



US00D966459S

(12) **United States Design Patent** (10) **Patent No.:** **US D966,459 S**  
**Kollmann et al.** (45) **Date of Patent:** **\*\* Oct. 11, 2022**

(54) **END PLATE FOR A FILTER ELEMENT** D787,871 S \* 5/2017 Roso ..... D6/710  
D793,523 S \* 8/2017 Adey ..... B01D 21/267  
(71) Applicant: **Mahle International GmbH**, Stuttgart D23/209  
(DE) D848,213 S \* 5/2019 Cedergren ..... A47J 31/3695  
D7/397

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

(Continued)

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

FOREIGN PATENT DOCUMENTS

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

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

(Continued)

(21) Appl. No.: **29/707,936**

OTHER PUBLICATIONS

(22) Filed: **Oct. 2, 2019**

English abstract for DE-102012000876-C5.

(Continued)

**Related U.S. Application Data**

(63) Continuation of application No. 29/684,517, filed on  
Mar. 21, 2019.

*Primary Examiner* — Calvin E Vansant

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

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

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

(57) **CLAIM**

USPC ..... **D23/209**

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

(58) **Field of Classification Search**

**DESCRIPTION**

USPC ..... D23/200, 207, 209, 365; D9/500, 503  
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

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.

See application file for complete search history.

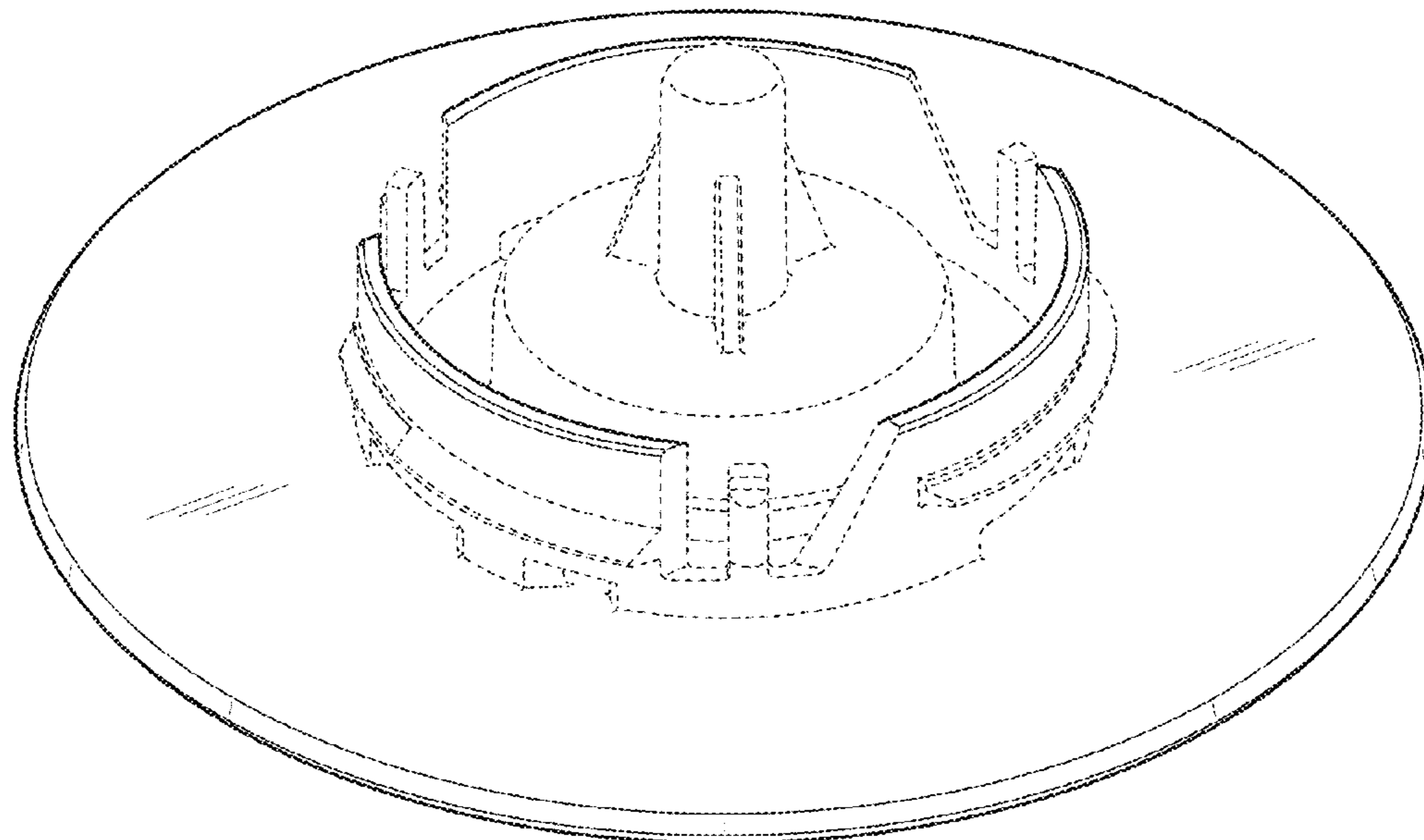
The broken lines in the drawings depict portions of the end  
plate for a filter element and form no part of the claimed  
design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,182,015 A \* 1/1993 Lee ..... B01D 27/106  
210/DIG. 17  
6,251,273 B1 6/2001 Jawurek et al.  
7,736,503 B2 \* 6/2010 Kennedy ..... B01D 65/104  
210/240

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D882,038 S \* 4/2020 Loepfe ..... B01D 27/106  
D23/209  
2005/0000876 A1\* 1/2005 Knight ..... B01D 29/96  
210/450  
2007/0175335 A1\* 8/2007 Liverani ..... A47J 31/3695  
99/279  
2008/0164205 A1\* 7/2008 Montelauro ..... B01D 29/96  
210/600  
2016/0332101 A1\* 11/2016 Booker ..... B01D 35/147  
2018/0163680 A1\* 6/2018 Pflueger ..... F02M 37/34  
2018/0195475 A1\* 7/2018 Hussain ..... F02M 37/24  
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 0110533 A1 2/2001  
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

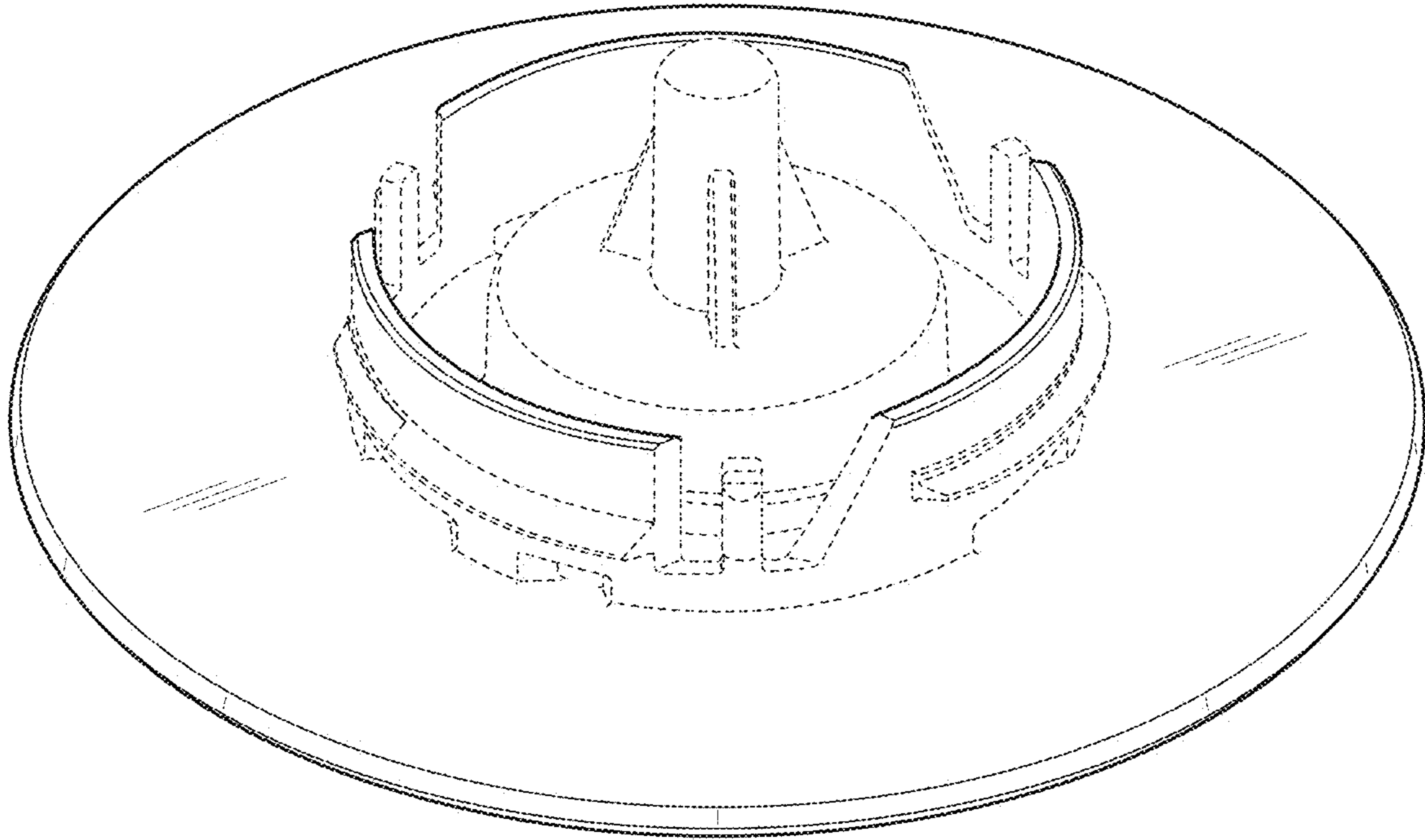


FIG. 1

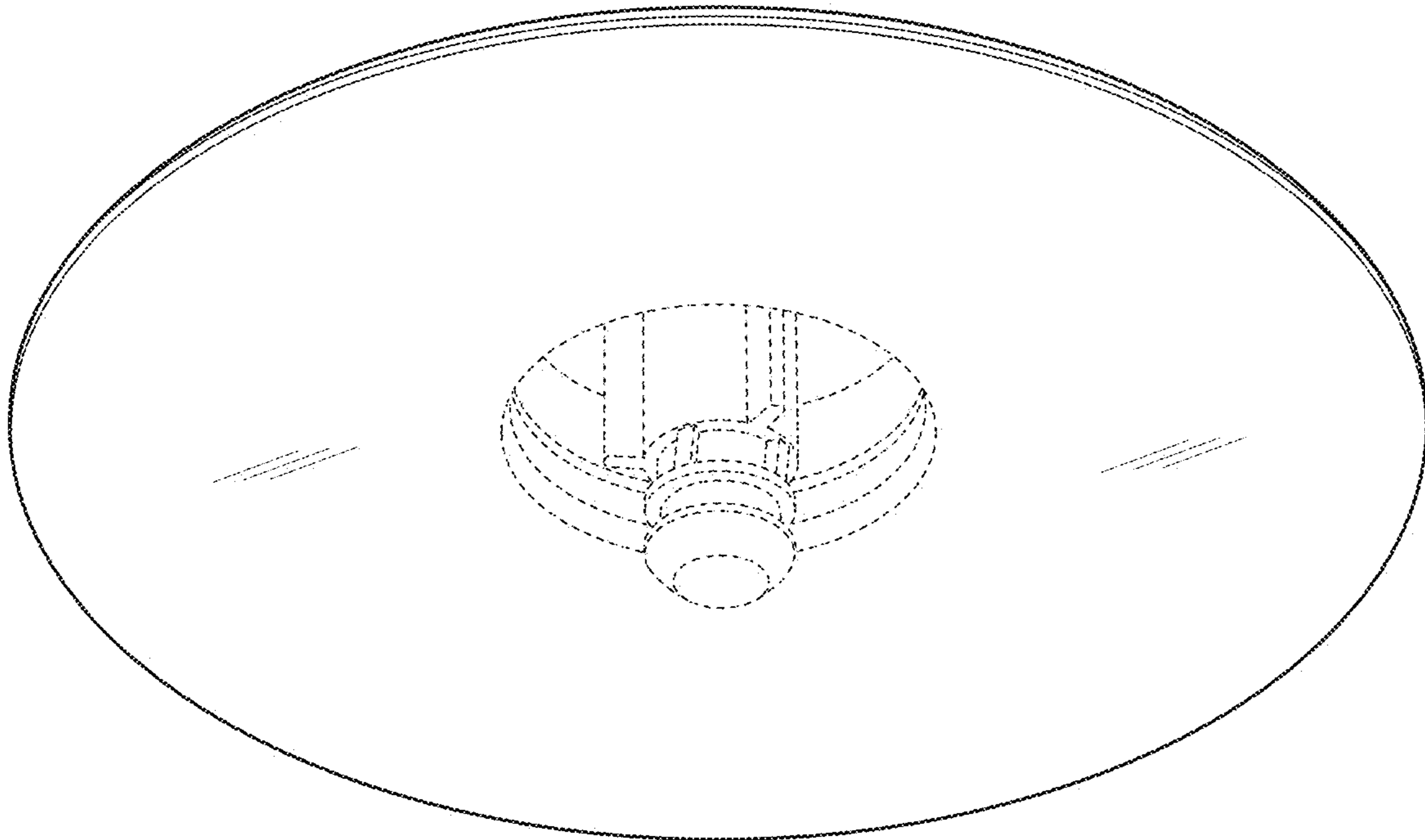


FIG. 2

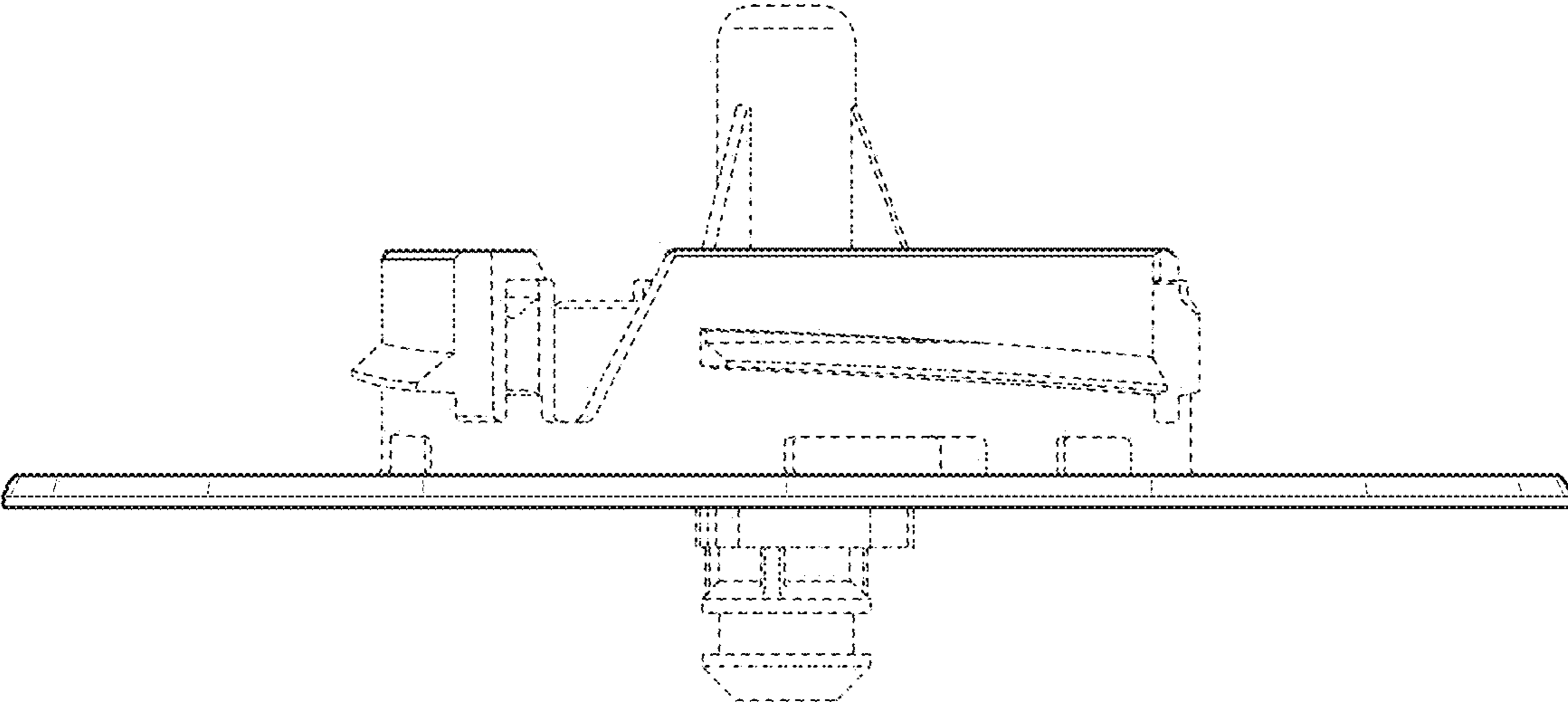


FIG. 3

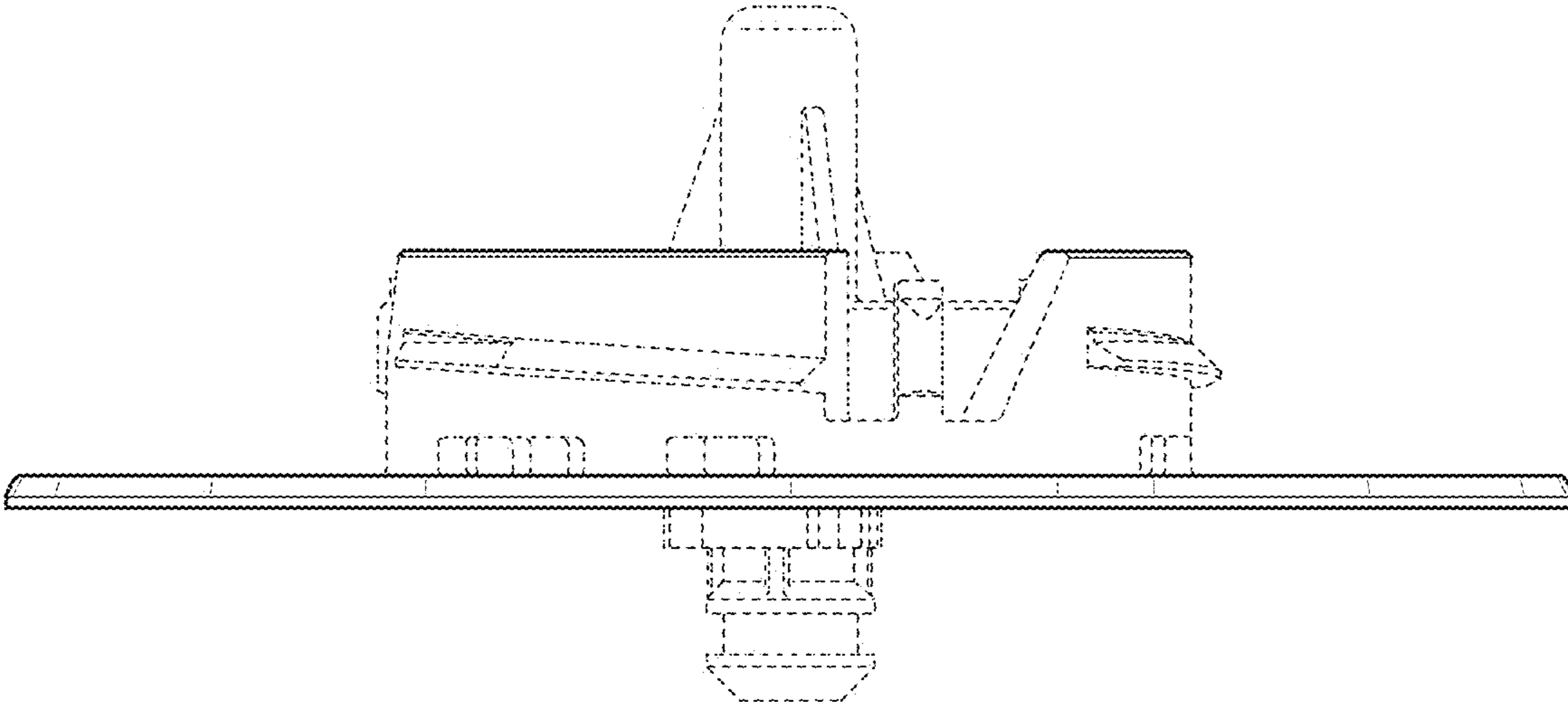


FIG. 4

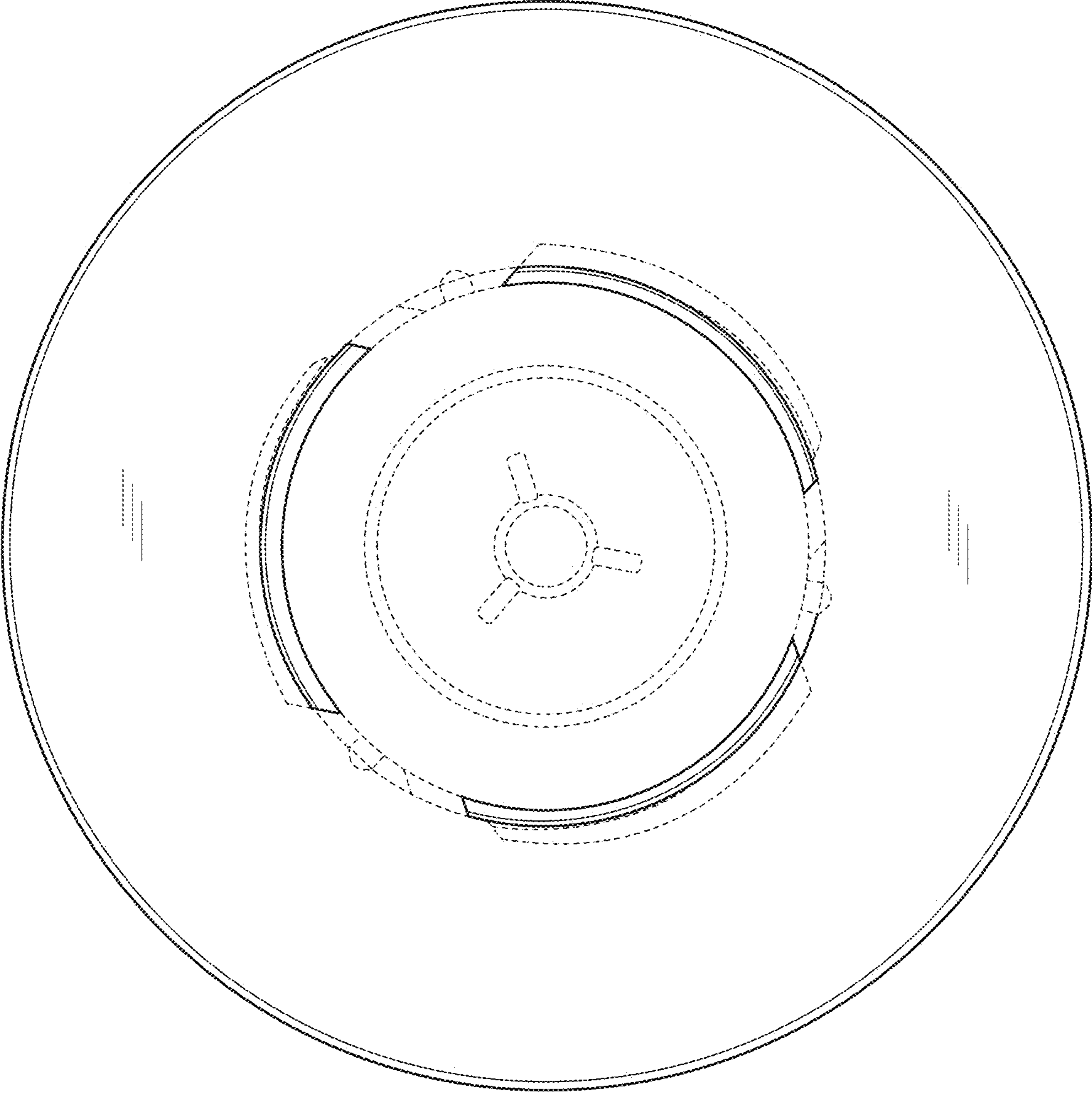


FIG. 5



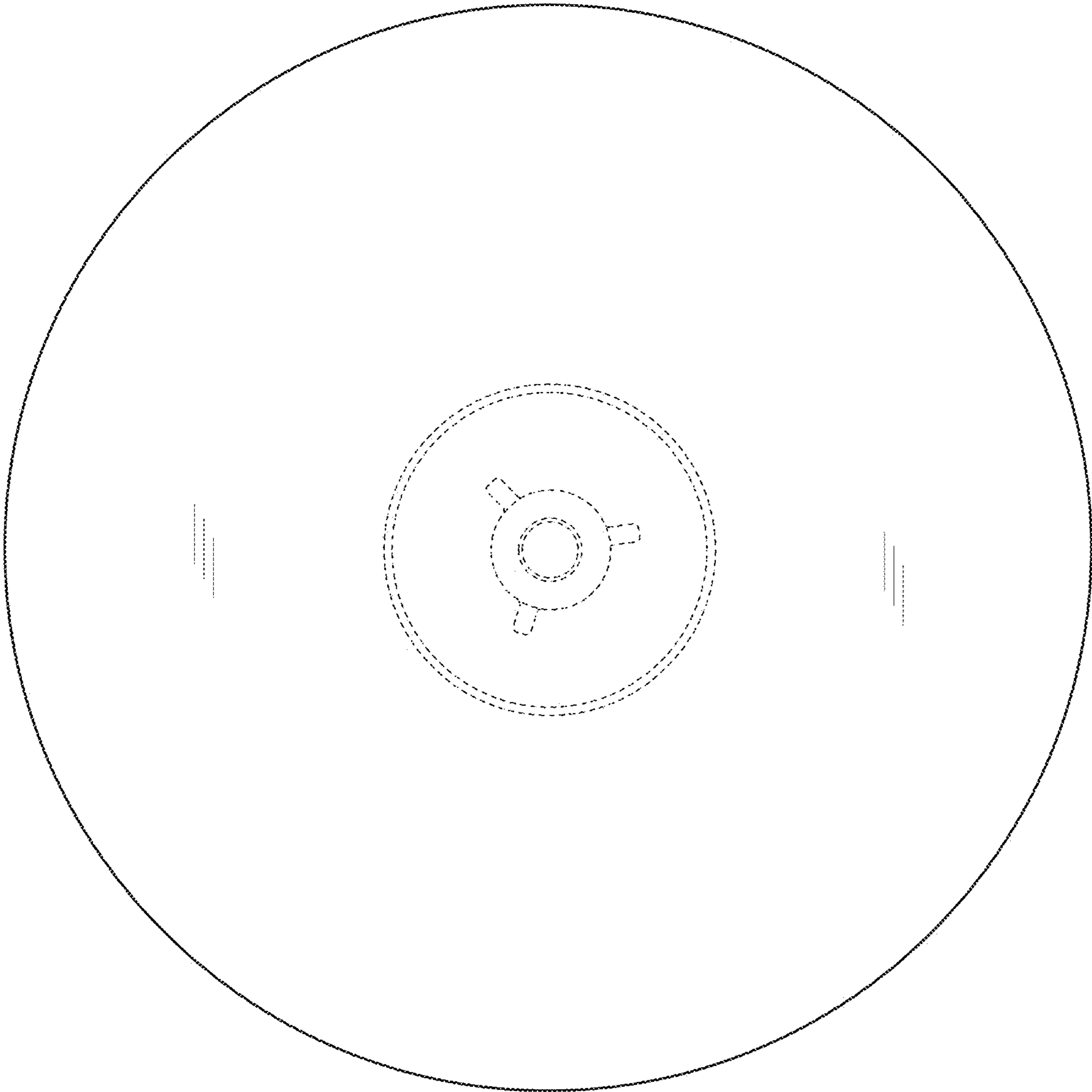


FIG. 6

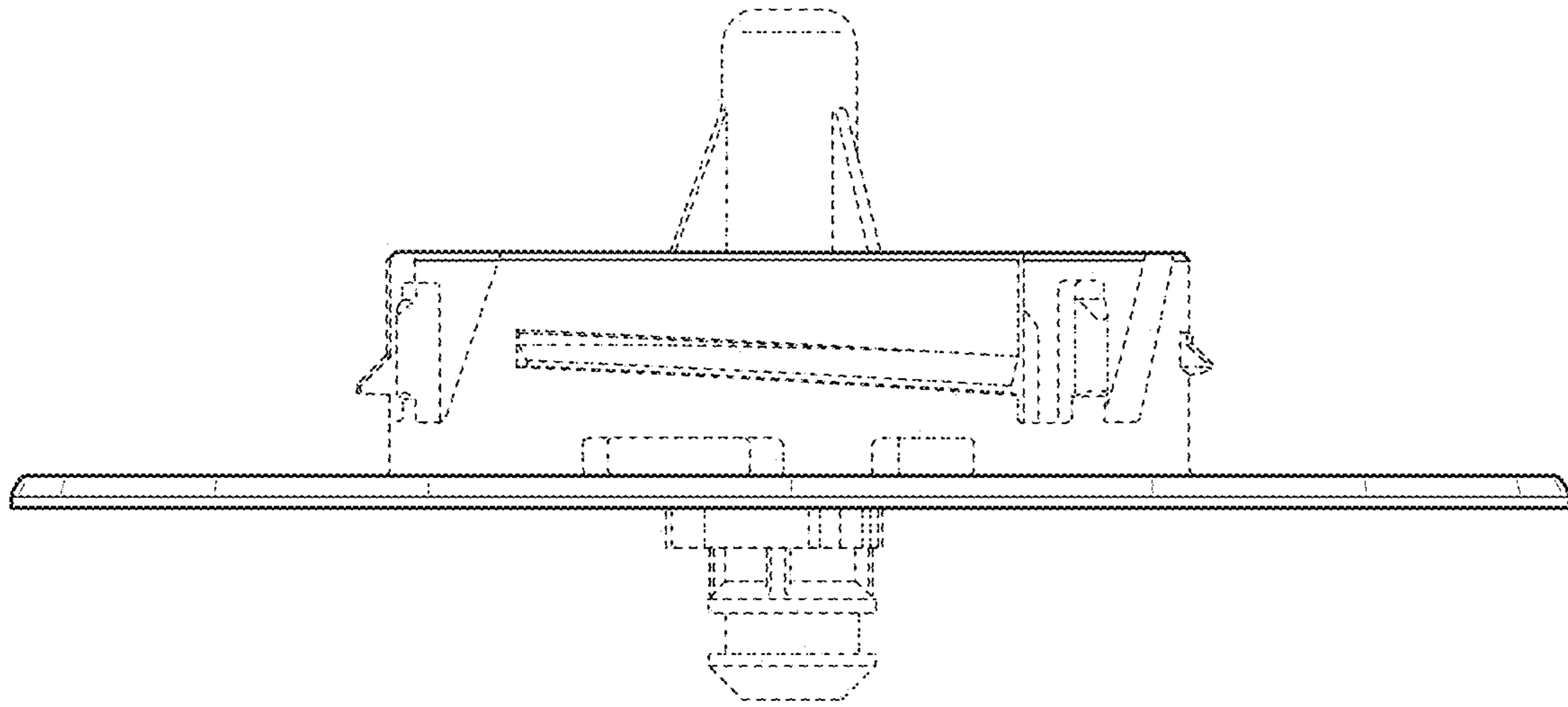


FIG. 7

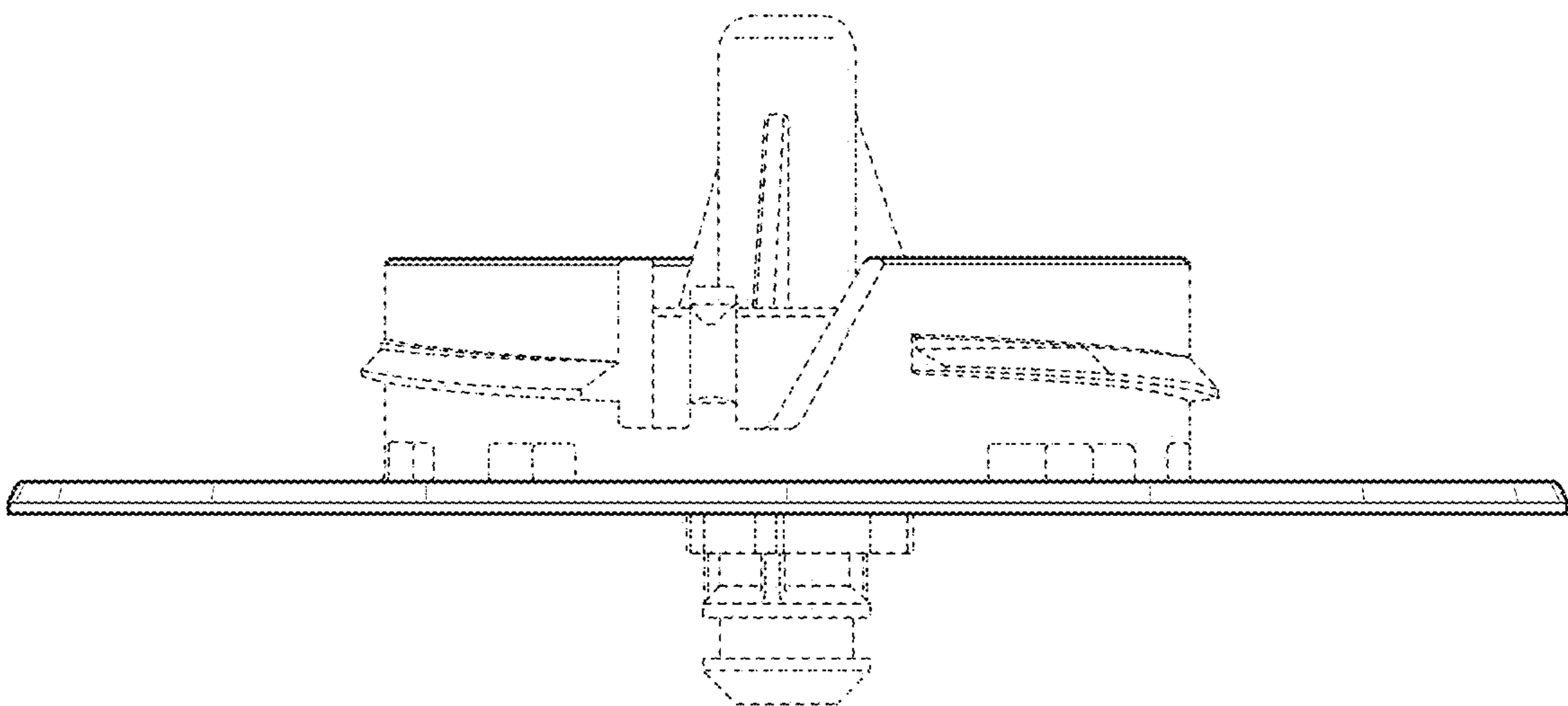


FIG. 8