



US00D409158S

United States Patent [19]
Shimazu

[11] **Patent Number: Des. 409,158**

[45] **Date of Patent: *** May 4, 1999**

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

[75] Inventor: **Tomohisa Shimazu**, Shiroyama-Machi, Japan

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

[*] Notice: This patent is subject to a terminal disclaimer.

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

[21] Appl. No.: **29/083,420**

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

[30] **Foreign Application Priority Data**

Aug. 20, 1997 [JP] Japan 9-65101

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

[52] **U.S. Cl.** **D13/182**; 211/41.18; 206/832

[58] **Field of Search** D13/182; D15/144, D15/144.1, 199; 414/935-941, 217, 147; 437/247, 946; D6/407, 629; 211/41.18; 206/832

[56] **References Cited**

U.S. PATENT DOCUMENTS

D. 291,413 8/1987 Uehara et al. D13/182 X

D. 361,752 8/1995 Yamaga D13/182
D. 378,823 4/1997 Watanabe et al. D13/182 X
4,743,156 5/1988 Raffay et al. 414/935 X
4,857,689 8/1989 Lee 414/935 X
5,174,045 12/1992 Thompson et al. 414/935 X
5,314,574 5/1994 Takahashi 414/935 X
5,320,218 6/1994 Yamashita et al. 414/935 X

Primary Examiner—Brian N. Vinson
Attorney, Agent, or Firm—Ladas & Parry

[57] **CLAIM**

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

DESCRIPTION

FIG. 1 a perspective view of a wafer boat 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 rear elevational view thereof.

FIG. 5a right side view thereof.

FIG. 6 a cross-sectional view taken along line VI—VI in FIG. 2.

FIG. 7 a top plan view thereof; and,

FIG. 8 a bottom plan view thereof.

1 Claim, 2 Drawing Sheets

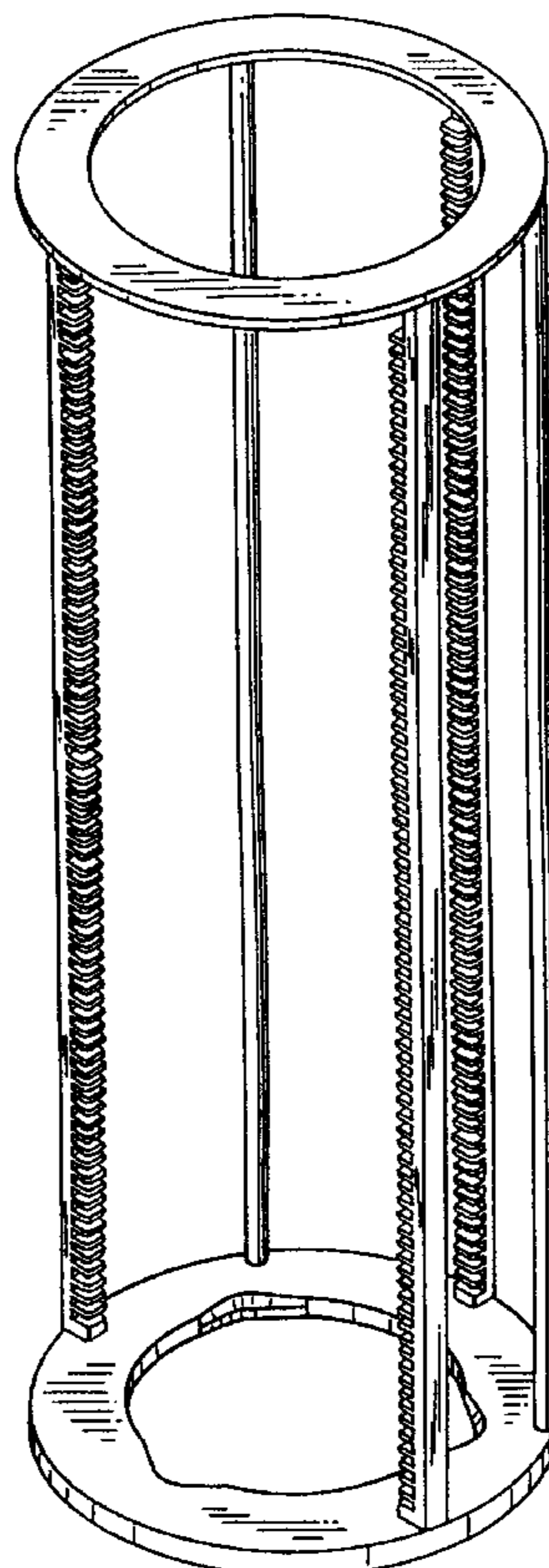


FIG. 1

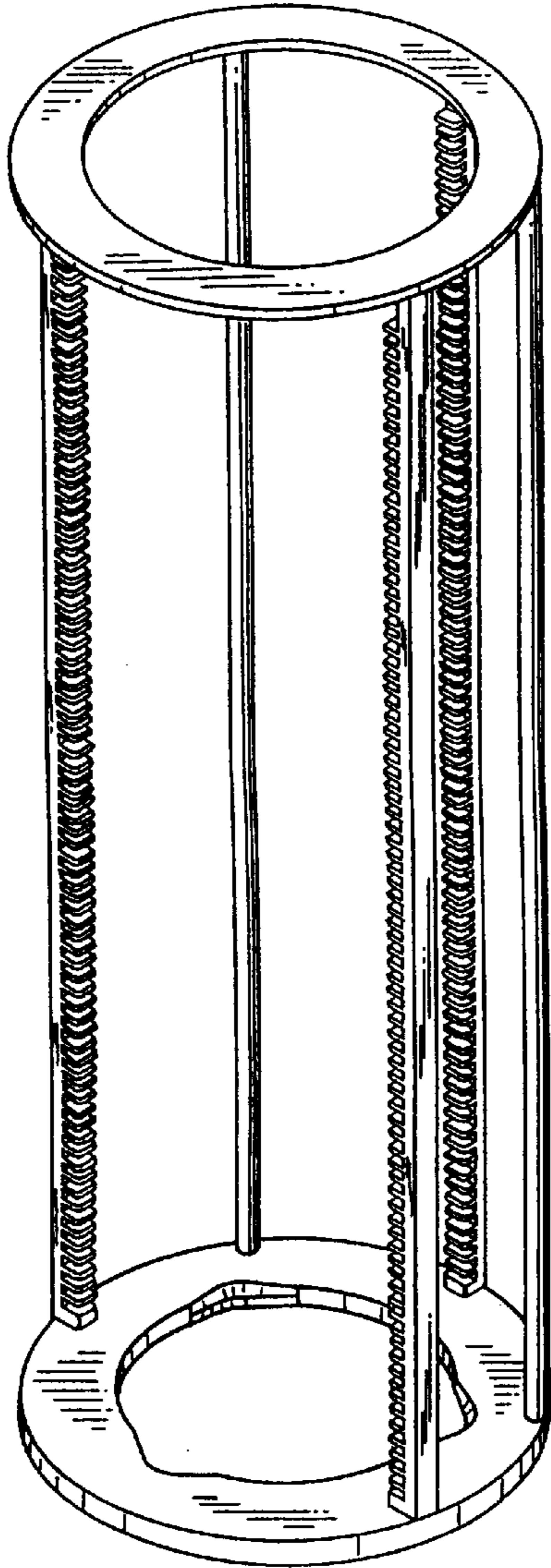


FIG. 2

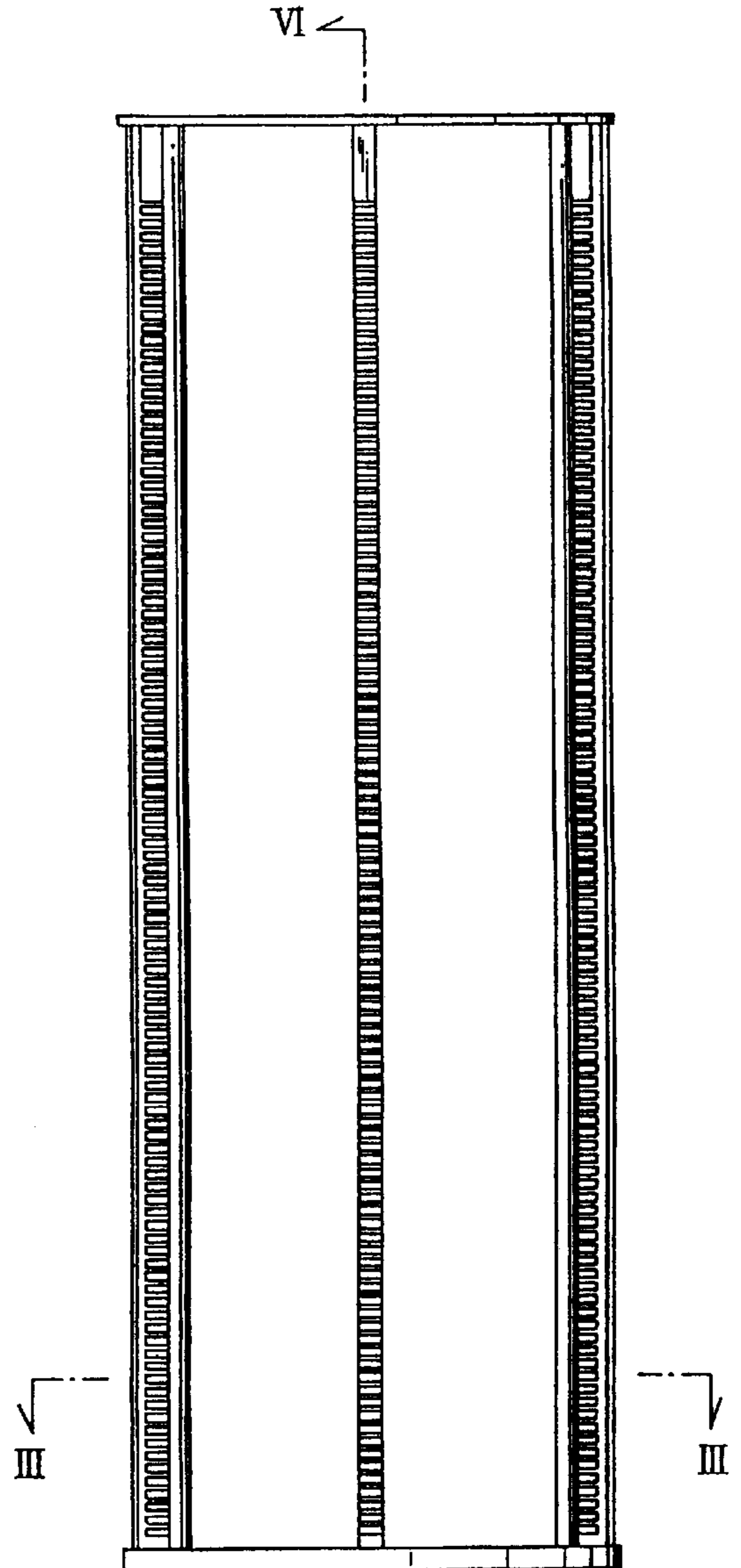


FIG. 3

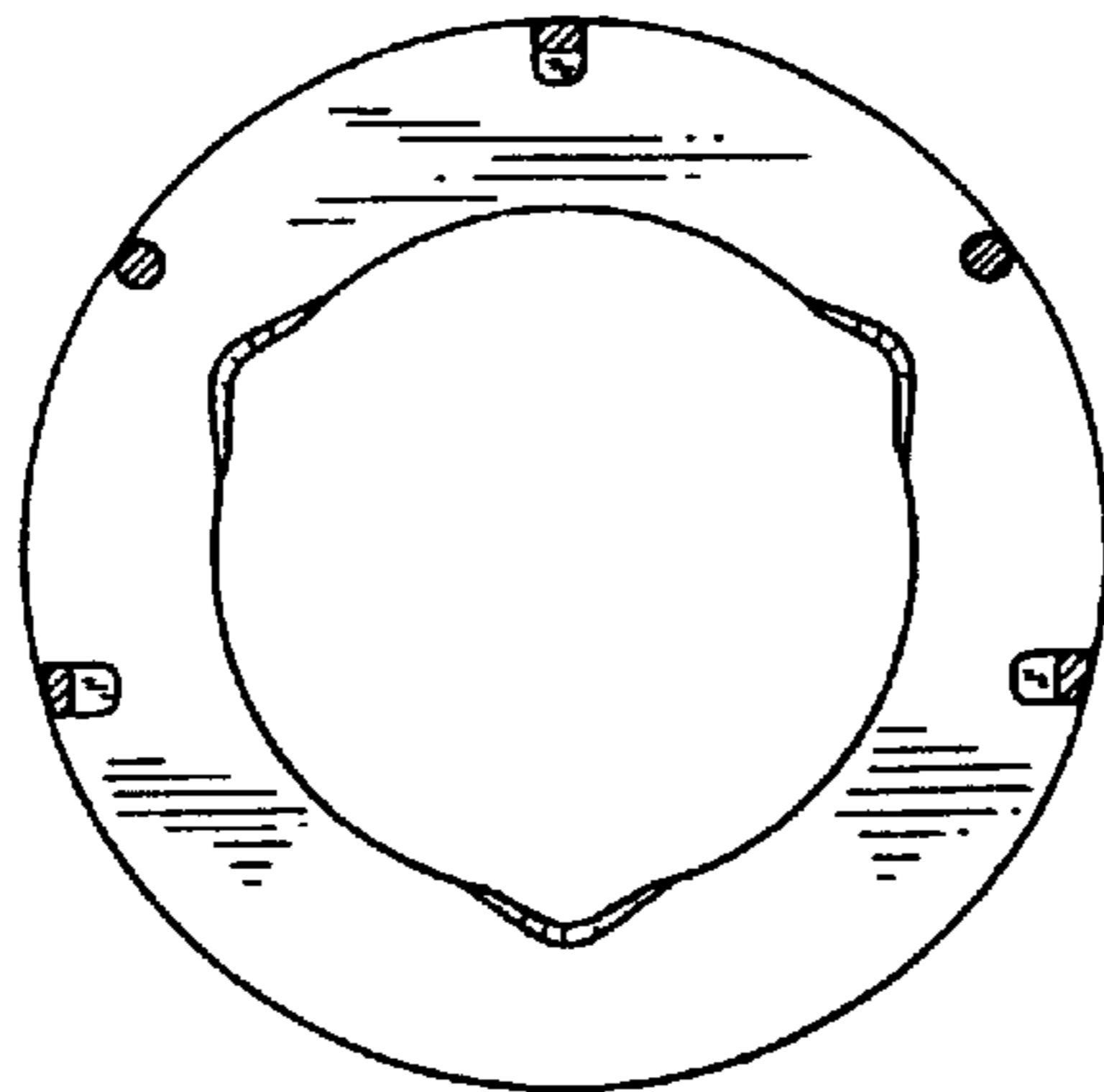


FIG. 4

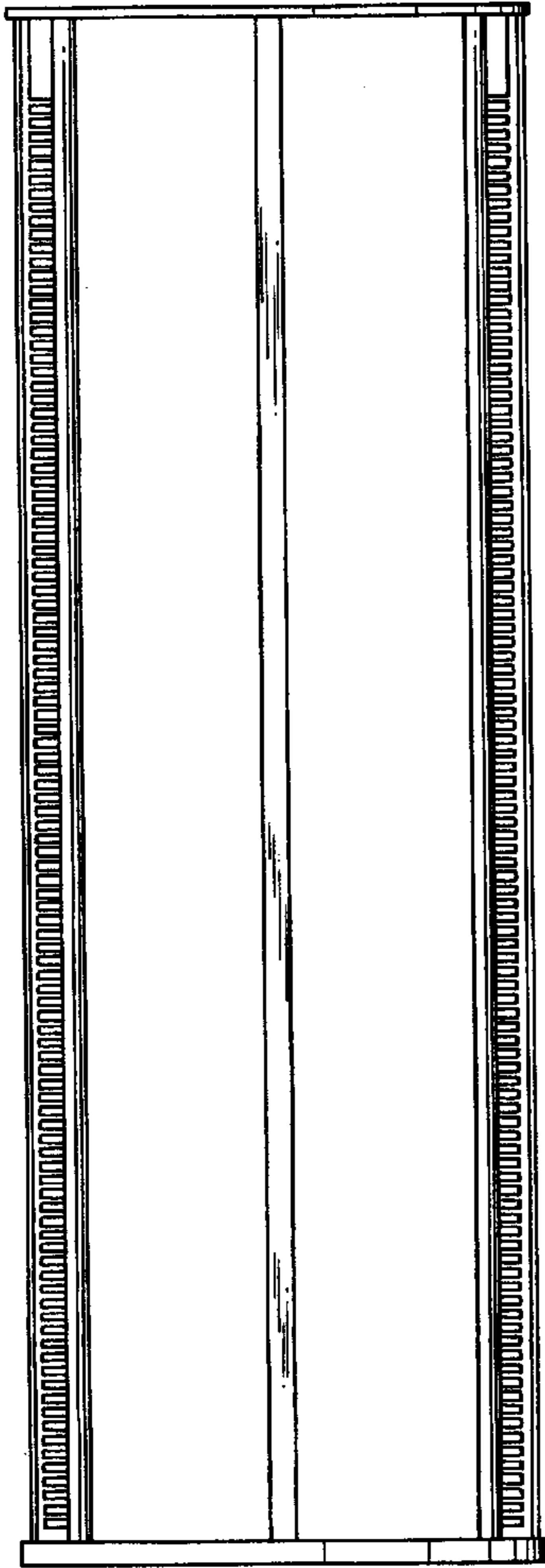


FIG. 5

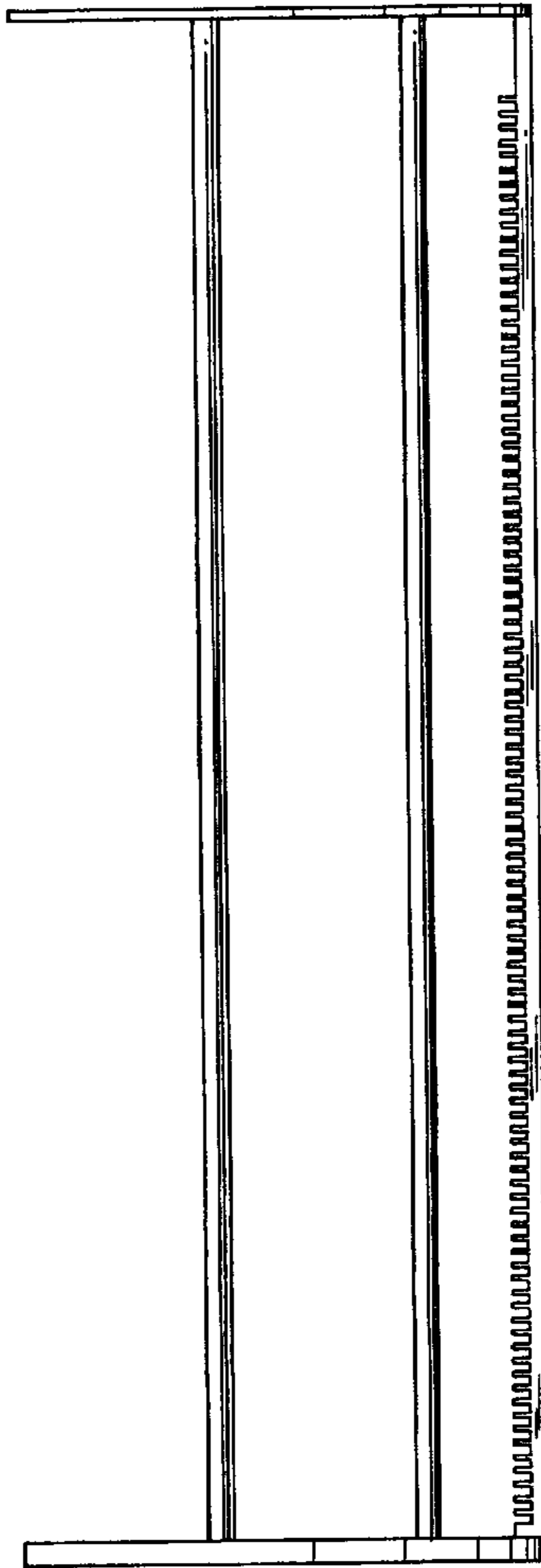


FIG. 6

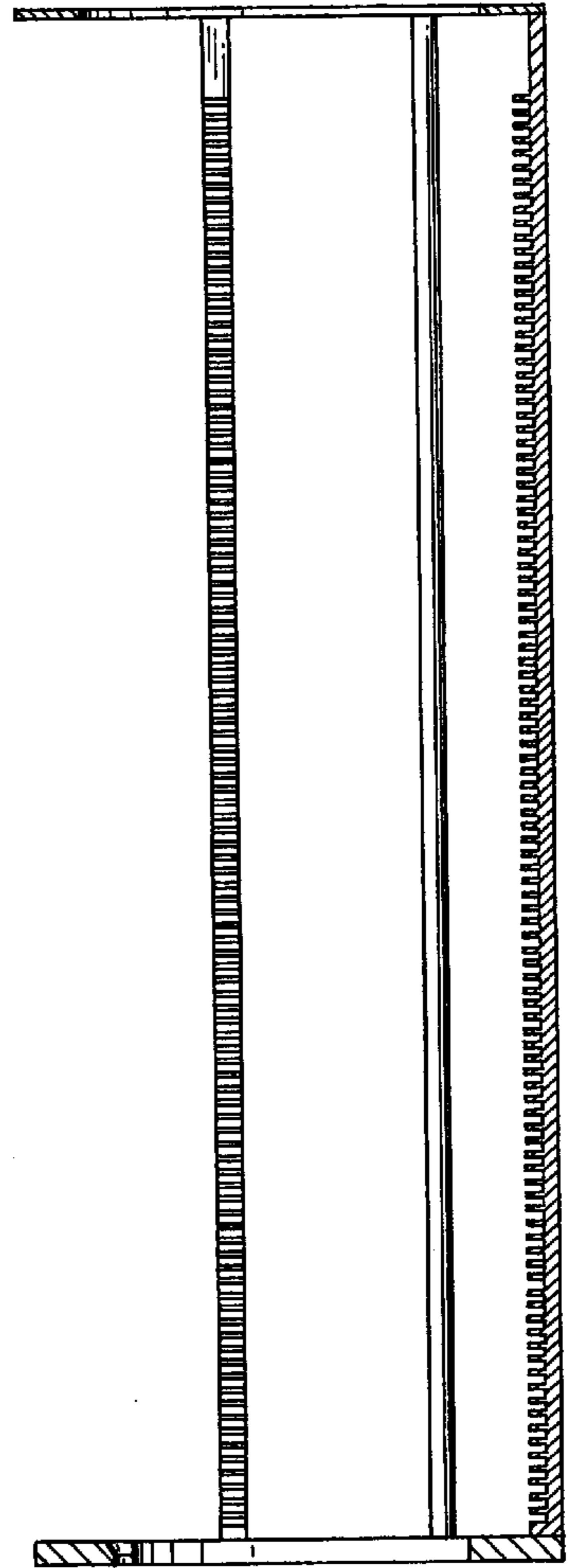


FIG. 7

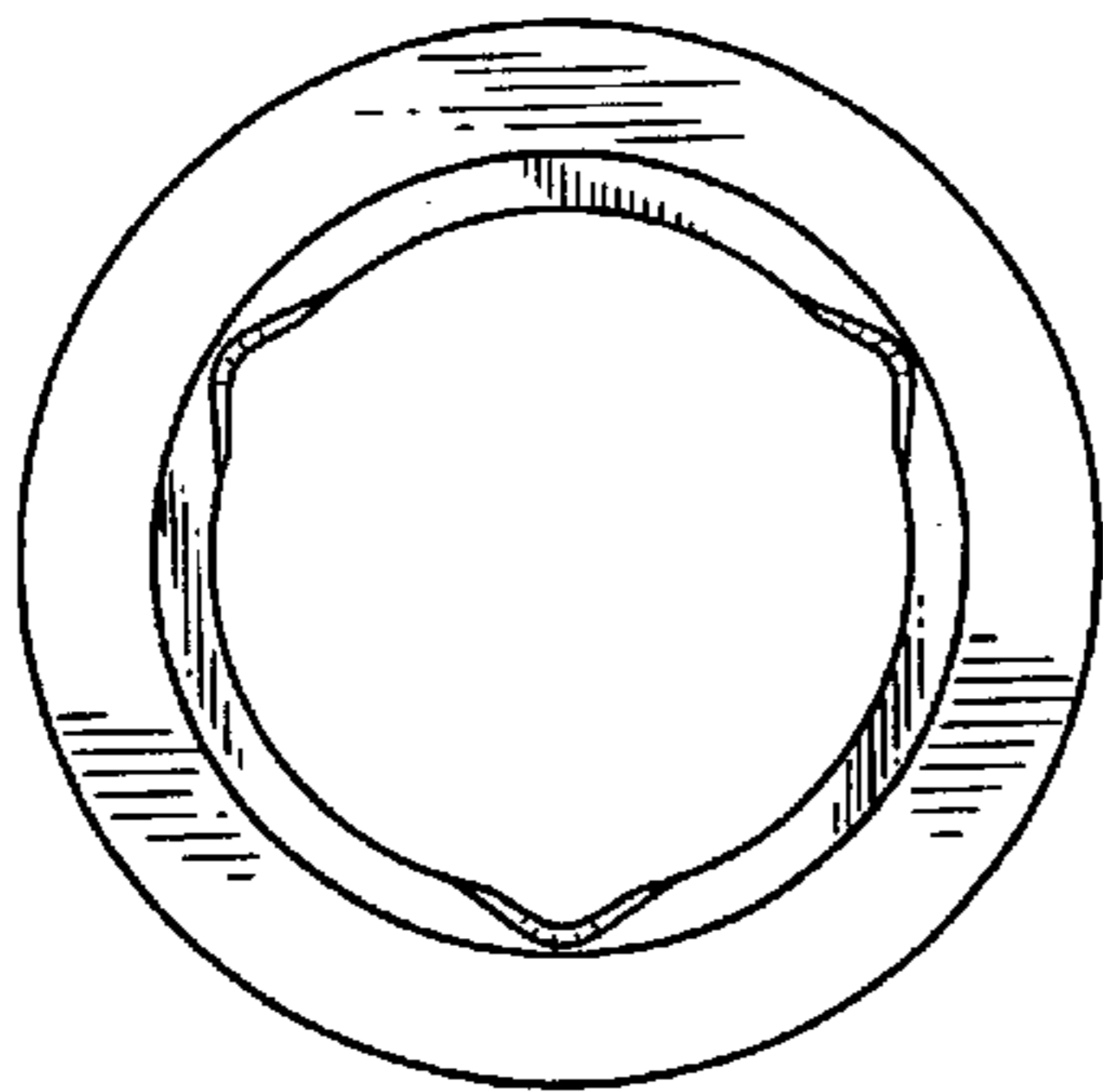


FIG. 8

