

US00D772178S

(12) **United States Design Patent** (10) **Patent No.:** **US D772,178 S**
Lindeman et al. (45) **Date of Patent:** **** Nov. 22, 2016**

(54) **HEAT SINK MODULE**

OTHER PUBLICATIONS

(71) Applicant: **EBULLIENT, LLC**, Madison, WI (US)

Aliexpress, Results for "copper water block . . .", Searched Jun. 27, 2016. (<http://www.aliexpress.com/cp/copper-water-block-online-shopping.html>.*

(72) Inventors: **Brett A. Lindeman**, Madison, WI (US);
Charles R. Heidenreich, McFarland,
WI (US)

(Continued)

(73) Assignee: **Ebullient, Inc.**, Madison, WI (US)

Primary Examiner — Jennifer Rivard

Assistant Examiner — April Rivas

(**) Term: **15 Years**

(21) Appl. No.: **29/540,988**

(57) **CLAIM**

The ornamental design for a heat sink module, as shown and described.

(22) Filed: **Sep. 29, 2015**

Related U.S. Application Data

DESCRIPTION

(63) Continuation of application No. 29/540,704, filed on Sep. 26, 2015.

(51) **LOC (10) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/179**

(58) **Field of Classification Search**

USPC D13/179, 182; D15/199

CPC . H01L 23/473; H01L 23/4735; H01L 23/46;

H01L 23/467; H01L 23/4006; H01L 23/427;

F28D 15/00; F28D 15/02; F28D 15/0275;

F28F 31/02; G06F 1/20; G06F 2200/201

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D357,900 S * 5/1995 Katsui D13/179

D404,720 S * 1/1999 Gayle D13/179

D553,170 S * 10/2007 Remsburg D15/199

D553,656 S * 10/2007 Reeves D15/199

(Continued)

FIG. 1 is top, front perspective view of a heat sink module;
FIG. 2 is a bottom, front perspective view of the heat sink
module of FIG. 1;

FIG. 3 is a top, rear perspective view of the heat sink module
of FIG. 1;

FIG. 4 is a bottom, rear perspective view of the heat sink
module of FIG. 1;

FIG. 5 is a top view of the heat sink module of FIG. 1;

FIG. 6 is a bottom view of the heat sink module of FIG. 1;

FIG. 7 is a front view of the heat sink module of FIG. 1;

FIG. 8 is a rear view of the heat sink module of FIG. 1;

FIG. 9 is right side view of the heat sink module of FIG. 1;

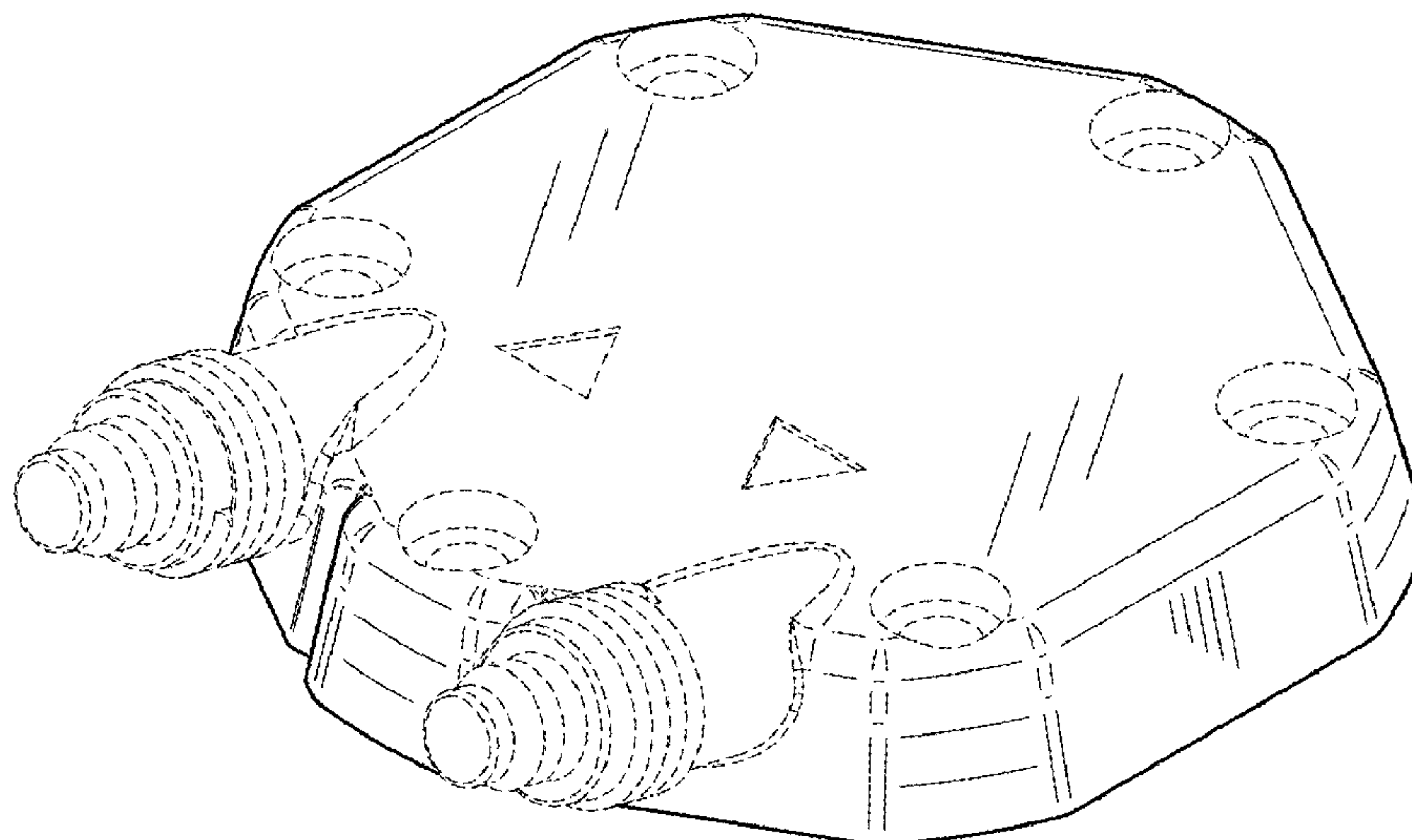
FIG. 10 is left side view of the heat sink module of FIG. 1;

FIG. 11 is a bottom, rear perspective view of the heat sink
module of FIG. 1; and,

FIG. 12 is a bottom, front perspective view of the heat sink
module of FIG. 1.

The broken lines shown in the drawings illustrate portions of
the heat sink module and form no part of the claimed design.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D582,359 S * 12/2008 Chang D13/179

8,631,860 B2 * 1/2014 Tang G06F 1/20

123/41.51

D715,747 S * 10/2014 Imoto D13/179

9,175,911 B2 * 11/2015 Huang F28F 9/002

2006/0162340 A1 * 7/2006 Kuo G06F 1/20

62/3.2

2009/0044929 A1 * 2/2009 Yeh F28D 1/05391

165/104.19

2011/0155353 A1 * 6/2011 Wan F28D 15/00

165/104.31

2014/0030900 A1 * 1/2014 Leigh H01L 23/4006

439/196

2014/0069614 A1 * 3/2014 Chiu F28D 15/00

165/104.13

2014/0131007 A1 * 5/2014 Lyon F28F 9/007

165/67

2014/0311176 A1 * 10/2014 Meng F25D 7/00

62/314

2015/0124404 A1 * 5/2015 Shen H01R 13/62994

361/694

2016/0118317 A1 * 4/2016 Shedd F25B 23/006

257/712

2016/0128238 A1 * 5/2016 Shedd H05K 7/20772

361/679.47

OTHER PUBLICATIONS

Twitter, “Media Tweets by Ebullient (@EbullientInc)”, Relevant images as early as Apr. 24, 2015, Accessed May 27, 2016. (https://twitter.com/Ebullient_Inc/media).*

Newegg.com, “Intel Series Computer Water Cooling CPU Block . . . ”, Accessed May 26, 2016, (http://www.newegg.com/Product/Product.aspx?Item=9SIA3XT2KU0198&cm_re=water_block-_9SIA3XT2KU0198-_Product).*

Aliexpress, “New POM Acrylic GPU water cooling block . . . ”, Accessed Jun. 27, 2016, Reviewed on Jan. 29, 2016. (<http://www.aliexpress.com/item-img/New-GPU-XPB-POM-Acrylic-43-53-mm-kernel-water-cooling-block-Copper-Waterblock-Liquid-Cooler/1757527273.html>).*

* cited by examiner

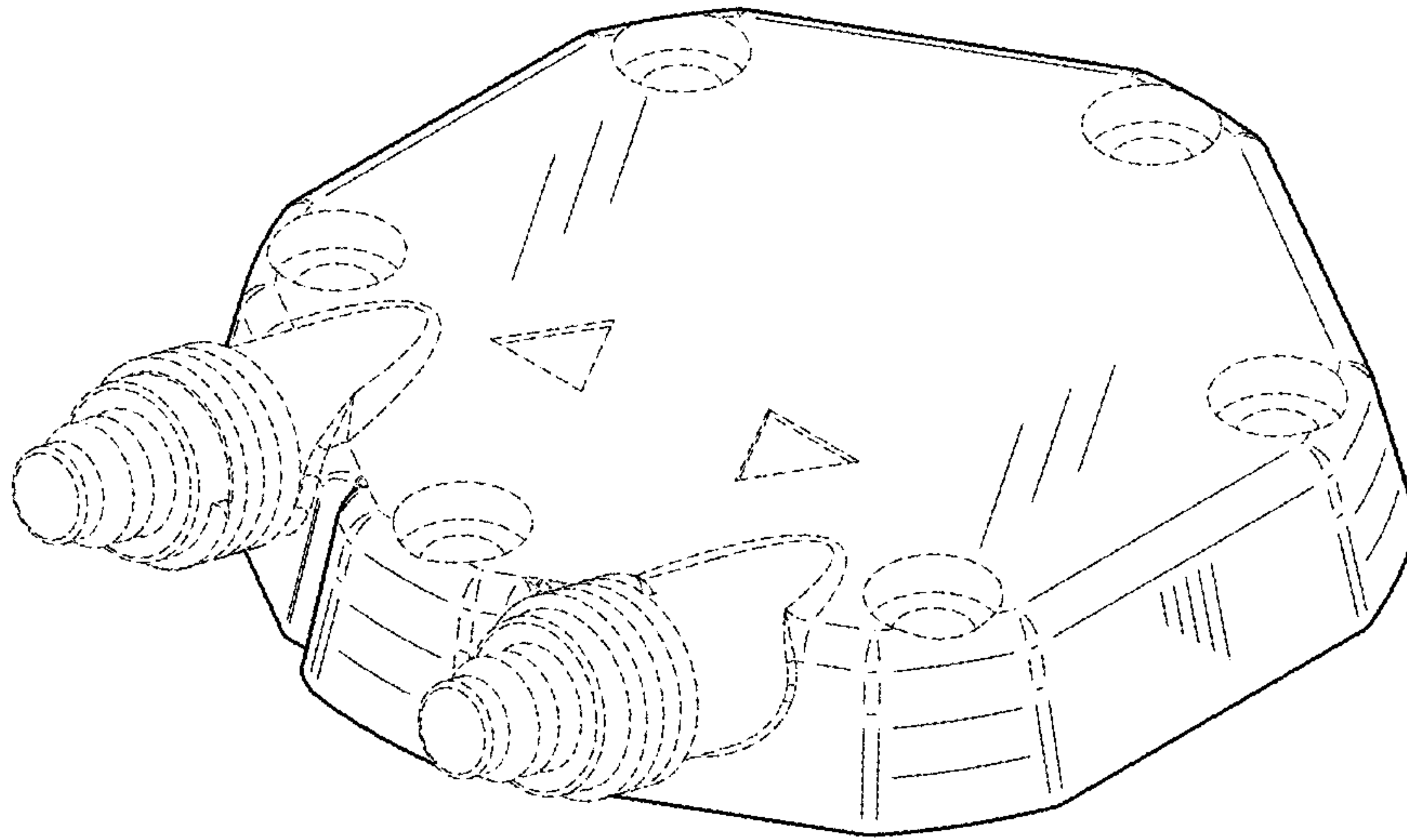


FIG. 1

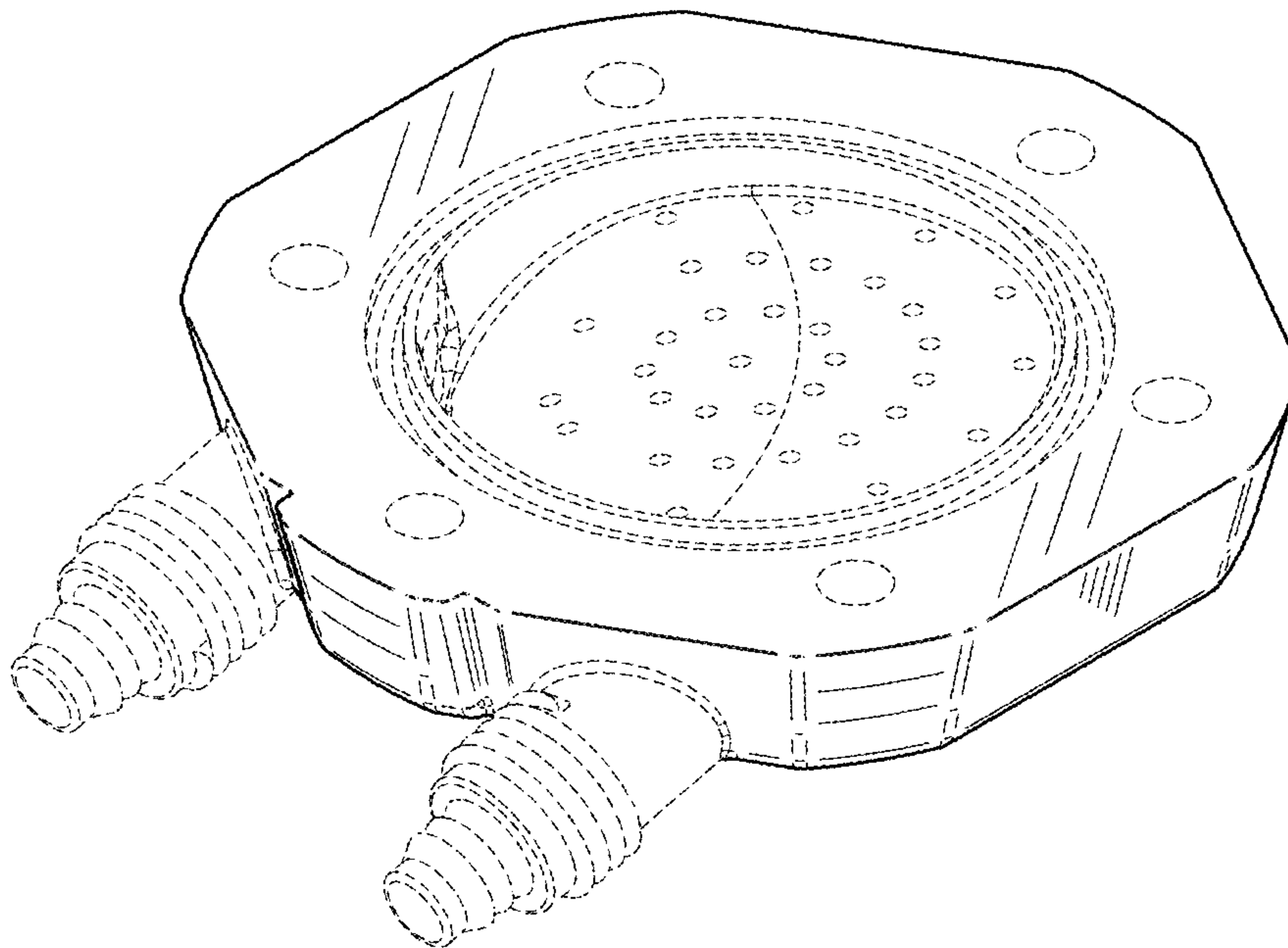


FIG. 2

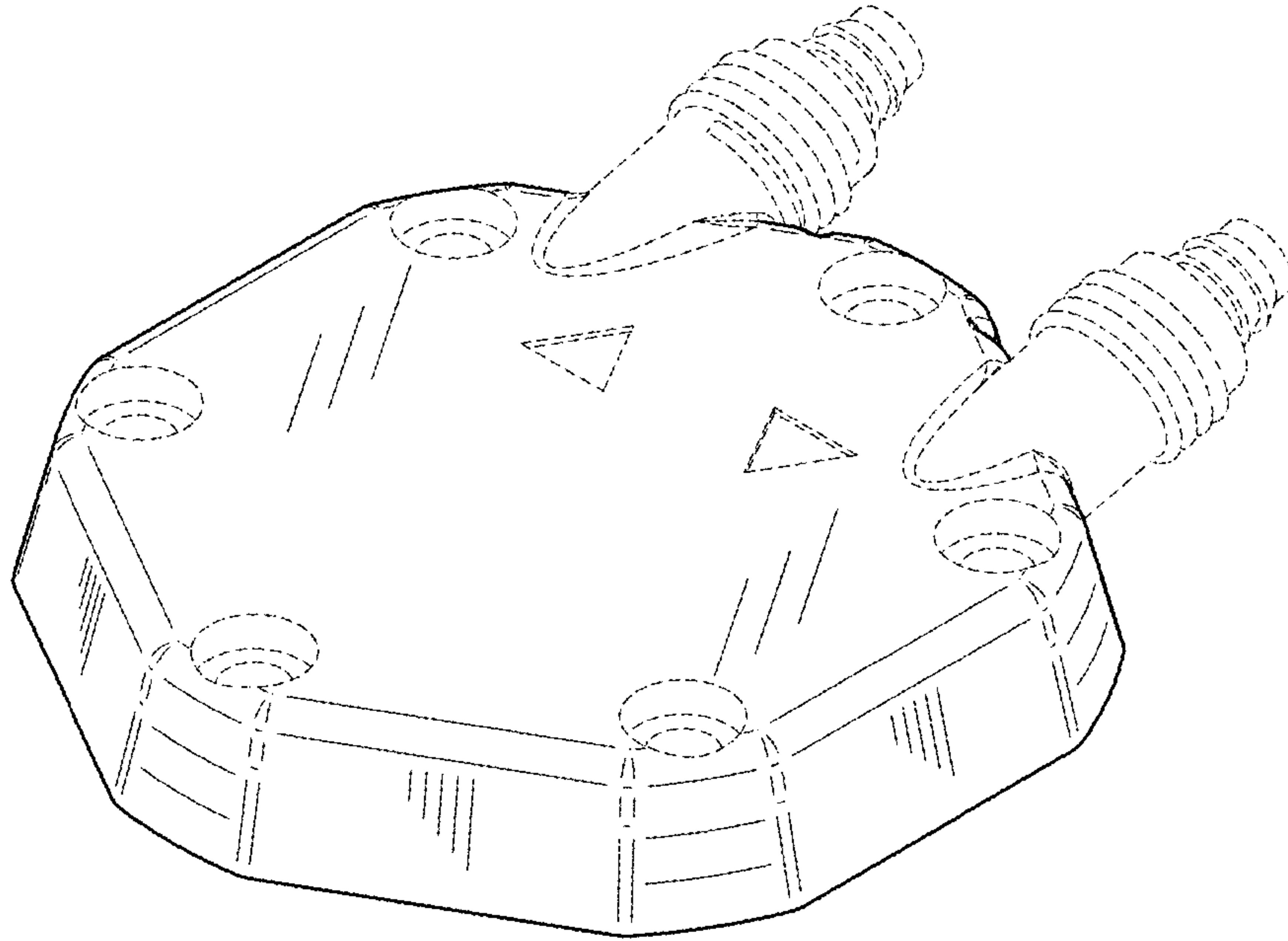


FIG. 3

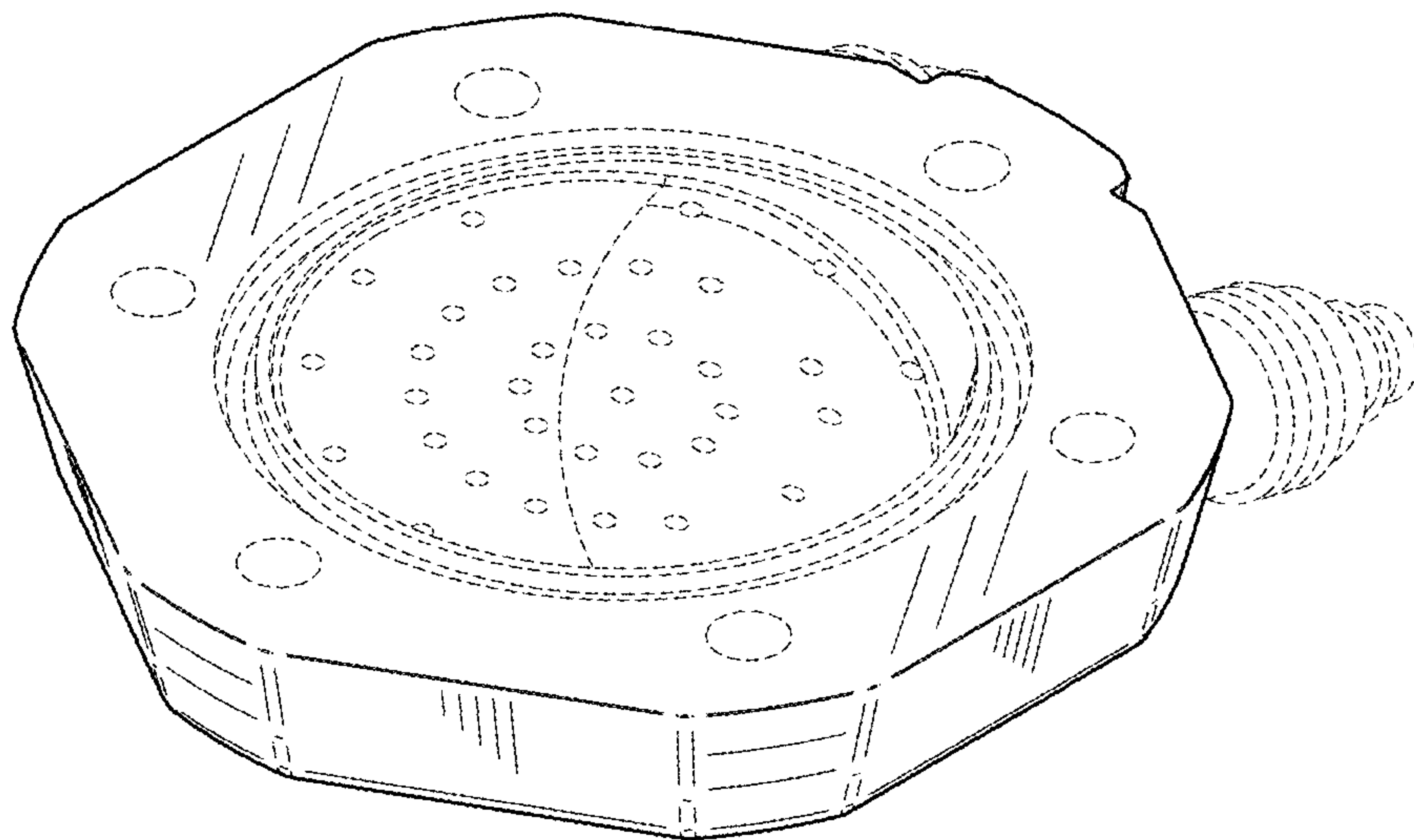


FIG. 4

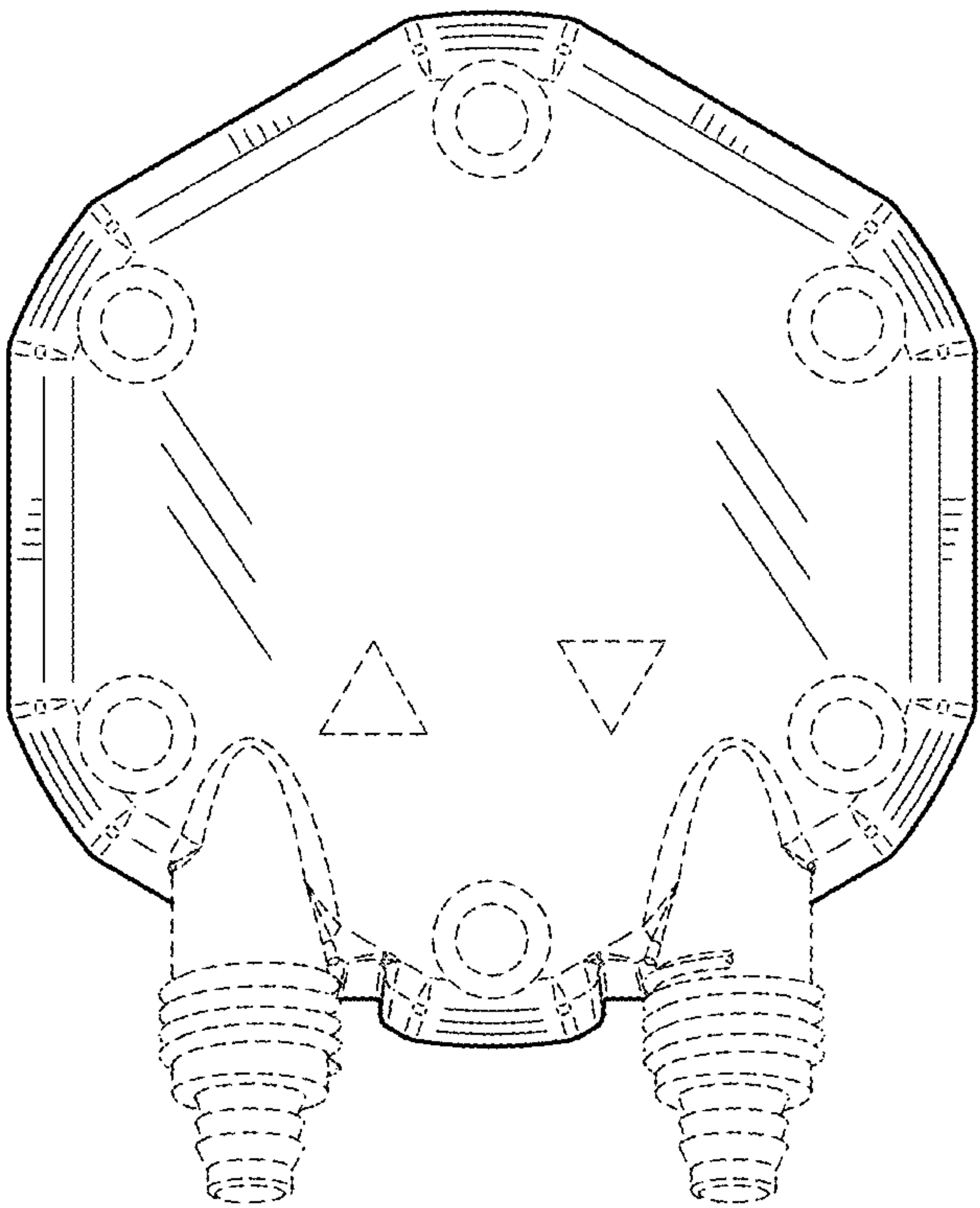


FIG. 5

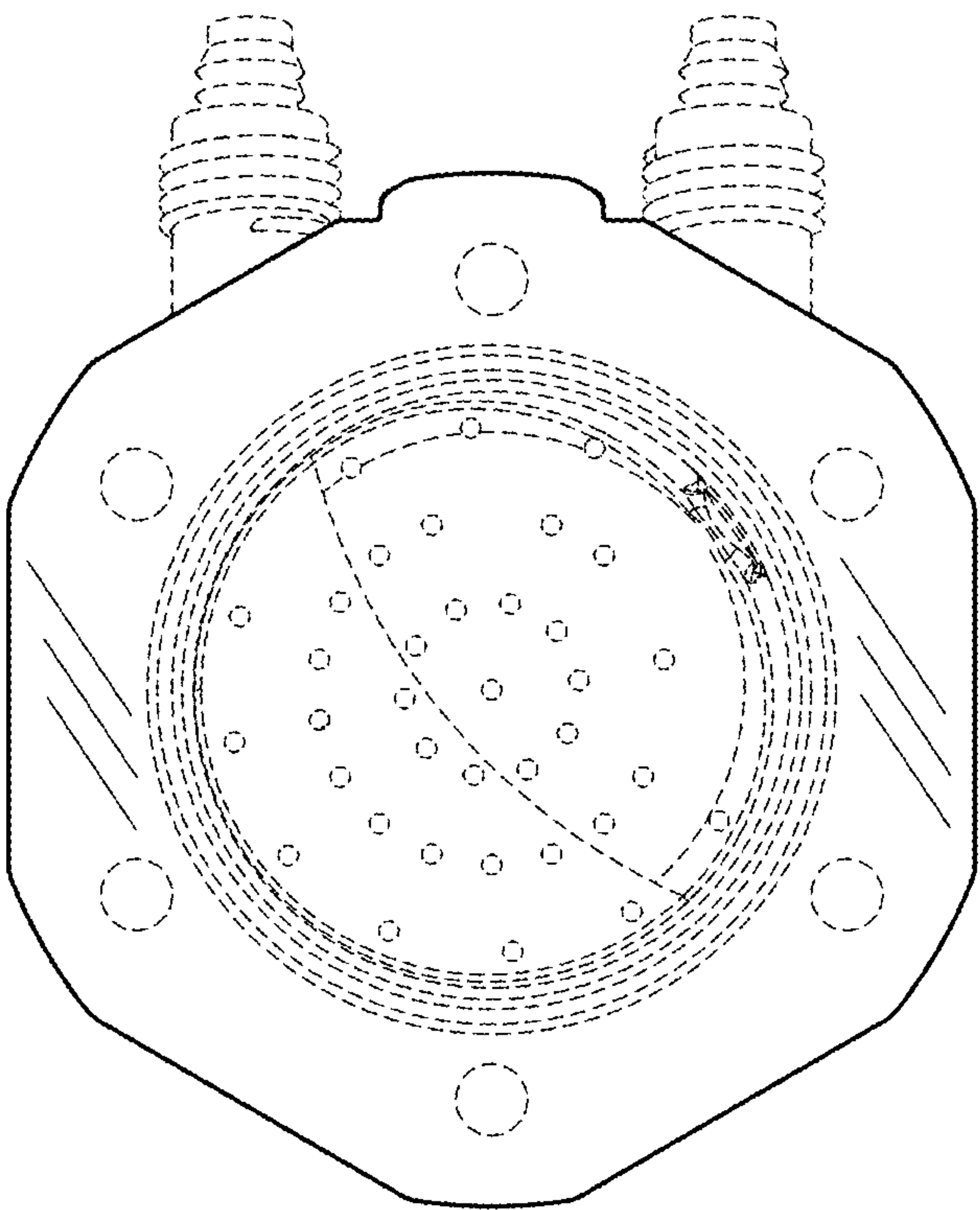


FIG. 6

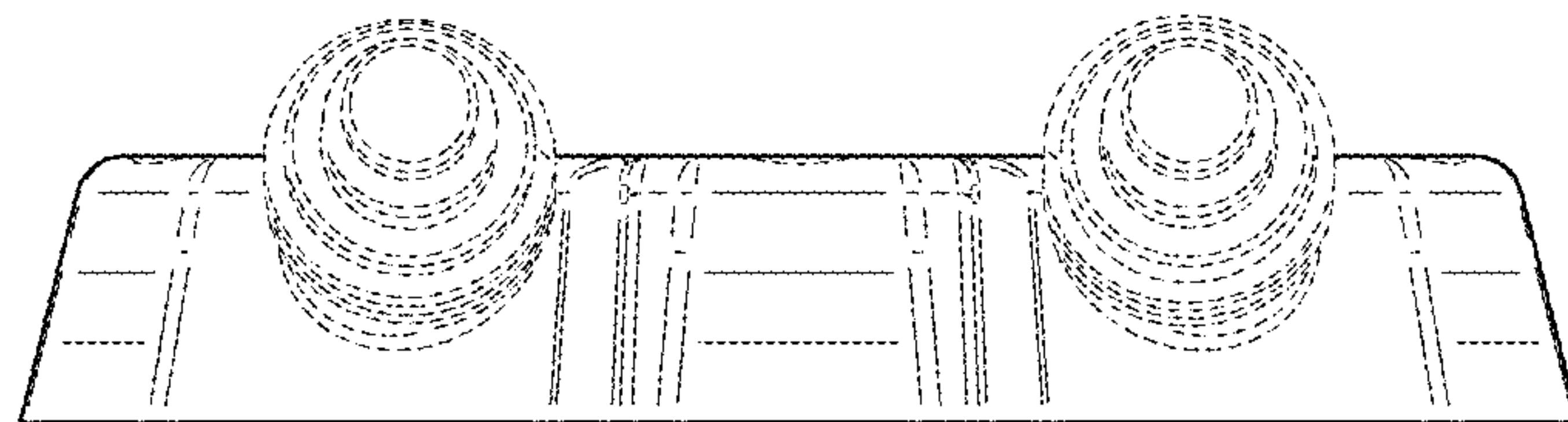


FIG. 7

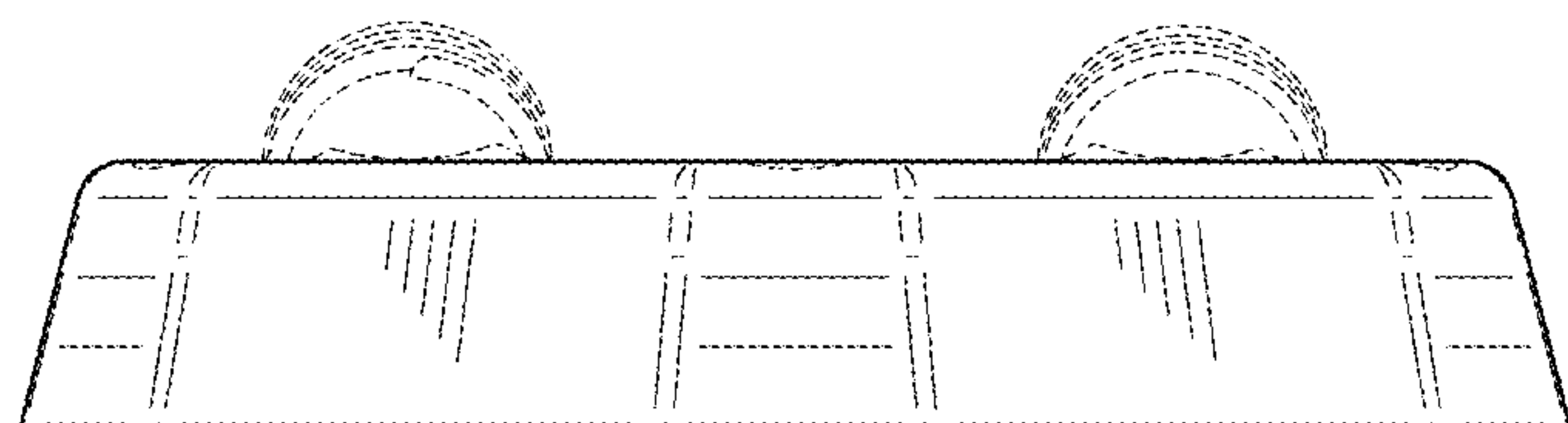


FIG. 8

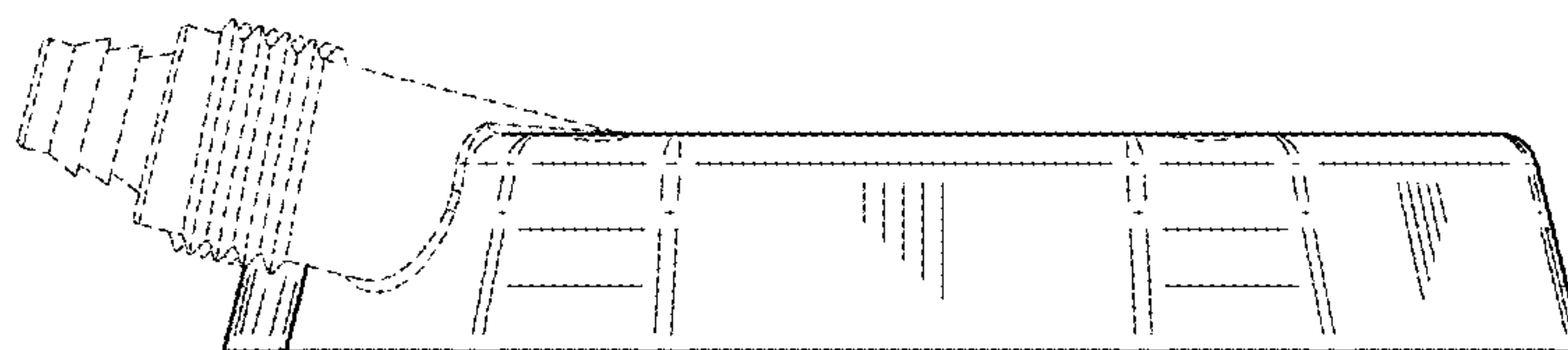


FIG. 9

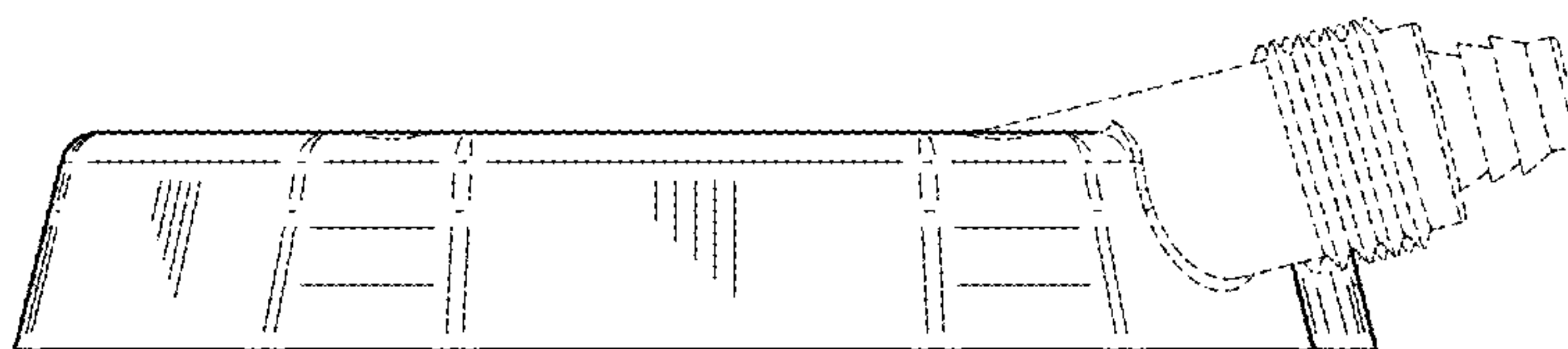


FIG. 10

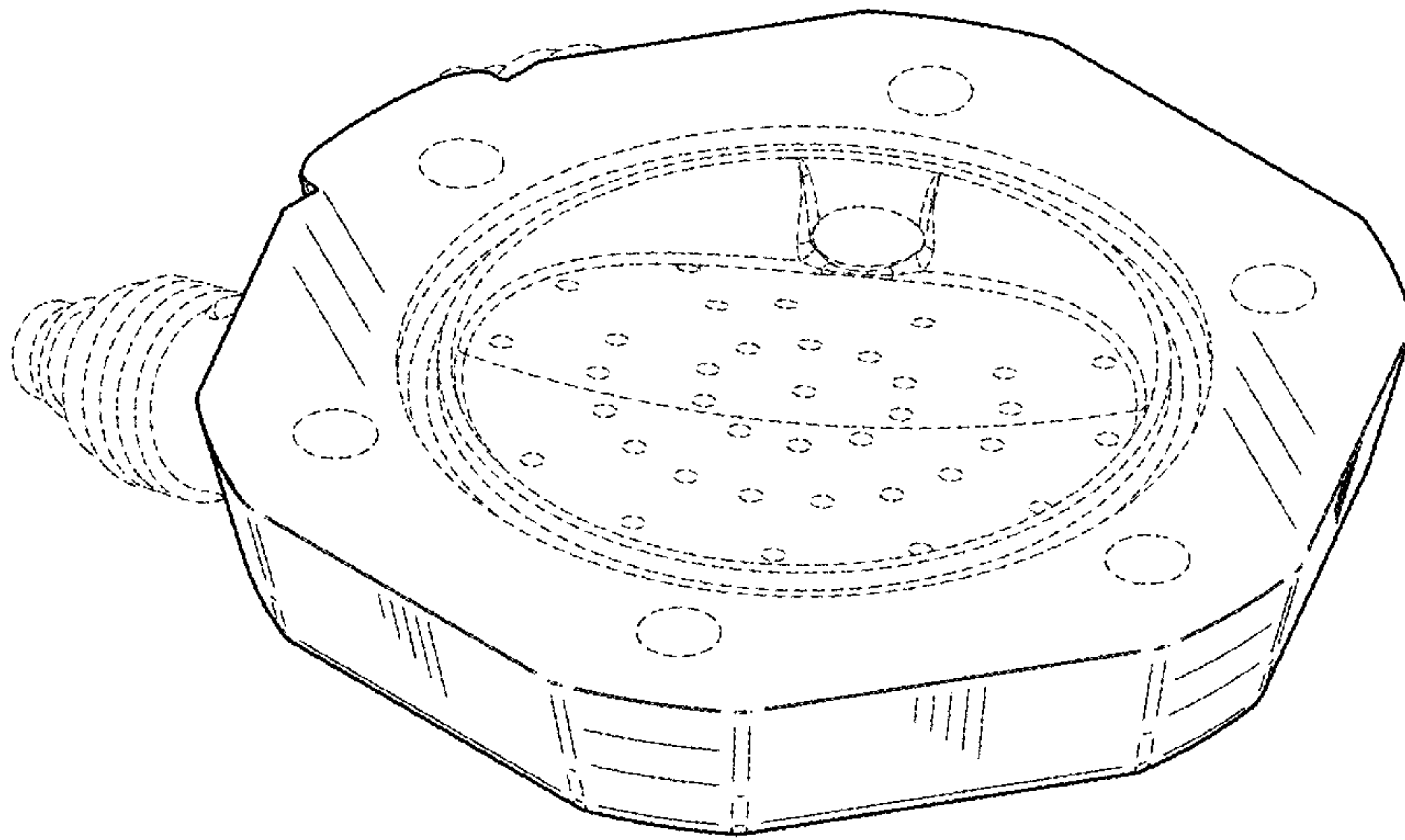


FIG. 11

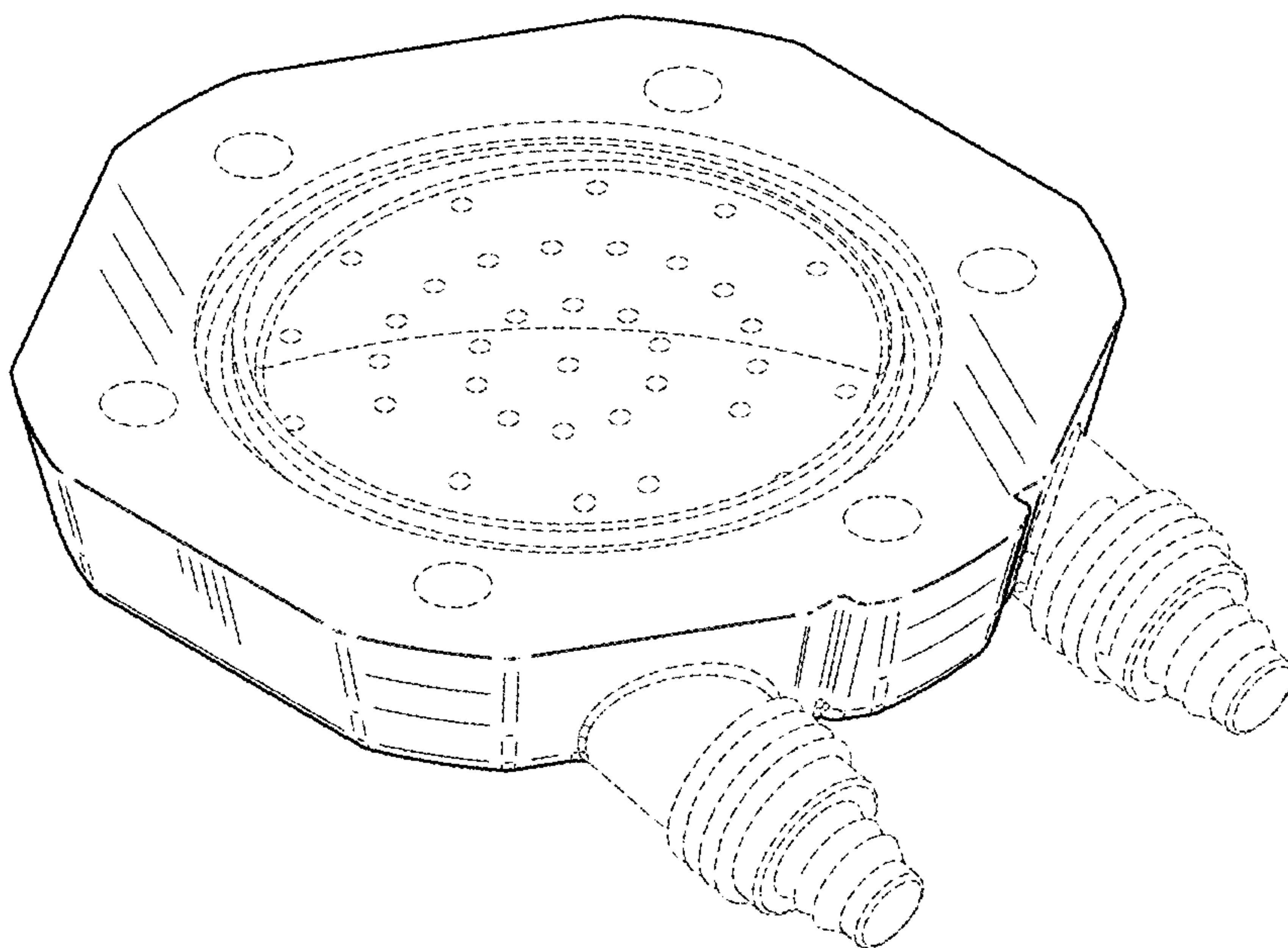


FIG. 12