



US00D818447S

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

(10) **Patent No.:** **US D818,447 S**

(45) **Date of Patent:** **** May 22, 2018**

(54) **PLASMA FEEDTHROUGH FLANGE**

(71) Applicant: **Applied Materials, Inc.**, Santa Clara, CA (US)

(72) Inventor: **Eric Kihara Shono**, San Mateo, CA (US)

(73) Assignee: **APPLIED MATERIALS, INC.**, Santa Clara, CA (US)

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

(21) Appl. No.: **29/602,206**

(22) Filed: **Apr. 28, 2017**

(51) **LOC (11) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/182**

(58) **Field of Classification Search**

USPC D13/182, 184, 199; 264/642, 632, 643, 264/655, 678; 285/328, 363, 336, 365, 285/366, 422, 917, 901; 138/89; 219/50, 219/121.36, 121.39, 520, 121.4, 521, 405, 219/411, 390; 220/315, 288

CPC F16L 23/00; F16L 23/003; F16L 23/006; F16L 23/02; F16L 23/024; F16L 23/026; F16L 23/032; F16L 23/12; F16L 23/16; F16L 23/18; F16L 23/20; F24F 13/0209; H05B 3/04; H01S 3/03; H01S 3/0305

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 1,462,698 A * 7/1923 Haughey F16L 23/032 285/412
- 2,282,552 A * 5/1942 Banowitz F16L 23/162 285/331
- 2,513,178 A * 6/1950 Jackson F16L 23/22 277/611
- 2,532,891 A * 12/1950 Chupp F16L 23/167 277/320

- 3,302,953 A * 2/1967 Glasgow F16J 15/127 277/611
- 3,368,818 A * 2/1968 Asamaki F16L 23/16 277/608
- 3,747,963 A * 7/1973 Shivak F16L 23/20 277/614
- 3,988,698 A 10/1976 Crane et al.
- 4,988,130 A * 1/1991 Obara F16L 23/20 138/89
- 5,119,395 A * 6/1992 Hemsath F27D 21/00 373/112
- 5,228,587 A * 7/1993 Worthington F16L 55/1157 220/315
- 5,593,123 A * 1/1997 Crawford F16L 7/00 248/220.21

(Continued)

Primary Examiner — Elizabeth J Oswecki

(74) *Attorney, Agent, or Firm* — Patterson + Sheridan LLP

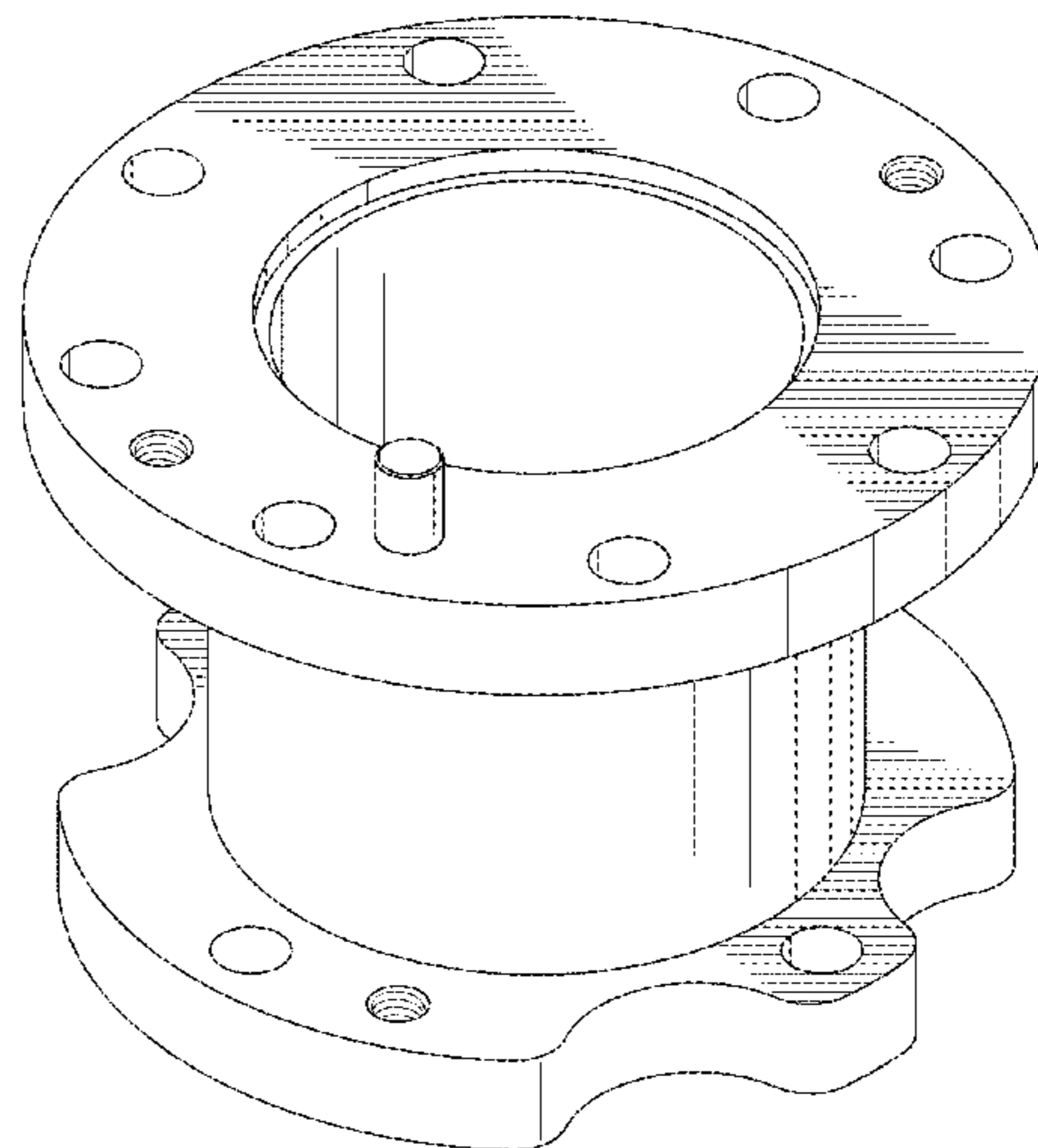
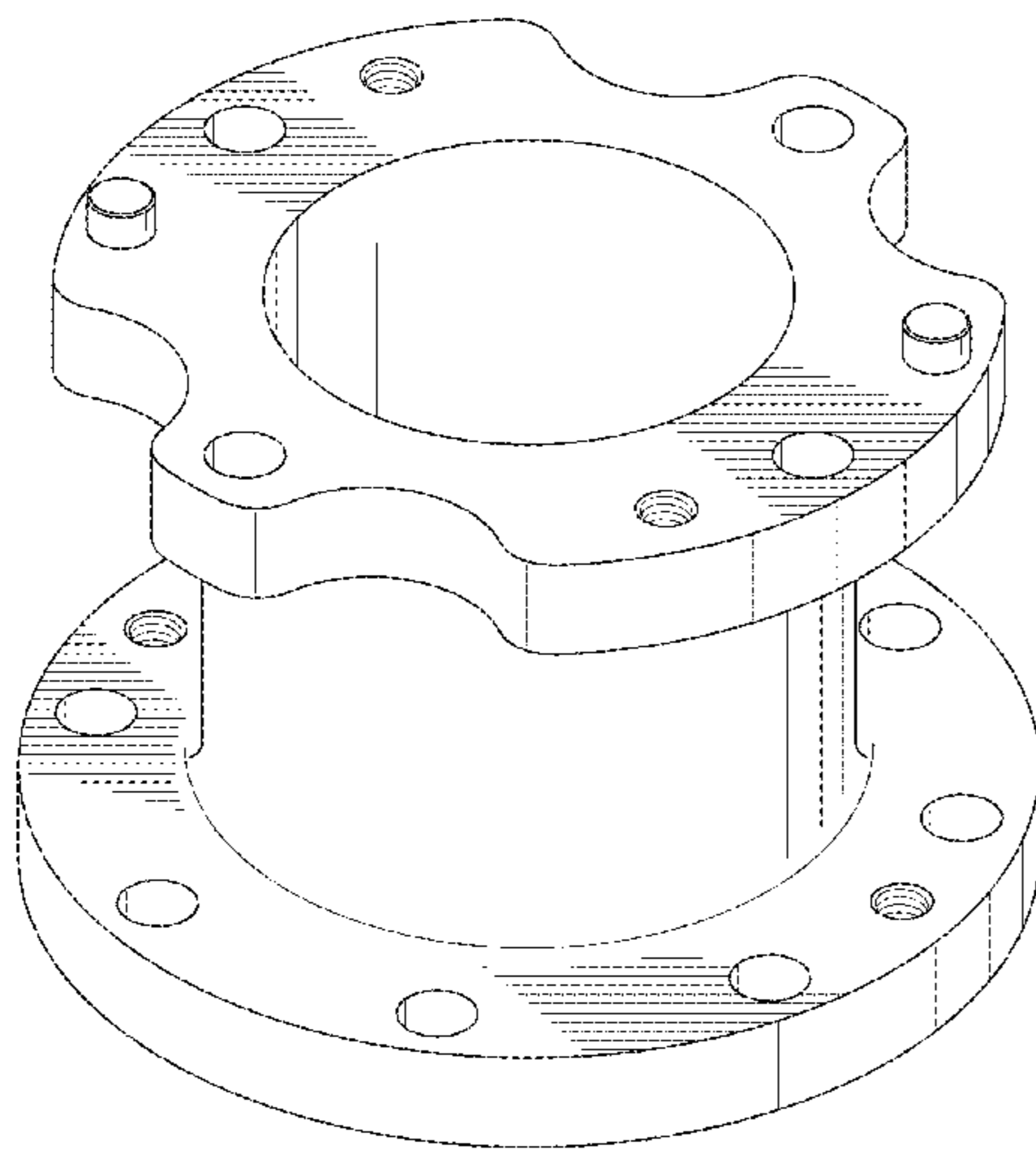
(57) **CLAIM**

The ornamental design for a plasma feedthrough flange, as shown and described.

DESCRIPTION

FIG. 1 is an isometric top view of a plasma feedthrough flange, showing my new design;
 FIG. 2 is an isometric bottom view thereof;
 FIG. 3 is a top plan view thereof;
 FIG. 4 is a side view thereof;
 FIG. 5 is a bottom plan view thereof;
 FIG. 6 is another side view thereof;
 FIG. 7 is another side view thereof;
 FIG. 8 is another side view thereof;
 FIG. 9 is a cross sectional view taken along lines 9-9 of FIG. 5;
 FIG. 10 is a cross sectional view taken along lines 10-10 of FIG. 5; and,
 FIG. 11 is a cross sectional view taken along lines 11-11 of FIG. 3.

1 Claim, 11 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,814,818 A * 9/1998 Ohashi G01N 21/73
250/428
5,961,916 A 10/1999 Ohashi et al.
6,325,390 B1 * 12/2001 Sillmon F16L 23/003
277/614
6,326,574 B1 12/2001 Huang et al.
D606,952 S * 12/2009 Lee D13/182
8,191,901 B2 * 6/2012 Crawford F16L 23/20
277/608
D702,654 S * 4/2014 Lee D13/182
D812,578 S * 3/2018 Uemura D13/182
2002/0050689 A1 * 5/2002 Crawford F16L 19/0218
277/608
2008/0308230 A1 * 12/2008 Takahashi H01J 37/32431
156/345.52

* cited by examiner

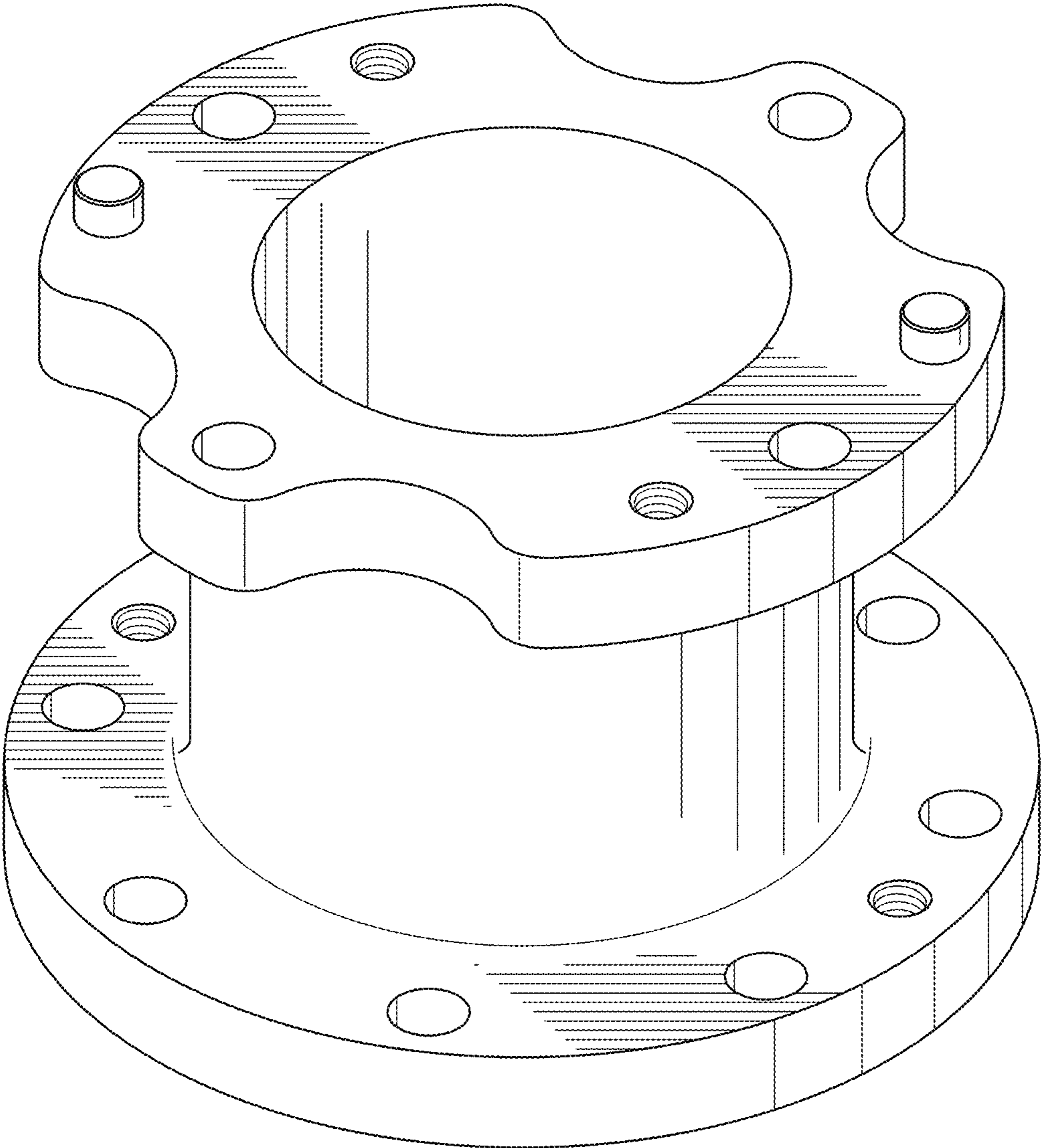


Fig. 1

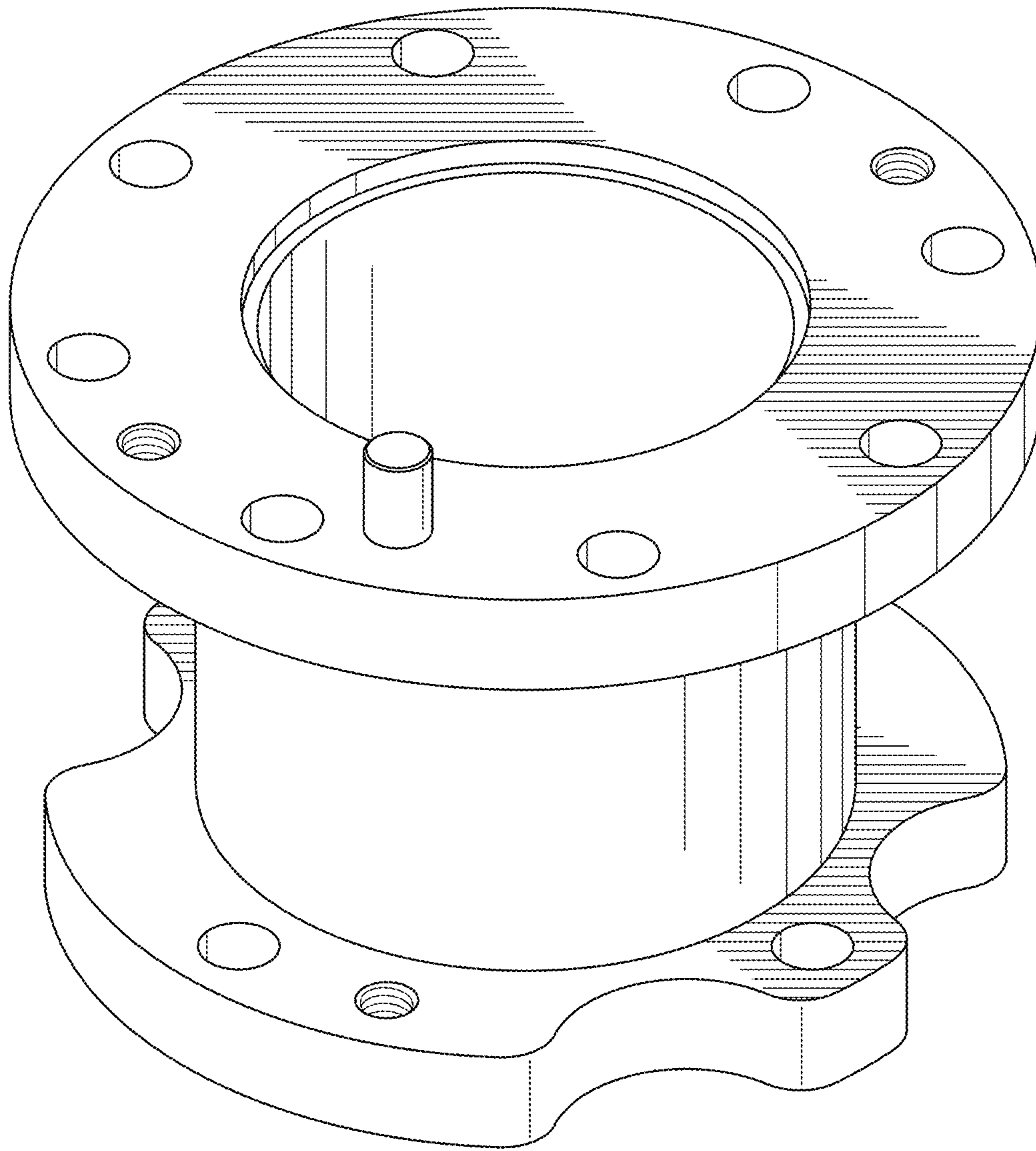


Fig. 2

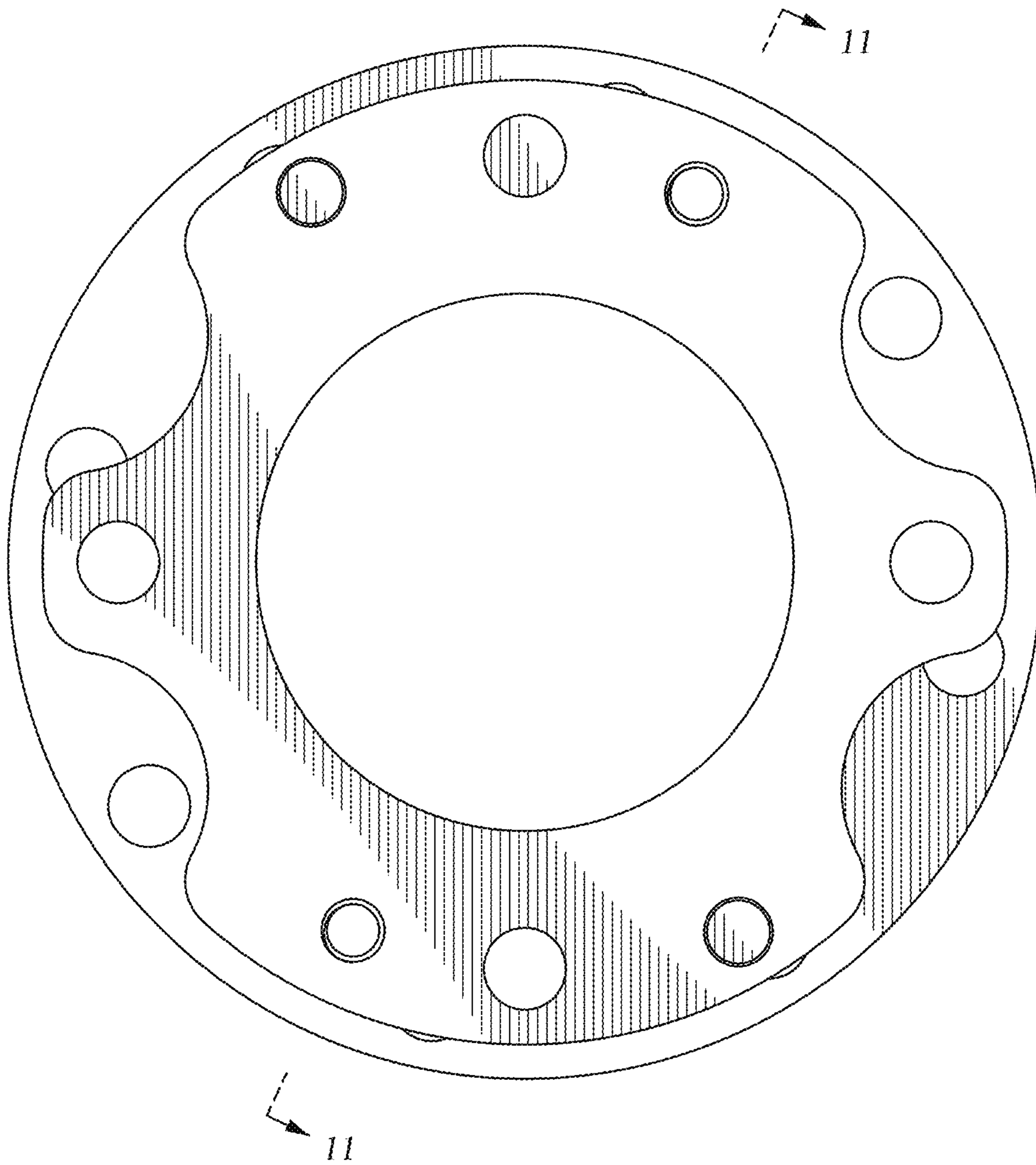


Fig. 3

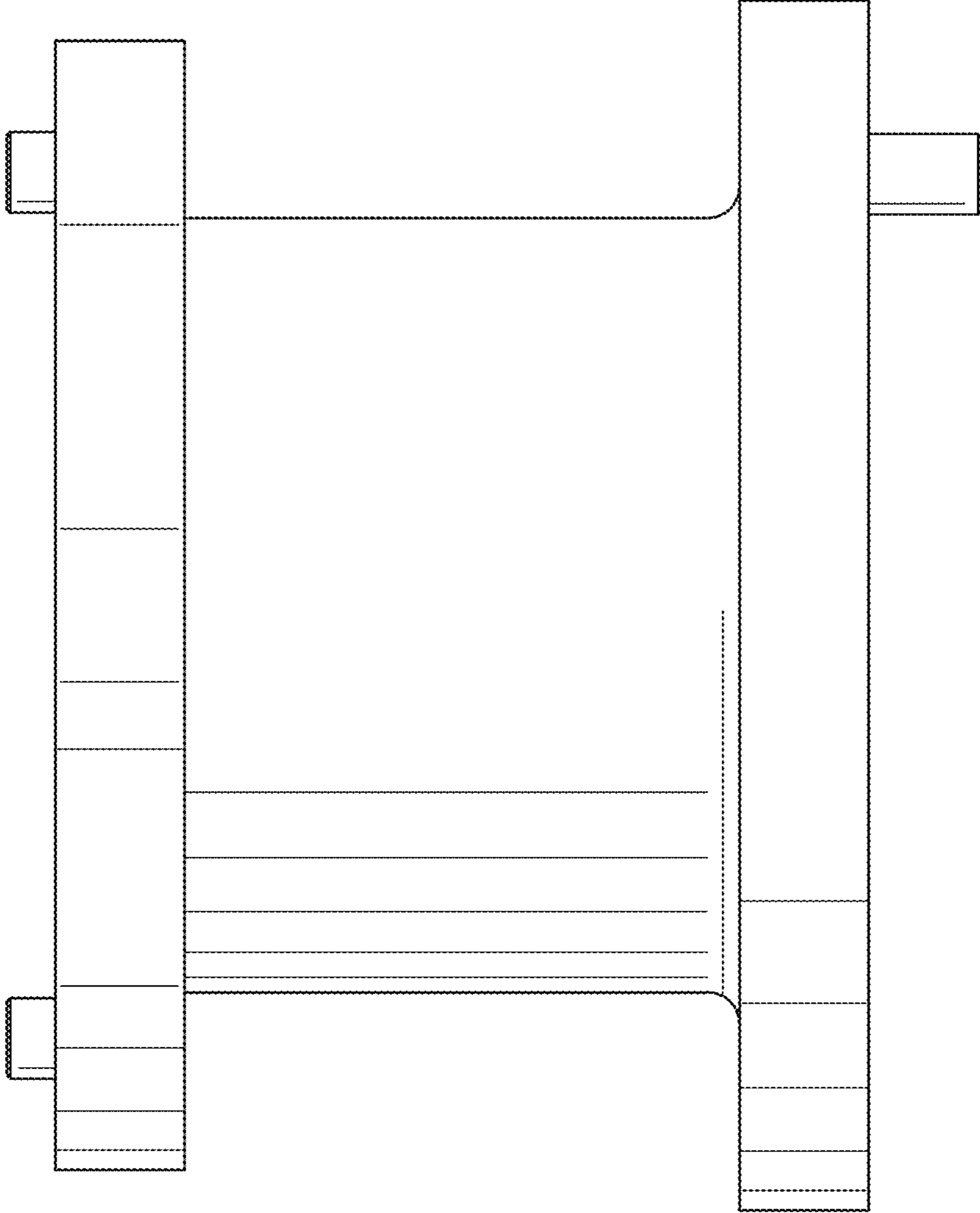


Fig. 4

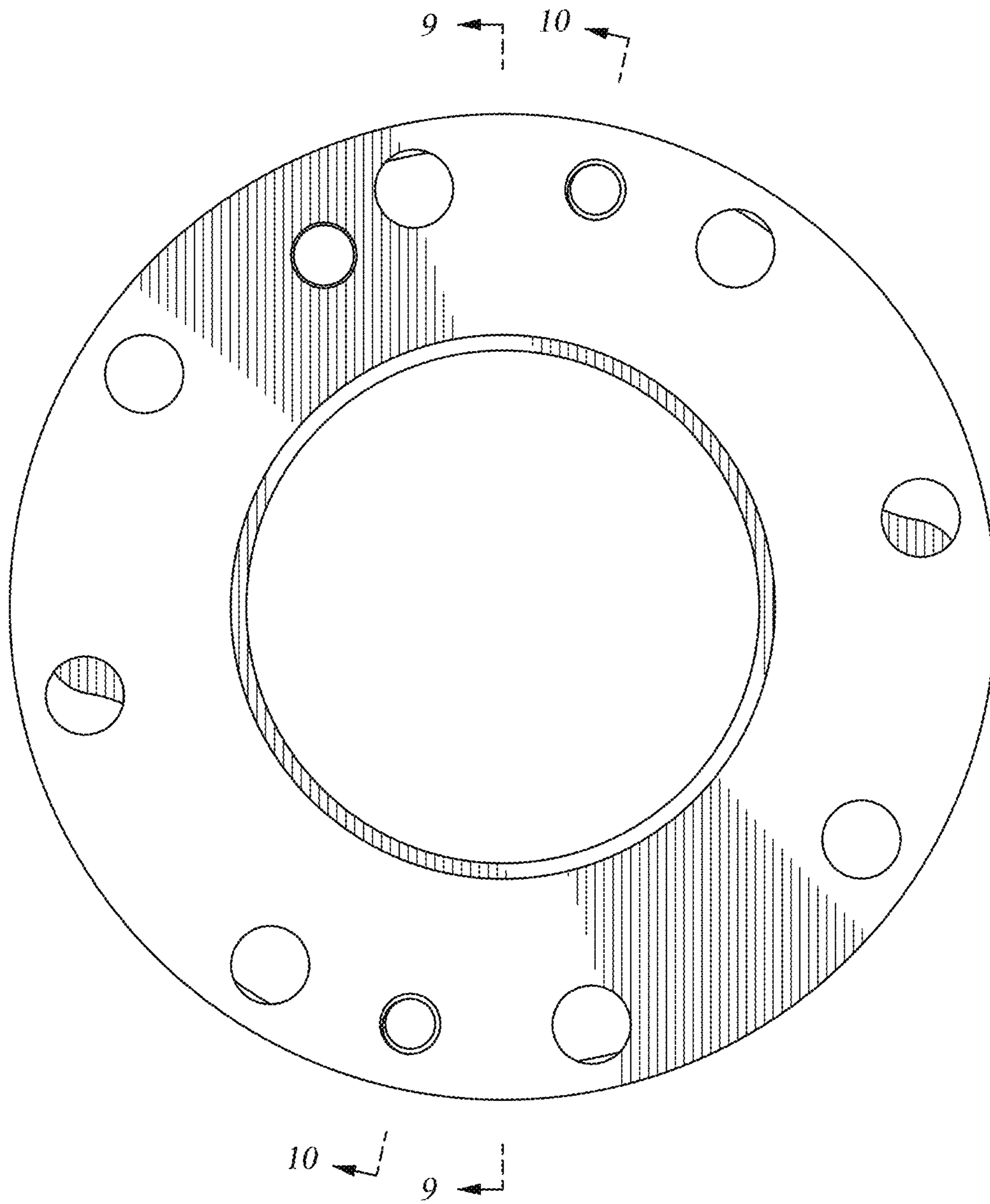


Fig. 5

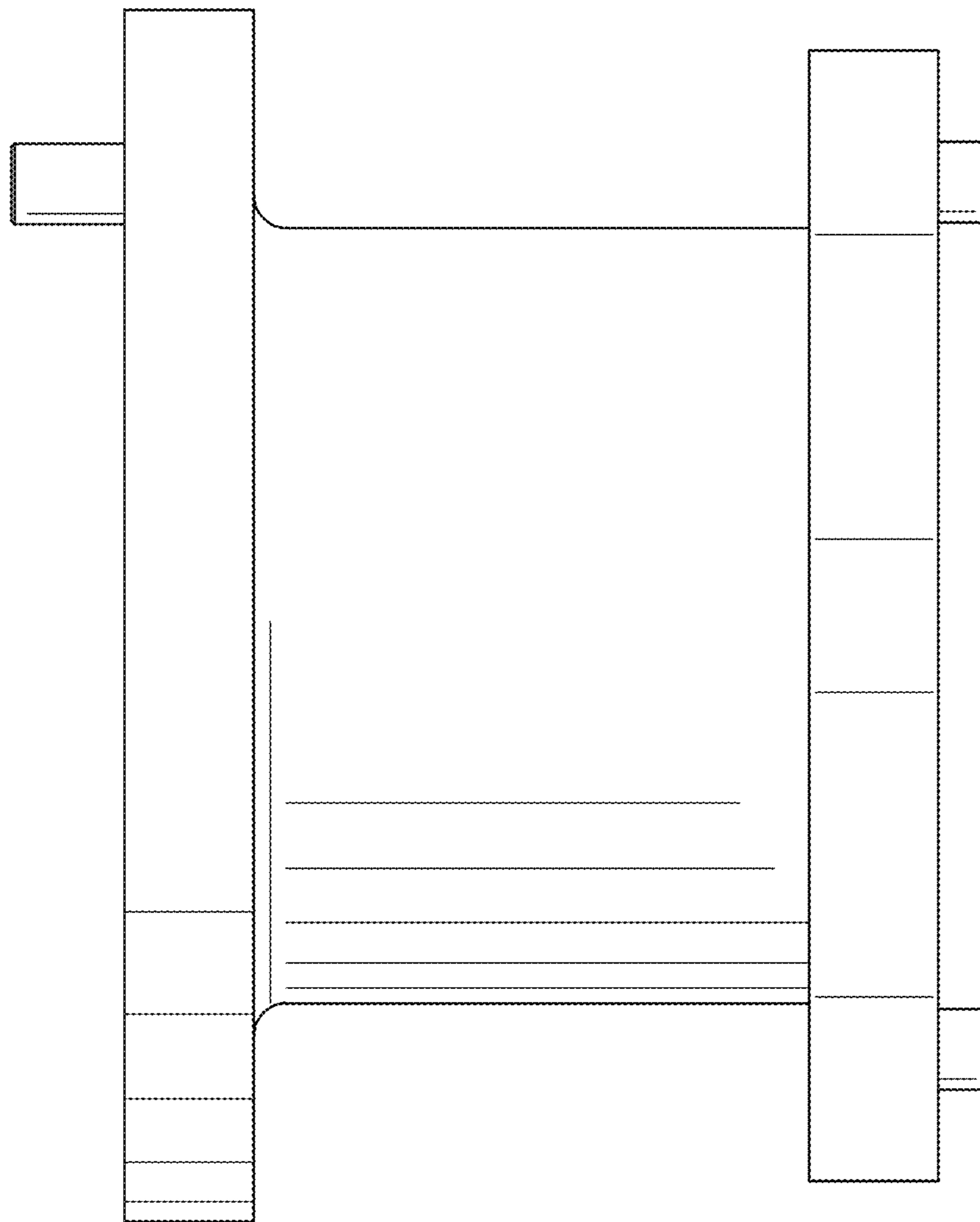


Fig. 6

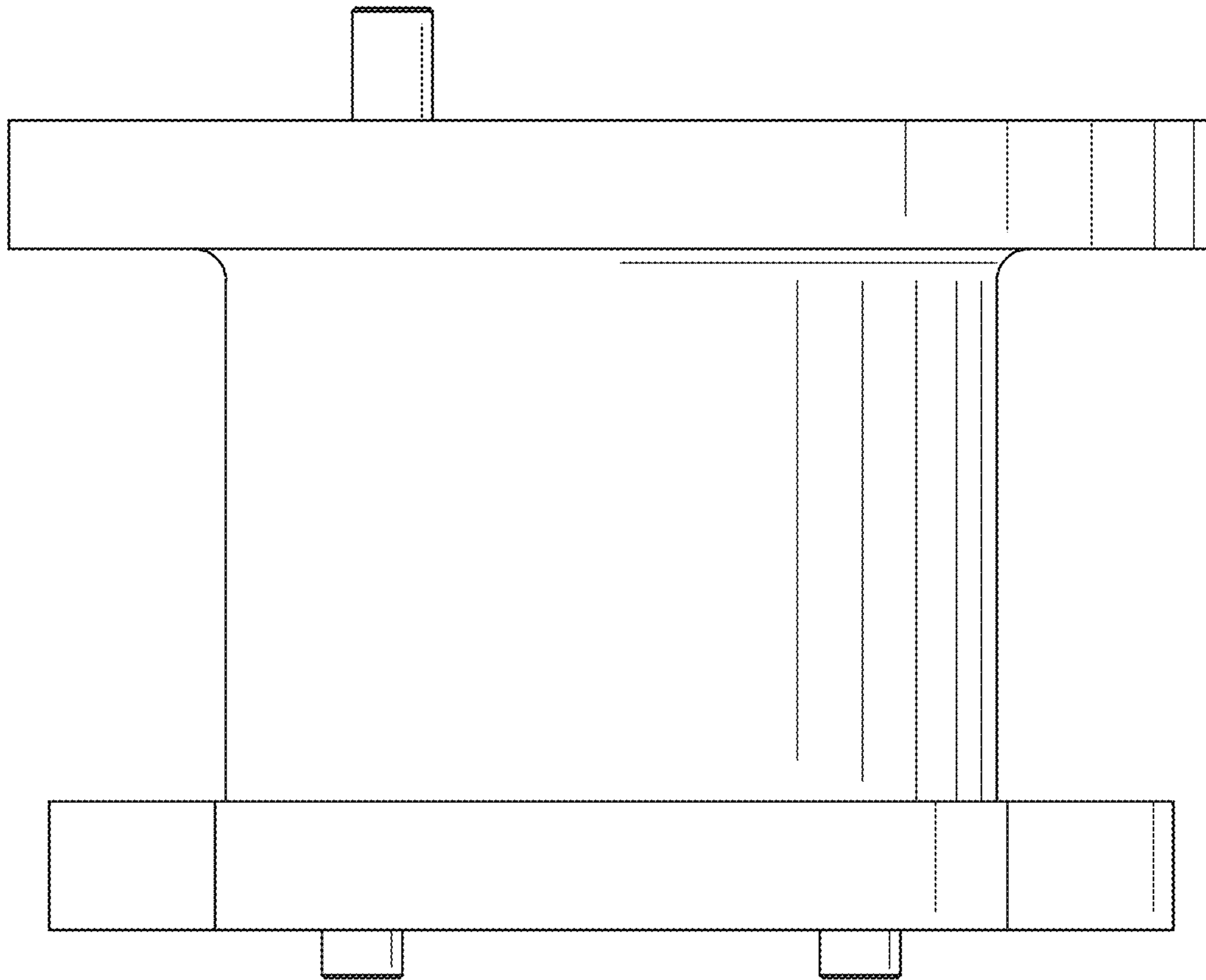


Fig. 7

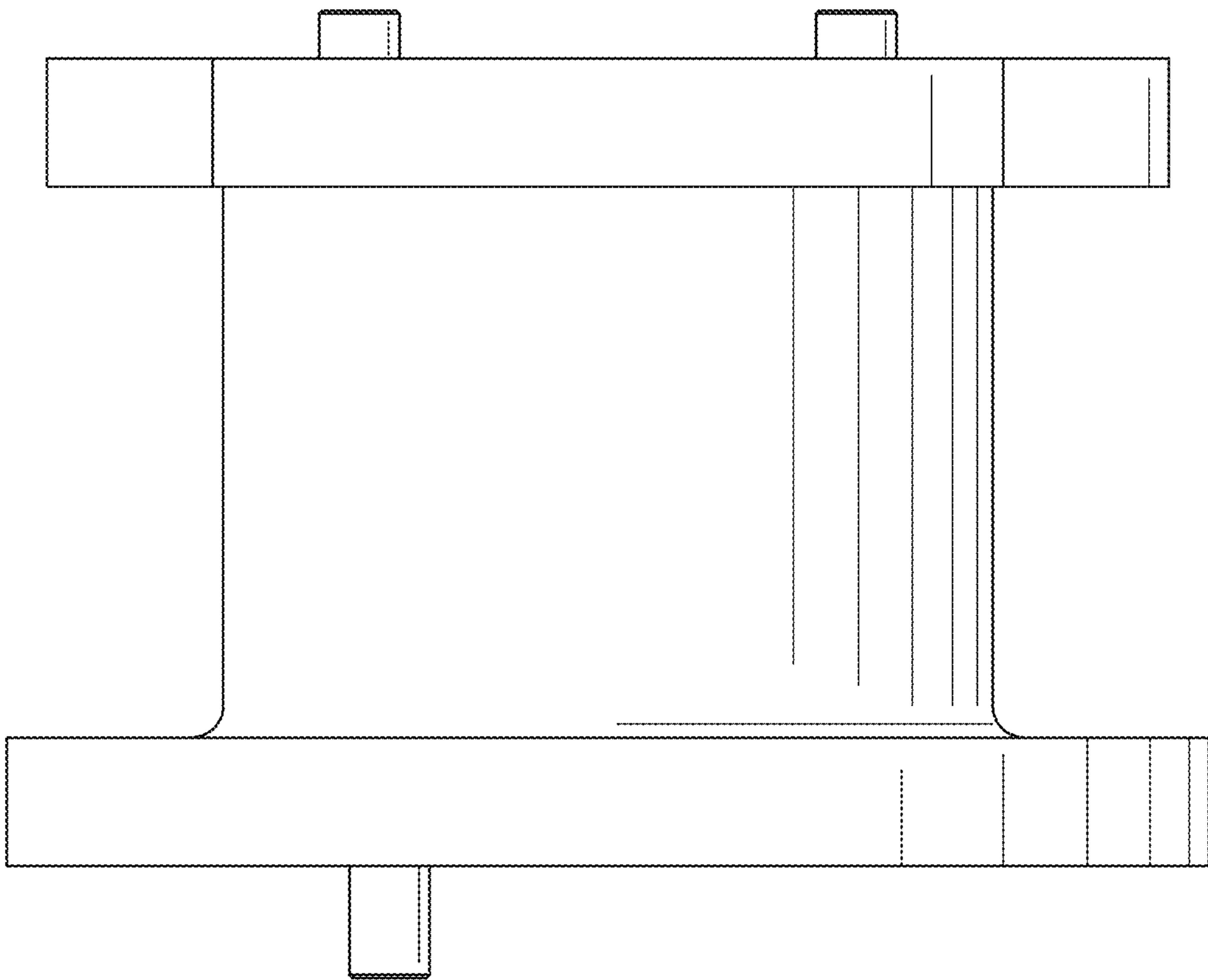


Fig. 8

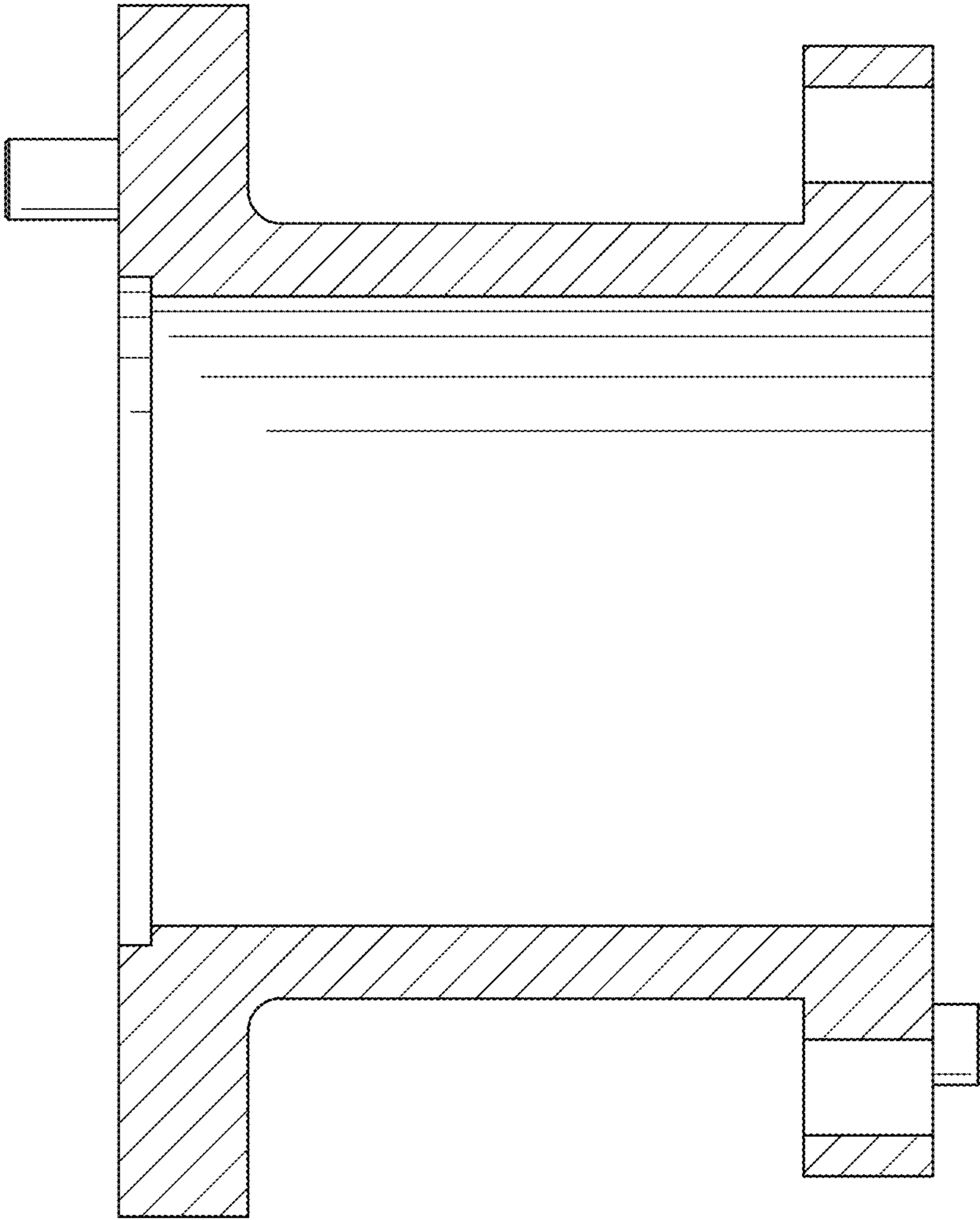


Fig. 9

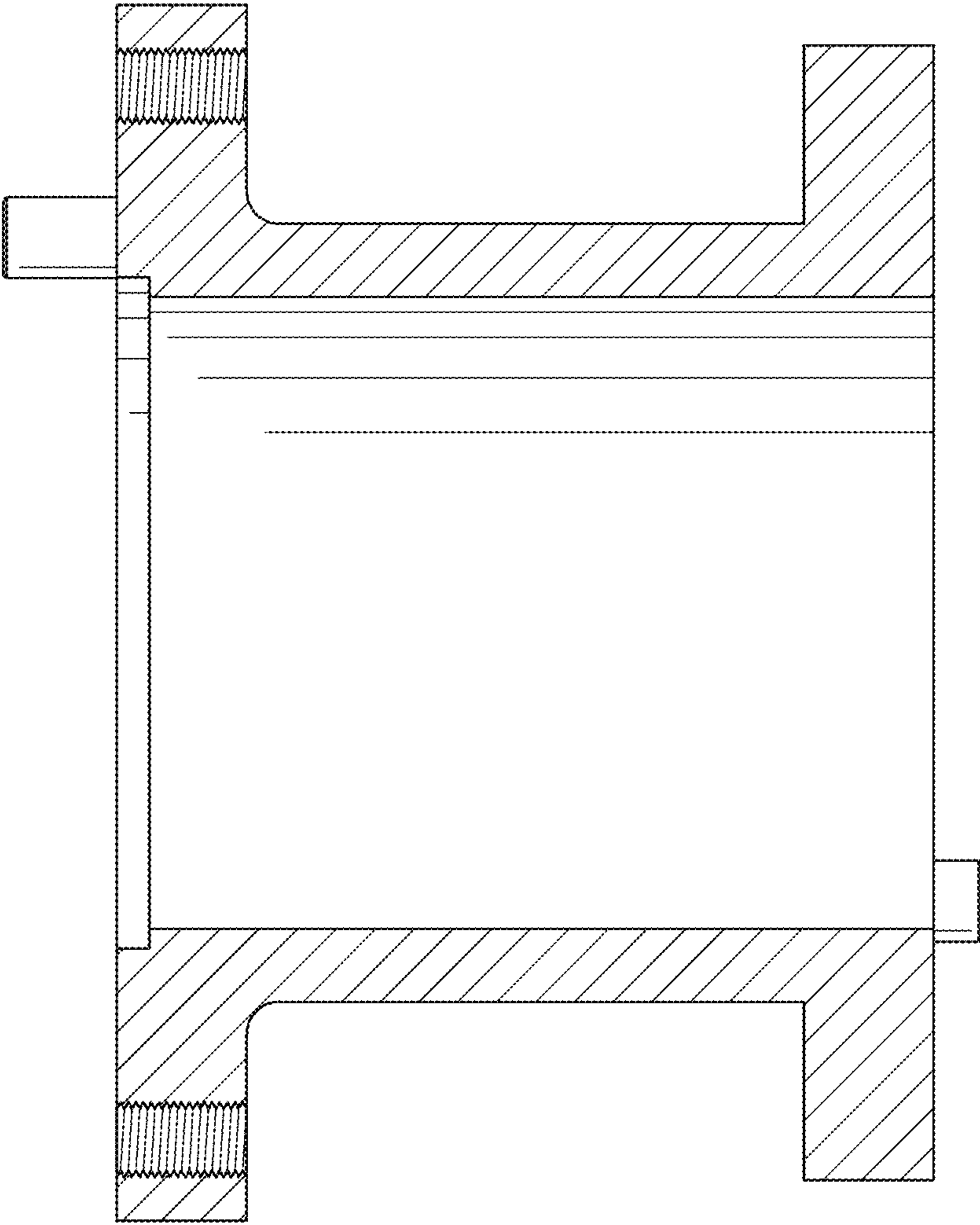


Fig. 10

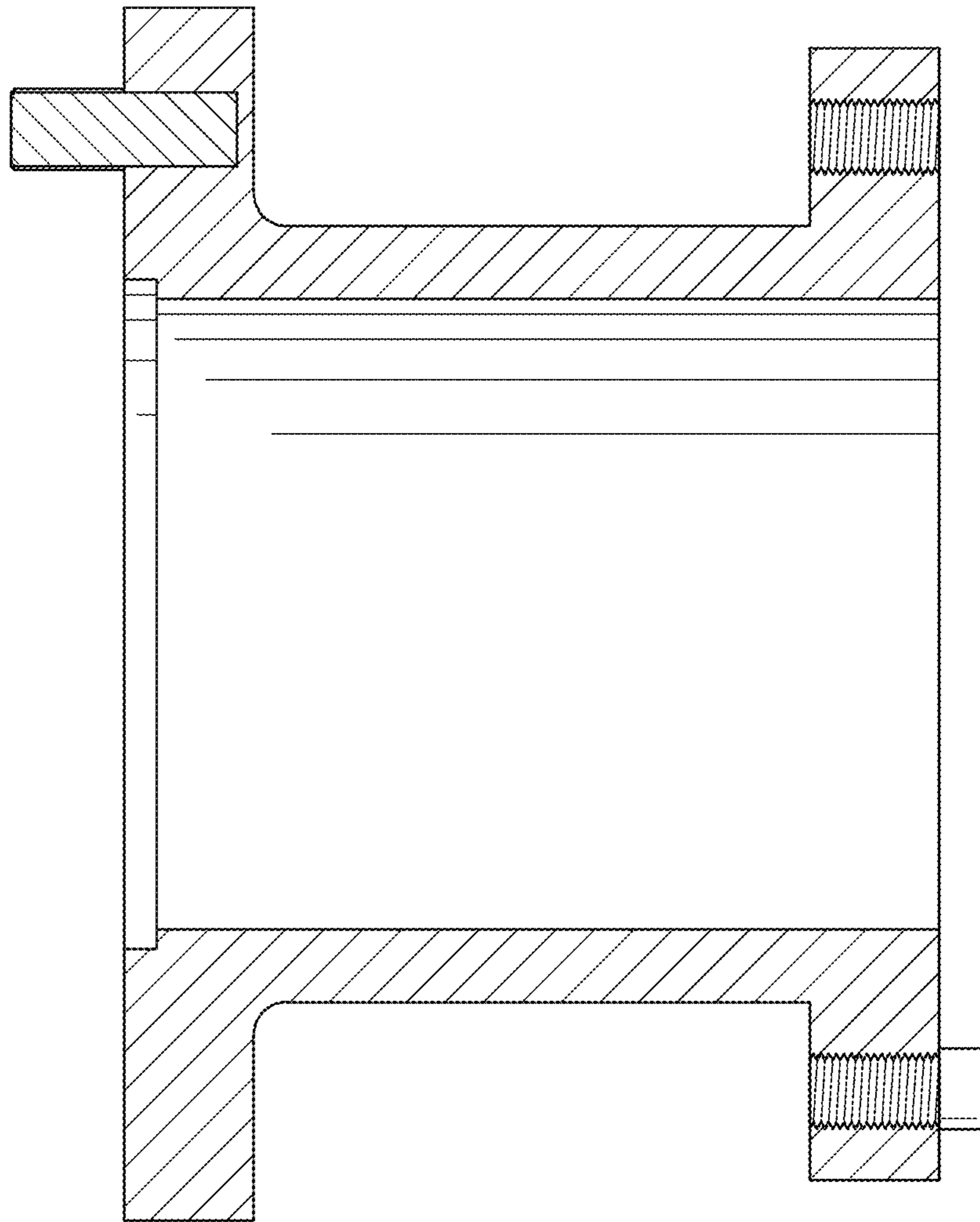


Fig. 11