



US00D811585S

(12) **United States Design Patent** (10) **Patent No.:** **US D811,585 S**
Green (45) **Date of Patent:** **** Feb. 27, 2018**

(54) **AIR REMOVAL DEVICE**
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(72) Inventor: **Richard Green**, Santa Monica, CA (US)
(73) Assignee: **Richard Green**, Santa Monica, CA (US)

D372,311 S 7/1996 Koros et al.
D376,645 S 12/1996 Lindgren et al.
6,053,899 A 4/2000 Slanda et al.
D446,865 S 8/2001 Conway
D449,104 S 10/2001 Baker et al.
6,315,755 B1 11/2001 Sussman
D452,004 S 12/2001 Baker et al.
D457,955 S * 5/2002 Bilitz D24/133
(Continued)

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

CN 301729330 S 11/2011
CN 301729332 S 11/2011

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(Continued)

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FOREIGN PATENT DOCUMENTS

(51) **LOC (11) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/112**

(58) **Field of Classification Search**
USPC D24/112–114, 108, 133, 130, 127, 186;
606/181, 185; 604/264, 272, 187, 181,
604/184, 227; 600/101, 139, 143;
128/200.24, 207.14, 207.15
CPC A61M 25/00; A61M 39/00; A61M 27/00;
A61M 25/0043; A61M 25/0067; A61M
25/0097

OTHER PUBLICATIONS

Canadian Examiner's Report dated Dec. 19, 2016, from related application No. 170250.

(Continued)

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See application file for complete search history.

(57) **CLAIM**

I claim the ornamental design for an air removal device, as shown and described.

(56) **References Cited**

DESCRIPTION

U.S. PATENT DOCUMENTS

3,610,230 A 10/1971 Andersen
4,365,630 A * 12/1982 McFarlane A61M 25/0693
600/576
D282,204 S 1/1986 Holt
D304,079 S * 10/1989 McFarlane D24/112
D323,889 S 2/1992 Wyatt et al.
D338,955 S * 8/1993 Gresl D24/112
D339,189 S 9/1993 Nilsson
5,284,486 A 2/1994 Kotula et al.
D363,702 S 10/1995 McFadden
D370,063 S * 5/1996 Spreckelmeier D24/133

FIG. 1 is a top front perspective view of the air removal device.

FIG. 2 is a left side elevation view thereof;

FIG. 3 is a right side elevation view thereof;

FIG. 4 is a front elevation view thereof;

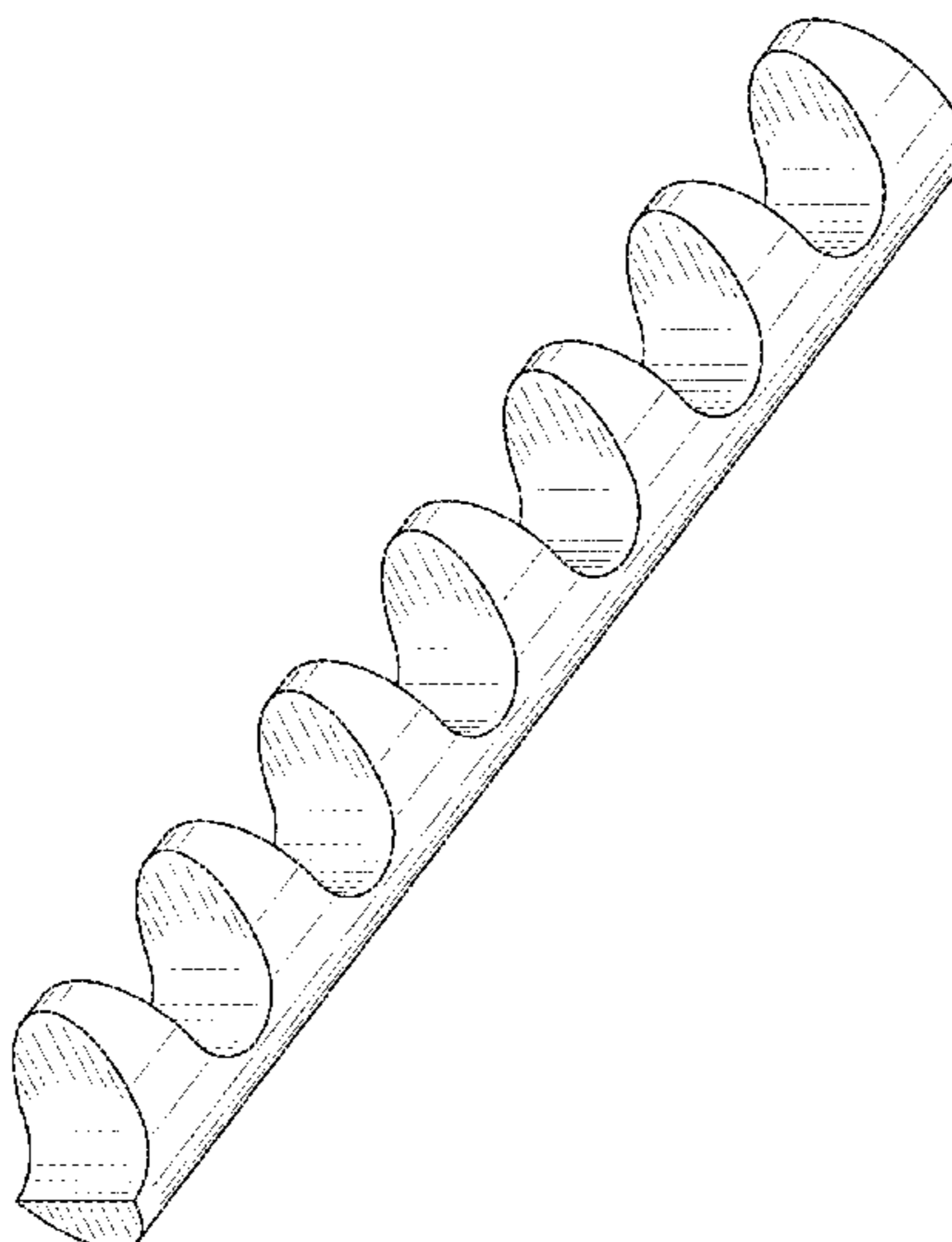
FIG. 5 is a rear elevation view thereof;

FIG. 6 is a top plan view thereof; and,

FIG. 7 is a bottom plan view thereof.

The broken lines illustrate portions of the air removal device and form no part of the claimed design.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D458,134 S 6/2002 Berish et al.
 D461,555 S 8/2002 Binet et al.
 D482,121 S 11/2003 Harding et al.
 D482,447 S 11/2003 Harding et al.
 6,716,189 B1 4/2004 Jarvik et al.
 D495,417 S * 8/2004 Doelling D24/133
 D520,041 S 5/2006 Wheat
 D522,595 S 6/2006 Donahue et al.
 D586,913 S 2/2009 Leroy et al.
 D593,801 S 6/2009 Wilson et al.
 7,569,029 B2 8/2009 Clark
 D600,793 S 9/2009 Bierman et al.
 D612,050 S * 3/2010 Baynham D24/133
 7,896,832 B2 3/2011 Zafirelis et al.
 D642,548 S 8/2011 Bowen, III
 D647,496 S 10/2011 Tung
 8,029,728 B2 10/2011 Lindsay
 8,062,270 B2 11/2011 Sweeney
 D657,867 S 4/2012 Effenberger
 8,211,047 B2 7/2012 Cerasoli et al.
 D667,546 S 9/2012 Becker
 8,313,954 B2 11/2012 Leach et al.
 D672,238 S 12/2012 Aziz et al.
 D673,673 S 1/2013 Wang
 D674,479 S * 1/2013 Merchant D24/108
 8,393,328 B2 3/2013 Angel et al.
 8,394,052 B2 3/2013 Jessop et al.
 8,574,219 B2 * 11/2013 Adams A61M 25/0021
 604/525
 D715,423 S 10/2014 Rogers
 D715,921 S 10/2014 Wan
 D720,850 S 1/2015 Hsia et al.
 D722,160 S * 2/2015 Armstrong D24/130
 D727,499 S 4/2015 Schad et al.
 D733,291 S 6/2015 Wang
 D741,476 S 10/2015 Hiraoka et al.
 D748,253 S * 1/2016 Ratjen D24/130
 D751,691 S * 3/2016 Shaw D24/112
 D753,283 S 4/2016 Efinger
 D758,579 S 6/2016 Keckstein et al.
 D761,961 S 7/2016 Tan et al.
 D768,868 S 10/2016 Inoue
 D773,664 S 12/2016 Deneui
 D774,181 S 12/2016 Green
 D782,026 S 3/2017 Bresco Torras et al.
 2011/0118704 A1 5/2011 Riaz
 2013/0092640 A1 4/2013 Cassidy et al.
 2015/0343157 A1 * 12/2015 Basile A61M 5/31511
 604/506
 2016/0067391 A1 3/2016 Real et al.
 2016/0129220 A1 5/2016 Jagadeesan et al.

FOREIGN PATENT DOCUMENTS

CN 301978850 S 7/2012
 EM 003359108-0001 8/2016
 EM 003359108-0002 8/2016
 EP 2 497 512 9/2012
 GB 2 039 434 6/1994

JP 05-058151 8/1993
 JP 2007-508061 A 4/2007
 SU 1134199 1/1985
 SU 1215718 3/1986
 WO WO-2006/083220 A1 8/2006
 WO WO-2012/128816 9/2012
 WO WO-2013/099946 A1 7/2013

OTHER PUBLICATIONS

Japanese Office Action dated Jan. 10, 2017, from related application No. 2016-18812.
 Japanese Office Action dated Jan. 10, 2017, from related application No. 2016-18813.
 BD A-Line Syringe Without Needle 3ml Slip Tip, https://online.ebos.co.nz/default.cfm?action=displayproduct&product_code=21120424, 1 page.
 BD SAF-T-Intima Closed IV Catheter System, <http://www.bd.com/infusion/products/ivcatheters/sti.asp>, 2 pages.
 Extracorporeal Membrane Oxygenation, an Anesthesiologist's Perspective: Physiology and Principles, <http://annals.in/article.asp?issn=0971-9784;year=2011;volume=14;issue=3;spage=218;epage=229;aulast=Chauhan;type=3>.
 IV Gravity Sets, <https://sentramedical.co.uk/portfolio-view/iv-gravity-sets/>, 2 pages.
 Latex Short Type Y Injection Port for I.V. Tube, <http://eastmed01.en.made-in-china.com/product/PgcQUOKAXdpz/China-Latex-Short-Type-YInjection-Port-for-I-V-Tube.html>, 3 pages.
 Pen Type IV Cannula Without Valve and Without Wings Without CE&ISO Approval, <http://sell.lulusoso.com/selling-leads/1215085/Y-type-I-V-Cannula-Types-of-cannula.html>, 7 pages.
 SAF—T—Intima Intravenous Cannula, <http://www.clhgroup.co.uk/products/saf-t-intima-intravenous-cannula/3331/>, 1 page.
 Starting Intravenous Lines, <http://www.mrprotocols.com/sset/iv.html>, 5 pages.
 U.S. Office Action dated Jun. 29, 2017, from U.S. Appl. No. 29/556,546.
 U.S. Office Action dated Jun. 30, 2017, from U.S. Appl. No. 29/596,365.
 U.S. Notice of Allowance dated Oct. 28, 2016, from related U.S. Appl. No. 29/545,199.
 Canadian Examiner's Report dated Mar. 28, 2017, from related application No. 170250.
 U.S. Office Action dated Sep. 30, 2016, from related U.S. Appl. No. 29/545,199.
 International Preliminary Report on Patentability dated Aug. 25, 2016, from related international application No. PCT/US2014/016595.
 PCT International Search Report and Written Opinion dated Nov. 6, 2014, from related application No. PCT/US2014/016595.
 U.S. Notice of Allowance dated Jul. 16, 2014, from related U.S. Appl. No. 29/456,396.
 Extended European Search Report dated Aug. 31, 2017, from application No. 14882436.0.
 Japanese Office Action dated Sep. 19, 2017, from application No. 2016-552330

* cited by examiner

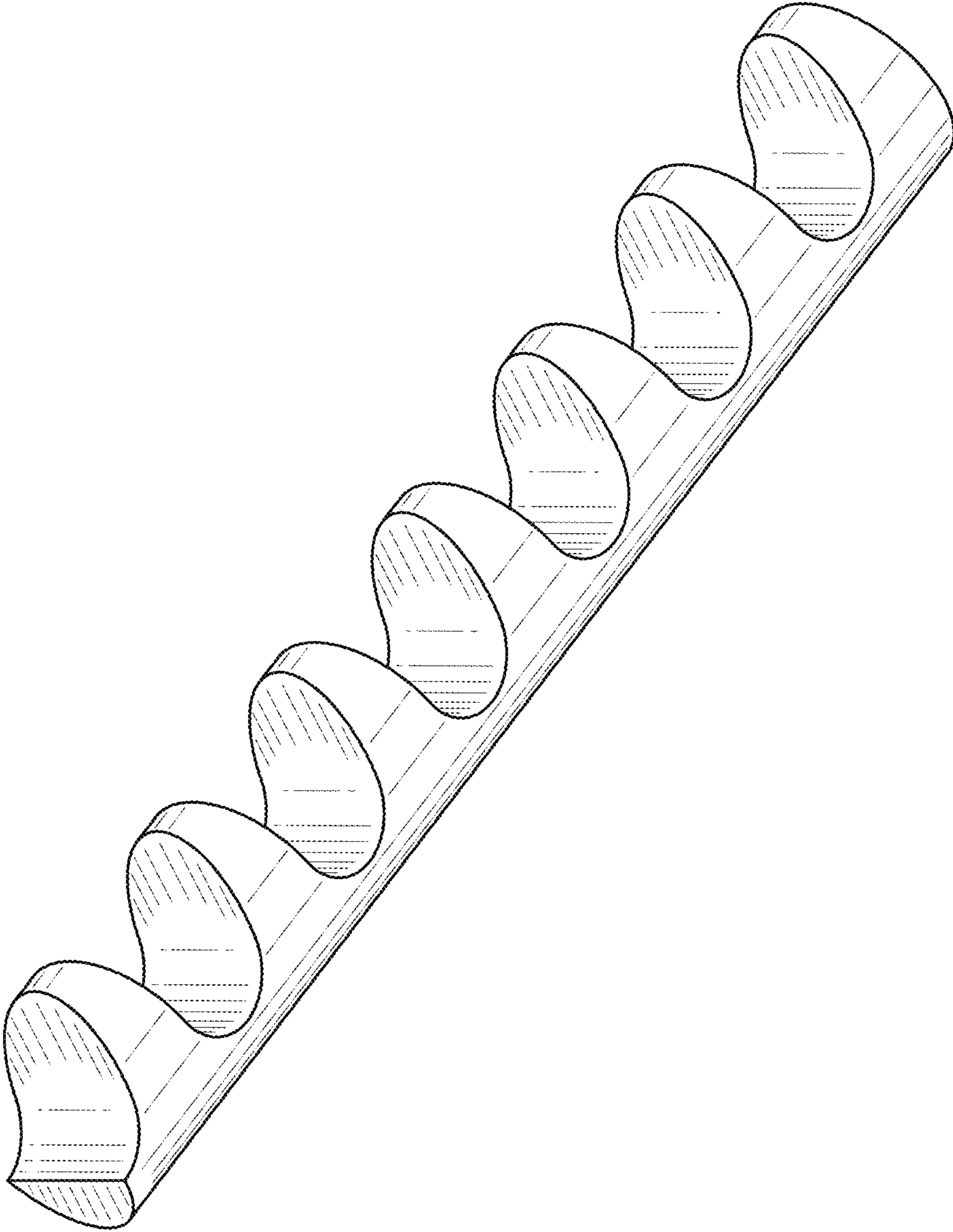


FIG. 1

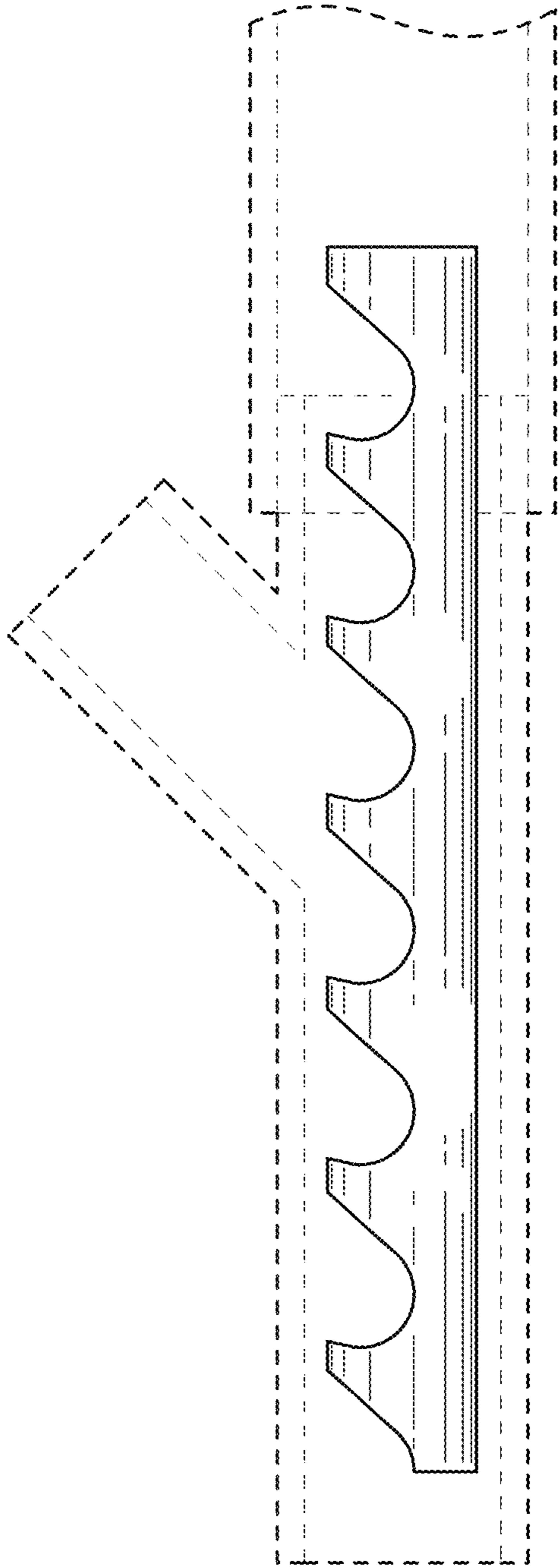


FIG. 2

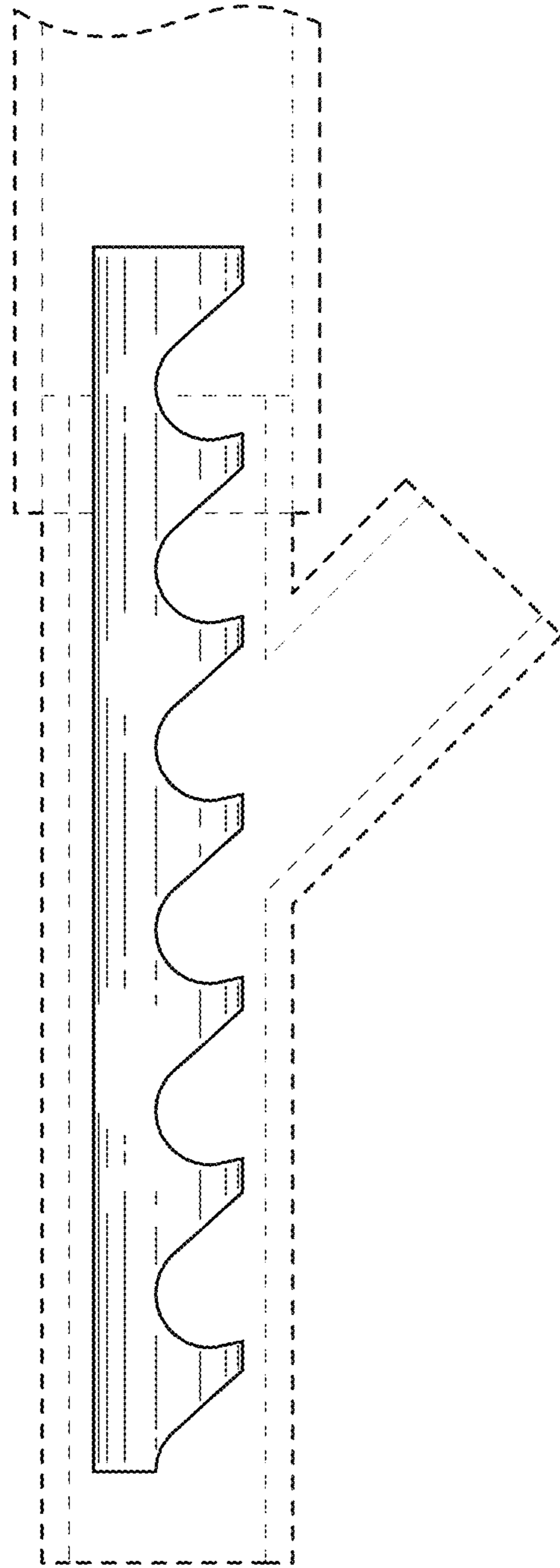


FIG. 3

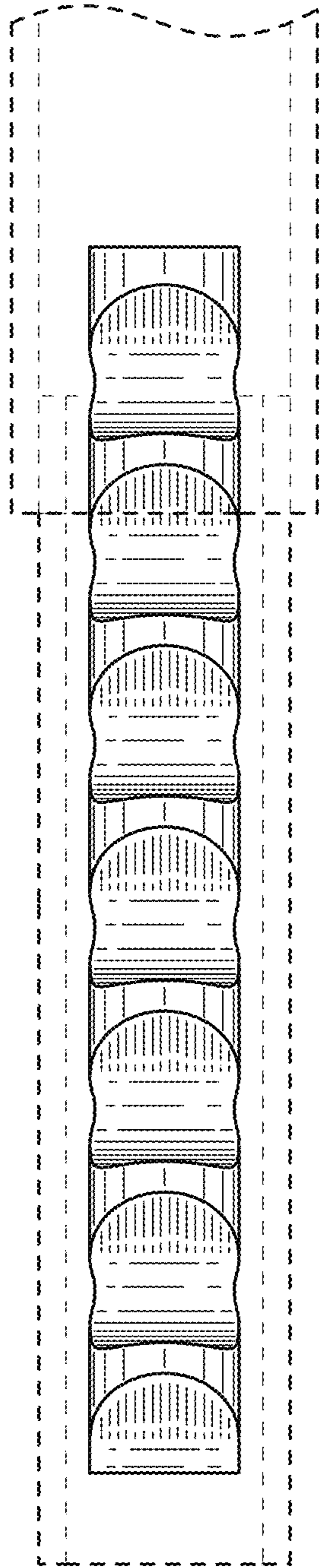


FIG. 4

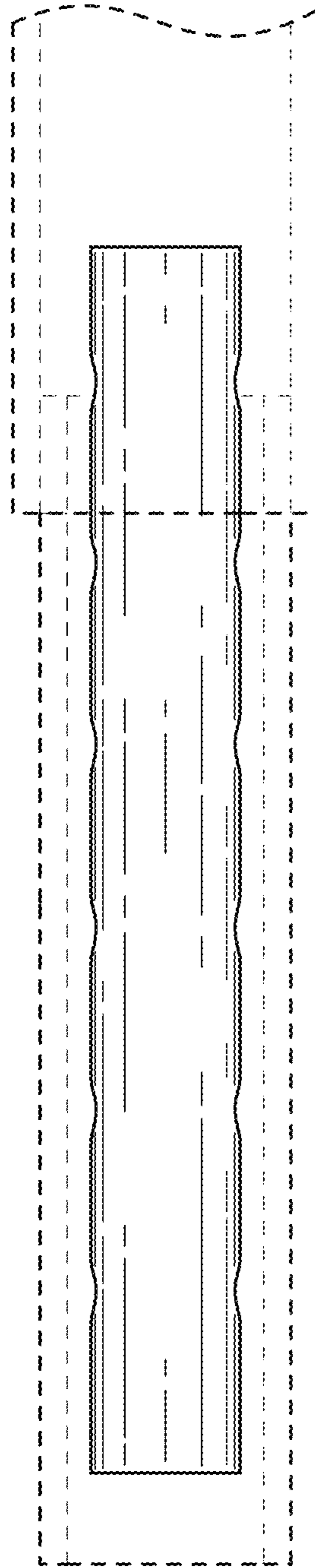


FIG. 5

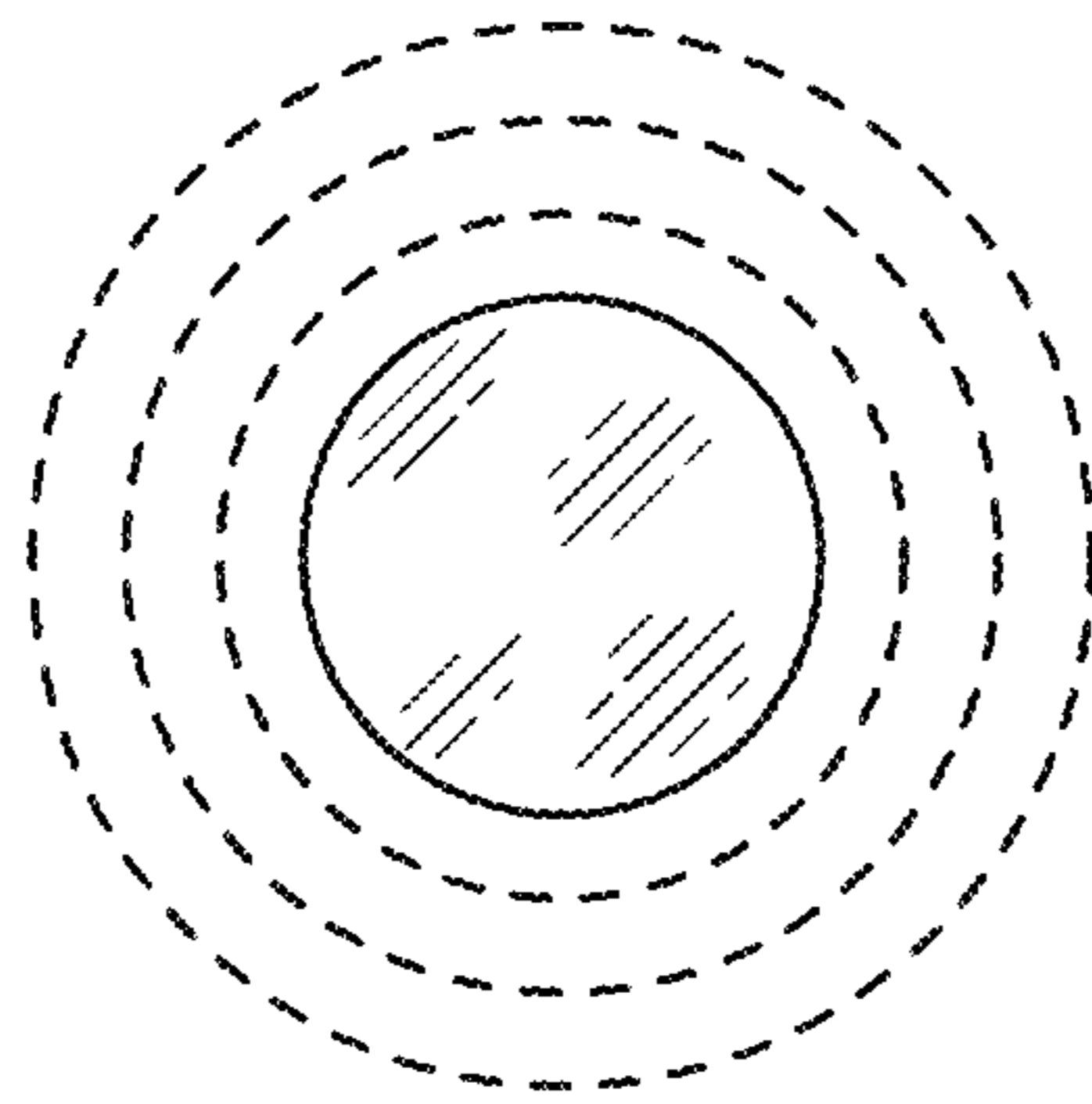


FIG. 6

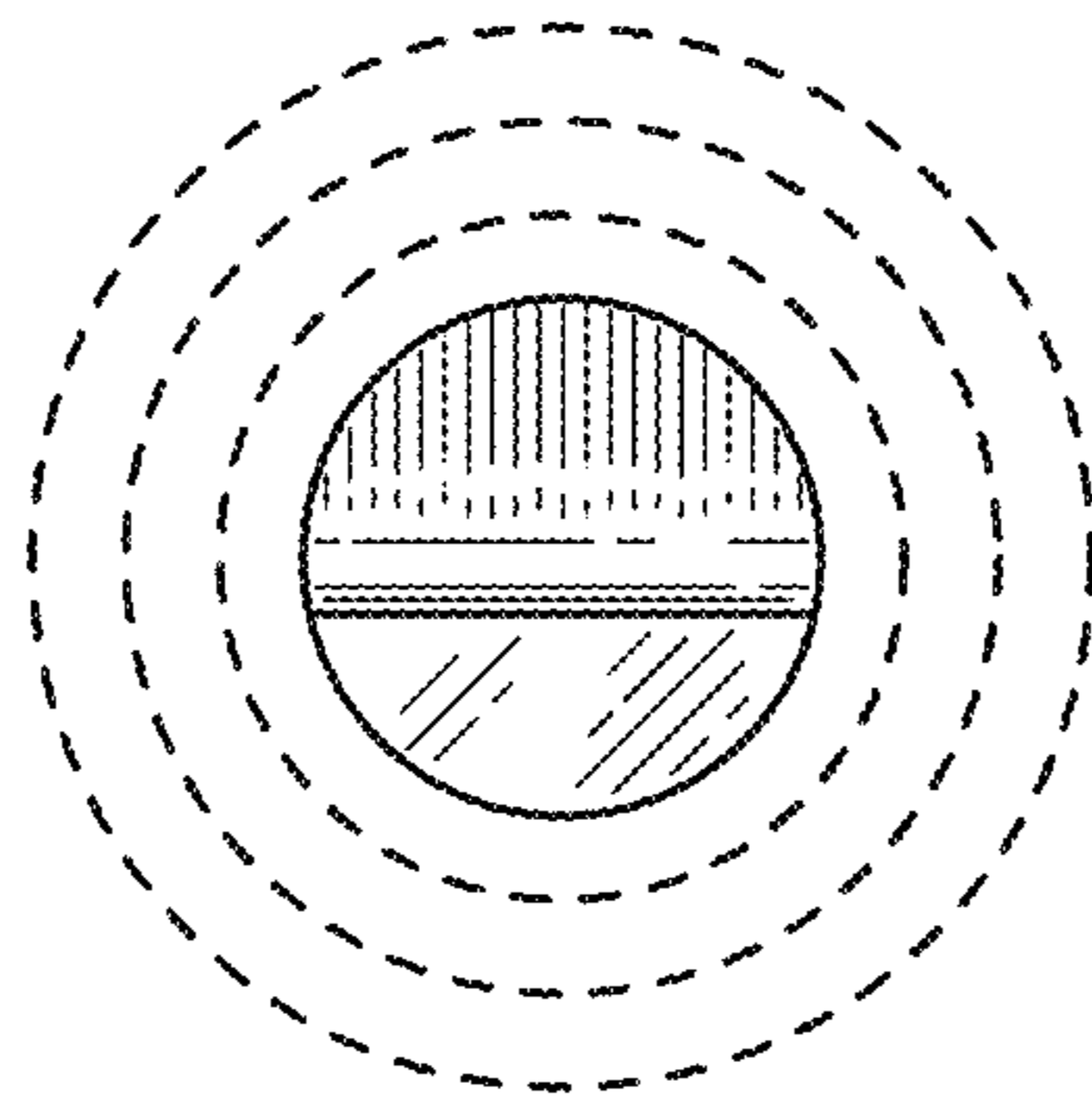


FIG. 7