



US00D844753S

(12) **United States Design Patent**
Fukuhara

(10) **Patent No.:** **US D844,753 S**

(45) **Date of Patent:** **** Apr. 2, 2019**

- (54) **OPENING AND CLOSING VALVE**
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- (72) Inventor: **Tomoharu Fukuhara**, Tsukuba (JP)
- (73) Assignee: **SMC CORPORATION**, Chiyoda-ku (JP)

D416,076 S *	11/1999	Okitsu	.....	D23/235
D632,362 S *	2/2011	Ito	.....	D23/233
D633,986 S *	3/2011	Ito	.....	D23/233
D640,153 S *	6/2011	Okitsu	.....	D10/85
D640,154 S *	6/2011	Okitsu	.....	D10/85
D671,621 S *	11/2012	Ikenoya	.....	D23/245
D694,370 S *	11/2013	Wilcox	.....	D23/245
D820,955 S *	6/2018	Ito	.....	D23/235
D820,956 S *	6/2018	Ito	D23/235

* cited by examiner

- (**) Term: **15 Years**
- (21) Appl. No.: **29/631,864**
- (22) Filed: **Jan. 3, 2018**

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(30) **Foreign Application Priority Data**

Jul. 28, 2017 (JP) 2017-016371

(51) **LOC (11) Cl.** **23-01**

(52) **U.S. Cl.**
USPC **D23/248**

(58) **Field of Classification Search**
 USPC D23/233–237, 241–249, 200, 207, 209,
 D23/210, 259–269, 310; 251/326, 118,
 251/129.15, 129.01, 129.11, 62, 327, 213,
 251/324, 63.5, 205, 215, 309–312, 904;
 137/301, 315.18, 486, 487.5, 599.05,
 137/601.14, 554, 630.12, 398, 545, 547,
 137/549
 CPC F16K 3/0281; F16K 3/0218; F16K 31/508;
 F16K 37/00; F16K 31/0655
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D318,713 S *	7/1991	Miyake	.....	D23/209
D410,525 S *	6/1999	Uehara	.....	D23/235

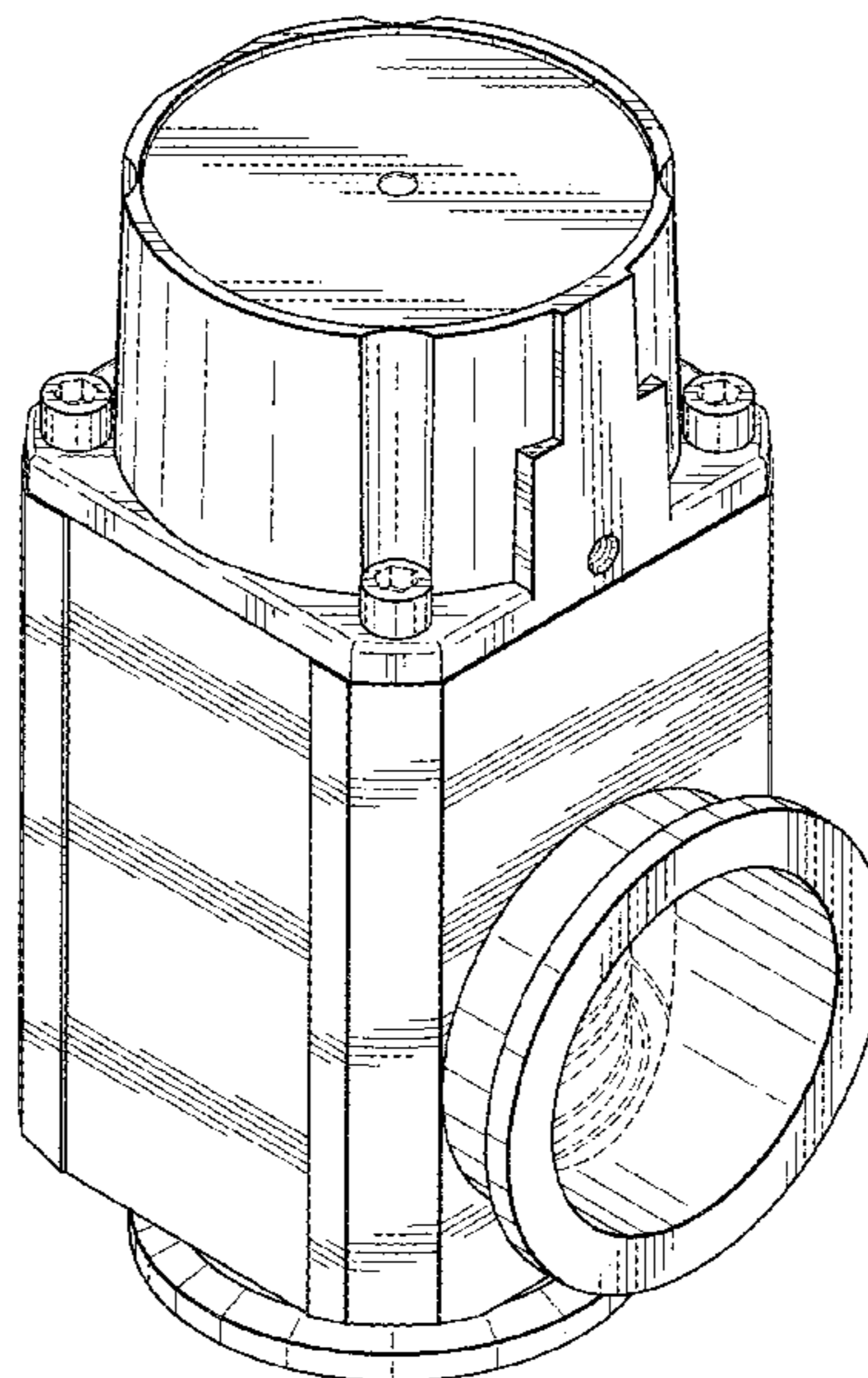
(57) **CLAIM**

The ornamental design for an opening and closing valve, as shown and described.

DESCRIPTION

FIG. 1 is a front, top, and right side perspective view of an opening and closing valve;
 FIG. 2 is a rear, bottom, and left side perspective view thereof;
 FIG. 3 is a front elevational view thereof, the rear elevational view being a mirror image of the front elevational view;
 FIG. 4 is a top plan view thereof;
 FIG. 5 is a bottom plan view thereof;
 FIG. 6 is a left side elevational view thereof; and,
 FIG. 7 is a right side elevational view thereof.
 The broken lines shown in the figures are for the purpose of illustrating portions of the opening and closing valve and form no part of the claimed design.

1 Claim, 6 Drawing Sheets



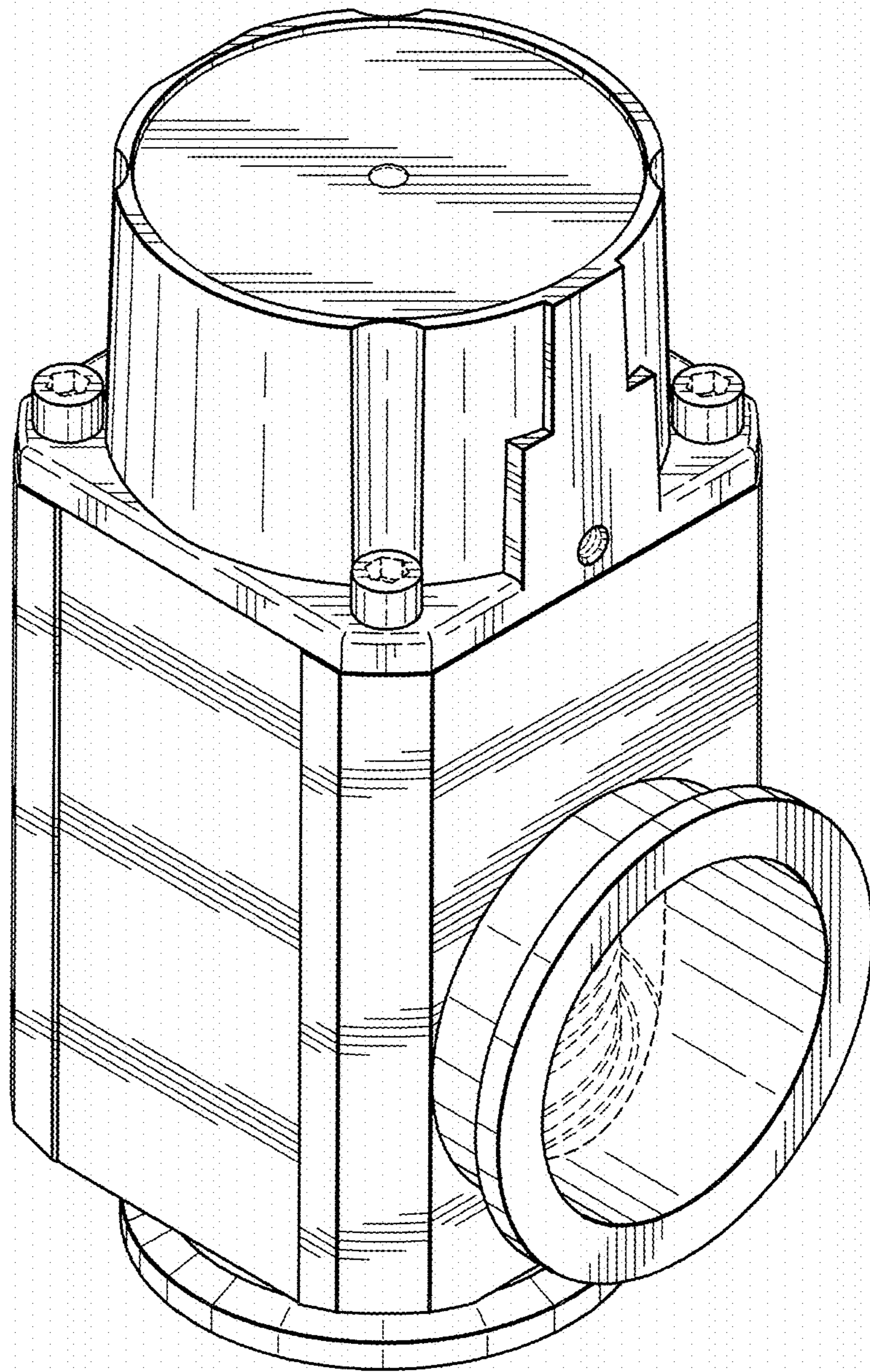


FIG. 1

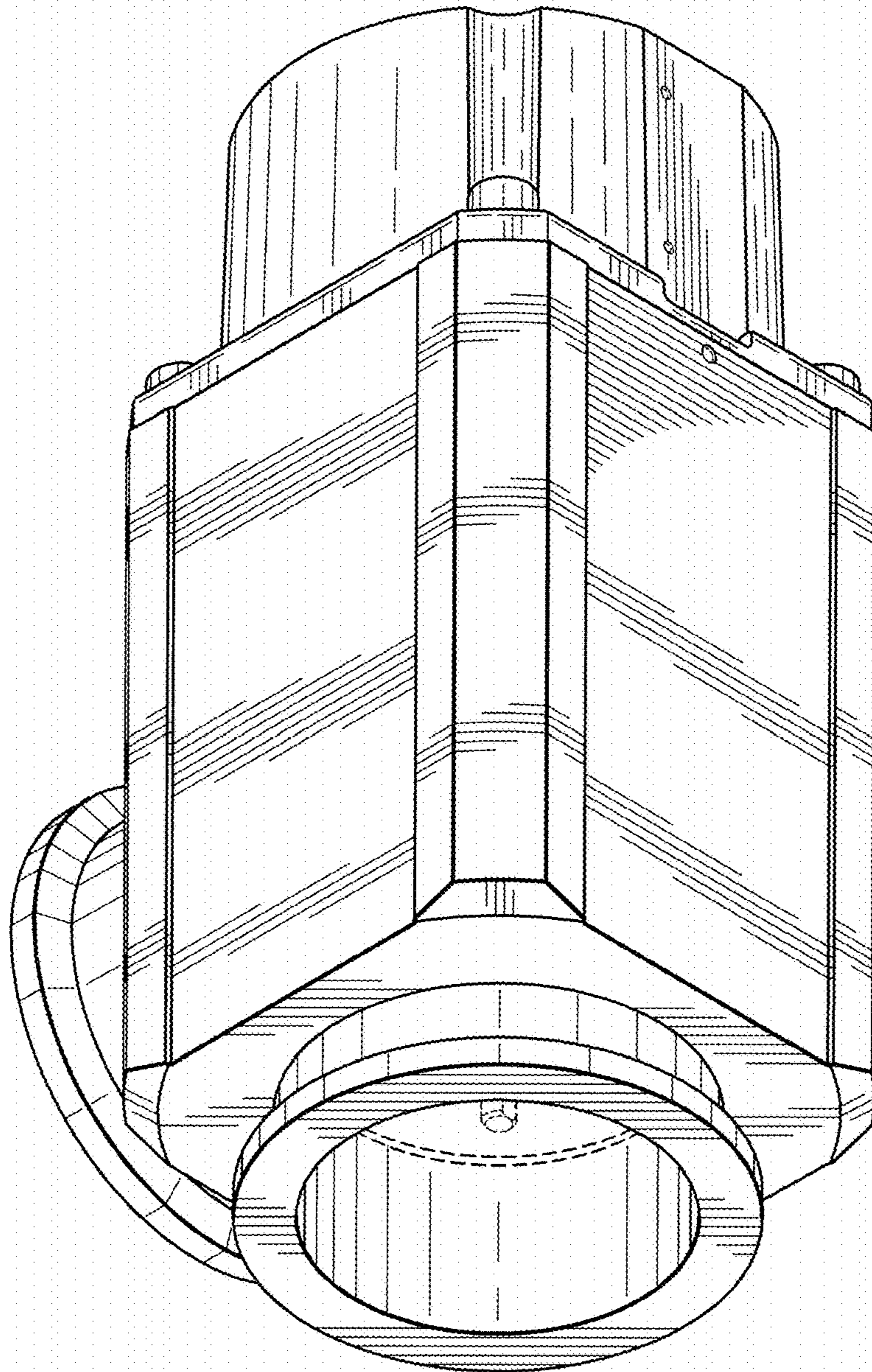


FIG. 2

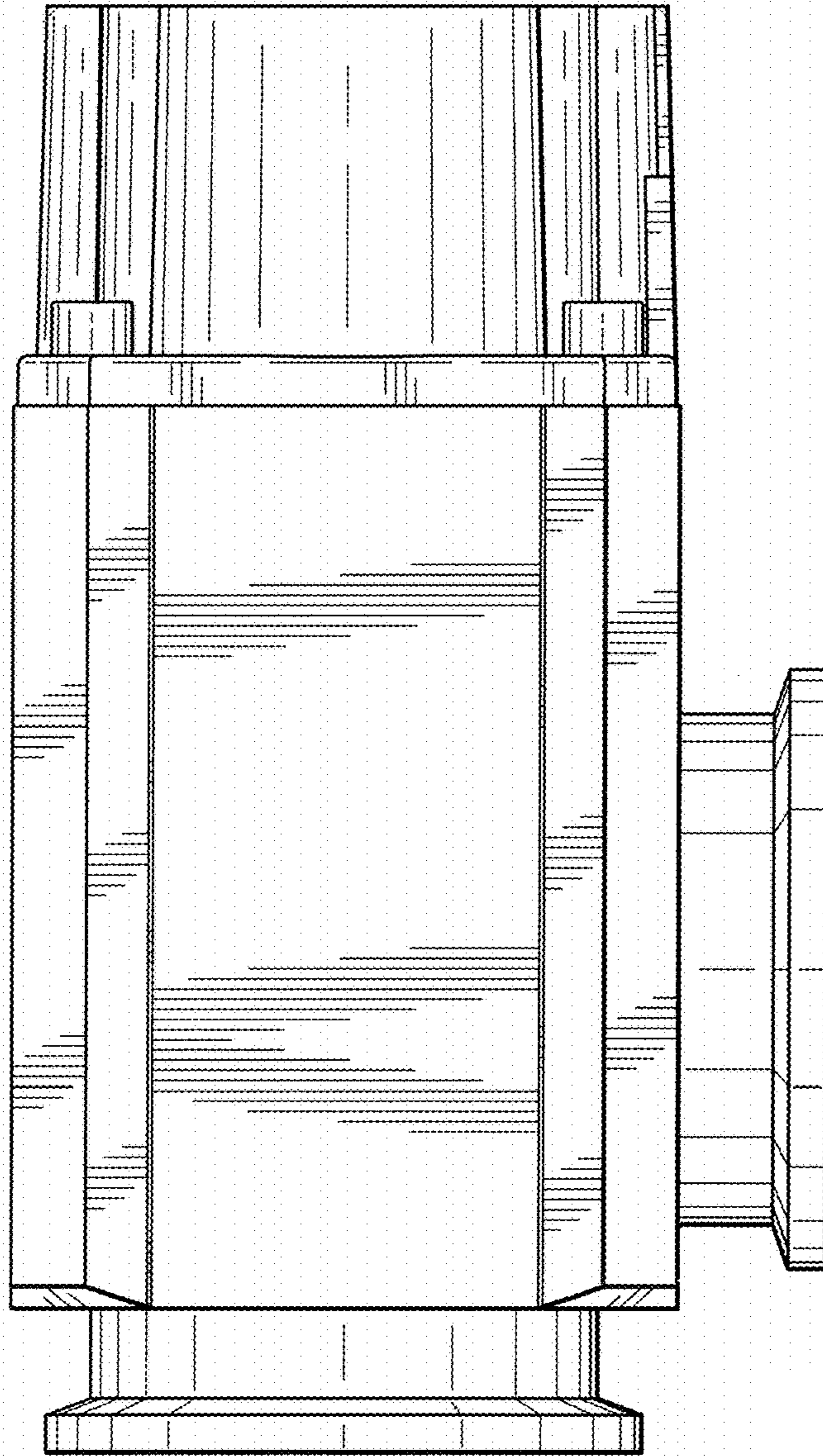


FIG. 3

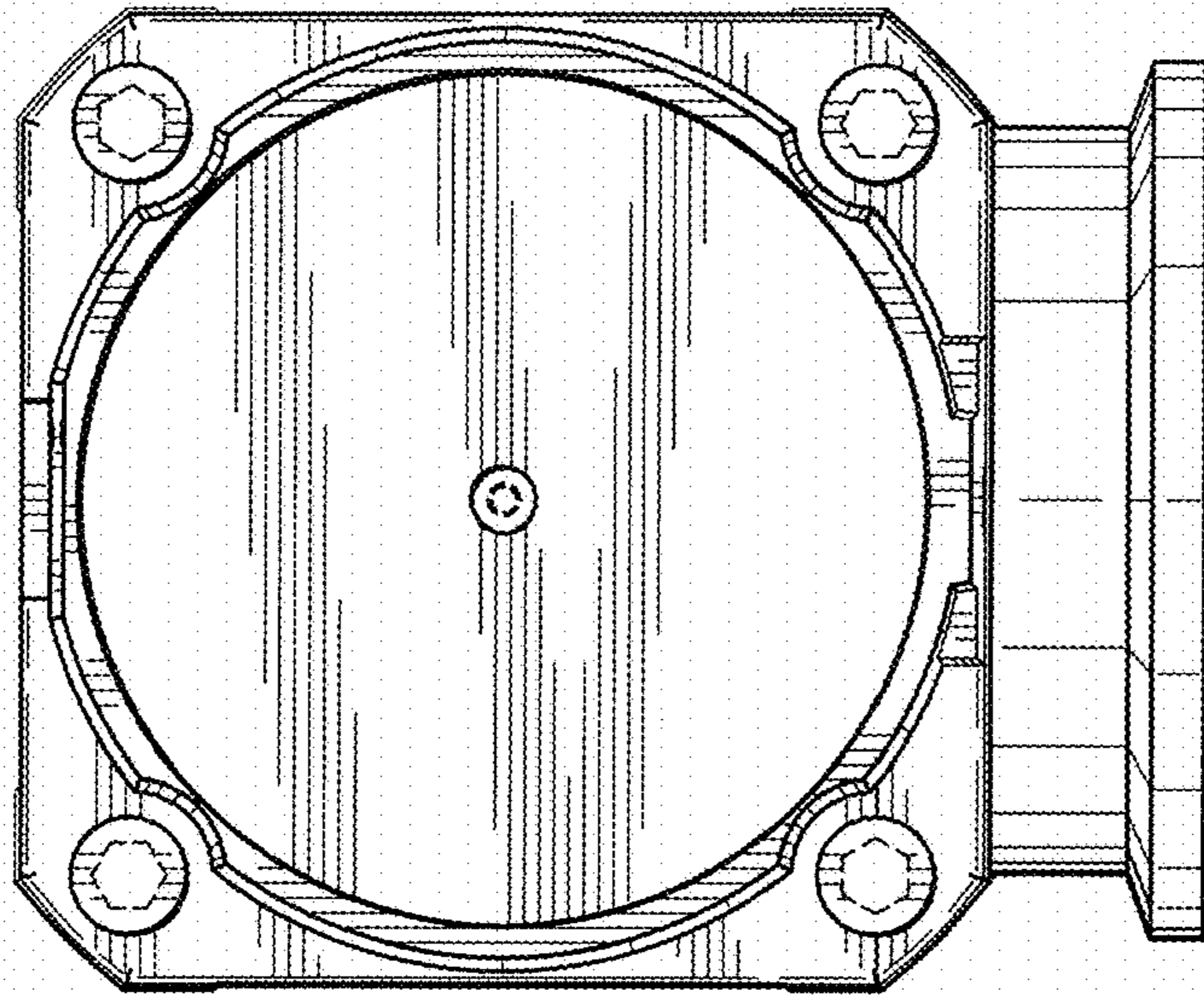


FIG. 4

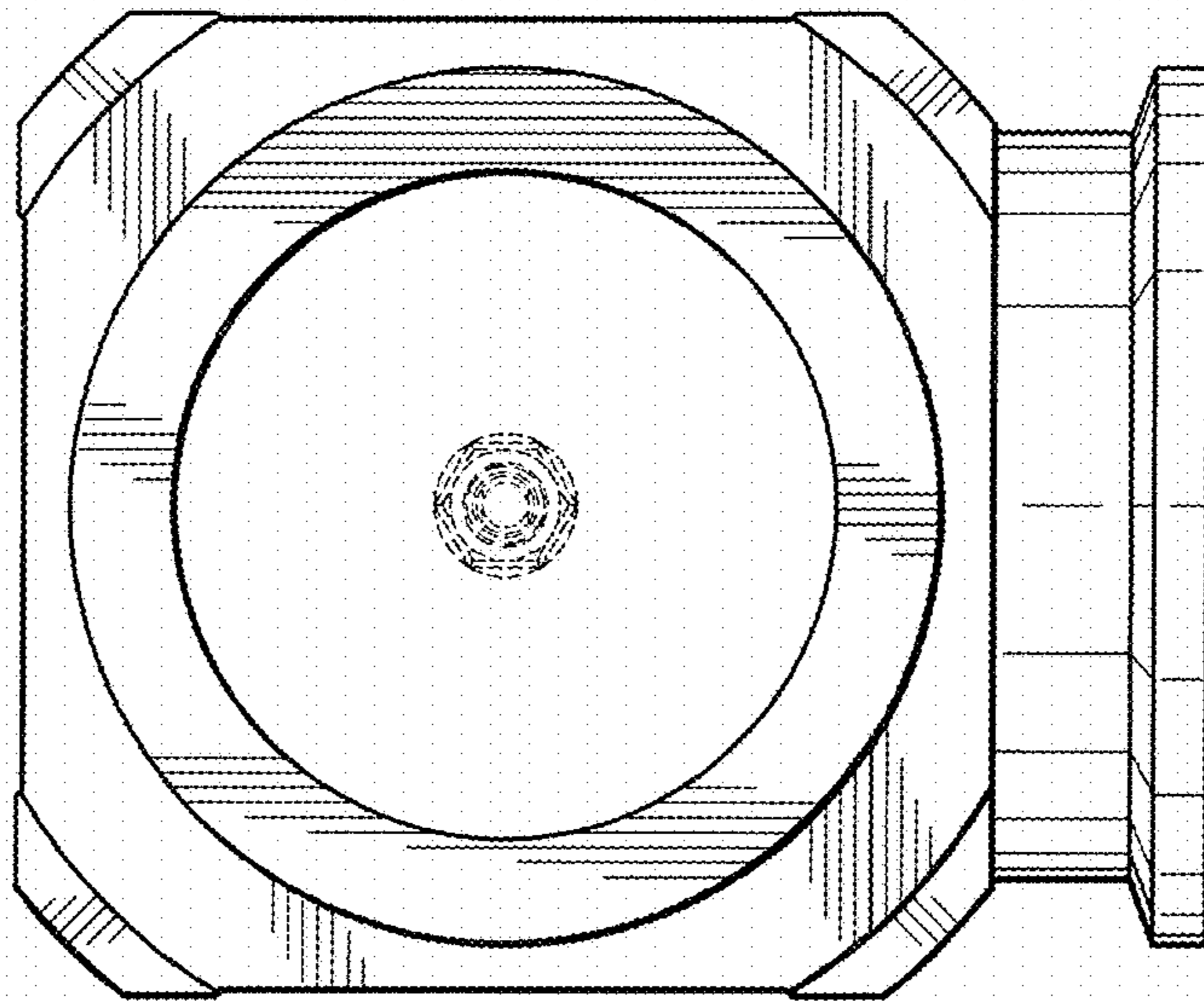


FIG. 5

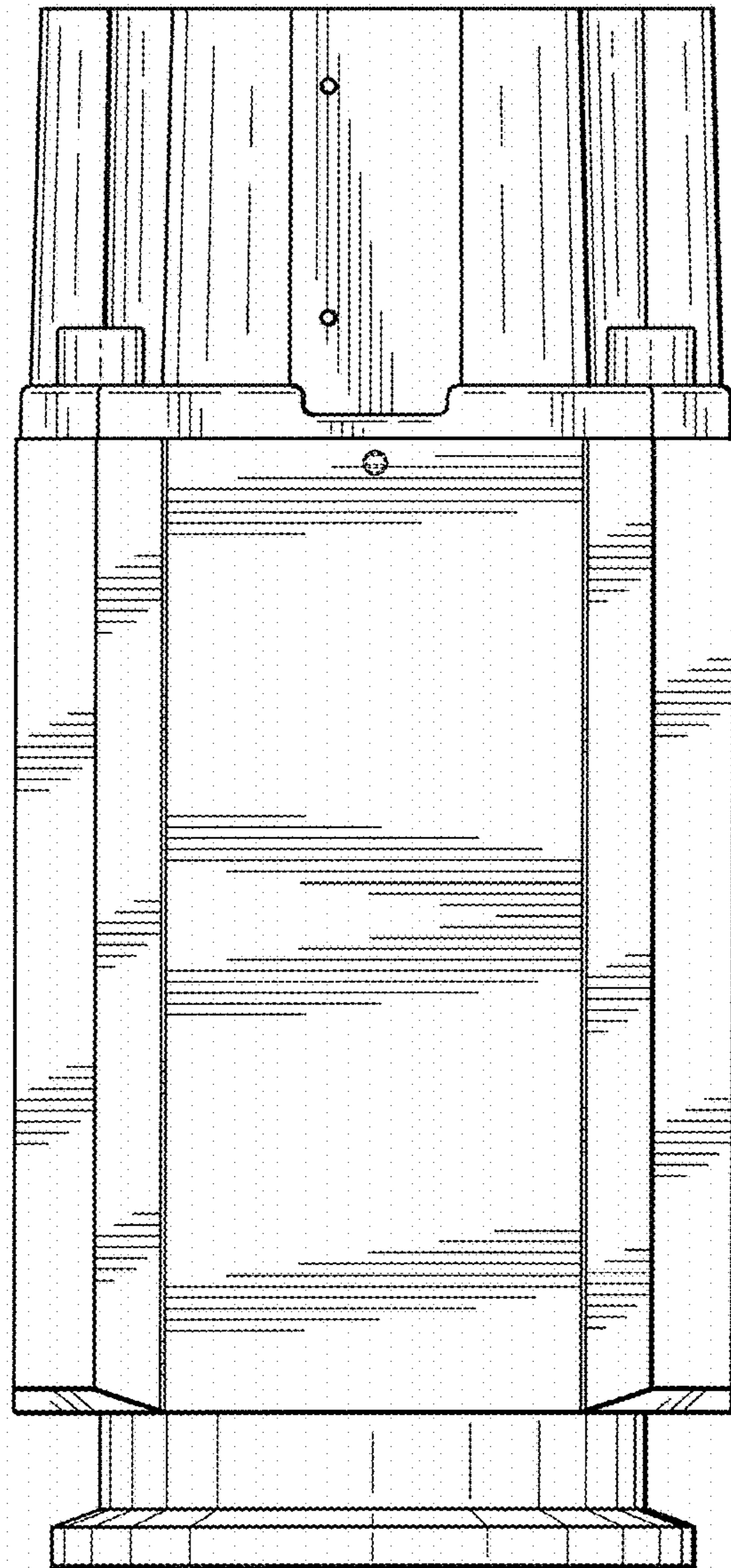


FIG. 6

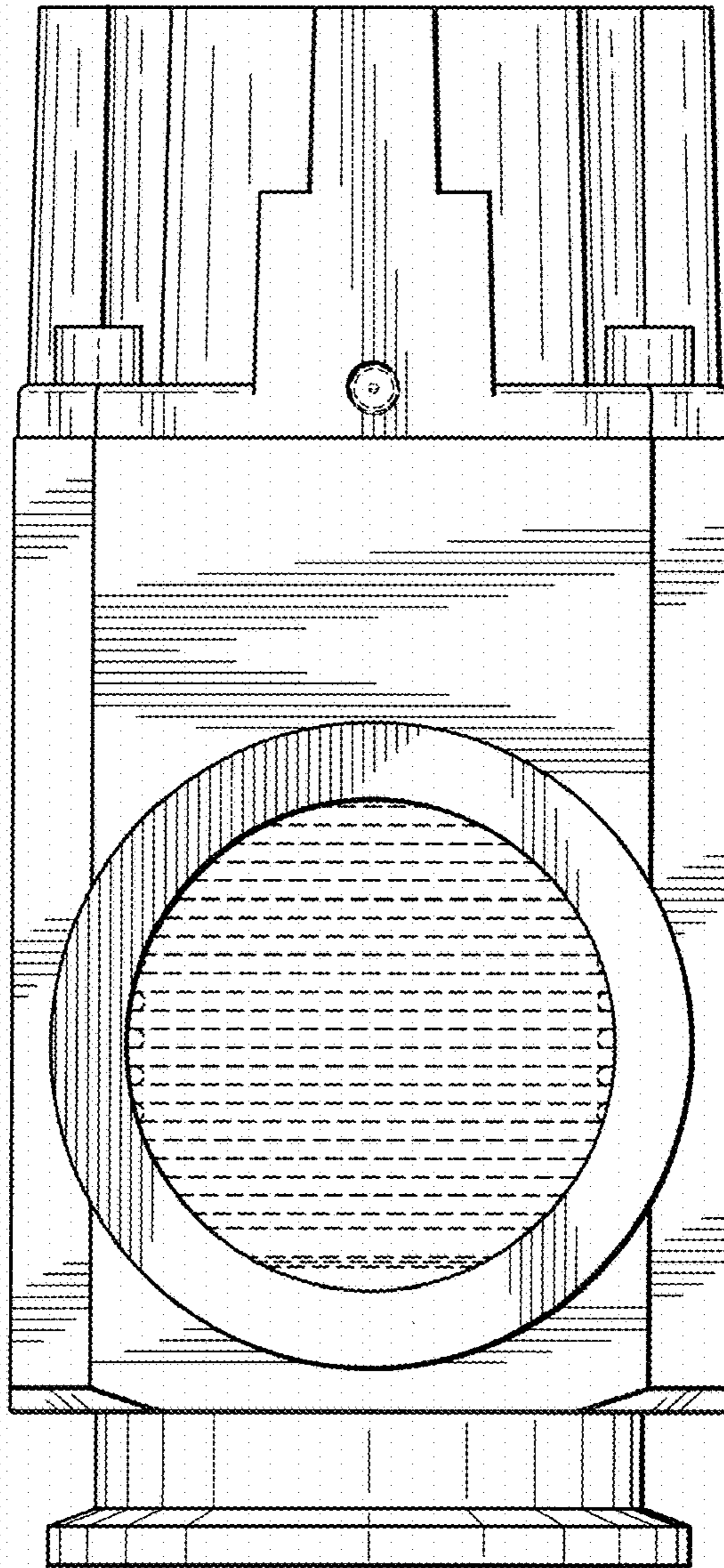


FIG. 7