



US00D919669S

(12) **United States Design Patent** (10) **Patent No.:** **US D919,669 S**
Tsuji et al. (45) **Date of Patent:** **** May 18, 2021**

(54) **SEAL MEMBER FOR SEMICONDUCTOR PRODUCTION APPARATUS**

(56) **References Cited**

(71) Applicant: **Valqua, Ltd.**, Tokyo (JP)
(72) Inventors: **Kazuaki Tsuji**, Tokyo (JP); **Takafumi Sakurai**, Santa Clara, CA (US)
(73) Assignee: **Valqua, Ltd.**, Tokyo (JP)
(**) Term: **15 Years**

U.S. PATENT DOCUMENTS

1,805,442 A 5/1931 Wallfisch
4,226,431 A 10/1980 Jelinek et al.
4,560,174 A 12/1985 Bisi
4,834,398 A 5/1989 Guzowski et al.
4,946,410 A 8/1990 Haman
D323,024 S 1/1992 Petersson et al.
D442,609 S 5/2001 Quantz et al.
D572,348 S 7/2008 Arosio

(Continued)

(21) Appl. No.: **29/743,419**

FOREIGN PATENT DOCUMENTS

(22) Filed: **Jul. 21, 2020**

TW D127505 S 2/2009
TW D149670 S 10/2012

(Continued)

Related U.S. Application Data

Primary Examiner — Richard E Chilcot

(62) Division of application No. 35/507,137, filed on Jan. 21, 2019 (U.S. filing date under 35 U.S.C. 384), and having an international filing date of Jan. 21, 2019, now Pat. No. Des. 905,761.

(74) *Attorney, Agent, or Firm* — The Webb Law Firm

(57) **CLAIM**

The ornamental design for a seal member for semiconductor production apparatus, as shown and described.

DESCRIPTION

(30) **Foreign Application Priority Data**

Jul. 24, 2018 (JP) 2018-016130
Jul. 24, 2018 (JP) 2018-016131
Jul. 24, 2018 (JP) 2018-016132

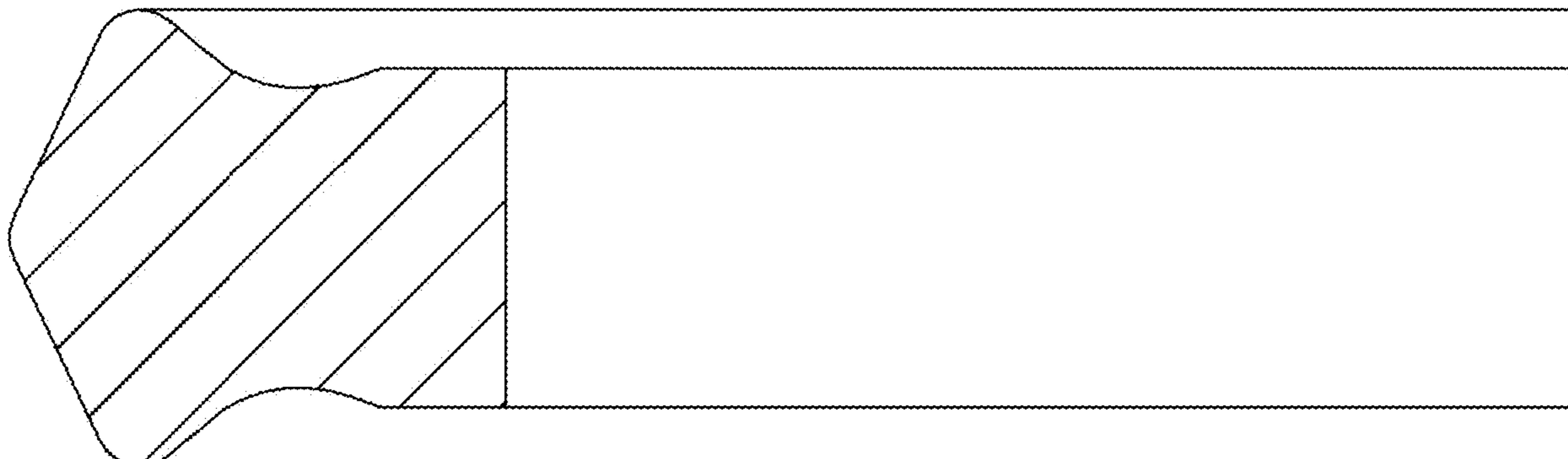
FIG. 1 is a perspective view of a seal member for semiconductor production apparatus, showing our new design; FIG. 2 is a front elevation view thereof; FIG. 3 is a rear elevation view thereof; FIG. 4 is a left side elevation view thereof; FIG. 5 is a right side elevation view thereof; FIG. 6 is a top view thereof; FIG. 7 is a bottom view thereof; FIG. 8 is a cross-sectional view thereof; FIG. 9 is an enlarged cross-sectional view of a portion thereof; and, FIG. 10 is an enlarged cross-sectional view of a portion thereof in a condition of use. The broken lines shown in FIG. 10 are for the purposes of illustrating environmental structure and form no part of the claimed design.

(51) **LOC (13) Cl.** **15-03**

(52) **U.S. Cl.**
USPC **D15/7**
CPC **F16K 51/02** (2013.01)

(58) **Field of Classification Search**
USPC D15/7, 9, 11, 17, 21, 28, 123, 199;
D23/269, 356, 259; D8/349;
277/602-626; 285/98, 109, 336, 910, 918
CPC F16K 51/02; F16J 15/025; F16J 15/0887;
F16J 15/104; F16J 15/128
See application file for complete search history.

1 Claim, 10 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D582,436 S 12/2008 Shimomura et al.
 D582,437 S 12/2008 Shimomura et al.
 D582,438 S 12/2008 Shimomura et al.
 D582,439 S 12/2008 Shimomura et al.
 D582,440 S 12/2008 Shimomura et al.
 D582,441 S 12/2008 Shimomura et al.
 D614,271 S 4/2010 Weston
 D616,966 S 6/2010 Angell
 D631,066 S 1/2011 Itadani et al.
 D633,991 S 3/2011 Nakagawa
 D655,401 S 3/2012 Muramatsu
 D655,797 S 3/2012 Muramatsu
 D690,336 S 9/2013 Gjertsen
 8,608,173 B2 12/2013 Ryan
 D722,621 S 2/2015 Gray et al.
 D802,723 S 11/2017 Miyamoto
 D822,181 S 7/2018 Nakagawa
 D837,685 S 1/2019 Miki
 D848,585 S 5/2019 Yamamoto

D848,586 S 5/2019 Yamamoto
 D849,211 S 5/2019 Yamamoto
 D864,361 S 10/2019 Kim et al.
 D871,561 S 12/2019 Kang et al.
 D885,444 S 5/2020 Tsuji
 D905,761 S * 12/2020 Tsuji et al. F16K 51/02
 D15/7

2005/0001195 A1 1/2005 Blease et al.
 2009/0026717 A1 1/2009 Tsuji
 2011/0018211 A1 1/2011 Tsuji
 2011/0169229 A1 7/2011 Hamade et al.
 2015/0279706 A1 10/2015 Nakagawa

FOREIGN PATENT DOCUMENTS

TW D163769 S 10/2014
 TW D164826 S 12/2014
 TW D164827 S 12/2014
 TW D166713 S 3/2015
 TW D180129 S 12/2016
 TW D183422 S 6/2017

* cited by examiner

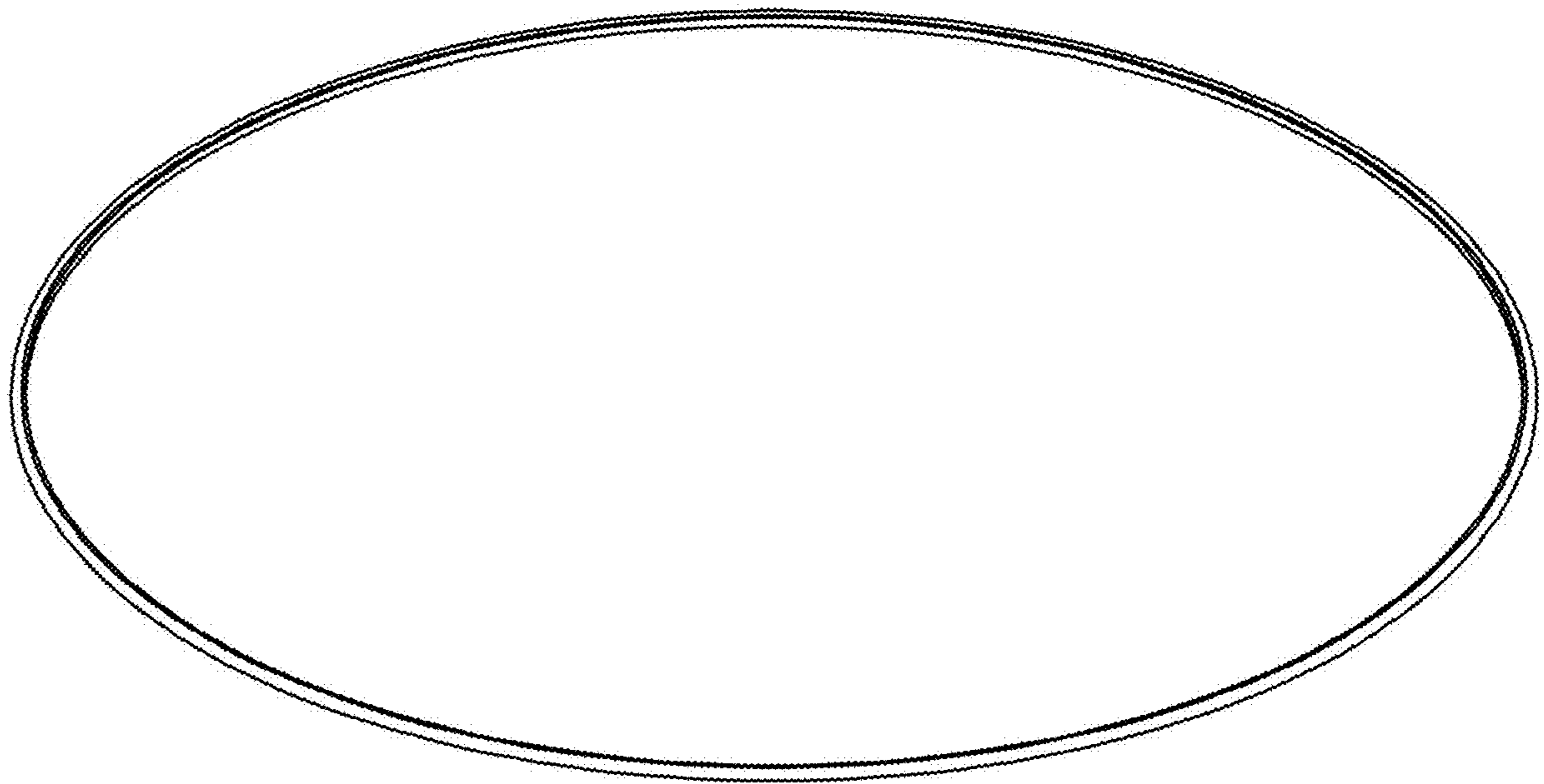


FIG. 1



FIG. 2

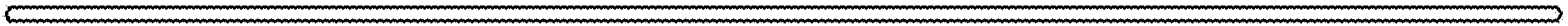


FIG. 3

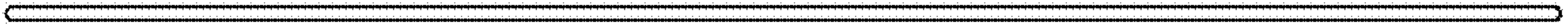


FIG. 4

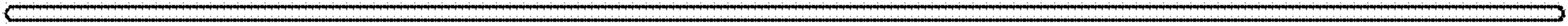


FIG. 5

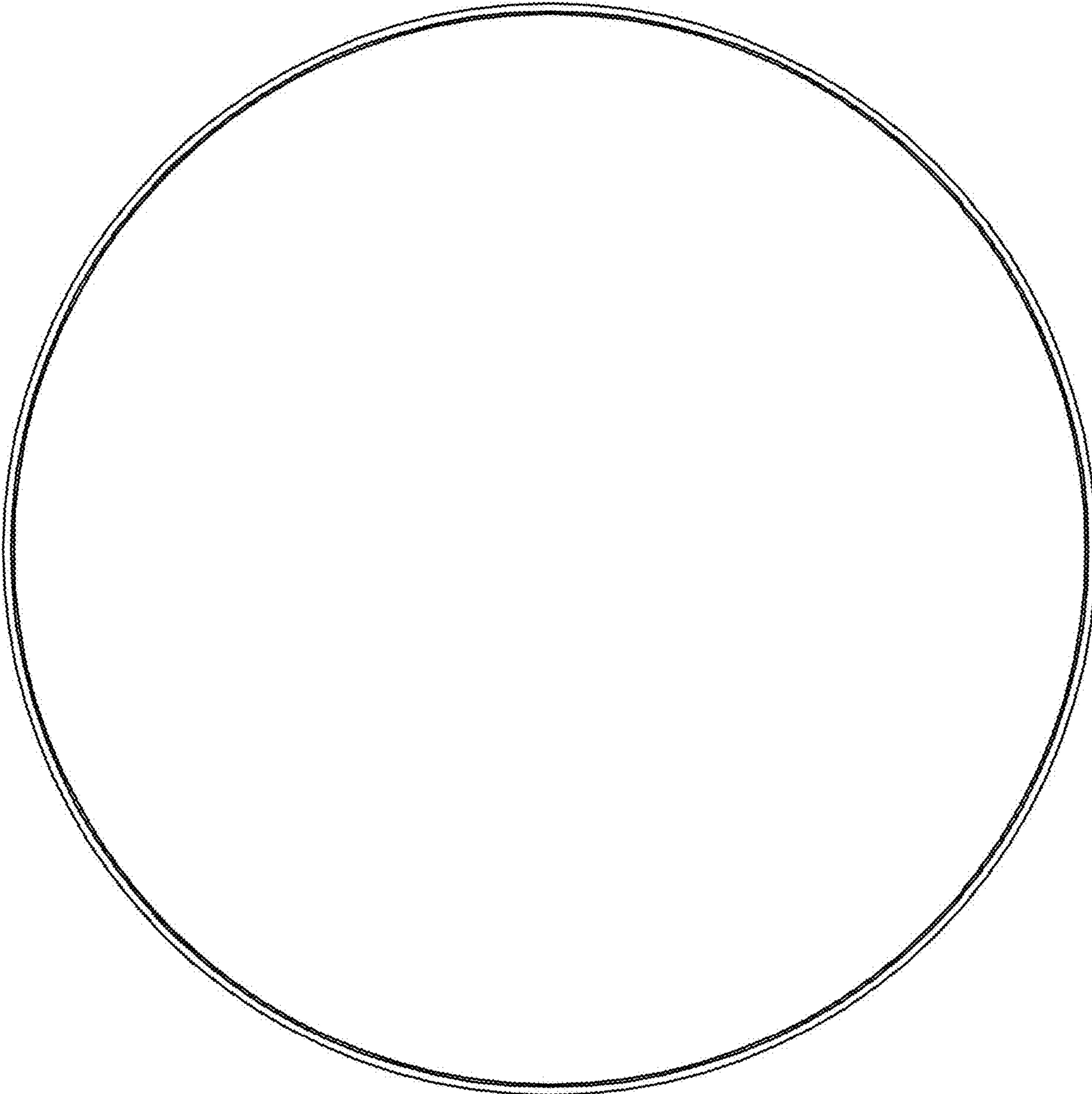


FIG. 6

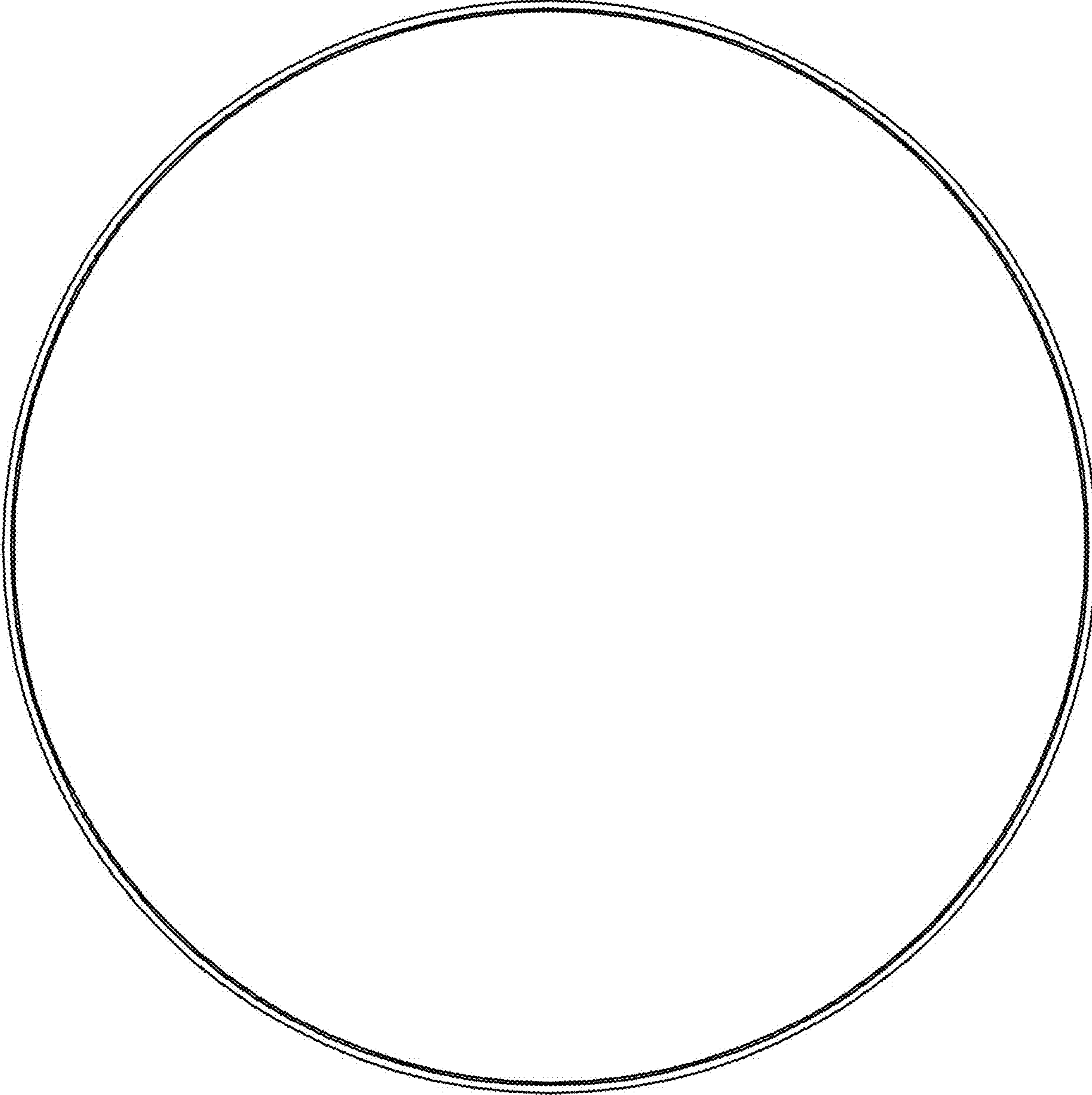


FIG. 7

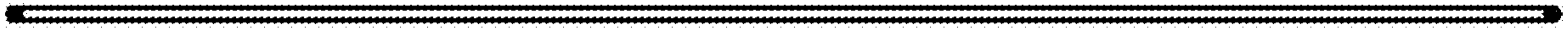


FIG. 8

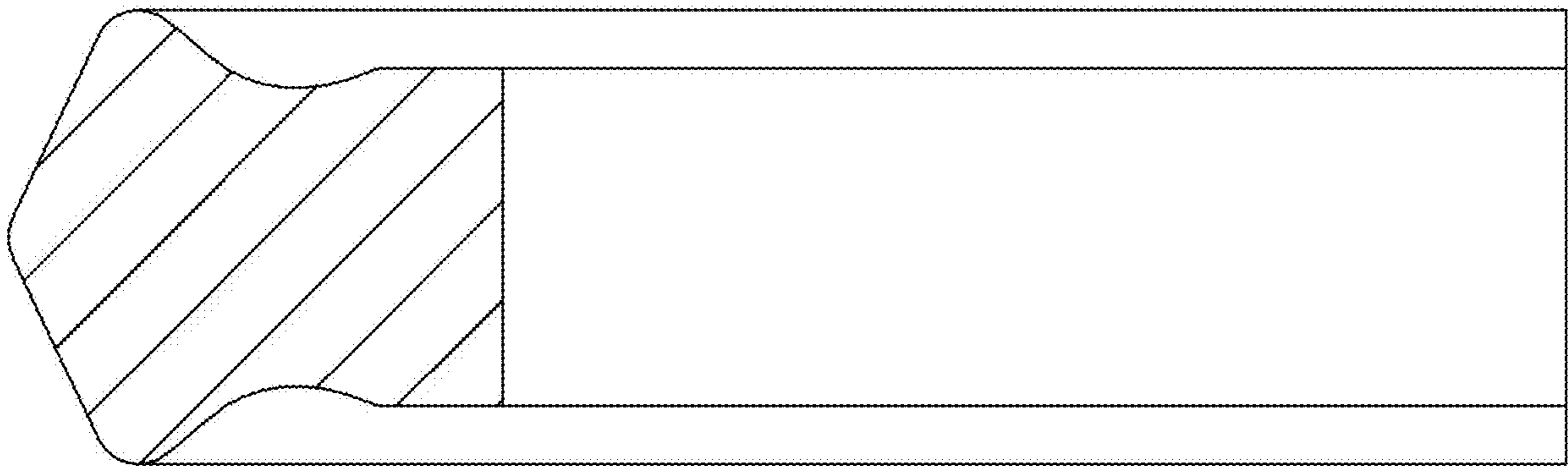


FIG. 9

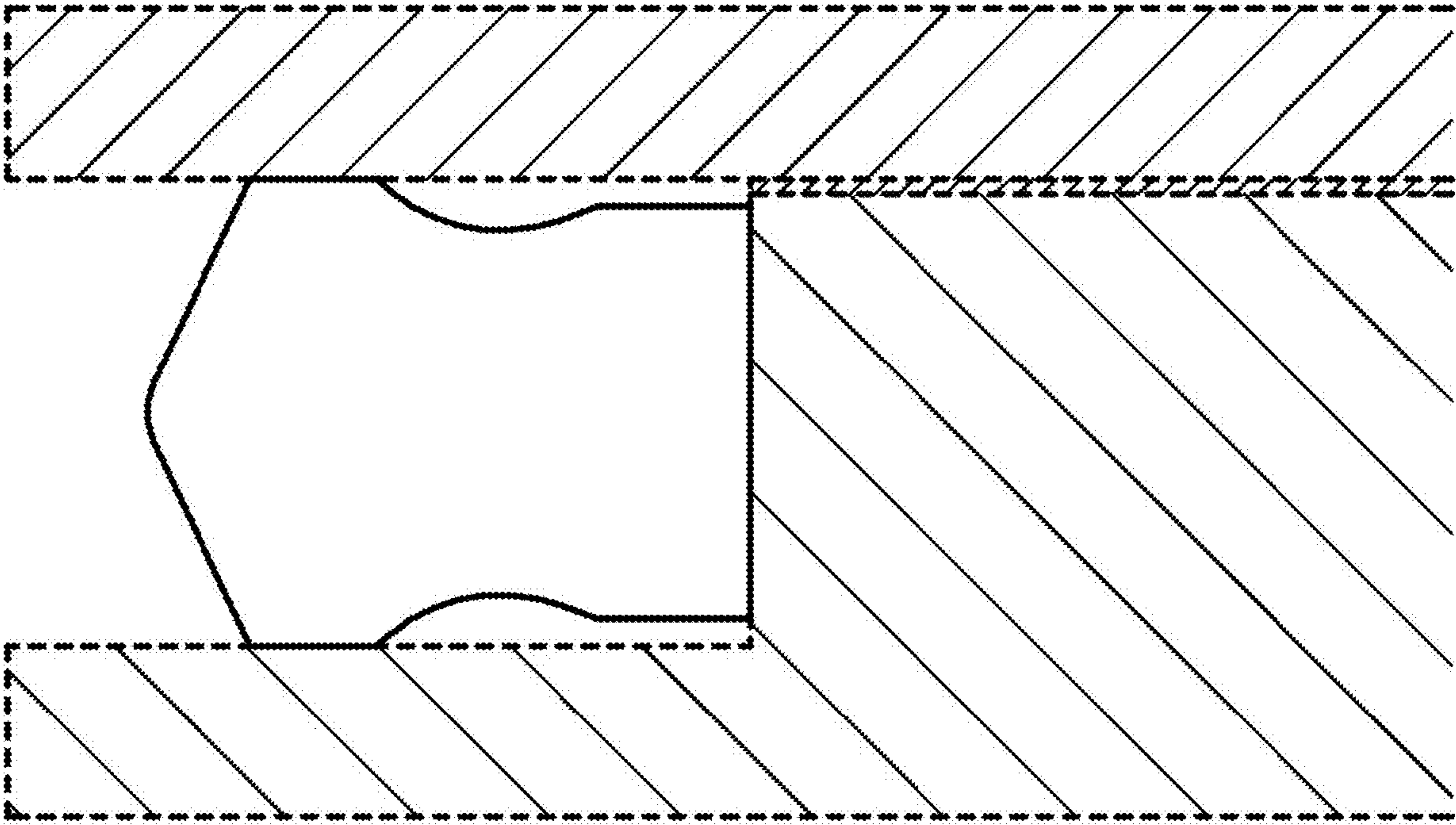


FIG. 10