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Taylor et al.

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- (54) **ACTUATOR**
- (71) Applicant: **KANA ENERGY SERVICES, INC.**,
Houston, TX (US)
- (72) Inventors: **Gary G. Taylor**, Kingwood, TX (US);
Terry G. Young, Longview, TX (US);
Guiming Liu, Sugar Land, TX (US)
- (73) Assignee: **KANA ENERGY SERVICES, INC.**,
Houston, TX (US)
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- (51) **LOC (11) Cl.** **15-09**
- (52) **U.S. Cl.**
USPC **D15/148**
- (58) **Field of Classification Search**
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CPC F15B 15/00; F15B 15/065; F15B 15/12;
H02K 7/00; H02K 5/24; H02K 19/06;
H02K 26/00; H02K 33/00; H02K 33/16;
H02K 37/00
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 4,520,331 A * 5/1985 Steidel H01F 7/145
310/156.32
- 4,999,531 A * 3/1991 Mavadia H01F 7/145
310/23
- D487,101 S * 2/2004 Taoka D15/149
- 7,256,519 B2 * 8/2007 Ito F04B 35/045
310/12.27
- D629,821 S * 12/2010 Jump D15/143
- D638,454 S * 5/2011 Torii D15/143
- D639,321 S * 6/2011 Torii D15/143

- 7,973,445 B2 * 7/2011 Bischel H02K 19/06
310/162
- D673,196 S * 12/2012 von Hafen D15/148
- D709,933 S * 7/2014 Wu D15/143
- D733,779 S * 7/2015 Ebner D15/148
- D740,867 S * 10/2015 Barta D15/148
- D789,432 S * 6/2017 Tokuda D15/148
- D790,617 S * 6/2017 Tokuda D15/148
- D816,169 S * 4/2018 Trujillo D21/333
- D821,205 S * 6/2018 Christianson D9/503
- D821,206 S * 6/2018 Christianson D9/516
- D829,792 S * 10/2018 Matsutou D15/148
- D832,325 S * 10/2018 Matsuto D15/148
- 2010/0064885 A1 * 3/2010 Werkhoven F15B 1/12
92/121
- 2014/0117788 A1 * 5/2014 Takahashi H02K 33/16
310/38
- 2016/0020668 A1 * 1/2016 Ishikawa H02K 5/24
310/38
- 2016/0290371 A1 * 10/2016 Ryu F15B 15/12

* cited by examiner

Primary Examiner — Patricia A Palasik

(74) *Attorney, Agent, or Firm* — Rao DeBoer Osterrieder,
PLLC; Dileep P. Rao

(57) **CLAIM**

The ornamental design for an actuator, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of the design for an actuator.
 FIG. 2 is a perspective view thereof.
 FIG. 3 is a perspective view thereof.
 FIG. 4 is a top plan view thereof.
 FIG. 5 is a bottom plan view thereof.
 FIG. 6 is a side elevational view thereof.
 FIG. 7 is a side elevational view thereof.
 FIG. 8 is a side elevational view thereof; and,
 FIG. 9 is a side elevational view thereof.

1 Claim, 6 Drawing Sheets

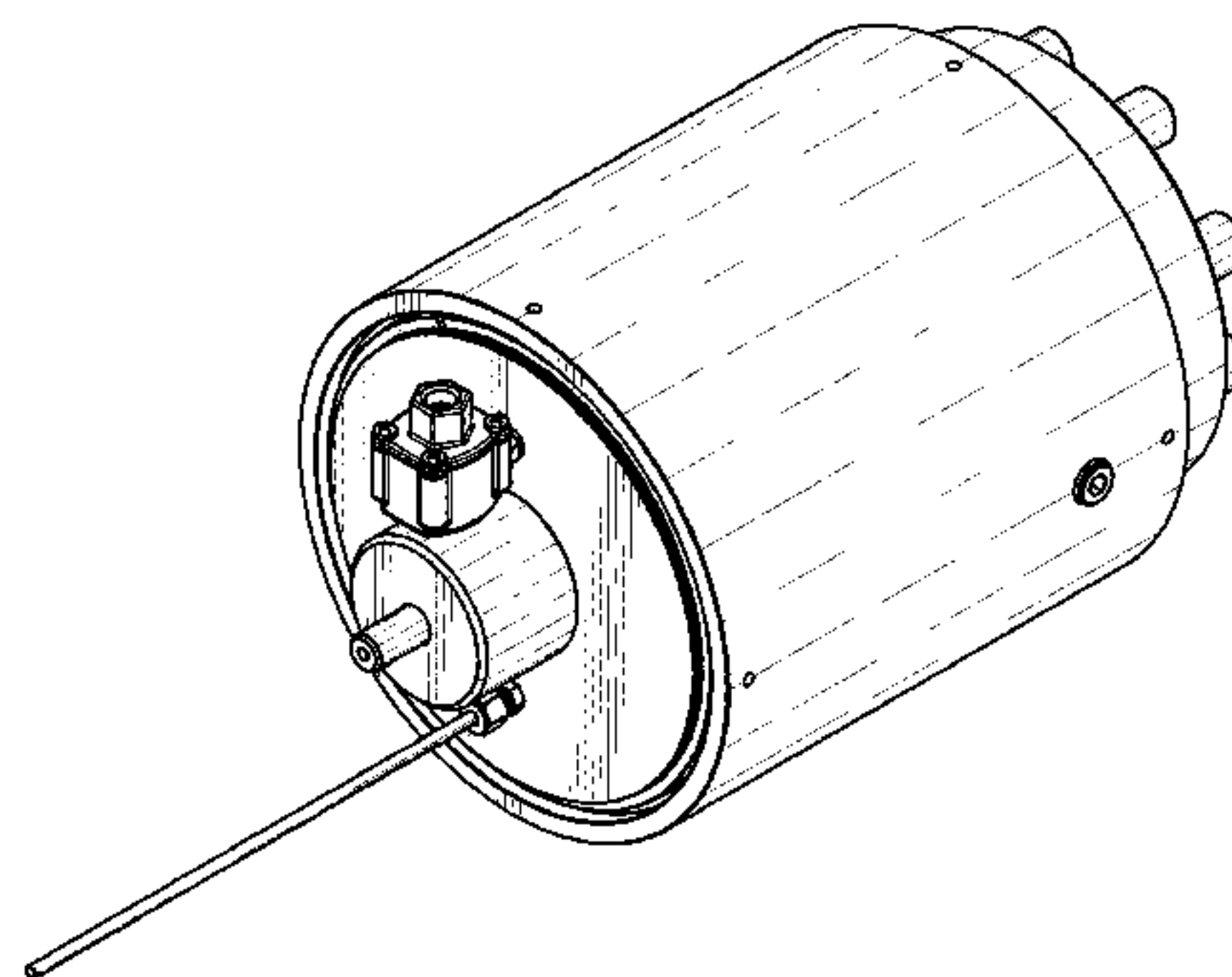
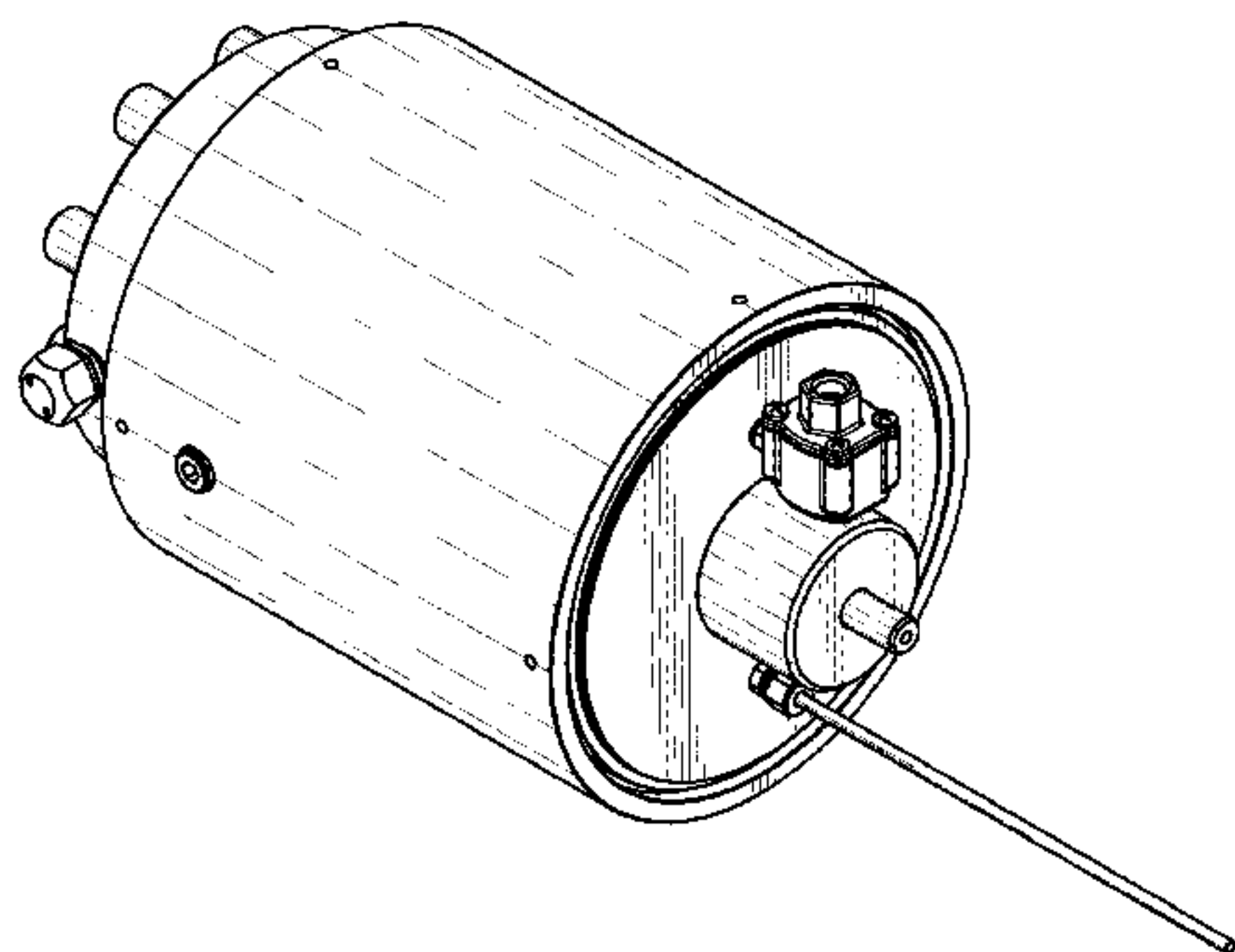
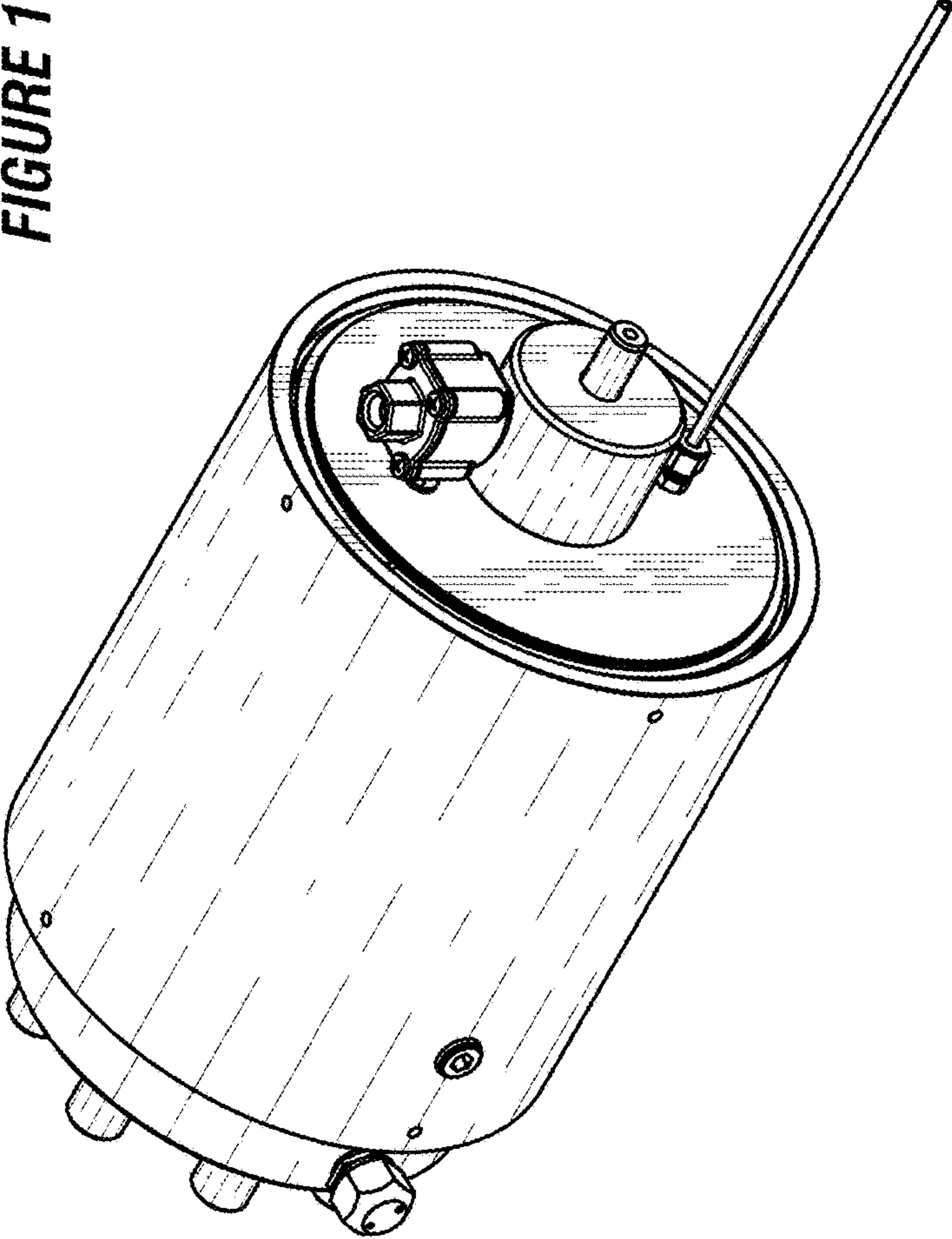


FIGURE 1



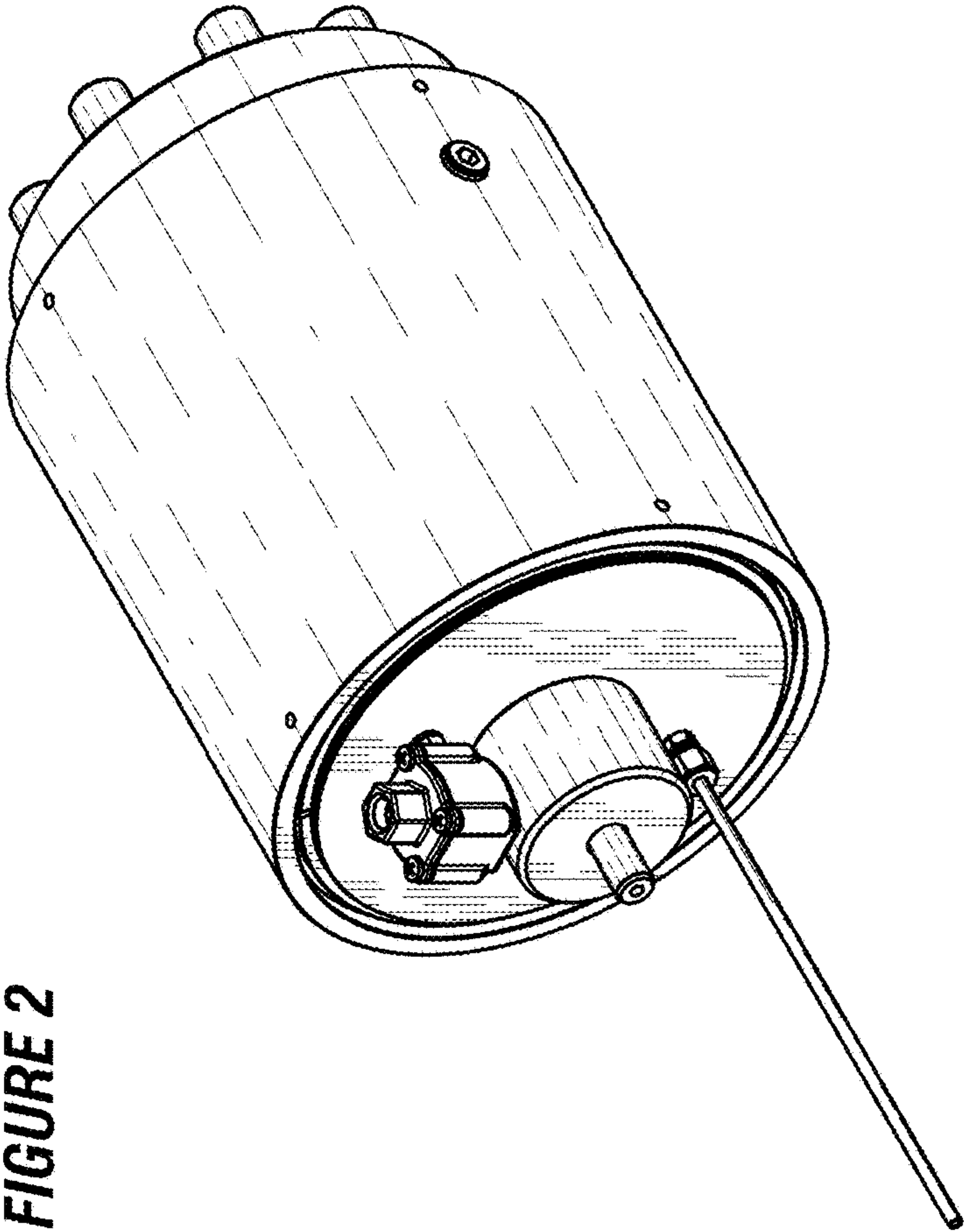


FIGURE 2

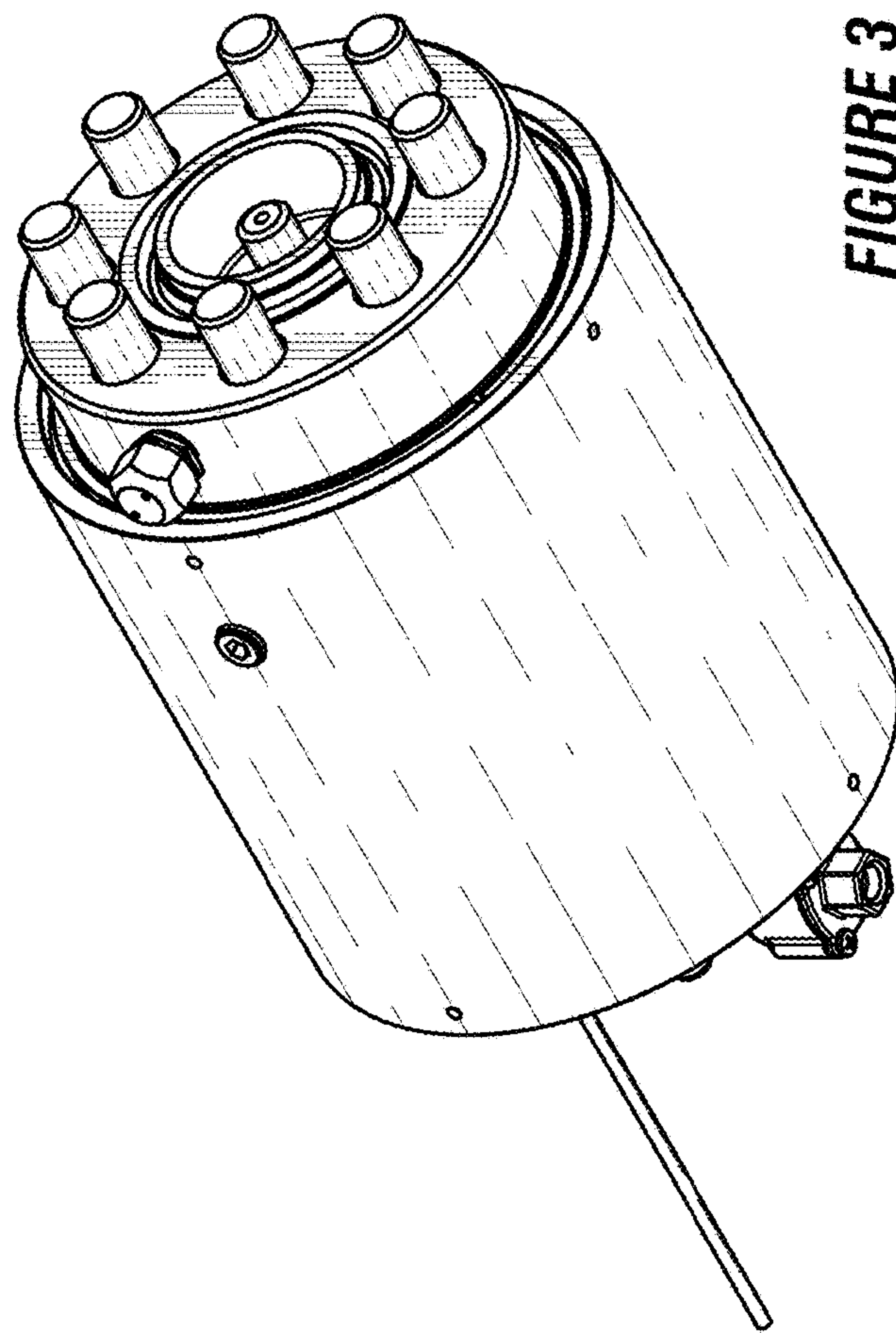


FIGURE 3

FIGURE 5

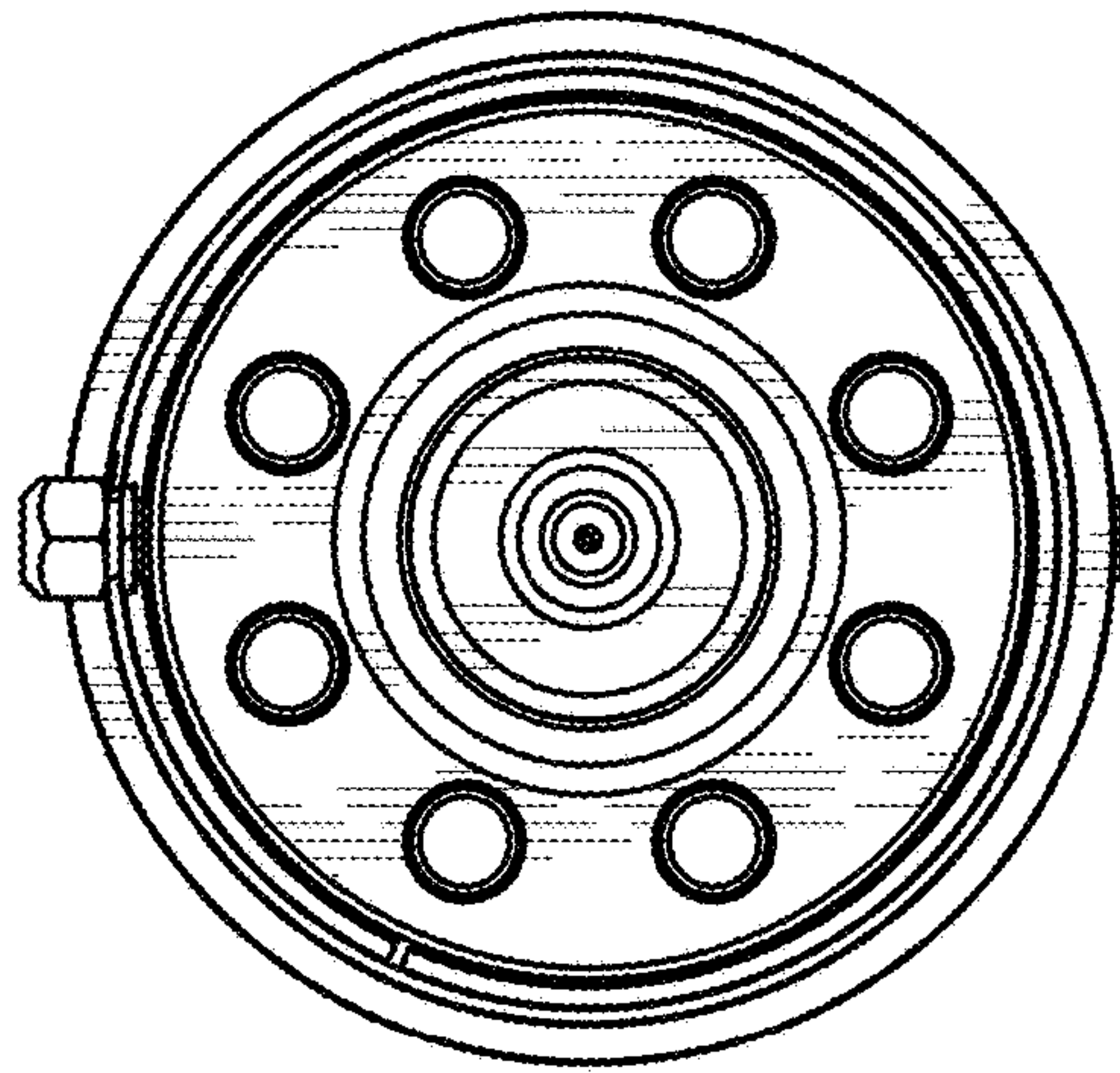


FIGURE 4

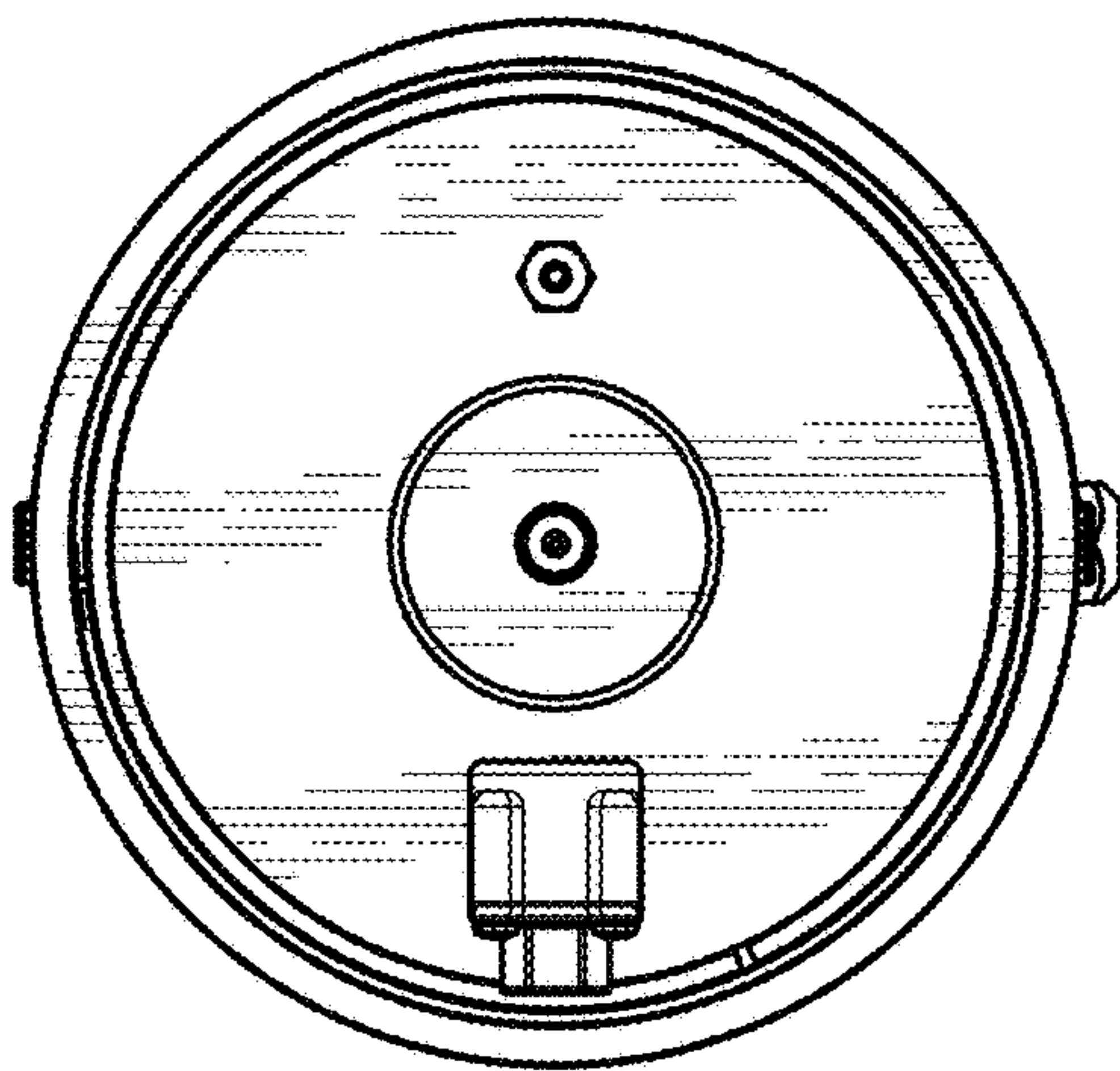


FIGURE 6

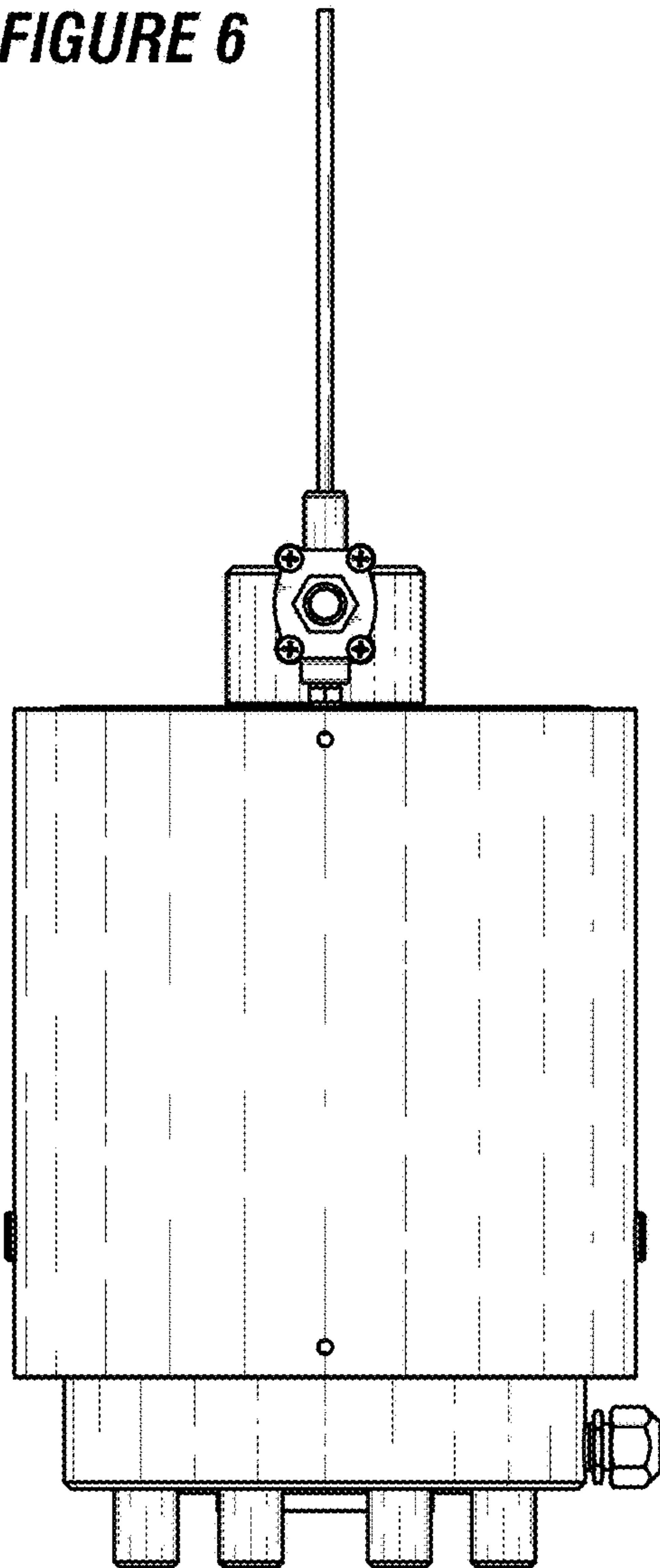


FIGURE 7

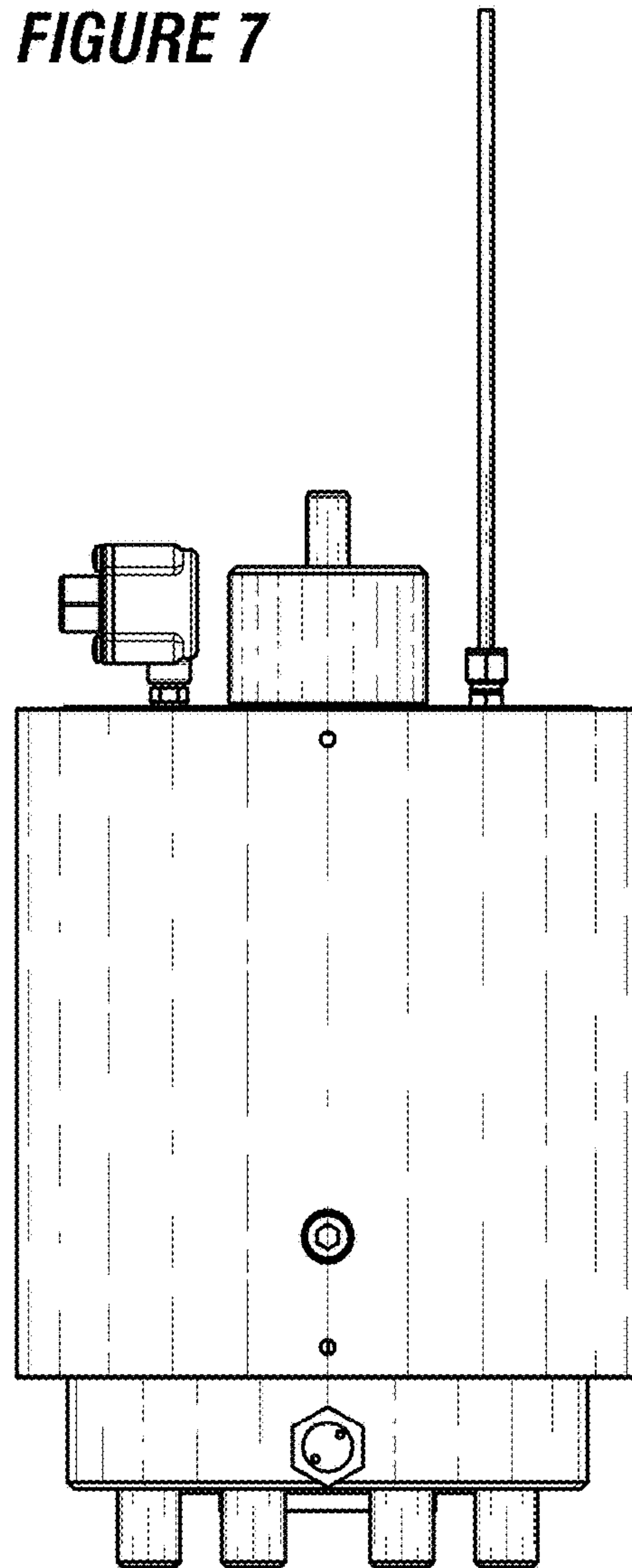


FIGURE 8

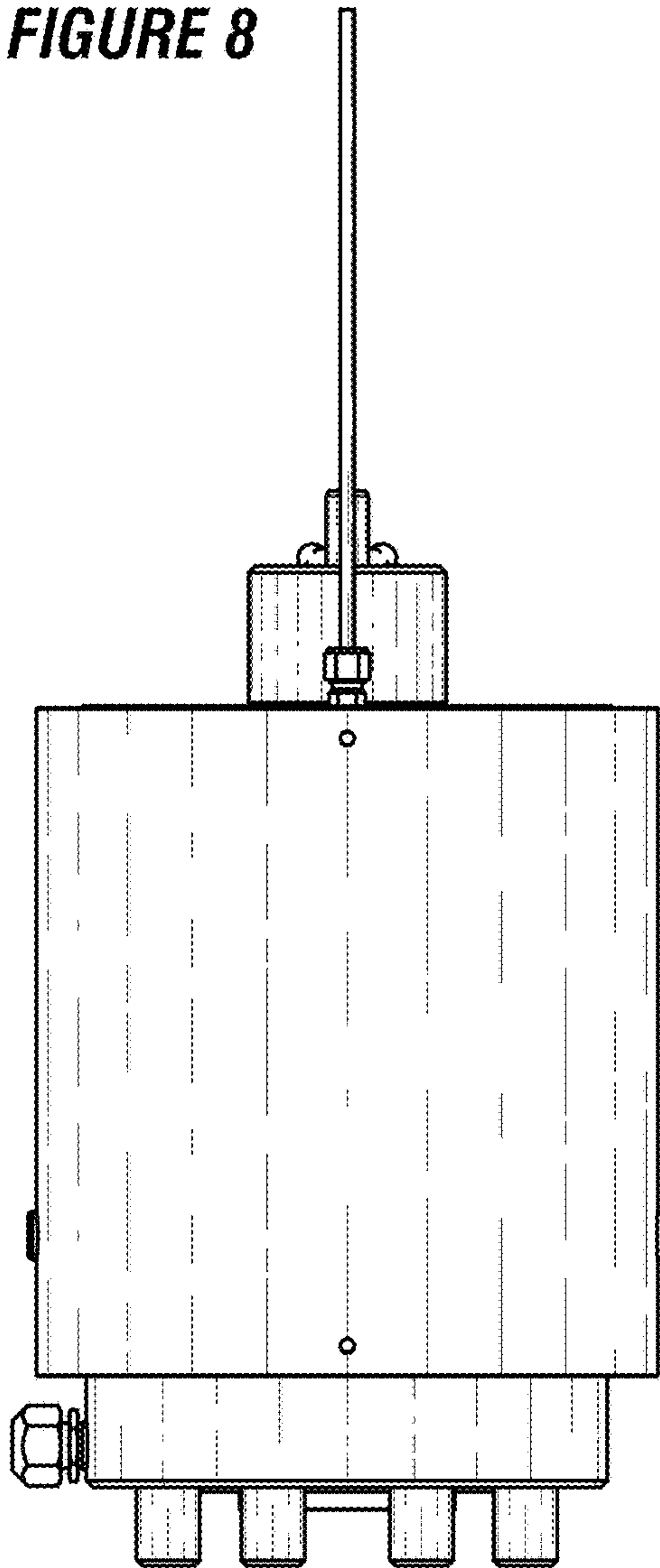


FIGURE 9

