



US00D936506S

(12) **United States Design Patent**  
**Zeng**

(10) **Patent No.:** **US D936,506 S**

(45) **Date of Patent:** **\*\* Nov. 23, 2021**

(54) **PIEZOELECTRIC ACCELERATION SENSOR**

(71) Applicant: **FATRI UNITED TESTING & CONTROL (QUANZHOU) TECHNOLOGIES CO., LTD.**, Fujian (CN)

(72) Inventor: **Tingfang Zeng**, Xiamen (CN)

(73) Assignee: **FATRI UNITED TESTING & CONTROL (QUANZHOU) TECHNOLOGIES CO., LTD.**, Fujian (CN)

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

(21) Appl. No.: **29/705,736**

(22) Filed: **Sep. 15, 2019**

(30) **Foreign Application Priority Data**

Jun. 21, 2019 (CN) ..... 201930344284.X

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

(52) **U.S. Cl.**  
USPC ..... **D10/96; D10/98; D8/81**

(58) **Field of Classification Search**  
USPC ..... D10/96, 98; D8/27, 29, 70, 75, 81; D15/140  
CPC ..... H01L 41/1132; H01L 41/0475; H01L 41/0472; H01L 41/053; H01L 41/187; H01L 41/0835; H01L 41/0533; H01R 13/504; H01R 24/18; H01R 2201/20; H01R 13/005; G01P 1/023; G01P 15/09; G01P 15/0002; G01P 15/0022; G01P 15/0907; G01P 15/08; G01P 15/0802; G01P 15/0915

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,591,861 A \* 7/1971 Sonderegger ..... G01L 1/16 310/344  
4,075,525 A \* 2/1978 Birchall ..... G01L 1/16 310/329

4,941,243 A \* 7/1990 Cleveland ..... G01P 15/0915 29/25.35  
4,947,690 A \* 8/1990 Cleveland ..... G01P 1/023 73/493  
5,572,081 A \* 11/1996 Starck ..... G01P 15/0915 310/329  
5,847,278 A \* 12/1998 Judd ..... G01P 1/02 73/493  
D883,827 S \* 5/2020 Nie ..... H01R 13/504 D10/96

(Continued)

*Primary Examiner* — Antoine Duval Davis

(74) *Attorney, Agent, or Firm* — Pokalsky Wilczynski Brozek LLP

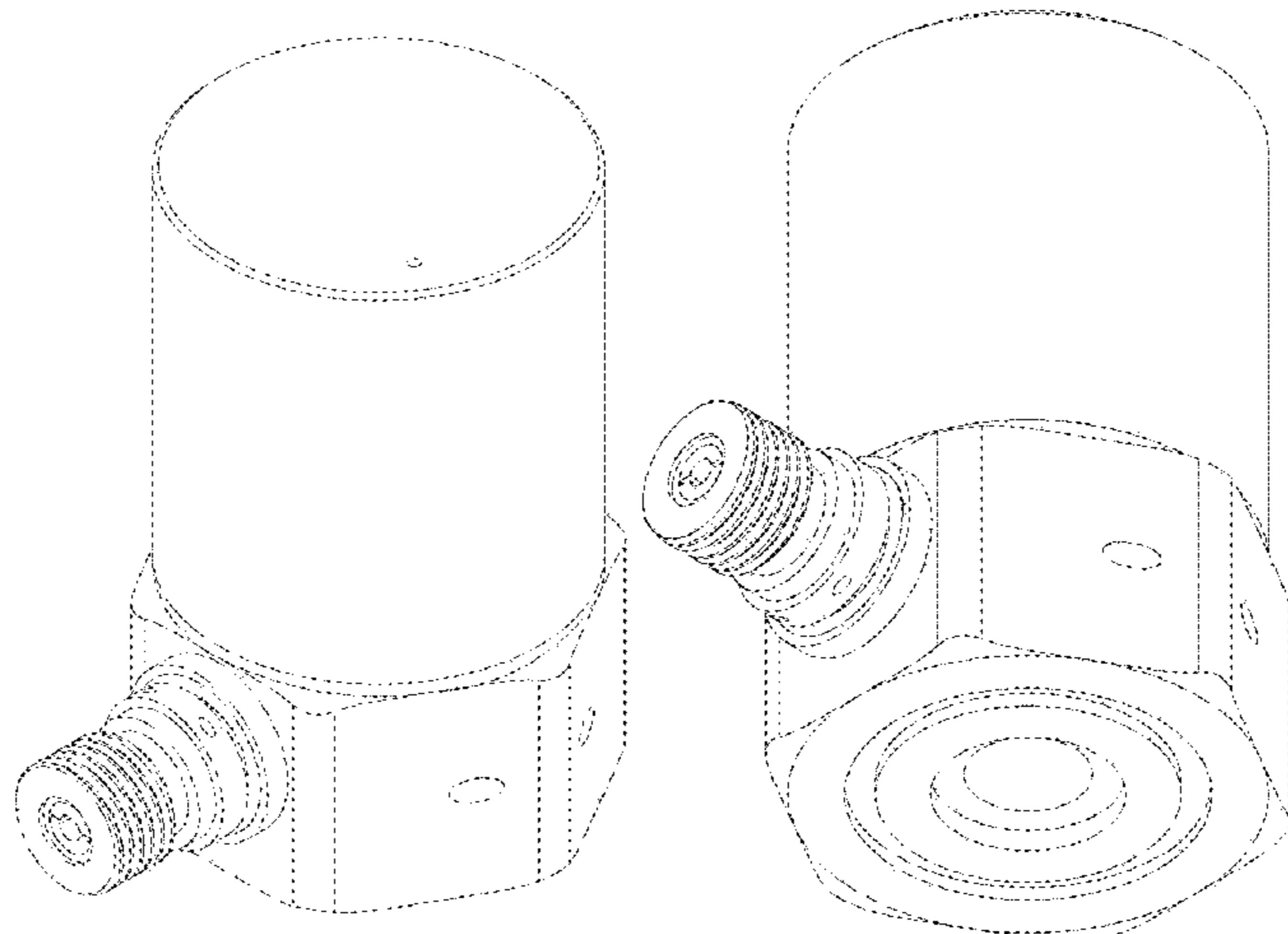
(57) **CLAIM**

The ornamental design for a piezoelectric acceleration sensor, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a piezoelectric acceleration sensor according to my new design.  
FIG. 2 is another perspective view of the piezoelectric acceleration sensor as shown in FIG. 1.  
FIG. 3 is a front view of the piezoelectric acceleration sensor as shown in FIG. 1.  
FIG. 4 is a back view of the piezoelectric acceleration sensor as shown in FIG. 1.  
FIG. 5 is a left side view of the piezoelectric acceleration sensor as shown in FIG. 1.  
FIG. 6 is a right side view of the piezoelectric acceleration sensor as shown in FIG. 1.  
FIG. 7 is a top view of the piezoelectric acceleration sensor as shown in FIG. 1; and,  
FIG. 8 is a bottom view of the piezoelectric acceleration sensor as shown in FIG. 1.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D889,292 S \* 7/2020 Nie ..... G01H 1/003  
D10/96  
D890,004 S \* 7/2020 Nie ..... G01P 15/0915  
D10/96  
D907,573 S \* 1/2021 Nie ..... G01P 1/02  
D13/103  
2020/0025785 A1\* 1/2020 Zusman ..... G01D 11/30  
2020/0049732 A1\* 2/2020 Nie ..... G01P 15/0915  
2020/0058426 A1\* 2/2020 Nie ..... H01F 7/0236  
2020/0174034 A1\* 6/2020 Nie ..... G01P 15/0915  
2020/0182901 A1\* 6/2020 Nie ..... G01H 1/003  
2020/0209278 A1\* 7/2020 Nie ..... G01P 15/09  
2020/0309811 A1\* 10/2020 Nie ..... G01P 15/09  
2020/0400710 A1\* 12/2020 Nie ..... H01R 13/504  
2021/0011050 A1\* 1/2021 Nie ..... H01L 41/0533  
2021/0011051 A1\* 1/2021 Nie ..... H01L 41/1132  
2021/0072092 A1\* 3/2021 Nie ..... G01K 1/14

\* cited by examiner

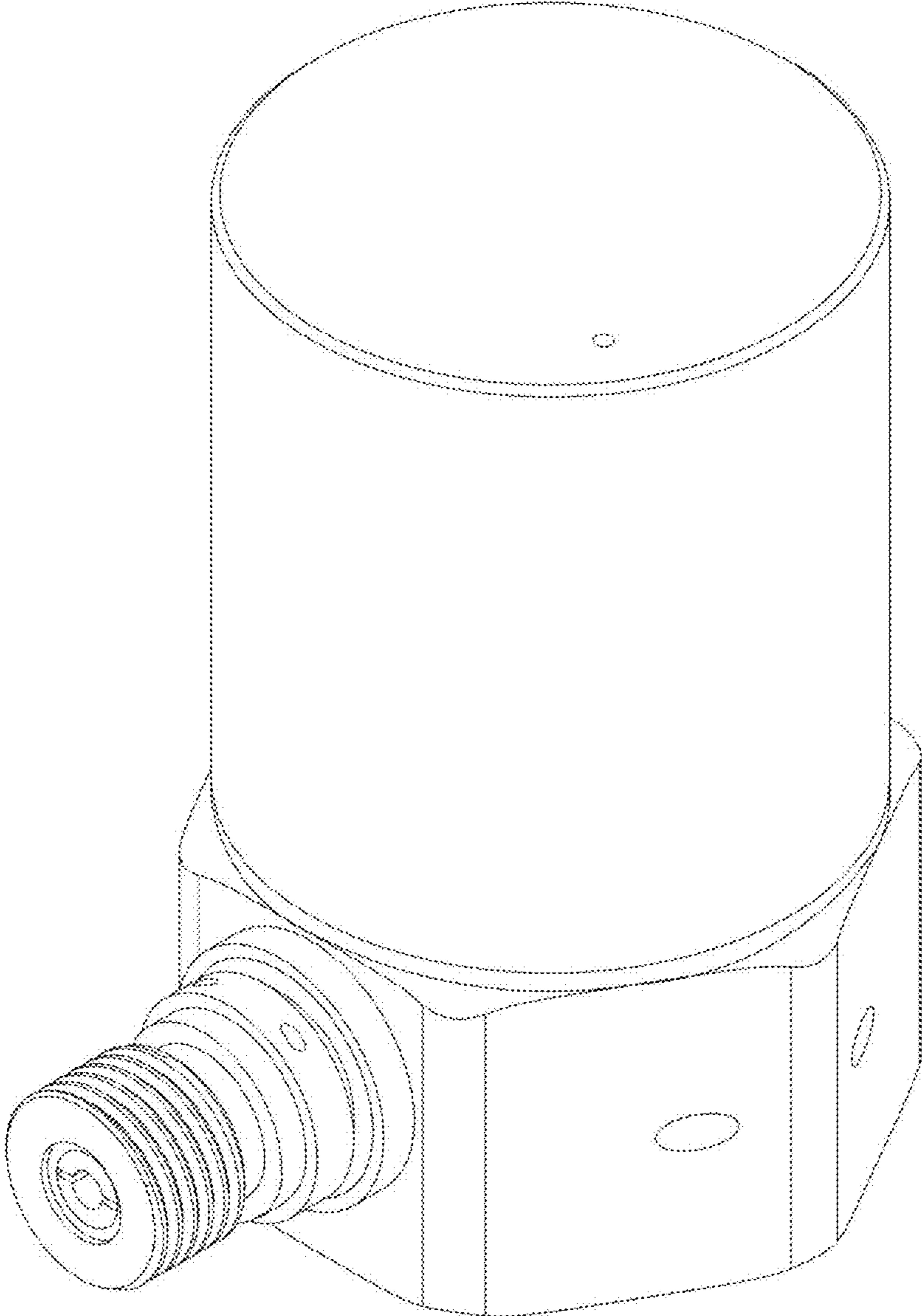


Fig. 1

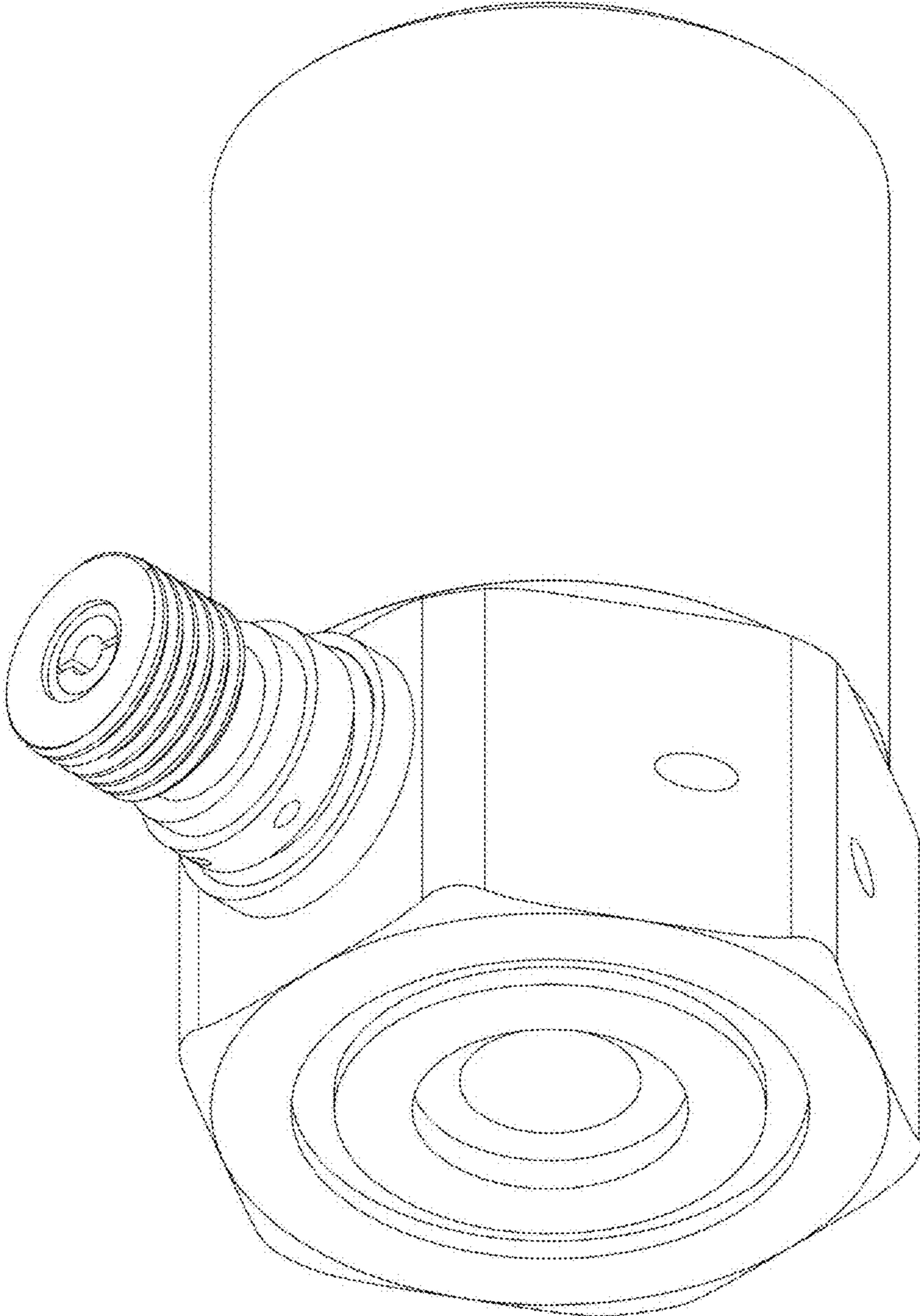


Fig. 2

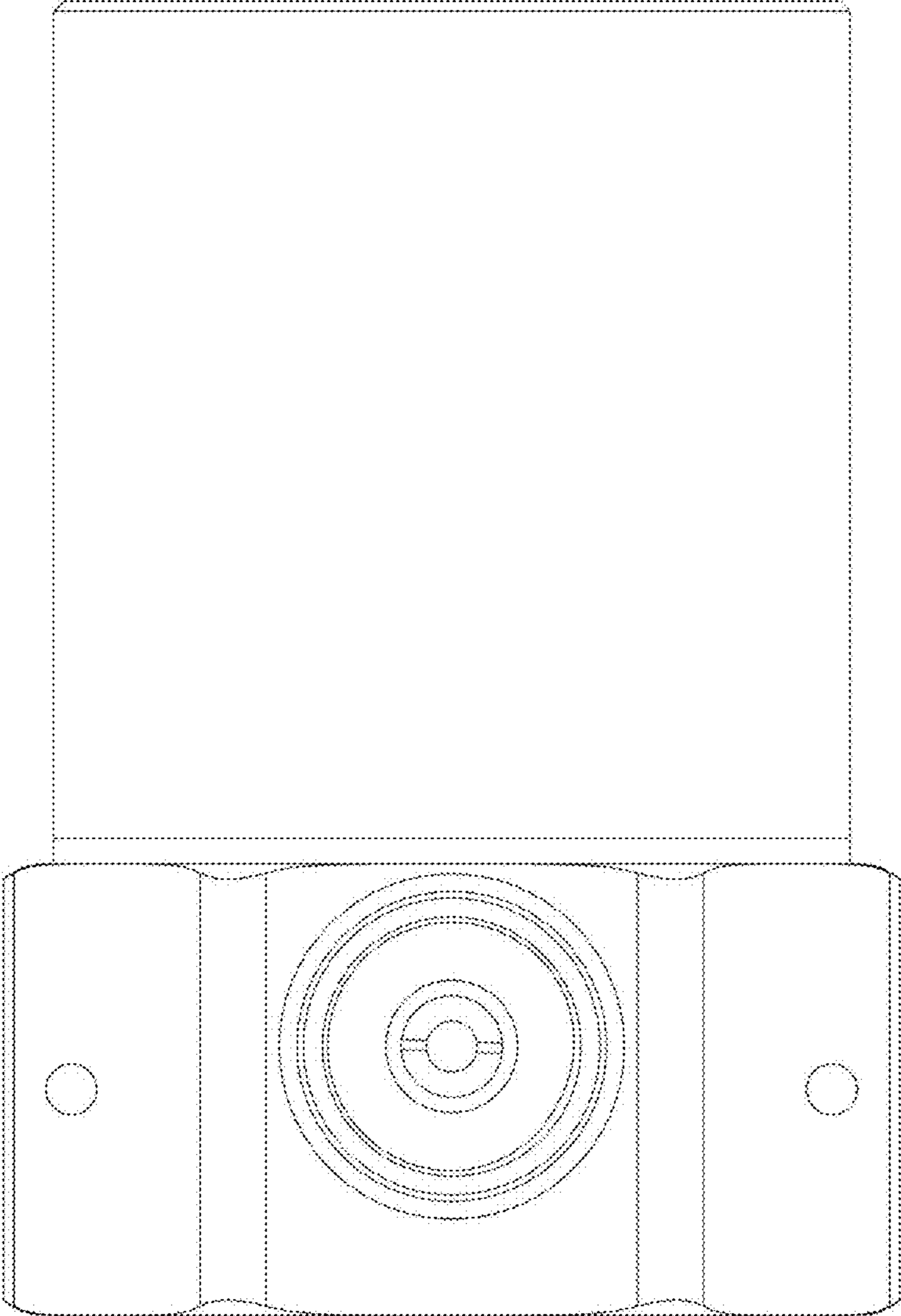


Fig. 3

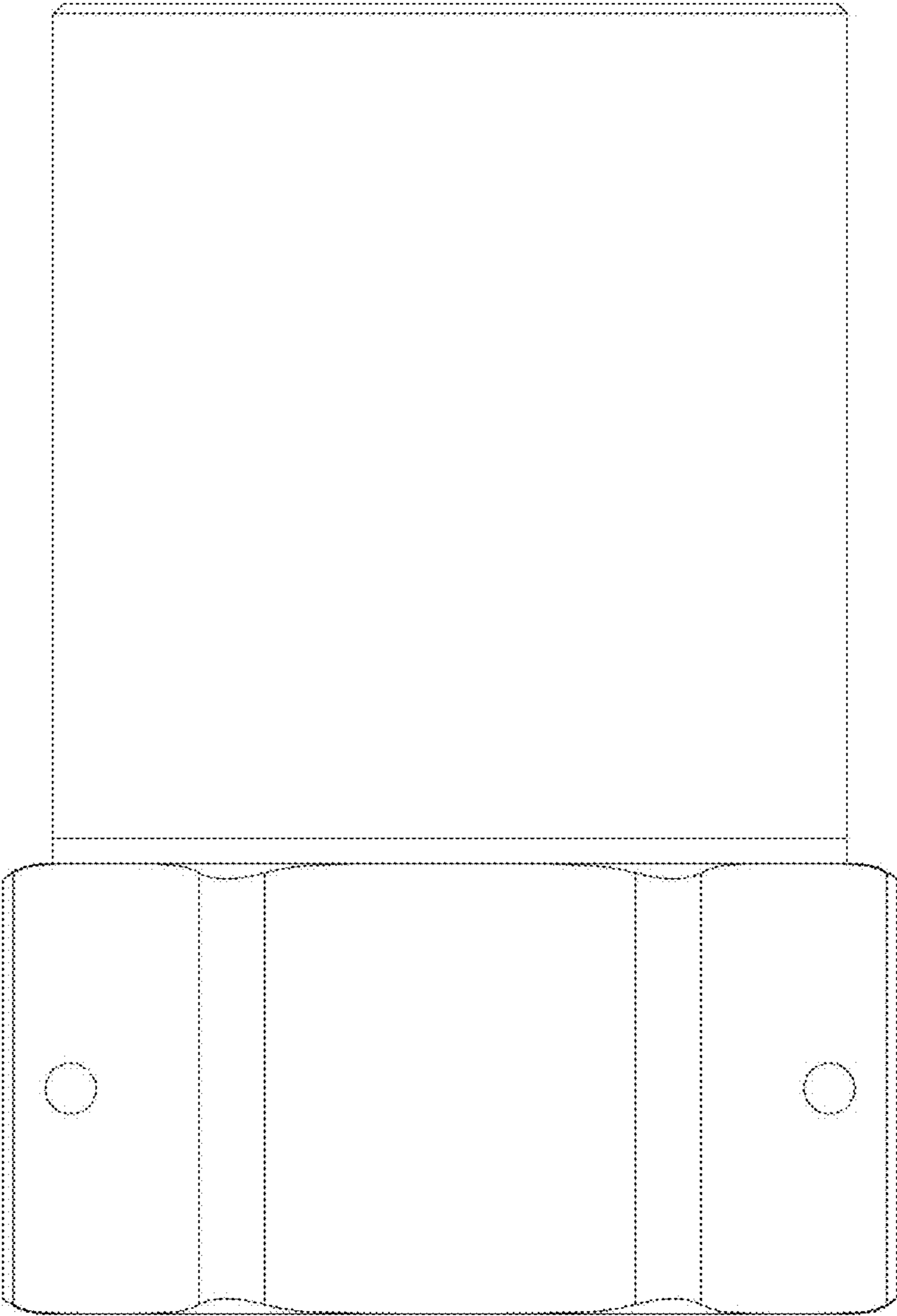


Fig. 4

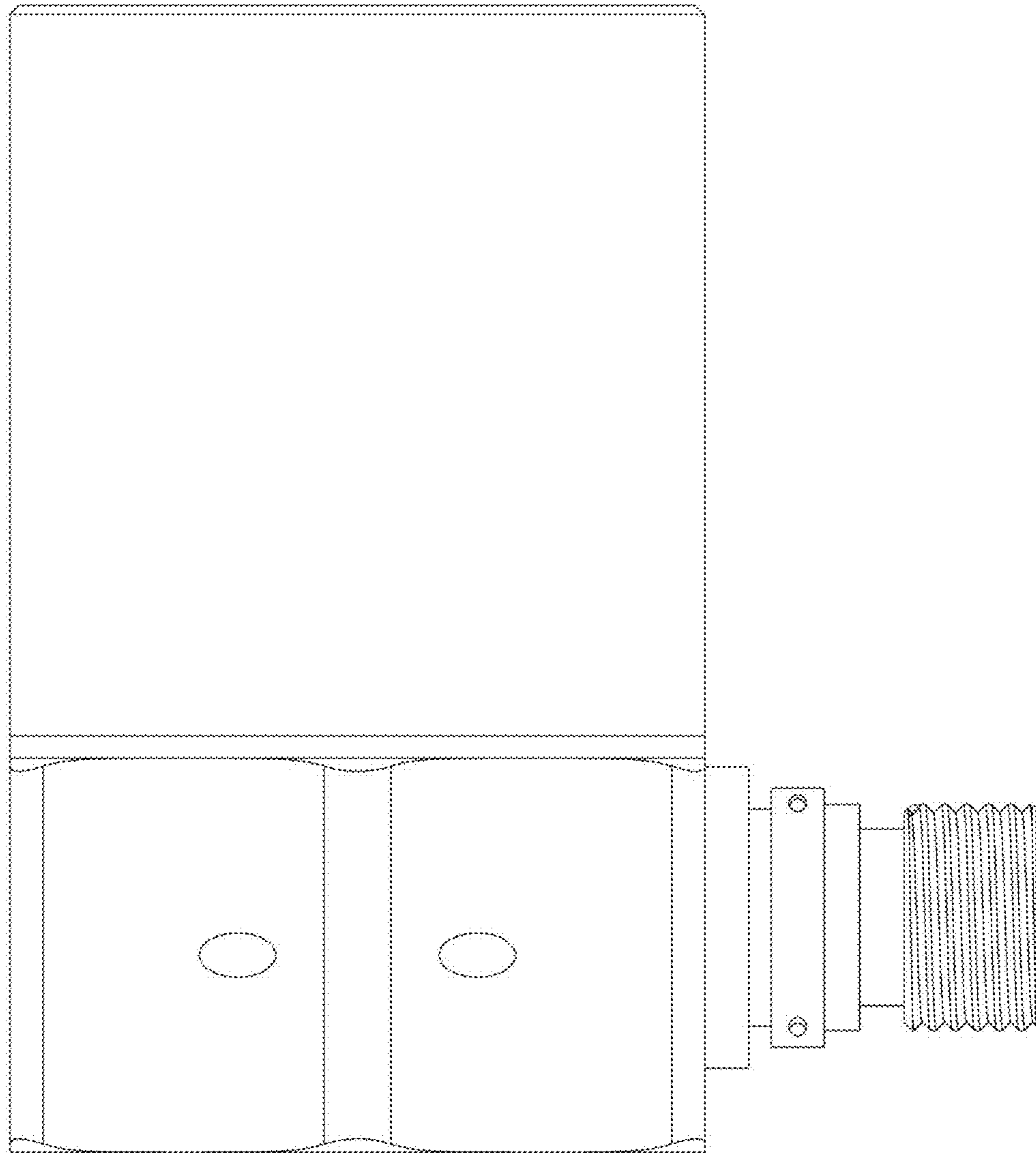


Fig. 5

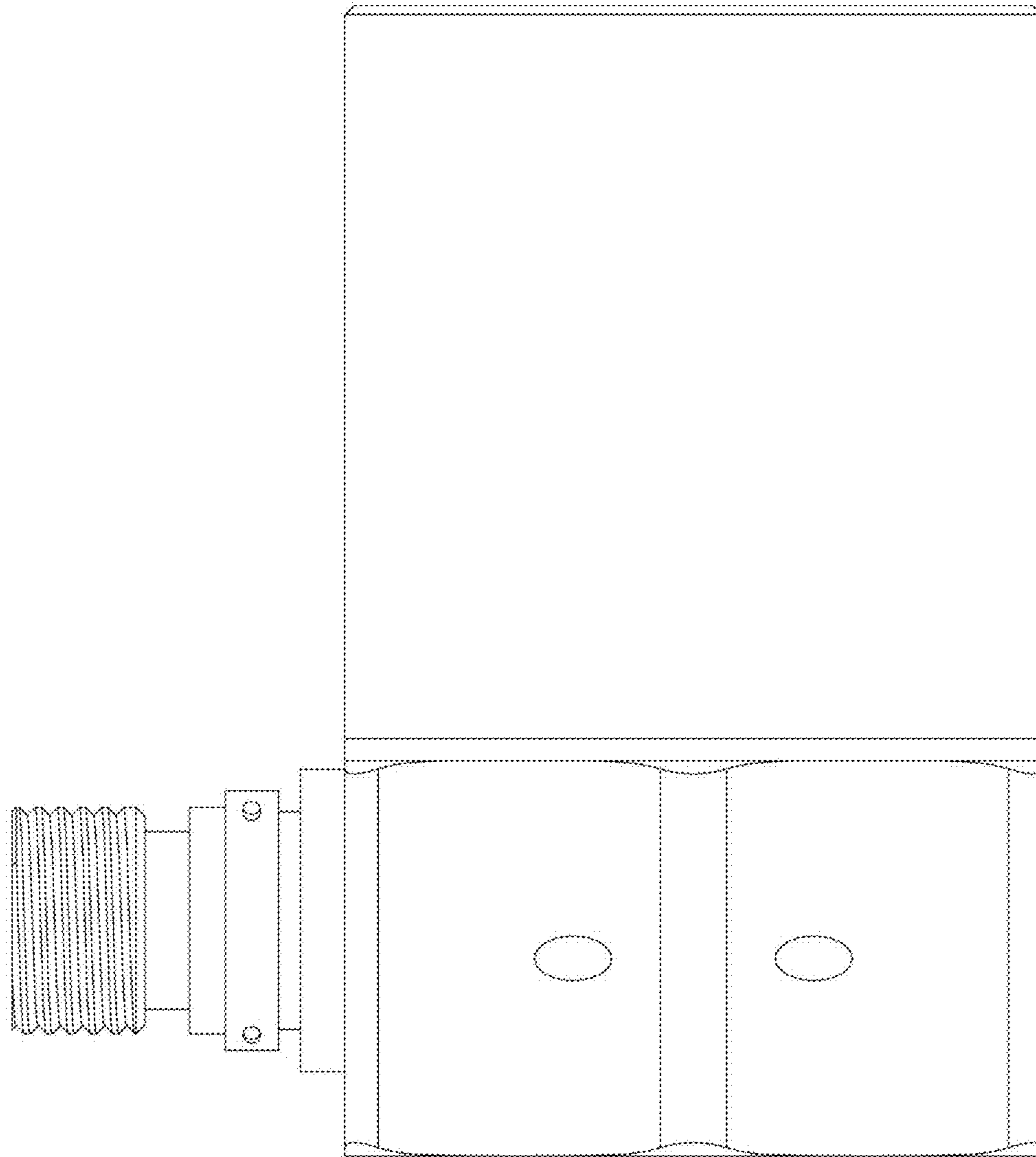


Fig. 6



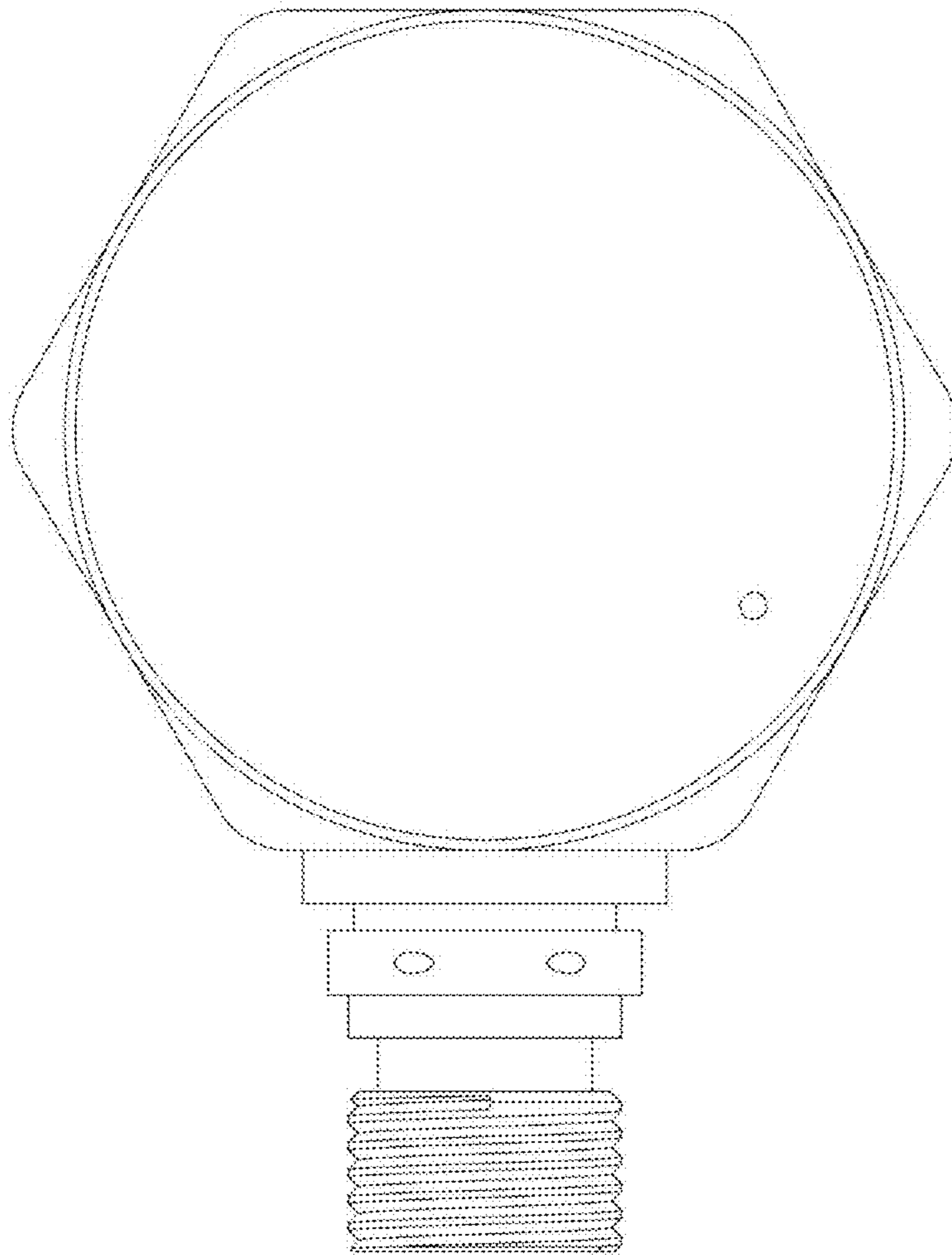


Fig. 7

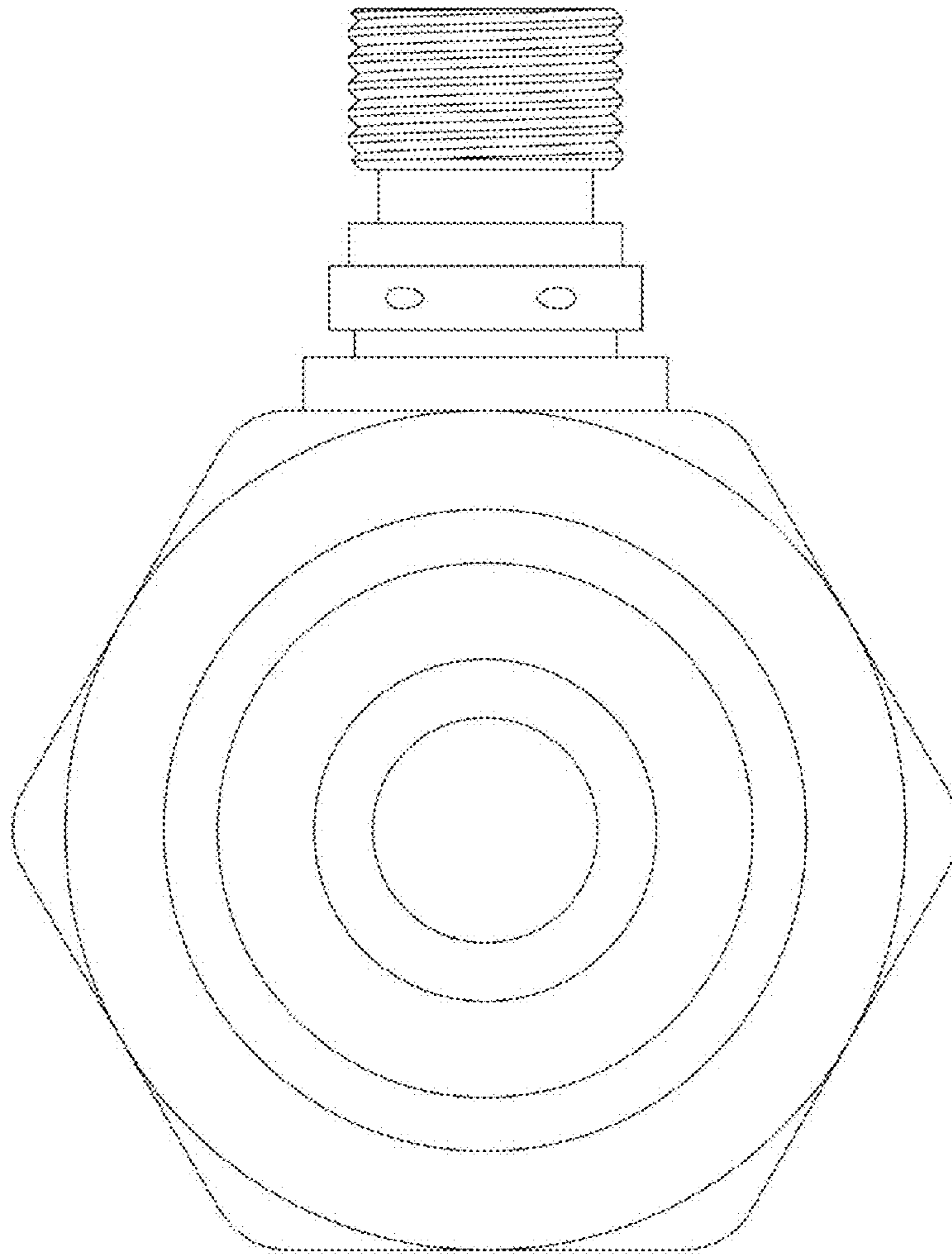


Fig. 8