



US00D590359S

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

(10) **Patent No.:** **US D590,359 S**

(45) **Date of Patent:** **** Apr. 14, 2009**

(54) **PROCESS TUBE FOR MANUFACTURING SEMICONDUCTOR WAFERS OR THE LIKE**

(75) Inventor: **Hirofumi Kaneko**, Tokyo (JP)

(73) Assignee: **Tokyo Electron Limited**, Tokyo (JP)

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

(21) Appl. No.: **29/264,779**

(22) Filed: **Aug. 18, 2006**

(30) **Foreign Application Priority Data**

Feb. 20, 2006 (JP) 2006-003838

(51) **LOC (9) Cl.** **13-03**

(52) **U.S. Cl.** **D13/182**

(58) **Field of Classification Search** D13/182;
117/102; 118/715, 724, 725; 219/390, 486
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,618,349	A *	4/1997	Yuuki	.....	118/715
D404,368	S *	1/1999	Shimazu	.....	D13/182
D405,062	S *	2/1999	Shimazu	.....	D13/182
D406,113	S *	2/1999	Hanagata et al.	.....	D13/182
5,948,300	A *	9/1999	Gero et al.	.....	219/390
D424,024	S *	5/2000	Hanagata et al.	.....	D13/182
6,251,189	B1 *	6/2001	Odake et al.	.....	118/715
6,538,237	B1 *	3/2003	Yang et al.	.....	219/390
D520,467	S *	5/2006	Ishii et al.	.....	D13/182
D521,464	S *	5/2006	Ishii et al.	.....	D13/182
D521,465	S *	5/2006	Ishii et al.	.....	D13/182
7,311,520	B2 *	12/2007	Saito et al.	.....	432/247
2002/0014483	A1 *	2/2002	Suzuki et al.	.....	219/486

* cited by examiner

Primary Examiner—Selina Sikder
(74) *Attorney, Agent, or Firm*—Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

(57) **CLAIM**

The ornamental design for a process tube for manufacturing semiconductor wafers or the like, as shown and described.

DESCRIPTION

FIG. 1 is a front elevational view of the process tube for manufacturing semiconductor wafers or the like, showing my new design;

FIG. 2 is a rear elevational view thereof;

FIG. 3 is a top plan view thereof;

FIG. 4 is a bottom plan view thereof;

FIG. 5 is a right side elevational view thereof;

FIG. 6 is a left side elevational view thereof;

FIG. 7 is an enlarged cross-sectional view thereof taken along line 7—7 in FIG. 3

FIG. 8 is an enlarged cross-sectional view thereof taken along line 8—8 in FIG. 3

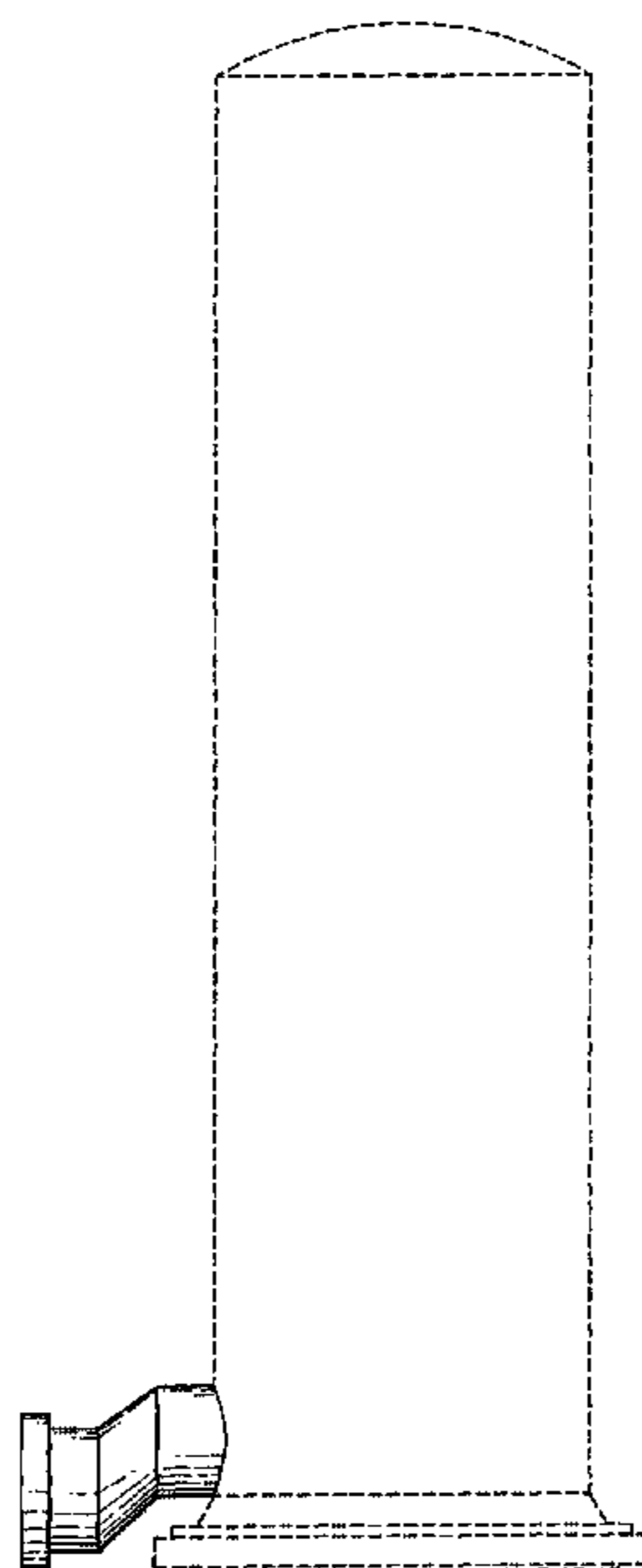
FIG. 9 is an enlarged cross-sectional view thereof taken along line 9—9 in FIG. 3

FIG. 10 is a vertical cross-sectional view thereof taken along line 10—10 in FIG. 3; and,

FIG. 11 is a bottom and right side perspective view thereof shown on reduced scale.

The broken line showing in the figures is for illustrative purposes only and forms no part of the claimed design.

1 Claim, 9 Drawing Sheets



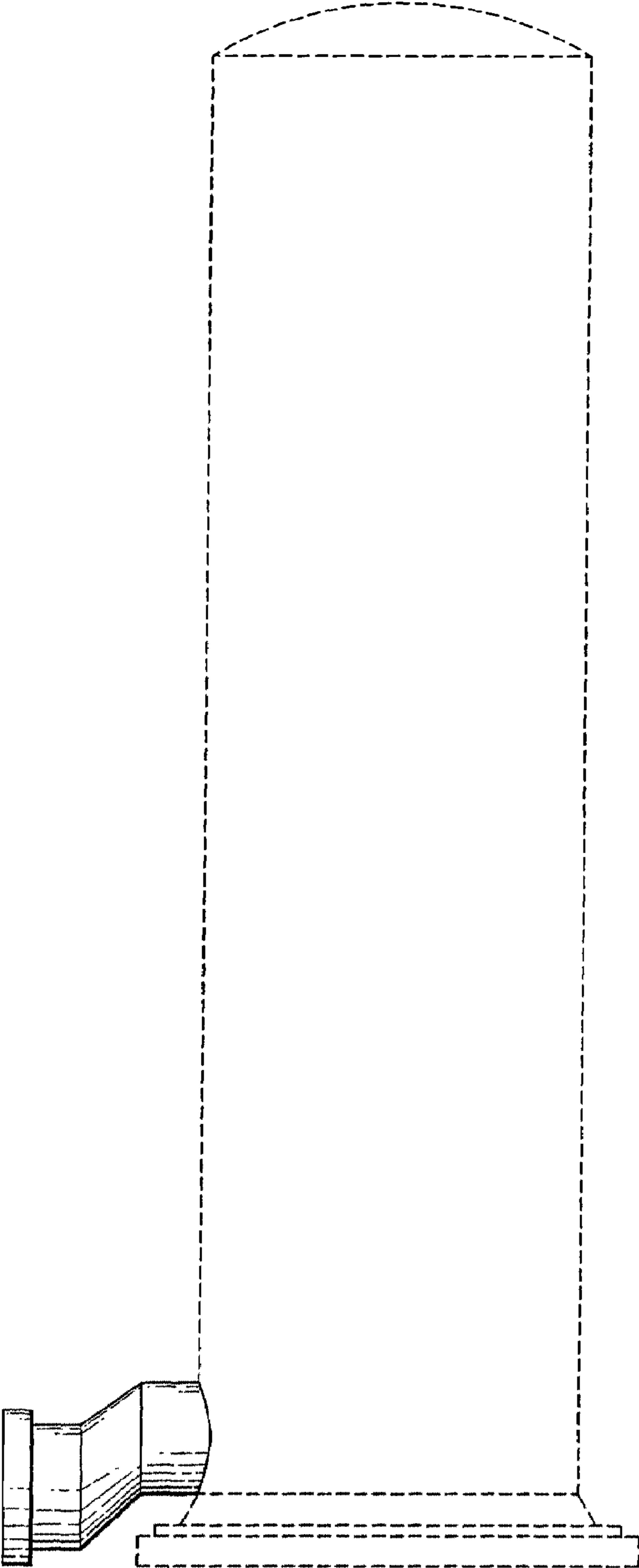


Fig. 1

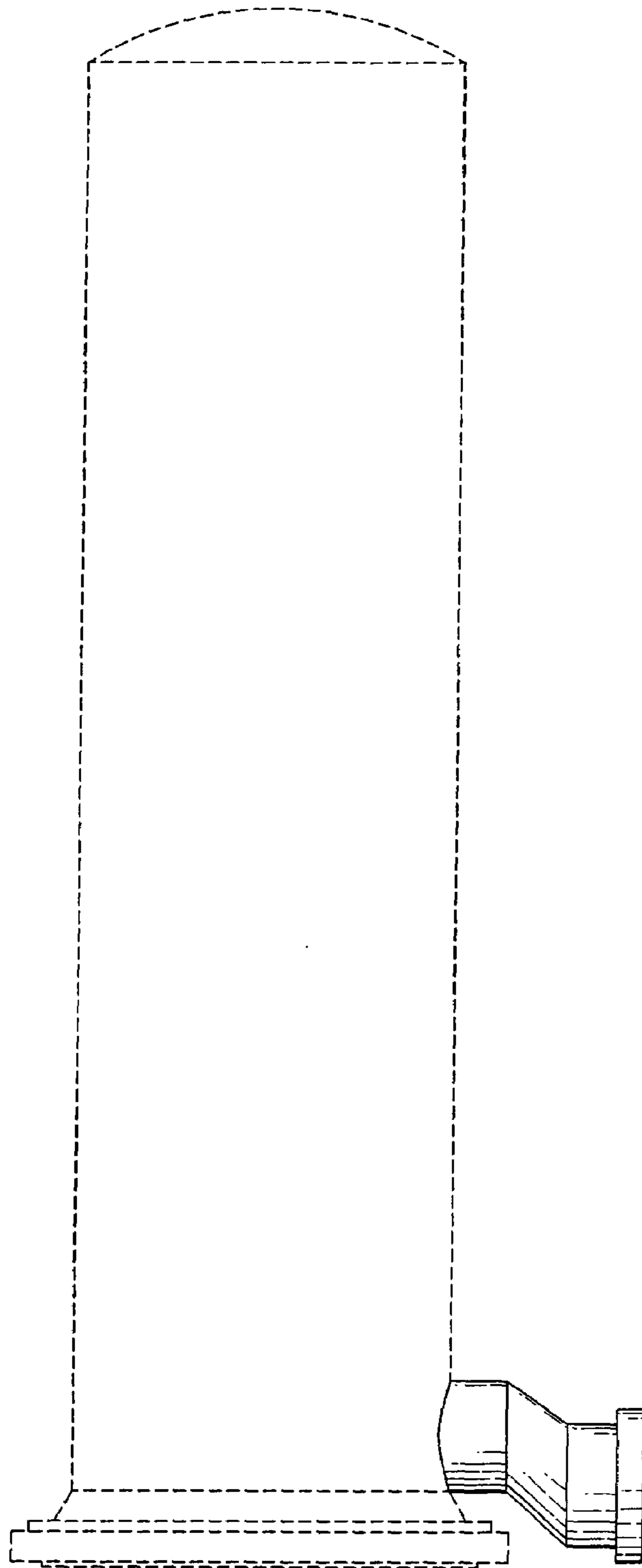


Fig. 2

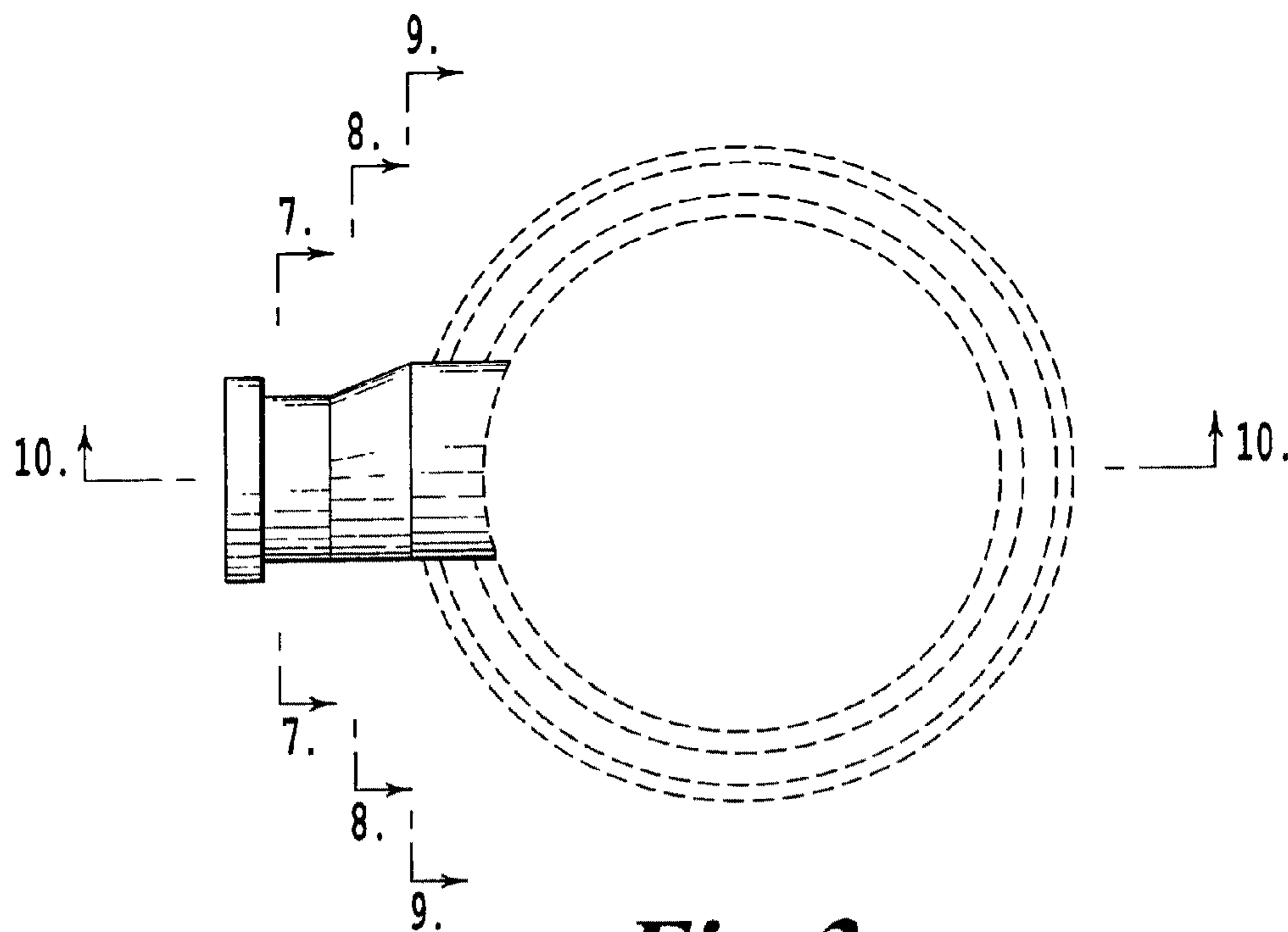


Fig. 3

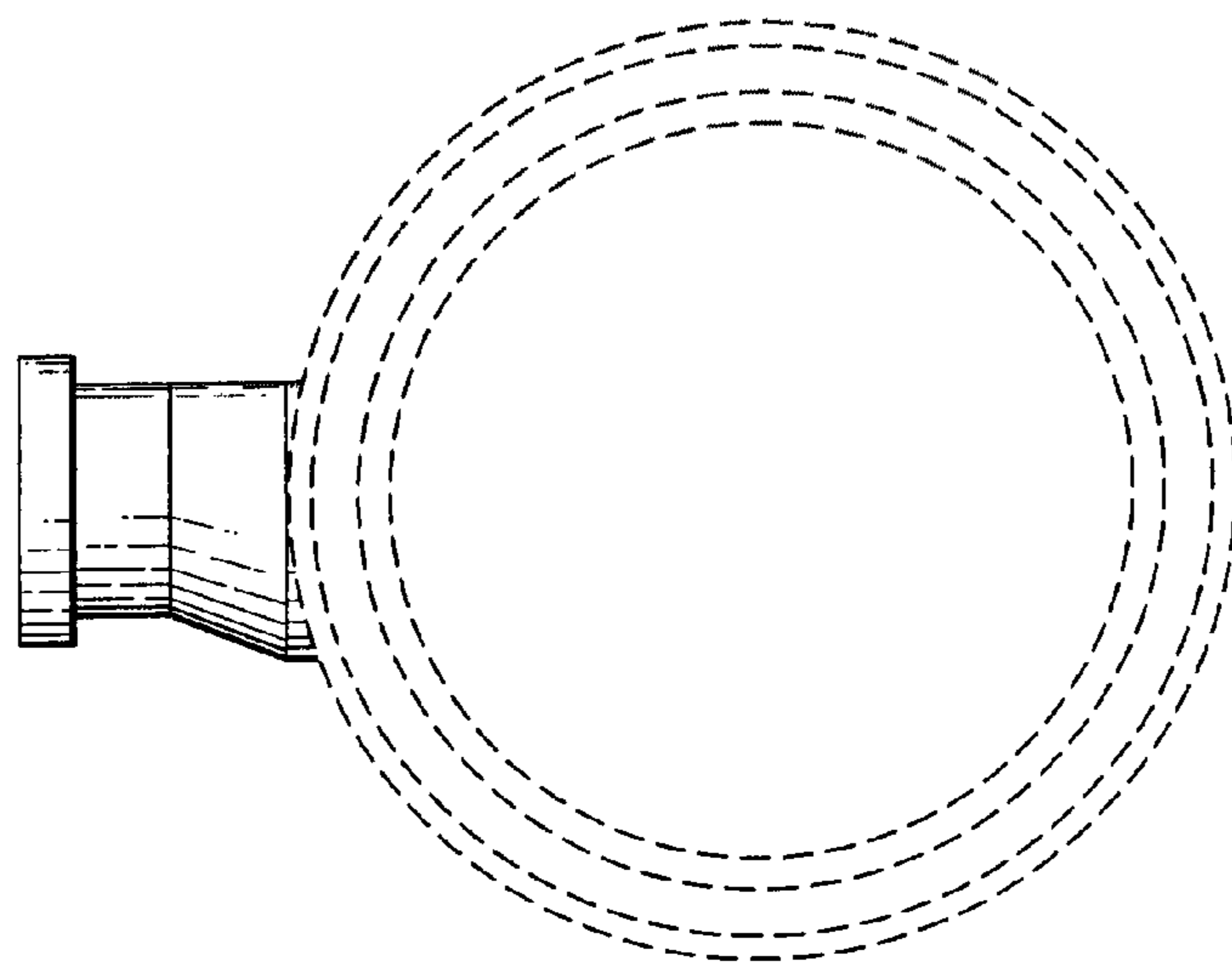


Fig. 4

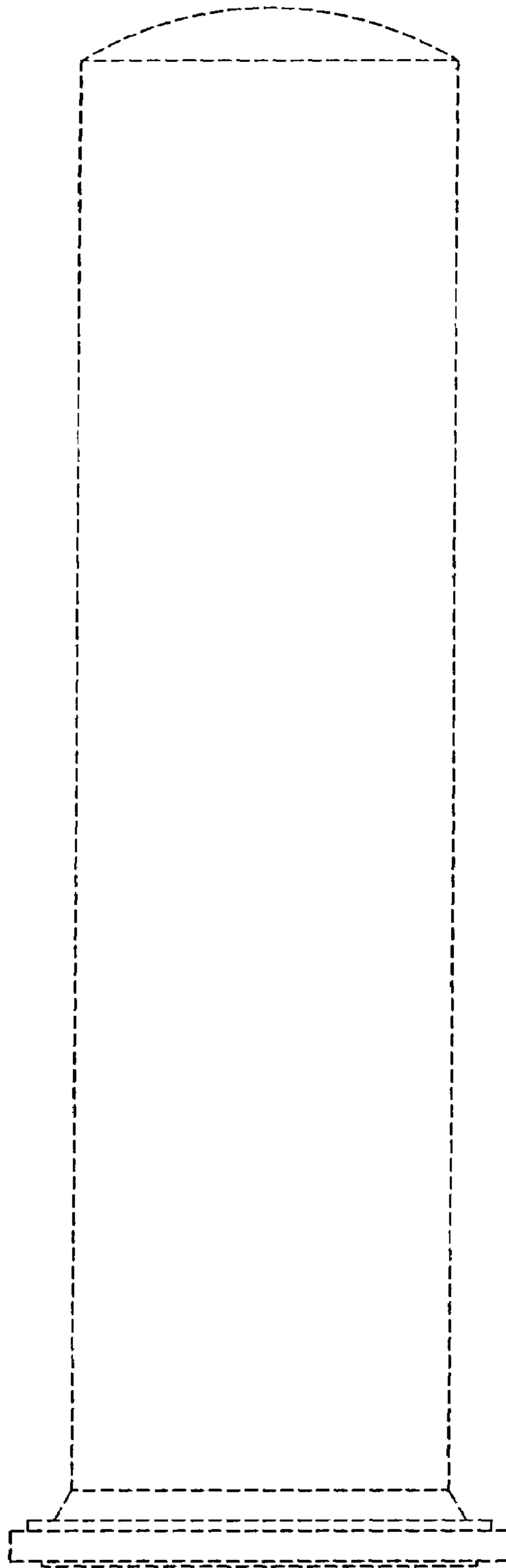


Fig. 5

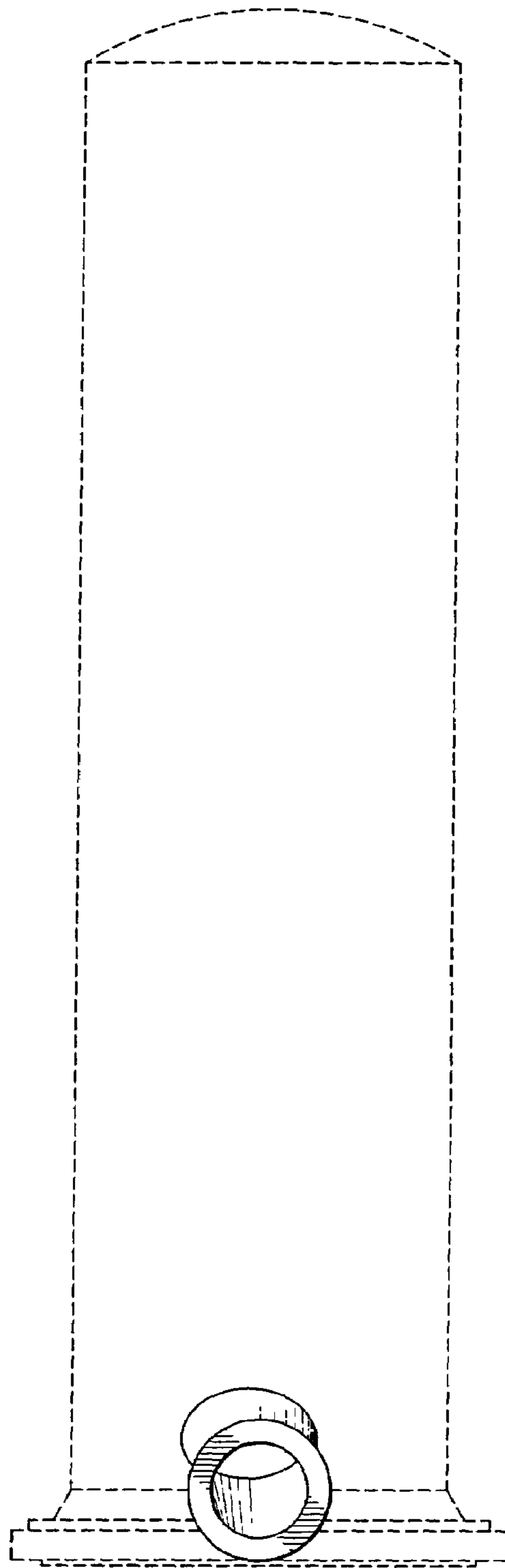


Fig. 6

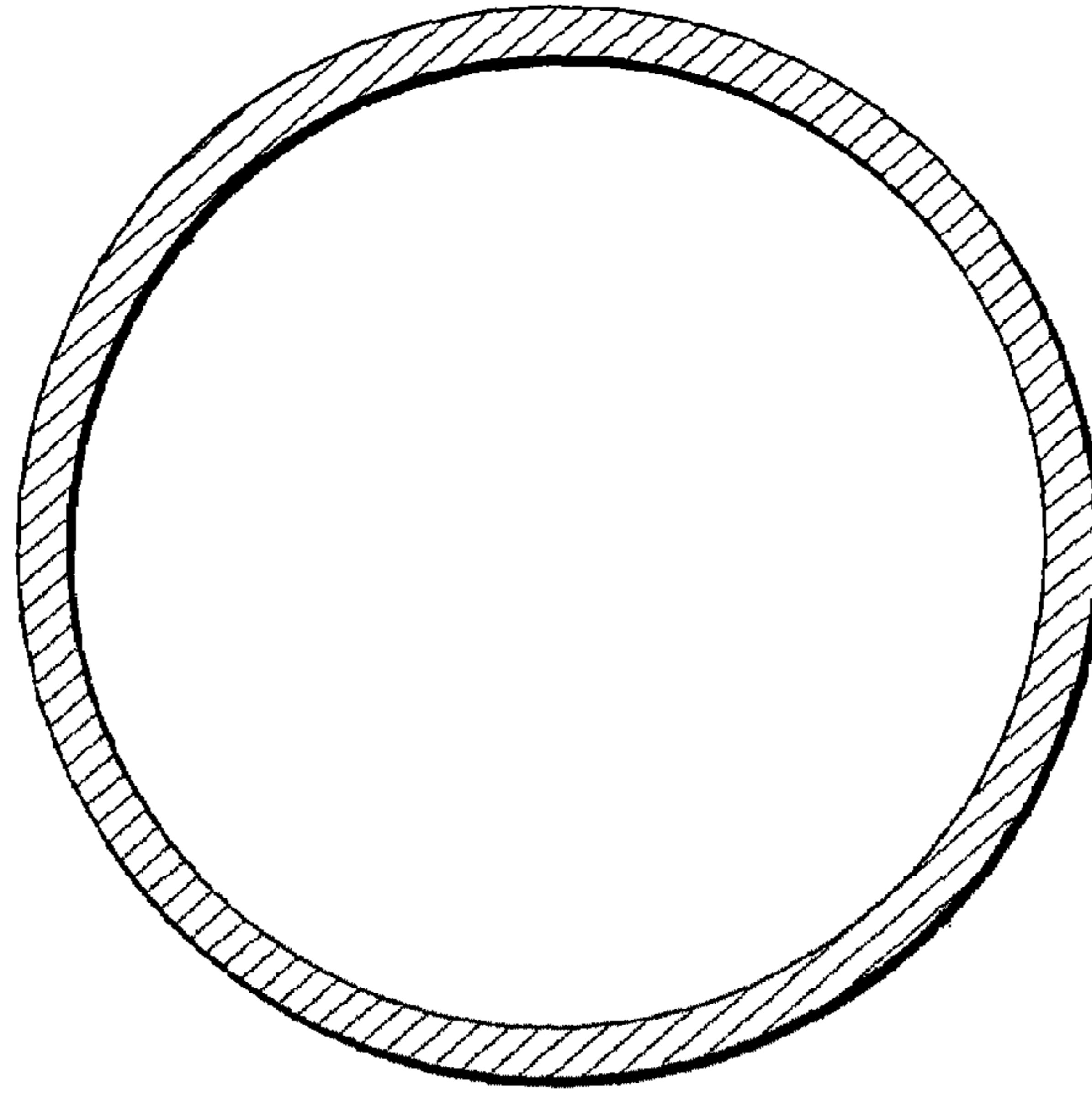


Fig. 7

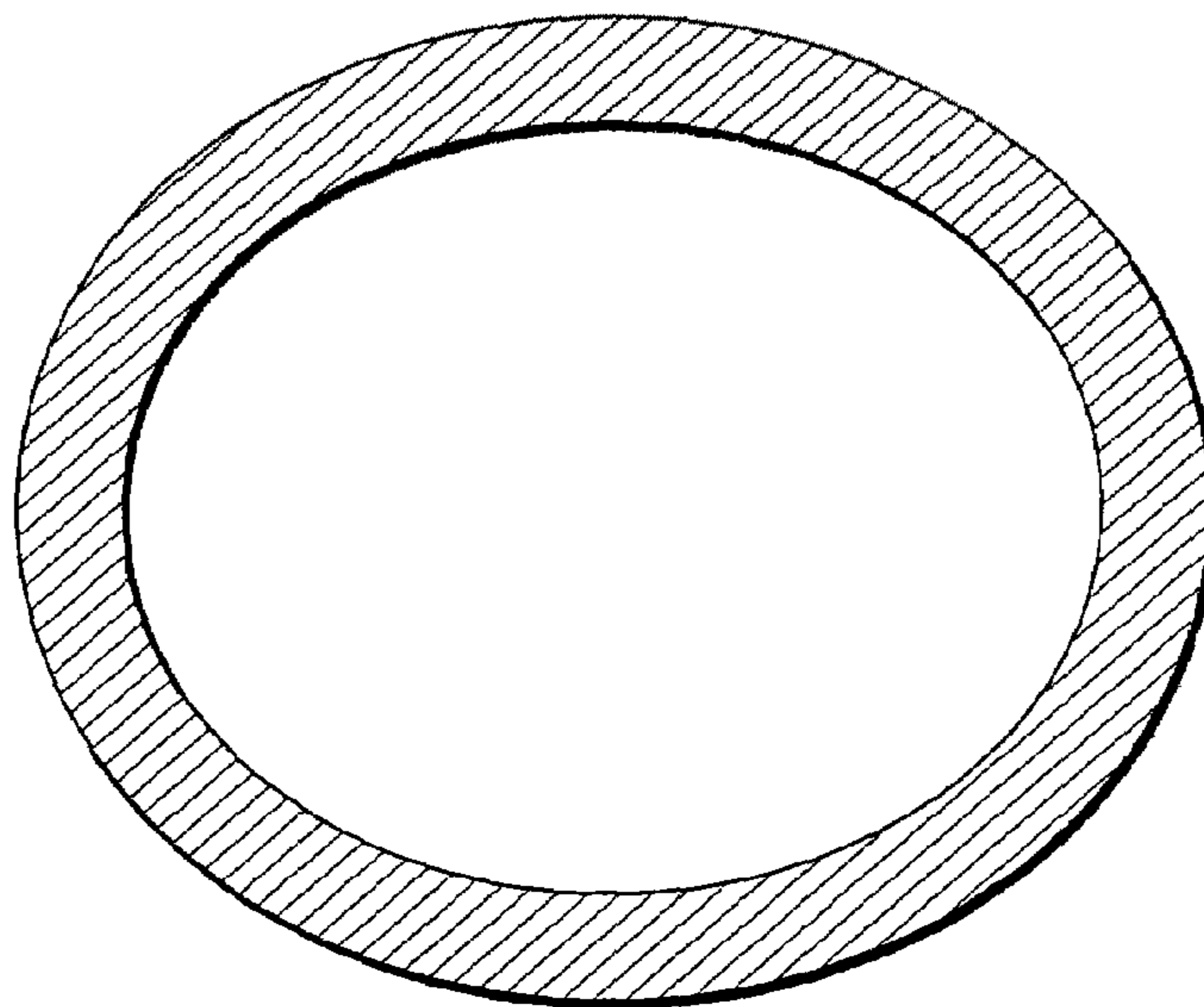


Fig. 8

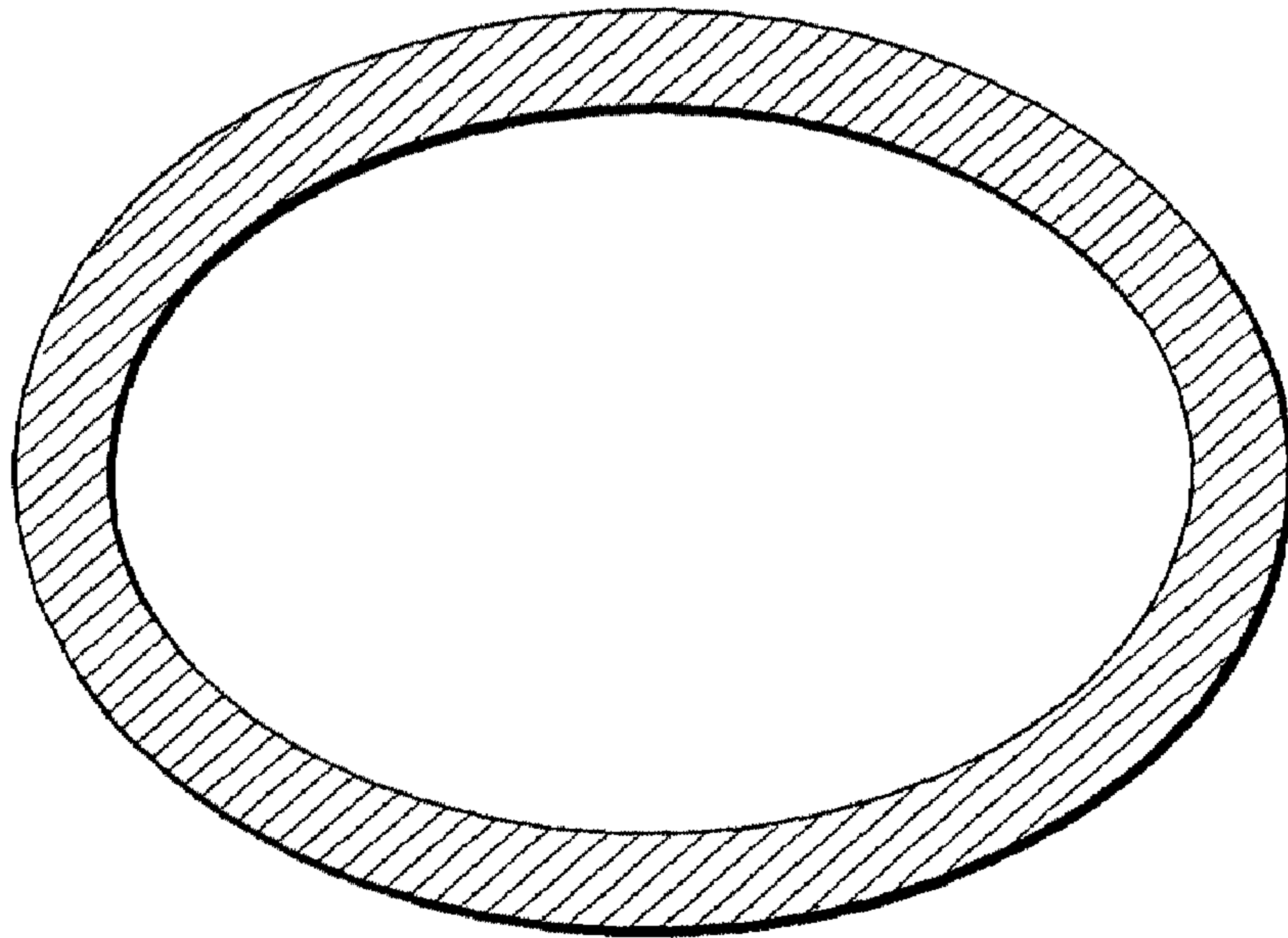


Fig. 9

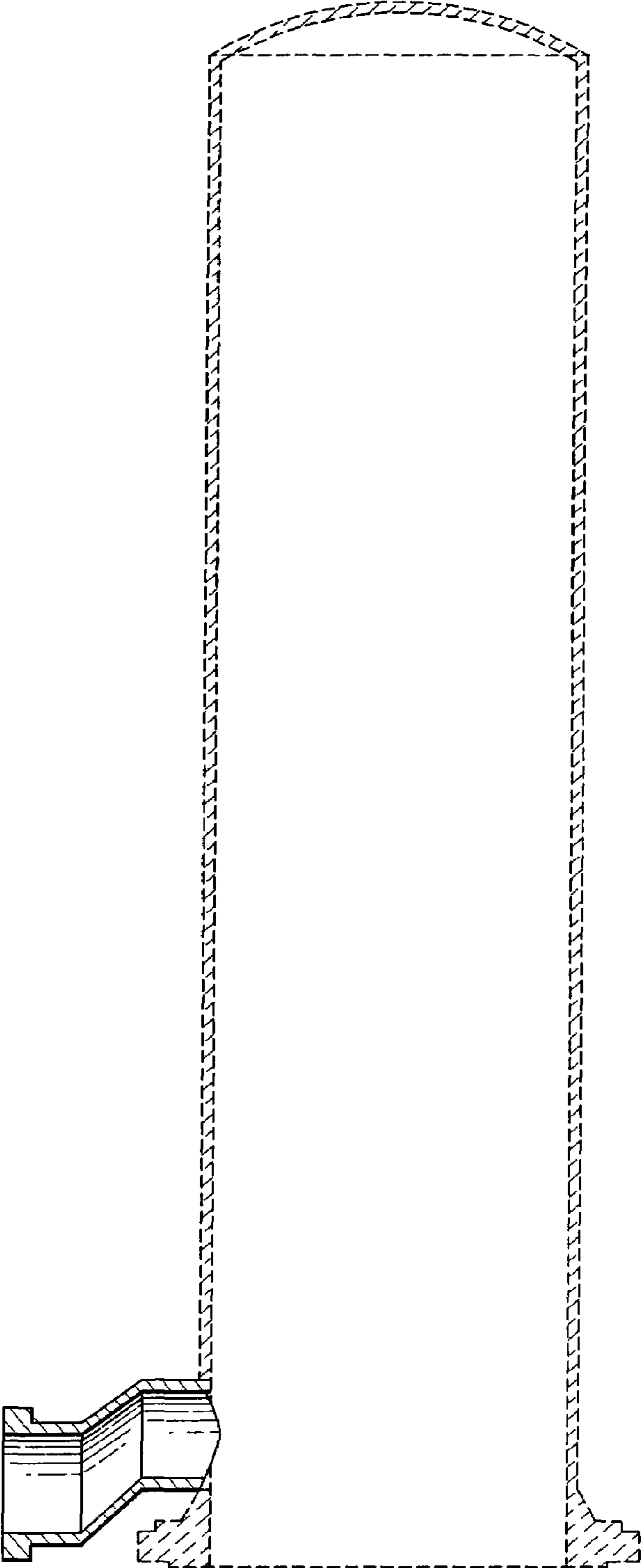


Fig. 10

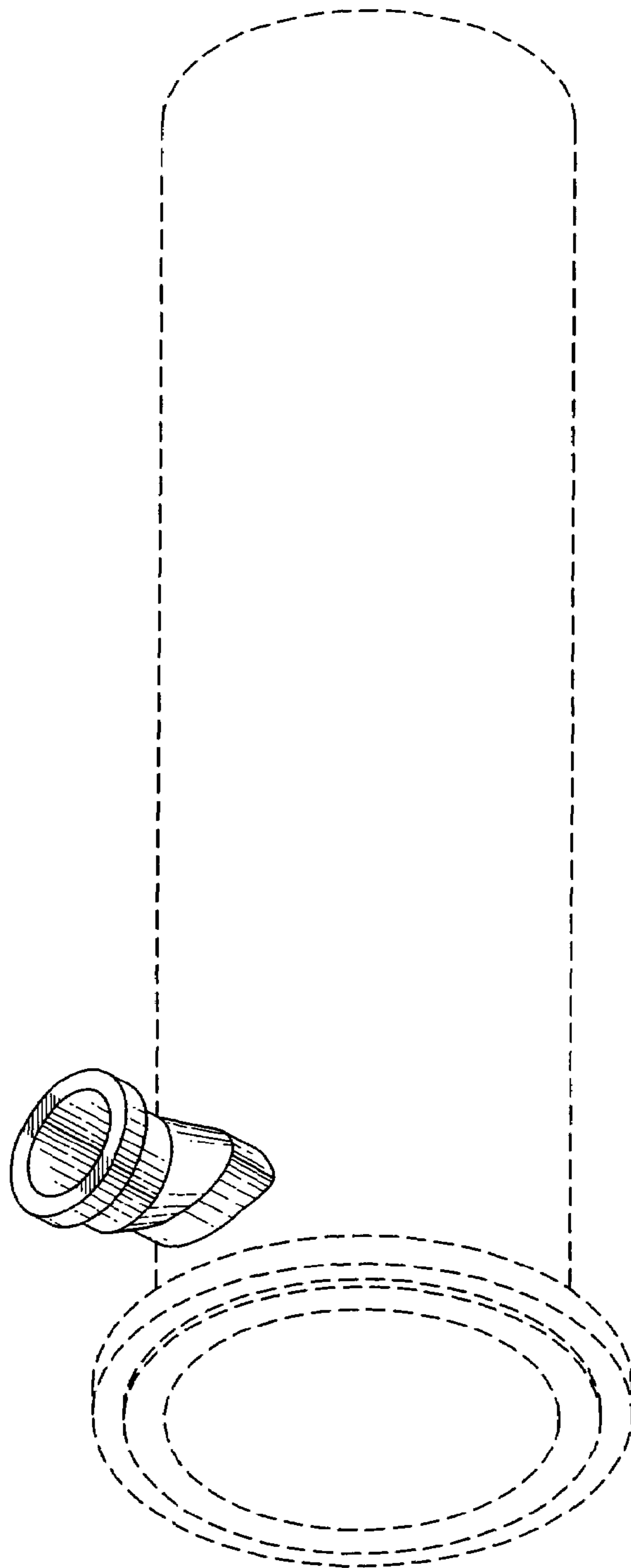


Fig. 11