



US00D823444S

(12) **United States Design Patent** (10) **Patent No.:** **US D823,444 S**
Hayashi et al. (45) **Date of Patent:** **** Jul. 17, 2018**

(54) **FLEXIBLE PIPE JOINT**

FOREIGN PATENT DOCUMENTS

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JP 2009-052623 A 3/2009
JP 2015-132373 A 7/2015

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OTHER PUBLICATIONS

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A product catalog of a flexible joint FLONEX α T-3 manufactured
by TOZEN Corporation dated Sep. 14, 2015.

(Continued)

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

Primary Examiner — Eric L Goodman

(21) Appl. No.: **29/604,841**

Assistant Examiner — Amy C Wierenga

(22) Filed: **May 22, 2017**

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(30) **Foreign Application Priority Data**

(57) **CLAIM**

Dec. 22, 2016 (JP) 2016-027864

The ornamental design for a flexible pipe joint, as shown and
described.

(51) **LOC (11) Cl.** **23-01**

(52) **U.S. Cl.**
USPC **D23/262**

(58) **Field of Classification Search**

DESCRIPTION

USPC D23/259, 262–266, 268; 138/121, 118,
138/173, 177; 285/223, 226–227, 235,
285/285.1; D8/382

CPC . F16L 27/10; F16L 27/11; F16L 27/12; F16L
27/111; F16L 27/113; F16L 27/04

See application file for complete search history.

FIG. 1 shows a front view of a flexible pipe joint showing
our new design;

FIG. 2 shows a rear view thereof;

FIG. 3 shows a right side view thereof;

FIG. 4 shows a left side view thereof;

FIG. 5 shows a top view thereof;

FIG. 6 shows a bottom view thereof;

FIG. 7 shows a top, front and left side perspective view
thereof;

FIG. 8 shows a bottom, rear and right side perspective view
thereof;

FIG. 9 shows a cross-sectional view thereof, taken along line
9-9 in FIG. 5; and,

FIG. 10 shows a top, front and left side perspective view
thereof in use with flanges.

The flanges shown in broken lines in FIG. 10 is for the
purpose of illustrating the environment only and forms no
part of the claimed design.

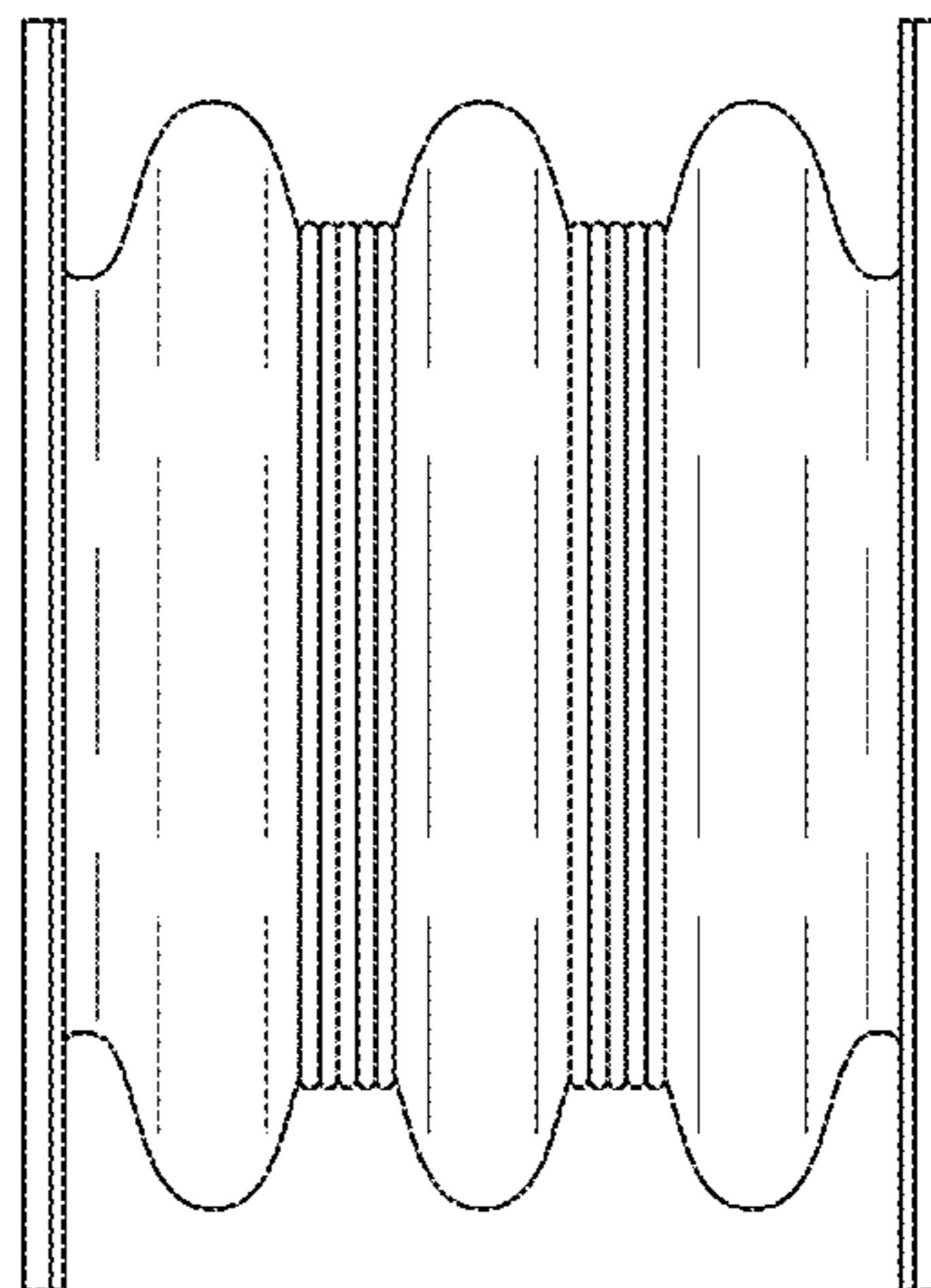
(56) **References Cited**

U.S. PATENT DOCUMENTS

D24,439 S * 6/1895 Ledward 196/138
971,558 A * 10/1910 Porter F16L 21/08
138/173
1,826,666 A * 10/1931 Lawrence F16L 51/027
138/121
2,371,991 A * 3/1945 Harding B21D 15/06
138/121
3,087,745 A * 4/1963 Rumbell F16L 27/111
285/222.1

(Continued)

1 Claim, 10 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

3,653,690 A * 4/1972 Treveiler A41D 13/0005
 112/402
 4,186,475 A * 2/1980 Jonsson F16L 19/061
 137/15.09
 4,270,776 A * 6/1981 Tolliver F16L 27/107
 285/226
 4,421,437 A * 12/1983 Langner F16L 1/16
 138/122
 5,284,367 A * 2/1994 Yano F16L 27/113
 285/146.1
 D407,802 S * 4/1999 Hatfield D23/262
 D447,792 S * 9/2001 Renaud D23/266
 6,401,758 B1 * 6/2002 Ziv-Av F16B 33/02
 138/122
 D460,536 S * 7/2002 Renaud D23/266
 D484,953 S * 1/2004 Renaud D23/266
 RE40,577 E * 11/2008 Renaud D23/266
 2004/0226622 A1 * 11/2004 Hayashi F16L 27/11
 138/121
 2007/0176417 A1 * 8/2007 Nuccitelli F16L 27/111
 285/227
 2010/0108169 A1 * 5/2010 Frohne F16L 7/00
 138/112
 2014/0027001 A1 * 1/2014 Matzen F02M 35/10321
 138/121

OTHER PUBLICATIONS

A product catalog of a flexible joint FLONEX α manufactured by TOZEN Corporation dated Nov. 24, 2015.

* cited by examiner

FIG. 1

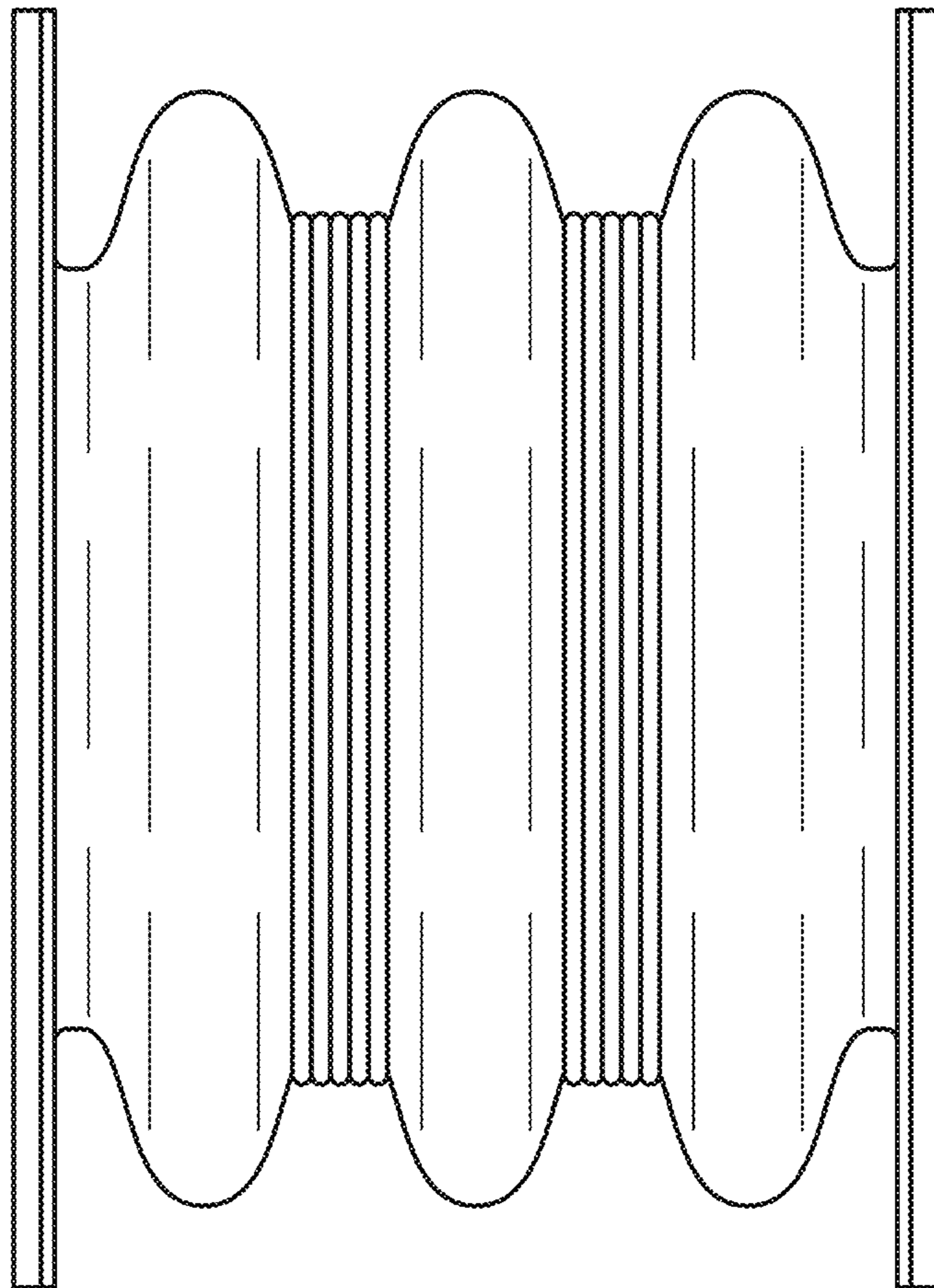


FIG. 2

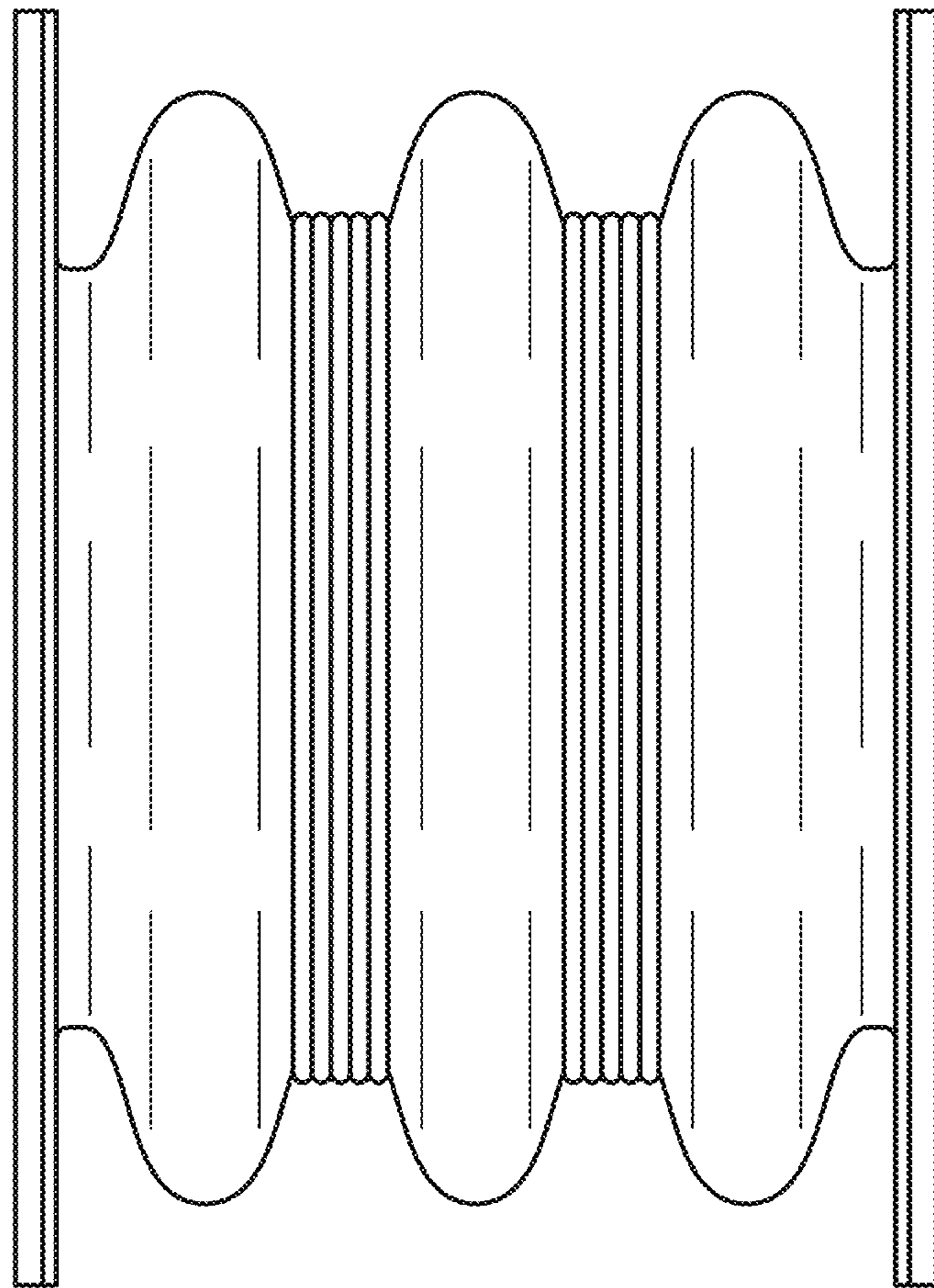


FIG. 3

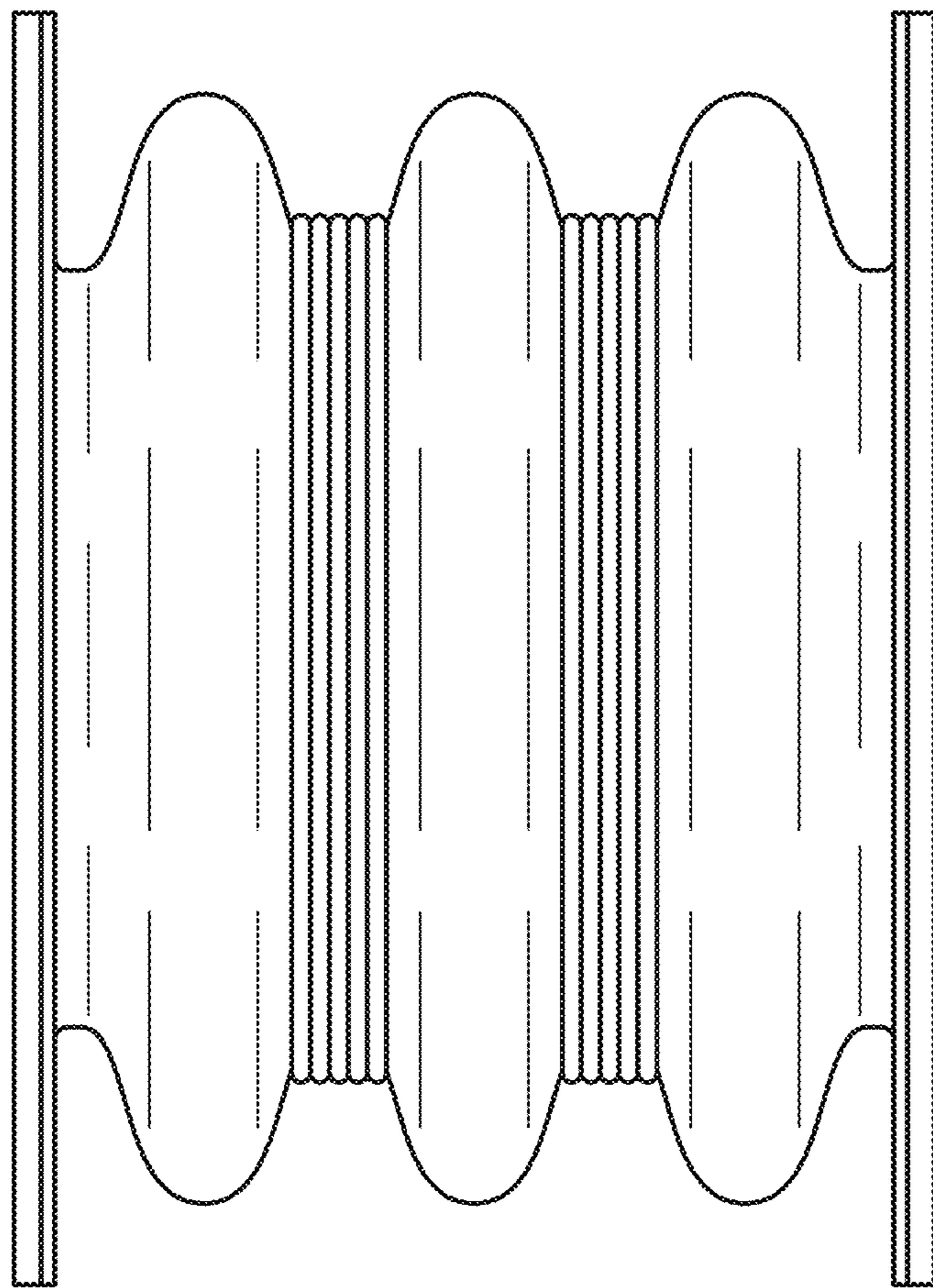


FIG. 4

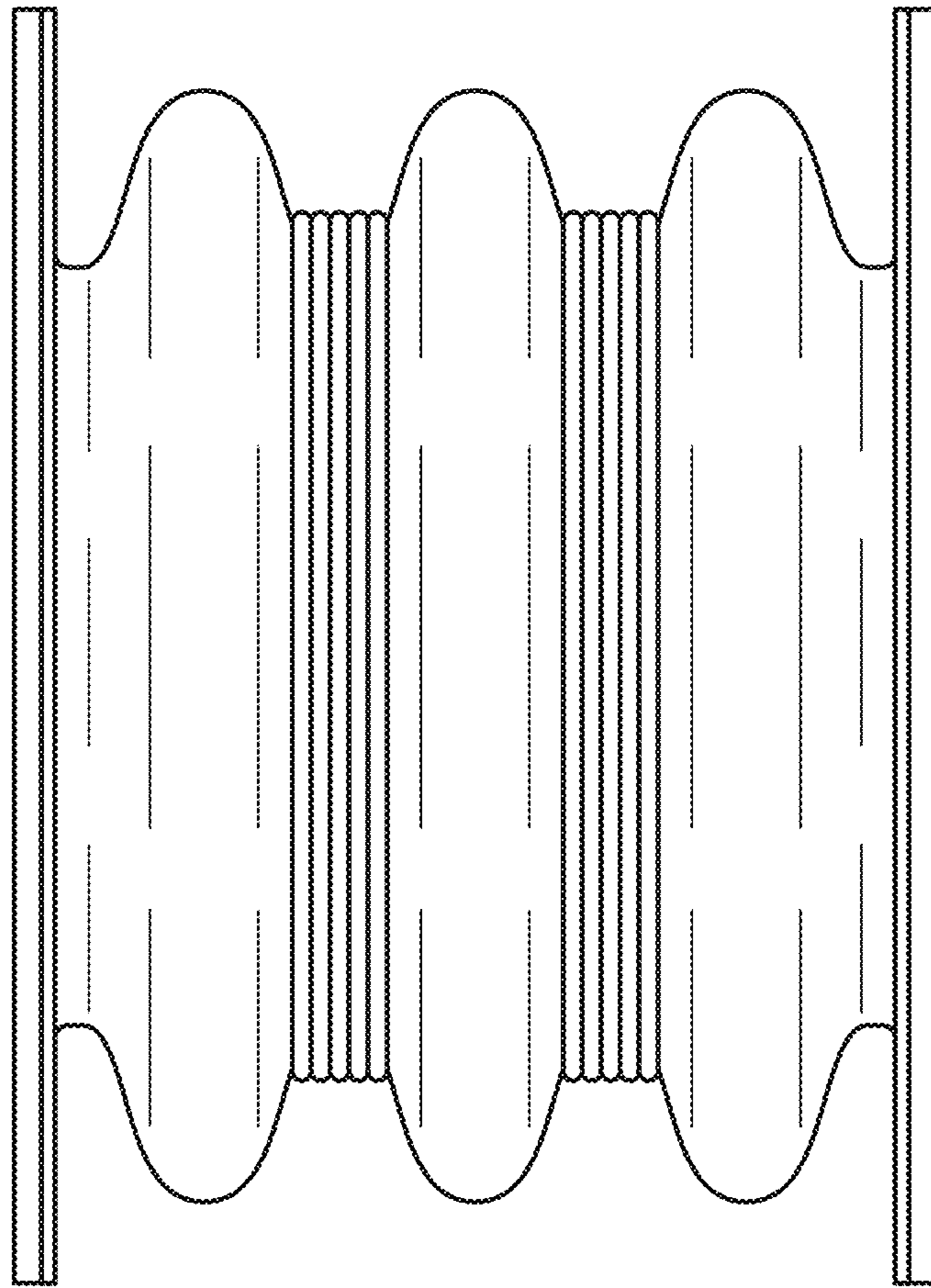


FIG. 5

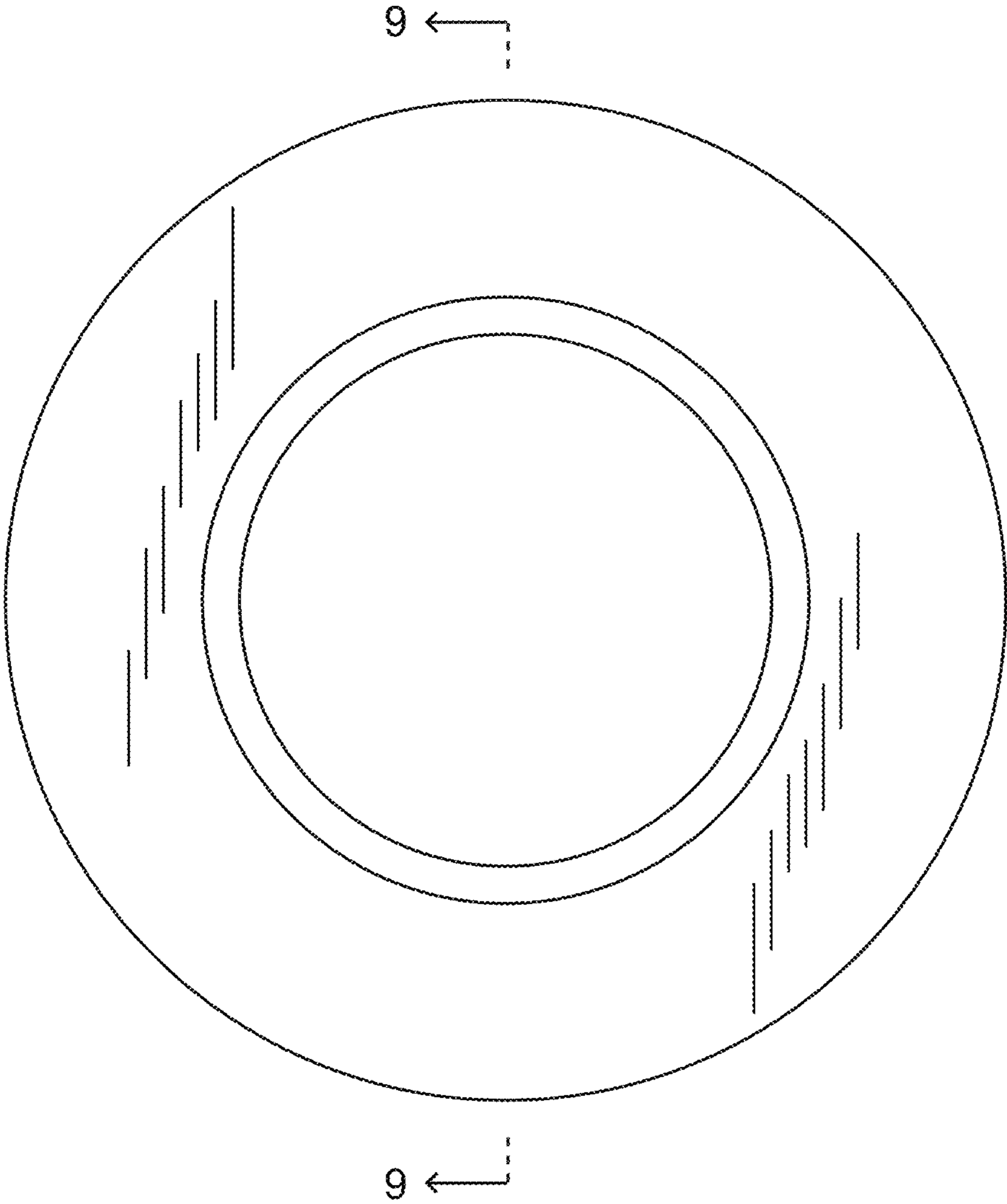


FIG. 6

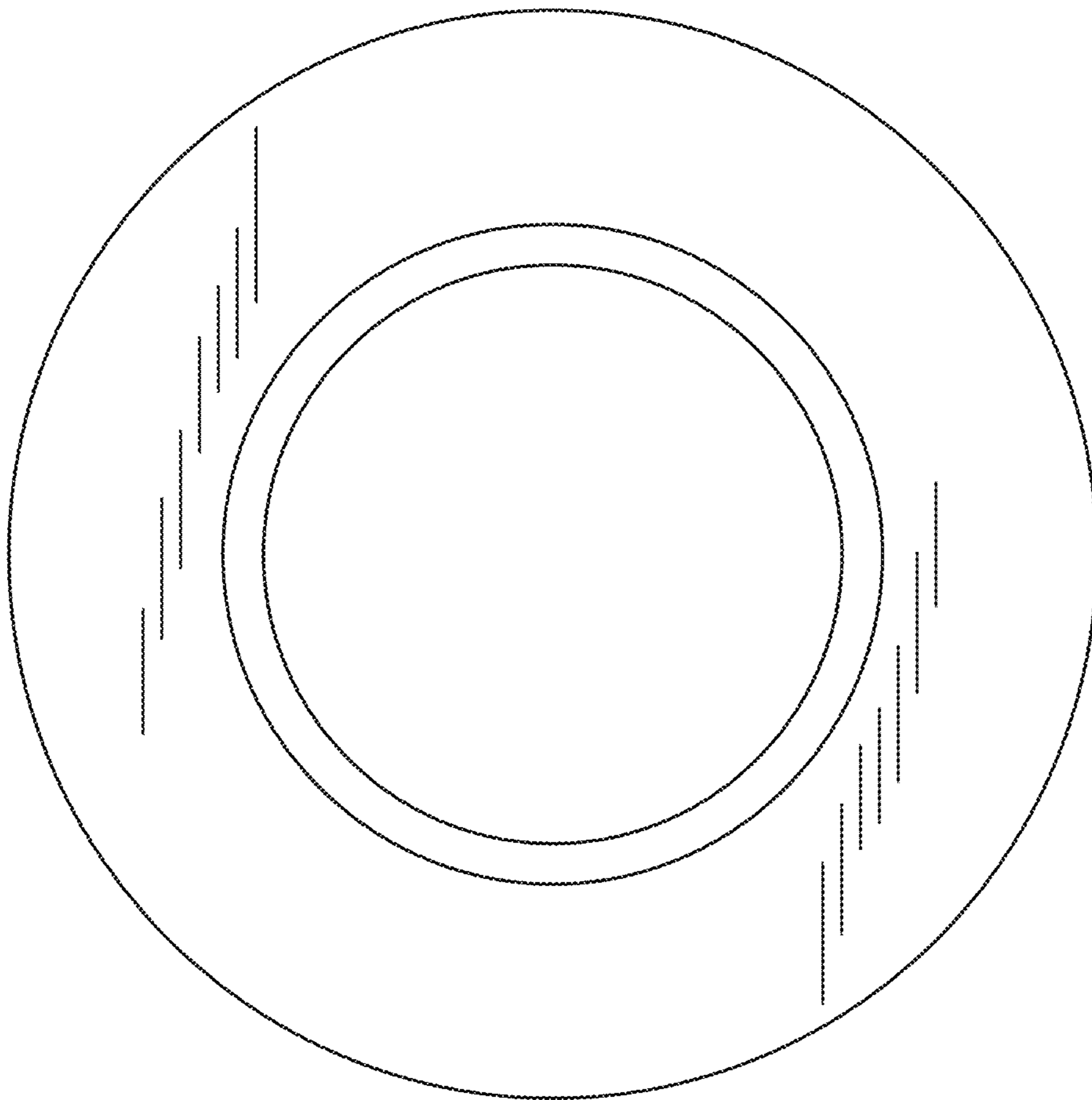


FIG. 7

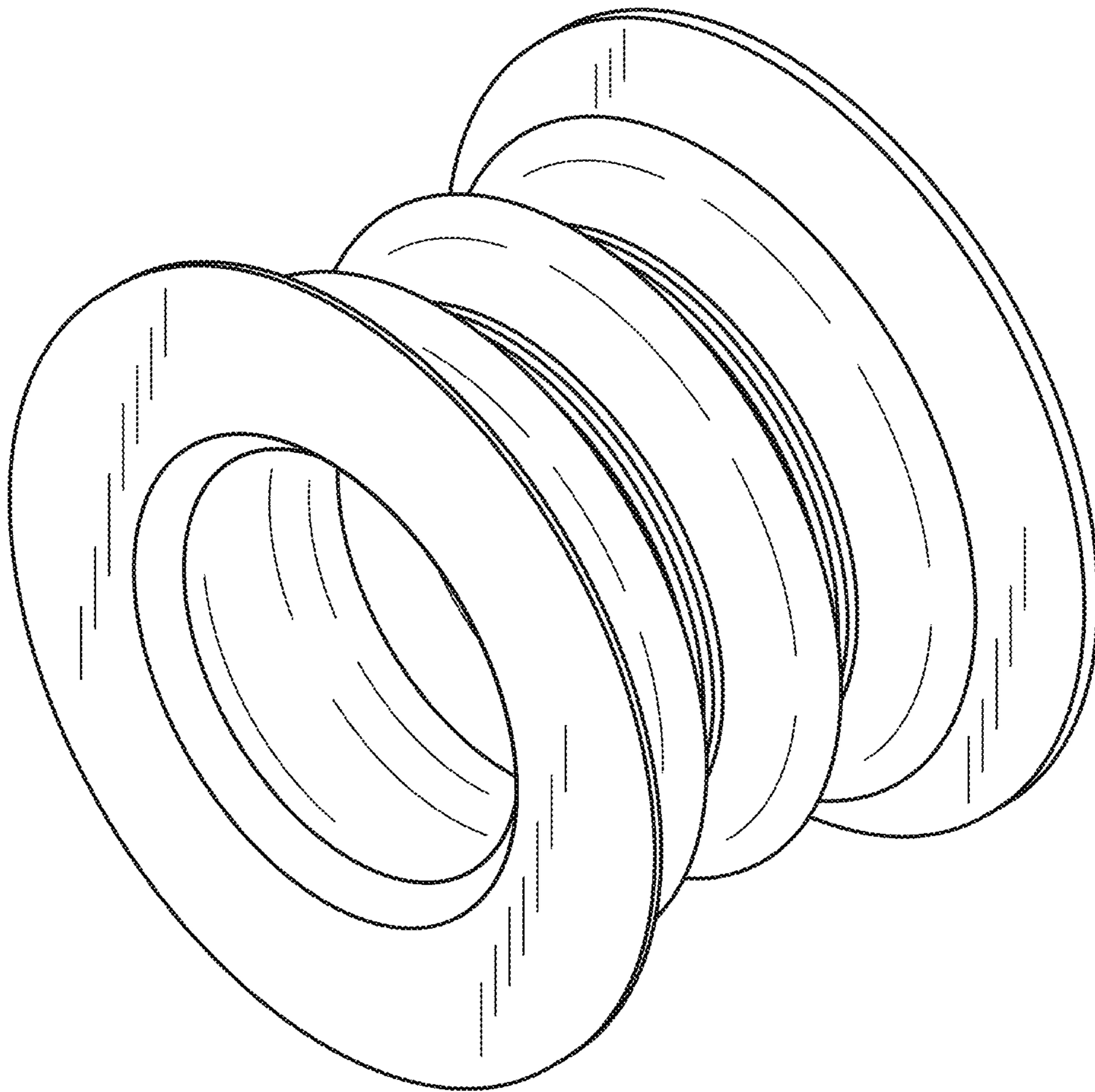


FIG. 8

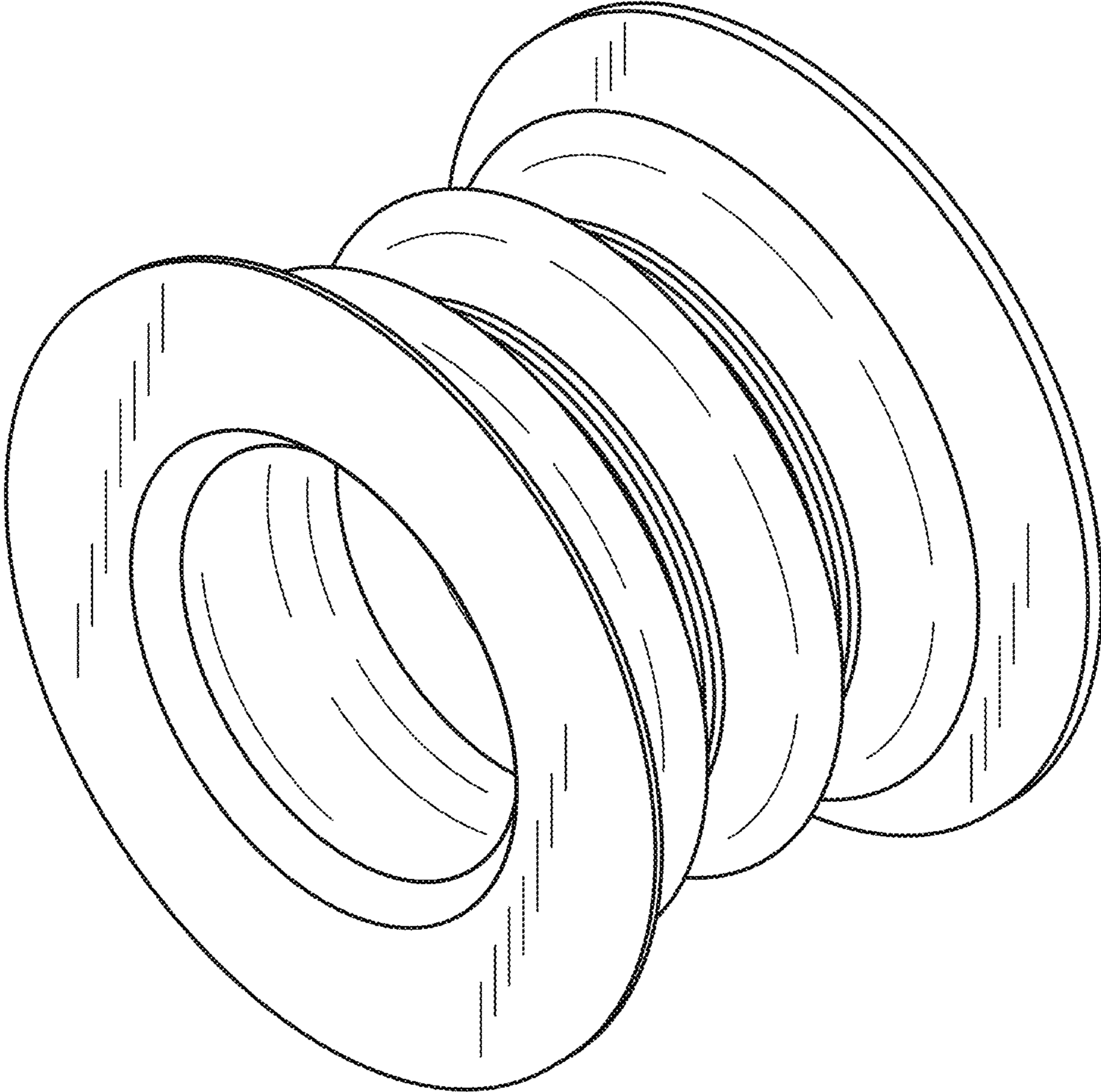


FIG. 9

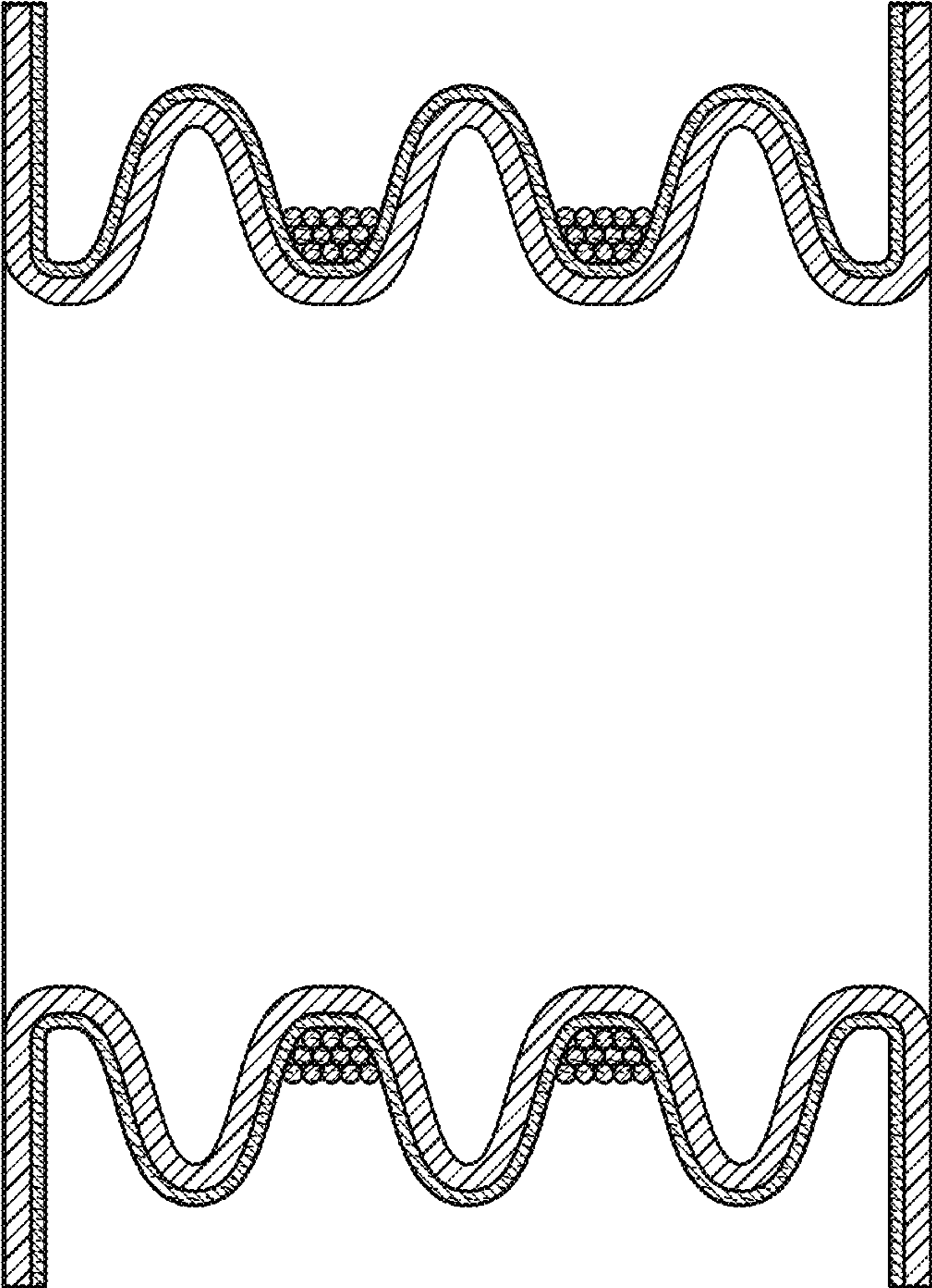


FIG. 10

