



US00D813151S

(12) **United States Design Patent** (10) **Patent No.:** **US D813,151 S**  
**Reinhardt et al.** (45) **Date of Patent:** **\*\* Mar. 20, 2018**

(54) **NON-PNEUMATIC TIRE**

(71) Applicant: **Bridgestone Americas Tire Operations, LLC**, Nashville, TN (US)

(72) Inventors: **Sharon E. Reinhardt**, Fairlawn, OH (US); **Robert W. Asper**, Wadsworth, OH (US)

(73) Assignee: **Bridgestone Americas Tire Operations, LLC**, Nashville, TN (US)

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

(21) Appl. No.: **29/576,294**

(22) Filed: **Sep. 1, 2016**

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 29/512,357, filed on Dec. 18, 2014, now abandoned.

(51) **LOC (11) Cl.** ..... **12-15**

(52) **U.S. Cl.**  
USPC ..... **D12/605**

(58) **Field of Classification Search**  
USPC ..... D6/309; D7/396.4, 396.5, 588; D10/17, D10/22; D11/3, 4; D12/500, 501, 503, D12/506, 544, 570, 579, 580, 587, 588, D12/599, 600, 605  
CPC .. B60C 13/00; B60C 1/00; B60C 7/00; B60C 7/10; B60C 2007/107  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,945,962 A 8/1990 Pajtas  
5,042,544 A 8/1991 Dehasse  
5,460,213 A 10/1995 Pajtas

(Continued)

**OTHER PUBLICATIONS**

Solid Smack. Airless and Bulletproof Tires Being Introduced in New Polaris ATV Design. Nov. 19, 2013 [earliest online date], [site visited Sep. 7, 2017]. Available from Internet, <URL:https://www.solidsmack.com/design/airless-and-bulletproof-tires-being-introduced-in-new-polaris-atv-design/>. (Year: 2013).\*

(Continued)

*Primary Examiner* — Robert M. Spear

*Assistant Examiner* — Darcey E Heflin

(74) *Attorney, Agent, or Firm* — Shaun J. Fox

(57) **CLAIM**

The ornamental design for a non-pneumatic tire, as shown and described.

**DESCRIPTION**

FIG. 1 is a side elevational view of a first embodiment of our new tire design;

FIG. 2 is a cross-sectional view along cross-section line 2-2 of FIG. 1;

FIG. 3 is cross-sectional view along cross-section line 3-3 of FIG. 1;

FIG. 4 is a side elevational view of a second embodiment of our new tire design;

FIG. 5 is a cross-sectional view along cross-section line 5-5 of FIG. 4;

FIG. 6 is a cross-sectional view along cross-section line 6-6 of FIG. 4;

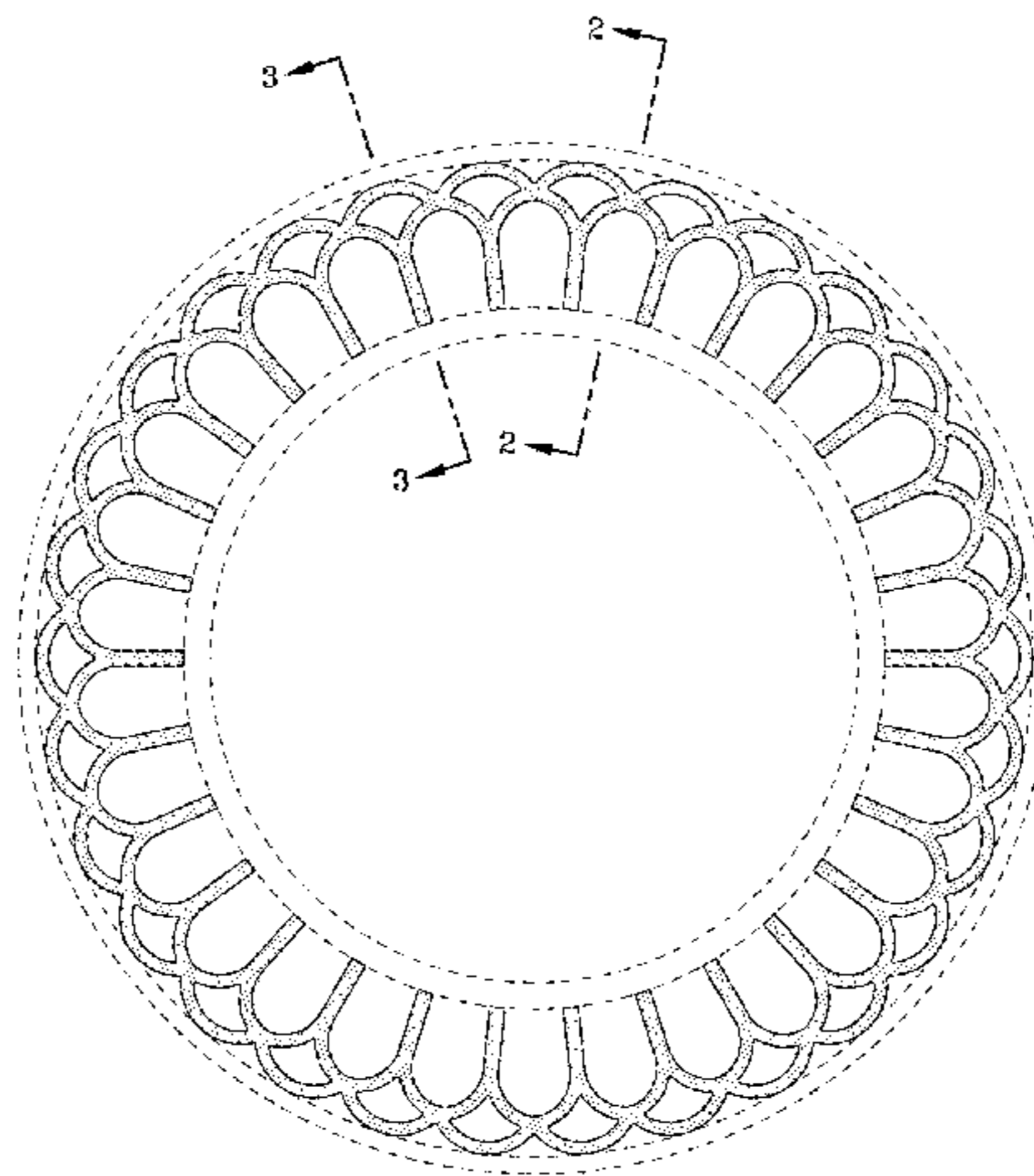
FIG. 7 is a side elevational view of a third embodiment of our new tire design;

FIG. 8 is a cross-sectional view along cross-section line 8-8 of FIG. 7; and,

FIG. 9 is a cross-sectional view along cross-section line 9-9 of FIG. 7.

The broken lines defining the tire tread and inner bead of the tire represent unclaimed environmental subject matter; the broken lines immediately adjacent the solid line showing of the tire sidewall represent the boundaries of the claimed design but form no part thereof.

**1 Claim, 6 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D365,689 S \* 1/1996 Ramirez ..... D6/300  
 D379,168 S \* 5/1997 Ratliff, Jr. .... D12/605  
 6,374,887 B1 4/2002 Subotics  
 D458,035 S \* 6/2002 O'Hare ..... D6/300  
 6,681,822 B2 1/2004 Adams et al.  
 D504,238 S \* 4/2005 Mohundro ..... D6/309  
 7,174,936 B2 2/2007 Becker et al.  
 D559,172 S \* 1/2008 Umstot ..... D12/605  
 D627,716 S \* 11/2010 Harvey ..... D12/605  
 D652,339 S \* 1/2012 Zander ..... D11/4  
 8,104,524 B2 1/2012 Manesh et al.  
 8,109,308 B2 2/2012 Manesh et al.  
 8,113,253 B2 2/2012 Arakawa et al.  
 8,176,957 B2 5/2012 Manesh et al.  
 D770,373 S \* 11/2016 Krier ..... D12/605  
 2003/0201043 A1 10/2003 Dennis  
 2006/0174989 A1 8/2006 Jones  
 2008/0314486 A1 12/2008 Manesh et al.  
 2009/0283185 A1 11/2009 Manesh et al.  
 2010/0078111 A1 4/2010 Anderson et al.  
 2011/0011506 A1 1/2011 Manesh et al.  
 2011/0024008 A1 2/2011 Manesh et al.  
 2011/0079335 A1 4/2011 Manesh et al.  
 2011/0146872 A1 6/2011 Tercha et al.  
 2011/0180194 A1 7/2011 Anderson et al.

2012/0038206 A1 2/2012 Chadwick et al.  
 2012/0038207 A1 2/2012 Williams et al.  
 2012/0060991 A1 3/2012 Mun et al.  
 2012/0234444 A1 9/2012 Palinkas et al.  
 2012/0234445 A1 9/2012 Manesh et al.  
 2012/0241062 A1 9/2012 Manesh et al.  
 2012/0247635 A1 10/2012 Manesh et al.

OTHER PUBLICATIONS

Reddit. Air-less Tire in Use at Sea-Tac Airport. Sep. 8, 2015 [earliest online date], [site visited Sep. 7, 2017]. Available from Internet, <URL:https://www.reddit.com/r/mildlyinteresting/comments/3k4di6/airless\_tire\_in\_use\_at\_seatac\_airport>. (Year: 2015).\*

Wikipedia. Airless tire. Oct. 12, 2017 [earliest online date], [site visited Oct. 27, 2017]. Available from Internet, <URL:https://en.wikipedia.org/wiki/Airless\_tire>. (Year: 2017).\*

ECVV. 16\*2.125 Inch Air Free Solid Colorful Electric Bike Tire. May 27, 2017 [earliest online date], [site visited Oct. 27, 2017]. Available from Internet, <URL:https://www.ecvv.com/product/4780394.html>. (Year: 2017).\*

Google Patents. Annular ring and non-pneumatic tire—U.S. Pat. No. 20140367007 A1. Dec. 18, 2014 [publication date], [site visited Oct. 27, 2017]. Available from Internet, <URL:http://www.google.com/patents/US20140367007>. (Year: 2014).\*

\* cited by examiner

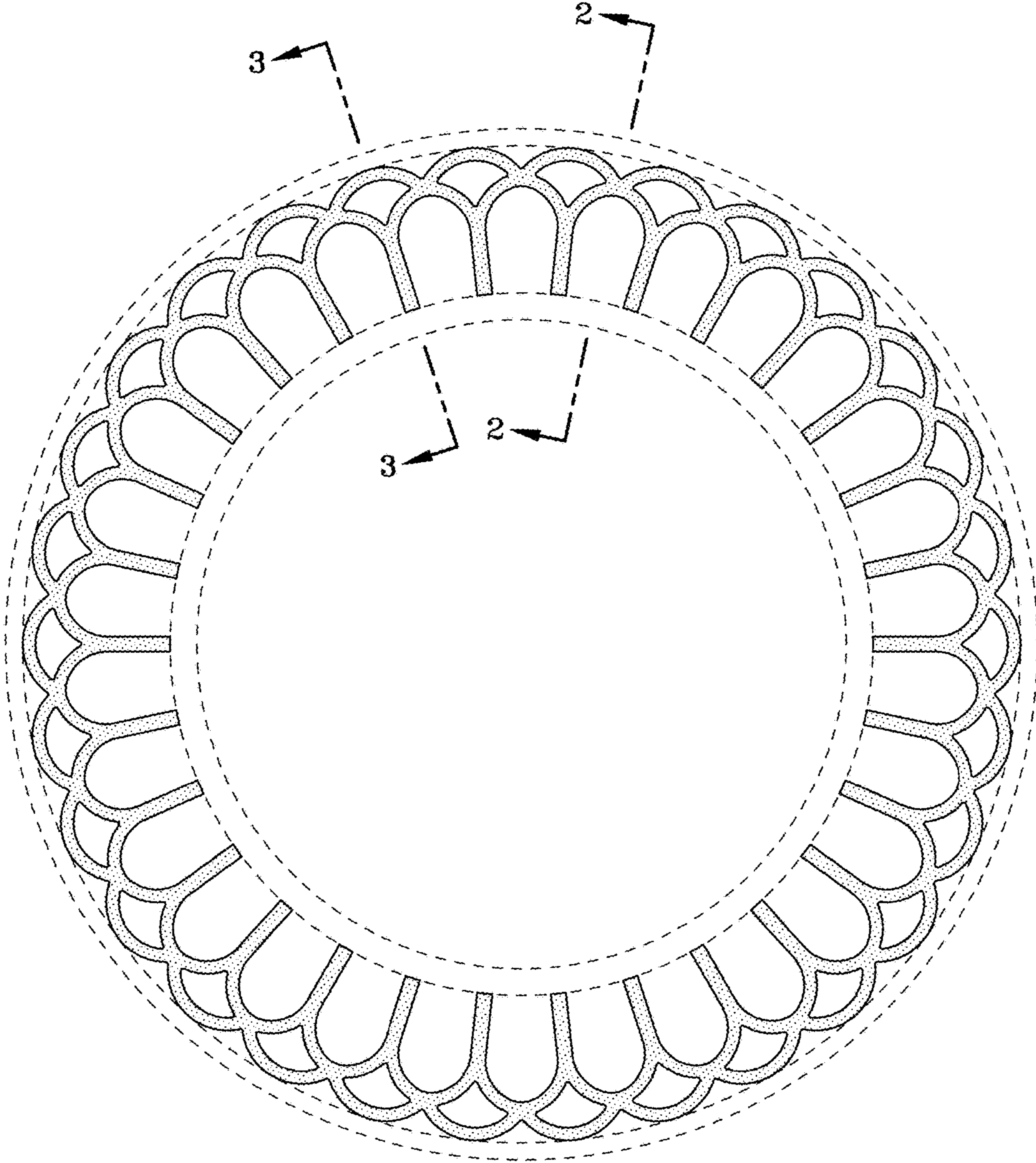


FIG. 1

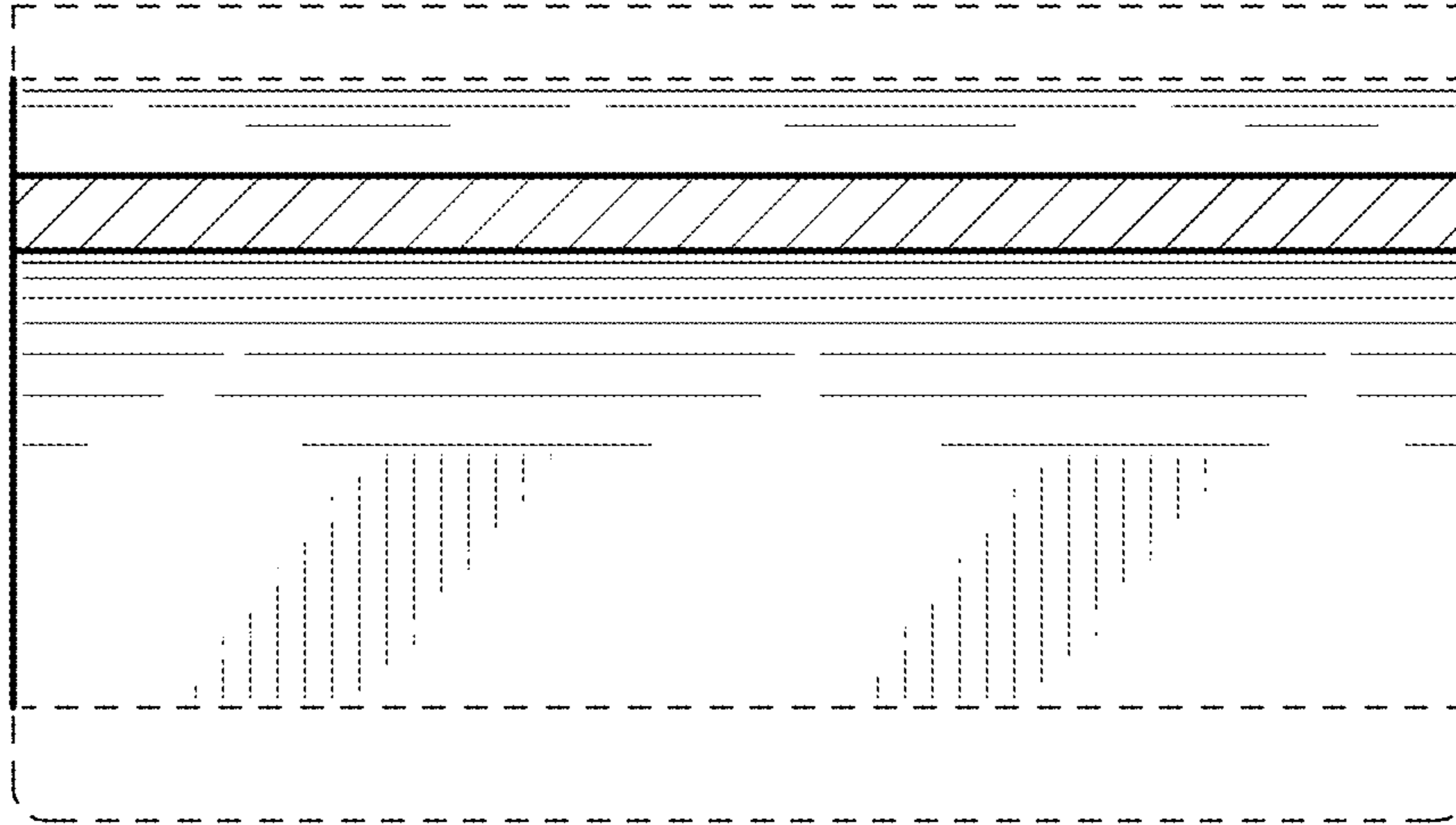


FIG. 2

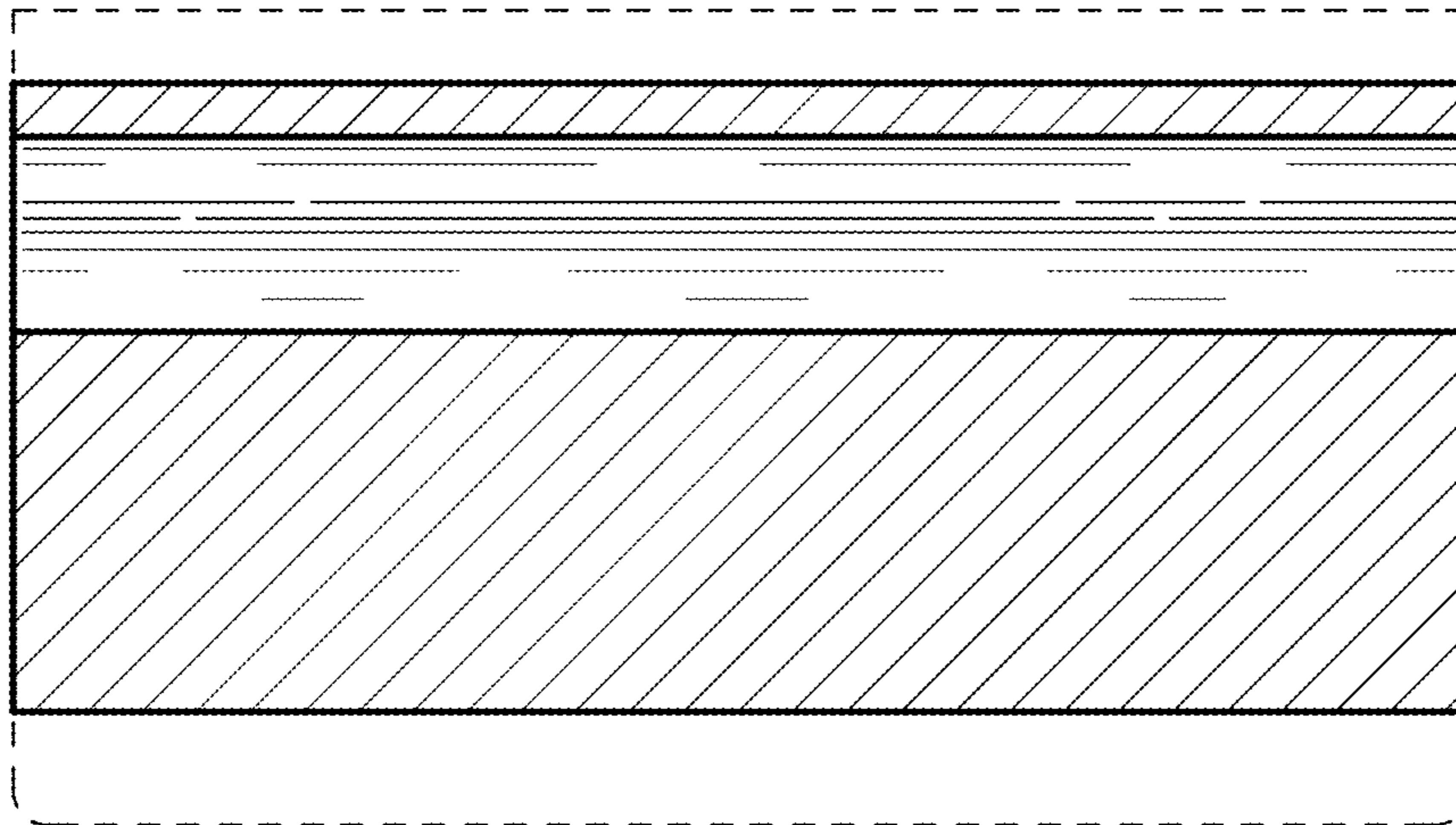


FIG. 3

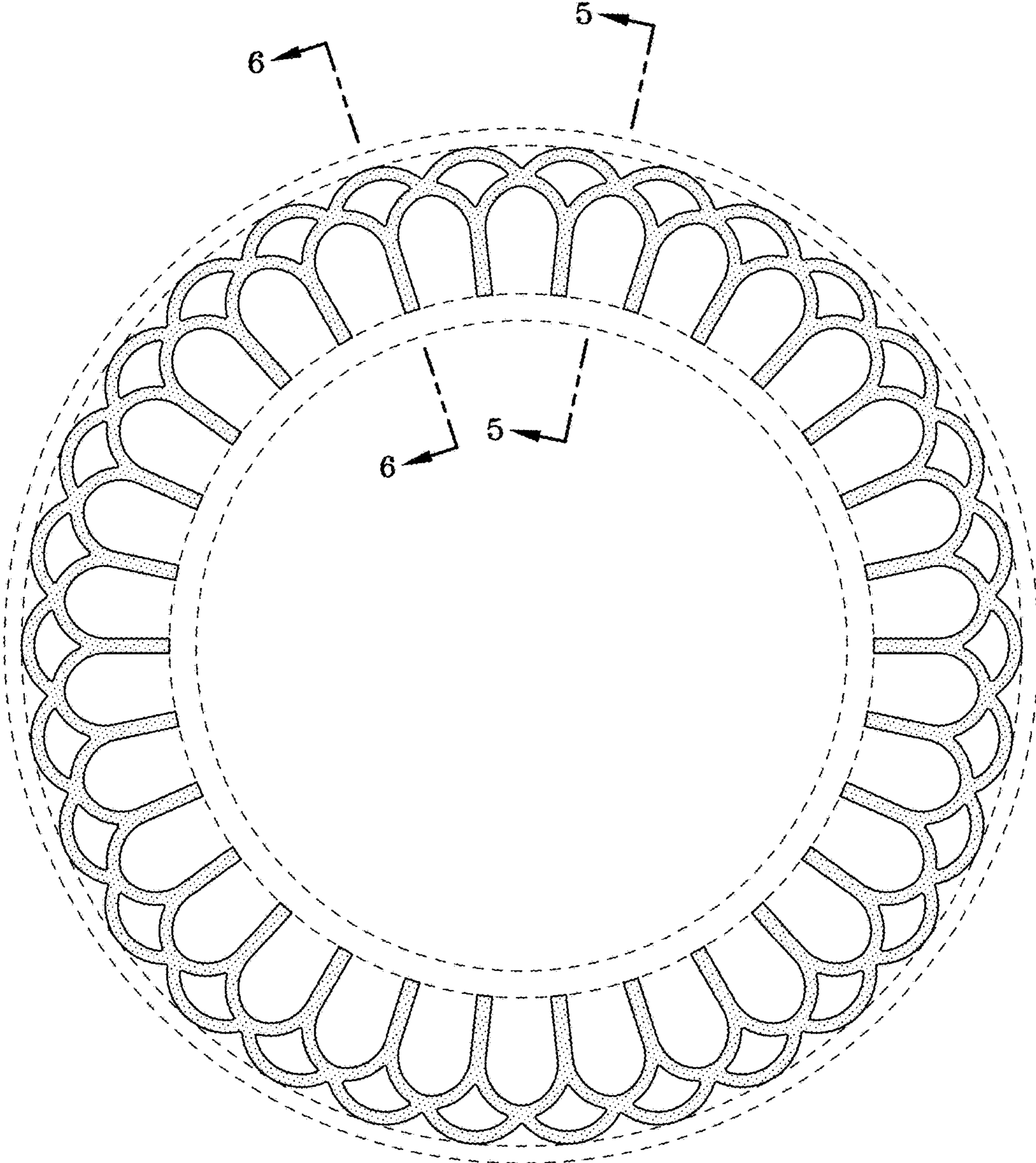
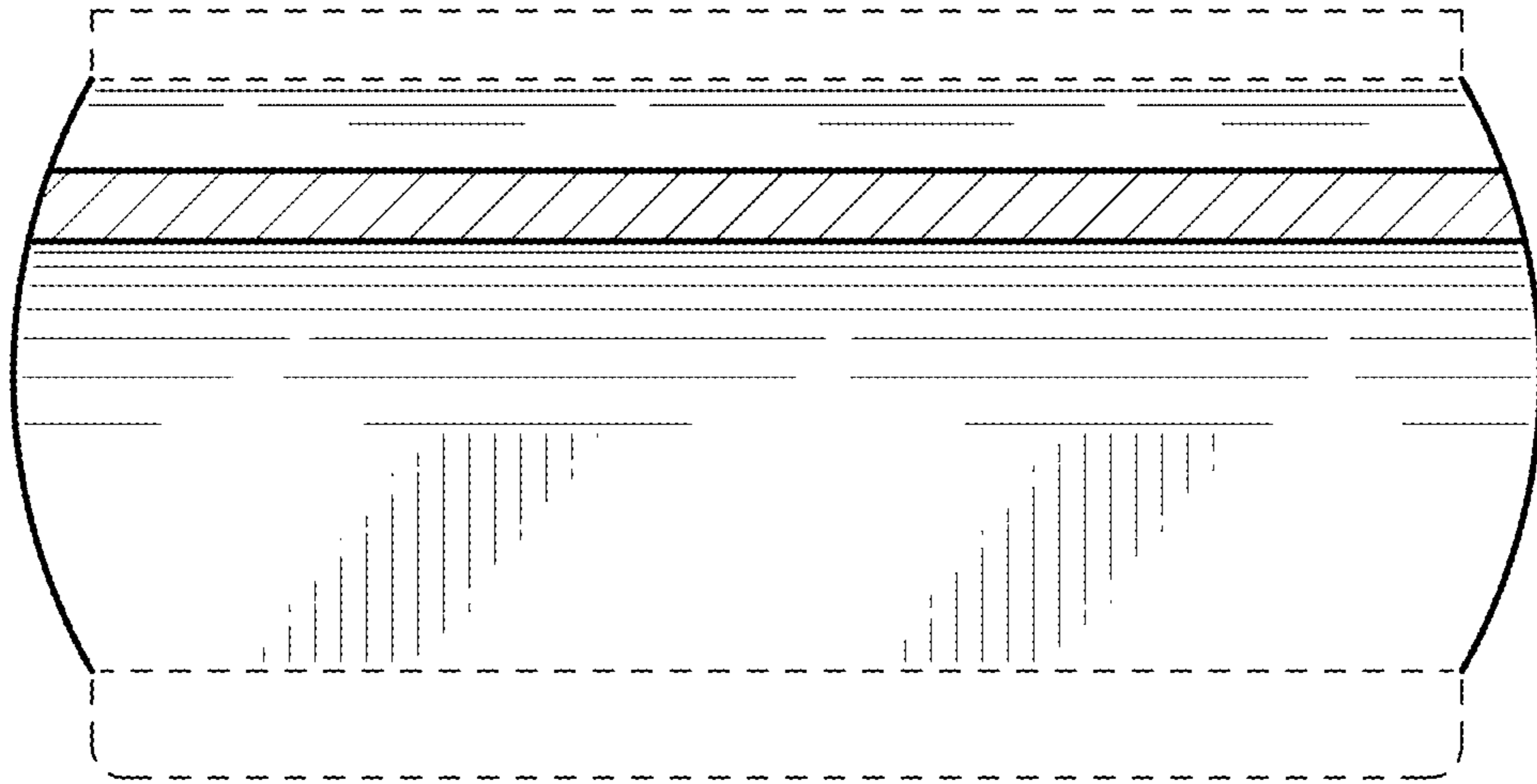
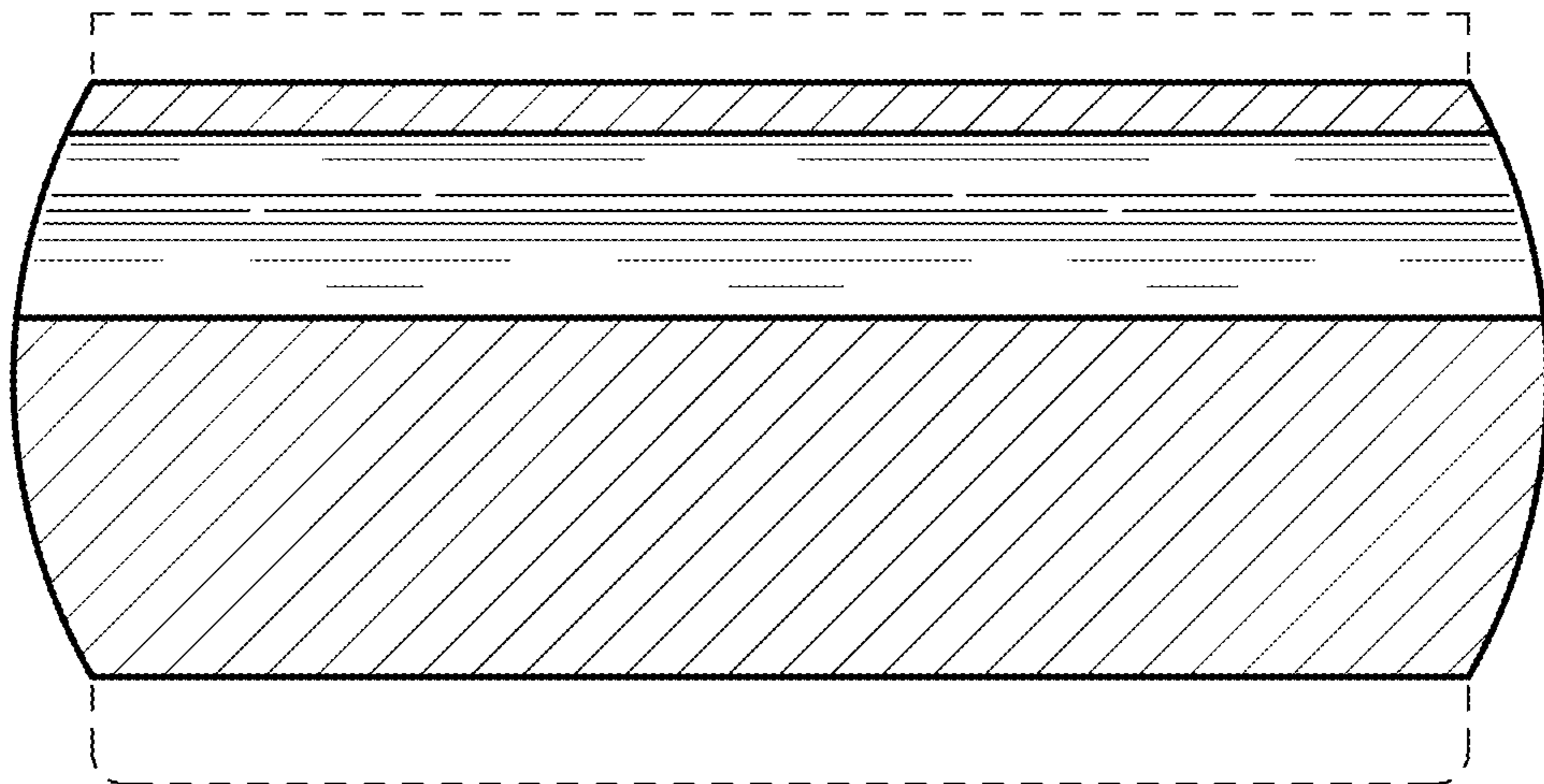


FIG. 4



**FIG. 5**



**FIG. 6**

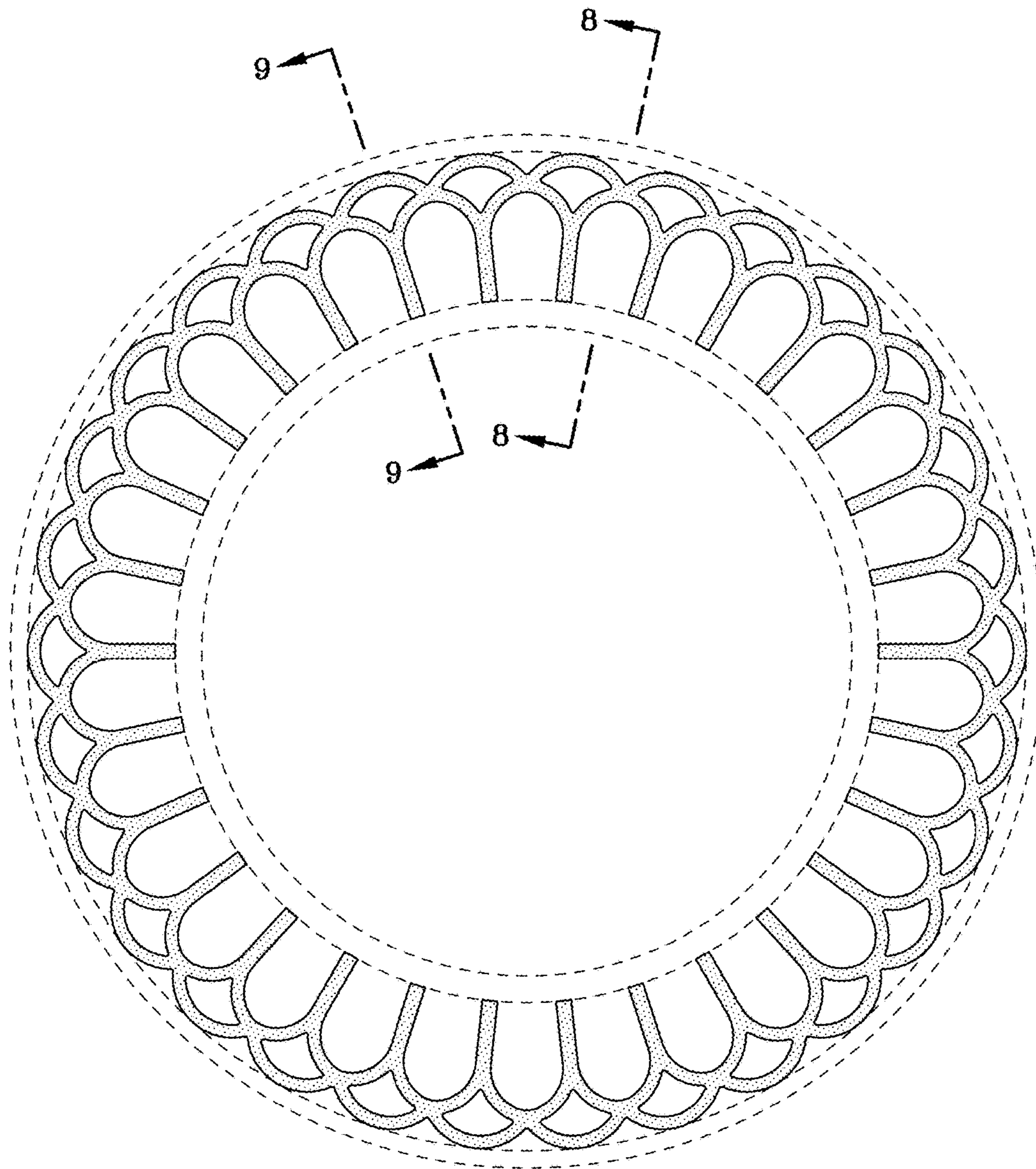


FIG. 7

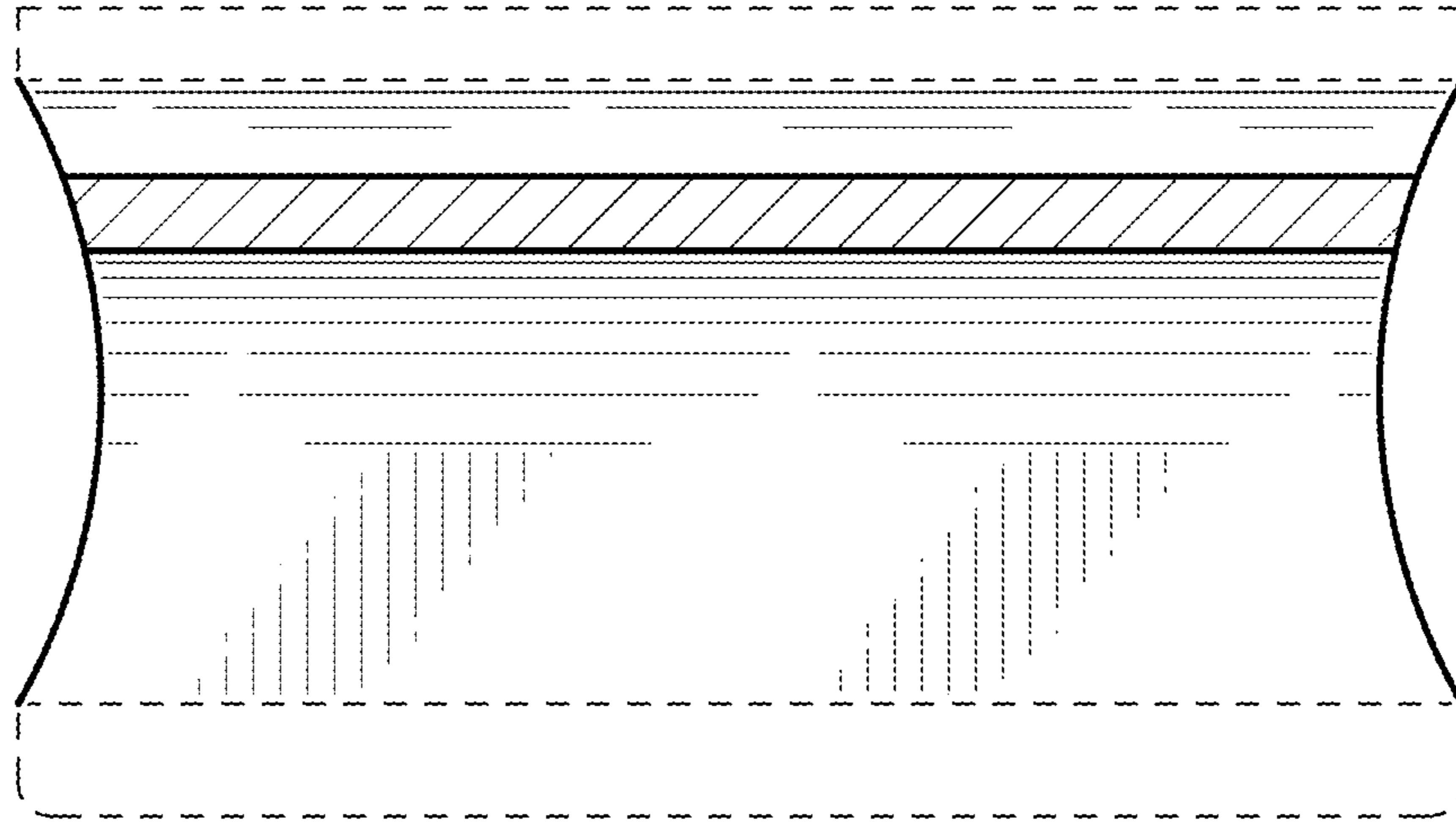


FIG. 8

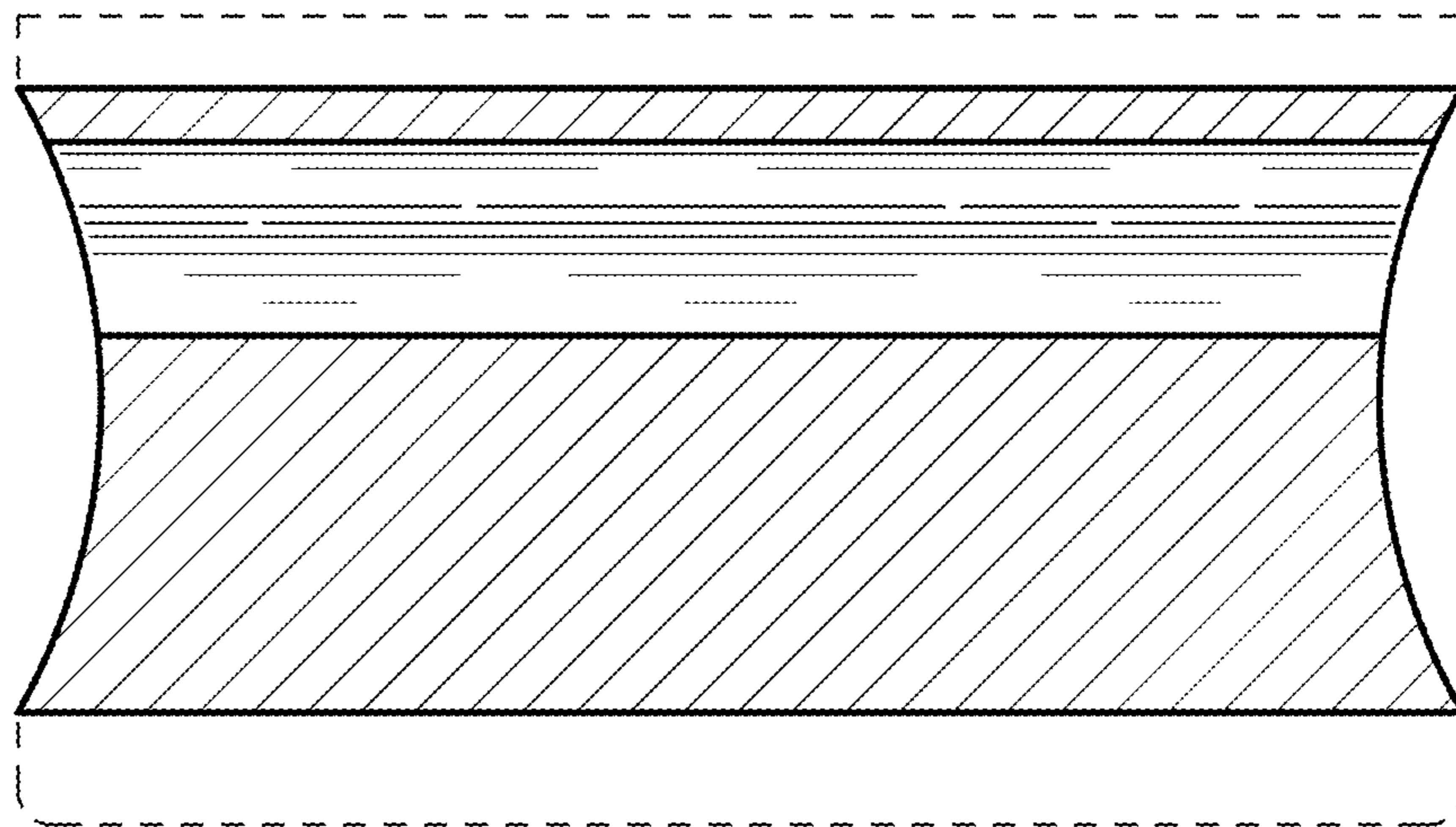


FIG. 9