



US00D833495S

(12) **United States Design Patent** (10) **Patent No.:** **US D833,495 S**  
**Nakamura et al.** (45) **Date of Patent:** **\*\* Nov. 13, 2018**

(54) **REDUCTION GEAR**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **NABTESCO CORPORATION**, Tokyo (JP)

DE 402015100242-0001 4/2015  
DE 402015100242-0002 4/2015

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OTHER PUBLICATIONS

(73) Assignee: **NABTESCO CORPORATION**, Tokyo (JP)

“Robotics Online.” Found online Mar. 13, 2018 at www.robotics.org. Page dated Aug. 22, 2012. Retrieved from URL: https://www.robotics.org/product-catalog-detail.cfm/productid/3635 (Year: 2012).\*

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

(Continued)

(21) Appl. No.: **29/559,506**

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(22) Filed: **Mar. 29, 2016**

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(30) **Foreign Application Priority Data**

Oct. 19, 2015 (JP) ..... D2015-023022

(51) **LOC (11) Cl.** ..... **15-99**

(57) **CLAIM**

(52) **U.S. Cl.**  
USPC ..... **D15/149**

The ornamental design for a reduction gear, as shown and described.

(58) **Field of Classification Search**

USPC ..... D15/148, 149; D12/180; 74/640; 92/71; 192/38, 223.3; 475/331

CPC .... B25J 9/102; F16H 1/32; F16H 1/28; F16H 57/08; Y02E 10/722

See application file for complete search history.

**DESCRIPTION**

(56) **References Cited**

U.S. PATENT DOCUMENTS

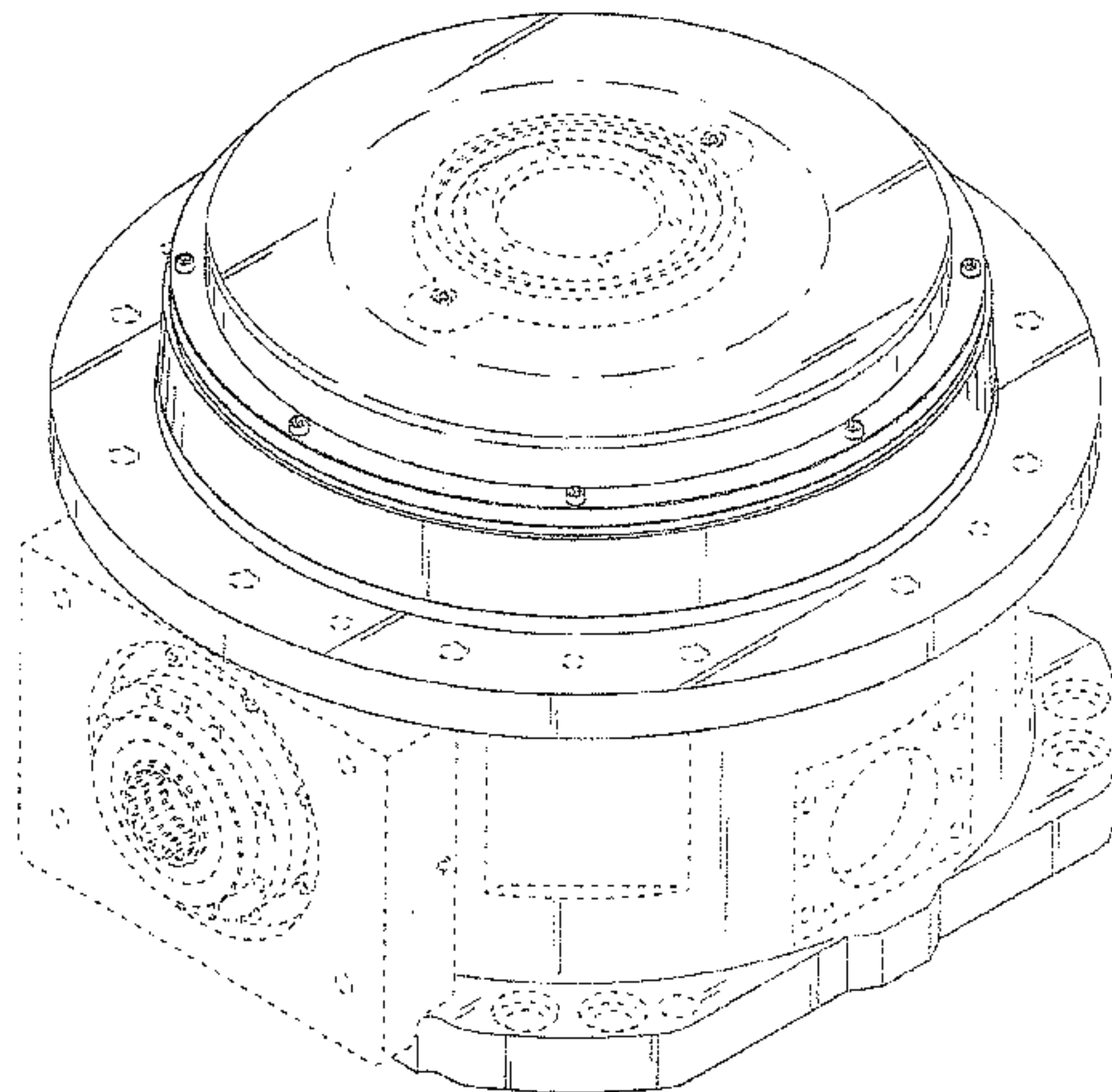
D479,543 S \* 9/2003 Lannoch ..... D15/148  
D562,856 S \* 2/2008 Hawley ..... D15/144  
D682,902 S \* 5/2013 Tanaka ..... D15/149  
D776,731 S \* 1/2017 Yamaguchi ..... D15/144  
D800,198 S \* 10/2017 Branning ..... D15/149  
D802,640 S \* 11/2017 Hannet ..... D15/149  
D809,039 S \* 1/2018 Ebner ..... D15/148  
2010/0224021 A1 \* 9/2010 Long ..... B25J 9/108  
74/490.01  
2011/0265585 A1 \* 11/2011 Thorwart ..... F15B 15/12  
74/11

FIG. 1 is a top, front, right side perspective view of a reduction gear;  
FIG. 2 is a bottom, rear, left side perspective view thereof;  
FIG. 3 is a front view thereof;  
FIG. 4 is a rear view thereof;  
FIG. 5 is a left side view thereof;  
FIG. 6 is a right side view thereof;  
FIG. 7 is a top view thereof; and,  
FIG. 8 is a bottom view thereof.

The evenly-spaced broken lines depict portions of the reduction gear that form no part of the claimed design. The unevenly-spaced broken lines in FIGS. 1 and 7 represent a boundary of the claim that forms no part of the claimed design.

(Continued)

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2013/0088016 A1\* 4/2013 Dinter ..... F03D 11/02  
290/55  
2013/0203545 A1\* 8/2013 Yao ..... F16H 13/08  
475/183  
2016/0195169 A1\* 7/2016 Kim ..... F16H 1/32  
475/177  
2017/0254404 A1\* 9/2017 Kobayashi ..... F16H 49/001

OTHER PUBLICATIONS

“High Precision Hollow Shaft Planetary Gearhead.” Found online Mar. 13, 2018 at [sesamotoren.taiwantrade.com](http://sesamotoren.taiwantrade.com). Image dated Jan. 15, 2014 . Retrieved from URL: [https://tineye.com/search/03a4092eeefd1436f0177566d41a6248e6fd650d/?sort=crawl\\_date&order=asc](https://tineye.com/search/03a4092eeefd1436f0177566d41a6248e6fd650d/?sort=crawl_date&order=asc) (Year: 2014).\*

“Neugart PLFE.” Found online Mar. 13, 2018 at [wiki.hmkdirect.com](http://wiki.hmkdirect.com). Page dated Feb. 25, 2016. Retrieved from URL: [http://wiki.hmkdirect.com/mediawiki/index.php/NEUGART\\_PLFE](http://wiki.hmkdirect.com/mediawiki/index.php/NEUGART_PLFE) (Year: 2016).\*

“AD-H Planetary Gearbox.” Found online Mar. 13, 2018 at [www.powerjackmotion.com](http://www.powerjackmotion.com). Image dated Jan. 30, 2018. Retrieved from URL: [https://tineye.com/search/1a907d1e63e96f7a3e2725f48def0ad63a38af99/?extension\\_ver=chrome-1.2.0](https://tineye.com/search/1a907d1e63e96f7a3e2725f48def0ad63a38af99/?extension_ver=chrome-1.2.0) (Year: 2018).\*

\* cited by examiner

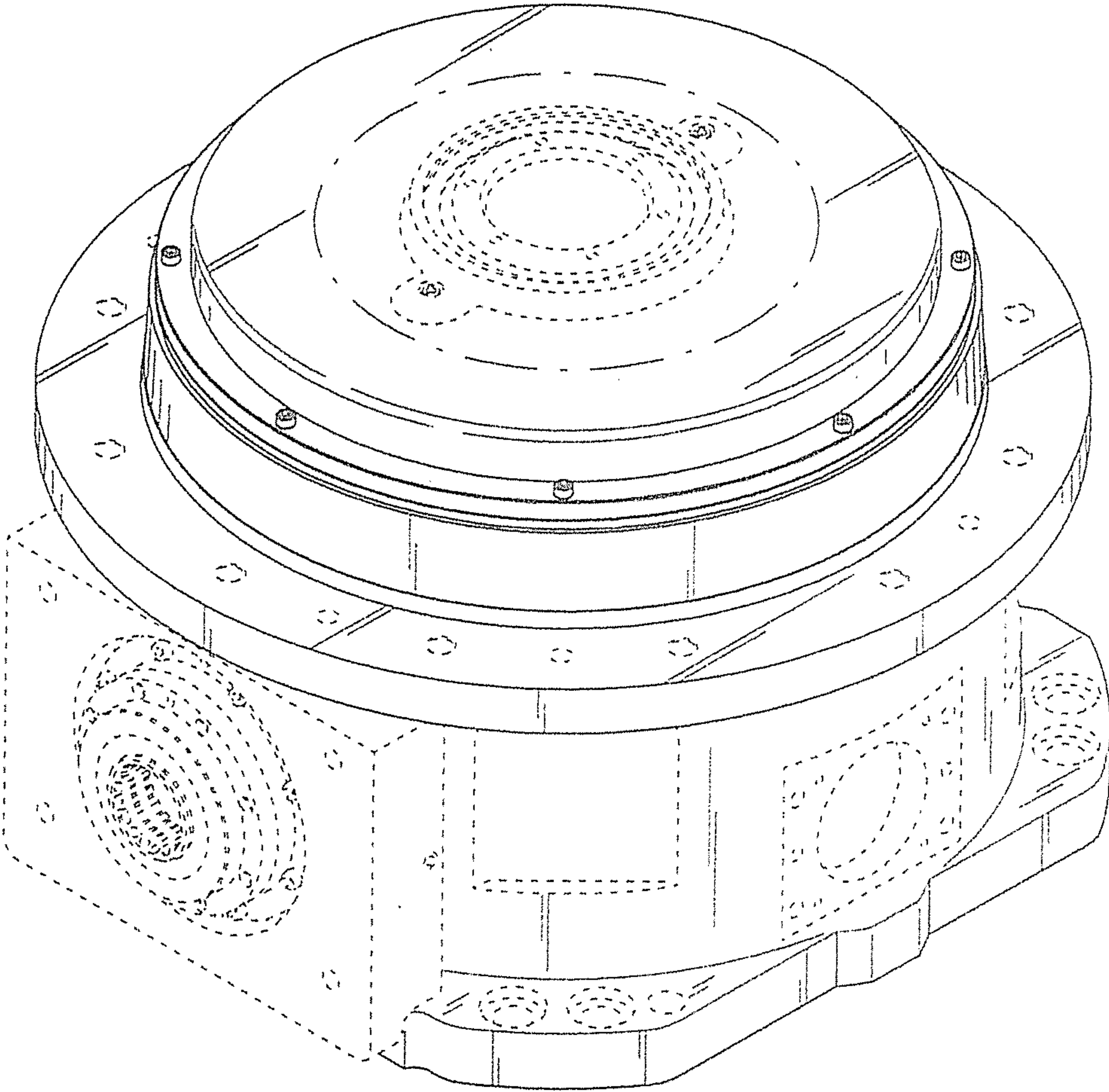


FIG. 1

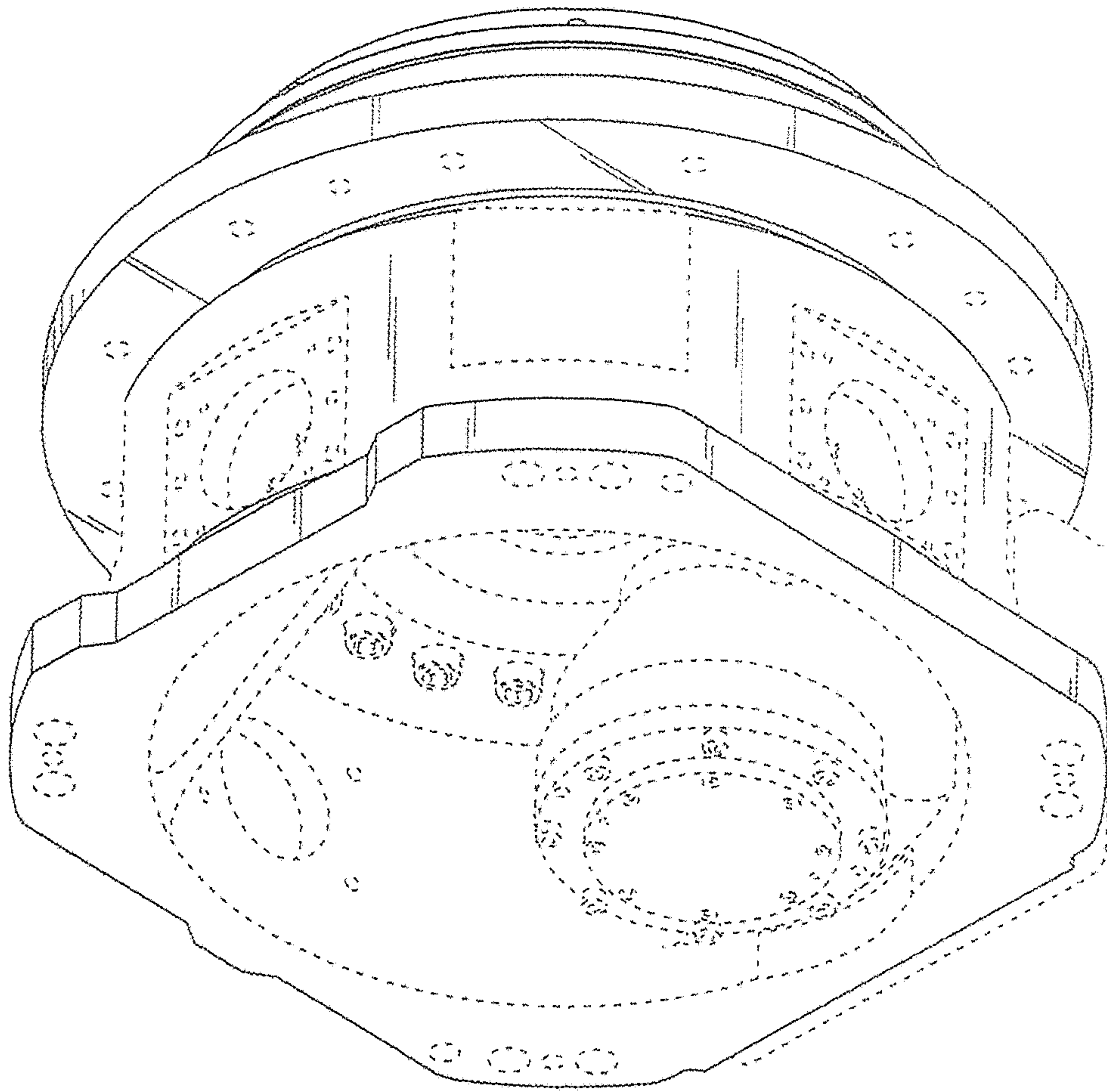


FIG. 2



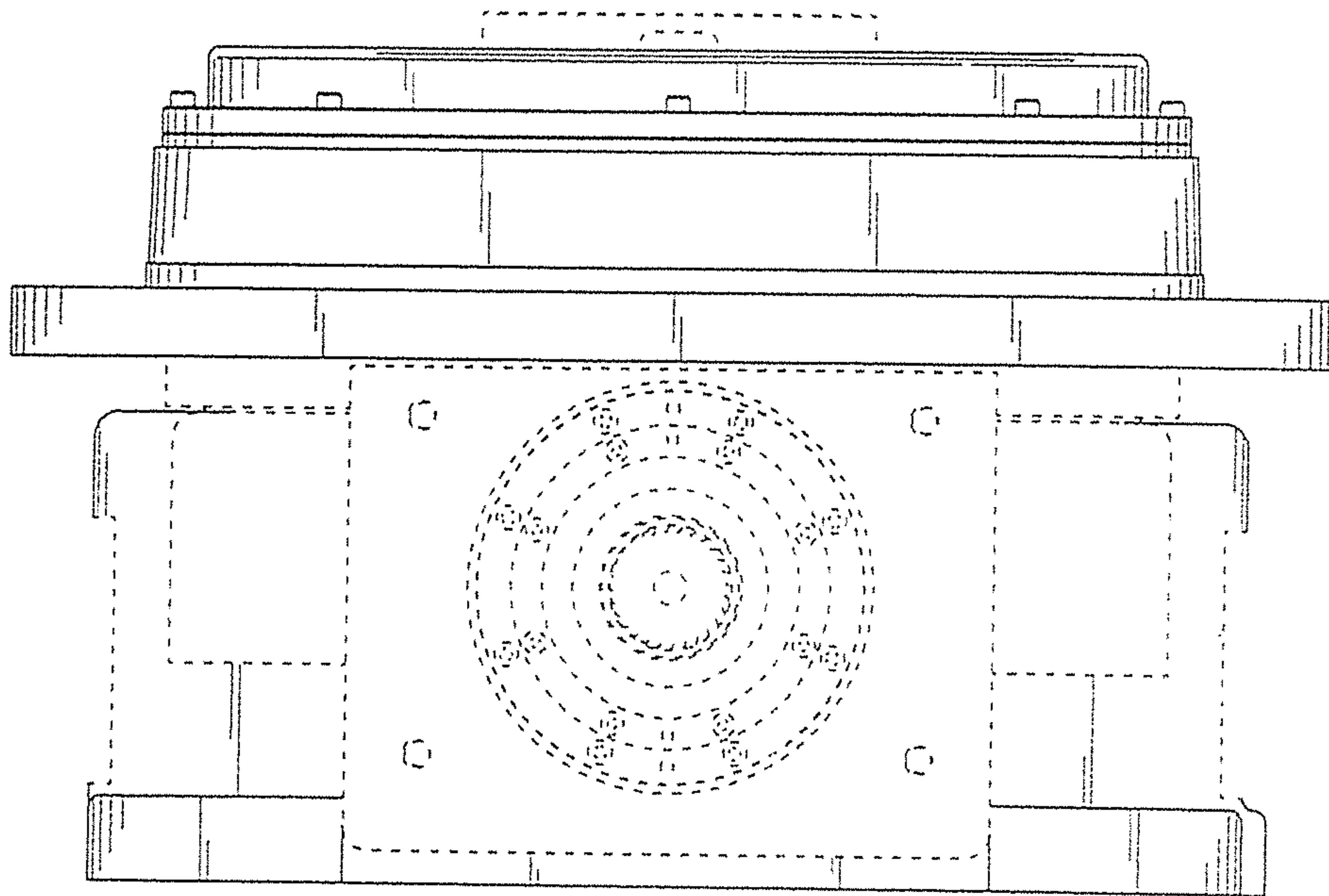


FIG. 3

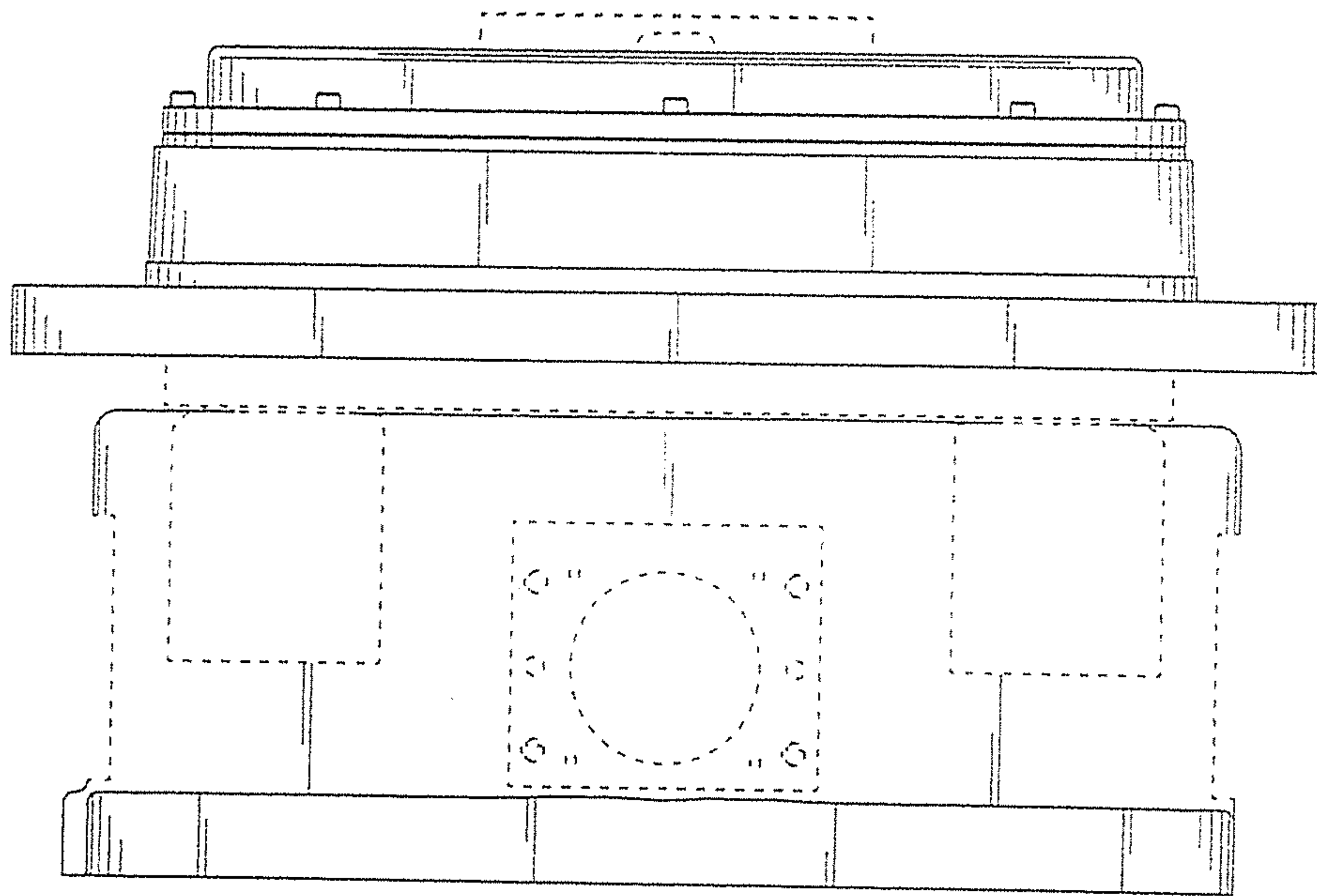


FIG. 4

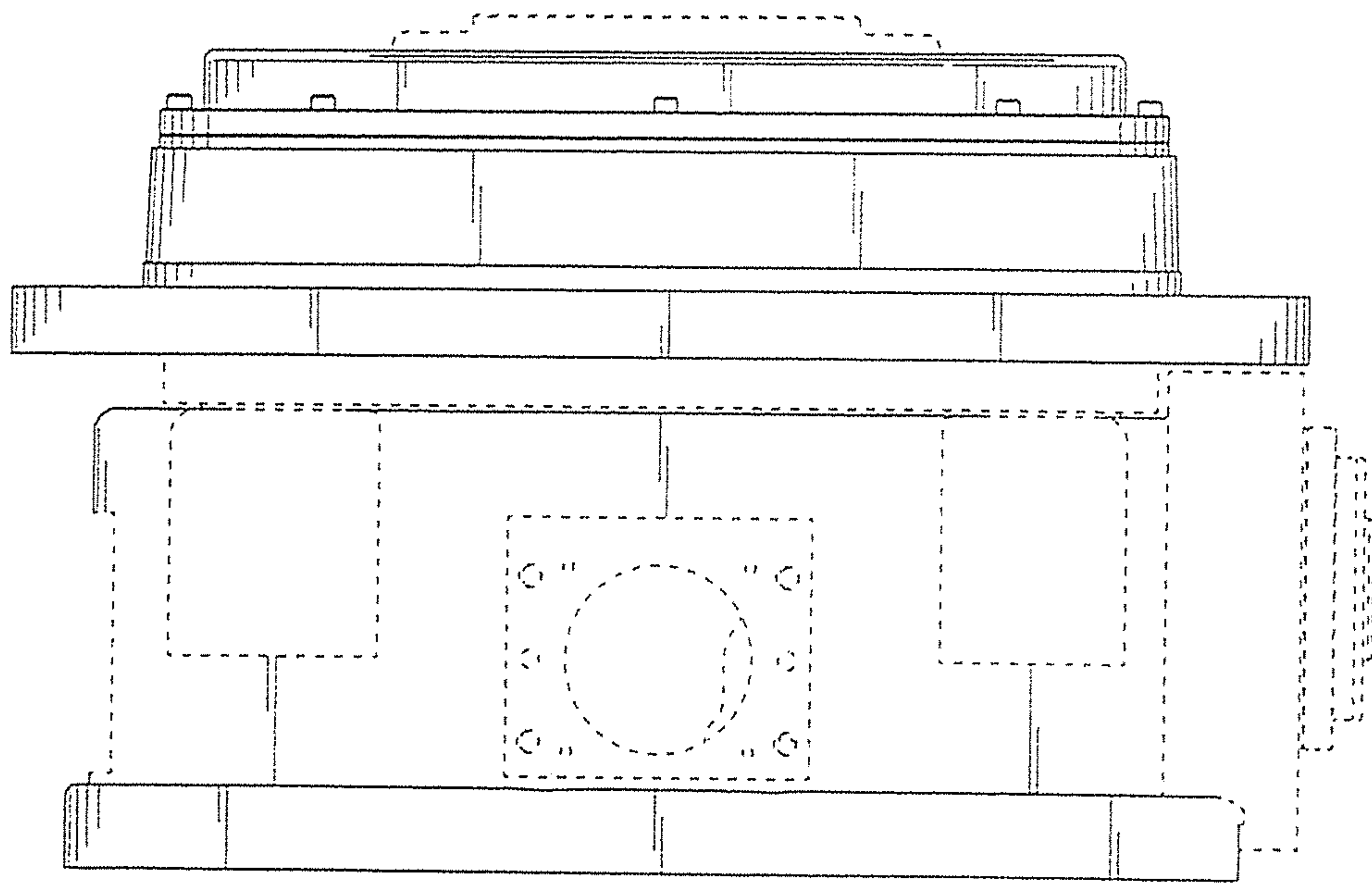


FIG. 5

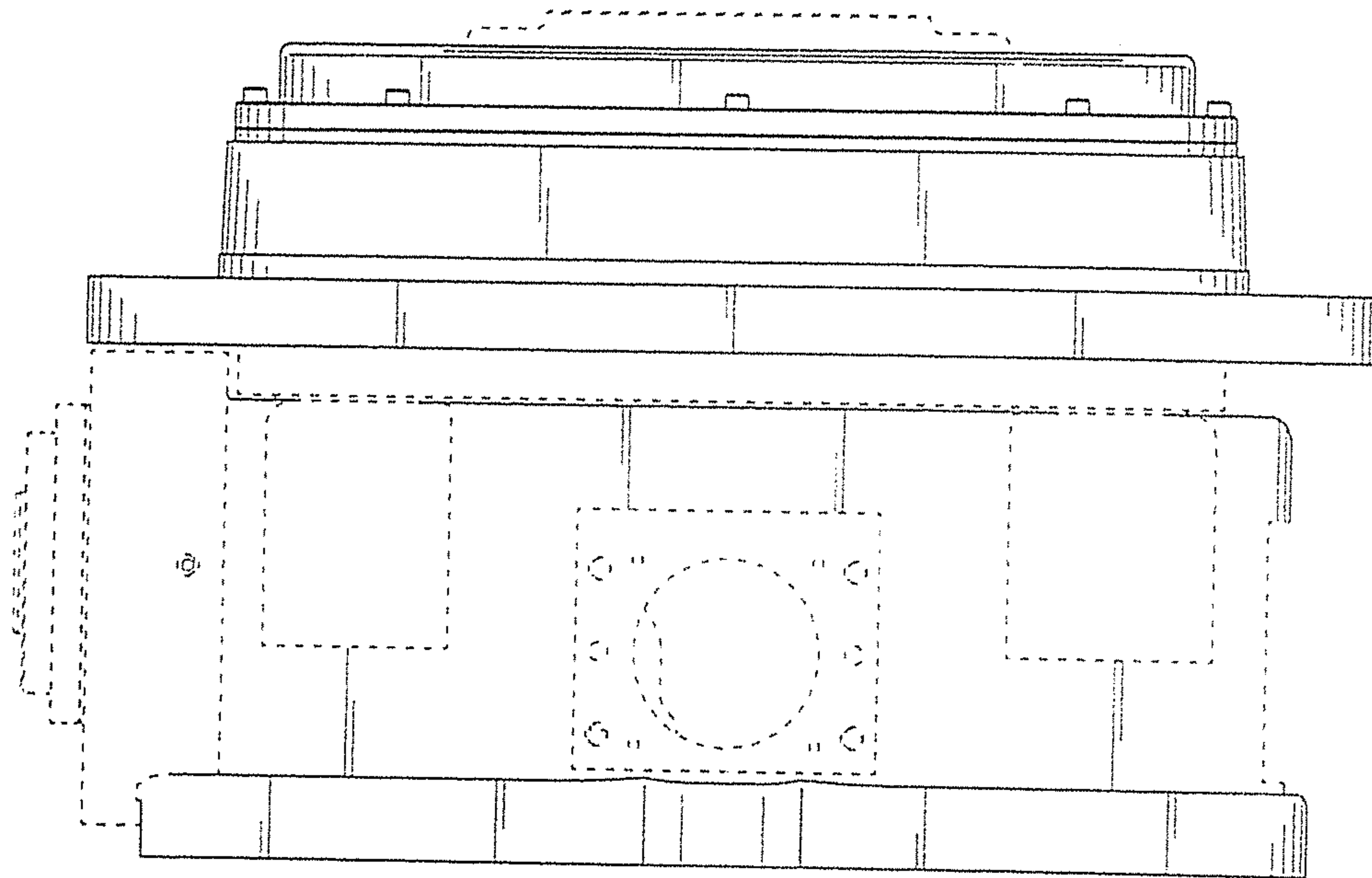


FIG. 6



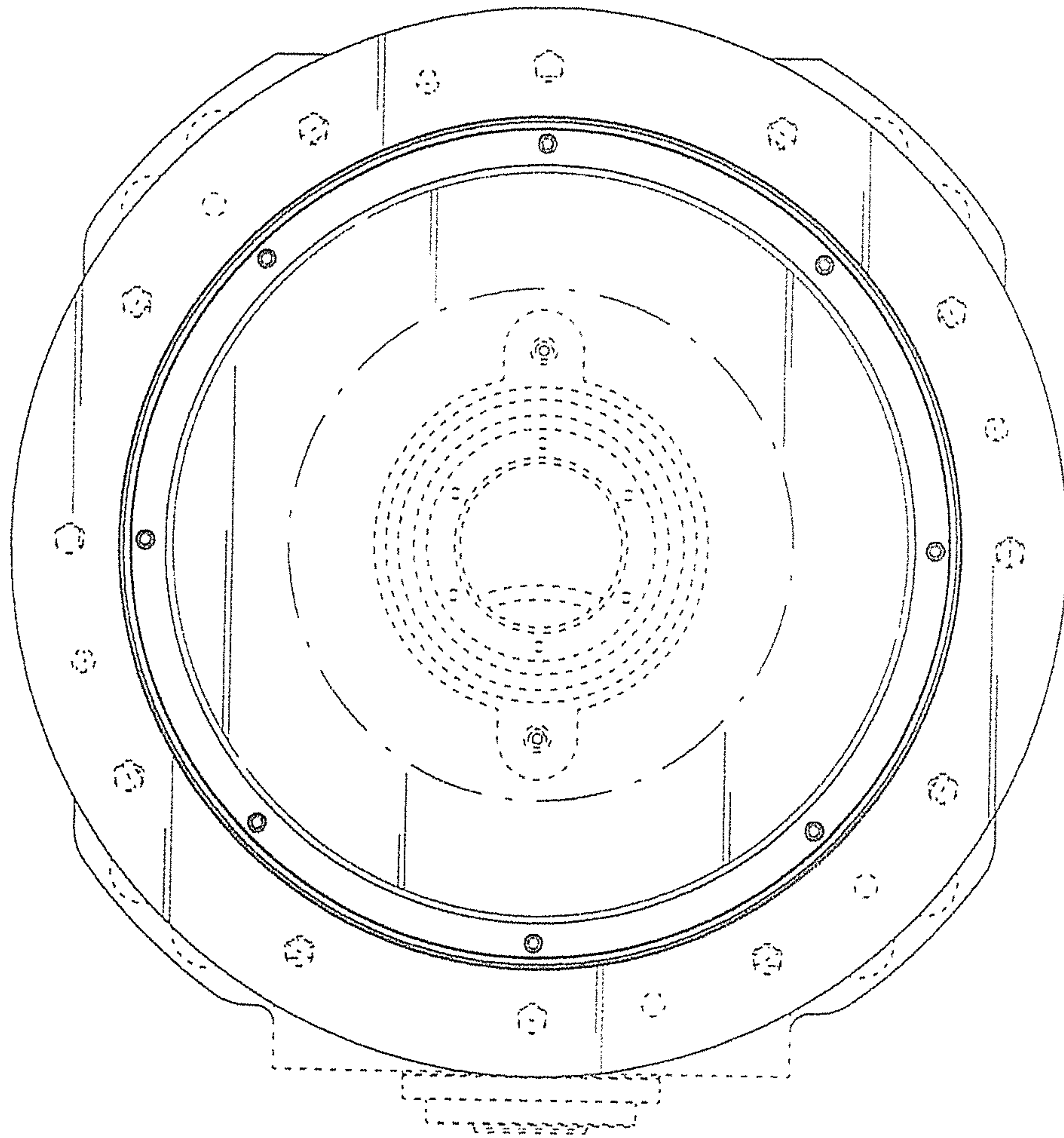


FIG. 7

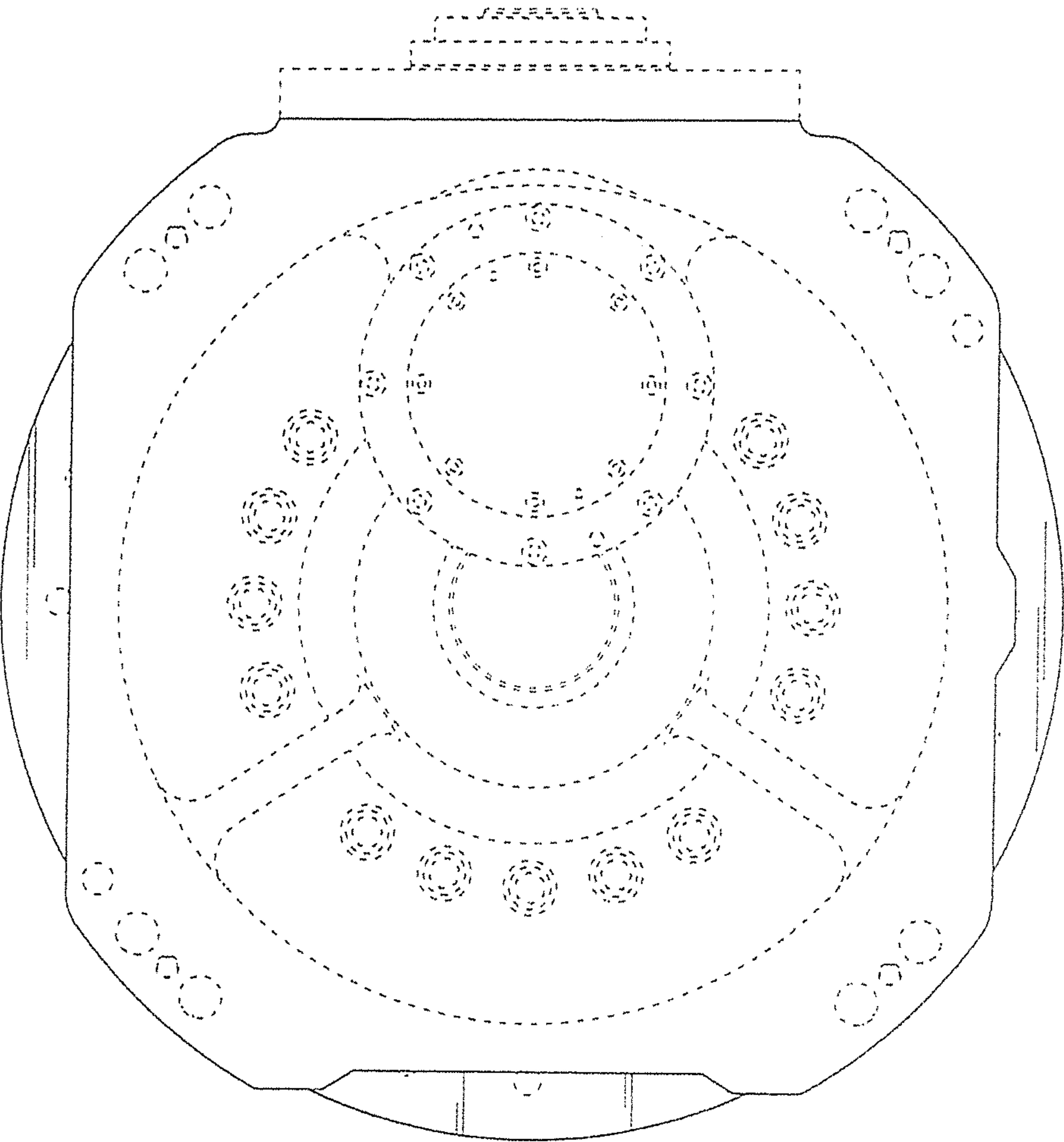


FIG. 8