,792,834	A *	2/1931	Grinnell	81/53.11
3,238,822	A *	3/1966	Zuracki	81/3.8
D235,843	S *	7/1975	Ehlert	D8/31
D248,536	S *	7/1978	Domasin	D8/21
4,314,723	A *	2/1982	Vermillion	81/53.11
D297,499	S *	9/1988	Whitney	D8/14
D297,501	S *	9/1988	Bayer	D8/29
D298,006	S *	10/1988	Cooley	D8/14
D311,315	S *	10/1990	Duke	D8/25
5,103,695	A *	4/1992	Dolle et al.	81/53.11
5,213,016	A *	5/1993	Kah, Jr.	81/176.15
5,231,733	A *	8/1993	Dittman	16/412
D344,662	S *	3/1994	Dittman	D8/14
D355,343	S *	2/1995	Gliddings, Jr.	D8/29
D389,709	S *	1/1998	Cirincione	D8/14
D409,470	S *	5/1999	Barry	D8/98

D484,013	S *	12/2003	Alverson, Jr.	D8/14
D518,341	S *	4/2006	Lowen	D8/14
D519,338	S *	4/2006	Lowen	D8/14
7,185,567	B2 *	3/2007	Ide	81/176.15
D558,549	S *	1/2008	Ozaki-Owen	D8/61
7,891,716	B2 *	2/2011	Orr et al.	294/209
D636,645	S *	4/2011	Bell	D8/14
8,052,187	B2 *	11/2011	Orr et al.	294/209
D655,147	S *	3/2012	Zorovich et al.	D8/107
8,225,697	B2 *	7/2012	Cink et al.	81/3.41

**FOREIGN PATENT DOCUMENTS**

JP	07-039859	U	7/1995
JP	3027985	U	6/1996

\* cited by examiner

*Primary Examiner* — Philip S Hyder

*Assistant Examiner* — Roselynn Cody

(74) *Attorney, Agent, or Firm* — Cermak Nakajima LLP;  
Tomoko Nakajima

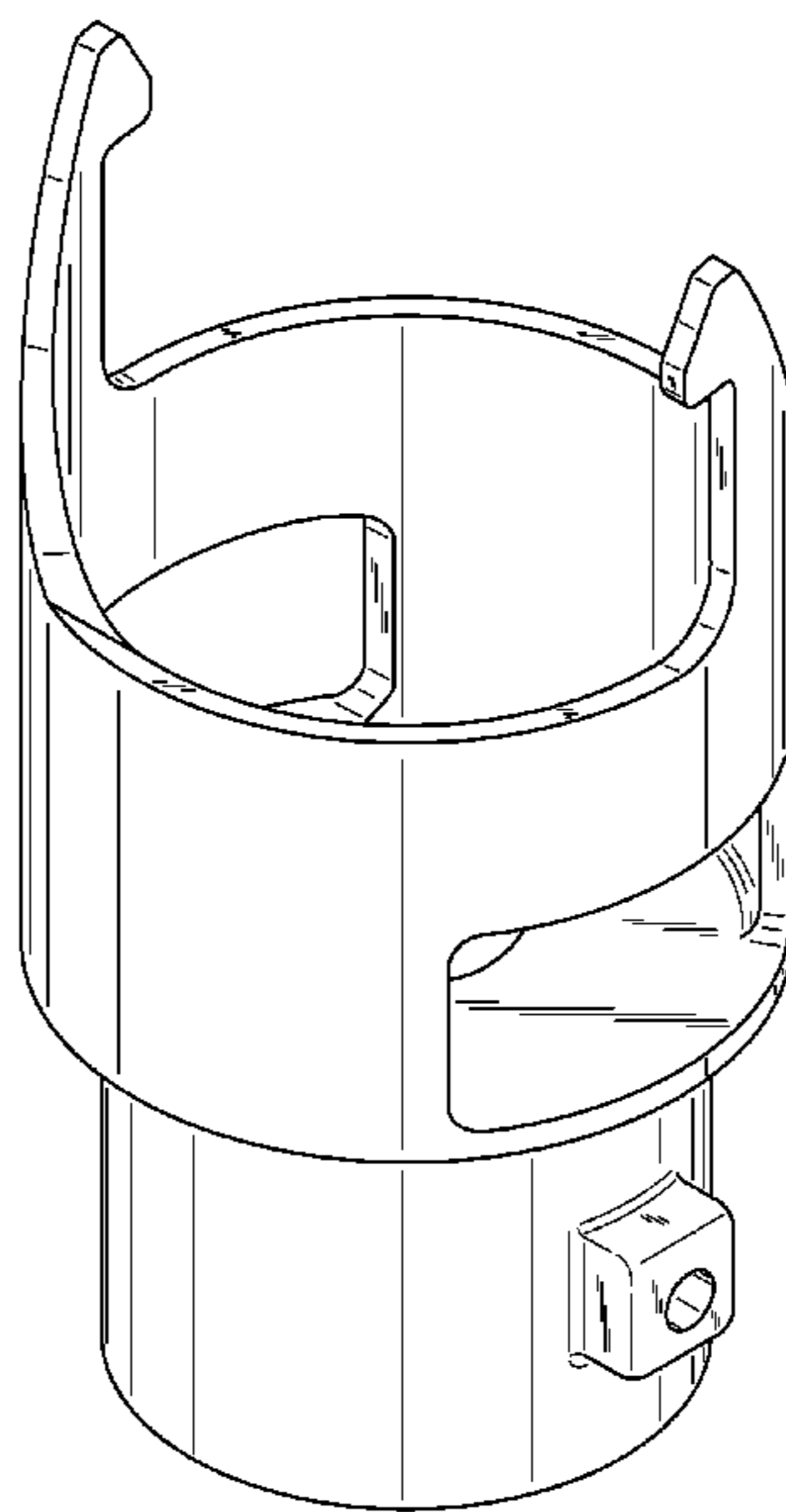
(57) **CLAIM**

The ornamental design for a sprinkler protective cap removal tool, as shown and described.

**DESCRIPTION**

FIG. 1 is a front elevational view of a sprinkler protective cap removal tool showing my new design; FIG. 2 is a rear elevational view thereof; FIG. 3 is a right side elevational view thereof; FIG. 4 is a left side elevational view thereof; FIG. 5 is a top plan view thereof; and FIG. 6 is a bottom plan view thereof. FIG. 7 is a front, top and left perspective view thereof; and FIG. 8 is a rear, bottom and left perspective view thereof. FIG. 9 is a top elevational view thereof; and, FIG. 10 is a cross-sectional view thereof taken along the line 10-10 shown in FIG. 9.

**1 Claim, 10 Drawing Sheets**



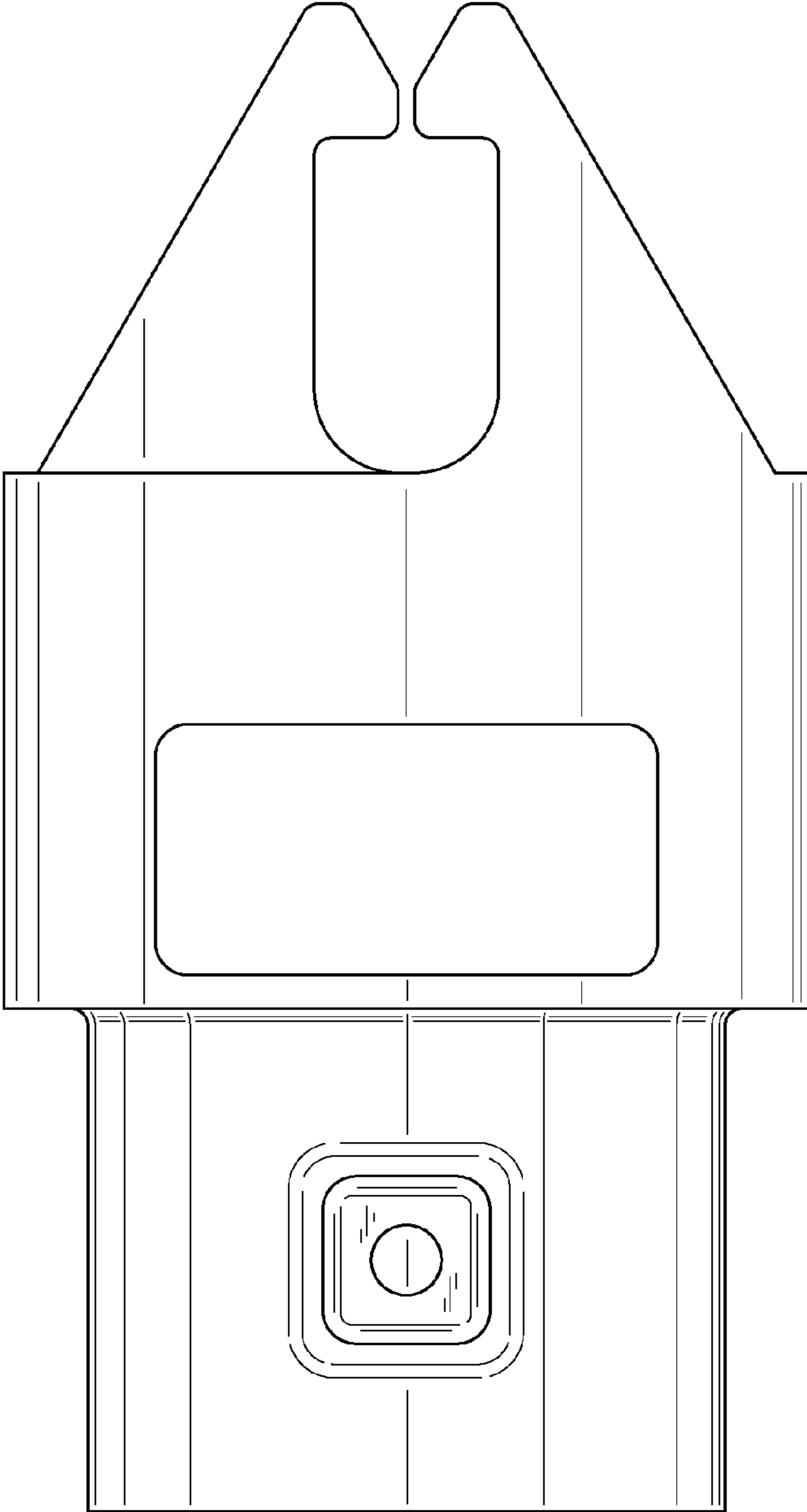


FIG.1

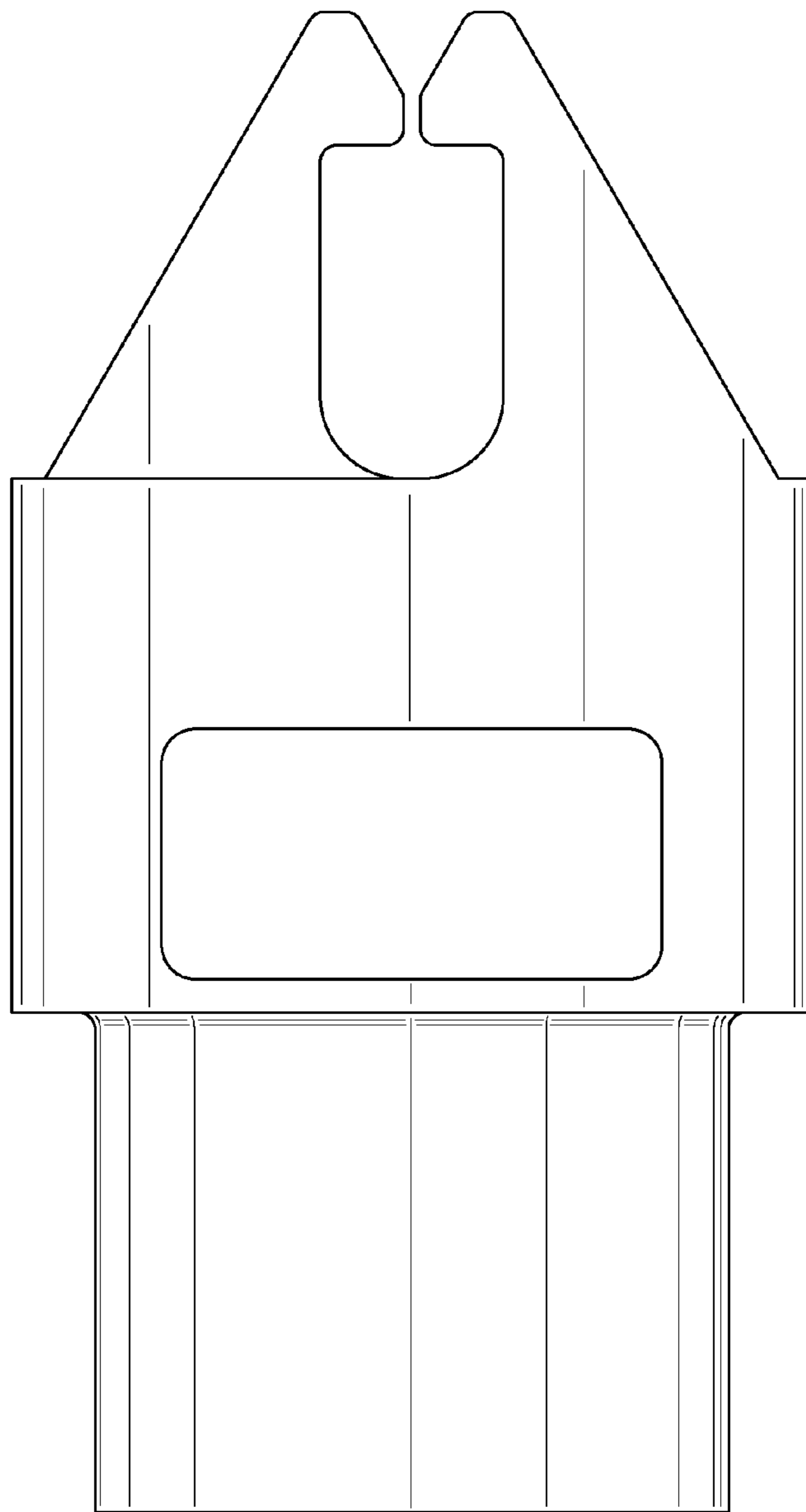


FIG.2

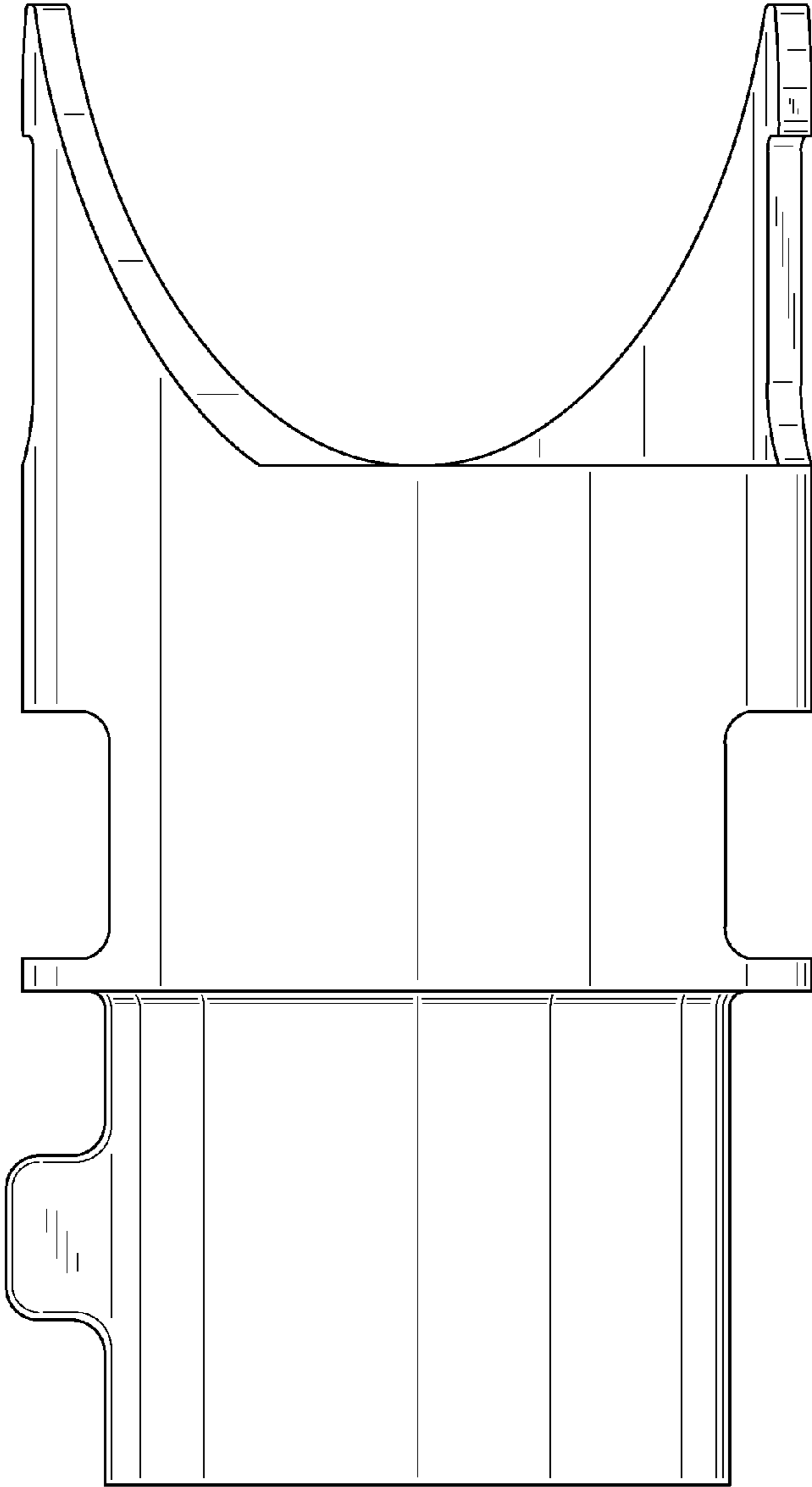


FIG.3

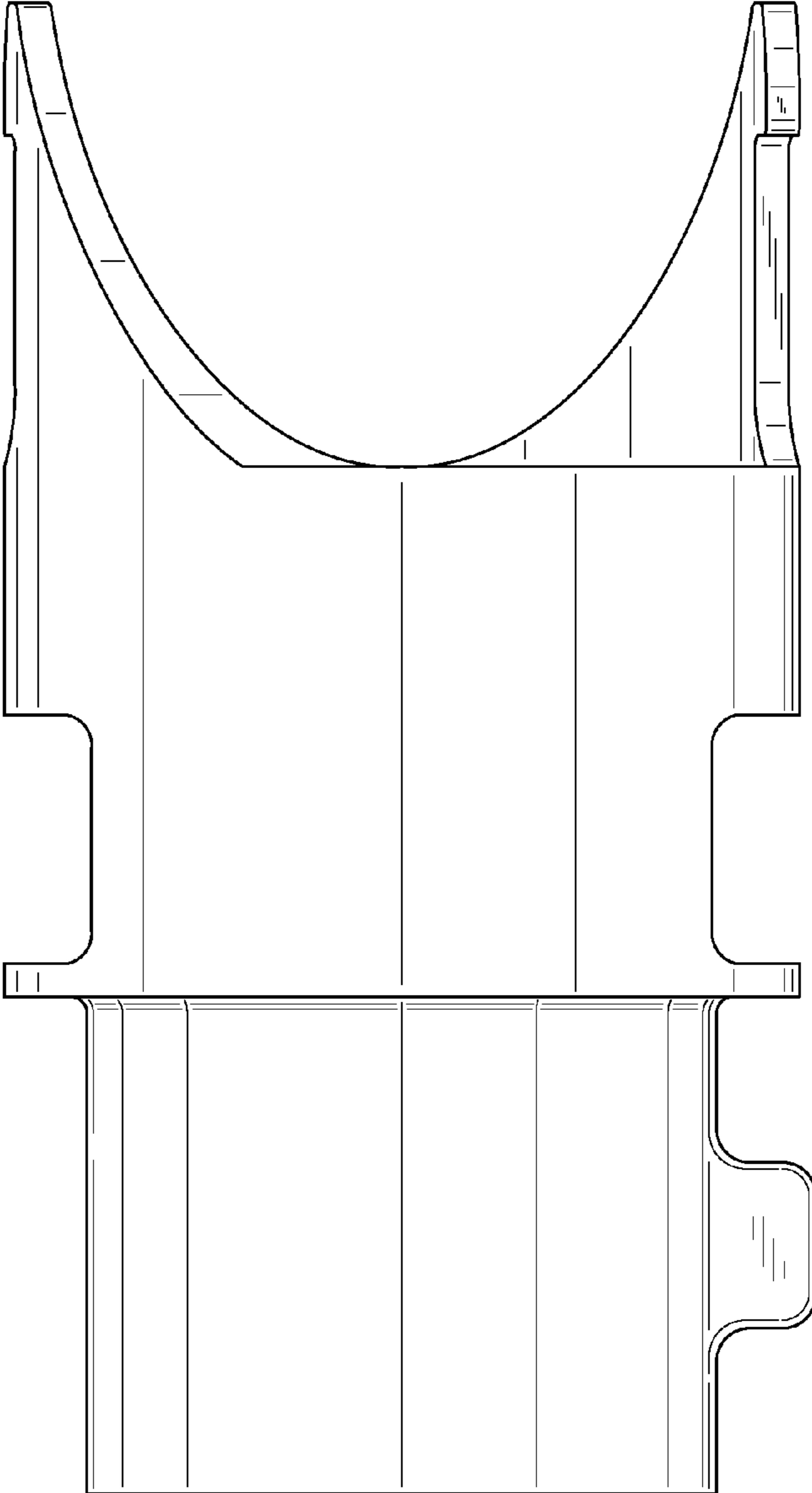


FIG.4

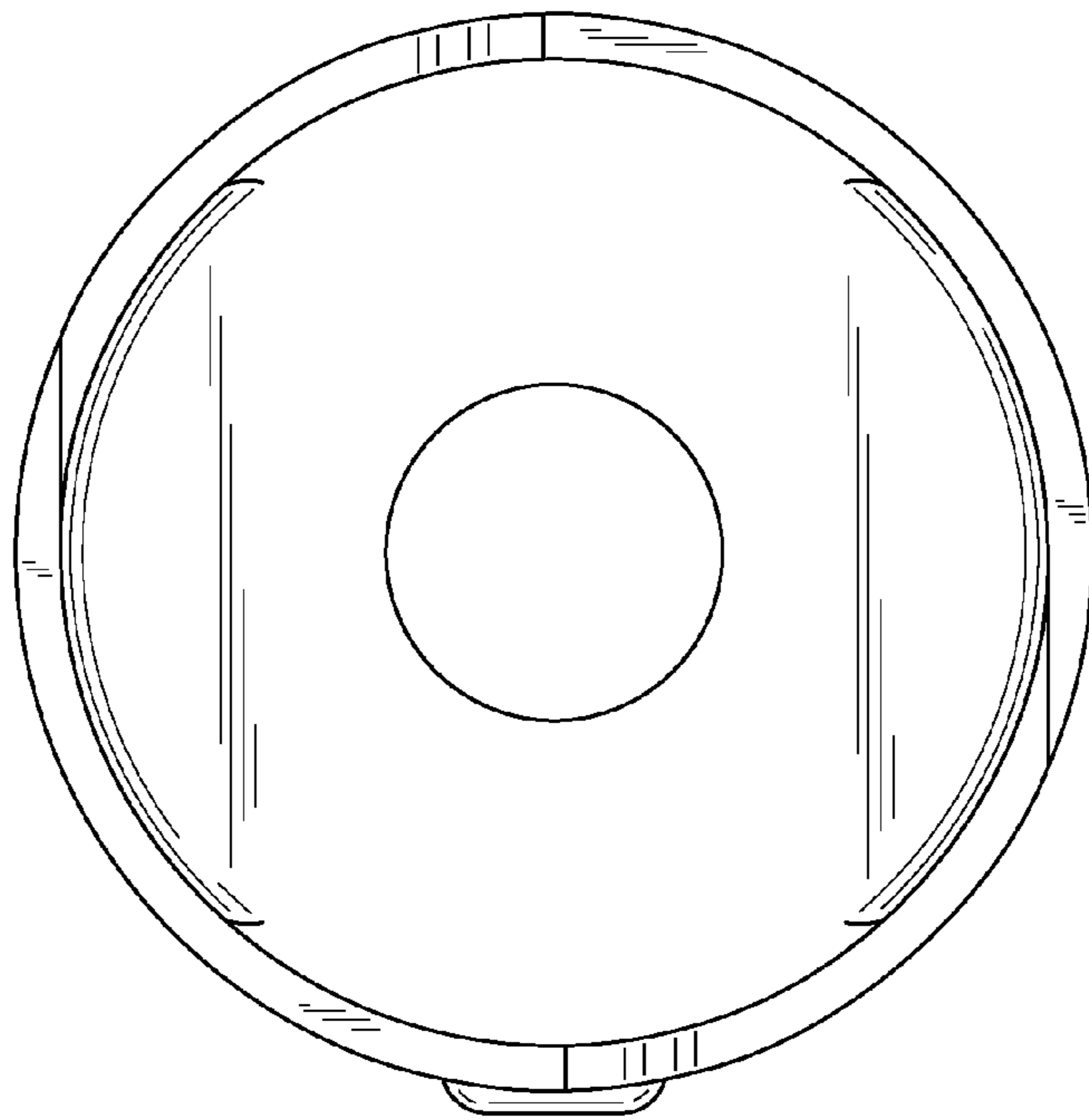


FIG.5

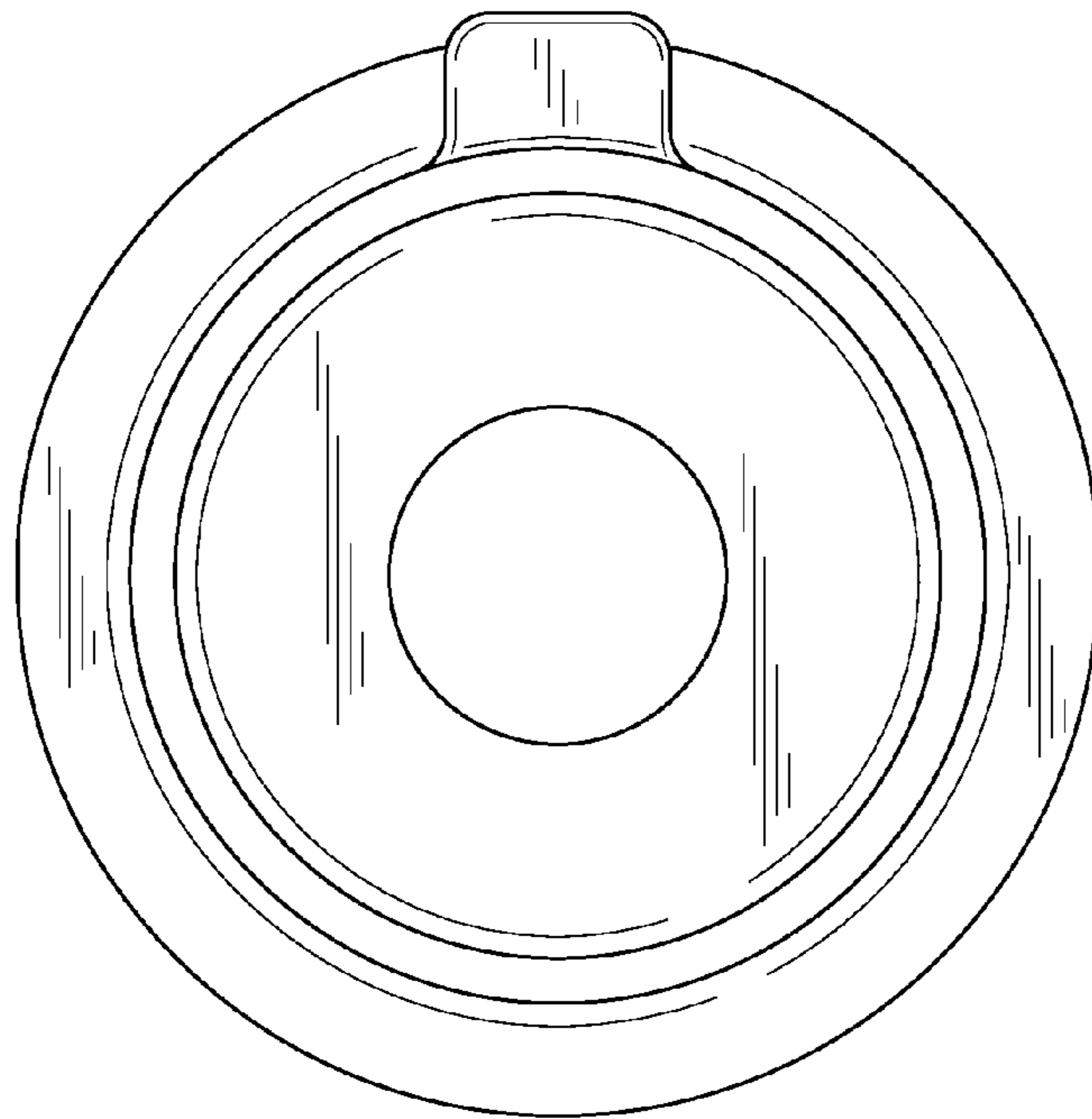


FIG.6

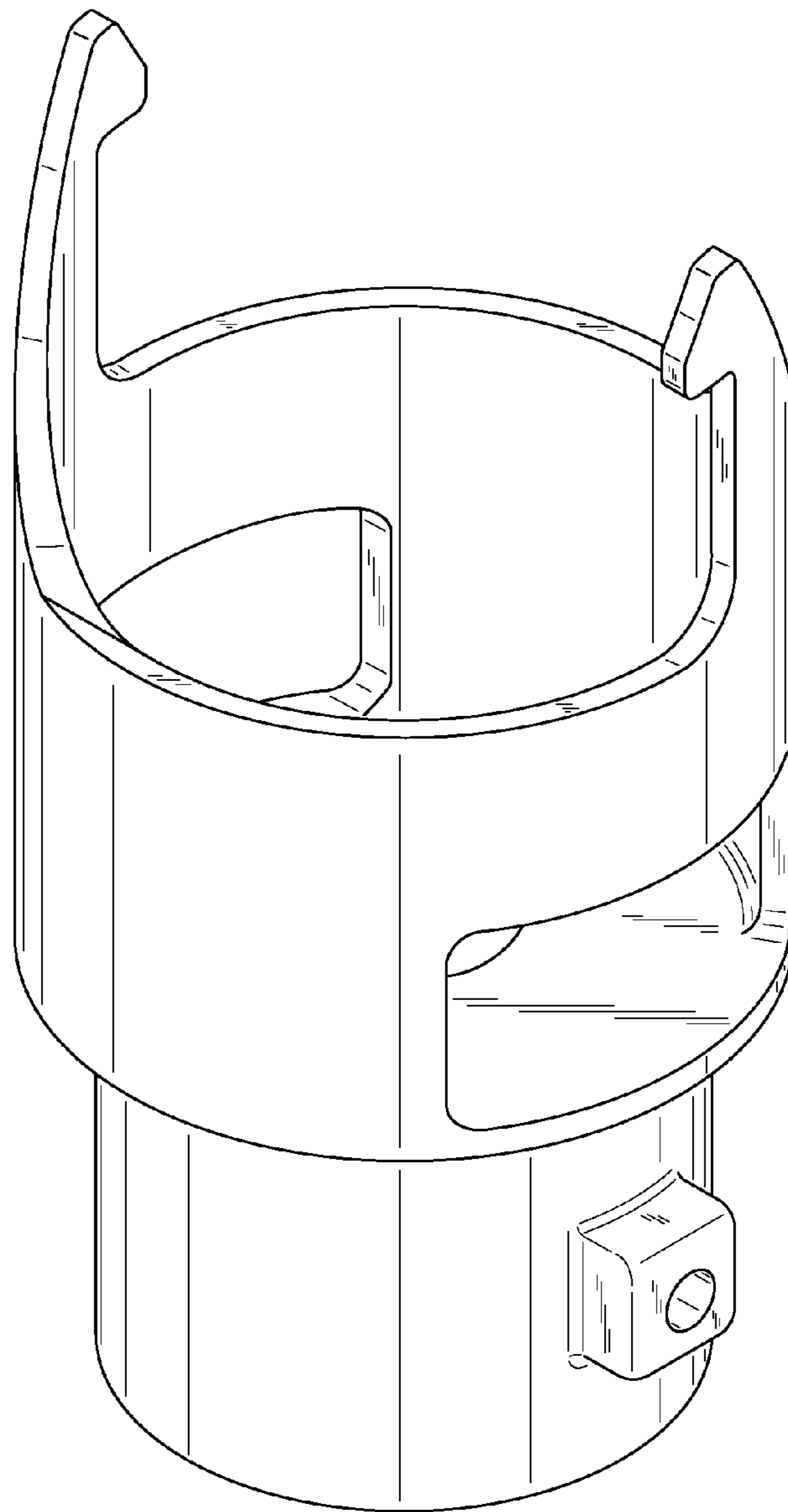


FIG.7



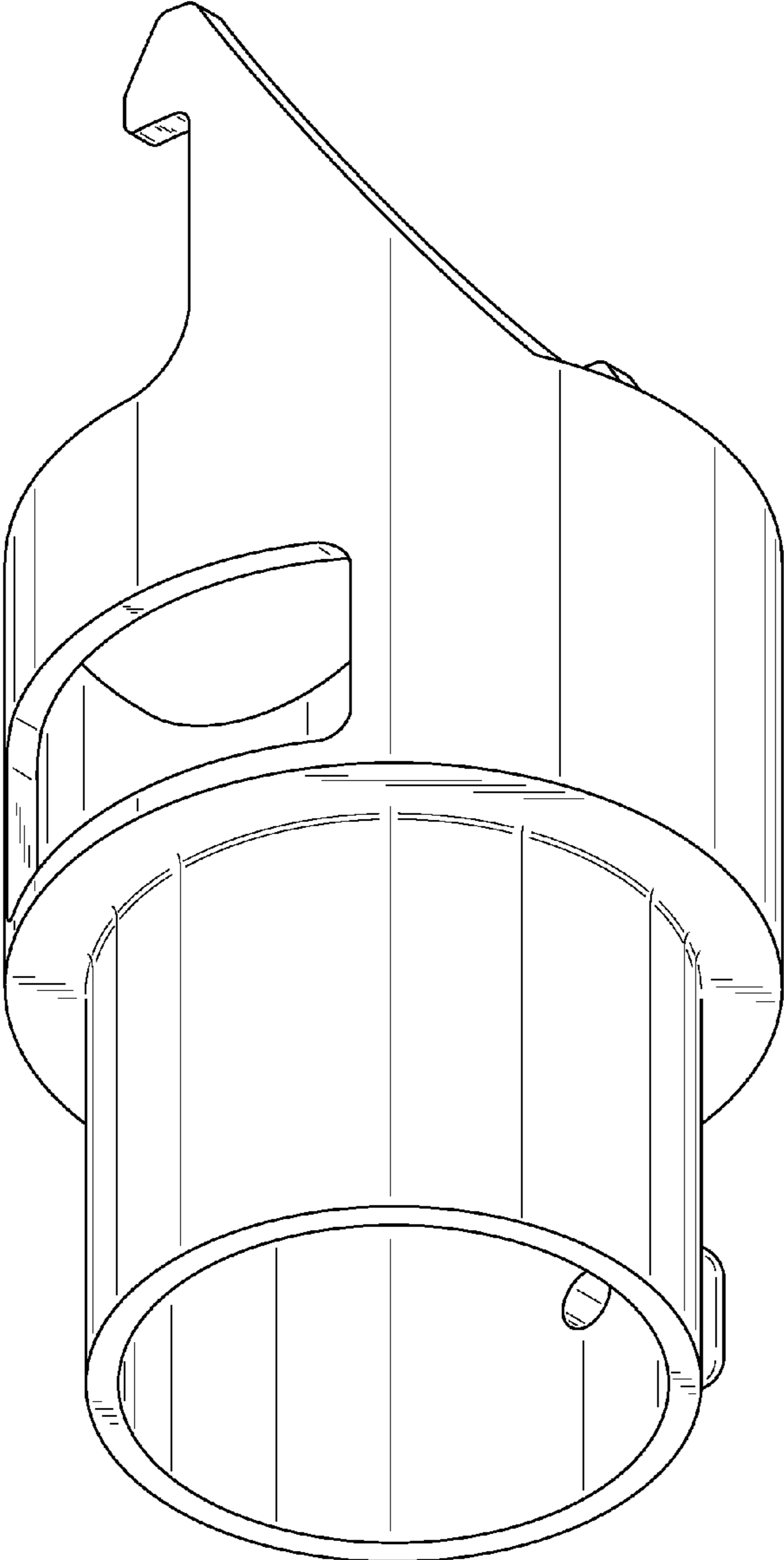


FIG.8

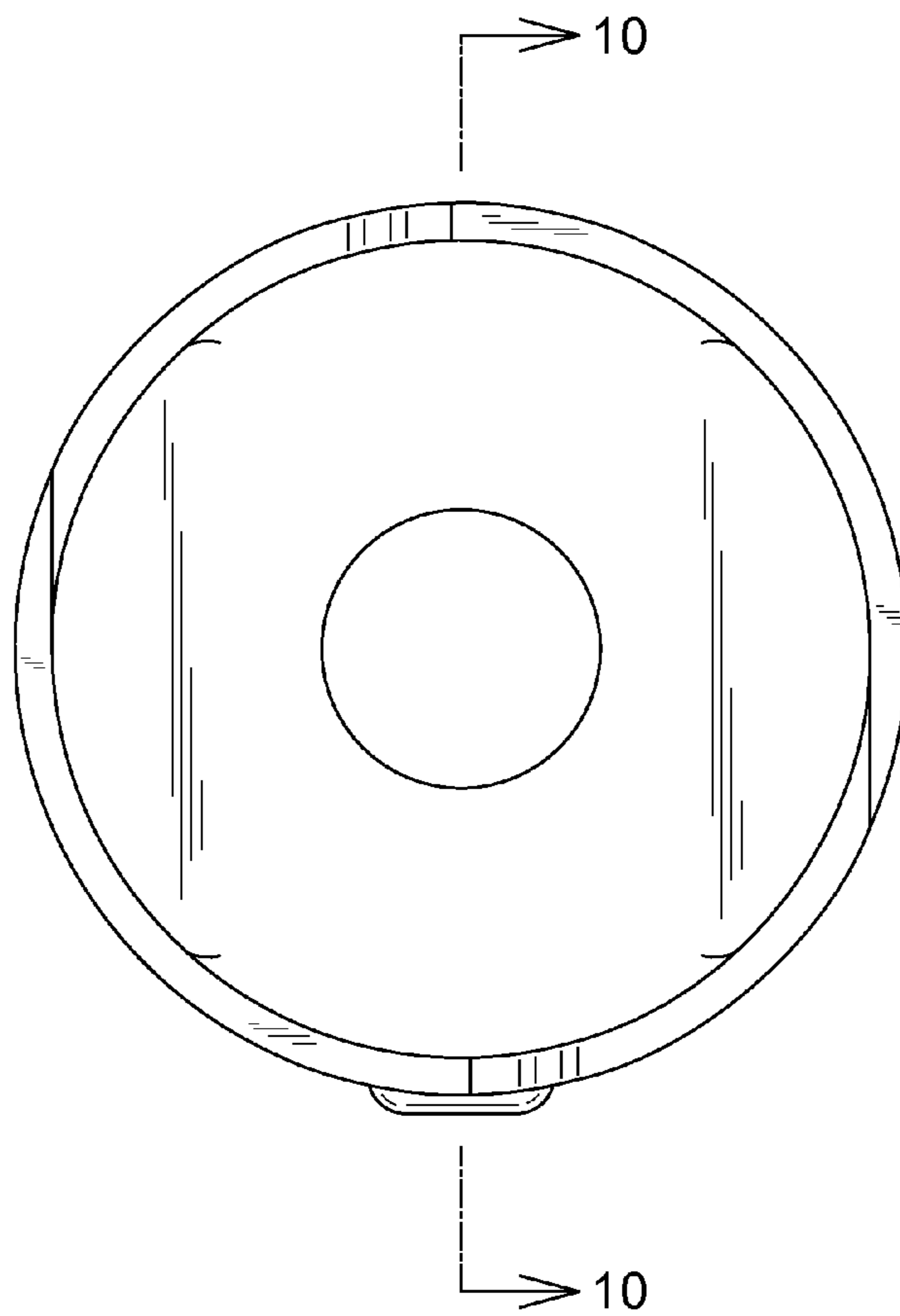


FIG.9

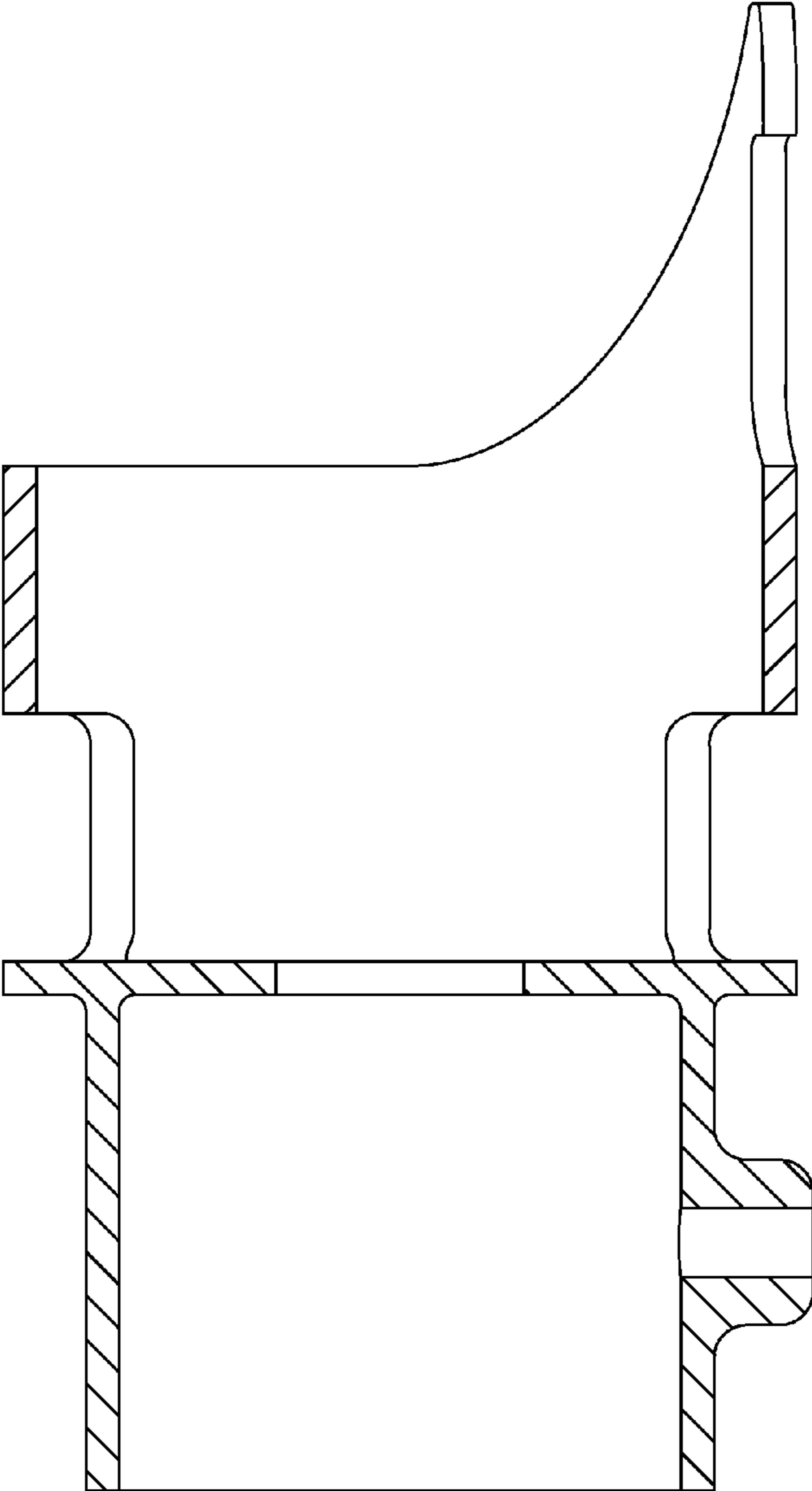


FIG.10