

US00D719657S

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

(10) **Patent No.:** **US D719,657 S**
(45) **Date of Patent:** **** Dec. 16, 2014**

(54) **RADIATION IRRADIATOR FOR PARTICLE BEAM TREATMENT EQUIPMENT**

(71) Applicant: **Mitsubishi Electric Corporation,**
Chiyoda-Ku, Tokyo (JP)

(72) Inventor: **Wataru Yamada,** Chiyoda-Ku (JP)

(73) Assignee: **Mitsubishi Electric Corporation,**
Tokyo (JP)

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

(21) Appl. No.: **29/471,177**

(22) Filed: **Oct. 29, 2013**

(30) **Foreign Application Priority Data**

May 10, 2013 (JP) 2013-010300

(51) **LOC (10) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/158**

(58) **Field of Classification Search**
USPC D24/158-161, 185, 186; 378/4, 15, 17,
378/21, 23-27, 62, 68, 196-198, 64, 65;
600/410, 421, 422, 411
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D320,660 S * 10/1991 Foreman et al. D24/158
D564,663 S * 3/2008 Udagawa et al. D24/158
D570,484 S * 6/2008 Kaneko et al. D24/158

D592,751 S * 5/2009 Ninomiya et al. D24/158
7,899,156 B2 * 3/2011 Oreper et al. 378/65
7,907,987 B2 * 3/2011 Dempsey 600/411
D683,024 S * 5/2013 Baba D24/158
8,494,117 B2 * 7/2013 Fadler 378/65
2006/0233303 A1 * 10/2006 Carlsson et al. 378/68
2010/0177867 A1 * 7/2010 Kozelj et al. 378/20
2010/0322377 A1 * 12/2010 Niizeki 378/4

* cited by examiner

Primary Examiner — Anhdao Doan

(74) *Attorney, Agent, or Firm* — Sughrue Mion, PLLC;
Richard C. Turner

(57) **CLAIM**

The ornamental design for a radiation irradiator for particle beam treatment equipment, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and right side perspective view of a radiation irradiator for particle beam treatment equipment, showing my new design;

FIG. 2 is a front elevational view thereof;

FIG. 3 is a rear elevational view thereof;

FIG. 4 is a left side elevational view thereof;

FIG. 5 is a right side elevational view thereof;

FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof;

FIG. 8 is a cross-sectional view thereof; taken along line 8-8 of FIG. 2;

FIG. 9 is a cross-sectional view thereof; taken along line 9-9 of FIG. 2; and,

FIG. 10 is a cross-sectional view thereof; taken along line 10-10 of FIG. 2.

1 Claim, 10 Drawing Sheets

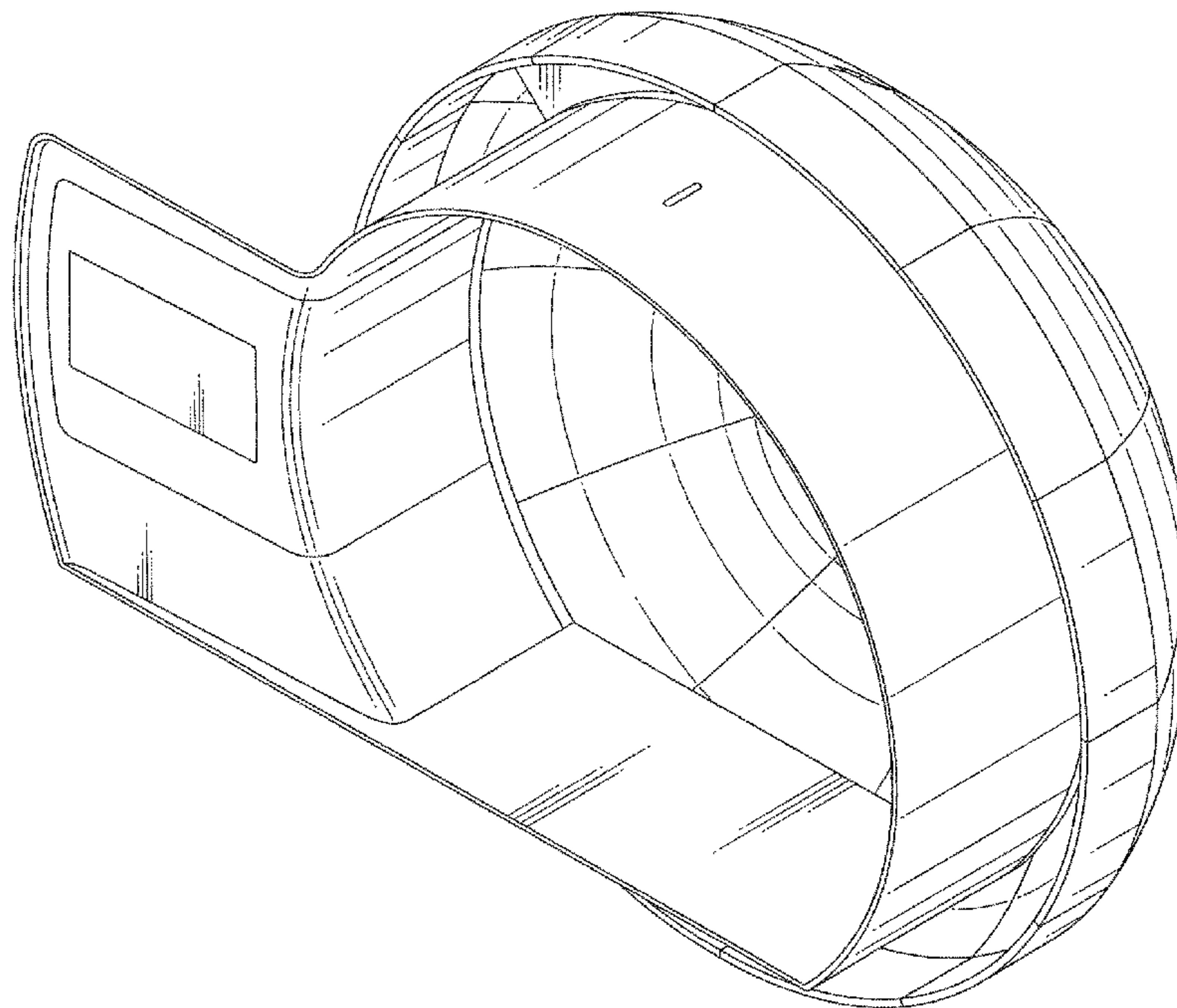
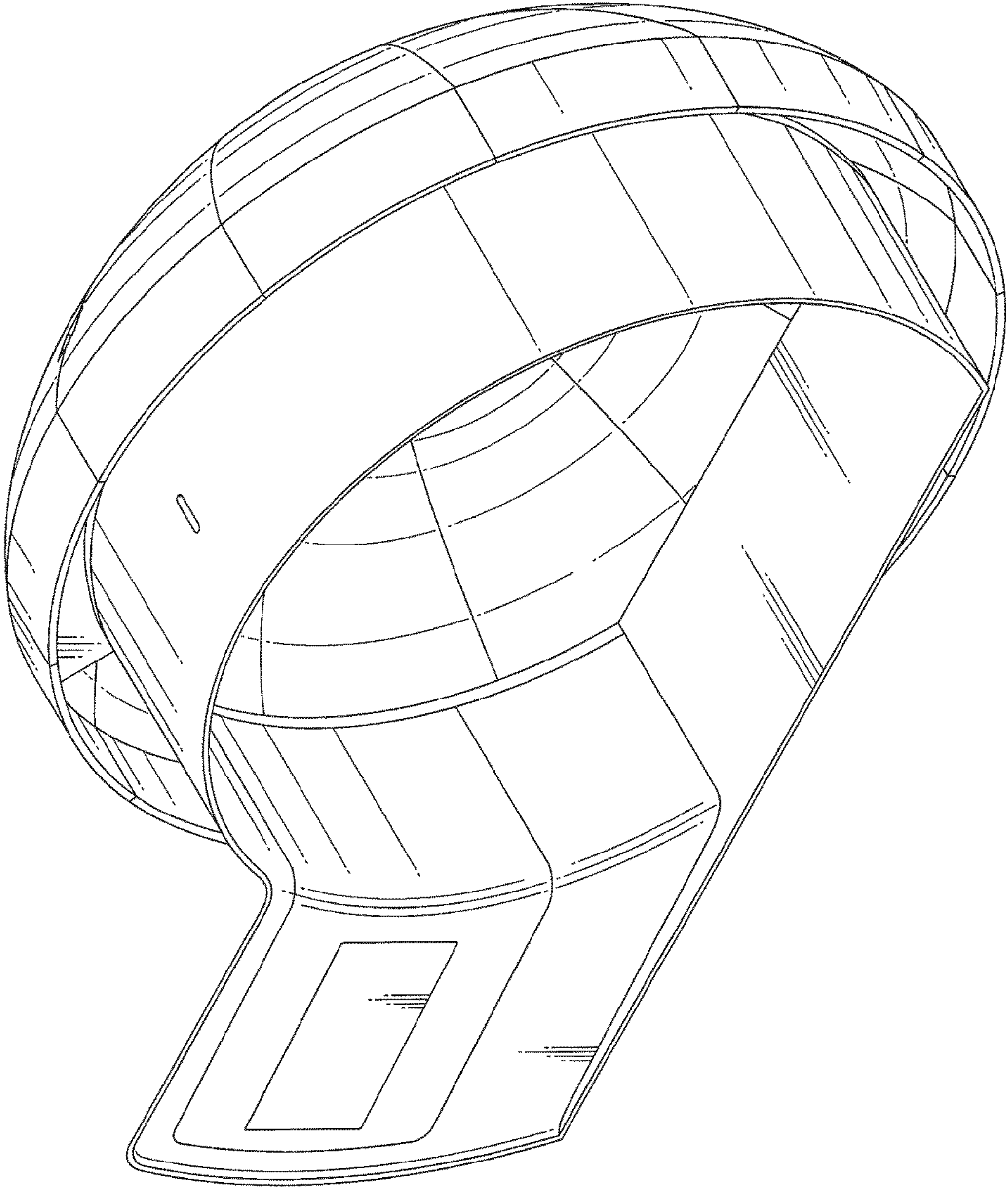


Fig. 1



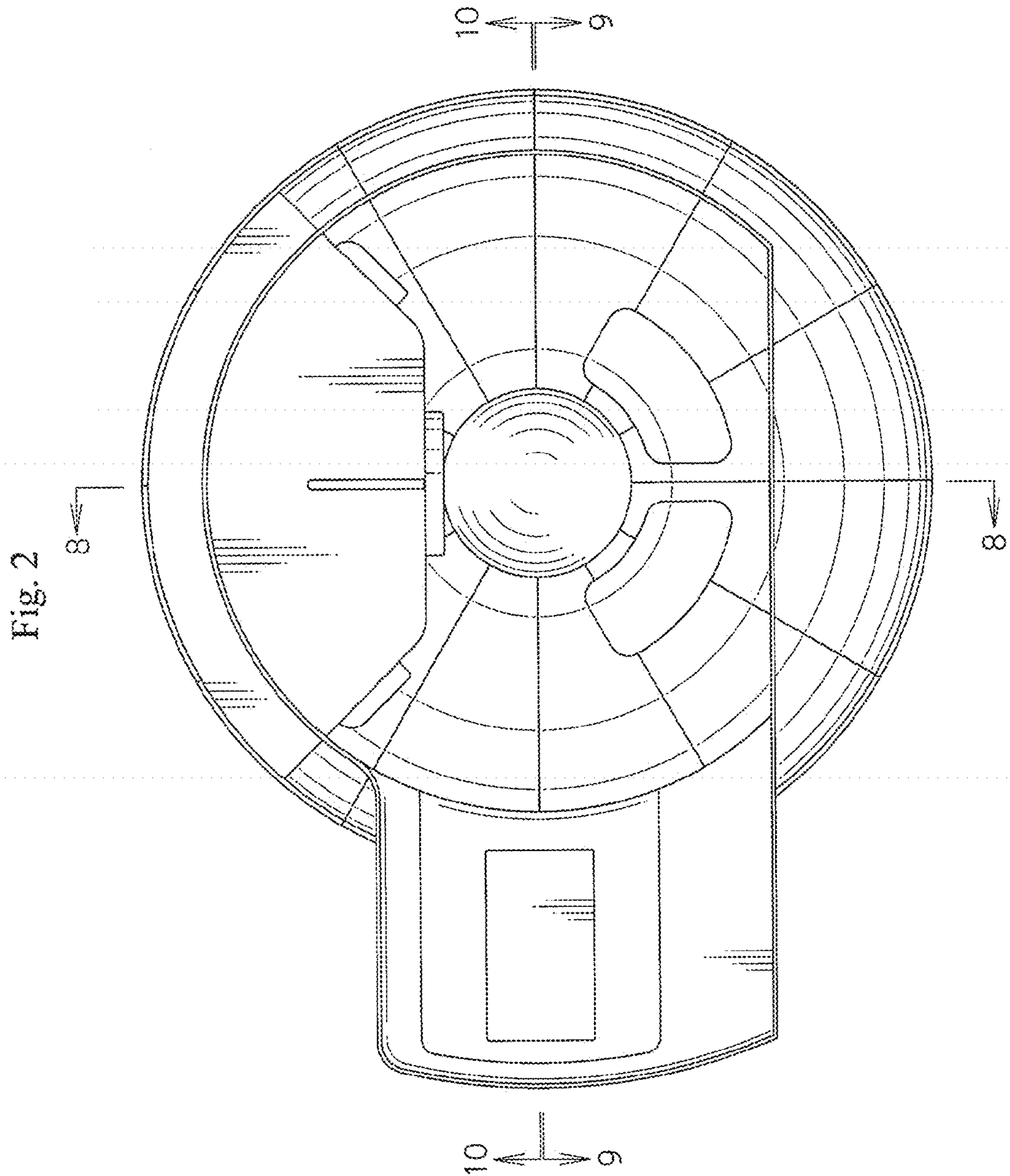


Fig. 3

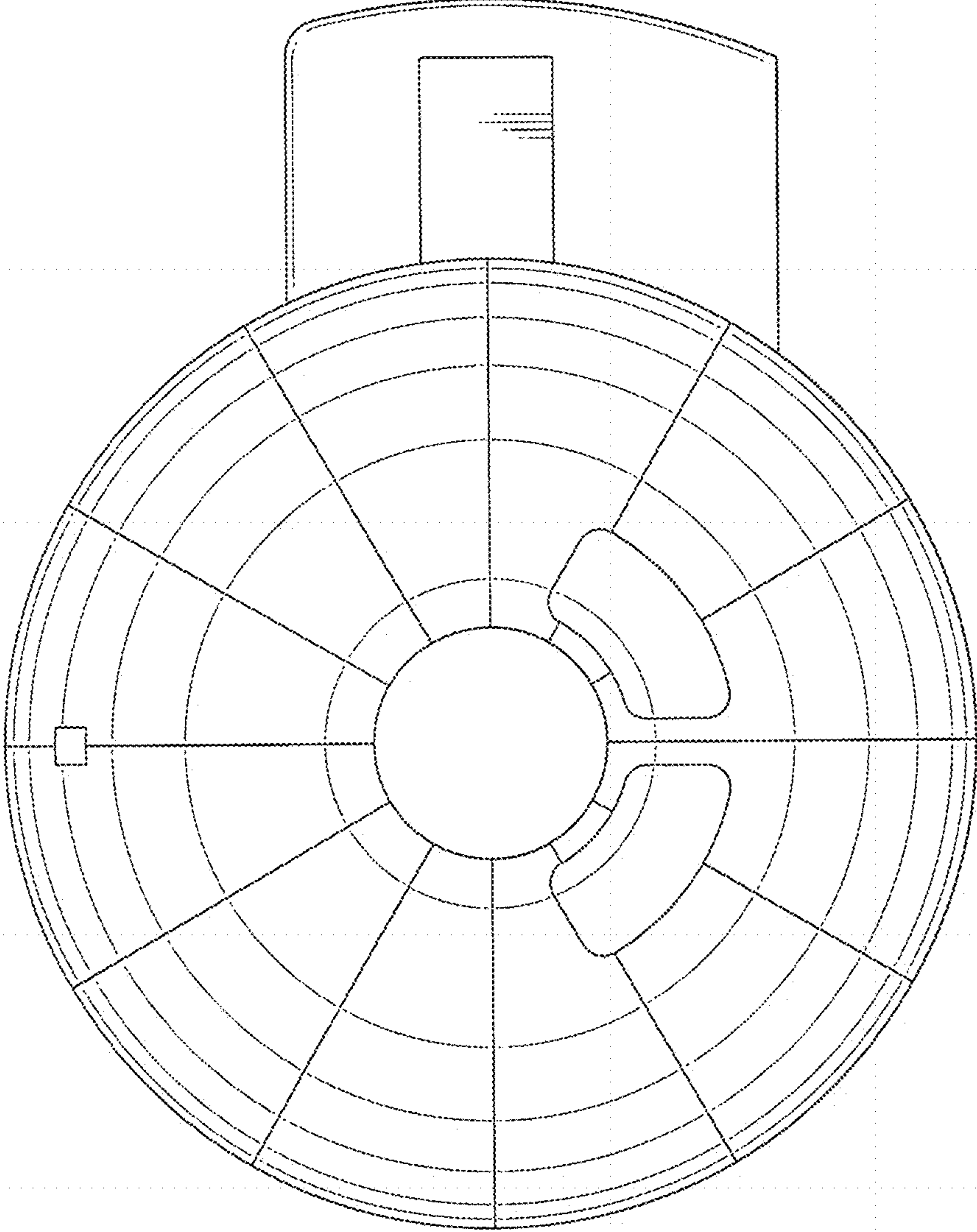


Fig. 4

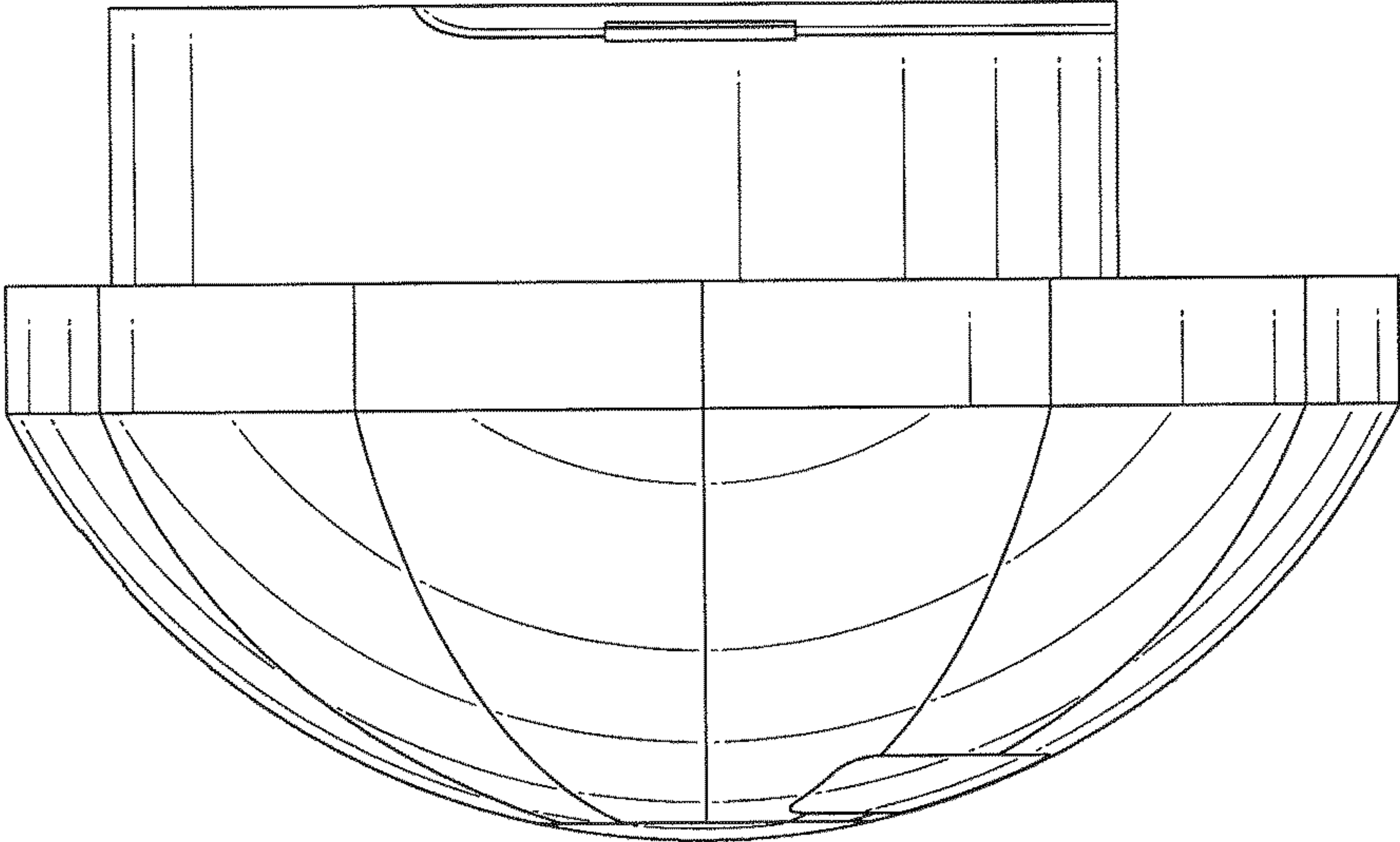


Fig. 5

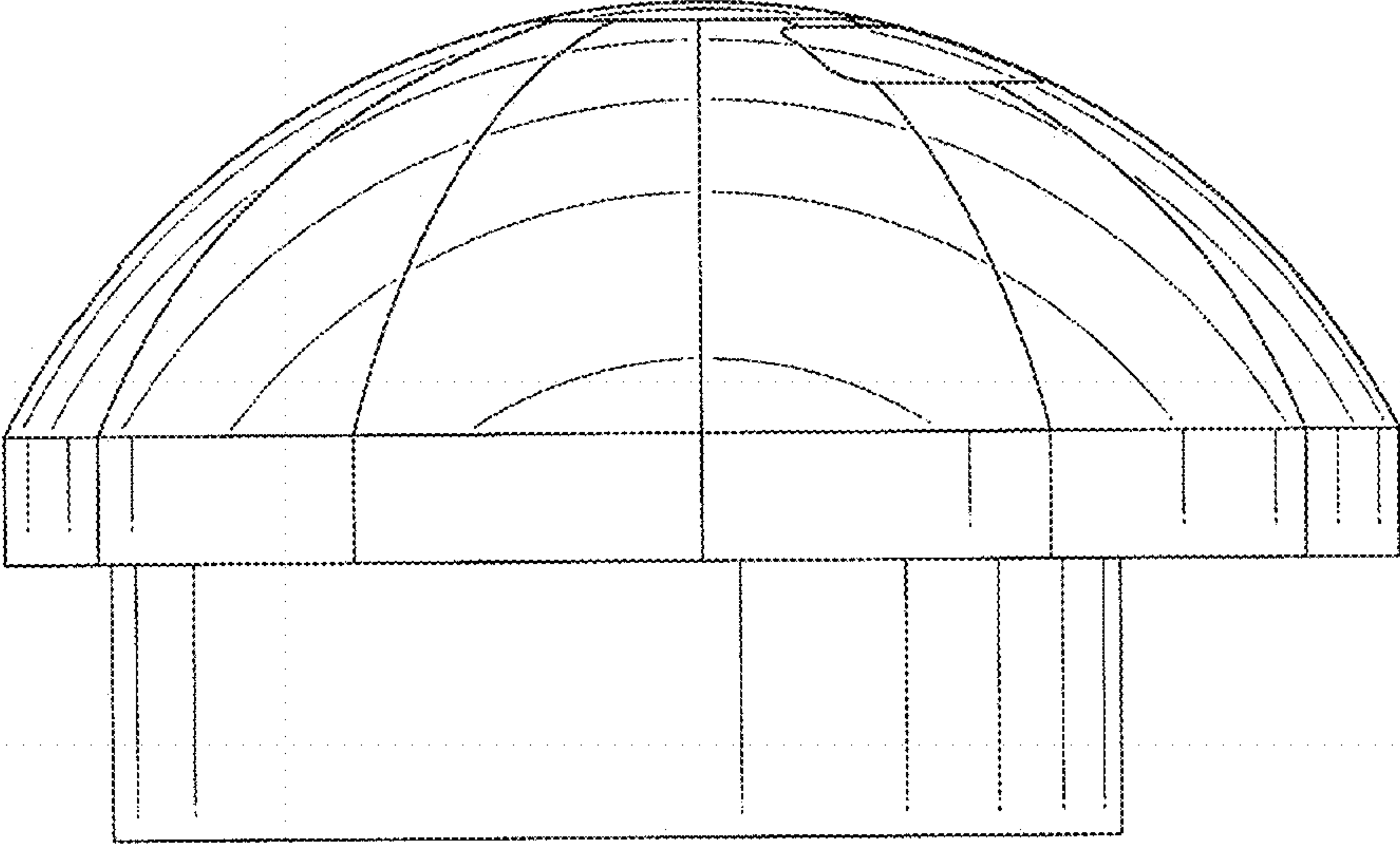


Fig. 6

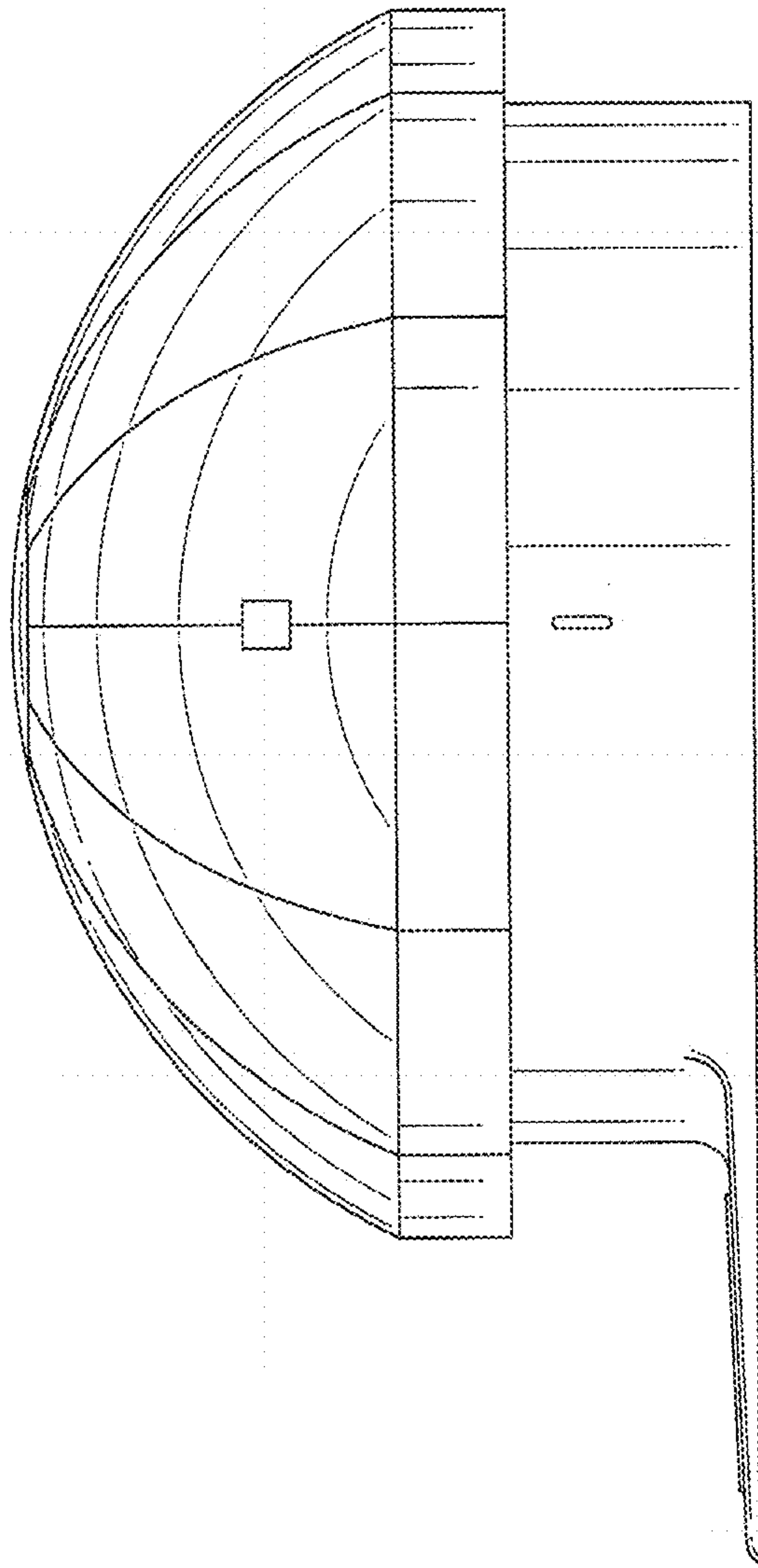


Fig. 7

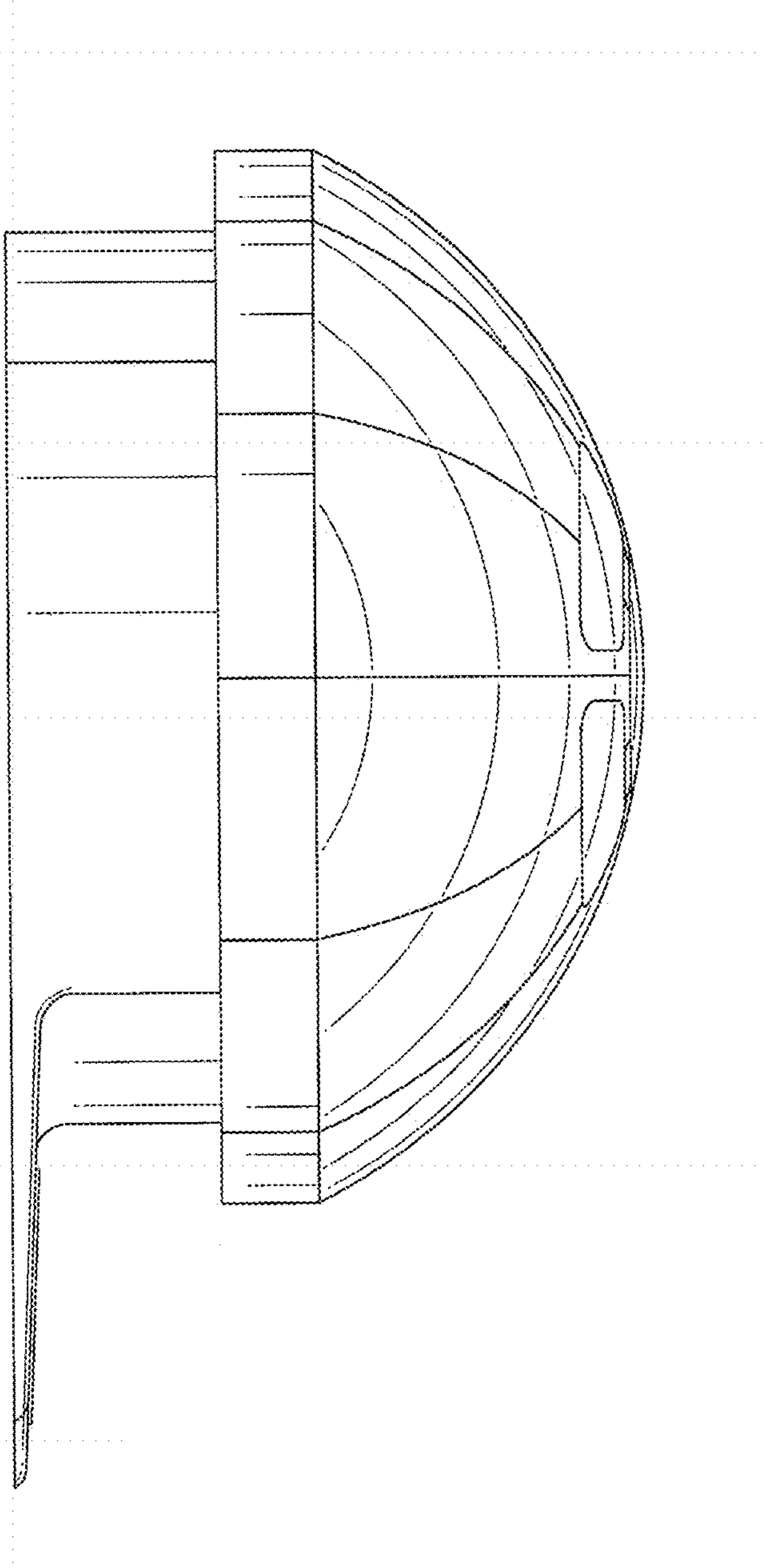


Fig. 8

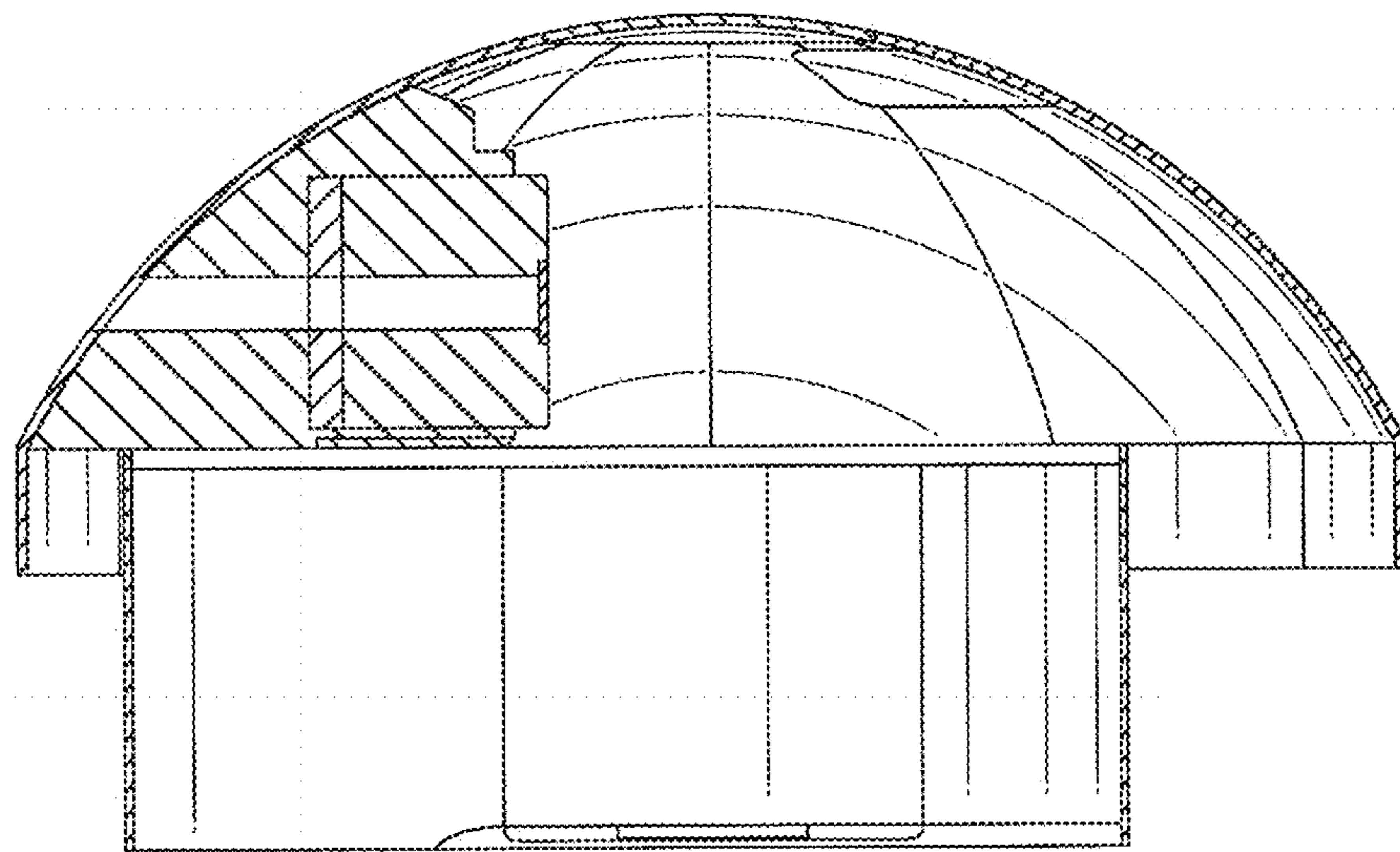


Fig. 9

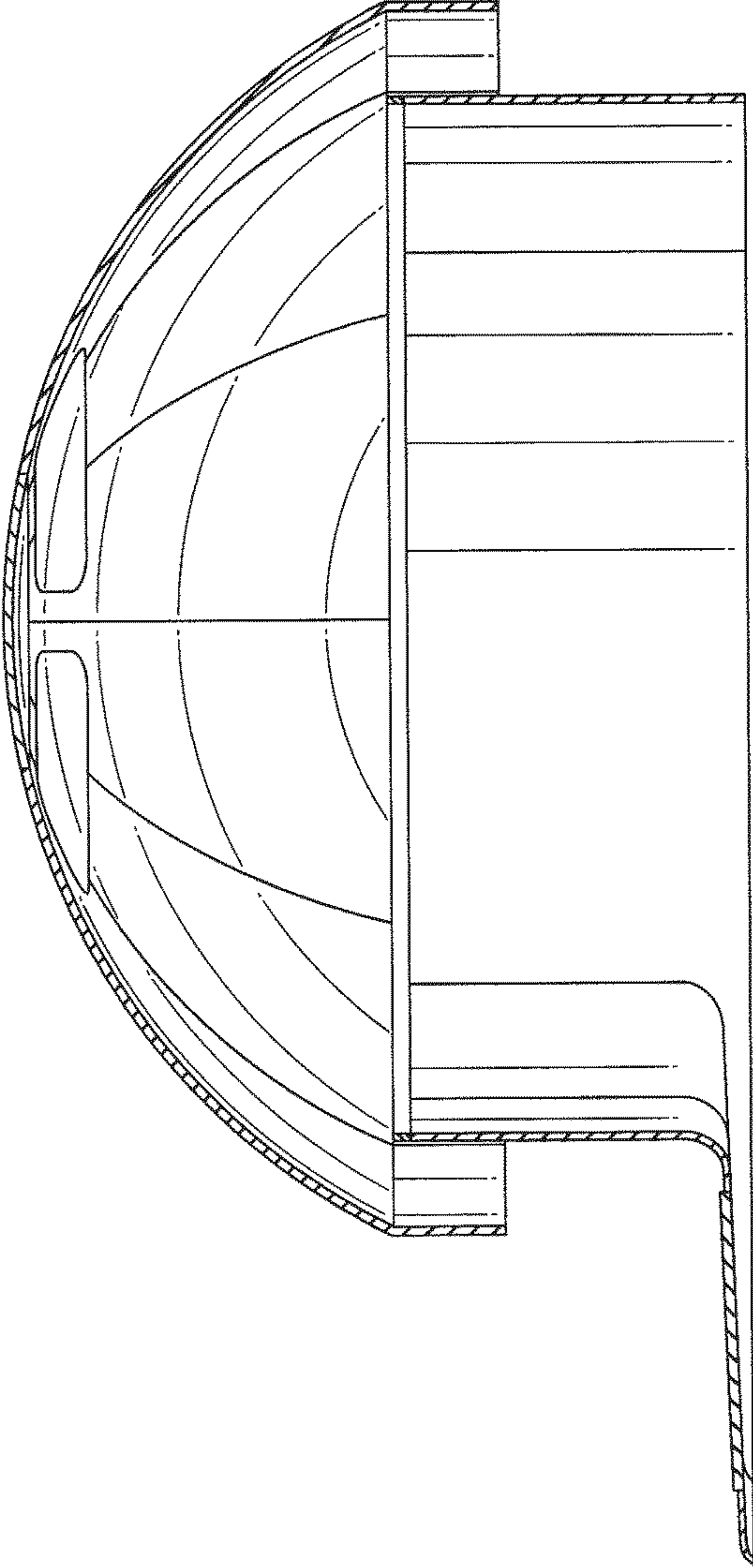


Fig. 10

