

US00D947376S

(12) **United States Design Patent** (10) **Patent No.:** **US D947,376 S**  
**Lagow** (45) **Date of Patent:** **\*\* Mar. 29, 2022**

(54) **ENDOSCOPE SUCTION VALVE**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Medivators Inc.**, Minneapolis, MN (US)

EP 0055394 3/1985  
EP 1099393 A1 5/2001

(Continued)

(72) Inventor: **Robert Lagow**, Shepherd, TX (US)

OTHER PUBLICATIONS

(73) Assignee: **Medivators Inc.**, Minneapolis, MN (US)

Pentax Owner's Manual Pentax Video GI Scopes EG-290Kp, EC-380LKp, Nov. 2009.

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

(Continued)

(21) Appl. No.: **29/641,310**

*Primary Examiner* — Eliza Z Bennett-Hattan

(22) Filed: **Mar. 21, 2018**

(74) *Attorney, Agent, or Firm* — Sorell, Lenna & Schmidt, LLP; William D. Schmidt, Esq.

(51) **LOC (13) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/138**

(57) **CLAIM**

(58) **Field of Classification Search**  
USPC ..... D24/129, 110, 110.6, 155, 137, 138;  
D23/233, 421

The ornamental design for an endoscope suction valve, as shown and described.

CPC . A61B 1/015; A61B 1/00064; A61B 1/00068;  
A61B 1/00103; A61B 1/0011; A61B  
1/00105

**DESCRIPTION**

See application file for complete search history.

FIG. 1 is a perspective view of an endoscope suction valve; FIG. 2 is a front view of the endoscope suction valve; FIG. 3 is a back view of the endoscope suction valve; FIG. 4 is a side view of the endoscope suction valve; FIG. 5 is a side view of the endoscope suction valve; FIG. 6 is a top view of the endoscope suction valve; FIG. 7 is a bottom view of the endoscope suction valve; FIG. 8 is a perspective view of an endoscope suction valve; FIG. 9 is a front view of the endoscope suction valve; FIG. 10 is a back view of the endoscope suction valve; FIG. 11 is a side view of the endoscope suction valve; FIG. 12 is a side view of the endoscope suction valve; FIG. 13 is a top view of the endoscope suction valve; and, FIG. 14 is a bottom view of the endoscope suction valve. The broken lines in the figures are for illustrative purposes and form no part of the claimed design.

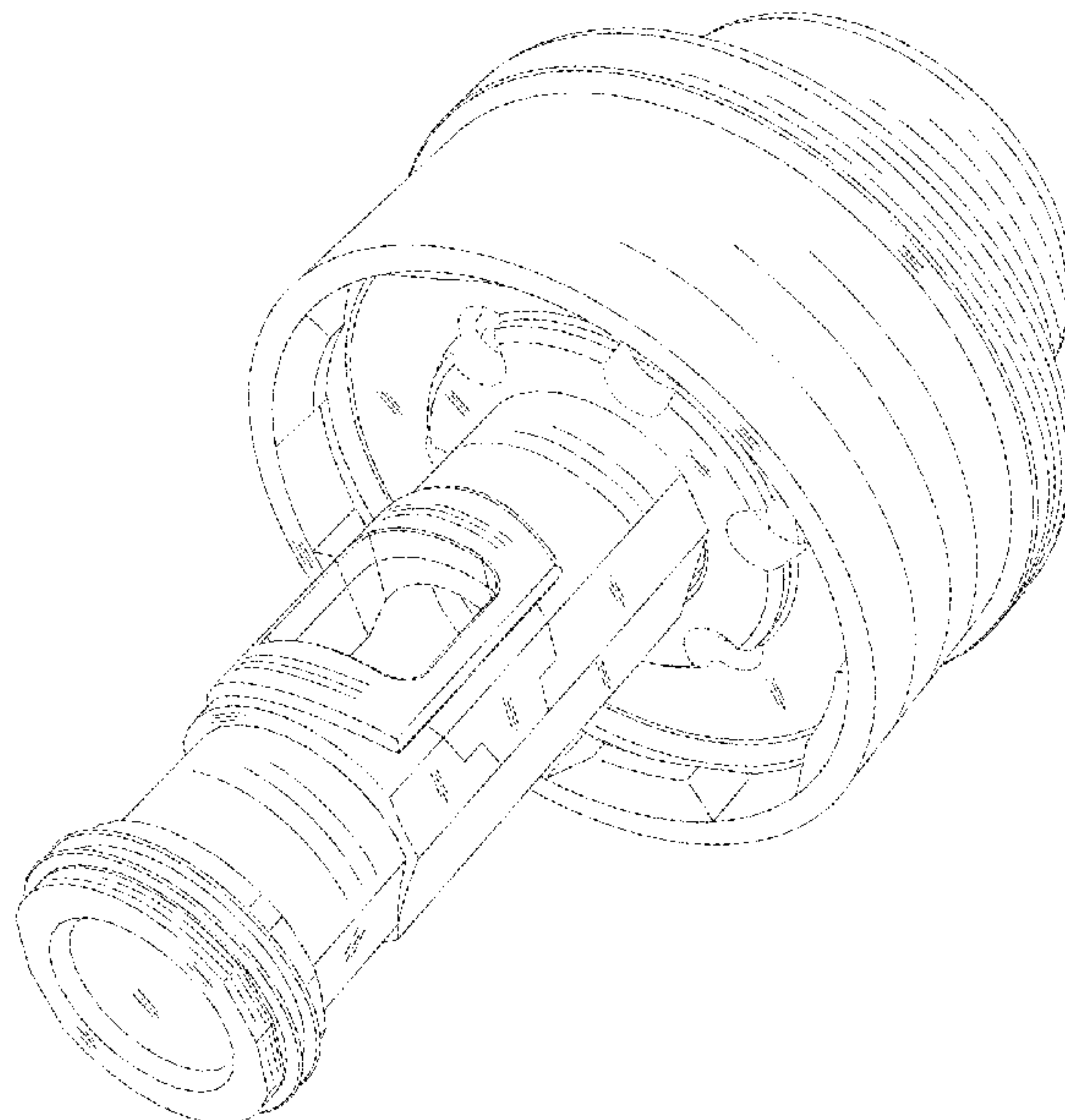
(56) **References Cited**

U.S. PATENT DOCUMENTS

4,261,343 A 4/1981 Ouchi et al.  
4,325,362 A 4/1982 Ouchi et al.  
4,361,138 A 11/1982 Kinoshita  
4,402,310 A 9/1983 Kimura  
4,561,428 A 12/1985 Konomura  
4,800,869 A 1/1989 Nakajima  
D300,361 S 3/1989 Tokarz  
4,844,052 A 7/1989 Iwakoshi et al.  
4,852,551 A 8/1989 Opie et al.  
4,900,305 A 2/1990 Smith  
4,982,726 A 1/1991 Taira  
5,386,817 A 2/1995 Jones

(Continued)

**1 Claim, 8 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

5,391,145 A 2/1995 Dorsey, III  
 5,522,796 A 6/1996 Dorsey, III  
 5,871,441 A 2/1999 Ishiguro et al.  
 5,876,326 A 3/1999 Takamura et al.  
 6,095,971 A 8/2000 Takahashi  
 6,132,369 A 10/2000 Takahashi  
 6,346,075 B1 2/2002 Arai et al.  
 6,358,224 B1 3/2002 Tims et al.  
 6,383,132 B1 5/2002 Wimmer  
 D473,646 S 4/2003 Baillargeon  
 D473,941 S 4/2003 Cise et al.  
 6,786,865 B2 9/2004 Dhindsa  
 6,849,043 B2 2/2005 Kondo  
 6,908,429 B2 6/2005 Heimberger  
 7,220,226 B2 5/2007 Rovegno  
 D546,946 S 7/2007 Blake et al.  
 D565,731 S 4/2008 Eisenkolb et al.  
 7,481,764 B2 1/2009 Soutorine et al.  
 8,241,208 B2 8/2012 Jiang et al.  
 8,568,303 B2 10/2013 Yamane  
 8,821,389 B2 9/2014 Yamane  
 D717,432 S \* 11/2014 Leroy ..... D24/138  
 9,125,550 B2 9/2015 Shener-Irmakoglu et al.  
 9,144,374 B2 9/2015 Maurice, Jr.  
 9,161,680 B2 10/2015 Bellofatto et al.  
 9,247,862 B2 2/2016 Shen et al.  
 9,307,890 B2 4/2016 Ouchi  
 D761,420 S 7/2016 Hayamizu  
 9,398,842 B2 7/2016 Furuta  
 D865,960 S \* 11/2019 Hahn ..... D24/138  
 2003/0181905 A1 9/2003 Long  
 2004/0238014 A1 12/2004 Halstead et al.  
 2006/0041190 A1 2/2006 Sato  
 2006/0100485 A1 5/2006 Arai et al.  
 2006/0116552 A1 6/2006 Noguchi et al.  
 2006/0276689 A1 12/2006 Litscher et al.  
 2007/0179432 A1 8/2007 Bar Or et al.  
 2010/0240956 A1 9/2010 Secrest et al.  
 2011/0298169 A1 12/2011 Nguyen et al.  
 2012/0088975 A1 4/2012 Morimoto  
 2012/0091092 A1 4/2012 Adams et al.  
 2013/0303844 A1 \* 11/2013 Grudo ..... A61B 1/015  
 600/101  
 2013/0338442 A1 \* 12/2013 Anderson ..... A61B 1/00094  
 600/154  
 2015/0144215 A1 \* 5/2015 Bellofatto ..... A61B 1/0011  
 137/625.69  
 2015/0148608 A1 \* 5/2015 Fukushima ..... A61B 1/00094  
 600/116  
 2016/0058518 A1 3/2016 Mason  
 2016/0120395 A1 5/2016 Qi  
 2016/0143516 A1 \* 5/2016 Xu ..... A61B 1/00068  
 600/159  
 2016/0227984 A1 8/2016 Hatano  
 2016/0309987 A1 10/2016 Grudo et al.  
 2016/0331214 A1 11/2016 Fujitani et al.  
 2016/0338577 A1 11/2016 Viebach et al.

FOREIGN PATENT DOCUMENTS

JP 58-010031 A 1/1983  
 JP 62-189041 A 8/1987

JP H8-215137 A 2/1995  
 JP 08-266461 A 10/1996  
 JP 09-122069 A 5/1997  
 JP 1998-248791 A 9/1998  
 JP H10-24879 A 9/1998  
 JP 2002-306405 A 10/2002  
 JP 2003-310542 A 5/2003  
 JP 2004-169805 A 6/2004  
 JP 2006-55447 A 2/2006  
 JP 2007-185276 A 7/2007  
 JP 4589315 B 11/2010  
 WO 2009-016352 A2 2/2009

OTHER PUBLICATIONS

Photos of Pentax OF-B120 Suction Control Valve, Pentax OF-B188 Air/Water Feeding Valve and Pentax OF-B121 Air/Water Valve, 2009.  
 Photos of Olympus Suction Valve MH-443 with parts separated, 2003.  
 Photos of Olympus Air/Water Valve MH-438 with parts separated, 2003.  
 Photo of Olympus suction valve MH-443 from internet website www.partsfinder.com, website visited Jan. 8, 2019 at https://www.partsfinder.com/parts/olympus-america-inc/MH443.  
 Photo of Olympus air/water valve MH-438 from internet website www.dotmed.com, website visited Jan. 8, 2019 at https://www.dotmed.com/listing/endoscope/olympus/mh-438/2101261.  
 Olympus Operation Manual, dated 2003, 102 pages, entire document.  
 Third party submission filed on Jul. 17, 2014 in U.S. Appl. No. 13/989,573 (filing date Jul. 17, 2013).  
 Third party submission filed on Jul. 17, 2014 in U.S. Appl. No. 13/989,649 (filing date Jul. 17, 2013).  
 International Search Report and Written Opinion by the International Searching Authority Filed in Application No. PCT/US2011/062594 dated Nov. 30, 2011 and dated Mar. 29, 2012.  
 Reprocessing Summary and Guide for Fujinon/Fujifilm Flexible GI Endoscopes. Fujifilm Medical Systems USA Inc. Endoscopy Division. Wayne, NJ. Feb. 2018.  
 Olympus Reprocessing Manual/Instructions. 2009 Olympus Medical Systems Corp.  
 Fujifilm Endoscopes EG-L590ZW, EC-L590ZW/L Operation Manual (Cleaning, Disinfection and Storage). 2013 Fujifilm Corp.  
 Fujifilm Endoscope EC-600WL Operation Manual (Preparation and Operation). Fujifilm Corp. Jan. 2018.  
 Fujinon Electronic Video Endoscopes EVE 530/590 Series Operation Manual (Cleaning, Disinfection and Storage). Fujinon Corporation. Jan. 2015.  
 Pentax Owner's Manual Video GI Scopes EG-290Kp, EC-380MKp, EC-380MK2p, EC-380FKp, EC-380FK2p, EC-380LKp. Pentax Corporation. Nov. 2009.  
 5.1 Preparing the equipment for reprocessing. Chapter 5: Reprocessing the Endoscope (and related reprocessing accessories). Olympus Evis Exera II TJF Type Q180V Reprocessing Manual. 2009.  
 Photo of Fuji and Olympus endoscope valves. Feb. 2016.

\* cited by examiner



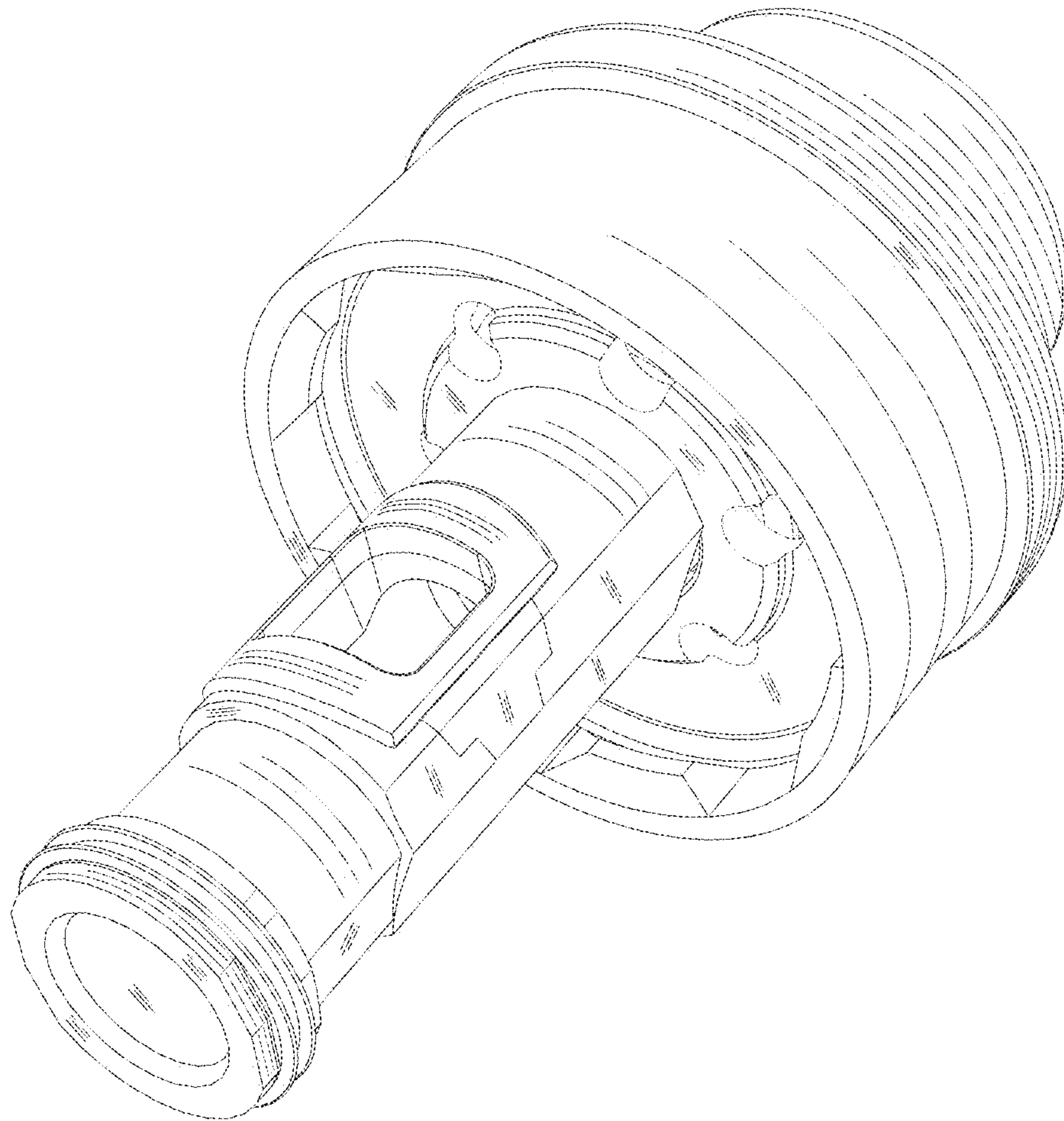


FIG. 1

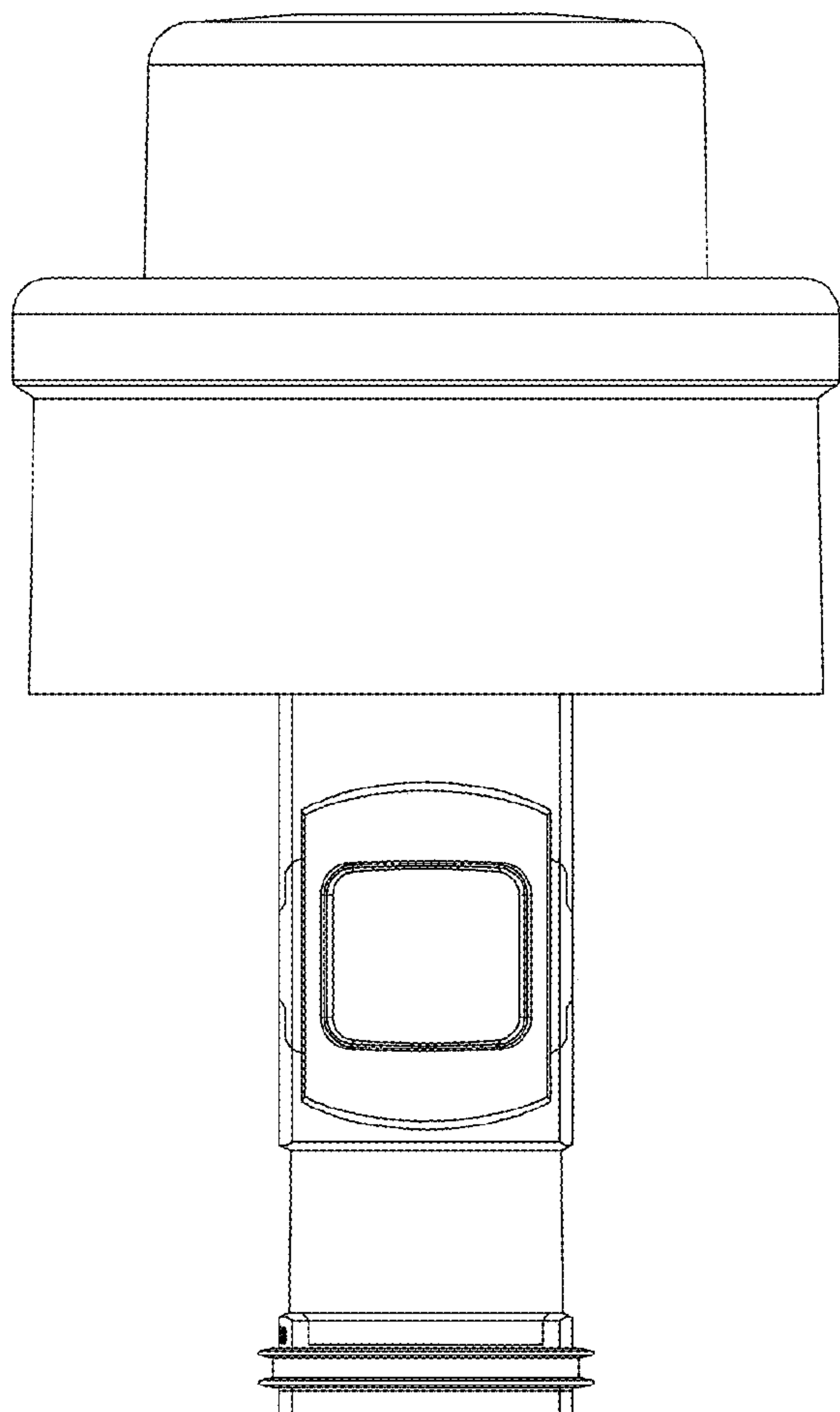


FIG. 2

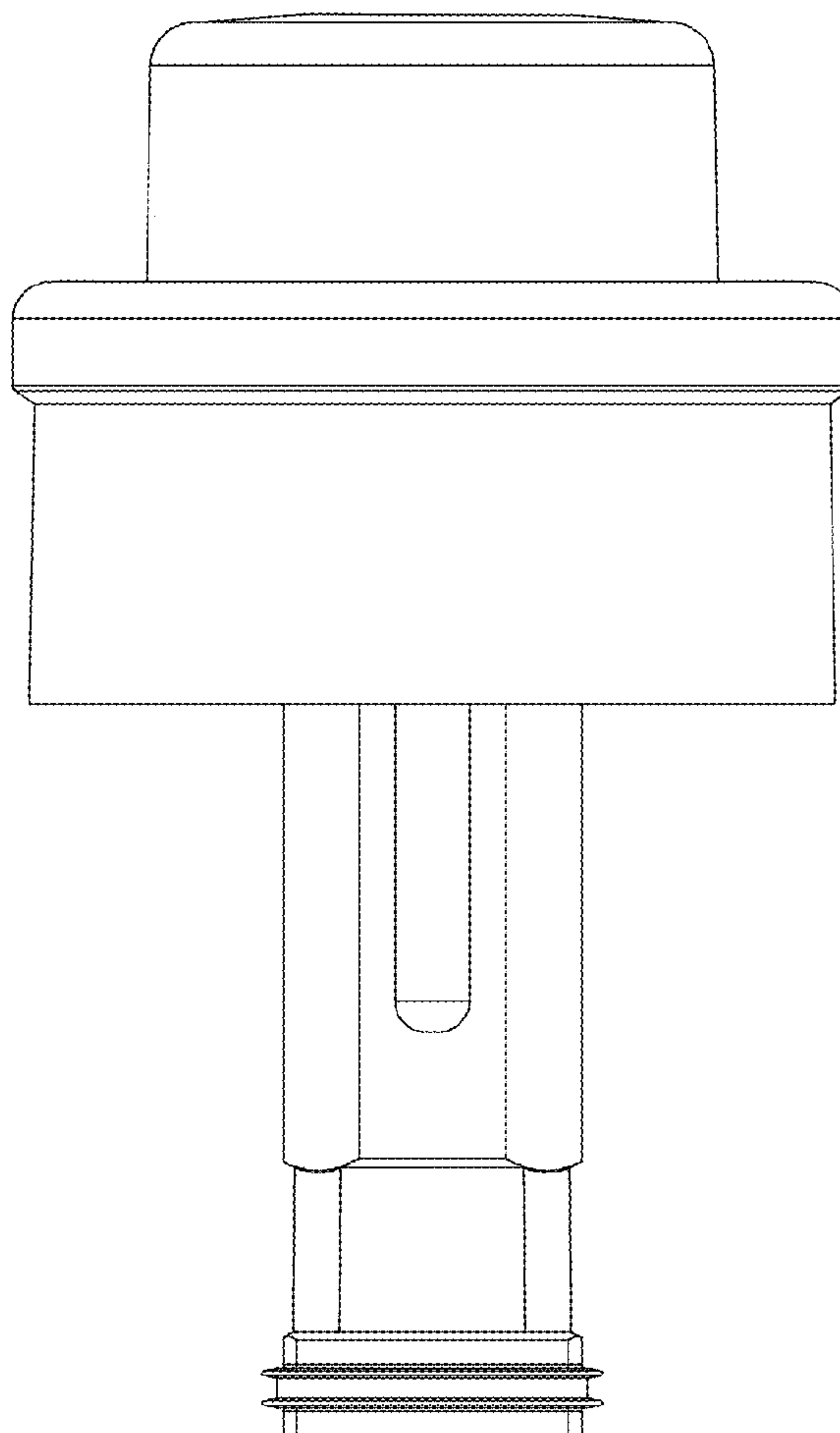
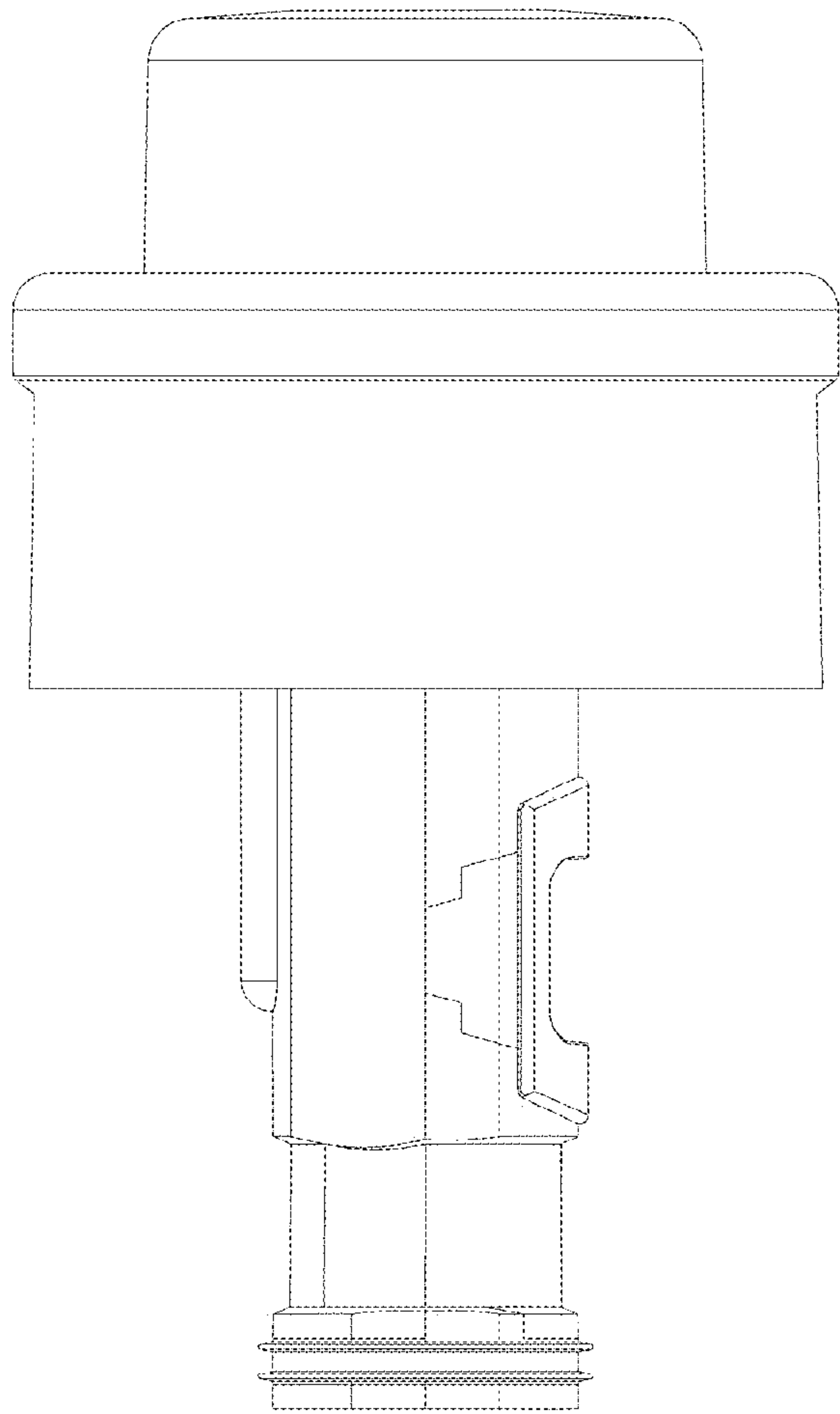
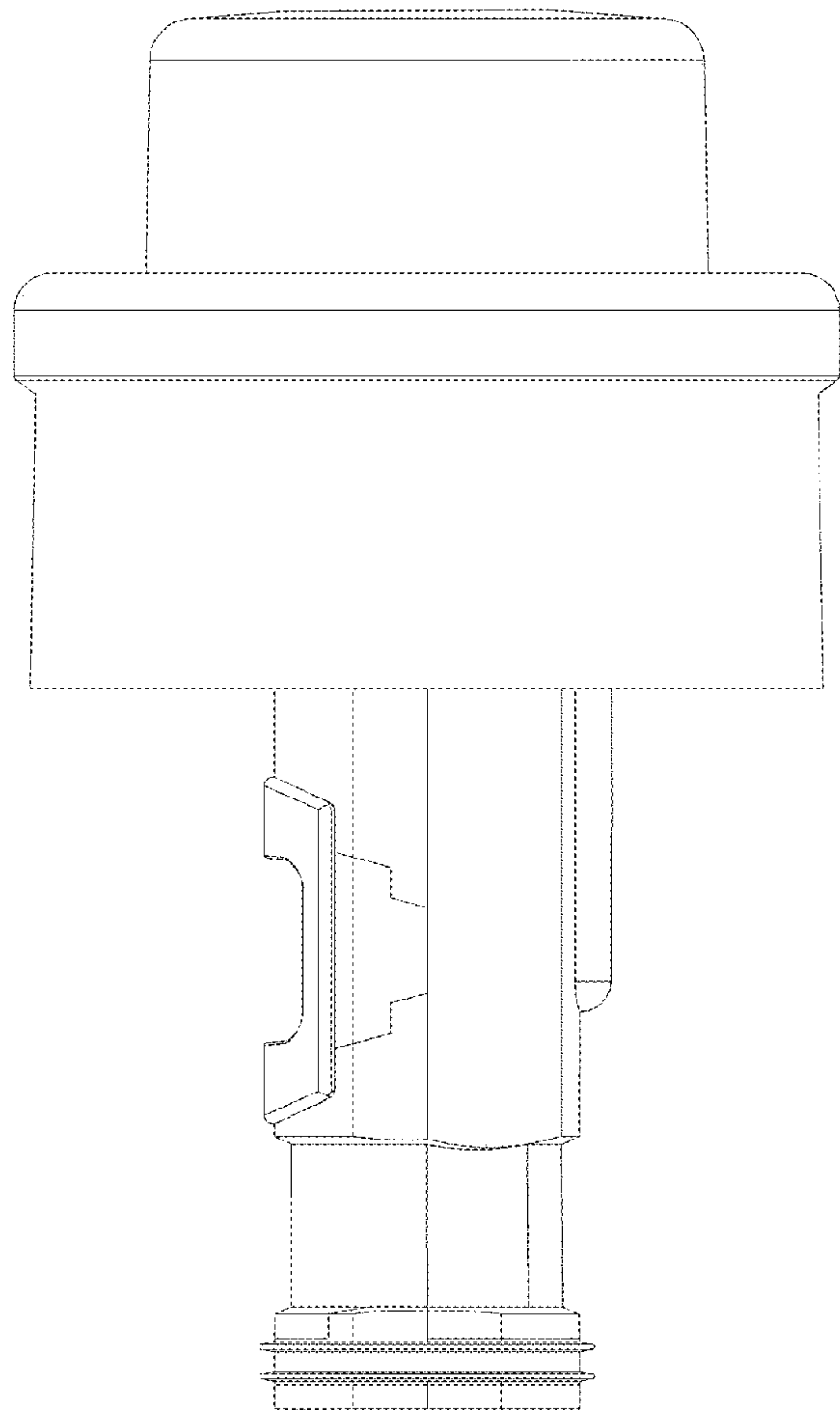


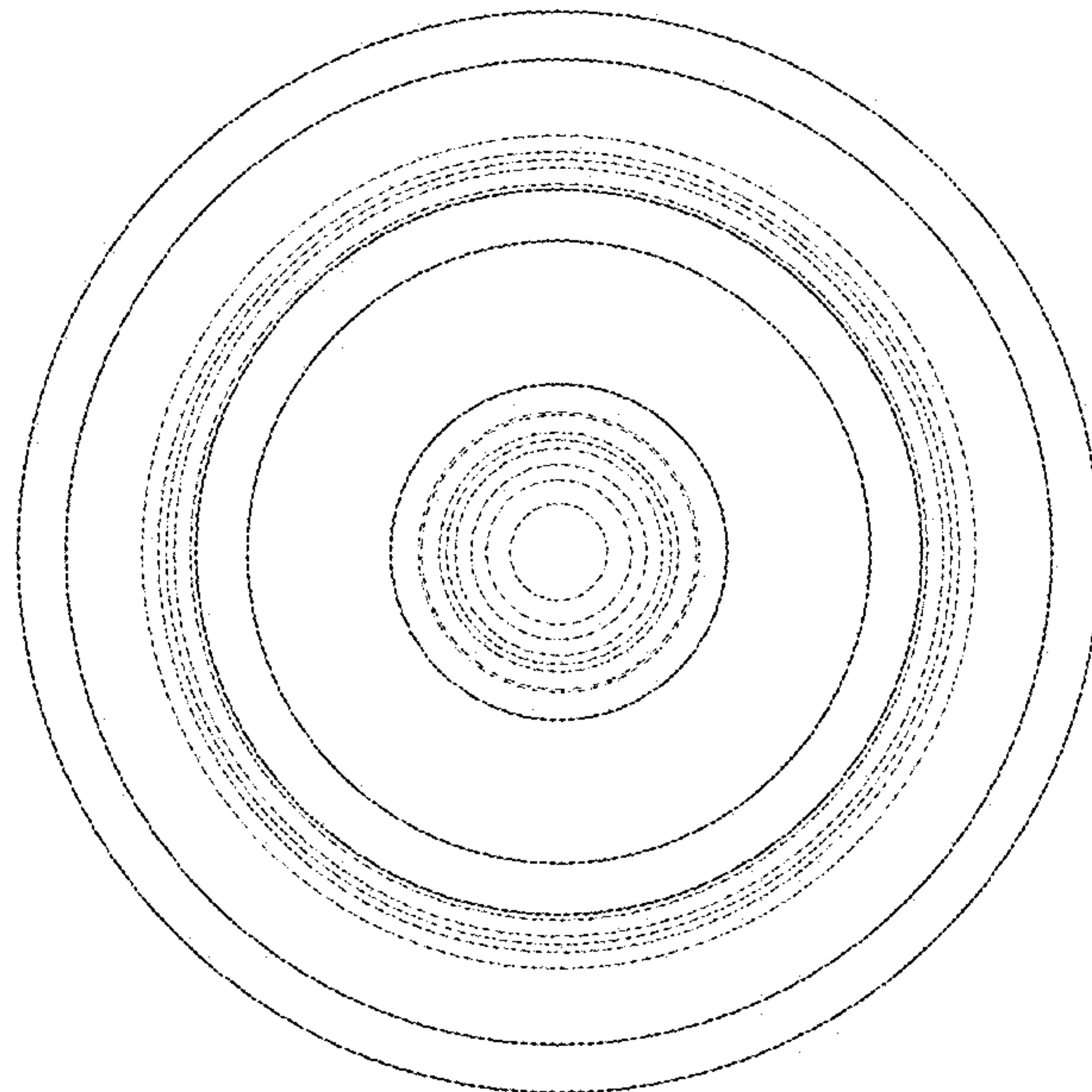
FIG. 3



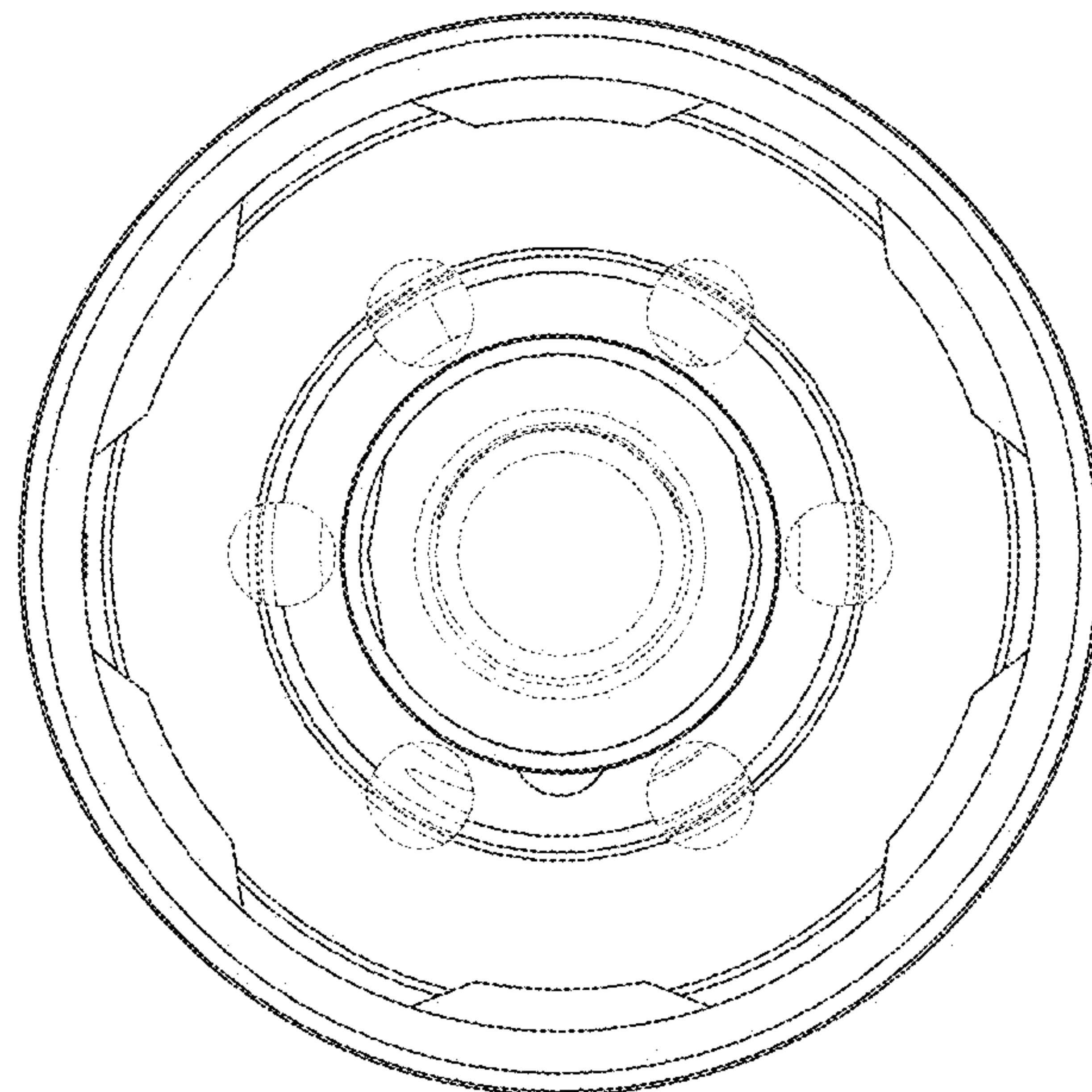
**FIG. 4**



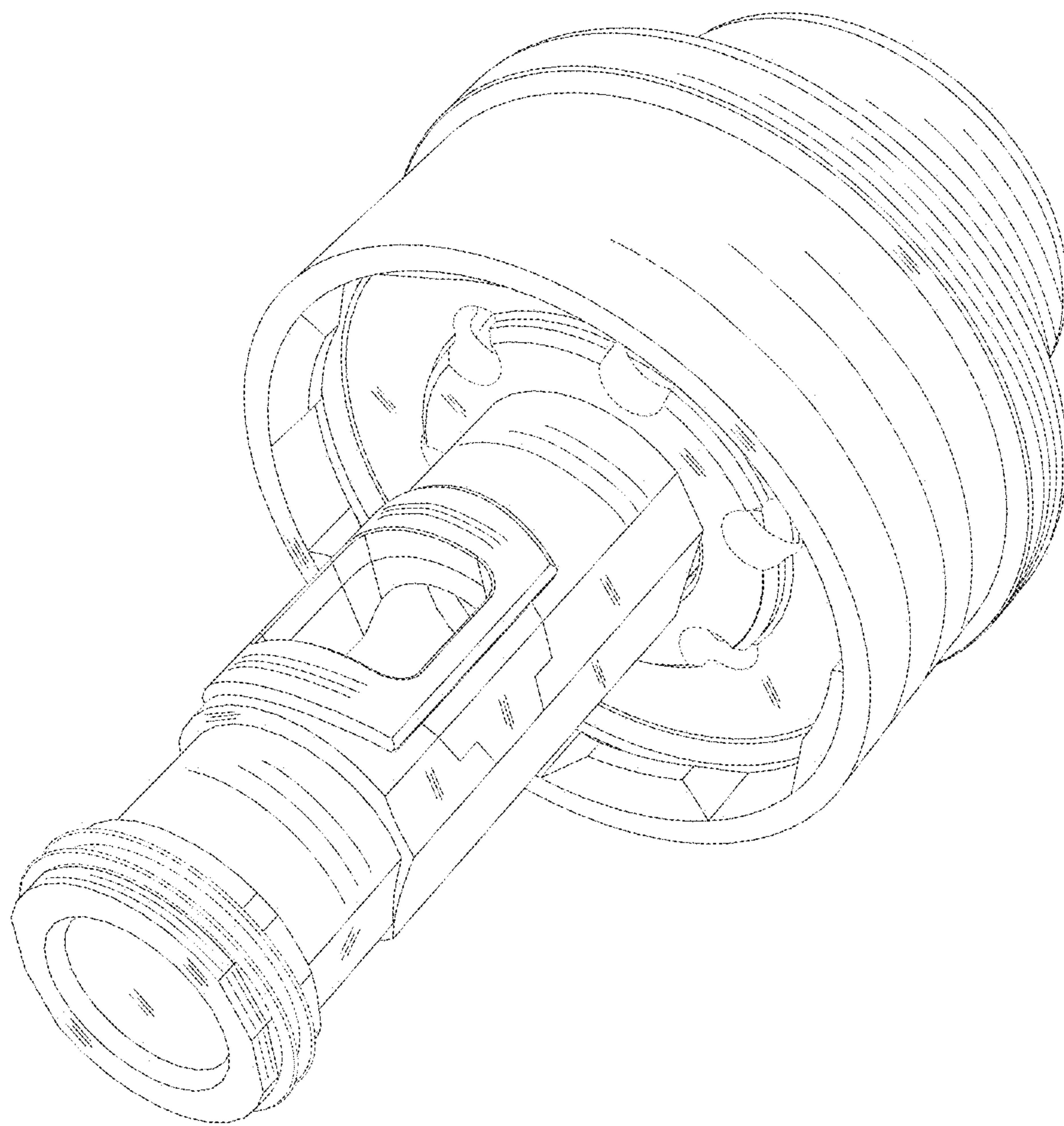
**FIG. 5**



**FIG. 6**



**FIG. 7**



**FIG. 8**

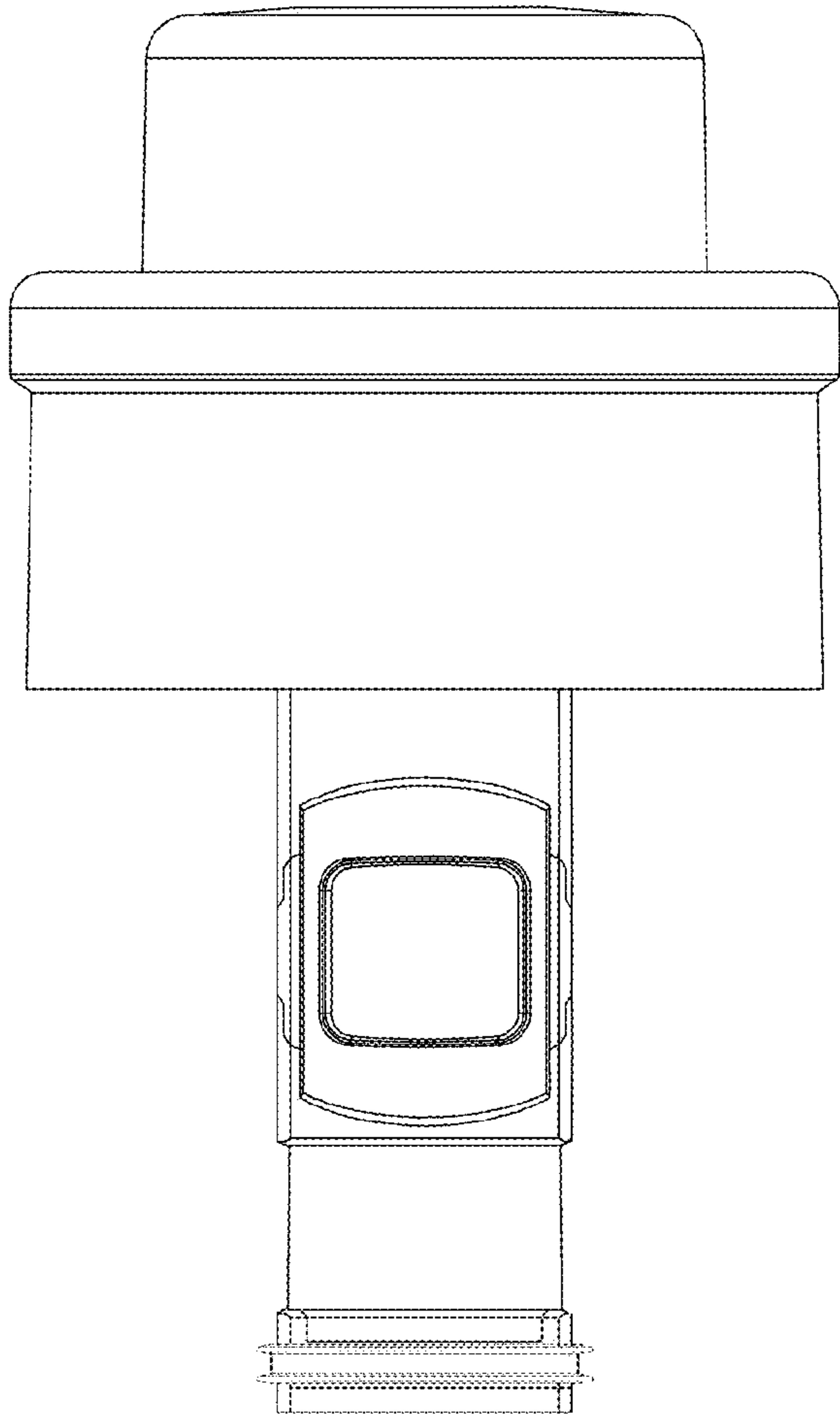


FIG. 9

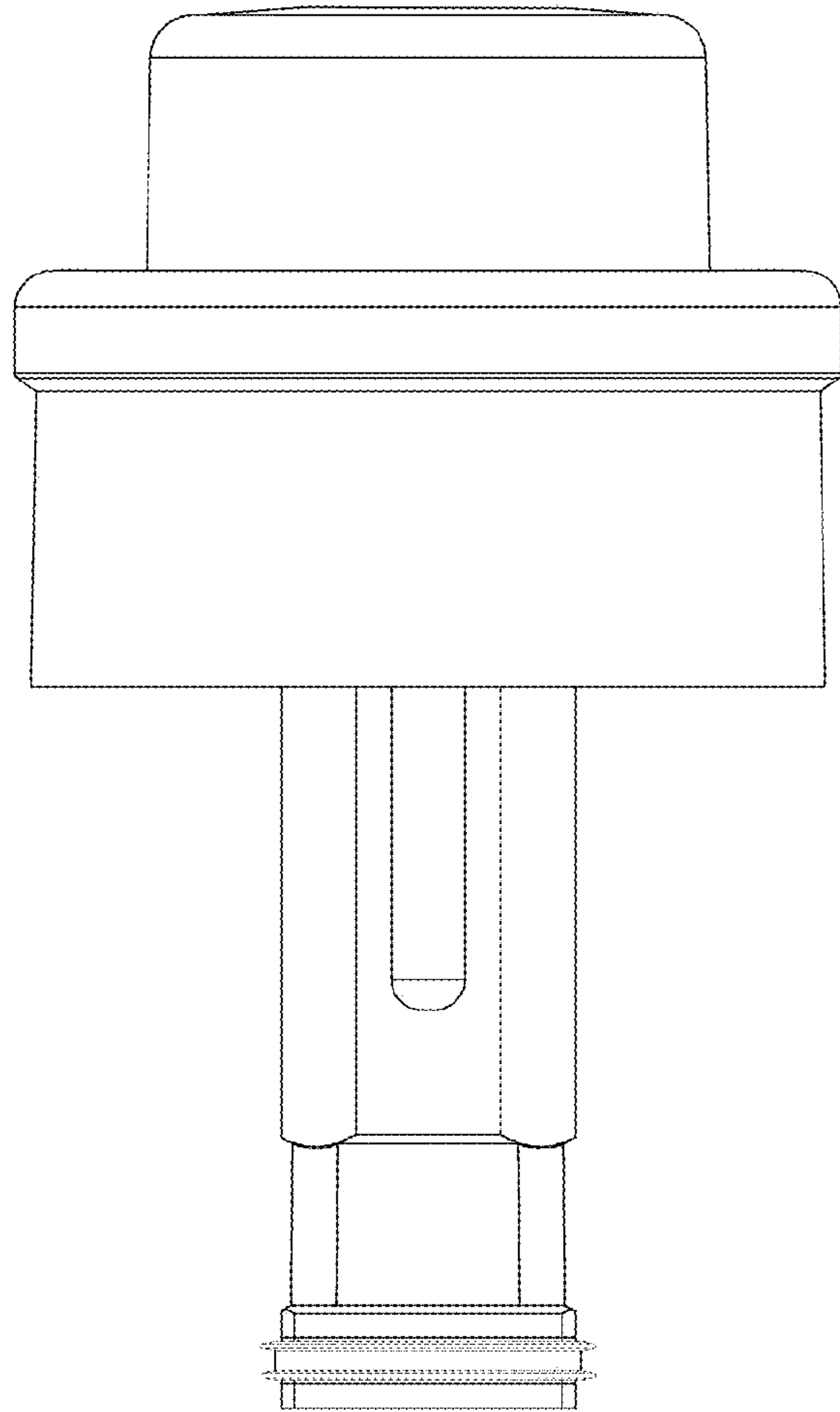


FIG. 10



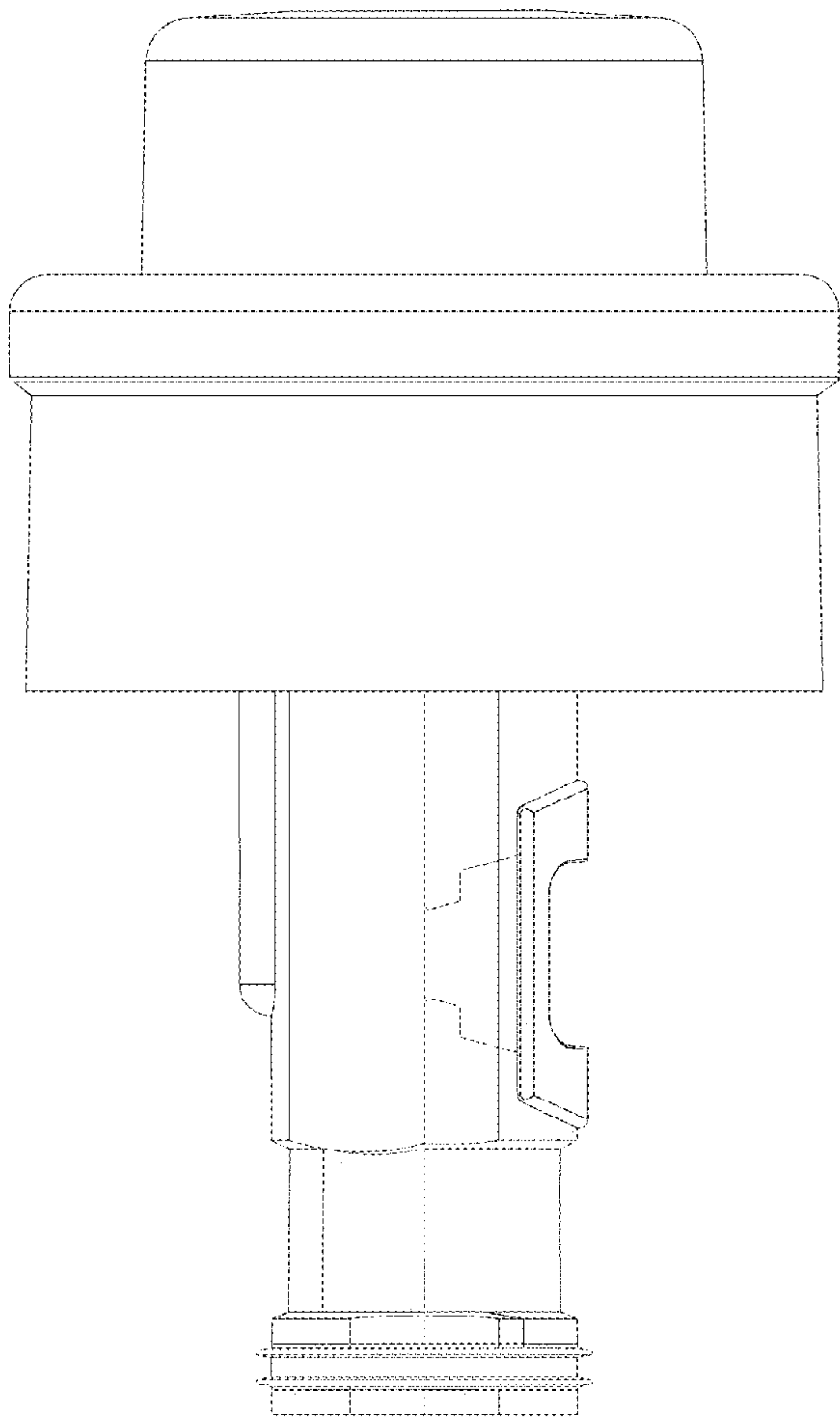


FIG. 11

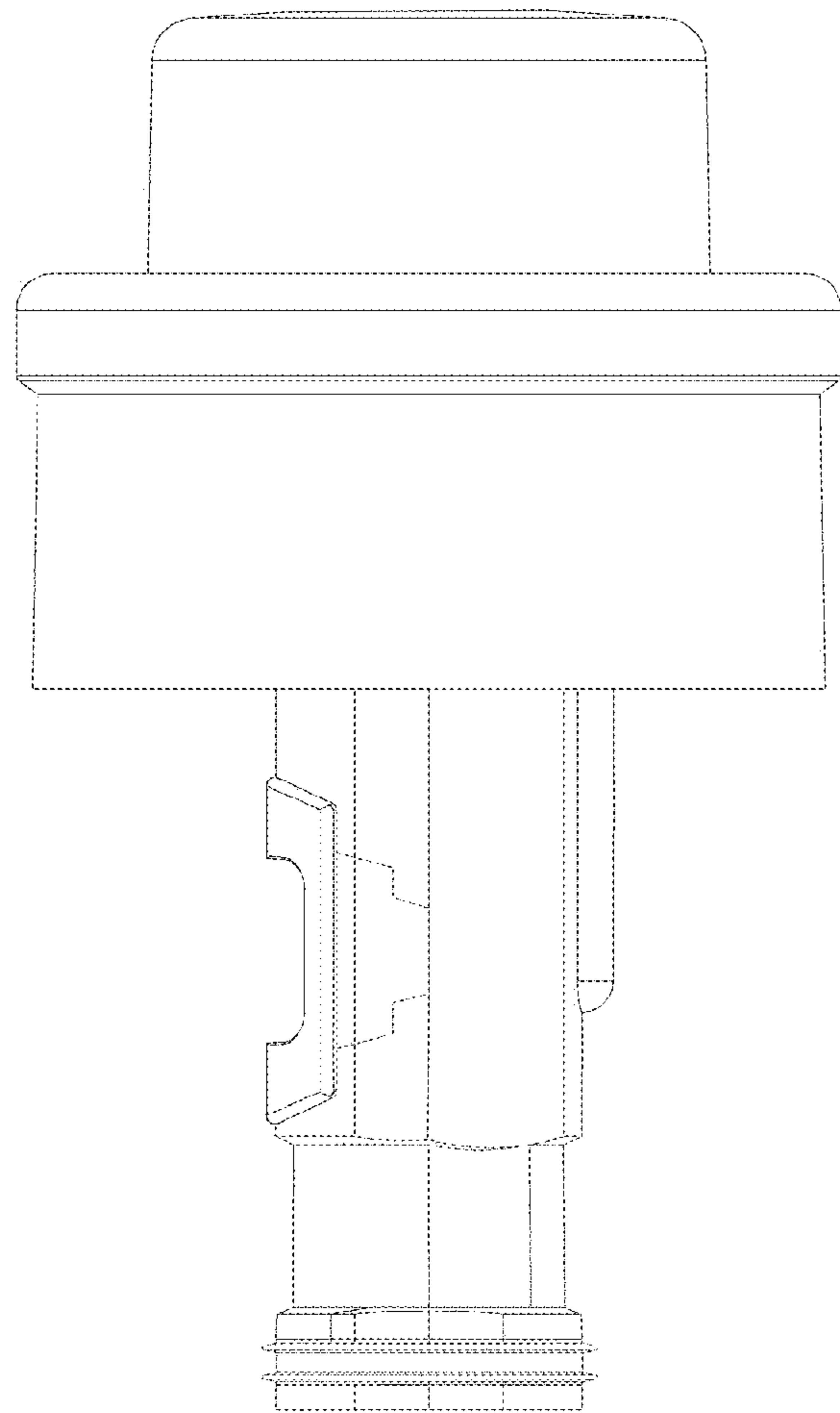
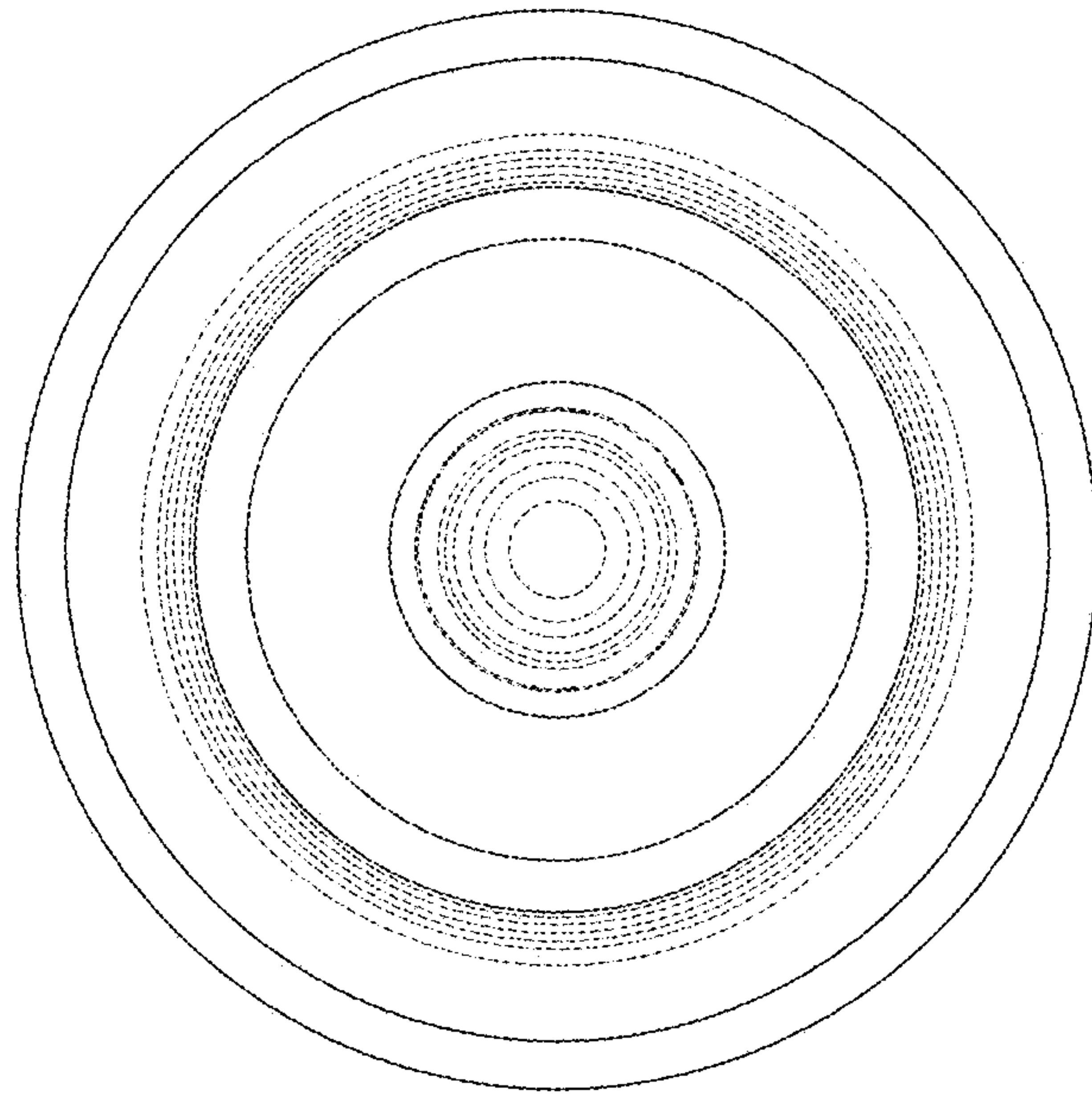
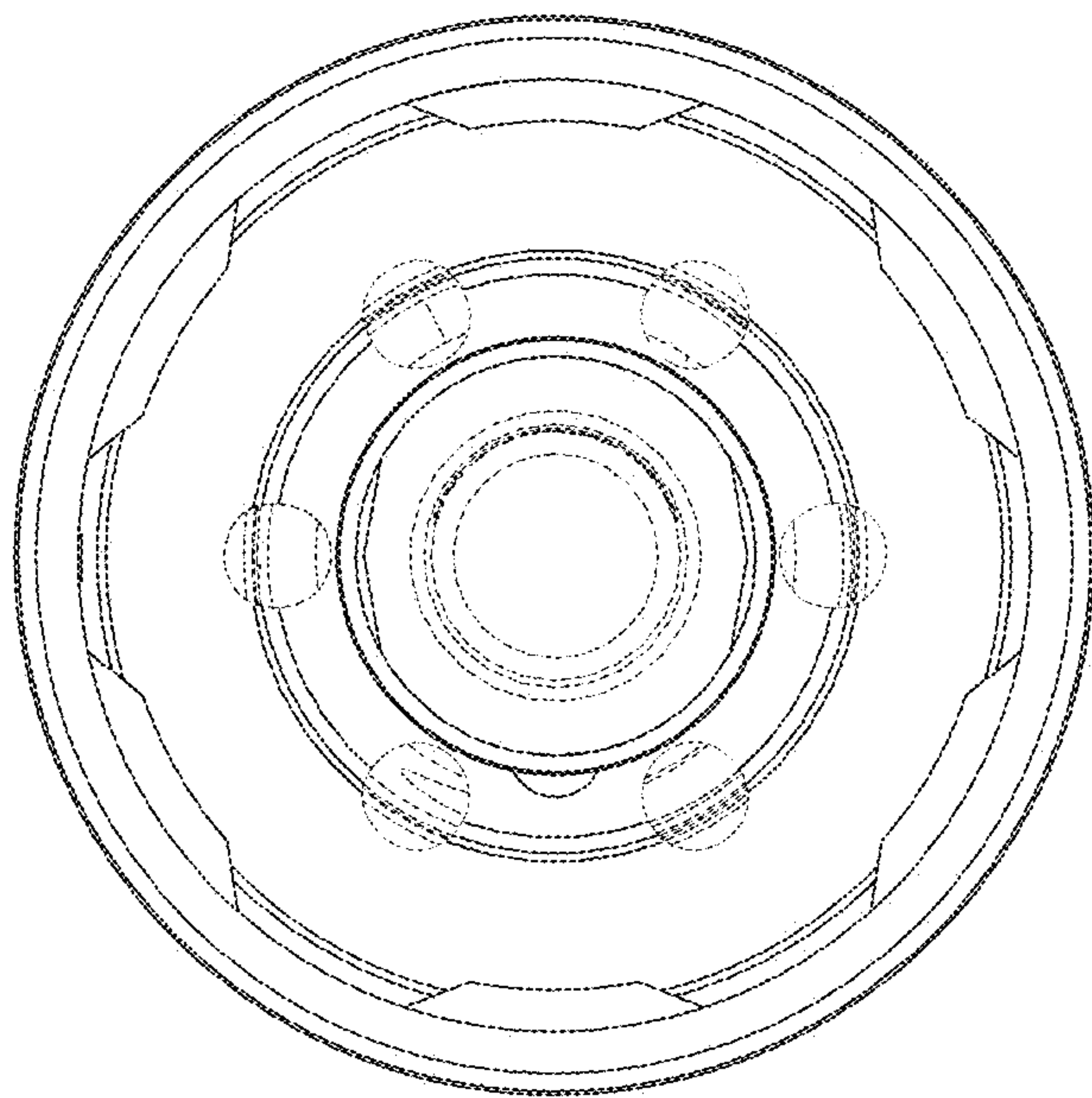


FIG. 12



**FIG. 13**



**FIG. 14**