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

(10) **Patent No.:** **US D845,440 S**

(45) **Date of Patent:** **** Apr. 9, 2019**

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

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- (**) Term: **15 Years**
- (21) Appl. No.: **29/631,866**
- (22) Filed: **Jan. 3, 2018**

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(30) **Foreign Application Priority Data**

Jul. 28, 2017 (JP) 2017-016372

- (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
See application file for complete search history.

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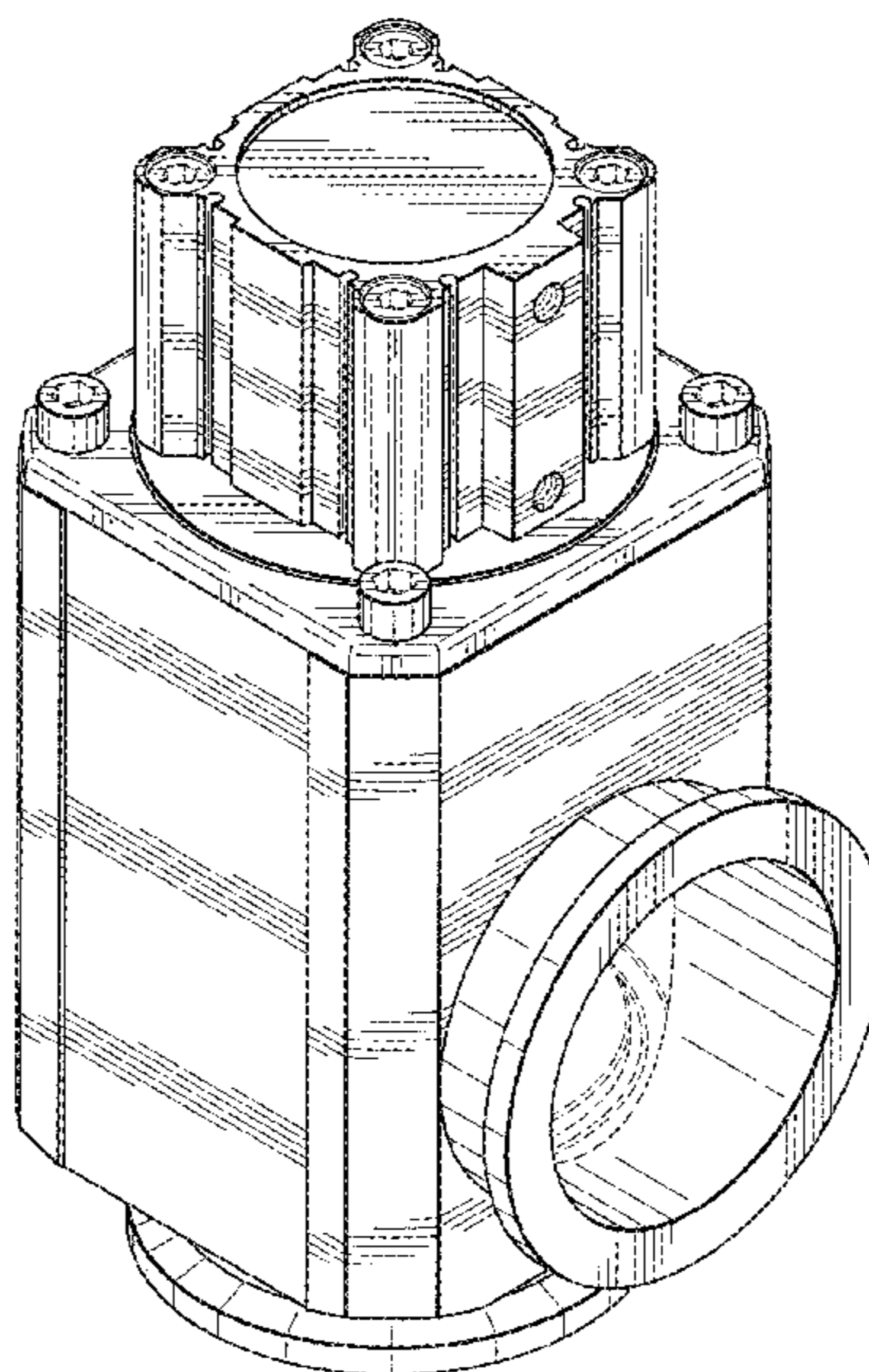
(57) **CLAIM**

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



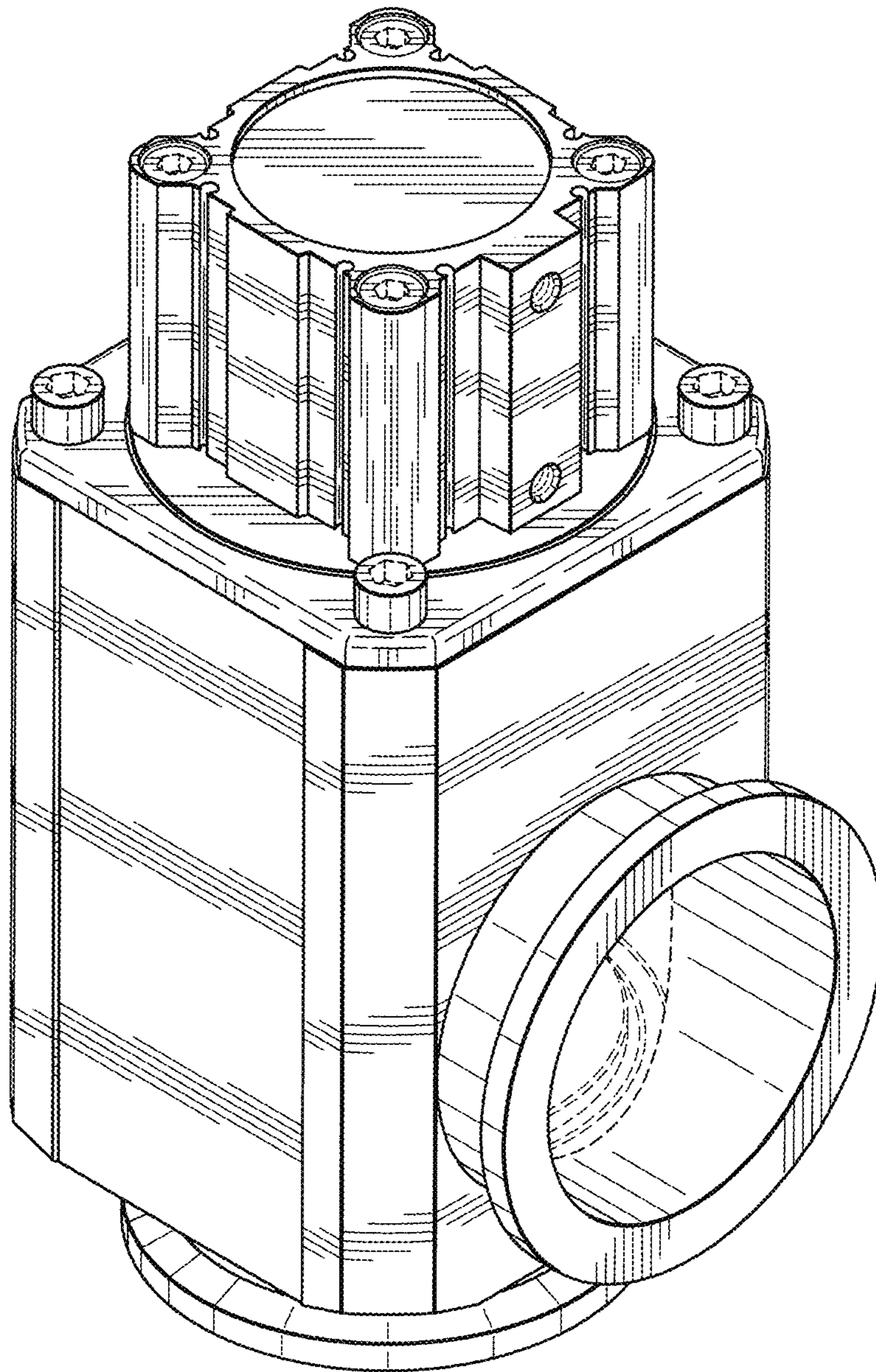


FIG. 1

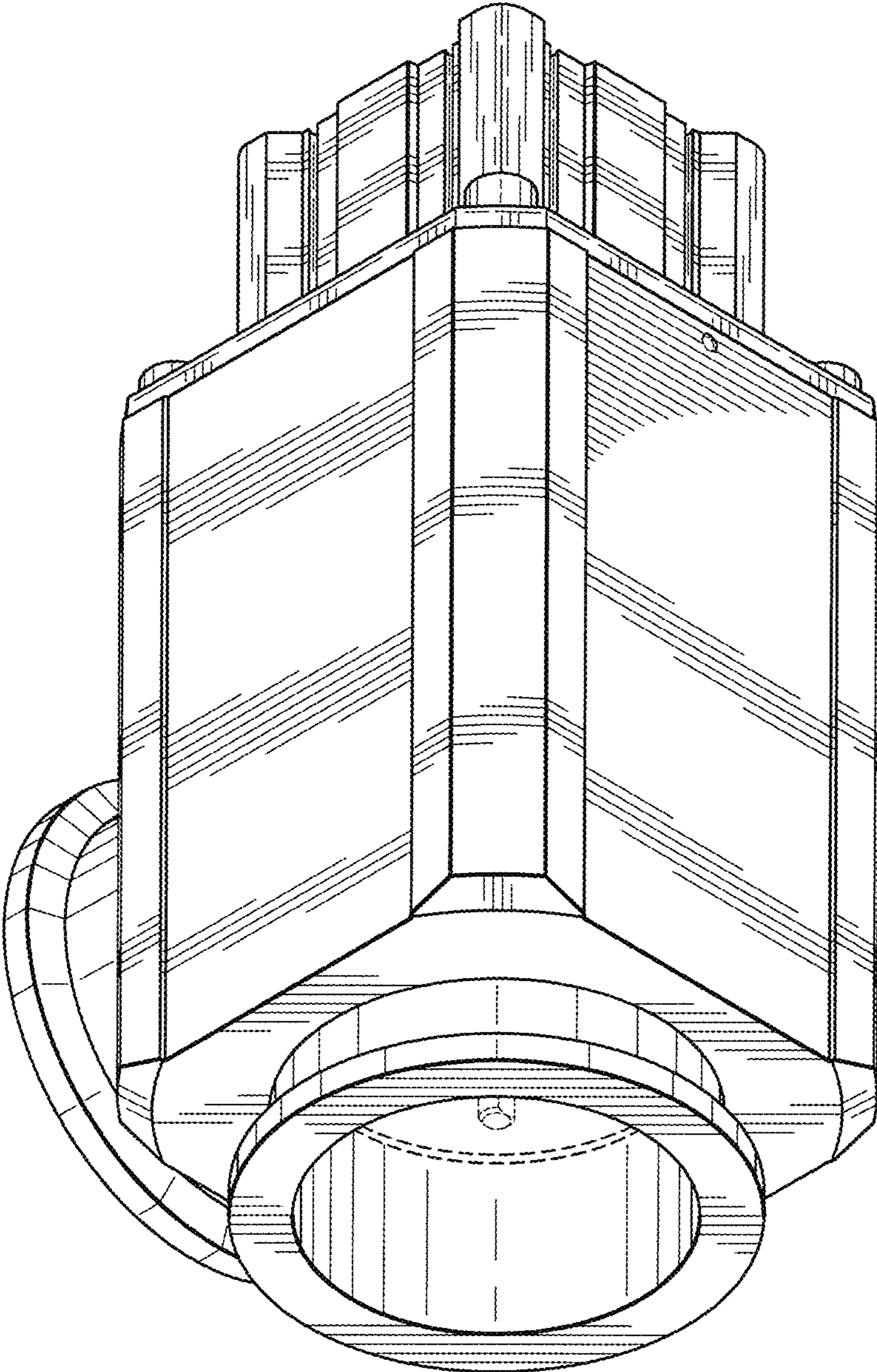


FIG. 2

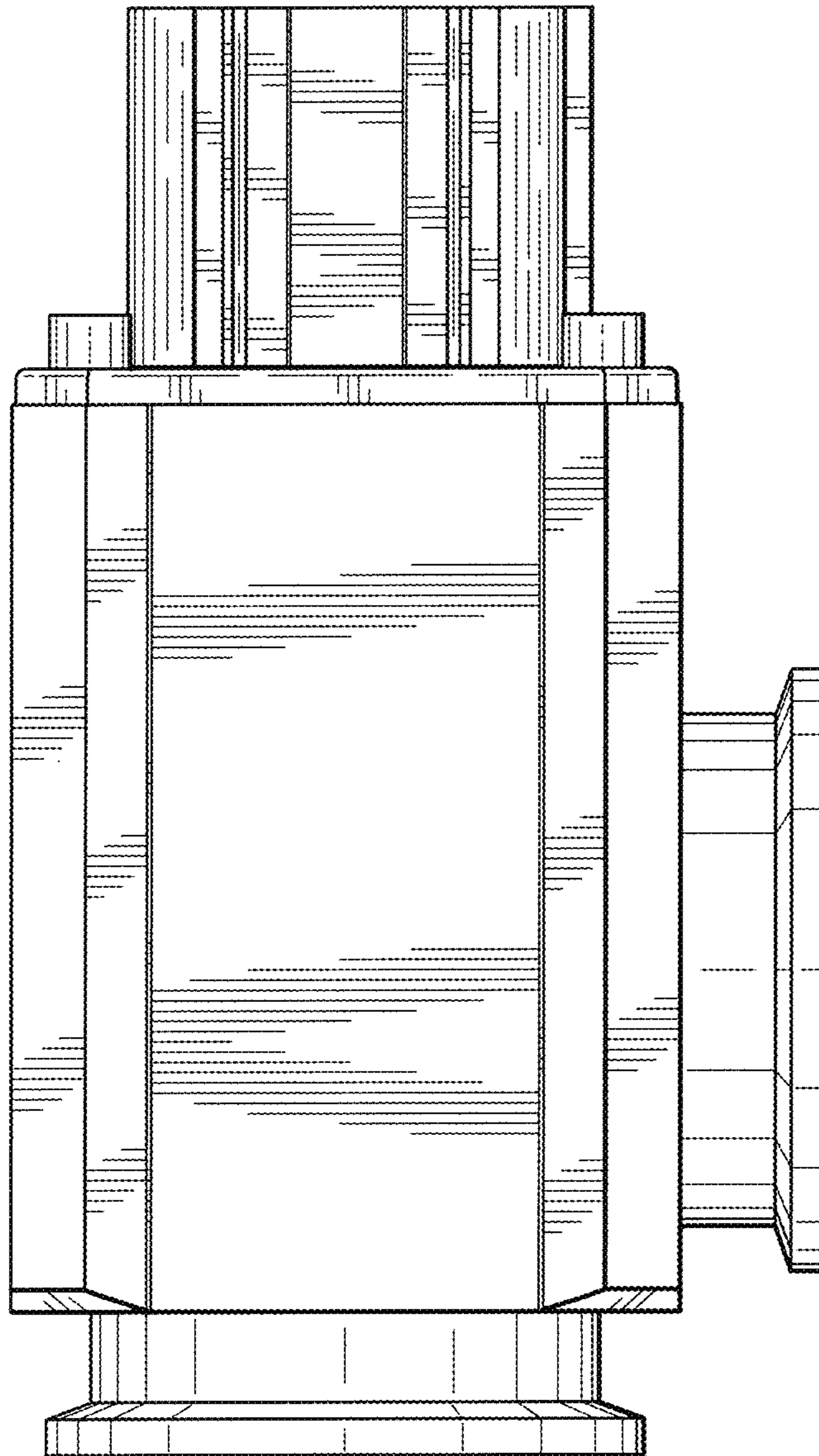


FIG. 3

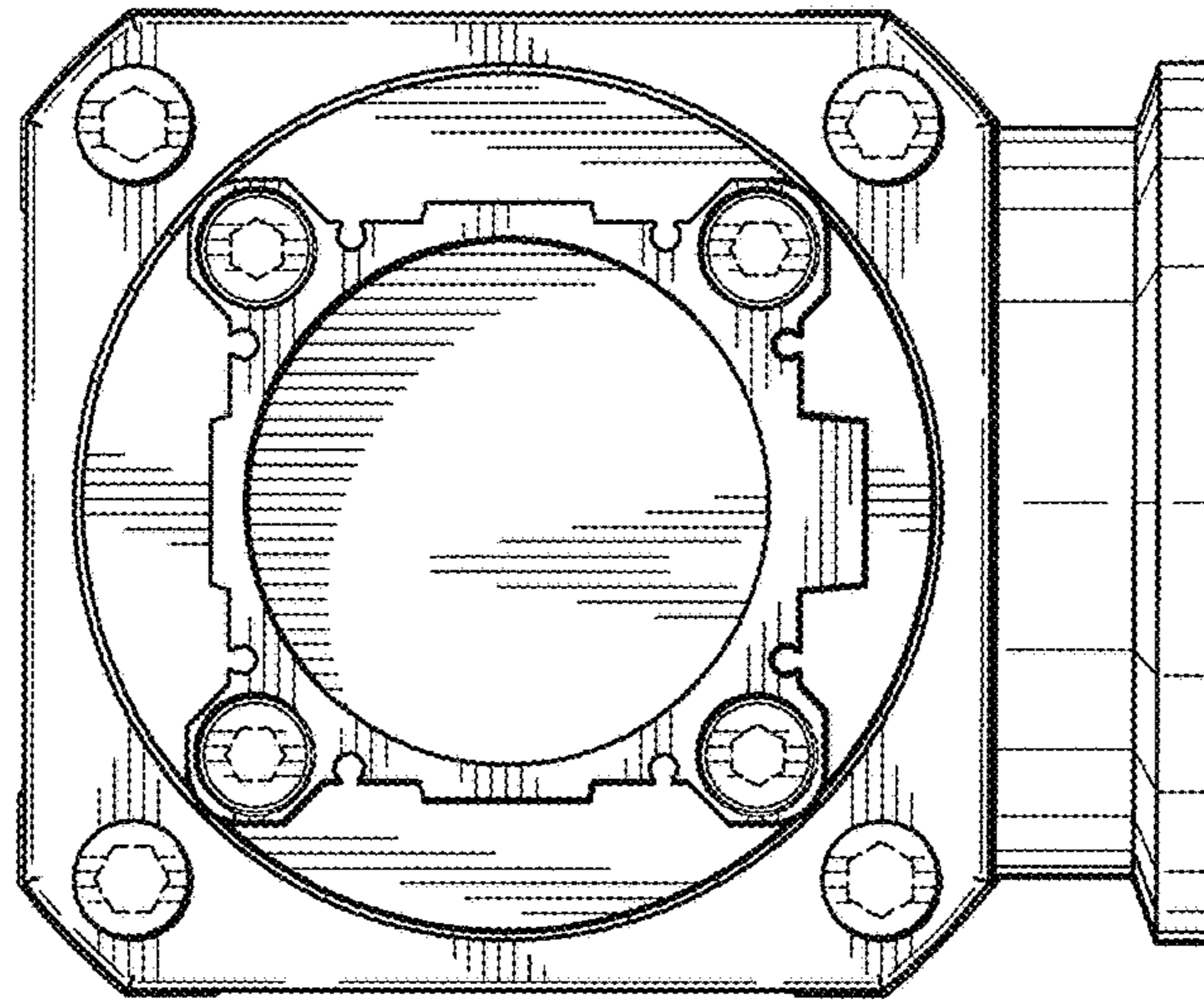


FIG. 4

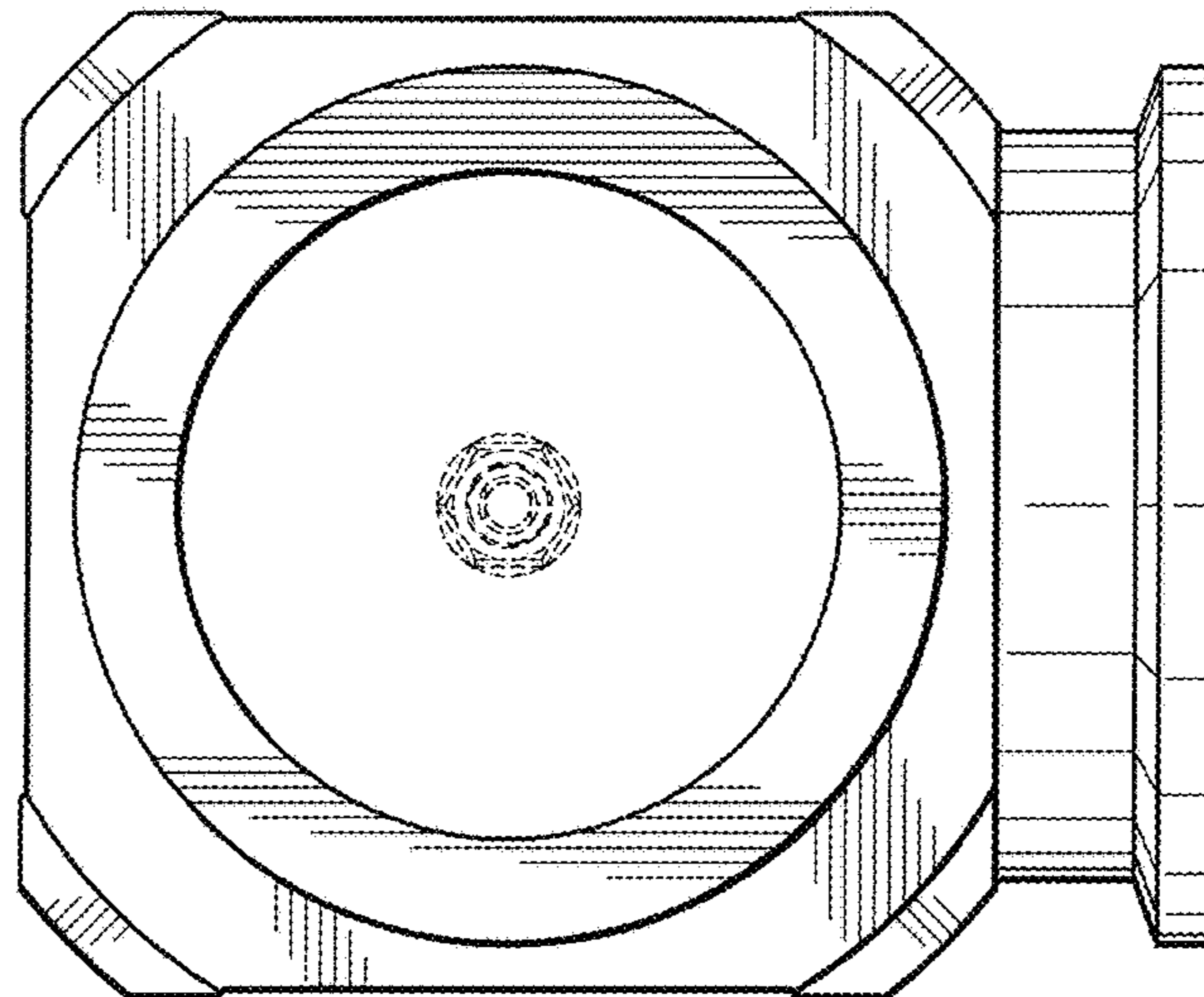


FIG. 5

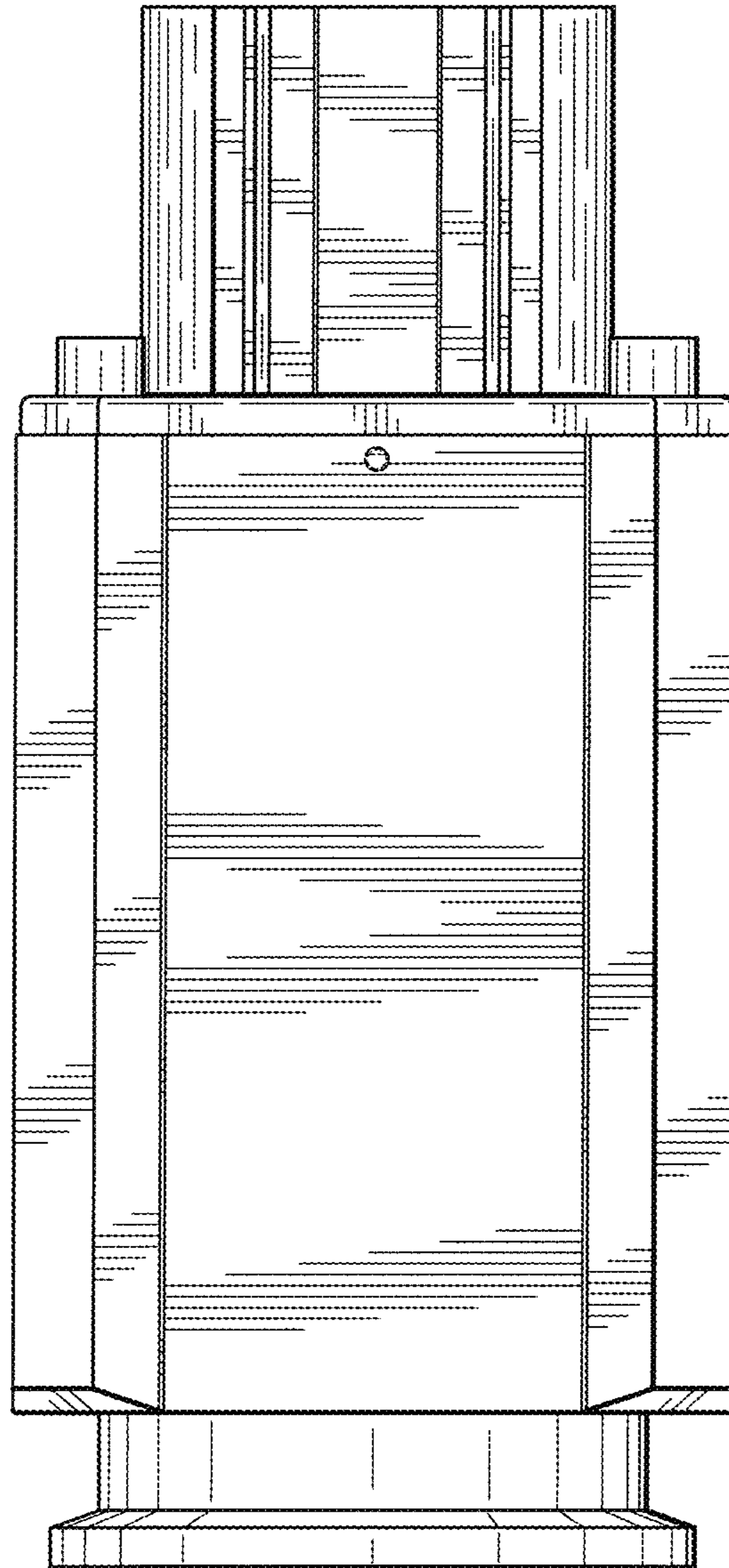


FIG. 6

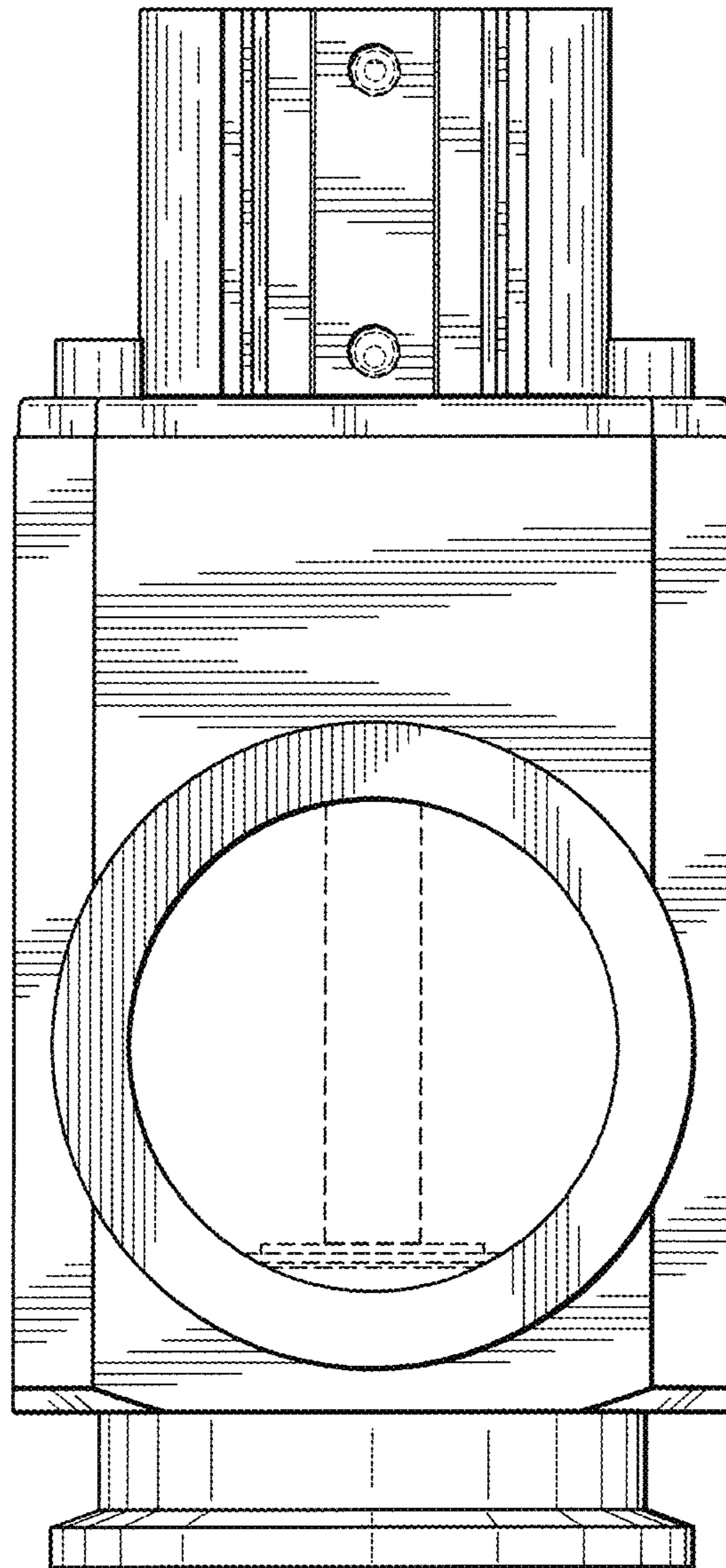


FIG. 7