



US00D655377S

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

(10) **Patent No.:** **US D655,377 S**  
(45) **Date of Patent:** **\*\* Mar. 6, 2012**

(54) **FILTER UNIT**

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

(21) Appl. No.: **29/401,780**

(22) Filed: **Sep. 15, 2011**

(51) **LOC (9) Cl.** ..... **23-01**

(52) **U.S. Cl.** ..... **D23/209; D9/538; D9/540**

(58) **Field of Classification Search** ..... D23/207,  
D23/209; D7/510; D9/516, 552, 523, 556,  
D9/538, 540, 682, 688, 690, 692, 693; 210/232,  
210/282, 429, 435

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

2,955,712 A	10/1960	Gutkowski	
3,388,801 A	6/1968	Boyd et al.	
3,557,958 A	1/1971	Baldwin	
3,774,764 A	11/1973	Baldwin	
D234,940 S *	4/1975	Mexquita	D9/523
3,980,457 A	9/1976	Smith	
4,052,307 A	10/1977	Humbert, Jr.	
D264,811 S *	6/1982	Weckman	D9/523
4,398,562 A	8/1983	Saarem et al.	
4,601,821 A	7/1986	Sherman et al.	
4,608,166 A	8/1986	Cain	
4,615,812 A	10/1986	Darling	
4,735,716 A	4/1988	Petrucci et al.	
4,764,275 A	8/1988	Robichaud	
4,915,831 A	4/1990	Taylor	
D322,836 S	12/1991	Petrucci et al.	
5,133,382 A	7/1992	Nielsen	

5,139,050 A	8/1992	Otto	
5,273,255 A	12/1993	Klicek et al.	
5,350,506 A	9/1994	Dombek et al.	
D351,337 S *	10/1994	Bonnema et al.	D9/690
5,362,390 A	11/1994	Widenhoefer et al.	
D356,625 S	3/1995	Petrucci et al.	
5,456,830 A	10/1995	Stanford et al.	
5,545,315 A *	8/1996	Lonneman	210/120
5,560,824 A	10/1996	Sann et al.	
5,567,310 A	10/1996	Nakashima	

(Continued)

**FOREIGN PATENT DOCUMENTS**

CN 2889448 Y 4/2007

(Continued)

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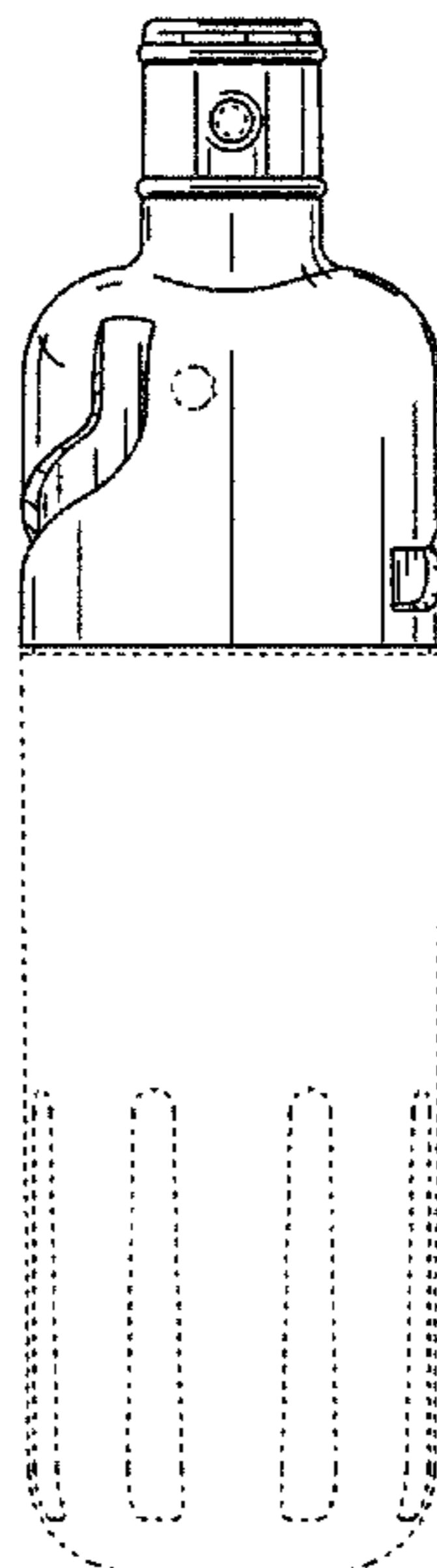
(57) **CLAIM**

We claim the ornamental design for a filter unit, as shown and  
described.

**DESCRIPTION**

FIG. 1 is a top perspective view of a filter unit of the present  
invention;  
FIG. 2 is a front elevational view of the filter unit of FIG. 1;  
FIG. 3 is a rear elevational view of the filter unit of FIG. 1;  
FIG. 4 is a first side elevational view of the filter unit of FIG.  
1;  
FIG. 5 is a second side elevational view of the filter unit of  
FIG. 1;  
FIG. 6 is a top plan view of the filter unit of FIG. 1; and,  
FIG. 7 is a bottom plan view of the filter unit of FIG. 1.  
The broken line showing is included for the purpose of illus-  
trating and forms no part of the claimed design.

**1 Claim, 3 Drawing Sheets**



# US D655,377 S

## U.S. PATENT DOCUMENTS

5,591,332 A 1/1997 Reid et al.  
 5,607,582 A 3/1997 Yamazaki et al.  
 5,611,923 A 3/1997 Suri et al.  
 5,698,093 A 12/1997 Pyle et al.  
 5,800,702 A 9/1998 Taylor-McCune et al.  
 5,826,854 A 10/1998 Janvrin et al.  
 5,846,417 A 12/1998 Jiang et al.  
 5,858,227 A 1/1999 Stone et al.  
 5,914,037 A 6/1999 Yen  
 6,000,674 A 12/1999 Cheng  
 6,024,869 A 2/2000 Stifelman  
 6,027,644 A 2/2000 Magnusson et al.  
 6,068,770 A 5/2000 Niermeyer et al.  
 D429,312 S \* 8/2000 Poirier et al. .... D7/510  
 6,132,176 A 10/2000 Higgins  
 D433,729 S \* 11/2000 Poirier et al. .... D7/511  
 D435,631 S 12/2000 Janik et al.  
 RE37,216 E 6/2001 Koslow  
 6,303,031 B1 10/2001 Senner  
 6,360,764 B1 3/2002 Fritze  
 6,458,269 B1 10/2002 Bassett et al.  
 D472,299 S 3/2003 Fritze  
 D472,604 S 4/2003 Fritze  
 6,579,455 B1 6/2003 Muzik et al.  
 6,632,355 B2 10/2003 Fritze  
 6,651,823 B1 \* 11/2003 Memmer et al. .... 210/435  
 D484,568 S 12/2003 Janik et al.  
 6,789,691 B2 9/2004 Martin et al.  
 6,977,039 B2 12/2005 Knoll et al.  
 7,000,894 B2 2/2006 Olson et al.  
 7,067,054 B2 6/2006 Fritze  
 7,147,772 B2 12/2006 Fritze  
 7,147,773 B2 12/2006 Mitchell et al.  
 D567,898 S 4/2008 Miller  
 7,407,148 B2 8/2008 Bassett et al.  
 7,419,060 B2 \* 9/2008 Arthur et al. .... 210/429  
 7,442,301 B2 10/2008 Huda  
 7,459,078 B2 12/2008 Klein et al.  
 7,481,926 B2 1/2009 Dworatzek  
 7,481,928 B2 1/2009 Fritze  
 D592,066 S \* 5/2009 Bourne .... D9/538

D592,514 S \* 5/2009 Schwartz et al. .... D9/526  
 D594,088 S \* 6/2009 Pritchard .... D23/207  
 D595,139 S \* 6/2009 Darr et al. .... D9/538  
 D599,880 S 9/2009 Rampen et al.  
 D604,616 S \* 11/2009 Farrell et al. .... D9/516  
 7,610,932 B2 11/2009 Olson et al.  
 D606,411 S \* 12/2009 Mongeon et al. .... D9/522  
 D610,906 S \* 3/2010 Simmons et al. .... D9/504  
 D612,244 S \* 3/2010 Farrell et al. .... D9/516  
 D613,172 S \* 4/2010 Masters et al. .... D9/523  
 7,695,619 B2 4/2010 Kurth et al.  
 D614,967 S \* 5/2010 Chertoff et al. .... D9/682  
 D615,870 S \* 5/2010 Bourne .... D9/538  
 7,744,758 B2 6/2010 Dworatzek et al.  
 7,763,170 B2 7/2010 Bassett et al.  
 D624,153 S \* 9/2010 Shani .... D23/207  
 D634,160 S \* 3/2011 Cetera .... D7/510  
 7,955,500 B2 6/2011 Abdalla et al.  
 7,959,010 B2 6/2011 Hawkins et al.  
 D644,489 S \* 9/2011 Trombly .... D7/510  
 D646,319 S \* 10/2011 Popracova .... D17/11  
 D647,805 S \* 11/2011 Broen et al. .... D9/685  
 D648,177 S \* 11/2011 Eyal .... D7/510  
 2006/0070942 A1 4/2006 An  
 2006/0272995 A1 12/2006 Fritze  
 2007/0295667 A1 12/2007 Ruprecht  
 2008/0000820 A1 1/2008 Mitchell  
 2008/0185330 A1 8/2008 Sinur et al.  
 2008/0223775 A1 9/2008 An  
 2009/0014381 A1 1/2009 South et al.  
 2009/0020470 A1 1/2009 Bassett et al.  
 2009/0127172 A1 5/2009 Abdalla et al.  
 2009/0184043 A1 7/2009 Stankowski et al.  
 2009/0230063 A1 9/2009 Hawkins et al.  
 2009/0236276 A1 9/2009 Kurth et al.  
 2009/0321340 A1 12/2009 Rampen et al.  
 2010/0064646 A1 3/2010 Smith et al.  
 2010/0170841 A1 7/2010 An et al.

## FOREIGN PATENT DOCUMENTS

WO 2010056711 A2 5/2010  
 \* cited by examiner

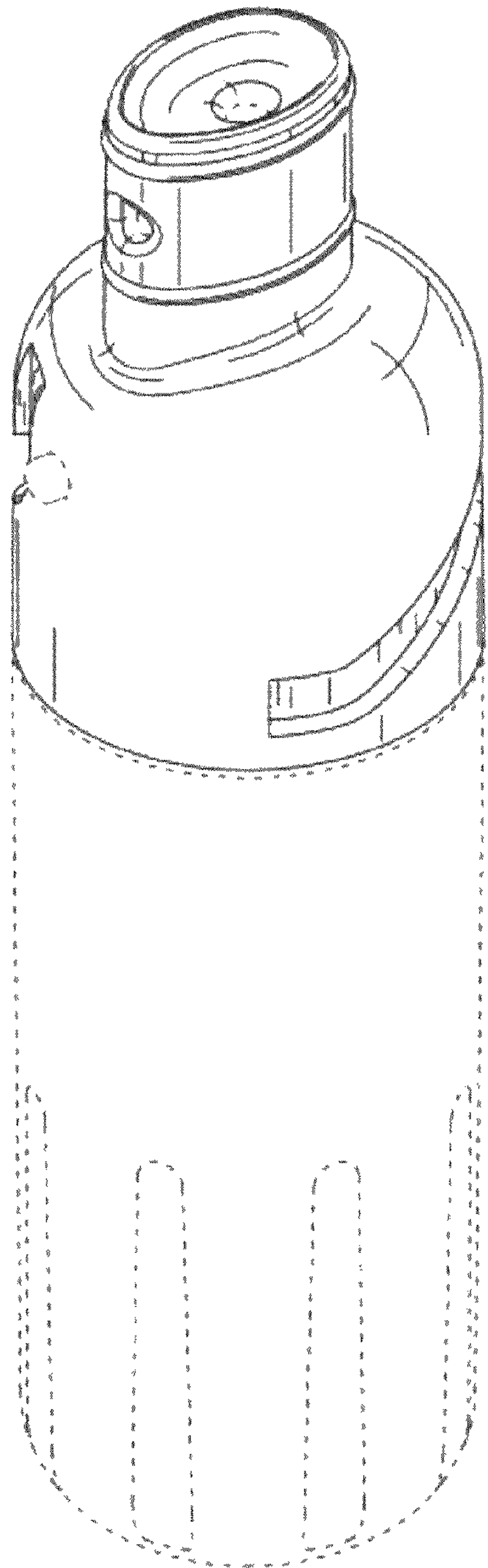


FIG. 1

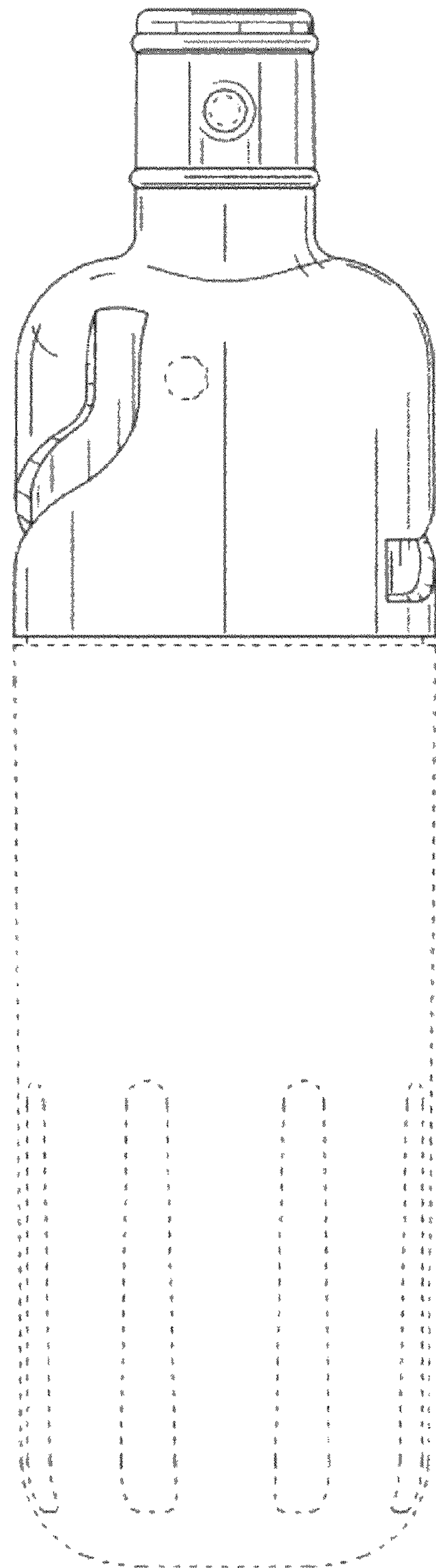


FIG. 2

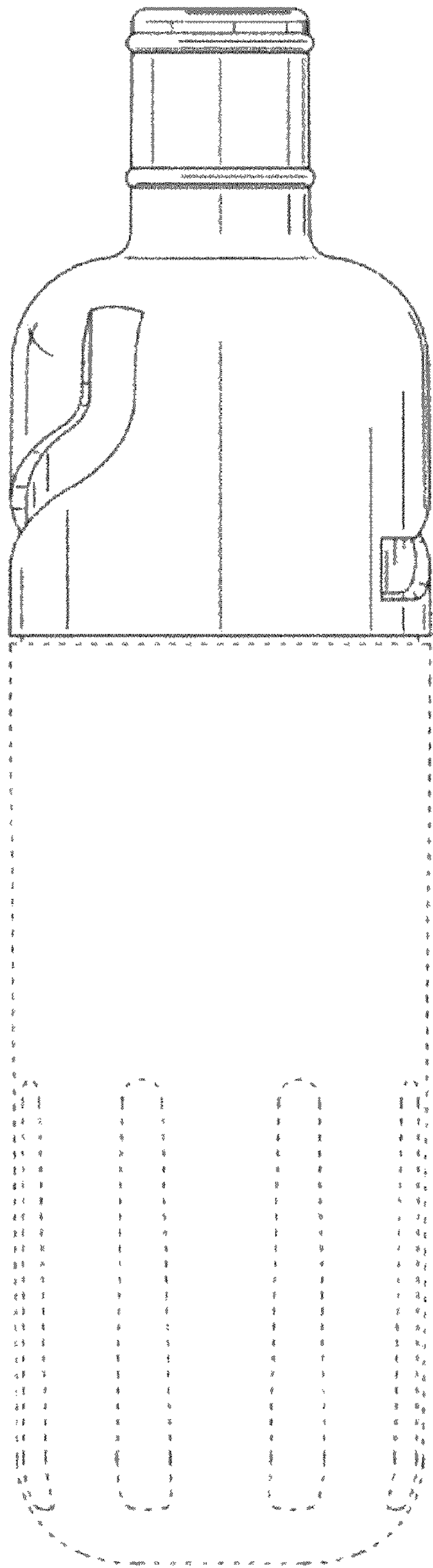


FIG. 3

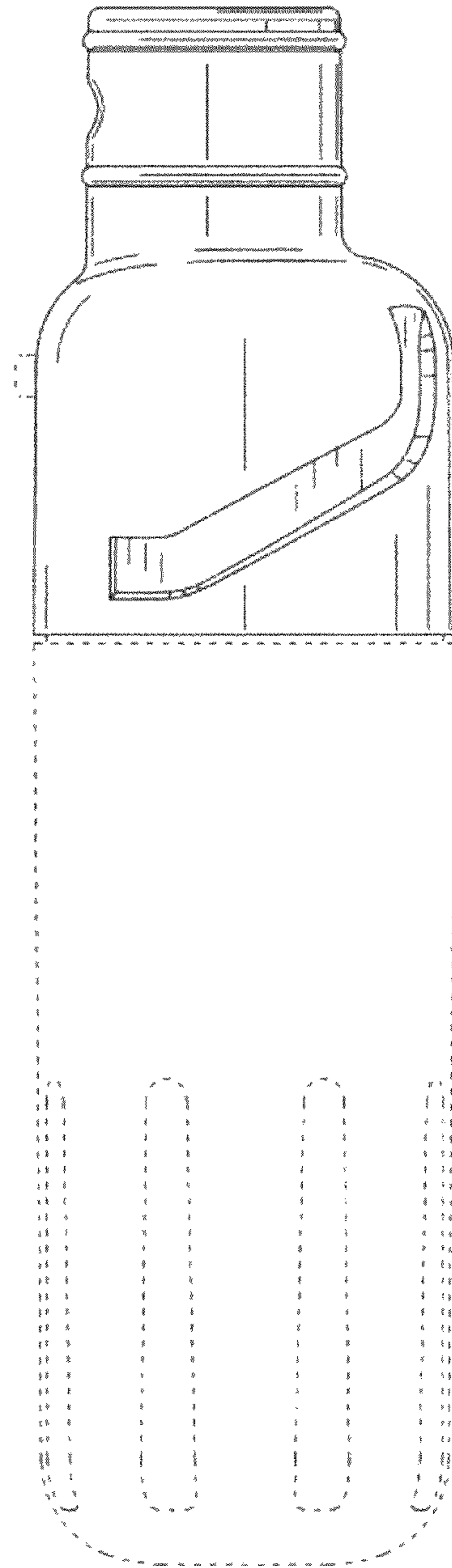


FIG. 4

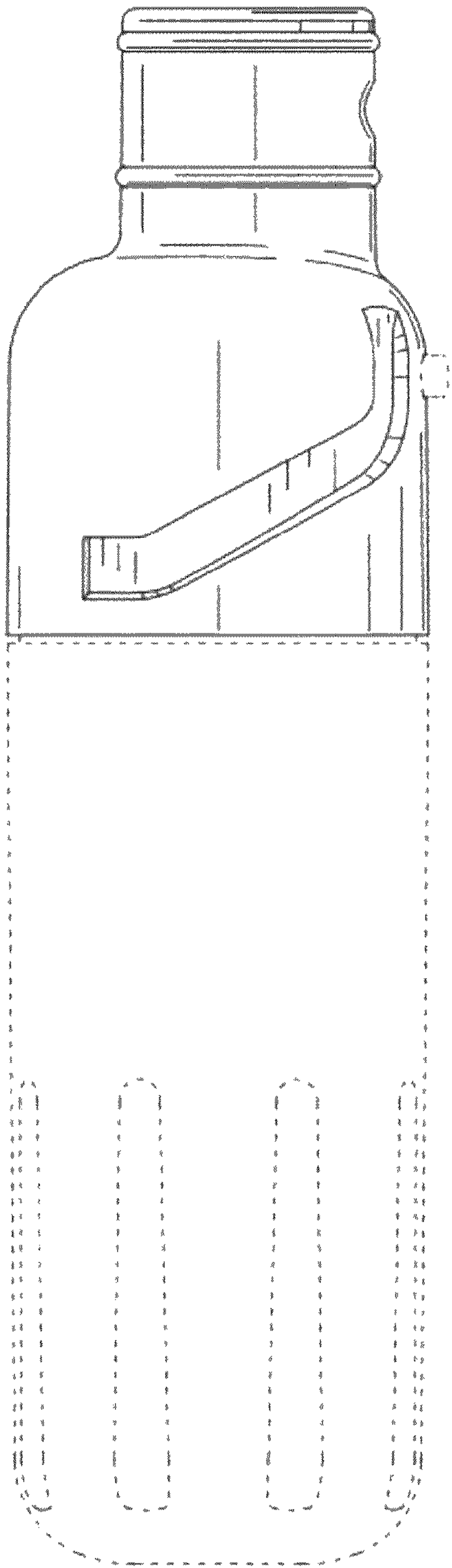


FIG. 5

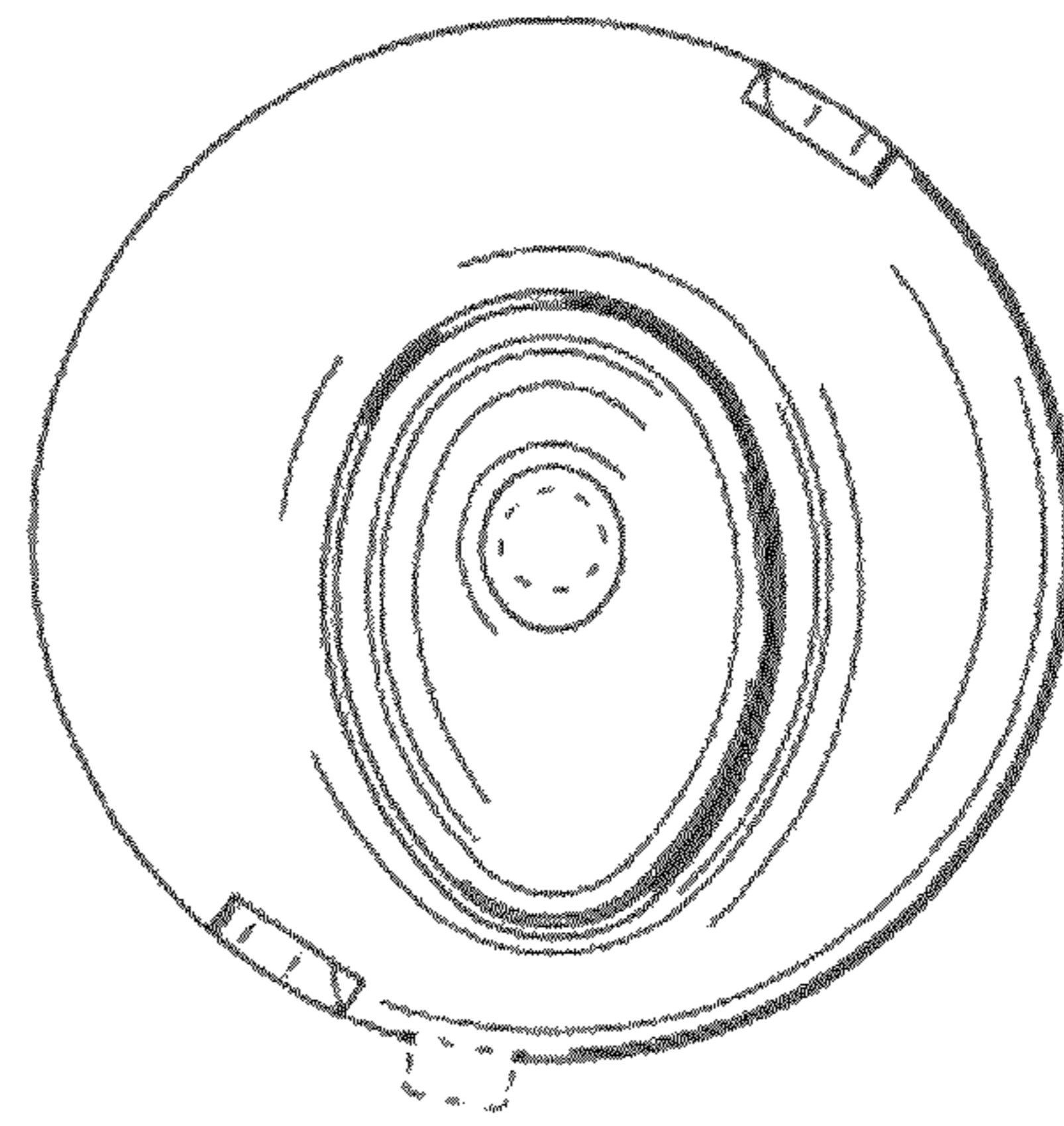


FIG. 6

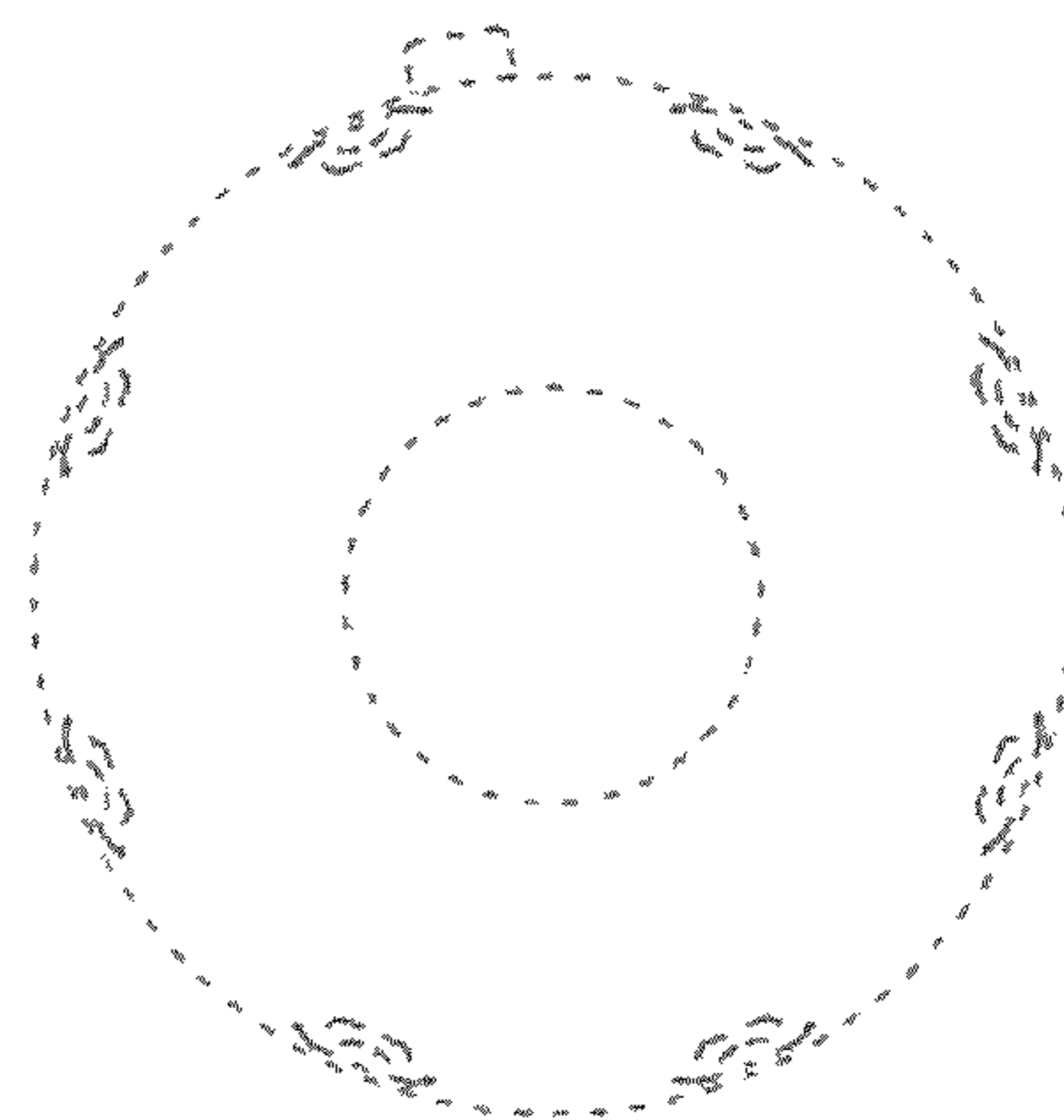


FIG. 7