



US00D870314S

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

(10) **Patent No.:** **US D870,314 S**

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(54) **ELECTRODE COVER FOR A PLASMA  
PROCESSING APPARATUS**

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

(21) Appl. No.: **29/635,292**

(22) Filed: **Jan. 30, 2018**

(30) **Foreign Application Priority Data**

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(51) **LOC (12) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/224**

(58) **Field of Classification Search**  
USPC ... D24/107, 110.6, 113, 129, 144, 206, 224,  
D24/193, 197, 216, 225; D23/200,  
(Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D257,949 S \* 1/1981 Strom ..... D8/356  
D259,346 S \* 5/1981 DeHaven ..... D12/212  
(Continued)

**FOREIGN PATENT DOCUMENTS**

JP D1117165 S 8/2001  
JP D1142402 S 6/2002  
(Continued)

**OTHER PUBLICATIONS**

Appleton STG50—½" Sealing Gasket For Metal Conduit Con-  
nectors. Online, published date unknown. Retrieved on May 14, 2019  
from URL: <https://www.galesburgelectric.com/appleton-stg50-1-2-sealing-gasket-for-metal-conduit-connectors/>.\*

(Continued)

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(57) **CLAIM**

The ornamental design for an electrode cover for a plasma  
processing apparatus, as shown and described.

**DESCRIPTION**

This application contains subject matter related to the fol-  
lowing co-pending U.S. design patent applications:  
Application Ser. No. 29/635,287, filed herewith and entitled  
“Electrode Plate for a Plasma Processing Apparatus”;  
Application Ser. No. 29/635,289, filed herewith and entitled  
“Gas Ring for a Plasma Processing Apparatus”; and  
Application Ser. No. 29/635,296, filed herewith and entitled  
“Electrode Plate Peripheral Ring for a Plasma Processing  
Apparatus”.

FIG. 1 is a front, bottom and right side perspective view of  
an electrode cover for a plasma processing apparatus accord-  
ing to the design;

FIG. 2 is a front elevational view thereof;

FIG. 3 is a left side elevational view thereof;

FIG. 4 is a right side elevational view thereof;

FIG. 5 is a top plan view thereof;

FIG. 6 is a bottom plan view thereof;

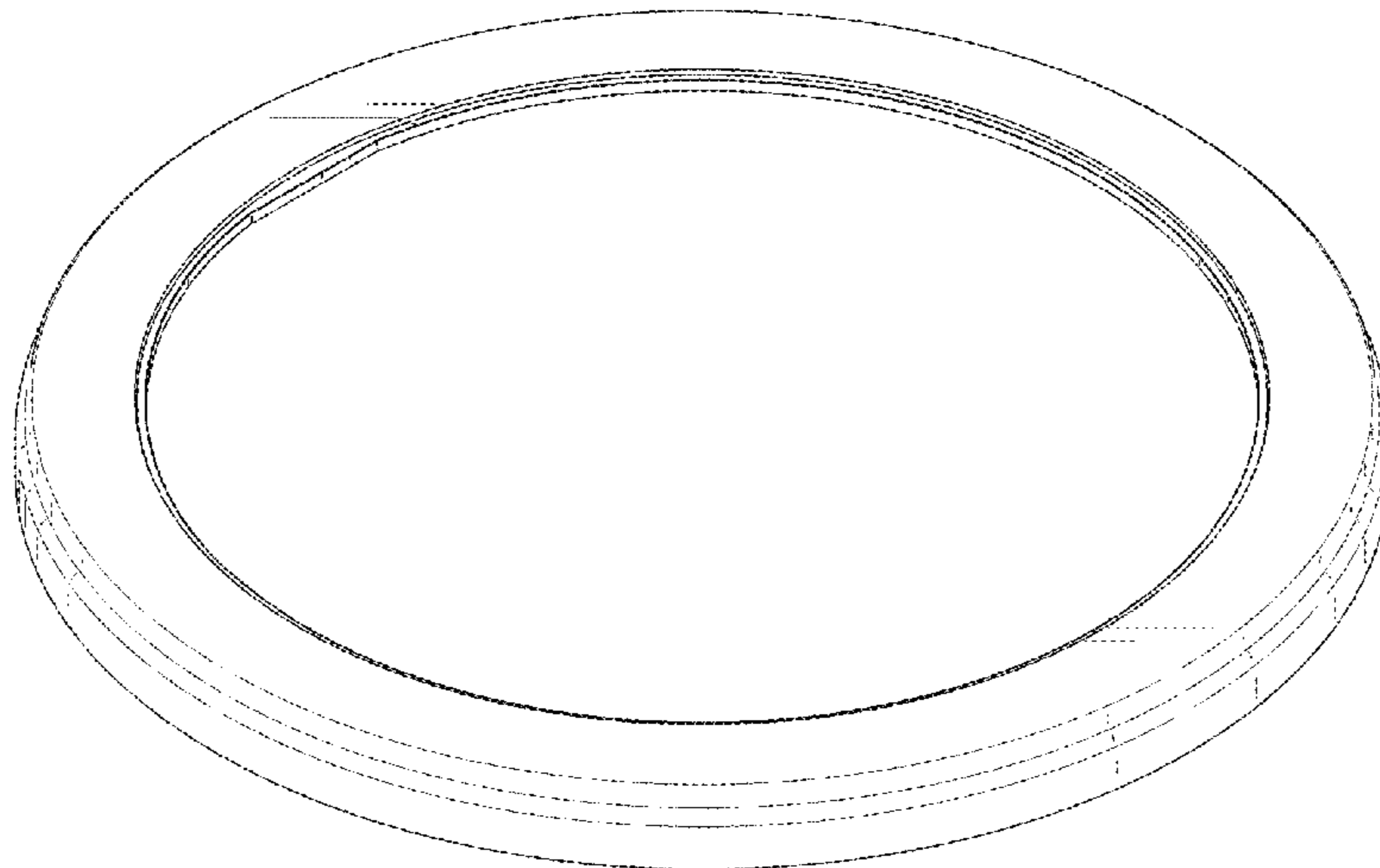
FIG. 7 is a rear elevational view thereof;

FIG. 8 is a cross-sectional view taken along line 8-8 of FIG.  
2;

FIG. 9 is an enlarged view of the portion shown in BOX 9  
in FIG. 8; and,

FIG. 10 is a front, bottom and right side perspective view of  
a cross-sectional view taken along line 8-8 of FIG. 2.

(Continued)



The broken lines show the boundary of enlarged portions and form no part of the claimed design.

**1 Claim, 5 Drawing Sheets**

(58) **Field of Classification Search**

USPC ..... D23/213–215, 222, 223, 229, 283, 269;  
 D15/140, 17, 126, 138, 199; D13/182;  
 D12/212; D8/66, 358, 375; D9/454  
 CPC ..... H01J 37/32082; H01J 37/32541; H01L  
 21/02238; B65D 43/0218; B65D 1/165;  
 B65D 51/007; B65D 51/245; B65D 47/06  
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,579,354 A \* 4/1986 Vassallo ..... F16L 47/10  
 277/615  
 D335,177 S \* 4/1993 Jones ..... D24/128  
 D514,671 S \* 2/2006 Jones ..... D23/269  
 D638,550 S \* 5/2011 Bedingham ..... D24/216

D657,090 S \* 4/2012 Kaule ..... D26/138  
 D667,561 S \* 9/2012 Bedingham ..... D24/216  
 D737,497 S \* 8/2015 Burgess ..... D26/113  
 D770,992 S \* 11/2016 Tauchi ..... D13/182  
 D803,917 S \* 11/2017 Harada ..... D15/144.1  
 D804,556 S \* 12/2017 Harada ..... D15/144.1  
 D810,705 S \* 2/2018 Krishnan ..... D13/182  
 D827,592 S \* 9/2018 Ichino ..... D13/182  
 D837,399 S \* 1/2019 Hatakeyama ..... D24/224  
 D840,364 S \* 2/2019 Ichino ..... D13/182

FOREIGN PATENT DOCUMENTS

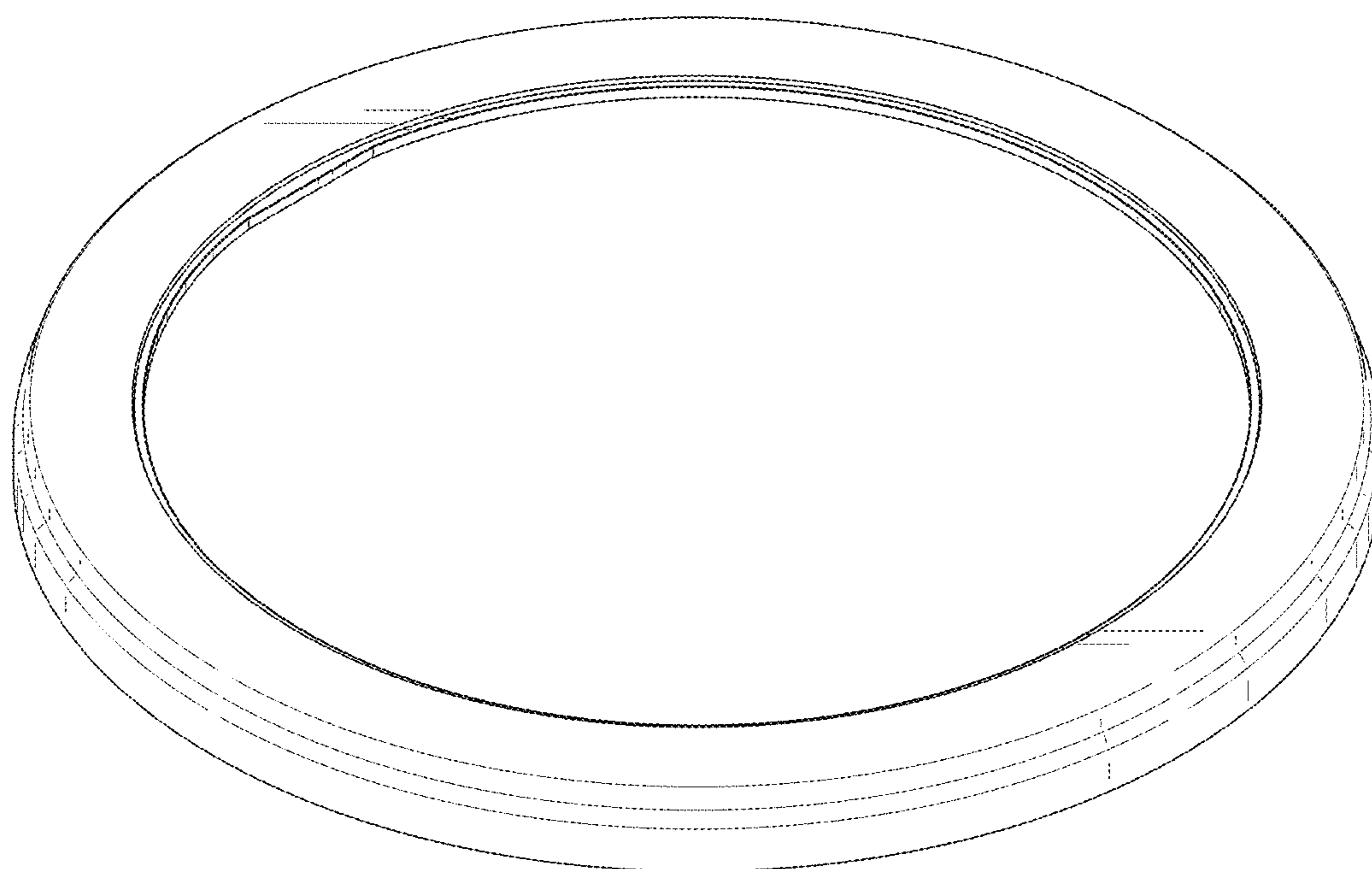
JP D1438663 S 4/2012  
 JP D1545406 S 3/2016

OTHER PUBLICATIONS

4" Storz Pressure Gasket. Online, published date unknown. Retrieved on May 14, 2019 from URL: <https://www.firehosedirect.com/4-storz-pressure-gasket>.\*

Isozaki et al., Design U.S. Appl. No. 29/635,287, filed Jan. 30, 2018.  
 Okuda et al., Design U.S. Appl. No. 29/635,289, filed Jan. 30, 2018.  
 Isozaki et al., Design U.S. Appl. No. 29/635,296, filed Jan. 30, 2018.

\* cited by examiner



*FIG. 1*

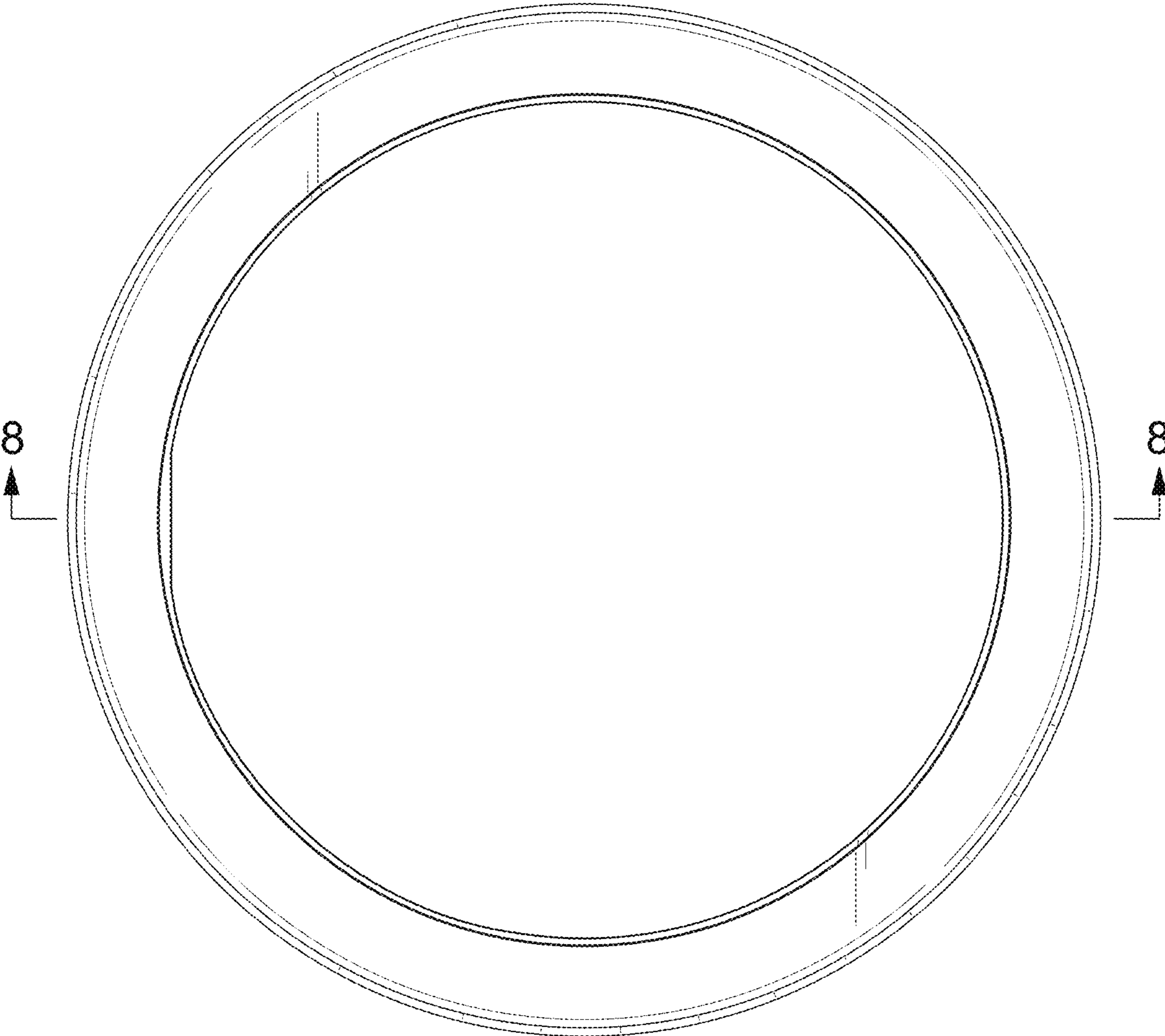
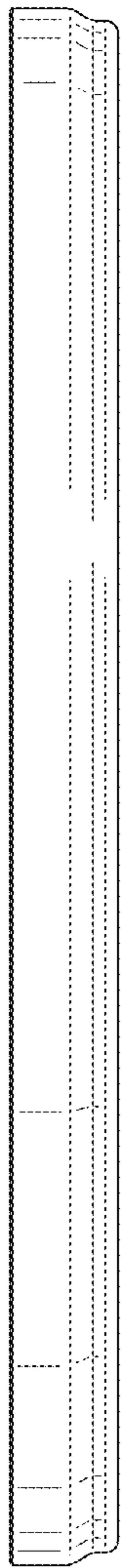
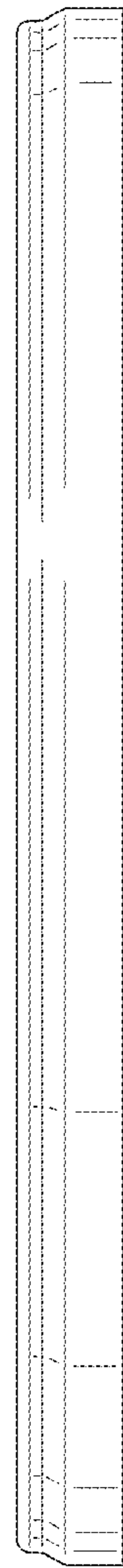


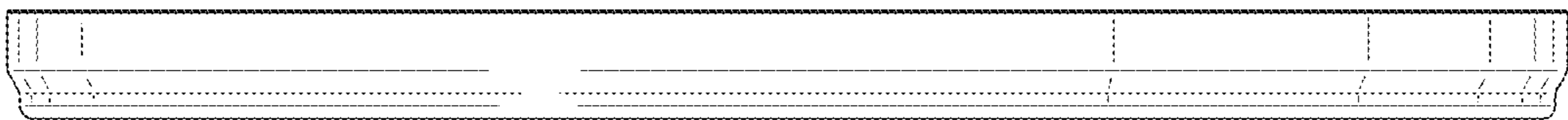
FIG. 2



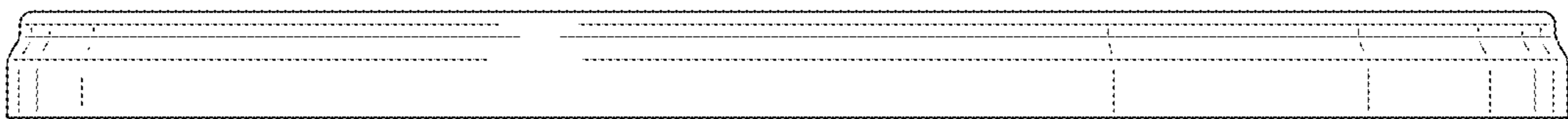
*FIG. 3*



*FIG. 4*



*FIG. 5*



*FIG. 6*

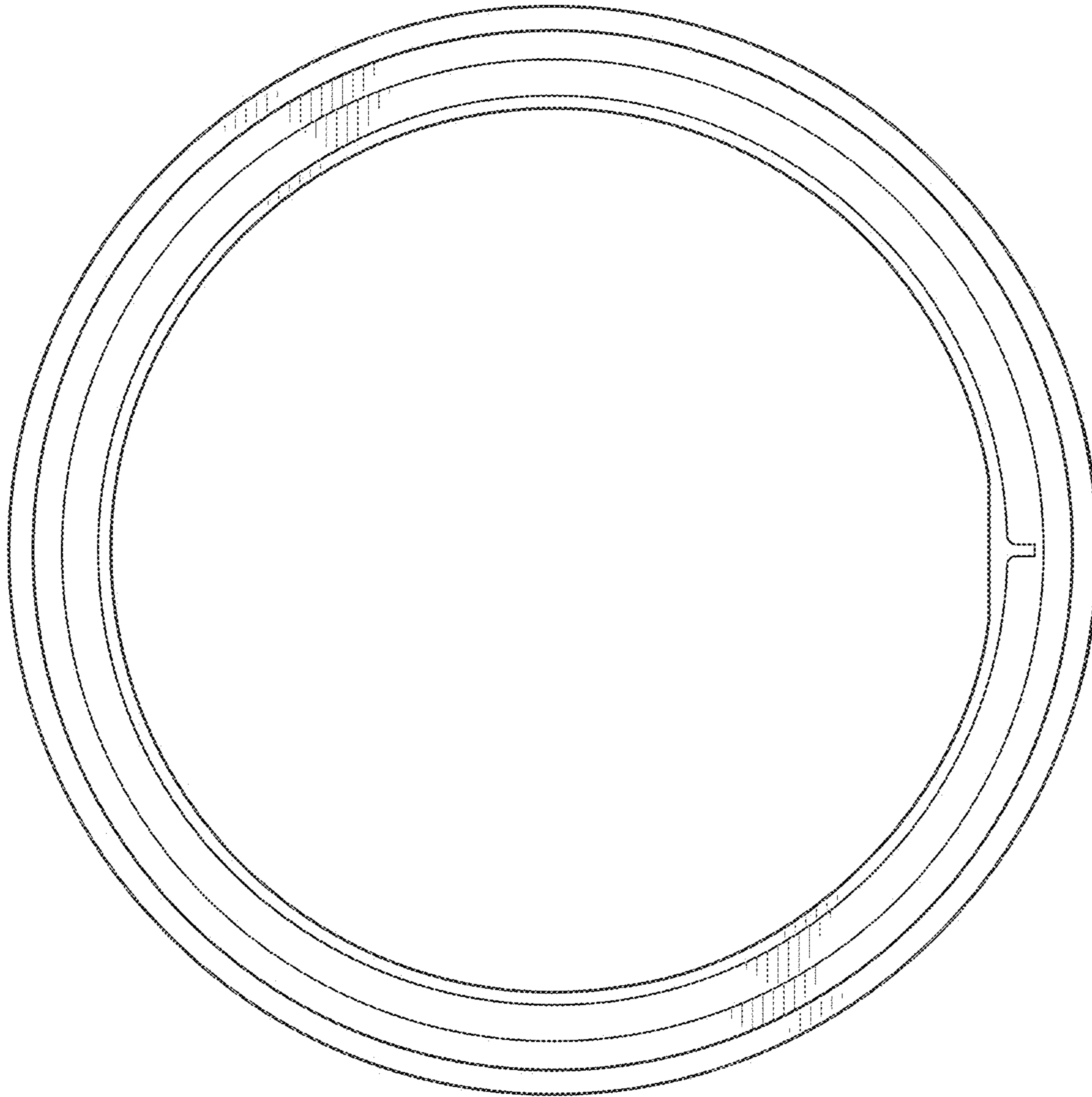


FIG. 7

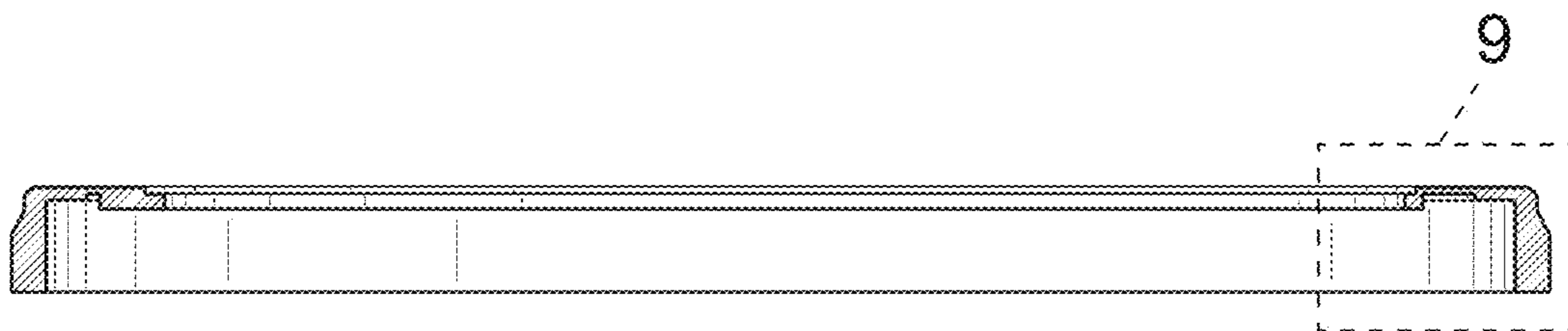


FIG. 8

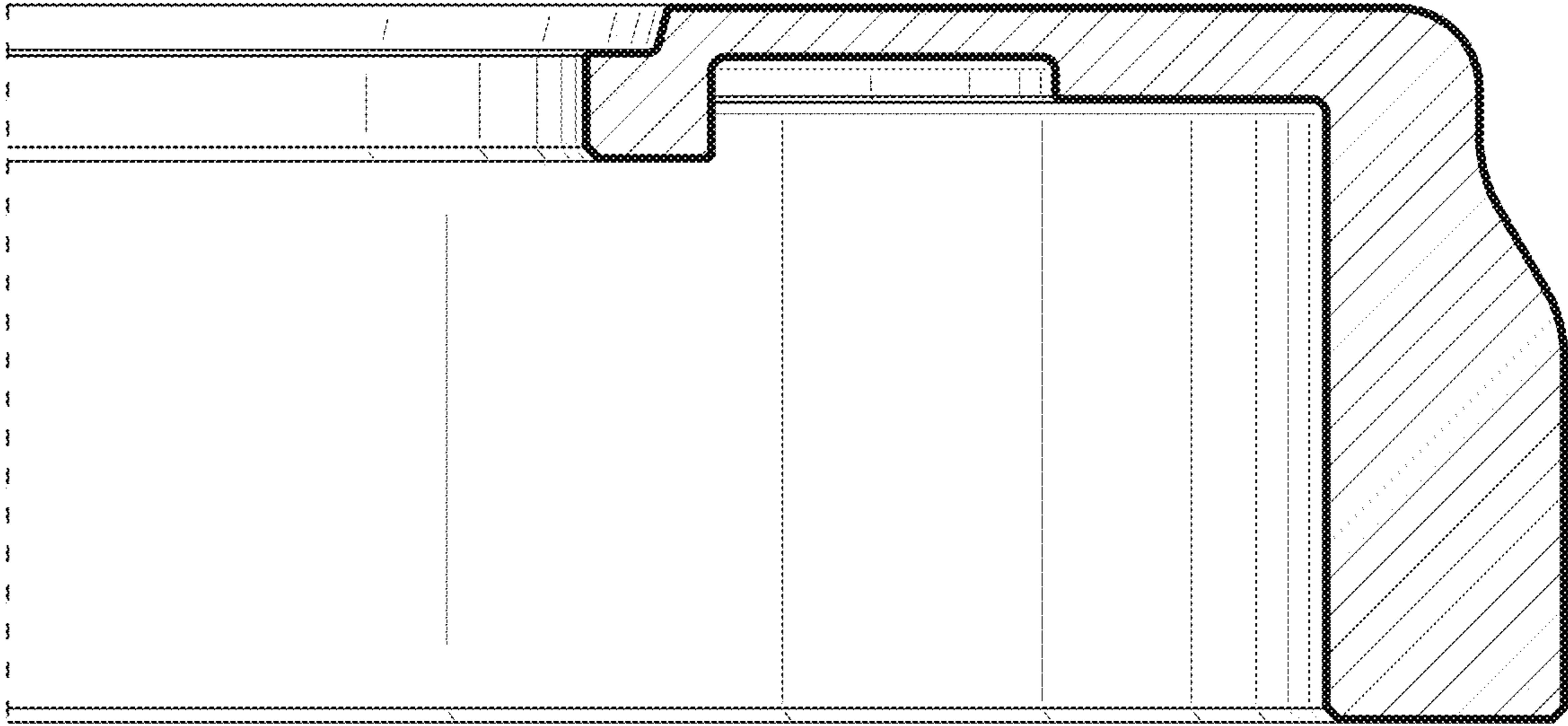


FIG. 9

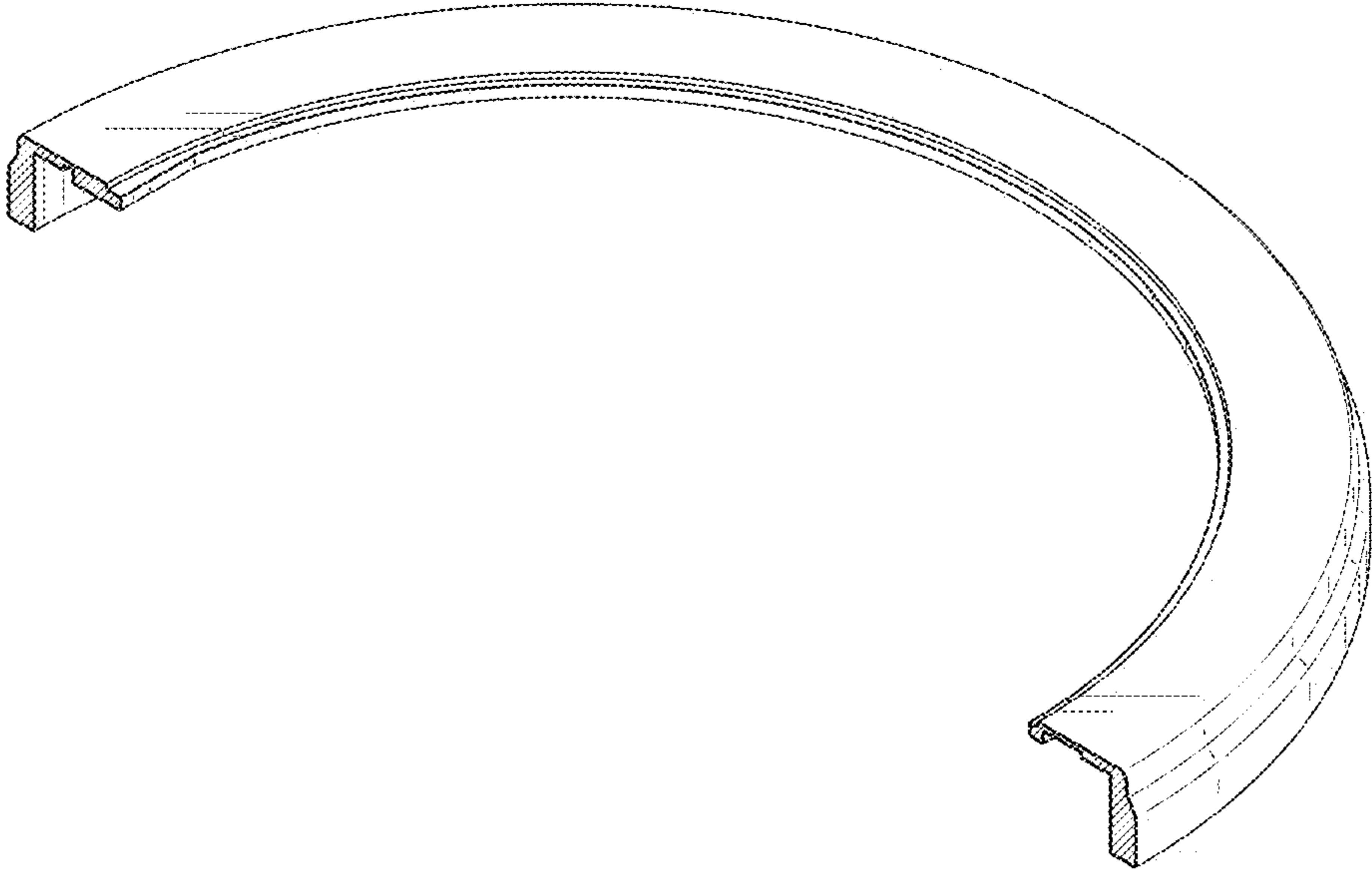


FIG. 10