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Fish

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(54) AXLE LOCK NUT

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CPC F16B 39/26; F16B 39/122; F16B 39/16; F16B 39/025; F16B 39/12; F16B 39/128; F16B 31/043; F16B 39/32; F16B 39/14; F16B 39/28; Y10S 411/91; F16C 33/30; F16C 19/54; F16C 19/548; F16C 19/364; F16C 43/04; F16C 25/06; F16C 2326/02; F16C 2229/00; B23P 19/065; B23P 19/06; B25B 27/062; Y10T 29/5383; Y10T 29/53104; Y10T 29/53091; Y10T 29/497

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

1,326,992	A *	1/1920	Thibert	F16B 39/32
				411/941
1,555,576	A *	9/1925	Hokanson	F16B 39/32
				411/248
2,348,308	A *	5/1944	Richardson	F16B 39/34
				411/303
D140,317	S *	2/1945	Allen	D8/397
2,443,614	A *	6/1948	Gray	F16B 39/32
				411/929

(Continued)

OTHER PUBLICATIONS

Instructions For Temper-Loc, by Temper Axle Products Corp on doctorpreload.com. Dated Sep. 6, 2012. Found online [Dec. 28, 2022]. <http://www.doctorpreload.com/wp-content/uploads/2016/08/Temper-Loc-Nut-Instructions.pdf>.*

(Continued)

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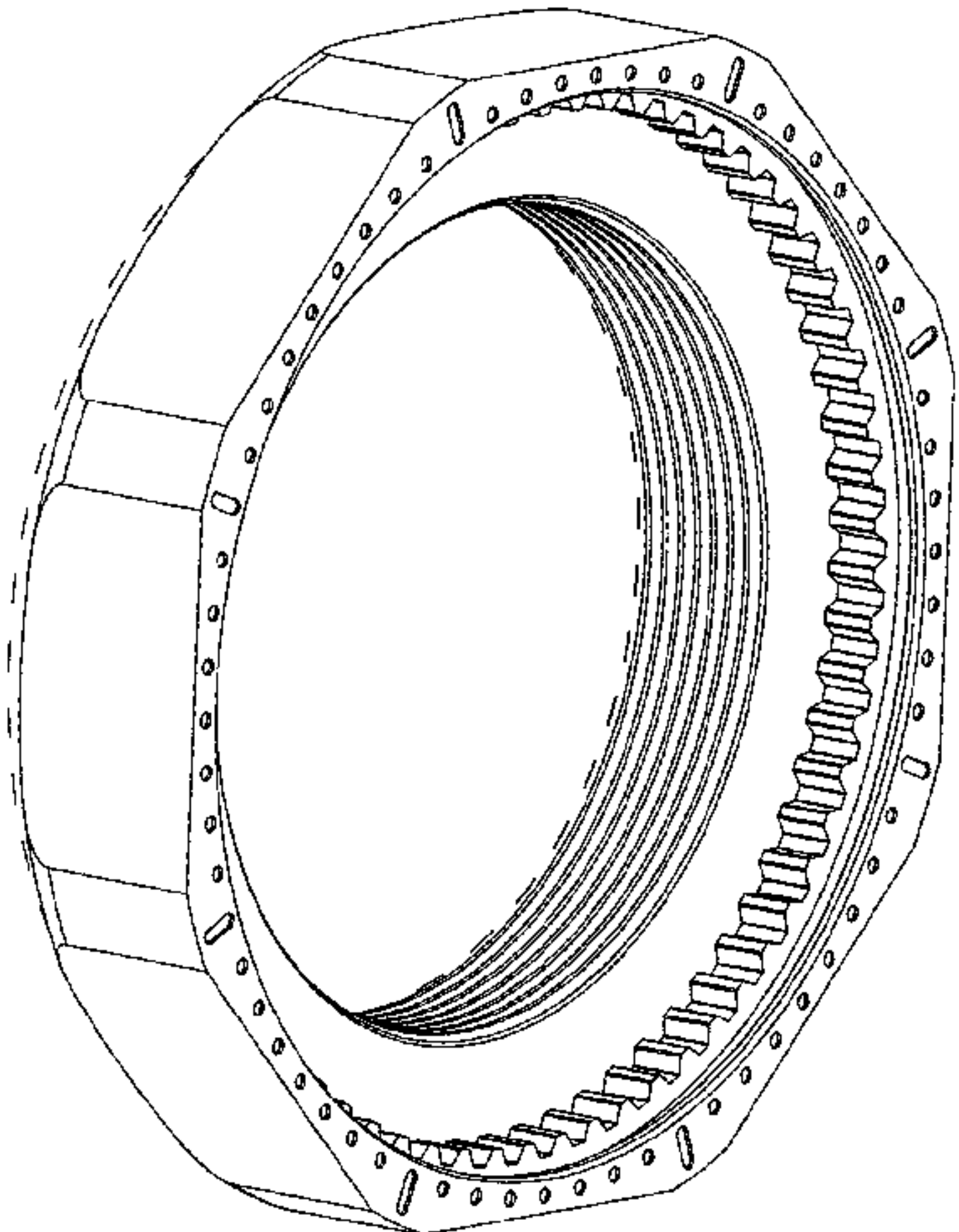
(57) CLAIM

The ornamental design for a axle lock nut, as shown and described.

DESCRIPTION

FIG. 1 is a front, left perspective view of an axle lock nut according to the new design;
FIG. 2 is a front, right perspective view thereof;
FIG. 3 is a rear, left perspective view thereof;
FIG. 4 is a rear, right perspective view thereof;
FIG. 5 is a front elevational view thereof;
FIG. 6 is a right side elevational view thereof;
FIG. 7 is a left side elevational view thereof;
FIG. 8 is a top view thereof;
FIG. 9 is a bottom view thereof;
FIG. 10 is a rear elevational view thereof;
FIG. 11 is a front, left perspective view thereof shown in an alternate environment of use; and,
FIG. 12 is a front, right perspective view thereof shown in another alternate environment of use.
The broken lines immediately adjacent the claimed design represent the bounds of the claimed design while all other broken lines are directed to portions of the axle lock nut that form no part of the claimed design.

1 Claim, 12 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2,502,642 A * 4/1950 Currlin F16B 39/34
411/303
3,762,455 A * 10/1973 Anderson, Jr. F16B 39/10
411/190
5,020,953 A * 6/1991 Wada F16B 39/34
411/405
D332,568 S * 1/1993 Ozawa D8/397
6,113,329 A * 9/2000 Moroi F16B 39/28
411/278
D434,847 S * 12/2000 Baribeau D24/110
6,210,091 B1 * 4/2001 Ono F16B 39/128
411/303
D532,684 S * 11/2006 Barnes D8/397
7,303,367 B2 * 12/2007 Rode F16B 39/14
411/303
D561,019 S * 2/2008 Riedel D8/397
7,625,164 B2 12/2009 Rode
7,927,052 B1 * 4/2011 Varden F16B 39/108
411/197
8,006,573 B1 * 8/2011 Rode G01L 5/24
73/862.23
8,016,531 B2 9/2011 White et al.
D673,445 S * 1/2013 Kashimura D8/397
8,403,611 B2 3/2013 Friesen et al.
D698,638 S * 2/2014 Imai D8/397
D725,461 S * 3/2015 Kopp D8/397
9,217,461 B2 * 12/2015 Rode B25B 27/14
9,566,699 B1 * 2/2017 Rode F16C 41/008
9,587,667 B2 3/2017 Rode et al.
9,599,164 B1 * 3/2017 Rode F16C 25/06
9,764,453 B1 9/2017 Rode et al.
9,850,943 B1 12/2017 Rode
9,908,223 B2 3/2018 Rode et al.
9,909,609 B2 3/2018 Rode et al.
9,987,732 B2 6/2018 Rode et al.
10,086,505 B2 10/2018 Rode et al.
10,107,324 B1 * 10/2018 Rode F16B 21/183
10,107,331 B1 10/2018 Rode
10,151,343 B2 12/2018 Rode
10,184,519 B2 1/2019 Rode et al.
10,436,247 B2 10/2019 Rode
10,493,605 B2 12/2019 Rode et al.
10,532,451 B2 1/2020 Rode et al.

D882,389 S * 4/2020 Schramm D8/397
10,690,174 B2 6/2020 Rode et al.
10,718,368 B2 7/2020 Rode
10,821,582 B2 11/2020 Rode et al.
10,837,489 B2 11/2020 Rode et al.
10,968,945 B2 * 4/2021 Mesiti F16B 39/103
10,982,706 B2 4/2021 Rode
D923,463 S * 6/2021 Krauss D8/375
11,506,242 B2 * 11/2022 Fish F16B 1/0071
2005/0025604 A1 * 2/2005 Slesinski F16B 39/103
411/112
2006/0008340 A1 * 1/2006 Cox F16B 39/32
411/432
2006/0029485 A1 * 2/2006 Weinstein F16B 39/10
411/121
2006/0133909 A1 6/2006 Jimenez et al.
2006/0147294 A1 * 7/2006 Rode F16B 39/14
411/246
2009/0016847 A1 * 1/2009 Kishida F16B 37/14
411/431
2012/0177460 A1 * 7/2012 Flaig F16B 39/38
470/19
2014/0294531 A1 * 10/2014 Rode F16C 33/30
411/246
2015/0010373 A1 * 1/2015 Cho F16B 39/20
411/262
2015/0275957 A1 * 10/2015 Rode B23P 15/003
411/246
2019/0048918 A1 * 2/2019 Rode F16B 39/12
2020/0003249 A1 * 1/2020 Mesiti F16B 39/282
2022/0034361 A1 * 2/2022 Fish F16B 1/0071
2022/0203762 A1 * 6/2022 Sandrasekaran B60B 27/065
2023/0029906 A1 2/2023 Fish

OTHER PUBLICATIONS

Temper-Loc Spindle Nuts, by Federal Mogul Motorparts on oreillyauto.com. Dated 2015. Found online [Dec. 28, 2022]. https://images.oreillyauto.com/parts/img/documents/bca/n151061_nosbtemper-locspindlenutssellsheet_052115.pdf.*

Michael Fish, U.S. Appl. No. 63/058,612, filed Jul. 30, 2020, entitled “Endplay or Preload Settable Lock Nut”, Jul. 30, 2020.

Michael Fish, U.S. Appl. No. 17/367,817, filed Jul. 6, 2021, entitled Endplay or Preload Settable Lock Nut, 35 pages, Jul. 6, 2021.

* cited by examiner

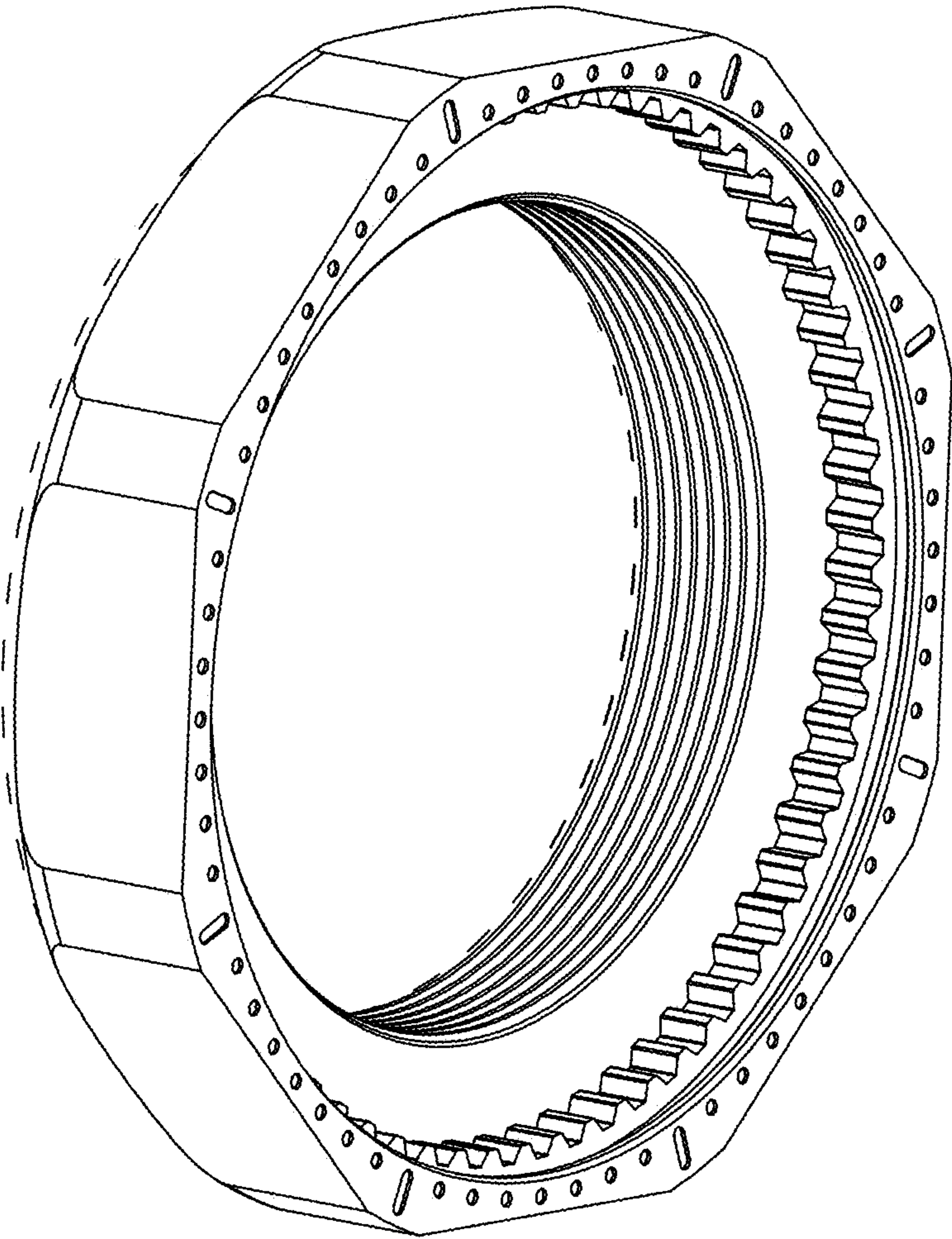


FIG. 1

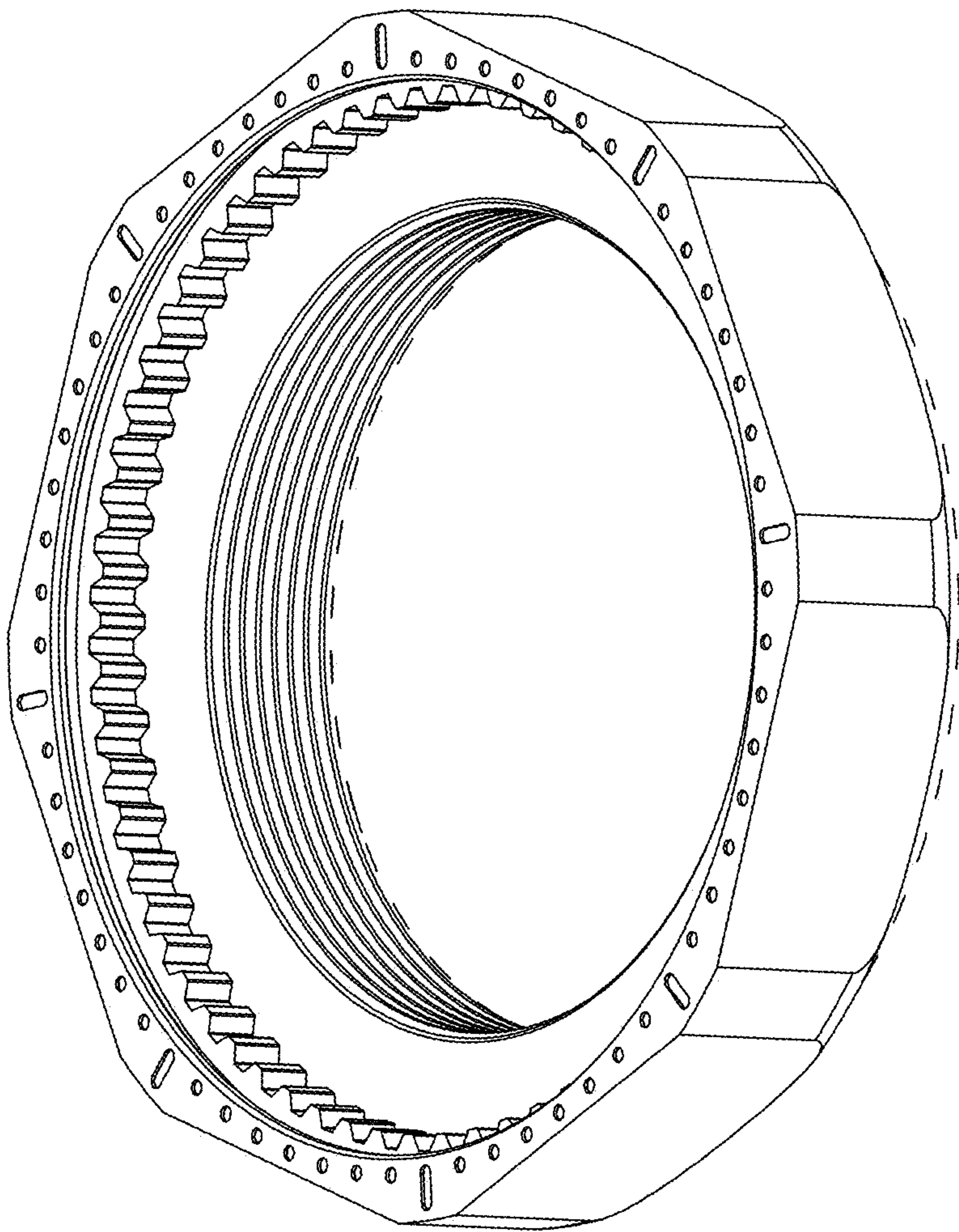


FIG. 2

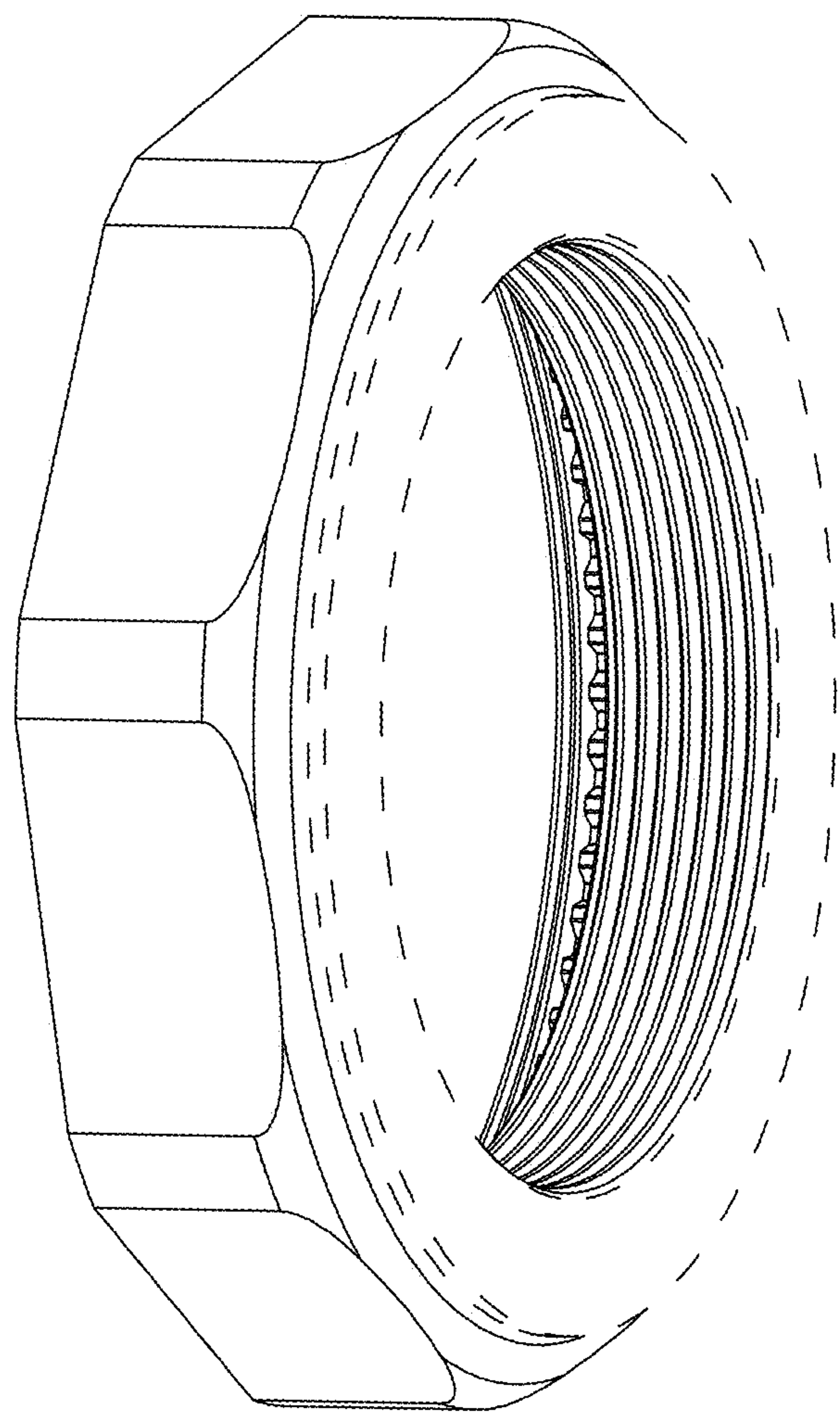


FIG. 3

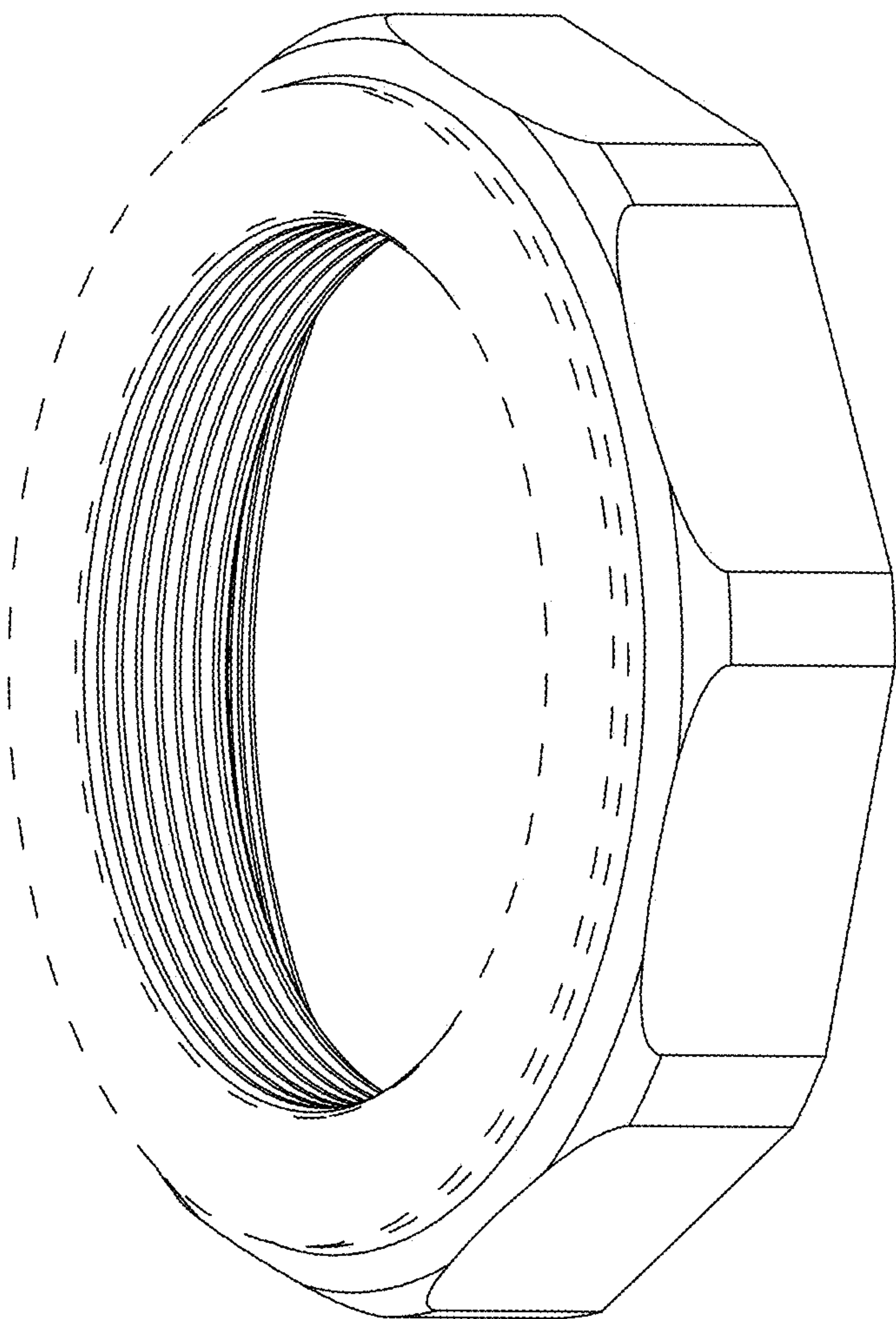


FIG. 4

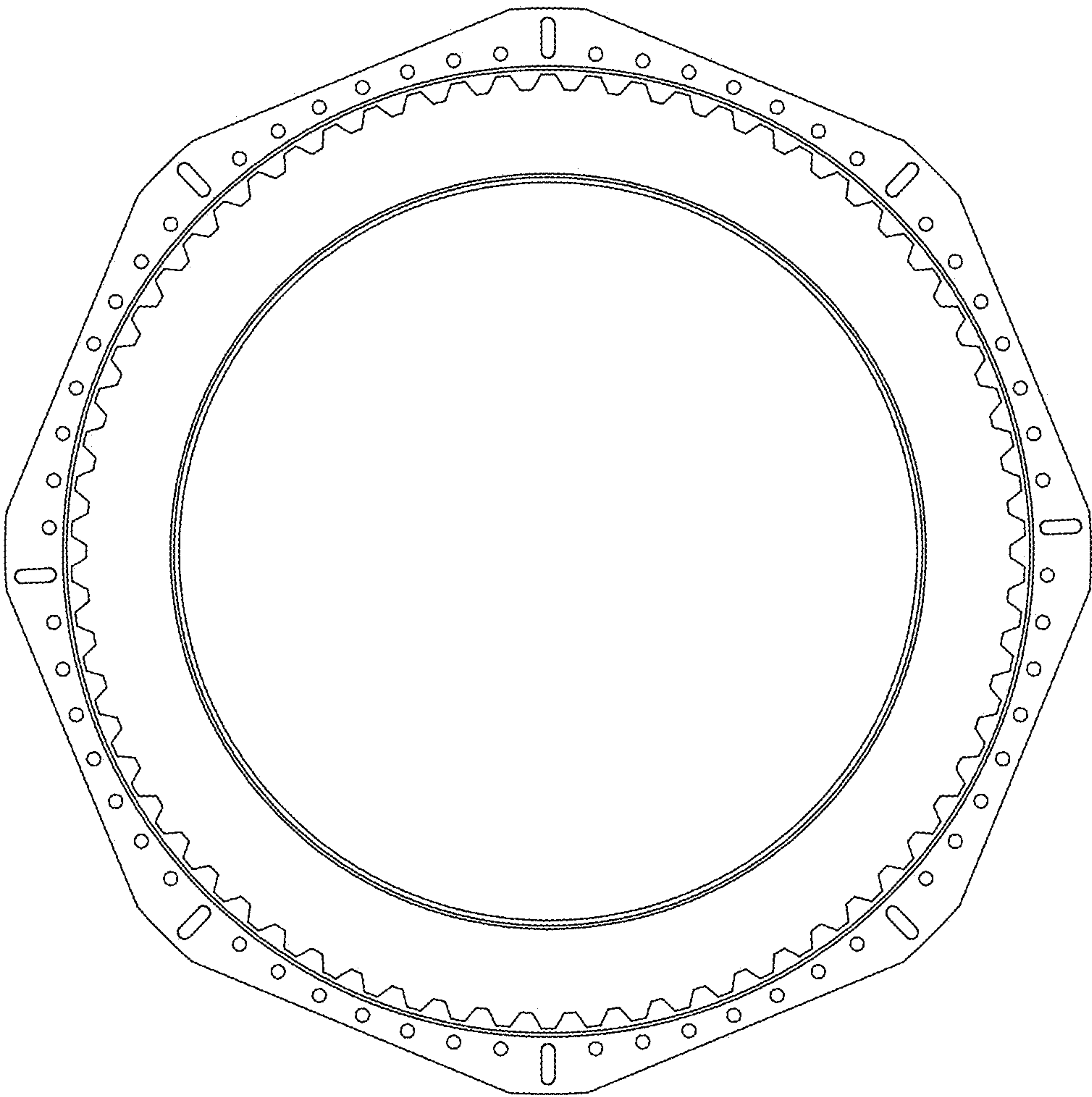


FIG. 5

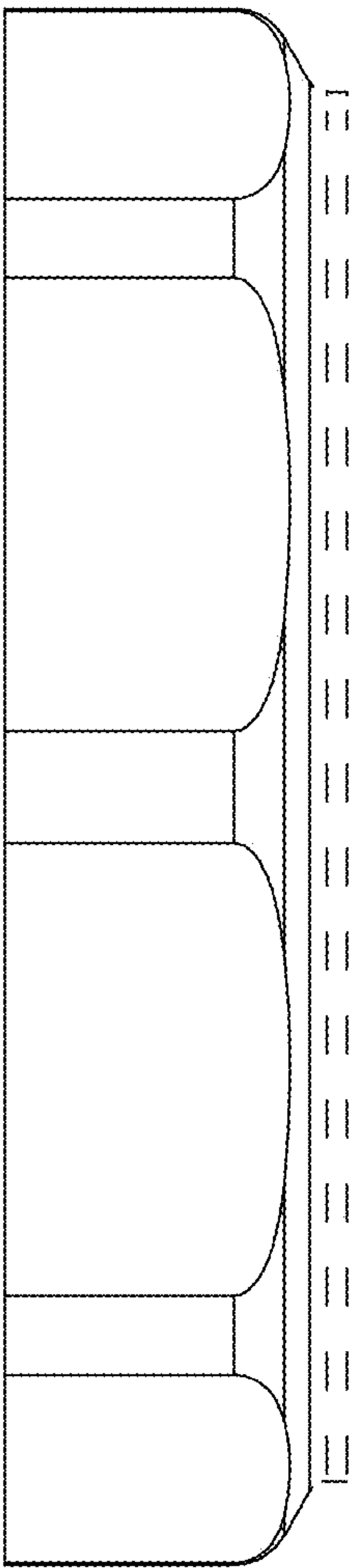


FIG. 6

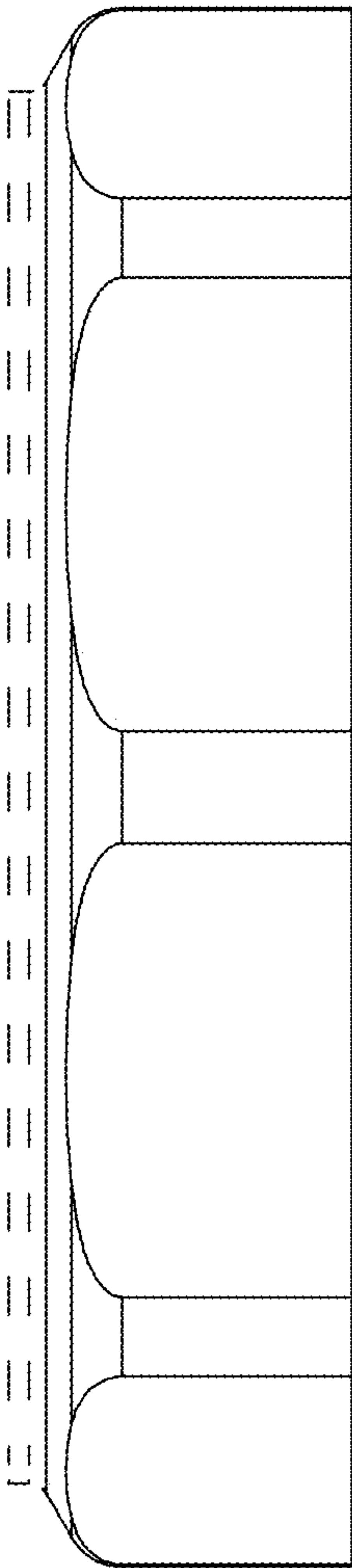


FIG. 7

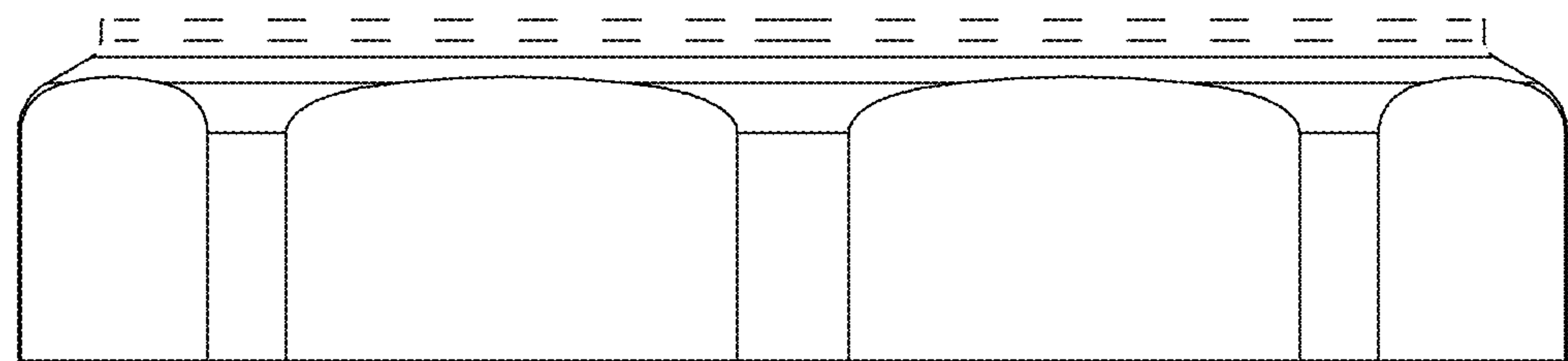


FIG. 8

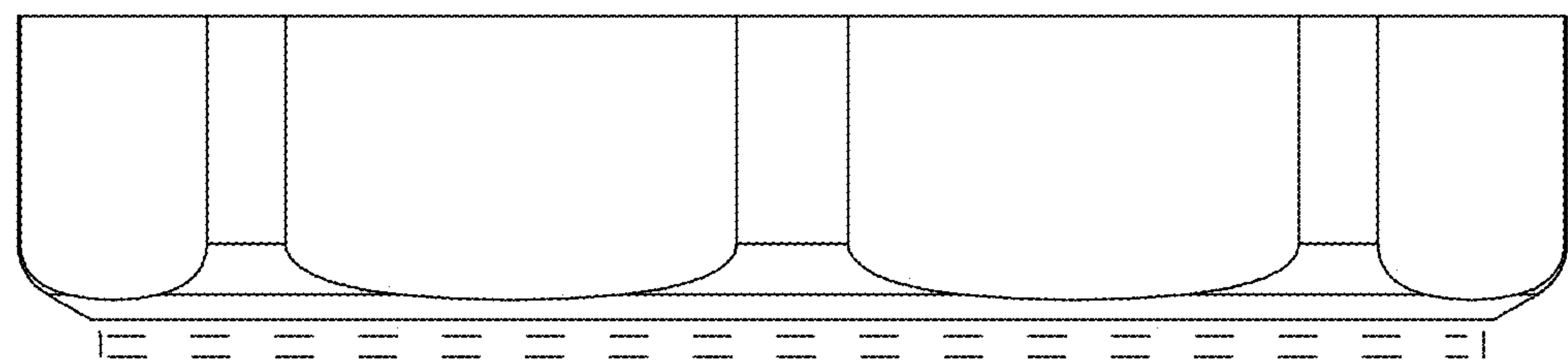


FIG. 9

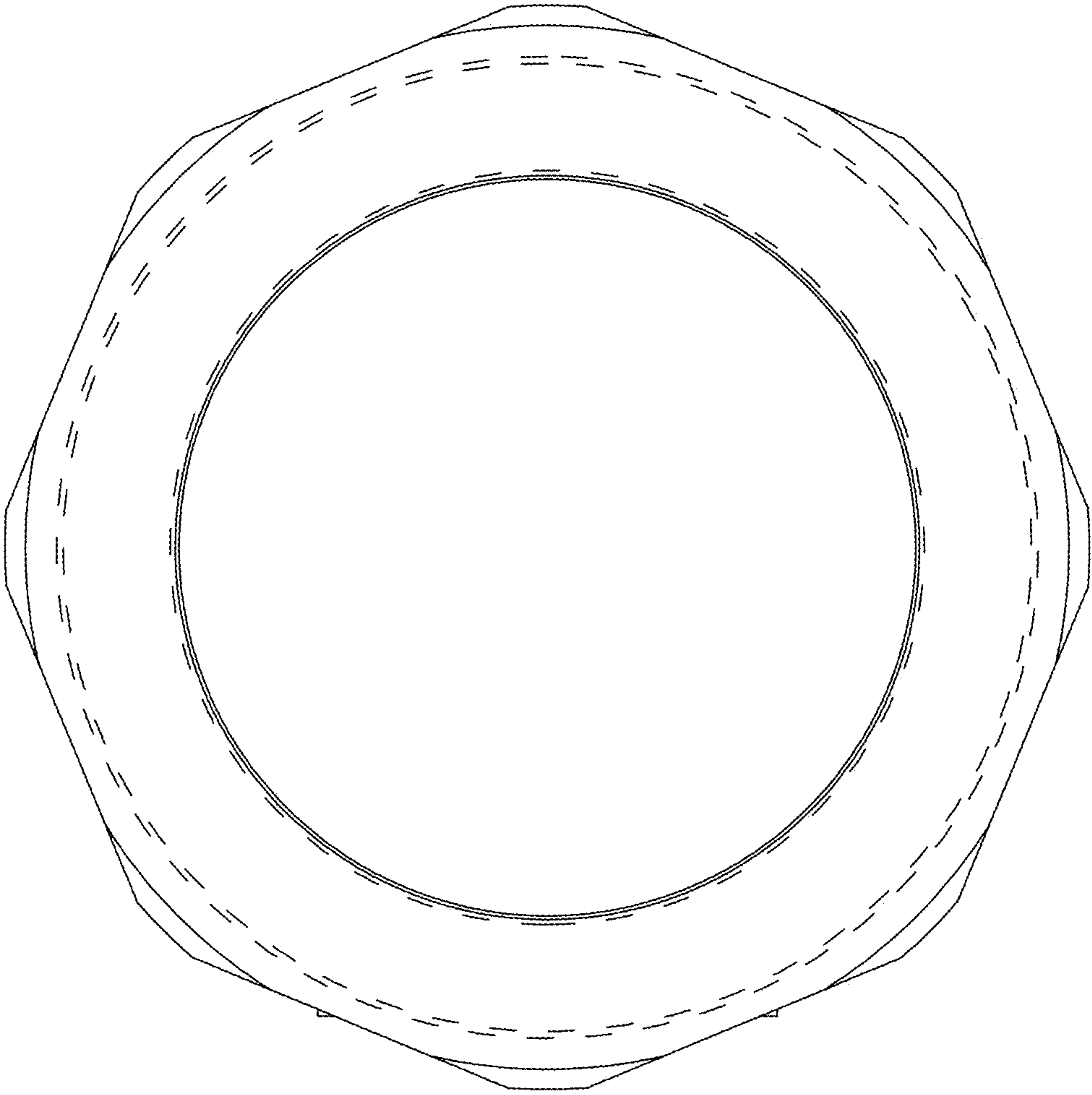


FIG. 10

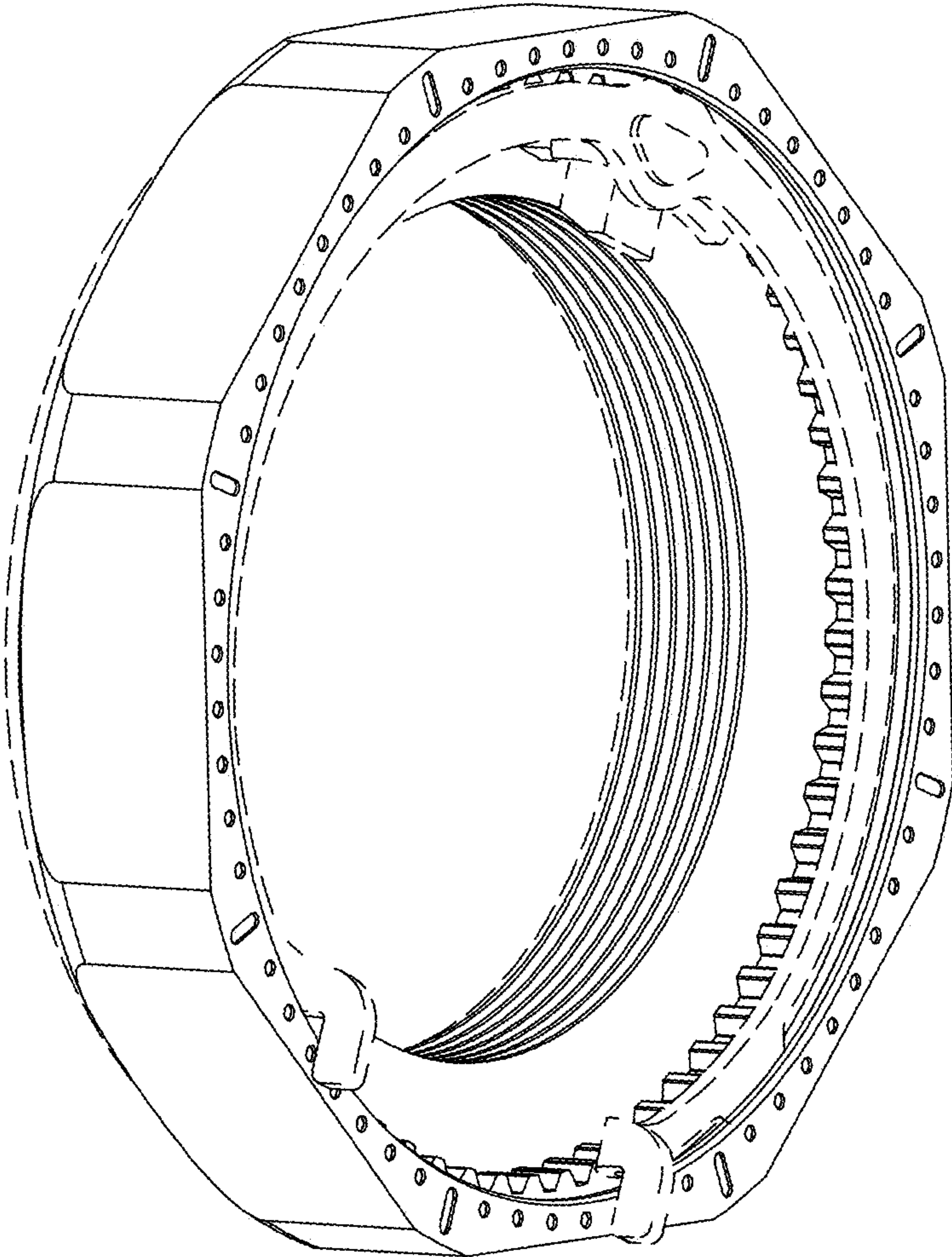


FIG. 11

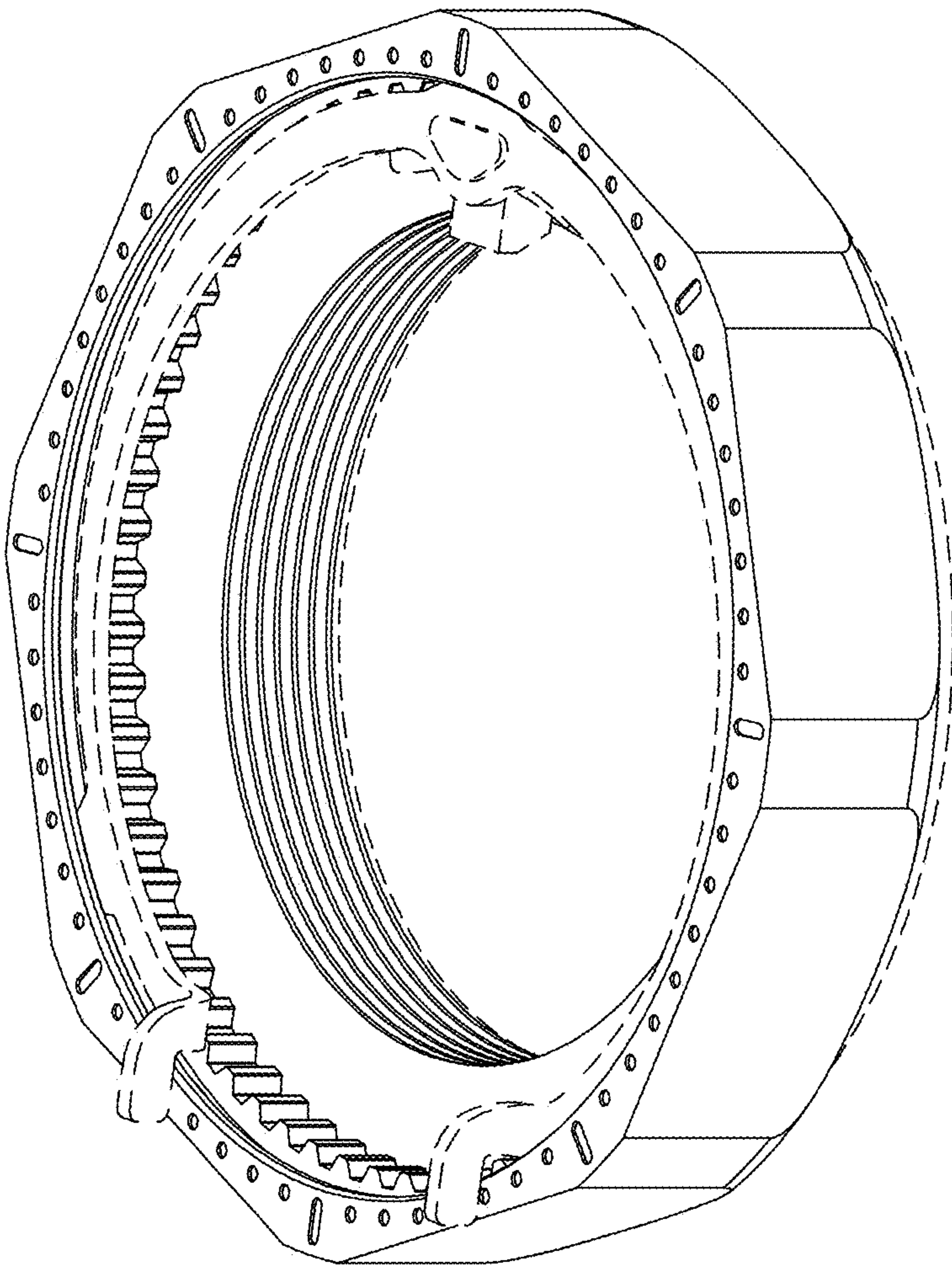


FIG. 12