

US00D830513S

(12) **United States Design Patent** (10) **Patent No.:** **US D830,513 S**
Sato et al. (45) **Date of Patent:** **** Oct. 9, 2018**

(54) **SOLENOID VALVE**

(71) Applicant: **SMC CORPORATION**, Tokyo (JP)

(72) Inventors: **Hideharu Sato**, Moriya (JP); **Yoshitada Doi**, Koshigaya (JP); **Takeshi Karibe**, Joso (JP); **Takayuki Murai**, Moriya (JP); **Yasushi Uchita**, Moriya (JP)

(73) Assignee: **SMC CORPORATION**, Tokyo (JP)

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

(21) Appl. No.: **29/613,571**

(22) Filed: **Aug. 11, 2017**

(30) **Foreign Application Priority Data**

Feb. 14, 2017 (CN) 2017 3 0039198

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

(52) **U.S. Cl.**
USPC **D23/233**

(58) **Field of Classification Search**
USPC D23/233, 235, 237, 244-249;
251/129.15, 65; 137/341, 487.5, 625.64,
137/884
CPC .. F16K 31/0675; F16K 27/029; F16K 27/048;
F16K 31/02
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D246,907 S * 1/1978 Fialkowski D23/233
D410,523 S * 6/1999 Ota D23/233
D413,650 S * 9/1999 Sato D23/233

D417,485 S * 12/1999 Sato D23/233
D419,642 S * 1/2000 Hiramatsu D23/233
D438,596 S * 3/2001 Takada D23/233
D615,618 S 5/2010 Someya
D752,182 S 3/2016 Umeda et al.
D796,007 S * 8/2017 Ueno D23/233
D796,008 S * 8/2017 Ueno D23/233

FOREIGN PATENT DOCUMENTS

JP 1094554 S 12/2000
JP 1479959 S 9/2013
JP 1479960 S 9/2013
JP 1514855 S 1/2015
JP 1515274 S 1/2015
JP 1529637 S 7/2015

* cited by examiner

Primary Examiner — Cynthia Ramirez

Assistant Examiner — Gino Colan

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

(57) **CLAIM**

The ornamental design for a solenoid valve, as shown.

DESCRIPTION

FIG. 1 is a front, top and left side perspective view of a solenoid valve showing our new design;
FIG. 2 is a rear, bottom and right 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.

1 Claim, 8 Drawing Sheets

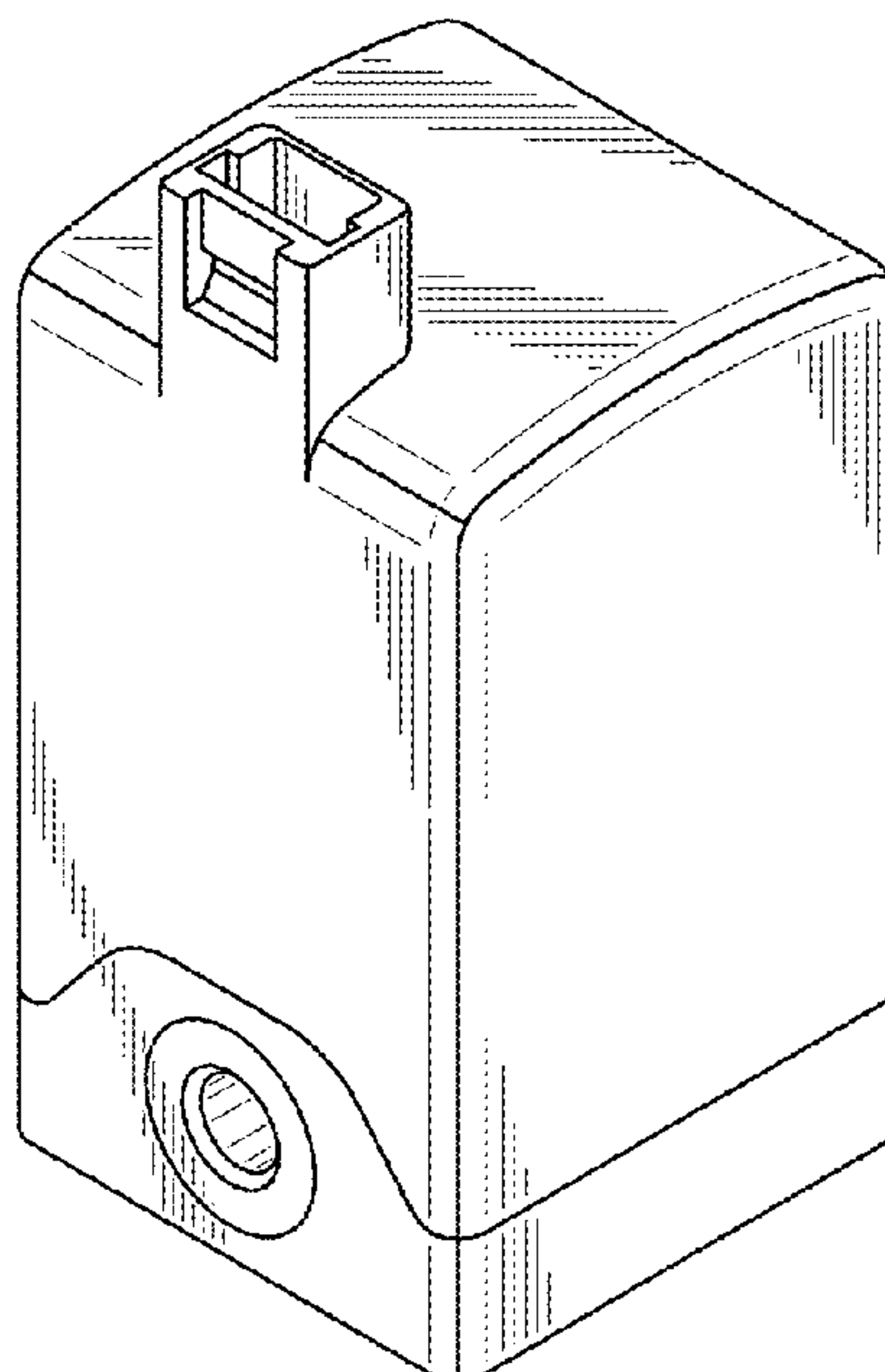


FIG. 1

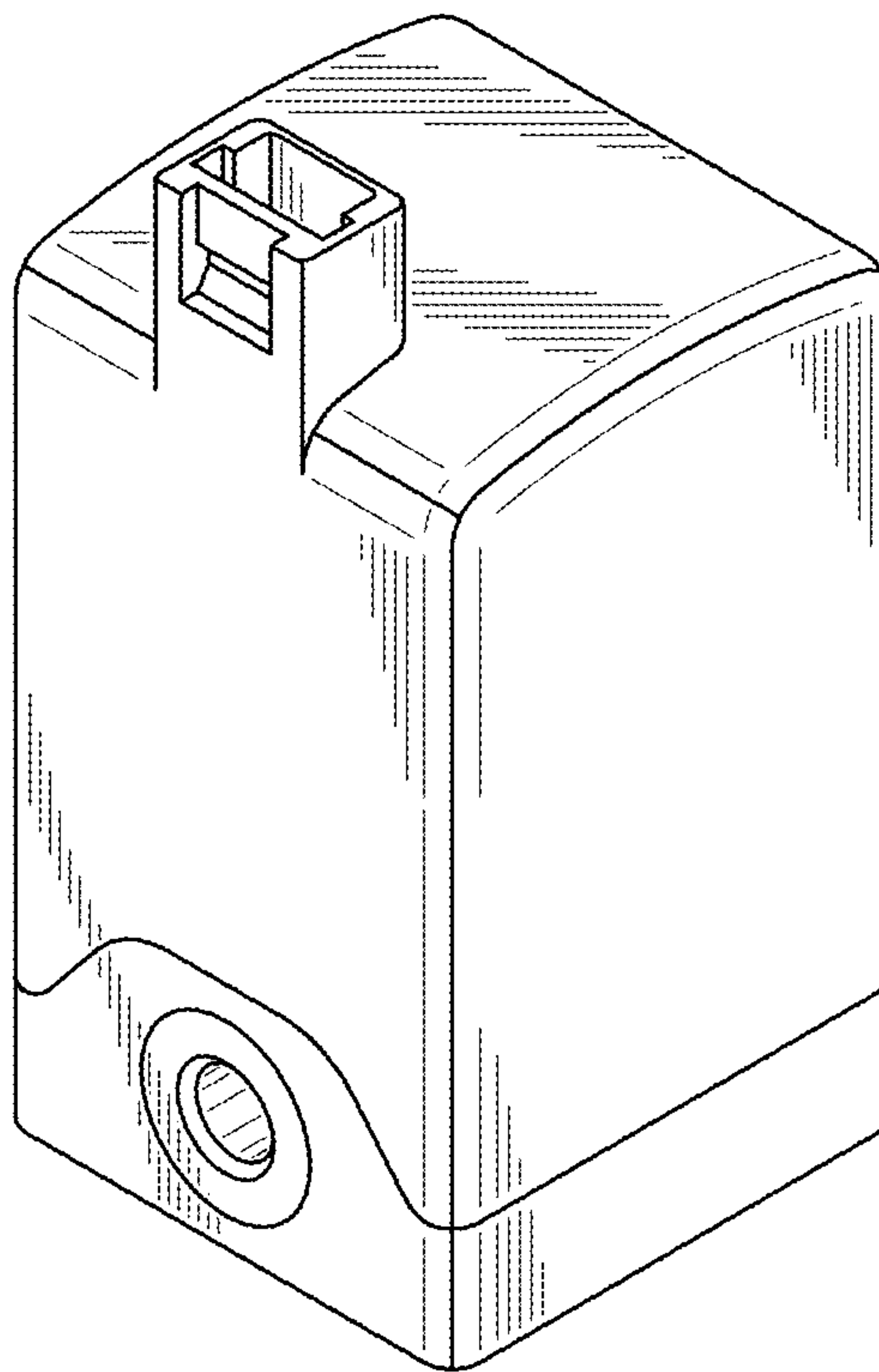


FIG. 2

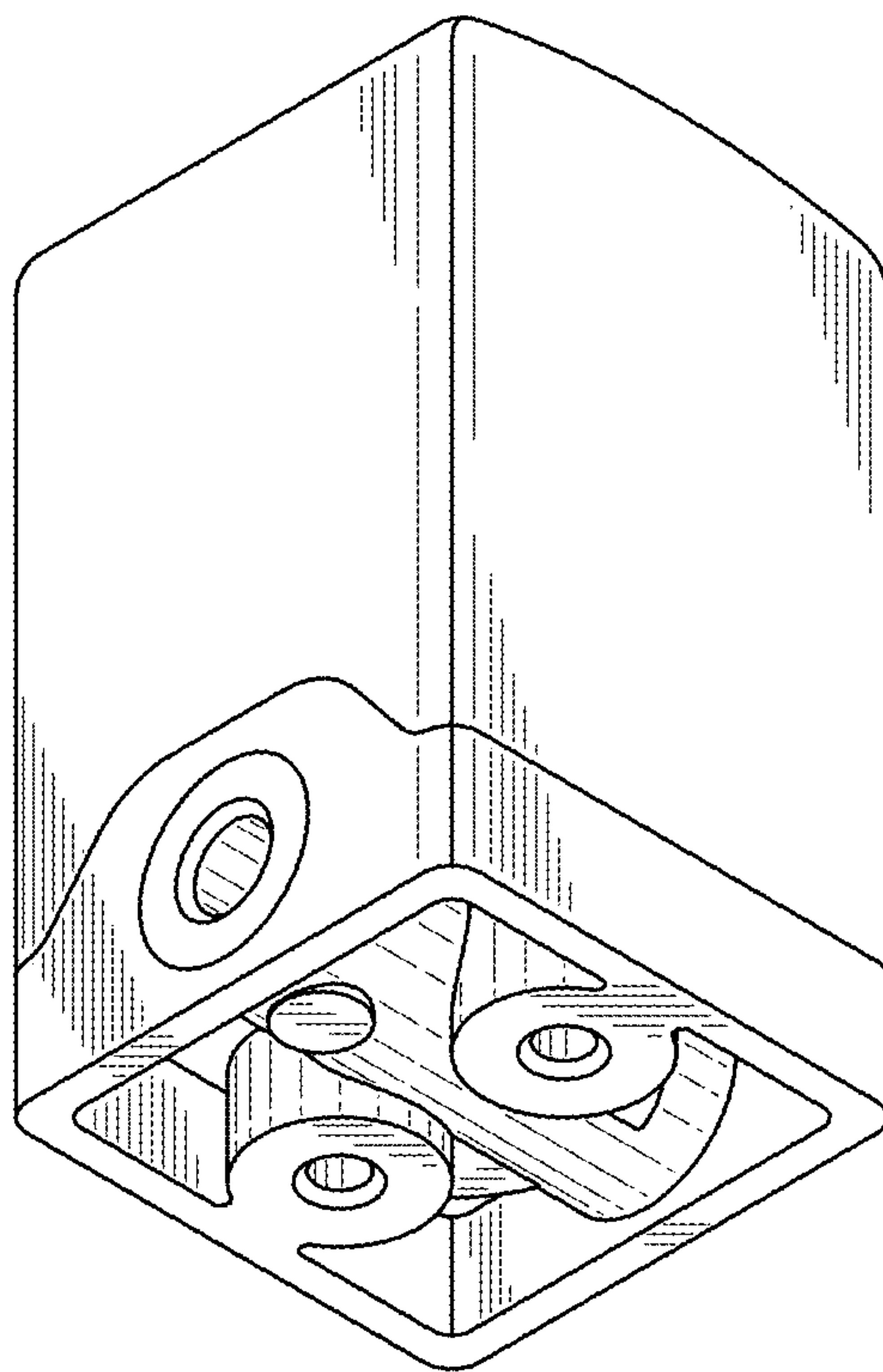


FIG. 3

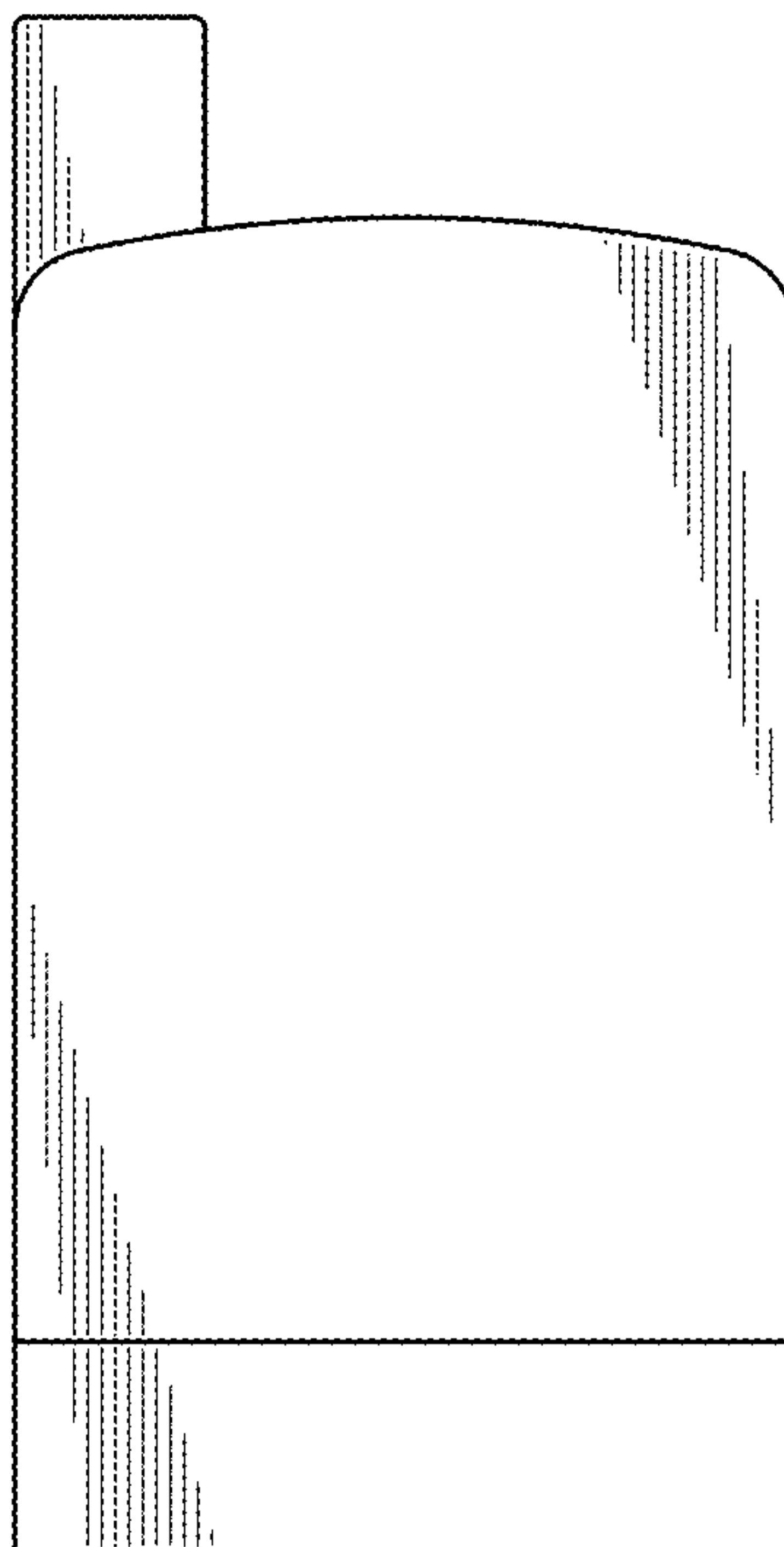


FIG. 4

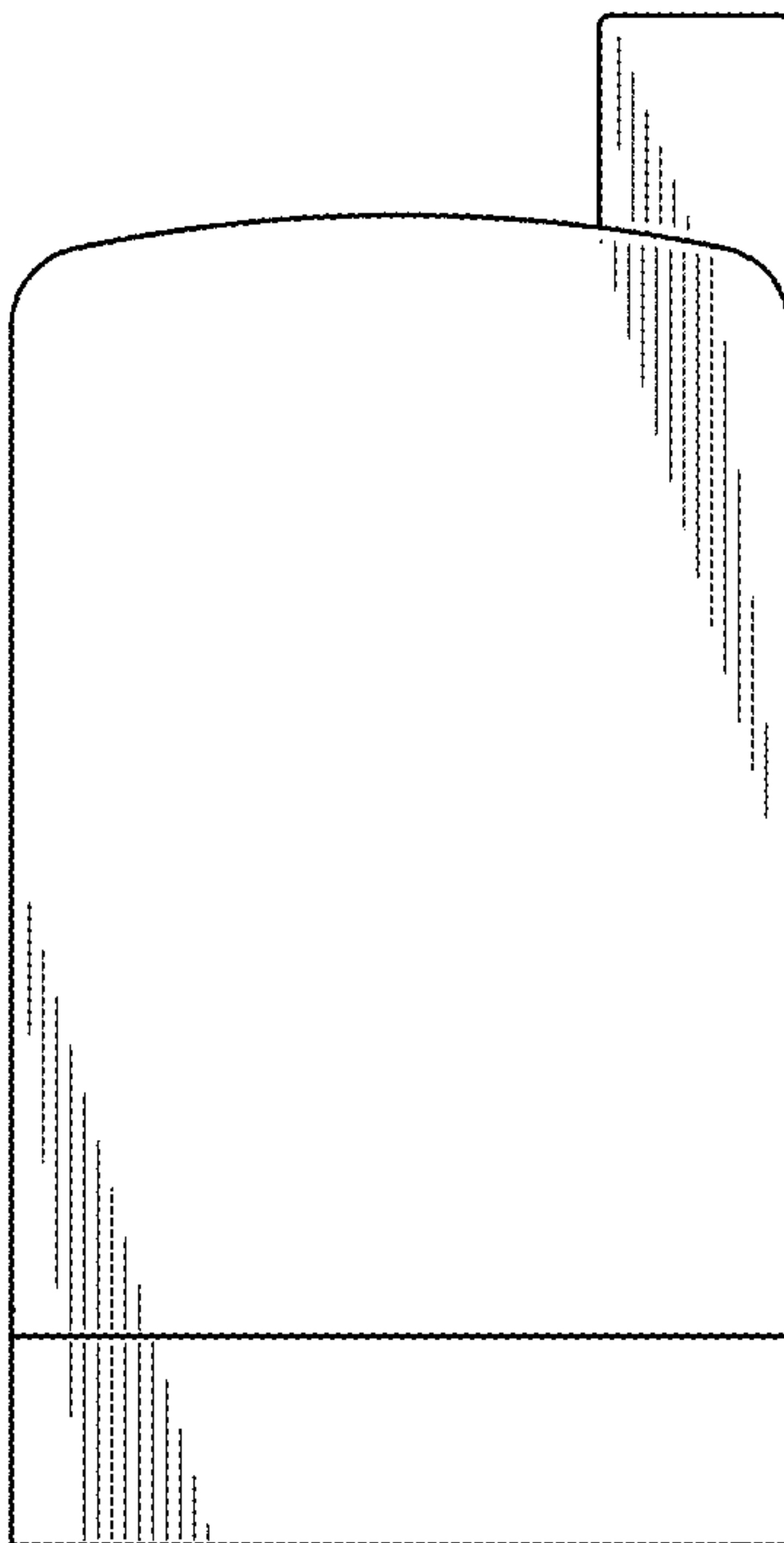


FIG. 5

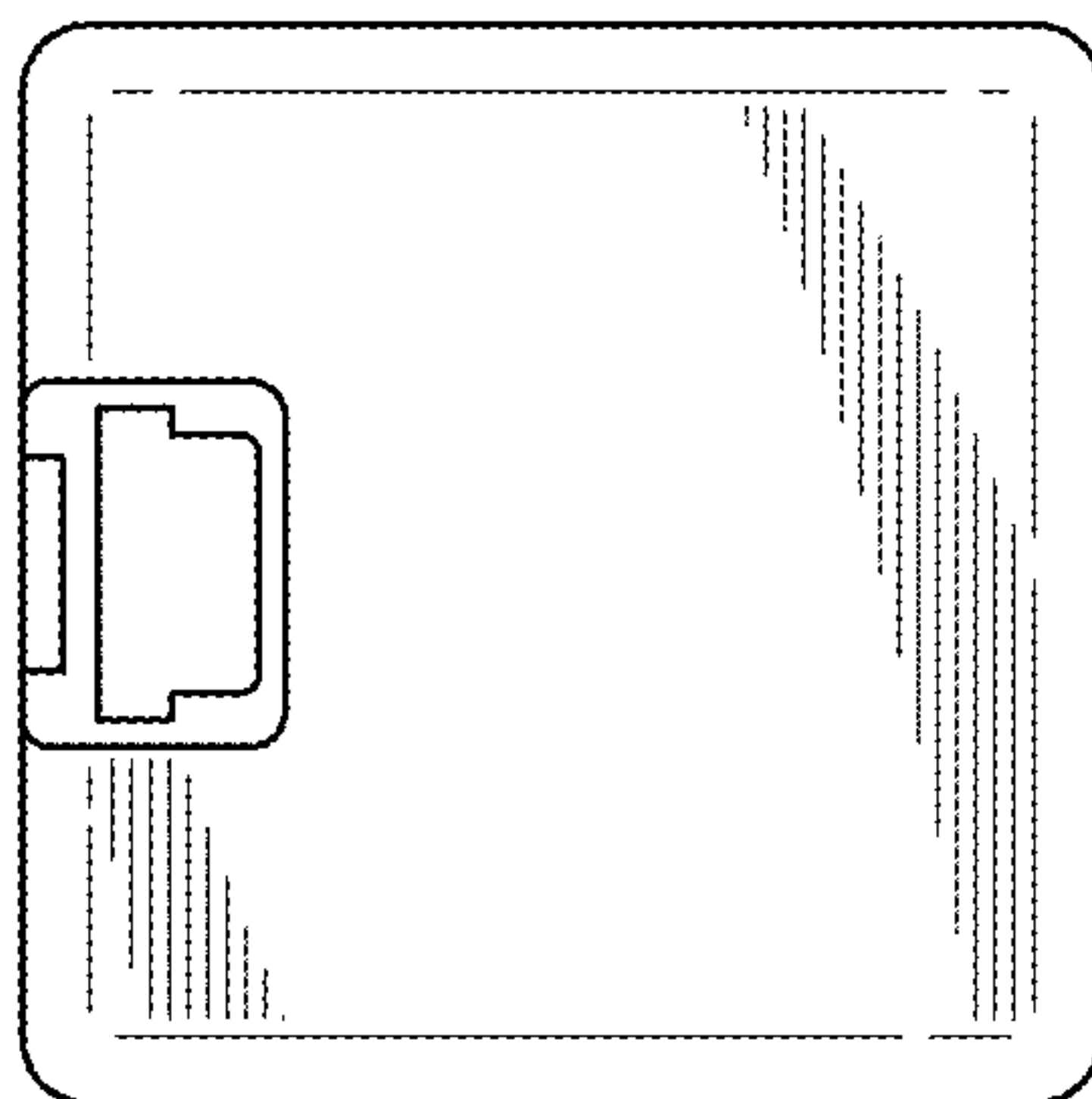


FIG. 6

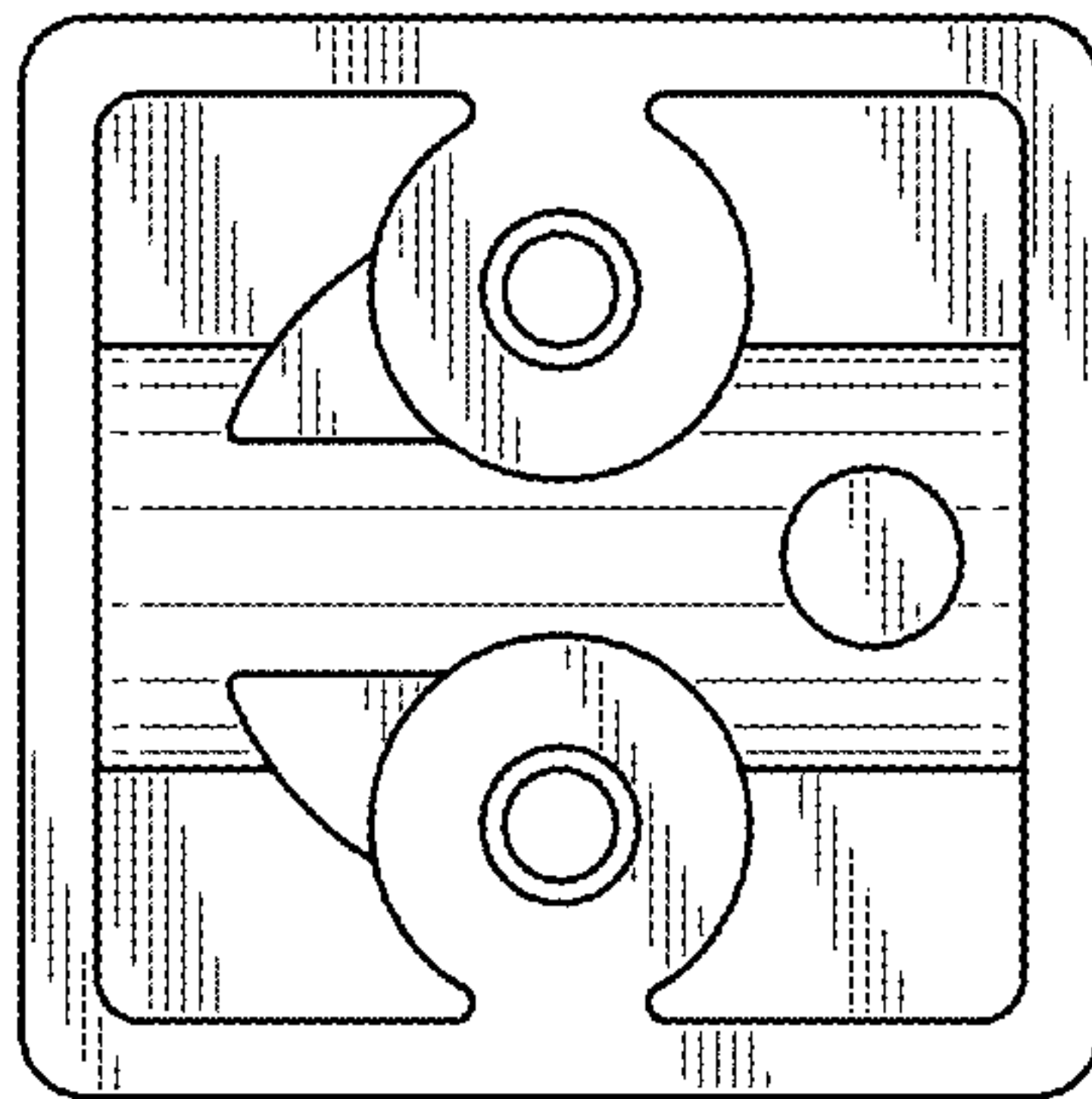


FIG. 7

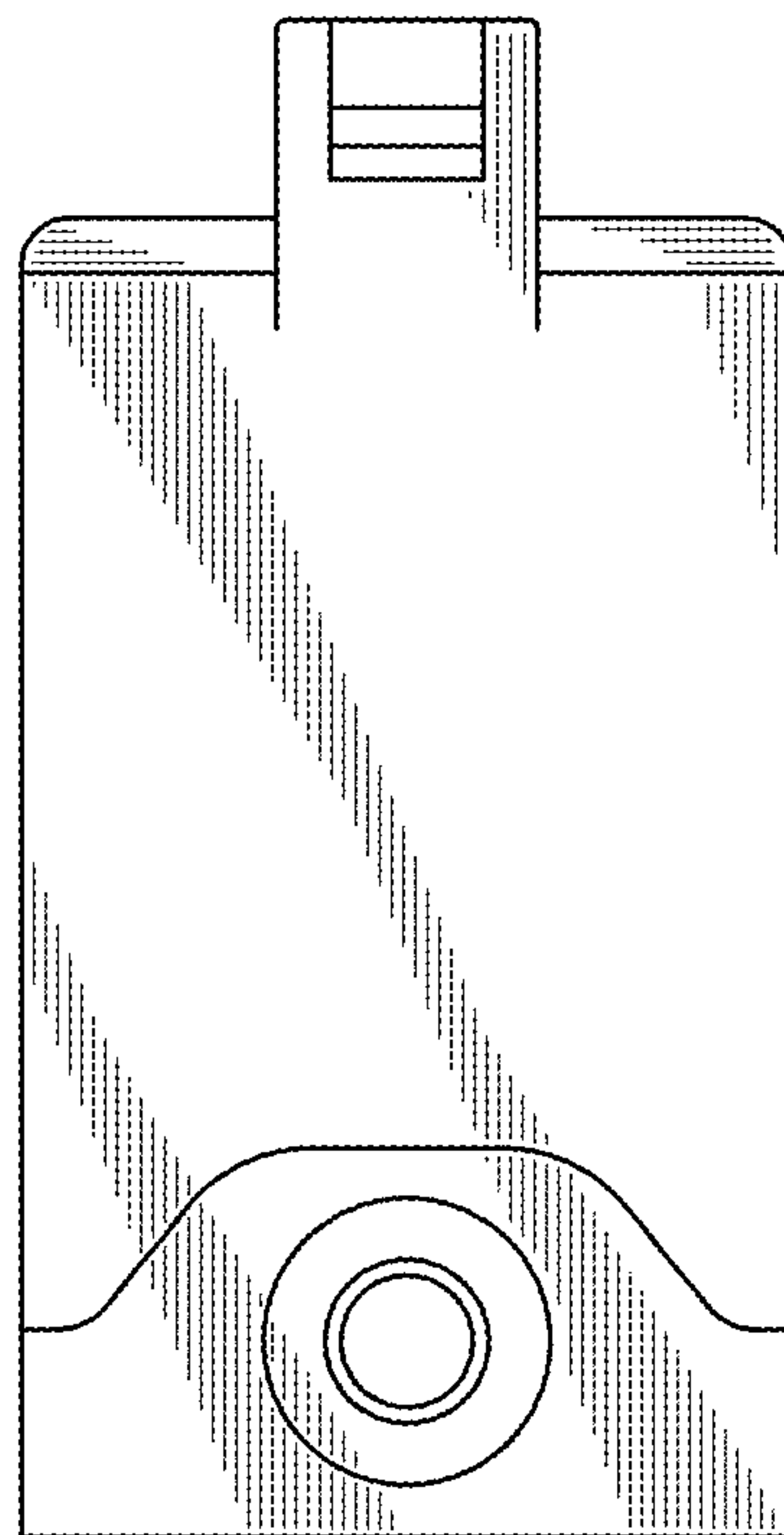


FIG. 8

