



US00D613816S

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

(10) **Patent No.:** **US D613,816 S**

(45) **Date of Patent:** **** Apr. 13, 2010**

(54) **MOTIONLESS MIXER**

(75) Inventor: **Hisao Kojima**, Kanagawa (JP)

(73) Assignee: **Anemos Company Ltd.**, Tokyo (JP)

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

(21) Appl. No.: **29/266,815**

(22) Filed: **Sep. 29, 2006**

(30) **Foreign Application Priority Data**

Mar. 30, 2006 (JP) D2006-010885

(51) **LOC (9) Cl.** **23-01**

(52) **U.S. Cl.** **D23/200; D23/263**

(58) **Field of Classification Search** D23/200,
D23/207, 266, 263; 138/37, 39, 42; 366/336-340
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,183,682	A *	1/1980	Lieffers	.....	366/339
4,466,741	A	8/1984	Kojima		
4,514,095	A *	4/1985	Ehrfeld et al.	.....	366/340
4,643,584	A *	2/1987	Allocca	.....	366/337
4,747,697	A	5/1988	Kojima		
4,824,614	A *	4/1989	Jones	.....	261/76
4,850,705	A *	7/1989	Horner	.....	366/339
5,758,967	A *	6/1998	King	.....	366/337
6,109,781	A *	8/2000	Ogasawara et al.	.....	366/336
D436,647	S *	1/2001	Etschel et al.	.....	D23/200
7,137,731	B2 *	11/2006	Carlson	.....	366/337

FOREIGN PATENT DOCUMENTS

JP	H10-85721	A	4/1998
JP	2001-62269	A	3/2001
JP	2005-219036	A	8/2005
WO	WO-00/24502	A1	5/2000

OTHER PUBLICATIONS

S. Hagiwara et al., "Motionless Mixer—Basis & Application", NDC 571.3, Sep. 30, 1981, P1-P7, The Nikkan Kogyo Shimbun Ltd., Tokyo, Japan.

* cited by examiner

Primary Examiner—Robin V Webster

(74) *Attorney, Agent, or Firm*—Ditthavong Mori & Steiner, P.C.

(57) **CLAIM**

The ornamental design for a motionless mixer, as shown.

DESCRIPTION

FIG. 1 is a left side elevational view of a motionless mixer showing my new design;

FIG. 2 is a right side elevational view thereof;

FIG. 3 is a front side elevational view thereof;

FIG. 4 is a rear elevational view thereof;

FIG. 5 is a top plan view thereof;

FIG. 6 is a bottom plan view thereof;

FIG. 7 is a cross-sectional perspective view thereof, taken along a line VII—VII of FIG. 3;

FIG. 8 is a cross-sectional left side elevational view thereof, taken along a VIII—VIII of FIG. 3;

FIG. 9 is a cross-sectional perspective view thereof, taken along a line IX—IX of FIG. 3;

FIG. 10 is a cross-sectional right side elevational view thereof, taken along a line X—X of FIG. 3;

FIG. 11 is a cross-sectional view thereof, taken along a line XI—XI in a direction of arrows of FIG. 3;

FIG. 12 is a cross-sectional view thereof, taken along a line XII—XII in a direction of arrows of FIG. 3;

FIG. 13 is a reference cross-sectional view thereof, taken along a line XIII—XIII in a direction of arrows of FIG. 3; and,

FIG. 14 is a reference cross-sectional view thereof, taken along a line XIV—XIV in a direction of arrows of FIG. 3.

1 Claim, 14 Drawing Sheets

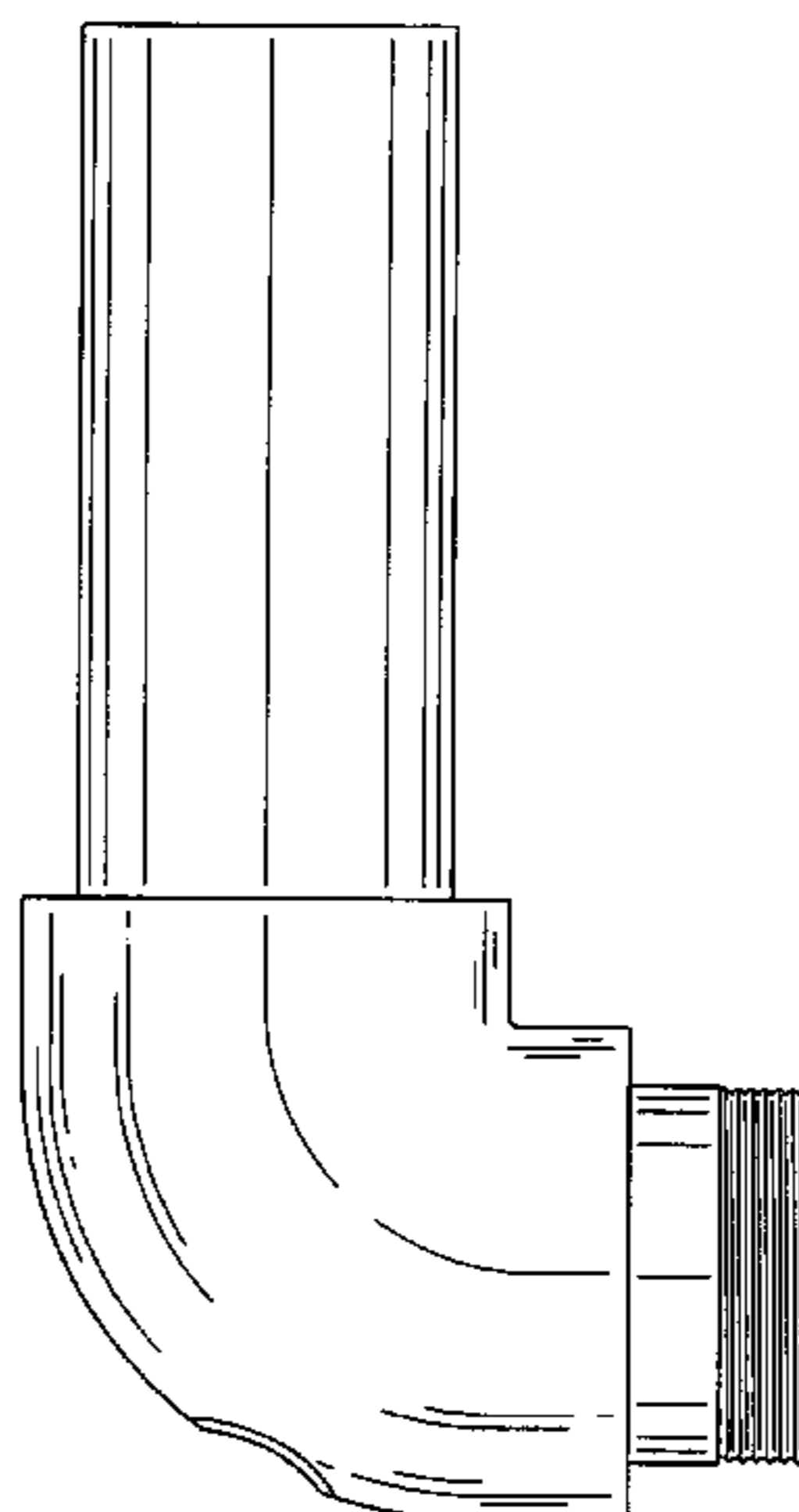


Fig. 1

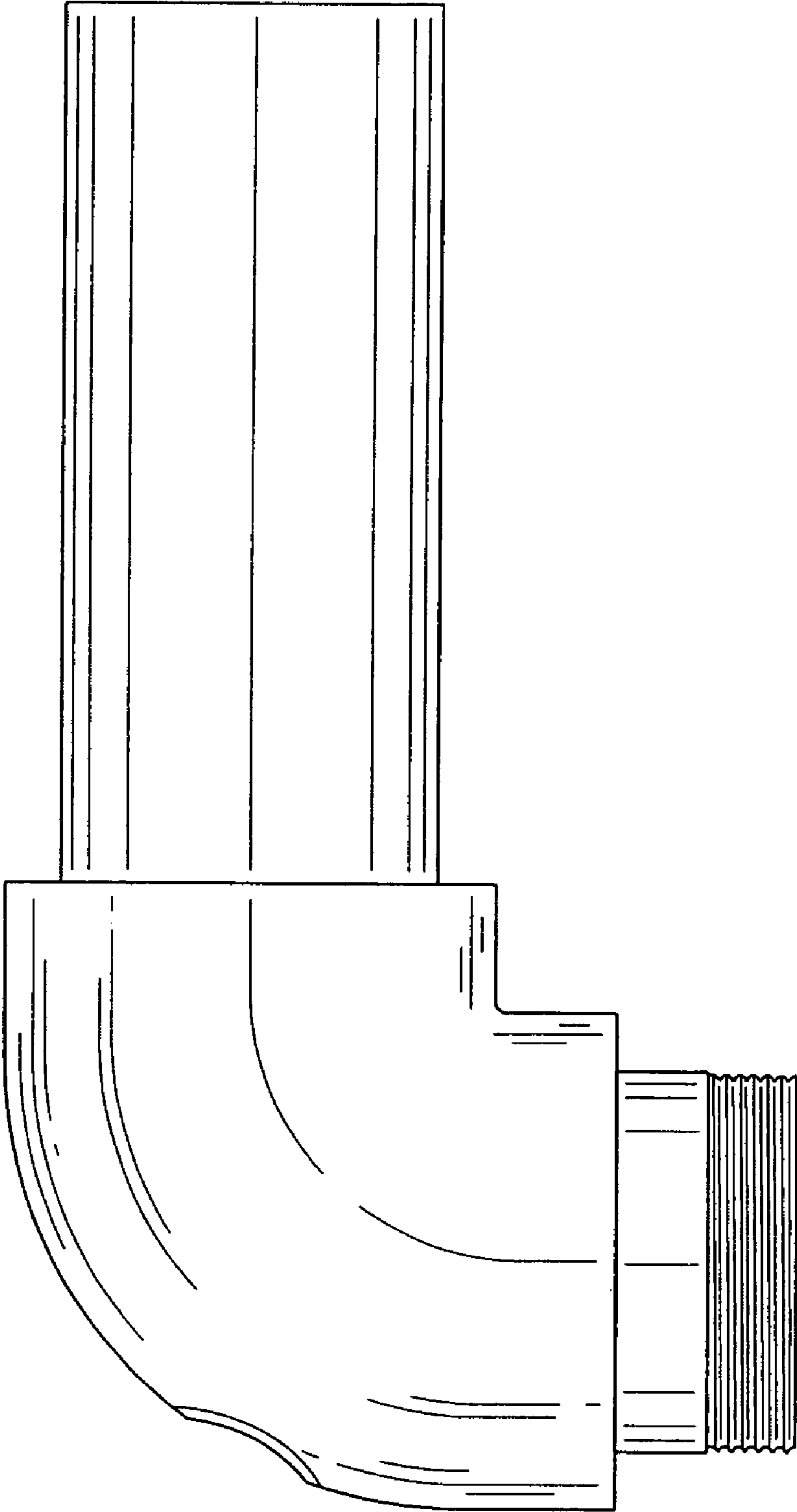


Fig.2

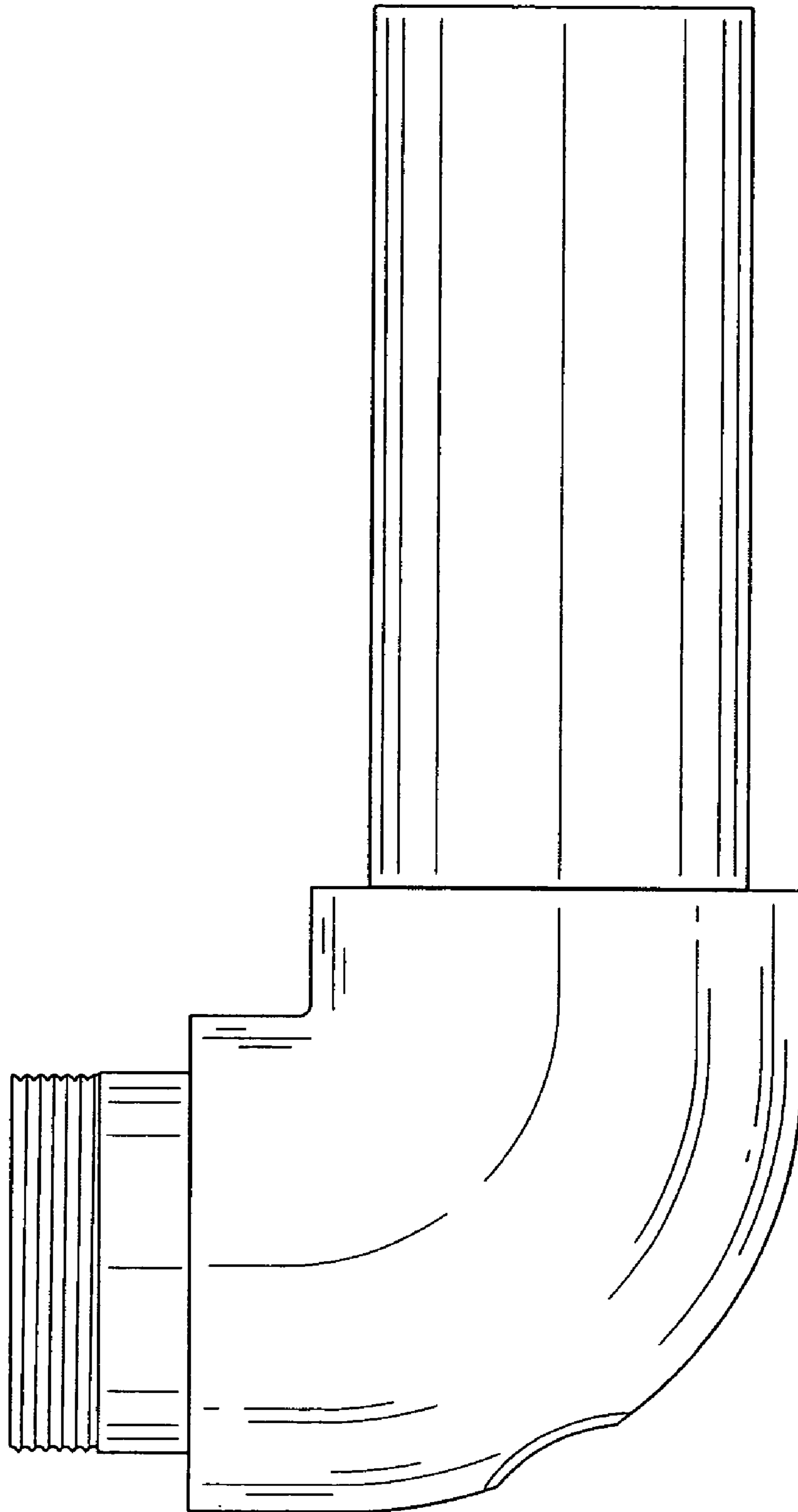


Fig.3

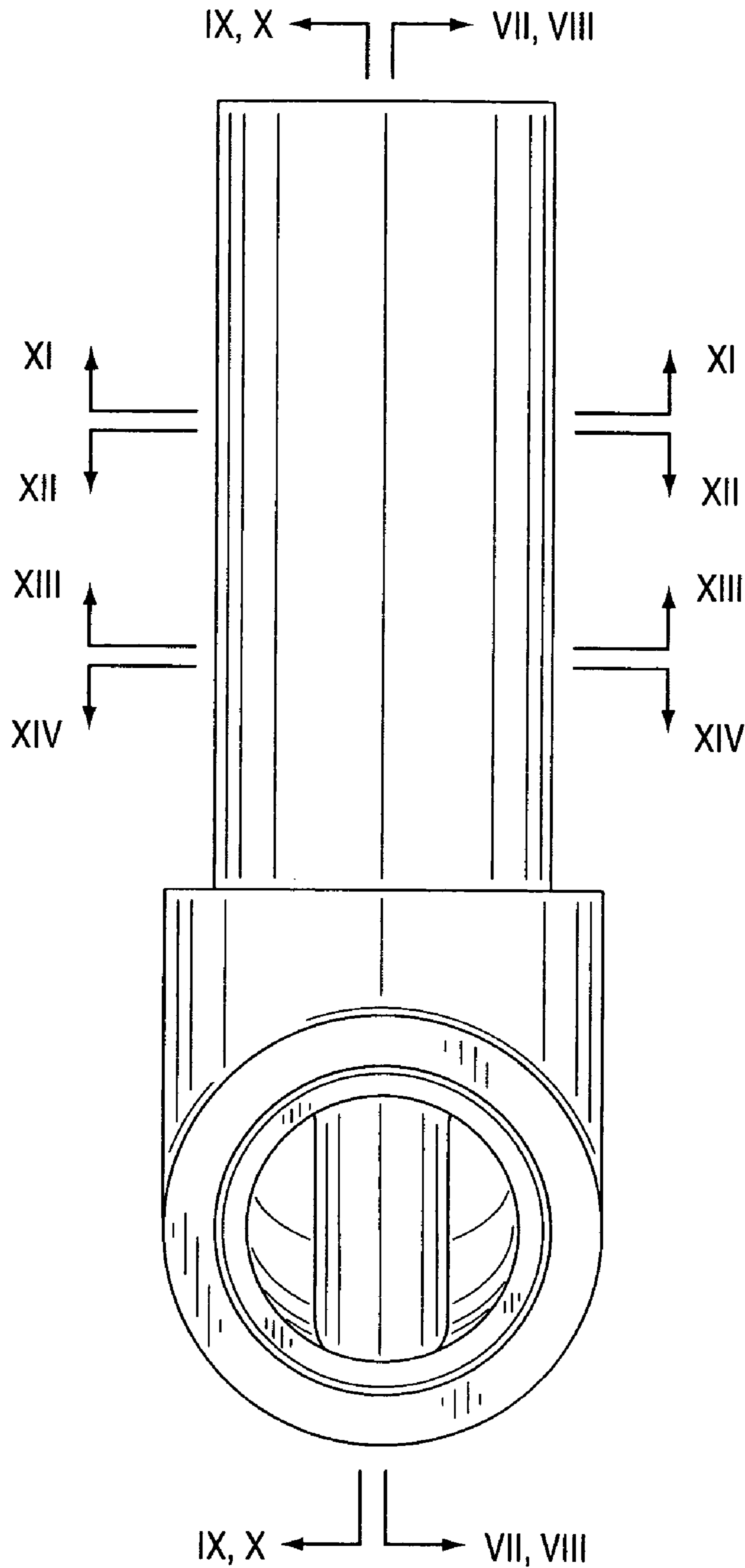


Fig.4

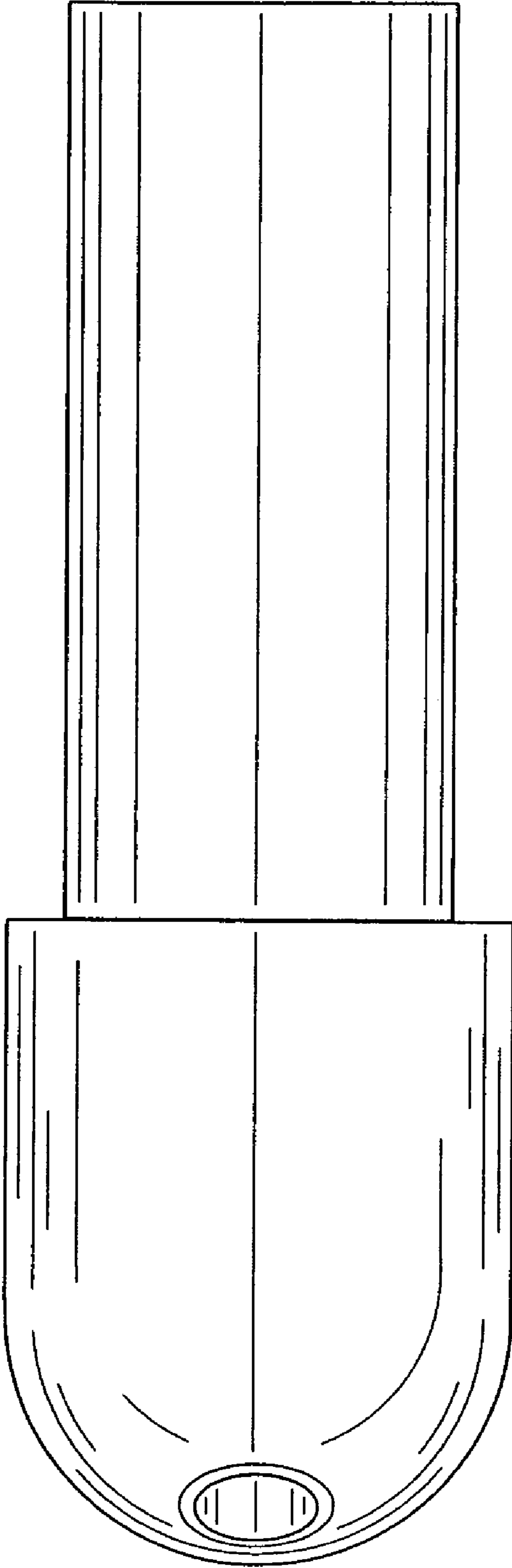


Fig.5

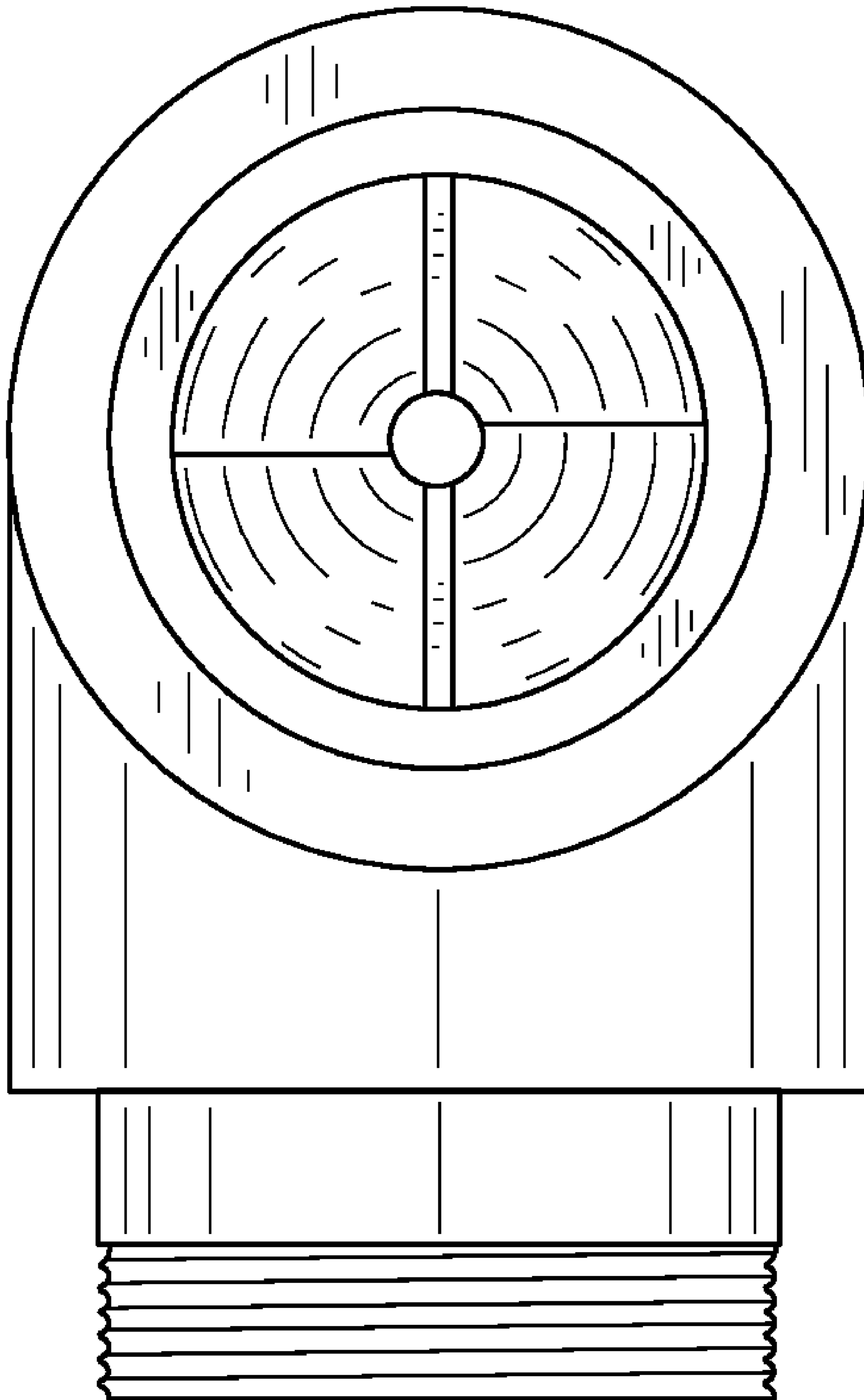
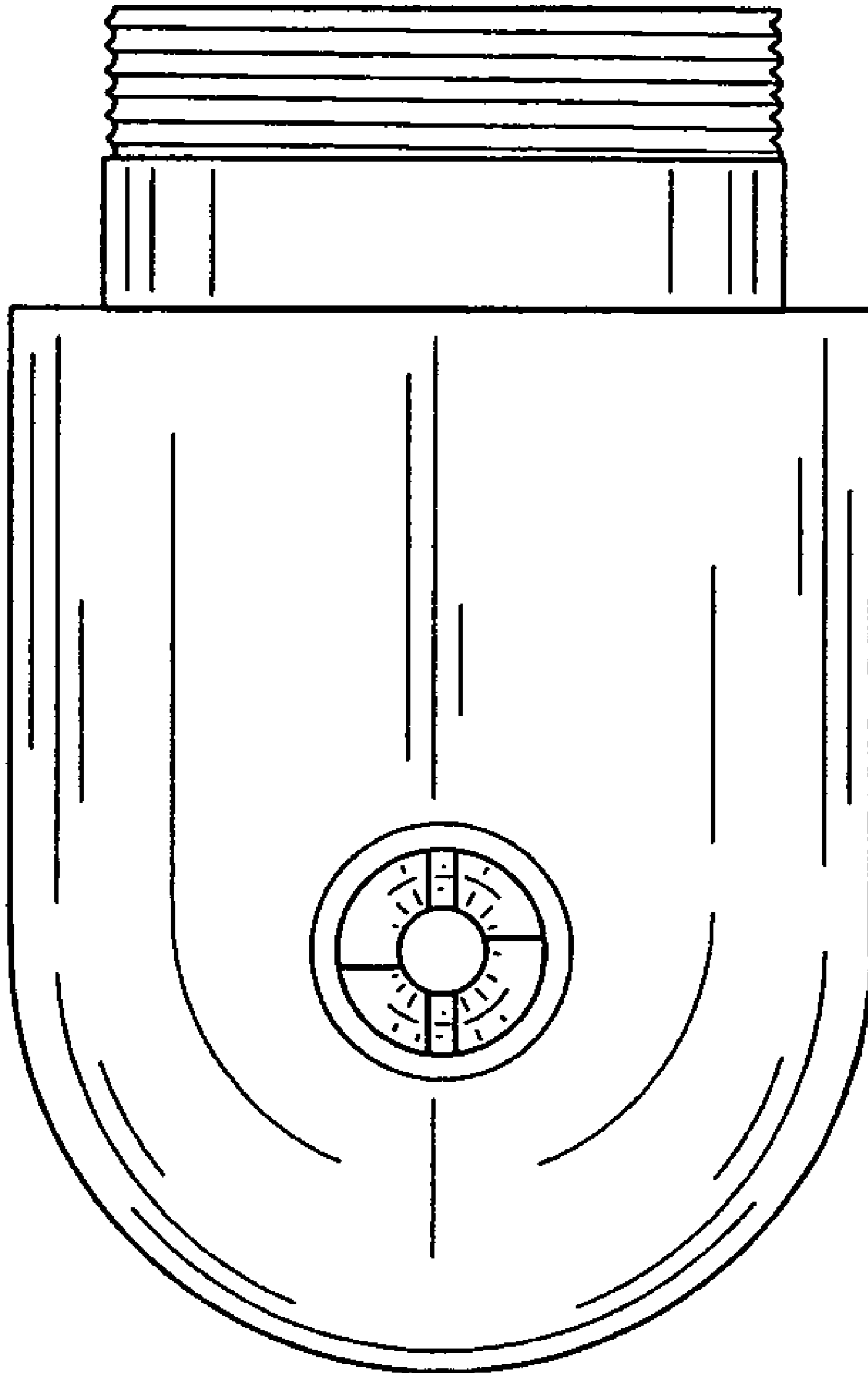


Fig. 6



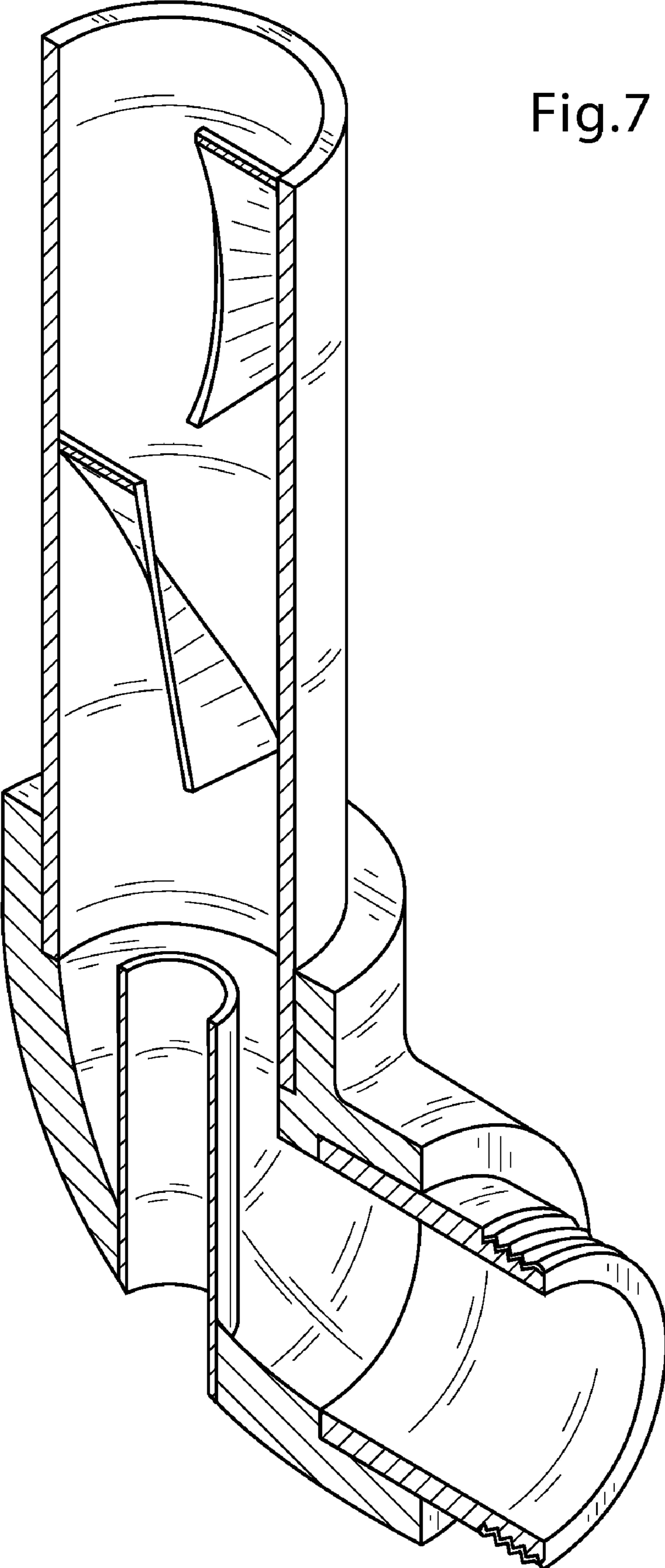
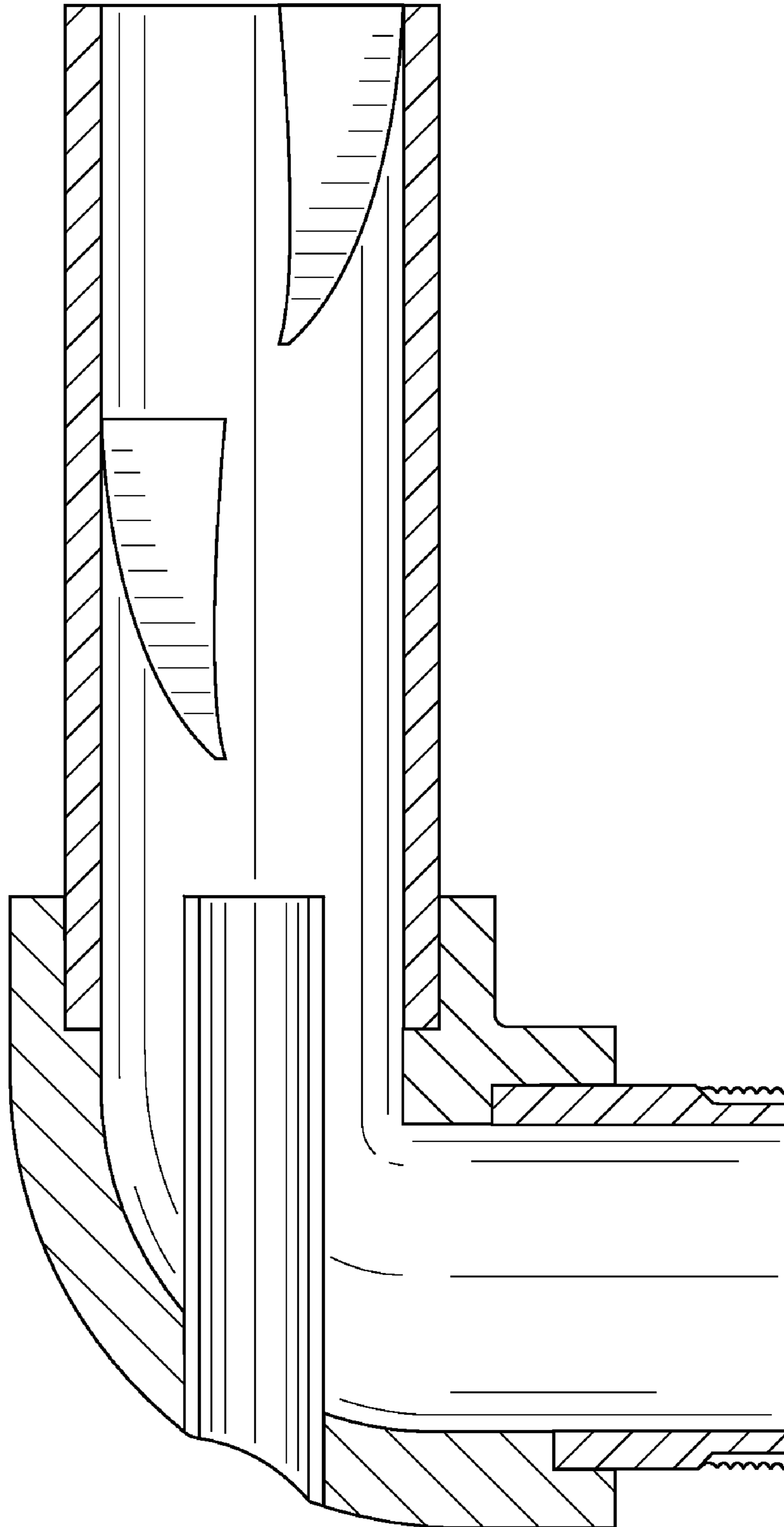


Fig.8



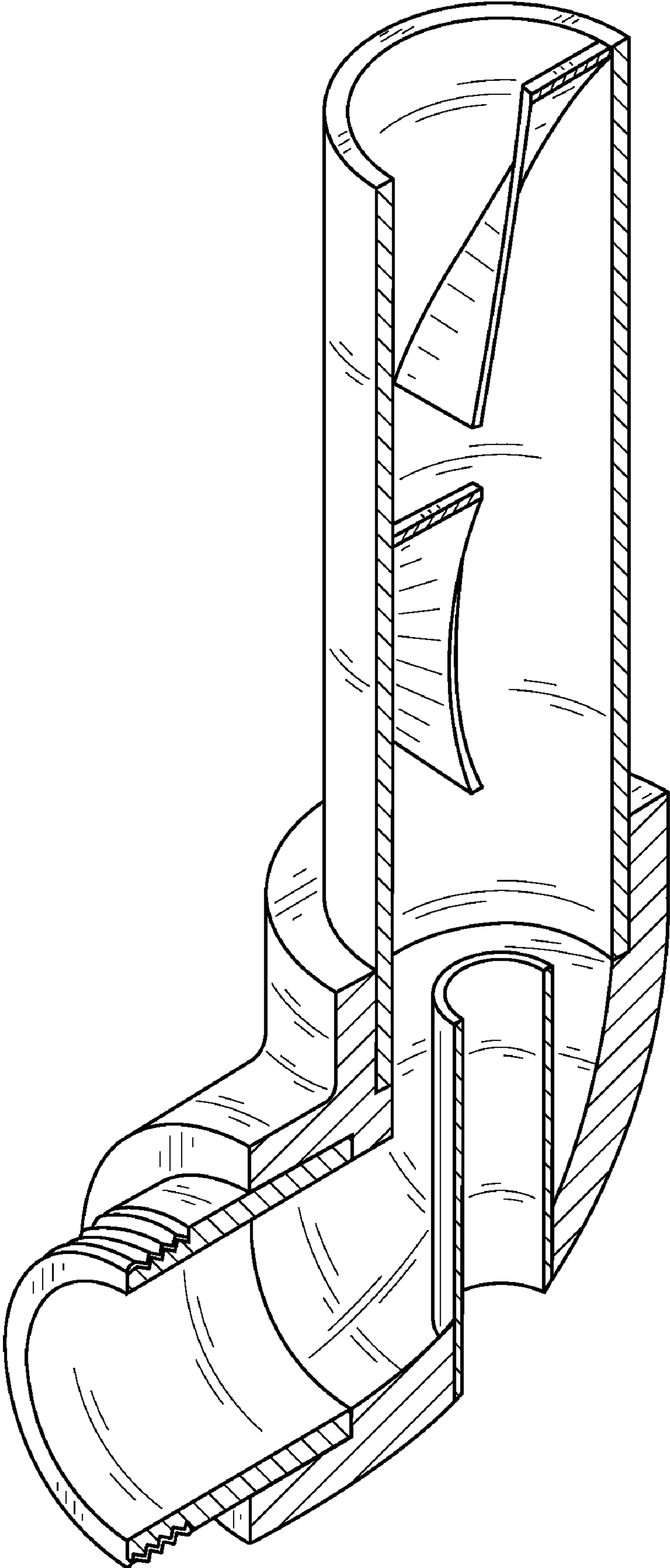


Fig.9

Fig.10

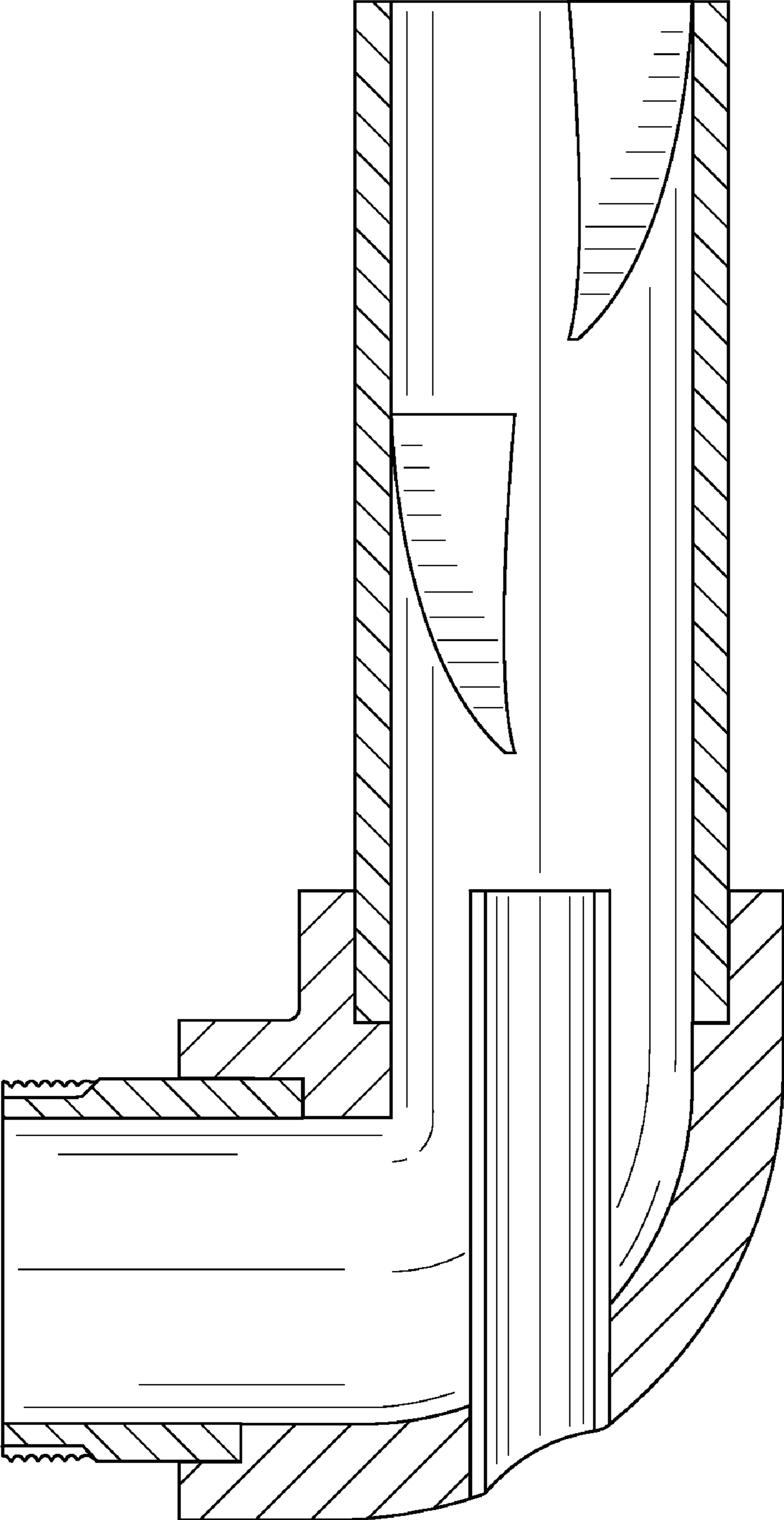


Fig. 11

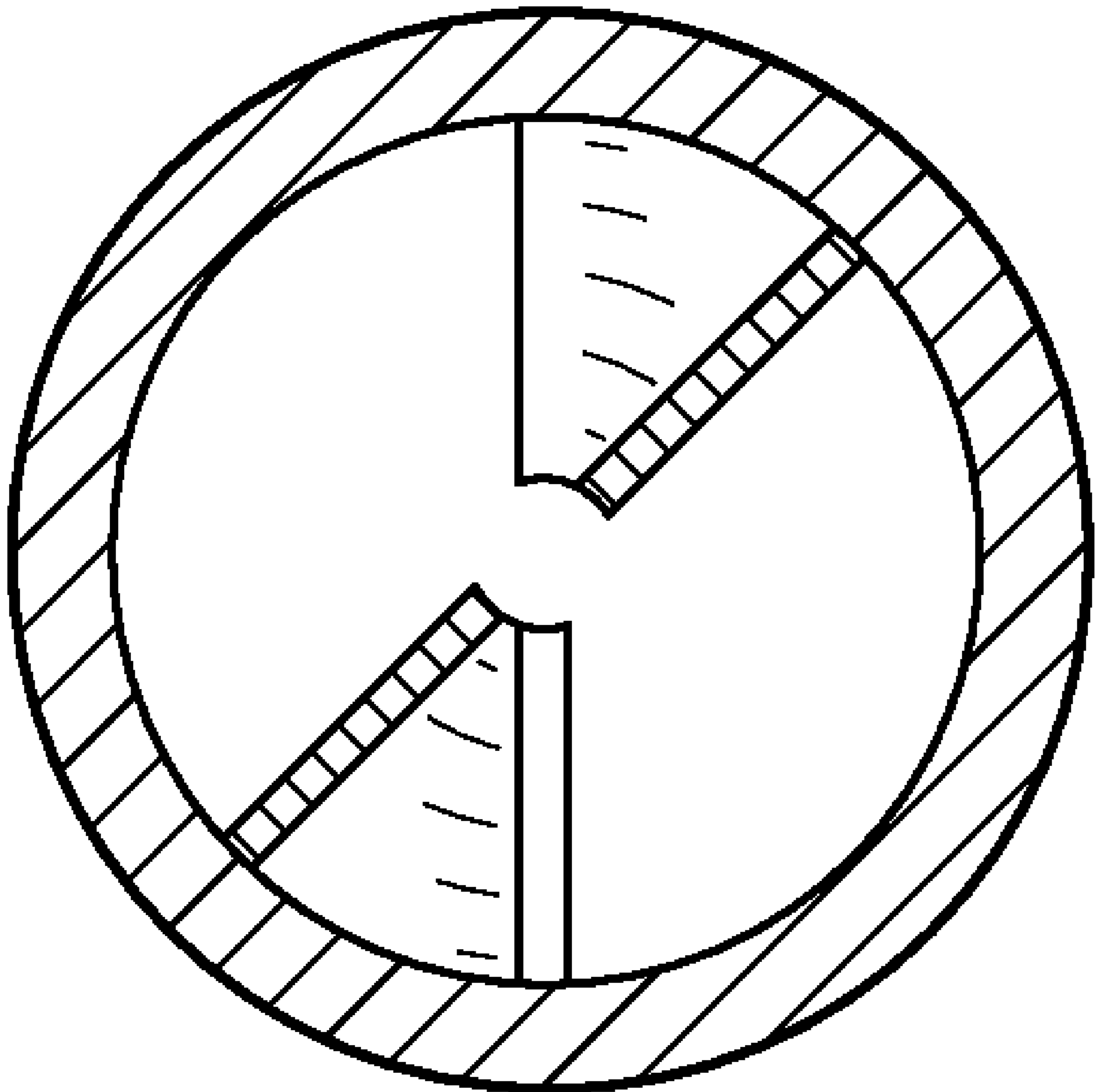


Fig.12

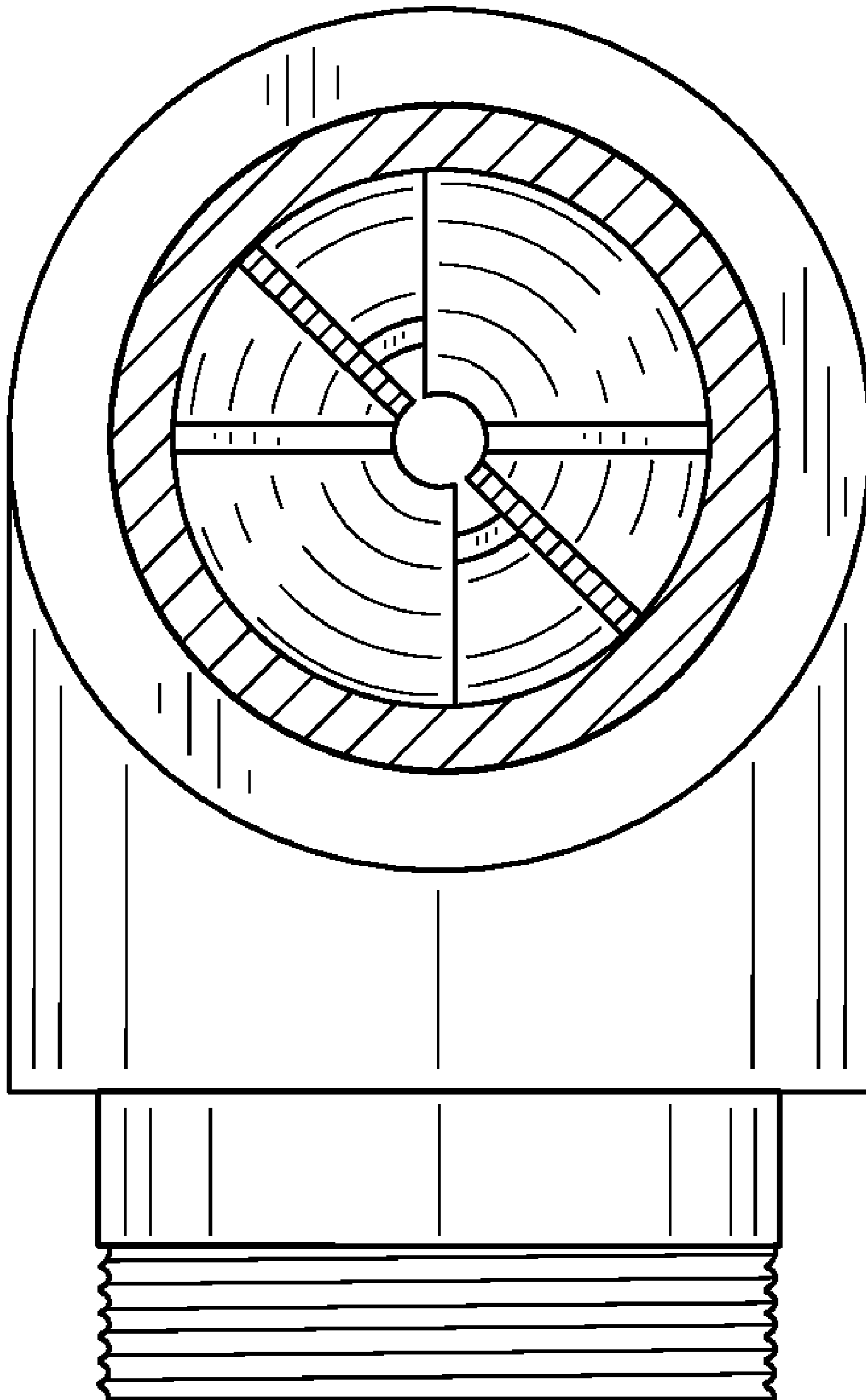


Fig. 13

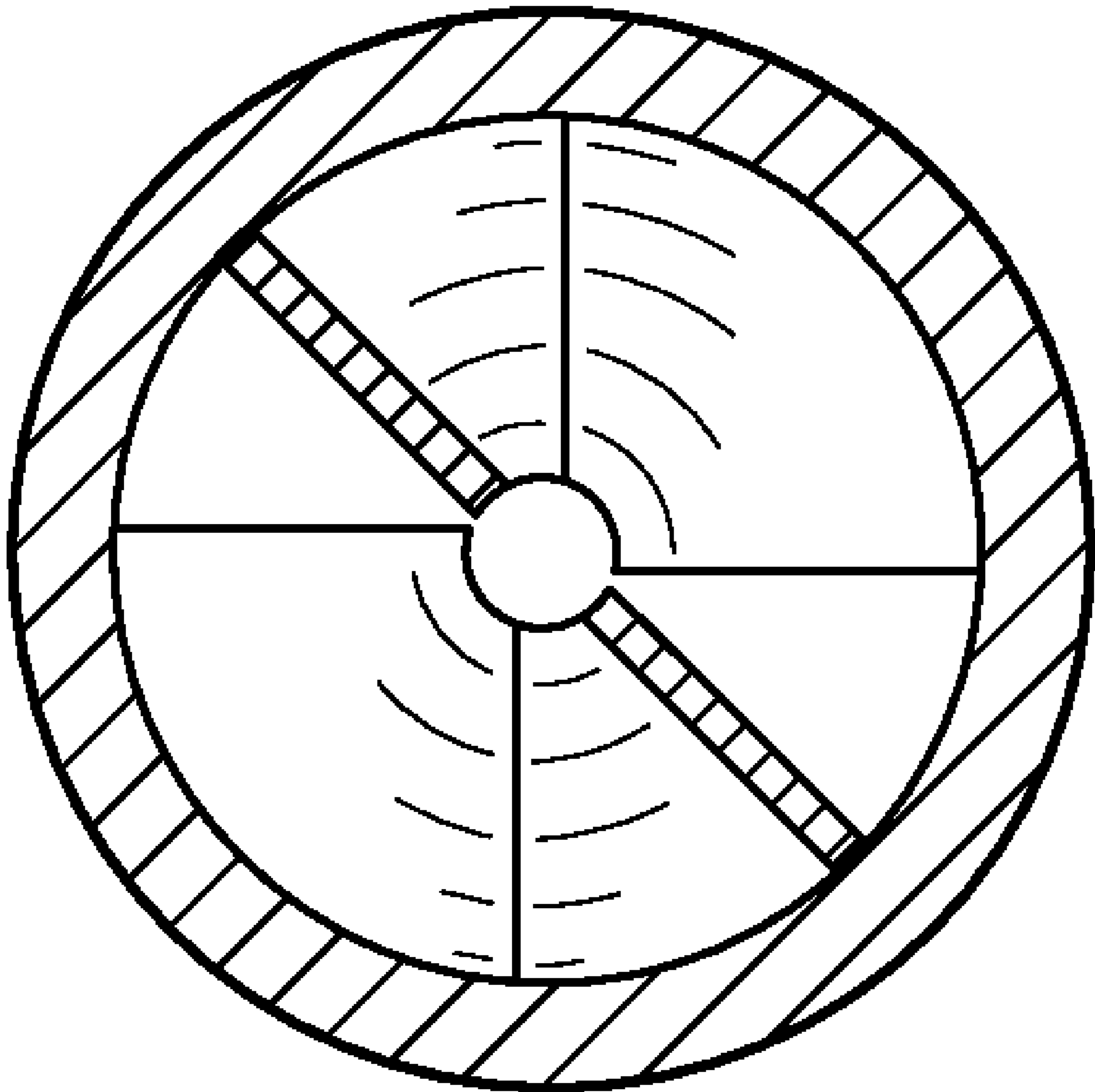


Fig. 14

