



US00D905761S

(12) **United States Design Patent** (10) **Patent No.:** **US D905,761 S**
Tsuji et al. (45) **Date of Patent:** **** Dec. 22, 2020**

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

CPC F16K 51/02; F16J 15/025; F16J 15/0887;
F16J 15/104; F16J 15/128
See application file for complete search history.

(71) Applicant: **VALQUA, LTD.**, Tokyo (JP)

(56) **References Cited**

(72) Inventors: **Kazuaki Tsuji**, Tokyo (JP); **Takafumi Sakurai**, Santa Clara, CA (US)

U.S. PATENT DOCUMENTS

(73) Assignee: **Valqua, Ltd.**, Tokyo (JP)

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

- 1,805,442 A * 5/1931 Wallfisch F16G 5/00
474/238
 - 4,226,431 A * 10/1980 Jelinek B62D 5/24
277/354
 - 4,560,174 A * 12/1985 Bisi B62D 55/088
277/382
 - 4,834,398 A * 5/1989 Guzowski F16L 17/035
277/624
 - 4,946,410 A * 8/1990 Haman B63H 23/321
277/351
 - D323,024 S * 1/1992 Petersson D23/269
- (Continued)

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(80) **Hague Agreement Data**

FOREIGN PATENT DOCUMENTS

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- TW D127505 S 2/2009
 - TW D149670 S 10/2012
- (Continued)

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Primary Examiner — Richard E Chilcot

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

(30) **Foreign Application Priority Data**

(57) **CLAIM**

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

DESCRIPTION

(51) **LOC (12) Cl.** **15-03**

(52) **U.S. Cl.**

USPC **D15/7**

CPC **F16K 51/02** (2013.01)

(58) **Field of Classification Search**

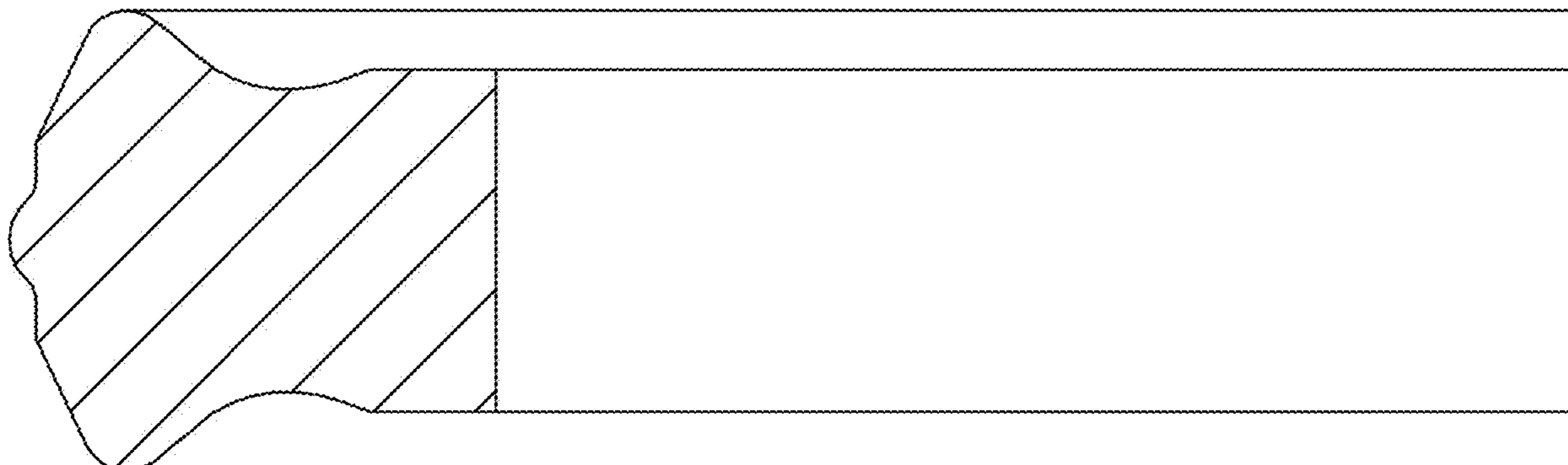
USPC D15/7, 9, 11, 17, 21, 28, 123, 199;

D23/269, 386, 259; D8/349;

277/602–626; 285/98, 109, 336, 910, 918

- 1.1** is a perspective view of a seal member for semiconductor production apparatus, showing our new design;
 - 1.2** is a front elevation view thereof;
 - 1.3** is a rear elevation view thereof;
 - 1.4** is a left side elevation view thereof;
 - 1.5** is a right side elevation view thereof;
 - 1.6** is a top view thereof;
 - 1.7** is a bottom view thereof;
 - 1.8** is a cross-sectional view thereof;
 - 1.9** is an enlarged cross-sectional view of a portion thereof;
- and

(Continued)



1.10 is an enlarged cross-sectional view of a portion thereof in a condition of use.

The broken lines shown in Reproduction 1.10 are for the purposes of illustrating environmental structure and form no part of the claimed design.

1 Claim, 10 Drawing Sheets

(56)

References Cited

U.S. PATENT DOCUMENTS

D442,609	S	*	5/2001	Quantz	.....	D15/123
D572,348	S	*	7/2008	Arosio	.....	D15/5
D582,436	S	*	12/2008	Shimomura	.....	D15/7
D582,437	S	*	12/2008	Shimomura	.....	D15/7
D582,438	S	*	12/2008	Shimomura	.....	D15/7
D582,439	S	*	12/2008	Shimomura	.....	D15/7
D582,440	S	*	12/2008	Shimomura	.....	D15/7
D582,441	S	*	12/2008	Shimomura	.....	D15/7
D614,271	S	*	4/2010	Weston	.....	D23/269
D616,966	S	*	6/2010	Angell	.....	D23/262
D631,066	S	*	1/2011	Itadani	.....	D15/9
D633,991	S	*	3/2011	Nakagawa	.....	D23/269
D655,401	S	*	3/2012	Muramatsu	.....	D23/269
D655,797	S	*	3/2012	Muramatsu	.....	D23/269
D690,336	S	*	9/2013	Gjertsen	.....	D15/144
8,608,173	B2	*	12/2013	Ryan	.....	F16J 15/0887 277/312

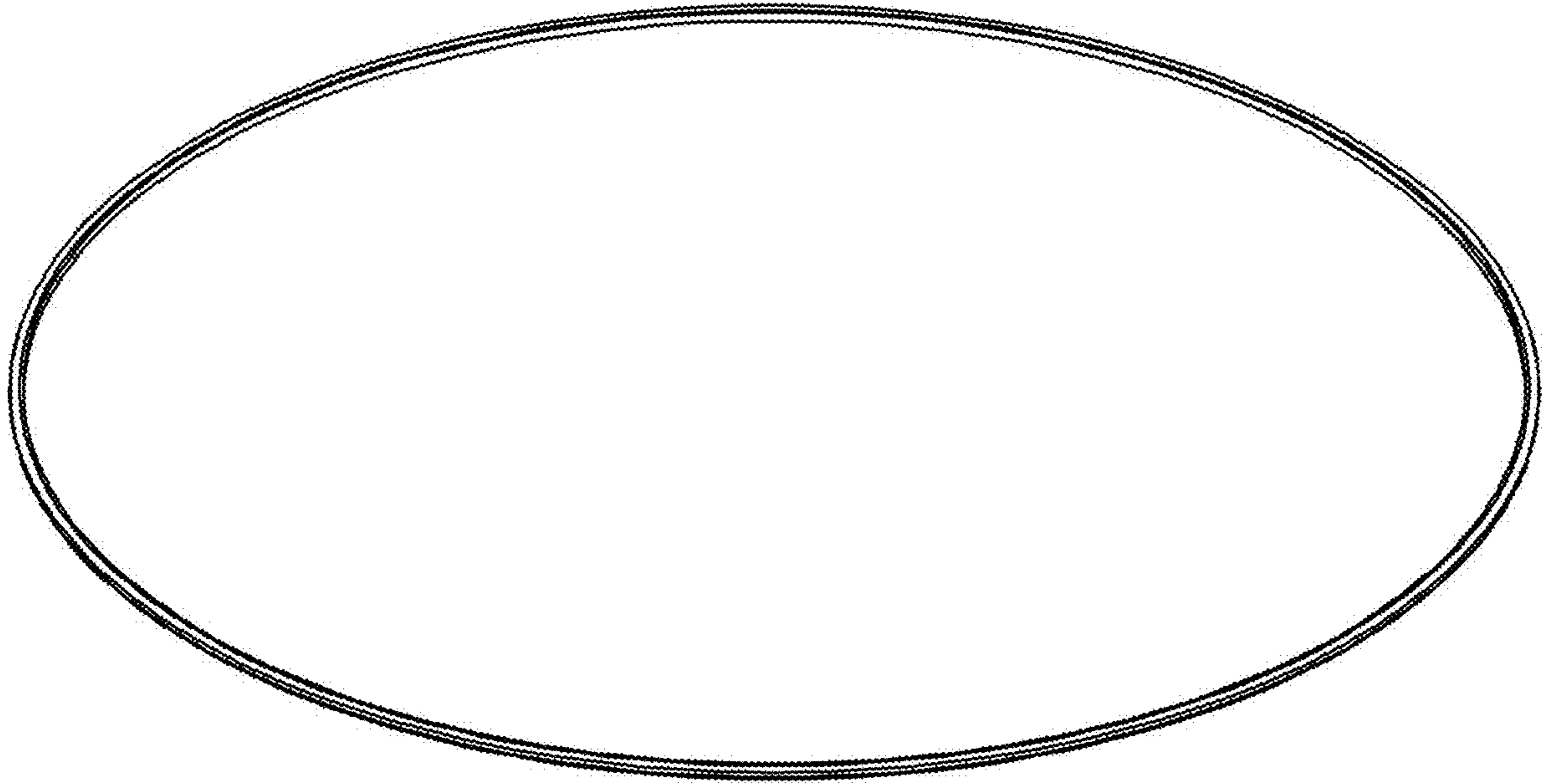
D722,621	S	*	2/2015	Gray	.....	D15/28
D802,723	S	*	11/2017	Miyamoto	.....	D23/269
D822,181	S	*	7/2018	Nakagawa	.....	D23/269
D837,685	S	*	1/2019	Miki	.....	D11/200
D848,585	S	*	5/2019	Yamamoto	.....	D23/269
D848,586	S	*	5/2019	Yamamoto	.....	D23/269
D849,211	S	*	5/2019	Yamamoto	.....	D23/269
D864,361	S	*	10/2019	Kim	.....	D23/269
D871,561	S	*	12/2019	Kang	.....	D23/269
D885,444	S	*	5/2020	Tsuji	.....	D15/7
2005/0001195	A1	*	1/2005	Blease	.....	F16J 15/121 251/171
2009/0026717	A1	*	1/2009	Tsuji	.....	F16K 51/02 277/650
2011/0018211	A1	*	1/2011	Tsuji	.....	F16J 15/064 277/628
2011/0169229	A1	*	7/2011	Hamade	.....	F16K 3/0227 277/650
2015/0279706	A1	*	10/2015	Nakagawa	.....	H01L 21/67126 277/641

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

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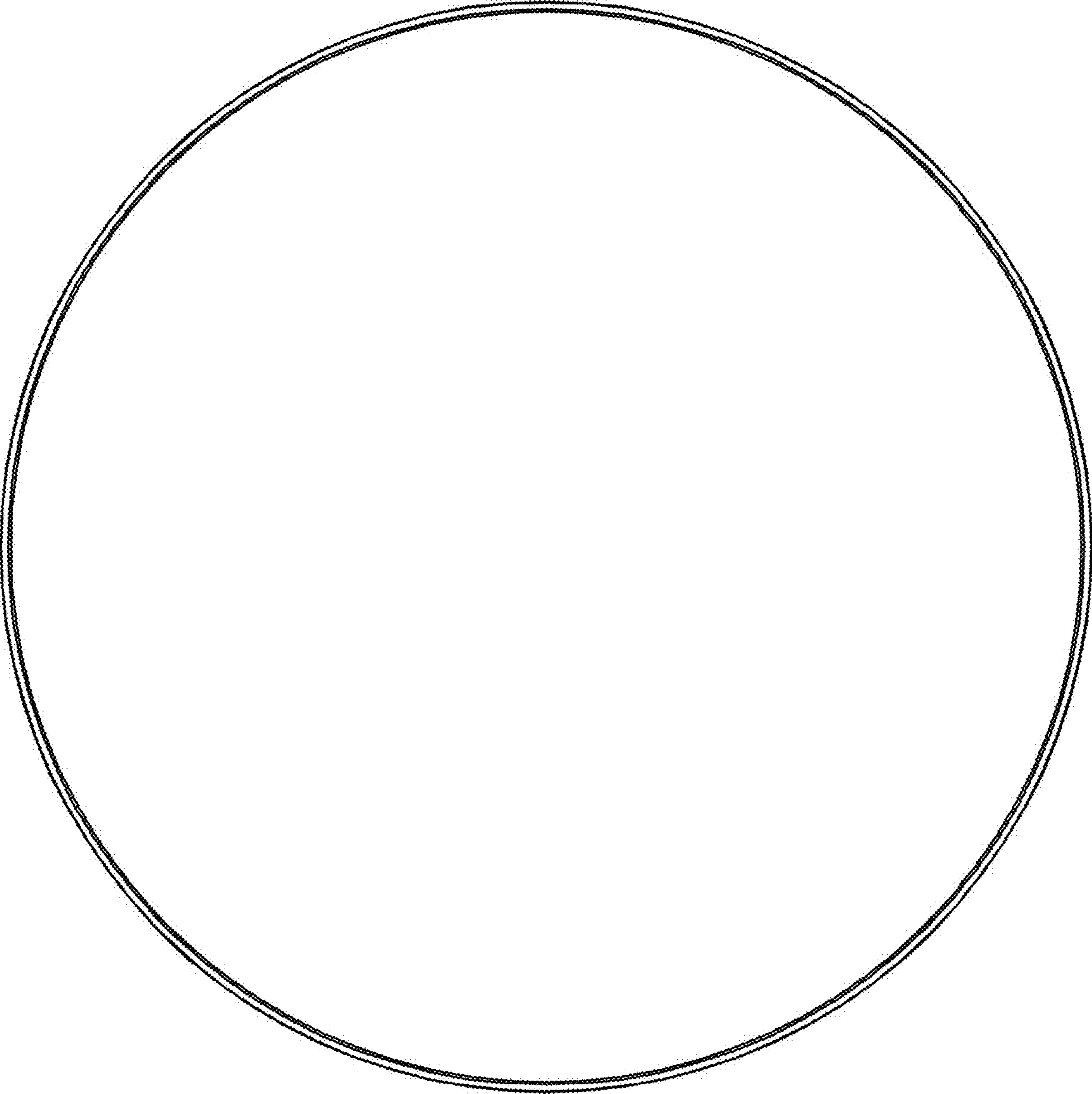
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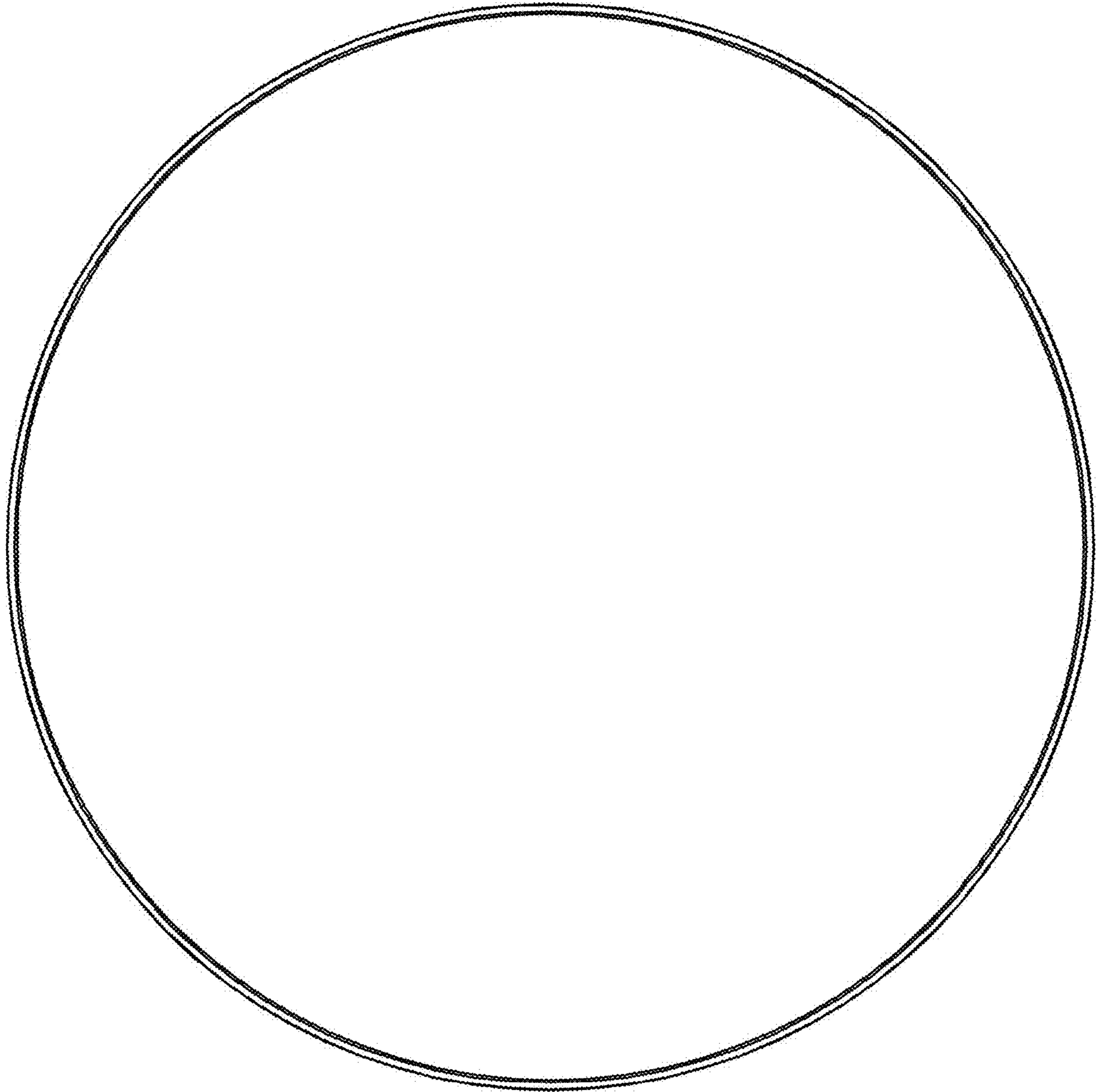
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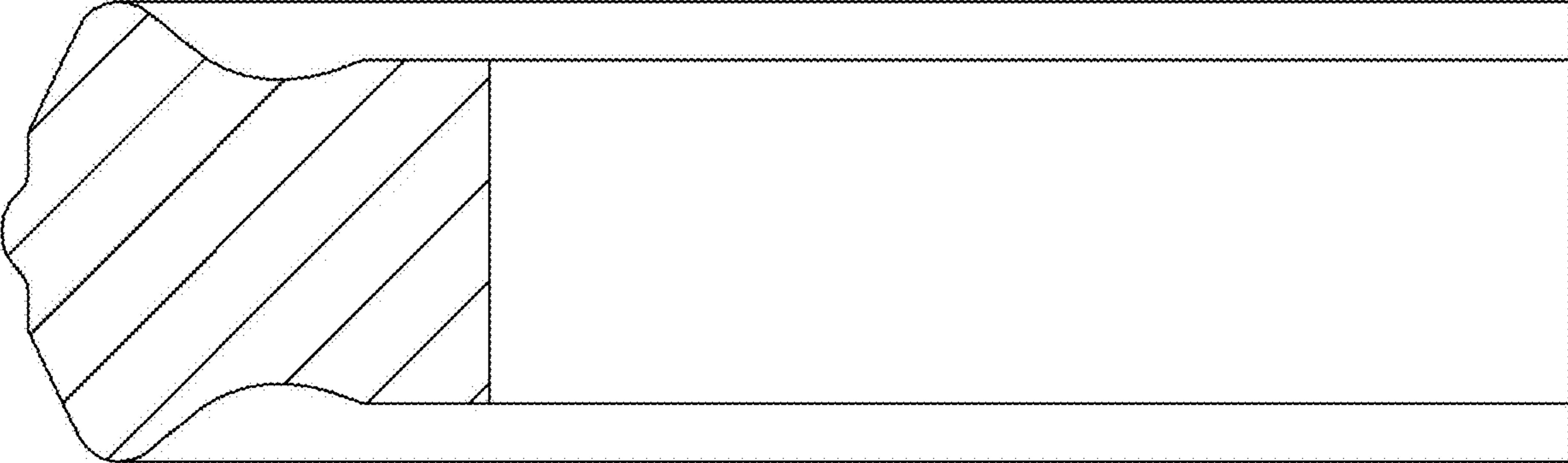
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1.10

