



US00D872835S

(12) **United States Design Patent** (10) **Patent No.:** **US D872,835 S**  
**Sakamoto et al.** (45) **Date of Patent:** **\*\* Jan. 14, 2020**

(54) **REGULATOR** D640,153 S \* 6/2011 Okitsu ..... D10/85  
 D640,154 S \* 6/2011 Okitsu ..... D10/85  
 (71) Applicant: **SMC CORPORATION**, Tokyo (JP) D644,298 S \* 8/2011 Okitsu ..... D23/235  
 D644,299 S \* 8/2011 Okitsu ..... D23/235  
 (72) Inventors: **Shuichi Sakamoto**, Tsukubamirai (JP); D717,404 S 11/2014 Bailey et al.  
**Hiroaki Ishihara**, Tsukubamirai (JP); D737,934 S 9/2015 Sakamoto  
**Hisaei Shimane**, Tsukubamirai (JP); 2007/0039651 A1\* 2/2007 De Leeuw ..... B05B 12/087  
**Mizuna Iida**, Tsukubamirai (JP) 137/505.34

**FOREIGN PATENT DOCUMENTS**

(73) Assignee: **SMC CORPORATION**, Tokyo (JP) JP 1005967 S 3/1998  
 (\*\*) Term: **15 Years** JP 1061594 S 2/2000  
 JP 1093508 S 12/2000  
 (21) Appl. No.: **29/679,440** JP 1099777 S 2/2001  
 JP 1520210 S 3/2015  
 (22) Filed: **Feb. 6, 2019** \* cited by examiner

**Related U.S. Application Data**

(62) Division of application No. 29/639,584, filed on Mar. 7, 2018.

**Foreign Application Priority Data**

Sep. 8, 2017 (CN) ..... 2017 3 0423955

(51) **LOC (12) Cl.** ..... **23-01**

(52) **U.S. Cl.**  
USPC ..... **D23/235**

(58) **Field of Classification Search**  
 USPC ..... D23/233-269; D10/83, 85; 91/394, 395,  
 91/407, 408; 92/15-17, 28, 51, 52, 68;  
 137/505, 505.42, 549, 557  
 CPC ..... F16K 17/00; F16K 1/123; F16K 47/04;  
 F16K 47/08  
 See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D410,525 S 6/1999 Uehara et al.  
 D416,310 S 11/1999 Uehara et al.  
 D633,986 S \* 3/2011 Ito ..... D23/233

*Primary Examiner* — Gino Colan

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch & Birch, LLP

(57) **CLAIM**

The ornamental design for a regulator, as shown and described.

**DESCRIPTION**

FIG. 1 is a front, top and right side perspective view of a regulator showing our new design;  
 FIG. 2 is a rear, bottom and left side perspective view thereof;  
 FIG. 3 is a front view thereof;  
 FIG. 4 is a rear view thereof;  
 FIG. 5 is a top plan view thereof;  
 FIG. 6 is a bottom plan view thereof;  
 FIG. 7 is a left side view thereof; and,  
 FIG. 8 is a right side view thereof.

The broken lines shown in the figures are included for the purpose of illustrating portions of the regulator and form no part of the claimed design.

**1 Claim, 8 Drawing Sheets**

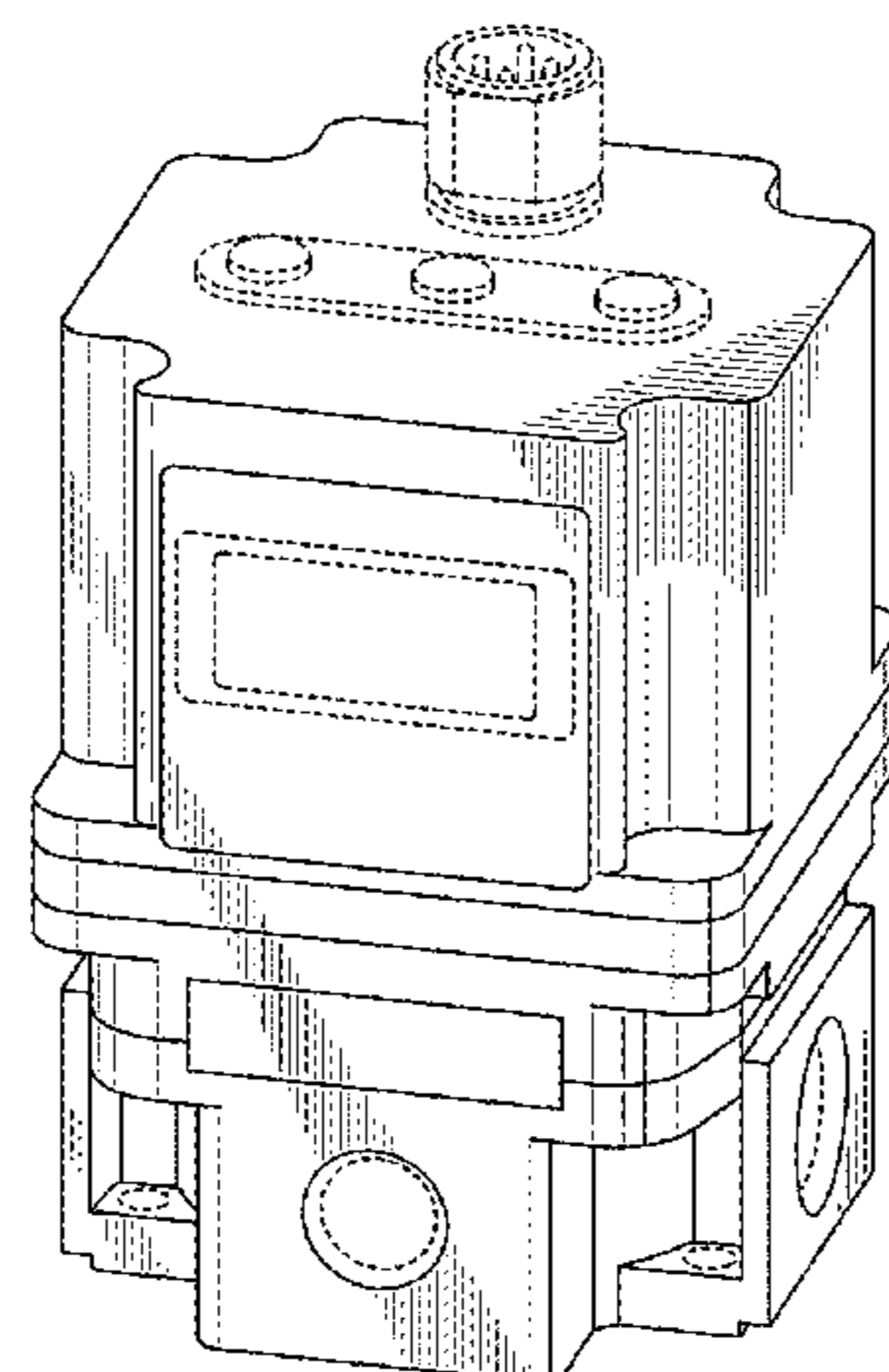


FIG. 1

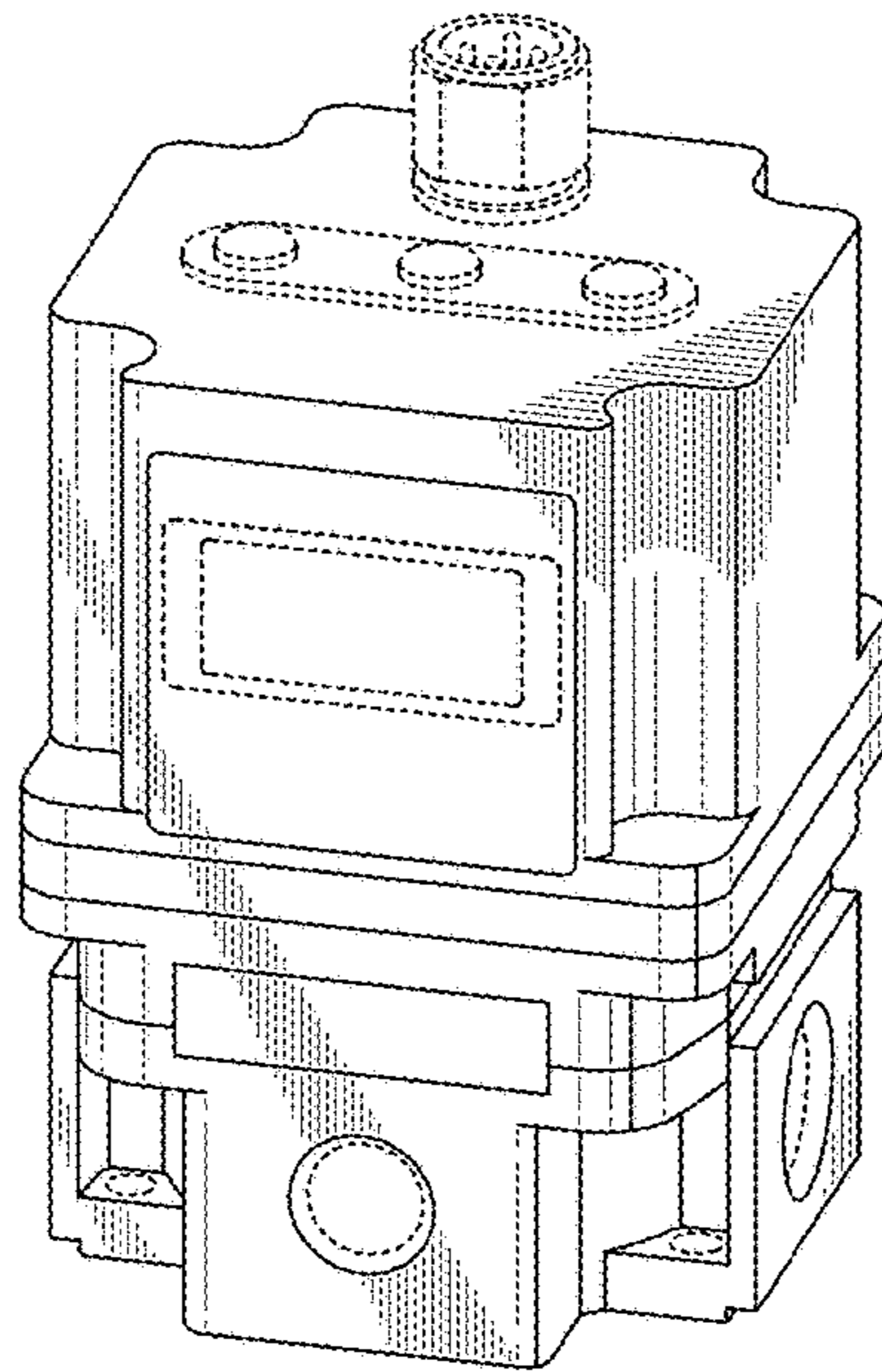


FIG. 2

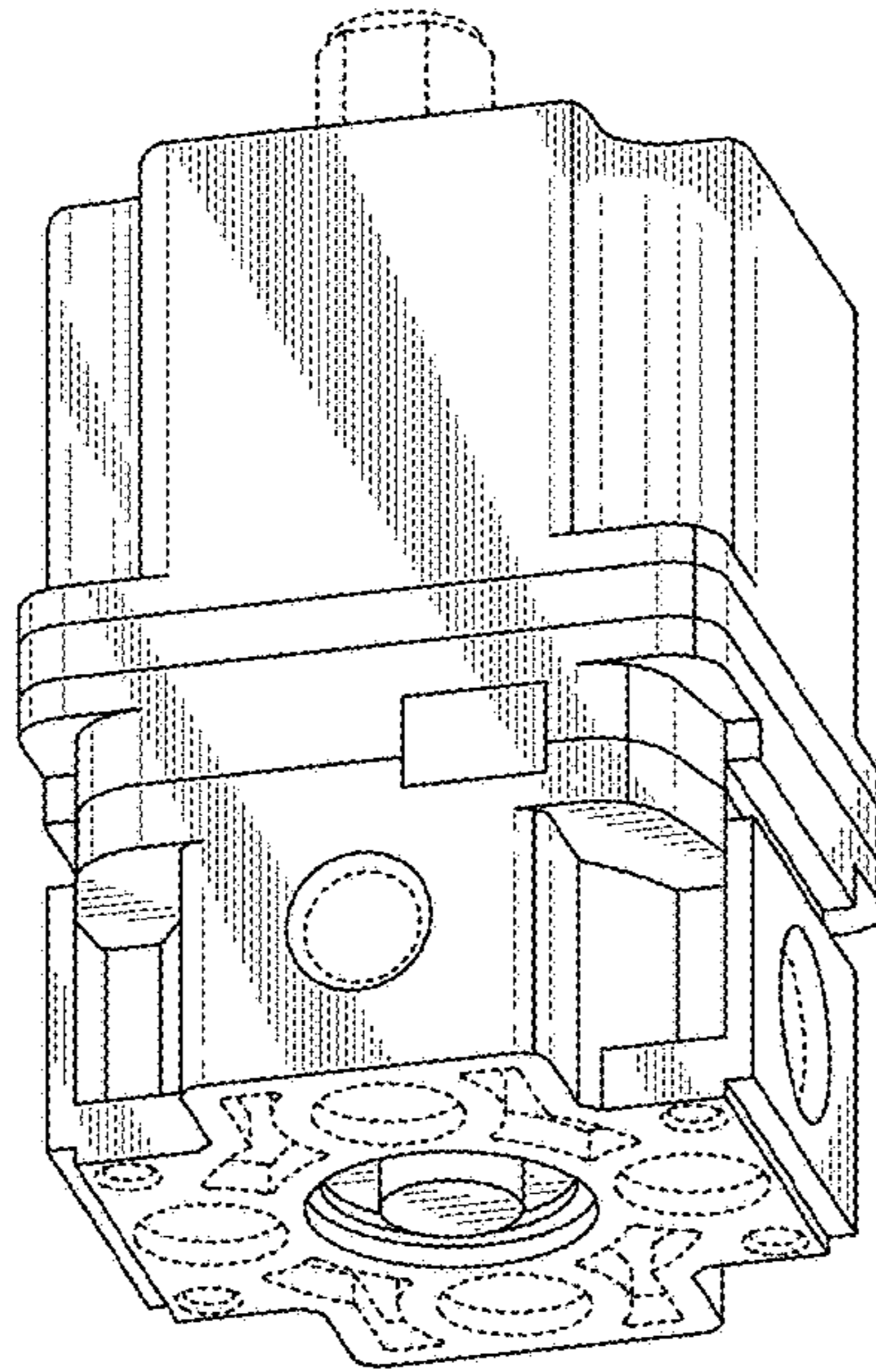


FIG. 3

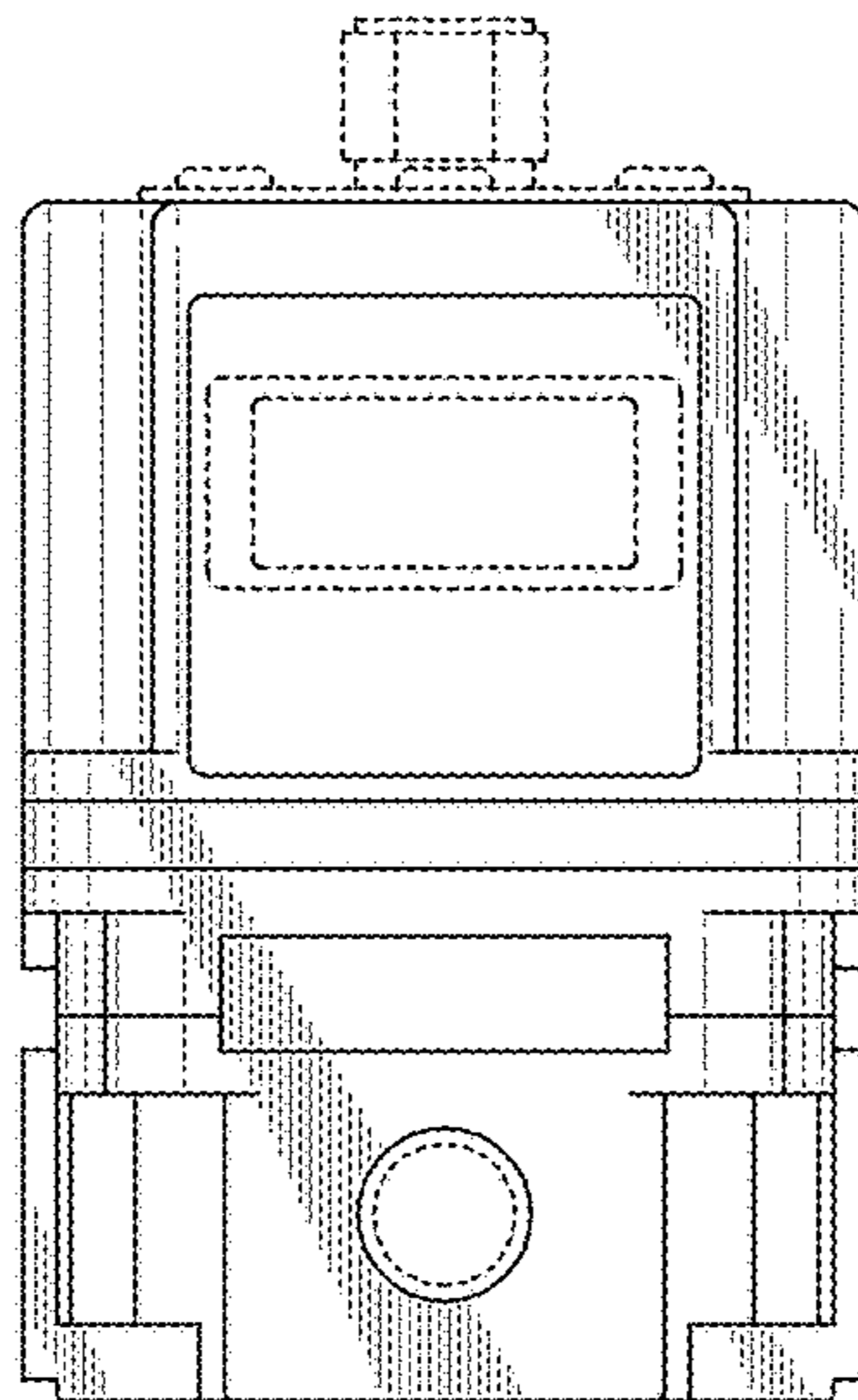


FIG. 4

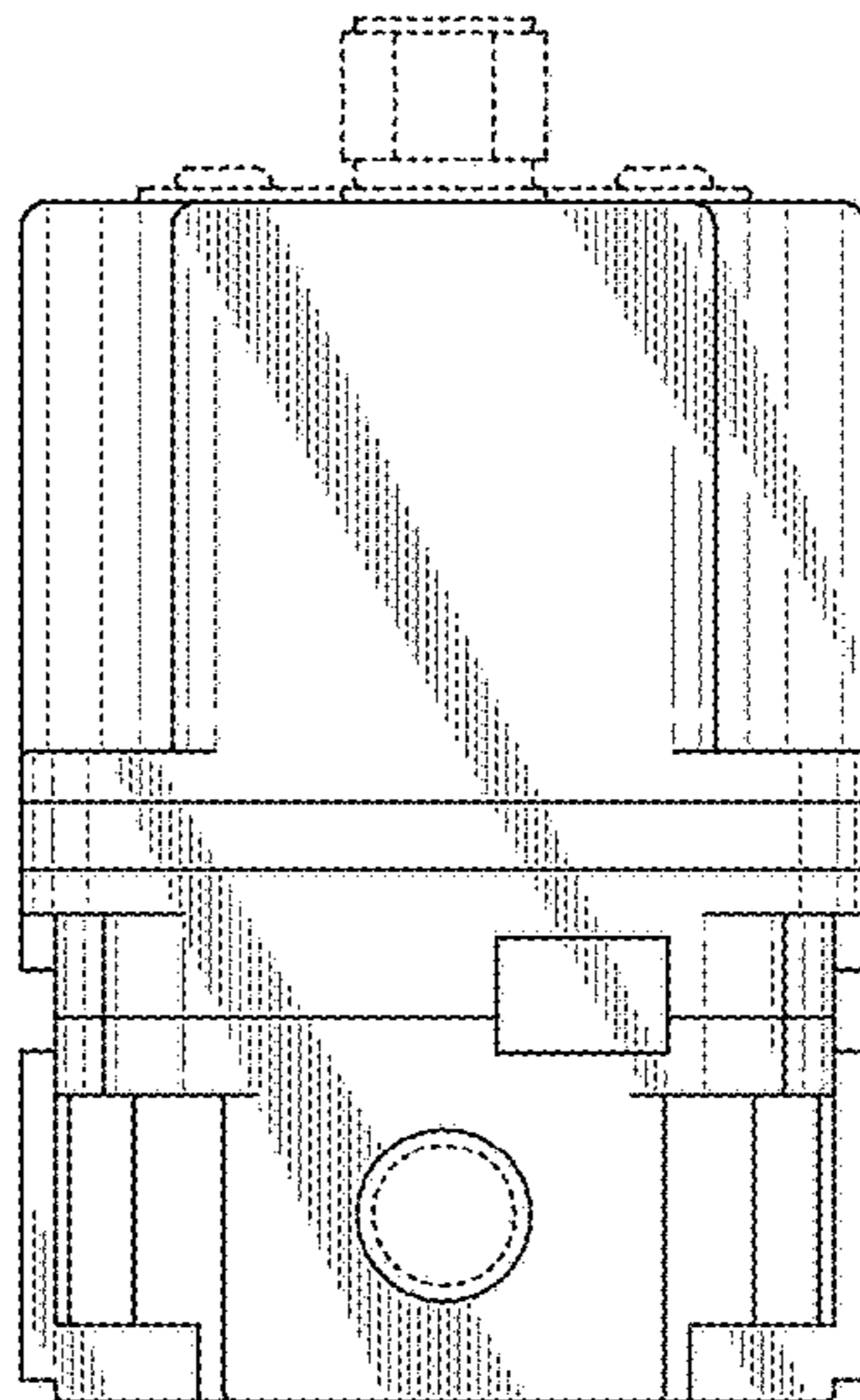


FIG. 5

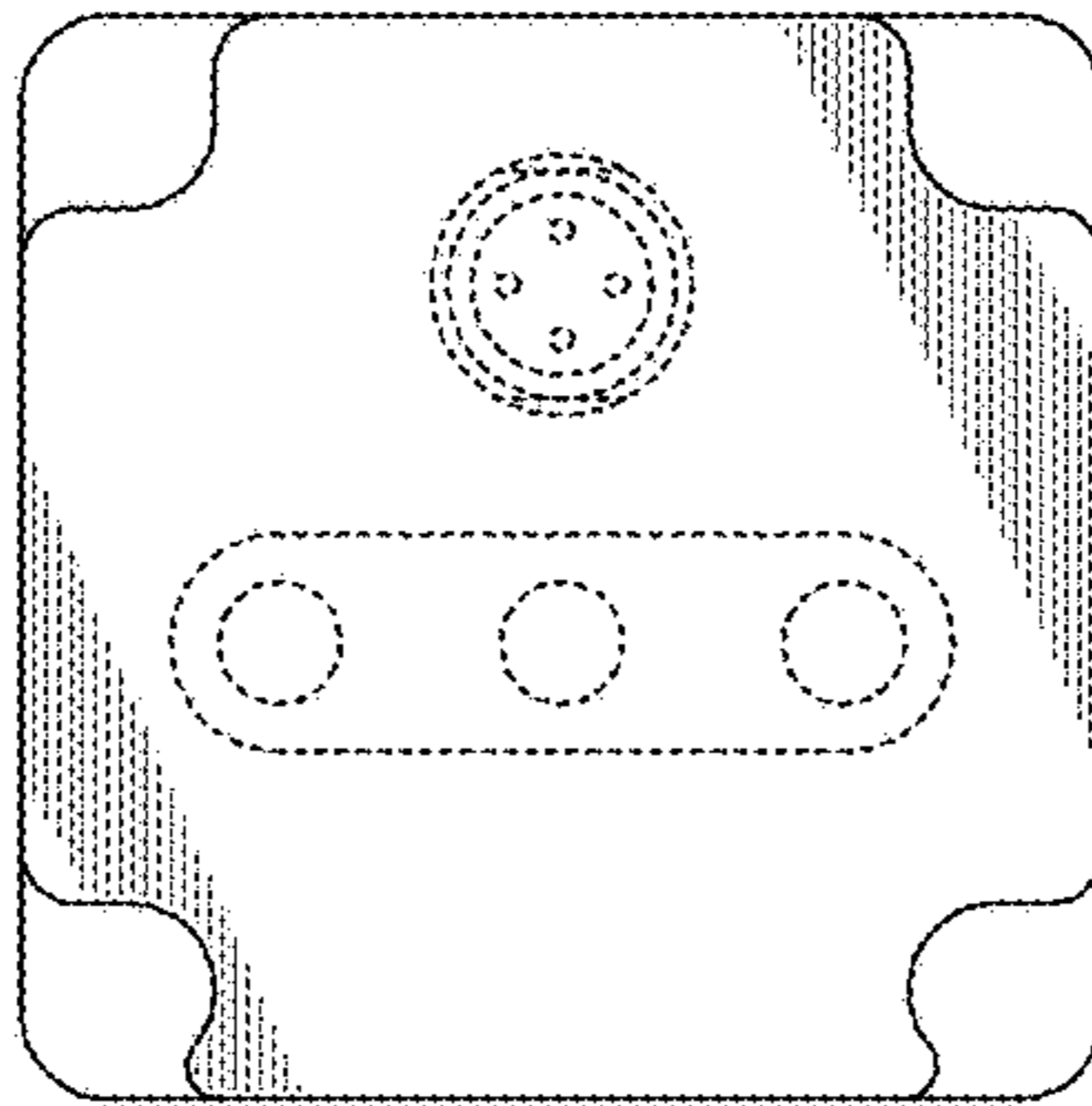


FIG. 6

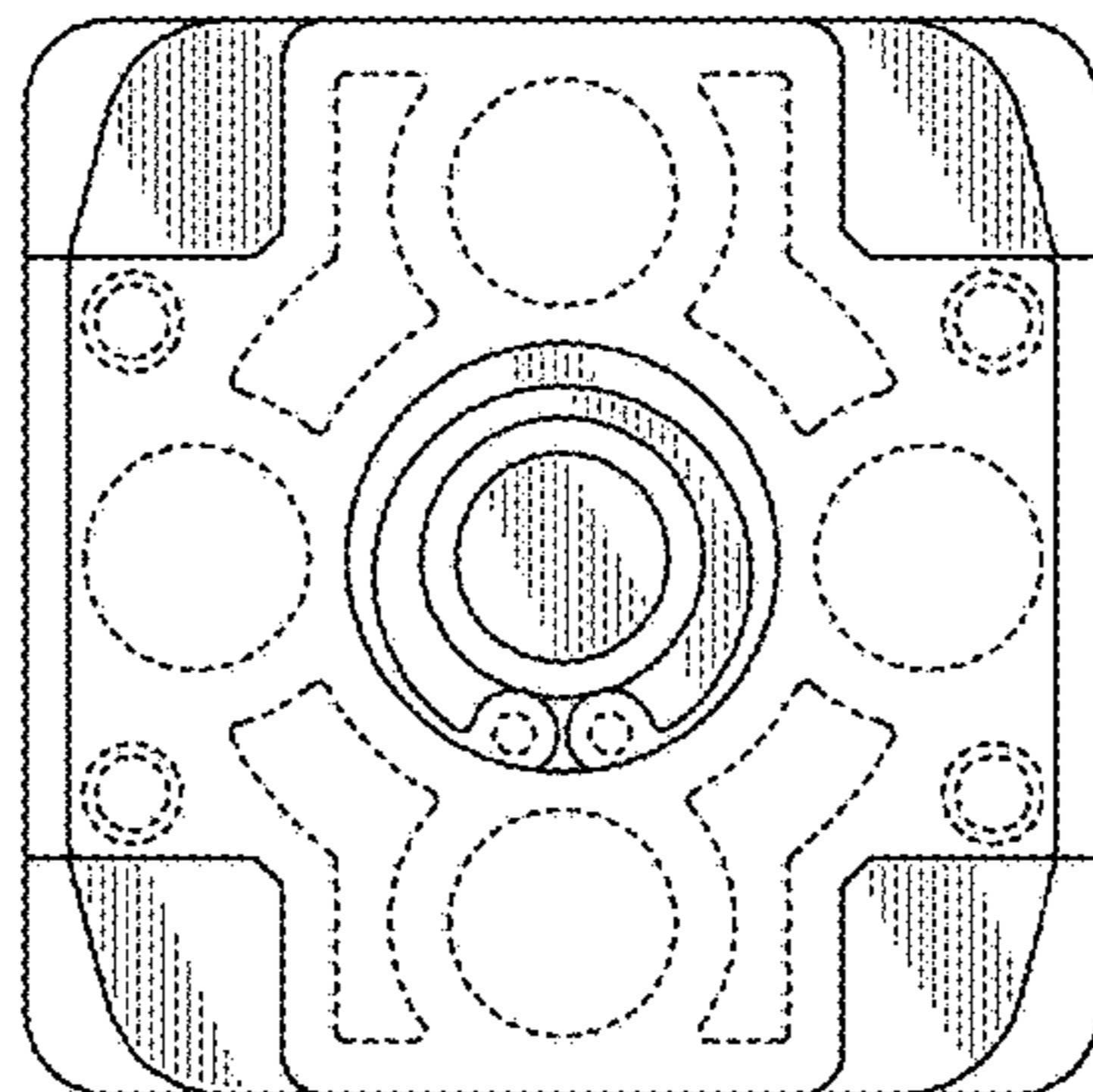


FIG. 7

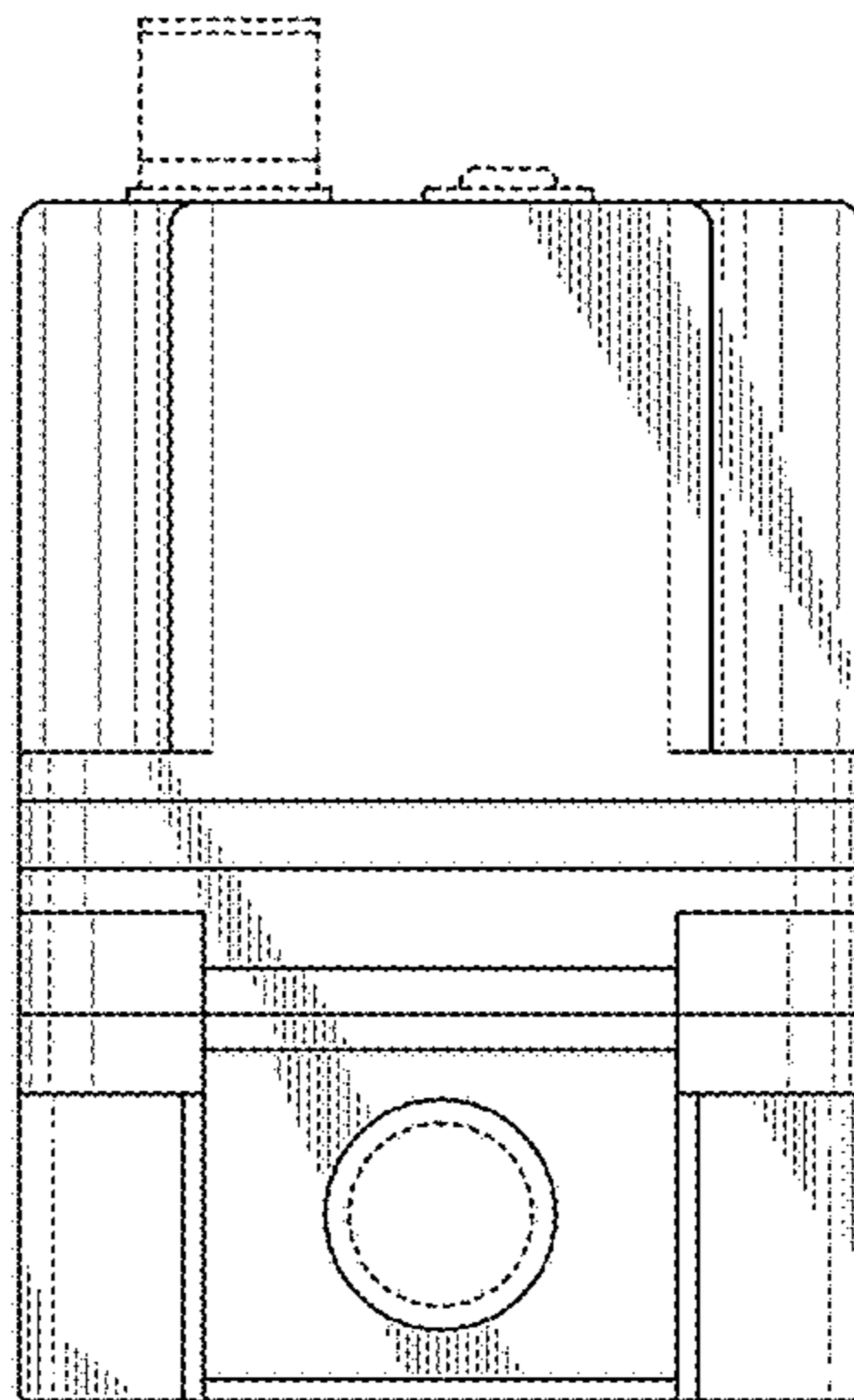




FIG. 8

