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

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(54) **PLASMA FEEDTHROUGH FLANGE**

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

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

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

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(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 Banowetz ..... 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

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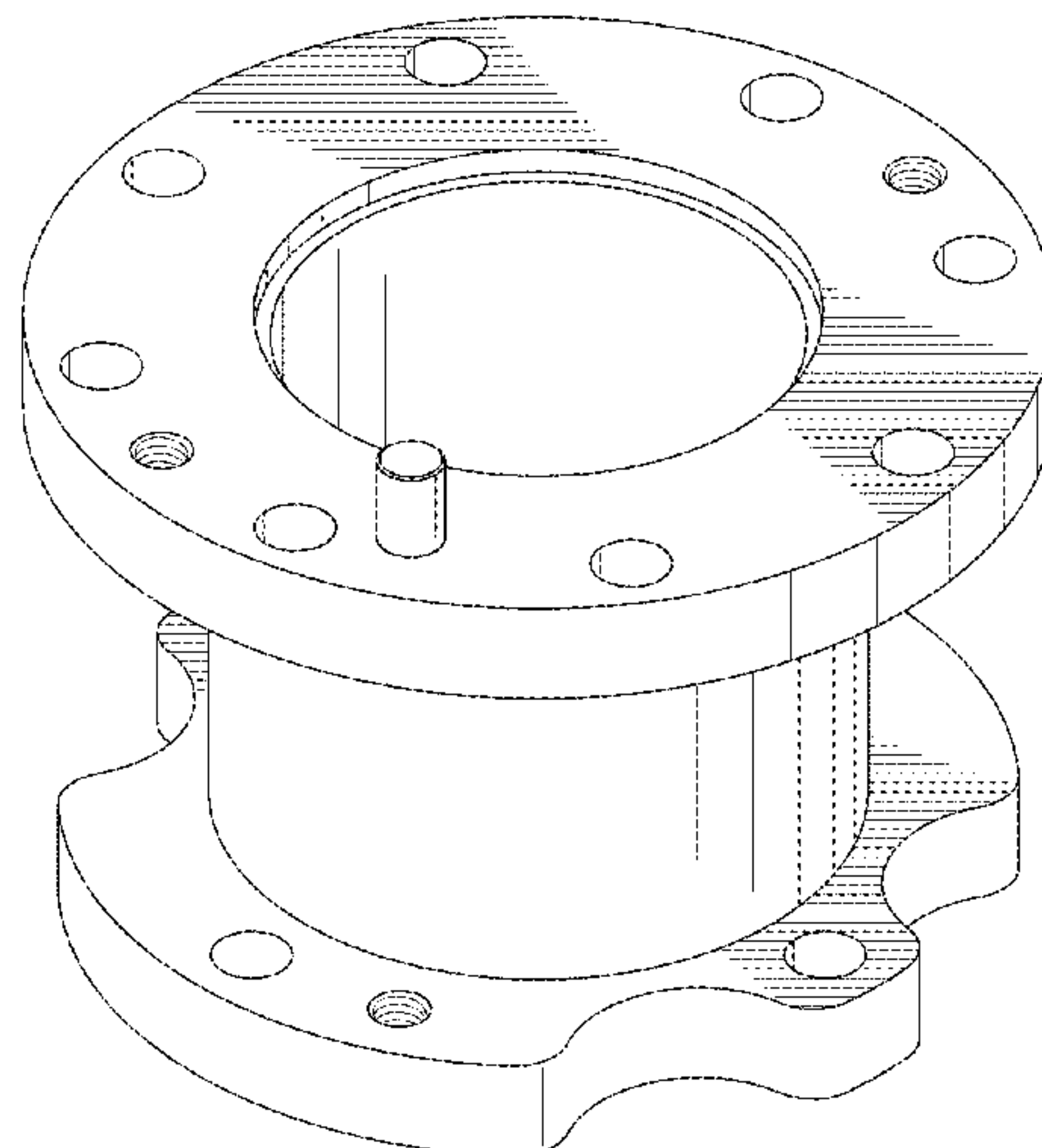
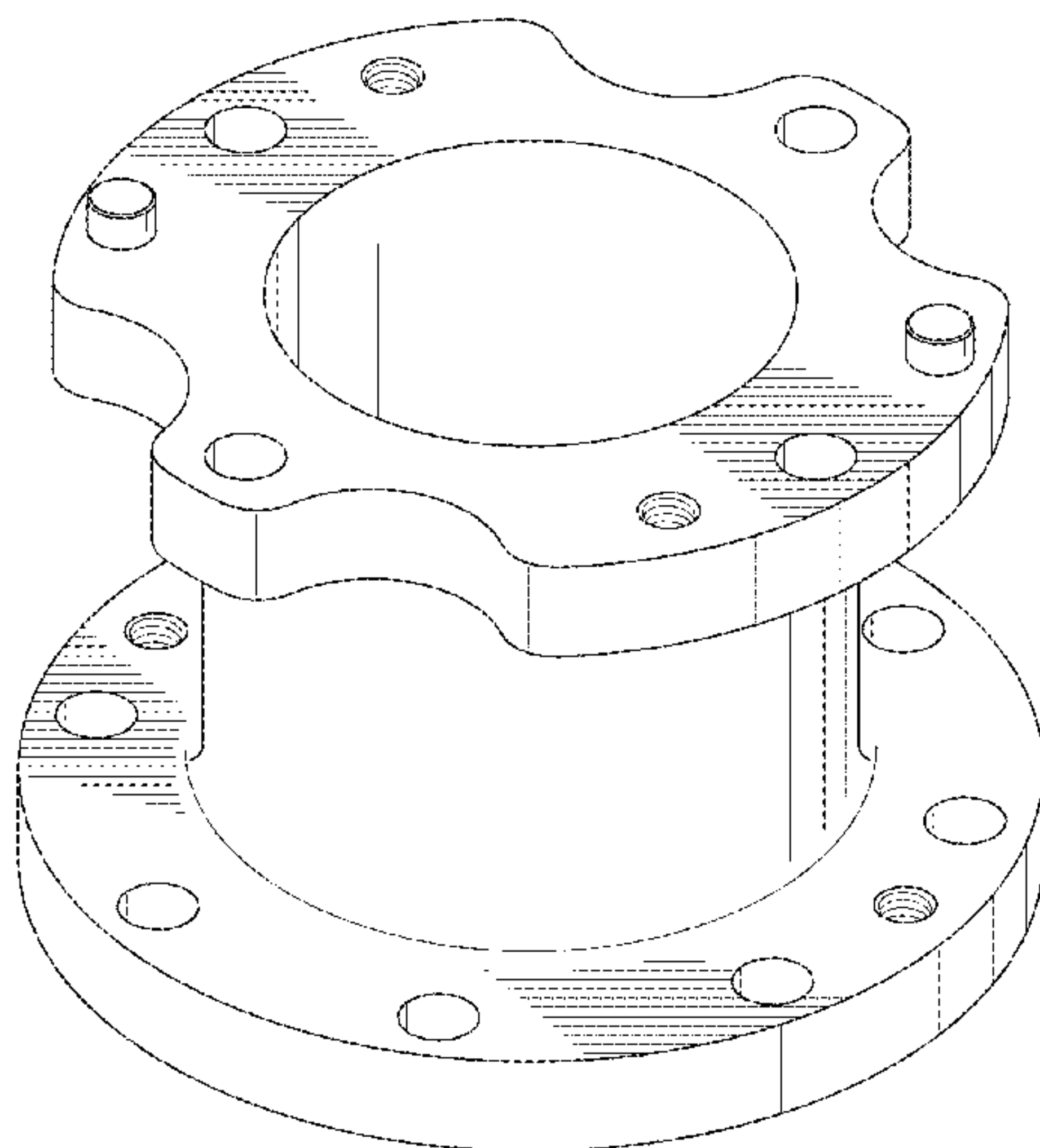
(57) **CLAIM**

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**



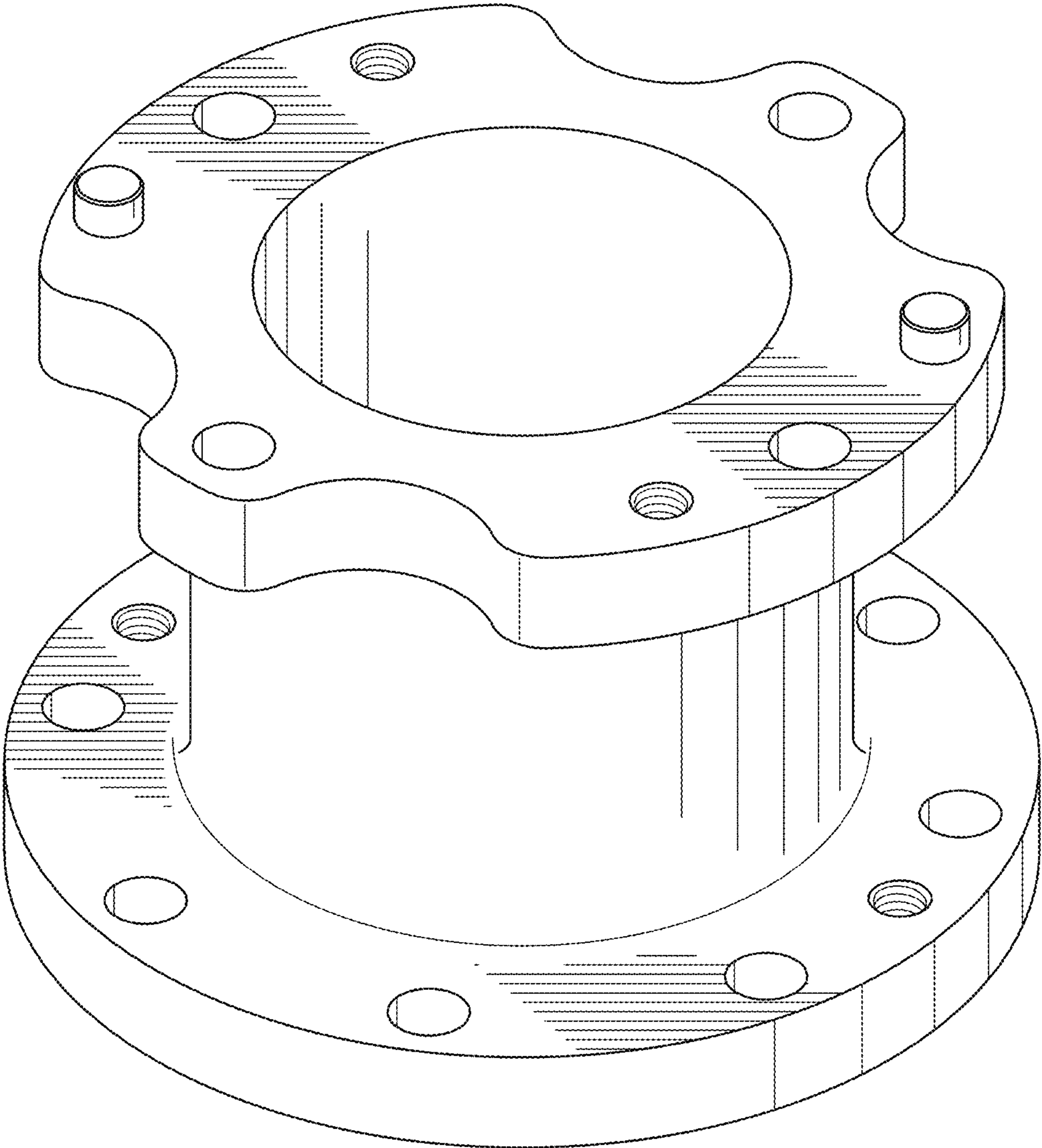
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**References Cited**

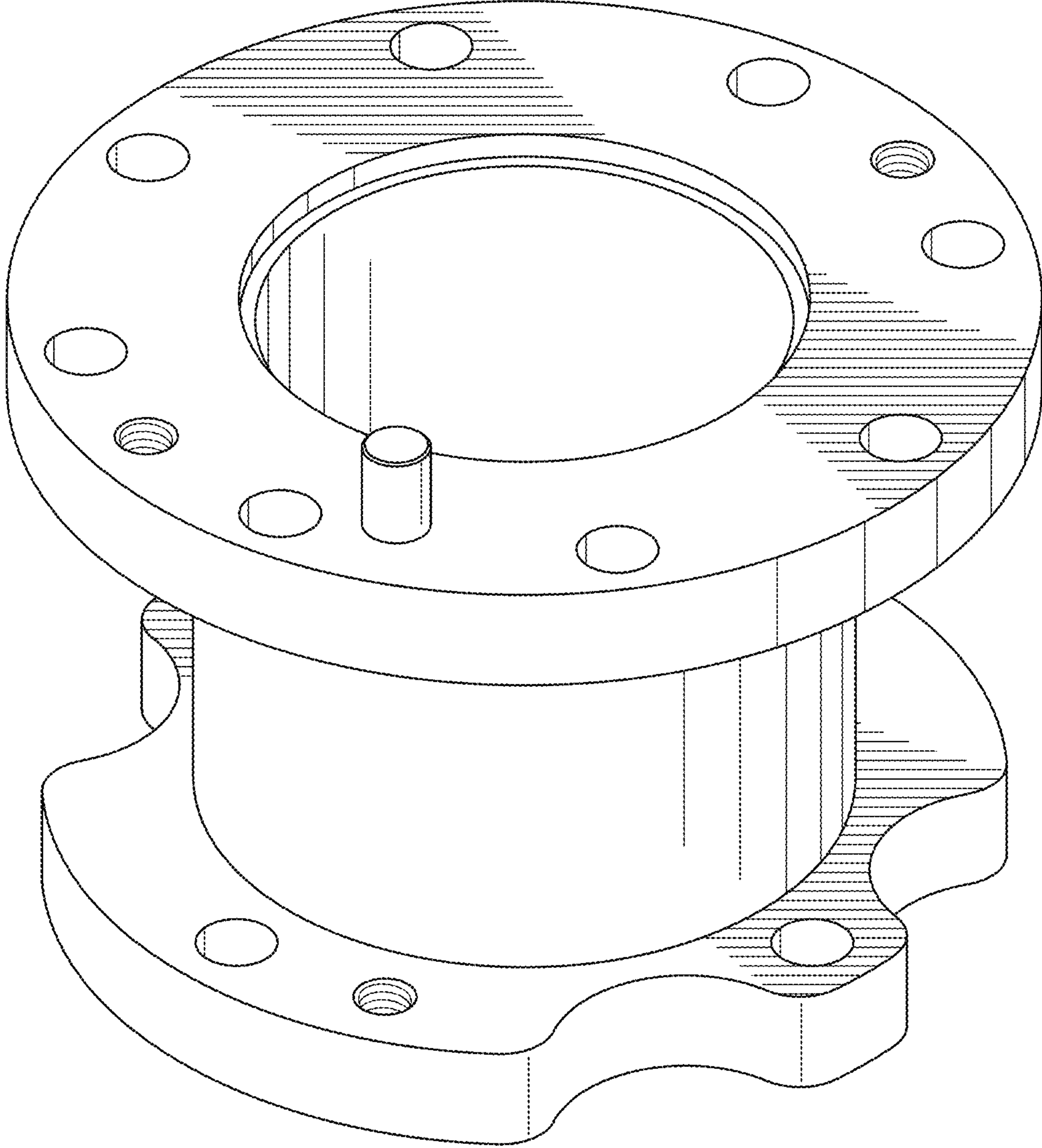
U.S. PATENT DOCUMENTS

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

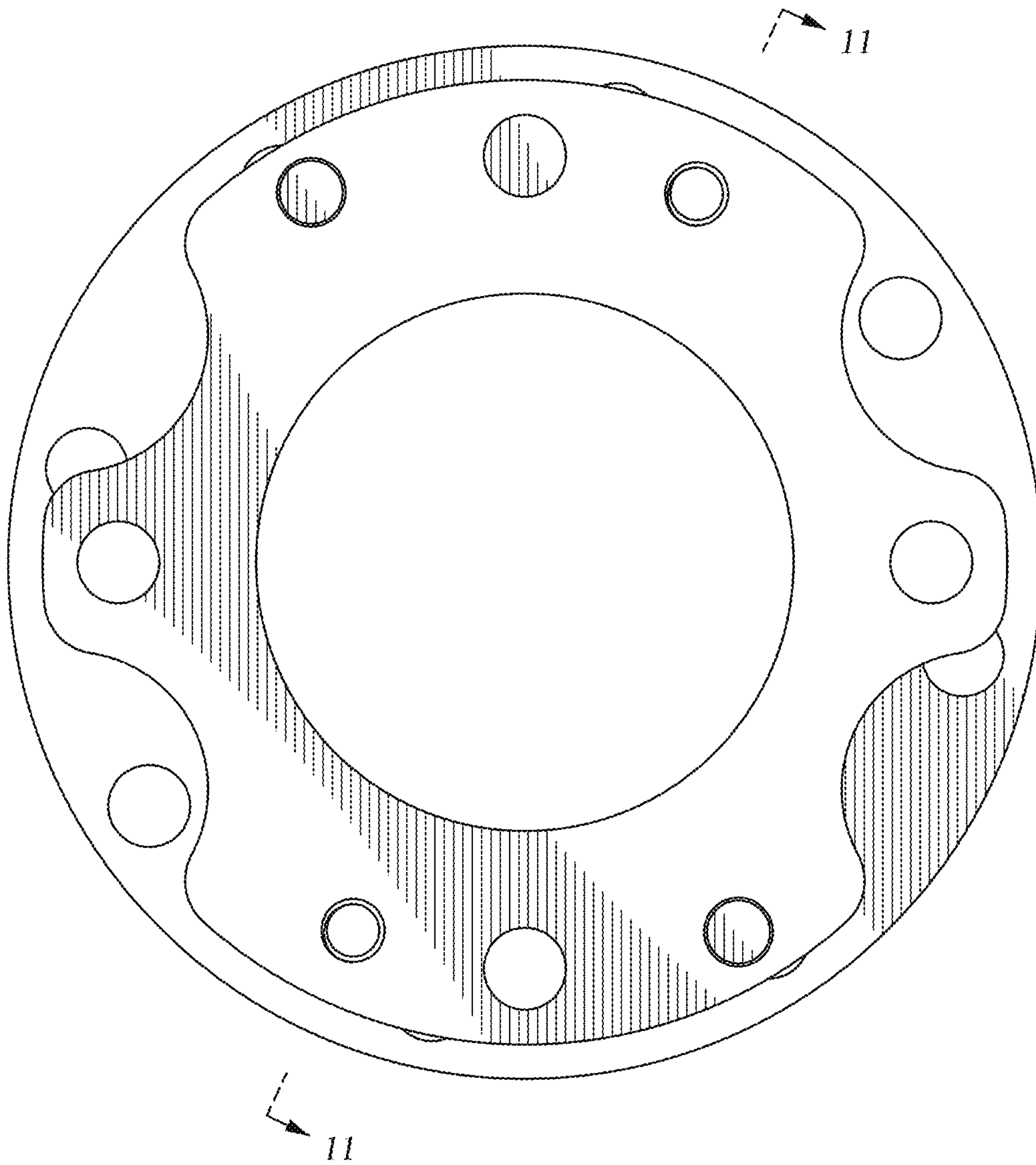


*Fig. 1*

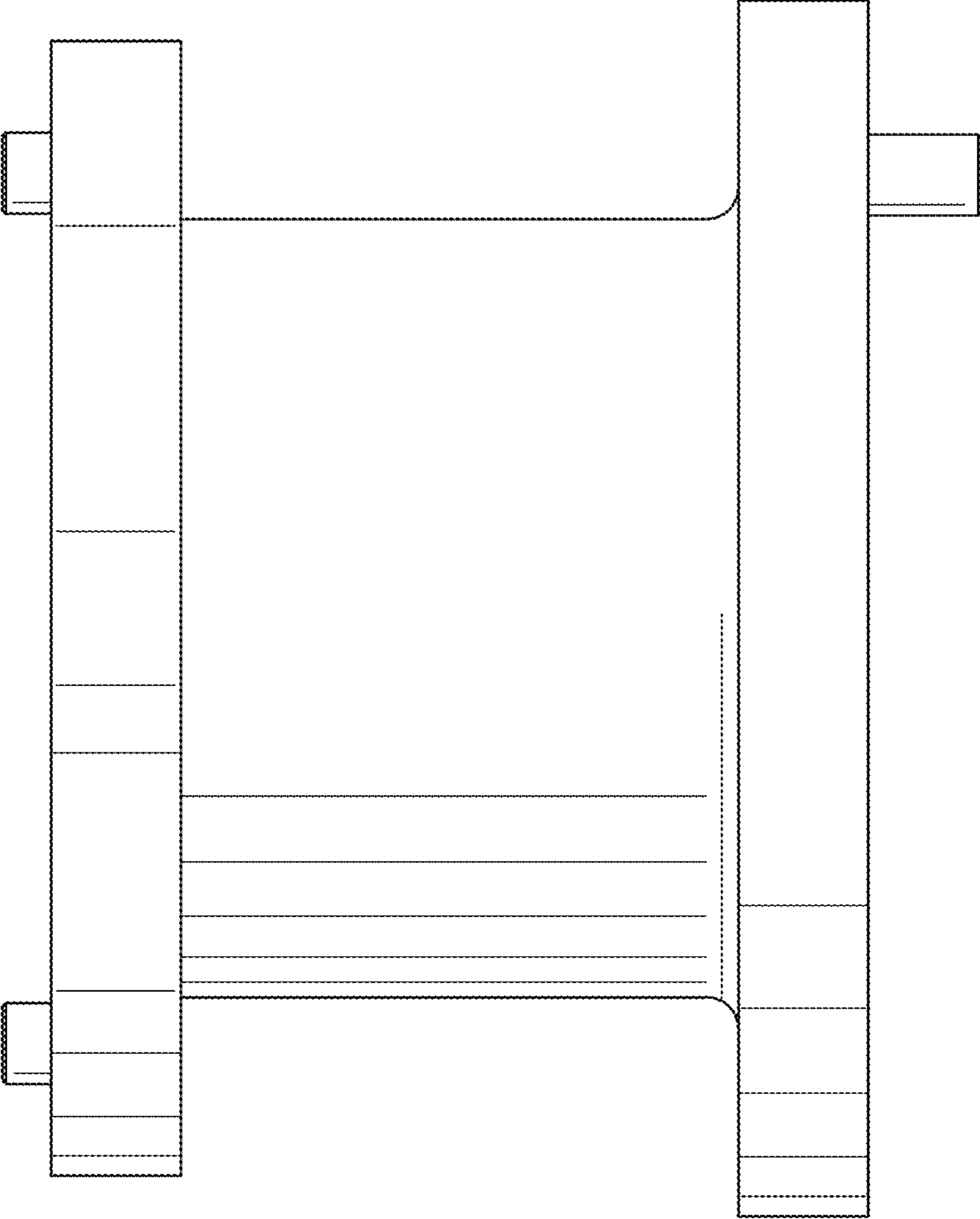


*Fig. 2*





*Fig. 3*



*Fig. 4*

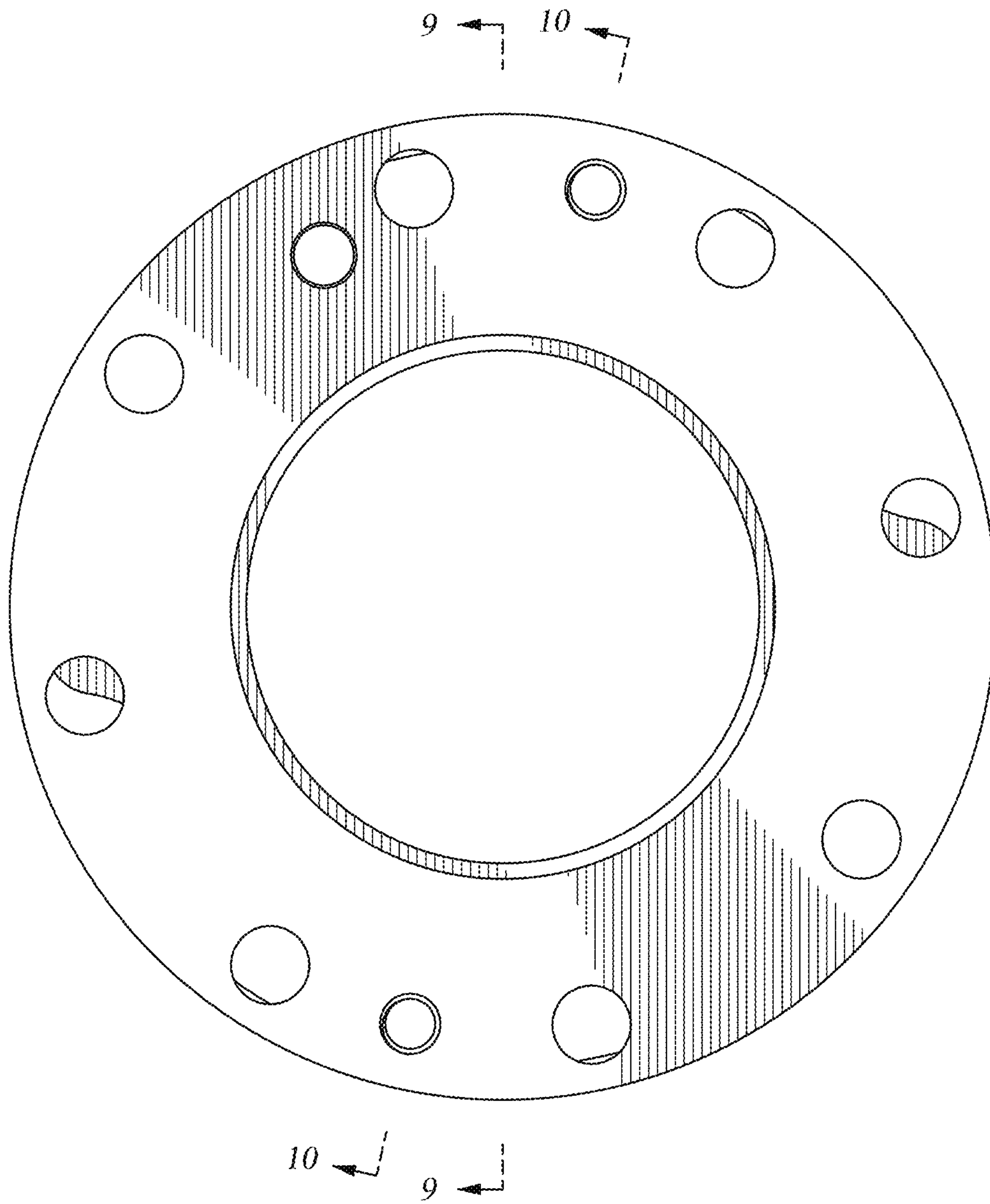
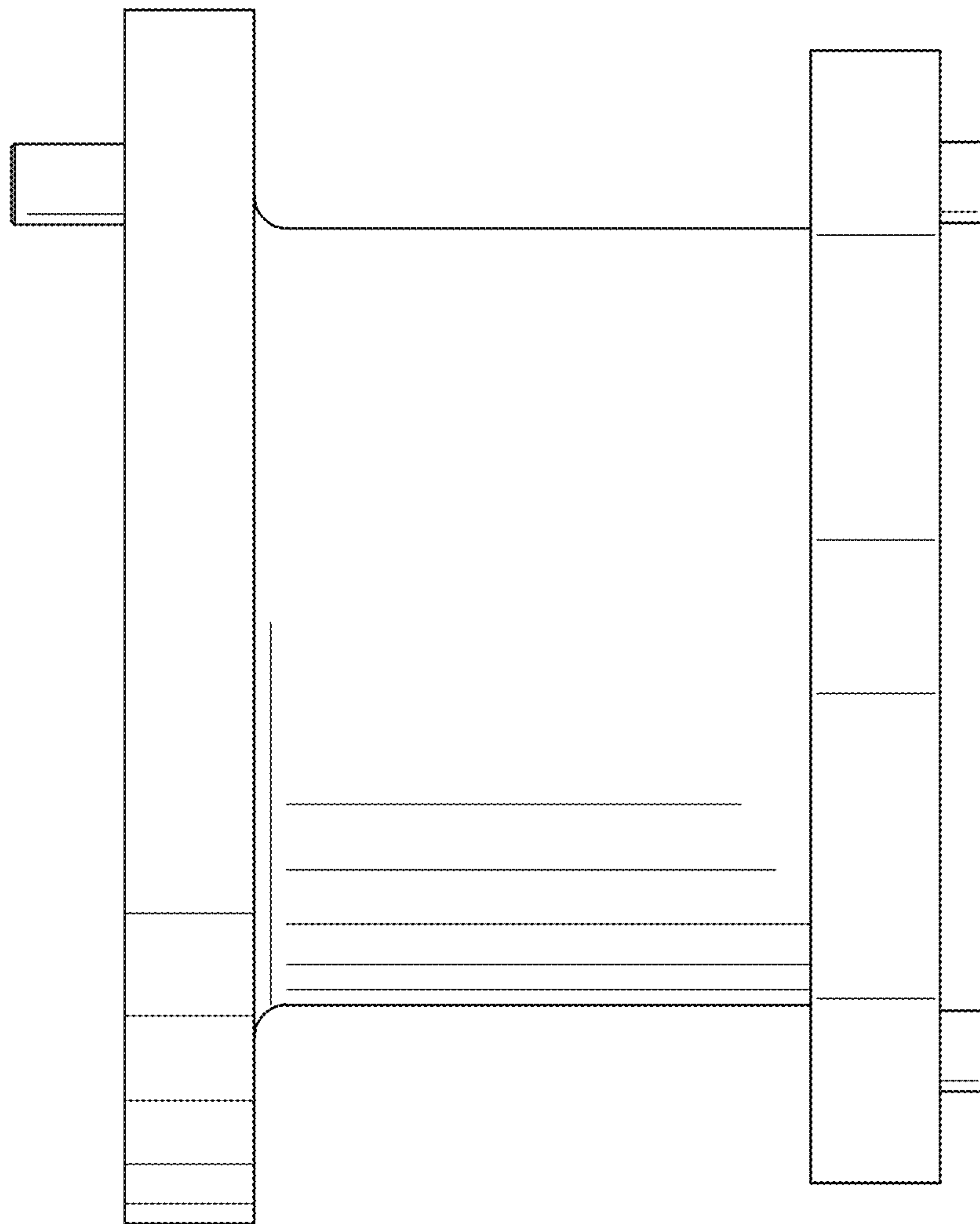
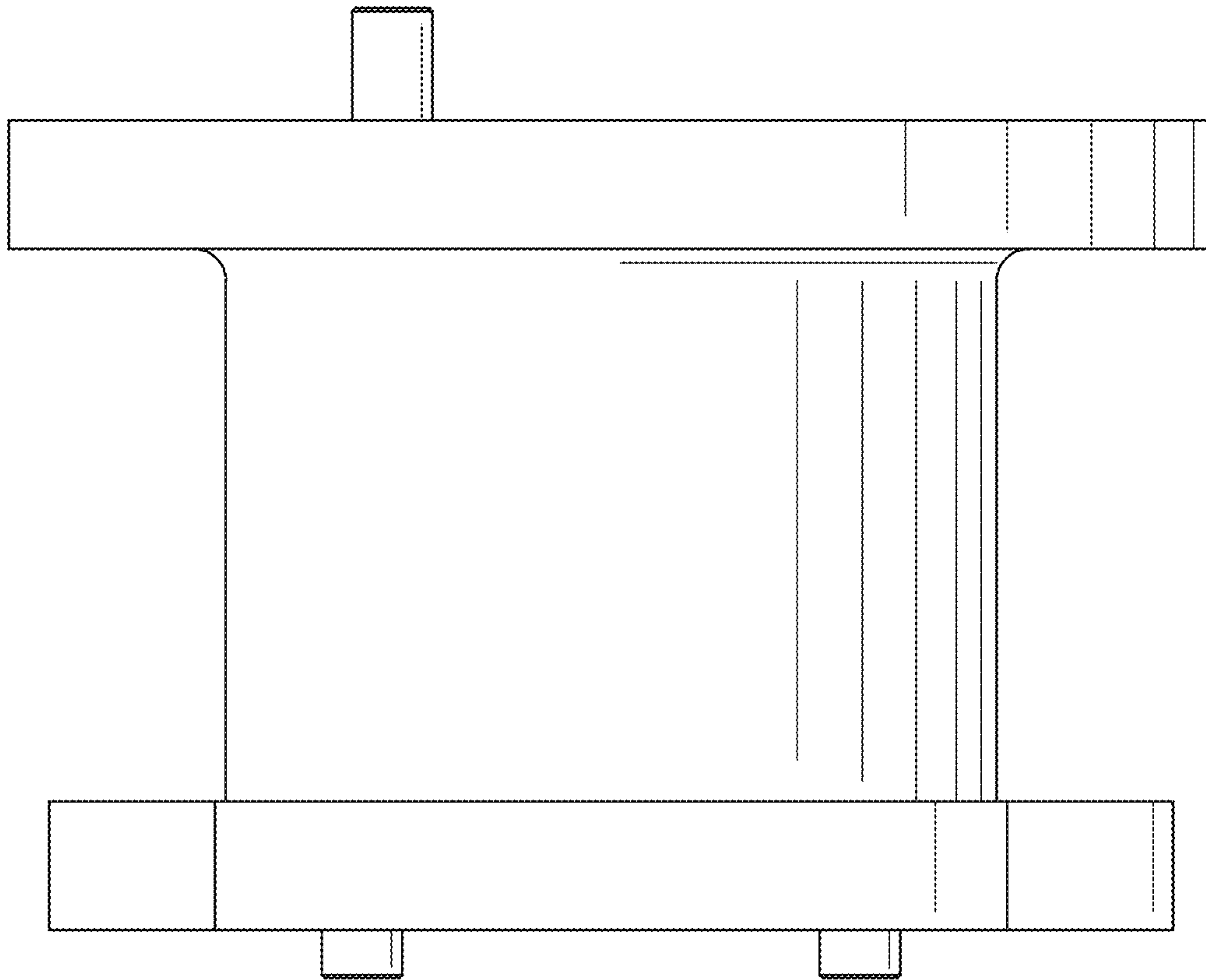


Fig. 5

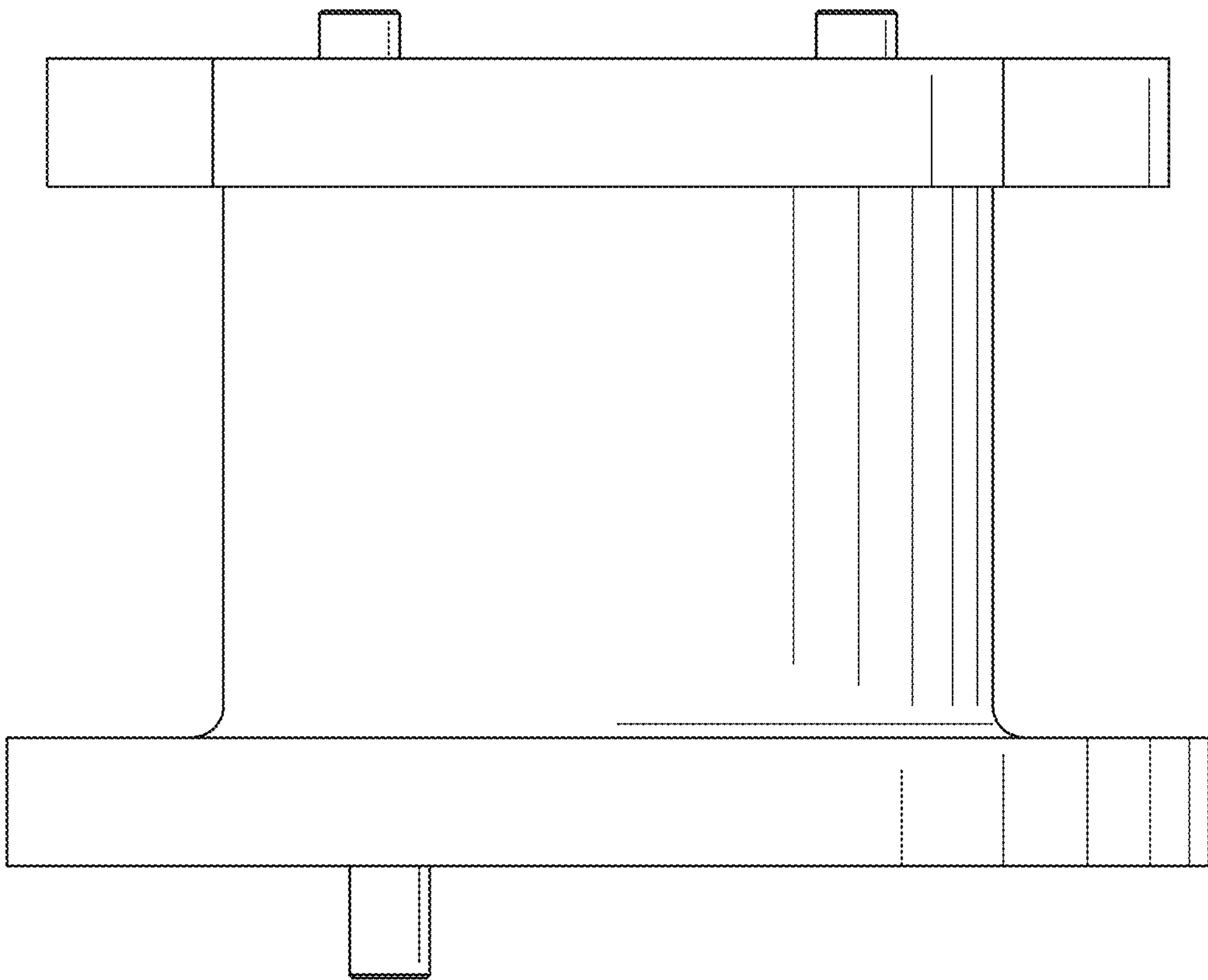


*Fig. 6*

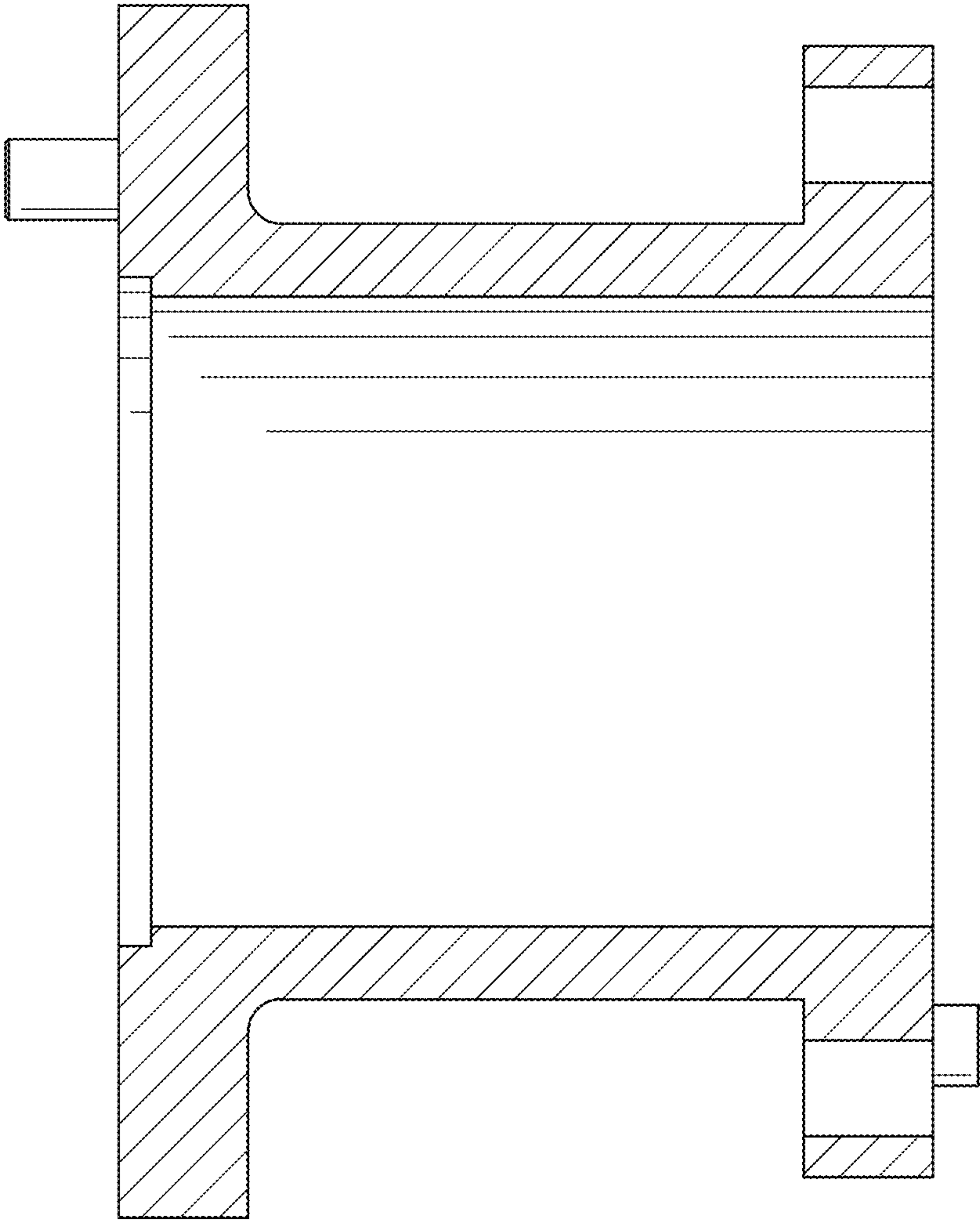




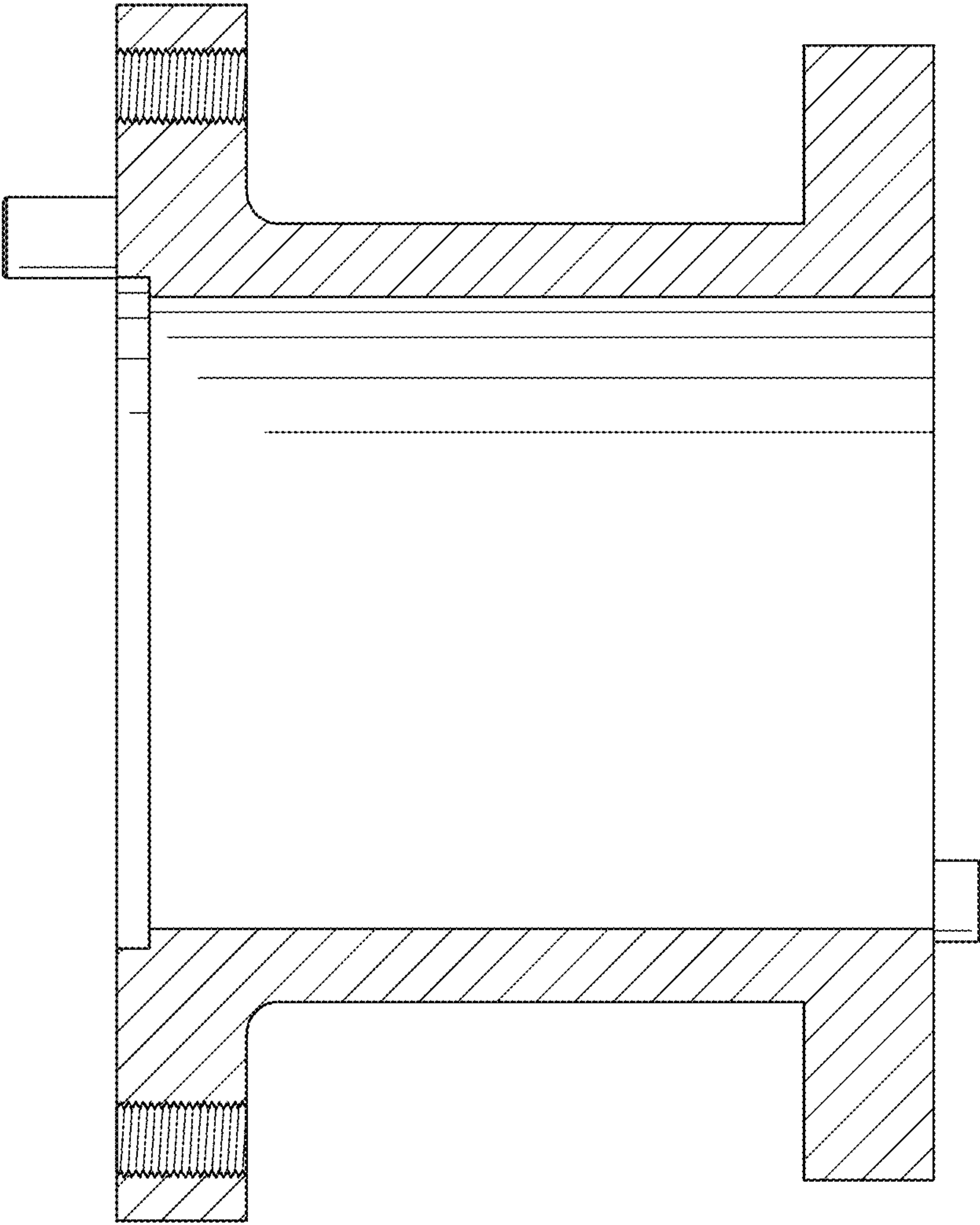
*Fig. 7*



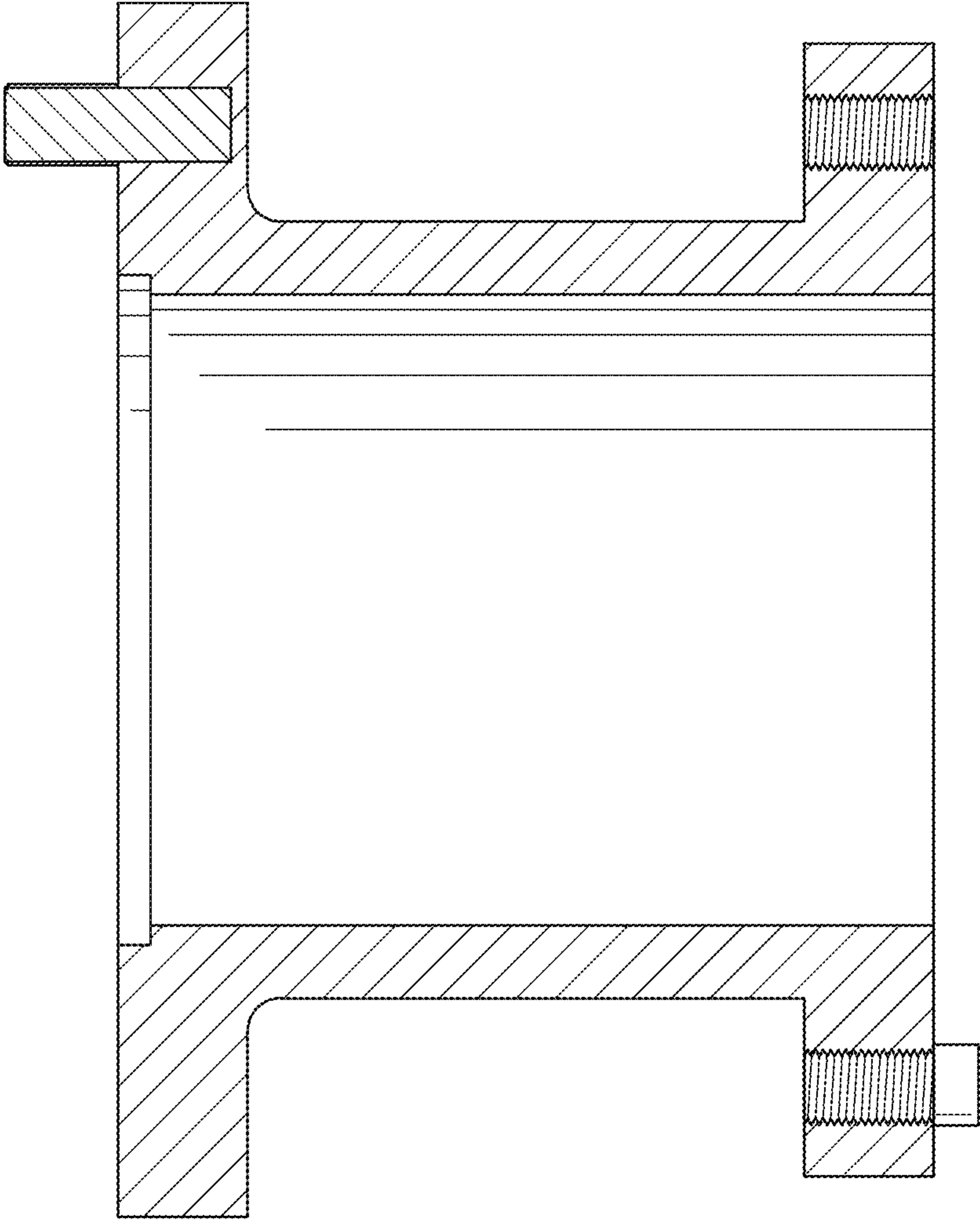
*Fig. 8*



*Fig. 9*



*Fig. 10*



*Fig. 11*