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# United States Patent [19]

Shimazu

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[45] Date of Patent: **\*\*Feb. 9, 1999**

[54] **TUBE FOR USE IN A SEMICONDUCTOR  
WAFER HEAT PROCESSING APPARATUS**

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Japan

[73] Assignee: **Tokyo Electron Ltd.**, Tokyo-To, Japan

[\*\*] Term: **14 Years**

[21] Appl. No.: **83,423**

[22] Filed: **Feb. 5, 1998**

[30] **Foreign Application Priority Data**

Aug. 20, 1997 [JP] Japan ..... 9-65091

[51] **LOC (6) Cl.** ..... **13-03**

[52] **U.S. Cl.** ..... **D13/182**

[58] **Field of Search** ..... D13/182; D15/144,  
D15/144.1, 199; 414/935-941, 217, 147;  
437/247, 946

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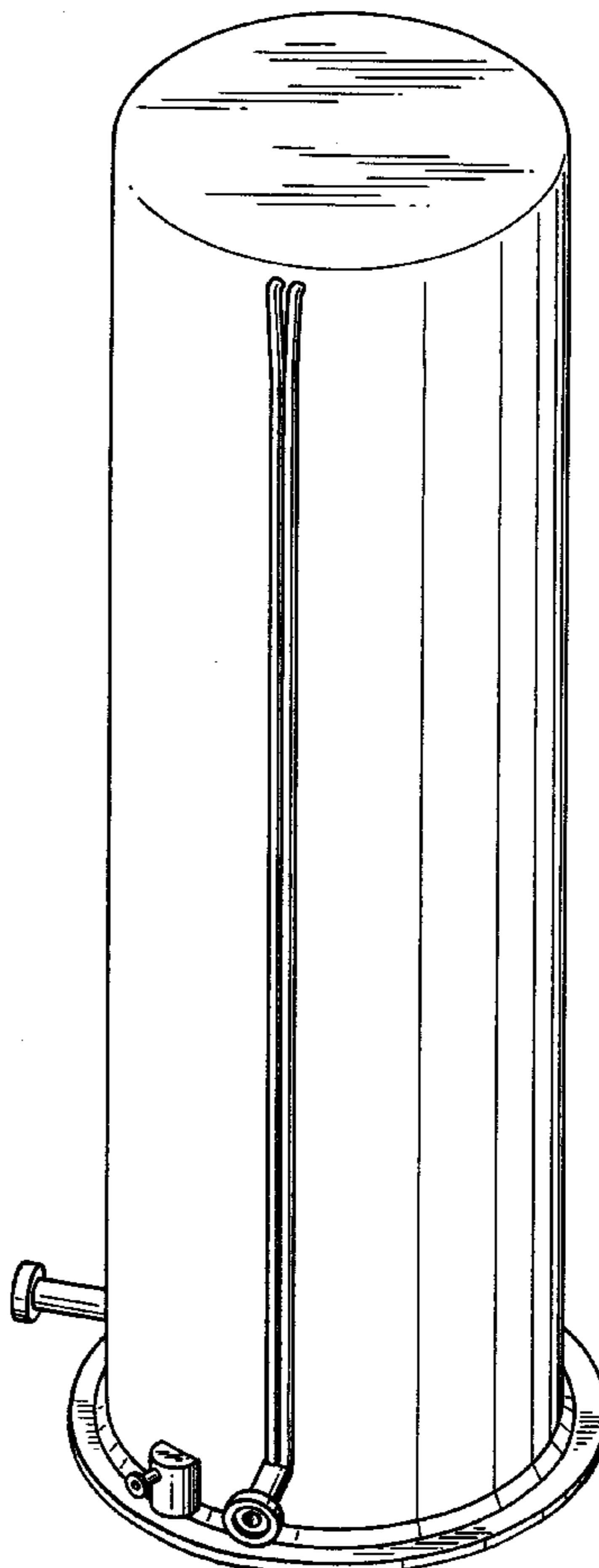
[57] **CLAIM**

I claim the ornamental design for tube for use in a semiconductor wafer heat processing apparatus, as shown and described.

**DESCRIPTION**

FIG. 1 a perspective view of a tube for use in a semiconductor wafer heat processing apparatus;  
 FIG. 2 a front elevational view thereof;  
 FIG. 3 a cross-sectional view taken along line III—III in FIG. 2;  
 FIG. 4 a bottom plan view thereof;  
 FIG. 5 a right side view thereof;  
 FIG. 6 a rear elevational view thereof;  
 FIG. 7 a top plan view thereof;  
 FIG. 8 a cross-sectional view taken along line VIII—VIII in FIG. 7; and,  
 FIG. 9 a left side view thereof.

**1 Claim, 5 Drawing Sheets**



F I G . 1

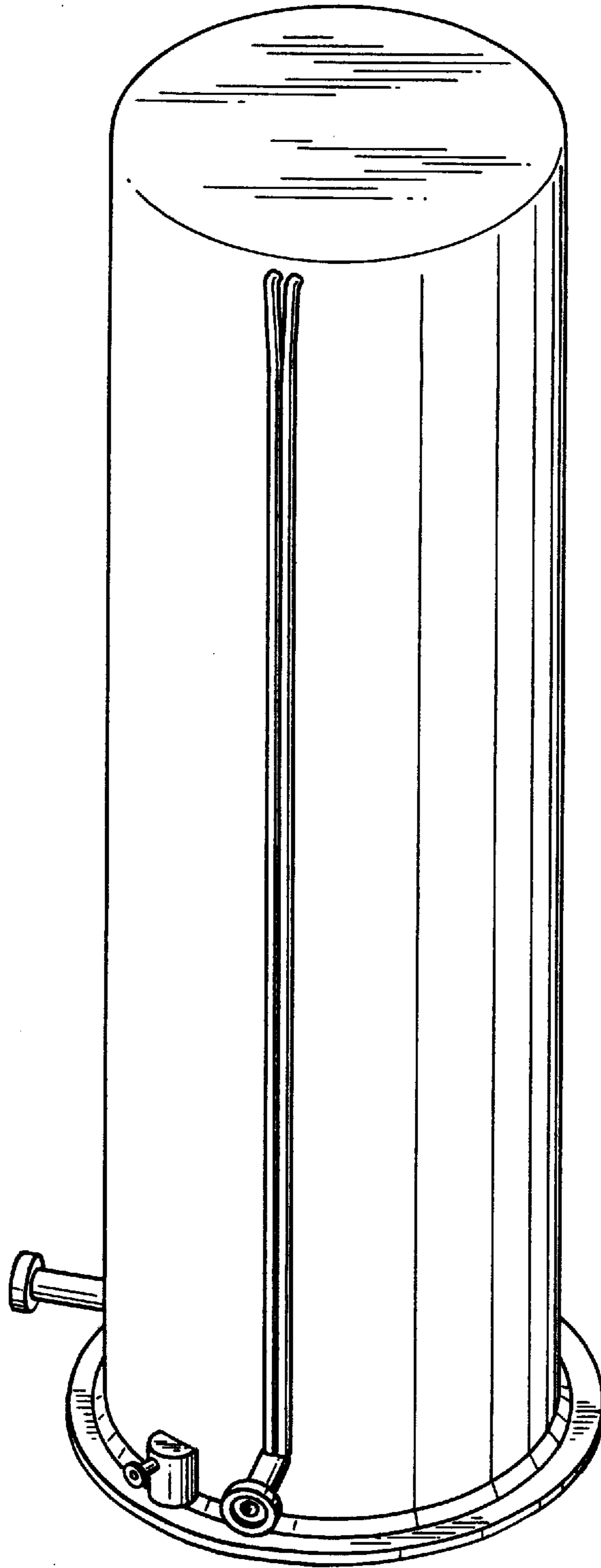


FIG. 2

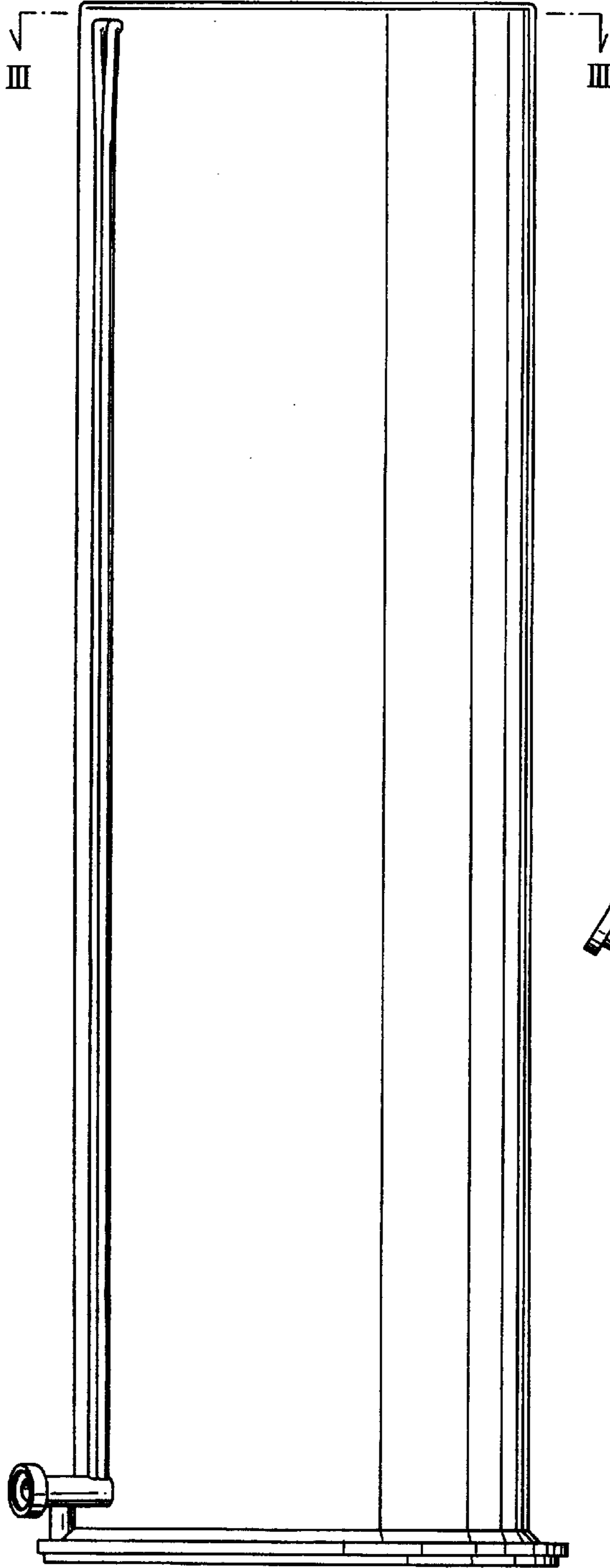


FIG. 3

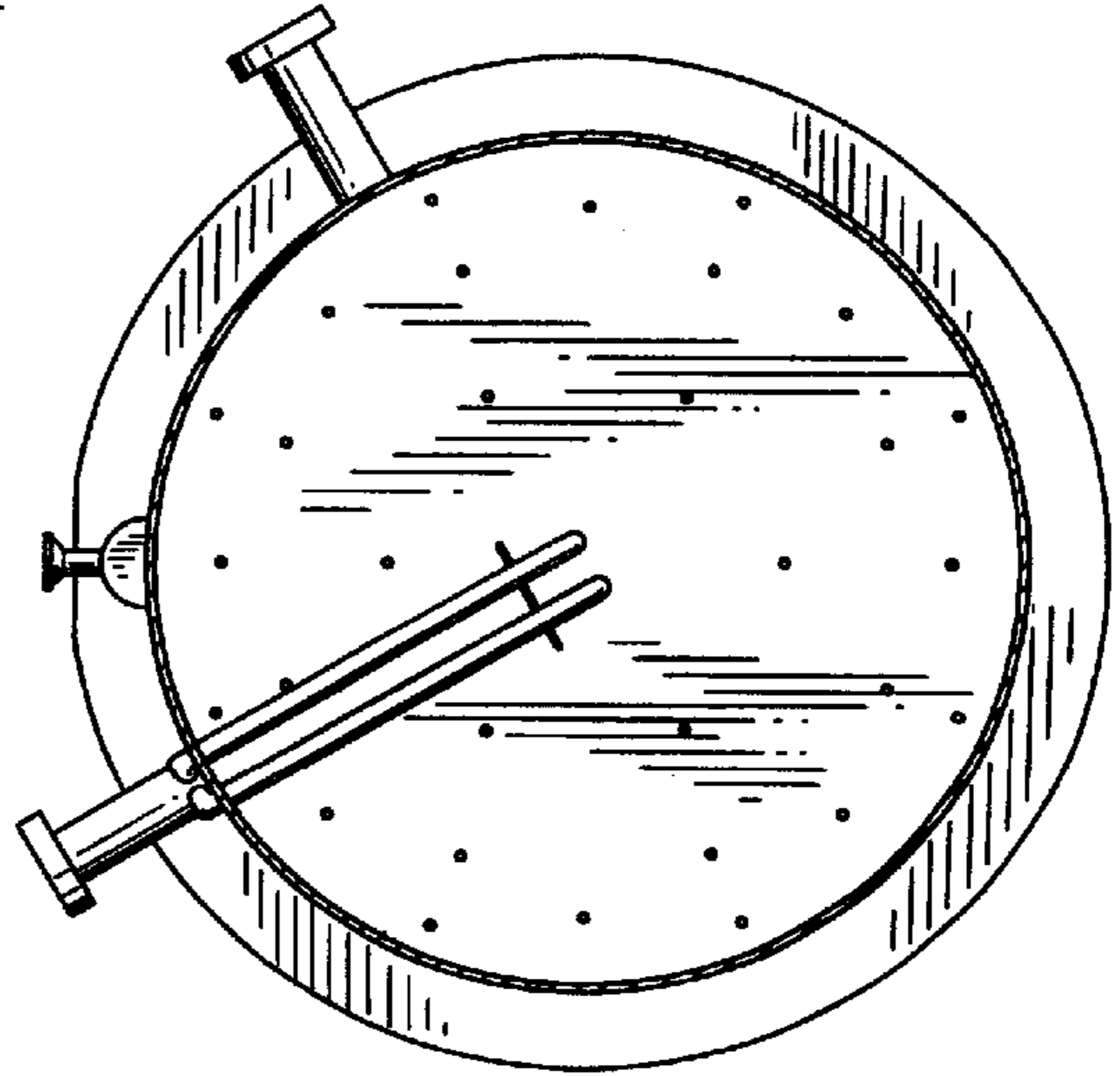


FIG. 4

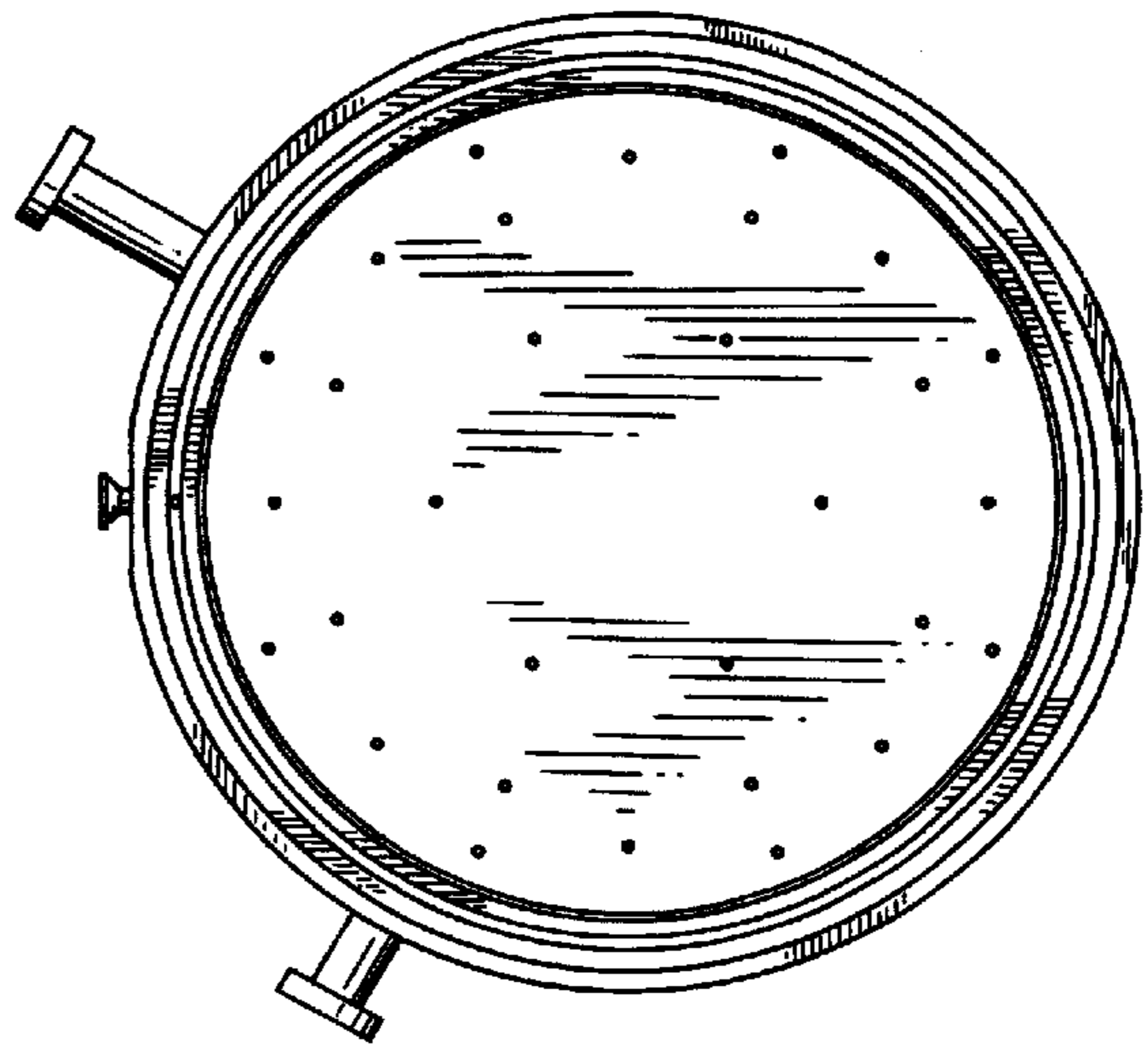


FIG. 5

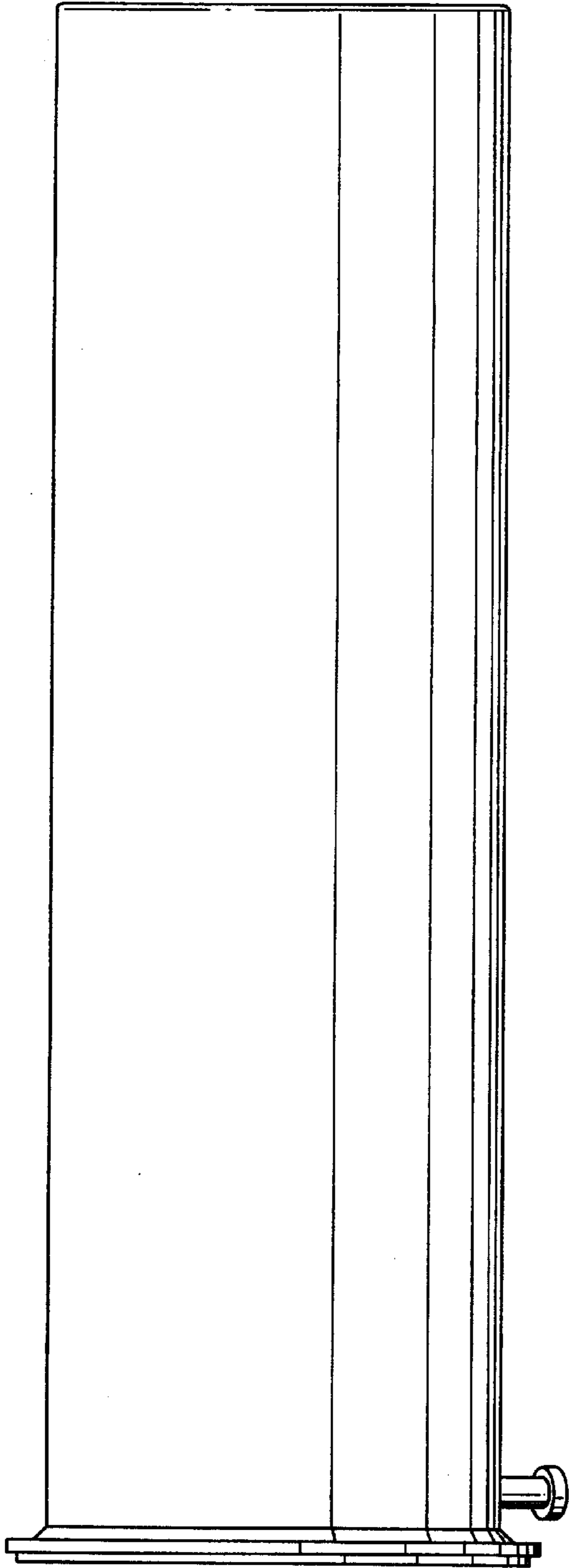


FIG. 6

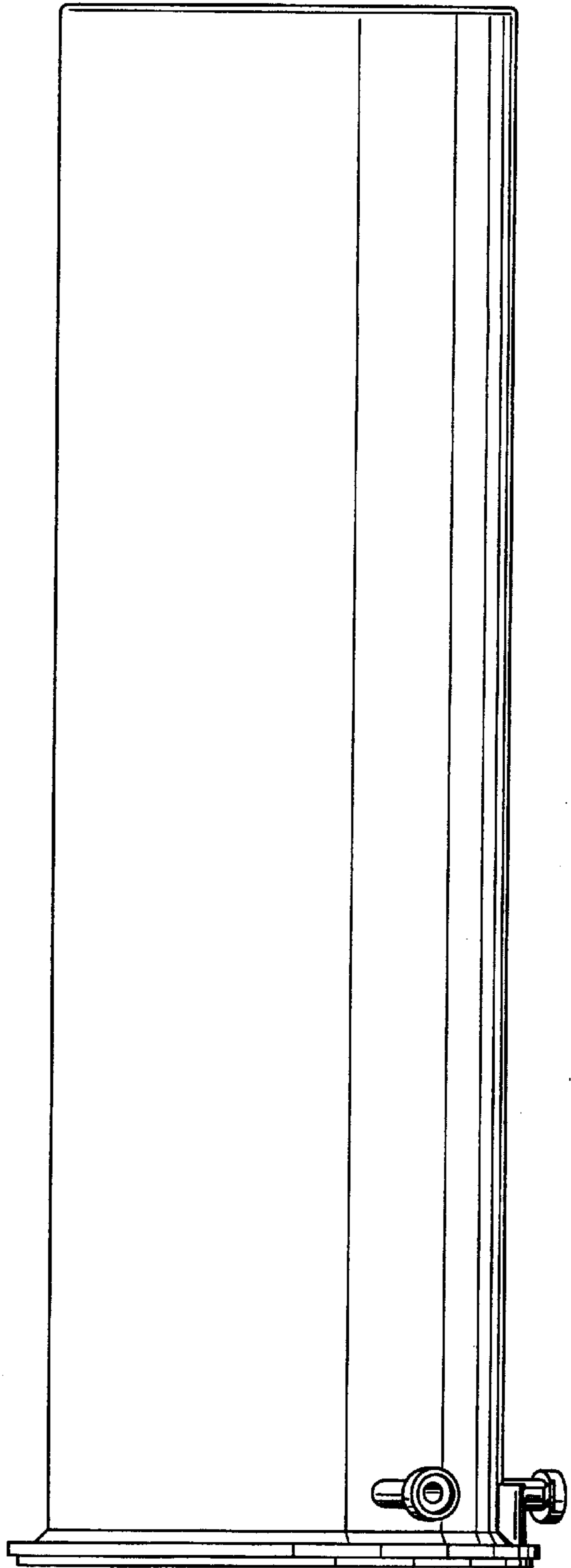


FIG. 7

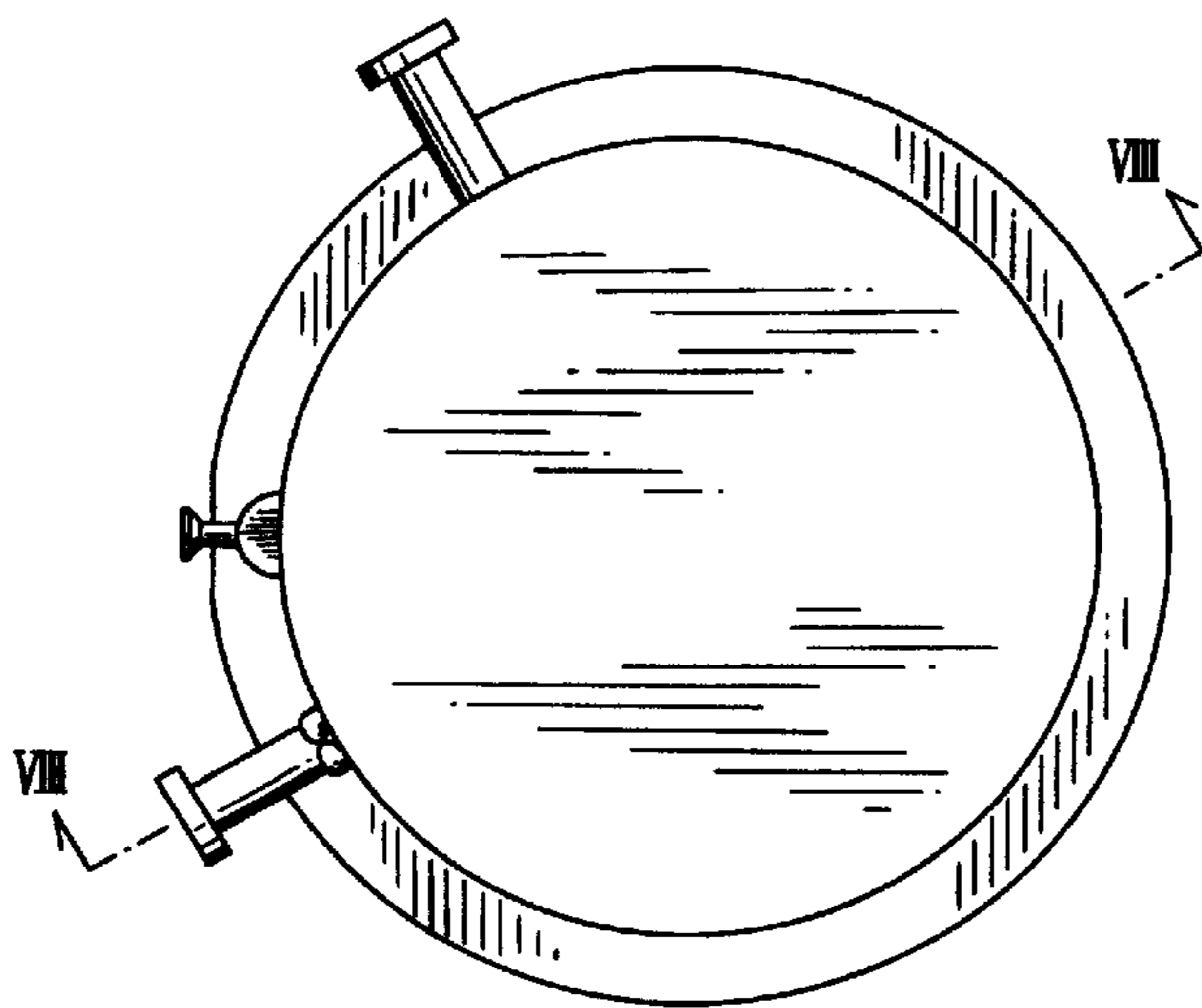


FIG. 8

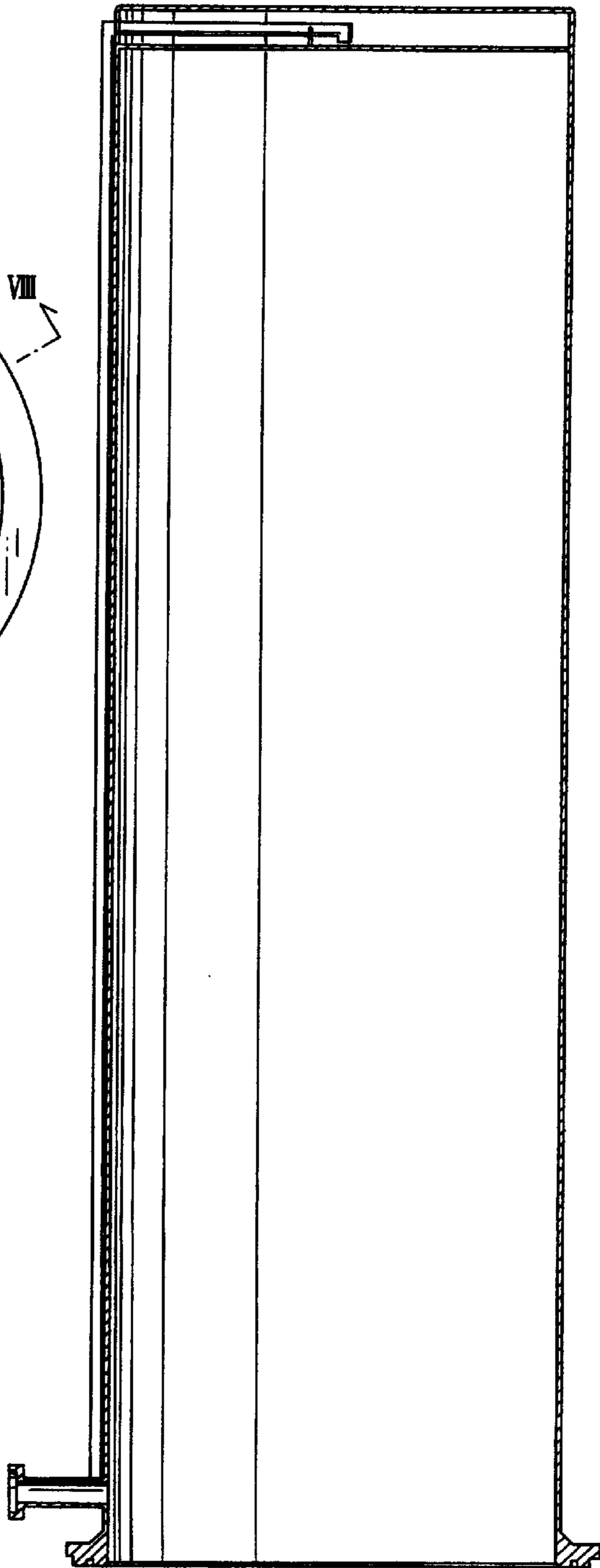


FIG. 9

