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(12) **United States Design Patent** (10) **Patent No.:** **US D767,234 S**
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(54) **WAFER SUPPORT RING**
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(**) Term: **14 Years**
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(52) **U.S. Cl.**
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(58) **Field of Classification Search**
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CPC H01L 21/67259; H01L 21/67742; H01L 21/67288; H02K 5/128
See application file for complete search history.

(56) **References Cited**
U.S. PATENT DOCUMENTS
3,893,649 A * 7/1975 Cornell B65F 1/06 248/101
4,867,401 A * 9/1989 Graff B65B 67/12 248/99
4,899,967 A * 2/1990 Johnson B65B 67/12 248/97
D457,283 S * 5/2002 Wayt D34/1
D591,924 S * 5/2009 Abe D34/35

8,016,542 B2 * 9/2011 Cox H01L 21/67742 414/744.5
D646,764 S * 10/2011 Rusconi D23/269
D655,401 S * 3/2012 Muramatsu D23/269
D667,601 S * 9/2012 Fitzpatrick D34/6
D723,239 S * 2/2015 Raschke D34/29
D743,513 S * 11/2015 Yamagishi D23/269
D754,308 S * 4/2016 Nakagawa D23/269
2004/0048474 A1 * 3/2004 Asano H01L 21/67259 438/689
2006/0166503 A1 * 7/2006 Sasaki B24B 37/042 438/692
2012/0263569 A1 * 10/2012 Priddy C30B 23/02 414/800
2013/0330165 A1 * 12/2013 Wimplinger H01L 21/67288 414/800
2014/0154038 A1 * 6/2014 Hudgens H02K 5/128 414/744.5

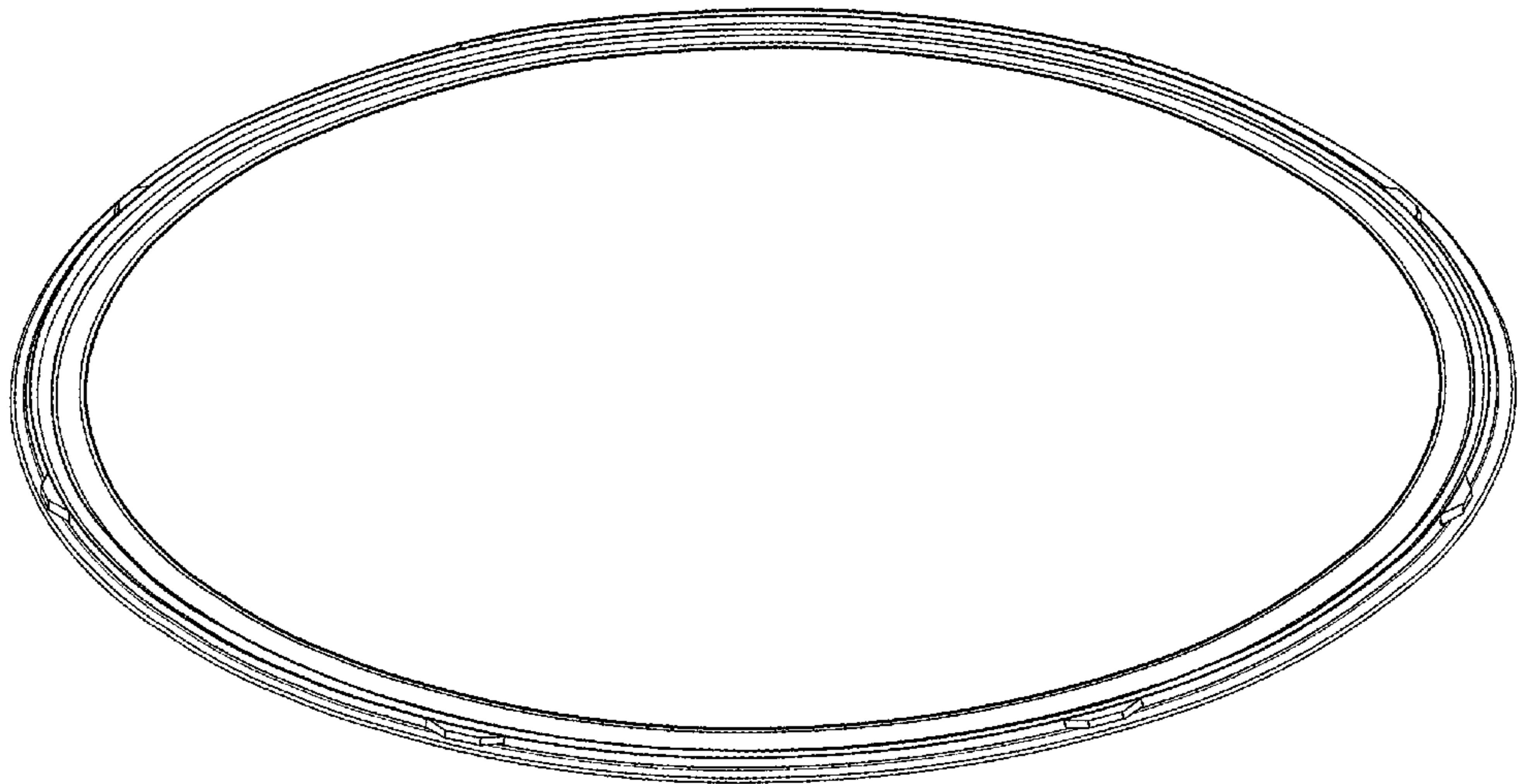
* cited by examiner
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(57) **CLAIM**
The ornamental design for a wafer support ring, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a wafer support ring showing our new design;
FIG. 2 is a bottom perspective view thereof;
FIG. 3 is a top plan view thereof;
FIG. 4 is a bottom plan view thereof;
FIG. 5 is a front elevational view, with the rear being a mirror image thereof;
FIG. 6 is a cross sectional view taken at line 6-6 of FIG. 3; and,
FIG. 7 is a cross sectional view taken at line 7-7 of FIG. 3.

1 Claim, 6 Drawing Sheets



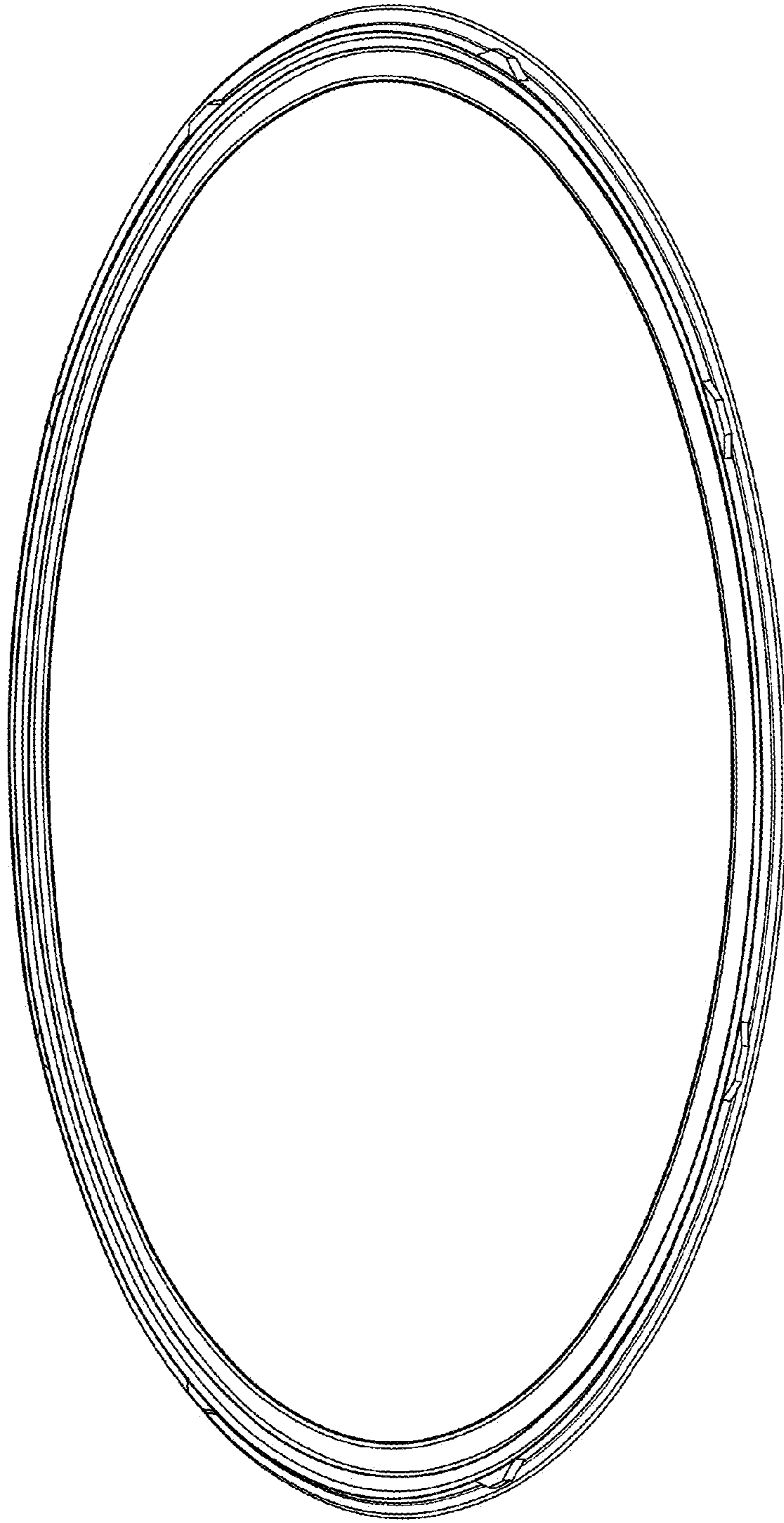


Fig. 1

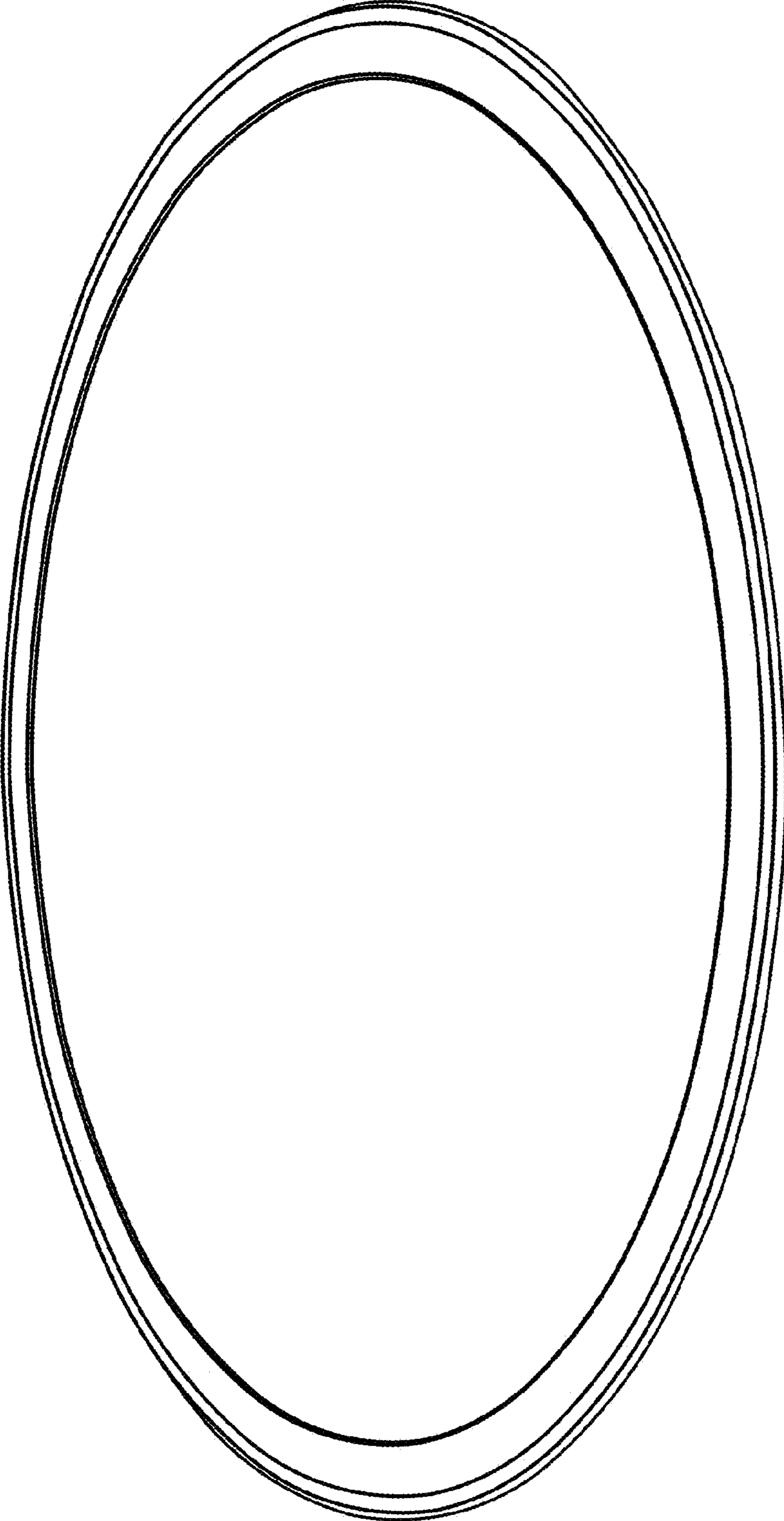


Fig. 2

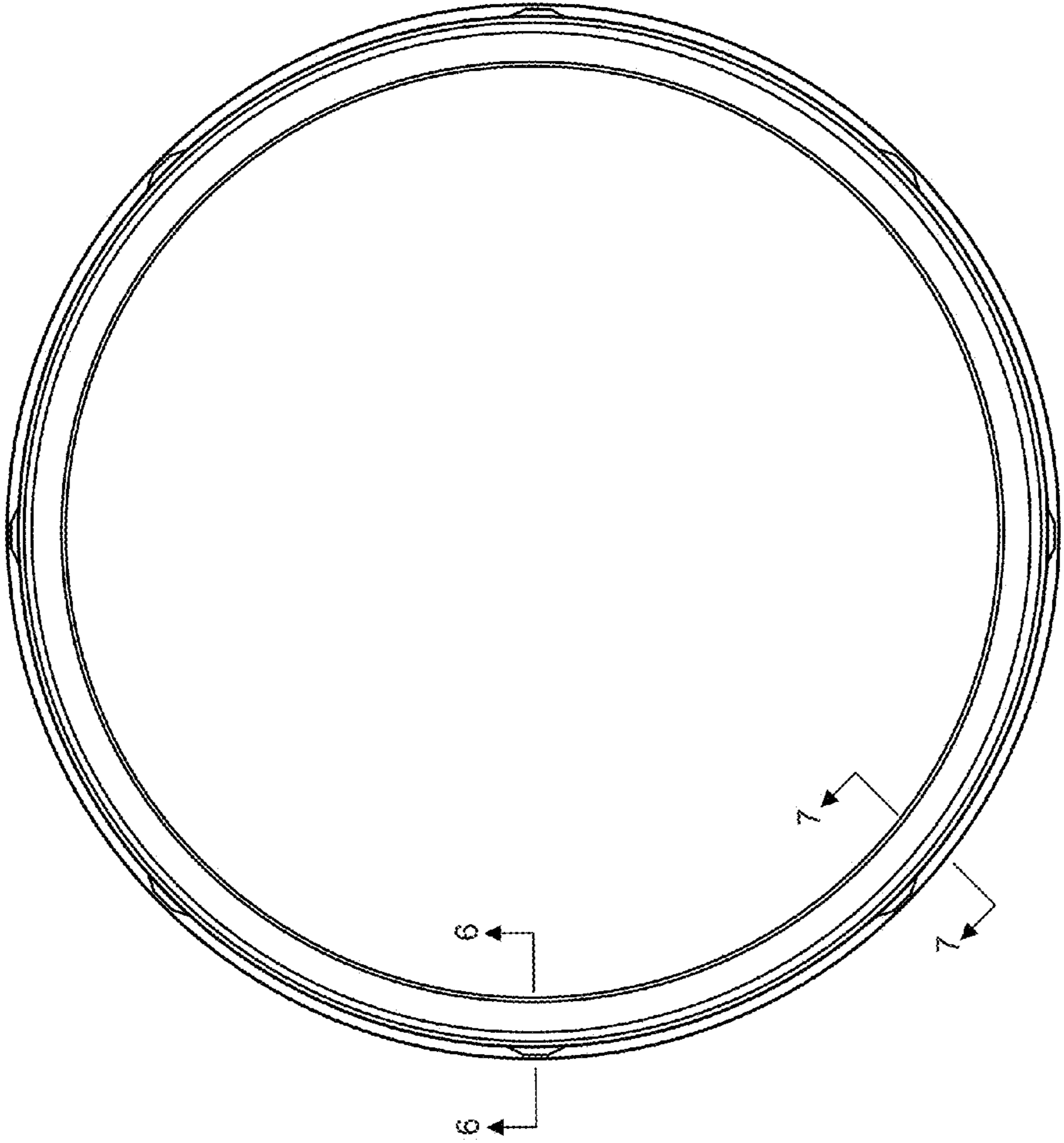


Fig. 3

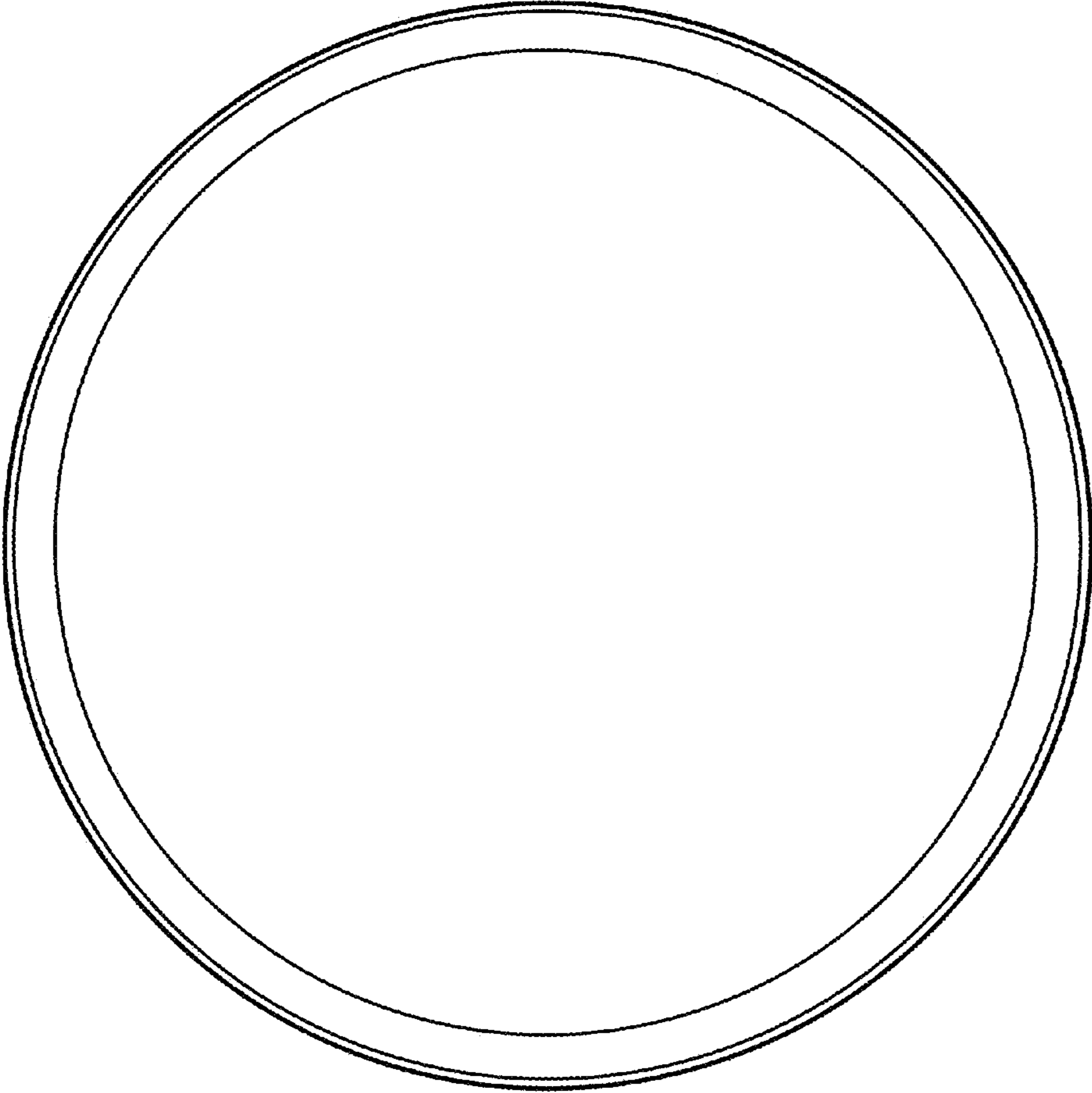


Fig. 4



Fig. 5

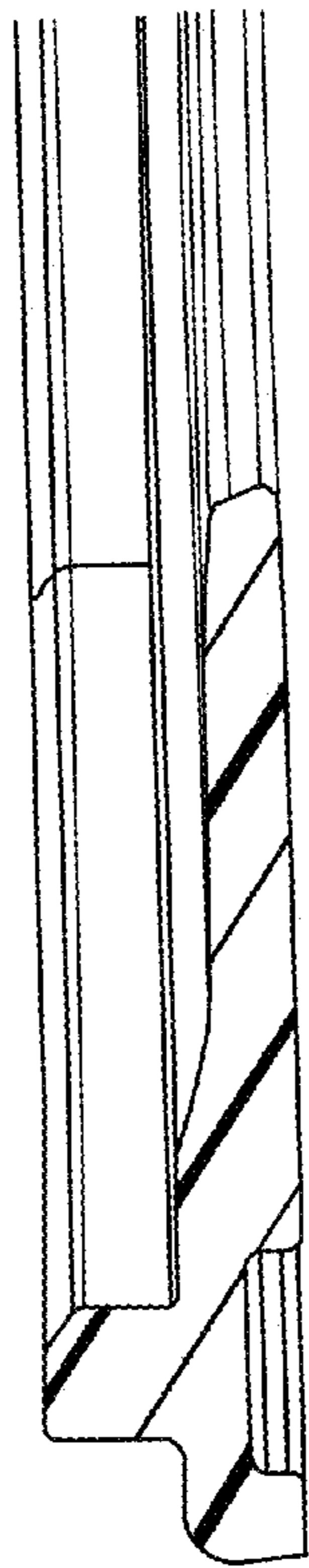


Fig. 6

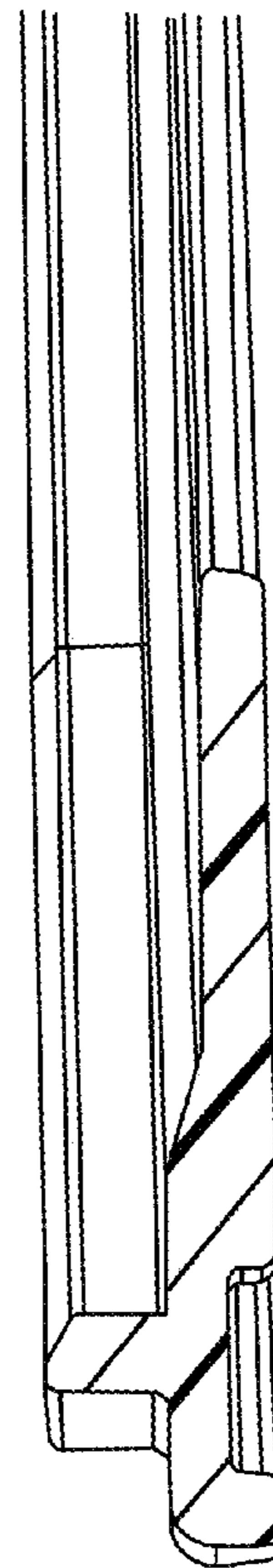


Fig. 7