

US00D844108S

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

(10) **Patent No.:** **US D844,108 S**

(45) **Date of Patent:** **** Mar. 26, 2019**

(54) **FILTER**

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

(72) Inventors: **Shinichi Ito**, Toride (JP); **Michihiro Hanada**, Tsukubamirai (JP)

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

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

(21) Appl. No.: **29/599,144**

(22) Filed: **Mar. 31, 2017**

(30) **Foreign Application Priority Data**

Oct. 11, 2016 (JP) 2016-021990

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

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

(58) **Field of Classification Search**
USPC D23/209, 235, 341, 358, 363-365;
D15/5; D10/83, 85, 96
CPC F02M 35/04; F02M 35/10; F02M 35/024;
B01D 46/00; B01D 46/24; B01D 36/00;
B01D 46/0002; B01D 46/10; F16K
31/0655; F16K 3/265

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,533,020 A * 8/1985 Yamazaki F15B 21/048
184/55.2
D317,315 S * 6/1991 Miyake D15/150
D317,346 S * 6/1991 Ito D23/209
D317,644 S * 6/1991 Ito D15/150
7,537,624 B2 * 5/2009 Jachmann B01D 45/16
55/337
D659,814 S 5/2012 Yamase et al.
D659,815 S 5/2012 Yamase et al.

9,314,726 B2 * 4/2016 Yamase B01D 46/2414
2003/0006097 A1 * 1/2003 Tomita F16N 7/30
184/55.1
2011/0018261 A1 * 1/2011 Yamauchi F15B 21/048
285/328
2013/0139481 A1 * 6/2013 Sakai B04C 5/04
55/396
2014/0069521 A1 * 3/2014 Sakai F17C 13/002
137/315.01
2014/0083299 A1 * 3/2014 Yamase B01D 46/0005
96/416

FOREIGN PATENT DOCUMENTS

JP D464523 S 12/1977
JP D478995 S 6/1978
JP D1431620 S 1/2012
JP D1432258 S 1/2012

* cited by examiner

Primary Examiner — Lakiya G Rogers

Assistant Examiner — John A Voytek

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

(57) **CLAIM**

The ornamental design for a filter, as shown.

DESCRIPTION

FIG. 1 is a front, top and left side perspective view of a filter 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

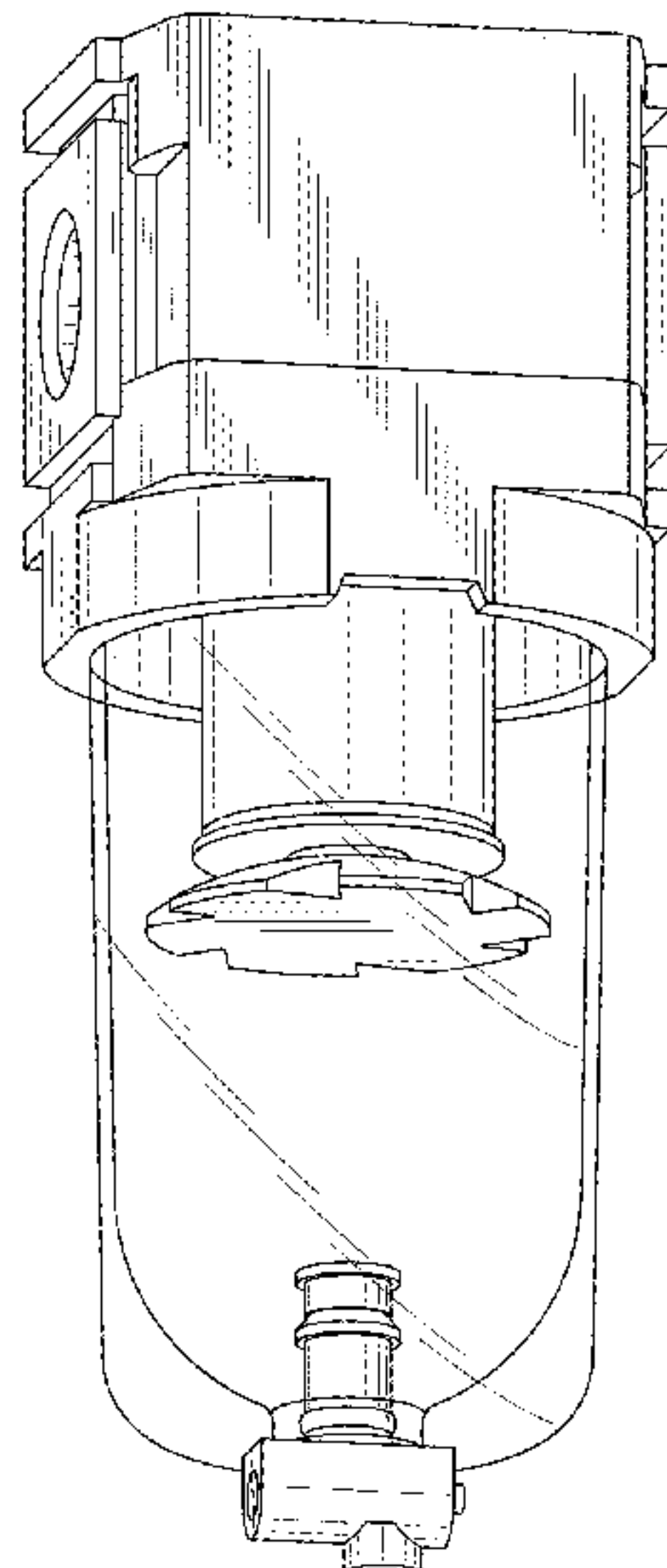


FIG. 1

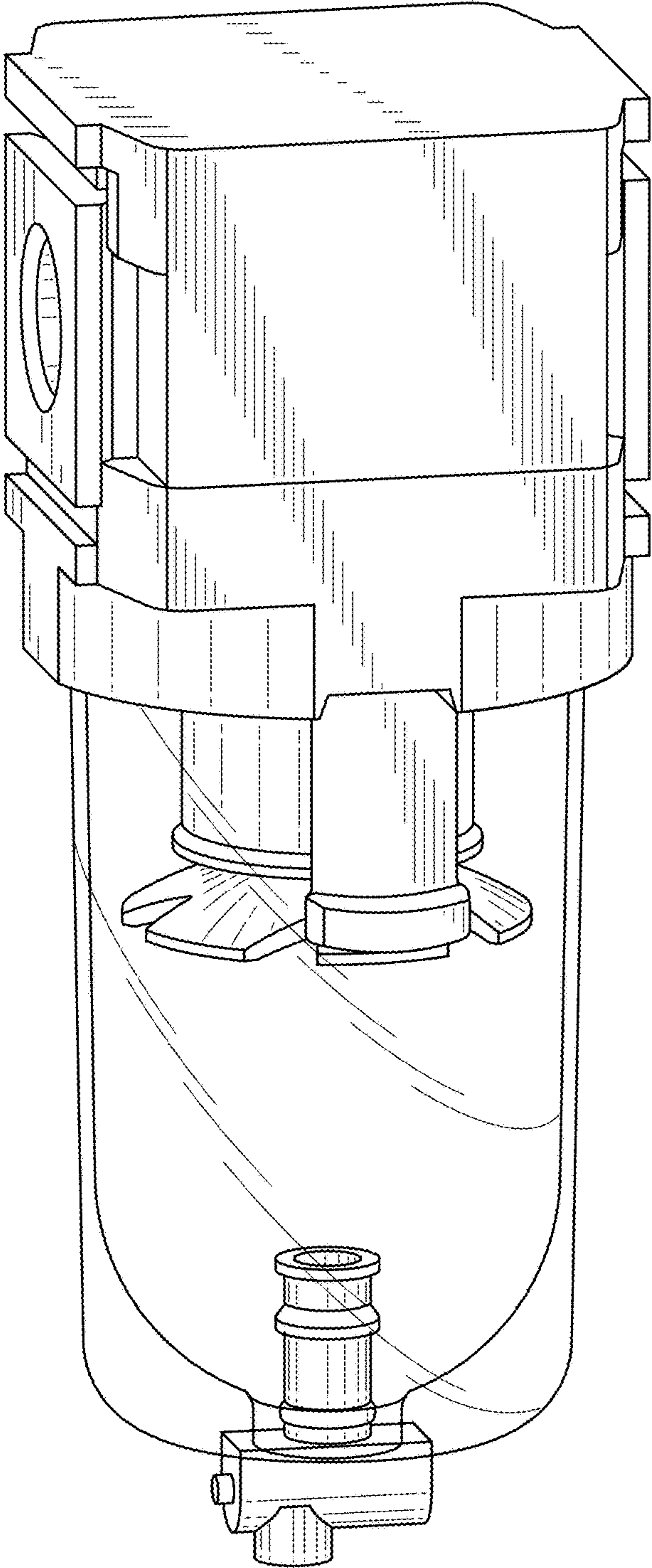


FIG. 2

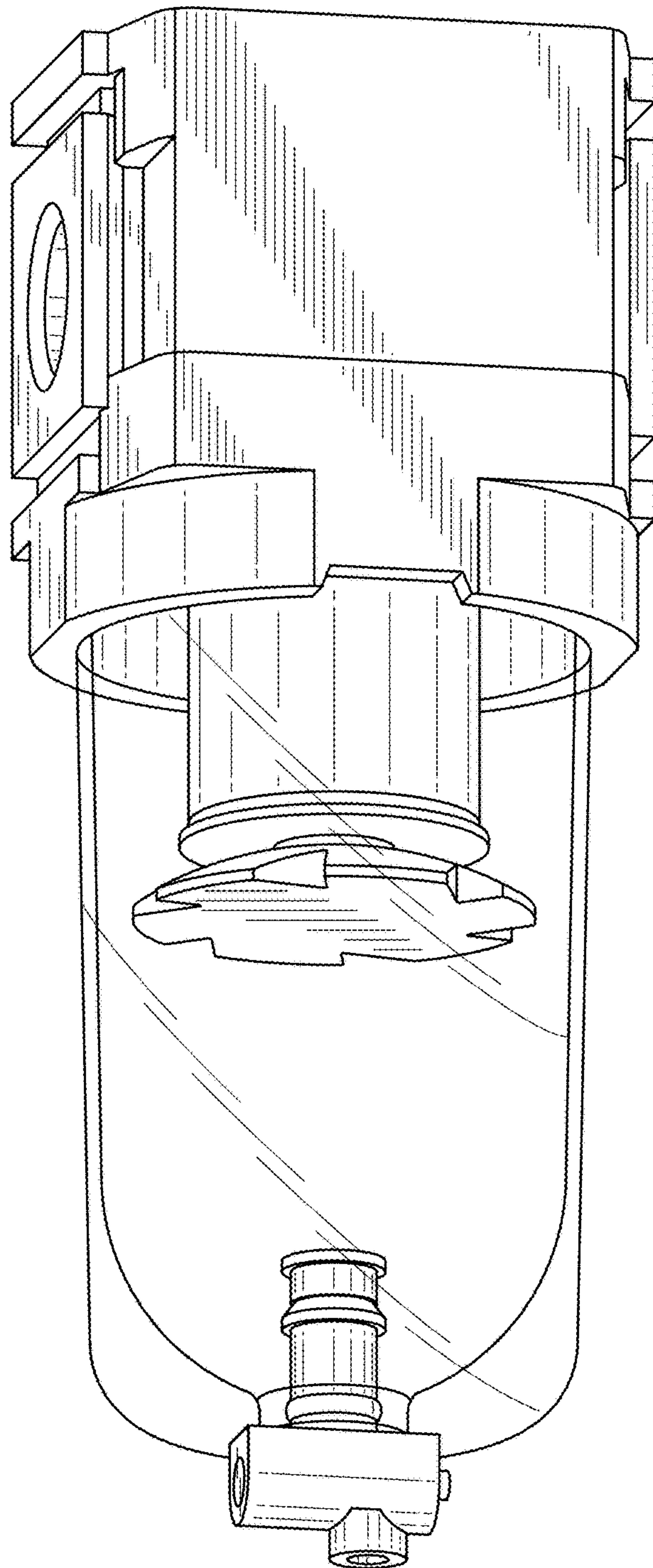


FIG. 3

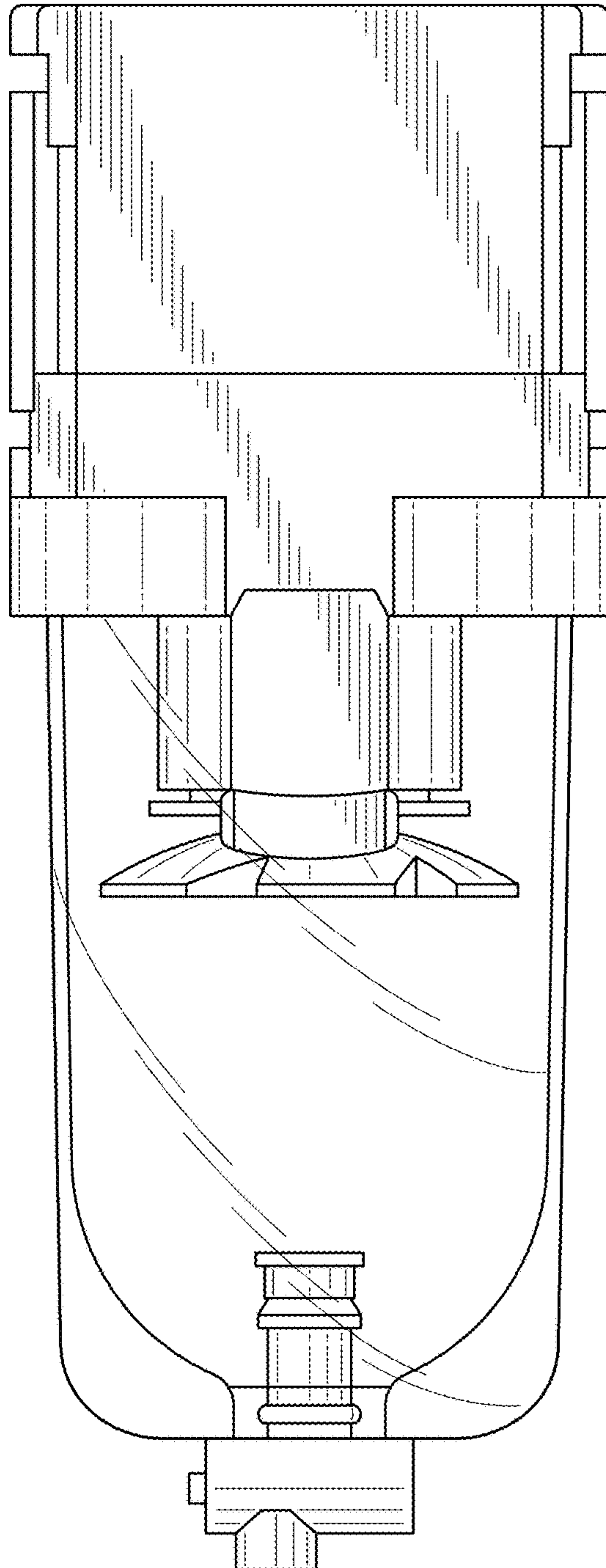


FIG. 4

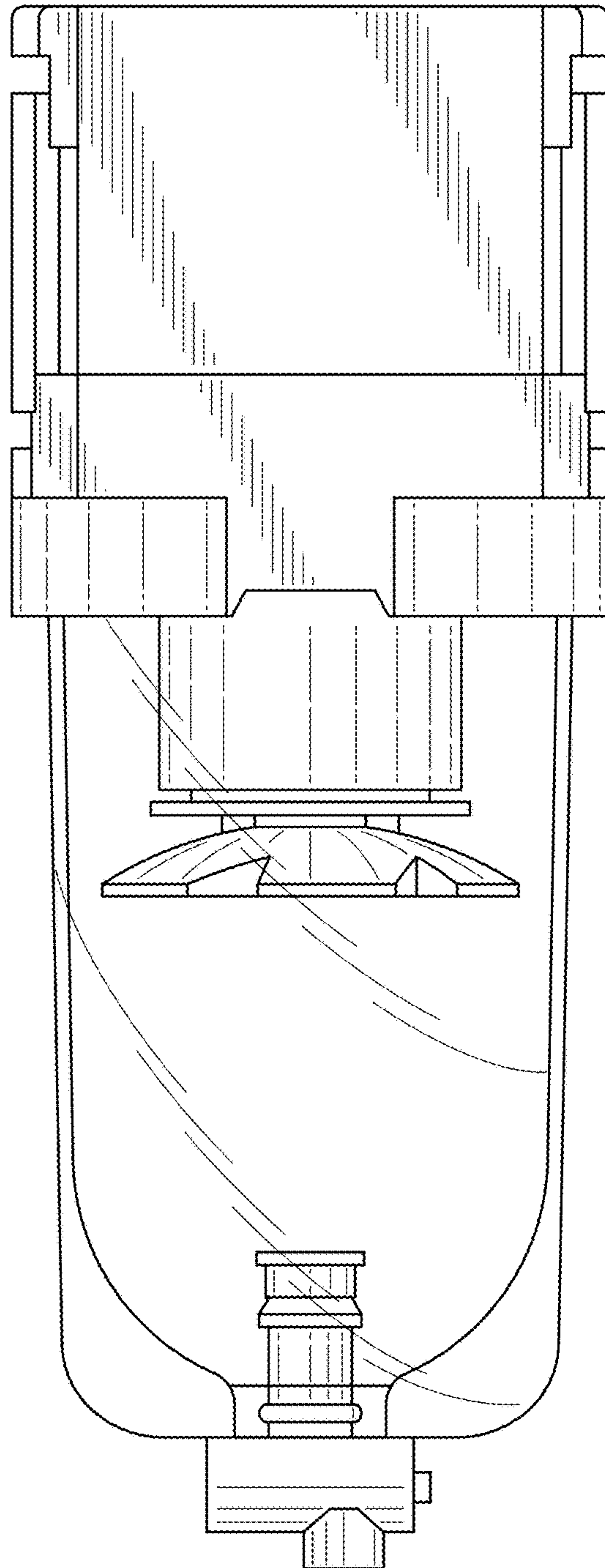


FIG. 5

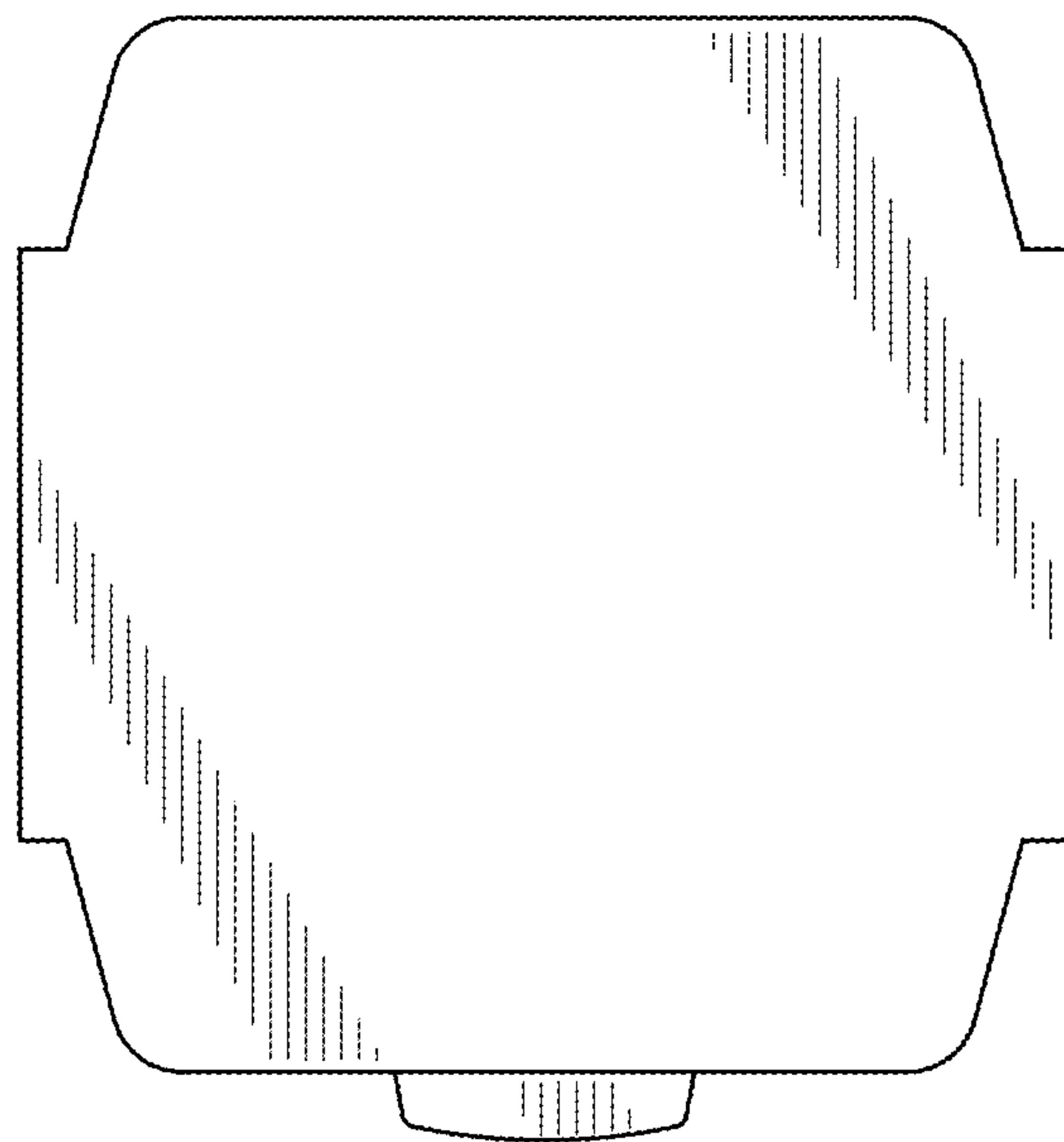


FIG. 6

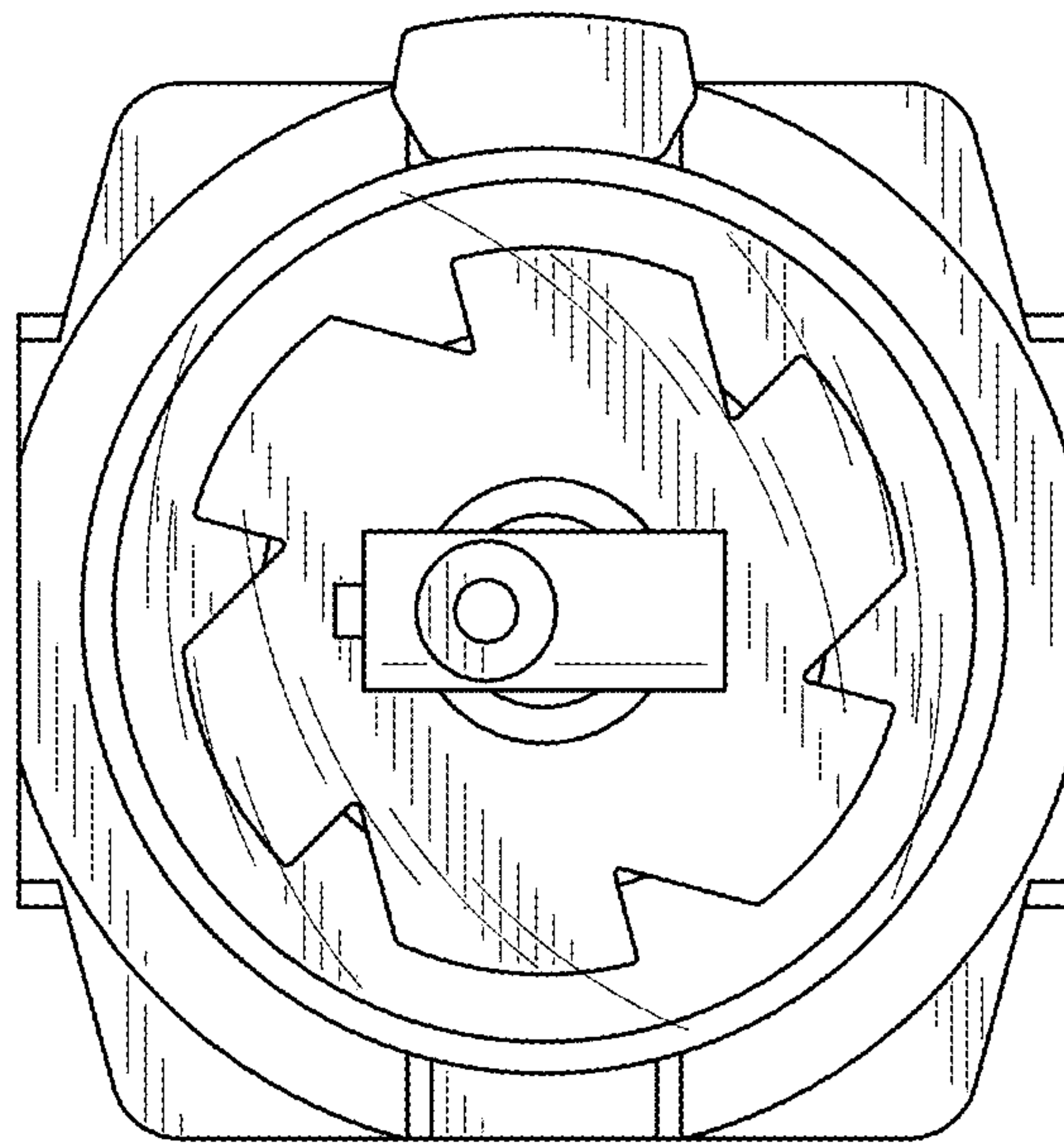


FIG. 7

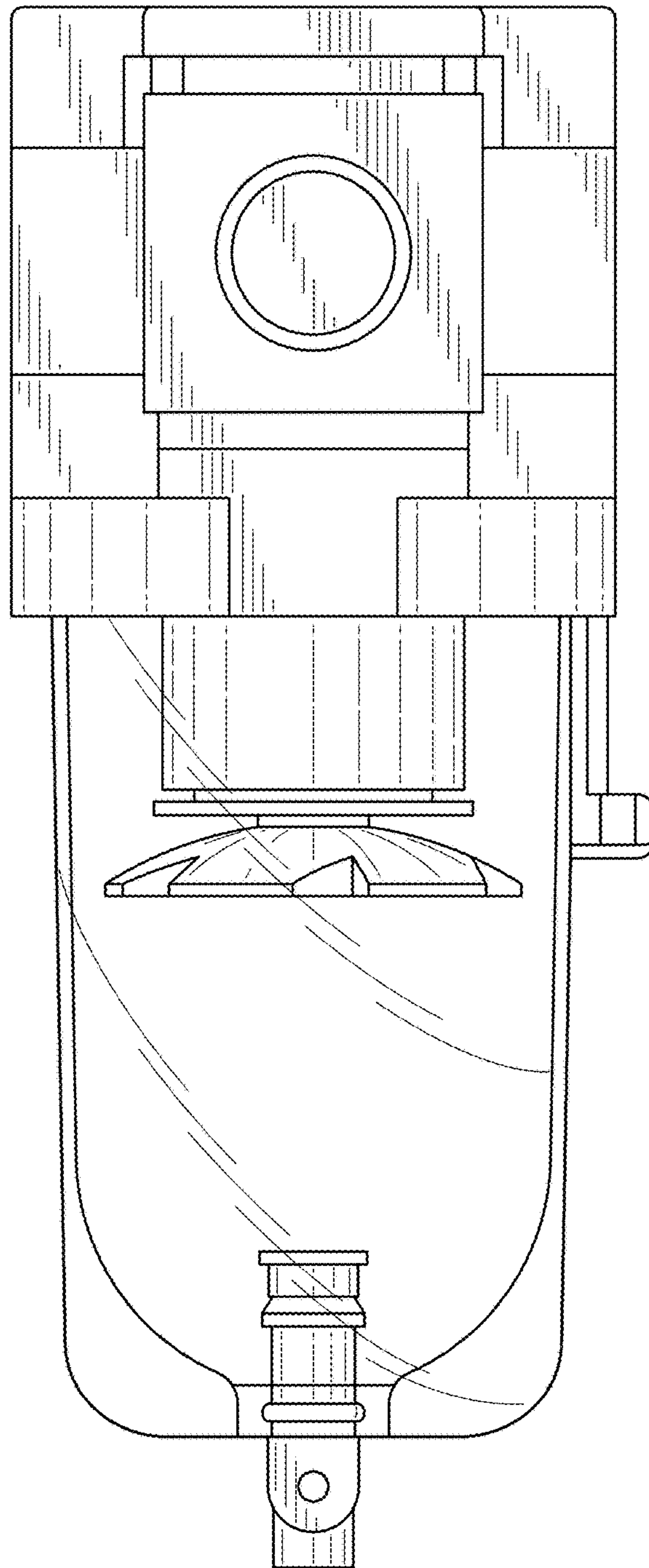


FIG. 8

