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(12) **United States Design Patent** (10) **Patent No.:** **US D846,622 S**
Rahbar-Dehghan (45) **Date of Patent:** **** Apr. 23, 2019**

(54) **SPRAY BULB CLEANER FOR DIGITAL CAMERA SENSORS**

D268,127 S * 3/1983 Whedon D23/229
D344,970 S * 3/1994 Hanke D16/245
5,402,304 A 3/1995 Smith
D373,133 S * 8/1996 Usui D16/244

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(Continued)

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OTHER PUBLICATIONS

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VisibleDust Canon Pro Bundle B Cleaning Set with 1.0x Swab Size for DSLR Camera Body. Online, published date unknown. Retrieved on Jun. 13, 2018 from URL: https://www.bhphotovideo.com/c/product/1218376-REG/visibledust_17848752_canon_pro_bundle_b.html?ap=y&gclid=EAJalQobChMliKyiurjS2wIVyVSG ChlpRQgqEAQYASABEgl1VPD_Bw.*

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

(Continued)

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Primary Examiner — Karen S Acker

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Assistant Examiner — Omeed Agilee

(30) **Foreign Application Priority Data**

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Dec. 21, 2016 (CA) 172323

(51) **LOC (11) Cl.** **16-05**

(57) **CLAIM**

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

The ornamental claimed design for a spray bulb cleaner for digital camera sensors, as shown and described.

USPC **D16/237**

(58) **Field of Classification Search**

DESCRIPTION

USPC D16/203, 208, 213–219, 235–250; D14/217, 229, 250–253; D8/353, 362, D8/371, 394; D23/213–230
CPC G03B 17/02–17/04; G03B 17/14; G03B 17/56; G03B 17/561–17/568; G03B 21/20; G02B 7/00–7/002; F16M 11/02; F16M 11/04; F16M 11/20; F16M 11/40
See application file for complete search history.

FIG. 1 is a front perspective view of the spray bulb cleaner for digital camera sensors showing my new design; FIG. 2 is a top perspective view of the spray bulb cleaner for digital camera sensors of FIG. 1; FIG. 3 is a bottom perspective view of the spray bulb cleaner for digital camera sensors of FIG. 1; FIG. 4 is a bottom plan view of the spray bulb cleaner for digital camera sensors of FIG. 1; and, FIG. 5 is an elevational view of the spray bulb cleaner for digital camera sensors of FIG. 1.

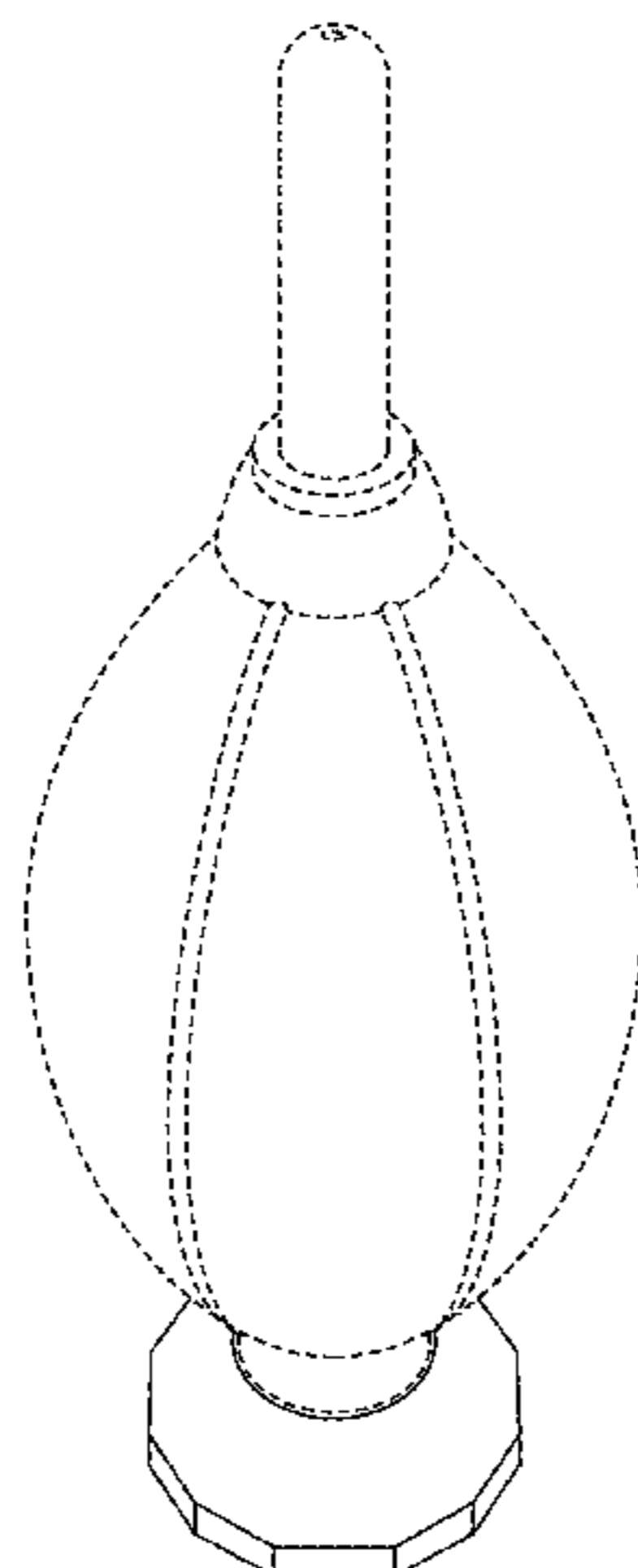
(56) **References Cited**

The broken lines showing a nozzle opposite the conical foot portion and the main body disposed there between depict portions of the spray bulb cleaner for digital camera sensors that form no part of the claimed design.

U.S. PATENT DOCUMENTS

1,576,128 A 3/1926 Ballard
D195,186 S * 5/1963 Hershenson D24/115
D210,627 S * 3/1968 Peterson et al. D16/239
3,710,413 A 1/1973 French
D254,627 S * 4/1980 Kelly D23/223
4,364,147 A 12/1982 Biedermann et al.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,630,183 A * 5/1997 Hagiuda G03B 17/566
 396/198
 6,725,568 B2 4/2004 Gronka
 D524,905 S * 7/2006 Hoernig D23/213
 D620,491 S * 7/2010 Wu D14/411
 D712,957 S * 9/2014 Kessler D16/245
 D723,091 S * 2/2015 Hale D16/244
 D753,362 S * 4/2016 Wu D32/35
 D770,555 S * 11/2016 Lee D16/237
 D782,008 S * 3/2017 Naslund D23/226
 9,920,876 B2 * 3/2018 Prugue F16M 13/022
 2007/0157402 A1 7/2007 Caffarella
 2009/0313845 A1 * 12/2009 Koh G03B 17/568
 34/90
 2010/0044534 A1 * 2/2010 He B60R 11/02
 248/188.8
 2010/0237206 A1 * 9/2010 Barker F16M 11/041
 248/206.5
 2011/0068197 A1 * 3/2011 Shen A47L 25/00
 239/327
 2011/0197930 A1 * 8/2011 Rahbar-Dehghan B08B 5/02
 134/34
 2012/0188441 A1 * 7/2012 Takizawa H04N 5/2251
 348/374

OTHER PUBLICATIONS

Owner's Manual for FireFily Digital Sensor Cleaner Model DSC-1000.

* cited by examiner

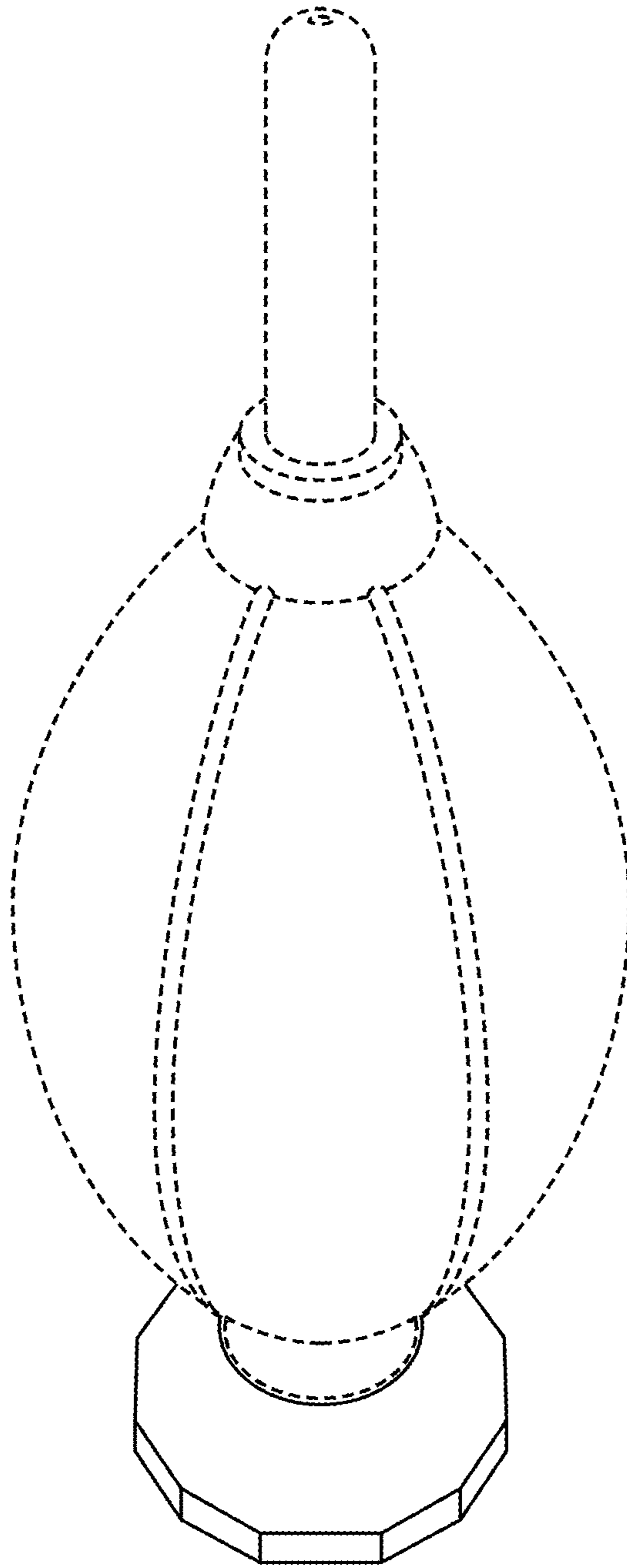


FIG. 1

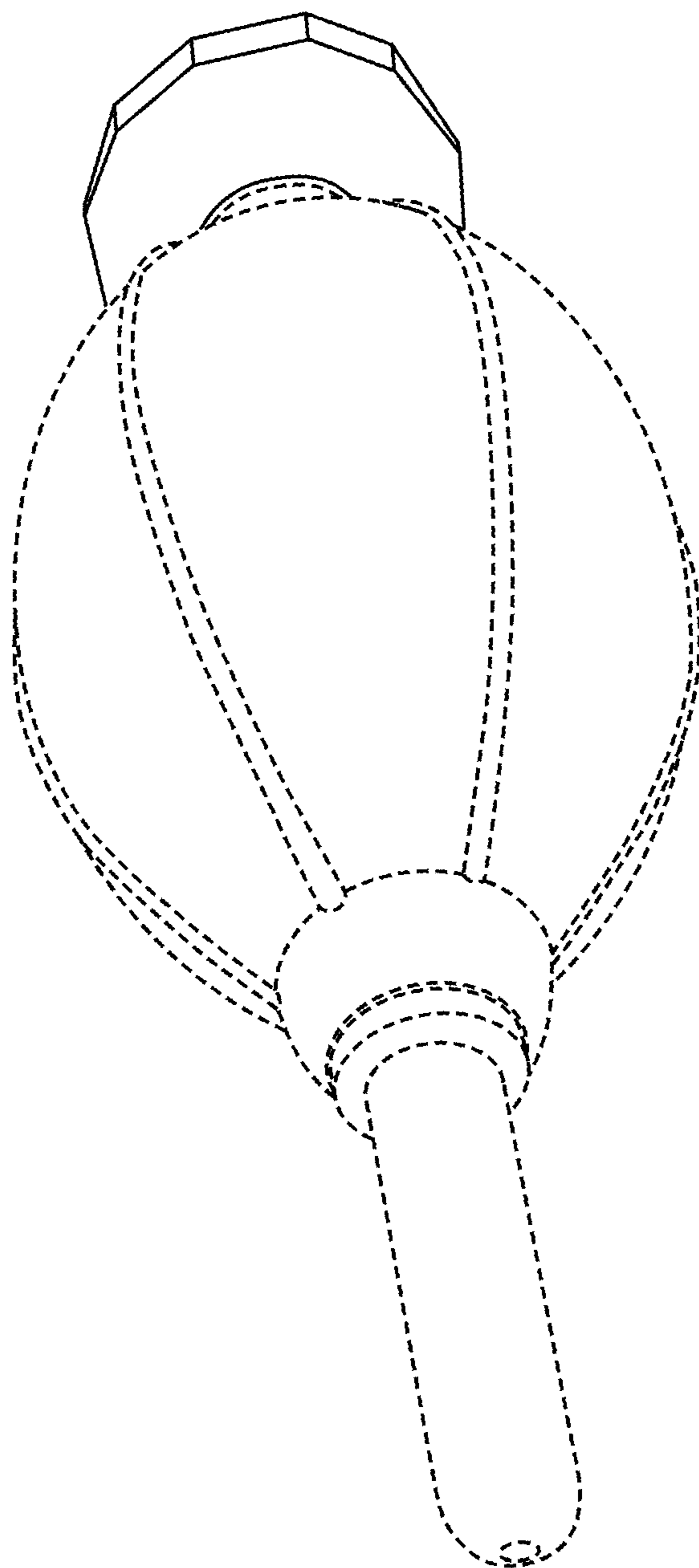


FIG. 2

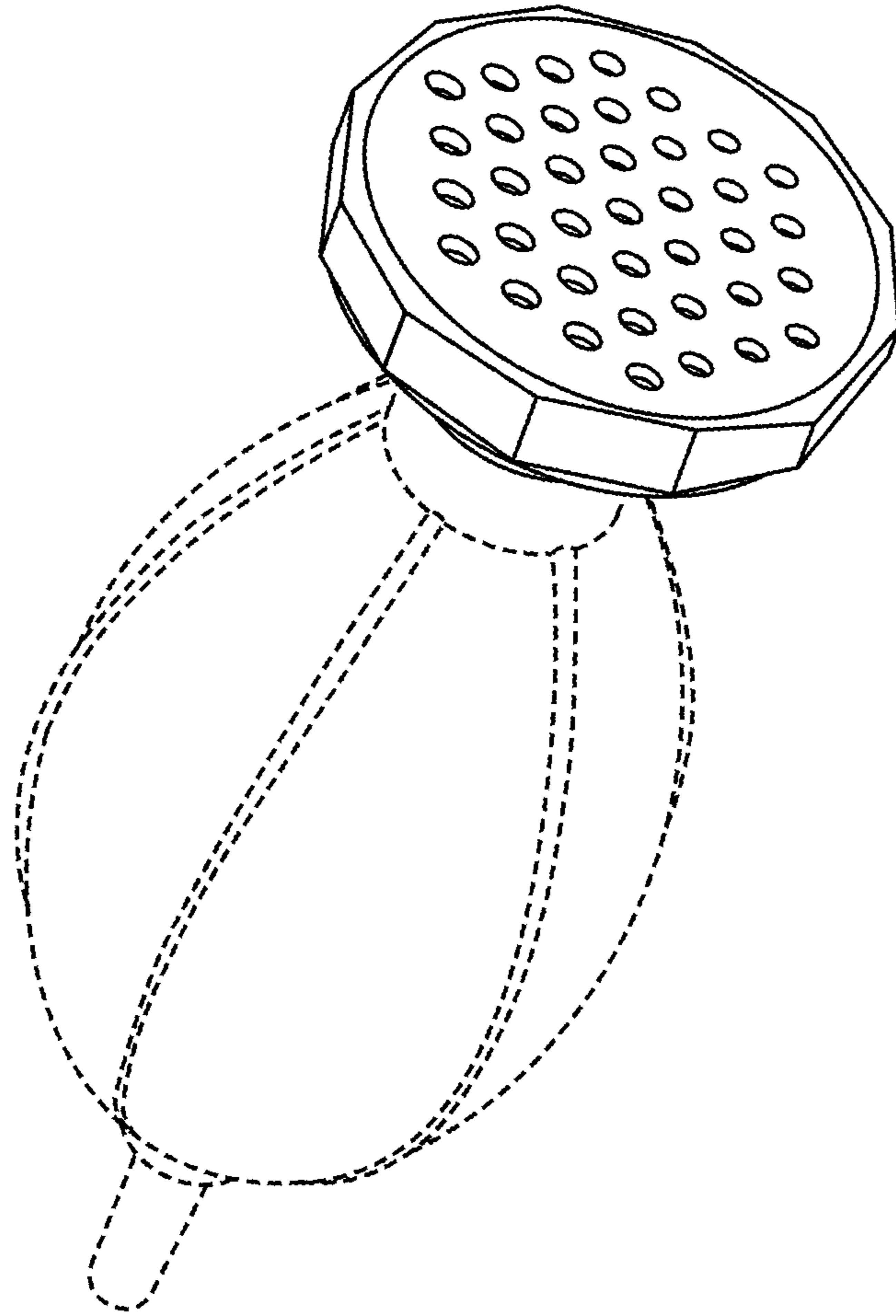


FIG. 3

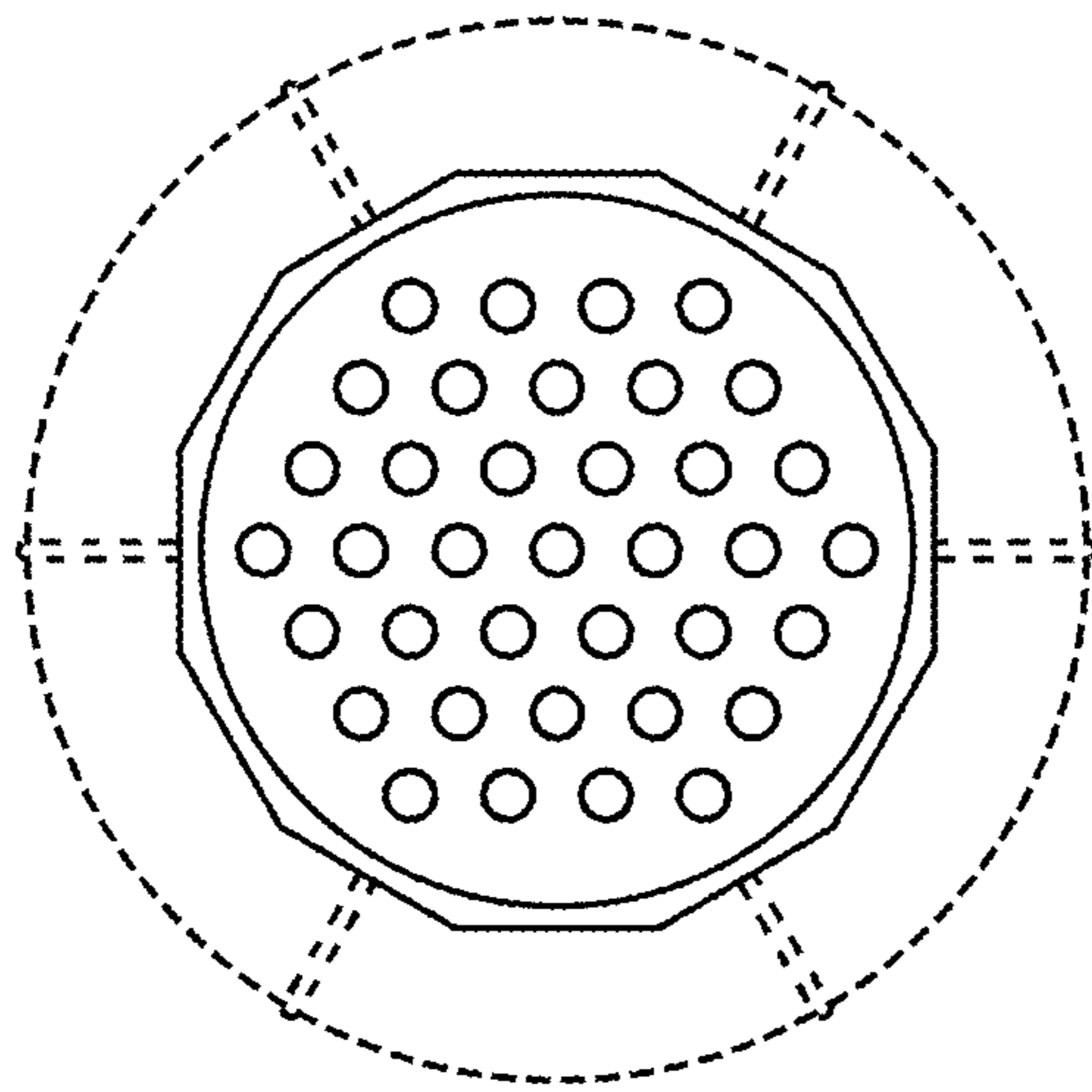


FIG. 4

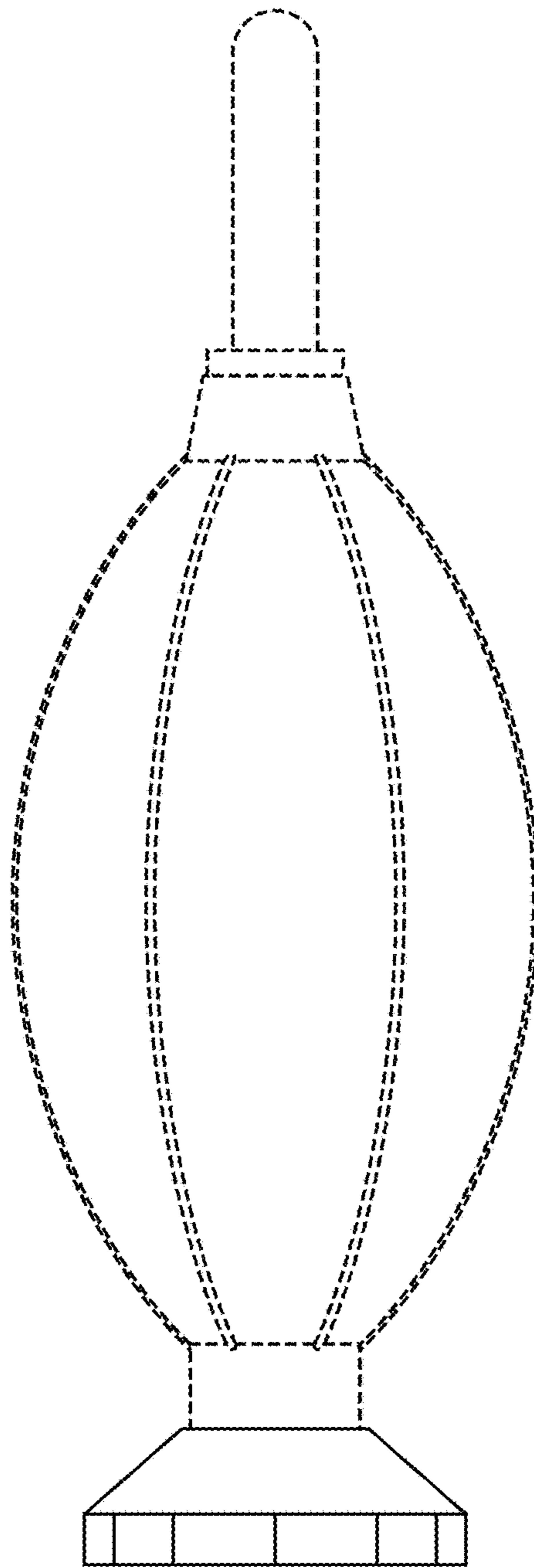


FIG. 5