



US00D679732S

(12) **United States Design Patent**
Edgar et al.

(10) **Patent No.:** **US D679,732 S**

(45) **Date of Patent:** **** Apr. 9, 2013**

(54) **SPRING RETAINER**

(75) Inventors: **James R. Edgar**, Shorewood, WI (US);
Daniel R. Szortyka, Campbellsport, WI
(US); **William V. Howard**, Milwaukee,
WI (US); **John M. Gardner**,
Germantown, WI (US)

(73) Assignee: **Charter Manufacturing Co., Inc.**,
Mequon, WI (US)

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

(21) Appl. No.: **29/388,336**

(22) Filed: **Mar. 28, 2011**

(51) **LOC (9) Cl.** **15-01**

(52) **U.S. Cl.**
USPC **D15/5**

(58) **Field of Classification Search** D15/99,
D15/5; D8/396; 251/337, 321, 322, 323;
123/90.67, 188.3; 137/1
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,273,856	A *	9/1966	Tauschek	.....	251/337
3,466,009	A *	9/1969	Giles	.....	251/337
4,201,162	A *	5/1980	Speckhart	.....	123/90.67
4,432,311	A *	2/1984	Holtzberg et al.	.....	123/90.67
4,838,218	A *	6/1989	Sato et al.	.....	123/188.3
4,919,090	A *	4/1990	Deuring et al.	.....	123/90.67
4,989,556	A *	2/1991	Shiina et al.	.....	123/90.67
5,255,640	A *	10/1993	Pierce	.....	123/90.67
5,497,740	A *	3/1996	Thiemeier	.....	123/188.13
5,619,961	A *	4/1997	Diggs	.....	123/188.13
5,884,596	A *	3/1999	Hara et al.	.....	123/90.65
5,901,728	A *	5/1999	Hara et al.	.....	137/1
6,293,240	B1 *	9/2001	Kobayashi et al.	.....	123/90.67
6,311,661	B1 *	11/2001	Kobayashi et al.	.....	123/90.67
6,338,325	B1 *	1/2002	Kobayashi et al.	.....	123/90.67
6,341,588	B2 *	1/2002	Kobayashi et al.	.....	123/90.67
6,371,063	B2 *	4/2002	Oyama et al.	.....	123/90.11

6,375,158	B1 *	4/2002	Kramer et al.	.....	251/337
6,805,157	B2 *	10/2004	Nakazawa et al.	.....	137/540
6,811,143	B2 *	11/2004	Creissel et al.	.....	251/337
6,935,296	B2 *	8/2005	Abele et al.	.....	123/188.3
6,966,539	B2 *	11/2005	Ucman	.....	251/337
7,287,546	B2 *	10/2007	Konishi	.....	137/540
7,997,242	B2 *	8/2011	Takamura et al.	.....	123/90.3
2001/0042530	A1 *	11/2001	Kobayashi et al.	.....	123/90.67
2001/0047784	A1 *	12/2001	Kobayashi et al.	.....	123/90.67
2005/0092961	A1 *	5/2005	Ucman	.....	251/337
2006/0067851	A1 *	3/2006	Horimura et al.	.....	420/417
2006/0131535	A1 *	6/2006	Mendl et al.	.....	251/337
2009/0139477	A1 *	6/2009	Wotherspoon et al.	....	123/90.22
2009/0145393	A1 *	6/2009	Sakata	.....	123/188.6
2009/0293597	A1 *	12/2009	Andrie	.....	73/114.16
2010/0108003	A1 *	5/2010	Gehrke et al.	.....	123/90.12
2012/0060955	A1 *	3/2012	Zhu	.....	137/798
2012/0132841	A1 *	5/2012	Aoki et al.	.....	251/337

FOREIGN PATENT DOCUMENTS

JP 2010-038021 2/2010

* cited by examiner

Primary Examiner — John Windmuller

(74) *Attorney, Agent, or Firm* — Quarles & Brady LLP

(57) **CLAIM**

The ornamental design for a spring retainer, as shown and described.

DESCRIPTION

FIG. 1 is a front, top perspective view of a spring retainer showing our new design;

FIG. 2 is a top view of the spring retainer of FIG. 1;

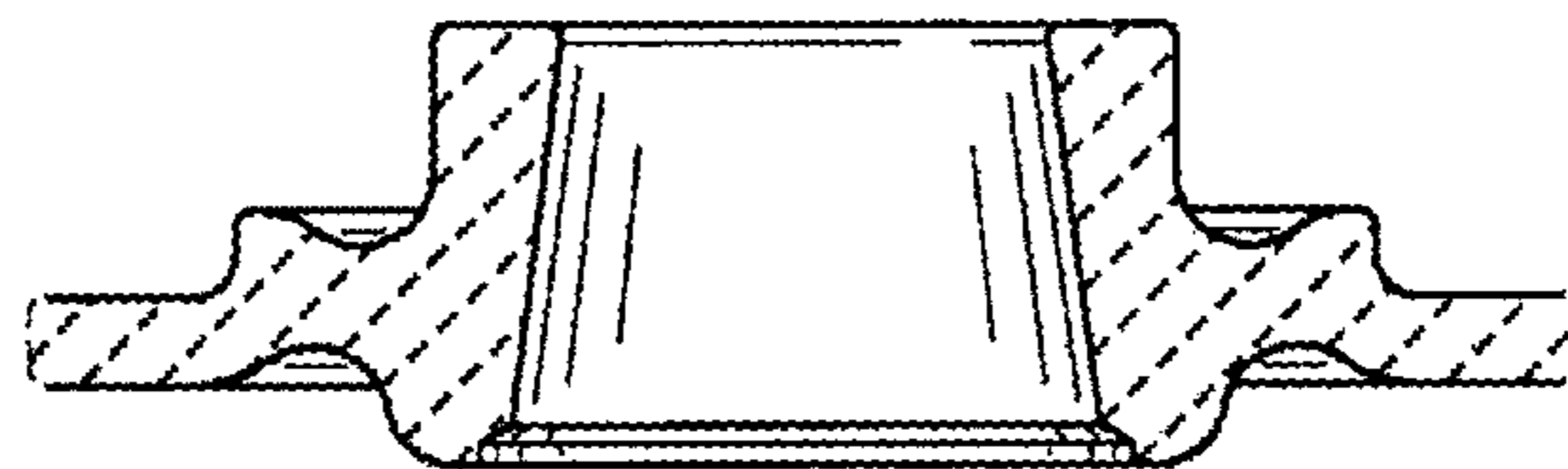
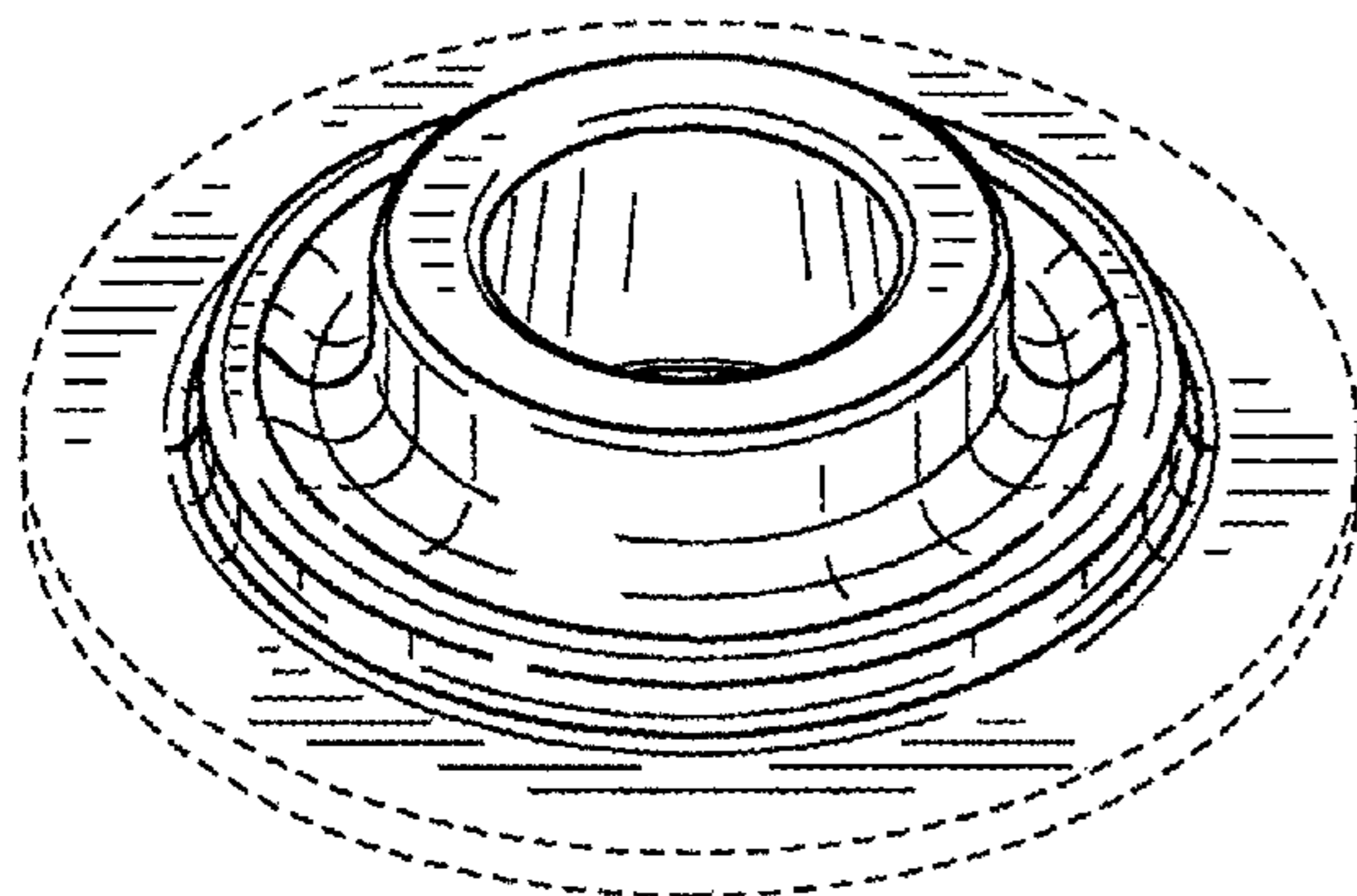
FIG. 3 is a bottom view of the spring retainer of FIG. 1;

FIG. 4 is a side elevation view of the spring retainer of FIG. 1; and,

FIG. 5 is a sectional view along line 5-5 of the spring retainer of FIG. 2.

The broken line representations of items in FIGS. 1-5 are for purposes of illustration only, and form no part of the claimed design.

1 Claim, 2 Drawing Sheets



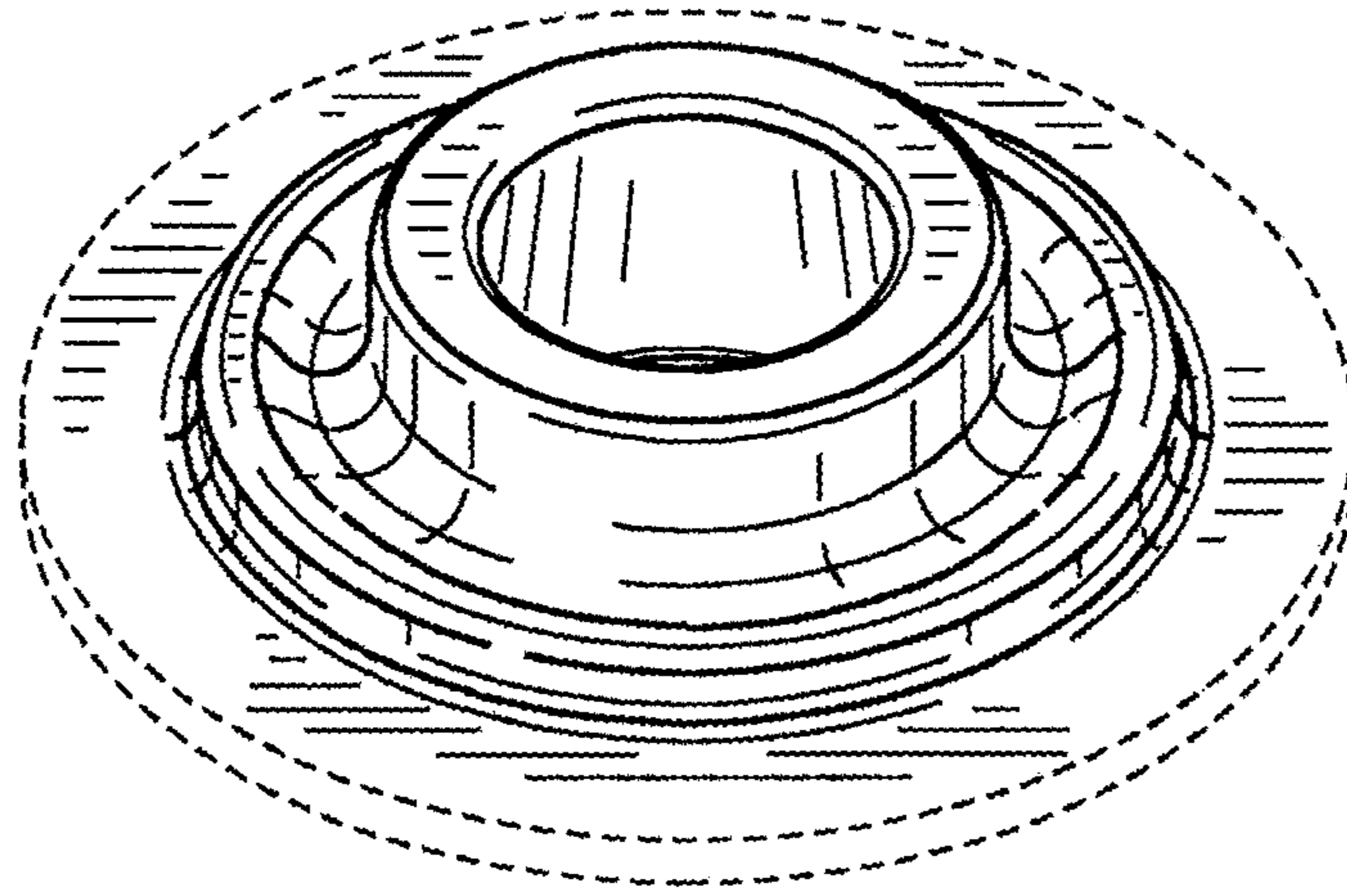


FIG. 1

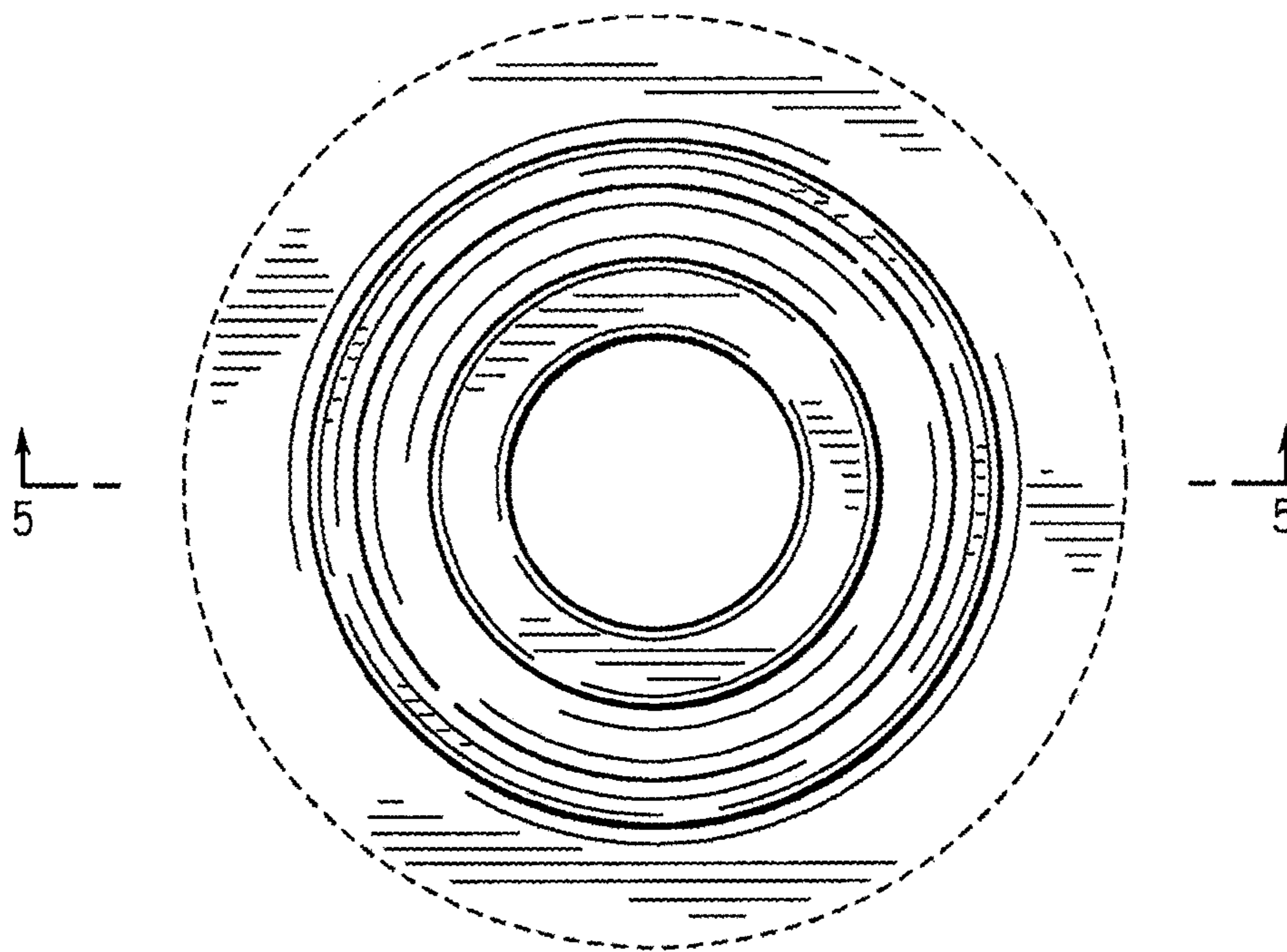


FIG. 2

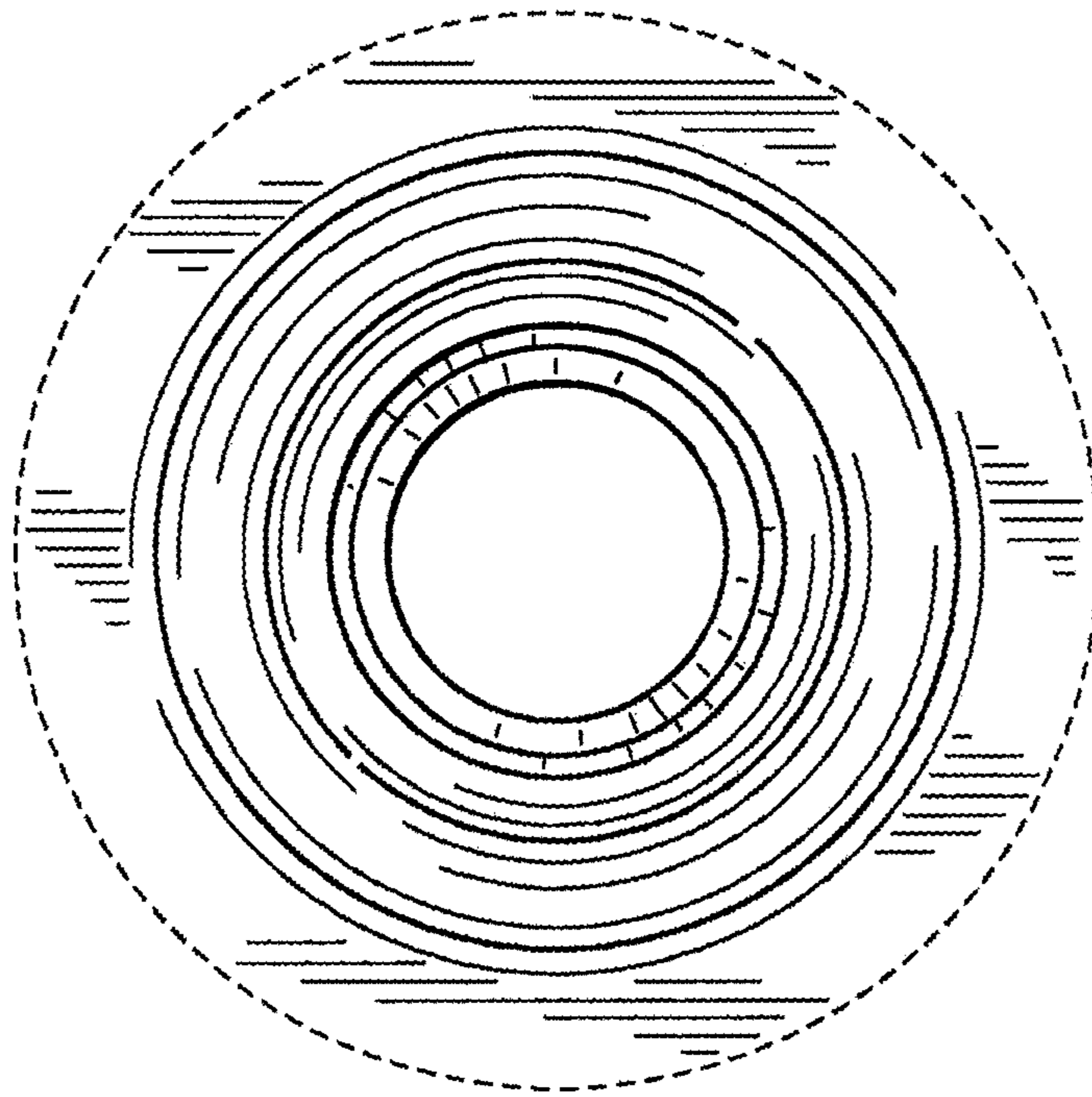


FIG. 3

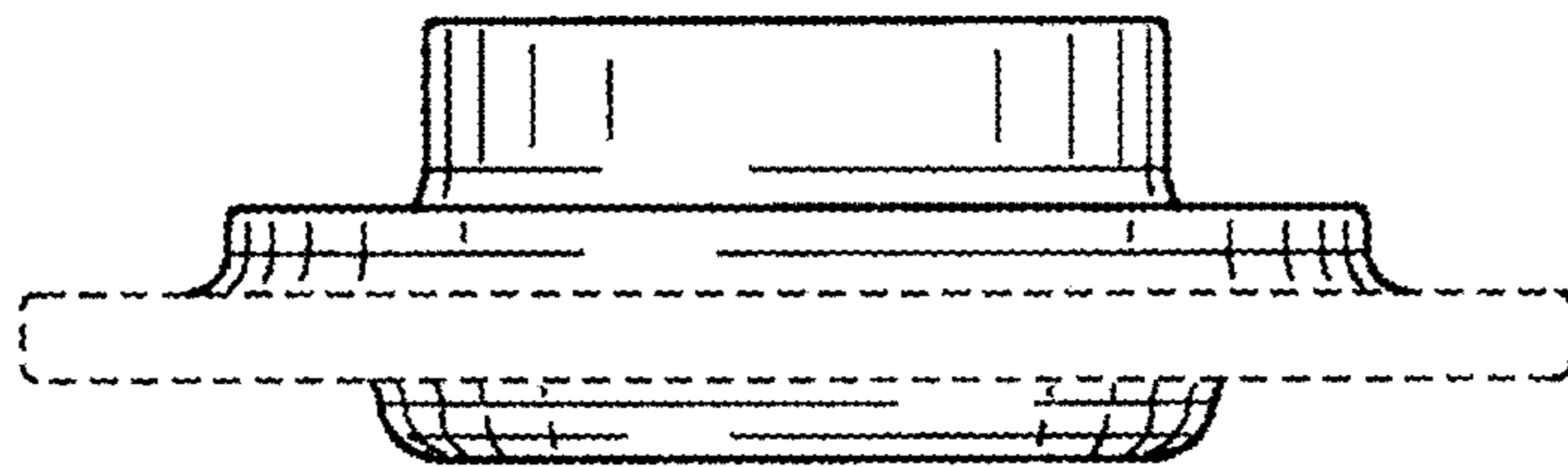


FIG. 4

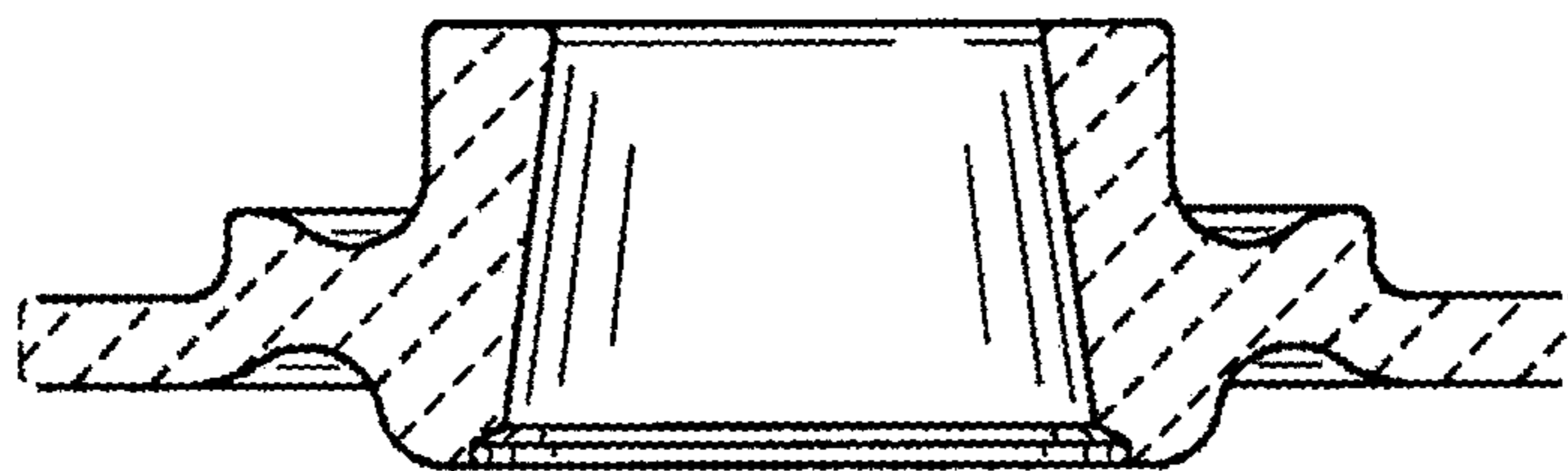


FIG. 5