



US00D946167S

(12) **United States Design Patent** (10) **Patent No.:** **US D946,167 S**  
**Sydlowski et al.** (45) **Date of Patent:** **\*\* Mar. 15, 2022**

(54) **CELL CULTURE HANGING INSERT**

(71) Applicant: **EMD Millipore Corporation**,  
Burlington, MA (US)

(72) Inventors: **Paul Sydlowski**, Burlington, MA (US);  
**John Doyle**, Burlington, MA (US)

(73) Assignee: **EMD Millipore Corporation**,  
Burlington, MA (US)

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

(21) Appl. No.: **29/755,024**

(22) Filed: **Oct. 16, 2020**

(51) **LOC (13) Cl.** ..... **24-01**

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

(58) **Field of Classification Search**  
USPC ..... D24/216, 219, 223–227, 231, 232, 233,  
D24/234, 119, 121, 127, 129; D10/81  
CPC ..... C12M 25/04; C12M 23/06; C12M 23/10;  
C12M 23/12; C12M 23/44; C12M 23/48;  
C12M 35/08; B01L 2300/0609  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,871,674 A *	10/1989	Matsui	.....	C12M 25/04 435/297.5
5,026,649 A *	6/1991	Lyman	.....	C12M 25/04 422/502
D360,698 S *	7/1995	Stevens	.....	D24/224
5,468,638 A *	11/1995	Barker	.....	C12M 25/04 422/536
5,578,492 A *	11/1996	Fedun	.....	C12M 23/12 422/536

(Continued)

Primary Examiner — Anhdao Doan

(74) *Attorney, Agent, or Firm* — Nields, Lemack &  
Frame, LLC

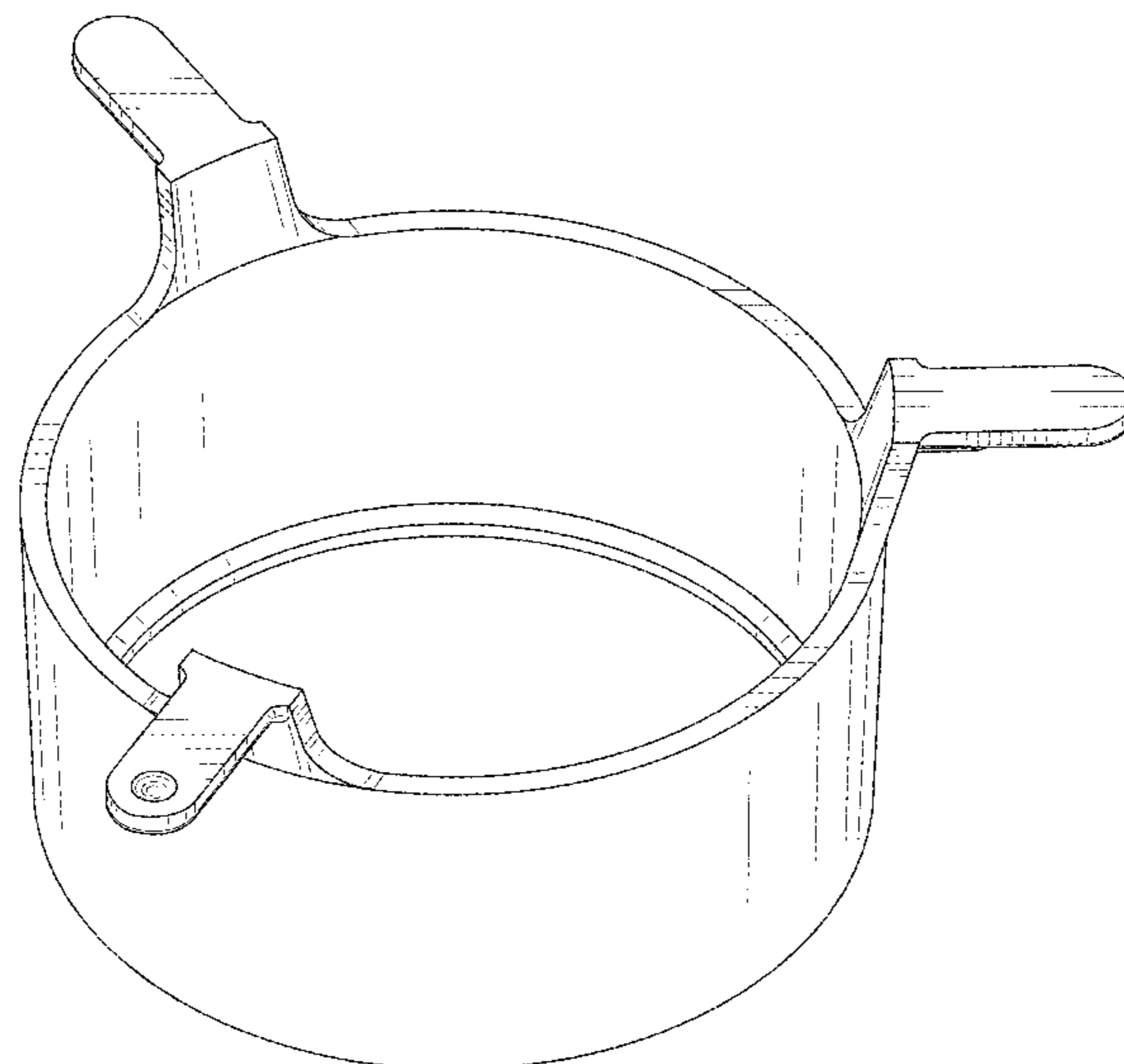
(57) **CLAIM**

The ornamental design for a cell culture hanging insert, as shown and described.

**DESCRIPTION**

FIG. 1 is a top perspective view of a cell culture hanging insert in accordance with a first embodiment; FIG. 2 is a bottom perspective view thereof; FIG. 3 is a front view thereof; FIG. 4 is a rear view thereof; FIG. 5 is a left side view thereof; FIG. 6 is a right side view thereof; FIG. 7 is a top view thereof; FIG. 8 is a bottom view thereof; FIG. 9 is a cross sectional view thereof taken along line 9-9 in FIG. 7; FIG. 10 is a top perspective view of a cell culture hanging insert in accordance with a second embodiment; FIG. 11 is a bottom perspective view thereof; FIG. 12 is a front view thereof; FIG. 13 is a rear view thereof; FIG. 14 is a left side view thereof; FIG. 15 is a right side view thereof; FIG. 16 is a top view thereof; FIG. 17 is a bottom view thereof; FIG. 18 is a cross sectional view thereof taken along line 18-18 in FIG. 16; FIG. 19 is a top perspective view of a cell culture hanging insert in accordance with a third embodiment; FIG. 20 is a bottom perspective view thereof; FIG. 21 is a front view thereof; FIG. 22 is a rear view thereof; FIG. 23 is a left side view thereof; FIG. 24 is a right side view thereof; FIG. 25 is a top view thereof; FIG. 26 is a bottom view thereof; and, FIG. 27 is a cross sectional view thereof taken along line 27-27 in FIG. 25.

**1 Claim, 23 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D781,437	S *	3/2017	Valley .....	D24/227
D907,239	S *	1/2021	Ochiai .....	D24/224
D907,240	S *	1/2021	Ochiai .....	D24/224
D927,015	S *	8/2021	Thomas .....	D24/224
2006/0051857	A1 *	3/2006	Wedell .....	C12M 25/04 435/289.1
2012/0214226	A1 *	8/2012	Dicke .....	C12M 25/04 435/289.1
2013/0022500	A1 *	1/2013	Angeloni Suter .....	C12M 23/00 422/82.01

\* cited by examiner

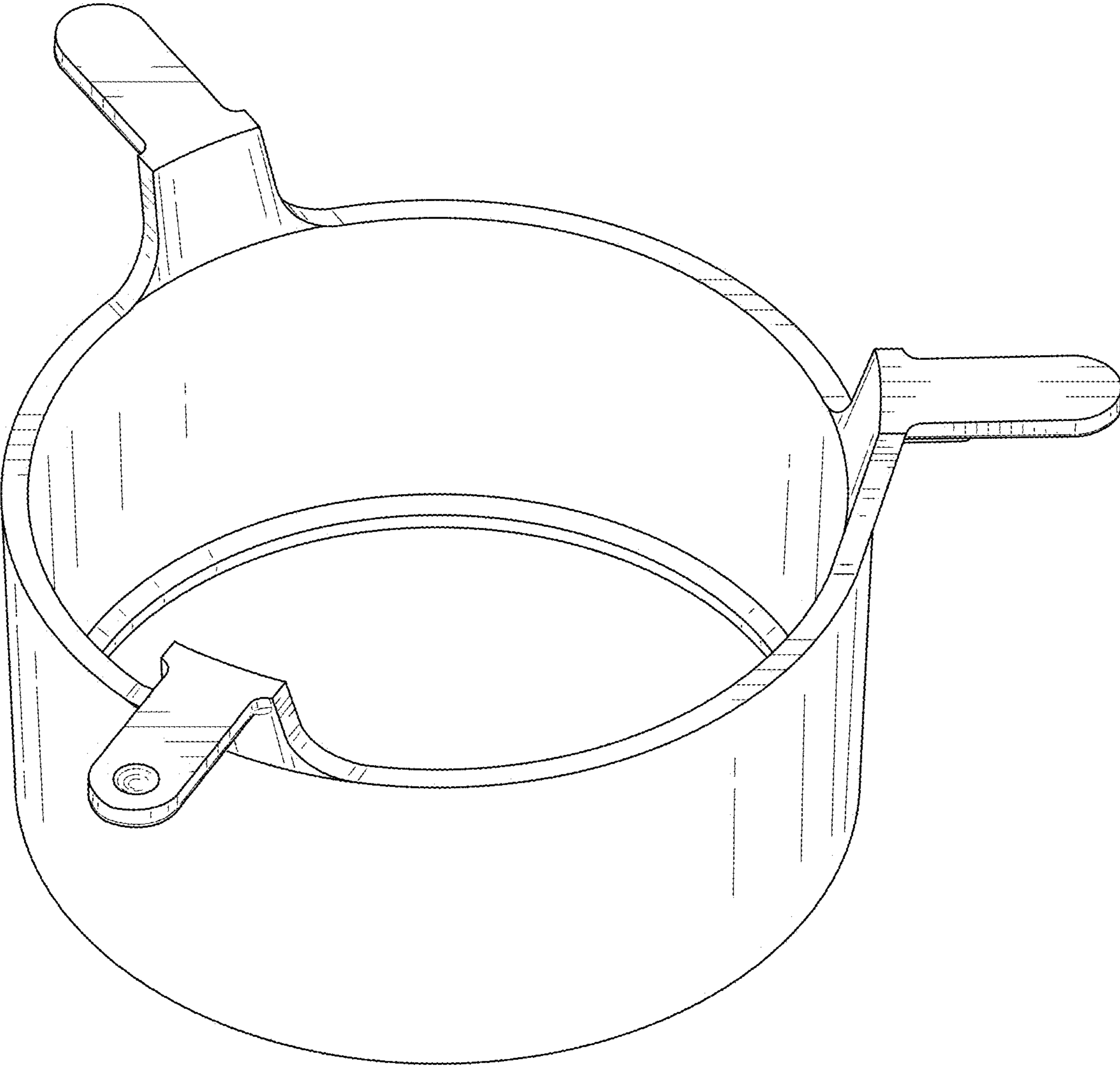


FIG. 1

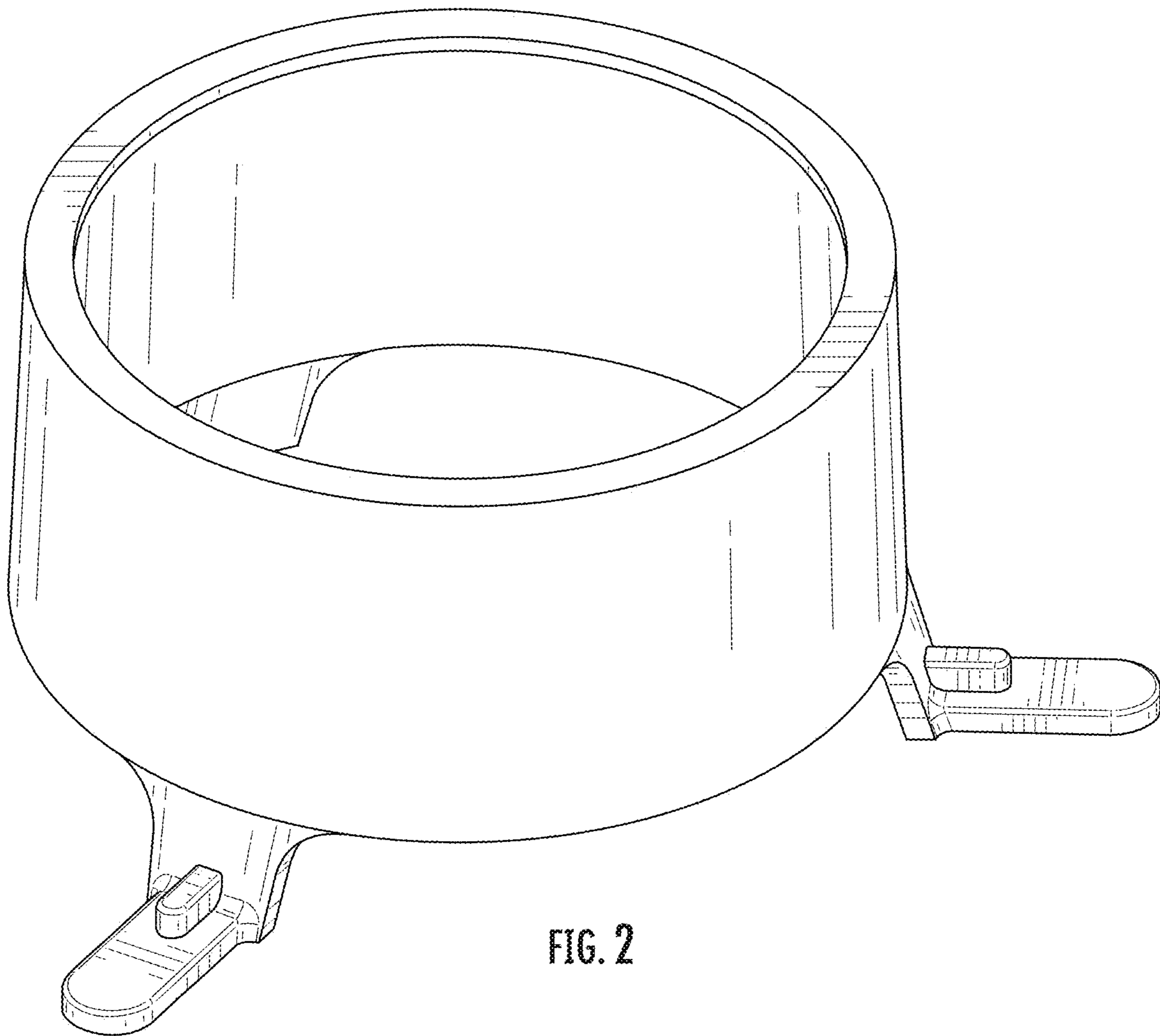


FIG. 2

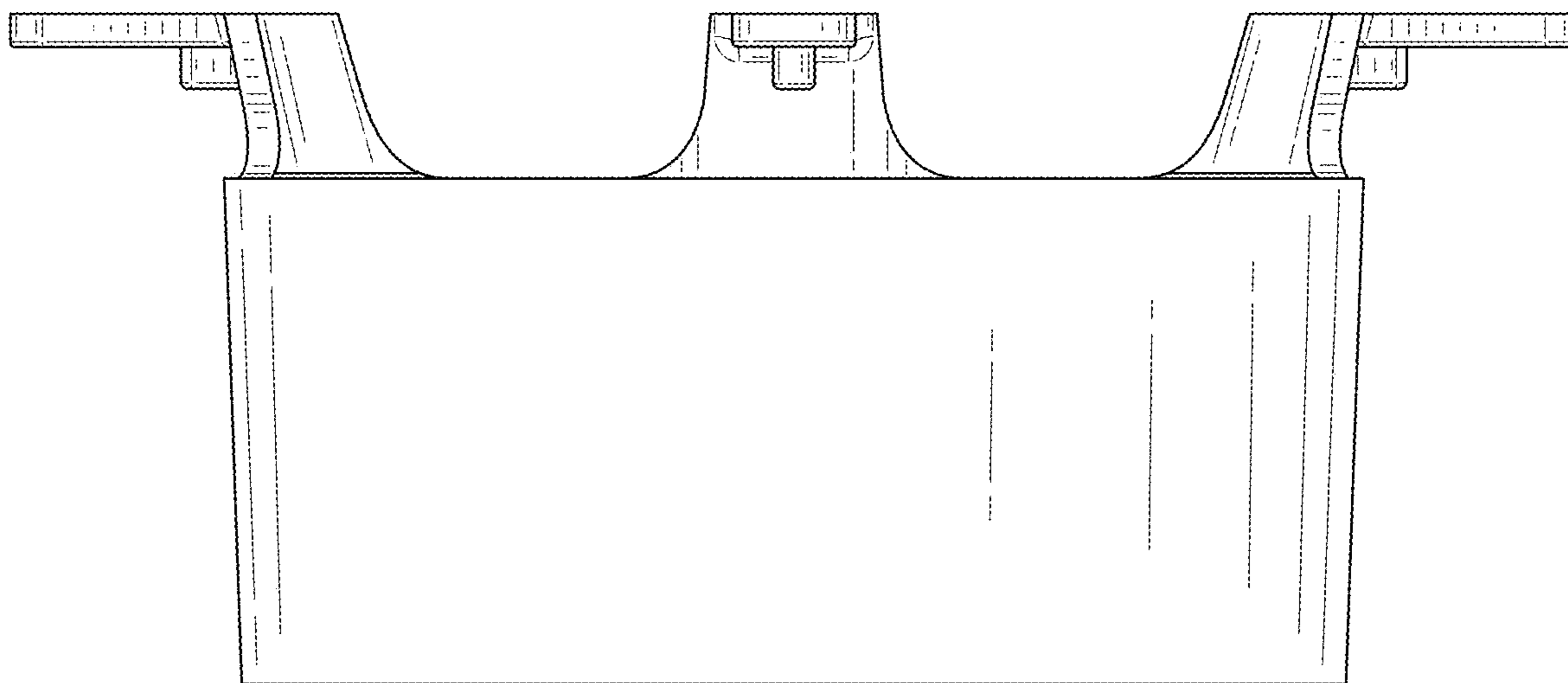


FIG. 3

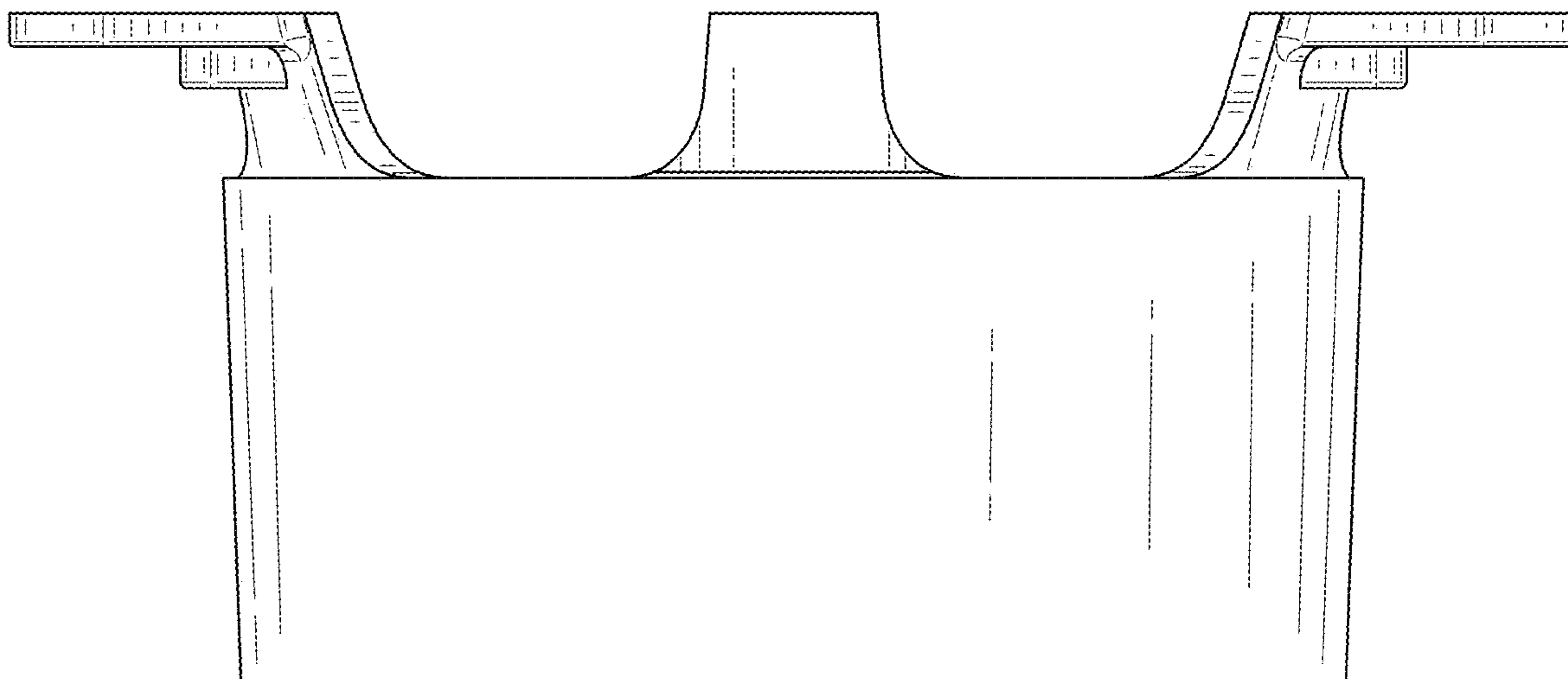


FIG. 4

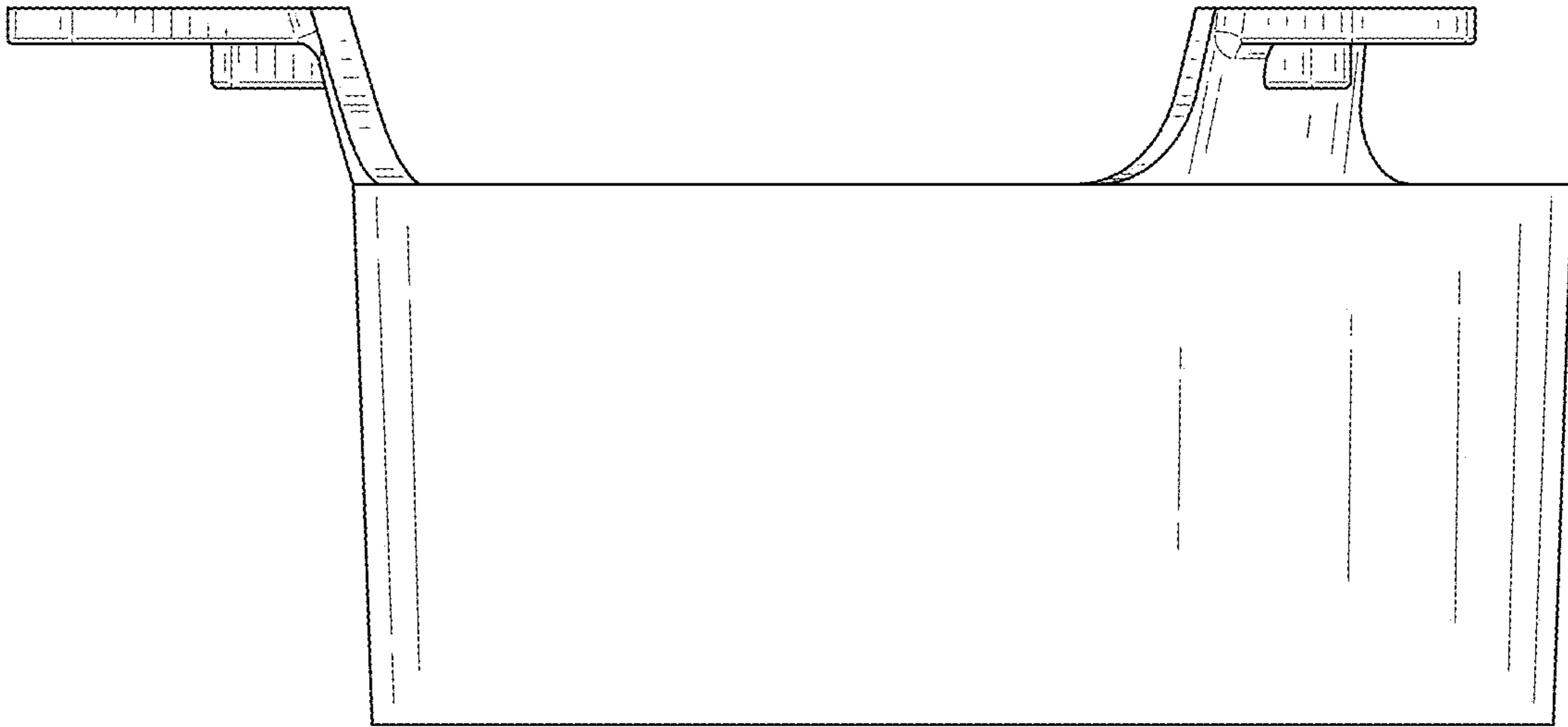


FIG. 5

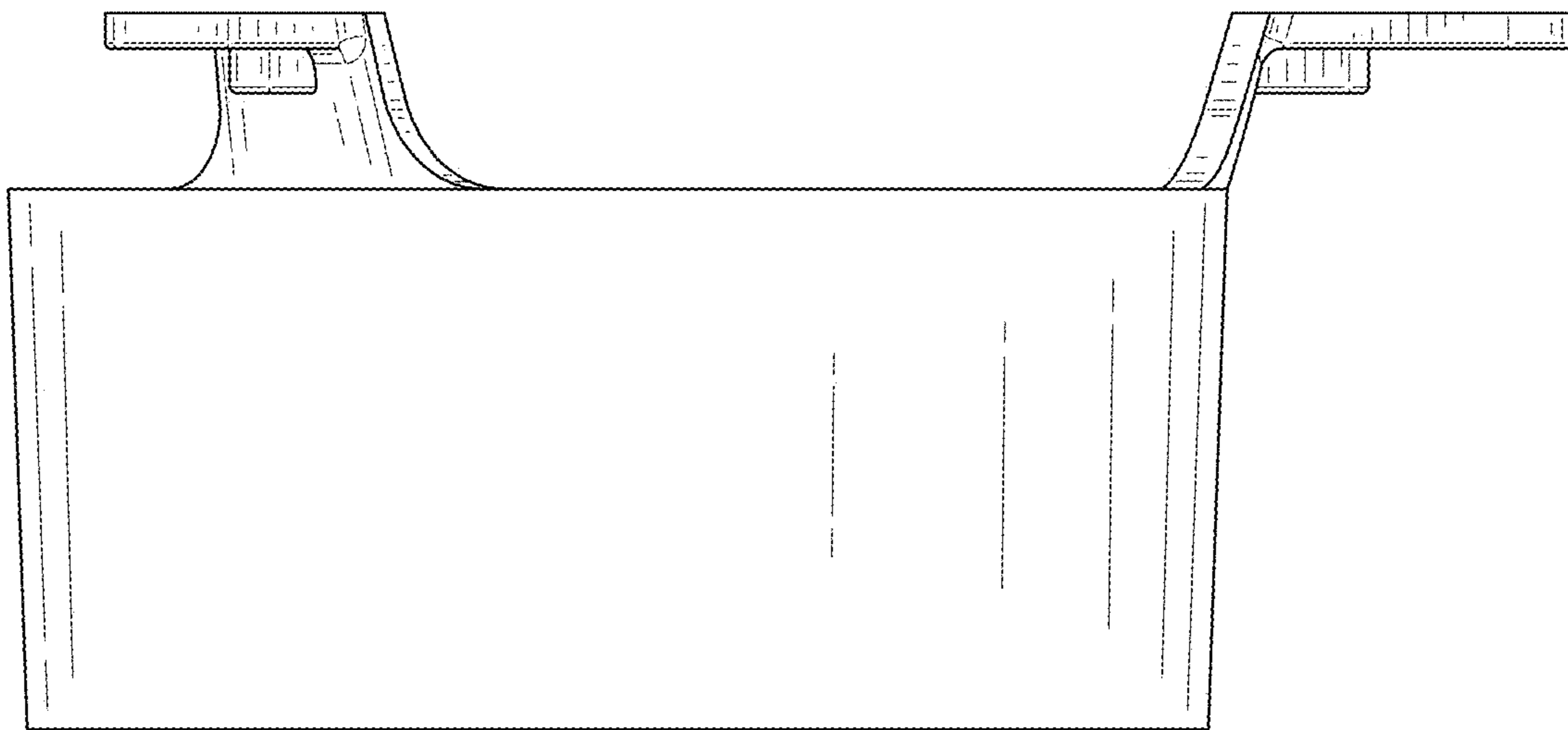


FIG. 6



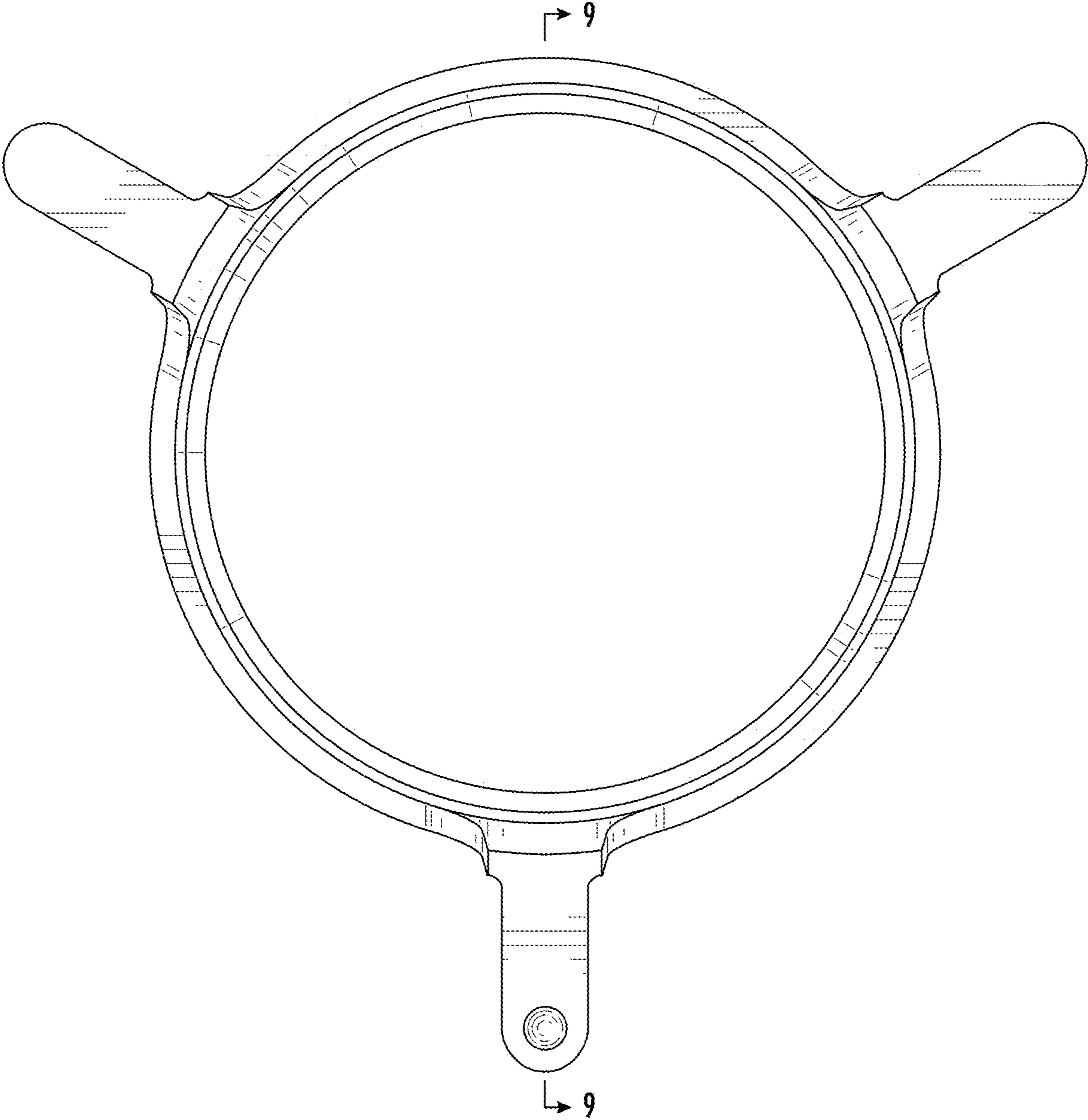


FIG. 7

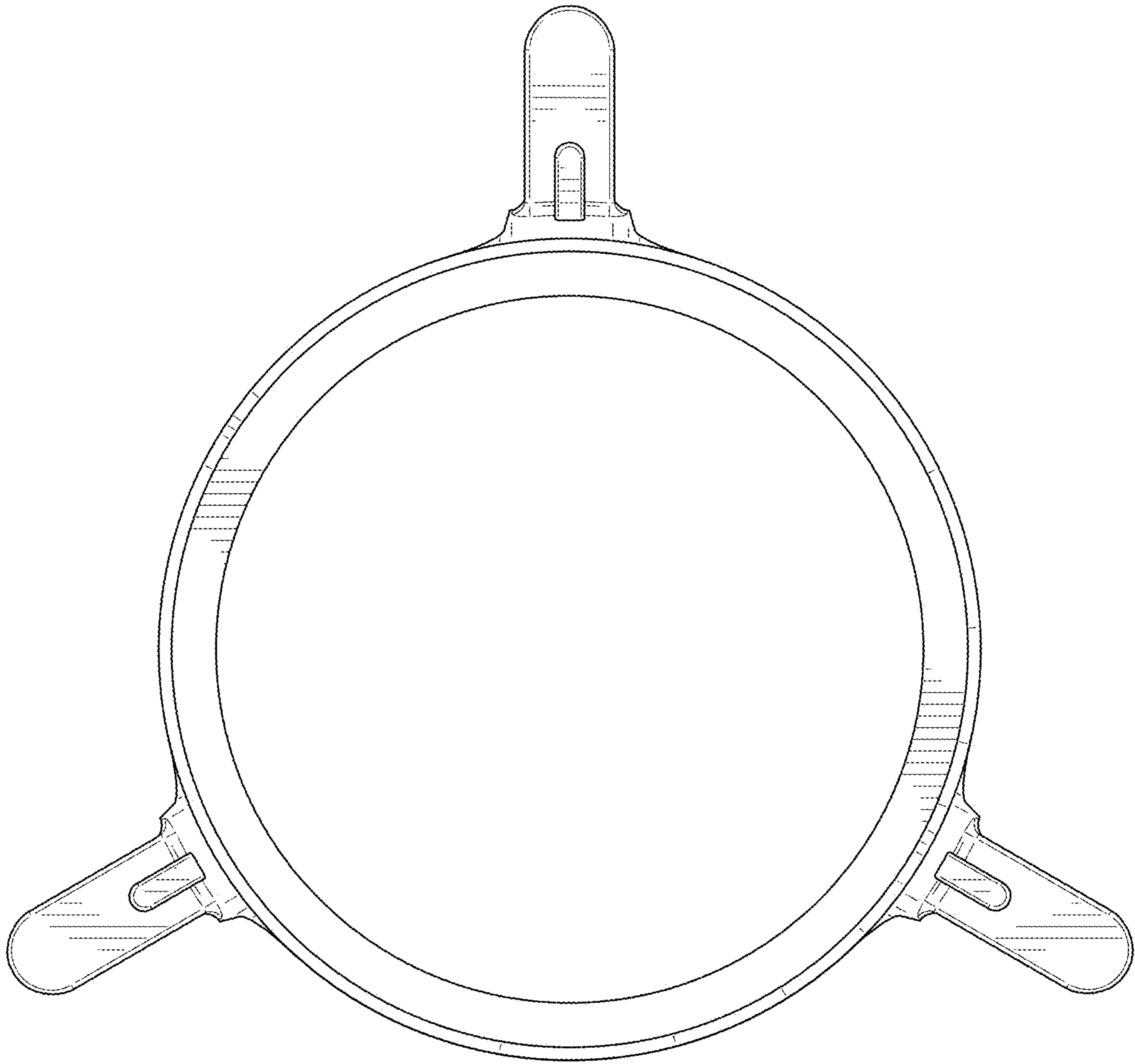


FIG. 8



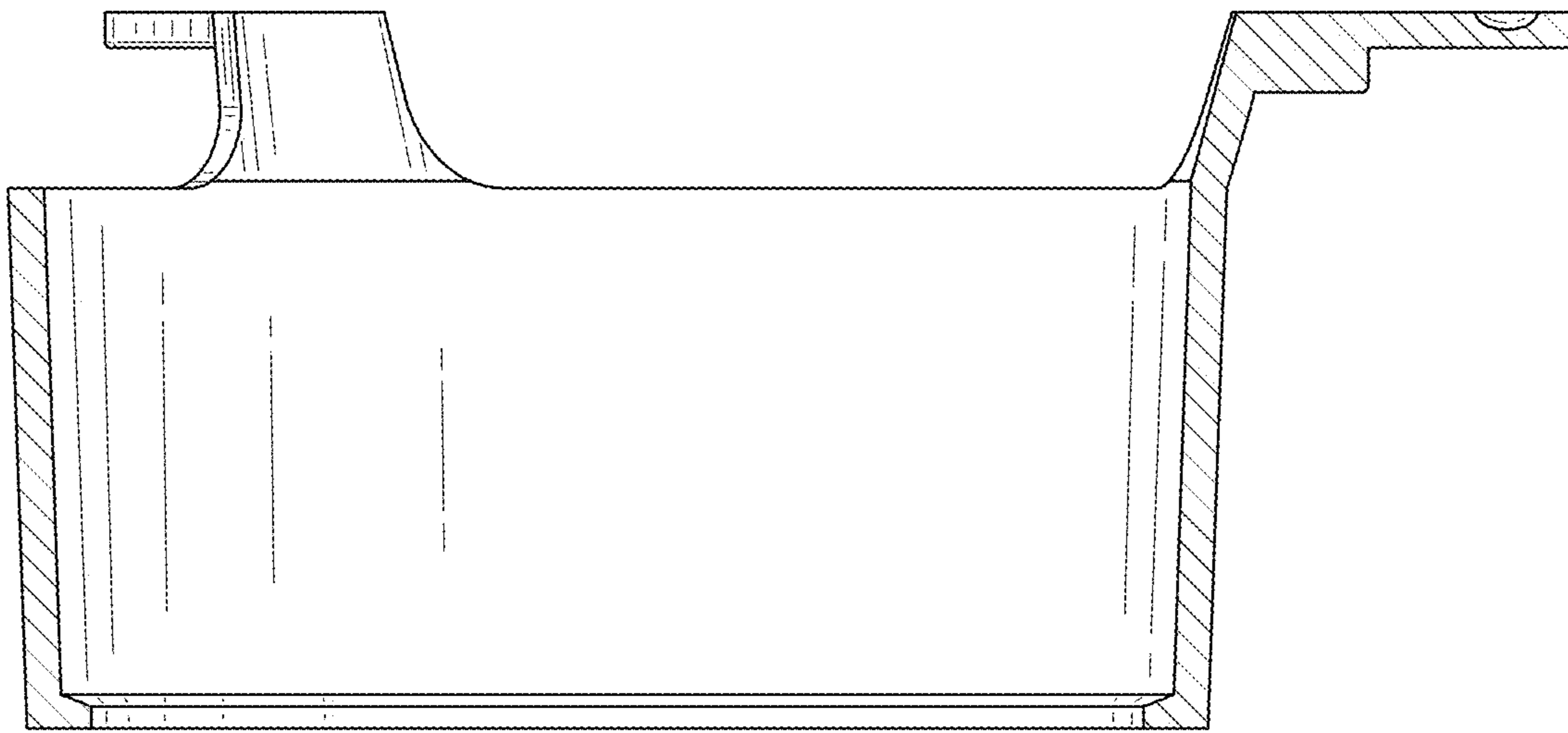


FIG. 9

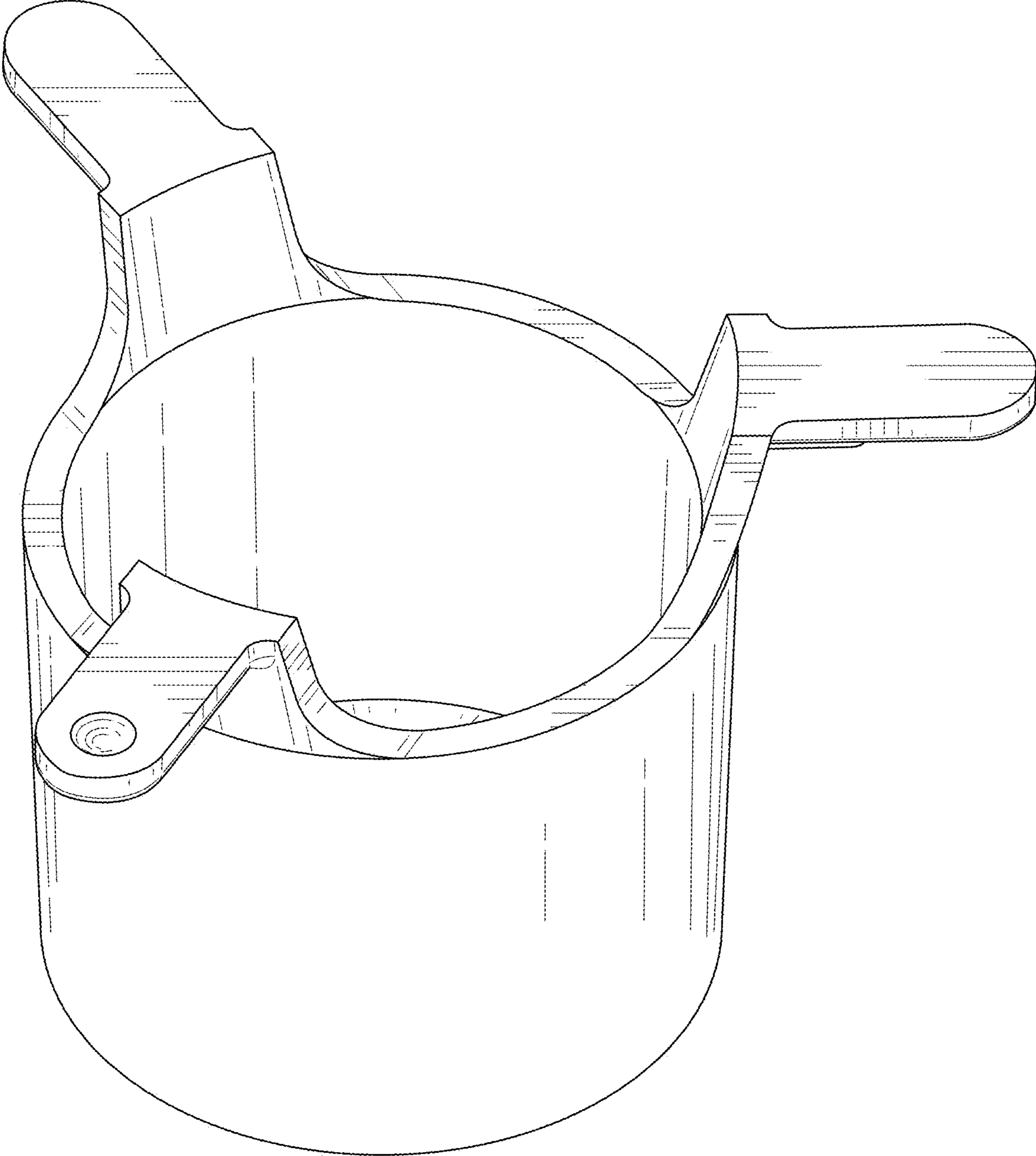


FIG. 10

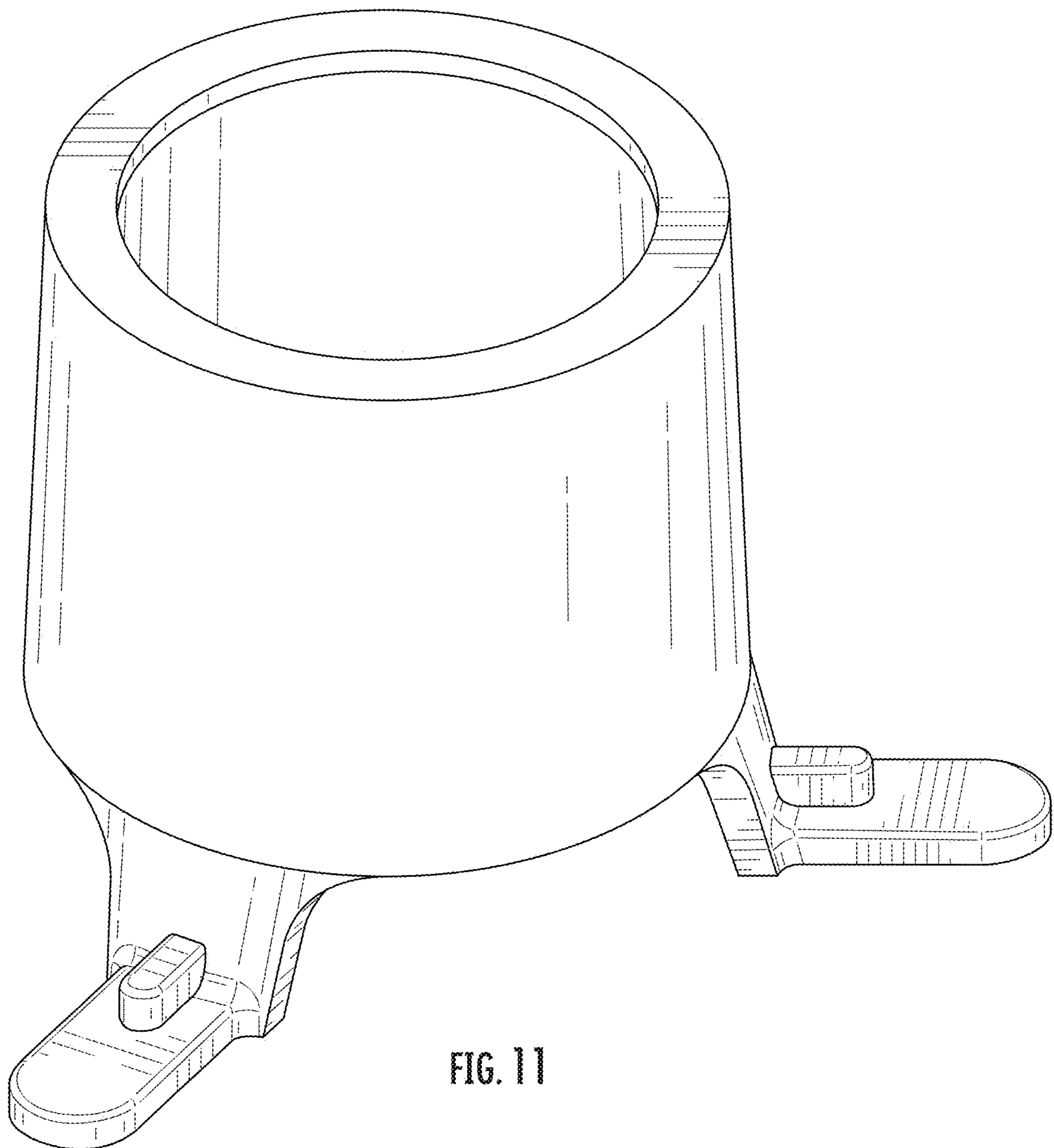


FIG. 11

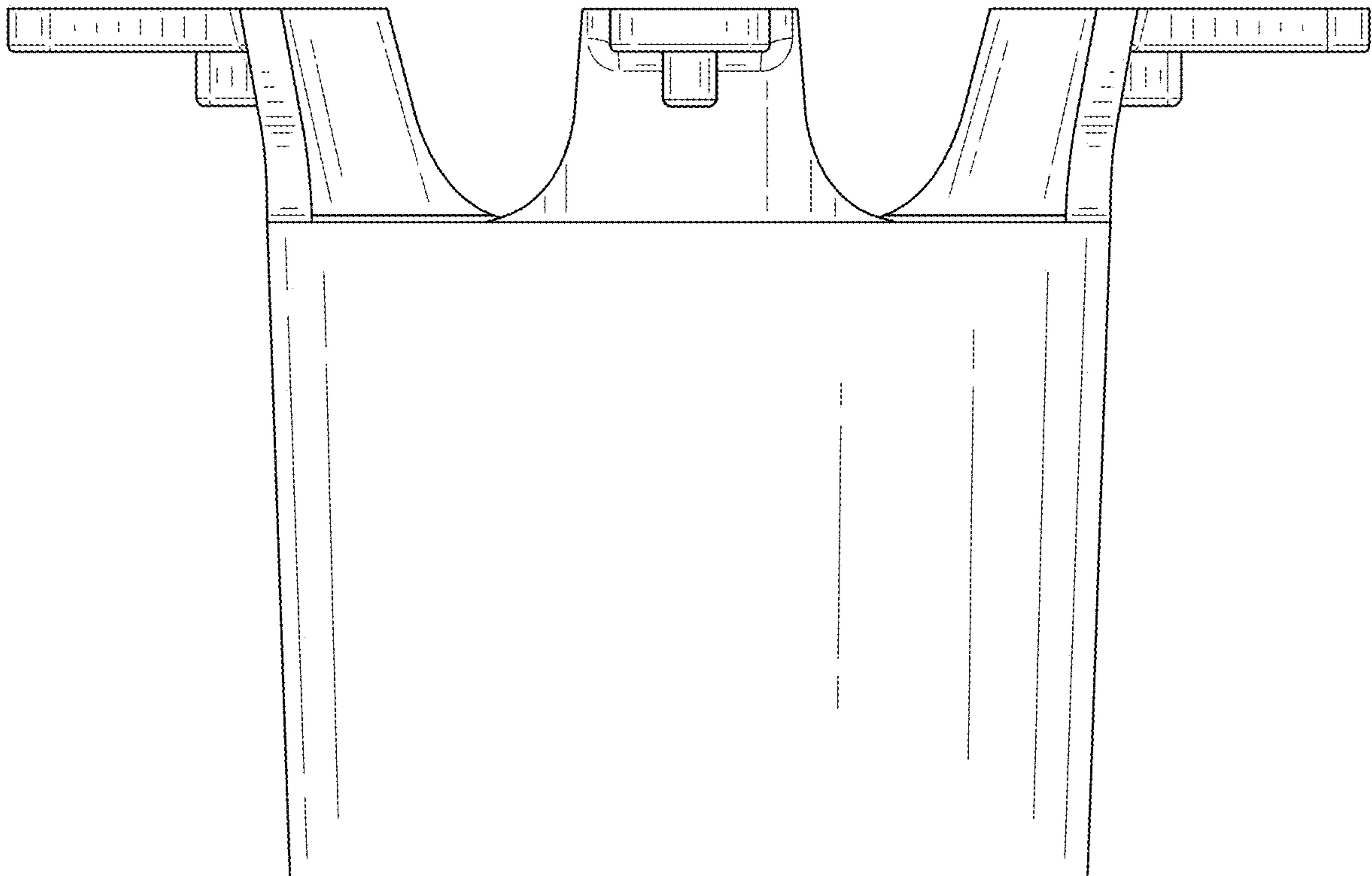


FIG. 12

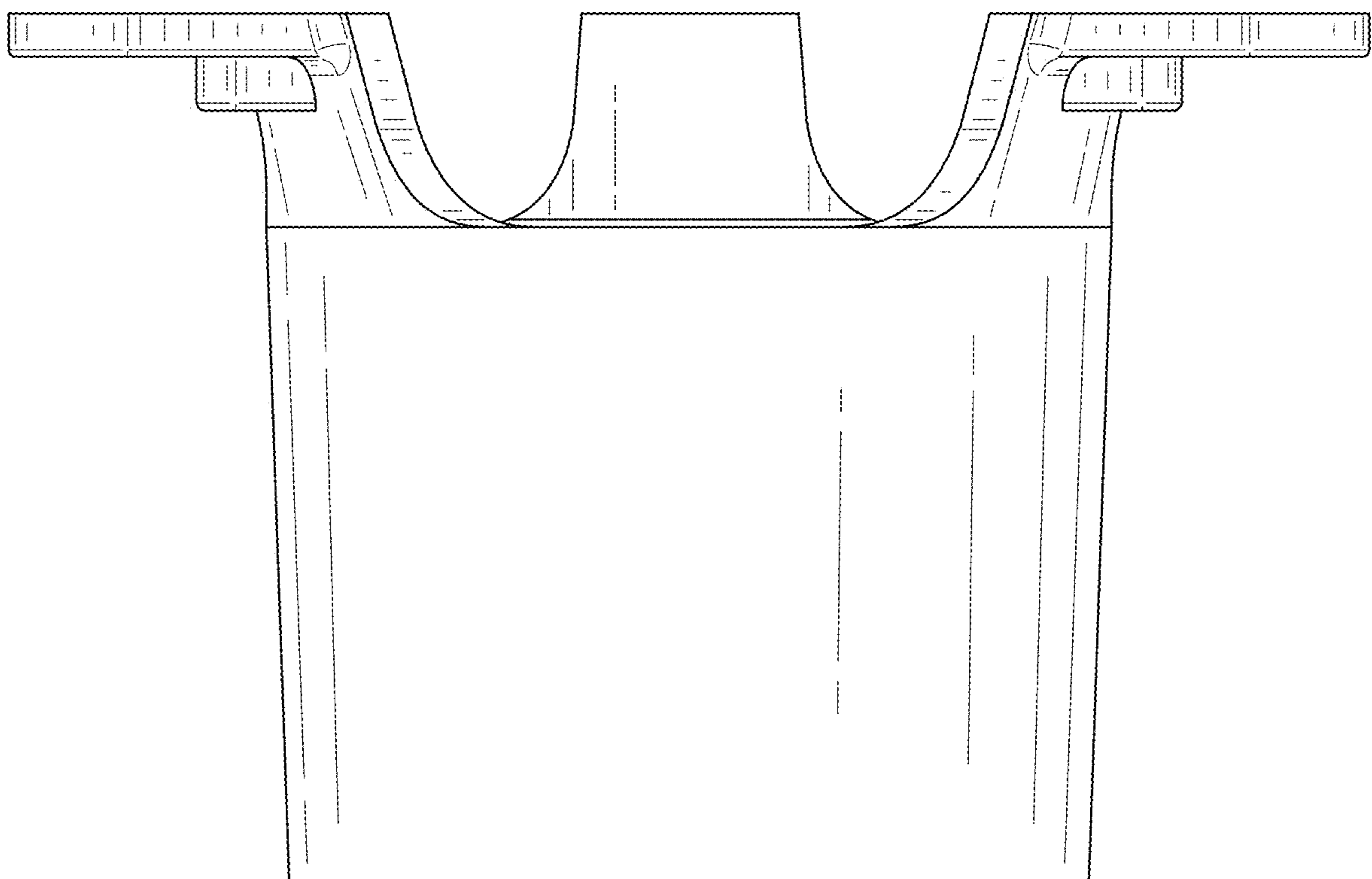


FIG. 13

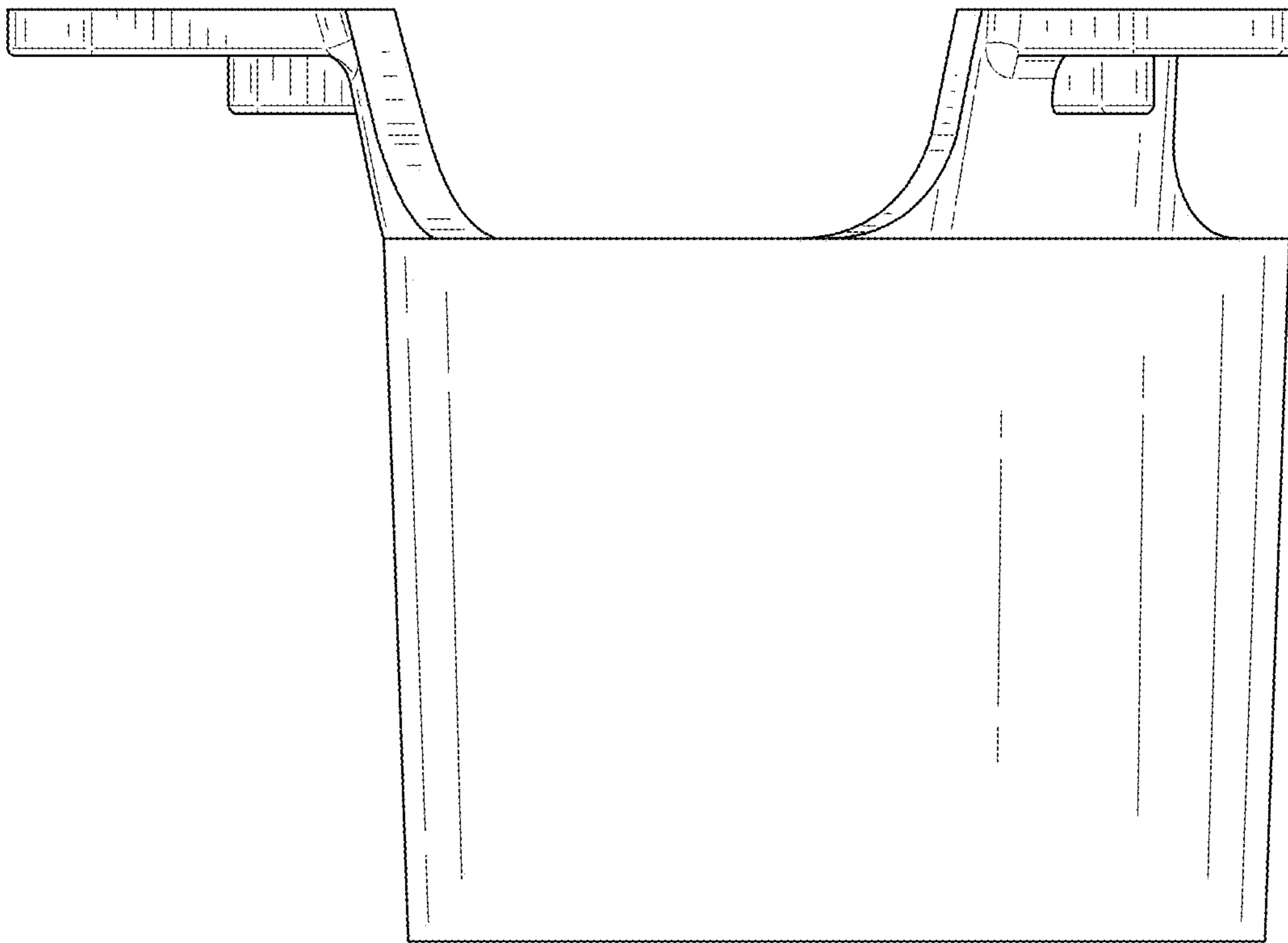


FIG. 14

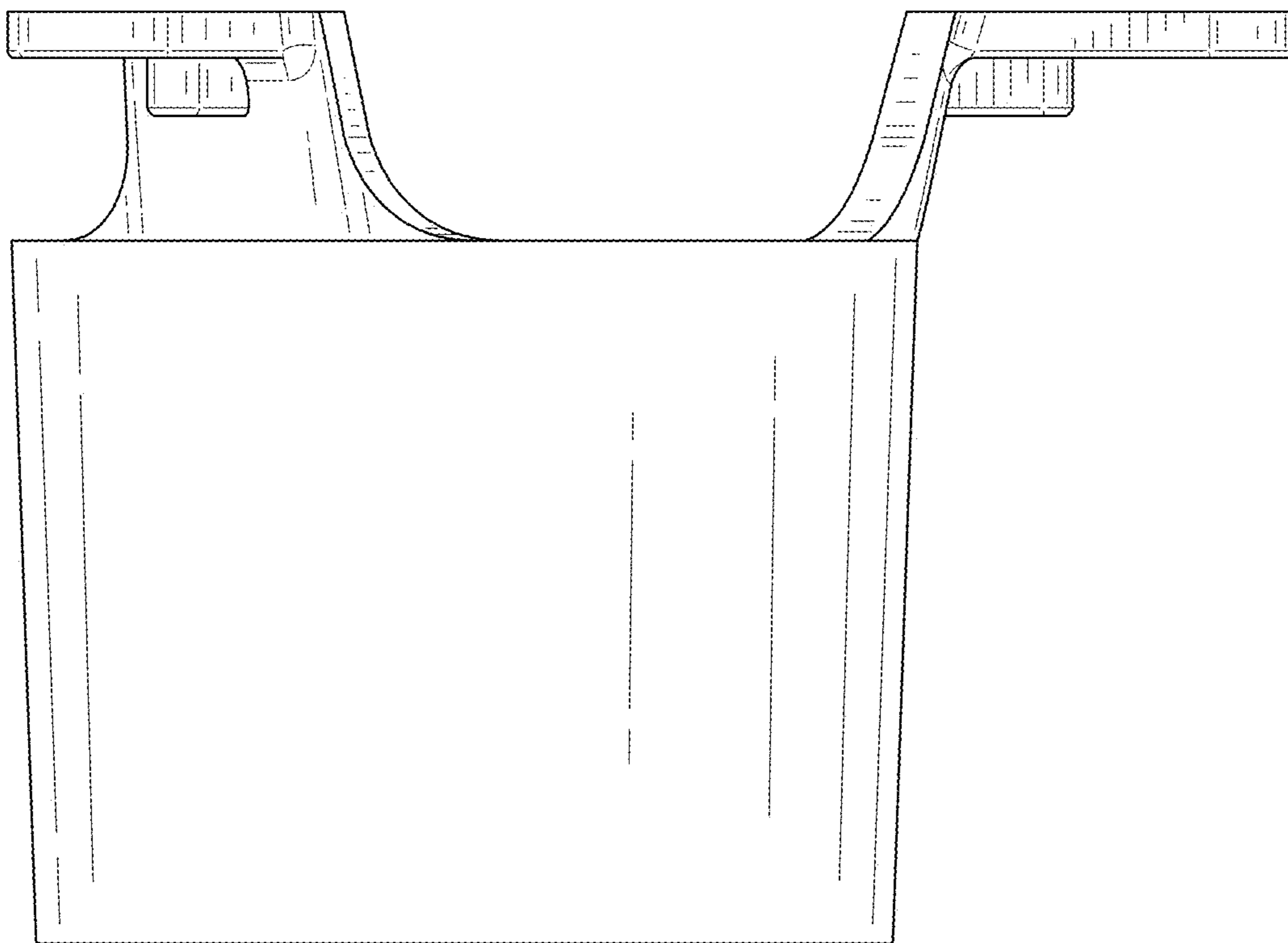


FIG. 15

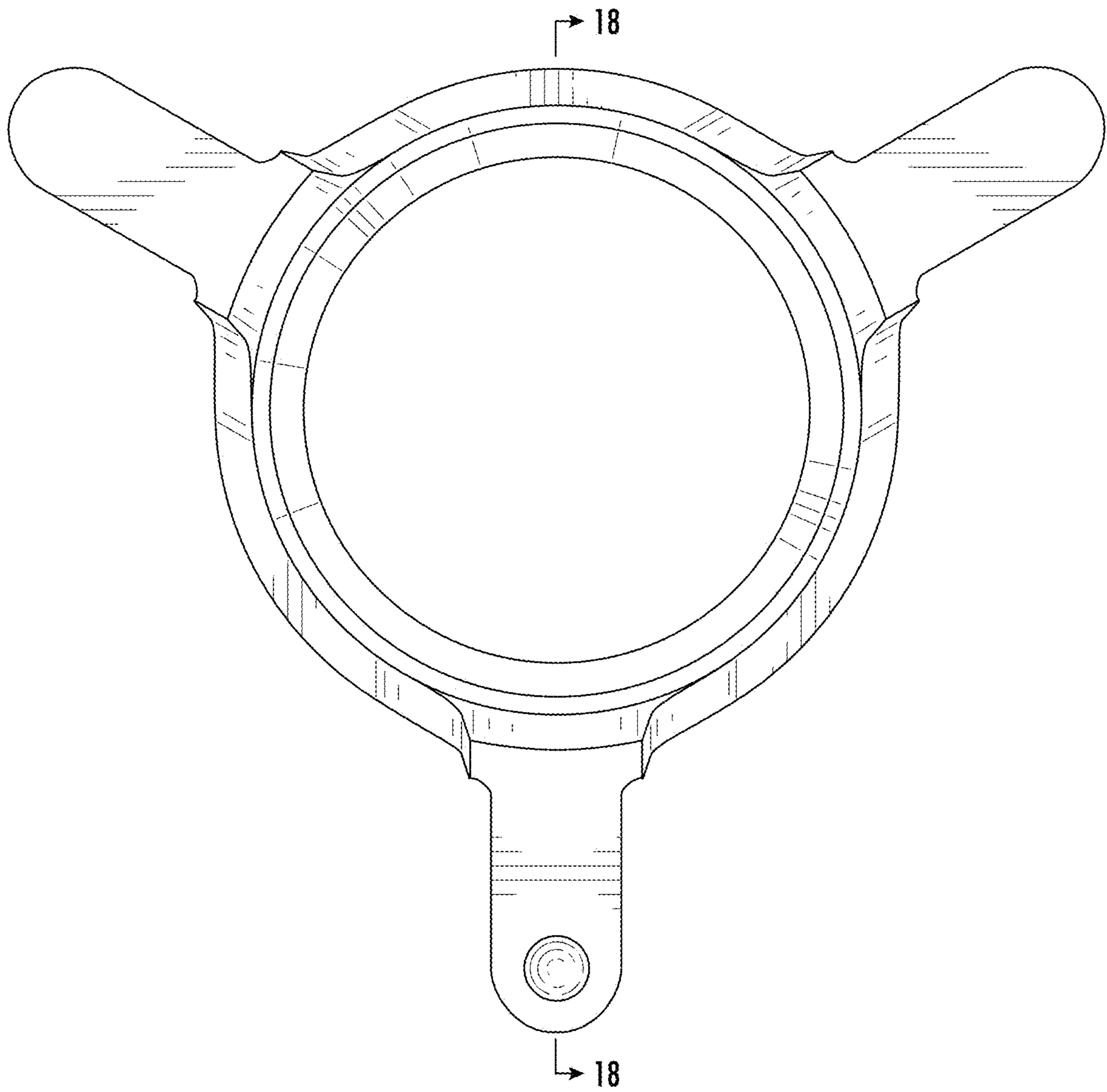


FIG. 16



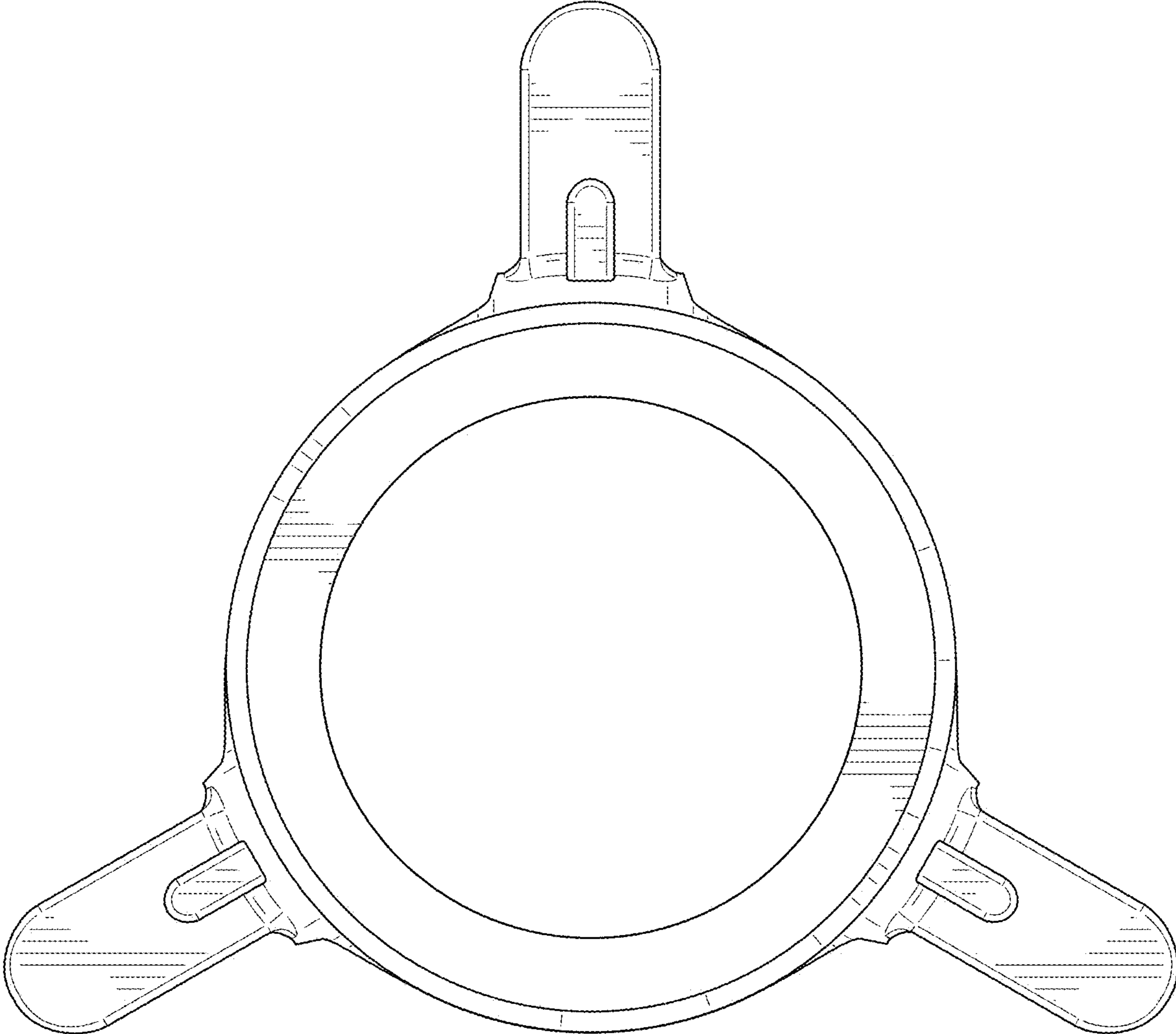


FIG. 17

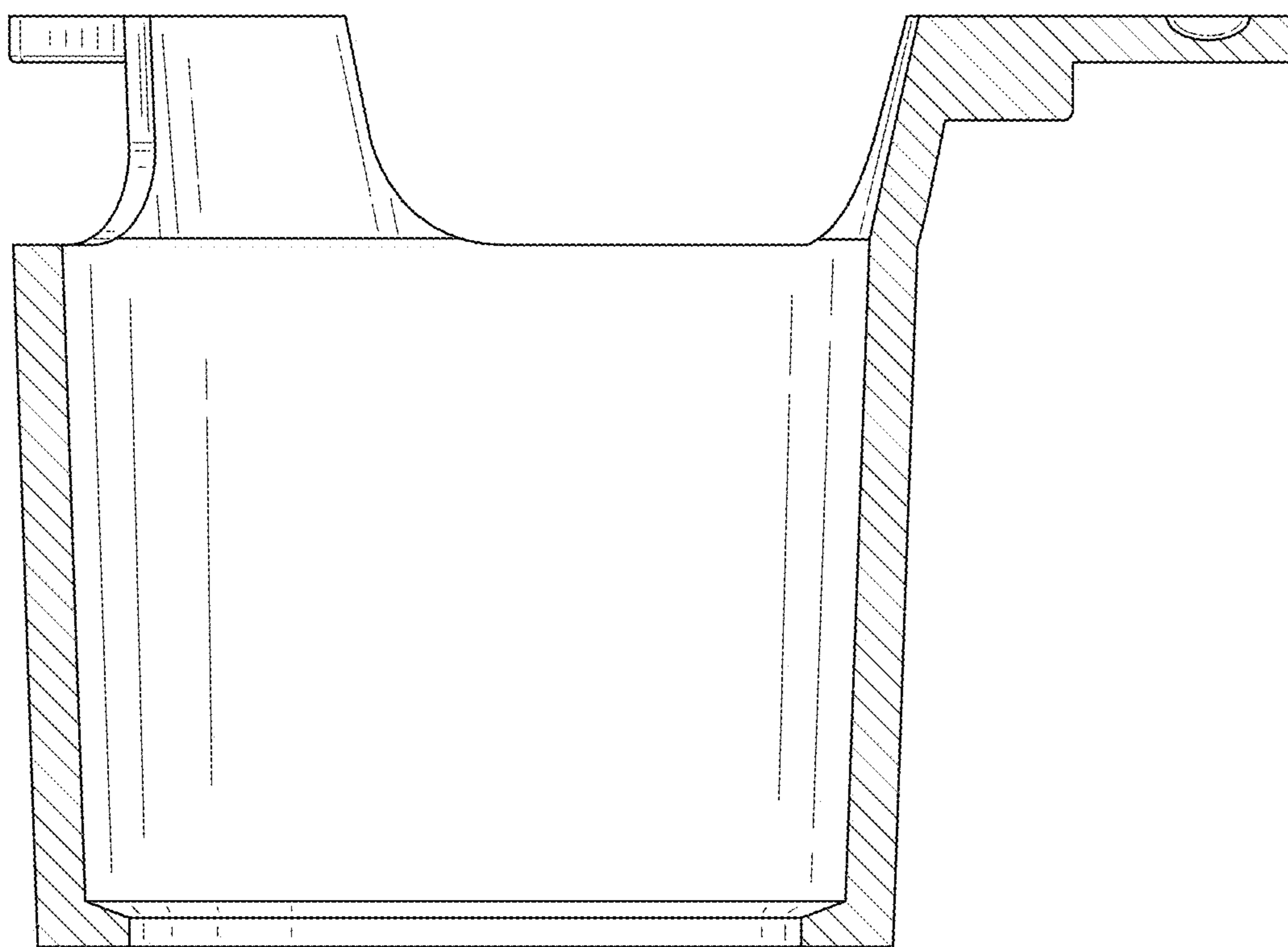


FIG. 18

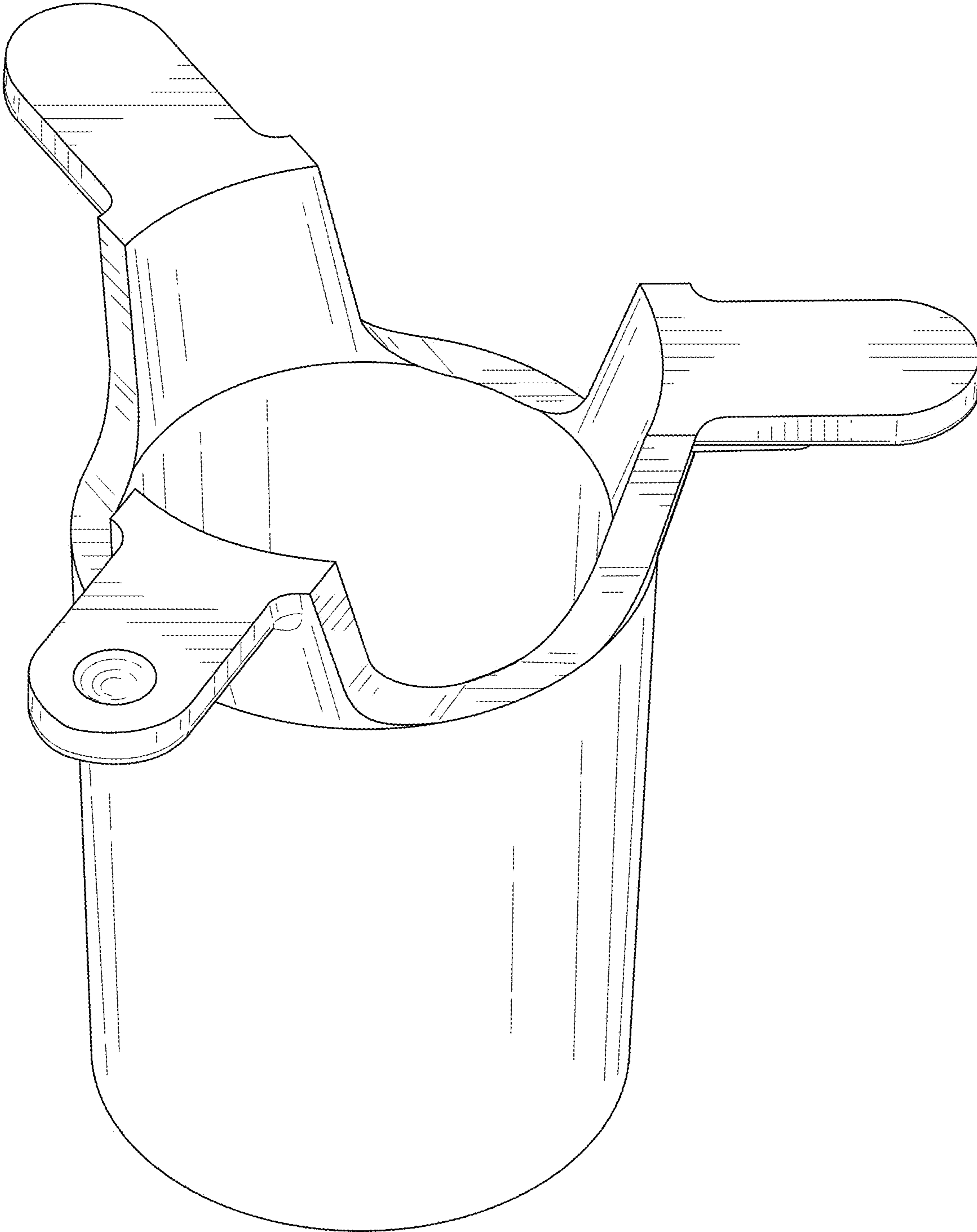


FIG. 19

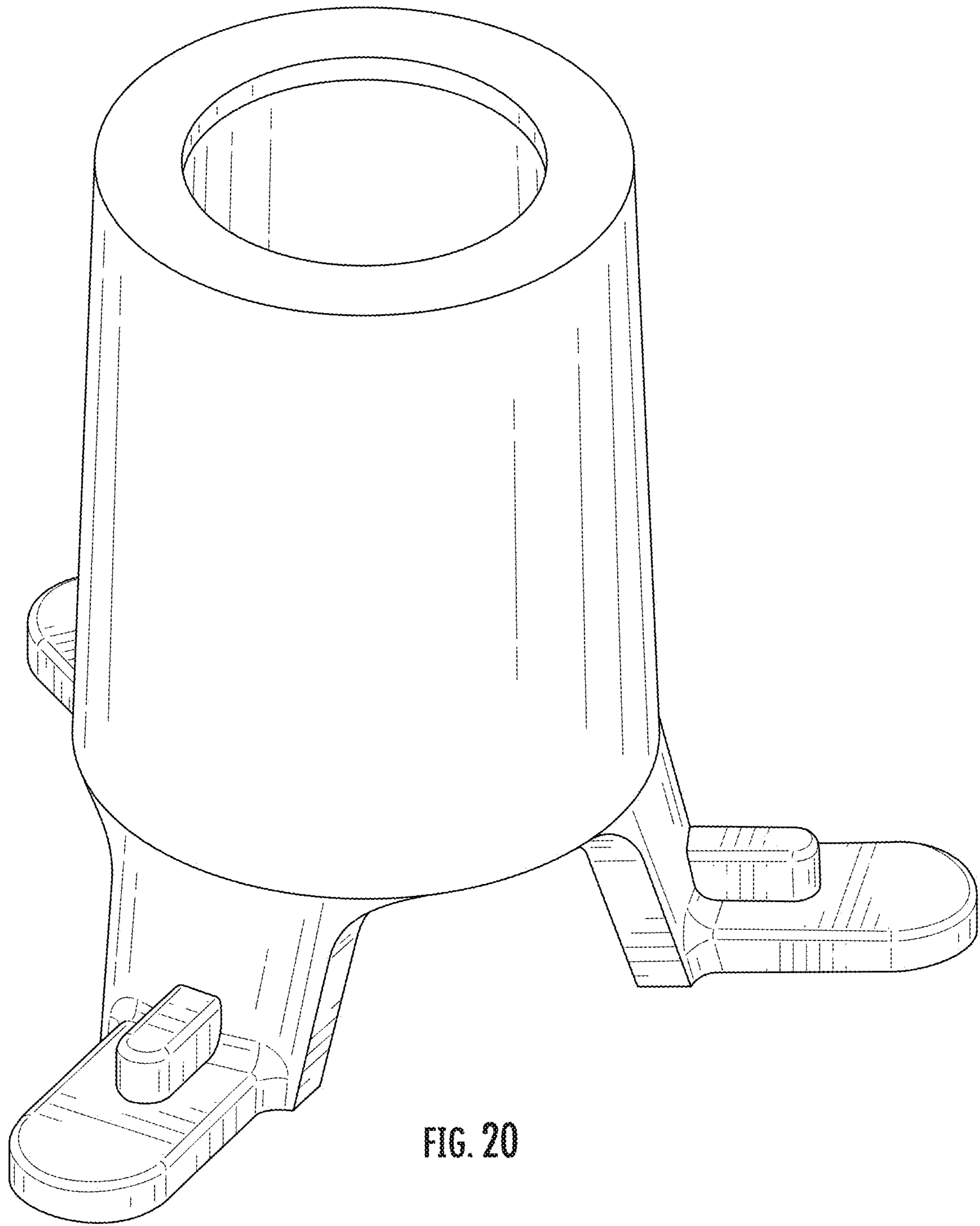


FIG. 20

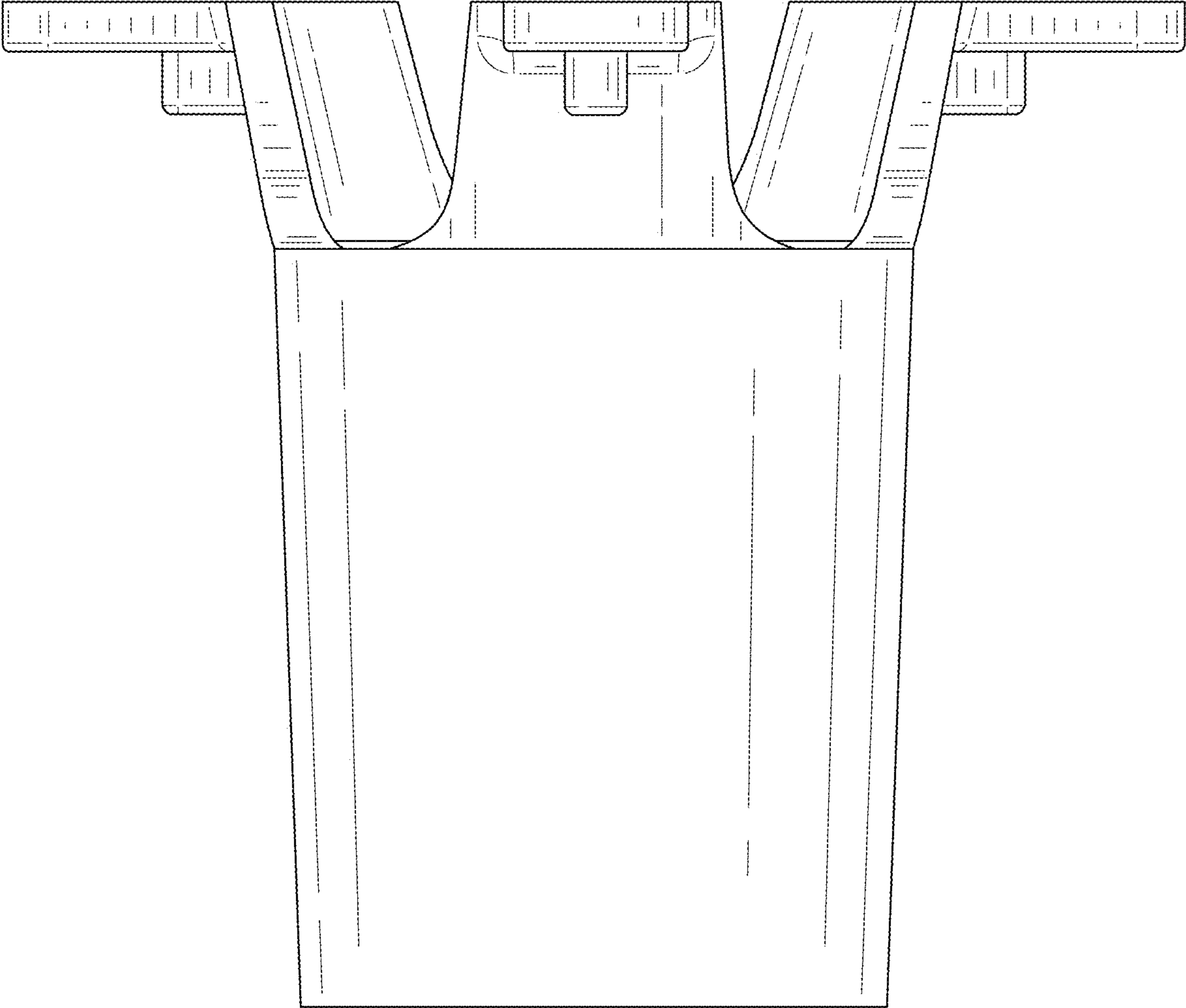


FIG. 21

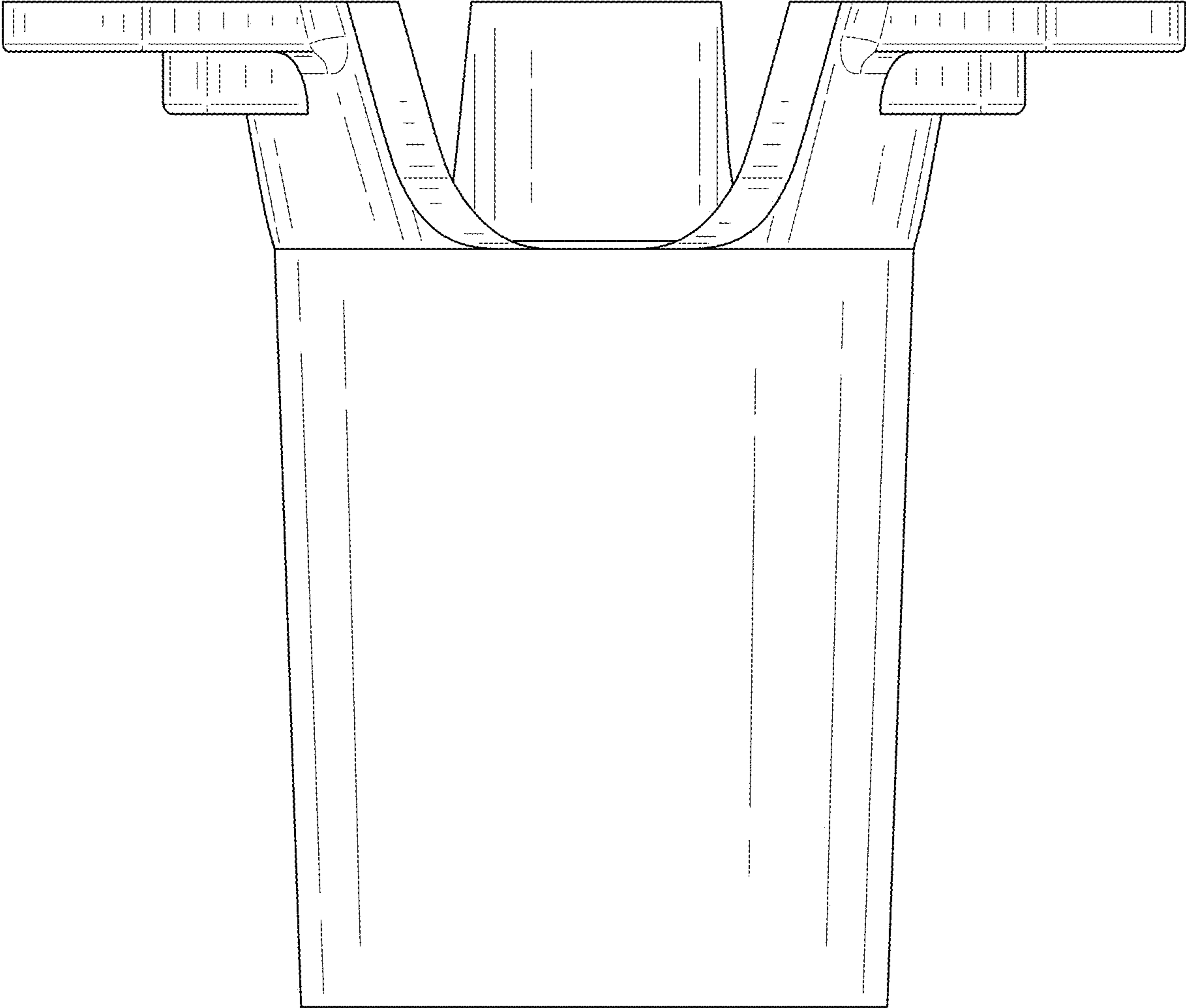


FIG. 22



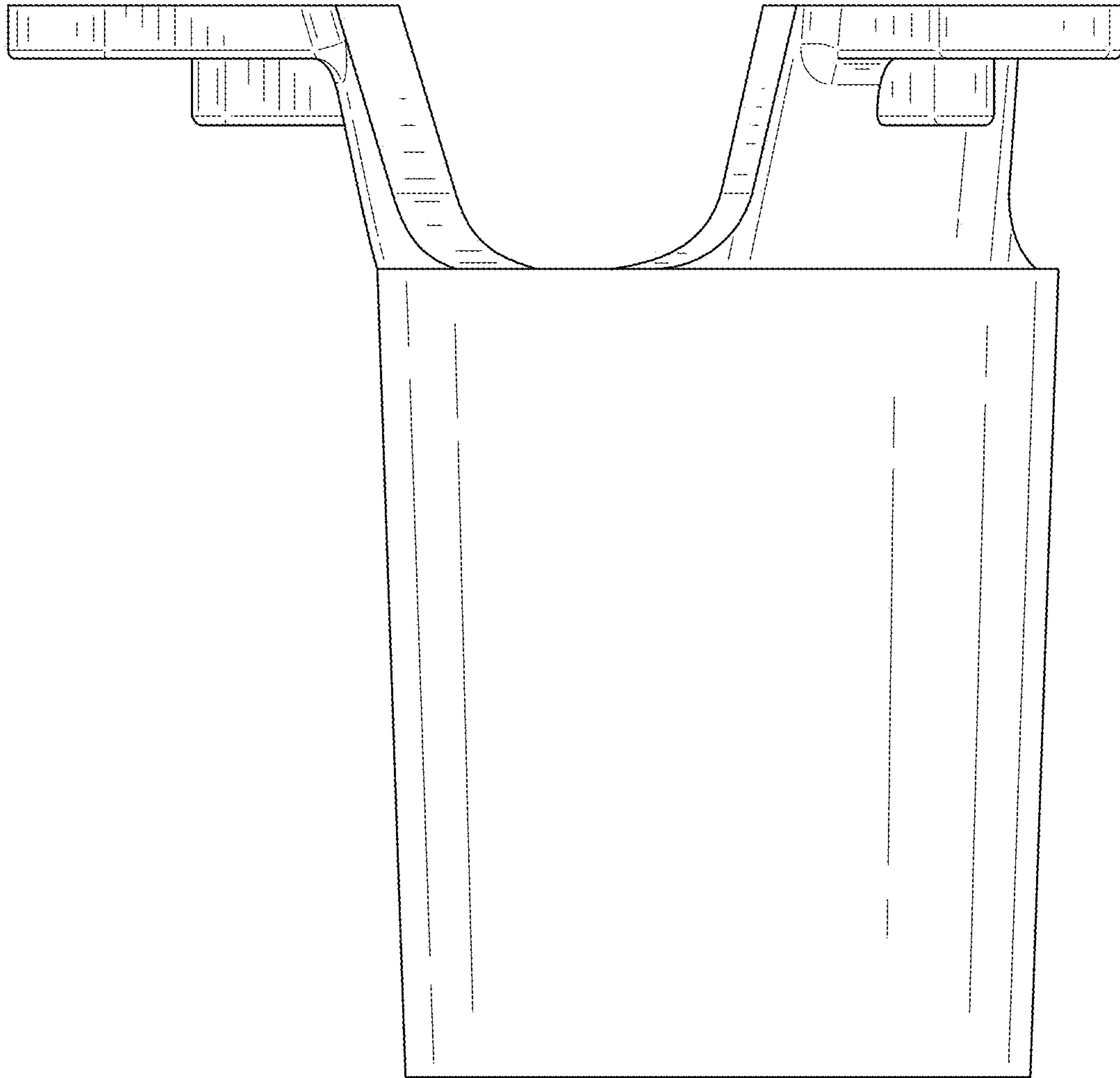


FIG. 23

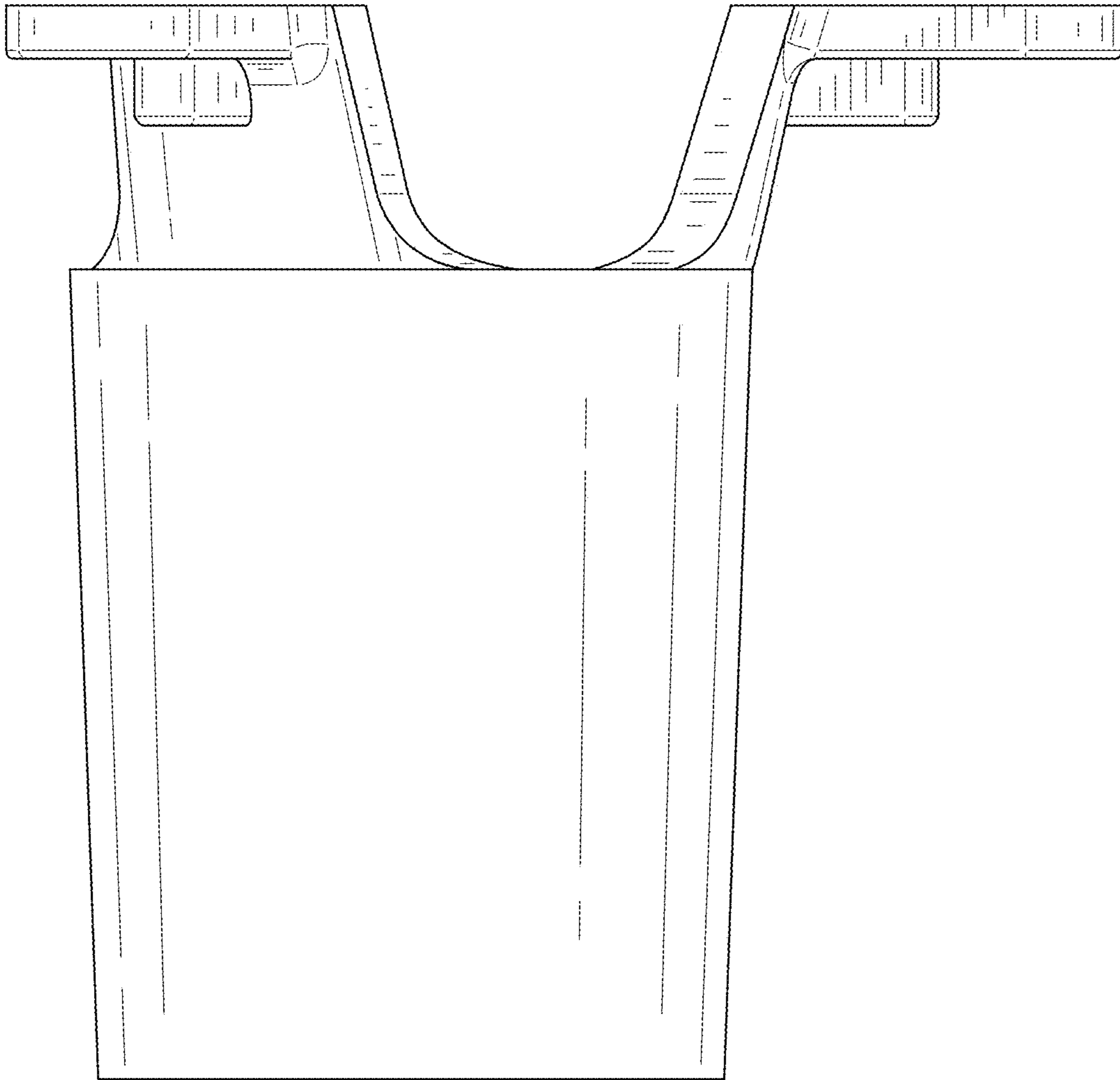


FIG. 24

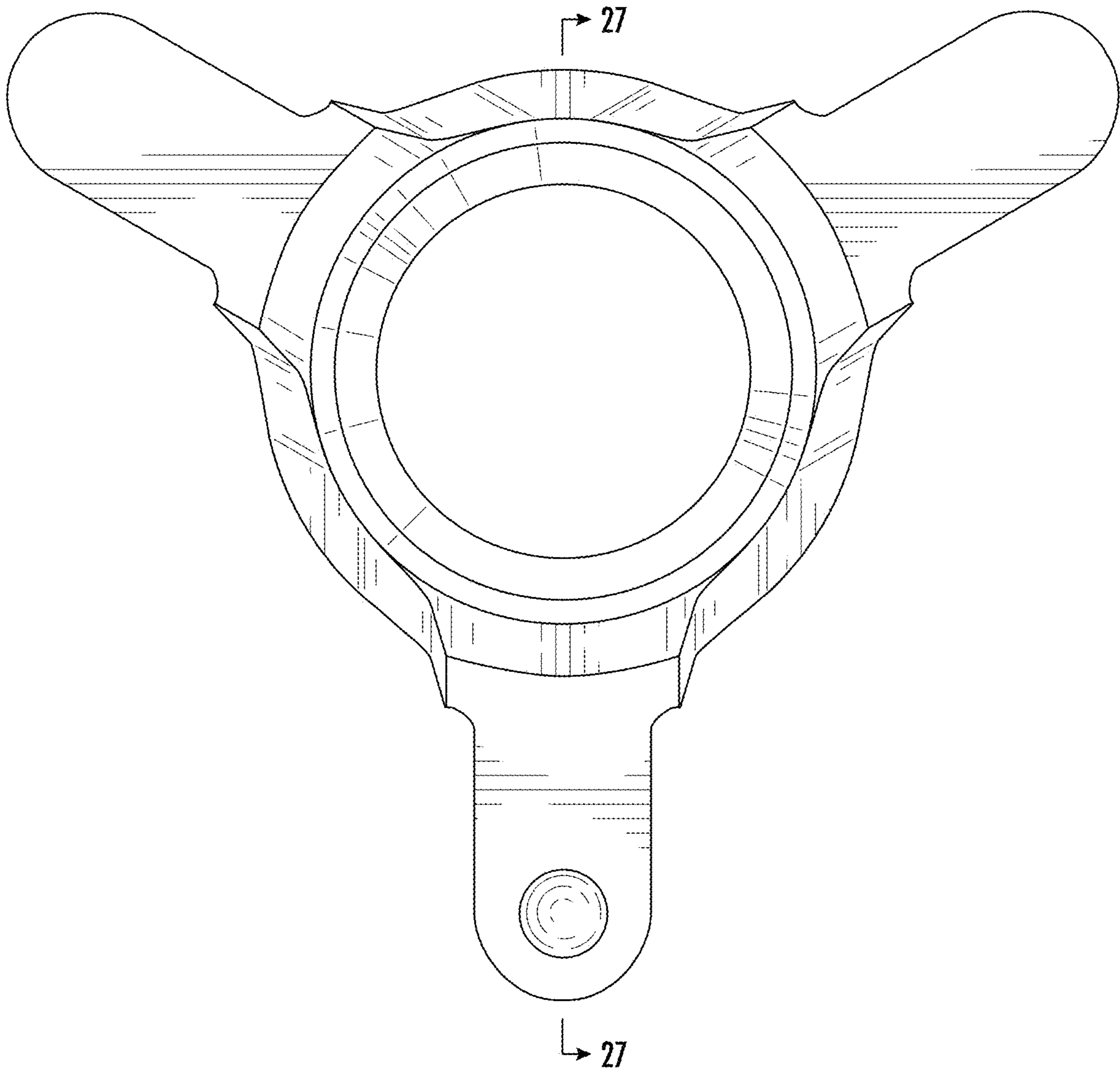


FIG. 25

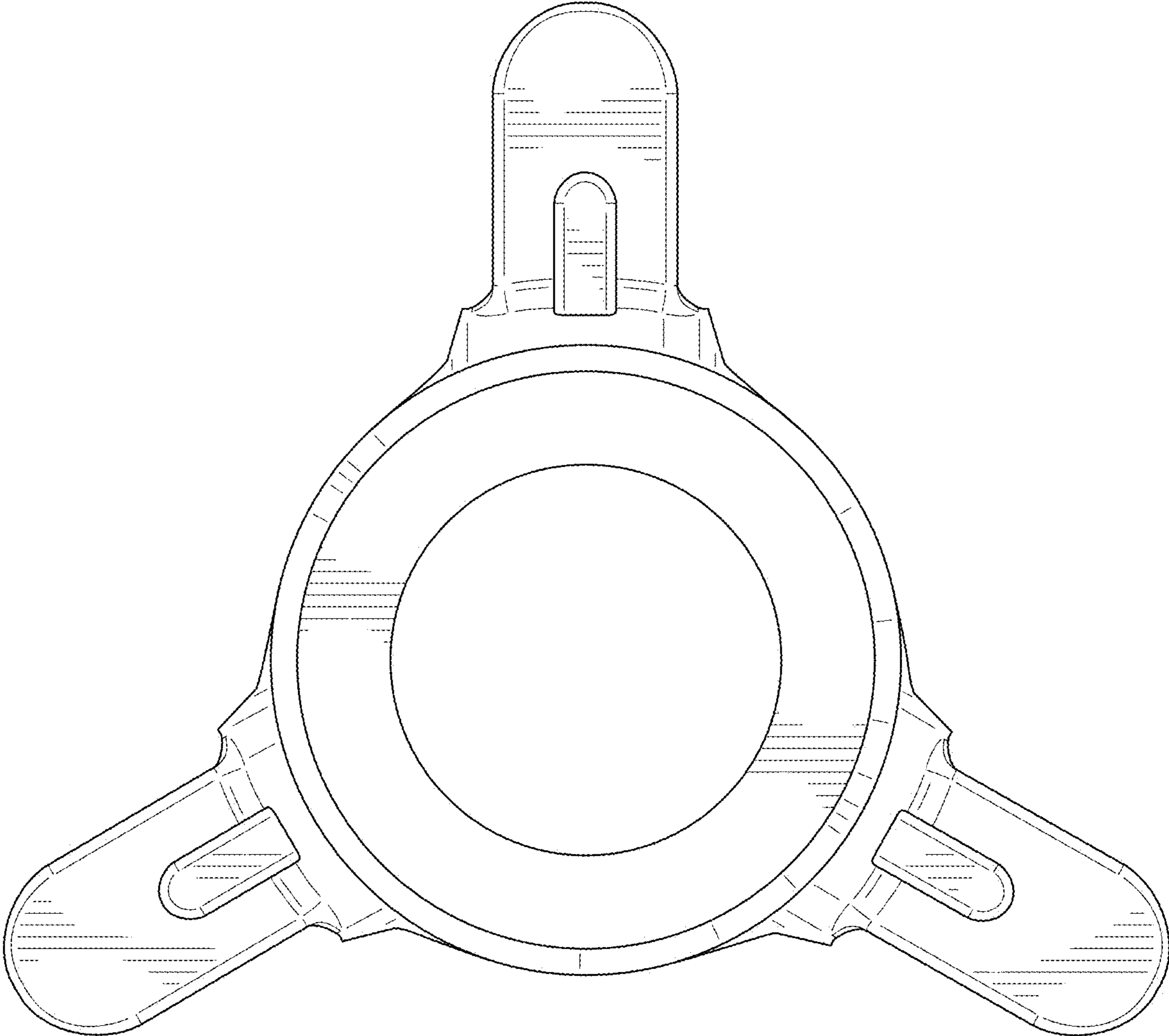


FIG. 26

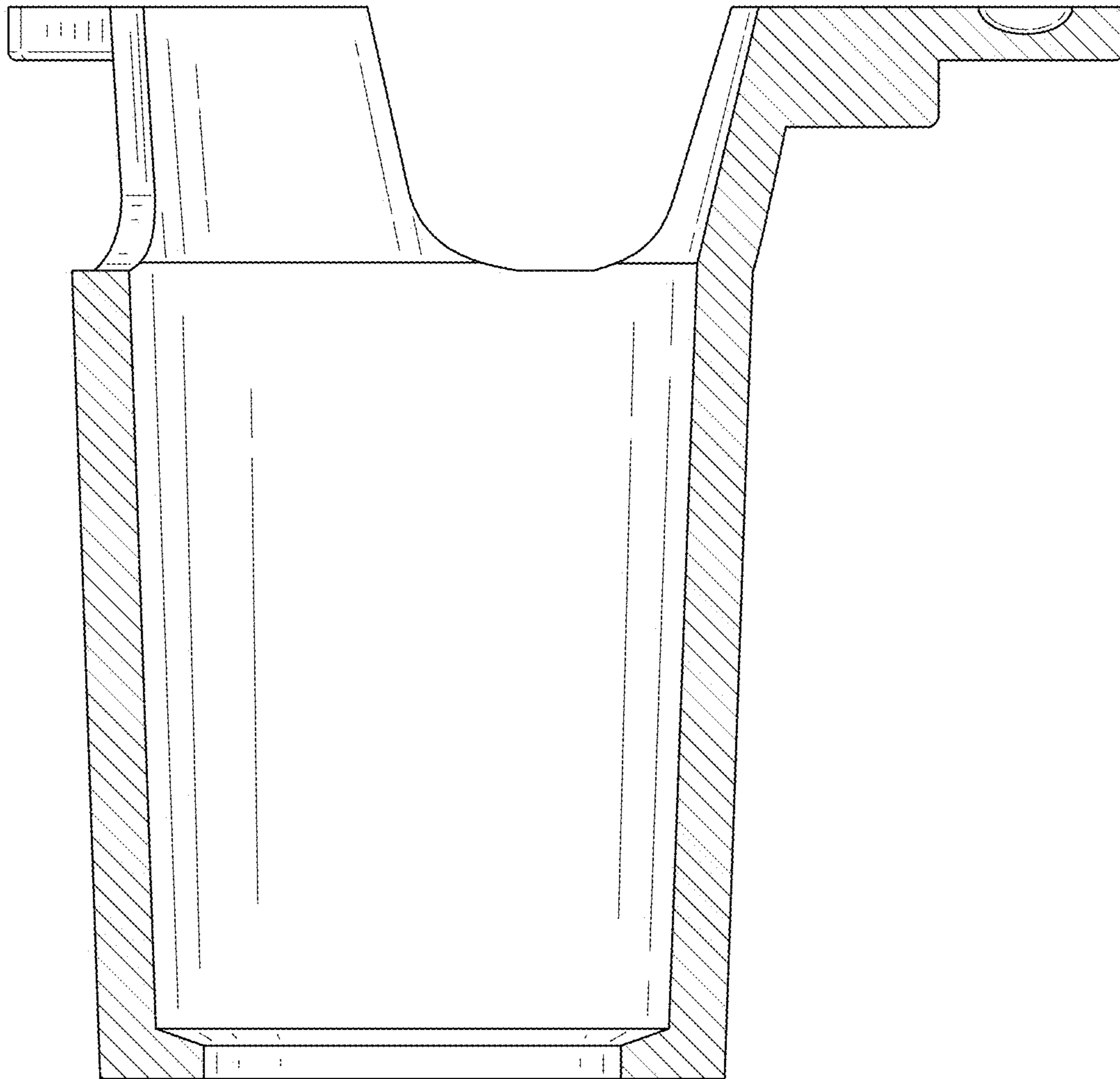


FIG. 27