



US00D890310S

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

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(45) **Date of Patent:** **** Jul. 14, 2020**

(54) **SEAL**

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

(72) Inventors: **Yusuke Yoshida**, Kitaibaraki (JP); **Koji Watanabe**, Kitaibaraki (JP)

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

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

(21) Appl. No.: **29/658,588**

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(30) **Foreign Application Priority Data**

Feb. 8, 2018 (JP) 2018-002537
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(Continued)

(51) **LOC (12) Cl.** **23-01**

(52) **U.S. Cl.**
USPC **D23/269**

(58) **Field of Classification Search**
USPC D23/269, 262, 249, 259; D15/138-139,
D15/143; 277/316, 351-360, 504, 563,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D50,389 S * 2/1917 Joslin D23/269
D358,988 S * 6/1995 Nolte D9/434
6,357,751 B1 * 3/2002 Rentschler F16J 15/3232
277/353
6,685,193 B2 * 2/2004 Roberts B25C 1/08
277/459
6,938,879 B2 * 9/2005 Bancroft F16J 15/164
251/306

(Continued)

FOREIGN PATENT DOCUMENTS

JP 2017125570 A * 7/2017

Primary Examiner — Amy C Wierenga

(74) *Attorney, Agent, or Firm* — Pearne & Gordon LLP

(57) **CLAIM**

The ornamental design for a seal, as shown and described.

DESCRIPTION

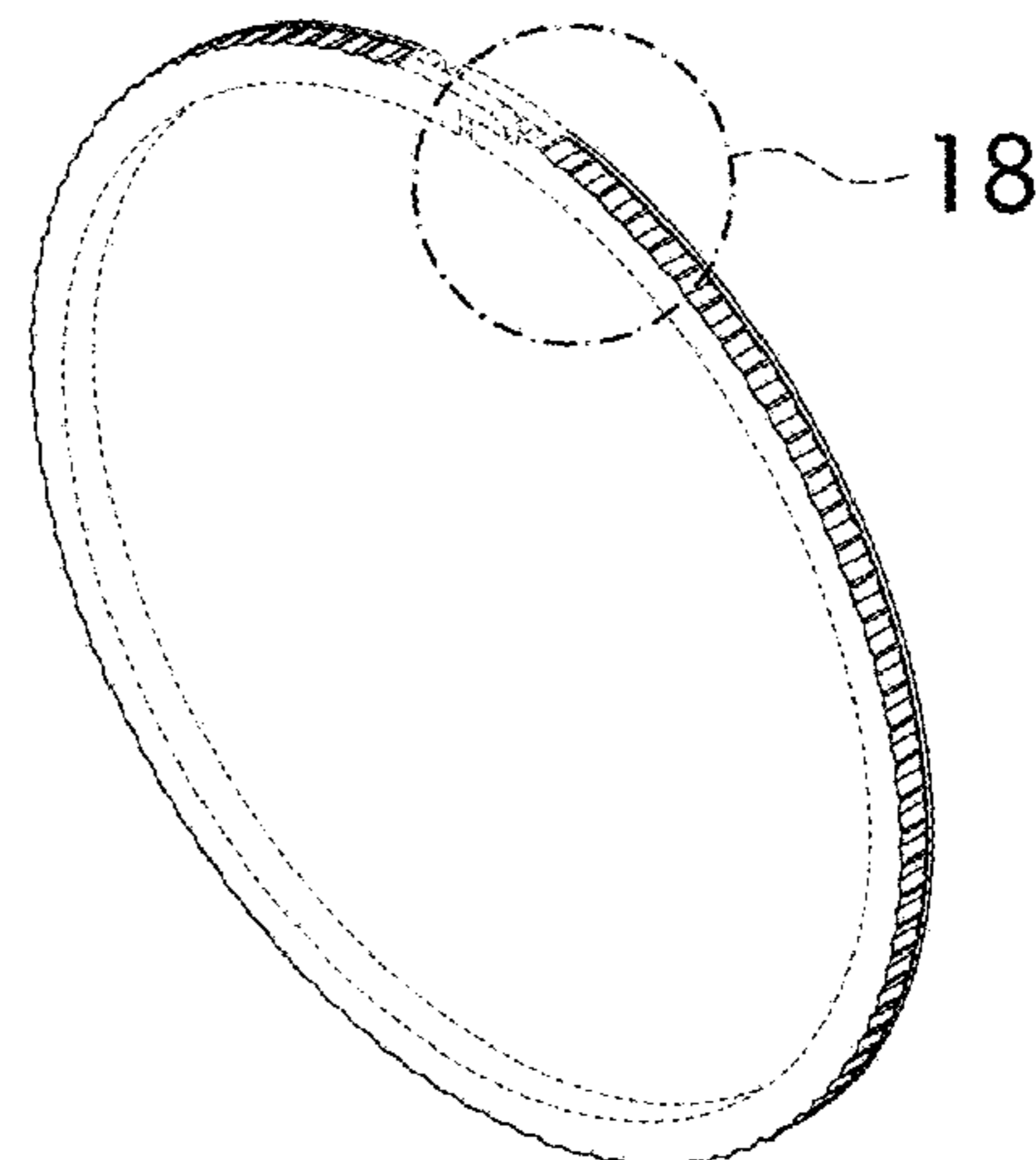
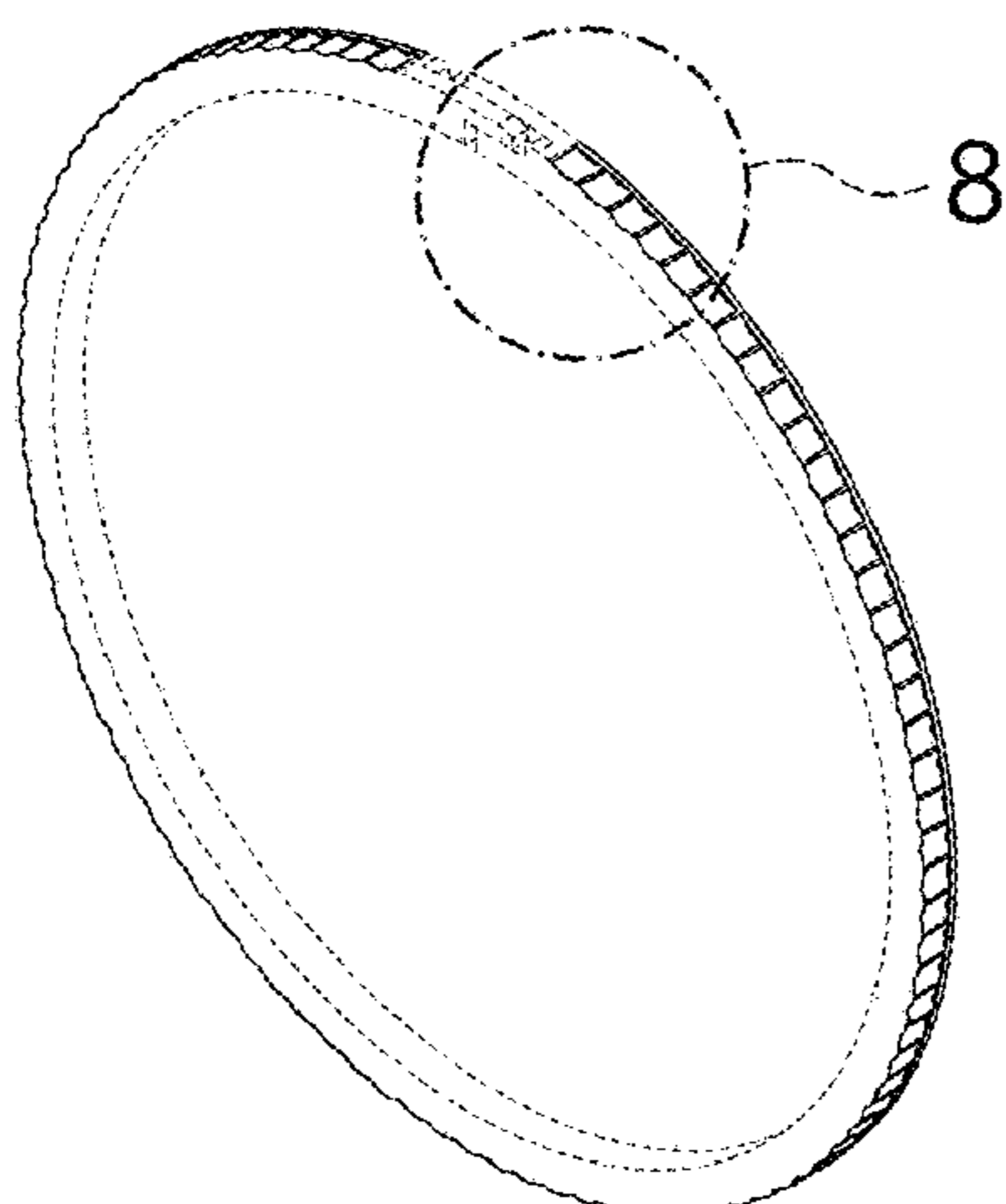
FIG. 1 is a perspective view of a first embodiment of a seal showing our new invention;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a left side view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a top view thereof;
FIG. 7 is a bottom view thereof;
FIG. 8 is an enlarged detail view of portion 8 of FIG. 1;
FIG. 9 is an enlarged detail view of portion 9 of FIG. 2; and
FIG. 10 is a cross-sectional view taken along line 10-10 of FIG. 2.

FIG. 11 is a perspective view of a second embodiment of a seal showing our new invention;
FIG. 12 is a front view thereof;
FIG. 13 is a rear view thereof;
FIG. 14 is a left side view thereof;
FIG. 15 is a right side view thereof;
FIG. 16 is a top view thereof;
FIG. 17 is a bottom view thereof;
FIG. 18 is an enlarged detail view of portion 18 of FIG. 11;
FIG. 19 is an enlarged detail view of portion 19 of FIG. 12; and
FIG. 20 is a cross-sectional view taken along the line 20-20 of FIG. 12.

FIG. 21 is a perspective view of a third embodiment of a seal showing our new invention;
FIG. 22 is a front view thereof;
FIG. 23 is a rear view thereof;
FIG. 24 is a left side view thereof;
FIG. 25 is a right side view thereof;
FIG. 26 is a top view thereof;
FIG. 27 is a bottom view thereof;
FIG. 28 is an enlarged detail view of portion 28 of FIG. 21;
FIG. 29 is an enlarged detail view of portion 29 of FIG. 22; and
FIG. 30 is a cross-sectional view taken along the line 30-30 of FIG. 30.

The dash-dot-dash broken lines in the drawings are for the purpose of illustrating the claim boundaries and form no part of the claim. The evenly dashed broken lines depict portions of the seal that form no part of the claim. The dot dash

(Continued)



broken line shown in enlarged detailed portion views FIGS. 8, 9, 18, 19, 28, and 29 indicates cutoff boundaries and form no part of the claim.

1 Claim, 15 Drawing Sheets

(30) **Foreign Application Priority Data**

Feb. 8, 2018 (JP) 2018-002539
Feb. 8, 2018 (JP) 2018-002540
Feb. 8, 2018 (JP) 2018-002541

(58) **Field of Classification Search**

USPC 277/572, 364-365, 394, 397, 406-407,
277/418, 449, 451-454, 458-460, 491,
277/517, 529, 602, 610, 612, 641-642,
277/644, 648; 285/339, 343
CPC E04D 13/14; F16J 7/00
See application file for complete search history.

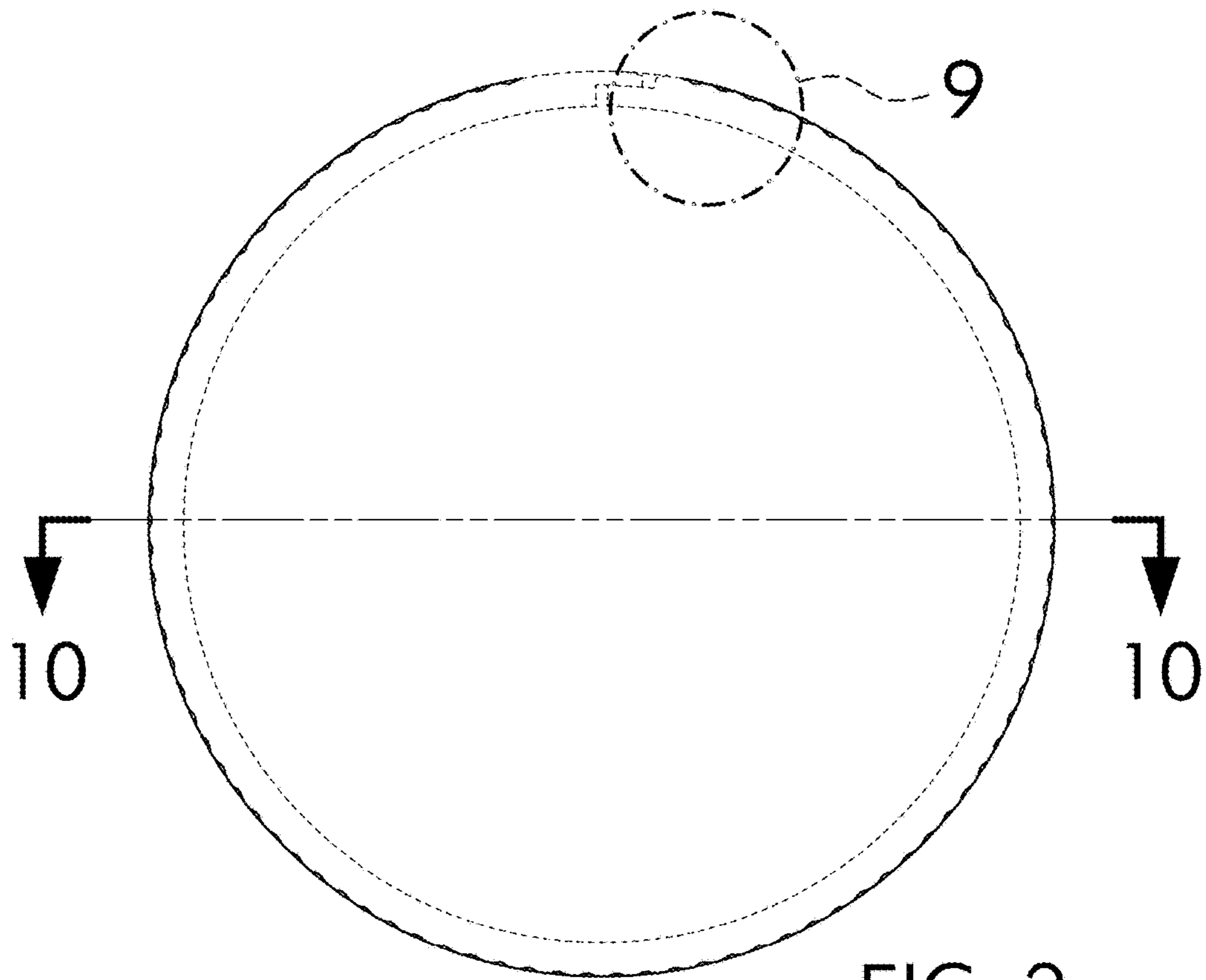
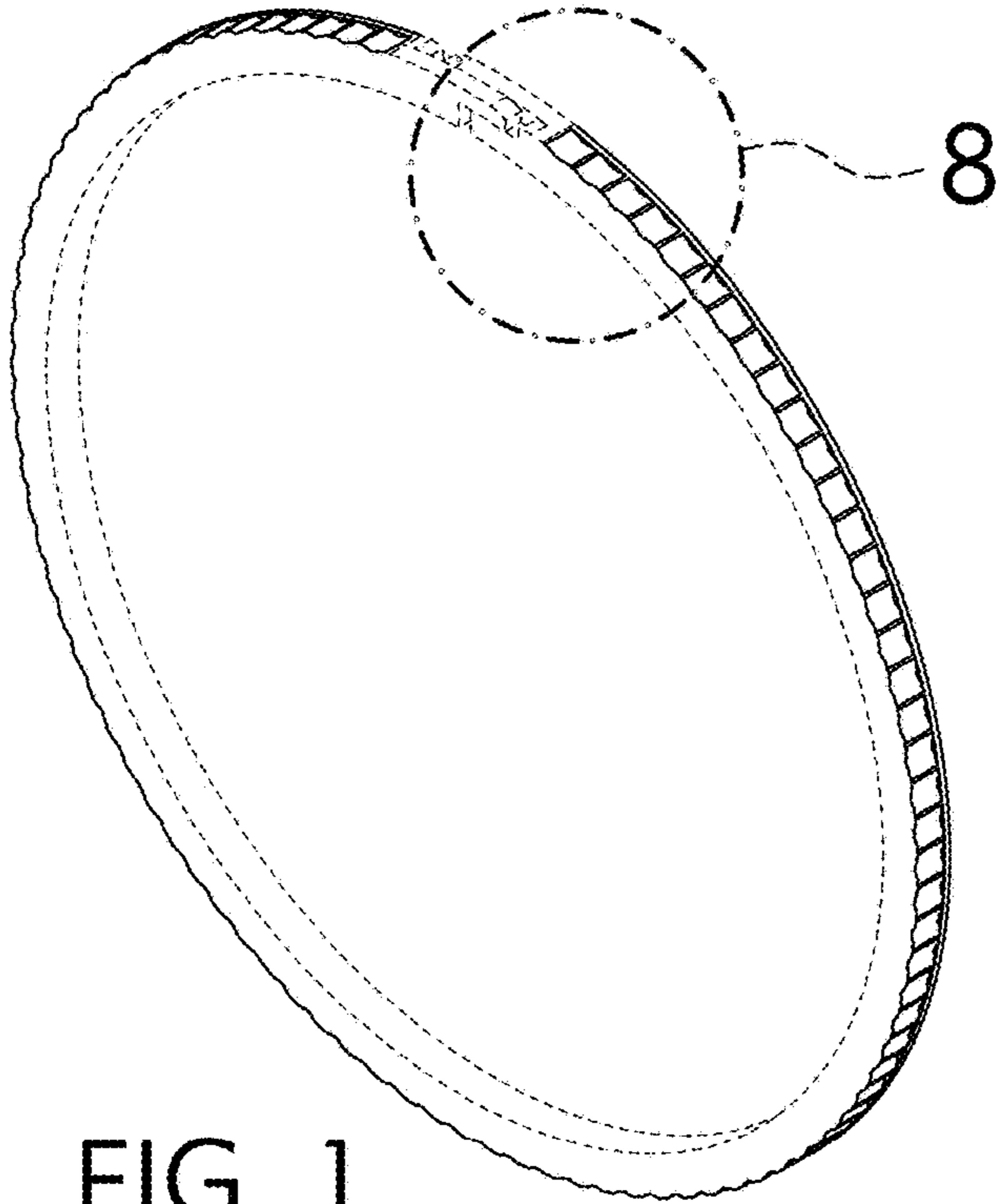
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References Cited

U.S. PATENT DOCUMENTS

D873,981 S * 1/2020 Yoshida D23/269
2004/0232623 A1* 11/2004 Panelli F16J 9/061
277/459
2004/0239047 A1* 12/2004 Kent F16J 15/064
277/628
2012/0018957 A1* 1/2012 Watanabe F16J 15/441
277/387
2015/0048574 A1* 2/2015 Seki F01D 11/003
277/589
2015/0362074 A1* 12/2015 Seki F16J 15/24
277/512
2016/0116066 A1* 4/2016 Watanabe F16J 9/14
277/500
2017/0009889 A1* 1/2017 Seki F16J 15/164
2017/0138483 A1* 5/2017 Watanabe F16J 15/164
2018/0051809 A1* 2/2018 Yoshida F16J 15/441

* cited by examiner



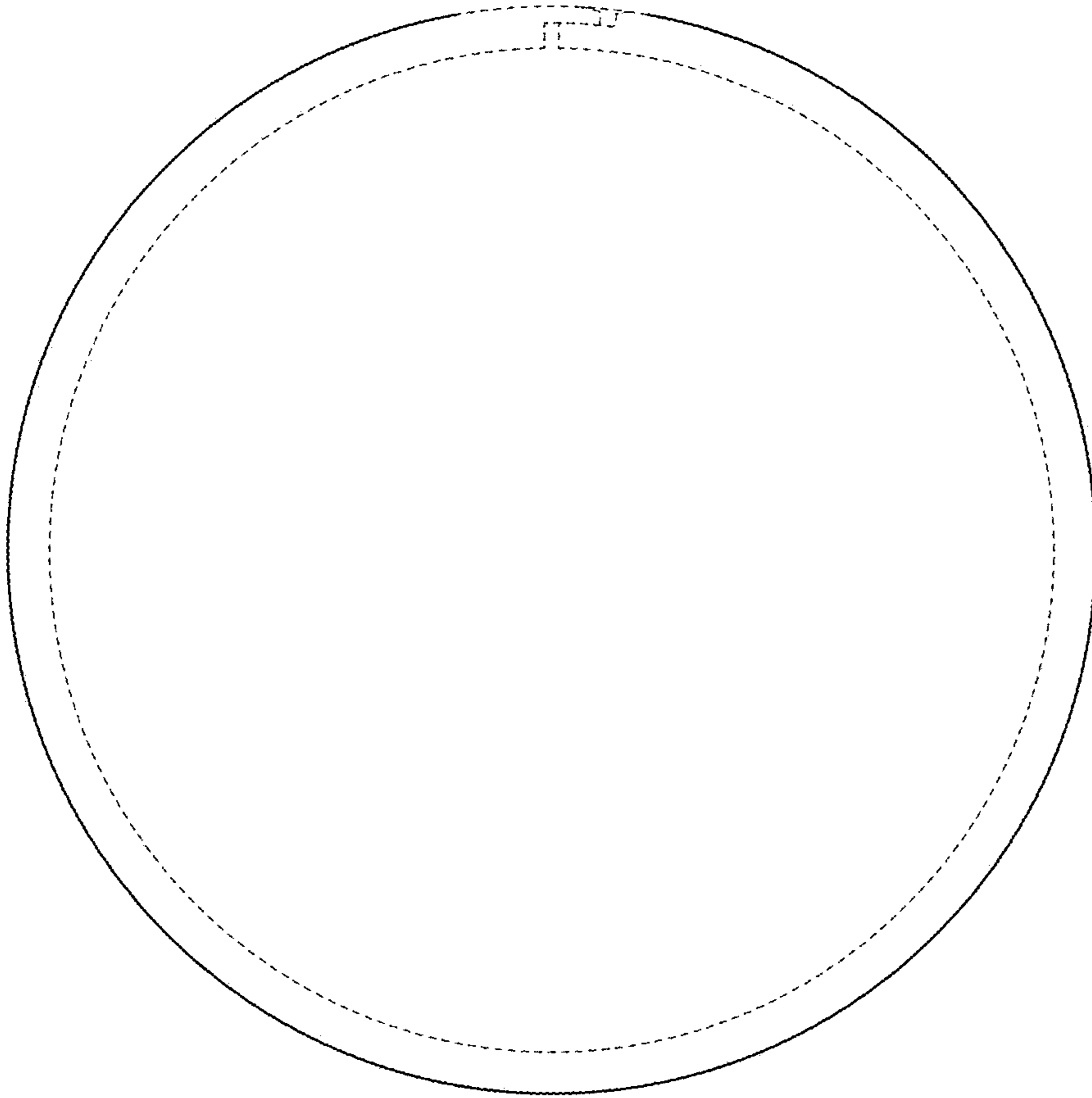


FIG. 3



FIG. 4



FIG. 5

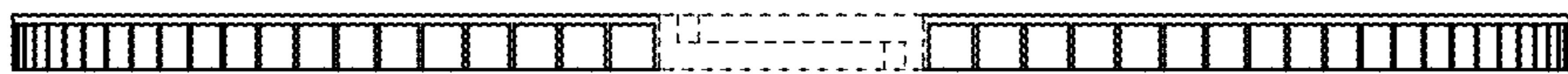


FIG. 6



FIG. 7

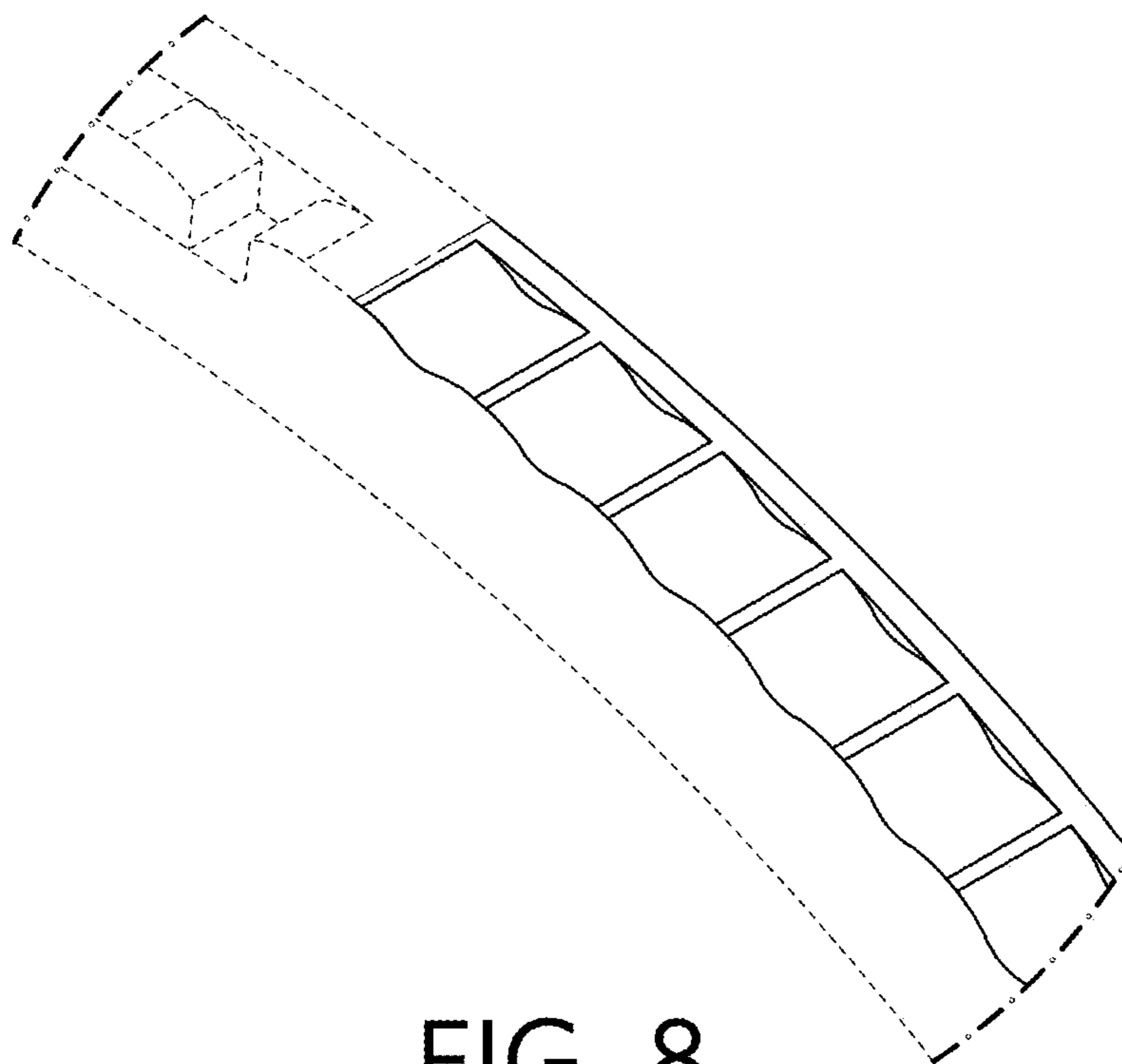


FIG. 8

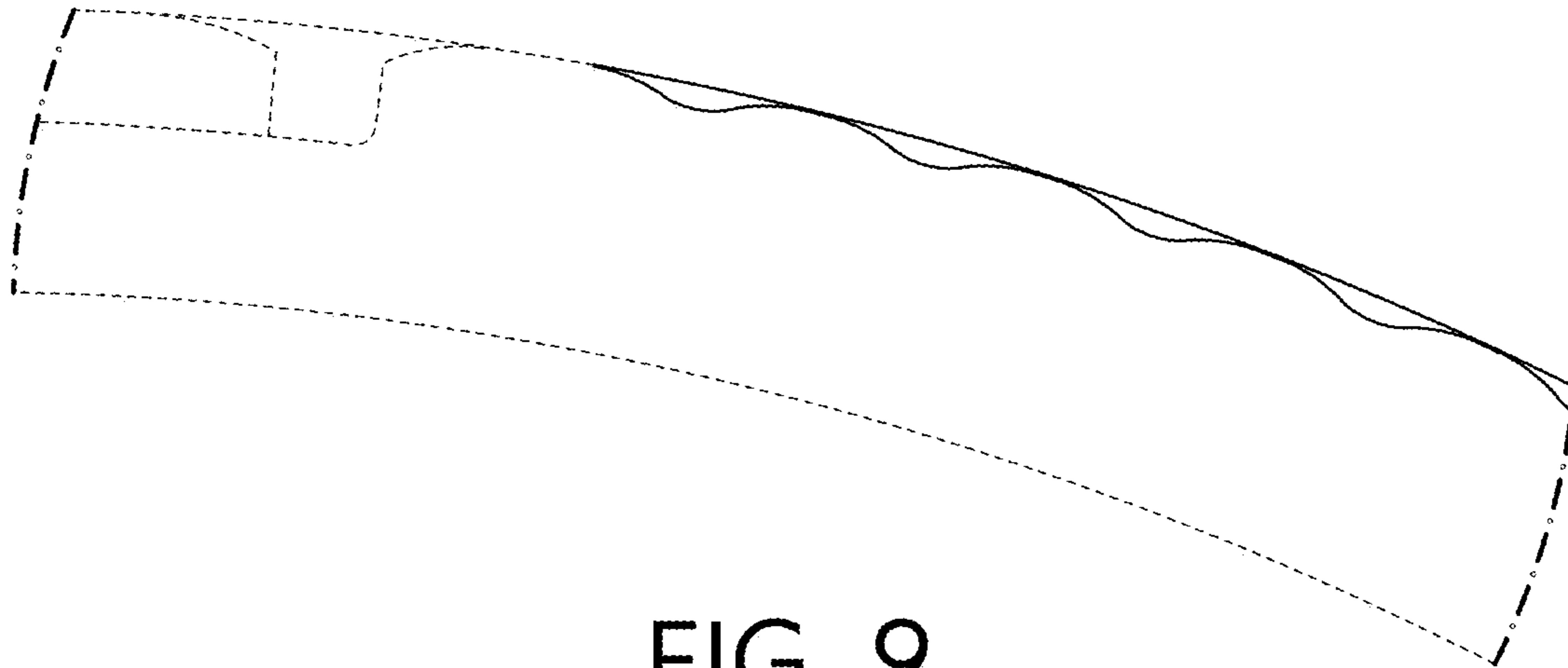


FIG. 9

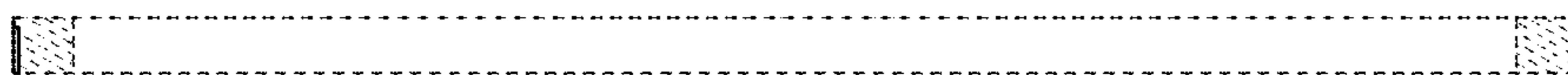


FIG. 10

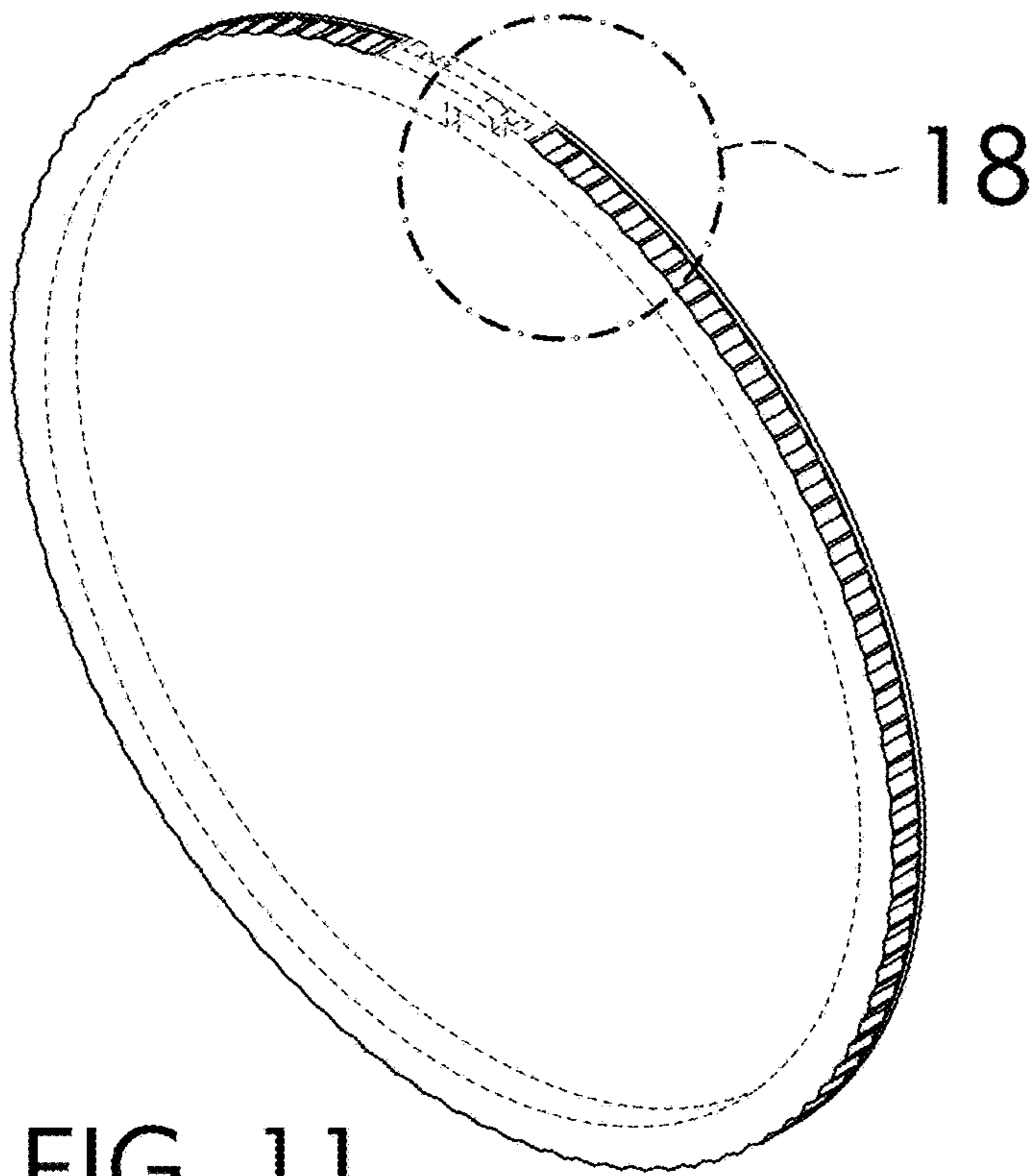


FIG. 11

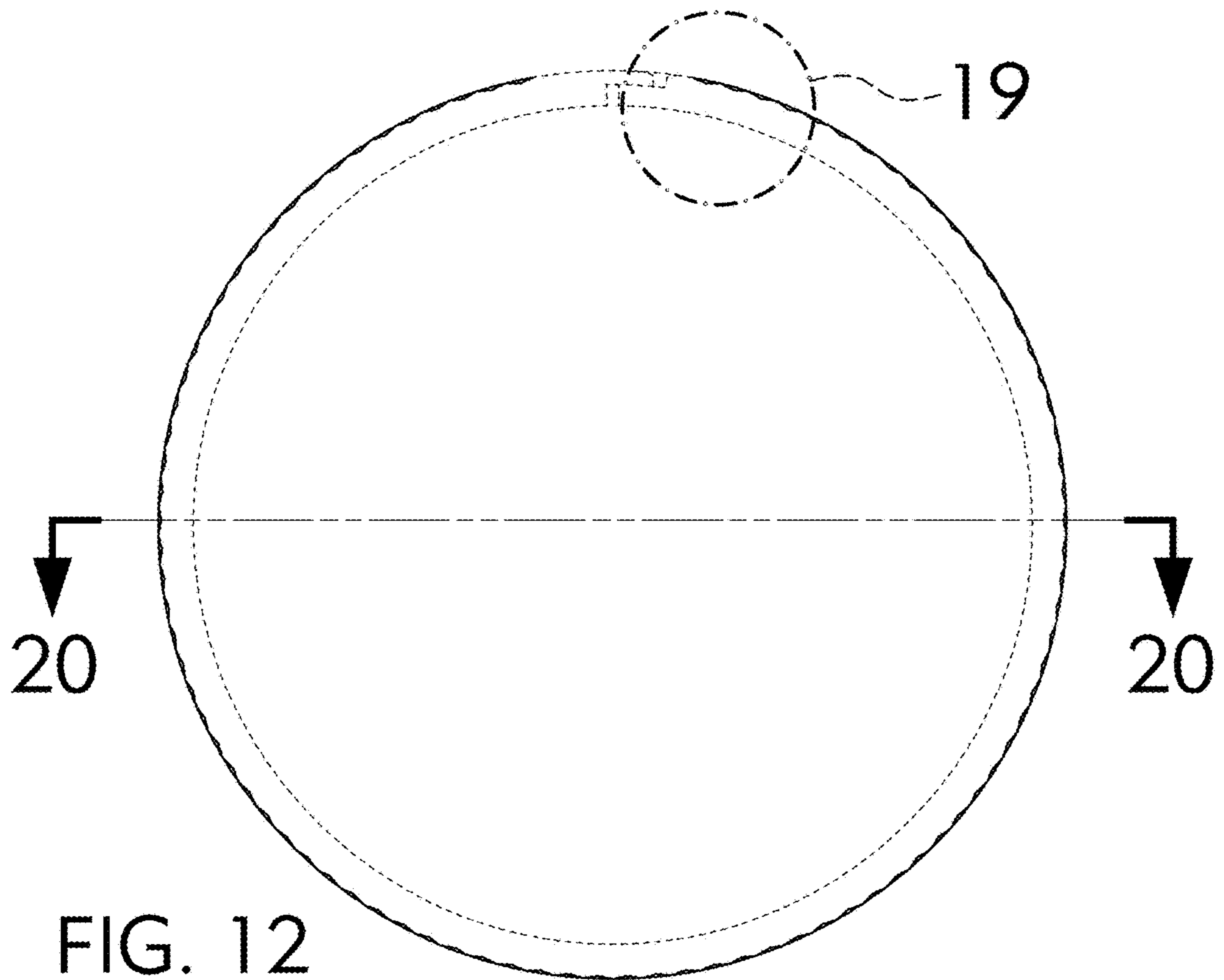


FIG. 12

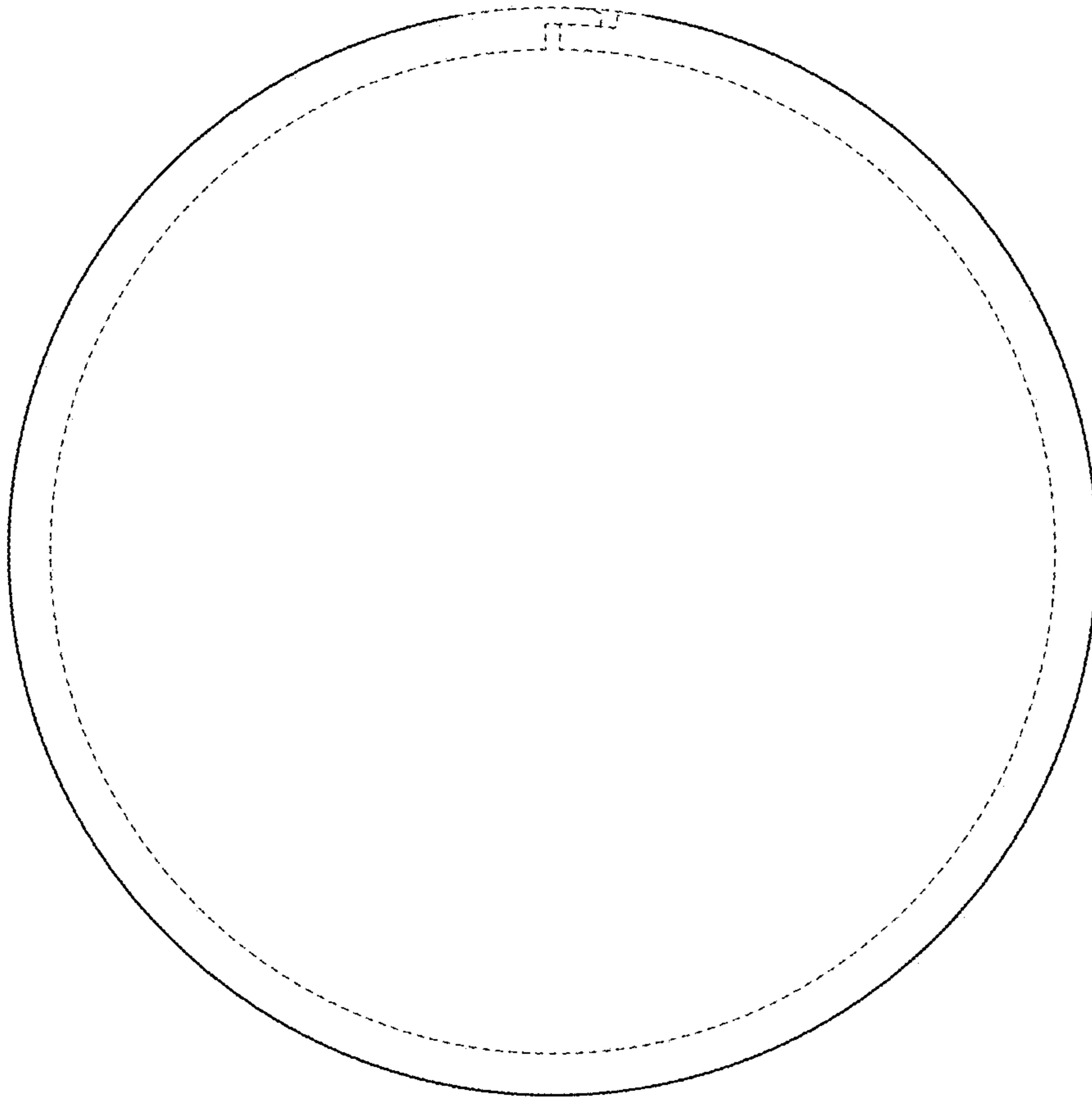


FIG. 13



FIG. 14



FIG. 15

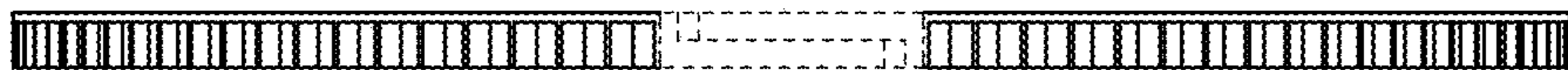


FIG. 16



FIG. 17

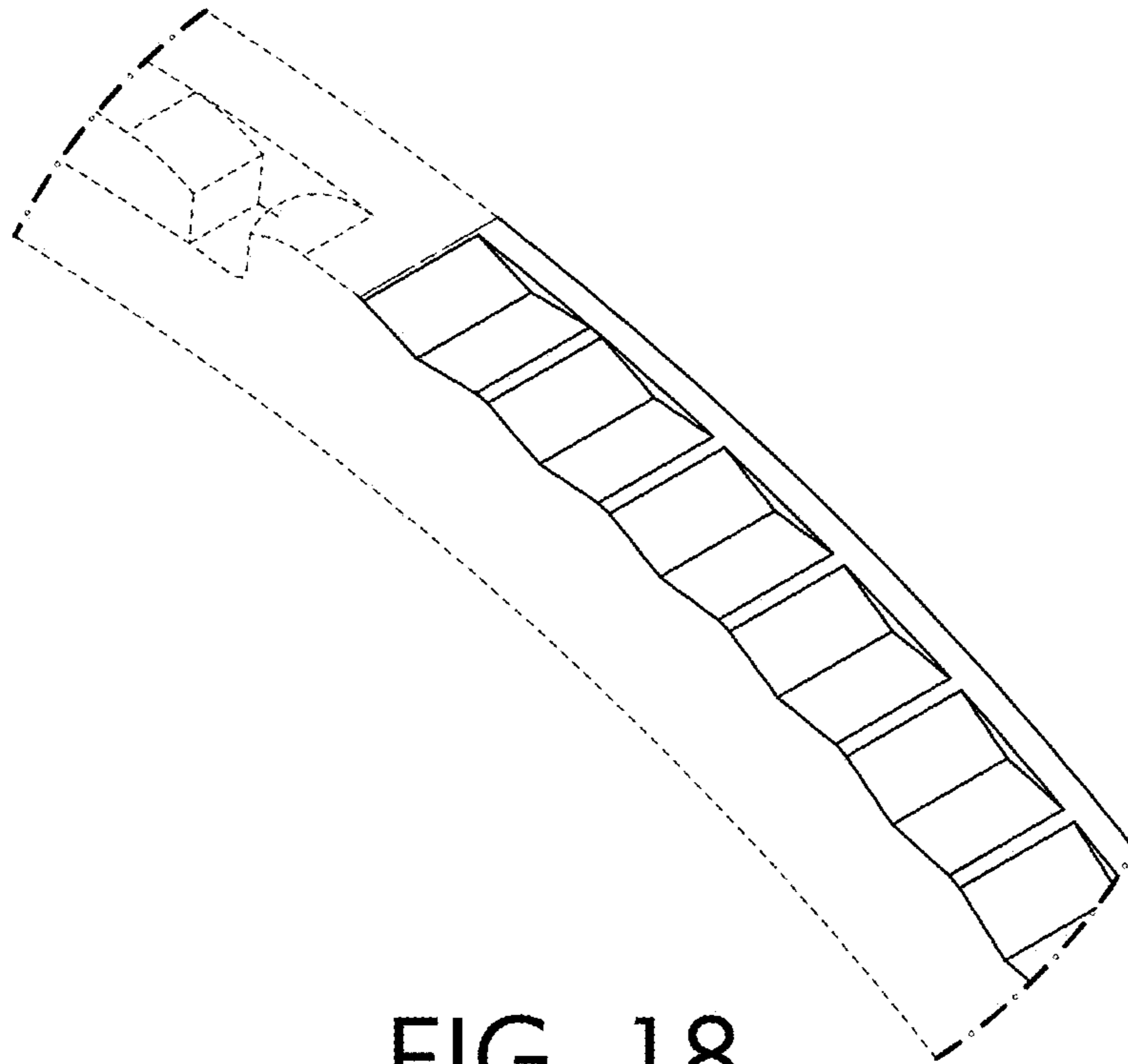


FIG. 18

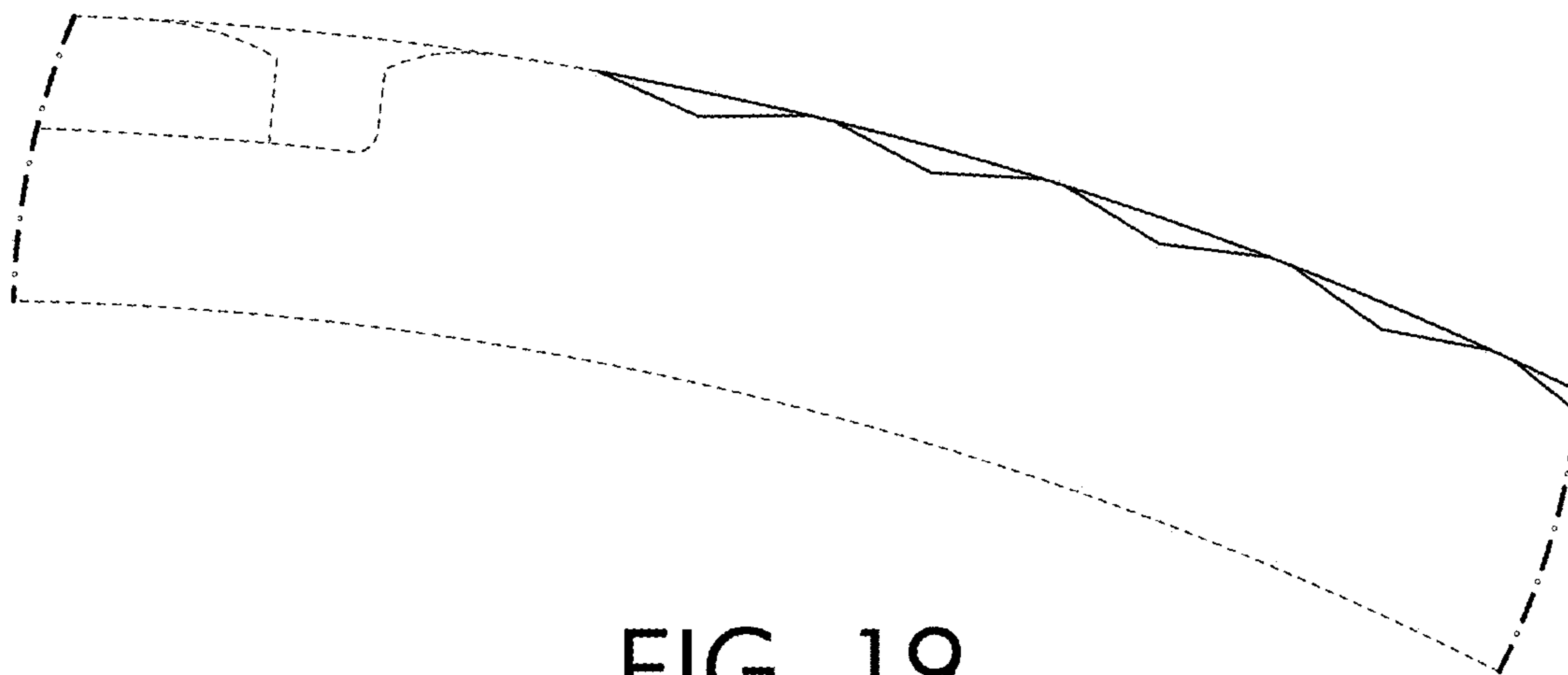


FIG. 19

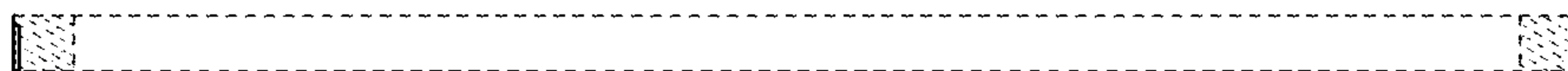
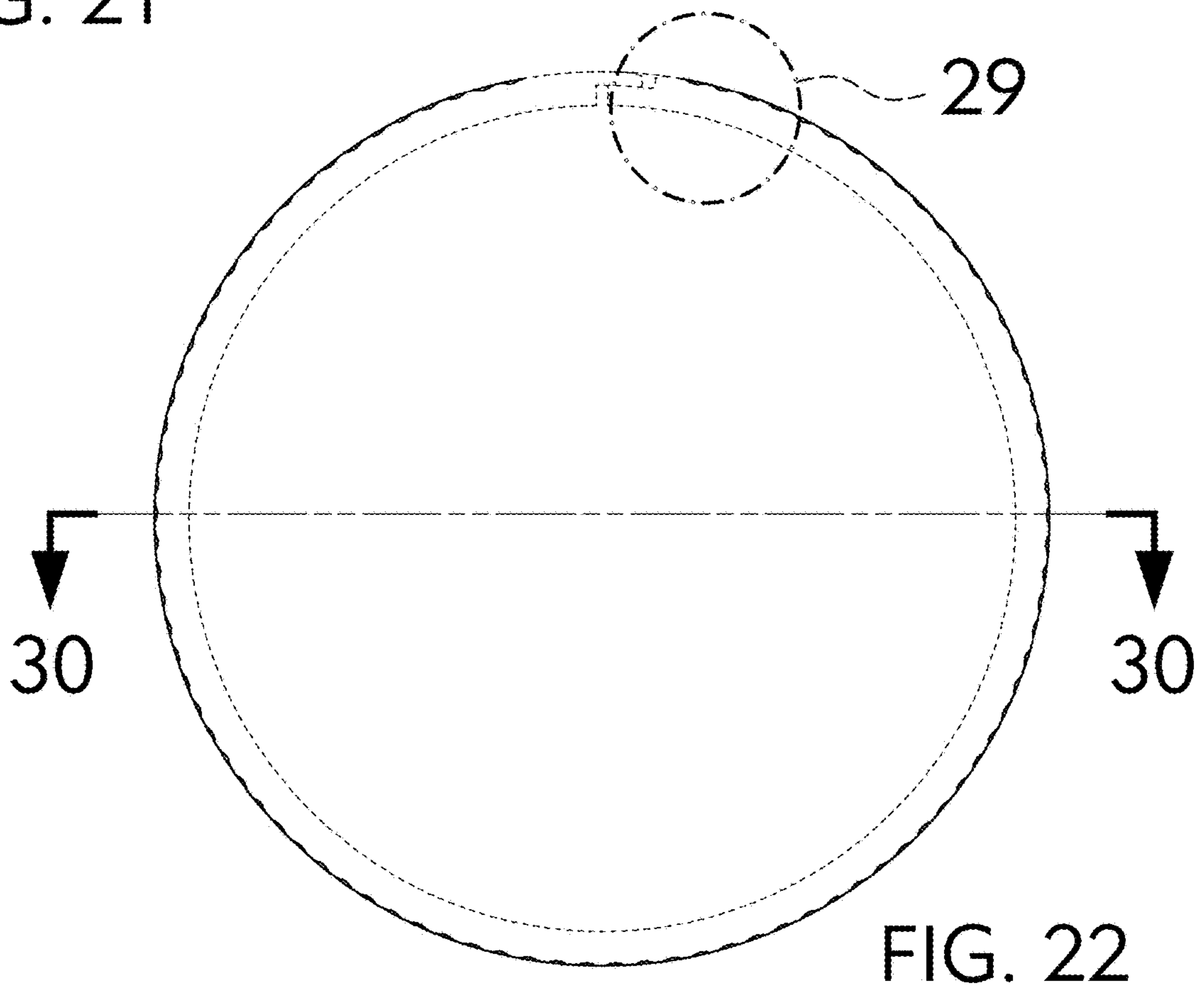
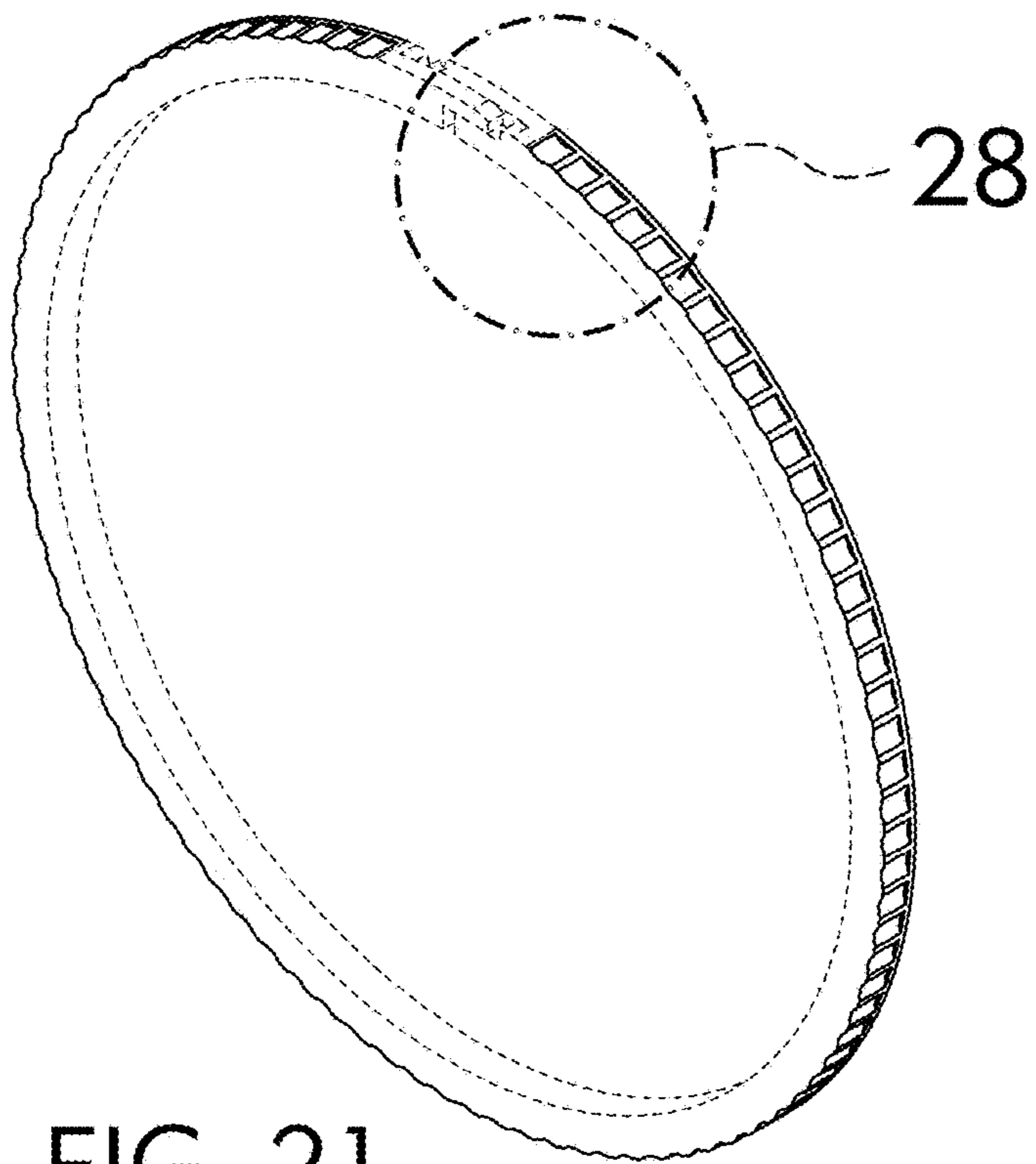


FIG. 20



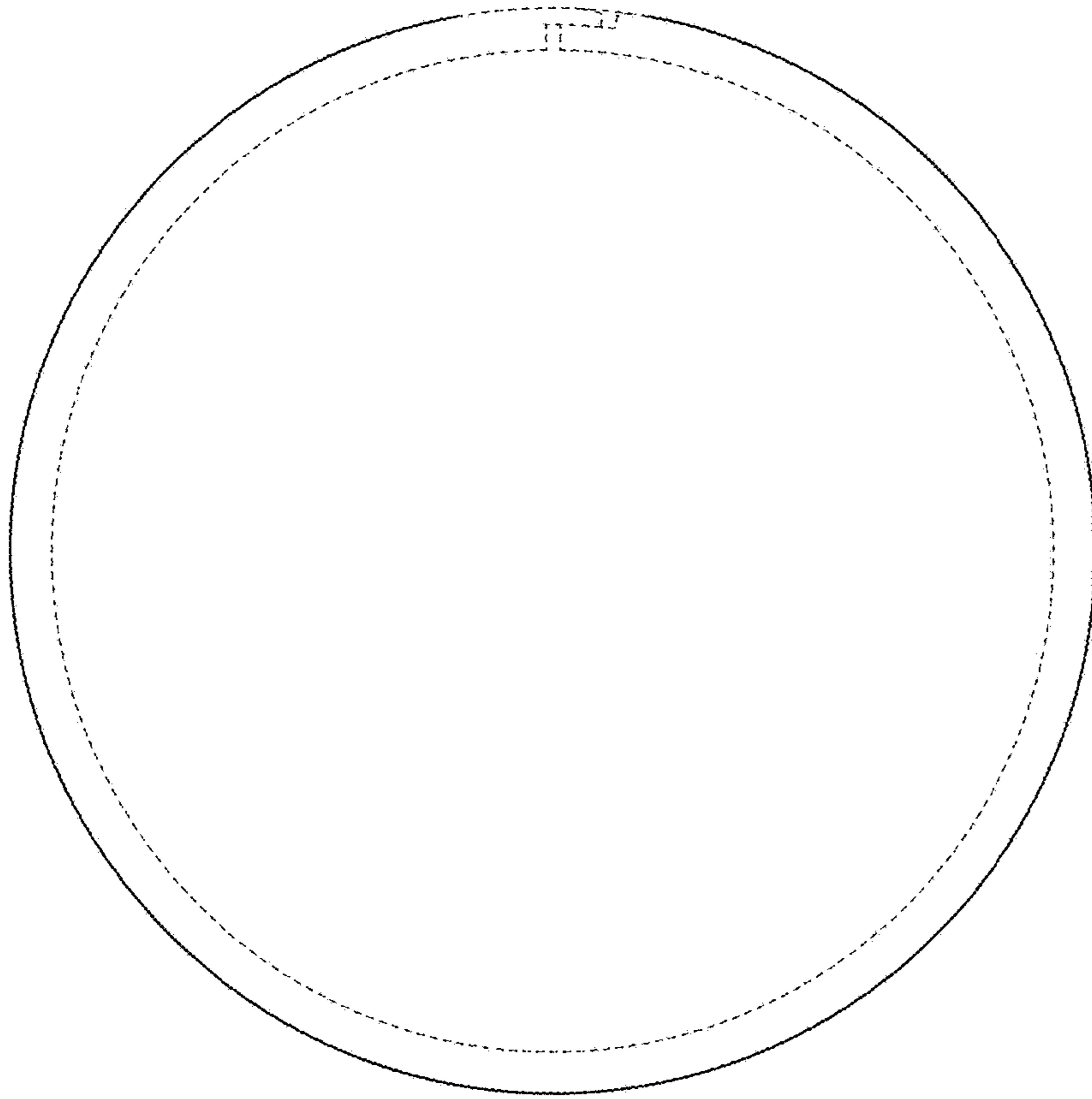


FIG. 23



FIG. 24



FIG. 25

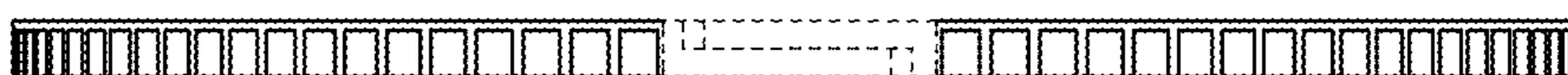


FIG. 26



FIG. 27

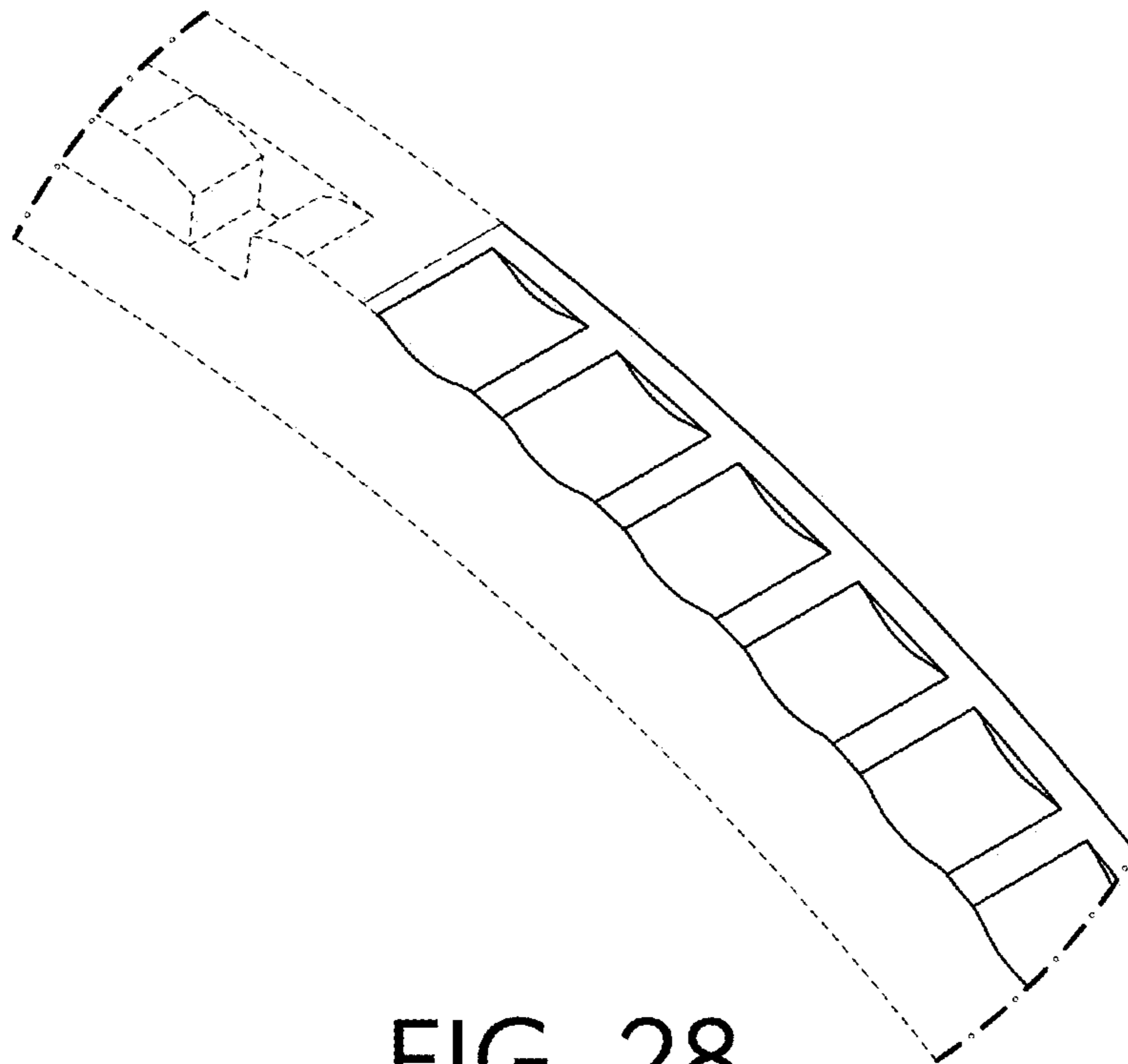


FIG. 28

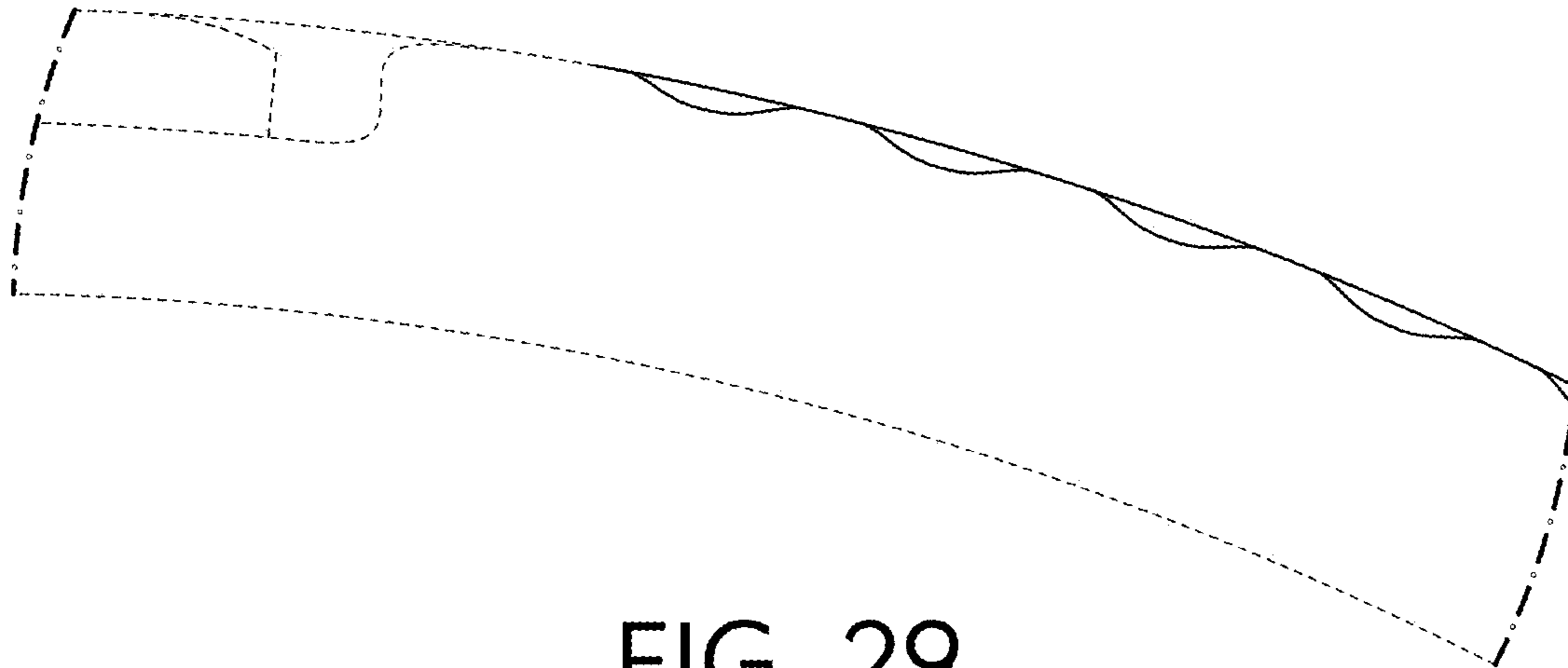


FIG. 29

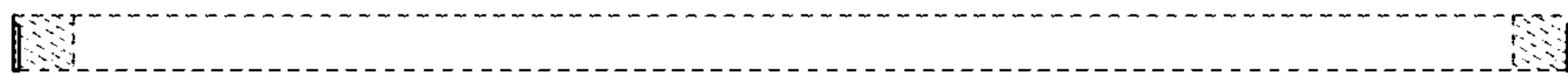


FIG. 30