



US00D951732S

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

(10) **Patent No.:** **US D951,732 S**

(45) **Date of Patent:** **** May 17, 2022**

(54) **ANNULAR BLADE FOR A LOW FRICTION ROTARY KNIFE**

(71) Applicant: **BETTCHER INDUSTRIES, INC.**,
Birmingham, OH (US)

(72) Inventor: **Jeffrey A. Whited**, Richfield, OH (US)

(73) Assignee: **Bettcher Industries, Inc.**, Birmingham,
OH (US)

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

(21) Appl. No.: **29/713,076**

(22) Filed: **Nov. 13, 2019**

Related U.S. Application Data

(60) Division of application No. 29/617,492, filed on Sep. 14, 2017, now Pat. No. Des. 870,529, which is a
(Continued)

(51) **LOC (13) Cl.** **08-05**

(52) **U.S. Cl.**
USPC **D8/61**

(58) **Field of Classification Search**
USPC D8/61, 62, 67, 69; 81/57, 57.11, 57.14,
81/57.26, 429, 464, 469; 173/2, 170,
173/176, 181

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,220,345 A 3/1917 Koster
1,374,988 A 4/1921 Cooper

(Continued)

FOREIGN PATENT DOCUMENTS

FR 1216947 4/1960

OTHER PUBLICATIONS

Oct. 3, 2011 Decision and Opinion of the United States Court of Appeals for the Federal Circuit (Appeal No. 2011-1038, -1046)

regarding the case styled *Bettcher Industries, Inc. v. Bunzl USA, Inc. and Bunzl Processor Distribution, LLC*, Case No. 3:08 CV 2423, U.S. District Court for the Northern District of Ohio, Judge Zouhary. The Decision and Opinion relates to U.S. Pat. No. 7,000,325, which issued from U.S. Appl. No. 10/909,168, filed Jul. 30, 2004, the present application claims priority from U.S. Appl. No. 10/909,168. (47 pages).

(Continued)

Primary Examiner — Austin Murphy

(74) *Attorney, Agent, or Firm* — Tarolli, Sundheim,
Covell & Tummino LLP; John A. Yirga, Esq.

(57) **CLAIM**

The ornamental design for an annular blade for a low friction rotary knife, as shown and described.

DESCRIPTION

FIG. 1 is a top plan view of an annular blade for a low friction rotary knife in accordance with my ornamental design;

FIG. 2 is a side elevation view thereof;

FIG. 3 is a side elevation section view thereof, illustrating a section defined by section lines 3-3 of FIG. 1;

FIG. 4 is a magnified side elevation section view defined by section lines 4-4 of FIG. 1;

FIG. 5 is an upper perspective view of FIG. 1;

FIG. 6 is a lower perspective view of FIG. 1;

FIG. 7A are front, sides, and rear elevation views of FIG. 1, the front, sides, and rear elevation views all being the same;

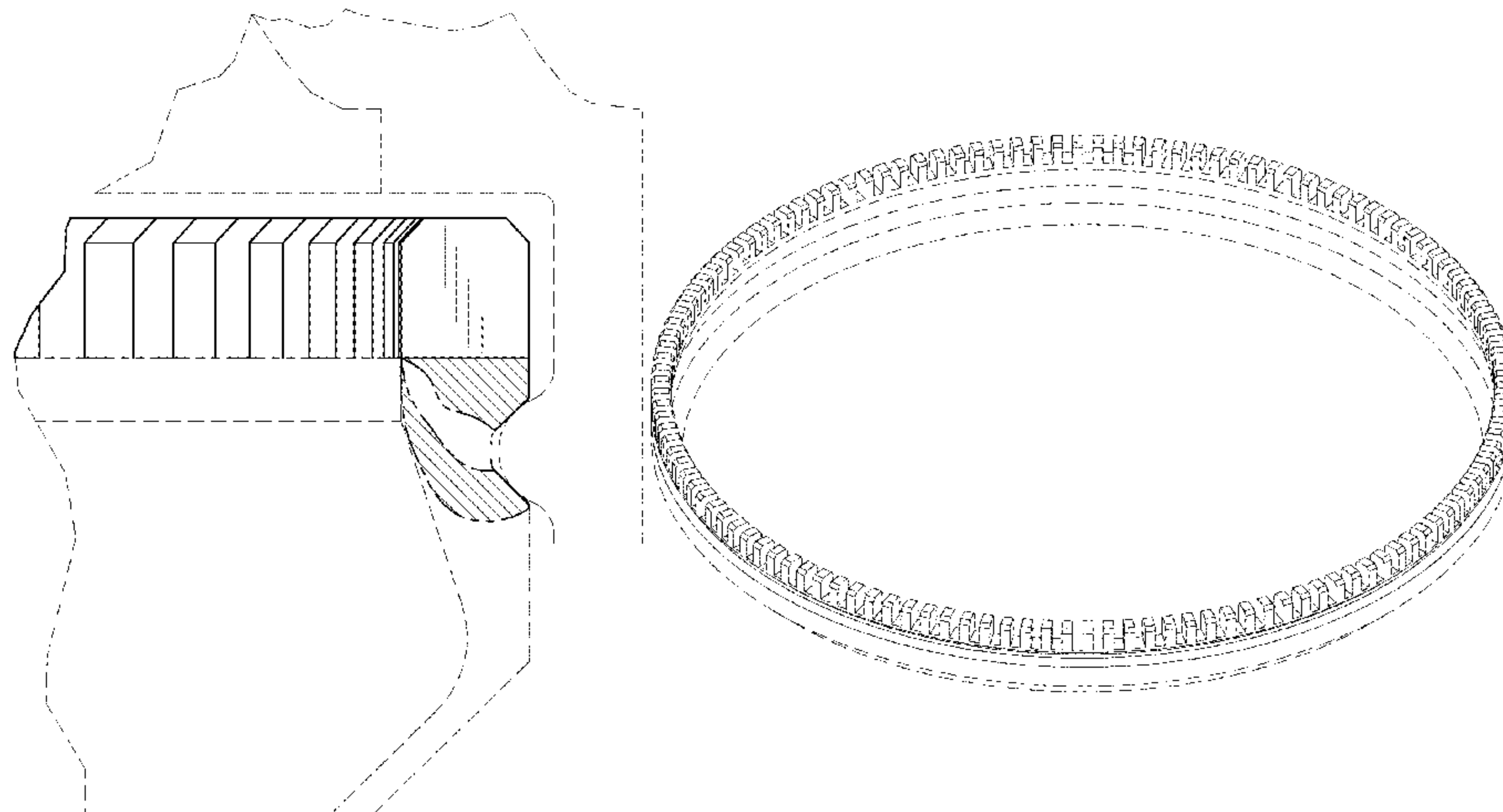
FIG. 7B is a magnified portion of FIG. 7A defined by the area in FIG. 7A as 7B;

FIG. 8 is a top plan view of FIG. 1; and,

FIG. 9 is a bottom plan view of FIG. 1.

The dashed-broken lines shown are for environmental purposes only and form no part of the claimed design. The dashed-dot-dot lines designate boundaries and form no part of the claimed design.

1 Claim, 9 Drawing Sheets



Related U.S. Application Data

continuation of application No. 15/178,673, filed on Jun. 10, 2016, now abandoned, which is a continuation of application No. 14/167,473, filed on Jan. 29, 2014, now Pat. No. 9,364,962, which is a continuation of application No. 13/314,830, filed on Dec. 8, 2011, now Pat. No. 8,671,580, which is a continuation of application No. 11/358,176, filed on Feb. 21, 2006, now Pat. No. 8,074,363, which is a continuation of application No. 10/909,168, filed on Jul. 30, 2004, now Pat. No. 7,000,325, which is a division of application No. 09/120,778, filed on Jul. 22, 1998, now Pat. No. 6,769,184.

- (58) **Field of Classification Search**
 CPC B25B 21/02; B25B 21/008; B25B 23/16;
 B25B 23/1405; A61B 17/1615
 See application file for complete search history.

- (56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
|-----------|---|---------|-----------------|
| 1,476,345 | A | 9/1922 | McGee |
| 2,266,888 | A | 12/1941 | McCurdy et al. |
| 2,827,657 | A | 3/1958 | Bettcher |
| 3,269,010 | A | 8/1966 | Bettcher |
| RE26,947 | E | 9/1970 | Getz et al. |
| 4,082,232 | A | 4/1978 | Brewer |
| 4,170,063 | A | 10/1979 | Bettcher |
| 4,178,683 | A | 12/1979 | Bettcher |
| 4,198,750 | A | 4/1980 | Bettcher |
| 4,236,531 | A | 12/1980 | McCullough |
| 4,267,759 | A | 5/1981 | Sullivan et al. |
| 4,326,361 | A | 4/1982 | McGill |
| 4,363,170 | A | 12/1982 | McCullough |
| 4,439,924 | A | 4/1984 | Bettcher |
| 4,494,311 | A | 1/1985 | McCullough |
| 4,509,261 | A | 4/1985 | Bettcher |
| 4,516,323 | A | 5/1985 | Bettcher et al. |
| 4,575,938 | A | 3/1986 | McCullough |
| 4,609,227 | A | 9/1986 | Wild et al. |
| 4,637,140 | A | 1/1987 | Bettcher |
| 4,829,860 | A | 5/1989 | VanderPol |
| 4,854,046 | A | 8/1989 | Decker et al. |
| 4,909,640 | A | 3/1990 | Nakanishi |
| 5,036,274 | A | 7/1991 | Seeburger |
| 5,099,721 | A | 3/1992 | Decker et al. |
| 5,331,877 | A | 7/1994 | Ishii |
| 5,369,886 | A | 12/1994 | Gallatin |
| 5,419,619 | A | 5/1995 | Lew |
| 5,522,142 | A | 6/1996 | Whited |
| 5,529,532 | A | 6/1996 | Desrosiers |
| 5,664,332 | A | 9/1997 | Whited et al. |
| 5,692,307 | A | 12/1997 | Whited et al. |

| | | | | |
|--------------|------|---------|---------------|------------------------------|
| 5,761,817 | A | 6/1998 | Whited et al. | |
| 5,836,701 | A | 11/1998 | Vranish | |
| 5,971,413 | A | 10/1999 | El-Kassouf | |
| 6,615,494 | B2 | 9/2003 | Long | |
| 6,662,452 | B2 * | 12/2003 | Whited | B26B 25/002 30/276 |
| 6,769,184 | B1 | 8/2004 | Whited | |
| 6,785,971 | B2 | 9/2004 | McDonnell | |
| 6,857,191 | B2 | 2/2005 | Whited | |
| 7,000,325 | B2 | 2/2006 | Whited | |
| 7,228,880 | B2 | 6/2007 | Taillon | |
| 8,037,611 | B2 * | 10/2011 | Levsen | A22C 17/04 30/276 |
| 8,074,363 | B2 | 12/2011 | Whited | |
| 8,555,513 | B2 | 10/2013 | Moreland | |
| 8,661,692 | B2 | 3/2014 | Whited | |
| 8,671,580 | B2 | 3/2014 | Whited | |
| 8,695,222 | B2 | 4/2014 | Whited | |
| 8,726,524 | B2 | 5/2014 | Whited | |
| 8,739,416 | B2 | 6/2014 | Mascari | |
| 8,745,881 | B2 * | 6/2014 | Thompson | A22C 17/04 30/276 |
| 8,806,761 | B2 * | 8/2014 | Whited | B26B 25/002 30/276 |
| 9,121,438 | B2 | 9/2015 | Mascari | |
| 9,227,334 | B2 | 1/2016 | Colombatta | |
| 9,321,188 | B2 | 4/2016 | Steele | |
| 9,364,962 | B2 | 6/2016 | Whited | |
| 9,522,473 | B2 | 12/2016 | Mascari | |
| 9,592,076 | B2 | 3/2017 | Esarey | |
| 9,833,919 | B2 | 12/2017 | Mascari | |
| 10,040,211 | B2 | 8/2018 | Whited | |
| 10,124,500 | B2 | 11/2018 | Whited | |
| D870,529 | S | 12/2019 | Whited | |
| 2006/0211966 | A1 * | 9/2006 | Hatton | A61F 5/0125 602/16 |
| 2007/0283574 | A1 * | 12/2007 | Levsen | A22B 5/165 30/276 |
| 2008/0098605 | A1 * | 5/2008 | Whited | B26B 25/002 30/276 |
| 2011/0185580 | A1 * | 8/2011 | Whited | A22B 5/165 30/276 |
| 2013/0185944 | A1 * | 7/2013 | Thompson | A22C 17/0006 30/276 |
| 2016/0279818 | A1 | 9/2016 | Whited | |

OTHER PUBLICATIONS

Jul. 28, 2011 Decision on Appeal of the Board of Patent Appeals and Interferences (Appeal No. 20011-00791, Control No. 95/001,130) regarding the inter partes reexamination of U.S. Pat. No. 7,000,325, which issued from U.S. Appl. No. 10/909,168, filed Jul. 30, 2004. The present application claims priority from U.S. Appl. No. 10/909,168. (13 pages).

* cited by examiner

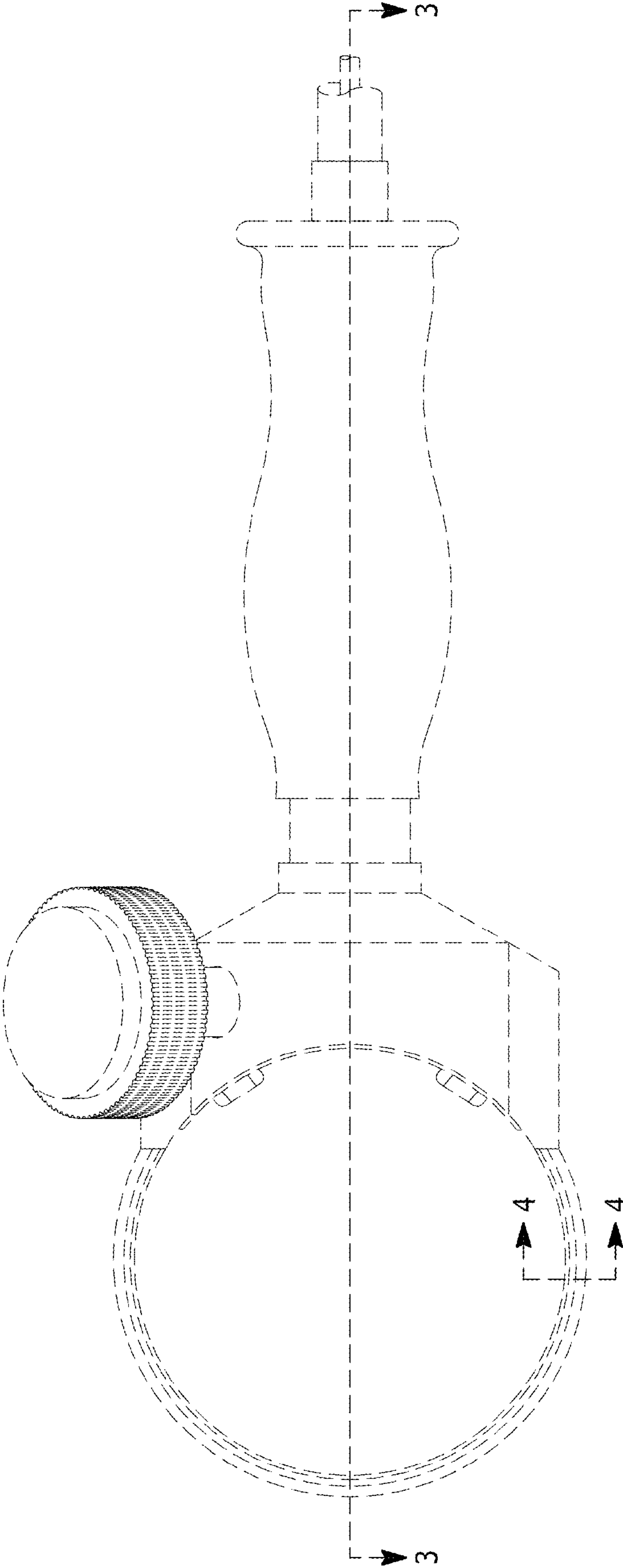


FIG. 1

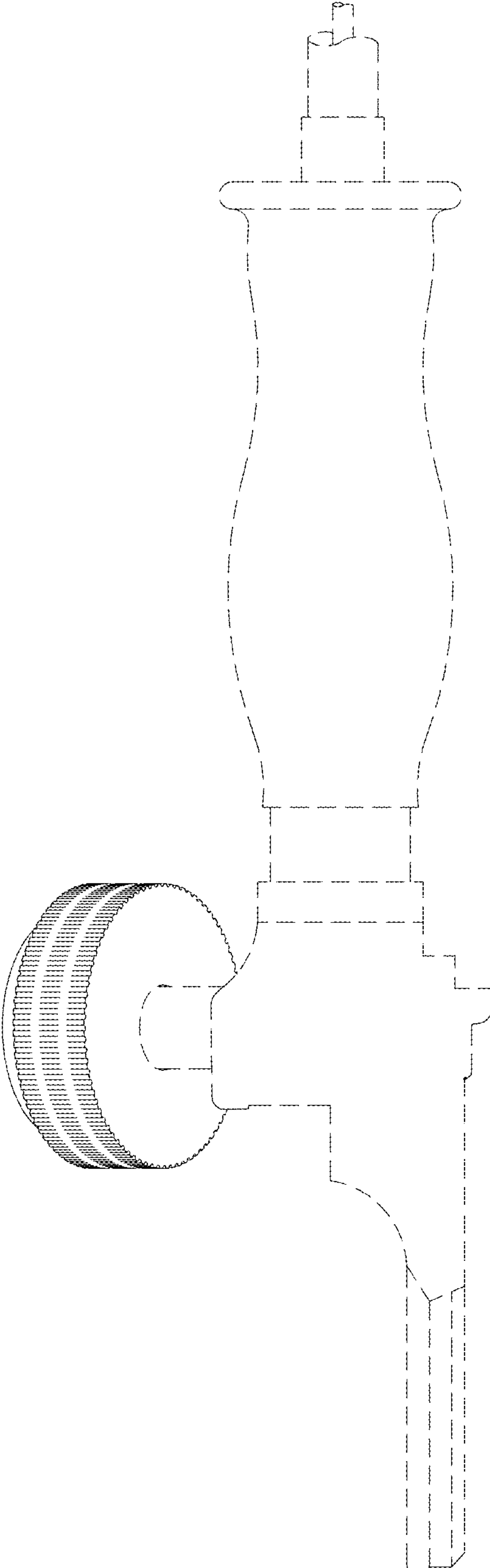


FIG. 2

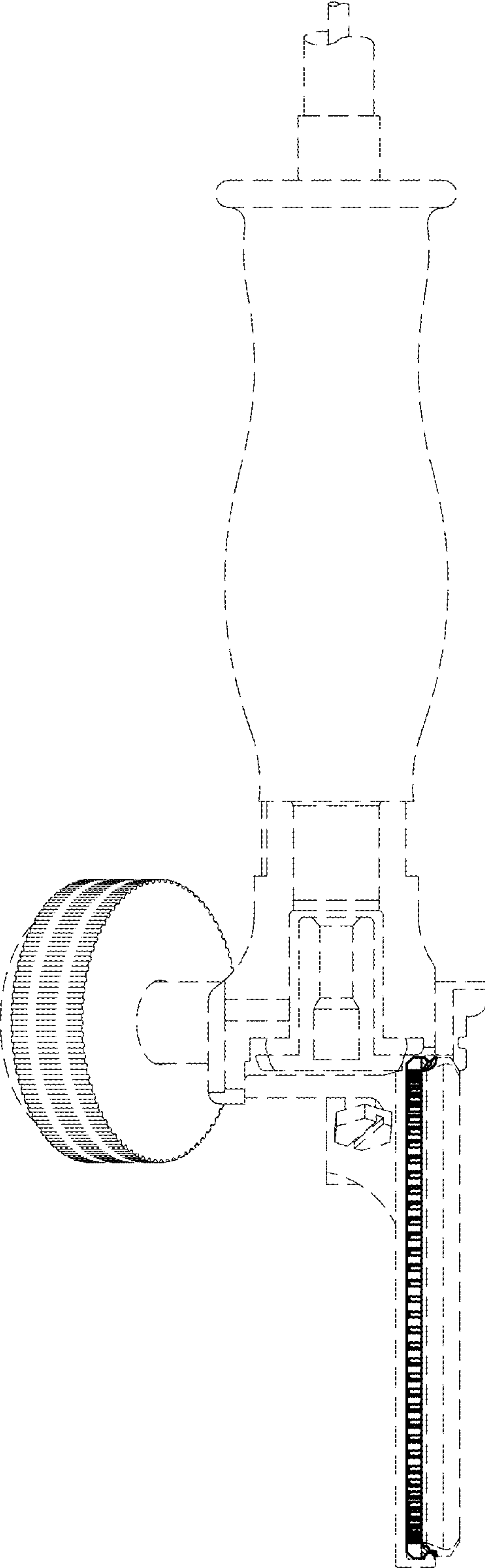


FIG. 3

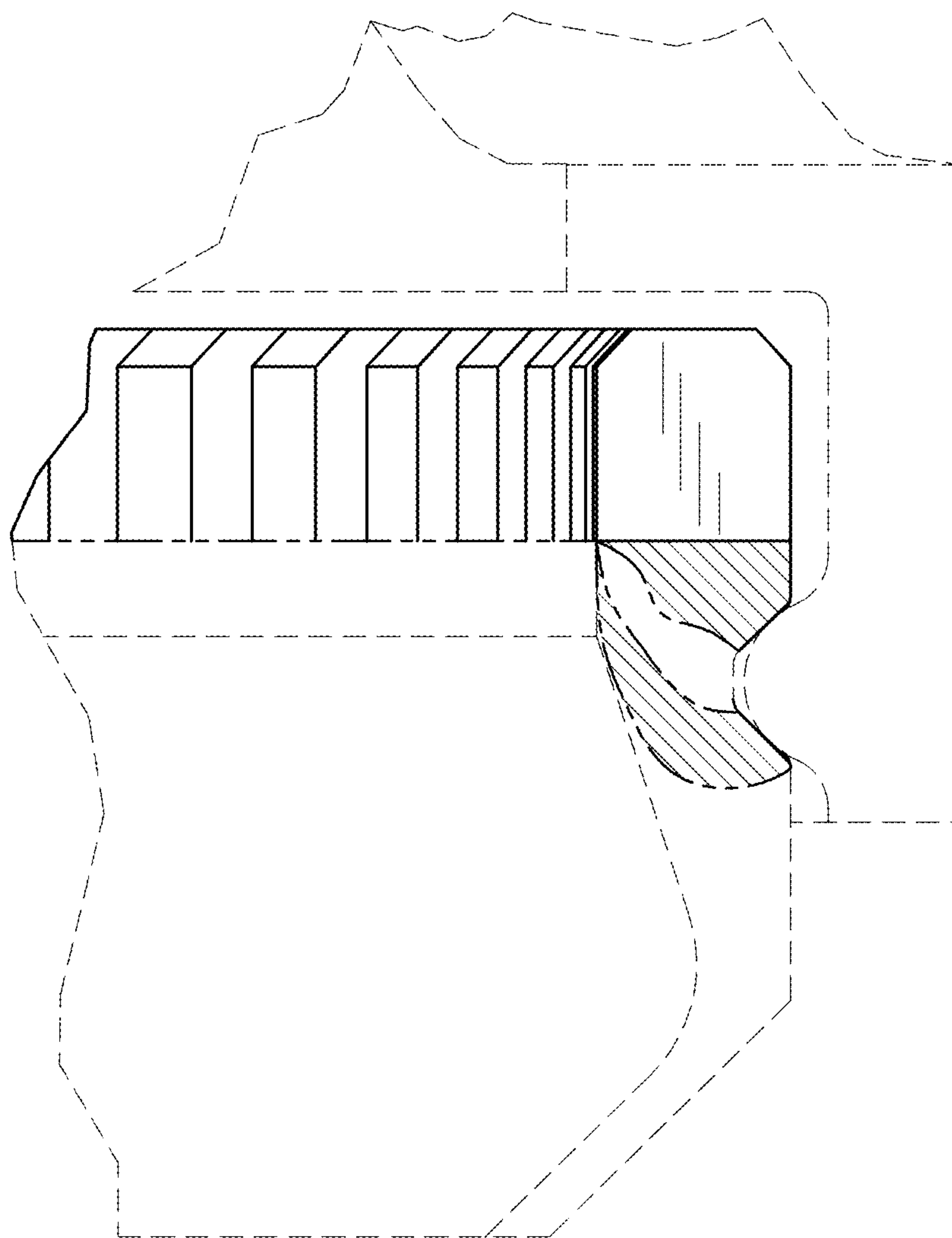


FIG. 4

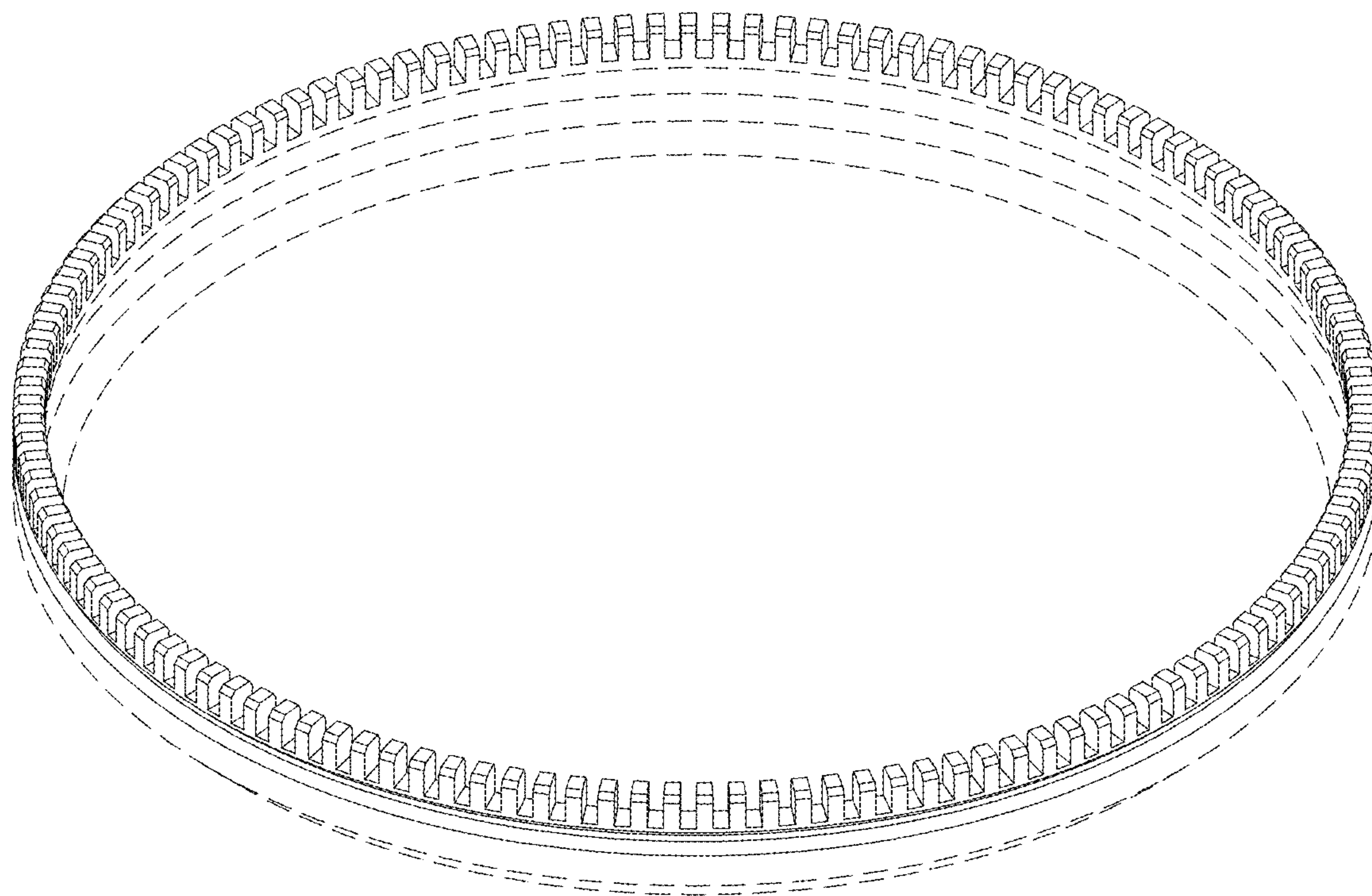


FIG. 5

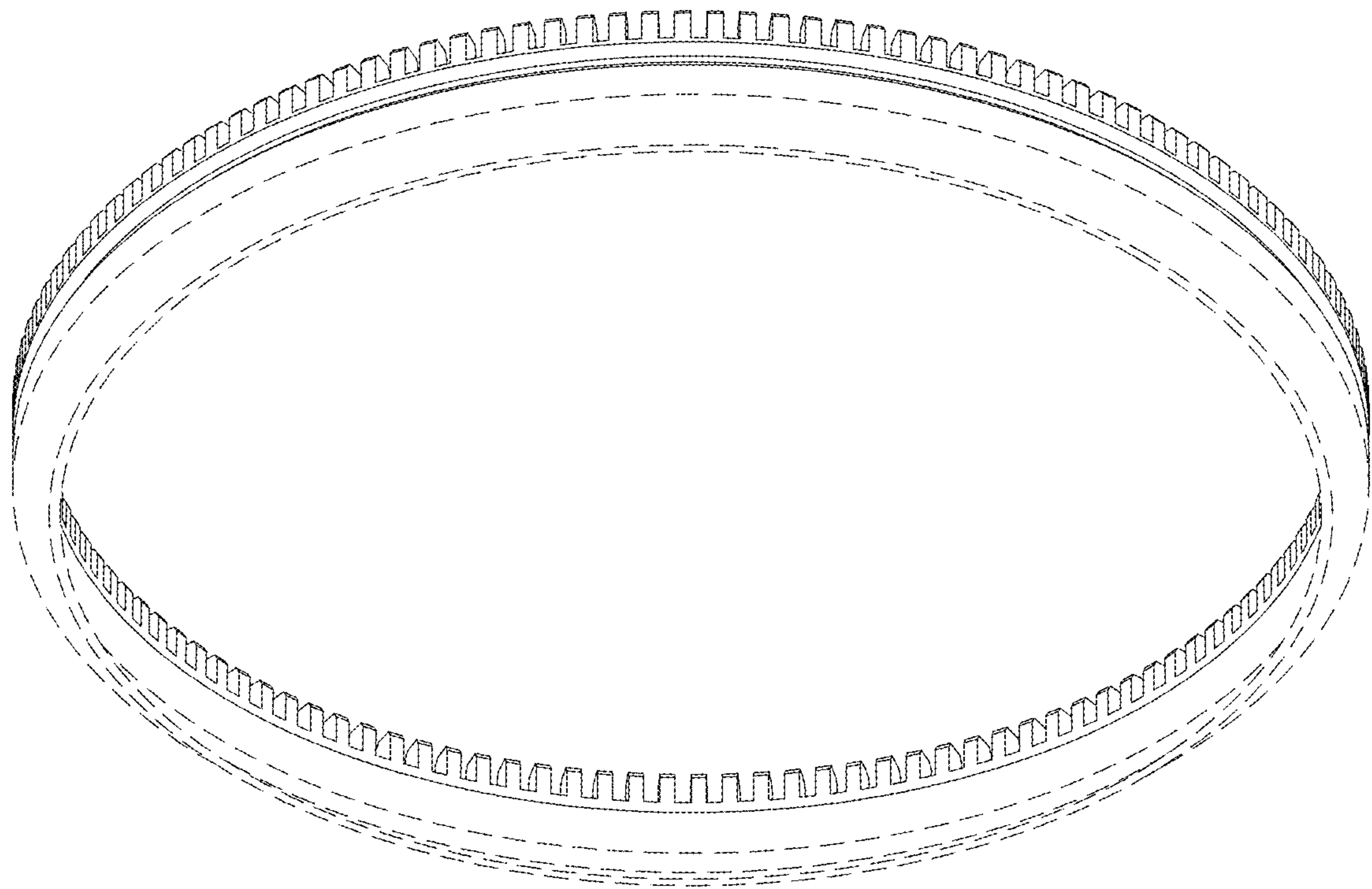


FIG. 6

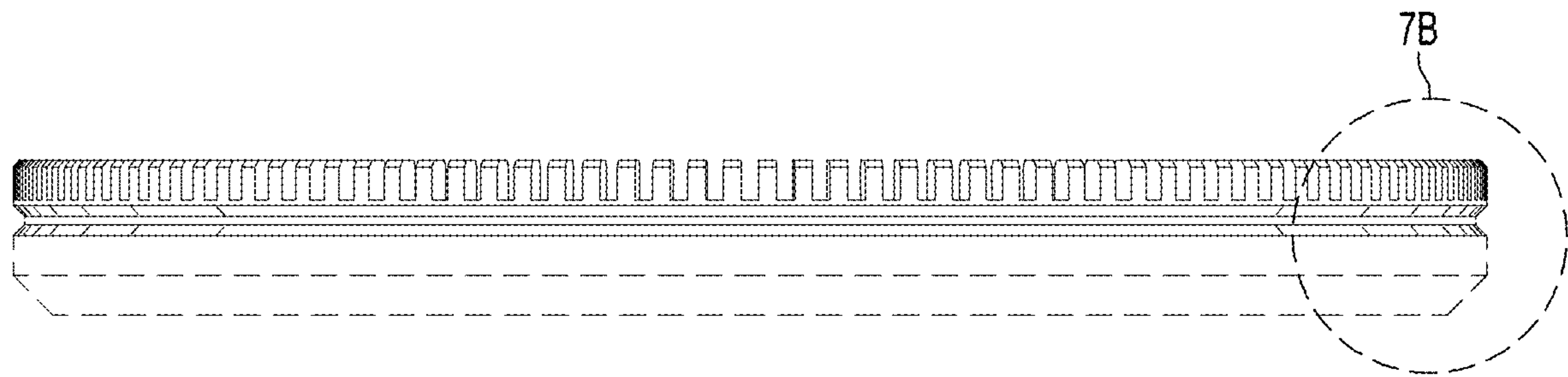


FIG. 7A

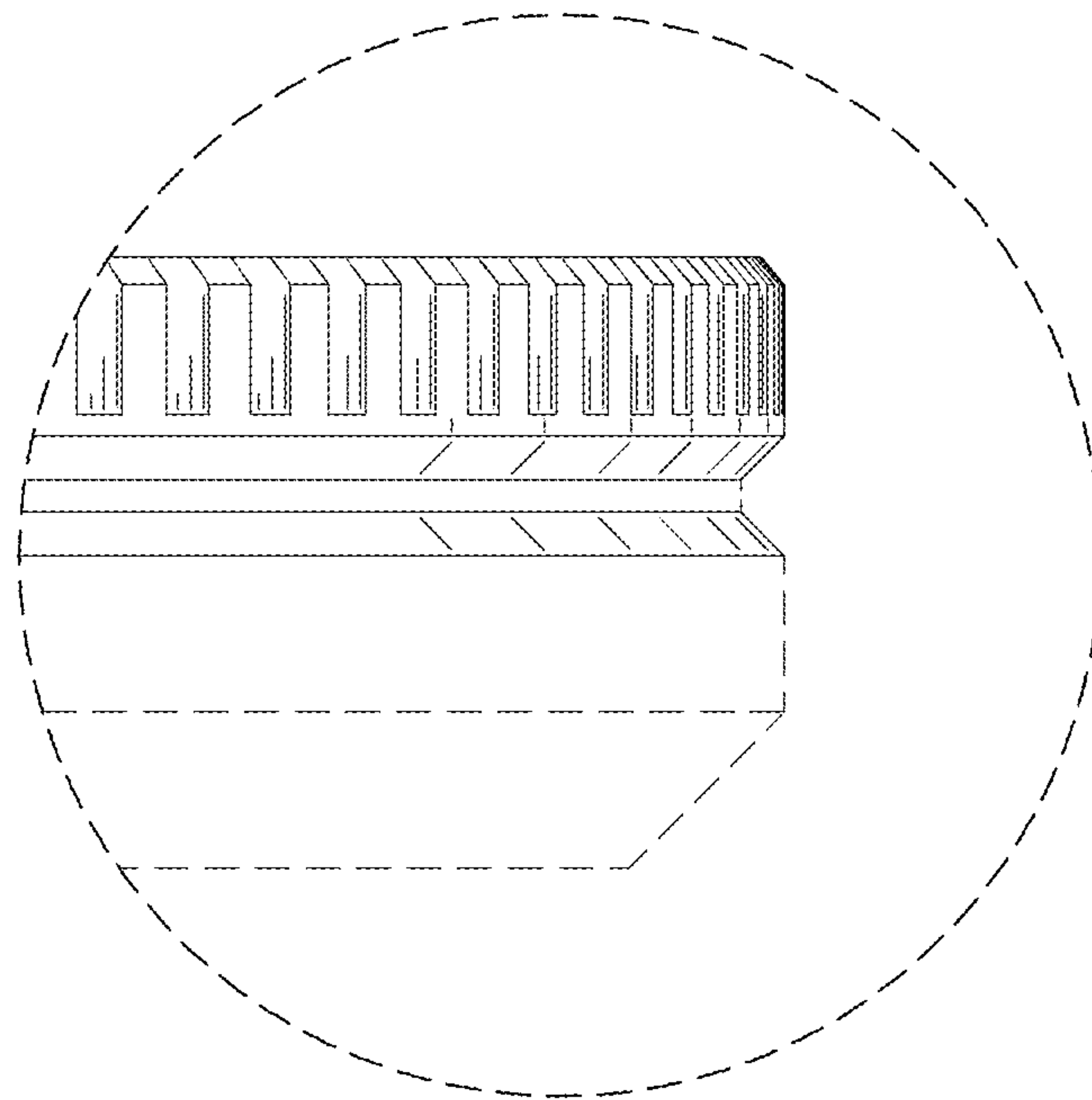


FIG. 7B

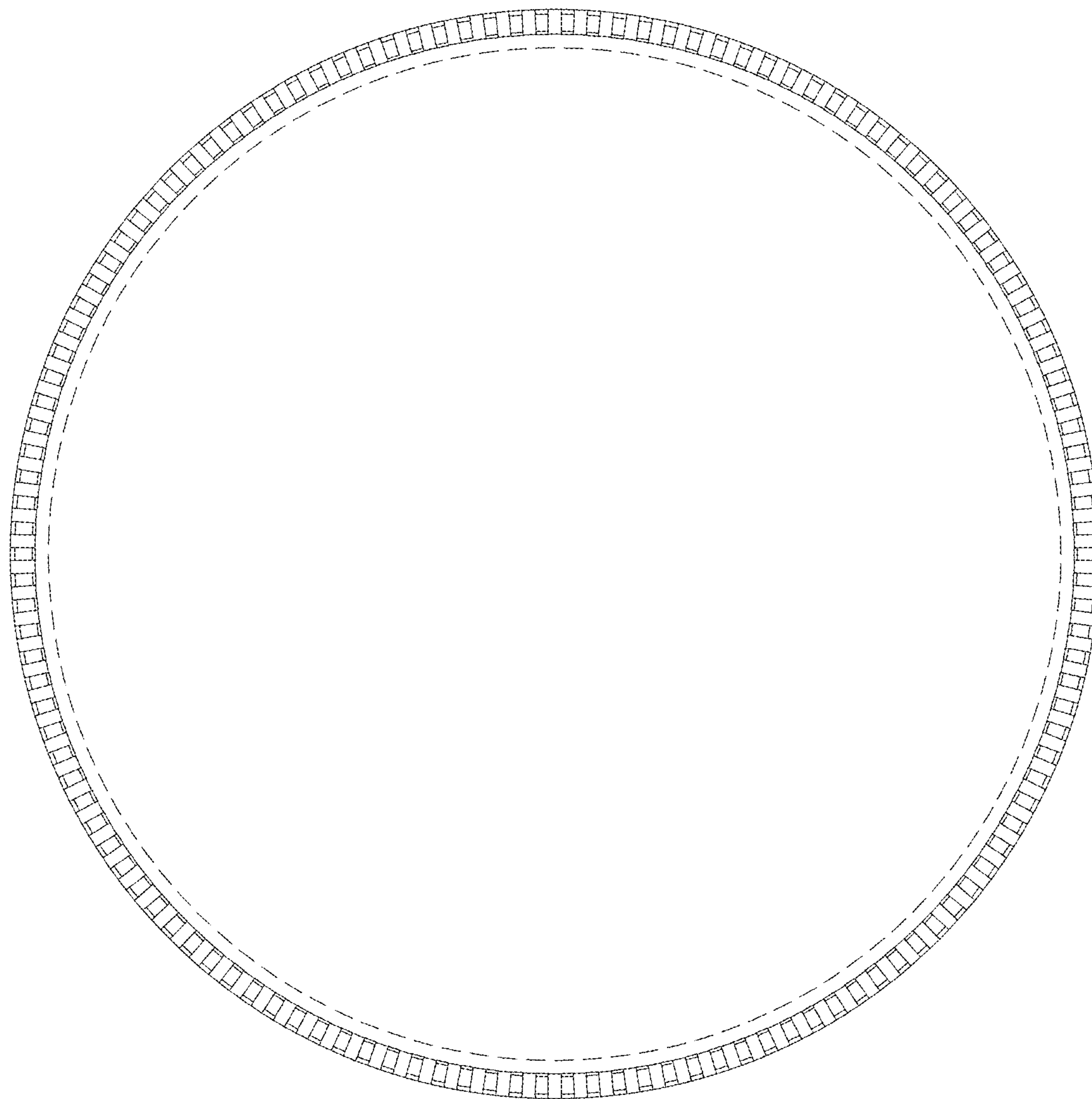


FIG. 8

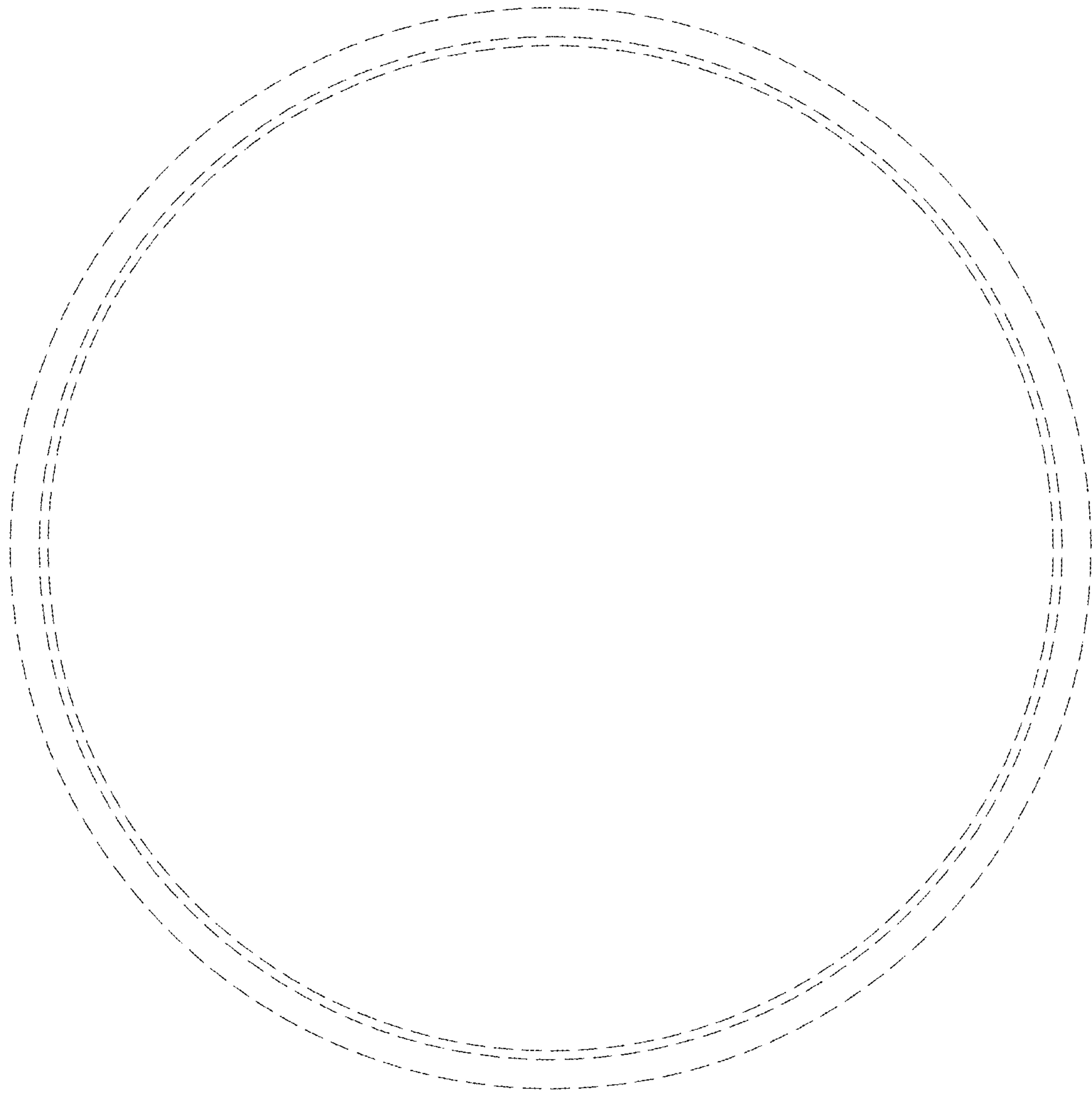


FIG. 9