



US00D405429S

United States Patent [19]

Hanagata et al.

[11] Patent Number: Des. 405,429

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

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

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[73] Assignee: Tokyo Electron Limited, Tokyo-To, Japan

[**] Term: 14 Years

[21] Appl. No.: 74,297

[22] Filed: Jul. 24, 1997

[30] Foreign Application Priority Data

Jan. 31, 1997 [JP] Japan 9-2642

[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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Primary Examiner—Brian N. Vinson
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[57] CLAIM

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

DESCRIPTION

FIG. 1 a perspective view of a processing tube for use in a semiconductor wafer heat processing apparatus;
 FIG. 2 a front elevational view thereof;
 FIG. 3 a top plan view thereof;
 FIG. 4 a bottom plan view thereof;
 FIG. 5 a cross sectional view thereof taken along line V-V in FIG. 2;
 FIG. 6 a right side view thereof;
 FIG. 7 a rear elevational view thereof;
 FIG. 8 a left side view thereof;
 FIG. 9 a cross sectional view thereof taken along line IX-IX in FIG. 3;
 FIG. 10 a cross sectional view thereof taken along line X-X in FIG. 3; and,
 FIG. 11 a reference figure showing the using state.

1 Claim, 6 Drawing Sheets

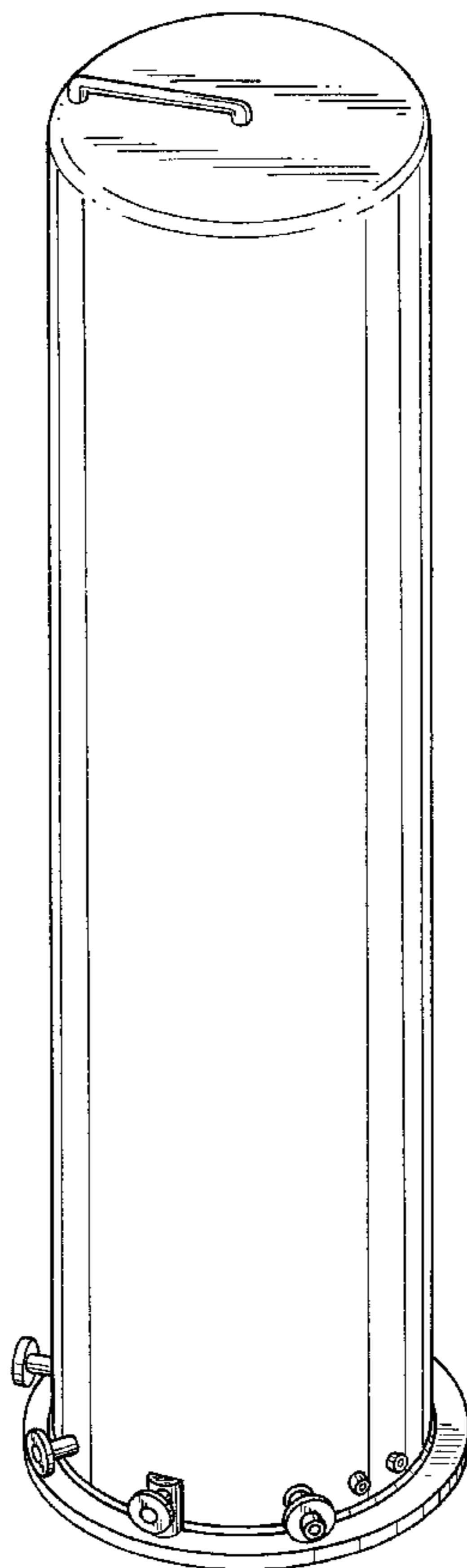


FIG. 1

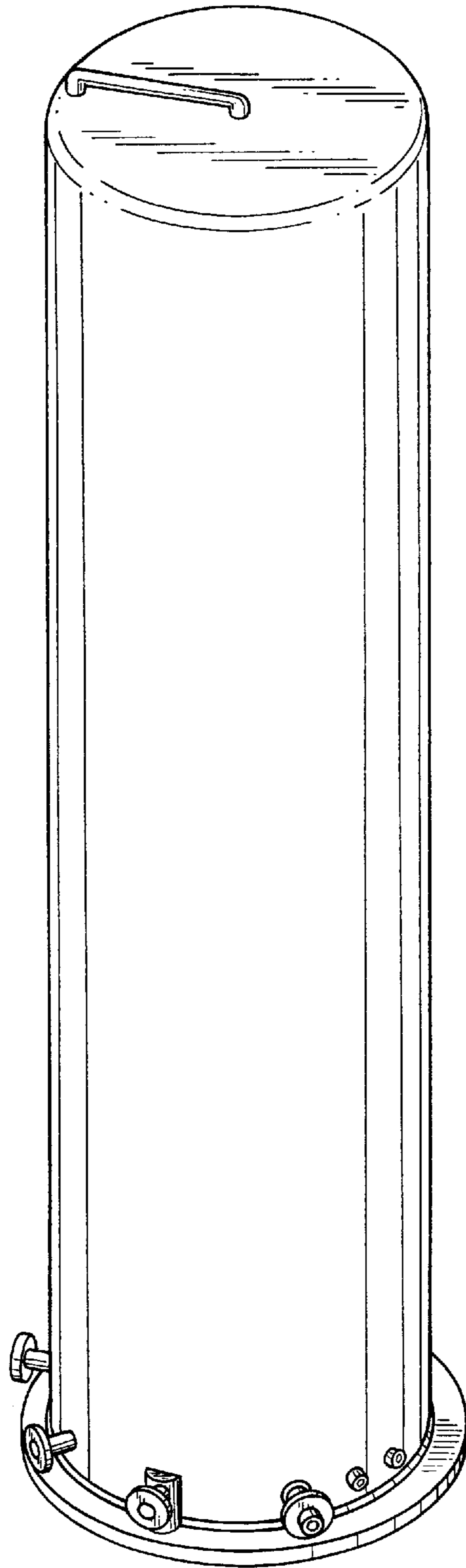


FIG. 2

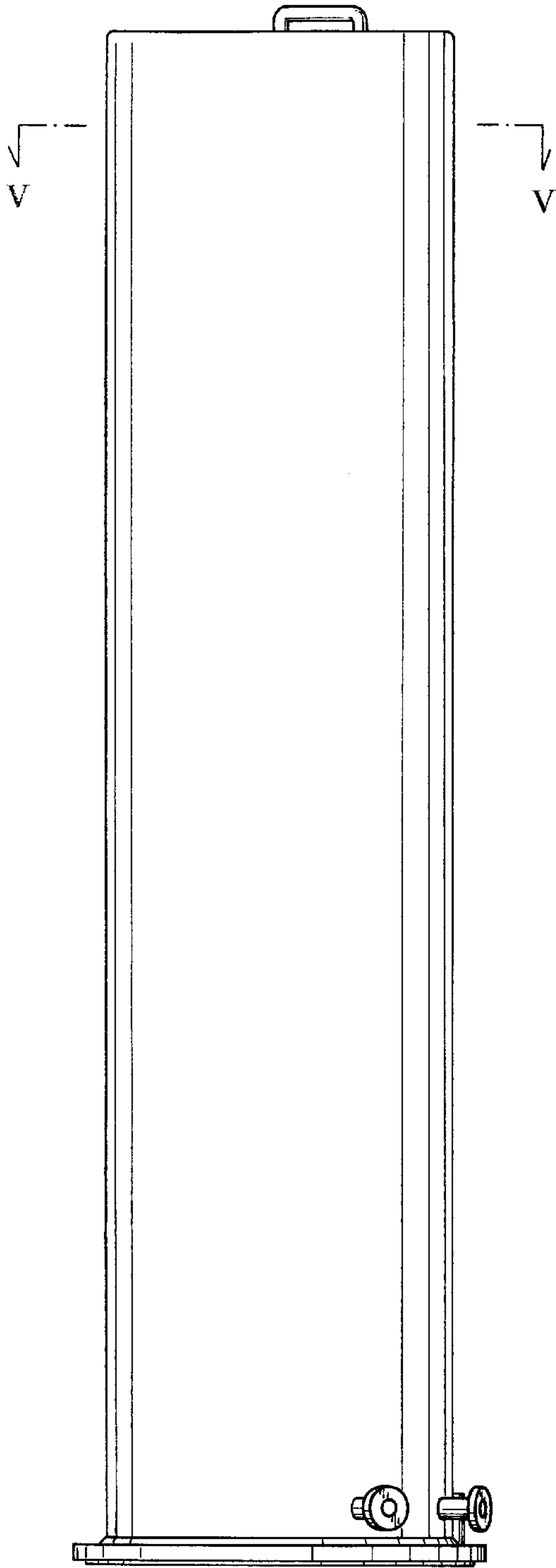


FIG. 3

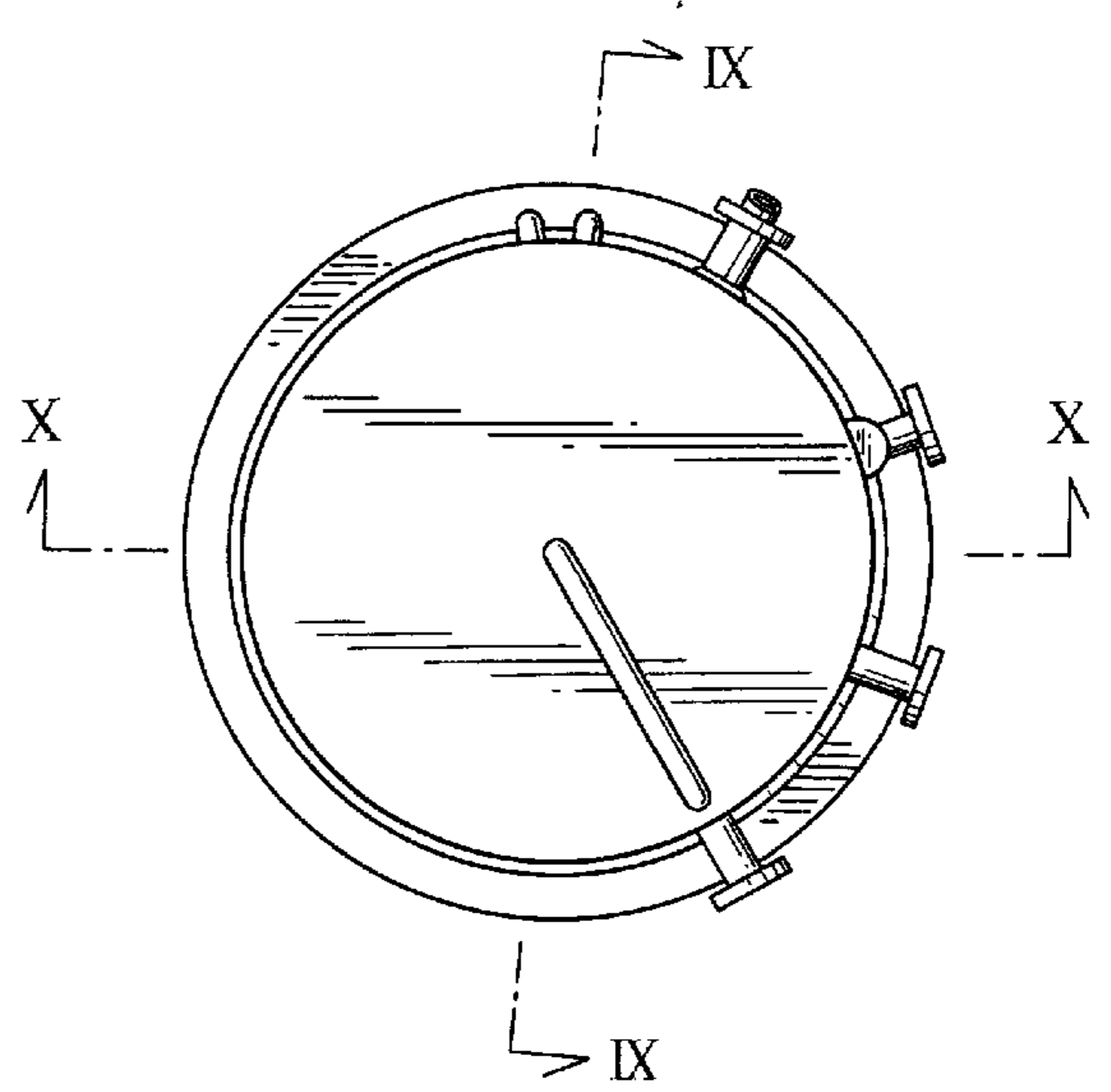


FIG. 4

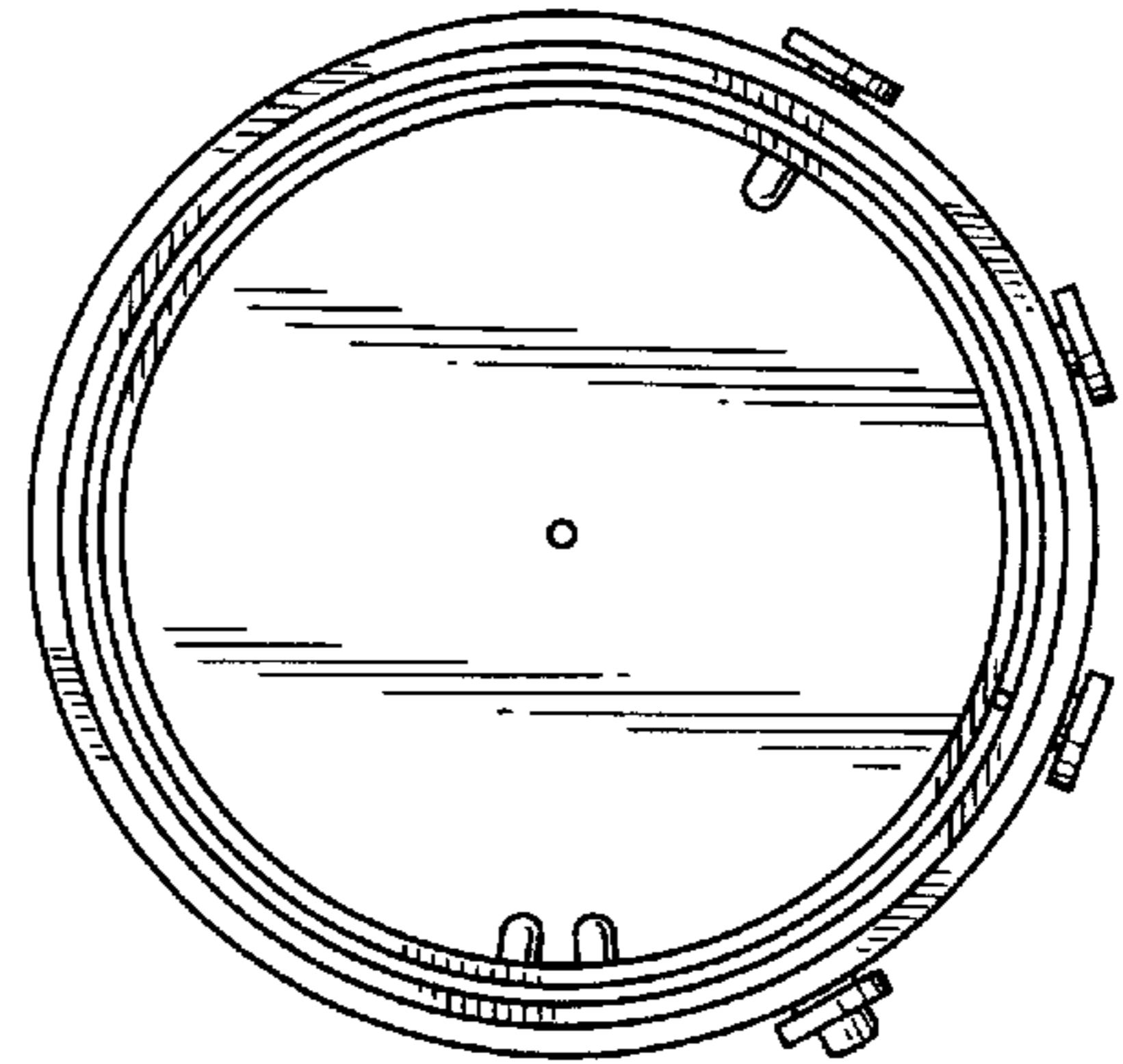


FIG. 5

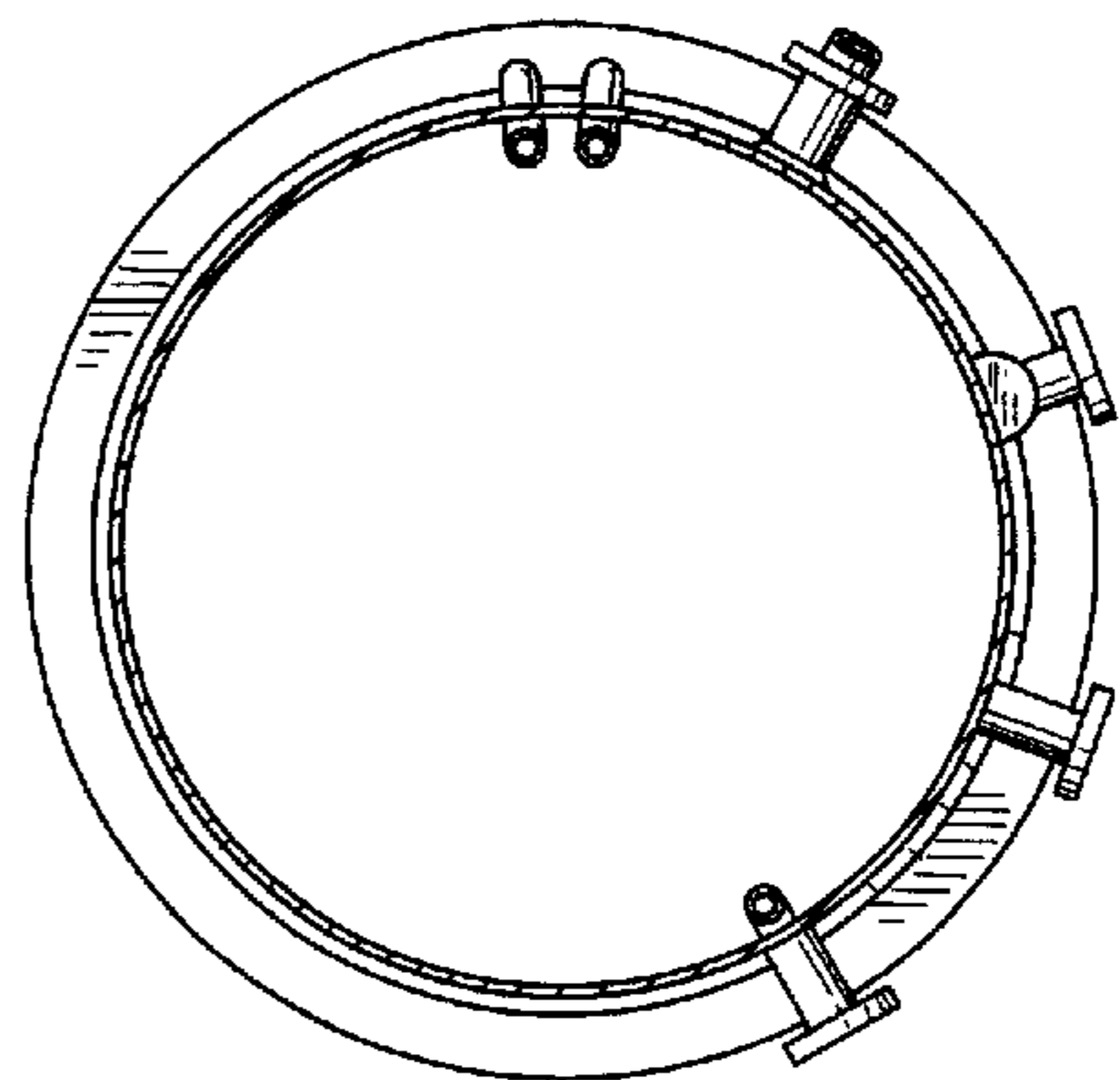


FIG. 6

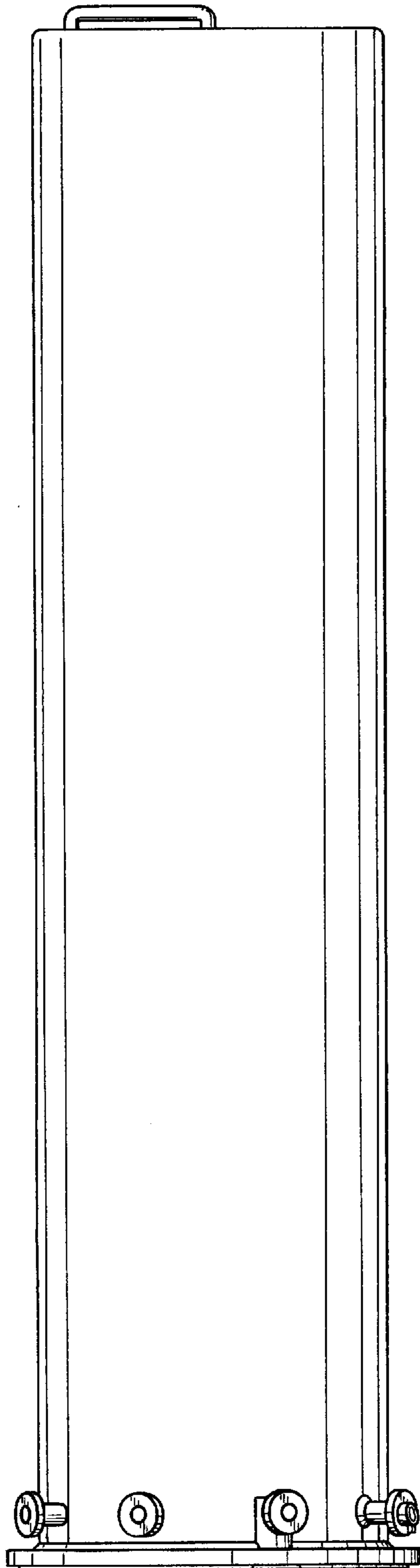
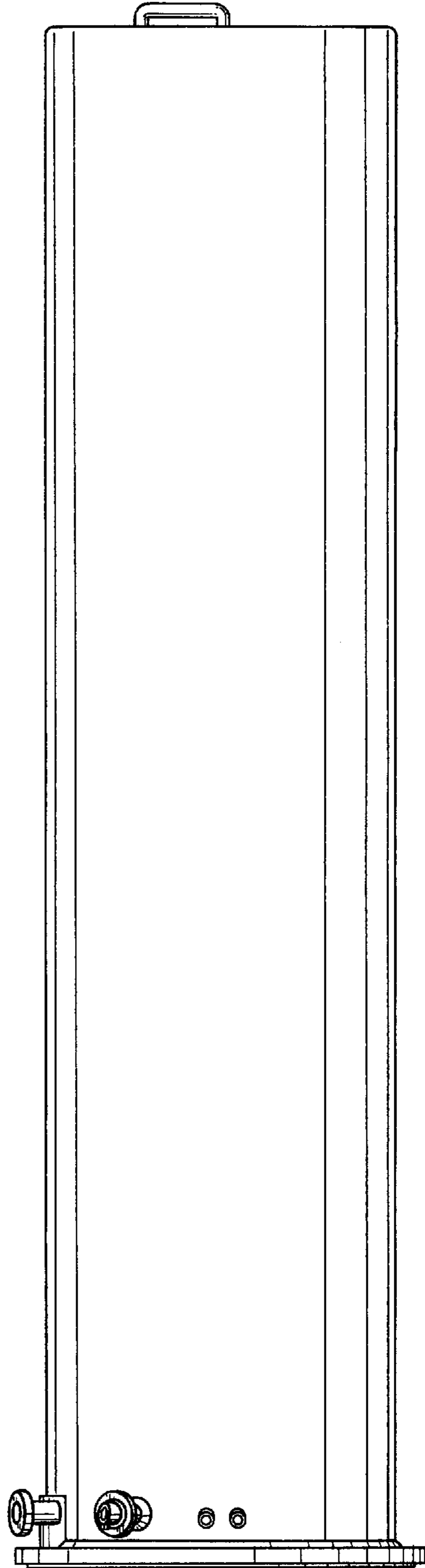
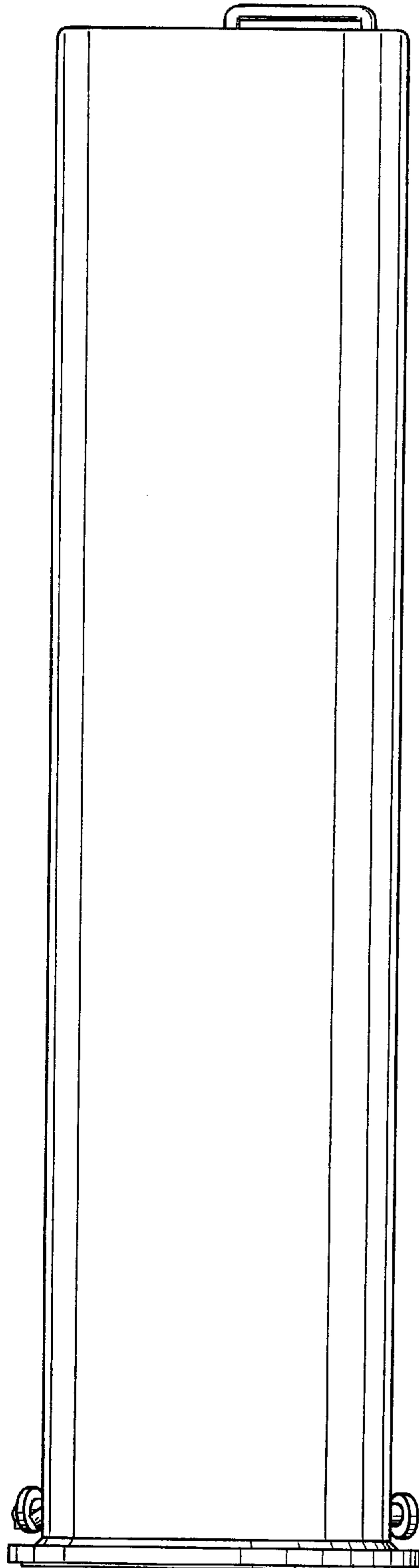


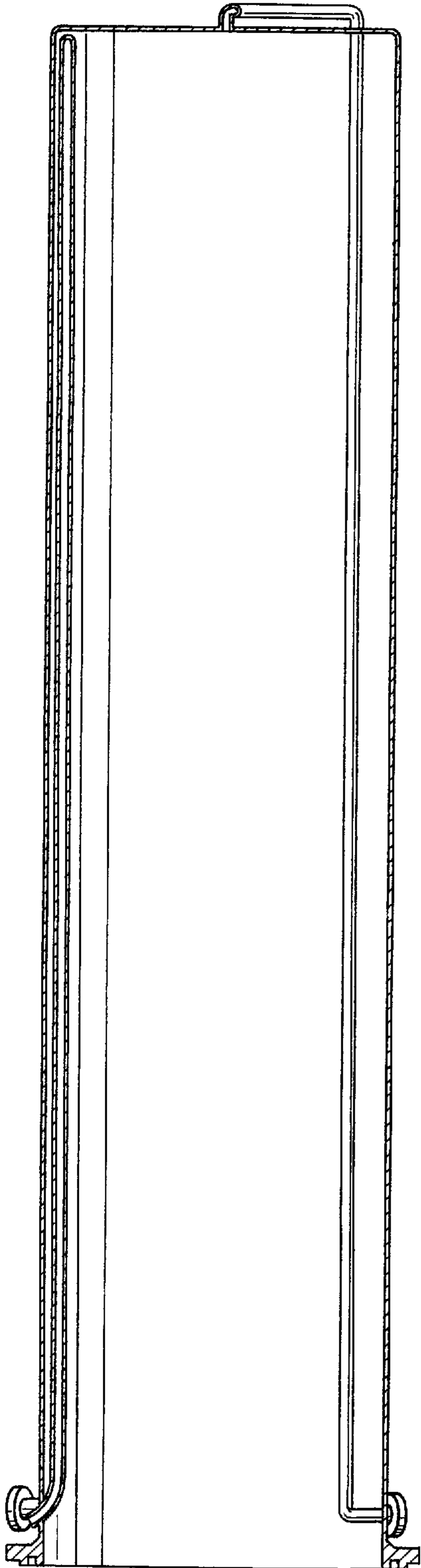
FIG. 7



F I G . 8



F I G . 9



F I G . 1 0

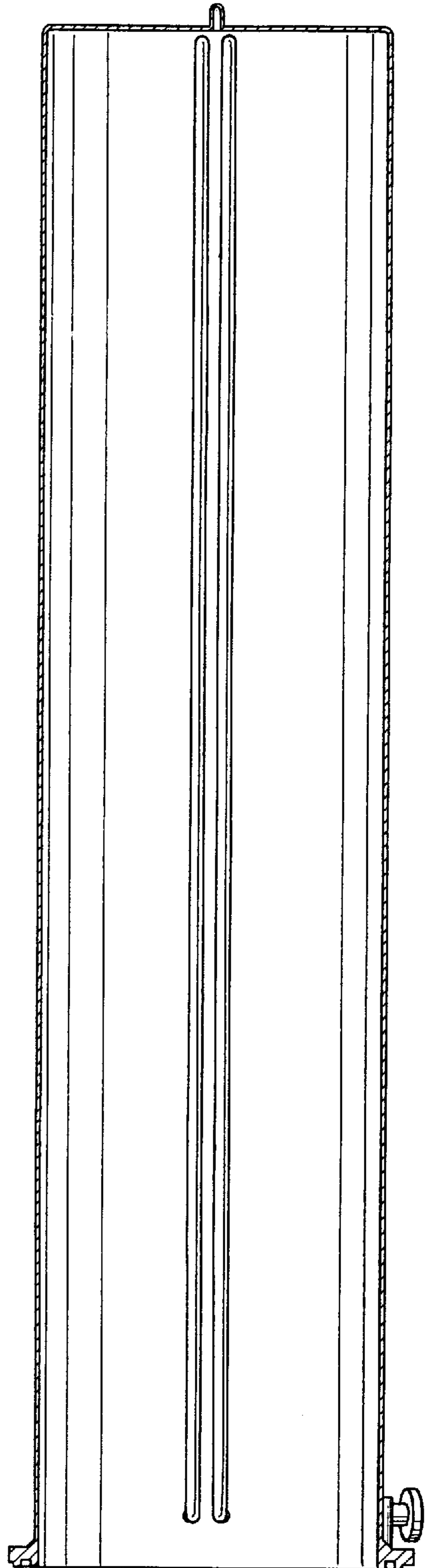


FIG. 11

使用状態を示す参考図

