

US00D966458S

(12) **United States Design Patent** (10) **Patent No.:** **US D966,458 S**
Kollmann et al. (45) **Date of Patent:** **** Oct. 11, 2022**

(54) **END PLATE FOR A FILTER ELEMENT**

D760,027 S * 6/2016 Meyers D9/503
D774,887 S * 12/2016 Torrison D9/416
D793,525 S * 8/2017 Morris D23/209

(71) Applicant: **Mahle International GmbH**, Stuttgart (DE)

(Continued)

(72) Inventors: **Andreas Kollmann**, Eitweg (AT);
Patrick Wieler, Urbach (DE)

FOREIGN PATENT DOCUMENTS

DE 3903675 A1 8/1990
DE 19707132 A1 8/1998

(Continued)

(73) Assignee: **Mahle International GmbH**

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

OTHER PUBLICATIONS

(21) Appl. No.: **29/684,504**

English abstract for DE-102012000876-C5.

(Continued)

(22) Filed: **Mar. 21, 2019**

(51) **LOC (13) Cl.** **23-01**

(52) **U.S. Cl.**
USPC **D23/209**

Primary Examiner — Calvin E Vansant

(74) *Attorney, Agent, or Firm* — Fishman Stewart PLLC

(58) **Field of Classification Search**
USPC D23/200, 207, 209, 365; D9/500, 503,
D9/746
CPC B01D 35/30; B01D 35/303; B01D 35/306;
B01D 2201/4046; B01D 27/08; B01D
46/2414; B01D 2201/162; B01D
2201/291; B01D 2201/4053; B01D
2201/4092; C02F 1/003

(57) **CLAIM**

The ornamental design for an end plate for a filter element,
as shown and described.

See application file for complete search history.

DESCRIPTION

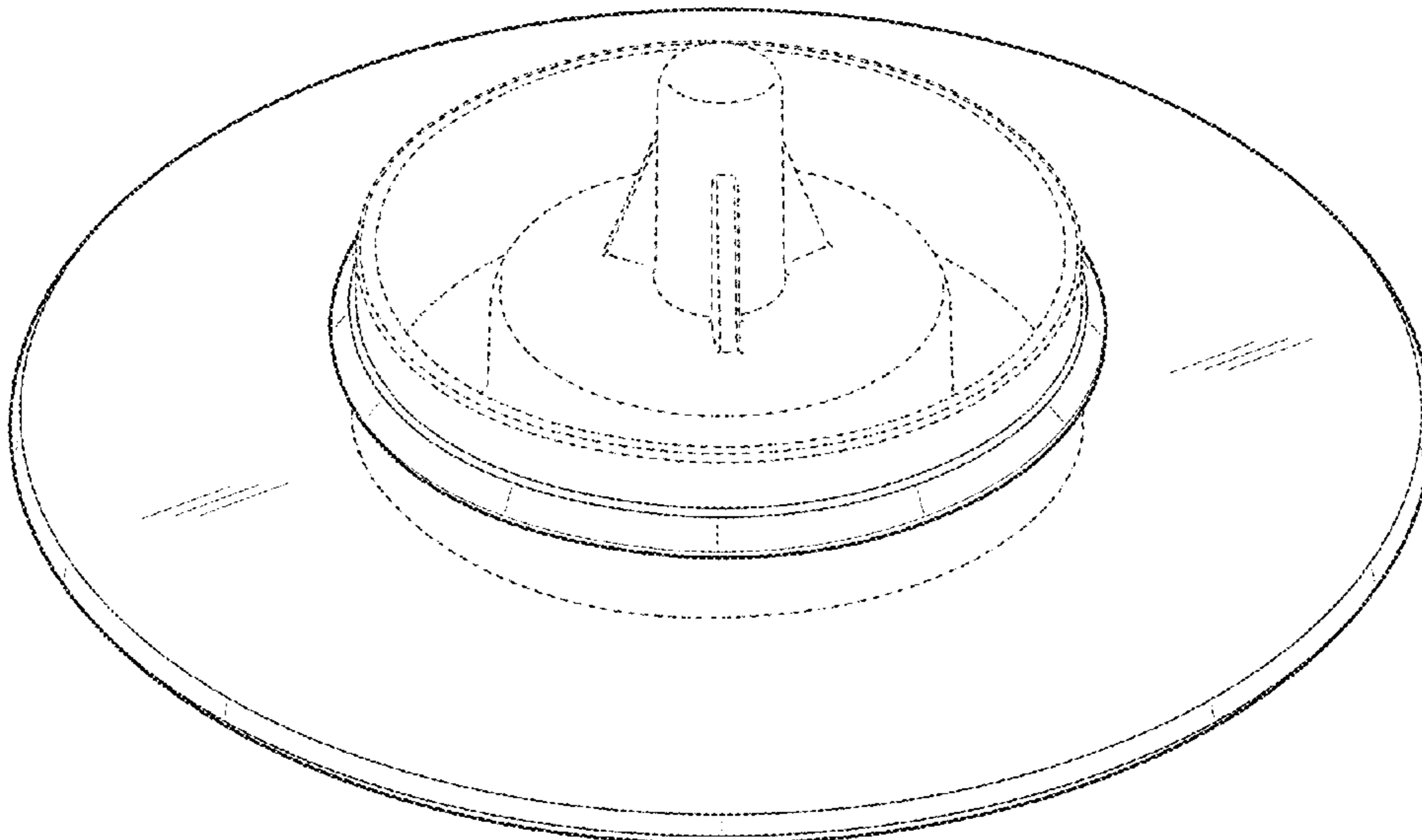
FIG. 1 is a top perspective view an end plate for a filter element;
FIG. 2 is a bottom perspective view of an end plate for a filter element;
FIG. 3 is a front view of an end plate for a filter element;
FIG. 4 is a back view of an end plate for a filter element;
FIG. 5 is a top view of an end plate for a filter element;
FIG. 6 is a bottom view of an end plate for a filter element;
FIG. 7 is a left-side view of an end plate for a filter element;
and,
FIG. 8 is a right-side view of an end plate for a filter element.
The broken lines in the drawings depict portions of the end plate for a filter element and form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D317,059 S * 5/1991 Menter D26/117
D317,965 S * 7/1991 Svensson D23/209
D320,559 S * 10/1991 Olson D9/454
D418,758 S * 1/2000 Yucknut D9/503
6,251,273 B1 6/2001 Jawurek et al.
D547,821 S * 7/2007 Kennedy D23/209
7,736,503 B2 * 6/2010 Kennedy B01D 65/104
210/240
D620,075 S * 7/2010 Yamaguchi D23/209
8,157,107 B2 * 4/2012 Weindorf B01D 35/153
210/441
D677,763 S * 3/2013 Laera D23/260

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D806,834 S * 1/2018 Schweitzer D23/260
 D848,213 S * 5/2019 Cedergren D7/397
 D882,038 S * 4/2020 Loepfe D23/209
 D926,920 S * 8/2021 Huang D23/209
 2005/0000876 A1* 1/2005 Knight B01D 29/96
 210/450
 2005/0229563 A1* 10/2005 Holzmann B01D 46/2414
 55/502
 2007/0175335 A1* 8/2007 Liverani A47J 31/3695
 99/279
 2013/0206669 A1* 8/2013 Baker B29C 48/255
 210/232
 2015/0033688 A1* 2/2015 Wagner B01D 29/13
 55/502
 2015/0258484 A1* 9/2015 Jakop B01D 46/2414
 55/510
 2016/0074778 A1* 3/2016 Herman B01D 36/001
 210/436
 2018/0161710 A1 6/2018 Kollmann et al.
 2019/0388814 A1* 12/2019 Hawkins B01D 35/301

FOREIGN PATENT DOCUMENTS

DE 19904981 A1 8/2000
 DE 102008011616 A1 9/2008
 DE 102009024699 A1 12/2010
 DE 102012000876 C5 10/2014
 WO WO-0110533 A1 2/2001
 WO WO-2005123216 A1 12/2005

OTHER PUBLICATIONS

English abstract for DE-3903675-A1.
 English abstract for DE-102009024699-A1.
 English abstract for DE-19904981-A1.
 English abstract for DE-102008011616-A1.

* cited by examiner

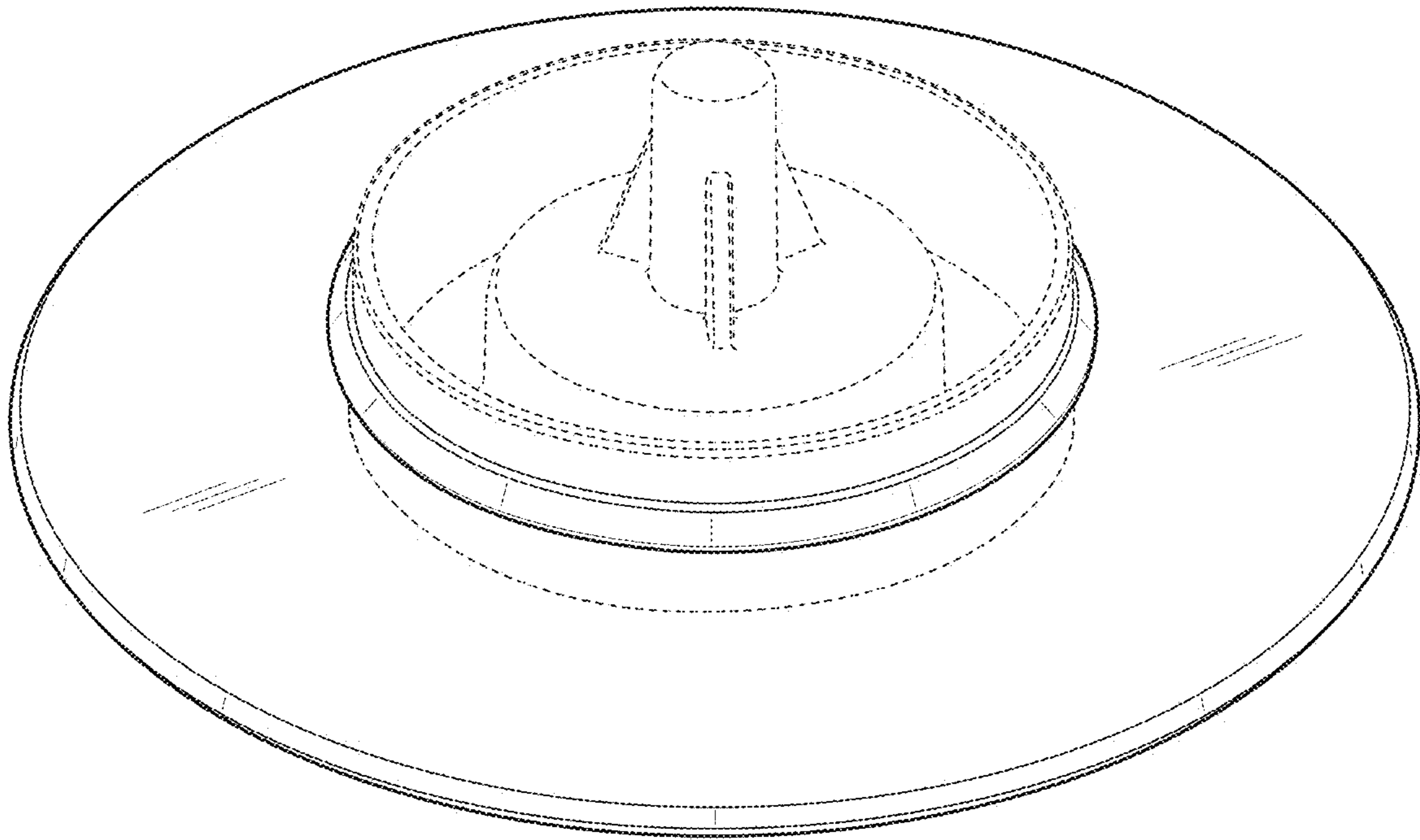


FIG. 1

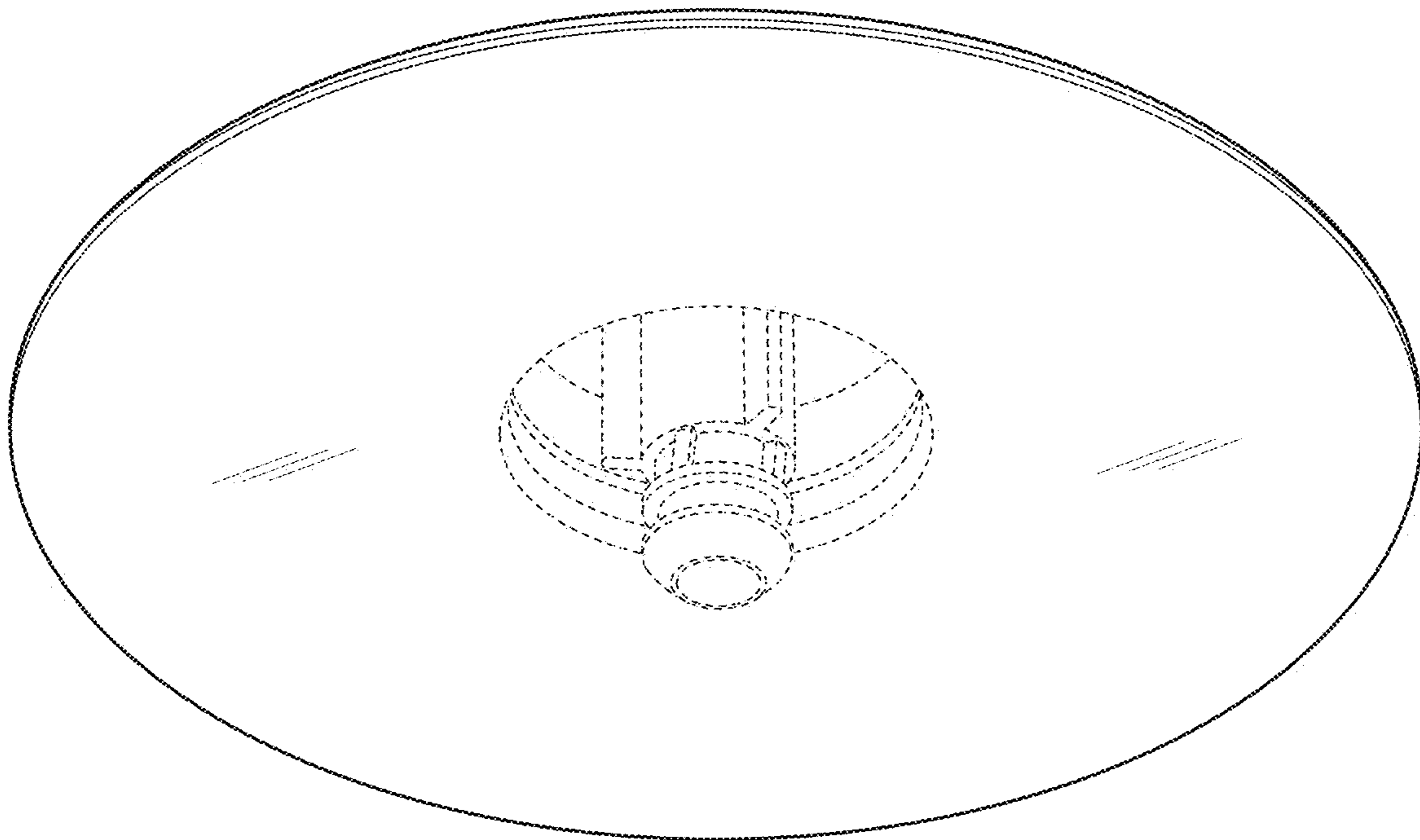


FIG. 2

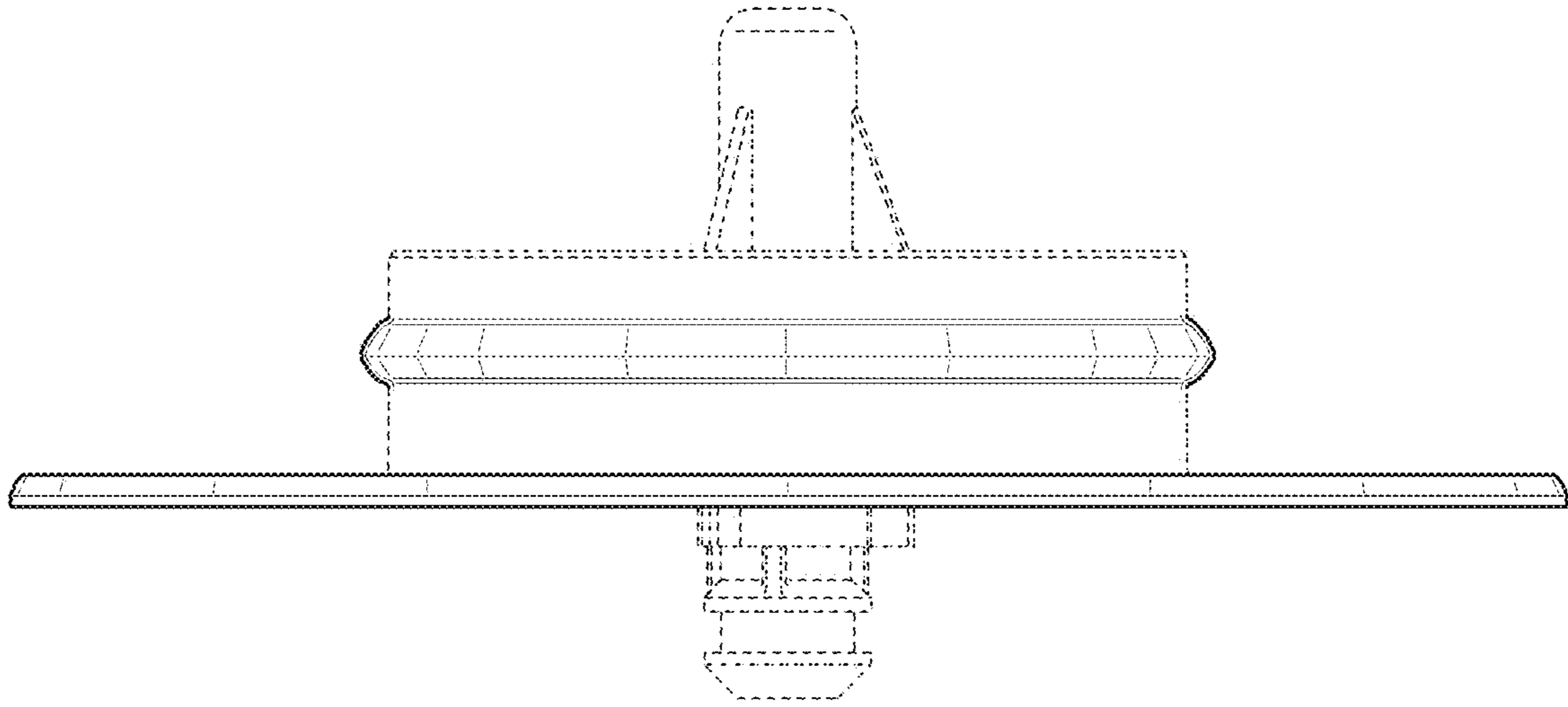


FIG. 3

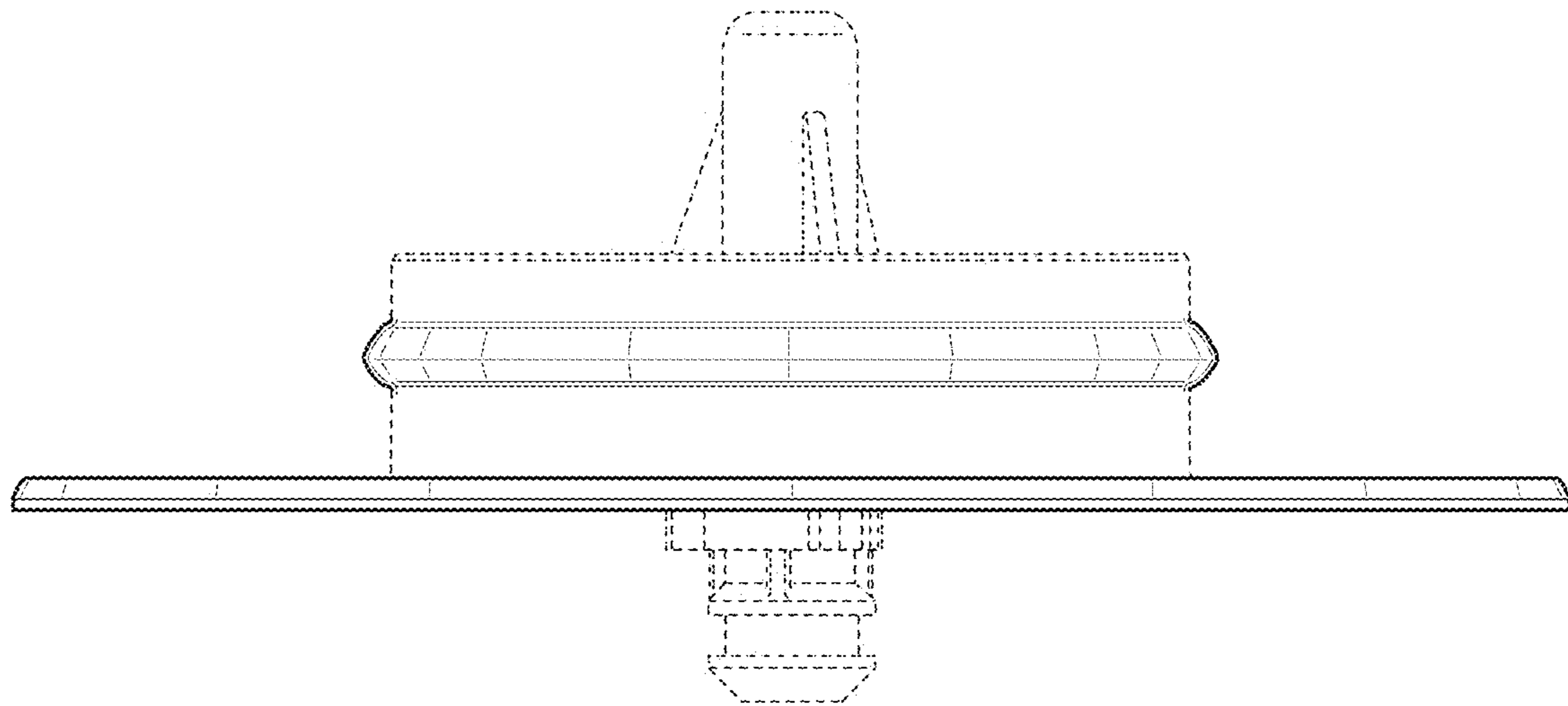


FIG. 4

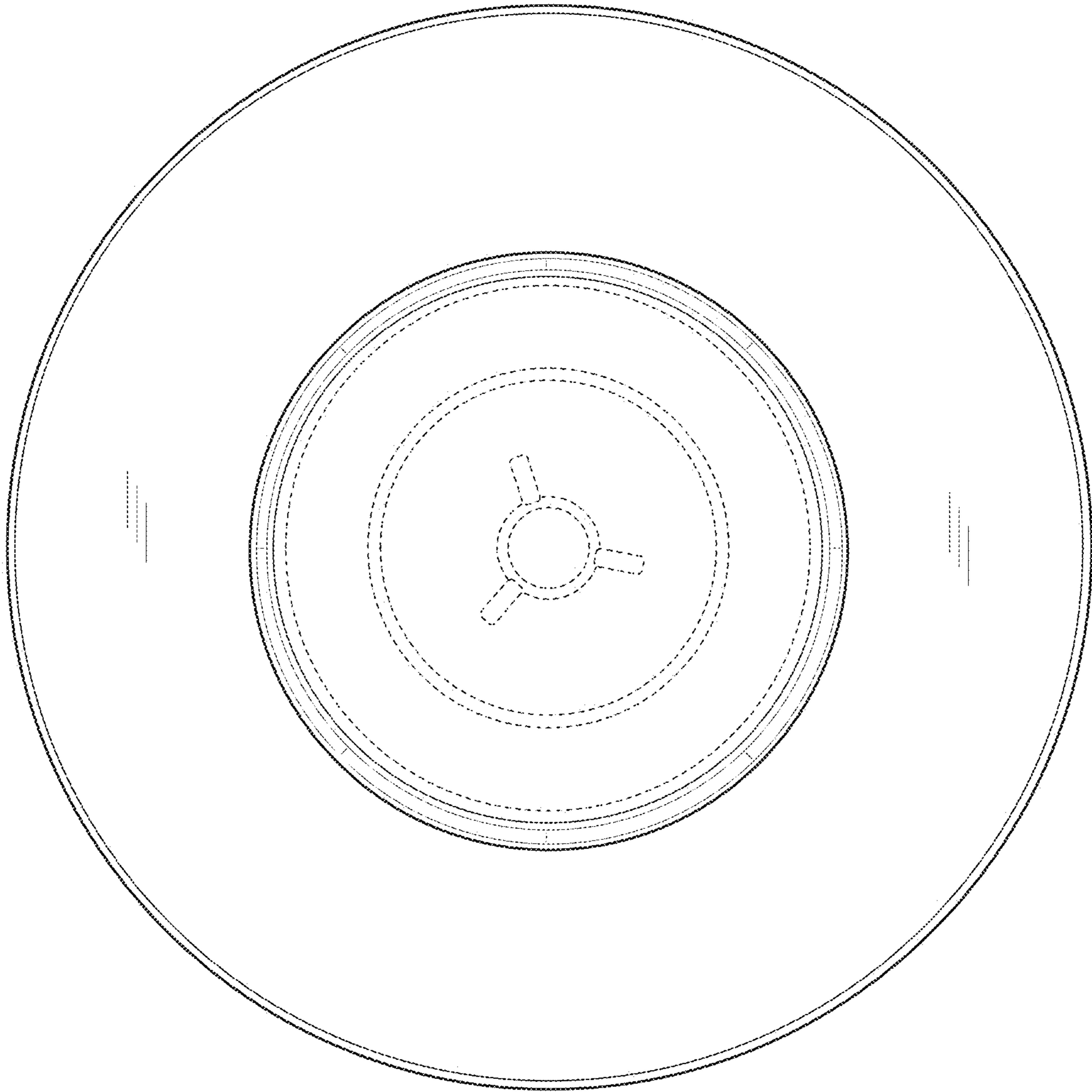


FIG. 5

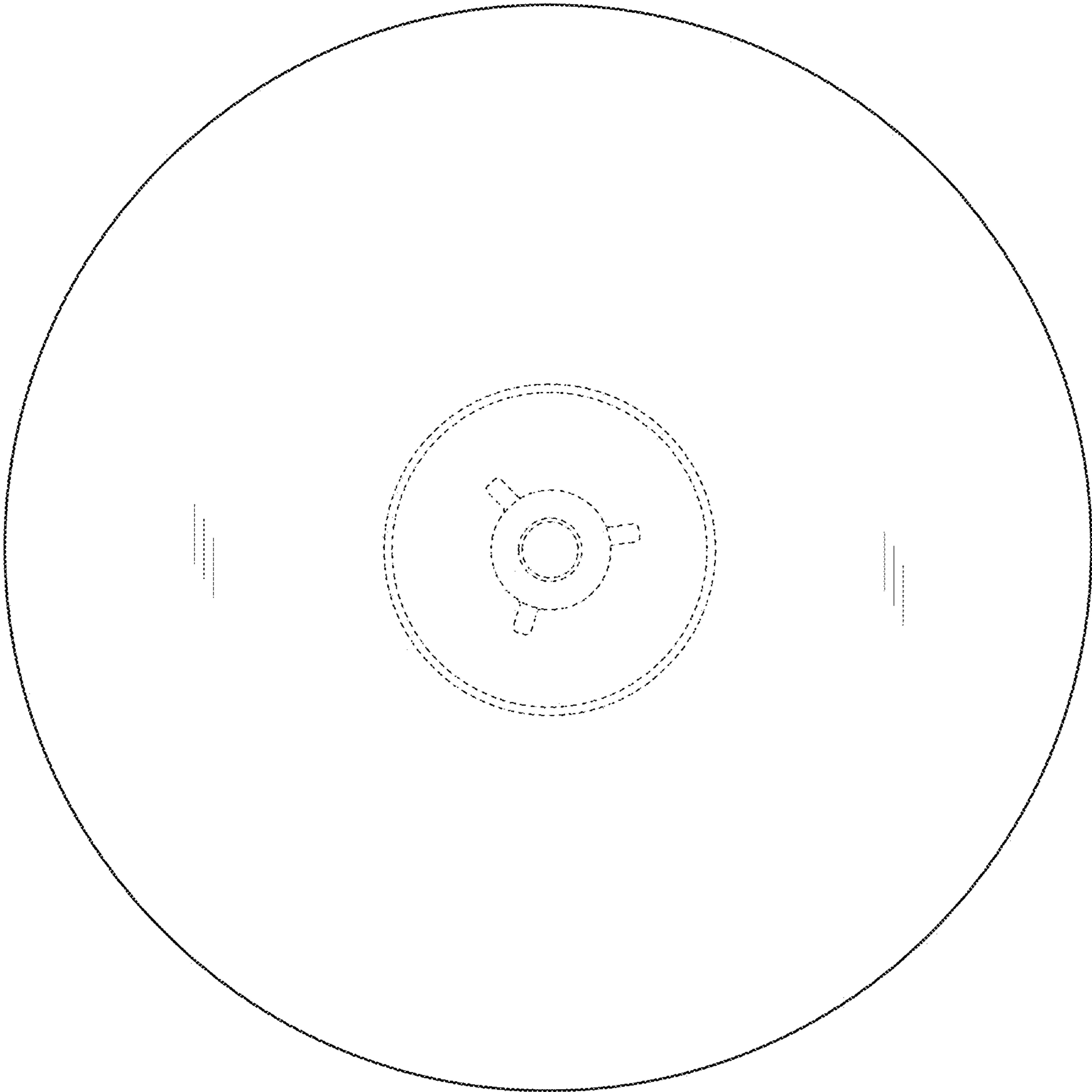


FIG. 6

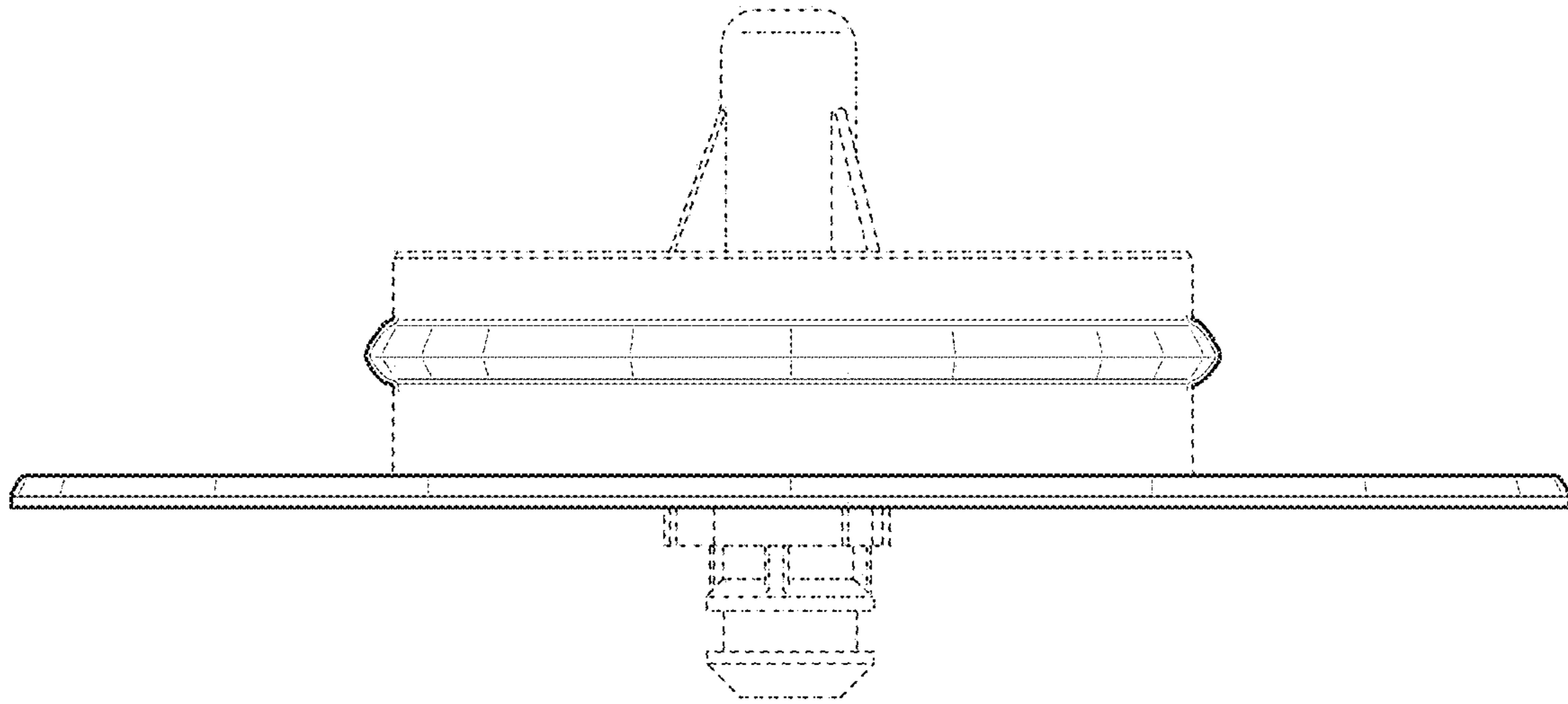


FIG. 7

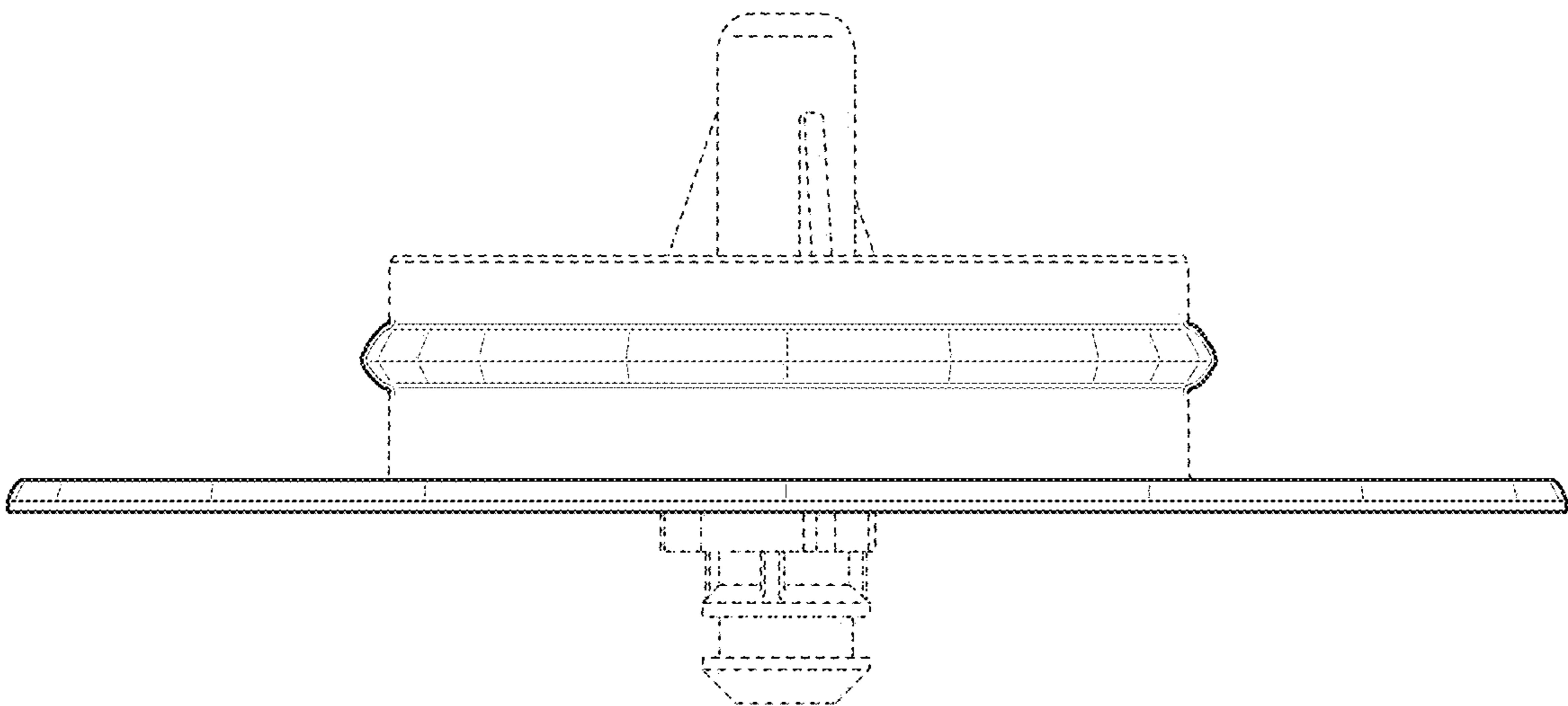


FIG. 8