



US00D914524S

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

(10) **Patent No.:** **US D914,524 S**
(45) **Date of Patent:** **** Mar. 30, 2021**

(54) **FLOW SENSOR WITH FLOW REGULATING VALVE**

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(72) Inventors: **Shogo Kurisaki**, Yashio (JP); **Suguru Terada**, Tsukuba (JP)

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

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

(21) Appl. No.: **29/692,861**

(22) Filed: **May 29, 2019**

(30) **Foreign Application Priority Data**

Nov. 30, 2018 (CN) 201830688819.0

(51) **LOC (13) Cl.** **10-04**

(52) **U.S. Cl.**
USPC **D10/96; D23/235**

(58) **Field of Classification Search**
USPC **D10/96; D23/233, 235**
(Continued)

(56) **References Cited**

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Primary Examiner — Antoine Duval Davis

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

(57) **CLAIM**

The ornamental design for a flow sensor with flow regulating valve, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and left side perspective view of a flow sensor with flow regulating valve showing a first embodiment of 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;

FIG. 8 is a right side view thereof;

FIG. 9 is a front, top and left side perspective view of a flow sensor with flow regulating valve showing a second embodiment of our new design;

FIG. 10 is a rear, bottom and right side perspective view of FIG. 9;

FIG. 11 is a front view of FIG. 9;

FIG. 12 is a rear view of FIG. 9;

FIG. 13 is a top plan view of FIG. 9;

FIG. 14 is a bottom plan view of FIG. 9;

FIG. 15 is a left side view of FIG. 9;

FIG. 16 is a right side view of FIG. 9;

FIG. 17 is a front, top and left side perspective view of a flow sensor with flow regulating valve showing a third embodiment of our new design;

FIG. 18 is a rear, bottom and right side perspective view of FIG. 17;

FIG. 19 is a front view of FIG. 17;

FIG. 20 is a rear view of FIG. 17;

FIG. 21 is a top plan view of FIG. 17;

FIG. 22 is a bottom plan view of FIG. 17;

FIG. 23 is a left side view of FIG. 17;

FIG. 24 is a right side view of FIG. 17;

FIG. 25 is a front, top and left side perspective view of a flow sensor with flow regulating valve showing a fourth embodiment of our new design;

FIG. 26 is a rear, bottom and right side perspective view of FIG. 25;

FIG. 27 is a front view of FIG. 25;

FIG. 28 is a rear view of FIG. 25;

FIG. 29 is a top plan view of FIG. 25;

FIG. 30 is a bottom plan view of FIG. 25;

(Continued)

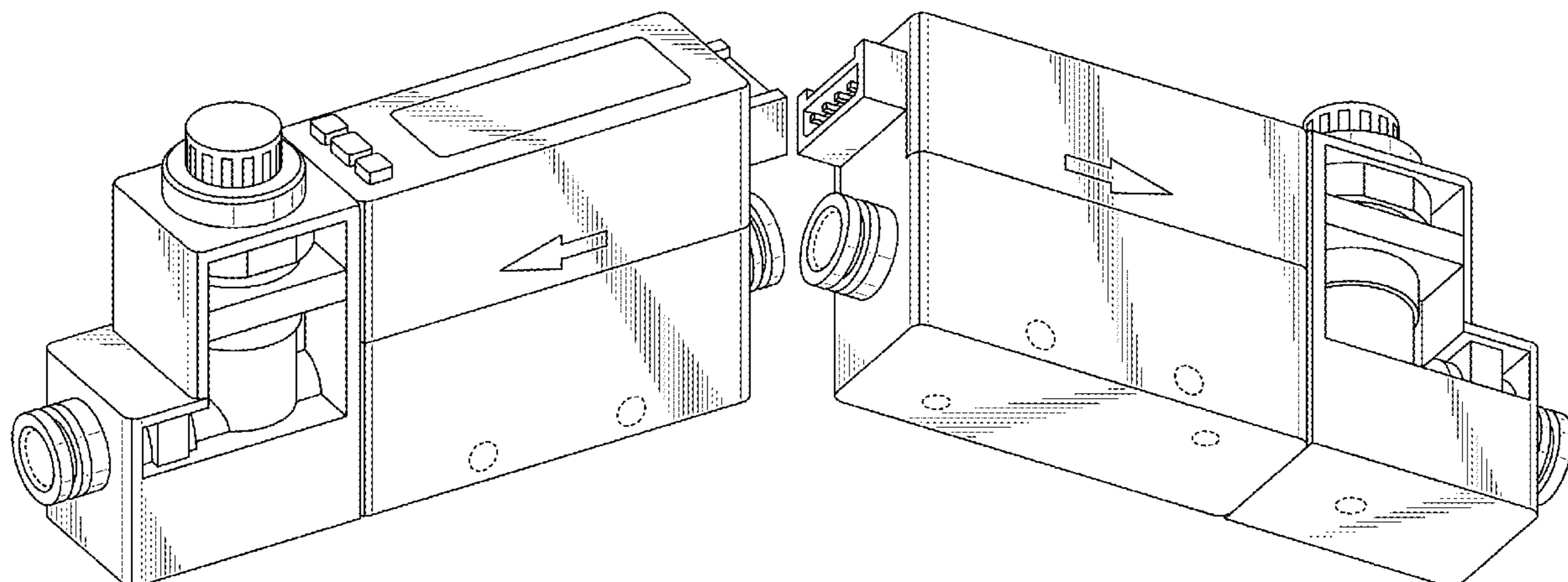


FIG. 31 is a left side view of FIG. 25;
FIG. 32 is a right side view of FIG. 25;
FIG. 33 is a front, top and left side perspective view of a flow sensor with flow regulating valve showing a fifth embodiment of our new design;
FIG. 34 is a rear, bottom and right side perspective view of FIG. 33;
FIG. 35 is a front view of FIG. 33;
FIG. 36 is a rear view of FIG. 33;
FIG. 37 is a top plan view of FIG. 33;
FIG. 38 is a bottom plan view of FIG. 33;
FIG. 39 is a left side view of FIG. 33; and,
FIG. 40 is a right side view of FIG. 33.
The broken lines depict portions of the flow sensor with flow regulating valve that form no part of the claimed design.

1 Claim, 40 Drawing Sheets

(58) **Field of Classification Search**
CPC G01F 1/40; G01F 1/42; G01F 1/44; G01F 1/46; G01F 1/74; G01F 11/003; G01F 11/006; G01F 15/12; G01F 15/18; G01F 15/00; G01F 3/00; G01F 3/02; G01F 3/04; G01F 3/06; G01F 3/065; G01F 3/08; G01F 3/10; G01F 3/12; F15D 1/001; G01N 21/03; G01N 21/05; G01N 2021/0378; G01N 2021/0382; G01N 2021/052; G01N 2021/054; G01N 2021/056; G01N 2021/058
See application file for complete search history.

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* cited by examiner

FIG. 1

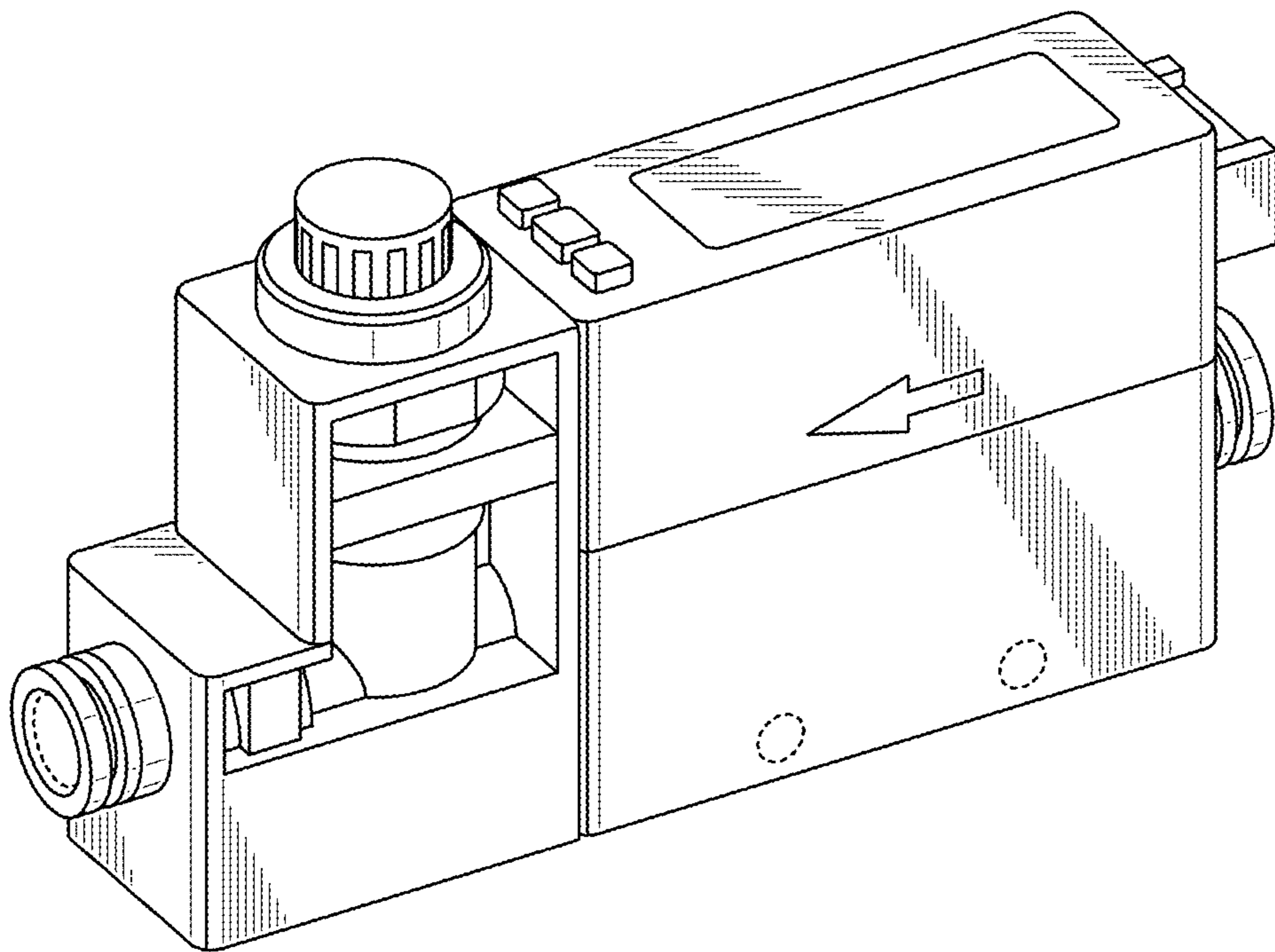


FIG. 2

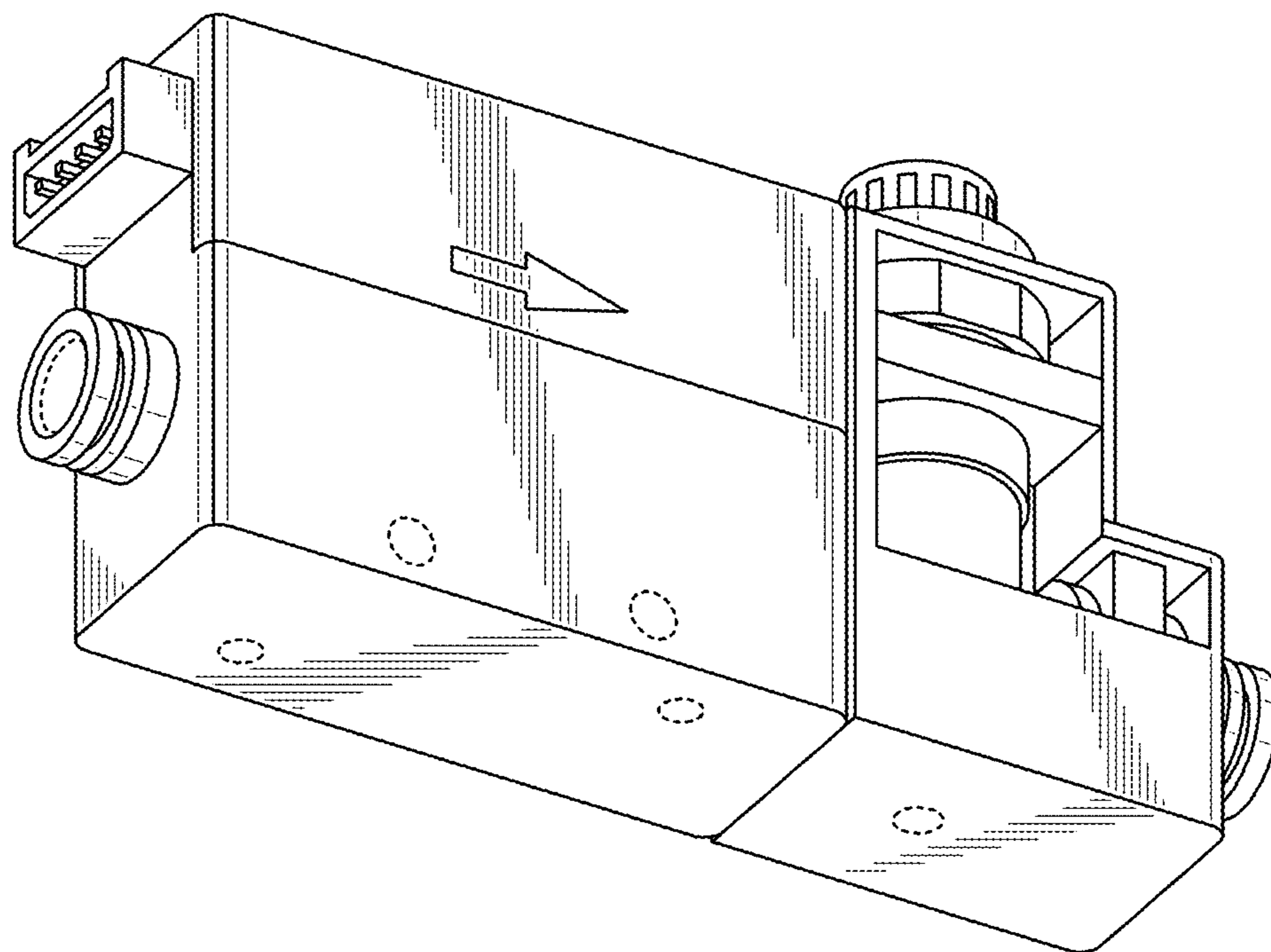


FIG. 3

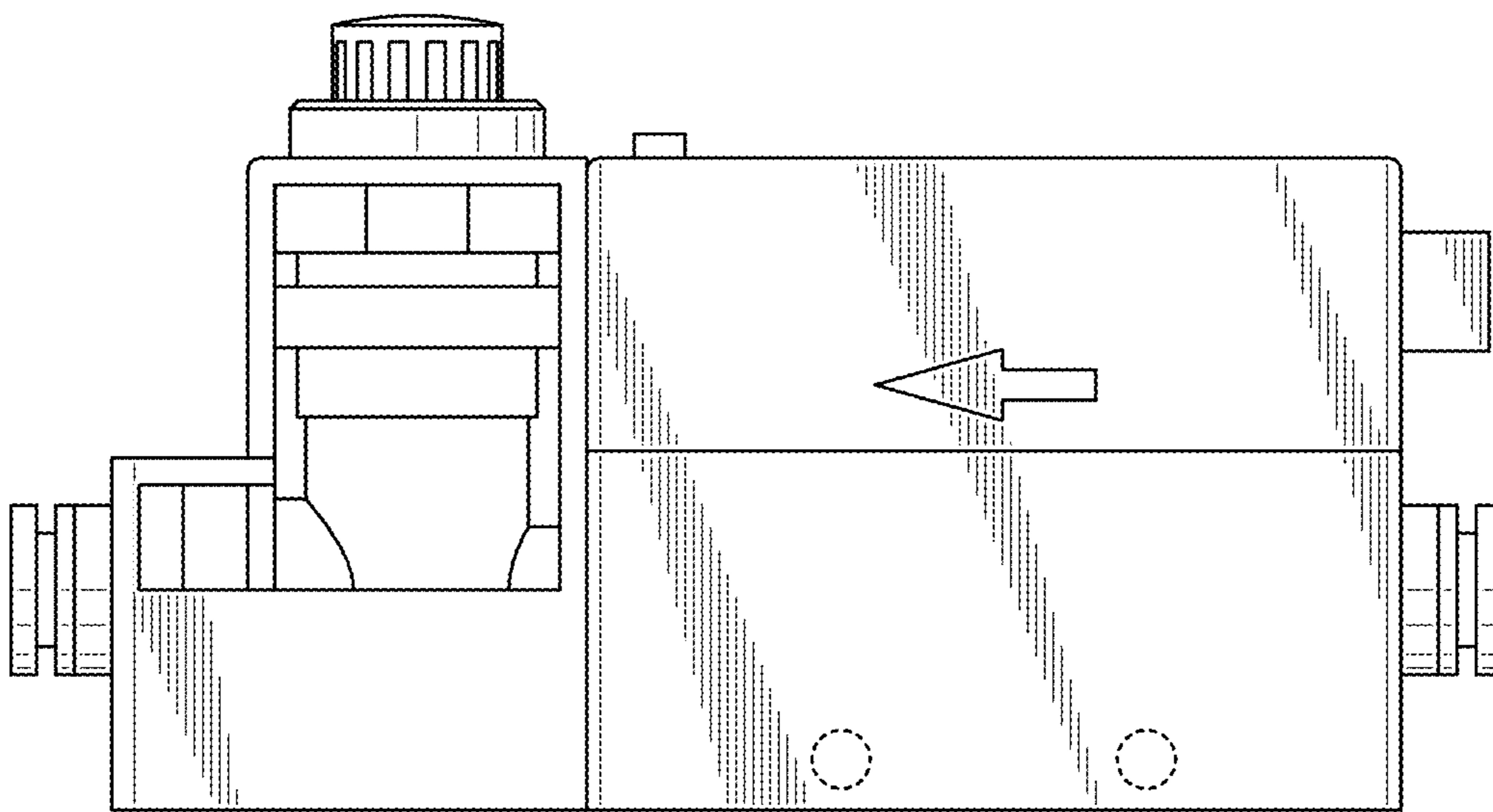


FIG. 4

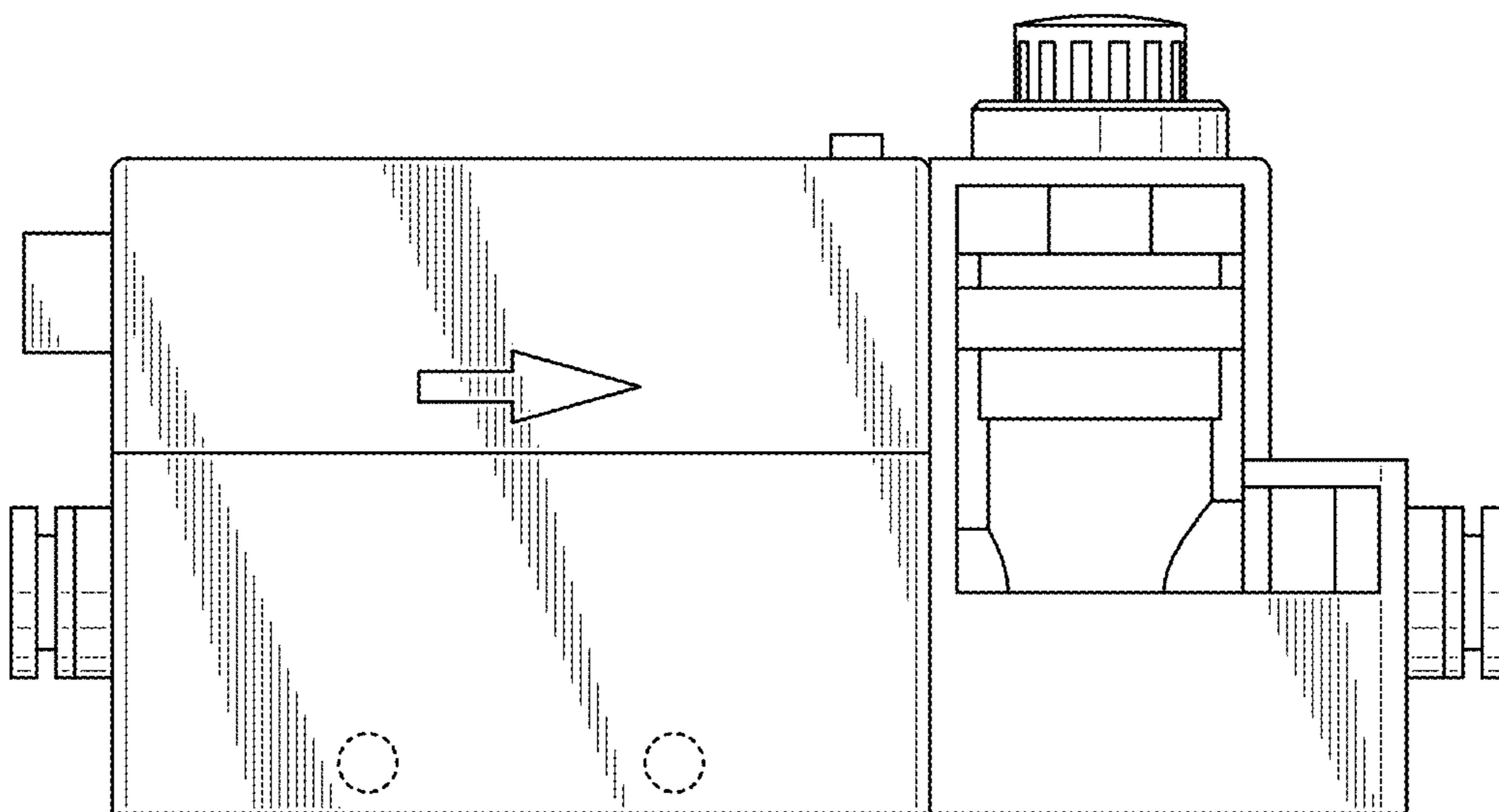


FIG. 5

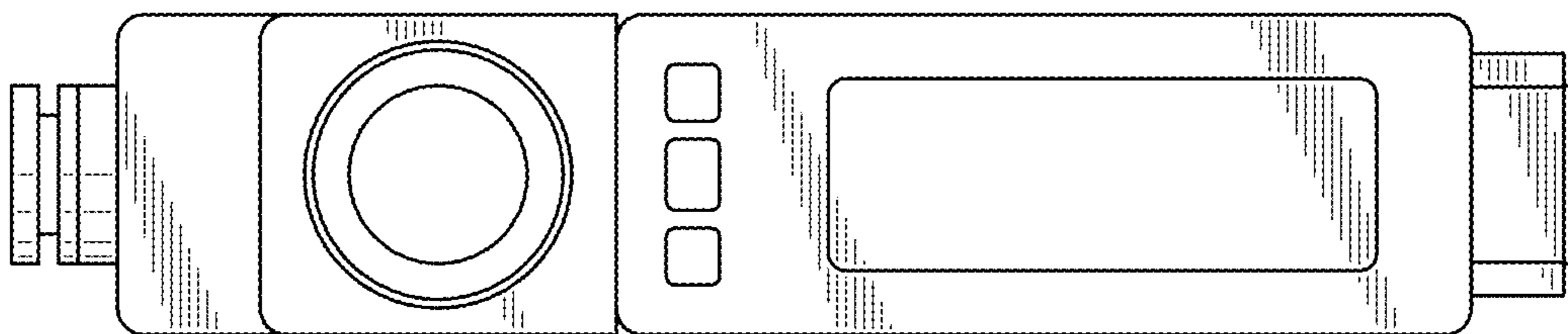


FIG. 6

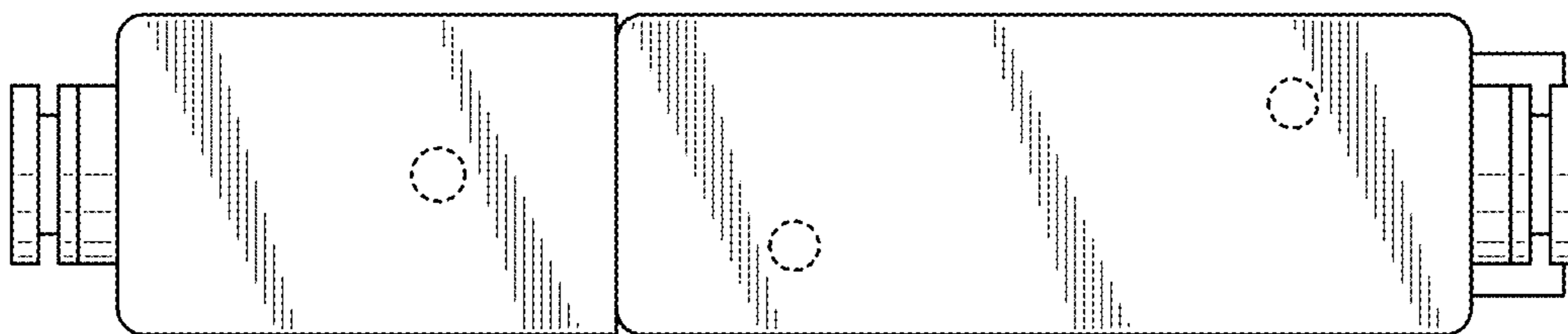


FIG. 7

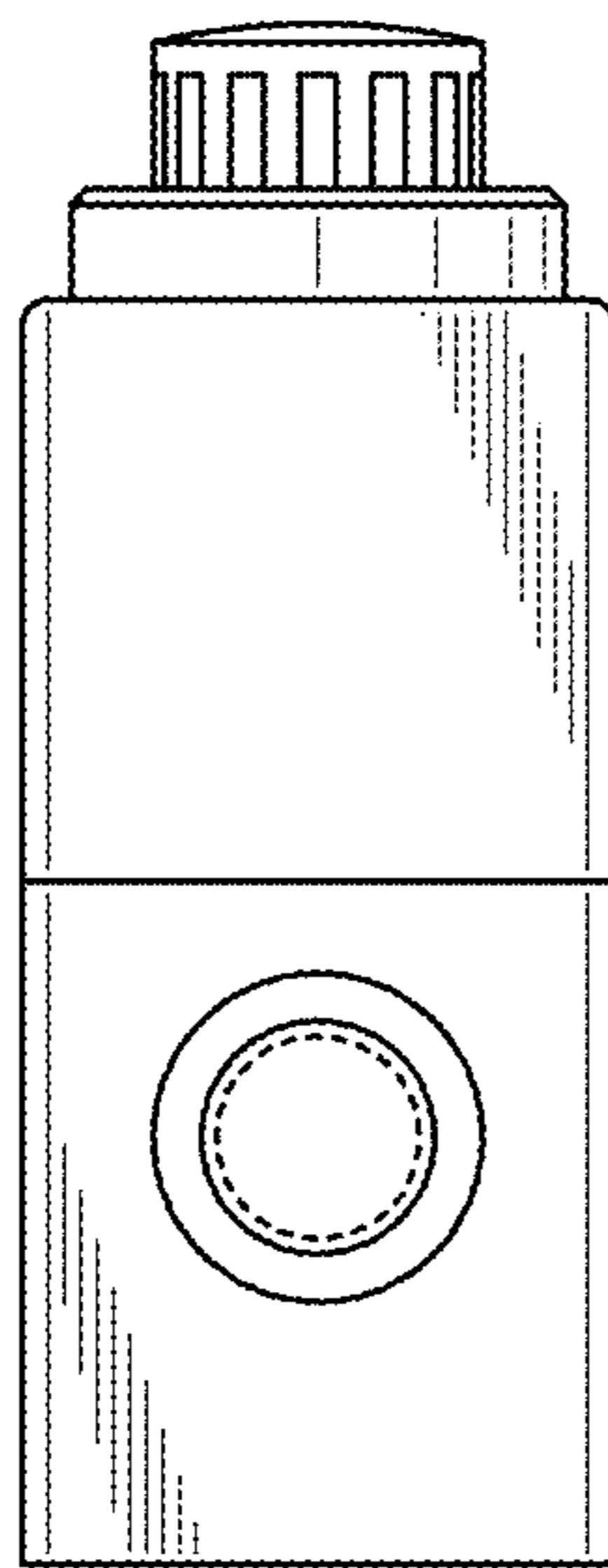


FIG. 8

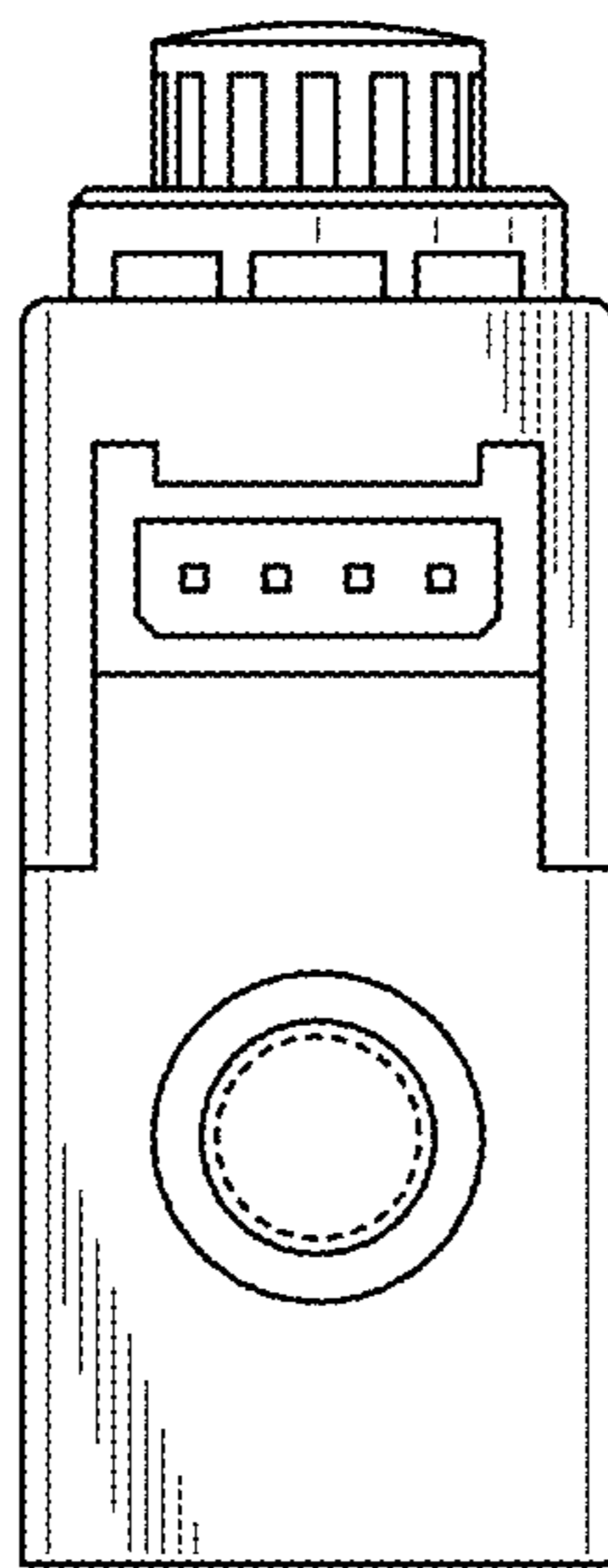


FIG. 9

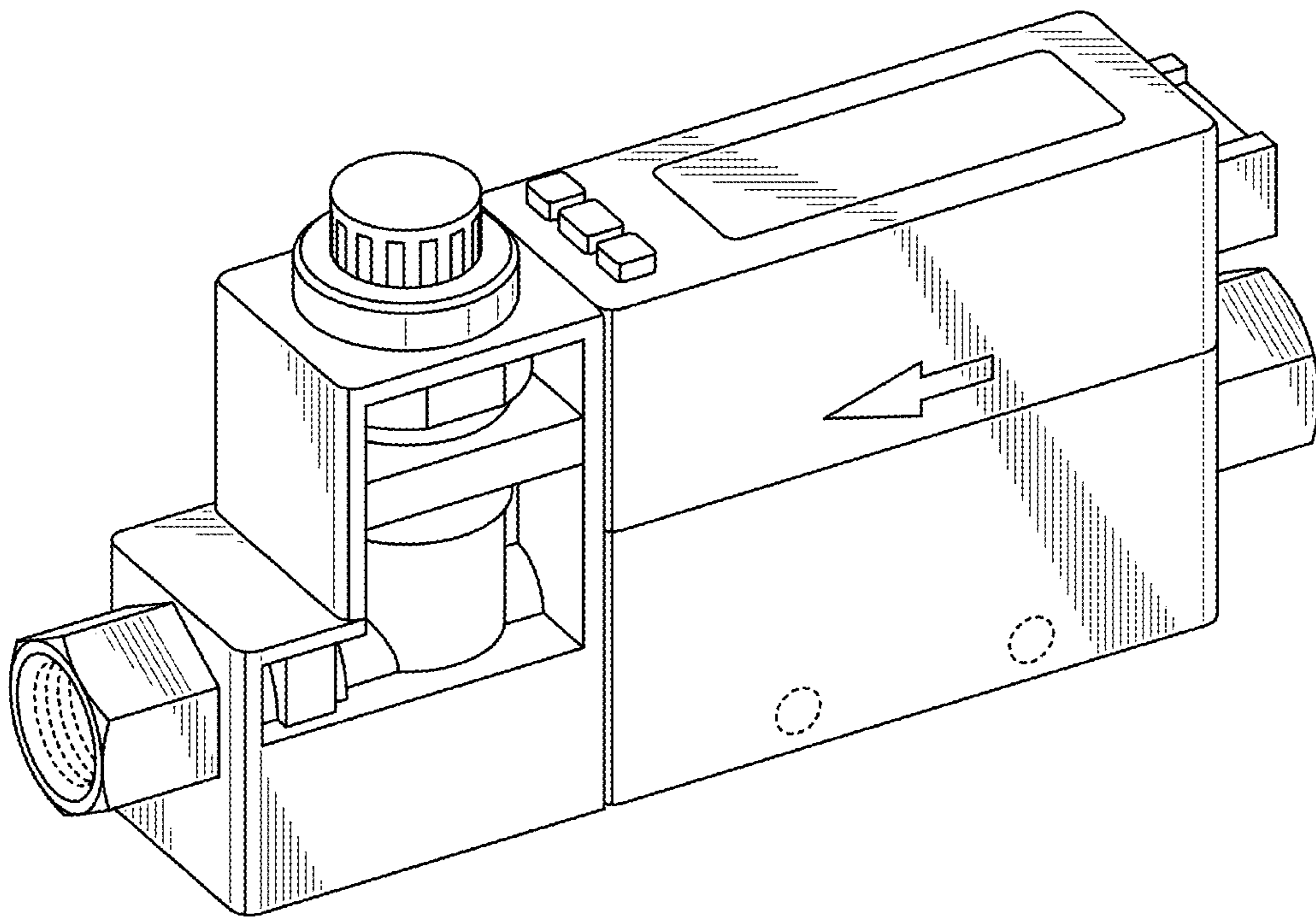


FIG. 10

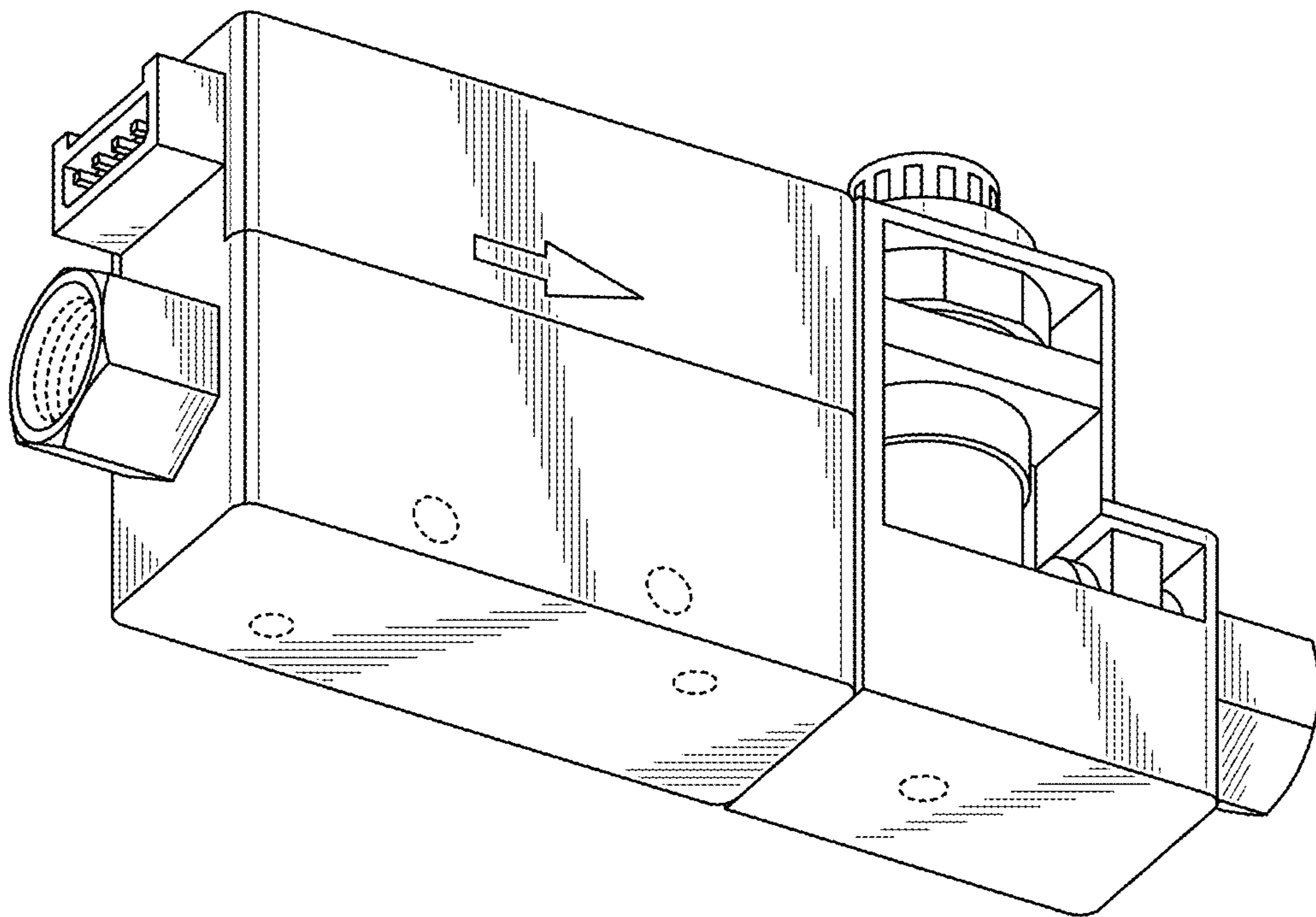


FIG. 11

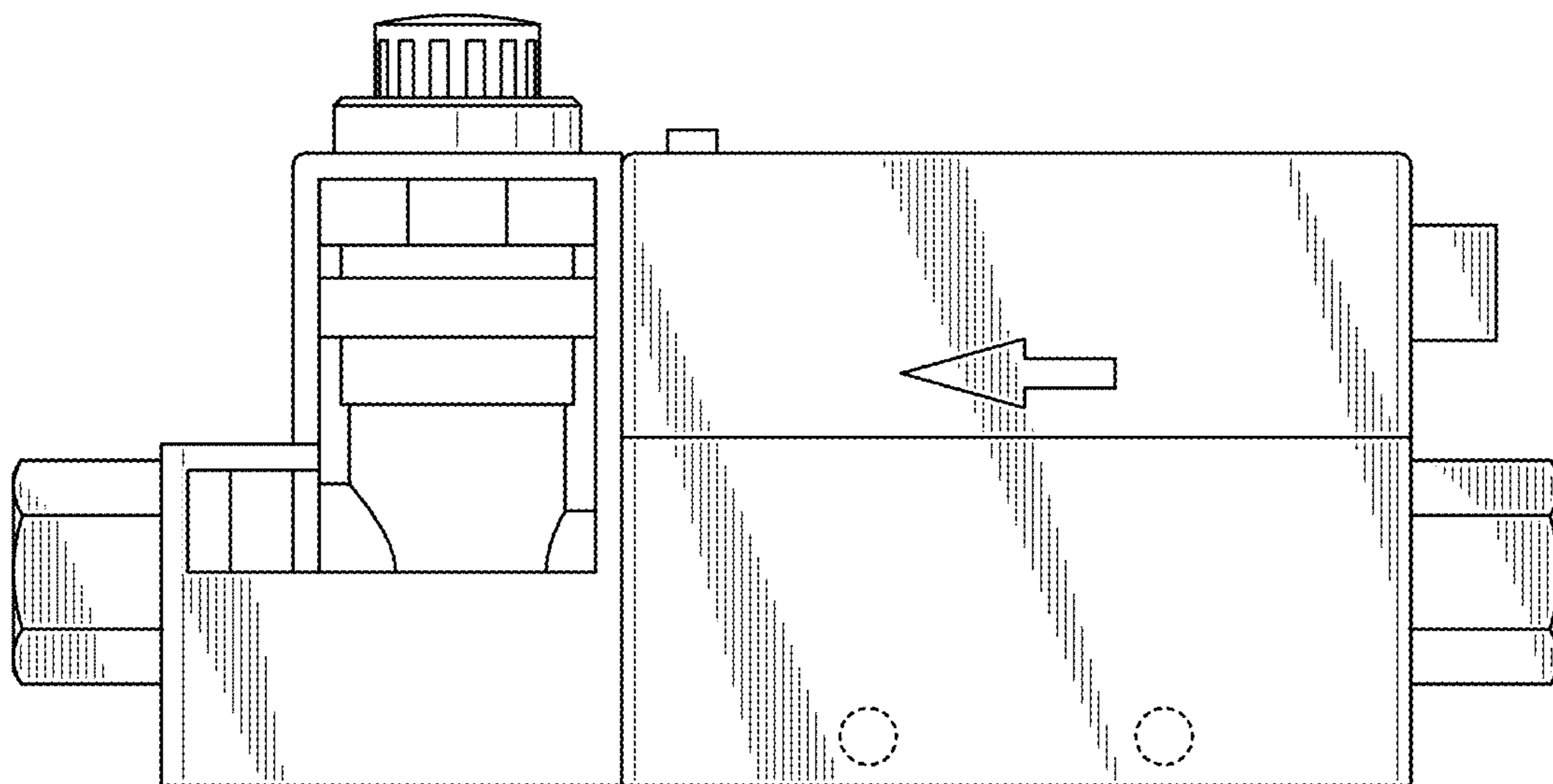


FIG. 12

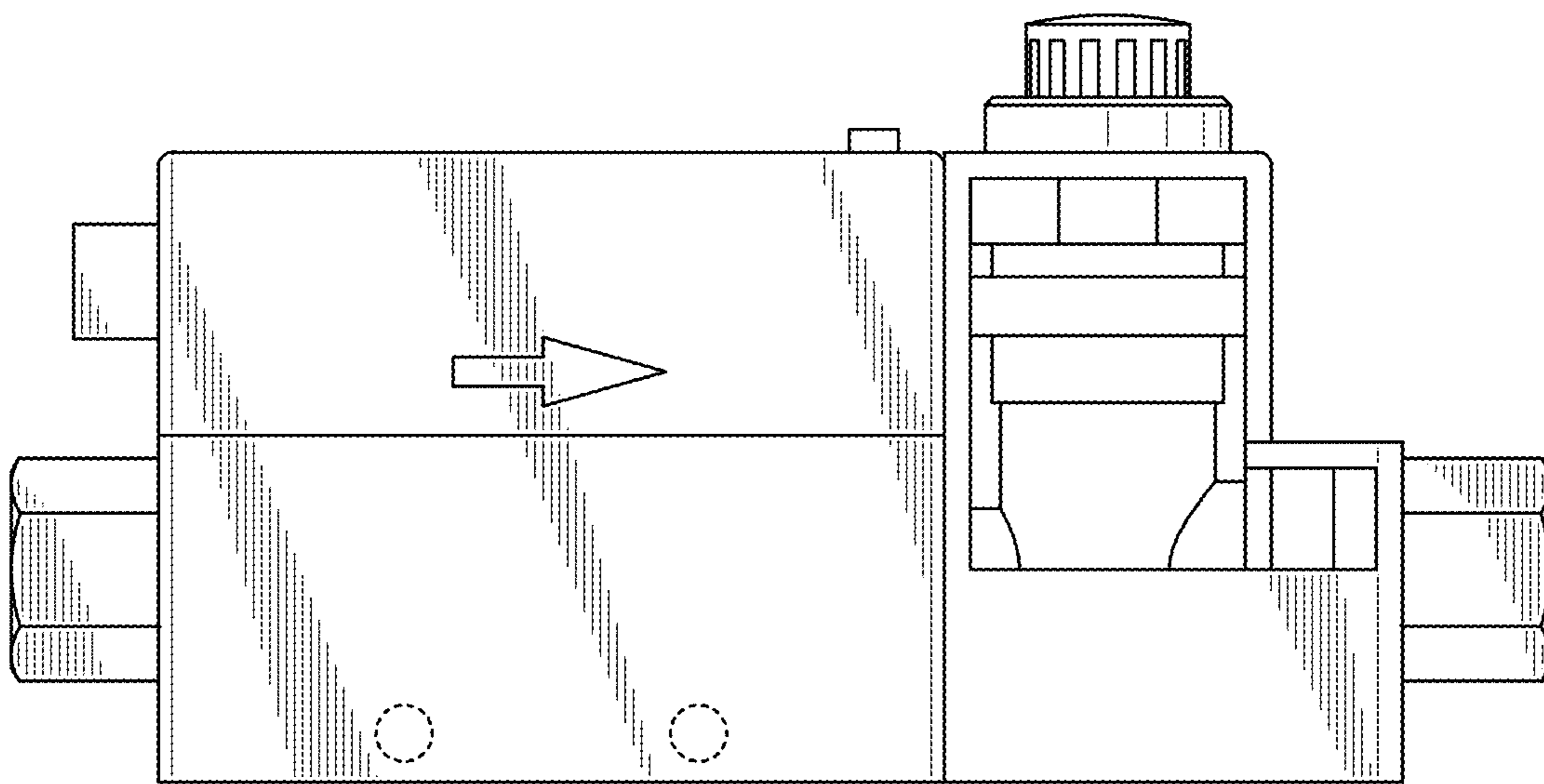


FIG. 13

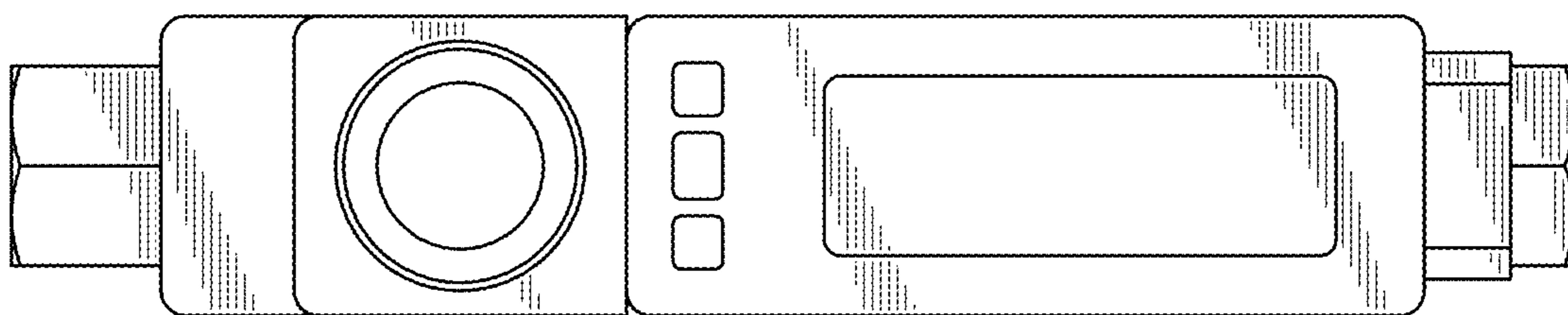


FIG. 14

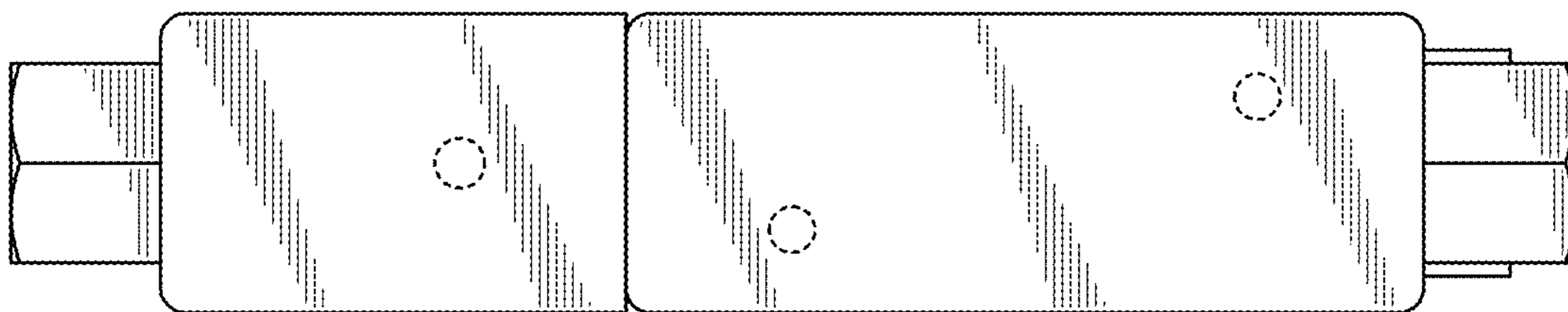


FIG. 15

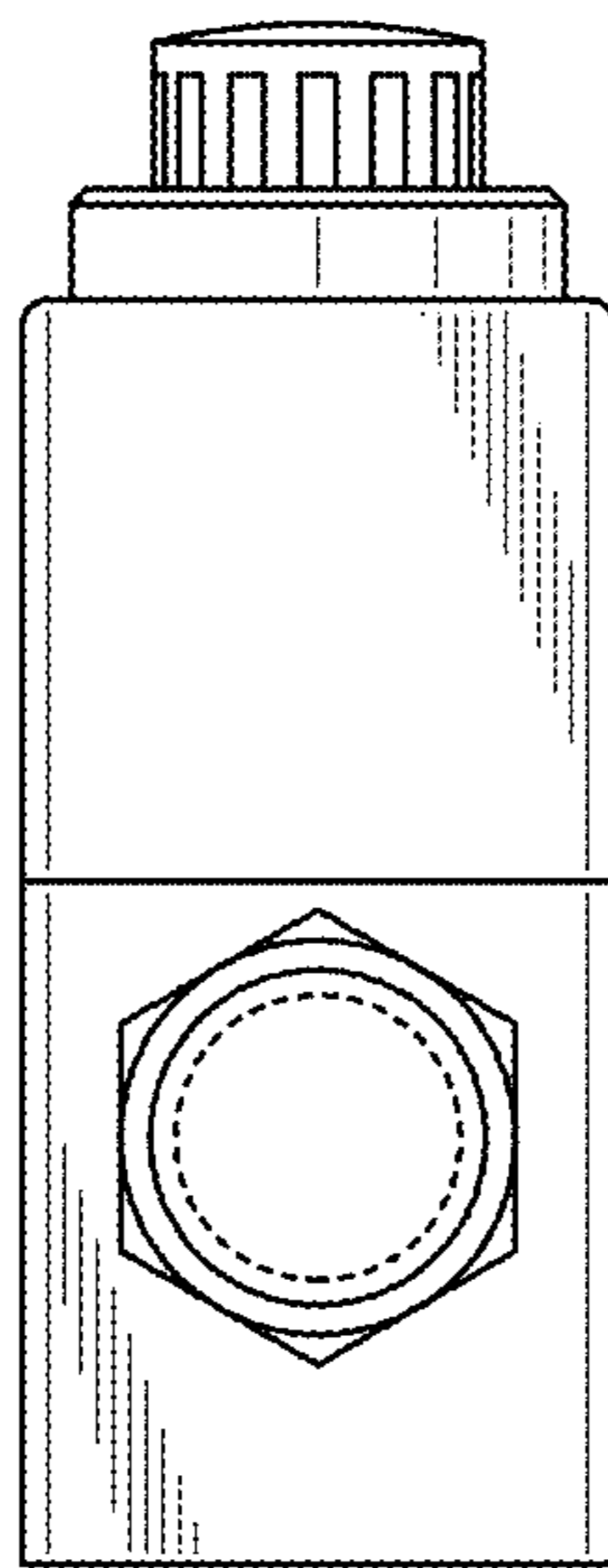


FIG. 16

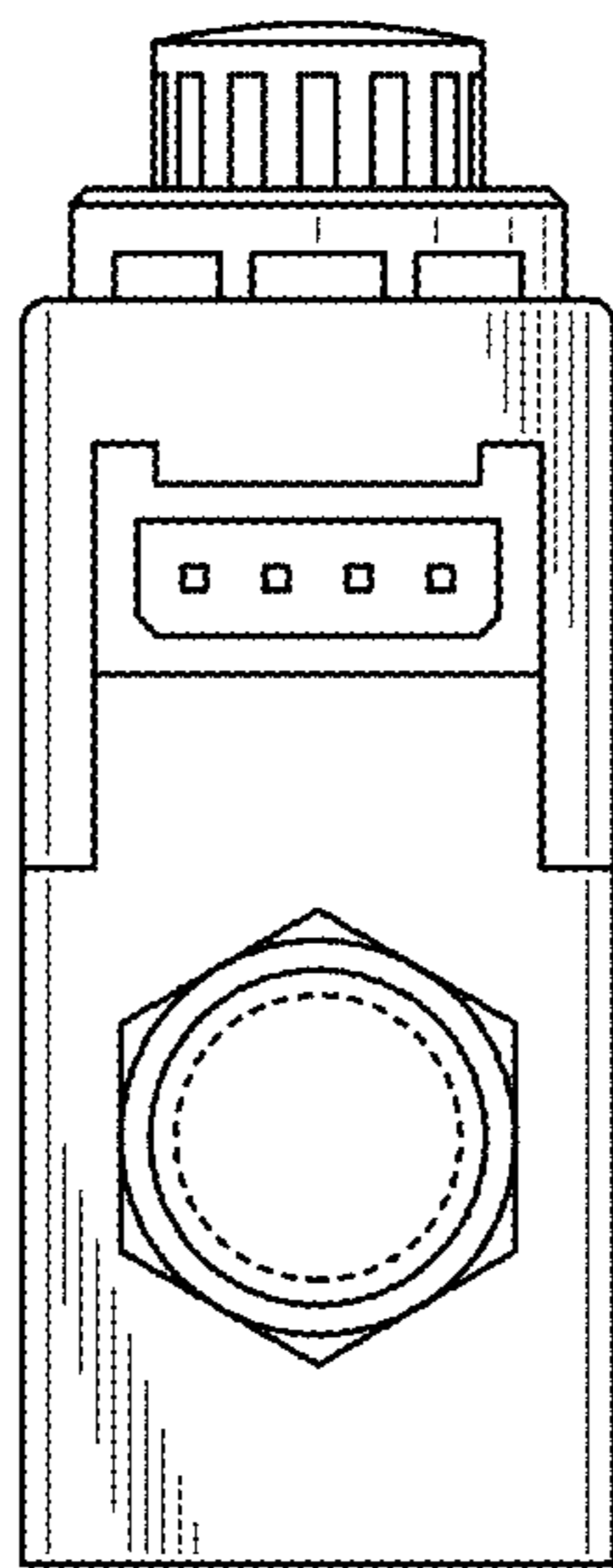


FIG. 17

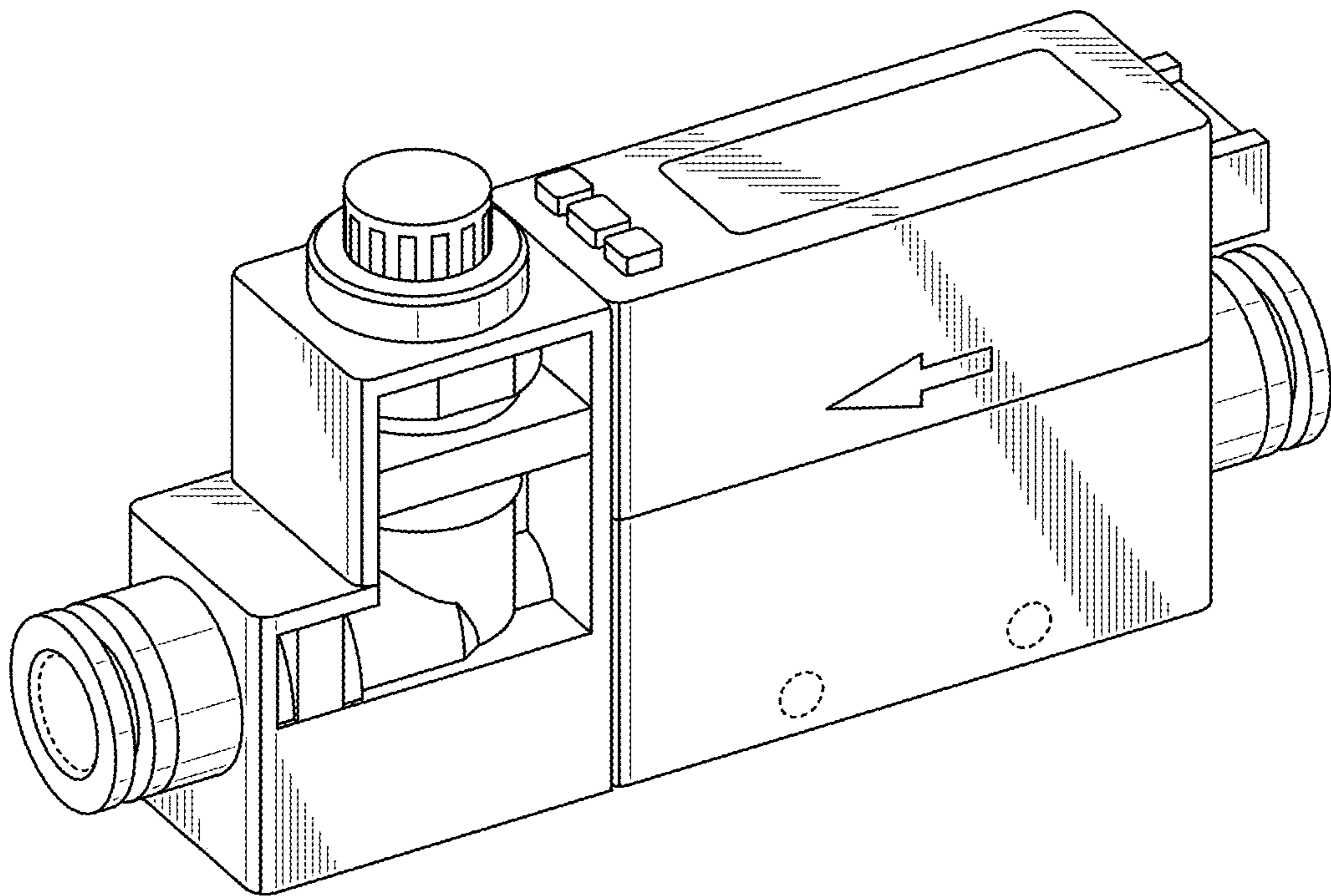


FIG. 18

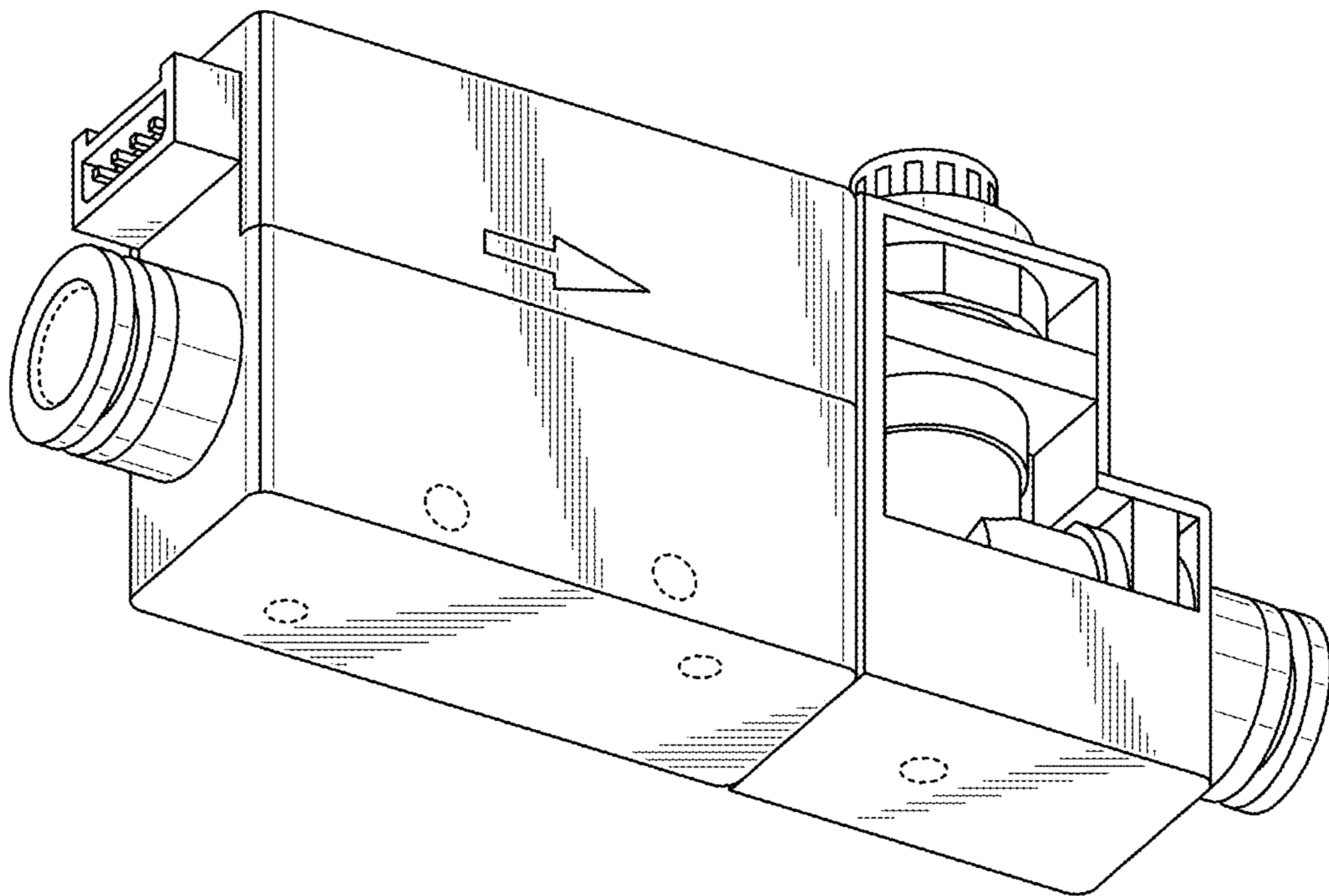


FIG. 19

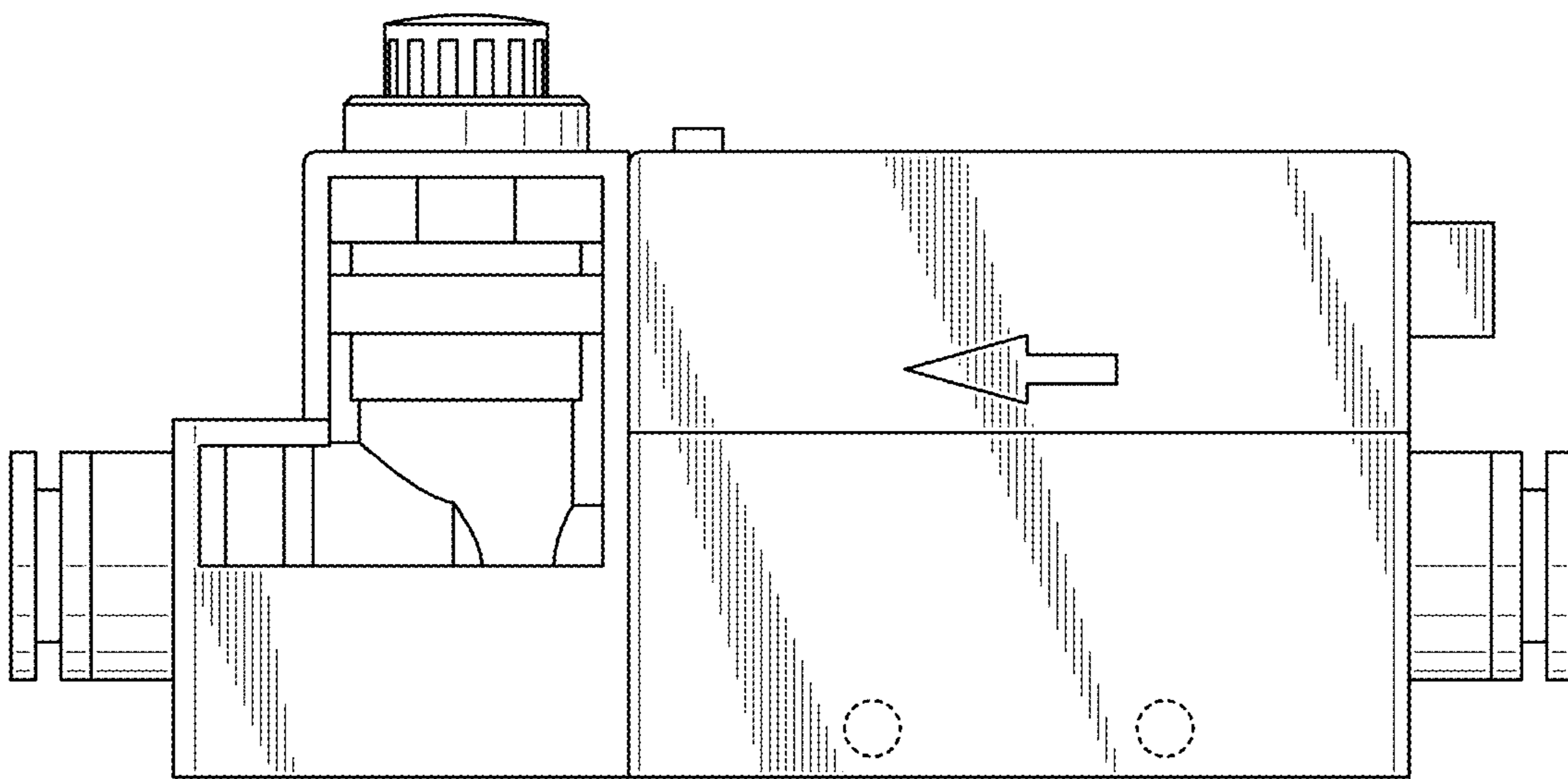


FIG. 20

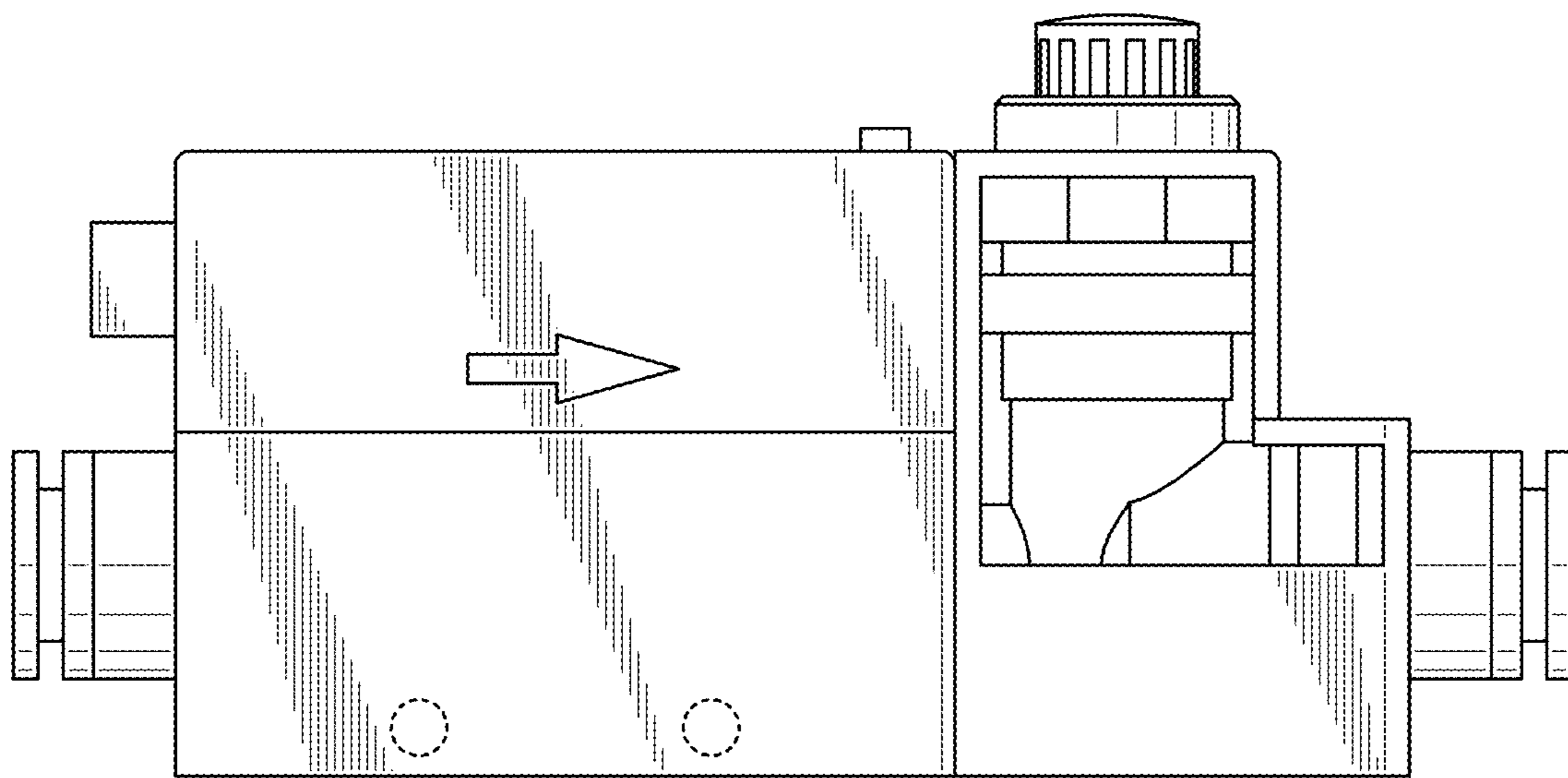


FIG. 21

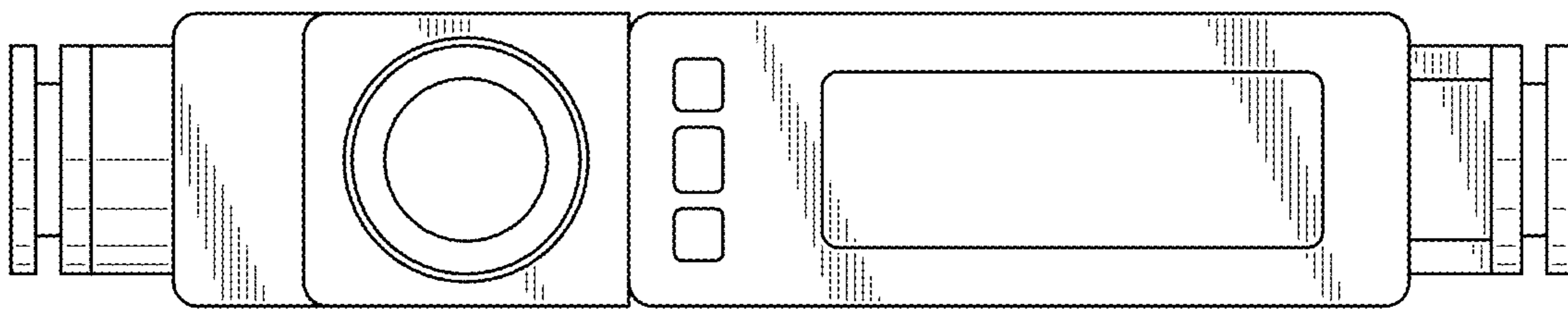


FIG. 22

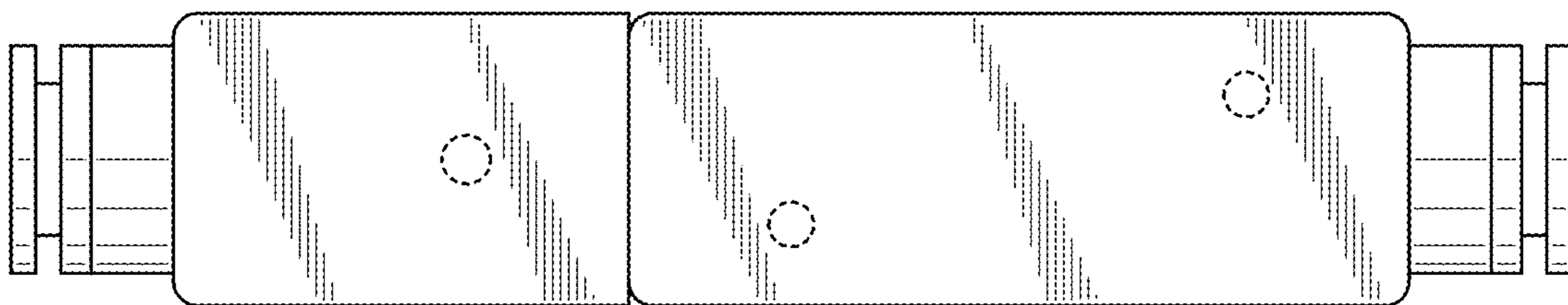


FIG. 23

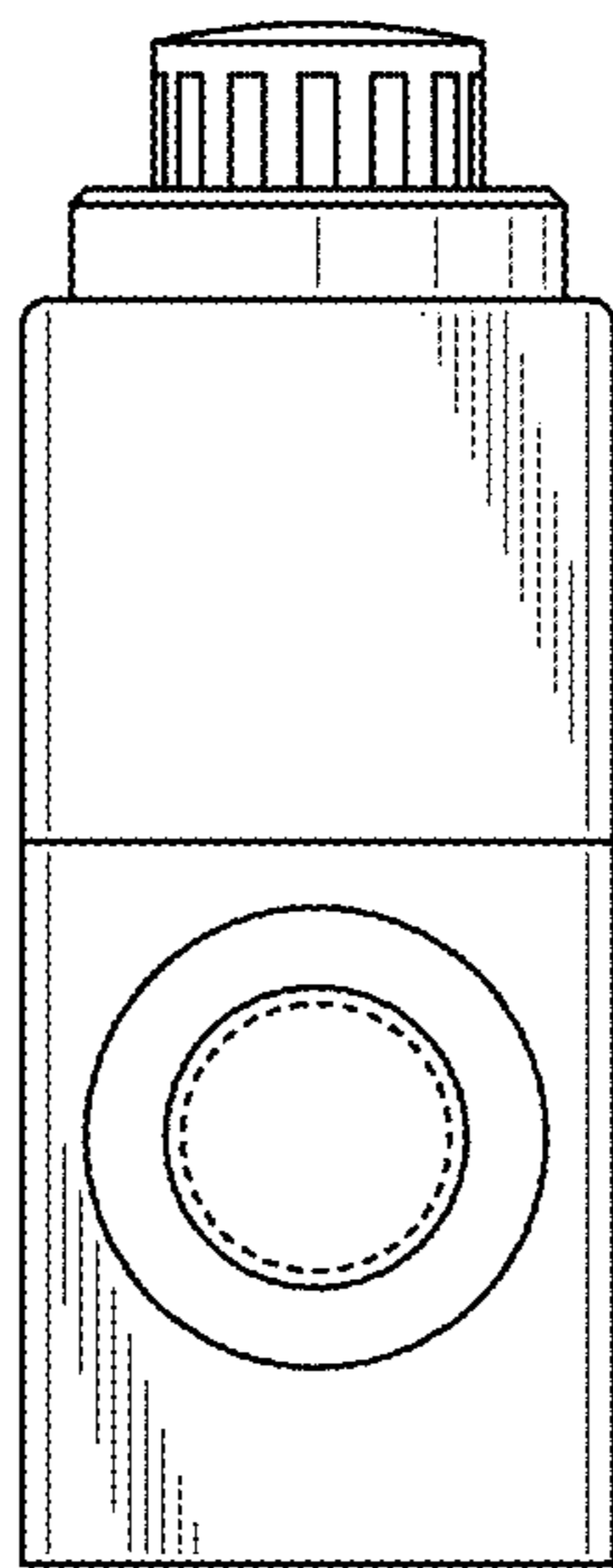


FIG. 24

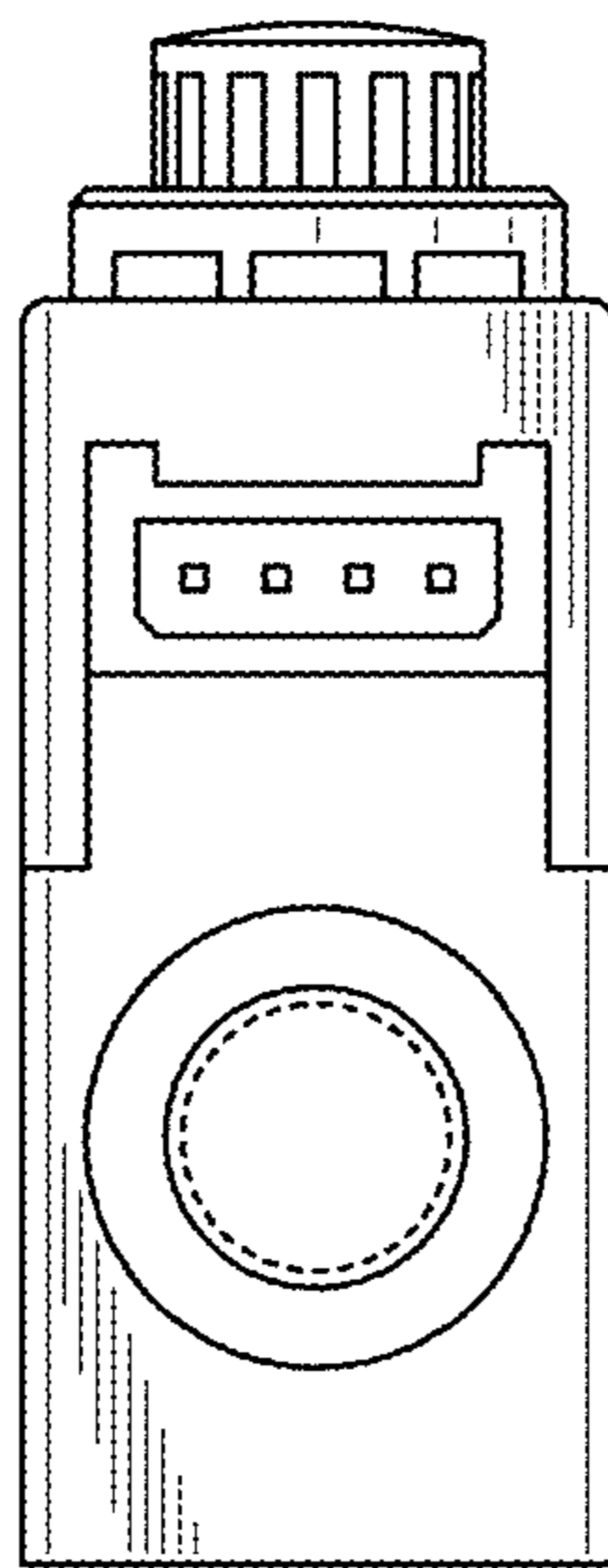


FIG. 25

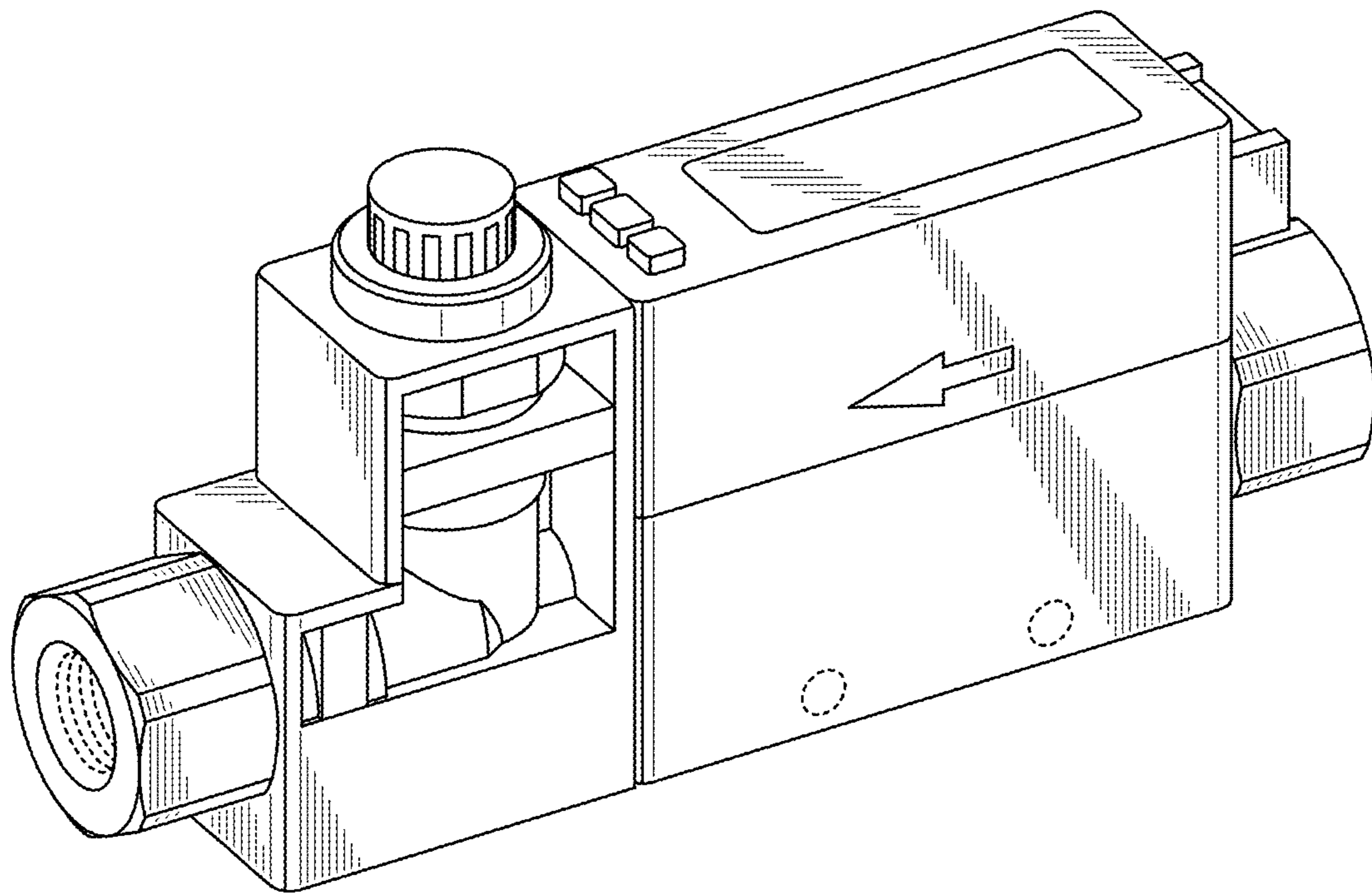


FIG. 26

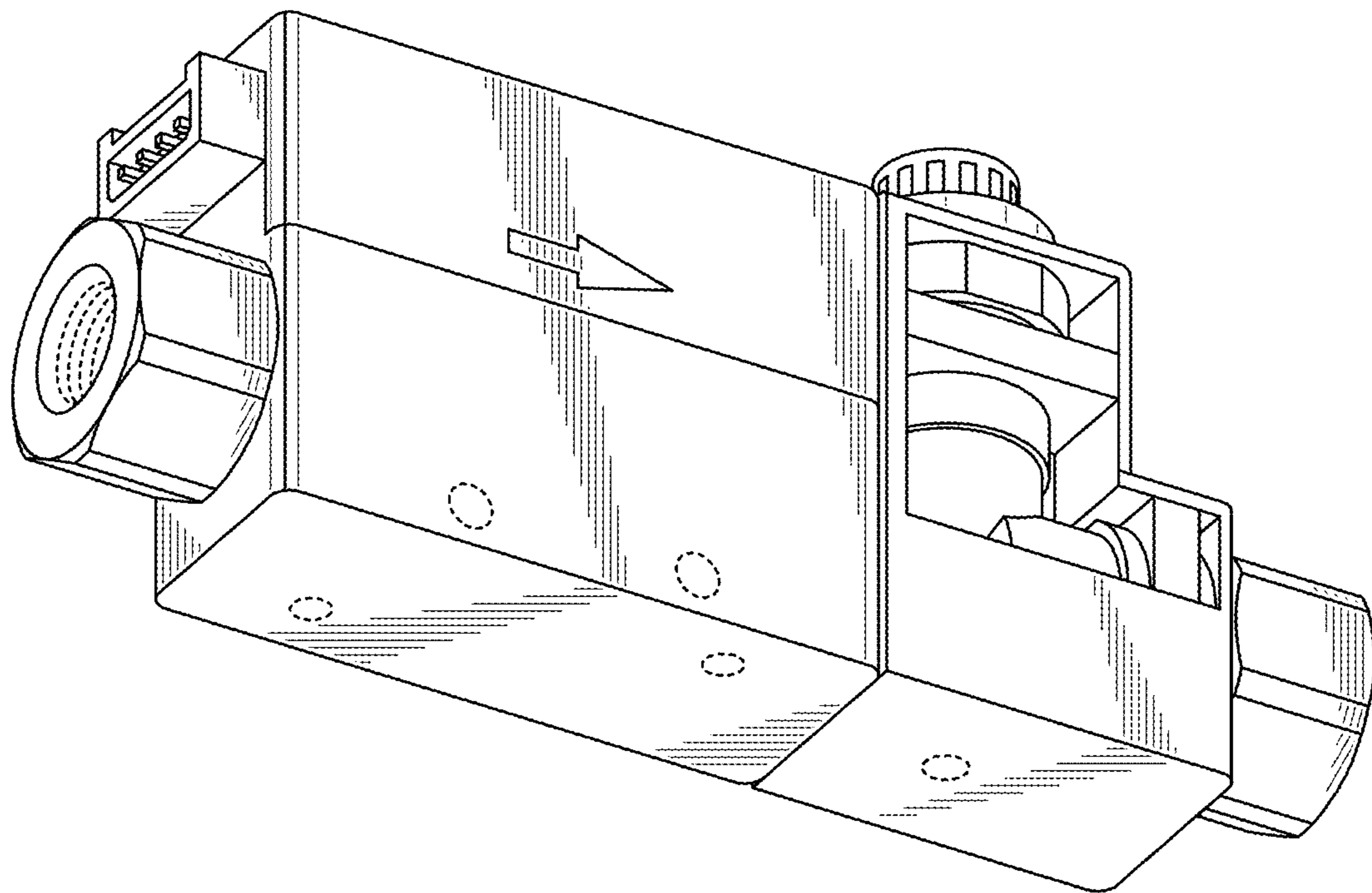


FIG. 27

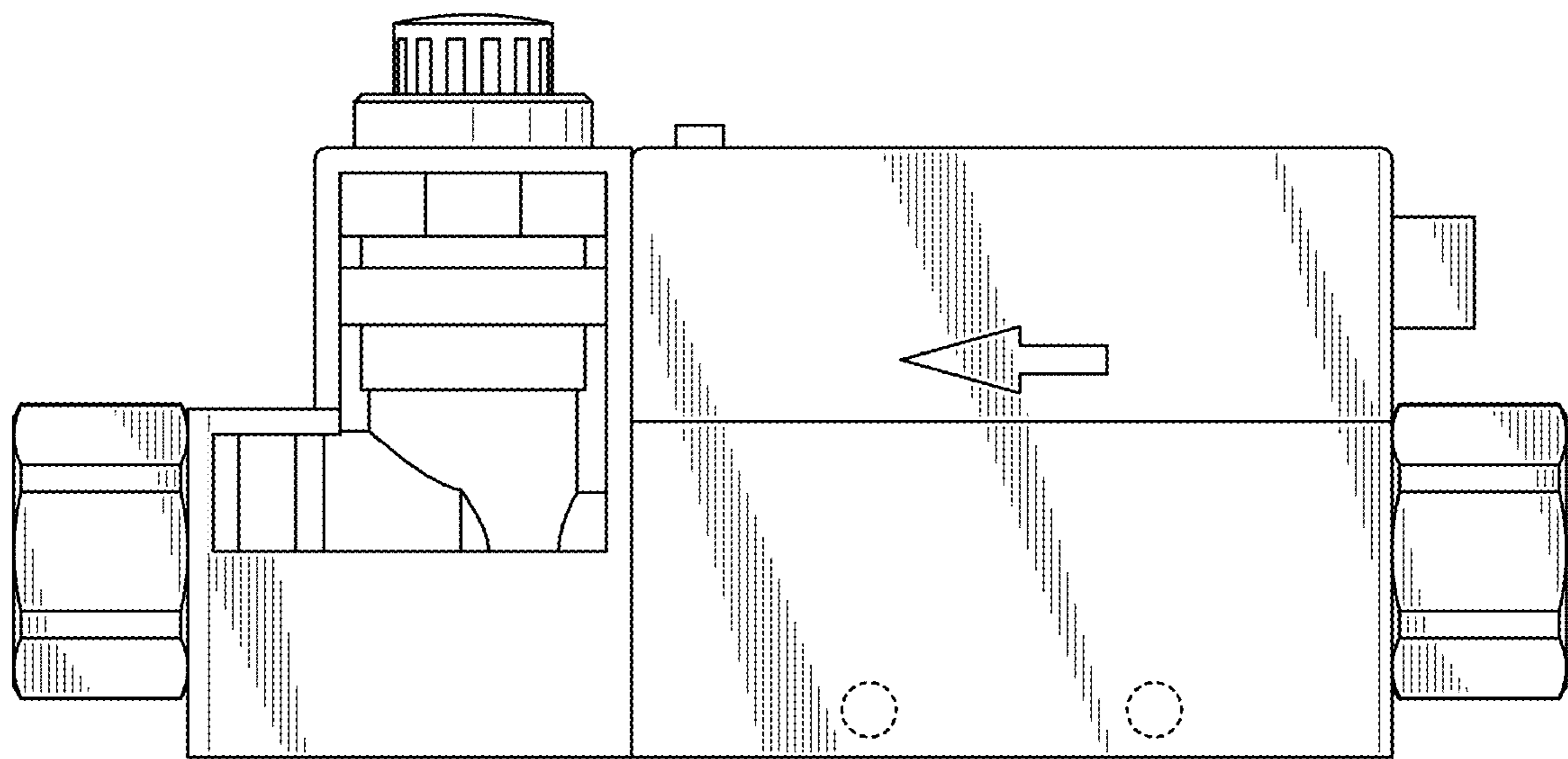


FIG. 28

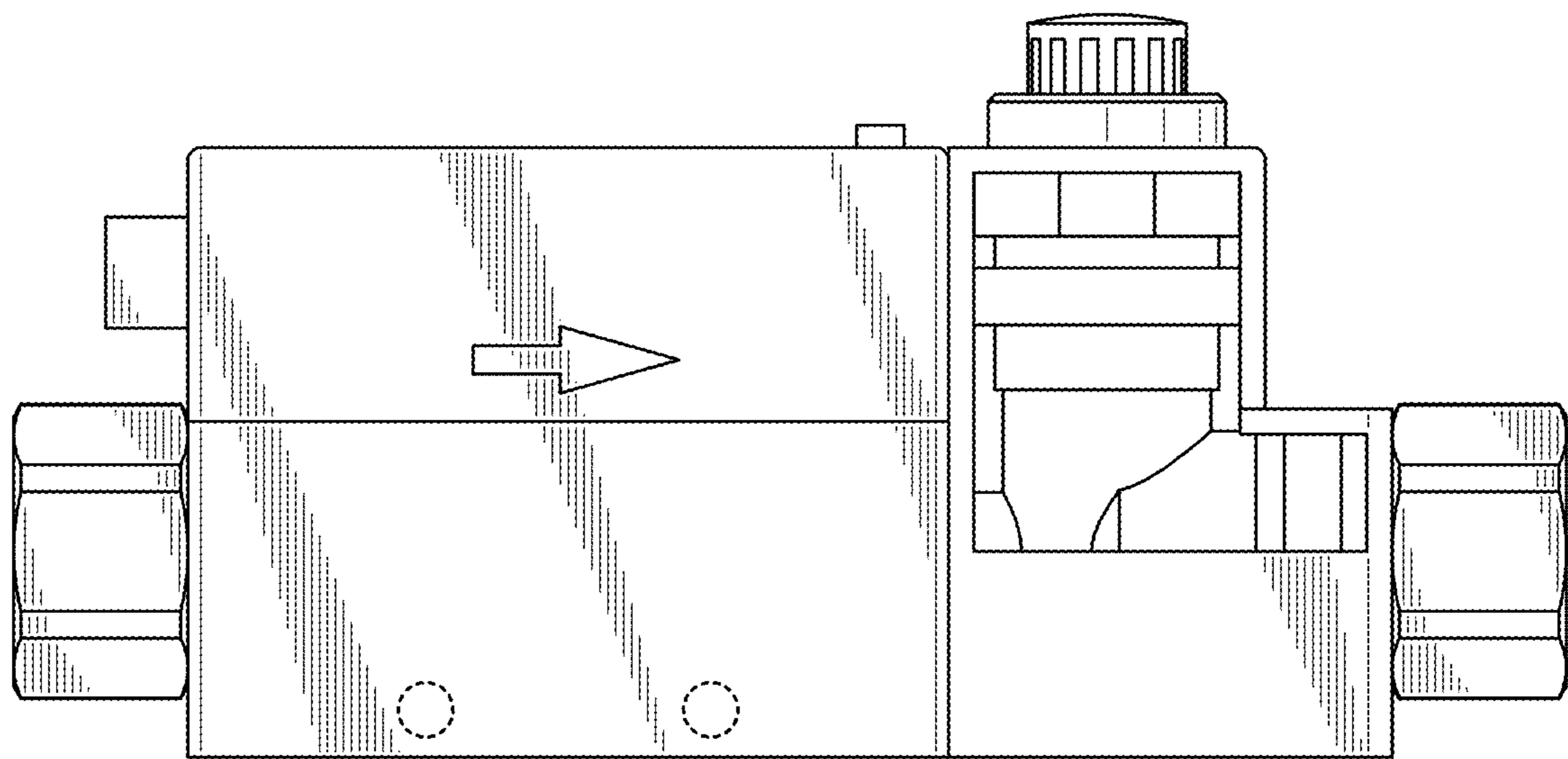


FIG. 29

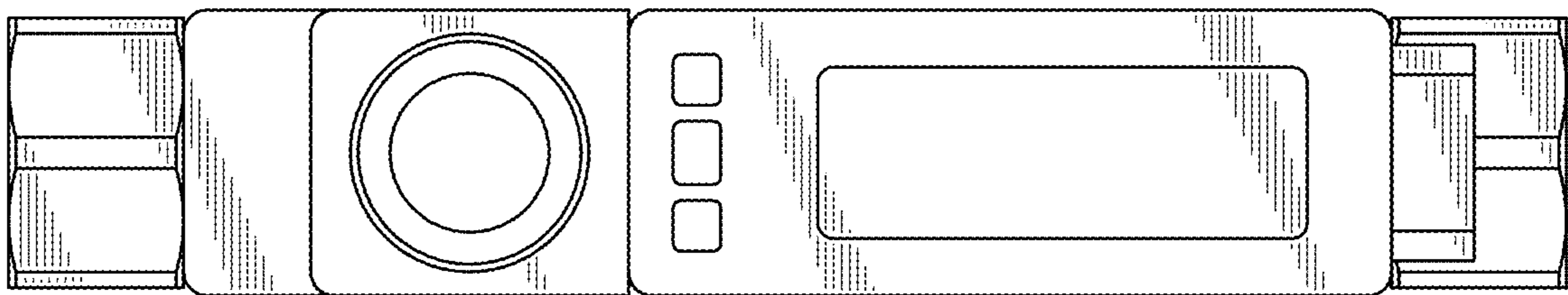


FIG. 30

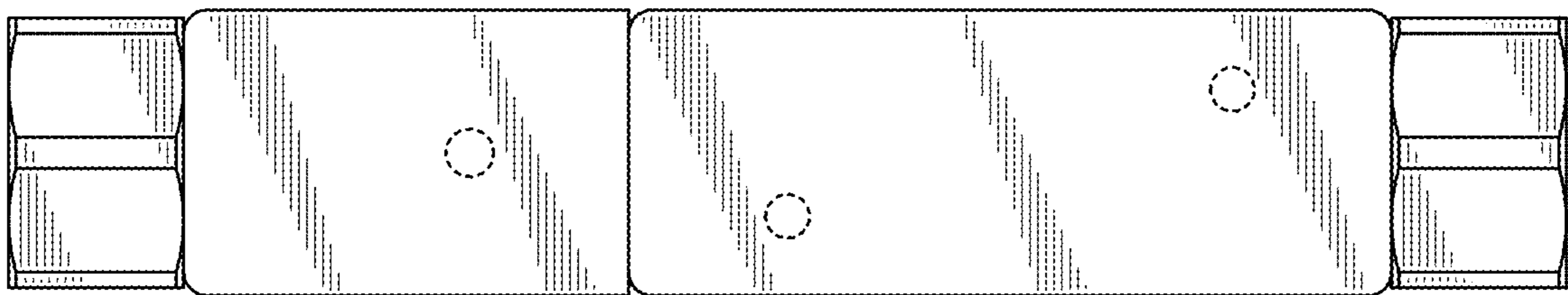


FIG. 31

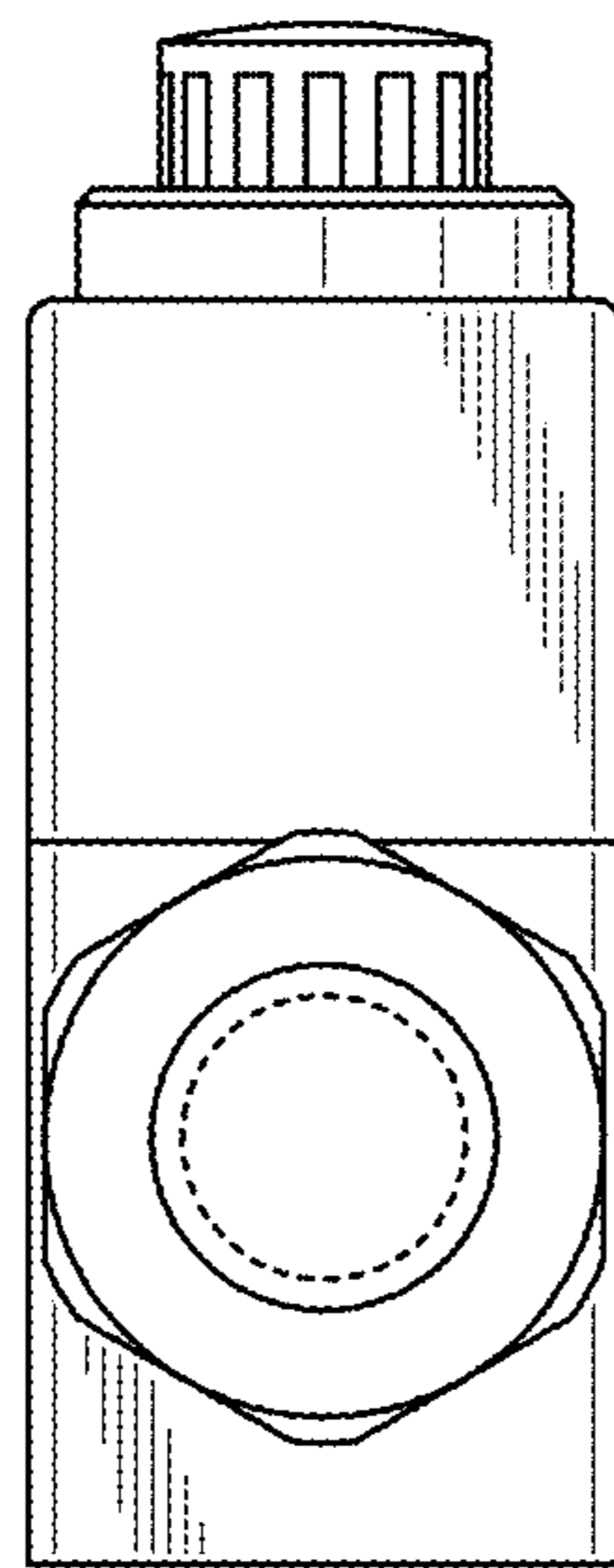


FIG. 32

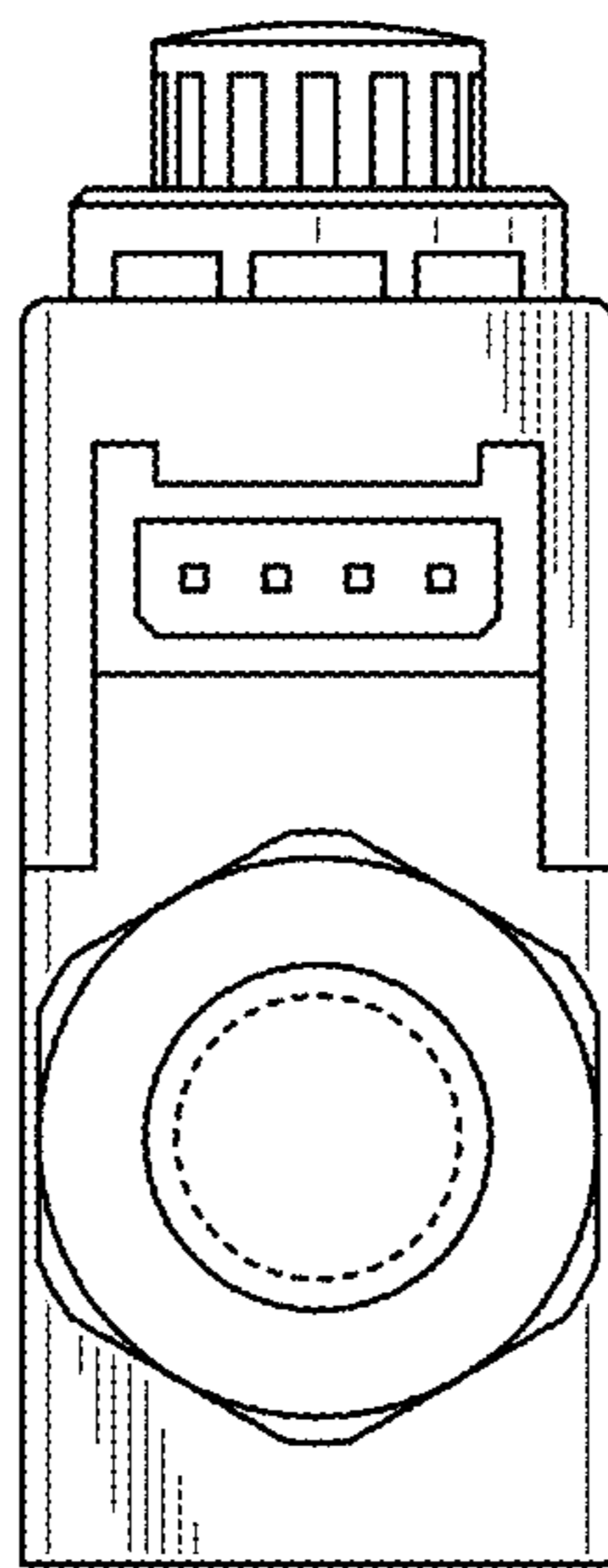


FIG. 33

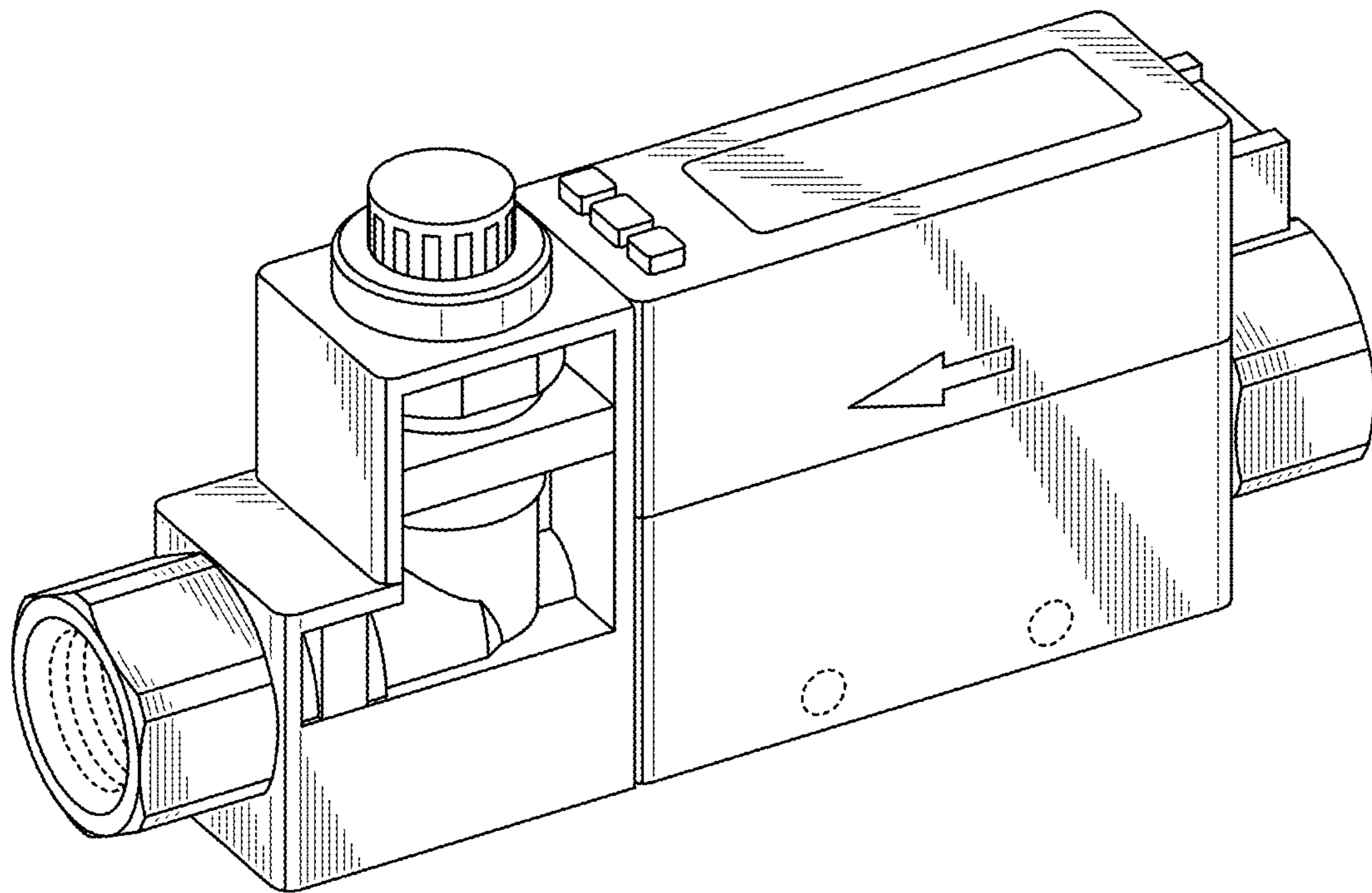


FIG. 34

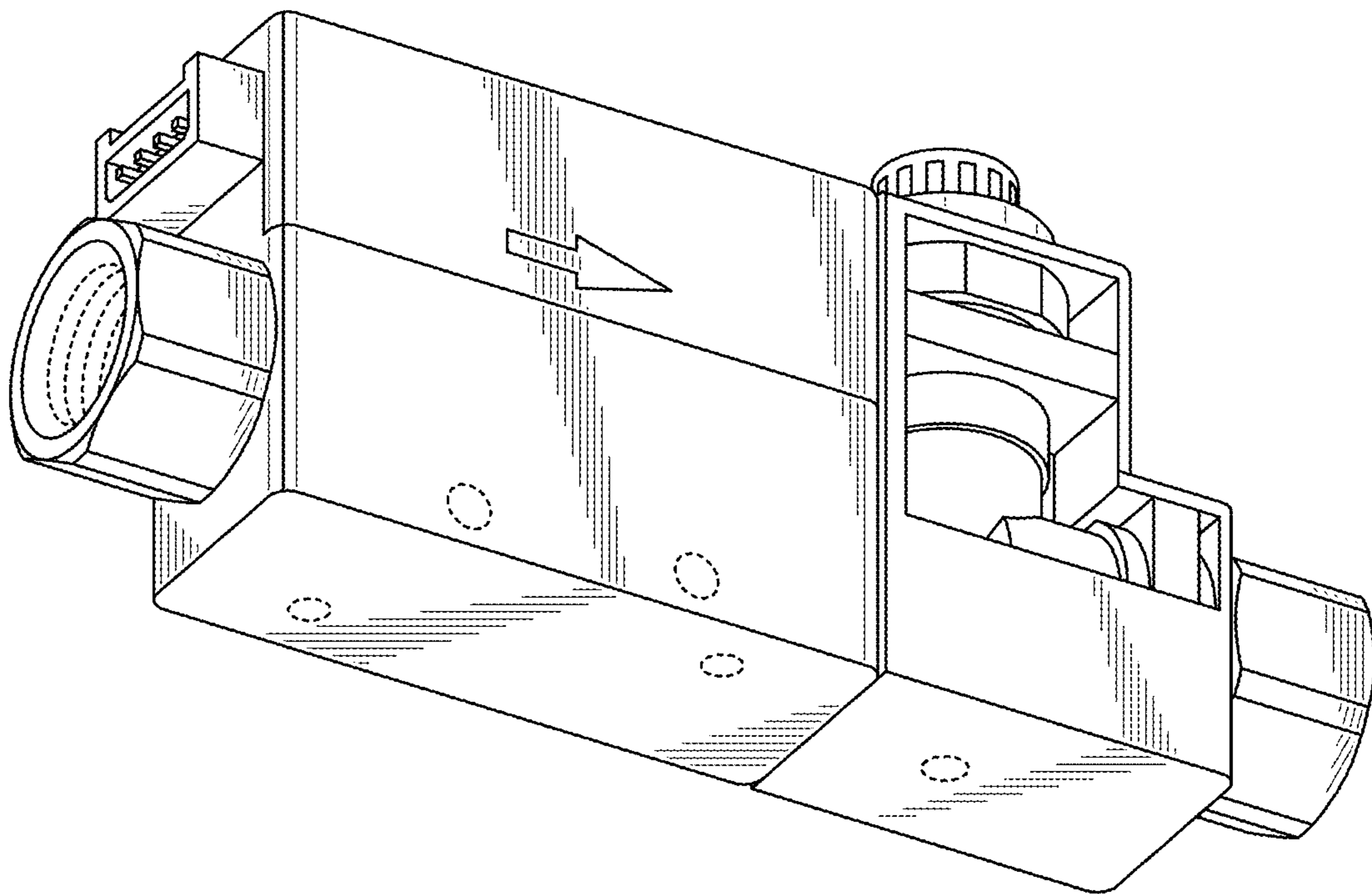


FIG. 35

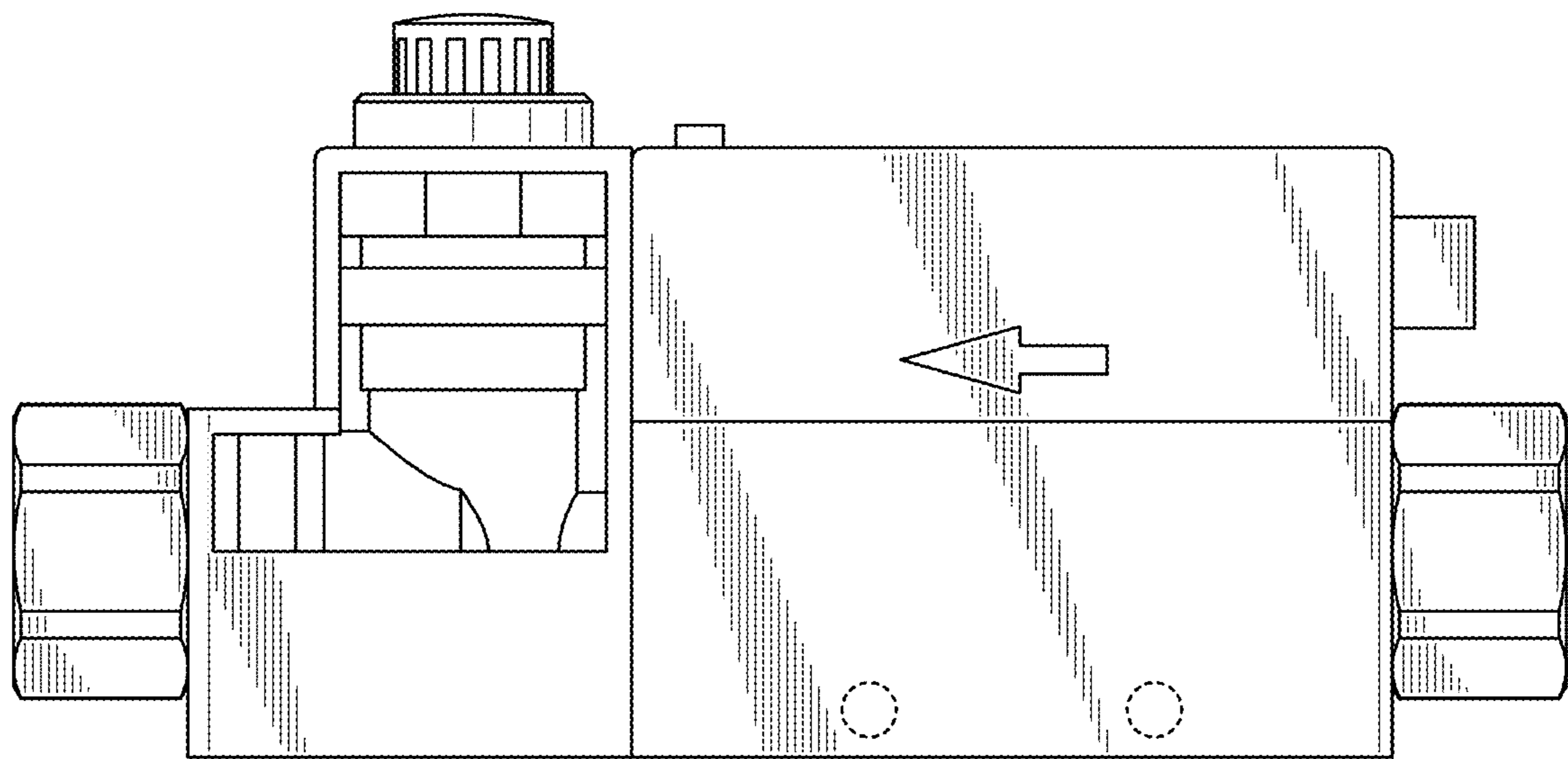


FIG. 36

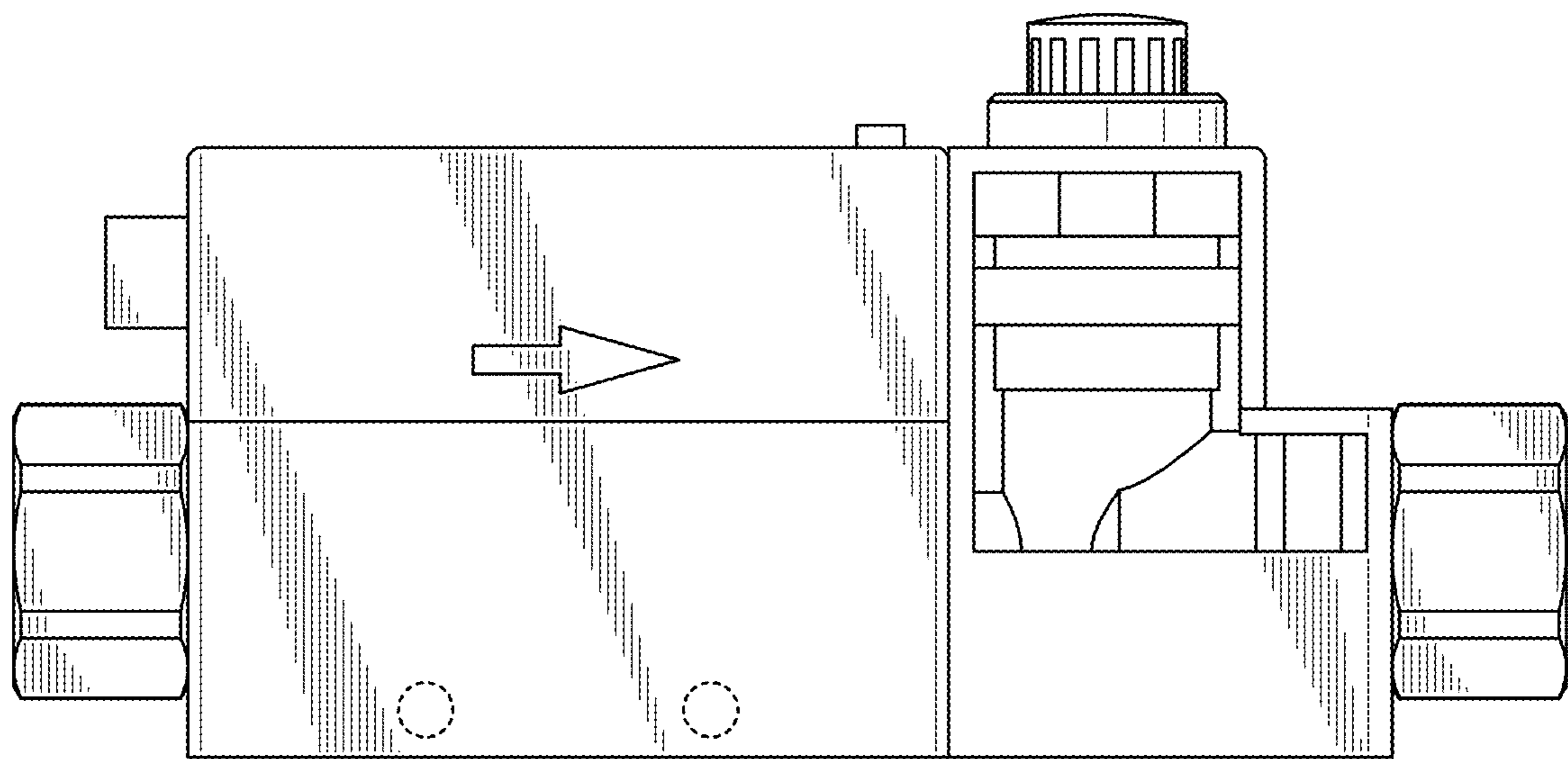


FIG. 37

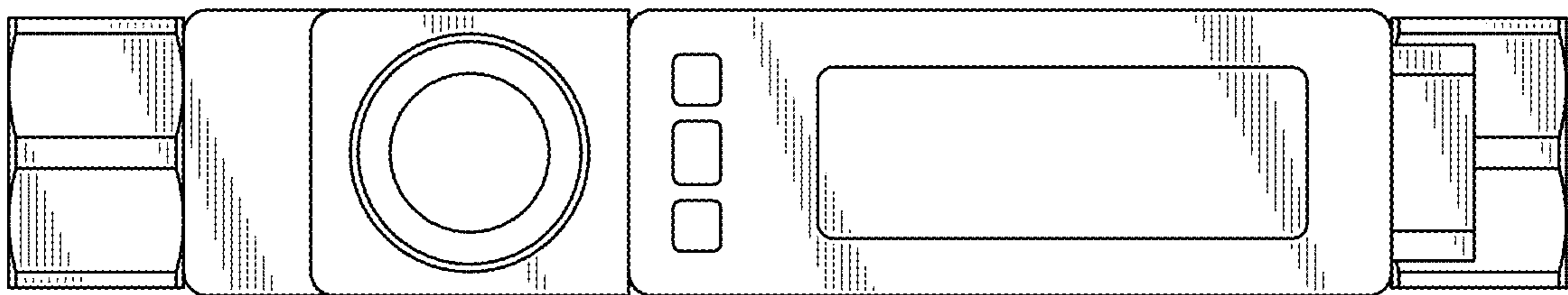


FIG. 38

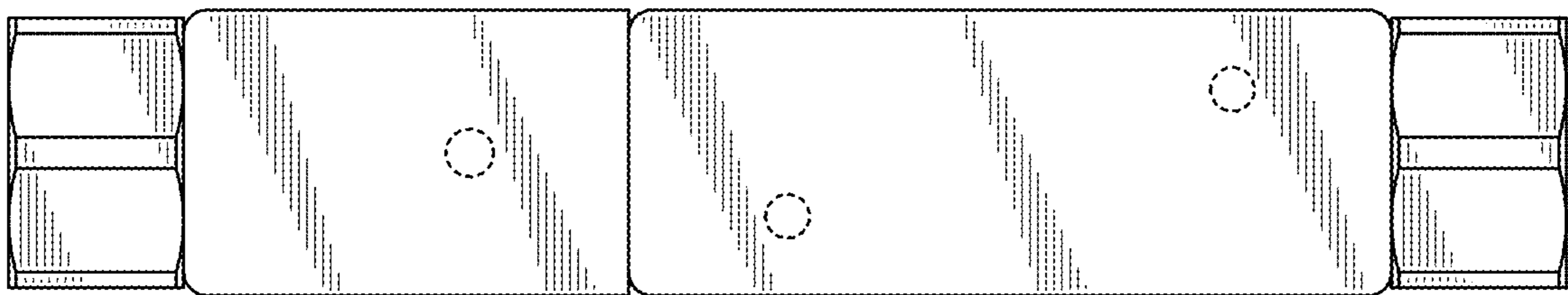


FIG. 39

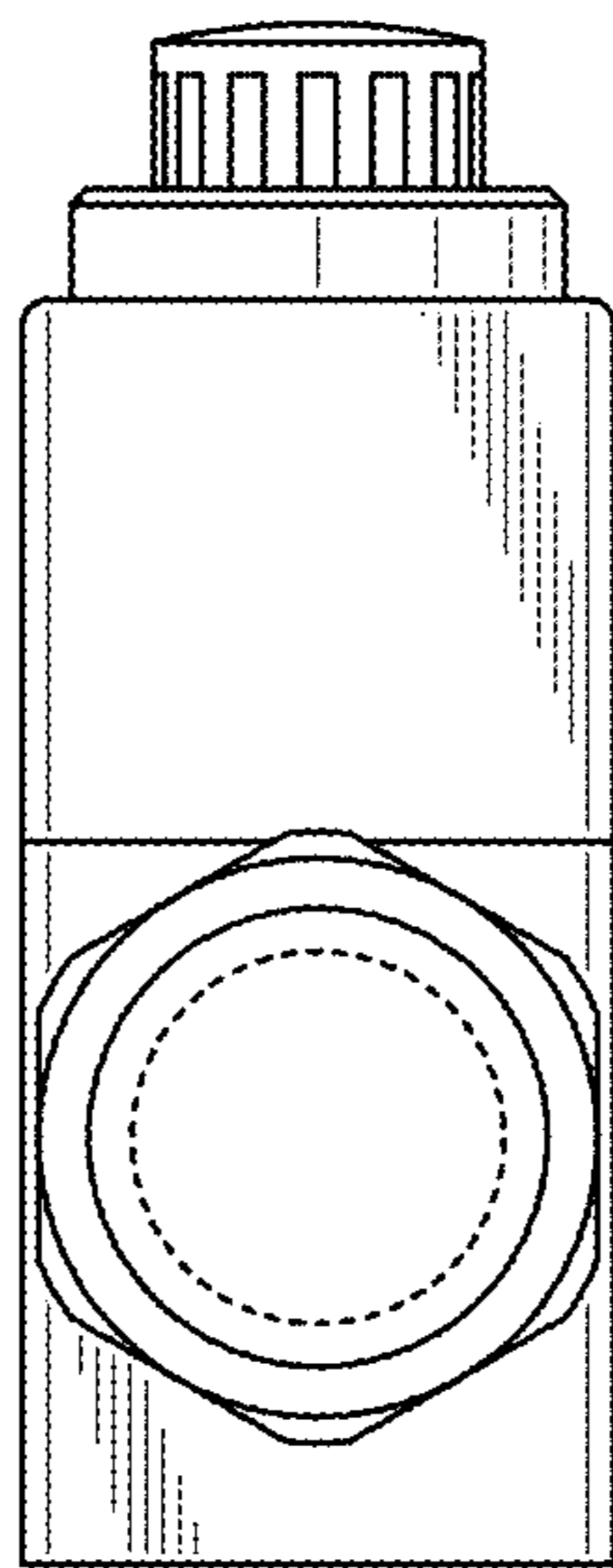


FIG. 40

