



US00D664172S

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

(10) **Patent No.:** **US D664,172 S**  
(45) **Date of Patent:** **\*\* Jul. 24, 2012**

(54) **DOME ASSEMBLY FOR A DEPOSITION CHAMBER**

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(57) **CLAIM**  
The ornamental design for a dome assembly for a deposition chamber, as shown and described.

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**DESCRIPTION**

(\*\*) Term: **14 Years**

(21) Appl. No.: **29/350,406**

(22) Filed: **Nov. 16, 2009**

(51) **LOC (9) Cl.** ..... **15-99**

(52) **U.S. Cl.** ..... **D15/199**

(58) **Field of Classification Search** ..... D15/144,  
D15/144.1, 144.2, 199; 118/50, 715, 728,  
118/729, 730, 733; 134/1.1; 204/192.12,  
204/298.02, 298.28

See application file for complete search history.

FIG. 1 is an isometric bottom view of a dome assembly for a deposition chamber.  
FIG. 2 is an isometric top view of the dome assembly for a deposition chamber of FIG. 1.  
FIG. 3 is a top plan view of the dome assembly for a deposition chamber of FIG. 2.  
FIG. 4 is a front elevation view of the dome assembly for a deposition chamber of FIG. 2.  
FIG. 5 is a back elevation view of the dome assembly for a deposition chamber of FIG. 2.  
FIG. 6 is a side elevation view of the dome assembly for a deposition chamber of FIG. 2. The opposing side elevation view is a mirror-image.  
FIG. 7 is a side elevation view of the dome assembly for a deposition chamber of FIG. 1.  
FIG. 8 is a bottom plan view of the dome assembly for a deposition chamber of FIG. 1.  
FIG. 9 is a cross-sectional view taken along section 9-9 of FIG. 3.  
FIG. 10 is a cross-sectional view taken along section 10-10 of FIG. 3.  
FIG. 11 is a cross-sectional view taken along section 11-11 of FIG. 6.  
FIG. 12 is a cross-sectional view taken along section 12-12 of FIG. 6; and,  
FIG. 13 is a cross-sectional view taken along section 13-13 of FIG. 7.  
The broken lines in the Figures indicating tubular elements disposed internal to other tubular elements do not form part of the claimed design. Transparent materials included in certain elements are indicated by surface treatment and/or are apparent from the Figures.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,063,867 A 11/1962 Emery, Jr.  
(Continued)

**FOREIGN PATENT DOCUMENTS**

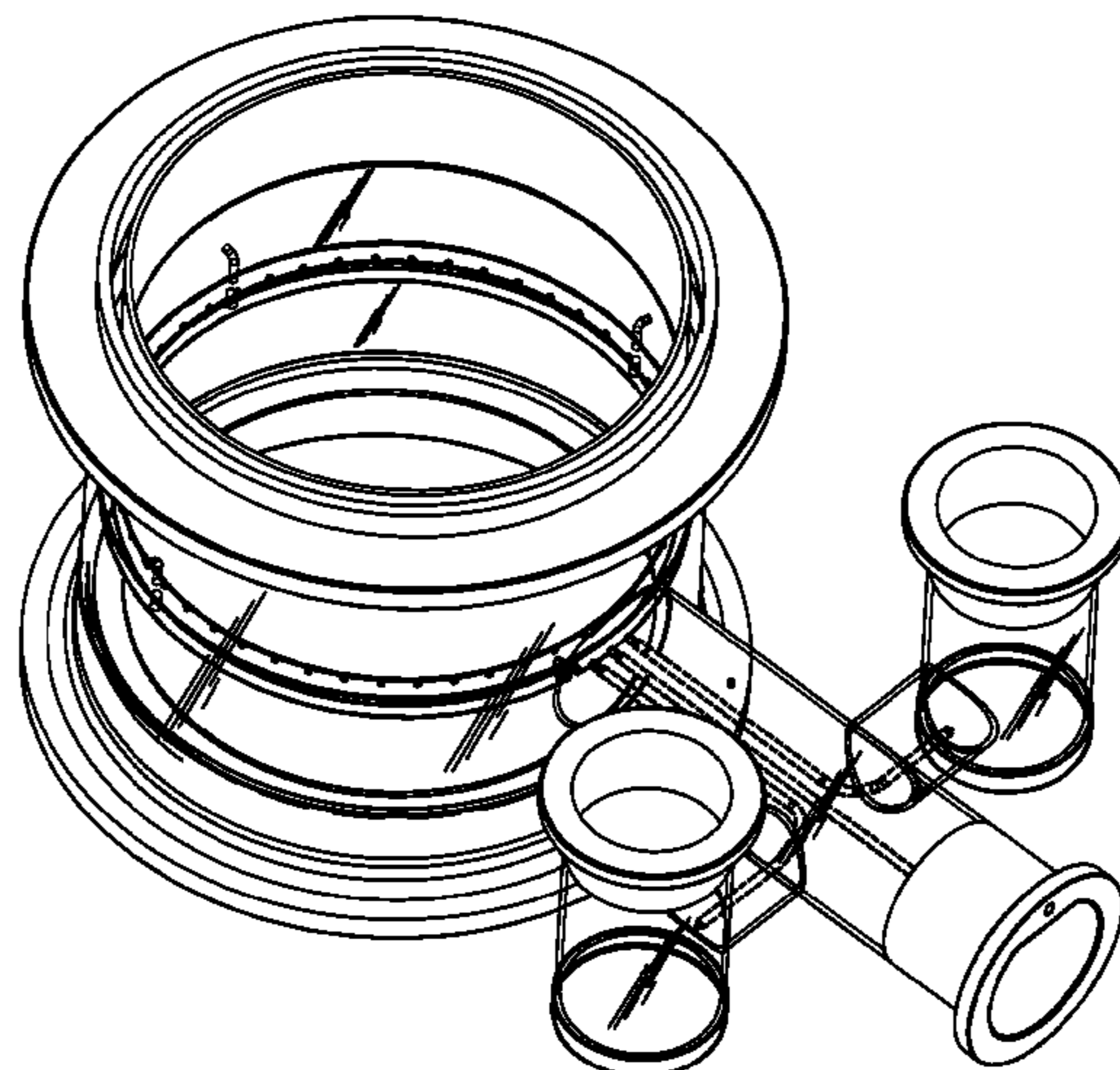
JP 2007-039272 A 2/2007  
(Continued)

**OTHER PUBLICATIONS**

International search report and written opinion for PCT/US2010/030492 dated Oct. 27, 2010.

(Continued)

**1 Claim, 13 Drawing Sheets**



# US D664,172 S

Page 2

## U.S. PATENT DOCUMENTS

D329,839 S 9/1992 Ehrhart  
5,167,718 A \* 12/1992 Stewart ..... 118/729  
5,306,345 A \* 4/1994 Pellet et al. .... 118/301  
5,359,788 A 11/1994 Gell, Jr.  
5,636,320 A 6/1997 Yu et al.  
5,641,358 A \* 6/1997 Stewart ..... 118/715  
6,286,451 B1 9/2001 Ishikawa et al.  
6,406,544 B1 \* 6/2002 Stewart ..... 118/719  
6,517,634 B2 2/2003 Pang et al.  
7,364,991 B2 4/2008 Bour et al.  
7,368,368 B2 5/2008 Emerson  
2002/0164423 A1 11/2002 Chiang et al.  
2003/0000545 A1 \* 1/2003 Fitzsimmons et al. .... 134/1.1  
2004/0134427 A1 \* 7/2004 Derderian et al. .... 118/715  
2005/0150452 A1 \* 7/2005 Sen et al. .... 118/715  
2006/0096857 A1 \* 5/2006 Lavitsky et al. .... 204/298.28  
2006/0162661 A1 7/2006 Jung et al.  
2007/0119373 A1 \* 5/2007 Kumar et al. .... 118/723 I  
2007/0227878 A1 \* 10/2007 Hamamjy et al. .... 204/192.12

2008/0050889 A1 2/2008 Bour et al.  
2008/0220150 A1 \* 9/2008 Merry et al. .... 427/8  
2010/0272893 A1 \* 10/2010 Chang et al. .... 427/255.5

## FOREIGN PATENT DOCUMENTS

JP 2007-154297 A 6/2007  
JP D1304483 6/2007  
JP 2008-066490 A 3/2008  
JP D1361440 6/2009  
KR 10-0578089 B1 5/2006  
TW 555877 B 10/2003

## OTHER PUBLICATIONS

International search report and written opinion for PCT/US2010/030496 dated Oct. 27, 2010.

International search report and written opinion for PCT/US2010/032597 dated Dec. 1, 2010.

Office action for Taiwan patent application No. 099301936 dated Sep. 27, 2010.

\* cited by examiner

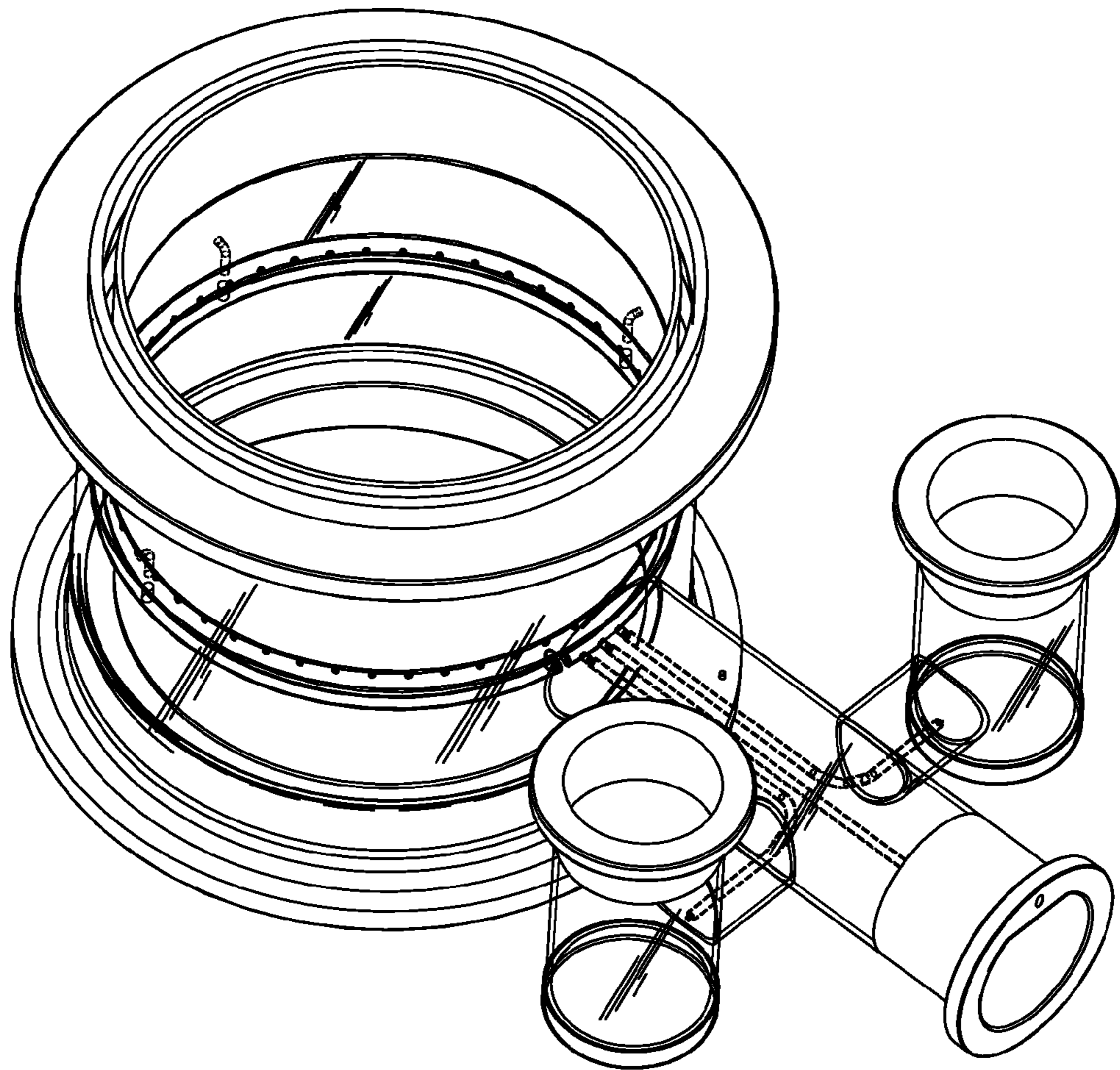


FIG. 1

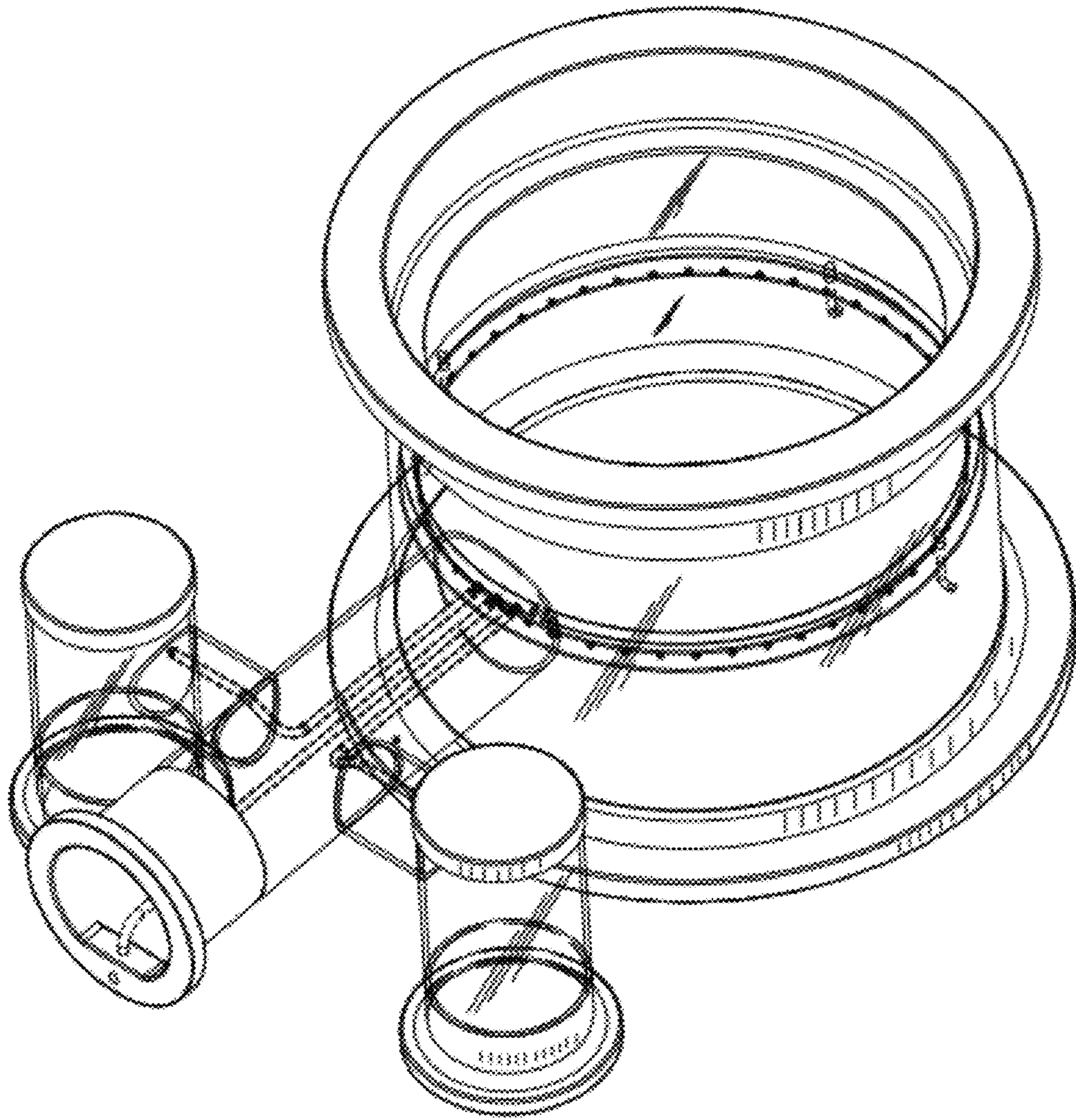


FIG. 2

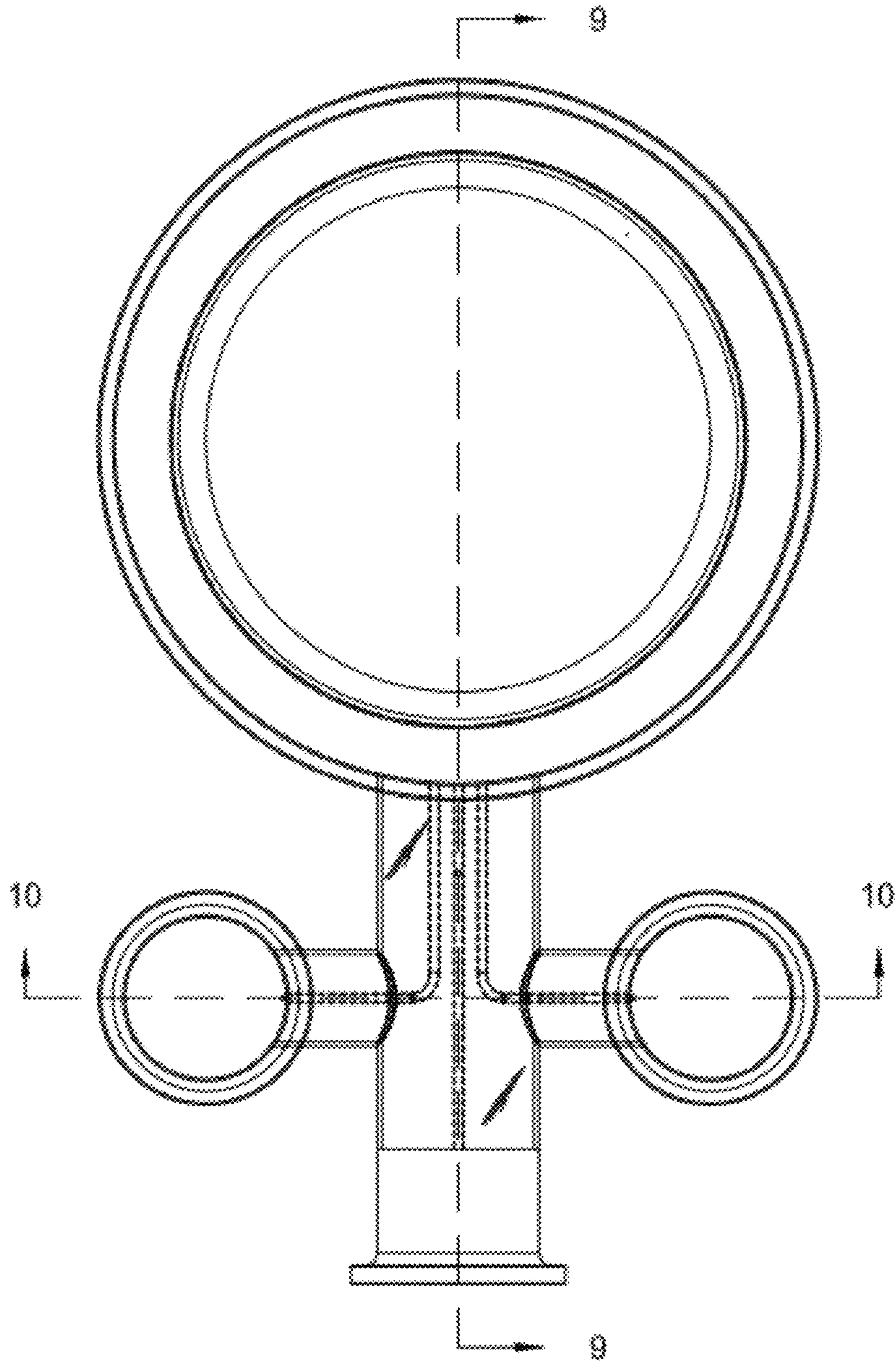


FIG. 3

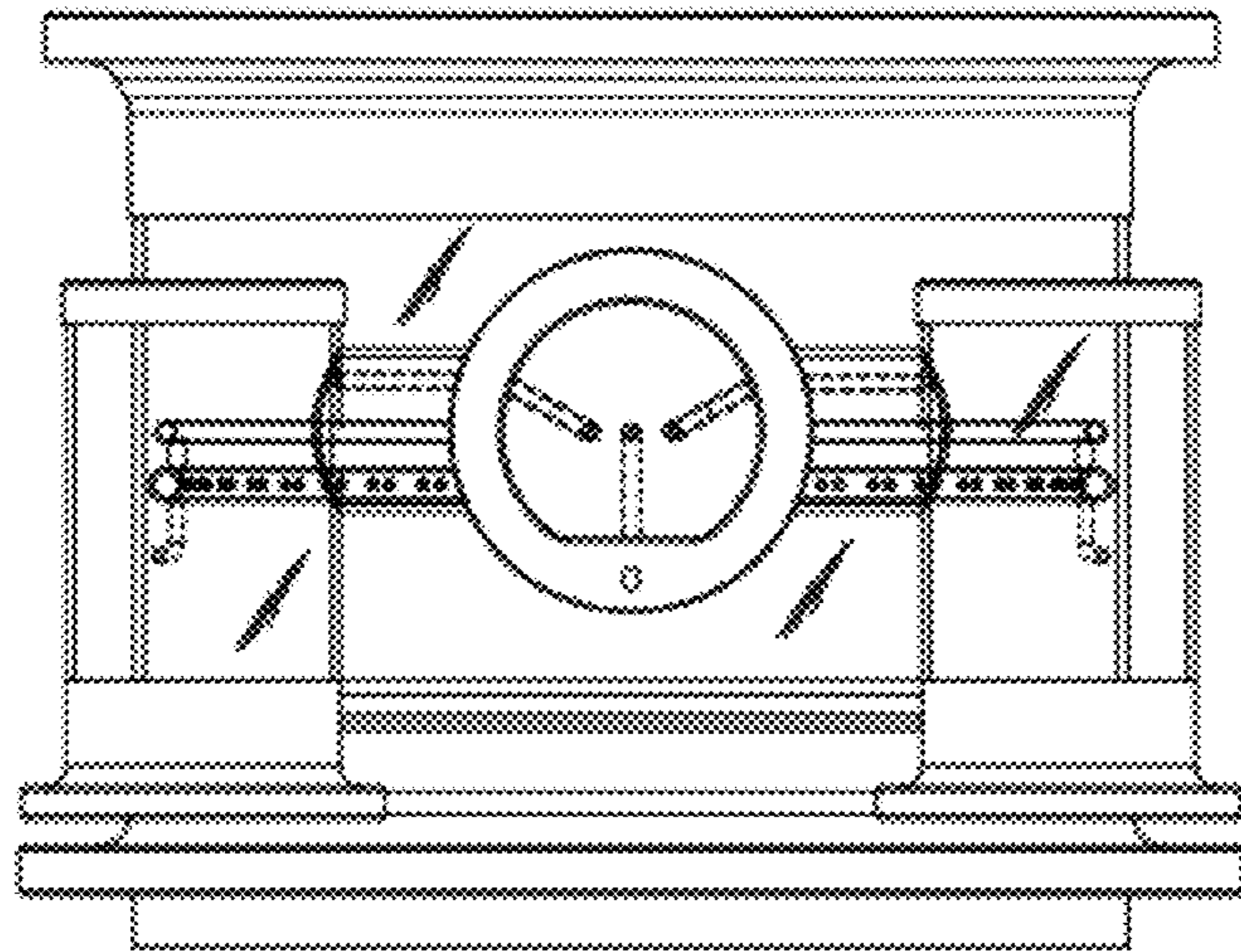


FIG. 4

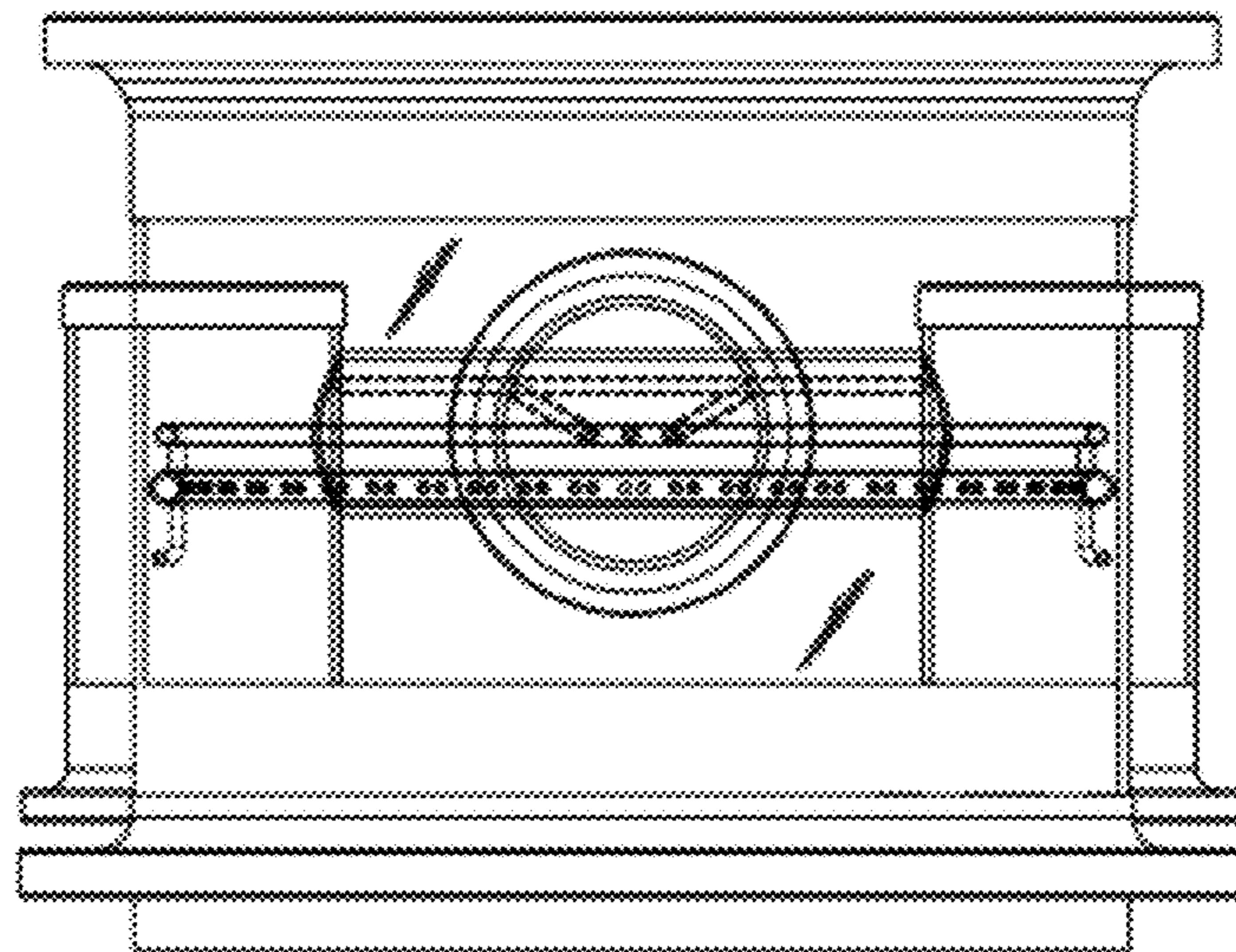


FIG. 5

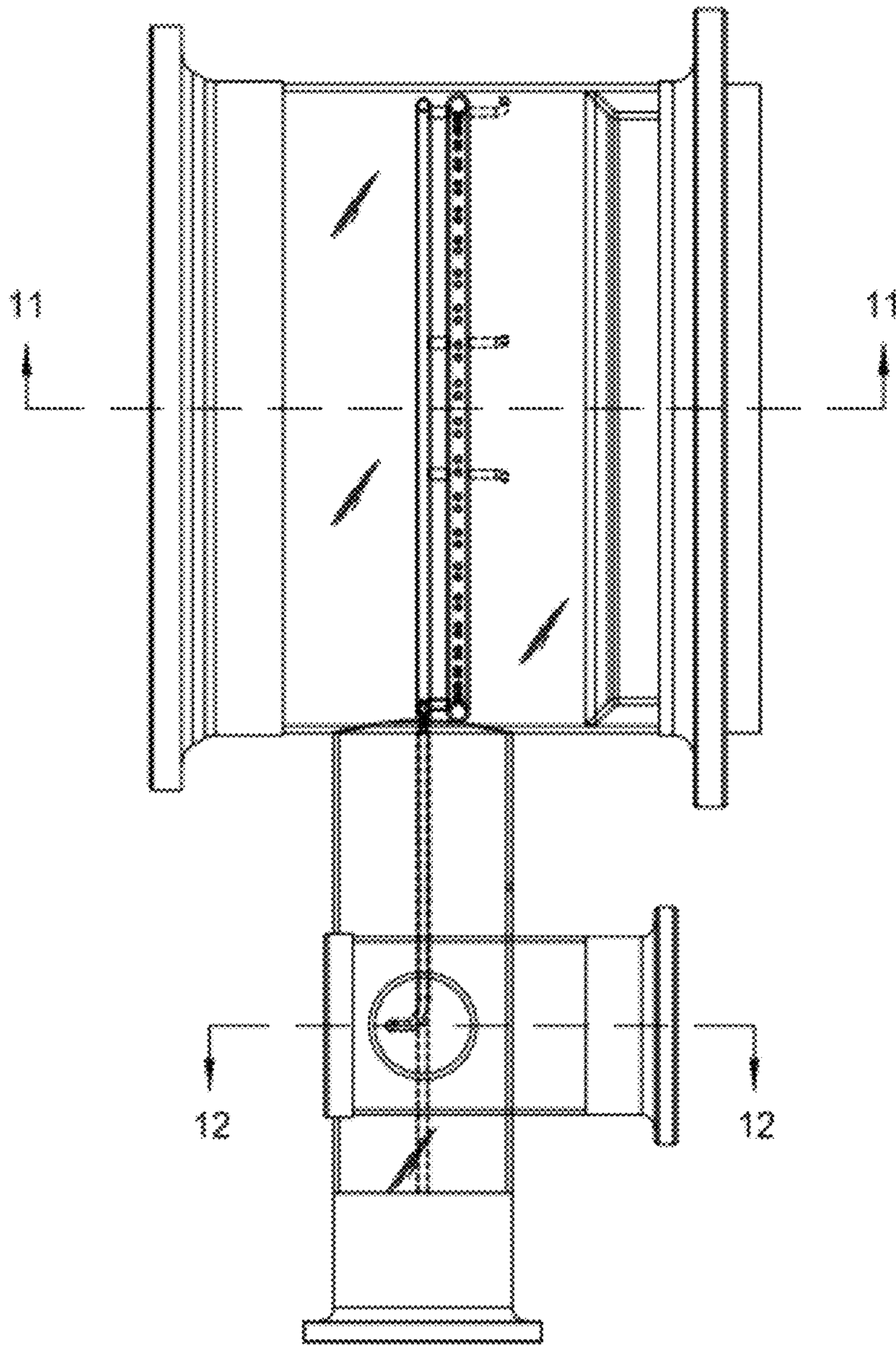


FIG. 6



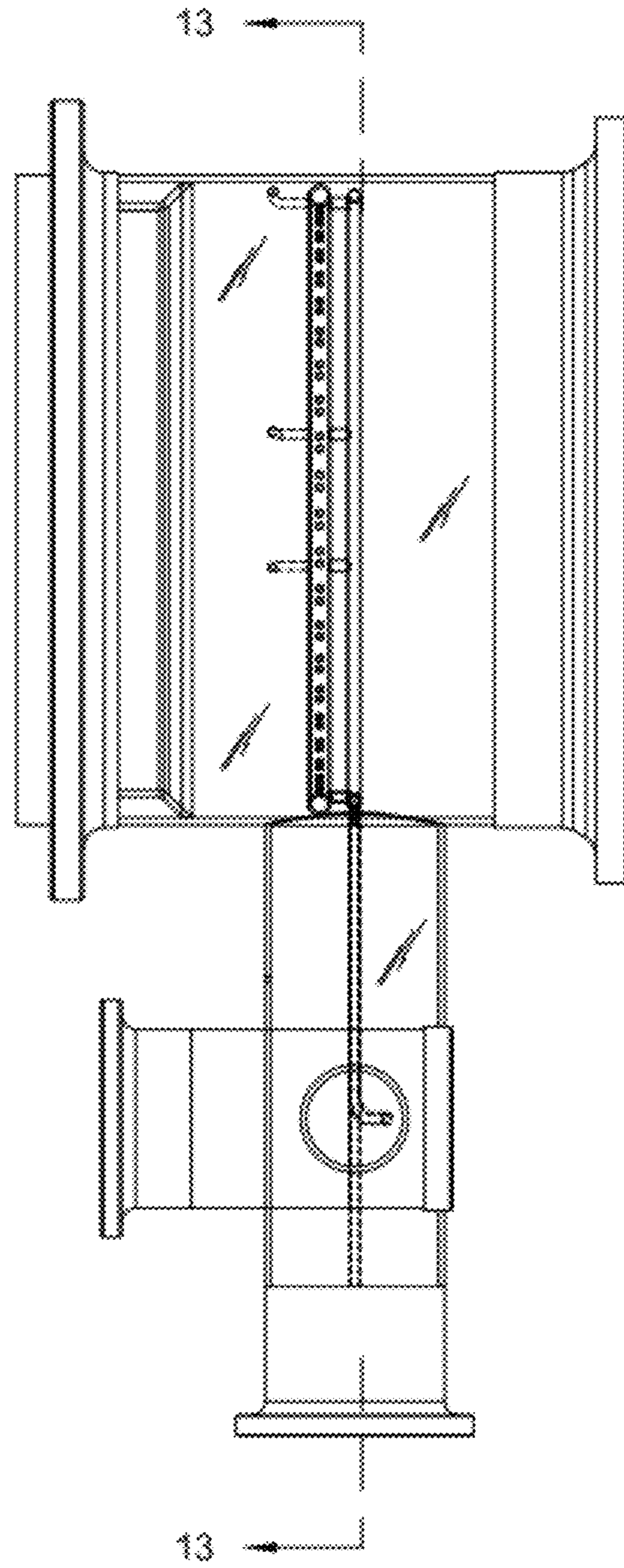


FIG. 7

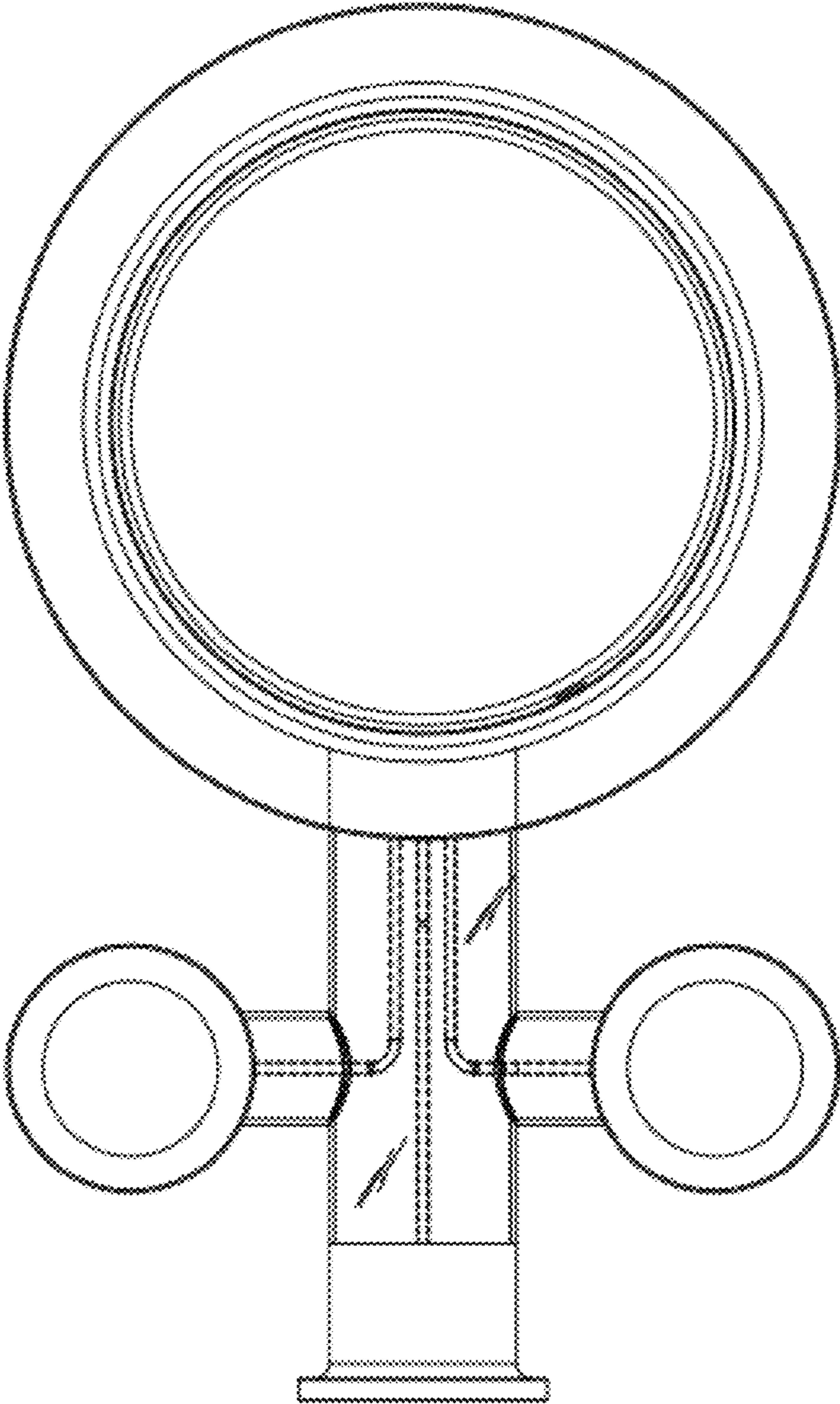


FIG. 8

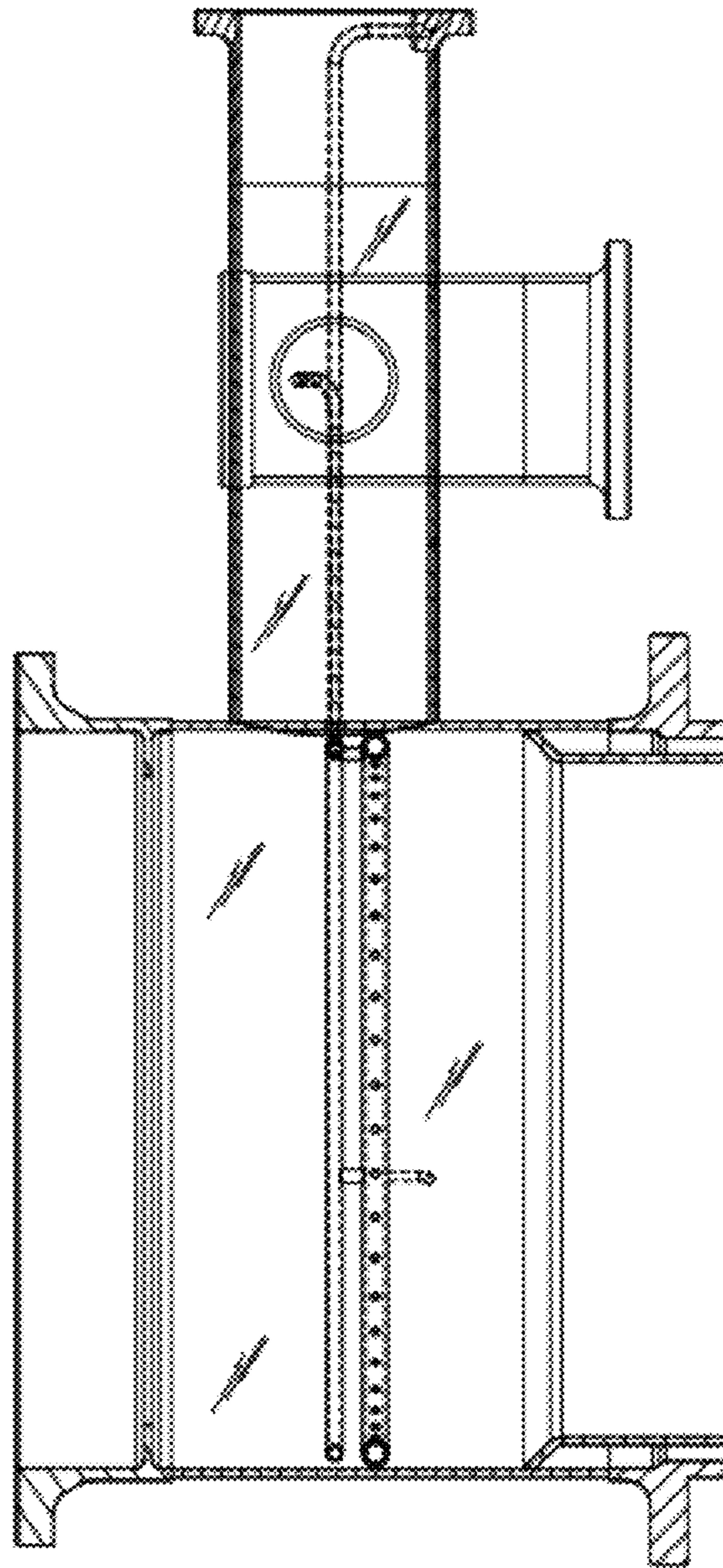


FIG. 9

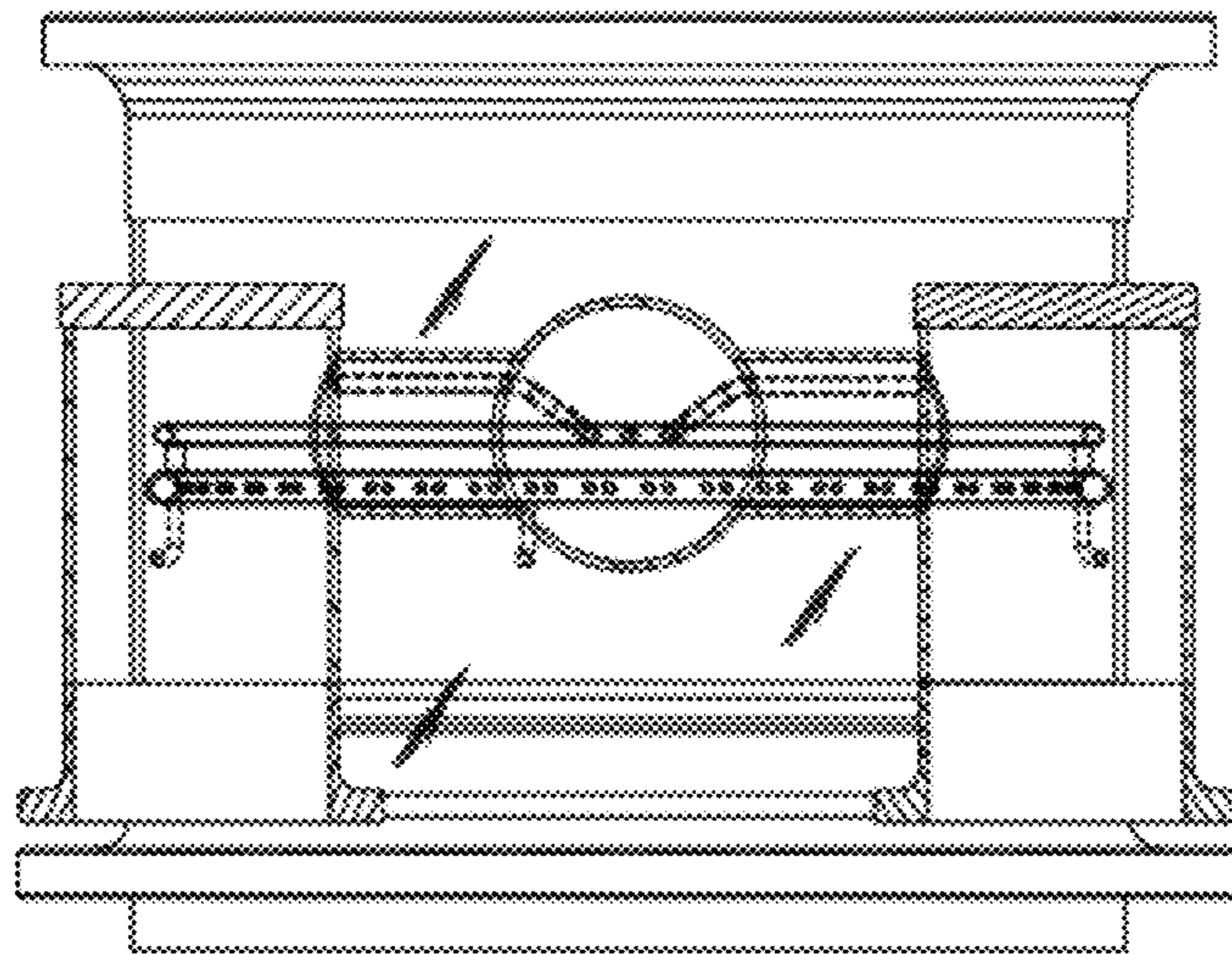


FIG. 10

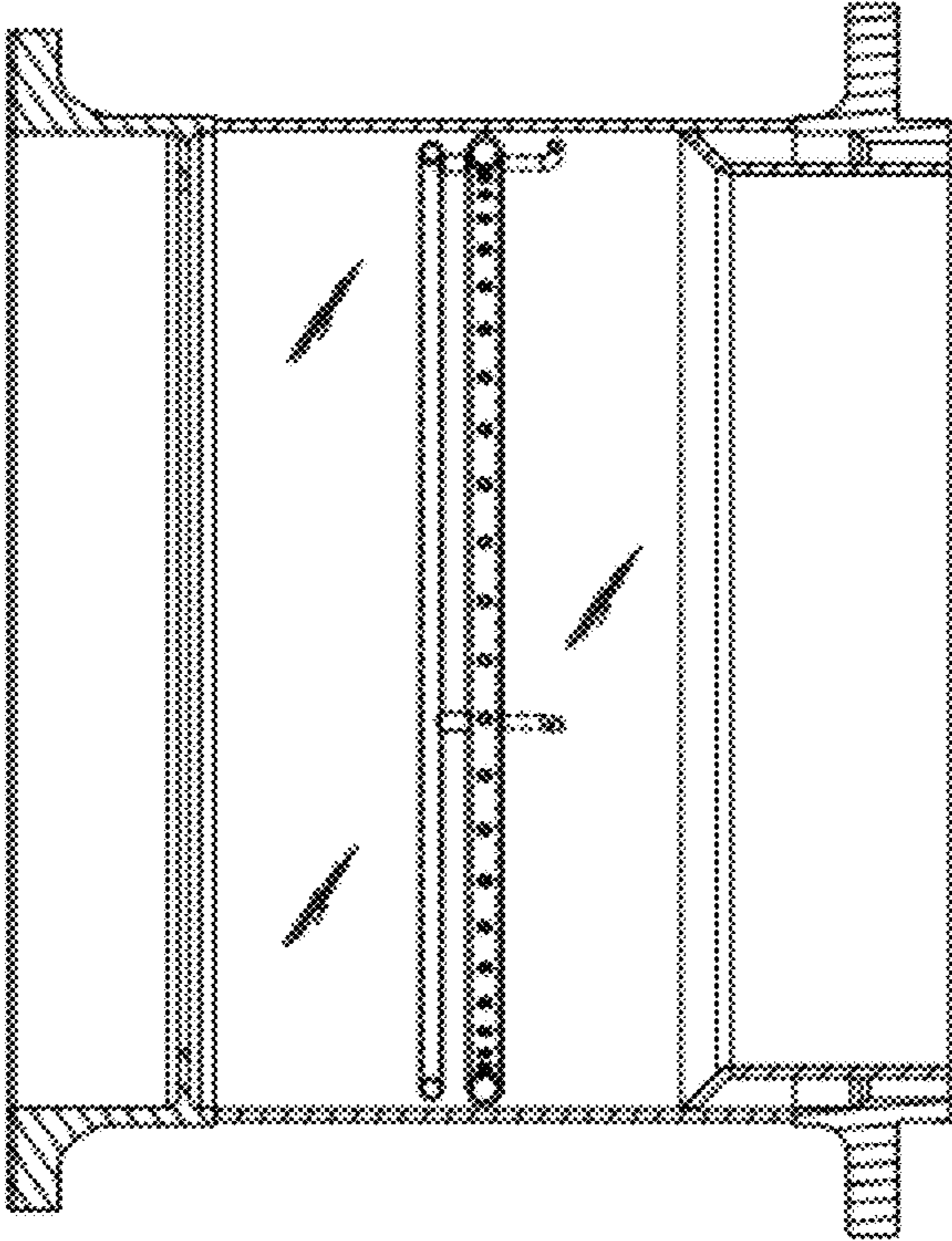


FIG. 11

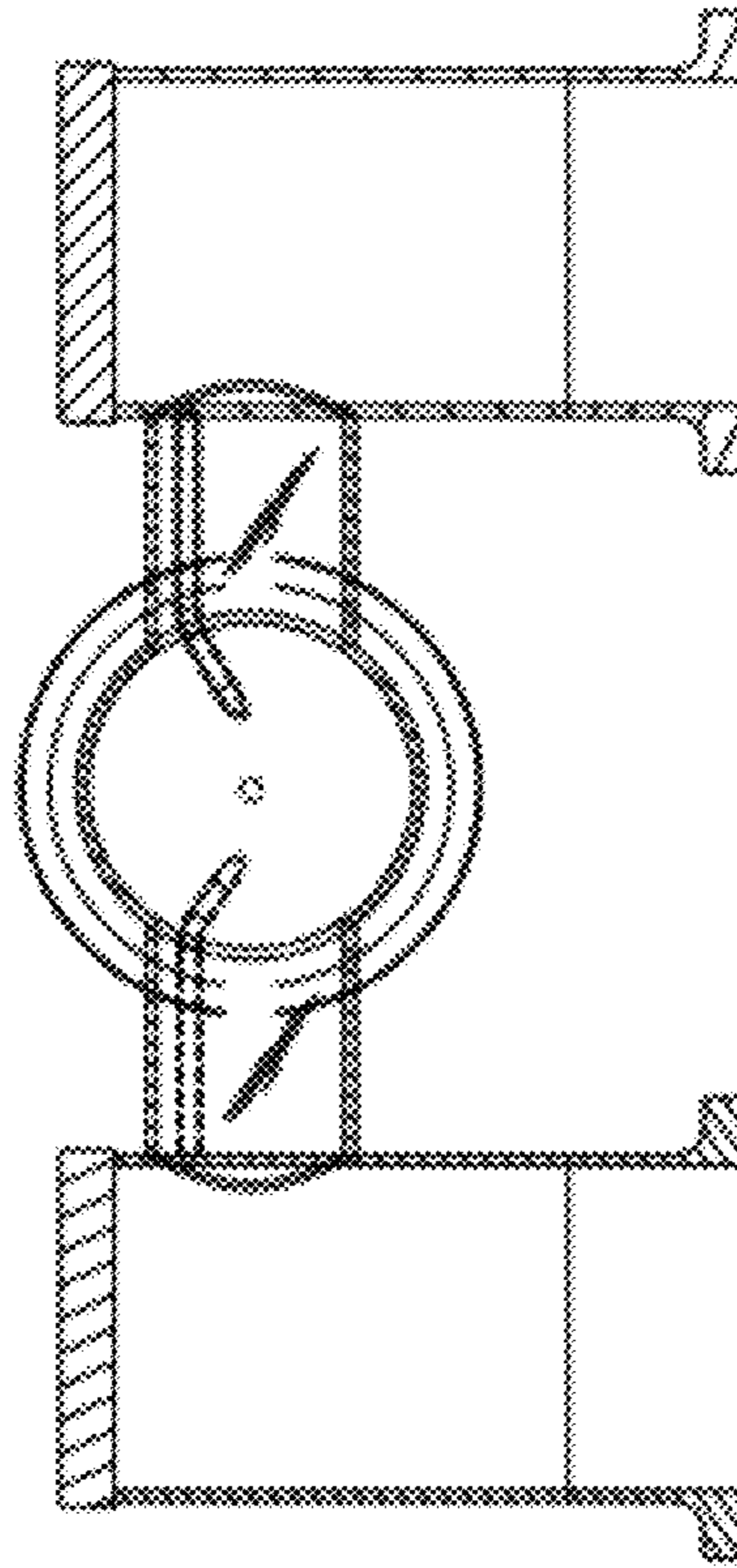


FIG. 12

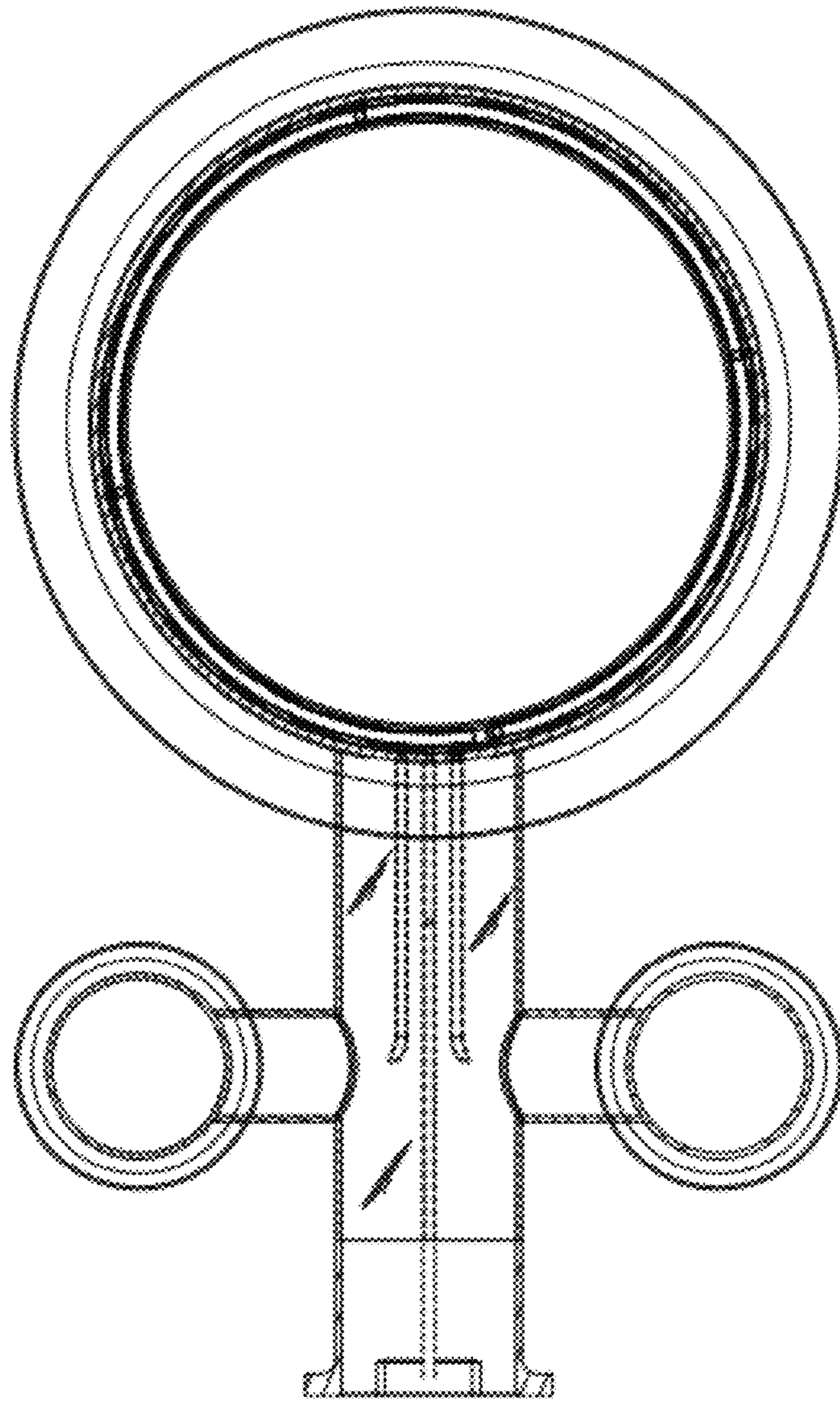


FIG. 13