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(12) **United States Design Patent** (10) **Patent No.:** **US D918,339 S**
Schulz et al. (45) **Date of Patent:** **** May 4, 2021**

- (54) **LIQUID DELIVERY SYSTEM CUP**
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- (**) Term: **15 Years**
- (21) Appl. No.: **29/663,120**
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- (51) **LOC (13) Cl.** **23-01**
- (52) **U.S. Cl.**
USPC **D23/225**
- (58) **Field of Classification Search**
USPC D7/387, 392, 393, 395, 397, 398, 415, D7/665, 668, 694, 624.3, 633, 589, 312, D7/313, 316, 317, 321, 322; D8/40, 82, D8/83, 94, 300, 330, 331, 333, 349, 367, D8/382, 383, 385, 395, 396, 399; D9/434, 435, 436, 440, 443, 447, 448, D9/449, 454, 730, 733, 682; D15/122, D15/126, 135, 136, 138, 144.2, 147, 199; D23/223, 225, 224, 200, 205, 206, 213, D23/226, 227, 229, 233, 235
CPC B05B 9/08; B05B 7/2405; B05B 7/2408; B05B 7/241; B05B 7/2421; B05B 7/2478; B65D 47/06
See application file for complete search history.

- 2,651,545 A 9/1953 Shotton
- 3,993,250 A 11/1976 Shure
- 4,135,647 A 1/1979 Mascia
- 4,167,503 A 9/1979 Cipriani
- 4,183,673 A 1/1980 Easley
- 4,187,959 A 2/1980 Pelton
- (Continued)

FOREIGN PATENT DOCUMENTS

- EP 0623445 11/1994
- EP 3135452 3/2017
- (Continued)

Primary Examiner — Michael C Stout
Assistant Examiner — Fritzgerald L Butac

(57) **CLAIM**

The ornamental design for a liquid delivery system cup, as shown and described.

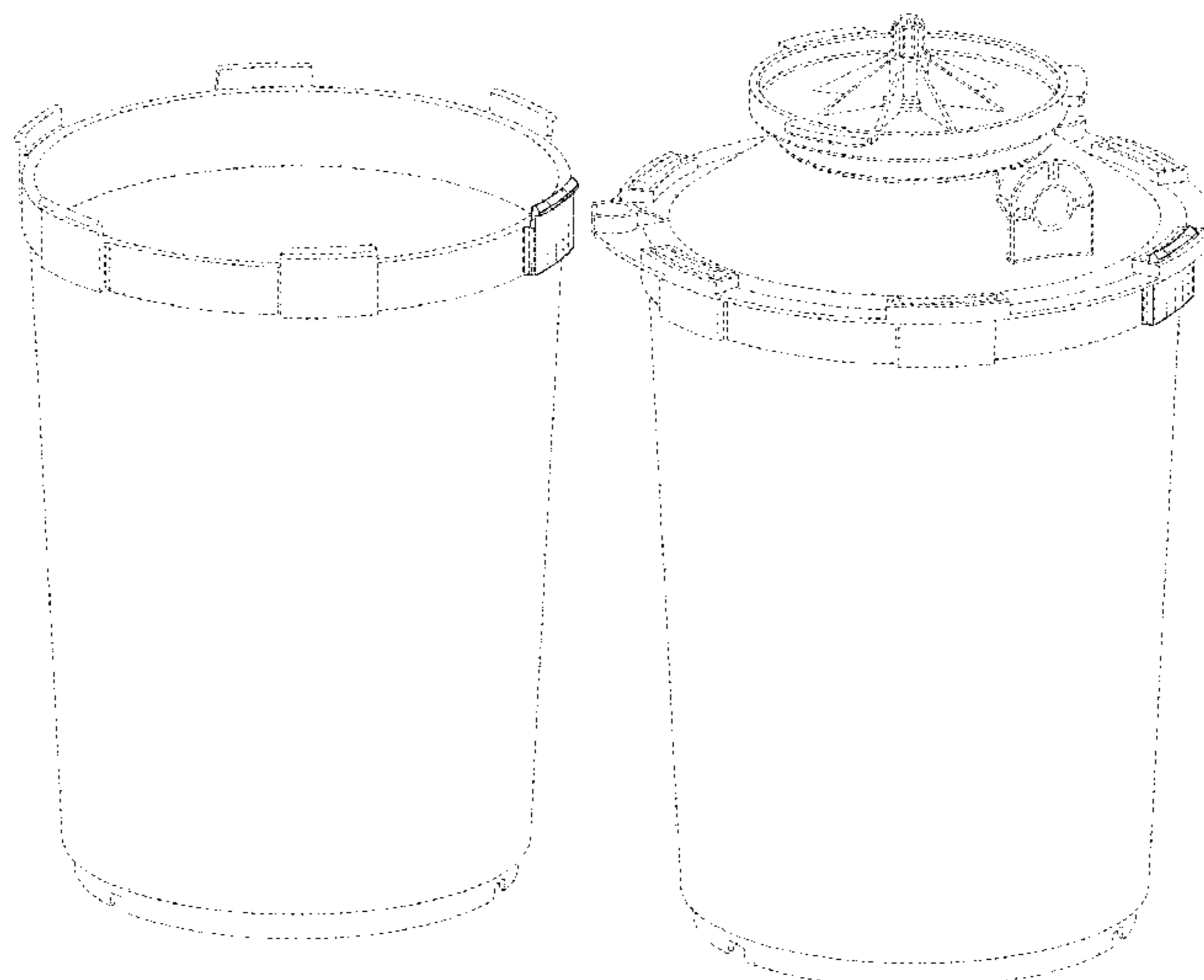
DESCRIPTION

FIG. 1 is a perspective view of a liquid delivery system cup embodying the new design.
 FIG. 2 is a front view thereof;
 FIG. 3 is a back view thereof;
 FIG. 4 is a right side view thereof;
 FIG. 5 is a left side view thereof;
 FIG. 6 is a top view thereof;
 FIG. 7 is a bottom view thereof; and,
 FIG. 8 is a perspective view thereof along with other components of a liquid delivery system.
 The broken lines show portions of a liquid delivery system cup that form no part of the claimed design.
 The broken lines shown in FIG. 8 are for the purpose of showing environmental structure, and form no part of the claimed design.
 The “dash-dot” broken lines in FIG. 6 are for the purpose of showing the bounds of the claimed design, and form no part thereof.

(56) **References Cited**
U.S. PATENT DOCUMENTS

- 2,413,710 A 1/1947 Jason
- 2,619,292 A 11/1952 Nichols

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,570,833 A 2/1986 Vanderjagt
 4,583,487 A 4/1986 Wood
 4,735,345 A 4/1988 Lee
 4,987,975 A 1/1991 Liu
 5,014,884 A 5/1991 Wunsch
 5,301,838 A 4/1994 Schmidt
 5,375,634 A 12/1994 Egger
 5,431,200 A 7/1995 Mariotti
 5,539,952 A 7/1996 Hayes
 5,636,762 A 6/1997 Juhola
 5,797,519 A 8/1998 Schroeder
 5,836,482 A 11/1998 Ophardt
 5,909,825 A 6/1999 Lydford
 5,955,116 A 9/1999 Kehoe
 6,053,218 A 4/2000 Boers
 6,142,750 A 11/2000 Benecke
 6,254,363 B1 7/2001 Fink
 6,343,724 B1 2/2002 Ophardt
 6,648,611 B2 11/2003 Morse
 6,651,849 B2 11/2003 Schroeder
 6,669,358 B2 12/2003 Shimoda
 6,890,161 B2 5/2005 Paukovits, Jr.
 6,957,751 B2 10/2005 Ophardt
 7,198,175 B2 4/2007 Ophardt
 7,277,664 B2 10/2007 Katsuyama
 7,278,776 B2 10/2007 Helbing
 7,416,096 B2 8/2008 Maguire
 7,681,765 B2 3/2010 Muderlak
 7,837,132 B2 11/2010 Mazooji
 7,845,582 B2 12/2010 Joseph
 8,096,530 B2 1/2012 Pelfrey
 8,272,537 B2 9/2012 Varga
 8,360,278 B2 1/2013 Fiedler
 8,544,692 B2 10/2013 Rusch
 8,596,555 B2 12/2013 Thompson
 D793,530 S * 8/2017 Hegdahl D23/225

D810,872 S * 2/2018 Hegdahl D23/225
 D813,985 S * 3/2018 Hegdahl D23/225
 D815,248 S * 4/2018 Hegdahl D23/225
 D817,443 S * 5/2018 Ebertowski D23/225
 D873,301 S * 1/2020 Crawford D15/5
 2004/0197435 A1 10/2004 Shepherd
 2005/0052945 A1 3/2005 Maguire
 2005/0092386 A1 5/2005 Kaufhold
 2005/0139612 A1 6/2005 Matthews
 2006/0278657 A1 12/2006 Roatis
 2008/0277421 A1 11/2008 Zlatic
 2009/0200340 A1 8/2009 Ophardt
 2009/0212071 A1 8/2009 Tom
 2010/0140288 A1 6/2010 Jones
 2010/0254730 A1 10/2010 Centofante
 2010/0254731 A1 10/2010 Centofante
 2011/0108568 A1 5/2011 Hogan
 2013/0270303 A1 10/2013 Centofante
 2016/0052002 A1 * 2/2016 Schulz B05B 7/2408
 239/302
 2017/0203887 A1 * 7/2017 Hegdahl B65D 47/06
 2020/0108533 A1 * 4/2020 Schulz B65D 83/0055

FOREIGN PATENT DOCUMENTS

ES 8707882 9/1987
 FR 2672279 8/1992
 JP 2002-046338 2/2002
 JP 2007136719 6/2007
 WO WO 2005/000955 1/2005
 WO WO 2007/039378 4/2007
 WO WO 2007/080150 7/2007
 WO WO 2011/046802 4/2011
 WO WO 2011/085012 7/2011
 WO WO 2012/048172 4/2012
 WO WO 2013/074923 5/2013
 WO WO 2017/123707 7/2017
 WO WO 2019/005726 1/2019

* cited by examiner

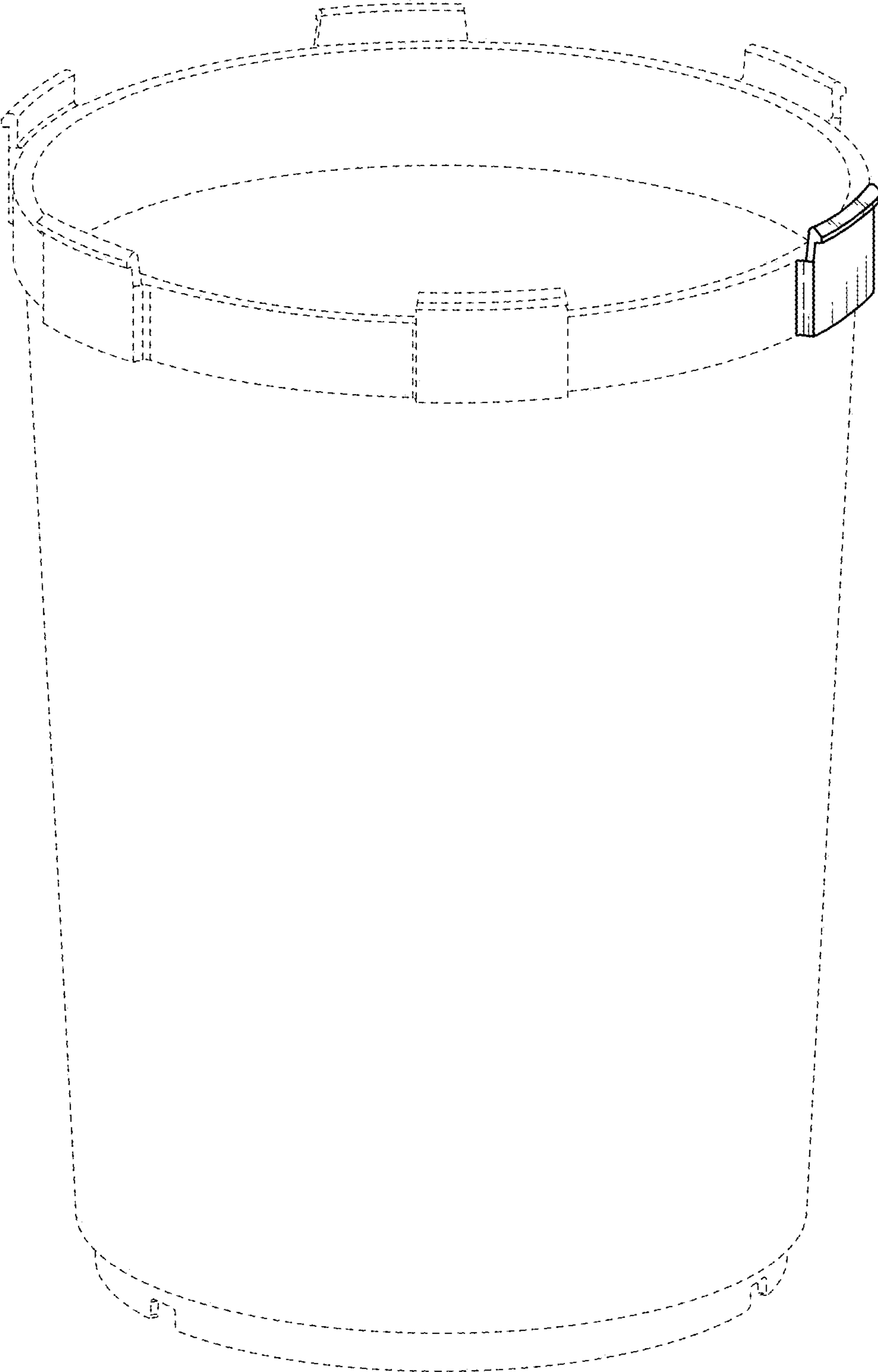


FIG. 1

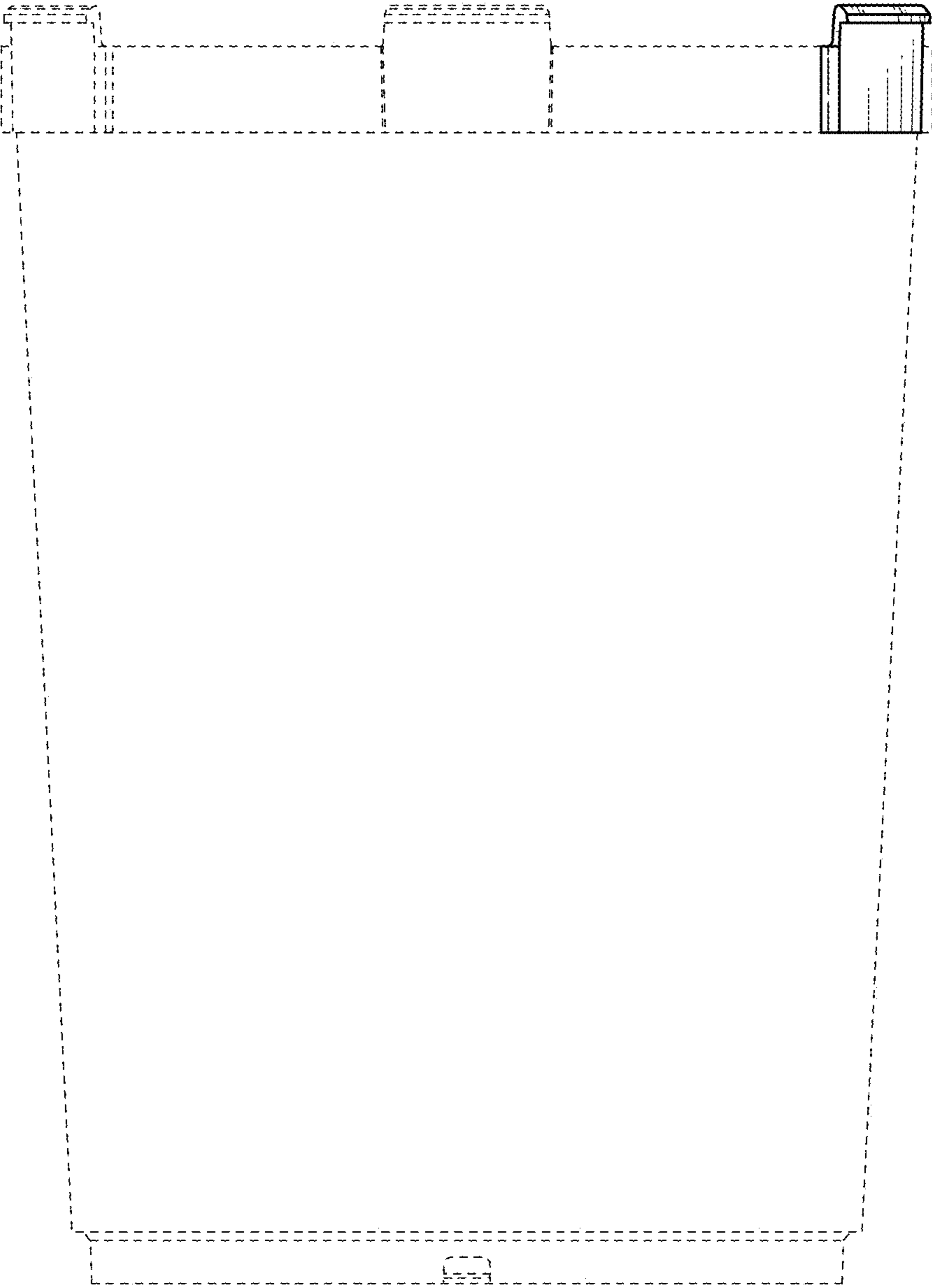


FIG. 2

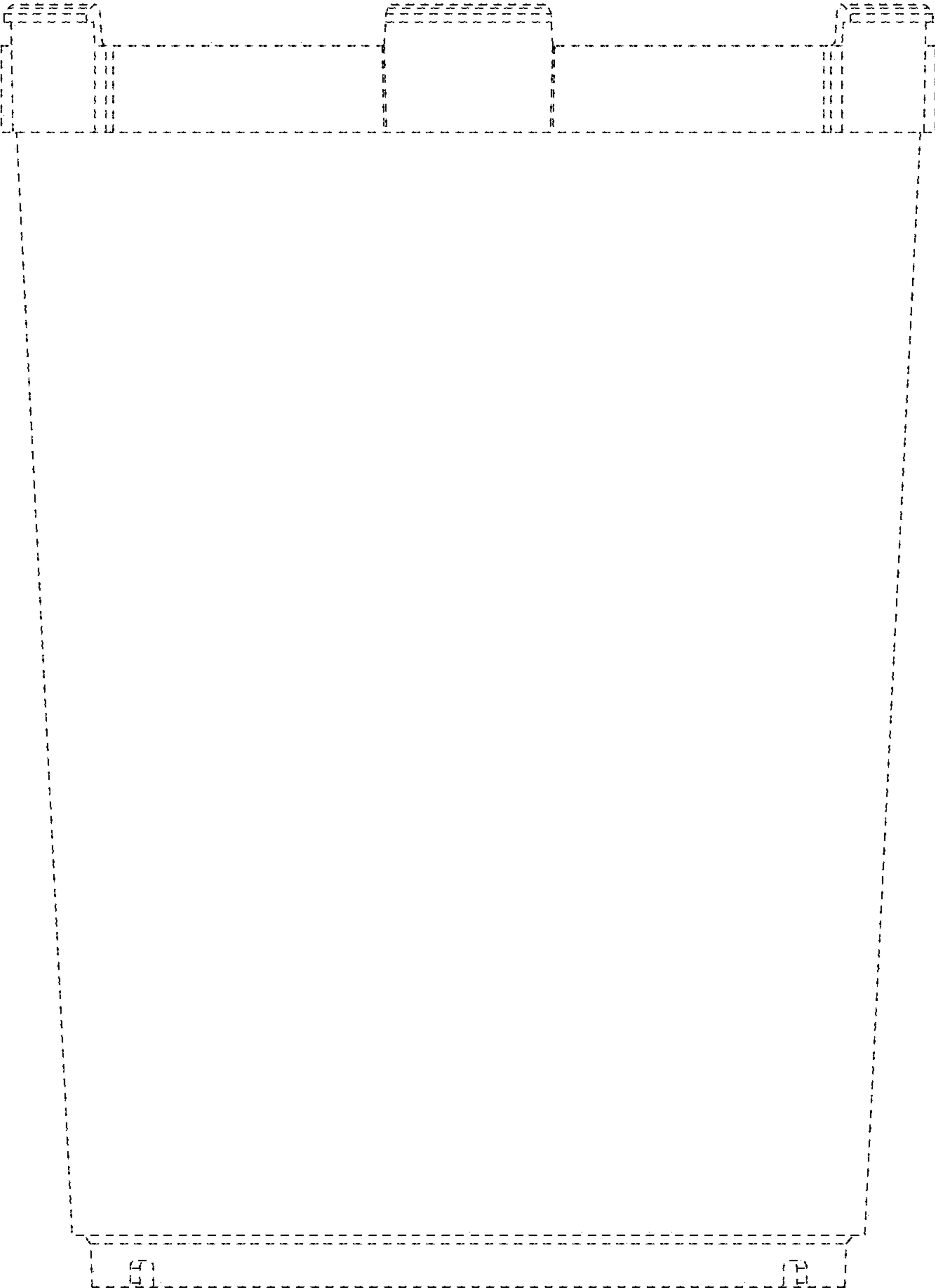


FIG. 3

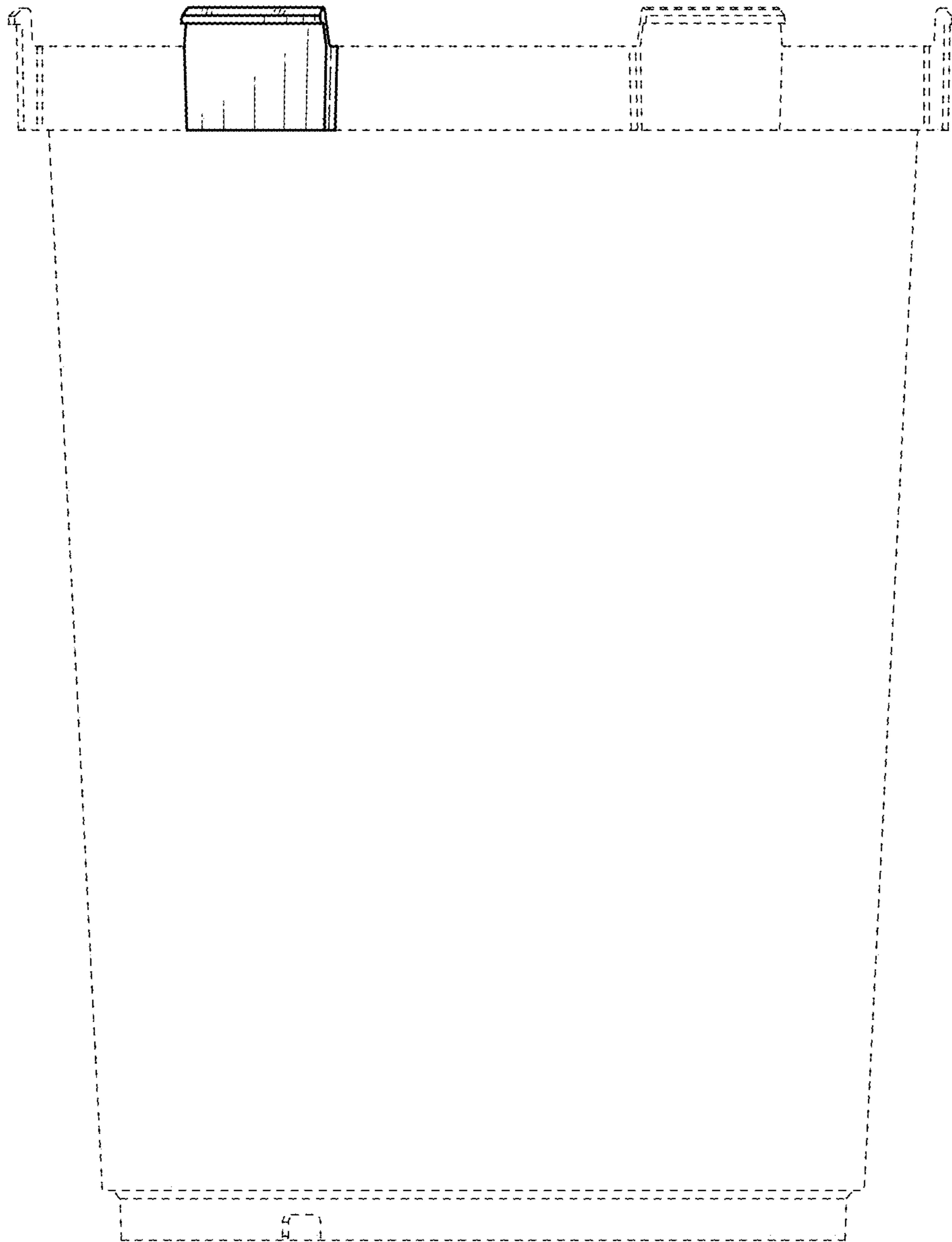


FIG. 4

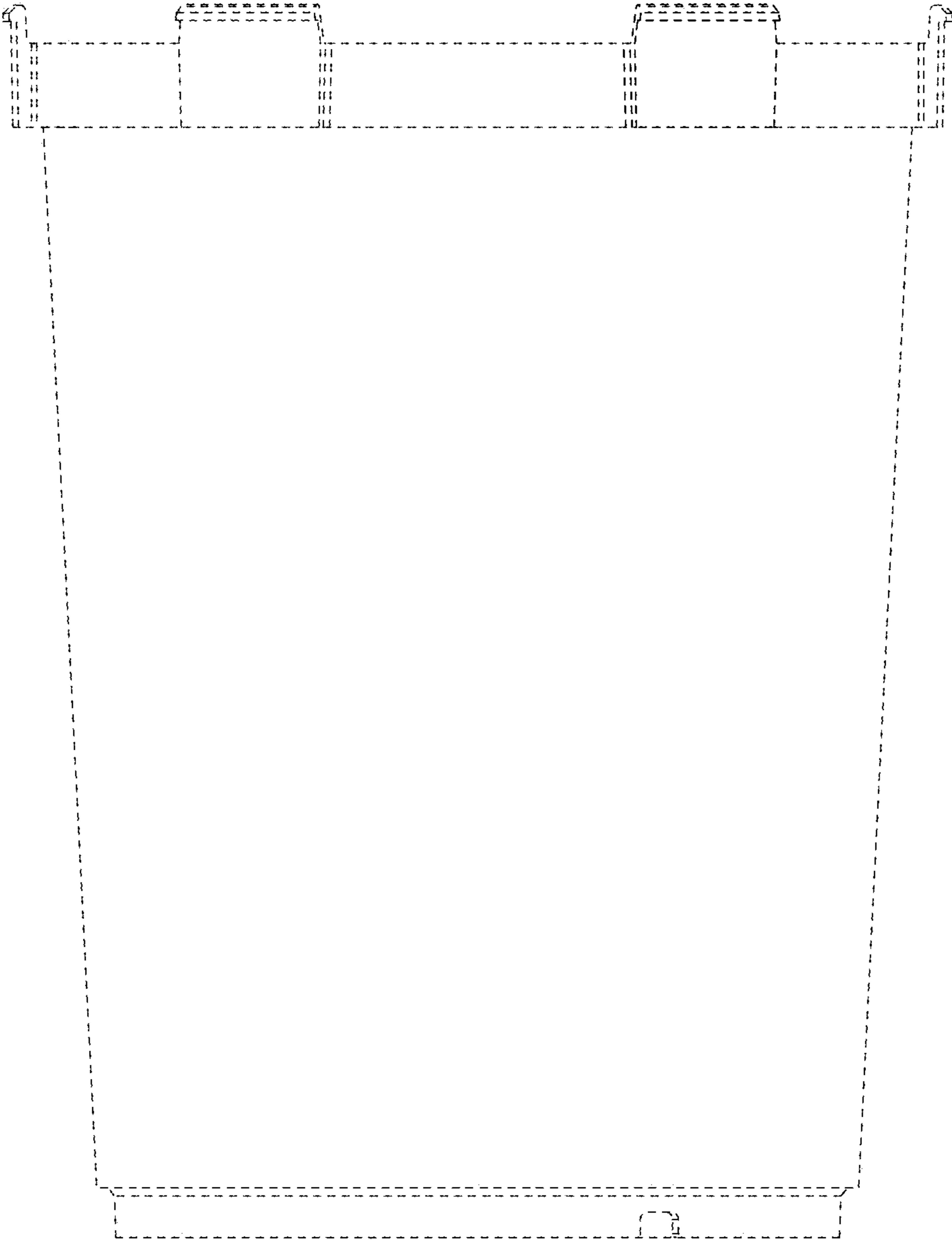


FIG. 5

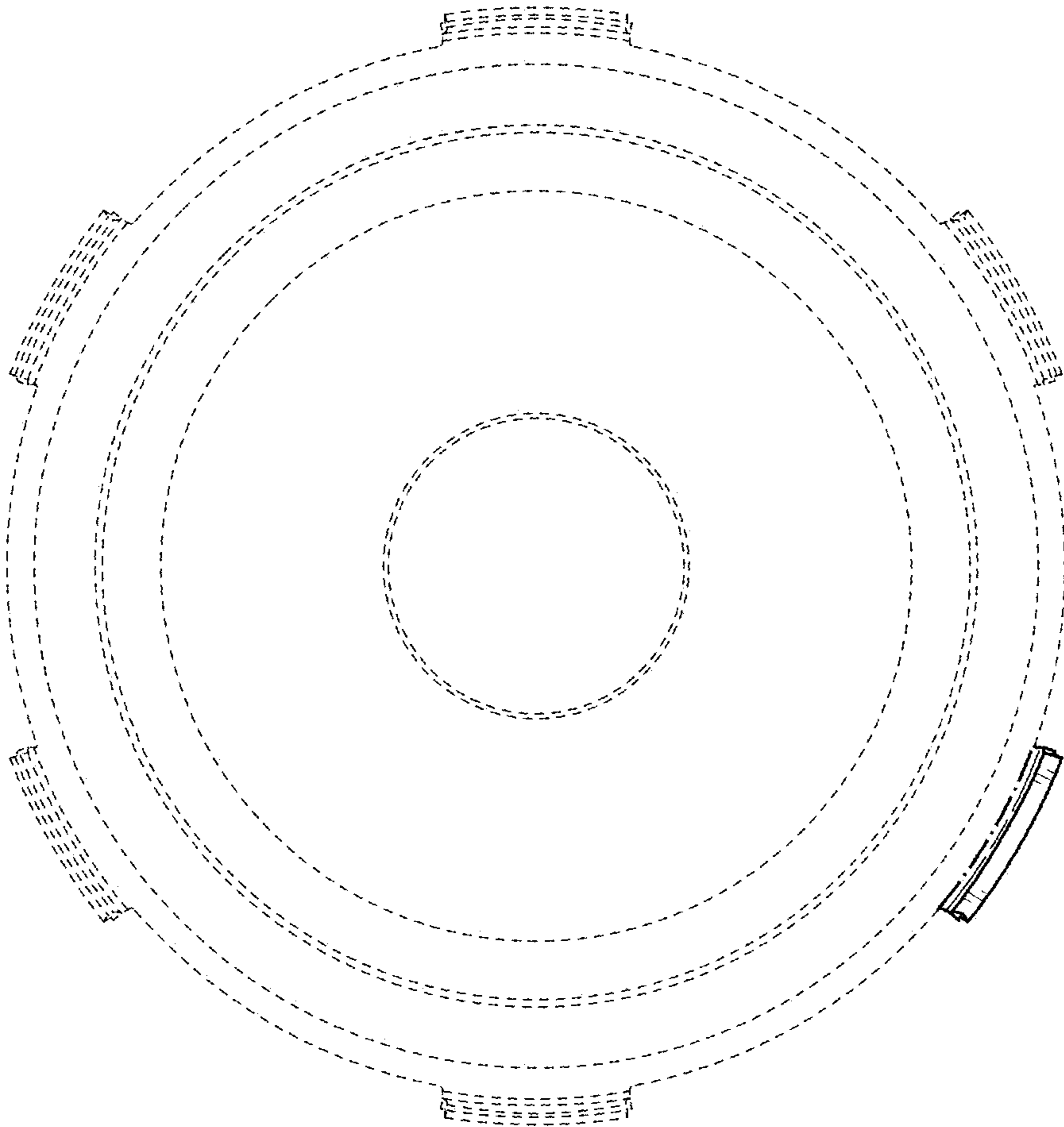


FIG. 6

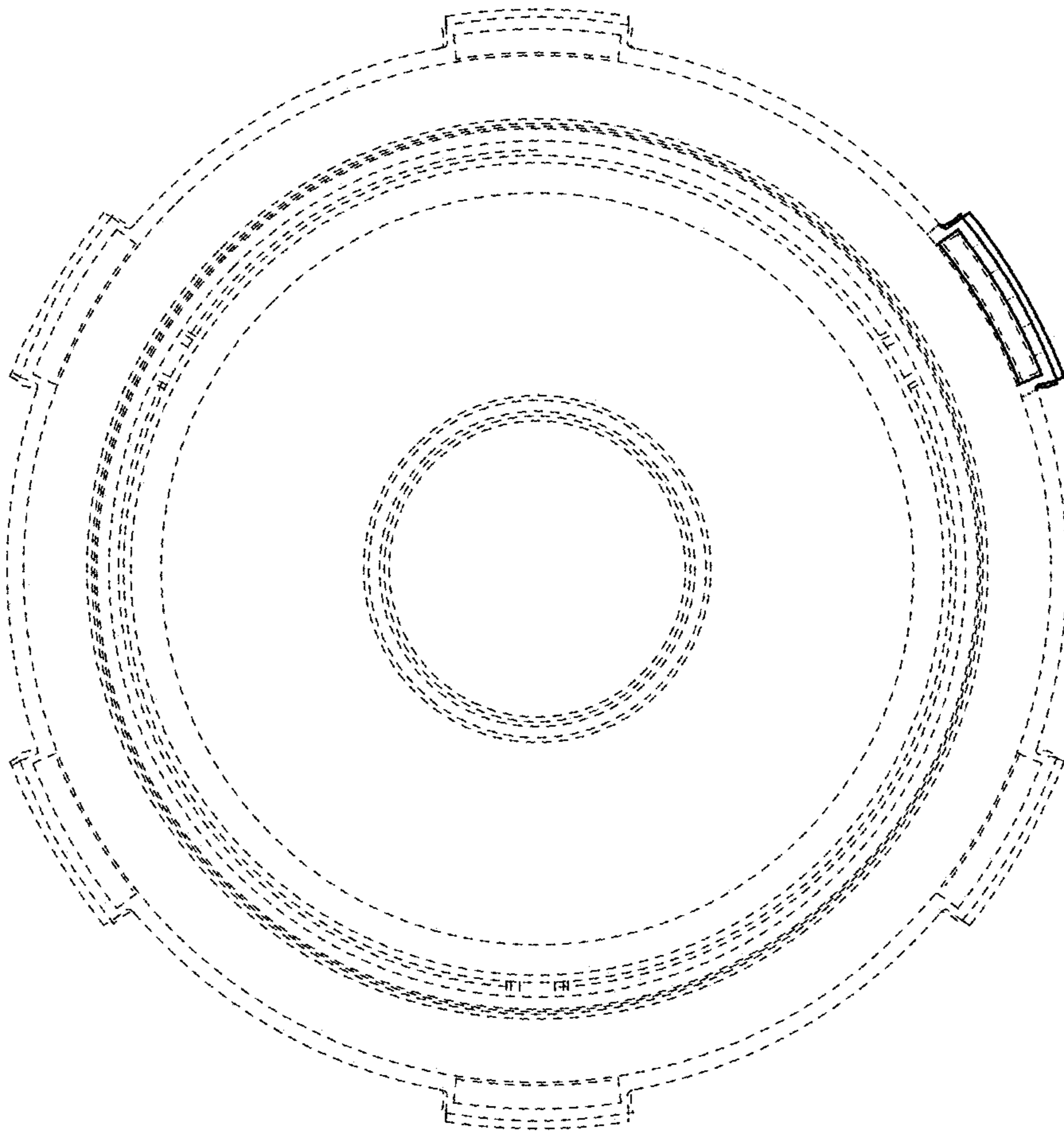


FIG. 7

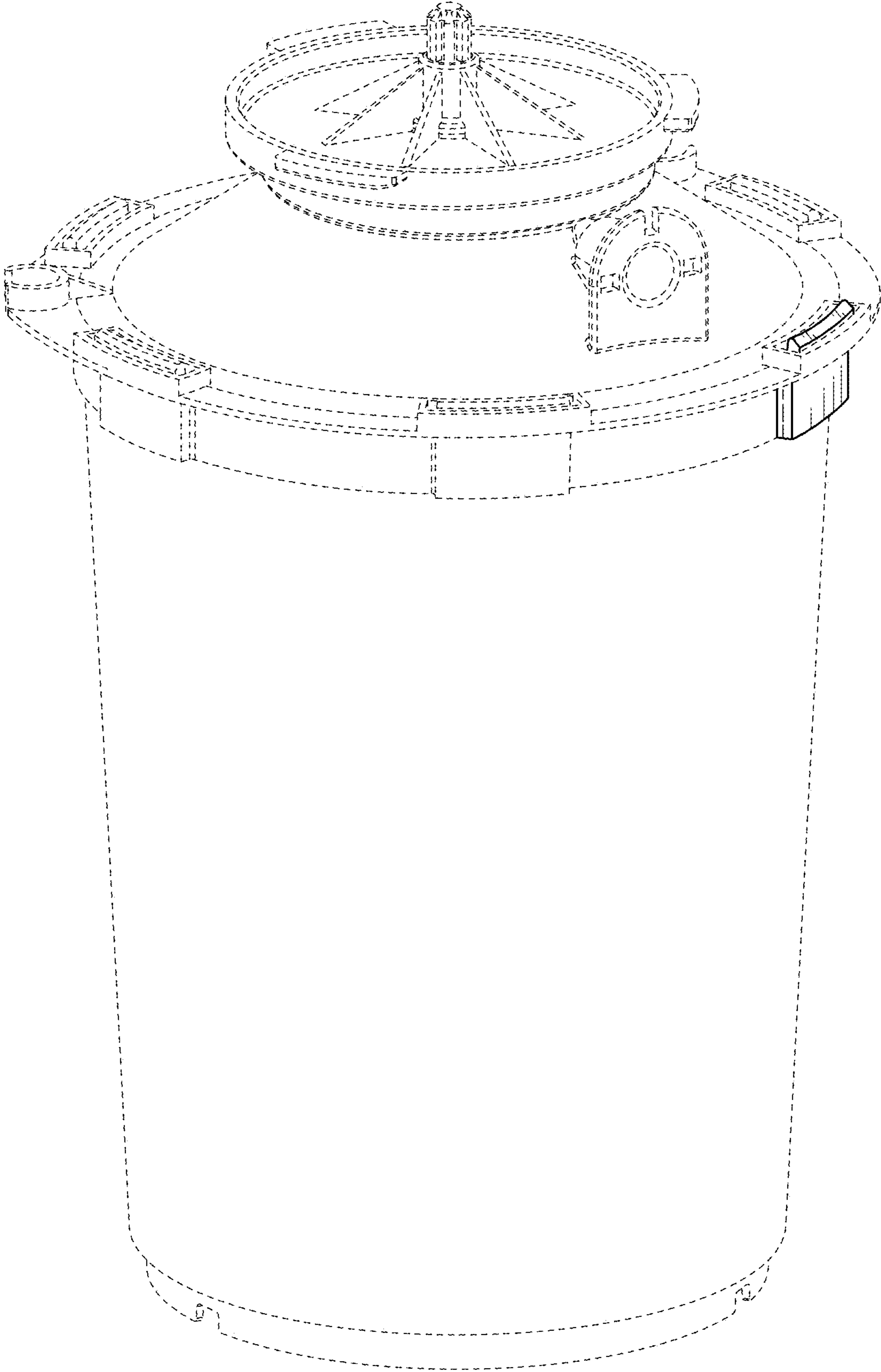


FIG. 8