



US00D824426S

(12) **United States Design Patent**
Mish et al.

(10) **Patent No.:** **US D824,426 S**
(45) **Date of Patent:** **** Jul. 31, 2018**

(54) **RECIPROCATING GAS COMPRESSOR VALVE**

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(73) Assignee: **Delaware Capital Formation, Inc.**,
Wilmington, DE (US)

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

(21) Appl. No.: **29/543,535**

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(51) **LOC (11) Cl.** **15-02**

(52) **U.S. Cl.**
USPC **D15/9**

(58) **Field of Classification Search**
USPC D23/233, 235, 241, 247, 248, 249;
123/90.15, 188.5, 190.14, 445, 200,
(Continued)

(56) **References Cited**

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Primary Examiner — Cynthia Ramirez
Assistant Examiner — Gino Colan
(74) *Attorney, Agent, or Firm* — Nielsen IP Law LLC

(57) **CLAIM**

We claim the ornamental design for the reciprocating gas compressor valve, as shown and described.

DESCRIPTION

FIG. 1 is an overall perspective view of a reciprocating gas compressor valve showing our new design, in condition of use;

FIG. 2 is an overall exploded perspective view of the reciprocating gas compressor valve;
FIG. 3 is an overall top view thereof, in condition of use;
FIG. 4 is an overall bottom view thereof;
FIG. 5 is an overall side view thereof;
FIG. 6 is a cross-sectional view thereof;
FIG. 7 is a top view of the seat of the reciprocating gas compressor valve of FIG. 1;
FIG. 8 is a side view thereof;
FIG. 9 is a bottom view of thereof;
FIG. 10 is a top perspective view of a cartridge of the reciprocating gas compressor valve of FIG. 1;
FIG. 11 is a bottom perspective view thereof;
FIG. 12 is a top view thereof;
FIG. 13 is a bottom view thereof;
FIG. 14 is a side elevational view thereof;
FIG. 15 is a top perspective view of a sealing element of the reciprocating compressor valve of FIG. 1;
FIG. 16 is a bottom perspective view thereof;
FIG. 17 is a top view thereof;
FIG. 18 is a bottom view thereof;
FIG. 19 is a side elevational view thereof;
FIG. 20 is a top perspective view of the cup of the reciprocating compressor valve of FIG. 1;
FIG. 21 is a bottom perspective view thereof;
FIG. 22 is a top view thereof;
FIG. 23 is a bottom view thereof;
FIG. 24 is a side elevational view thereof;
FIG. 25 is a top perspective view of the cup assembly of the reciprocating compressor valve of FIG. 1;
FIG. 26 is a bottom perspective view thereof;
FIG. 27 is a top view thereof;
FIG. 28 is a bottom view thereof;
FIG. 29 is a side elevational view thereof;
FIG. 30 is a top perspective view of the center cartridge of the reciprocating compressor valve of FIG. 1;
FIG. 31 is a bottom perspective view thereof;
FIG. 32 is a top view thereof;
FIG. 33 is a bottom view thereof;
FIG. 34 is a side elevational view thereof;
FIG. 35 is a top perspective view of a center sealing element of the reciprocating compressor valve of FIG. 1;
FIG. 36 is a bottom perspective view thereof;

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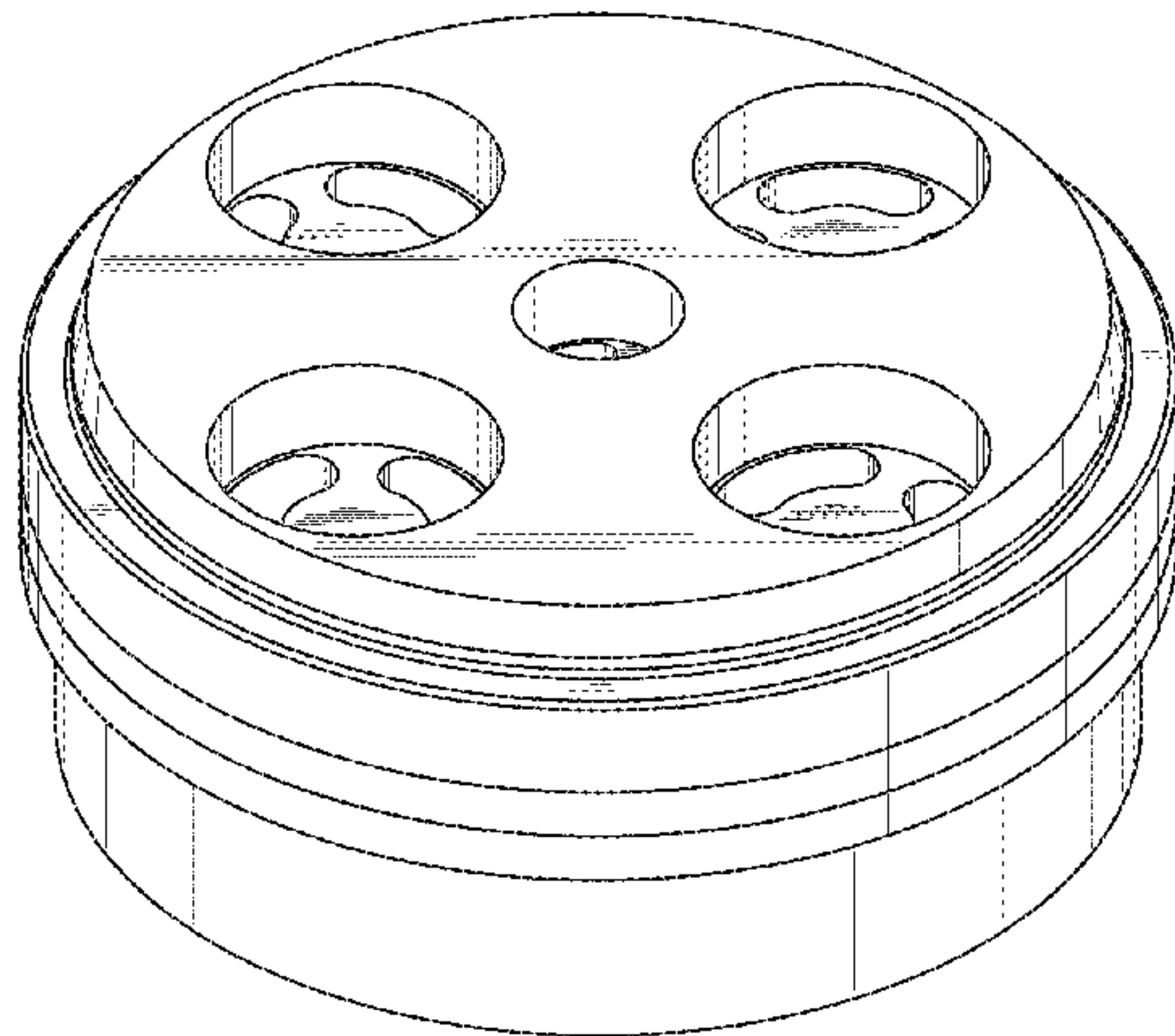


FIG. 37 is a top view thereof;
 FIG. 38 is a bottom view thereof;
 FIG. 39 is a side elevational view thereof;
 FIG. 40 is a top perspective view of the center cup of the reciprocating compressor valve of FIG. 1;
 FIG. 41 is a bottom perspective view thereof;
 FIG. 42 is a top view thereof;
 FIG. 43 is a bottom view thereof;
 FIG. 44 is a side elevational view thereof;
 FIG. 45 is a top perspective view of the center cup assembly of the reciprocating compressor valve of FIG. 1;
 FIG. 46 is a bottom perspective view thereof;
 FIG. 47 is a top view thereof;
 FIG. 48 is a bottom view thereof;
 FIG. 49 is a side elevational view thereof;
 FIG. 50 is a top view and bottom view of the plate of the reciprocating compressor valve of FIG. 1;
 FIG. 51 is a side view thereof;
 FIG. 52 is a top view of the guard of the reciprocating gas compressor valve of FIG. 1;
 FIG. 53 is a side elevational view thereof; and,
 FIG. 54 is the bottom view thereof.
 The elements that comprise the reciprocating gas compressor valve are being shown separately in some of the Figures for convenience of illustration.
 The broken lines in the drawings are included for the purpose of illustrating portions of the reciprocating gas compressor valve and form no part of the claimed design.

1 Claim, 19 Drawing Sheets

(58) **Field of Classification Search**

USPC 123/90.17, 193.4; 417/273, 411, 564;

D15/5, 9, 9.1, 9.2, 9.3; 29/888.012,
 29/890.124, 890.126; 92/187, 208;
 137/512.1, 516.11, 327, 329.04, 516.23

CPC F04B 39/1033; F04B 39/1053
 See application file for complete search history.

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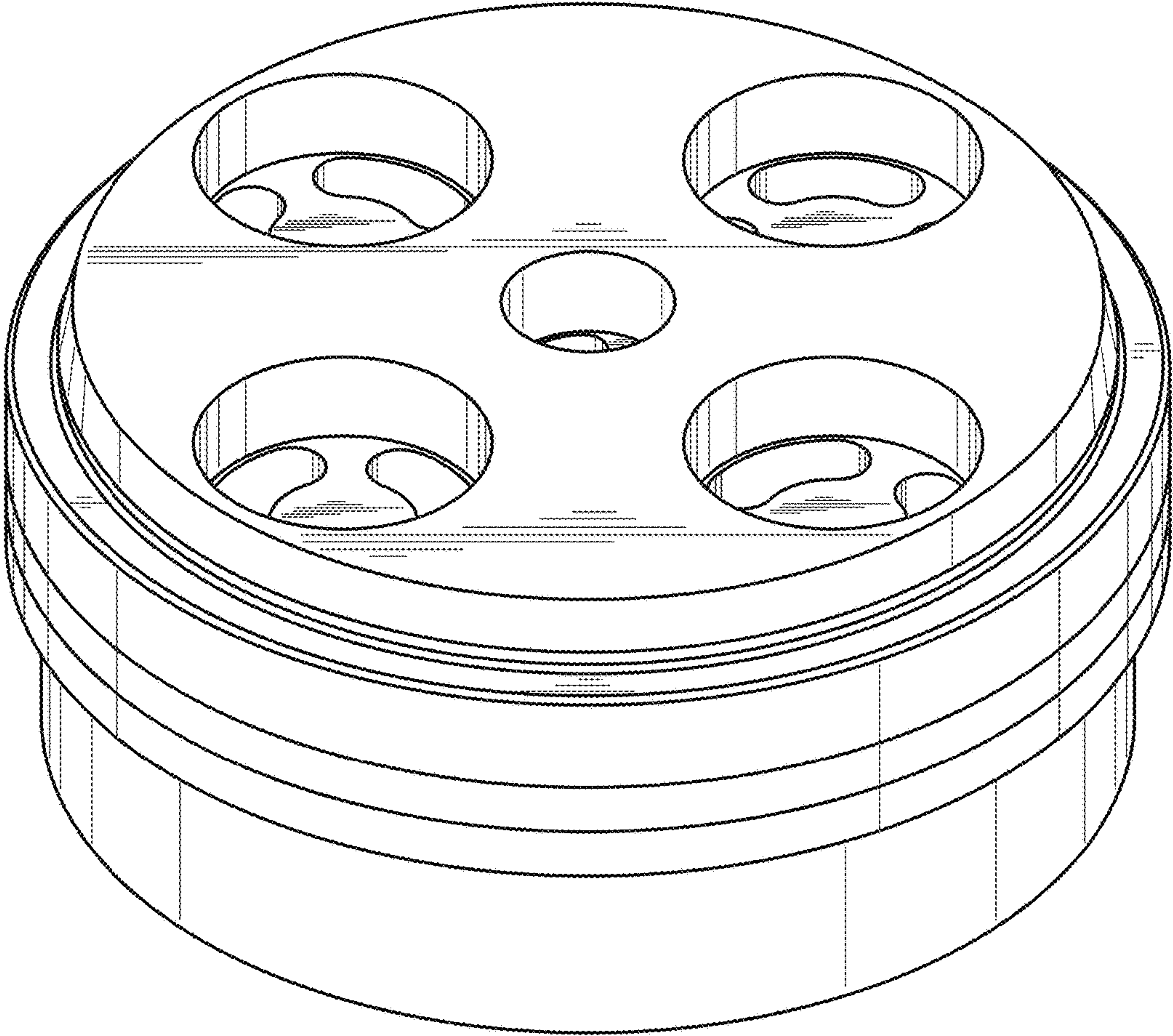
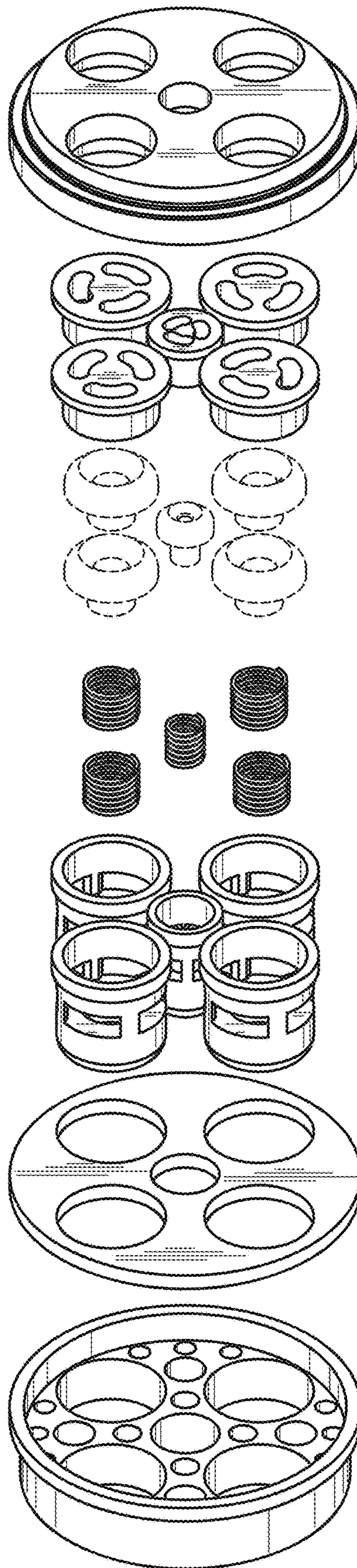


FIG. 1

FIG. 2



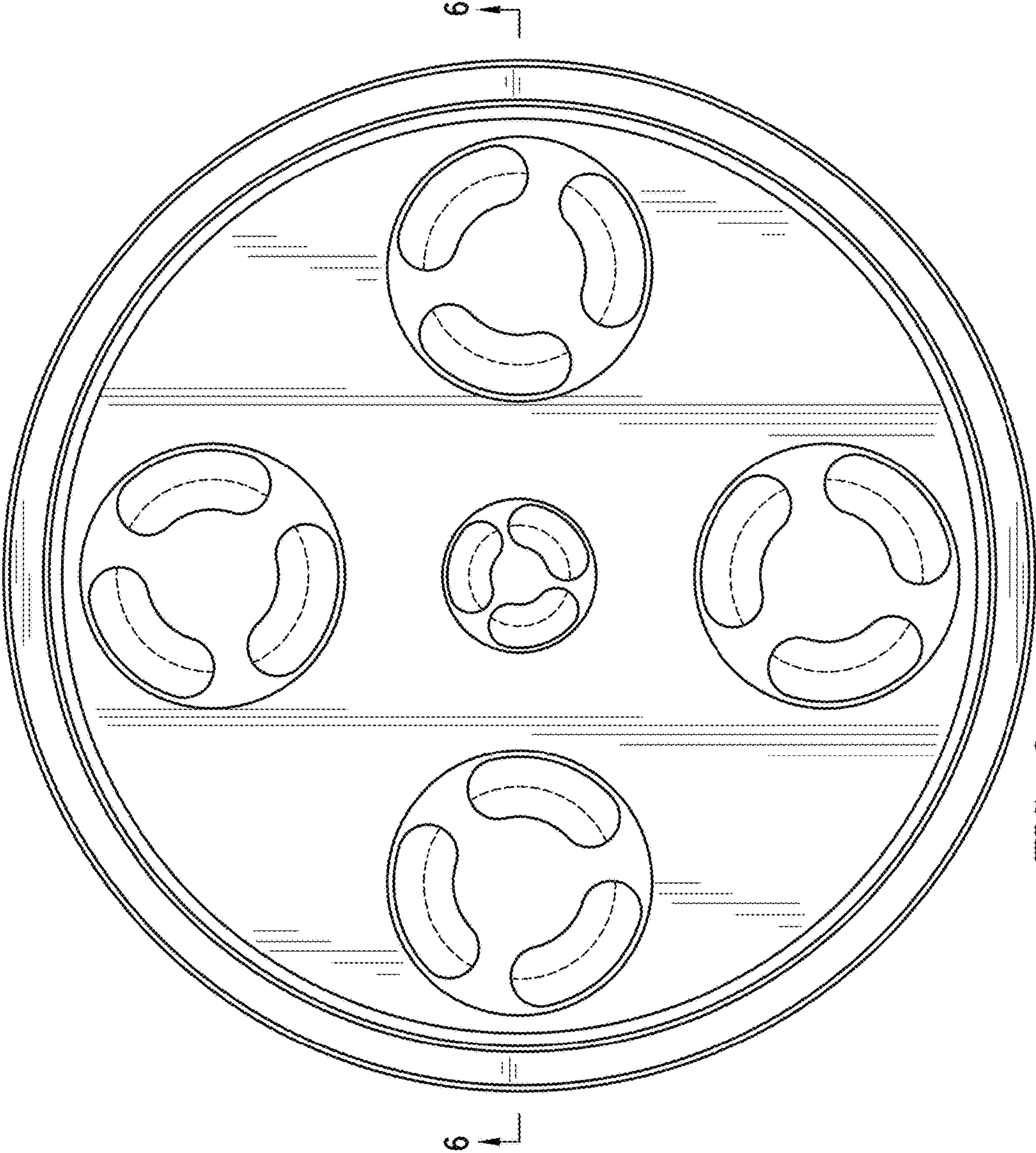


FIG. 3

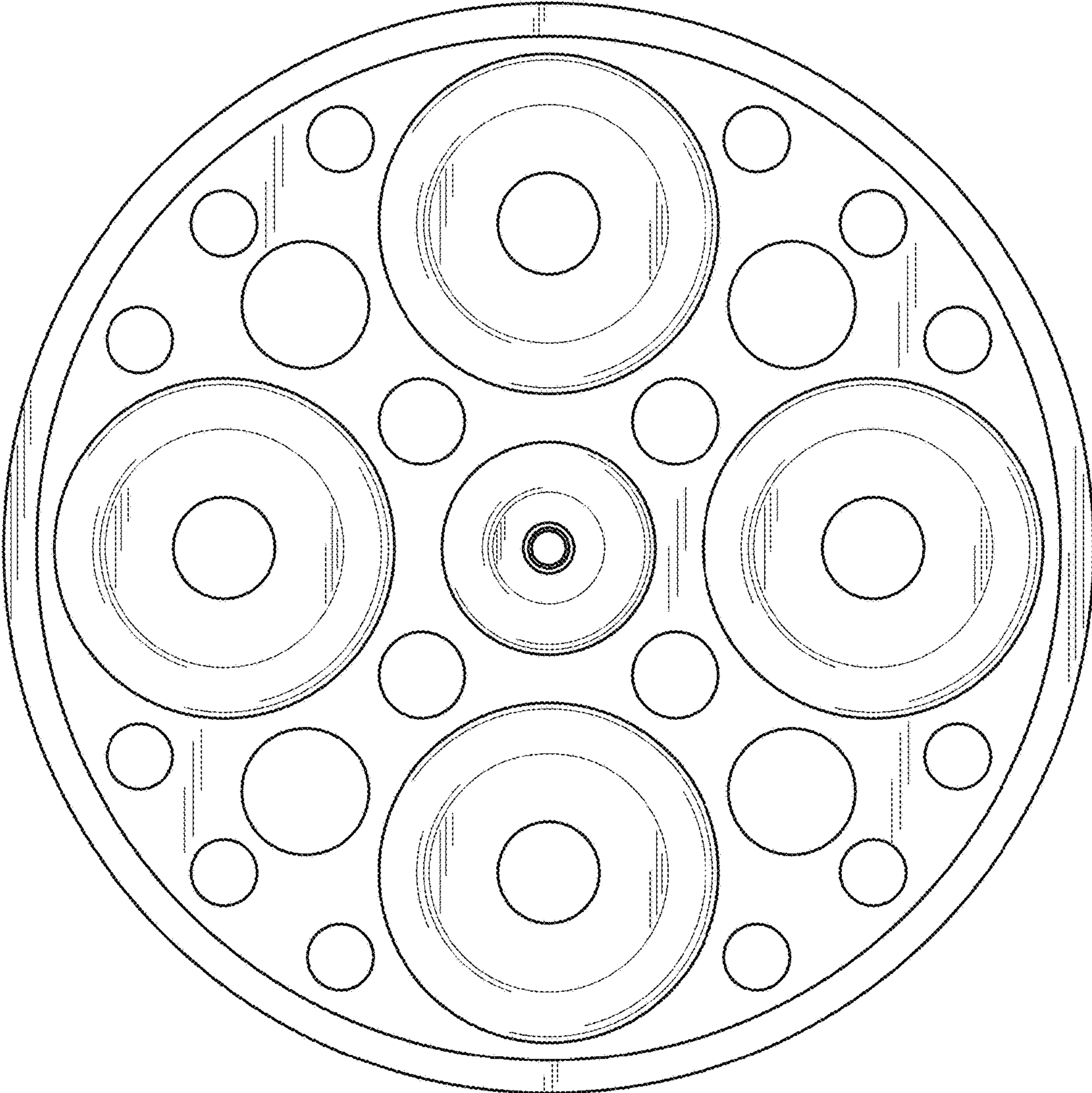


FIG. 4

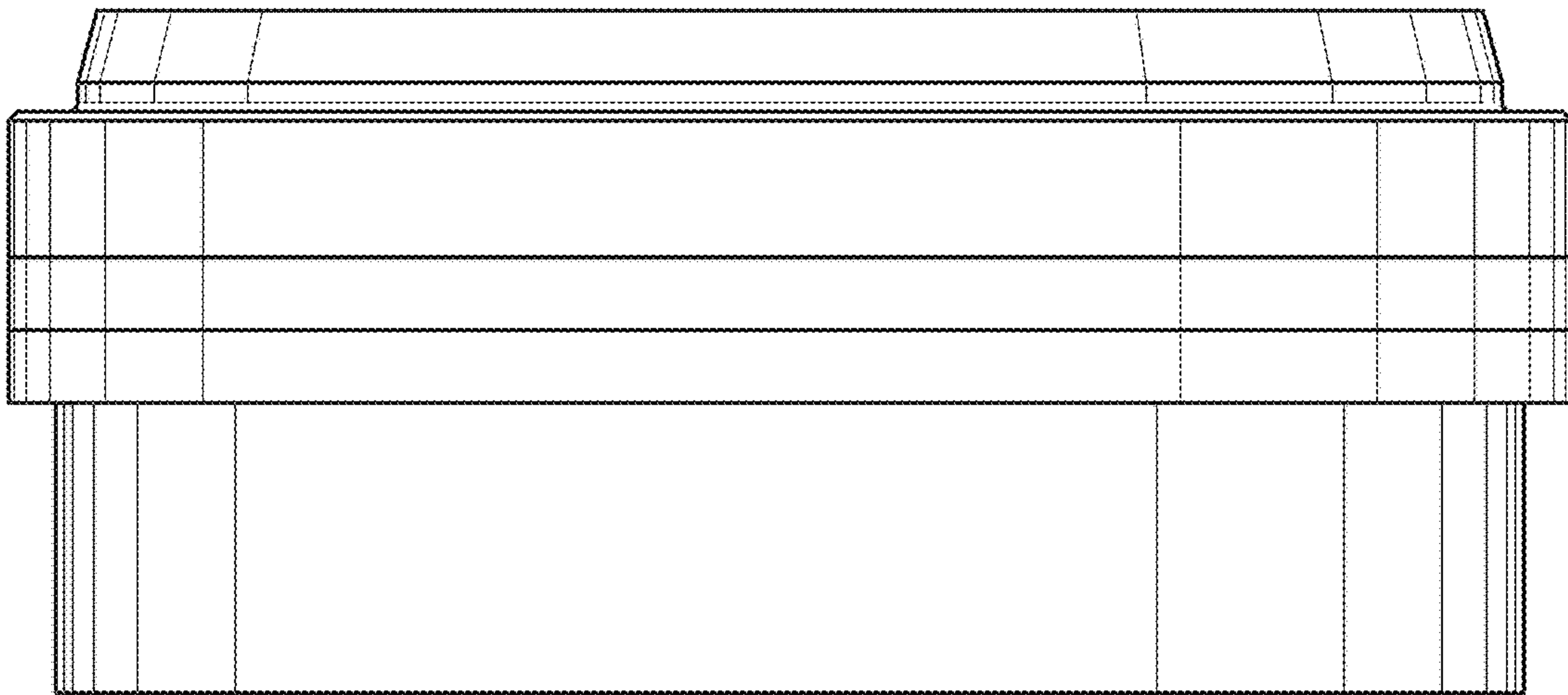


FIG. 5

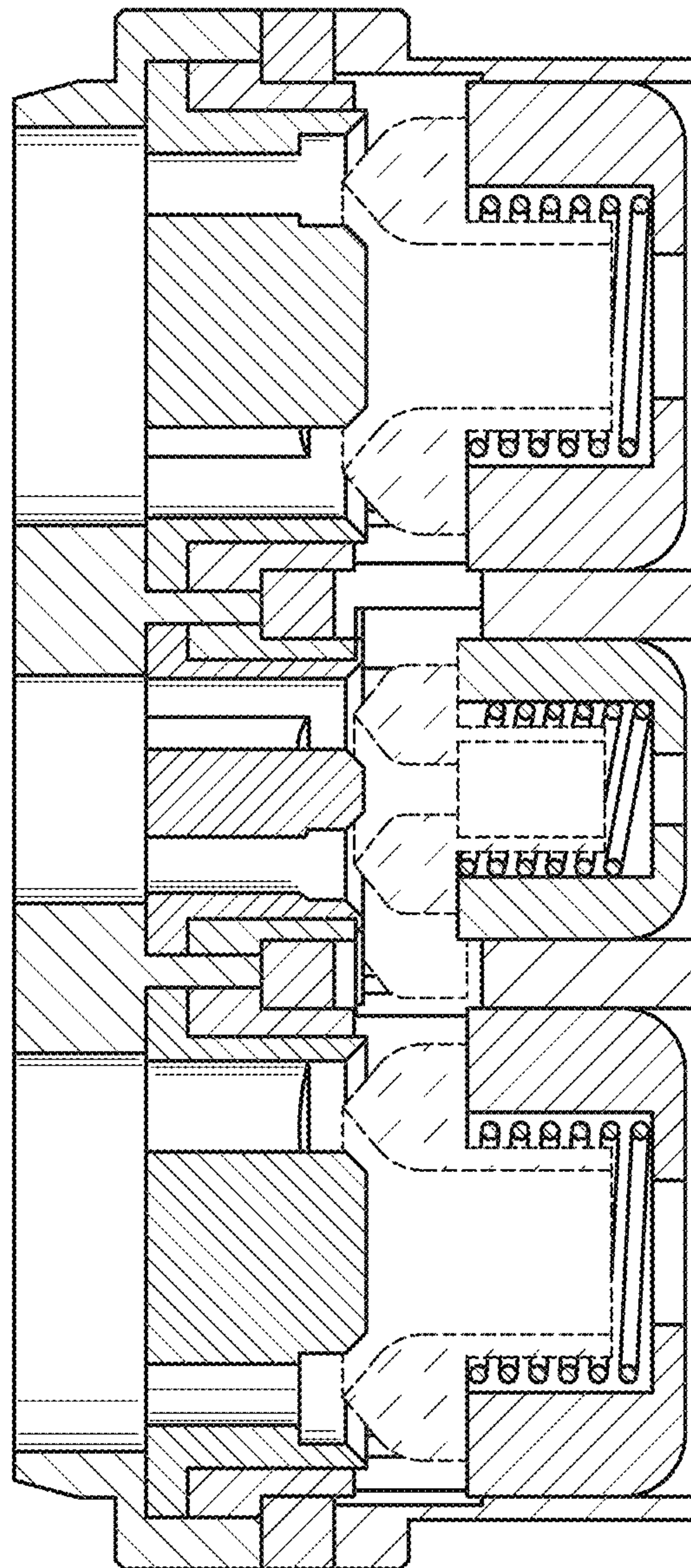


FIG. 6

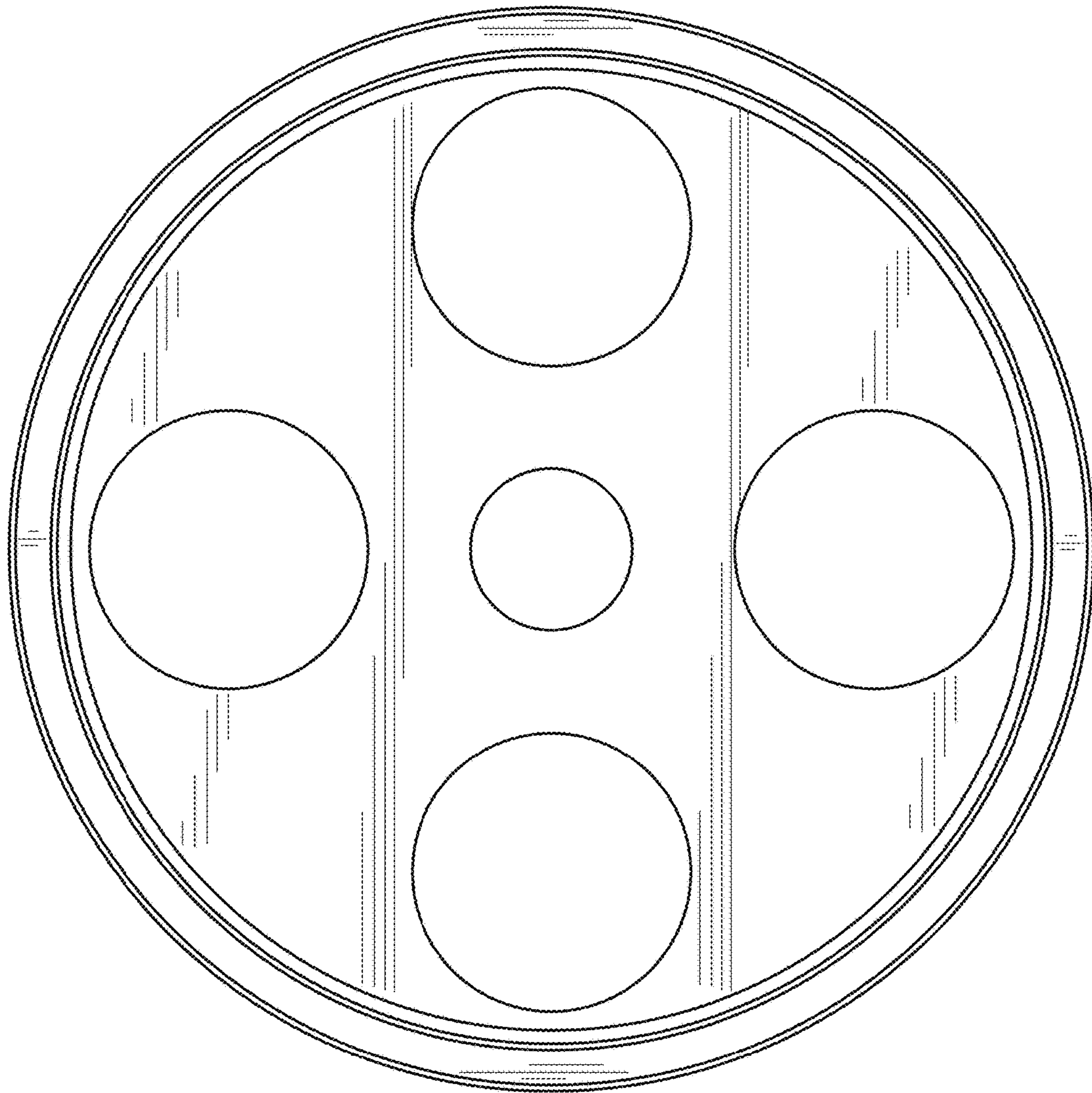


FIG. 7

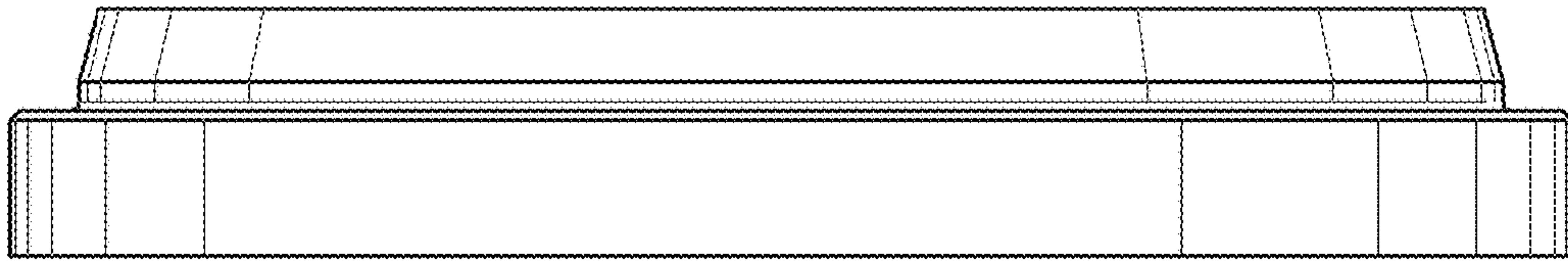


FIG. 8

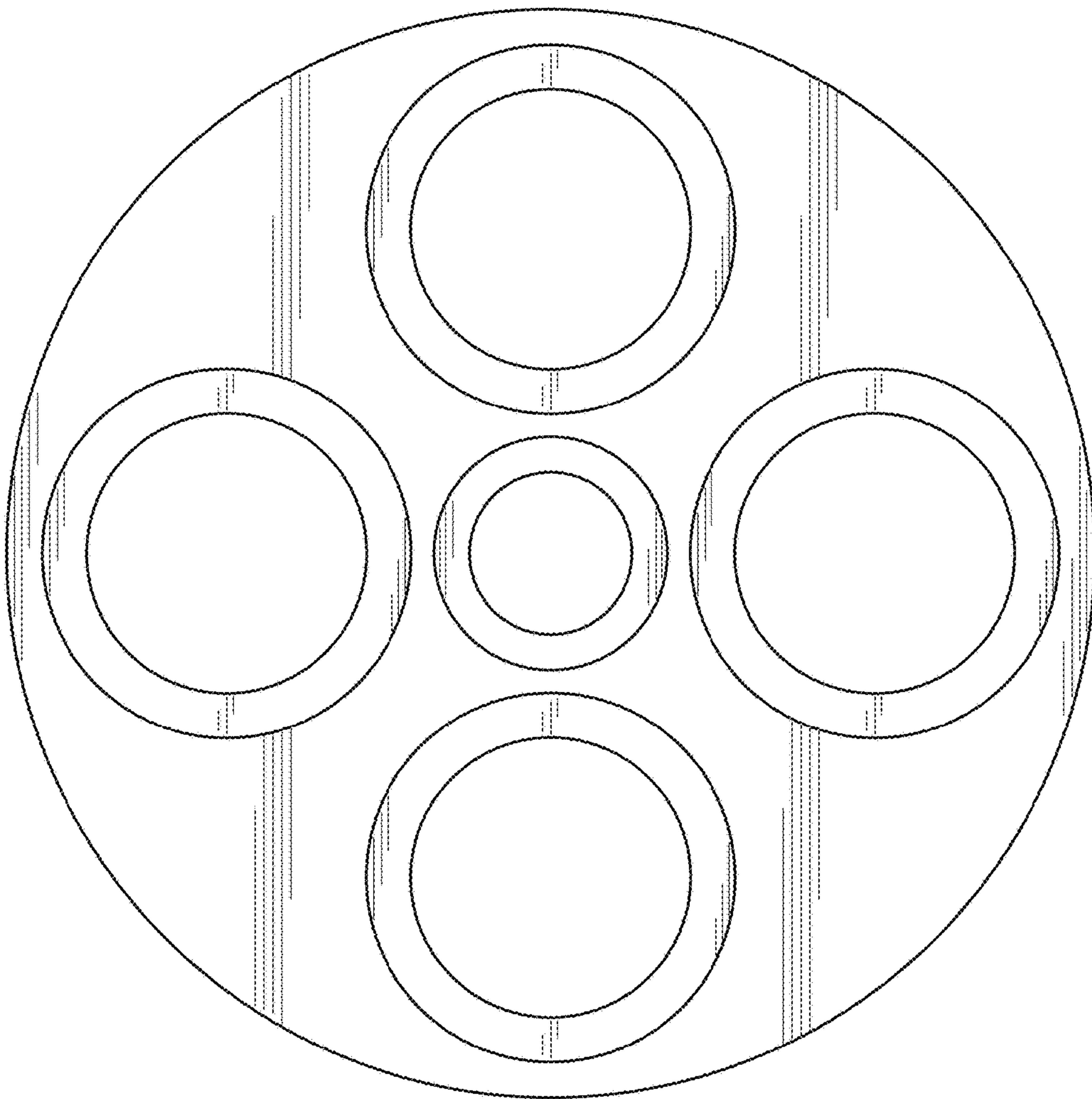


FIG. 9

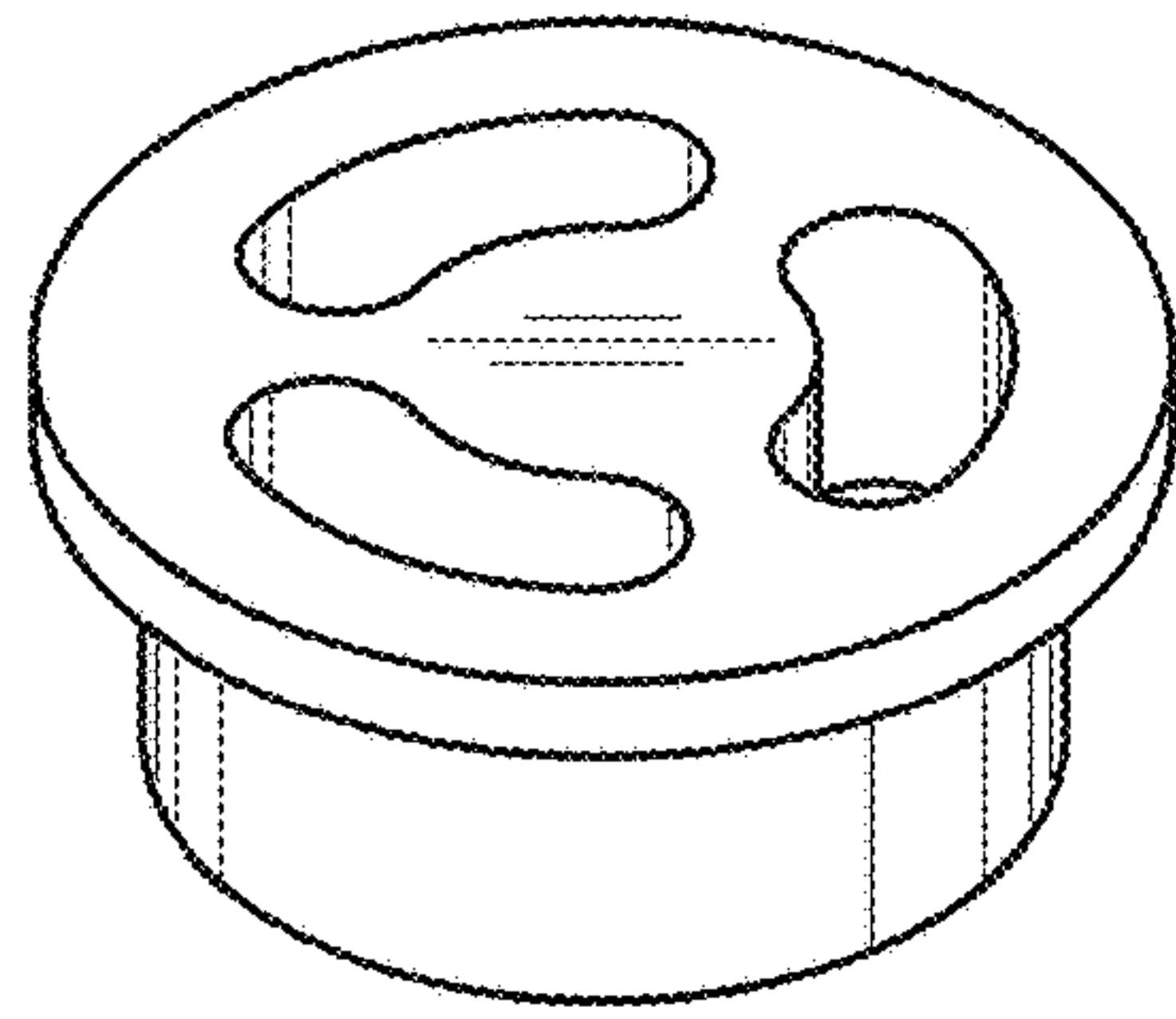


FIG. 10

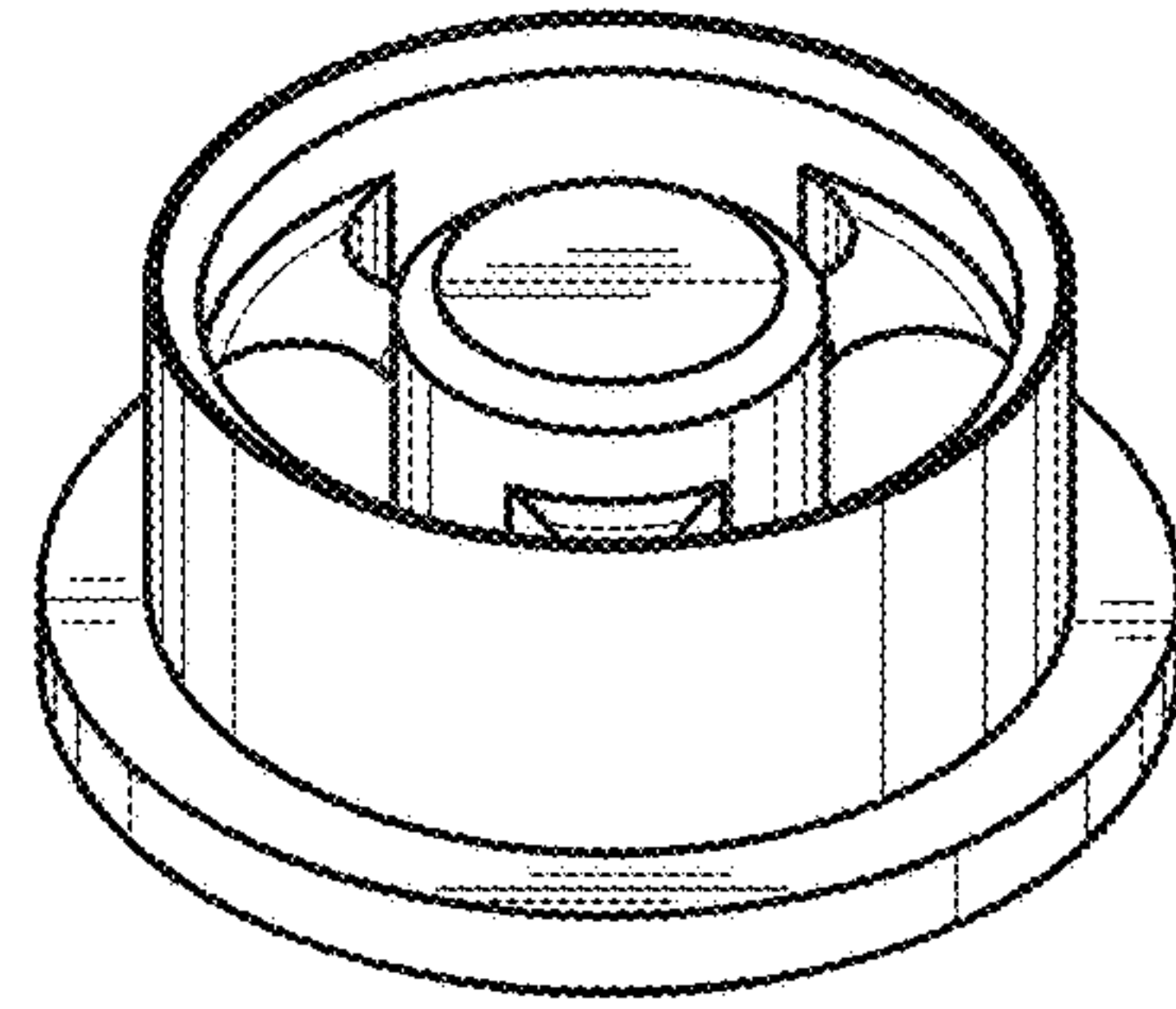


FIG. 11

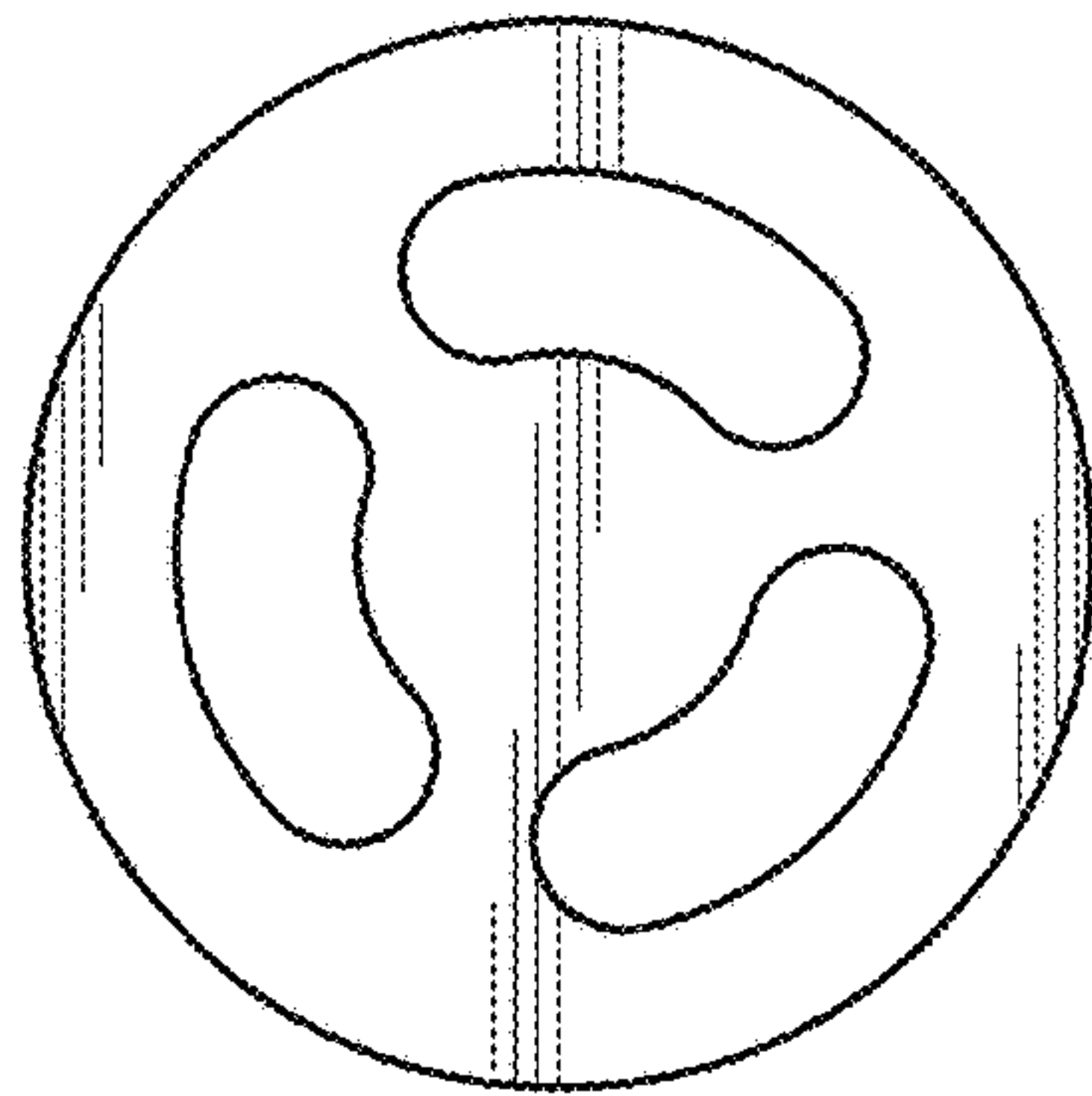


FIG. 12

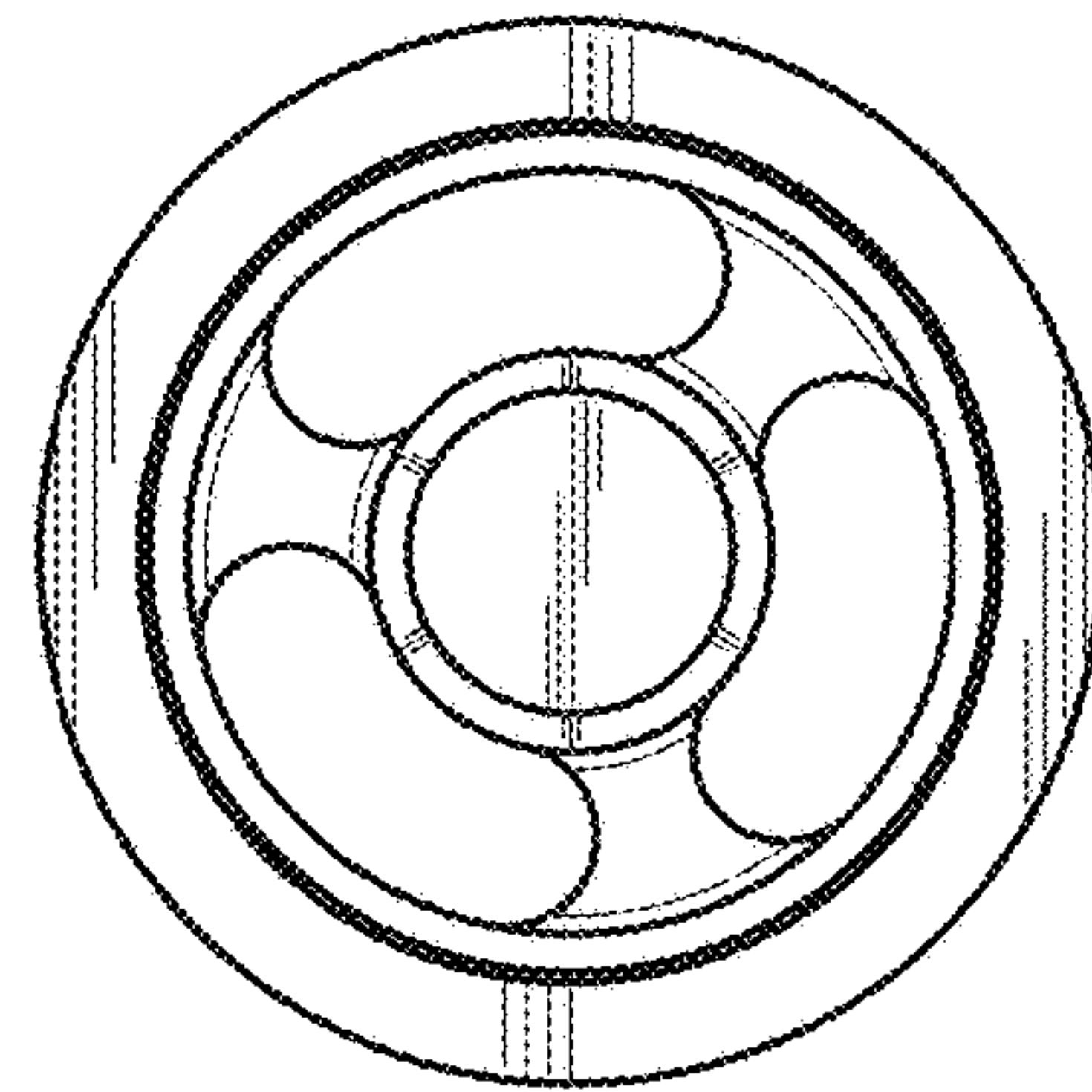


FIG. 13

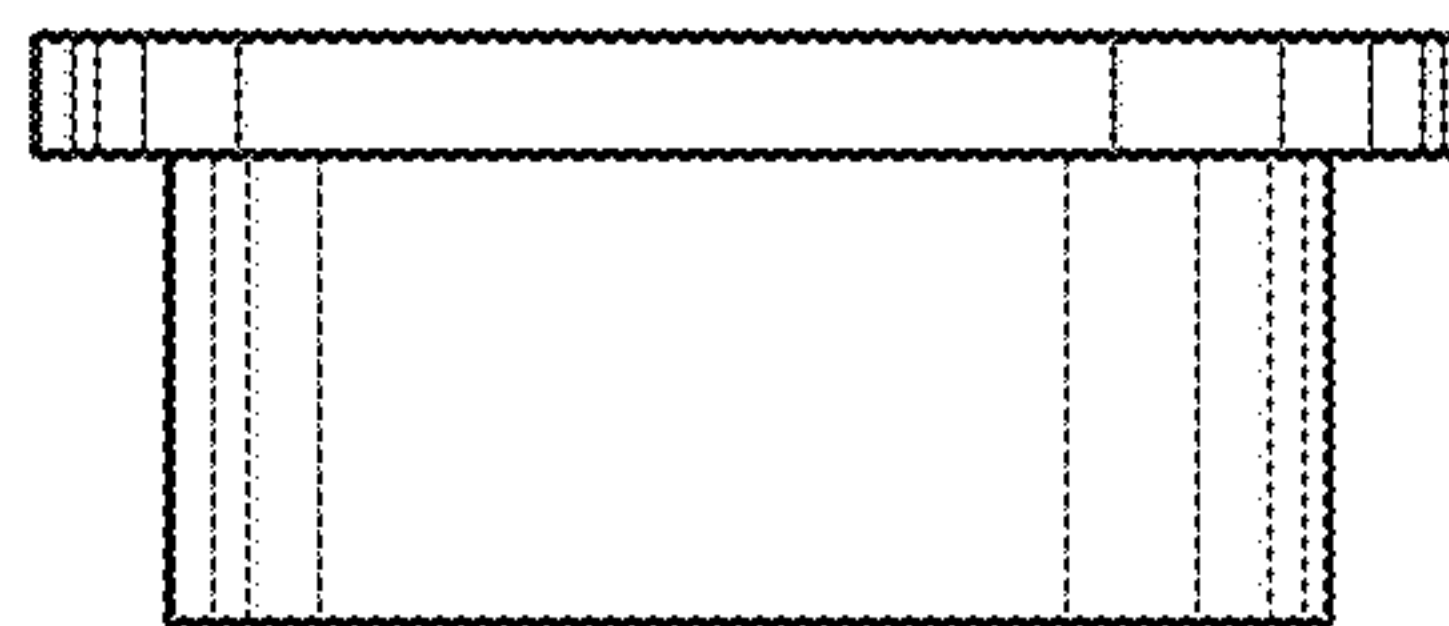


FIG. 14

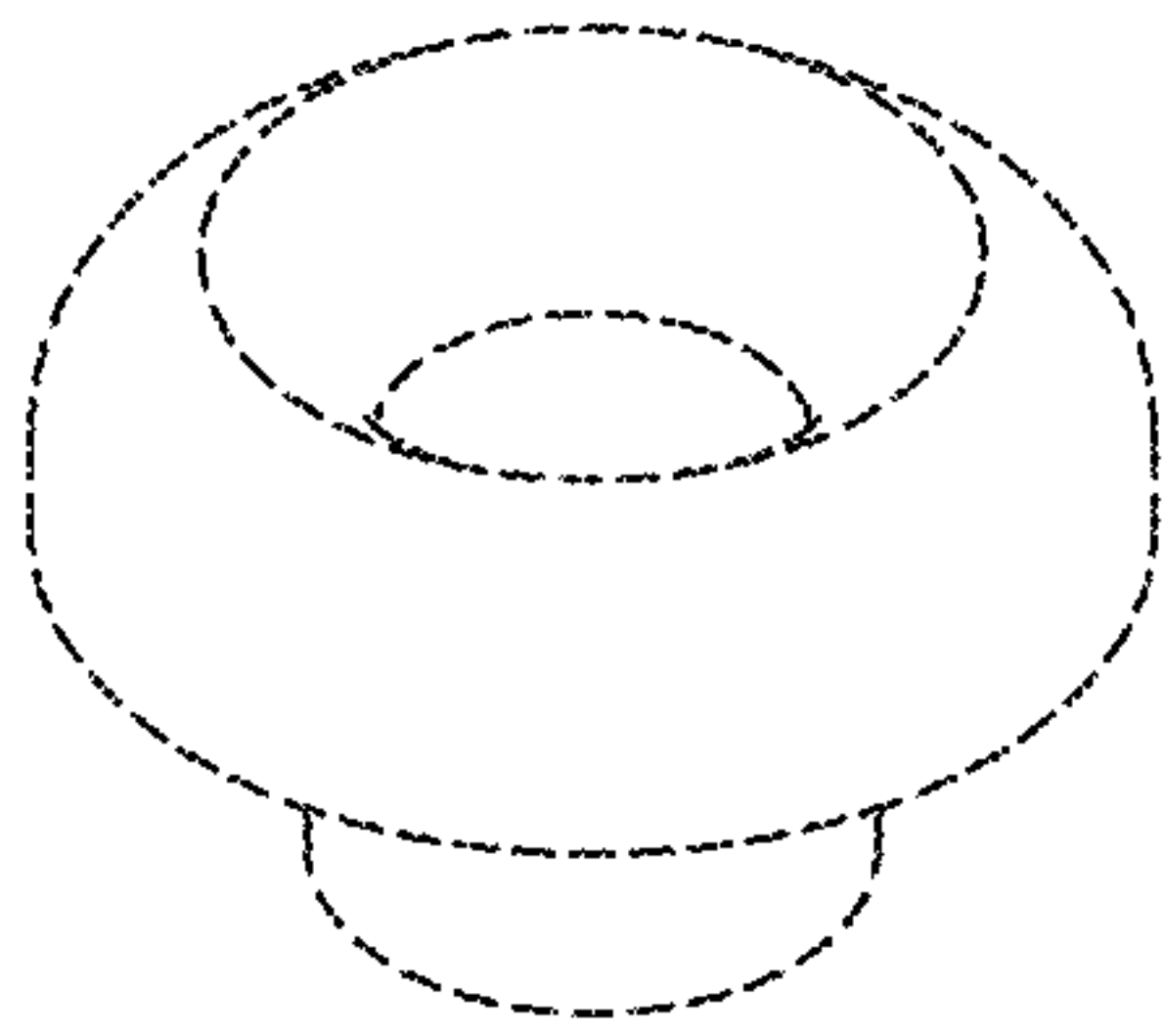


FIG. 15

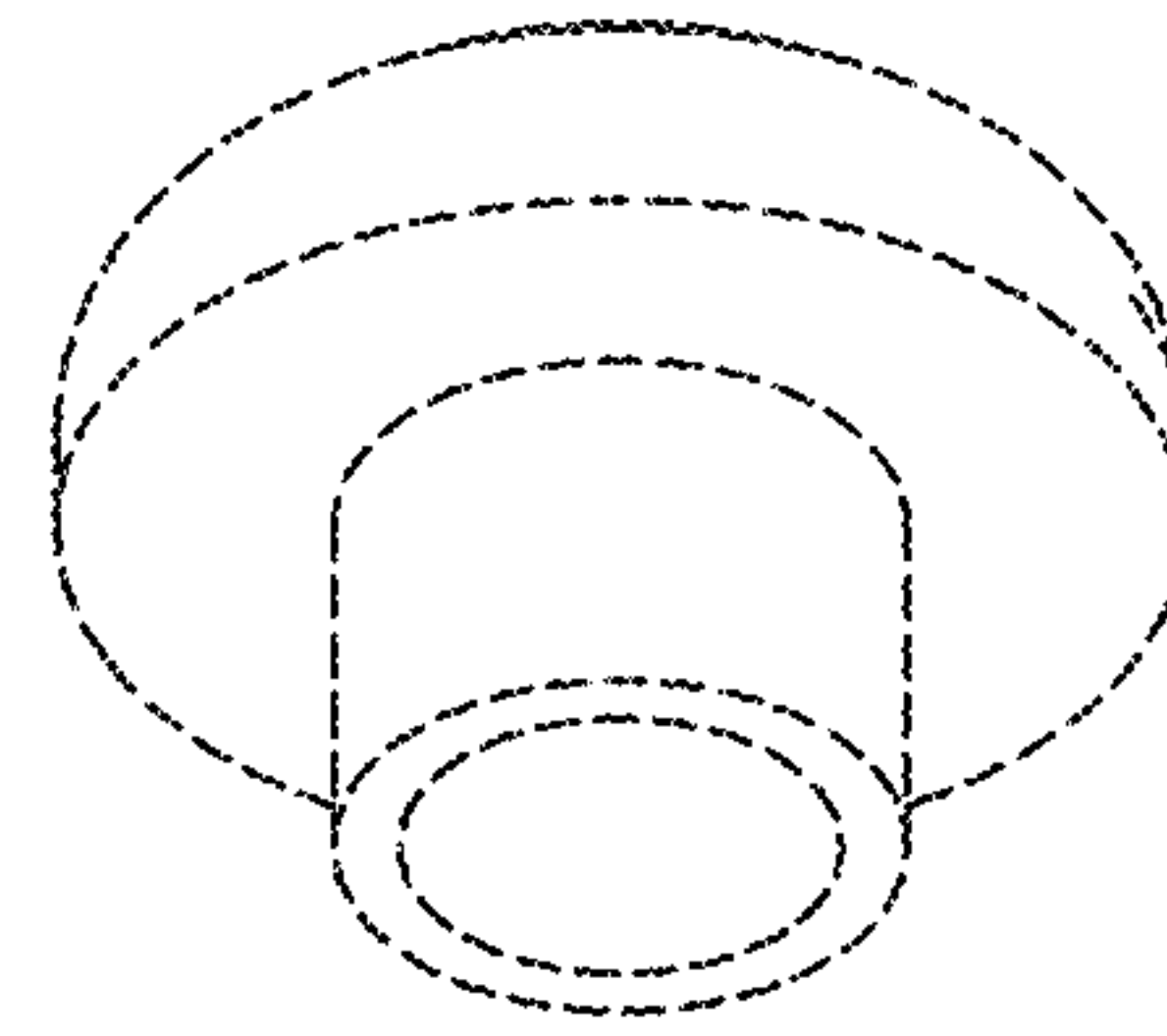


FIG. 16

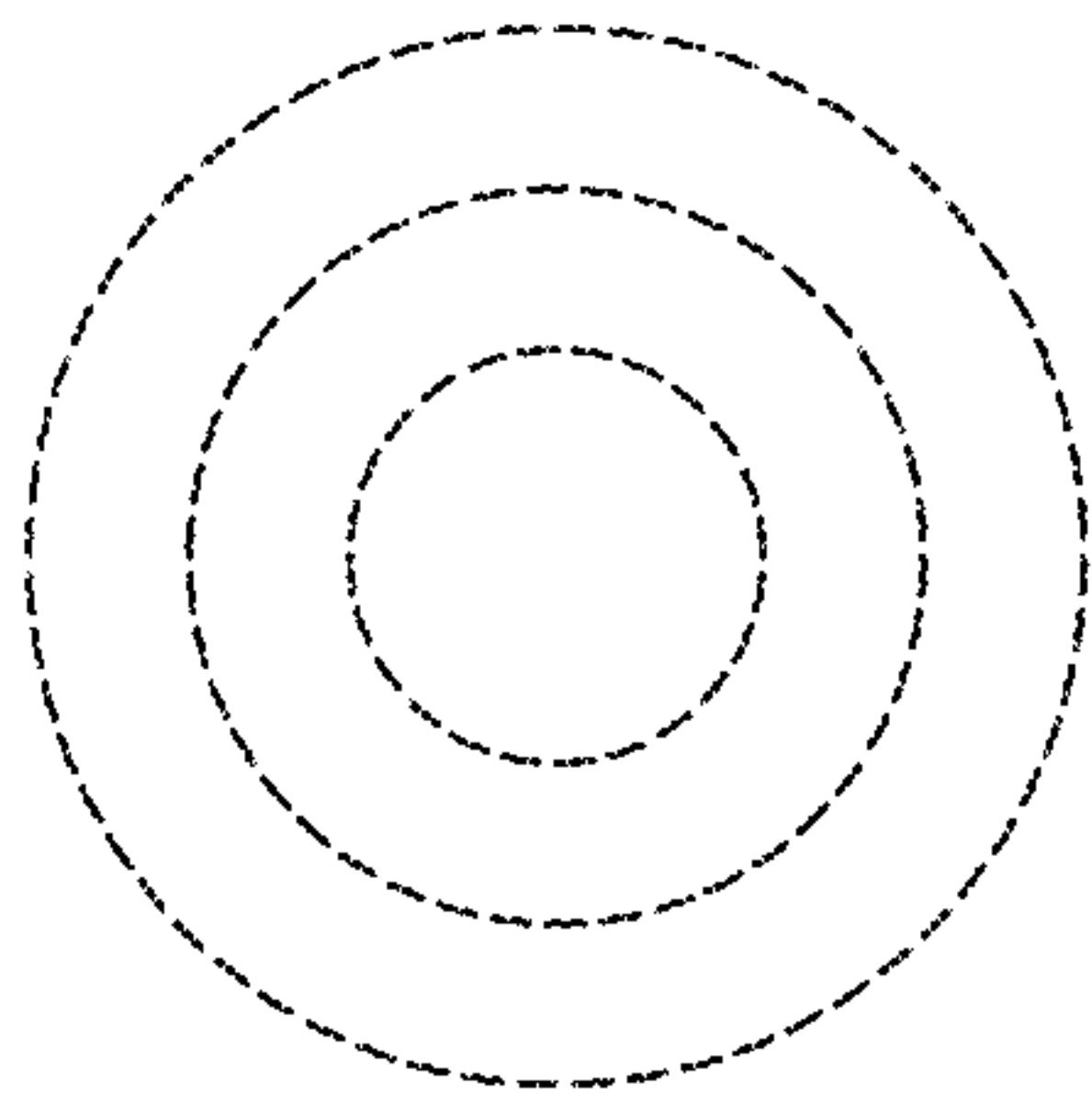


FIG. 17

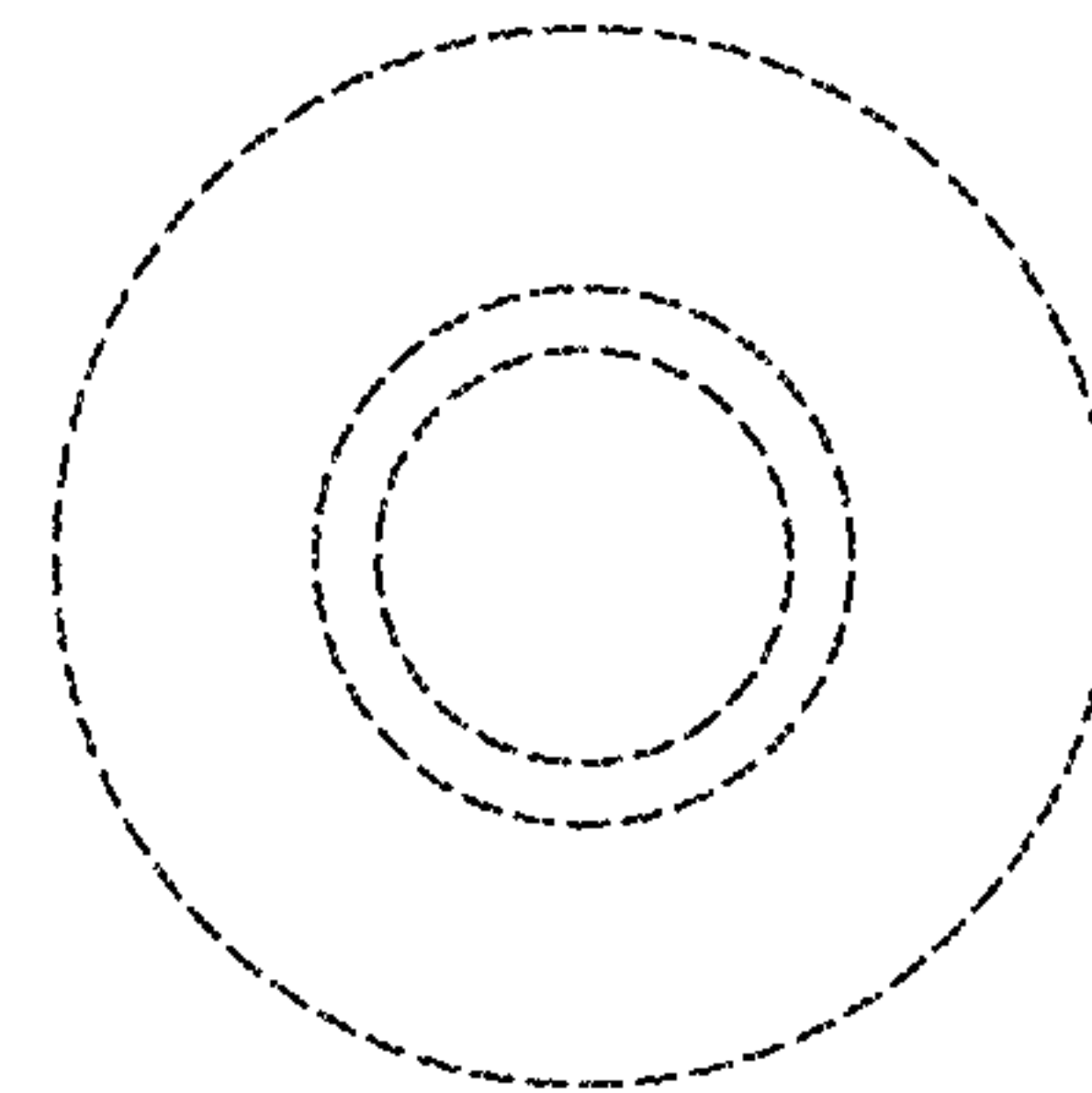


FIG. 18

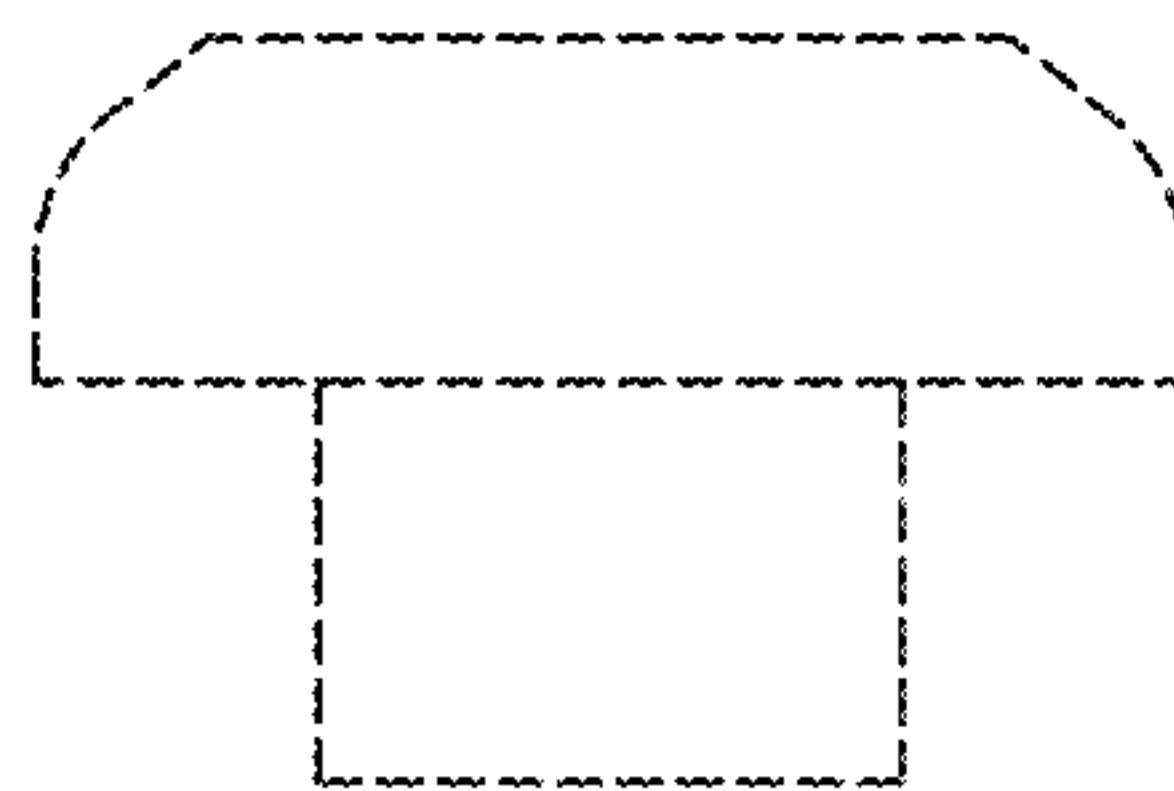


FIG. 19

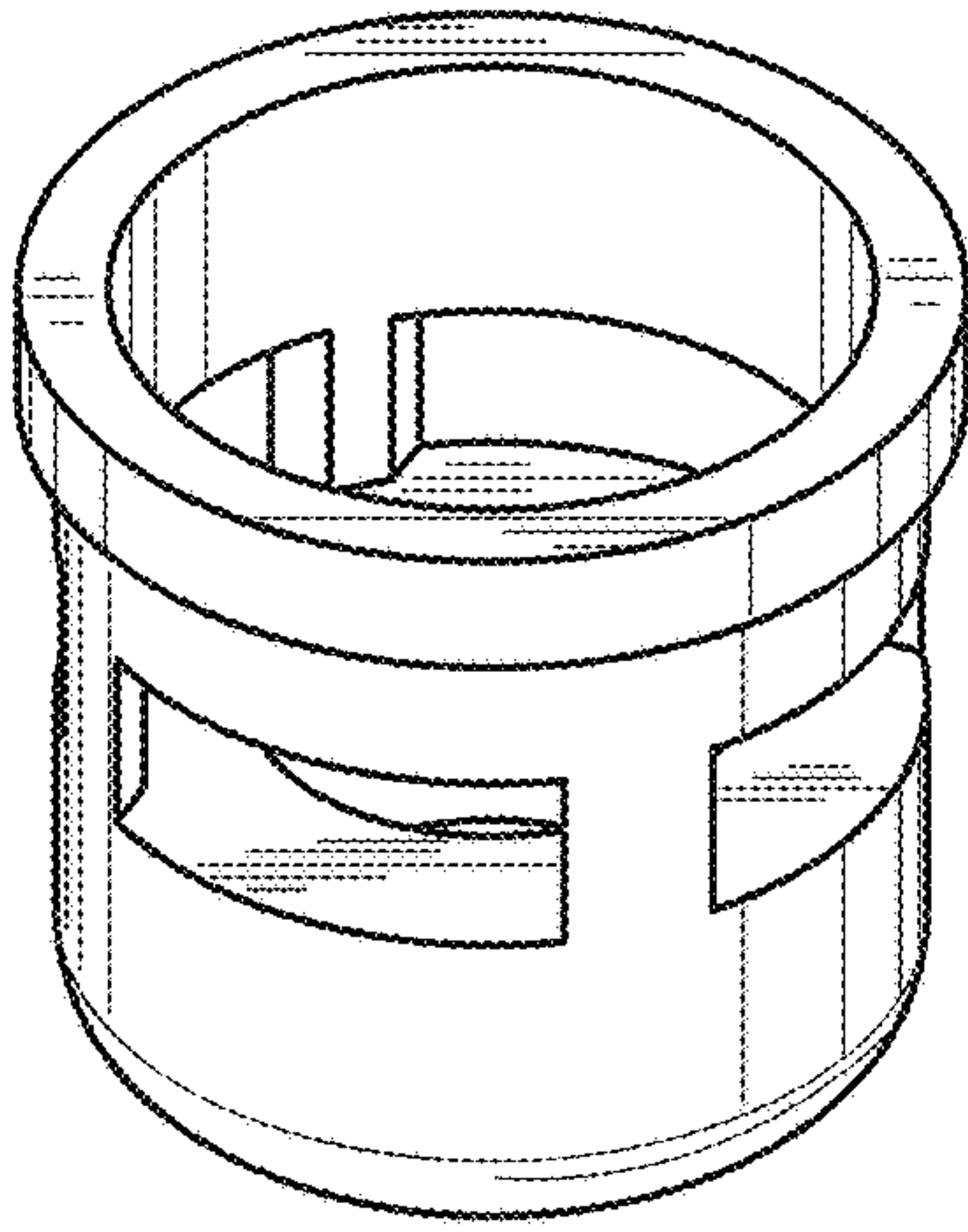


FIG. 20

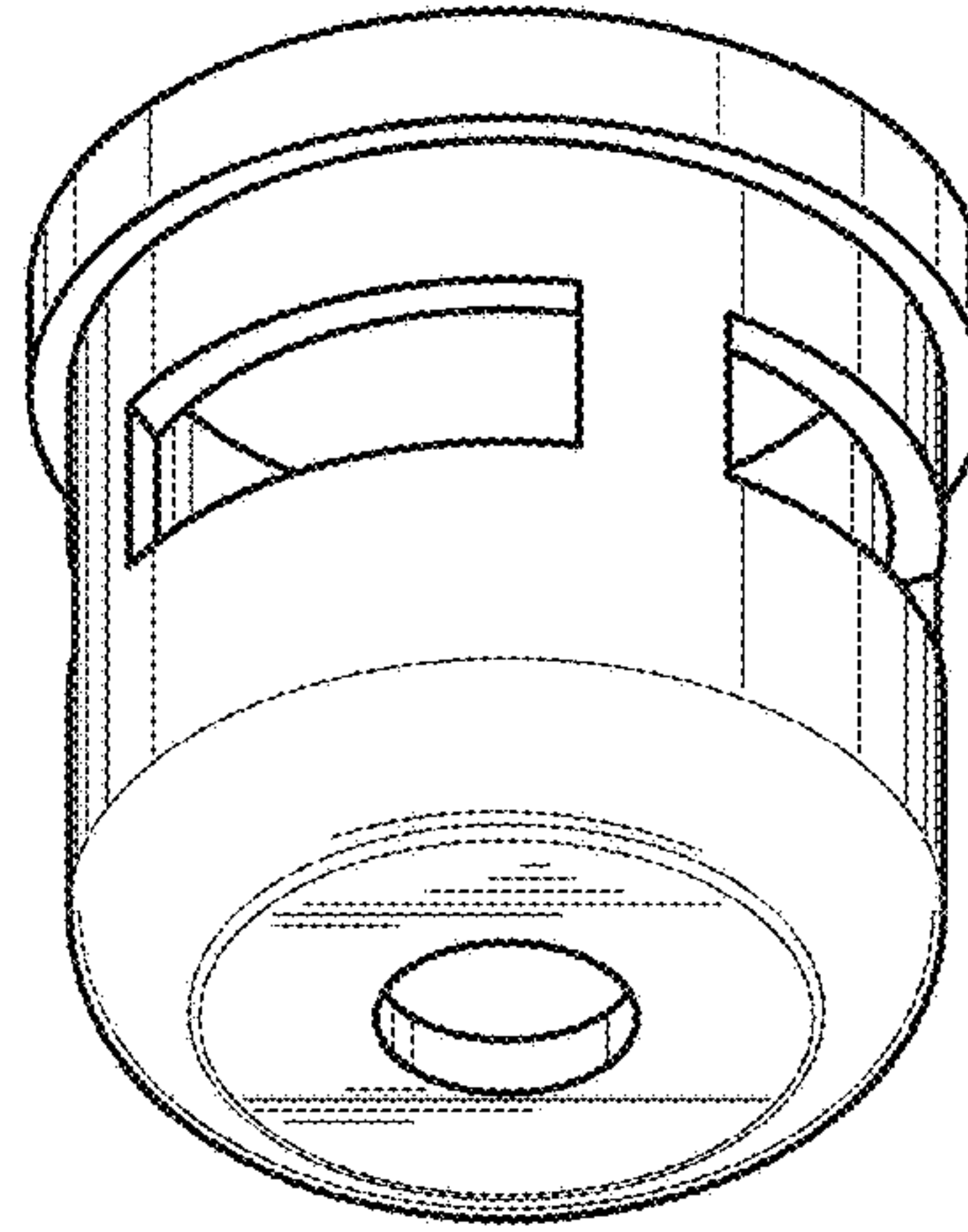


FIG. 21

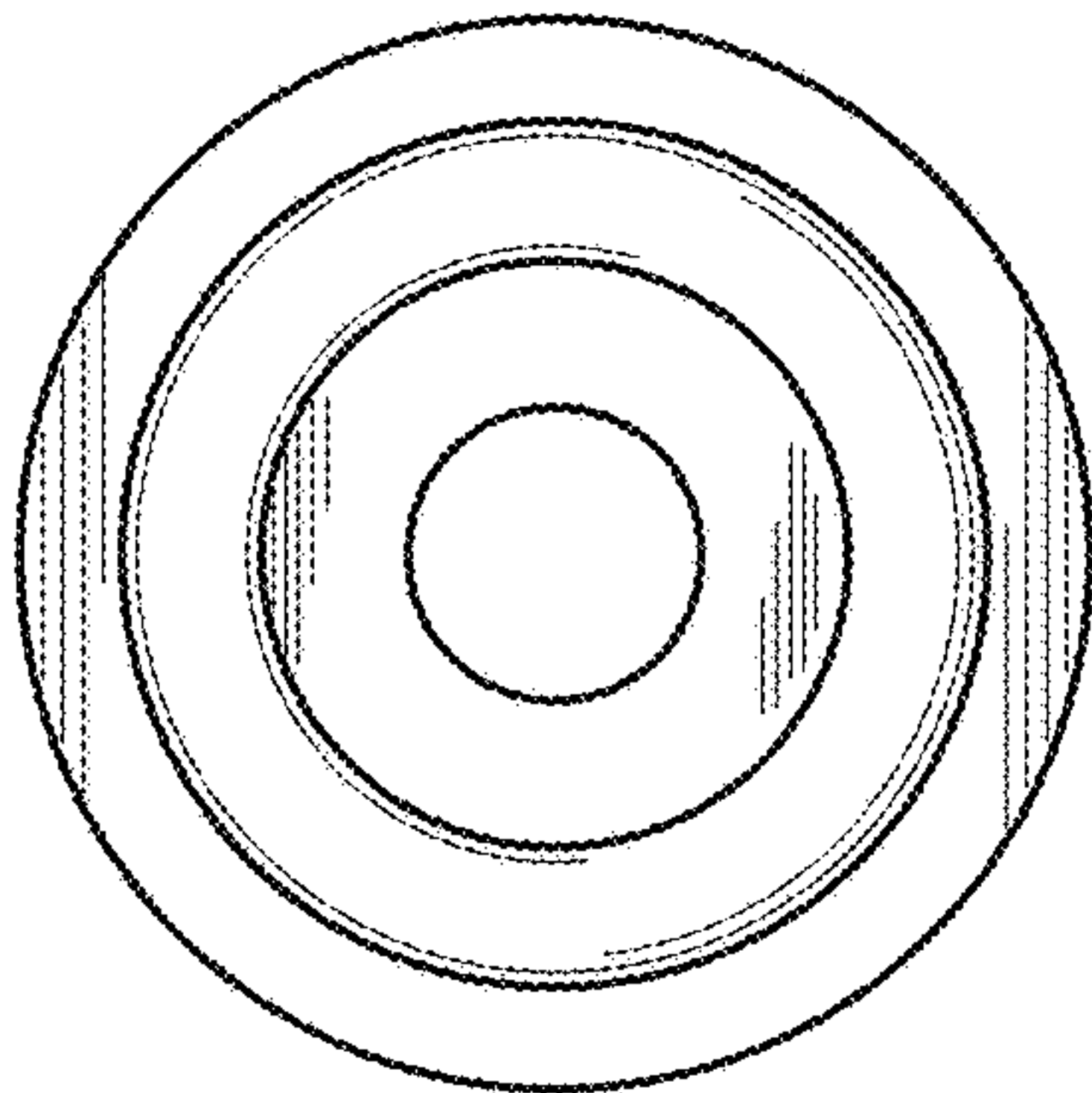


FIG. 22

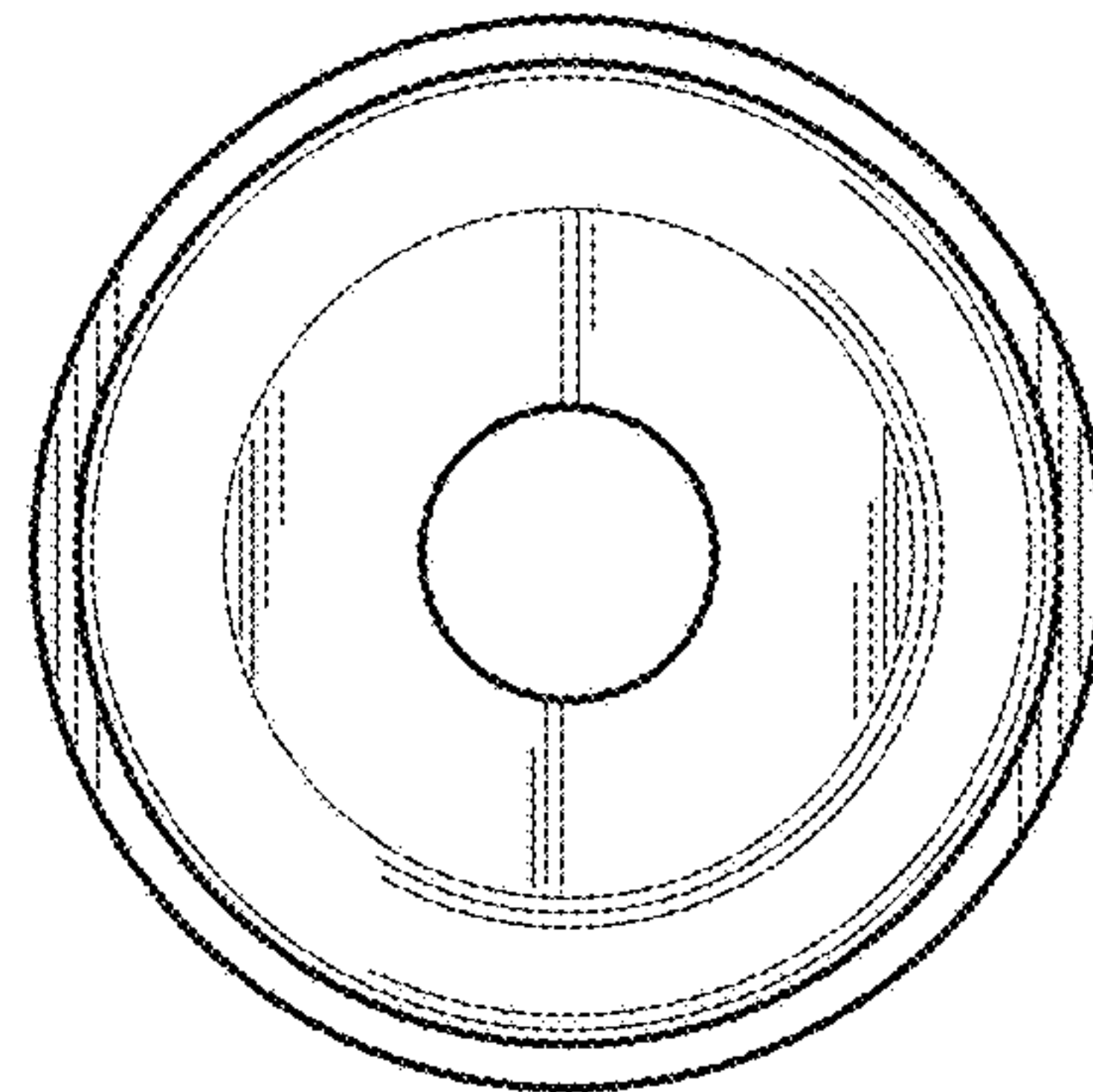


FIG. 23

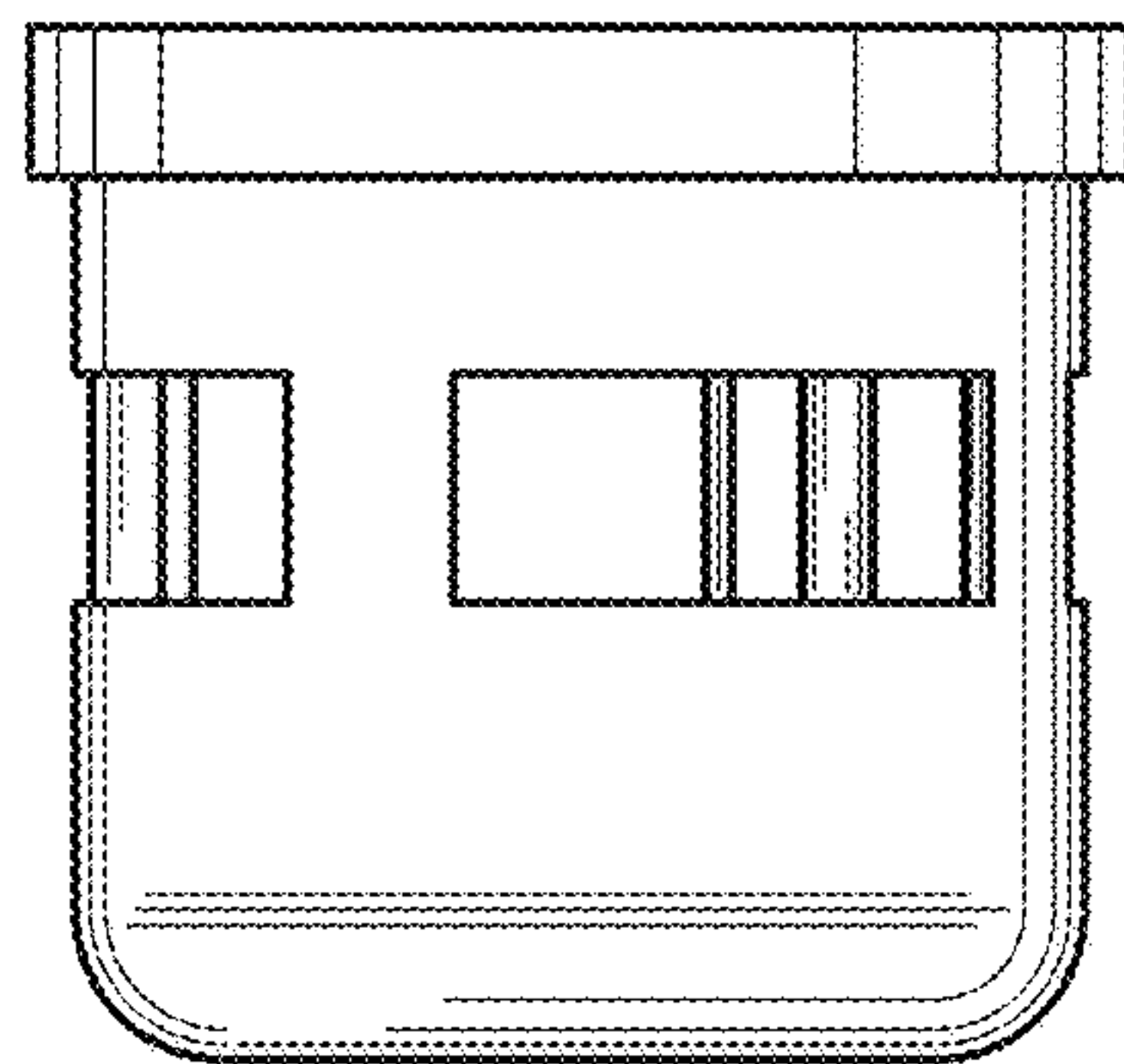


FIG. 24

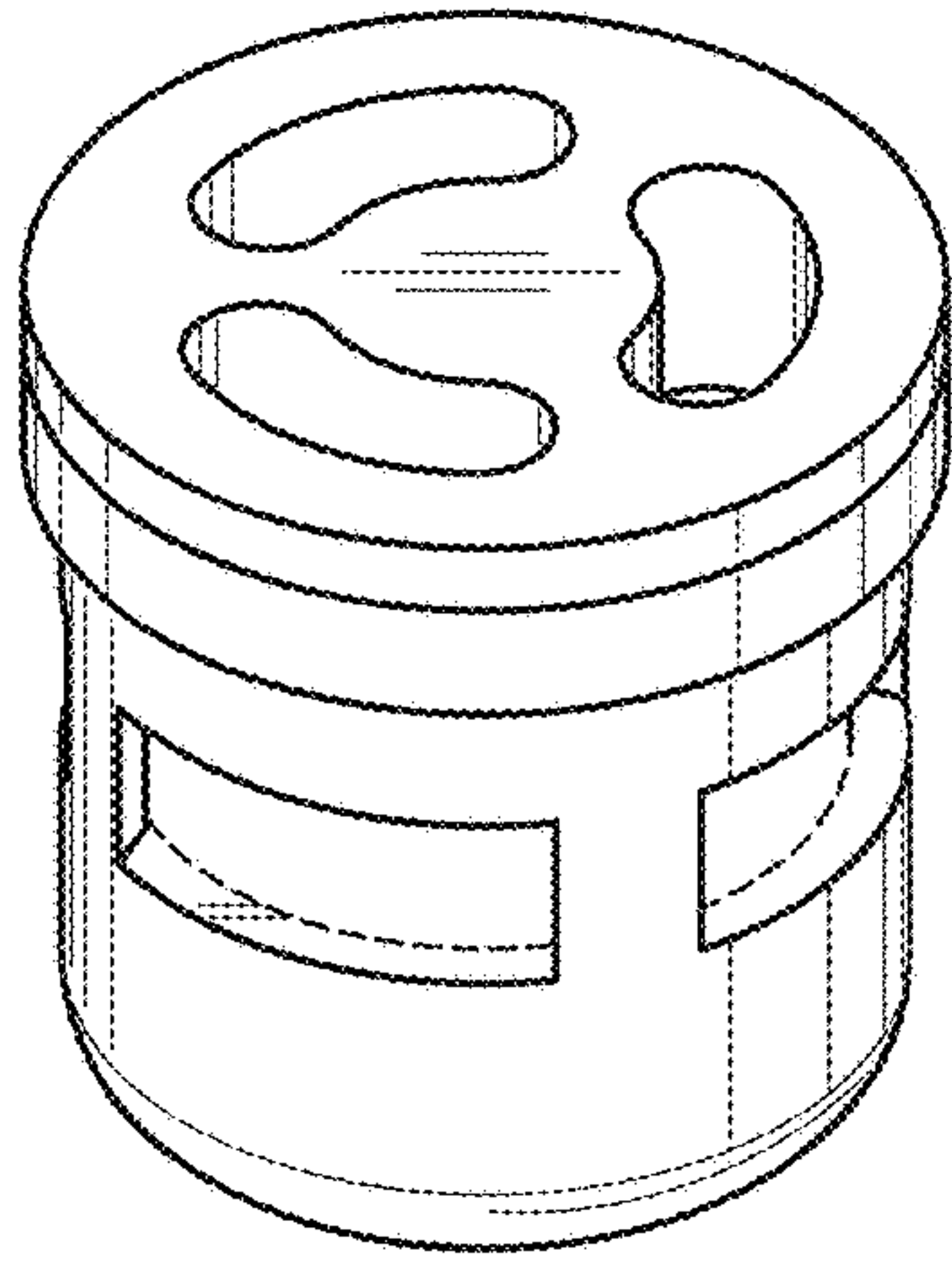


FIG. 25

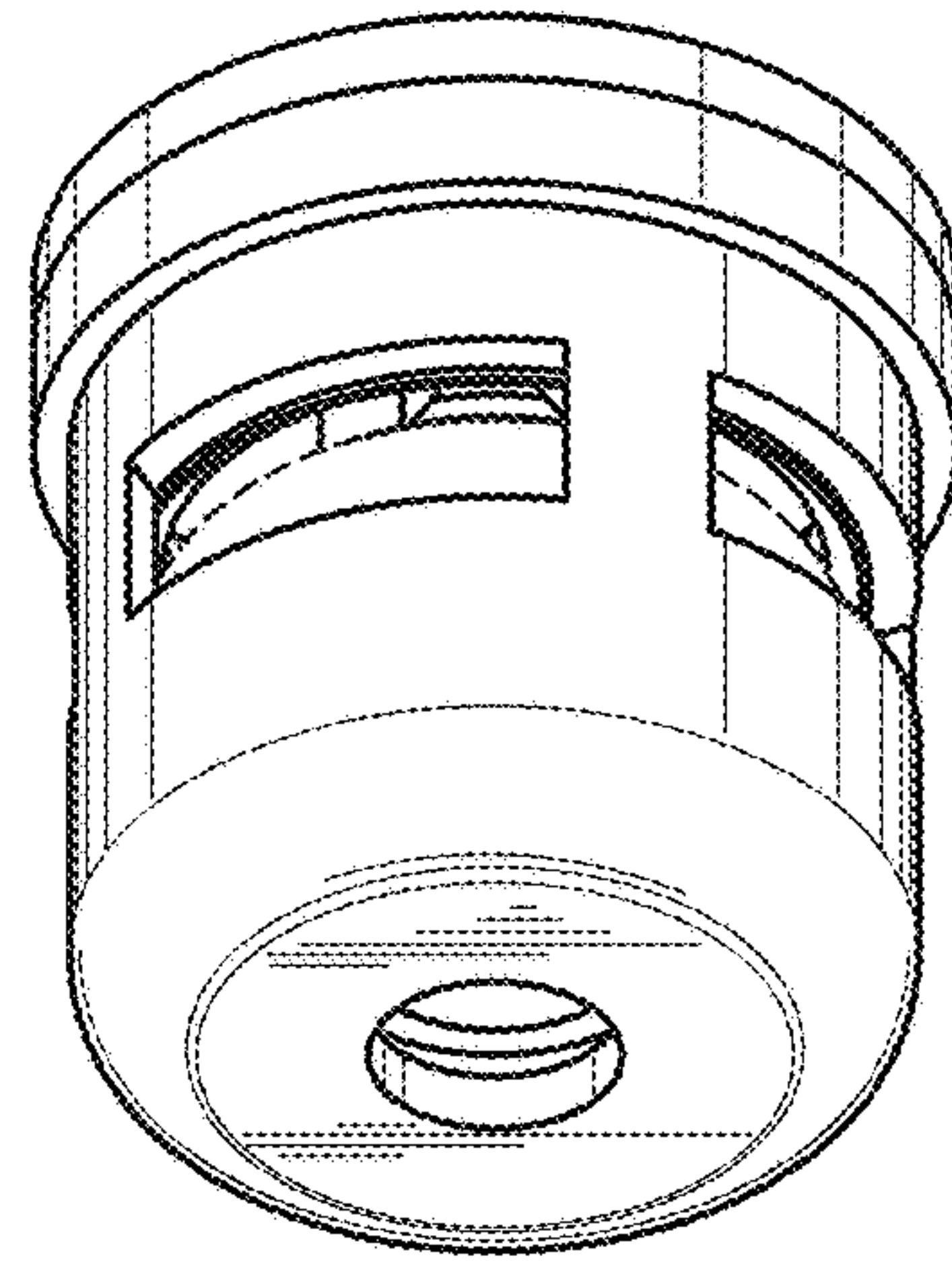


FIG. 26

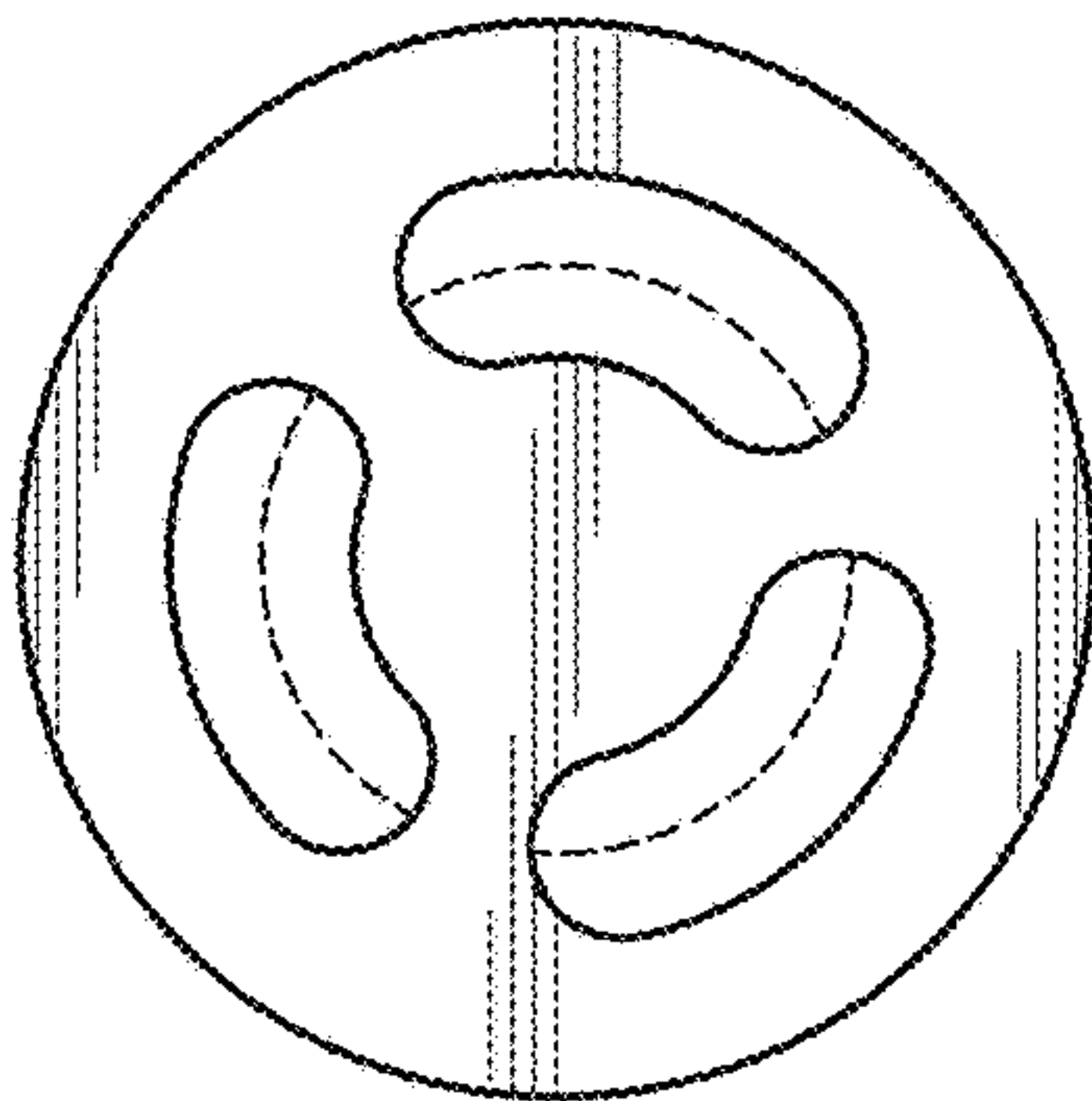


FIG. 27

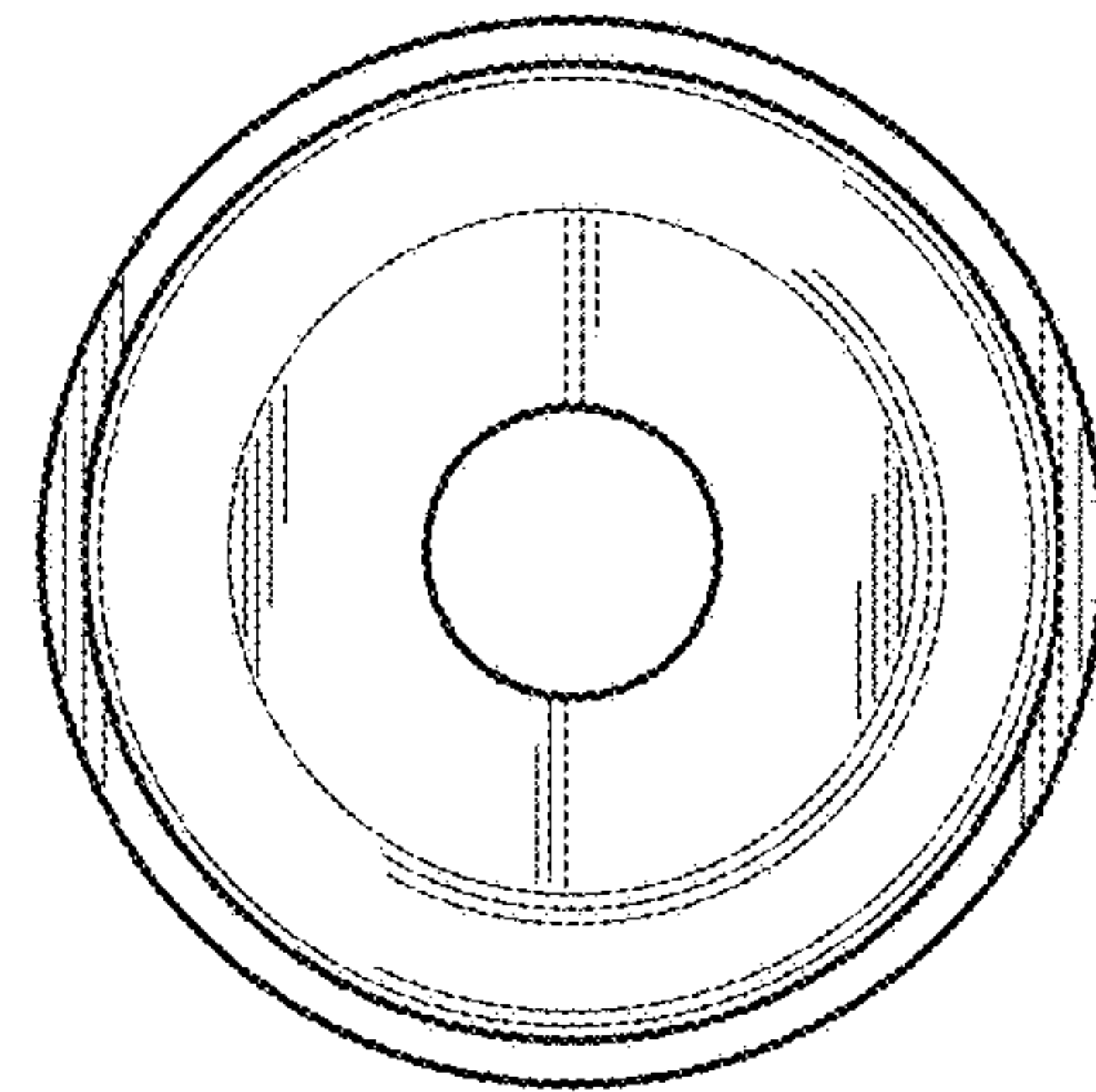


FIG. 28

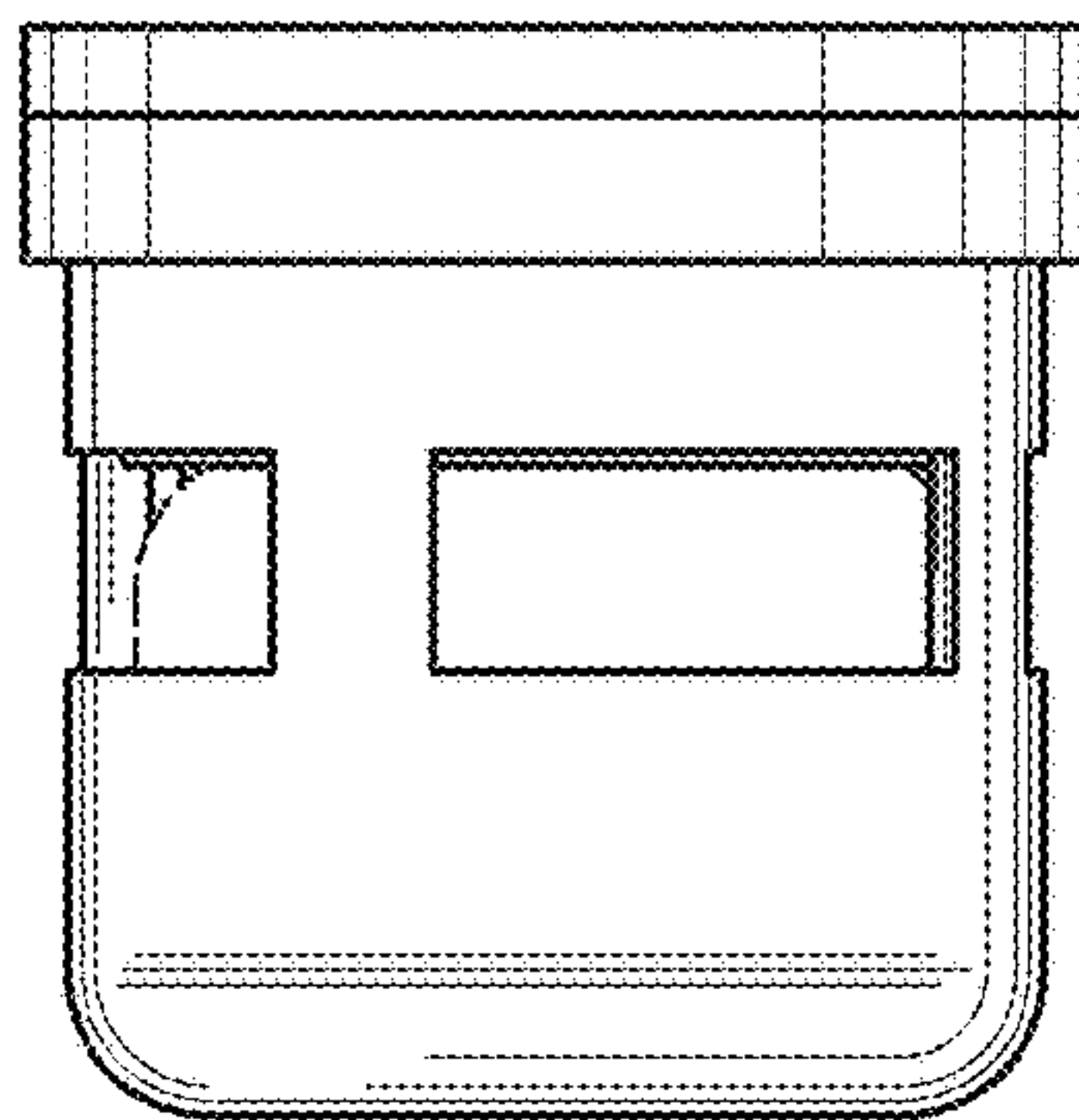


FIG. 29

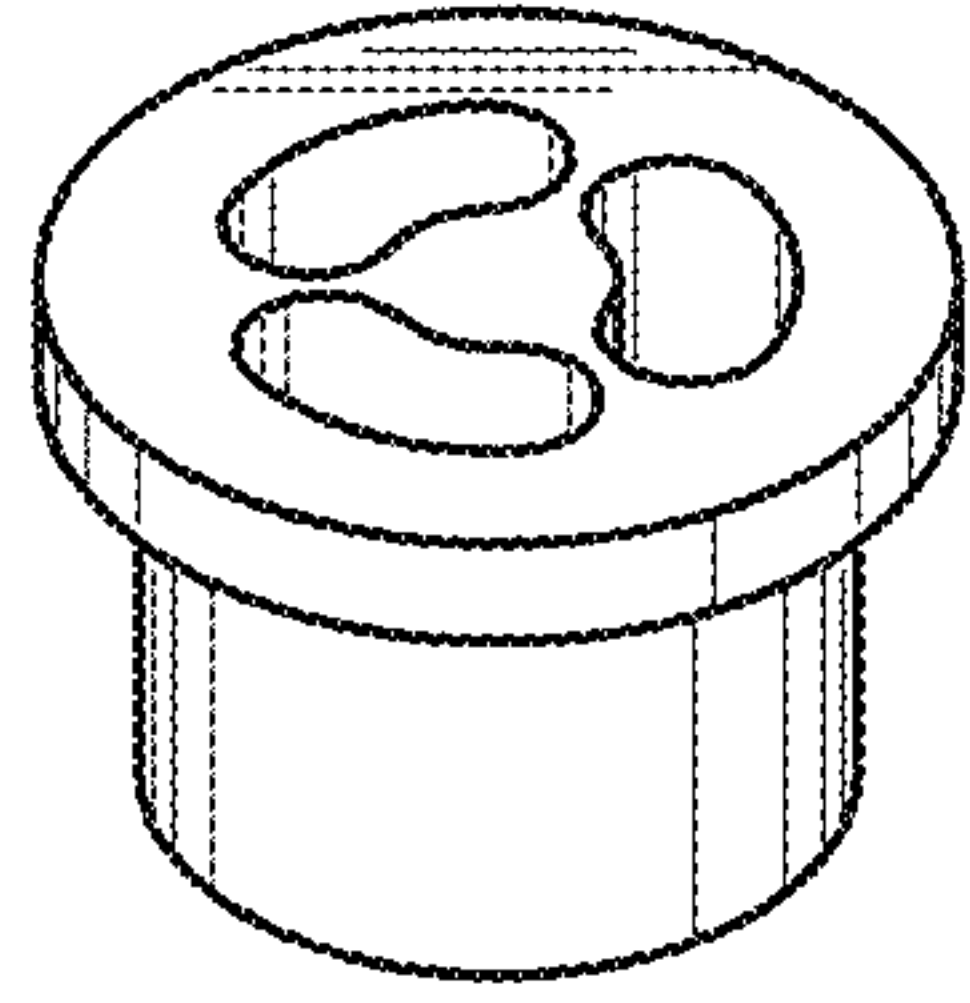


FIG. 30

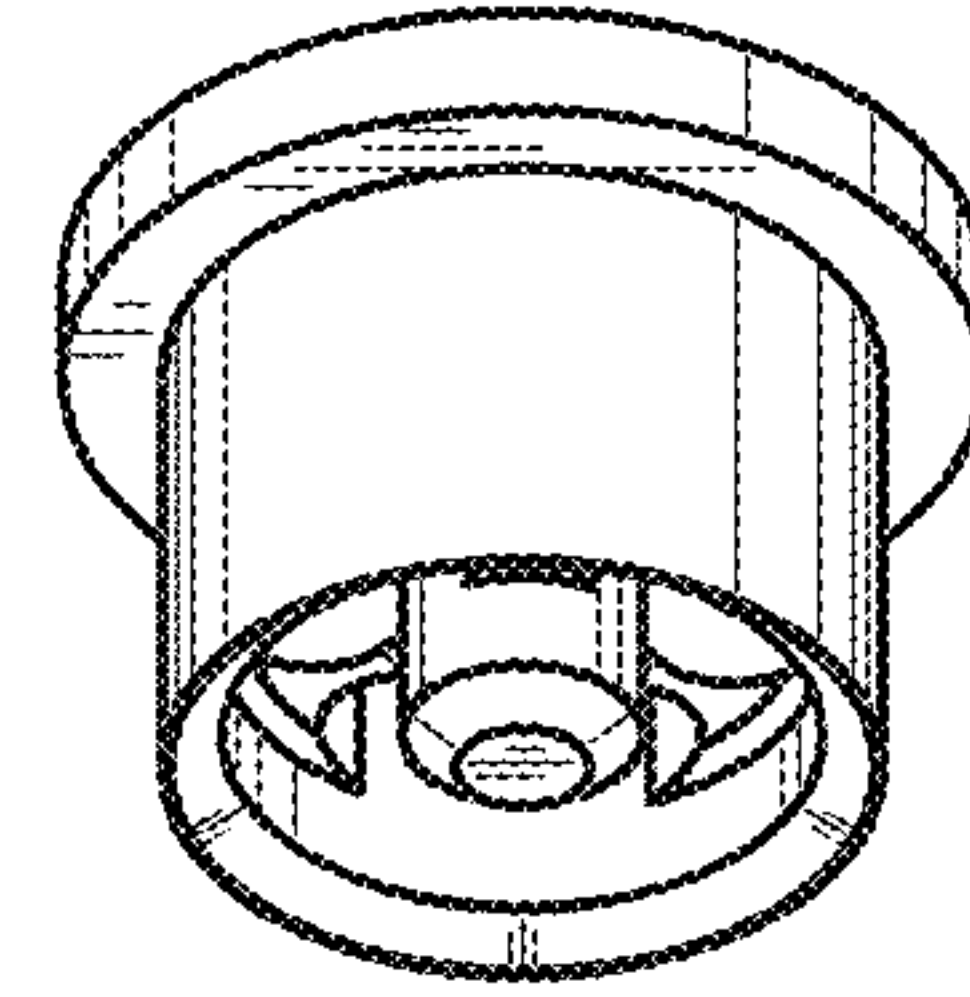


FIG. 31

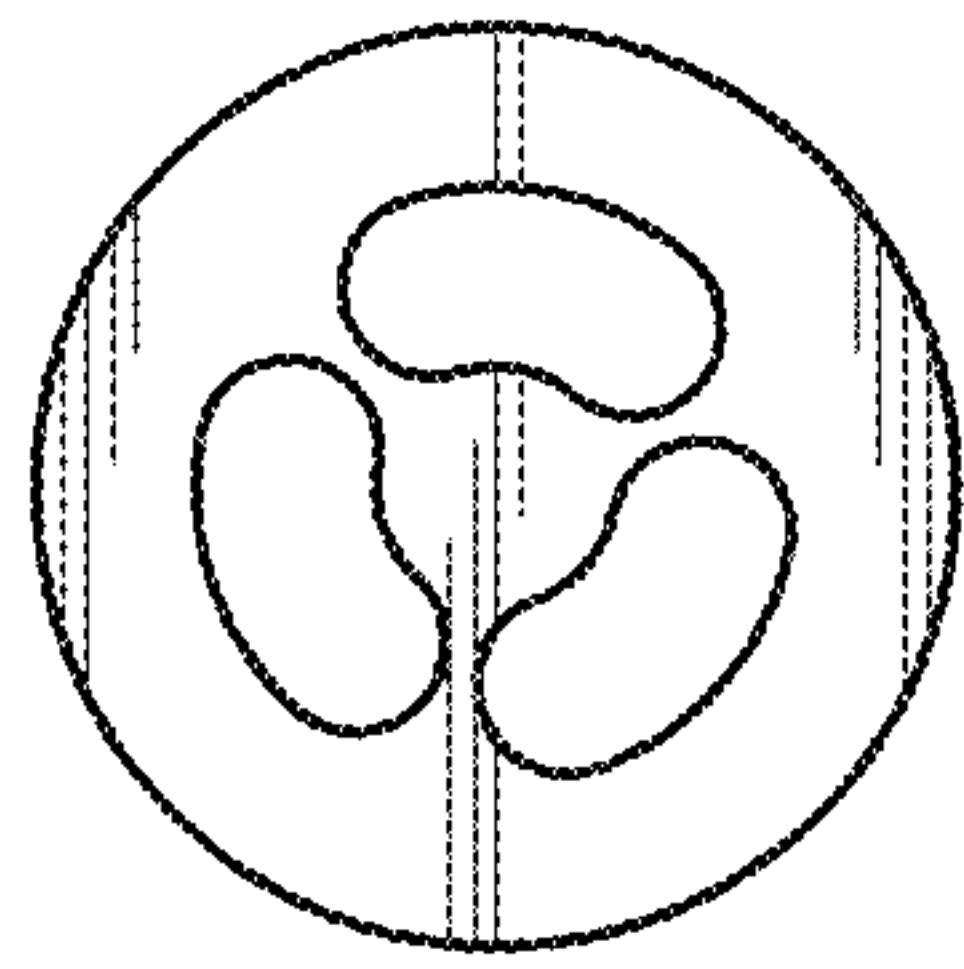


FIG. 32

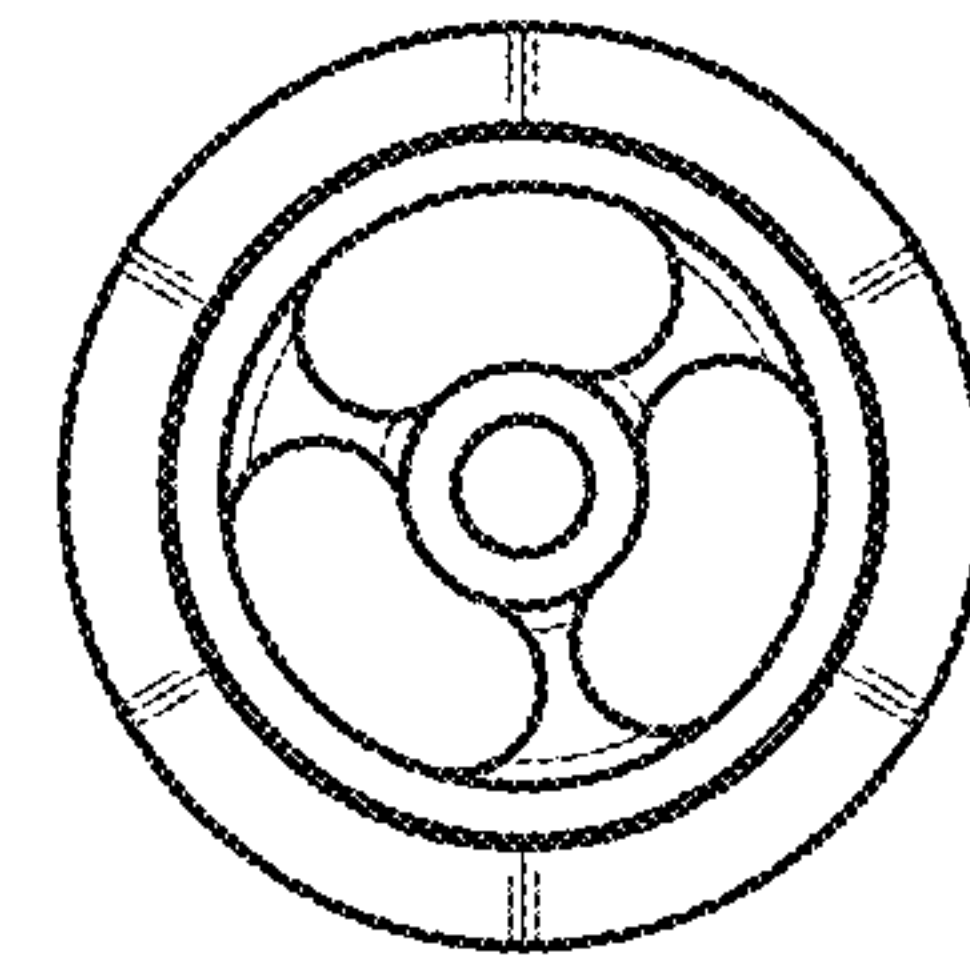


FIG. 33

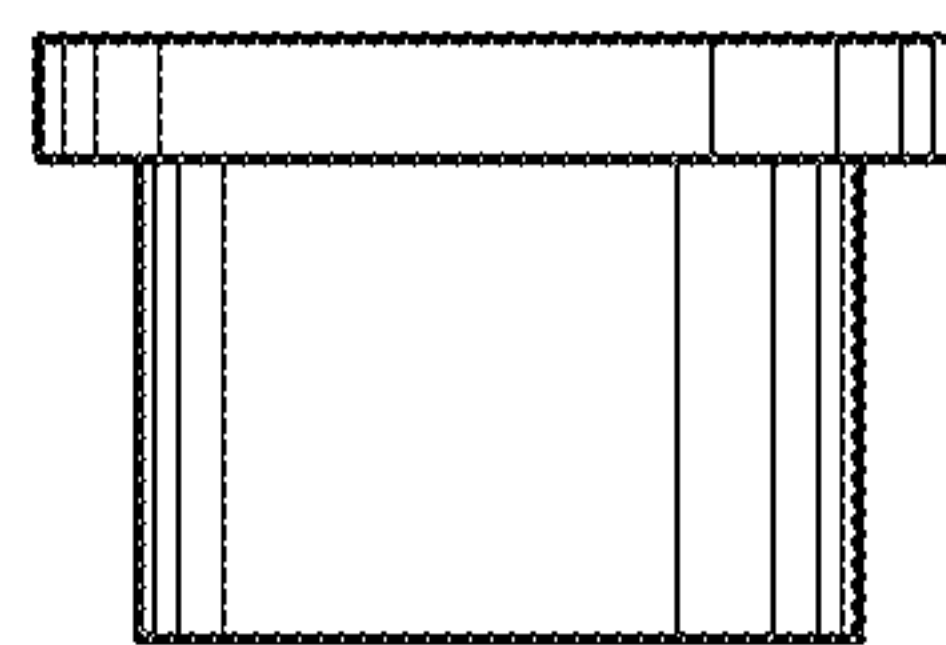


FIG. 34

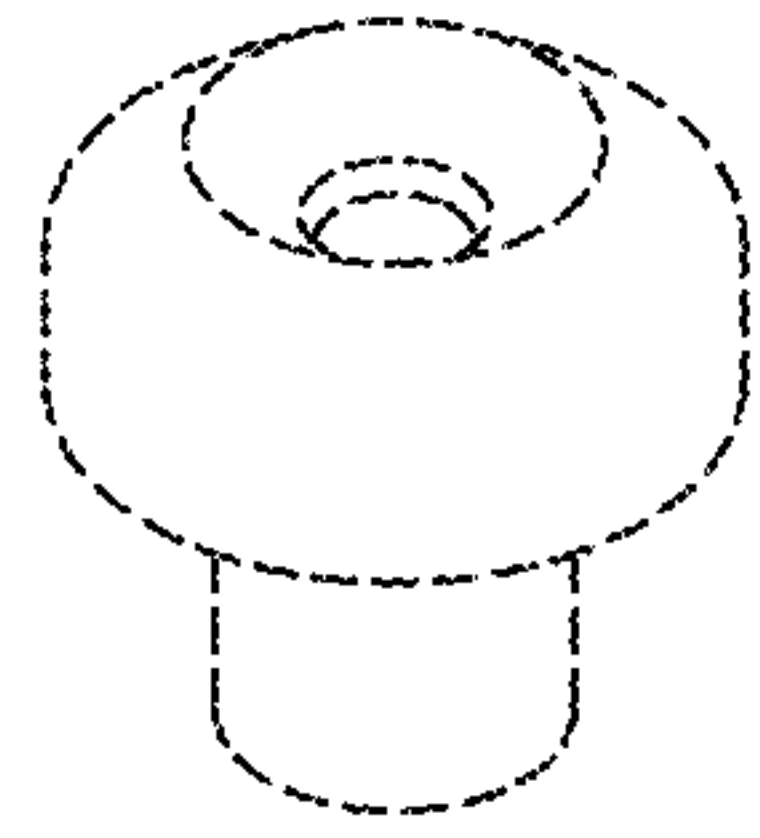


FIG. 35

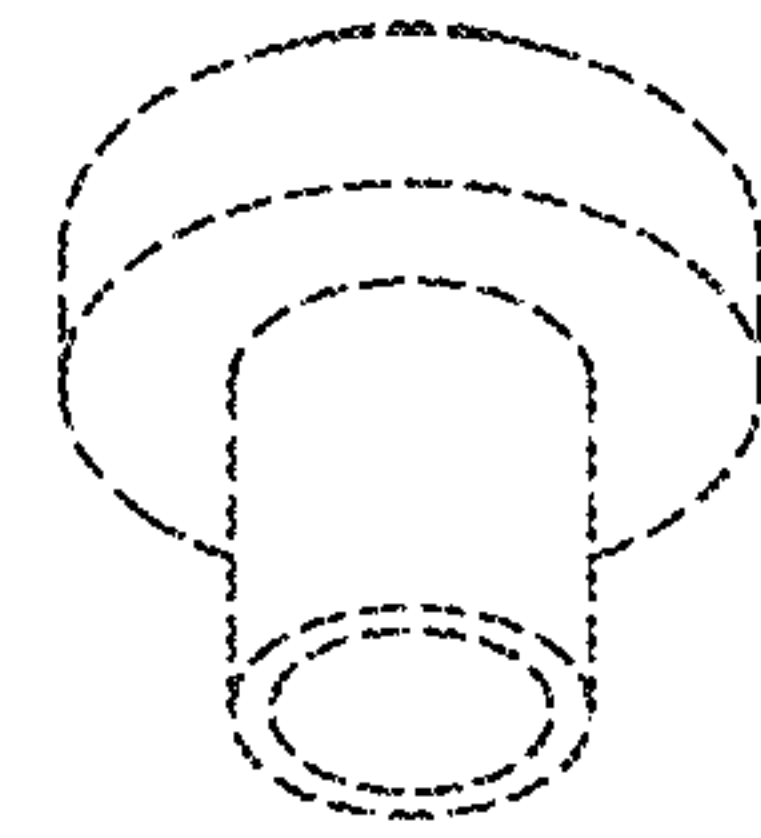


FIG. 36

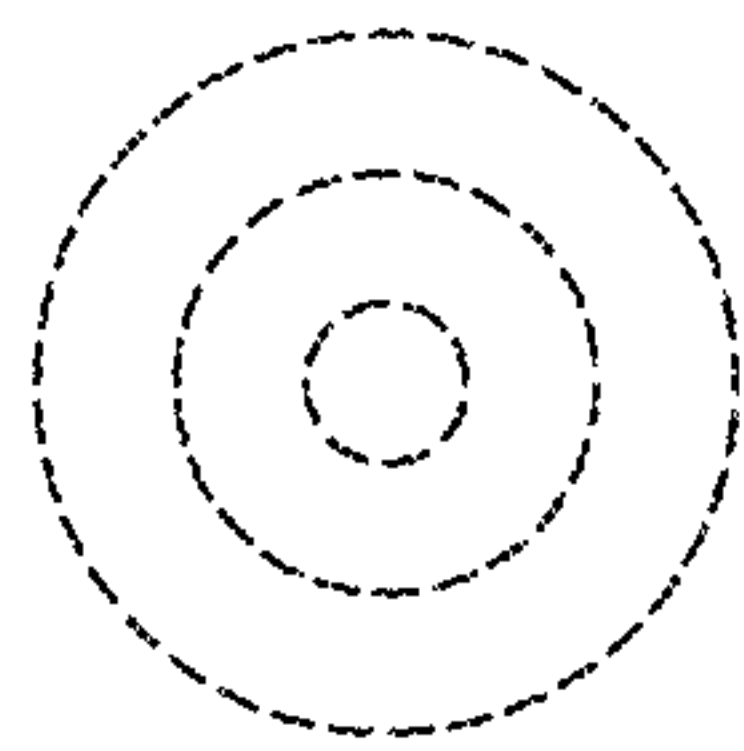


FIG. 37

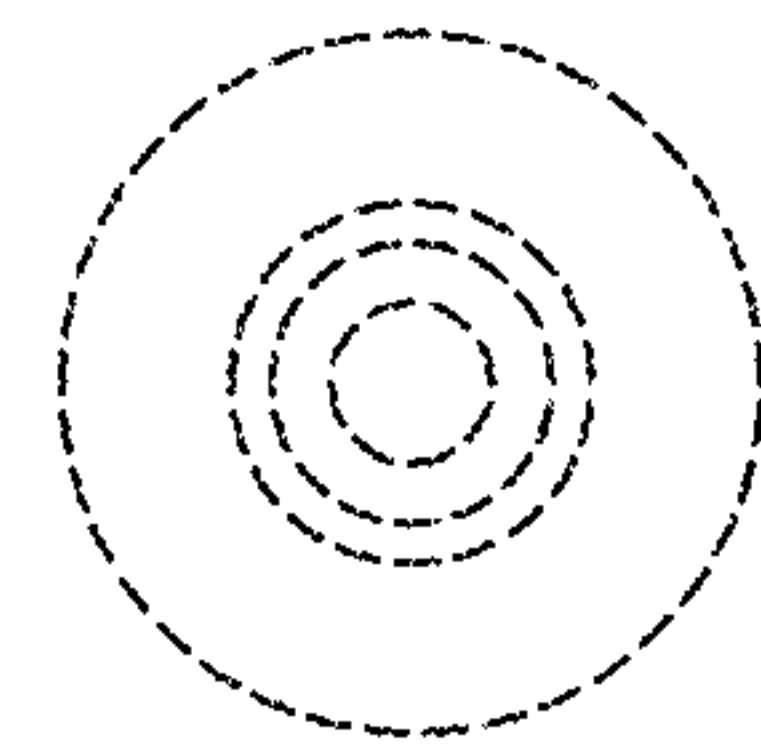


FIG. 38

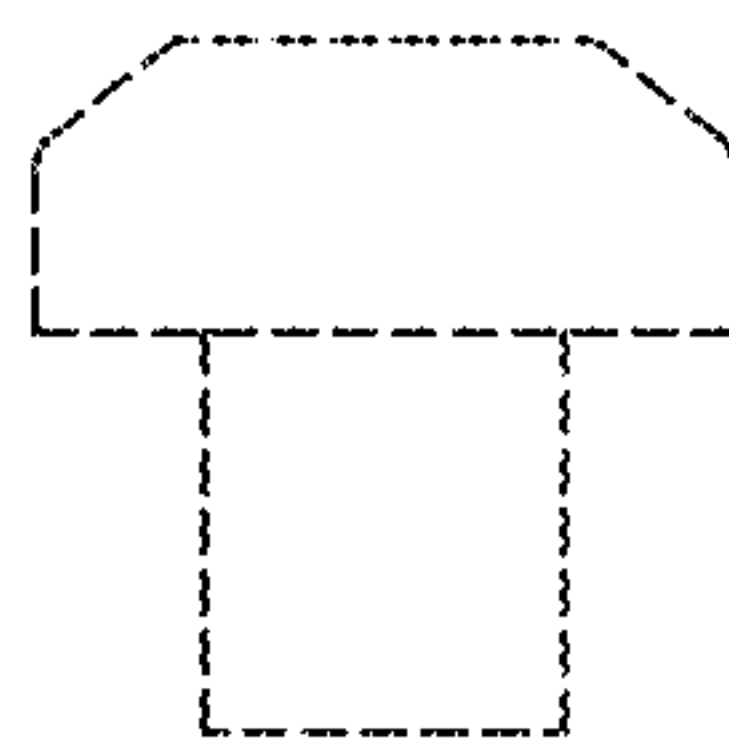


FIG. 39

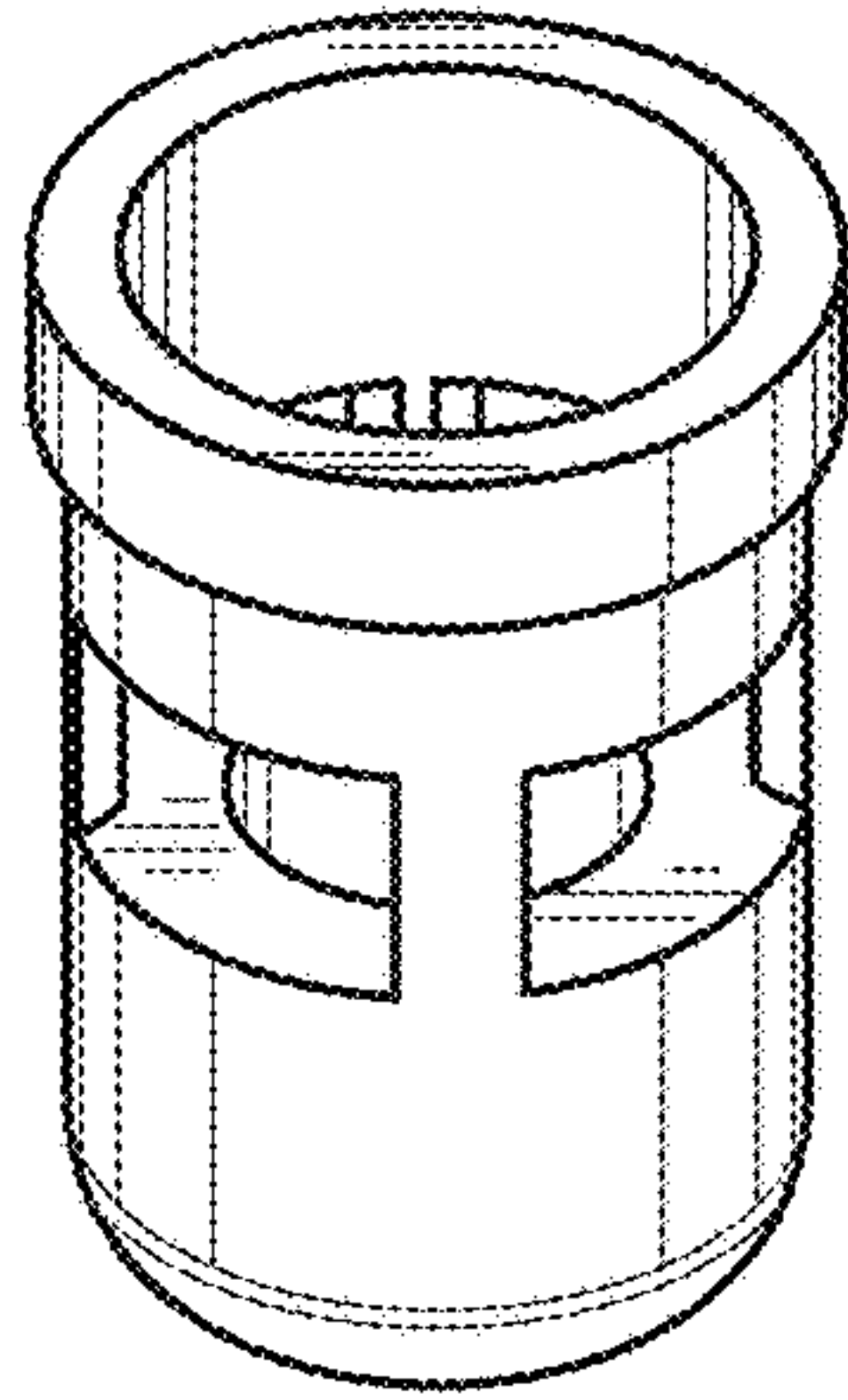


FIG. 40

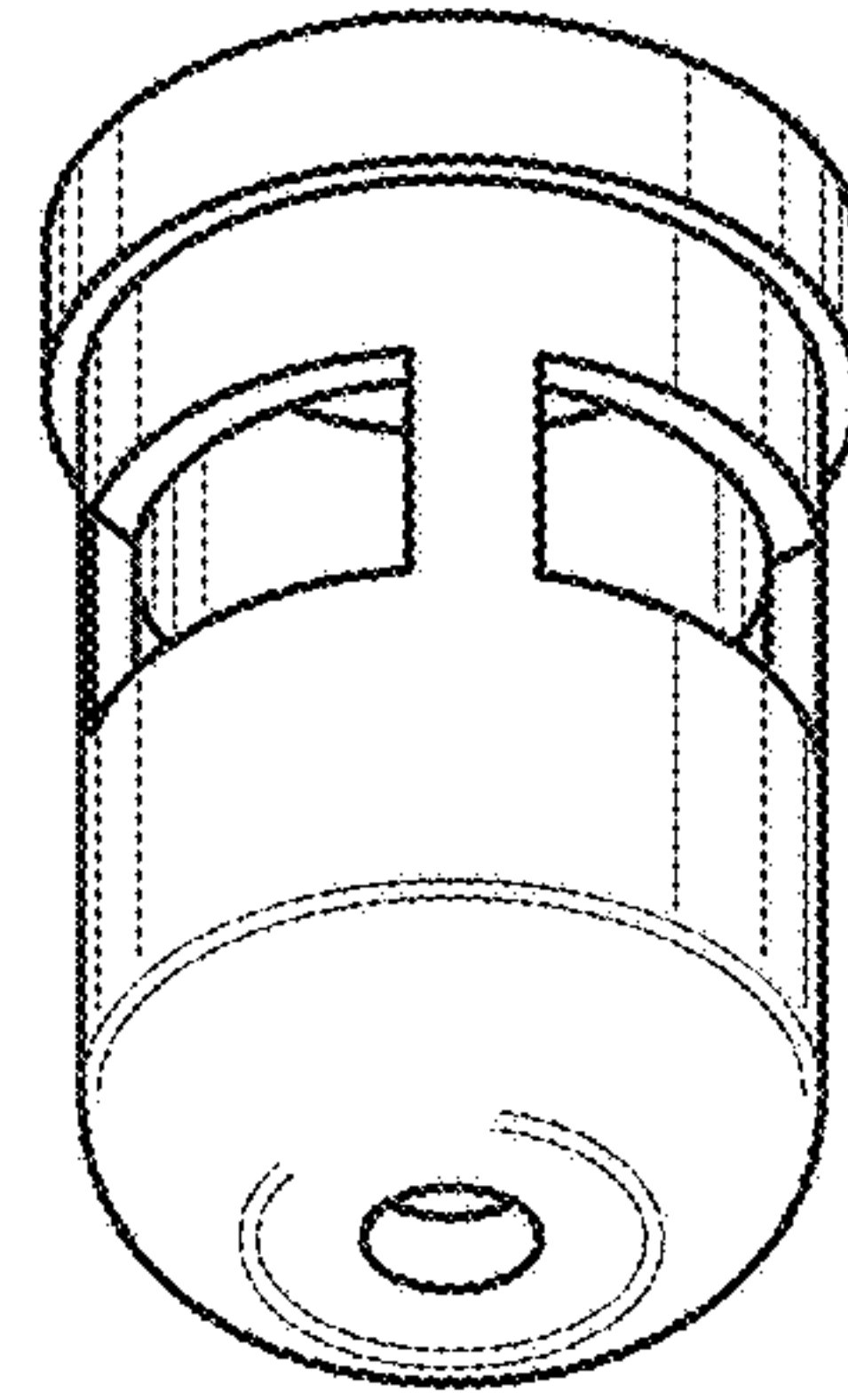


FIG. 41

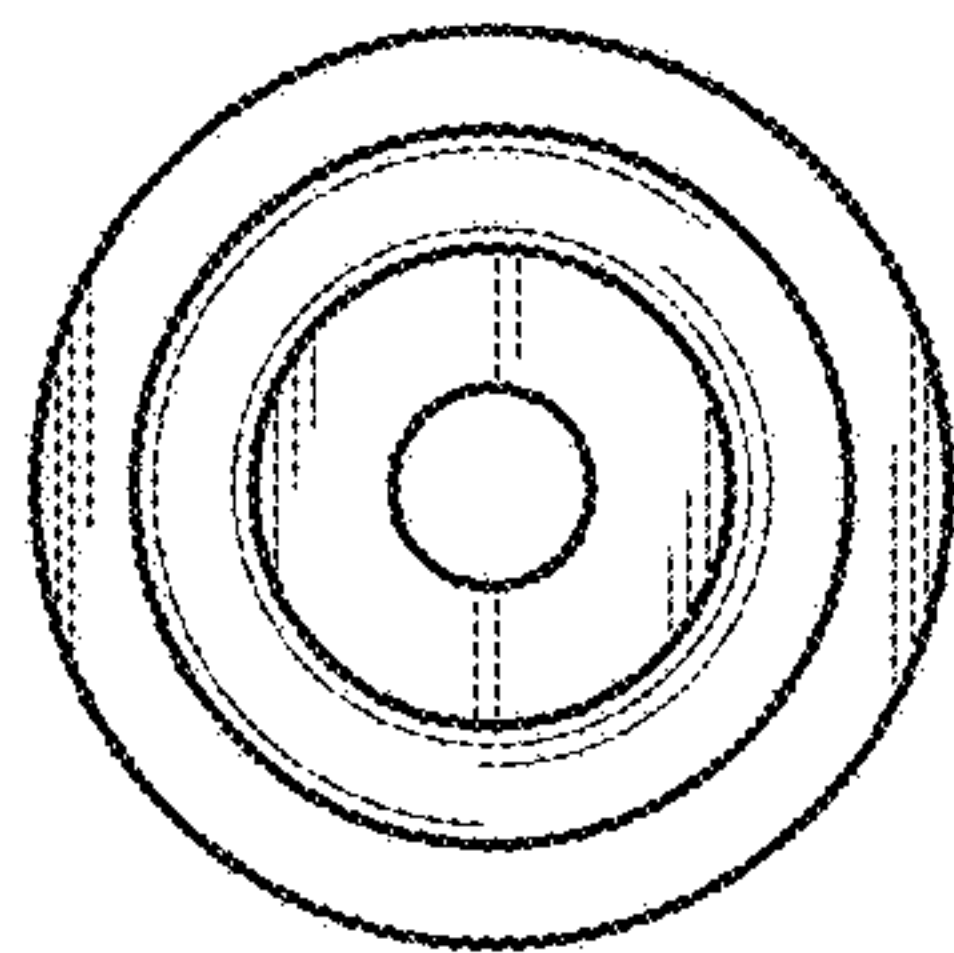


FIG. 42

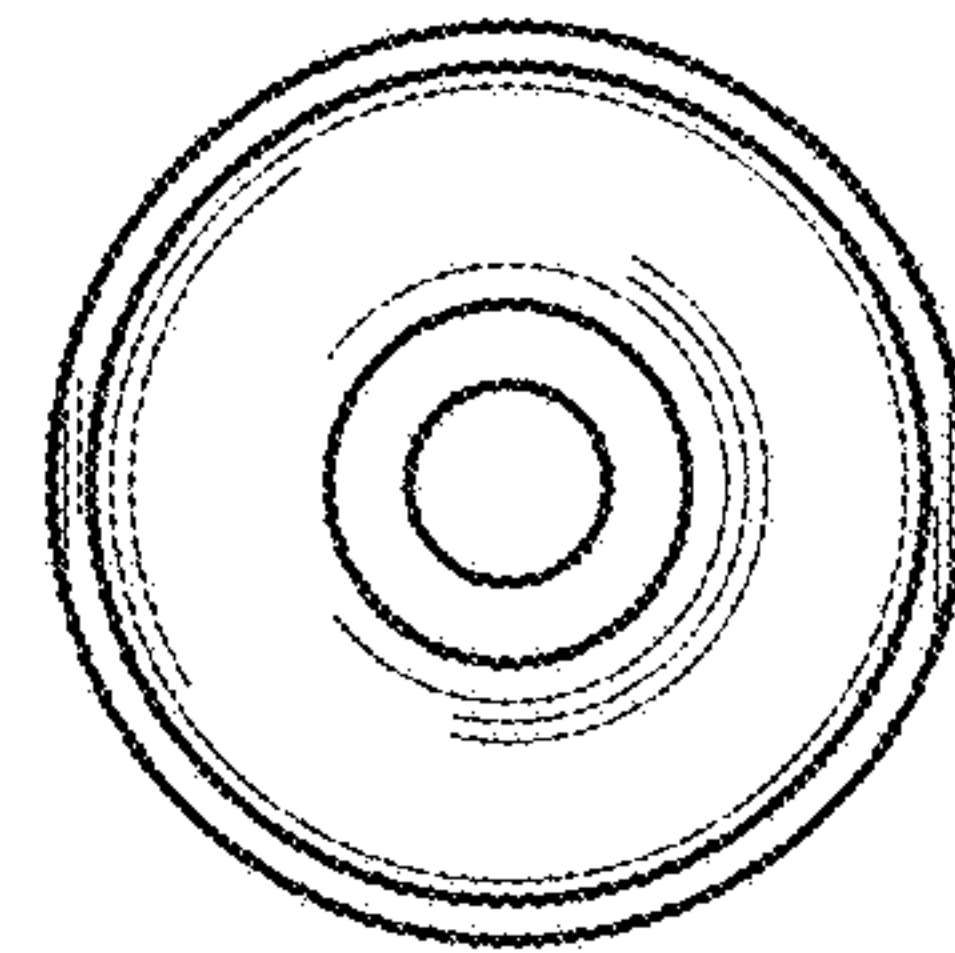


FIG. 43

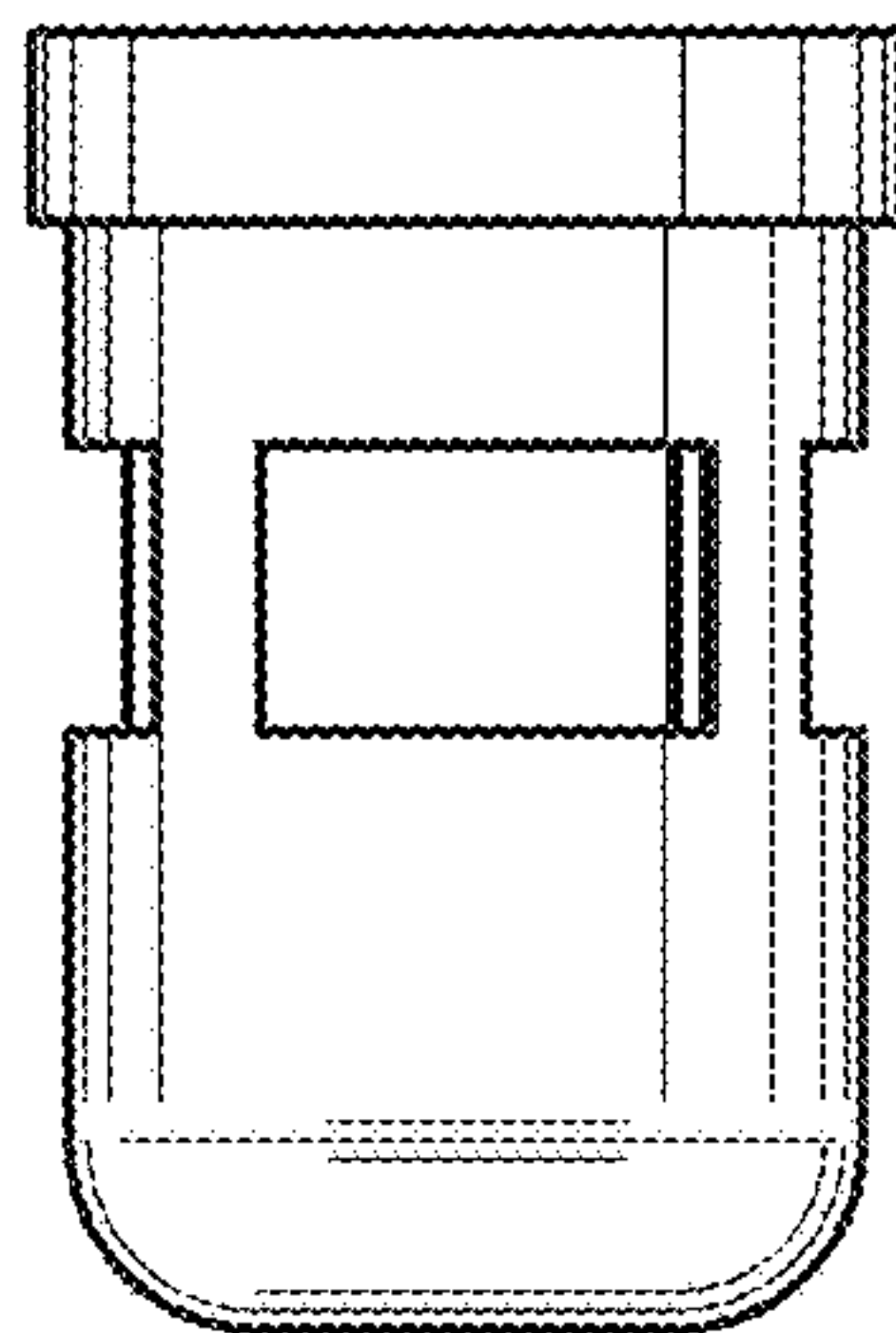


FIG. 44

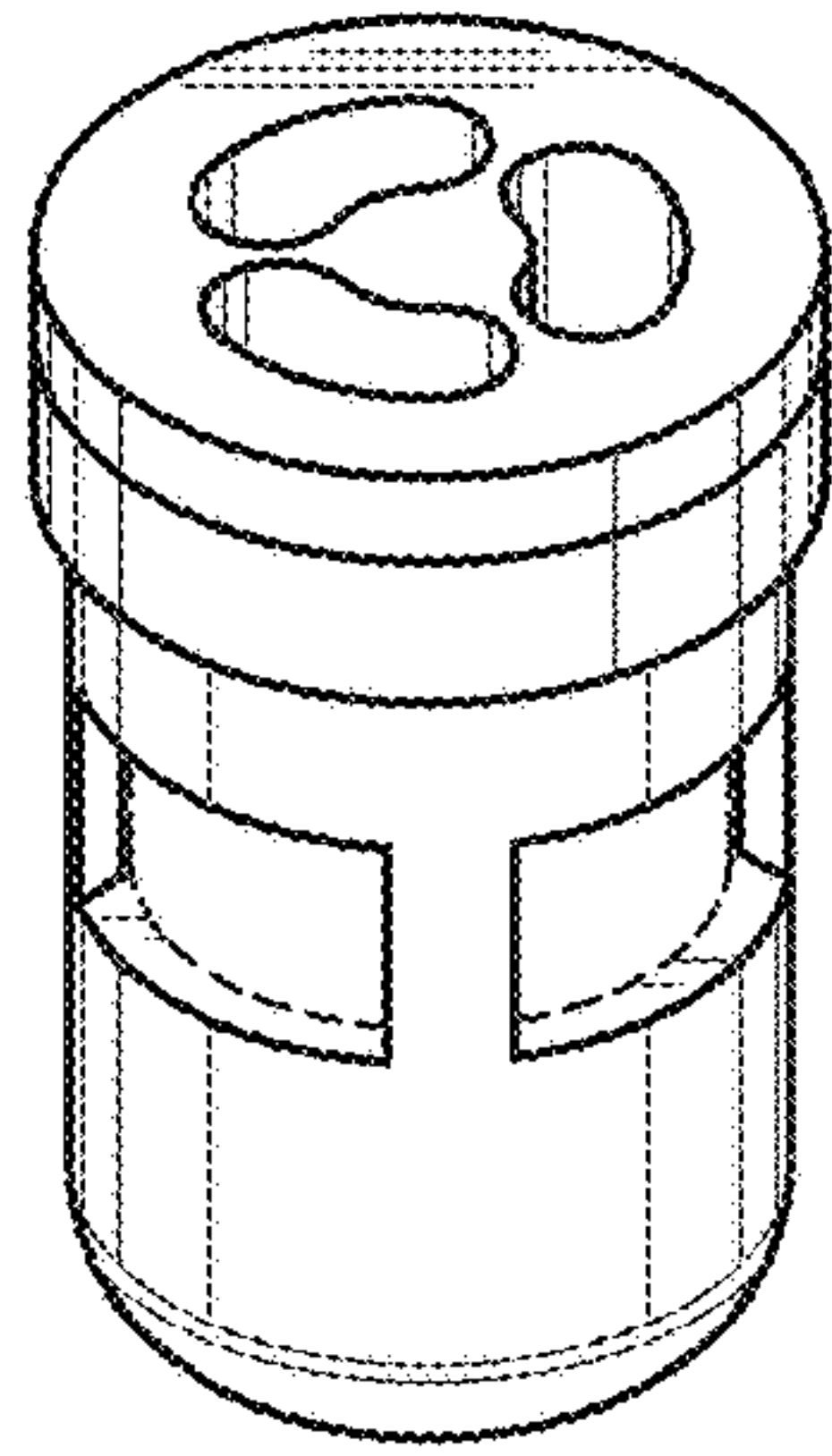


FIG. 45

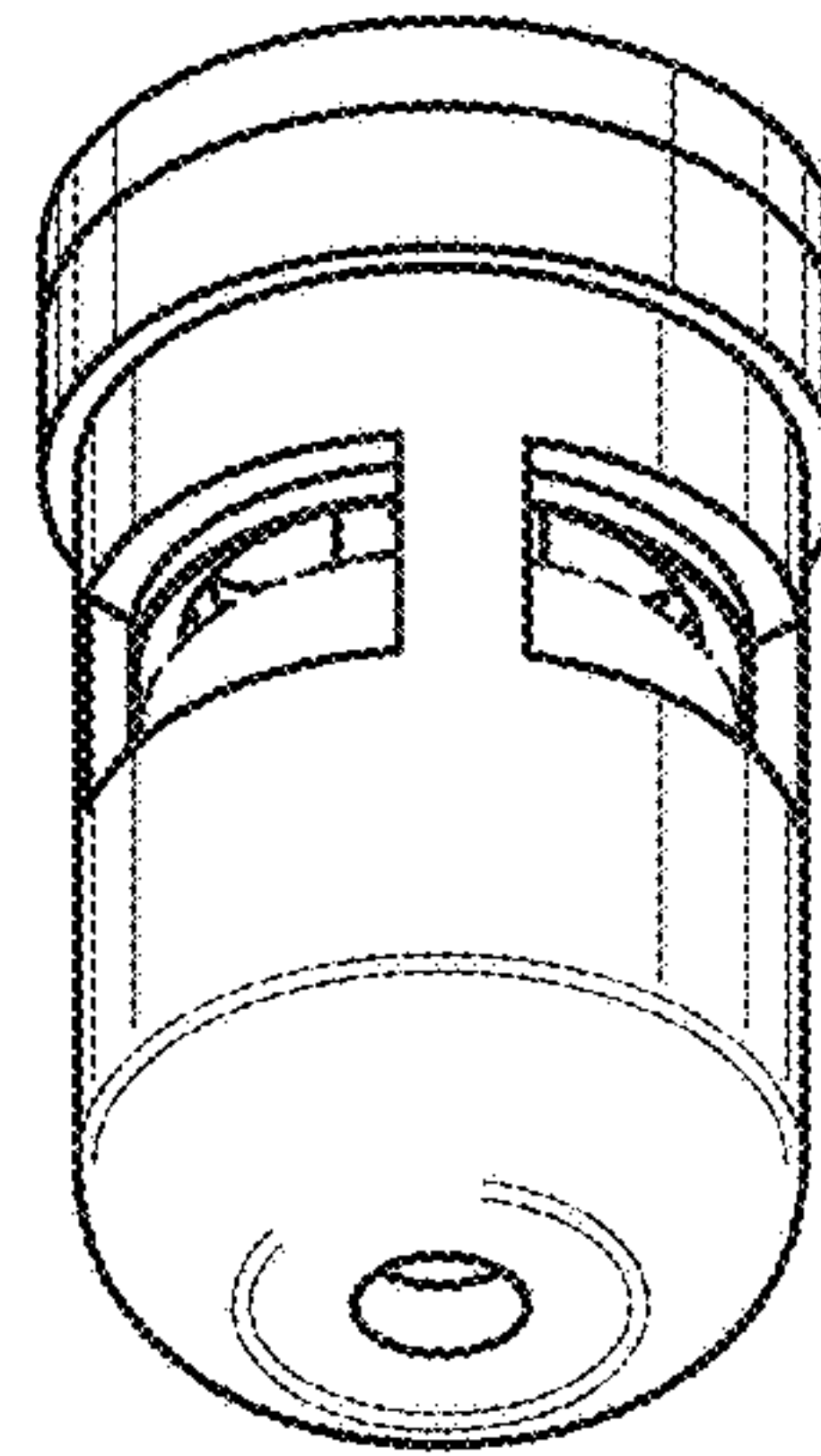


FIG. 46

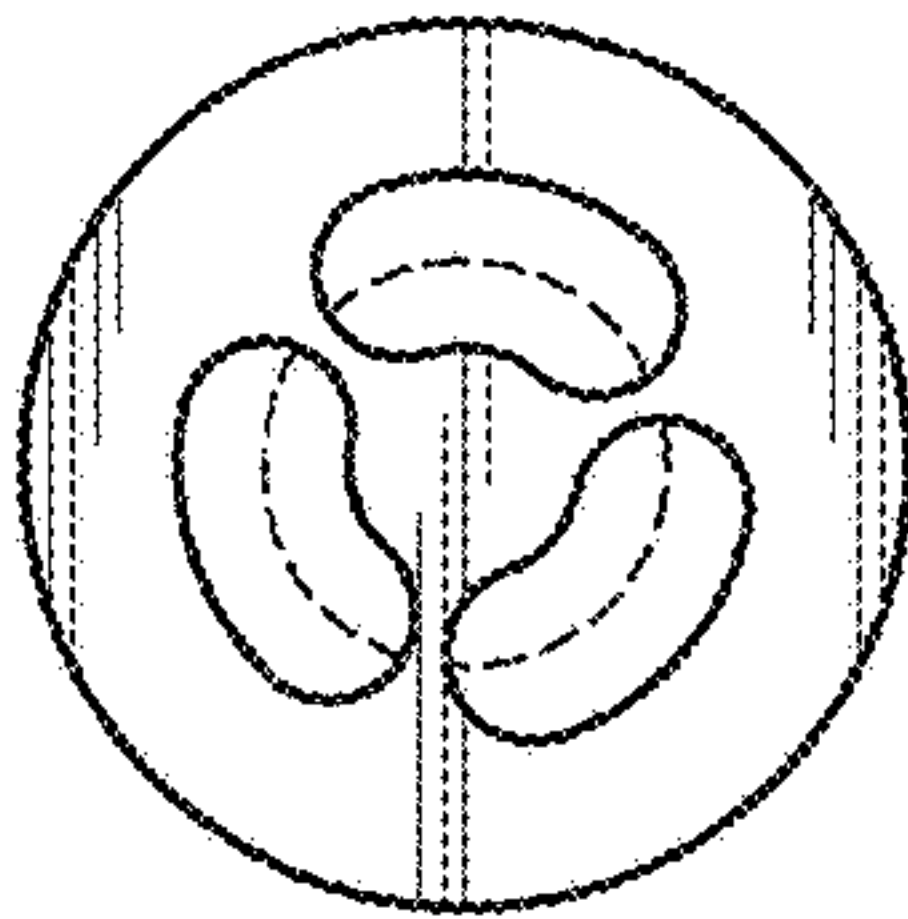


FIG. 47

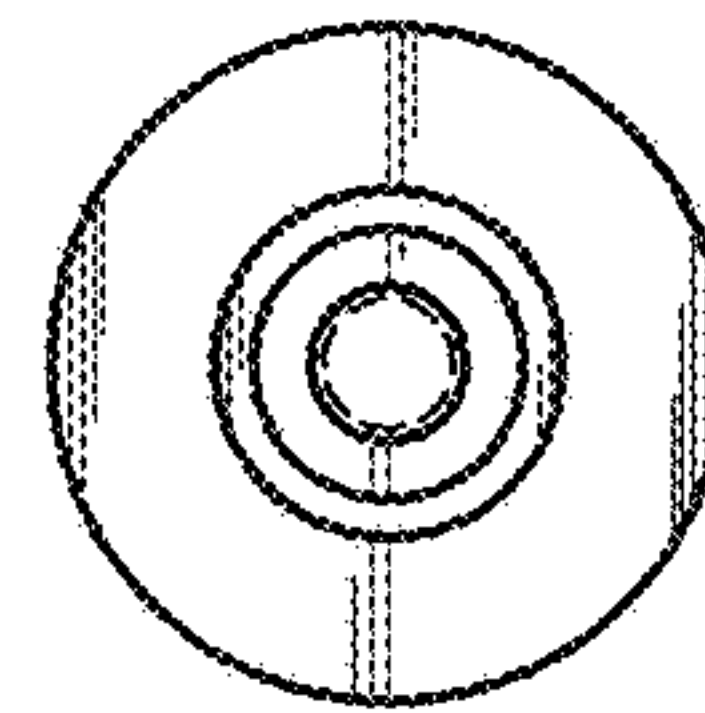


FIG. 48

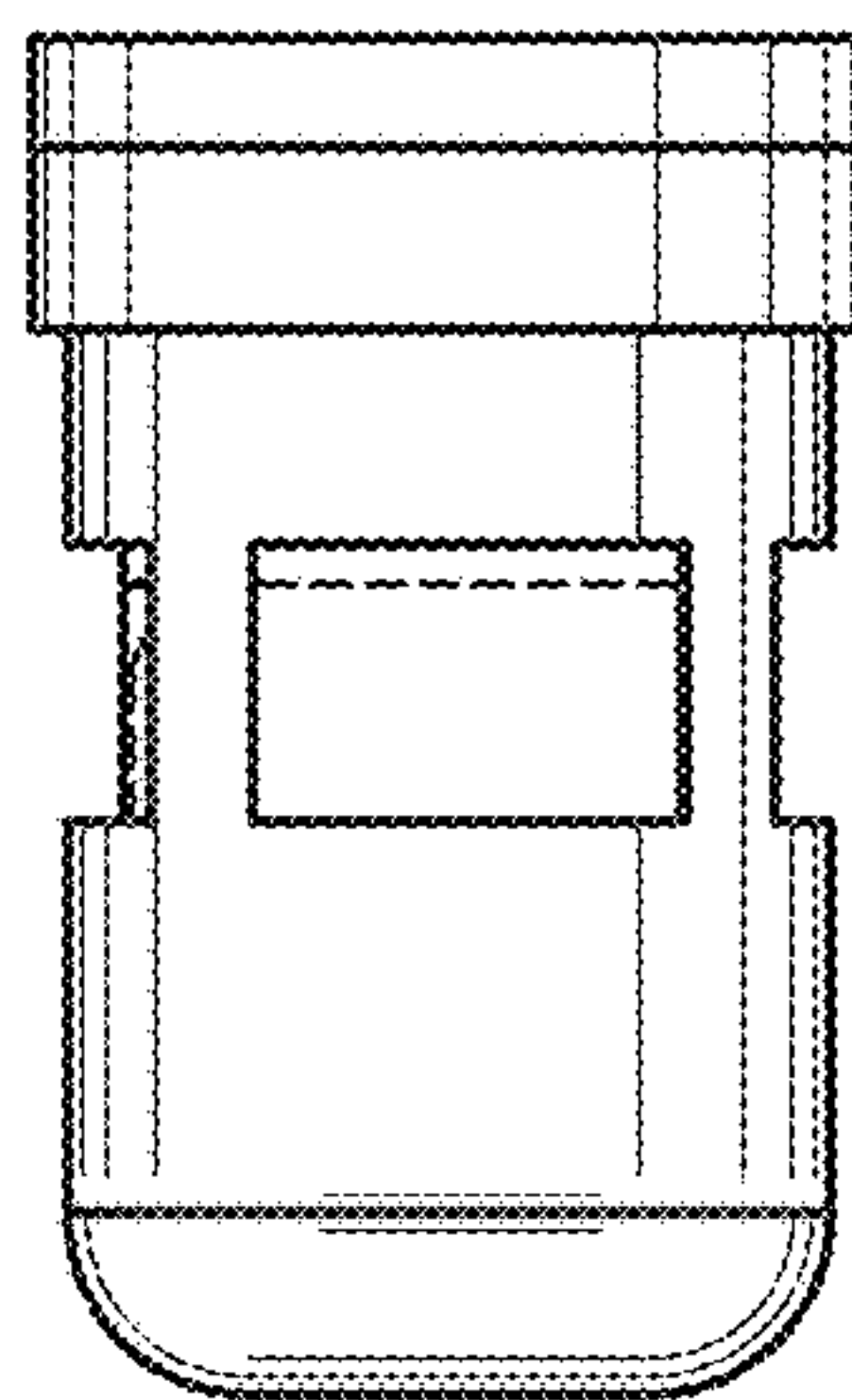


FIG. 49

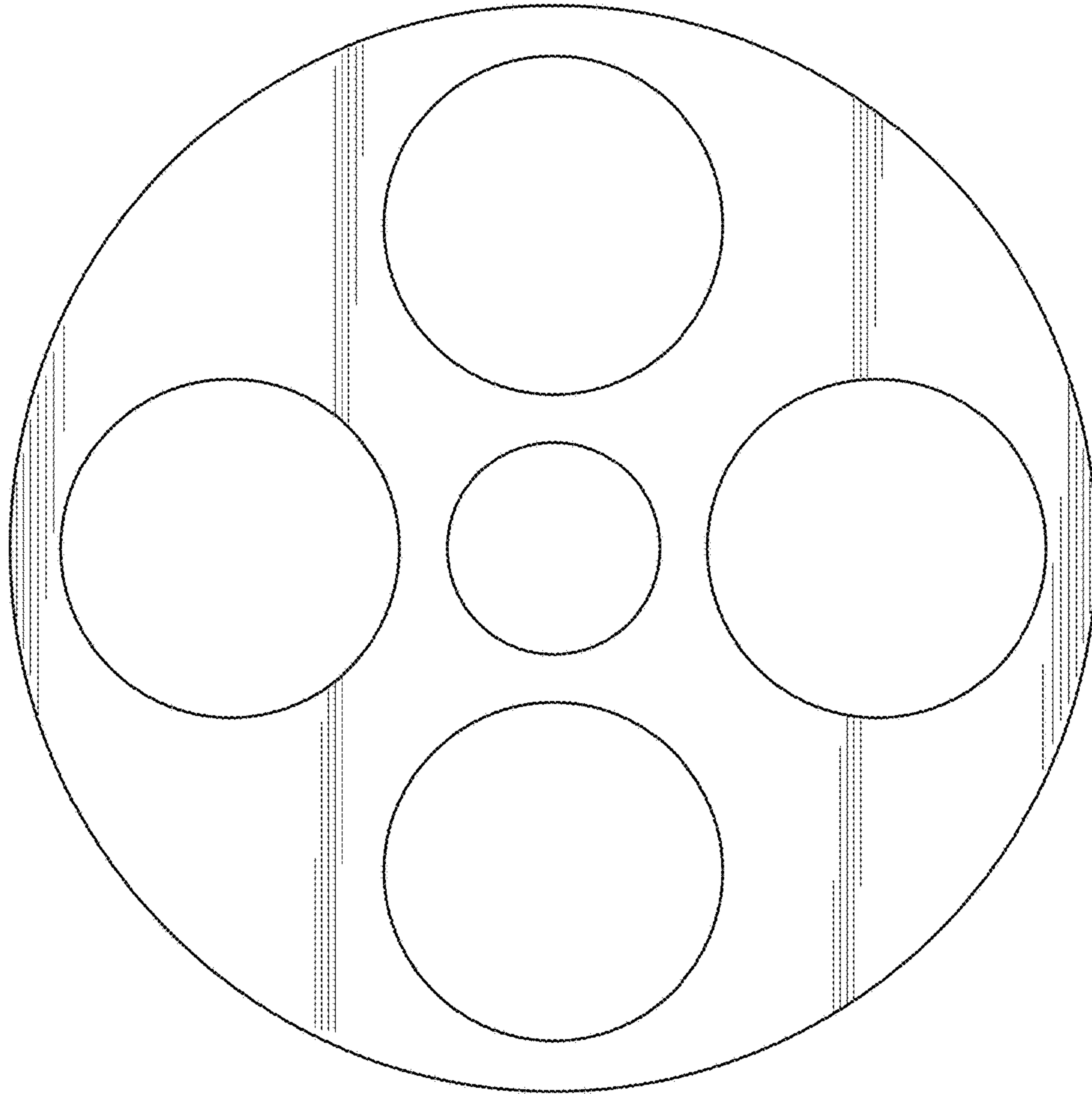


FIG. 50



FIG. 51

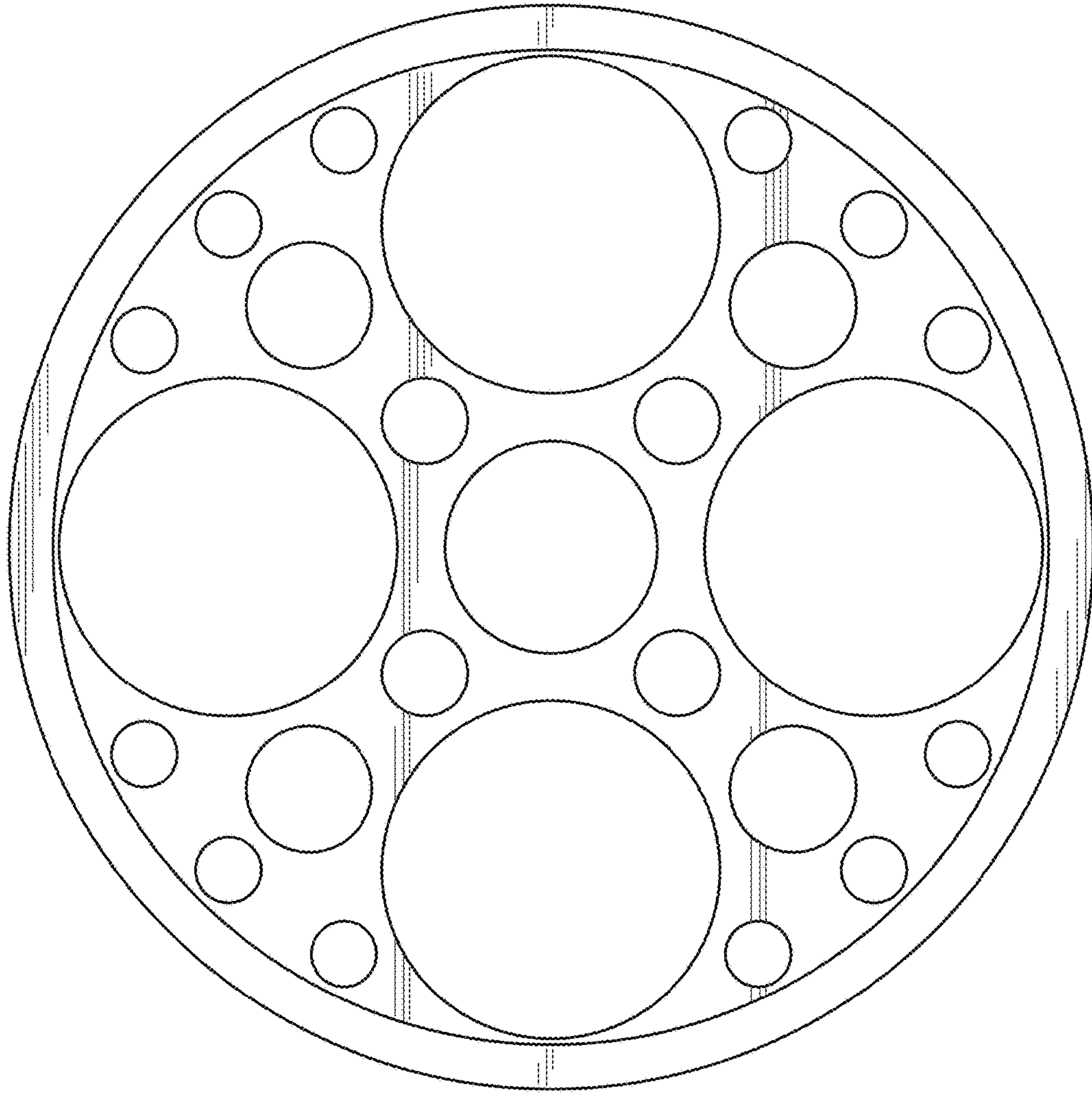


FIG. 52

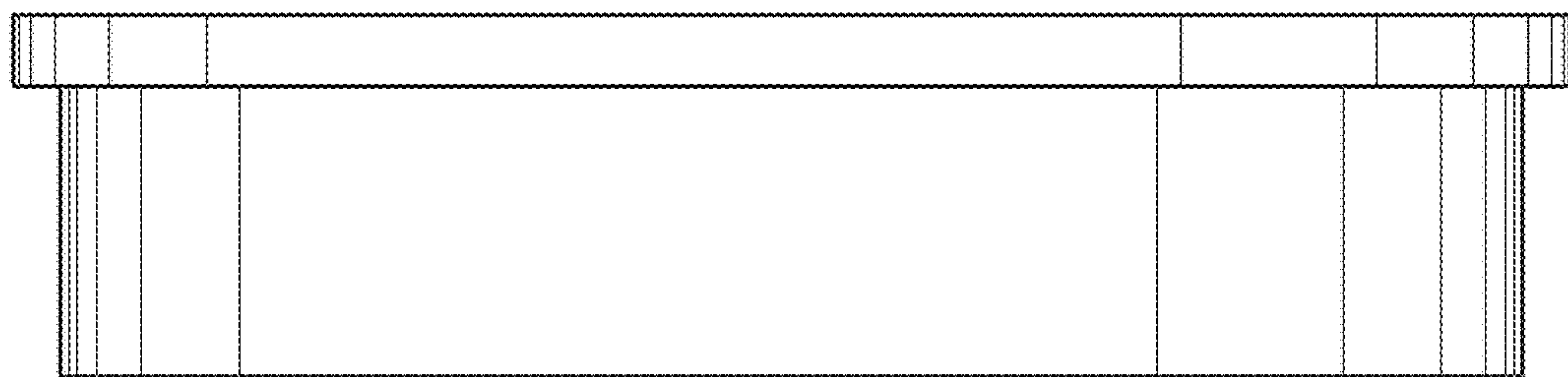


FIG. 53

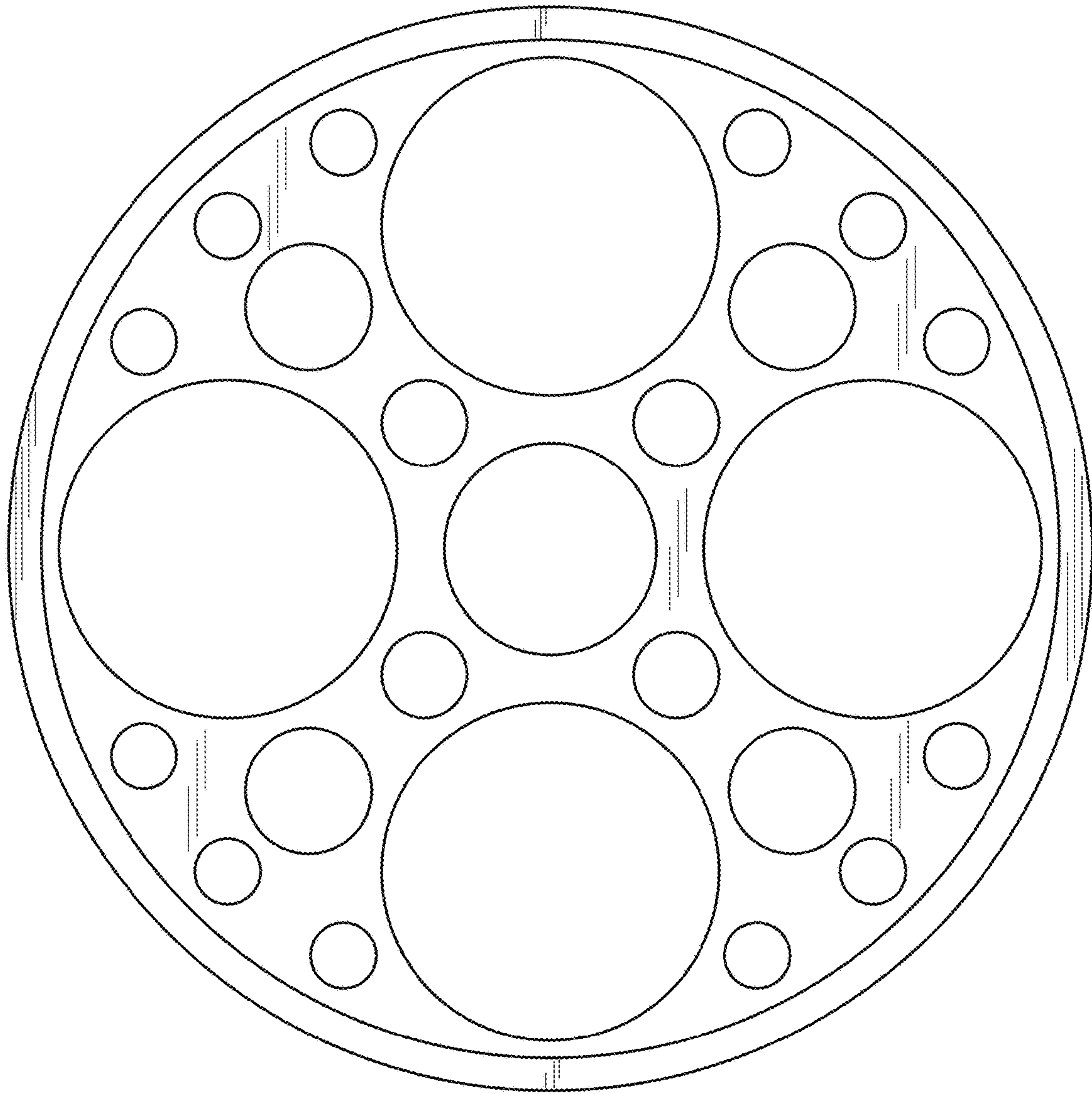


FIG. 54