



US00D967925S

(12) **United States Design Patent** (10) **Patent No.:** **US D967,925 S**  
**Kollmann et al.** (45) **Date of Patent:** **\*\* Oct. 25, 2022**

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

6,251,273 B1 6/2001 Jawurek et al.  
D472,604 S \* 4/2003 Fritze ..... F16L 55/24  
D23/209  
D548,306 S \* 8/2007 Kennedy ..... C02F 1/003  
D23/209

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

(Continued)

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

**FOREIGN PATENT DOCUMENTS**

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

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

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

(Continued)

(21) Appl. No.: **29/684,507**

**OTHER PUBLICATIONS**

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

English abstract for DE-10201200876-C5.

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

(Continued)

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

*Primary Examiner* — Calvin E Vansant

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

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

(58) **Field of Classification Search**

(57) **CLAIM**

USPC ..... D23/200, 207, 209, 365; D9/500  
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 2201/4092; C02F 1/003  
See application file for complete search history.

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

**DESCRIPTION**

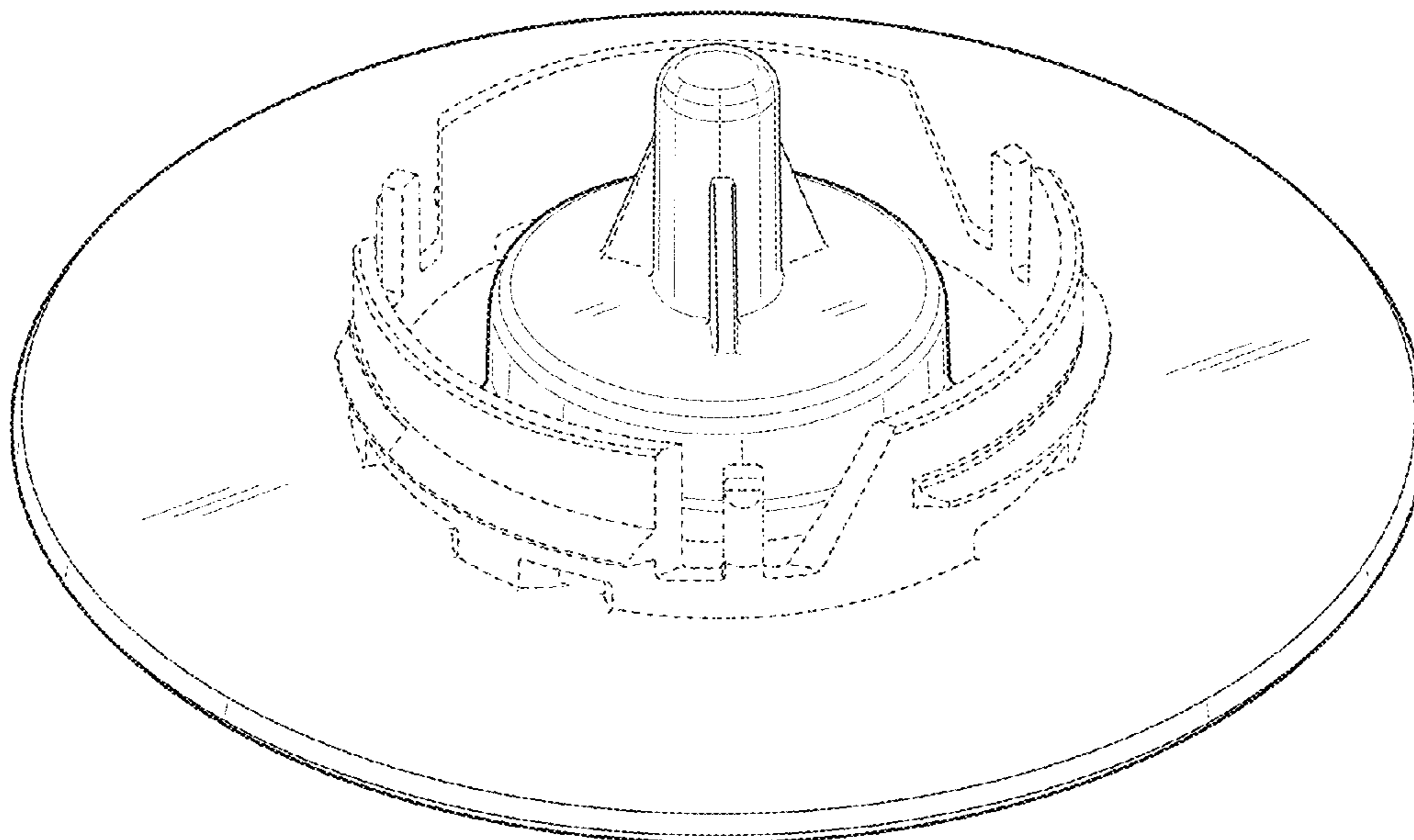
(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,453,189 A \* 6/1984 Ida ..... G11B 5/56  
4,827,363 A \* 5/1989 Takashima ..... G11B 15/1883  
360/137  
5,092,993 A \* 3/1992 Goodwin ..... C02F 1/003  
210/287  
5,277,802 A \* 1/1994 Goodwin ..... C02F 1/003  
210/287  
5,826,854 A \* 10/1998 Janvrin ..... F16L 55/24  
210/234  
6,027,644 A \* 2/2000 Magnusson ..... B01D 35/153  
210/232

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.

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D569,685 S \* 5/2008 Liu ..... G11B 15/1883  
D7/398  
7,736,503 B2 \* 6/2010 Kennedy ..... B01D 65/104  
210/240  
D673,242 S \* 12/2012 Rowe ..... B01D 29/111  
D23/209  
2005/0000876 A1 \* 1/2005 Knight ..... B01D 29/96  
210/450  
2013/0298378 A1 \* 11/2013 Suri ..... B01D 27/08  
210/236  
2018/0161710 A1 6/2018 Kollmann et al.  
2018/0195475 A1 \* 7/2018 Hussain ..... F02M 37/24  
2020/0406170 A1 \* 12/2020 Kollmann ..... B01D 29/111

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

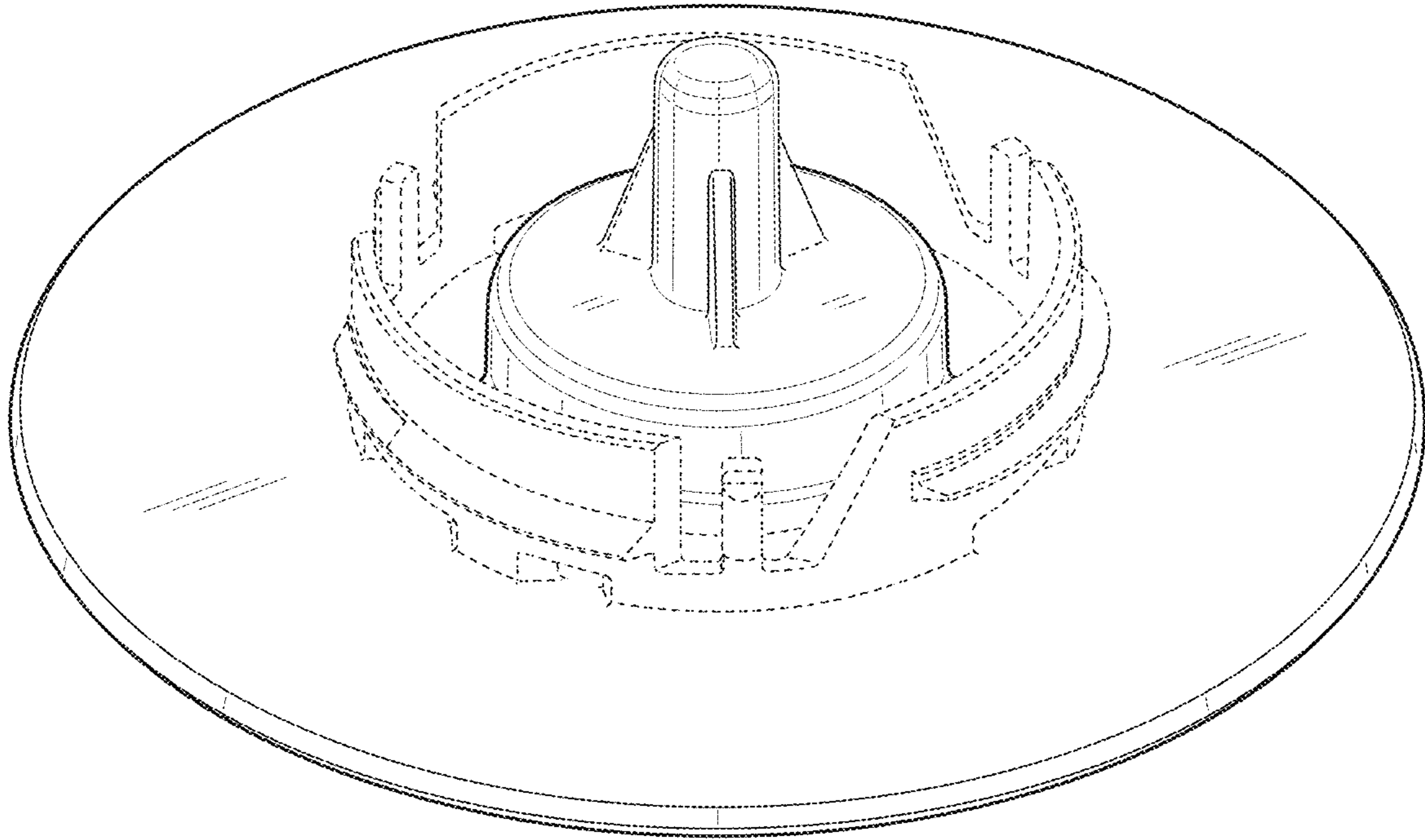


FIG. 1

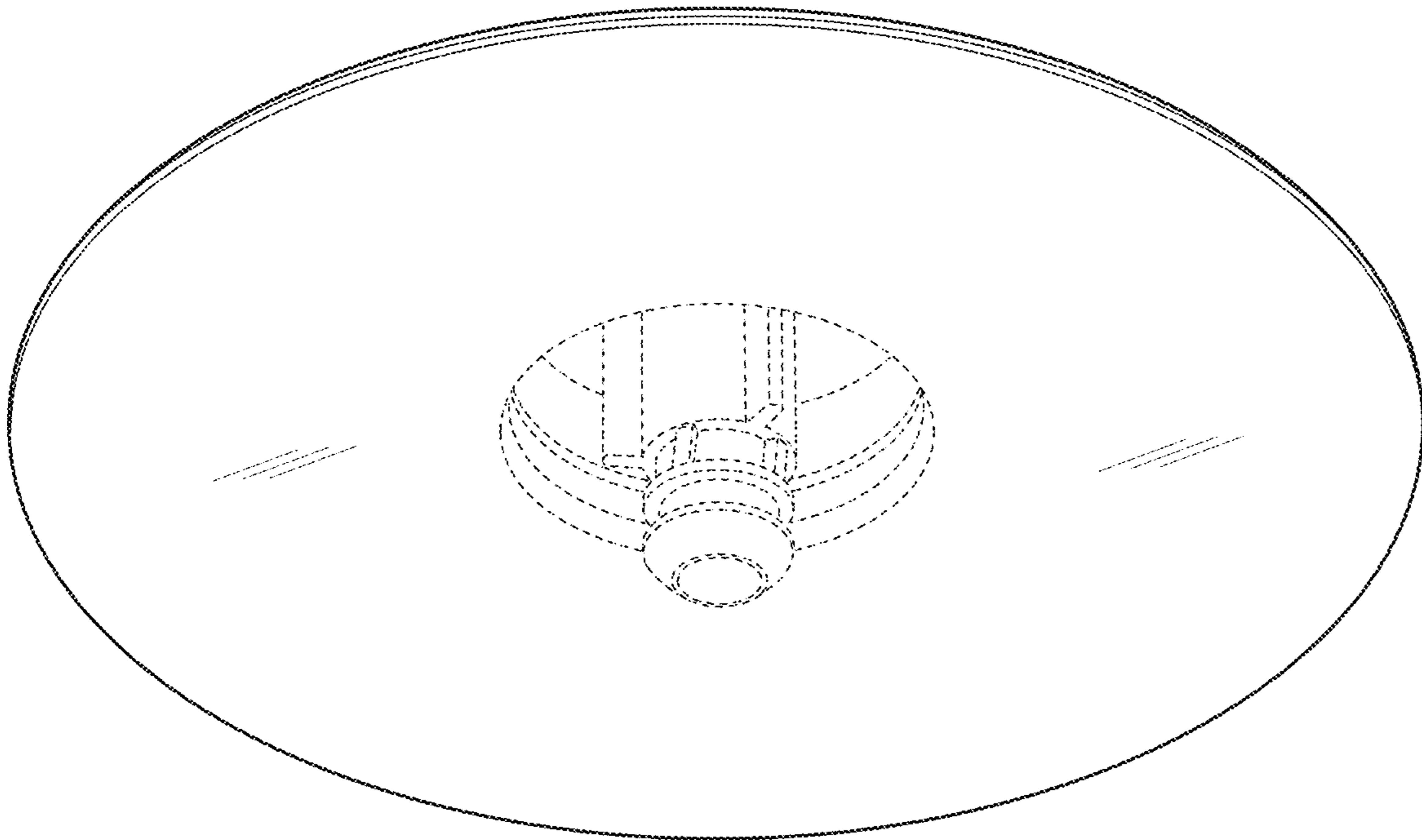


FIG. 2

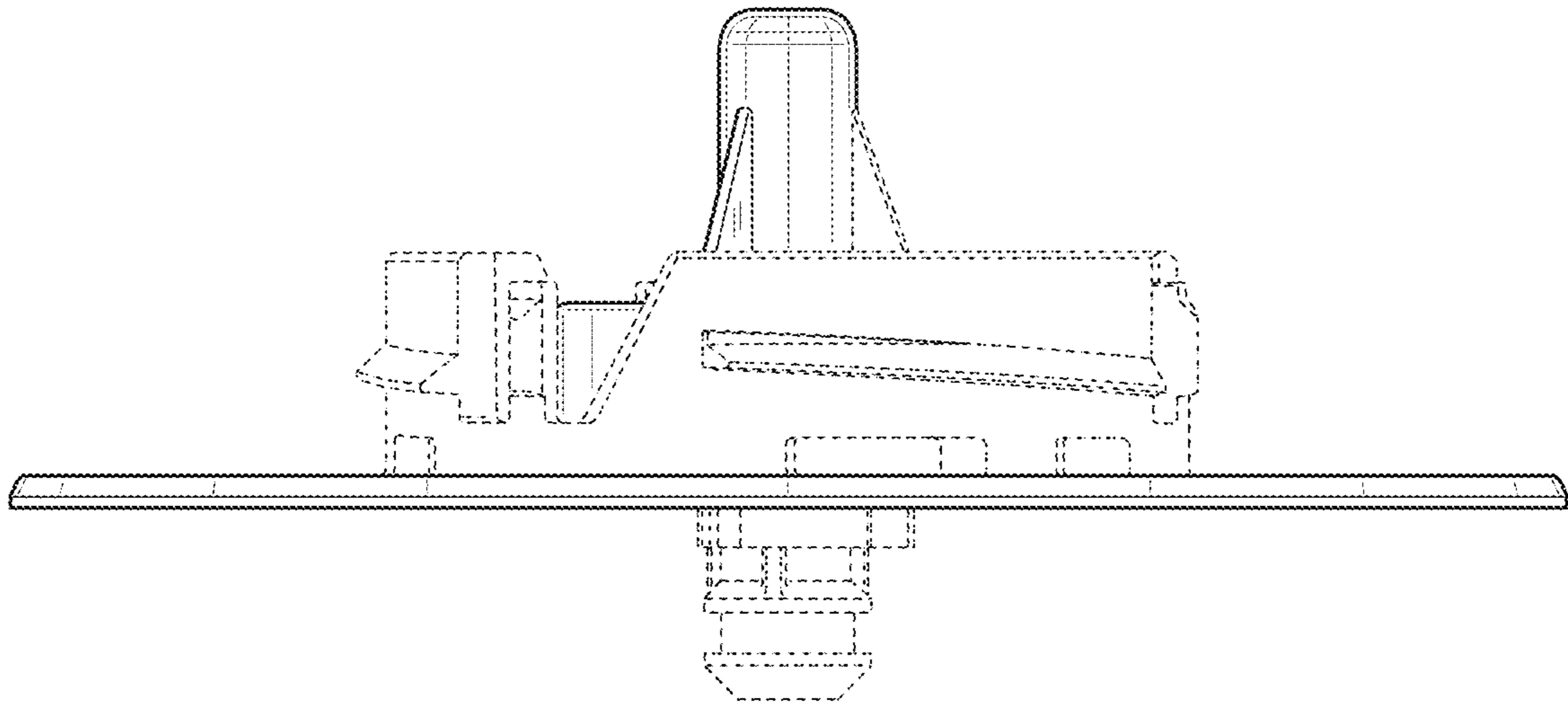


FIG. 3

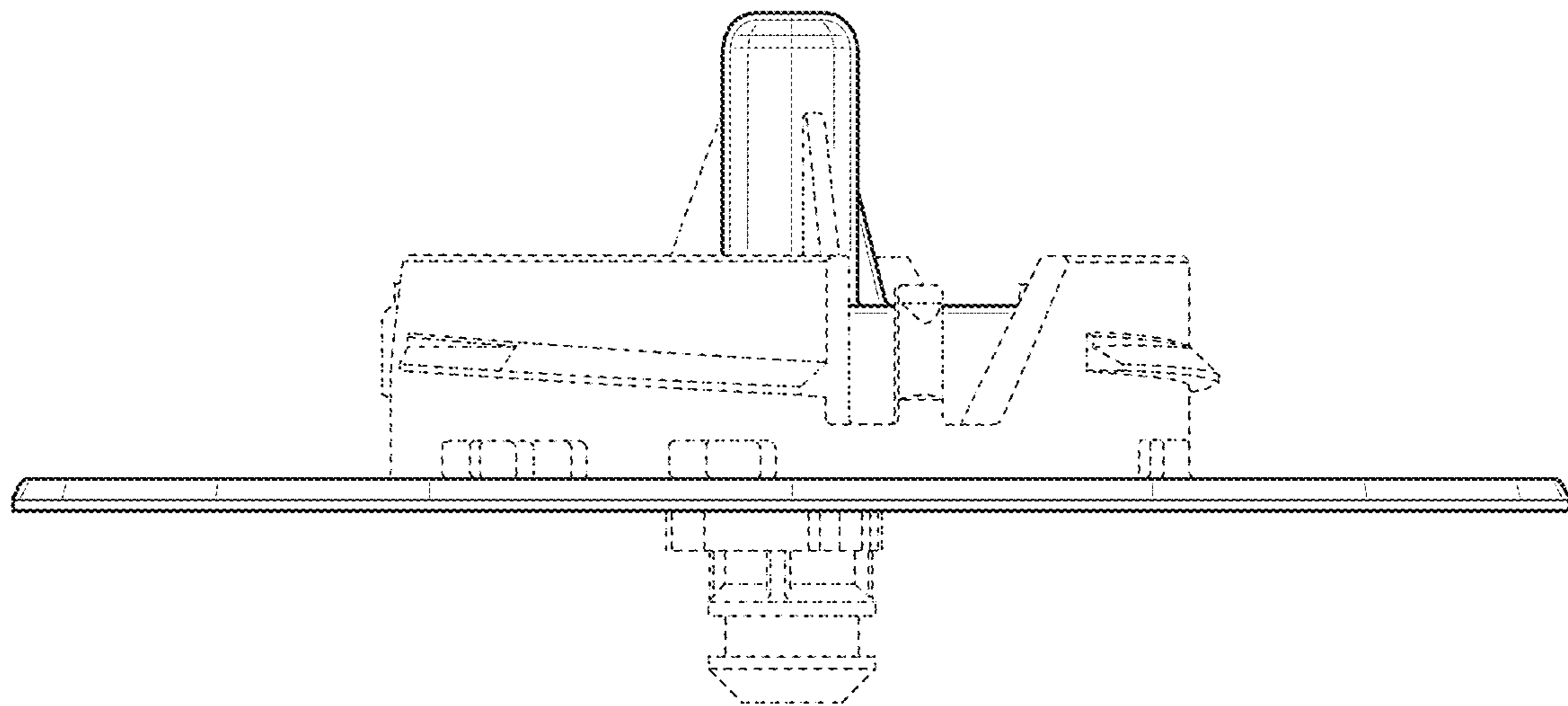


FIG. 4



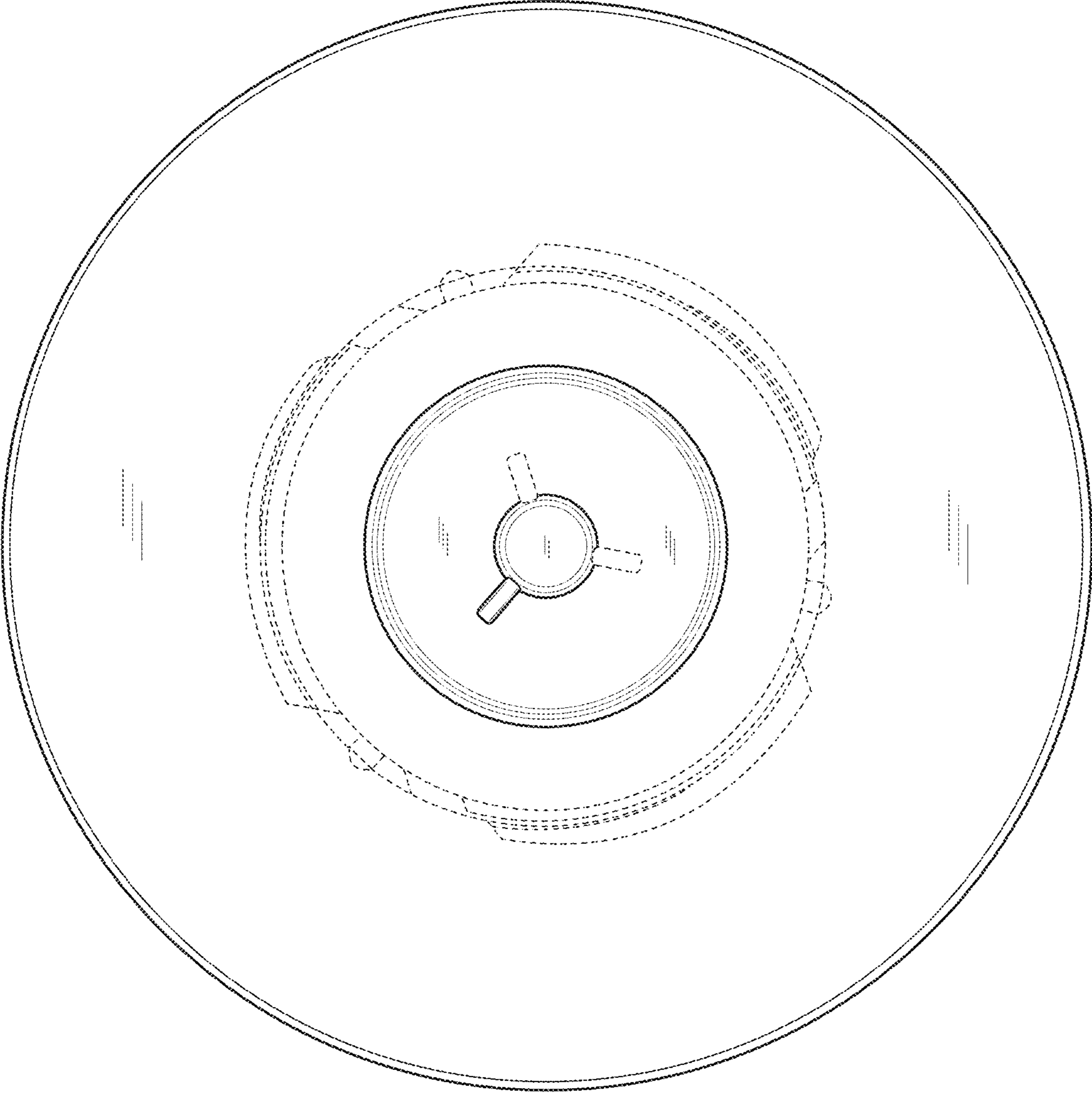


FIG. 5

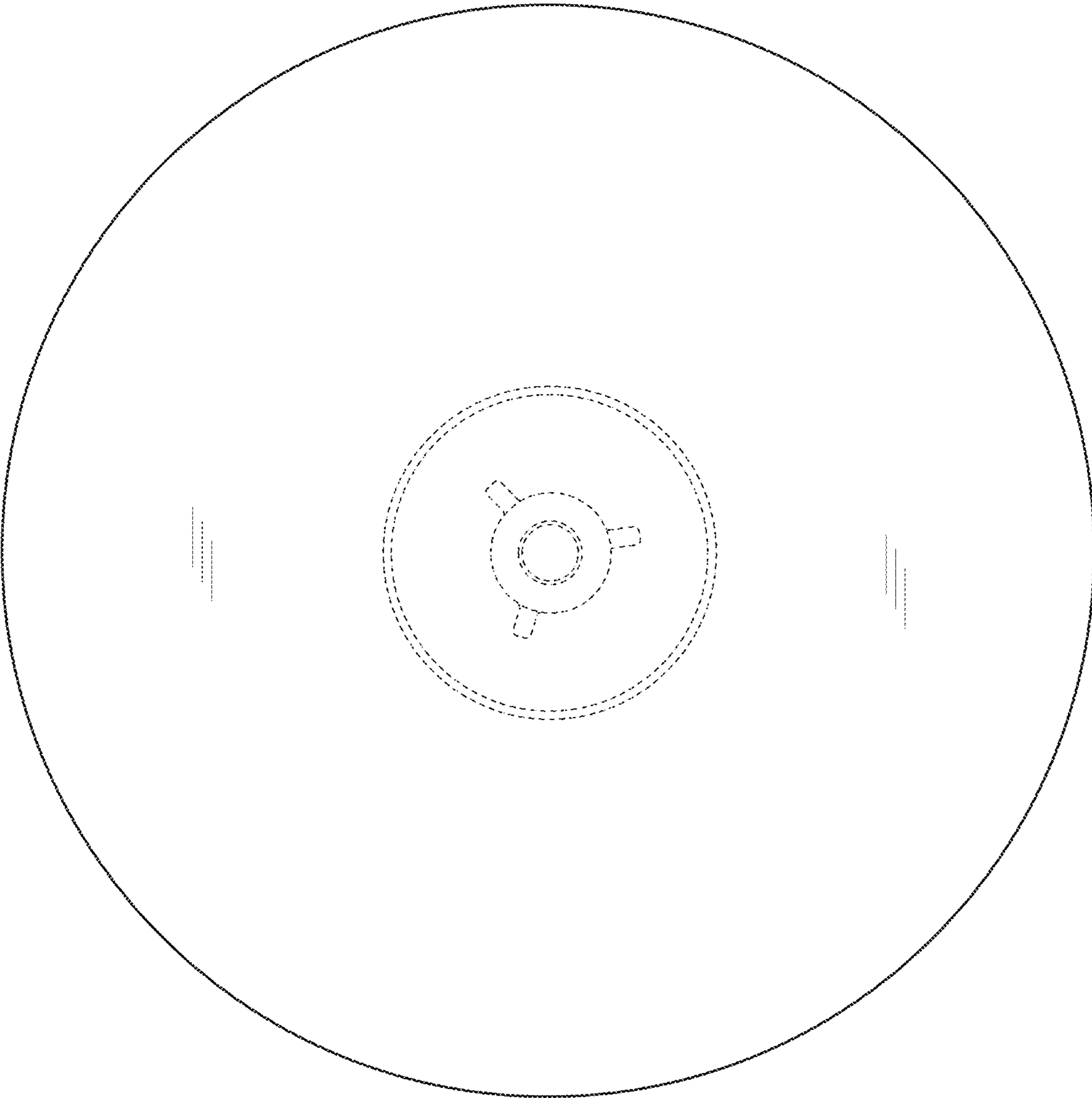


FIG. 6

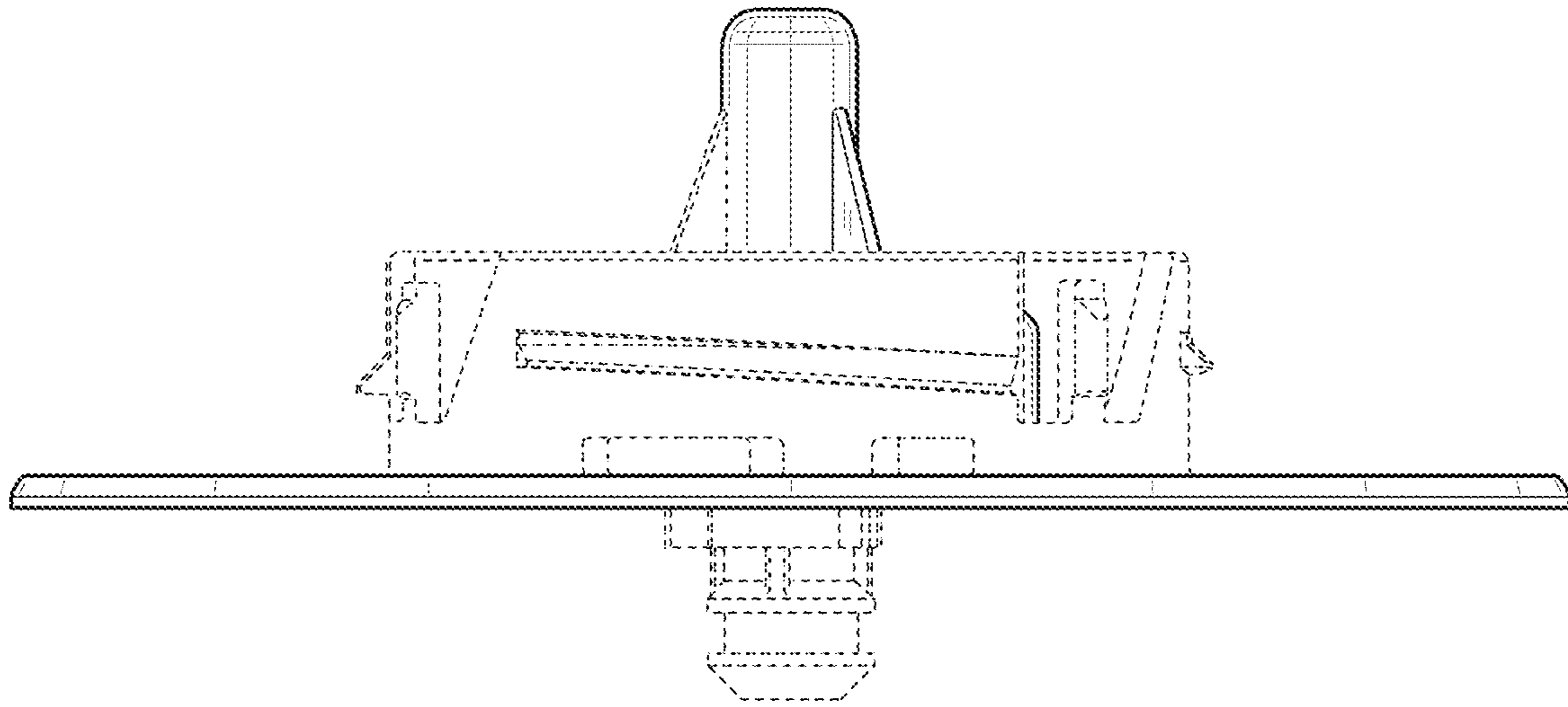


FIG. 7

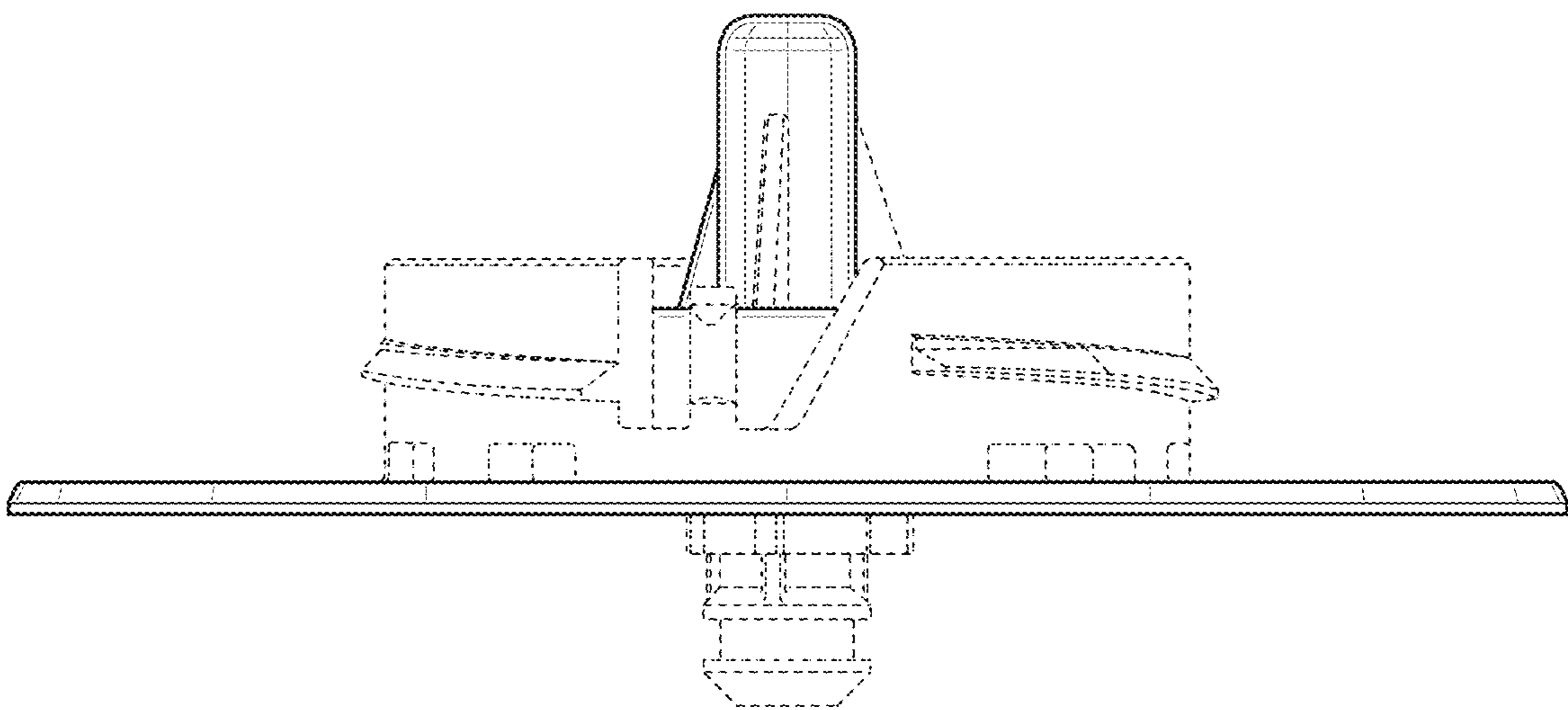


FIG. 8