

US00D833006S

(12) **United States Design Patent** (10) **Patent No.:** **US D833,006 S**
Davis (45) **Date of Patent:** **** Nov. 6, 2018**

(54) **FLUID TRANSFER CONNECTOR**

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(73) Assignee: **NEOMED, INC.**, Woodstock, GA (US)

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

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

(52) **U.S. Cl.**

USPC **D24/129**

(58) **Field of Classification Search**

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D7/397, 387, 398; D8/363, 396

CPC A61J 1/2048; A61J 1/2013; A61J 1/2055;
A61J 1/2089; A61J 1/2096; A61M
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,477,598 A	8/1949	Hain
3,307,752 A	3/1967	Anderson
3,473,833 A	10/1969	Bremer
3,572,337 A	3/1971	Schunk
4,046,145 A	9/1977	Choksi et al.
4,685,173 A *	8/1987	Pavur B60R 16/0222 16/2.2
4,743,229 A	5/1988	Chu
4,842,592 A	6/1989	Caggiani et al.
D303,710 S	9/1989	Neill
5,090,583 A	2/1992	Hoffman et al.
D327,318 S	6/1992	Dudar et al.
5,224,937 A	7/1993	van der Heiden et al.
5,238,130 A	8/1993	Marques et al.

5,405,339 A	4/1995	Kohnen et al.
D395,502 S	6/1998	Deily et al.
D398,060 S *	9/1998	Brown D24/164 (Continued)

FOREIGN PATENT DOCUMENTS

DE	8613738 U1	7/1986
DE	20302788 U1	6/2004 (Continued)

OTHER PUBLICATIONS

Alternative Syringes Low Displacement Option PowerPoint Presentation; Presented by Rork Swisher of Covidien; ISO 80369 Series Meeting; Berlin Germany; 11 pgs; Mar. 19, 2014.pgs.
(Continued)

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(57) **CLAIM**

The ornamental design for a fluid transfer connector, substantially as shown and described.

DESCRIPTION

FIG. 1 is a first perspective view of a fluid transfer connector according to an embodiment of the design.

FIG. 2 is a second perspective view of the fluid transfer connector shown in FIG. 1.

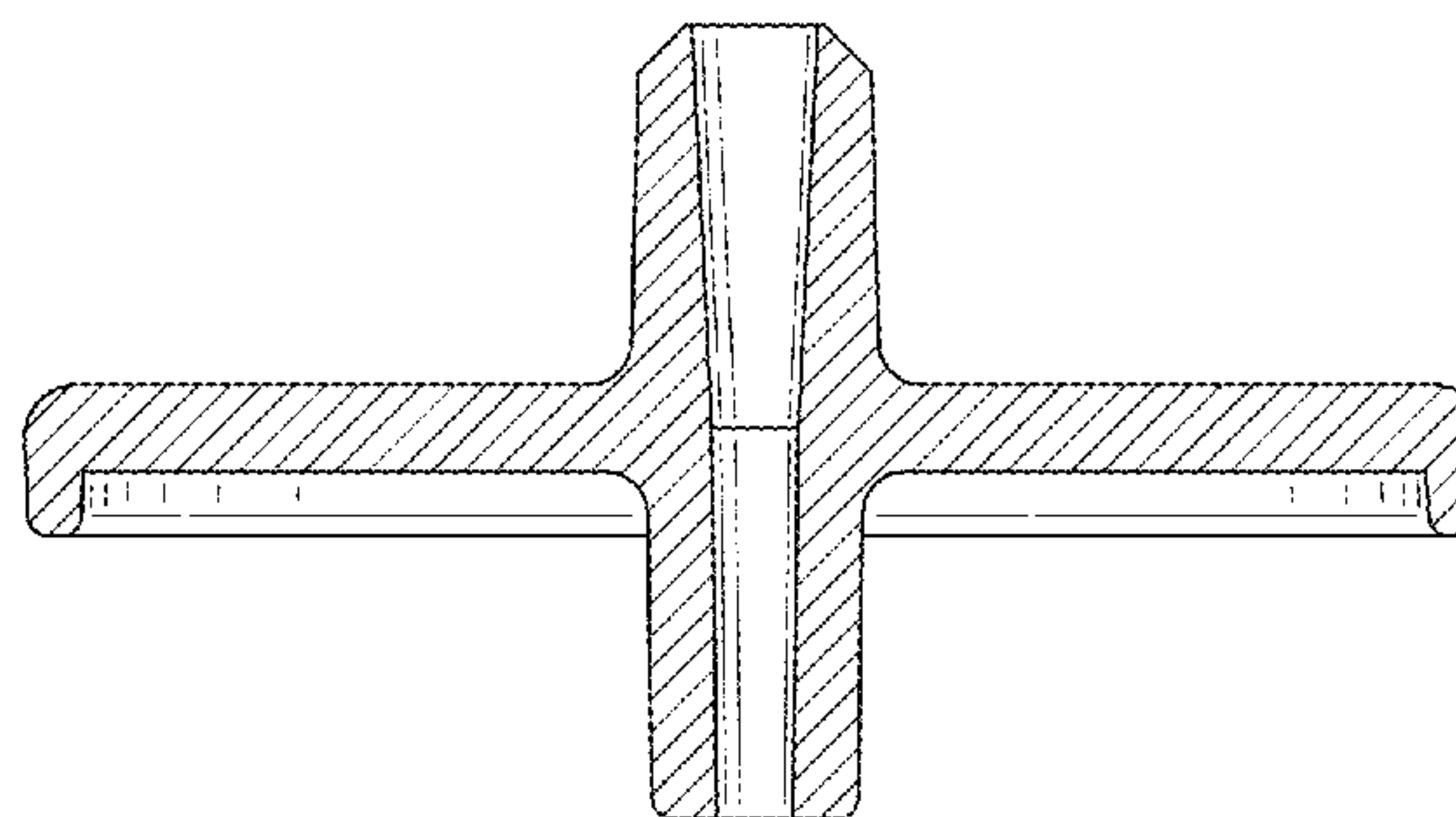
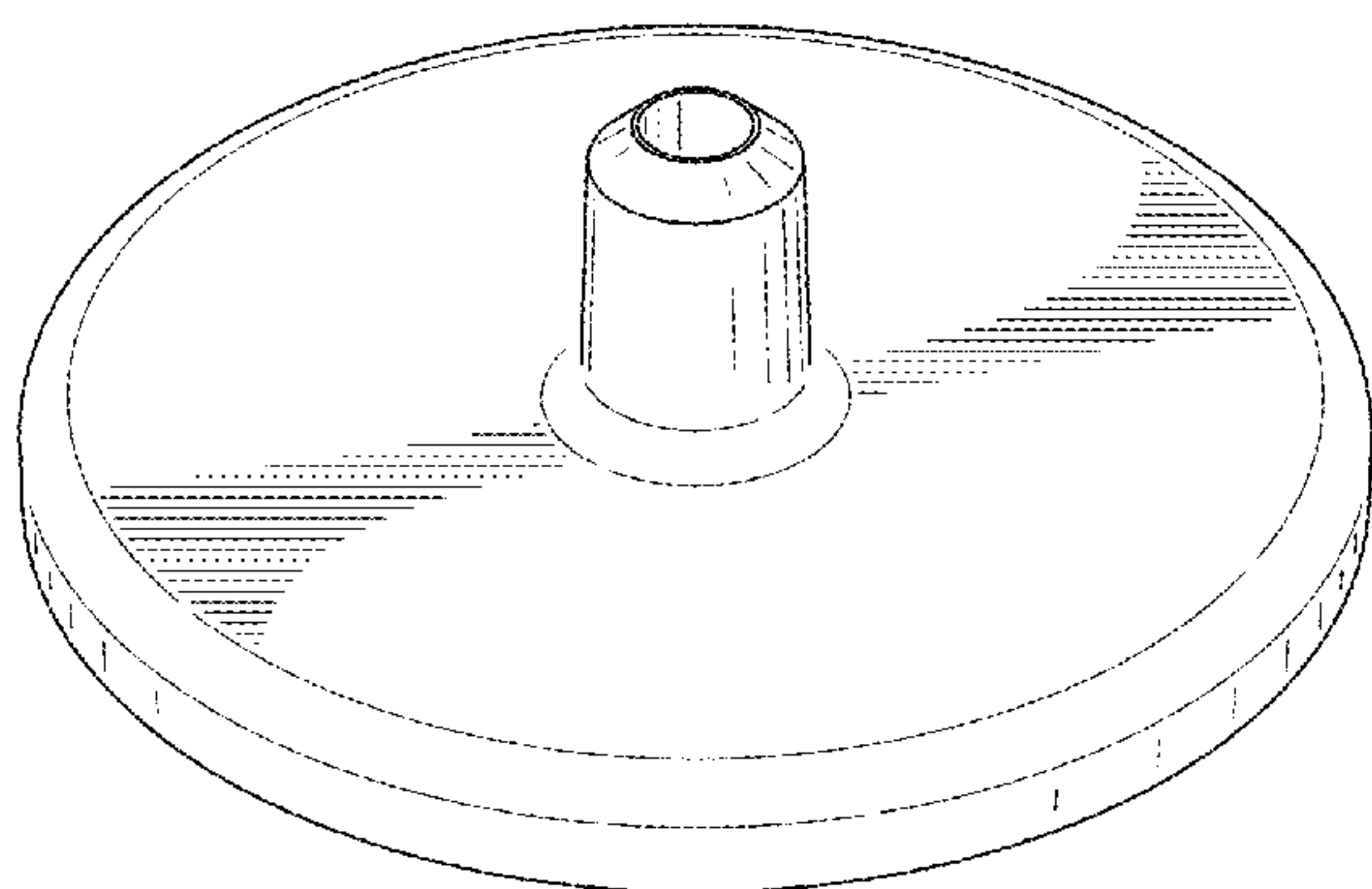
FIG. 3 is a front view of the fluid transfer connector shown in FIG. 1, the rear view and left and right side views being substantially identical to the front view.

FIG. 4 is a cross-sectional view of the fluid transfer connector shown in FIG. 1 taken along line 4-4 of FIG. 3.

FIG. 5 is a top view of the fluid transfer connector shown in FIG. 1; and,

FIG. 6 is a bottom view of the fluid transfer connector shown in FIG. 1.

1 Claim, 3 Drawing Sheets



(56)

References Cited**U.S. PATENT DOCUMENTS**

5,957,166 A 9/1999 Safabash
 D435,652 S 12/2000 Nazarifar et al.
 6,270,519 B1 8/2001 Botts
 D473,647 S 4/2003 Francavilla et al.
 6,592,251 B2 7/2003 Edwards et al.
 6,726,672 B1 4/2004 Hanly et al.
 D534,796 S 1/2007 Falkenburg
 7,503,905 B2 3/2009 Jessop et al.
 7,523,967 B2 4/2009 Steppe
 7,594,681 B2 9/2009 DeCarlo
 7,666,170 B2 2/2010 Guala
 7,740,288 B2 6/2010 Mantell
 7,766,919 B2 8/2010 Delmotte
 7,811,278 B2 10/2010 Knipple, Jr. et al.
 7,857,284 B2 12/2010 Kimball et al.
 D644,618 S * 9/2011 Morihira D13/199
 8,016,795 B2 9/2011 Barrelle et al.
 8,109,902 B2 2/2012 Middleton et al.
 8,152,790 B2 4/2012 Lopez et al.
 8,303,571 B2 11/2012 Kraushaar et al.
 8,328,768 B2 12/2012 Quigley et al.
 8,398,607 B2 3/2013 Fangrow, Jr.
 8,479,370 B2 7/2013 Grant
 8,529,524 B2 9/2013 Newton et al.
 D691,261 S 10/2013 Kawamura
 8,551,068 B2 10/2013 Kyle et al.
 8,613,738 B2 12/2013 Mantell
 8,641,685 B2 2/2014 Mansour et al.
 8,679,090 B2 3/2014 Anderson et al.
 D712,025 S 8/2014 Kawamura
 D714,935 S 10/2014 Nishioka et al.
 8,852,167 B2 10/2014 Trombley, III et al.
 8,870,834 B2 10/2014 Milijasevic
 D716,636 S * 11/2014 McDonald D8/354
 D717,948 S 11/2014 Strong et al.
 9,017,295 B2 4/2015 Pan
 9,033,938 B2 5/2015 Milijasevic
 D731,065 S * 6/2015 Winter D24/110
 9,073,021 B2 7/2015 Nakamura et al.
 D736,914 S 8/2015 Schultz
 D736,915 S 8/2015 Schultz
 D737,962 S 9/2015 Schultz
 9,126,029 B2 9/2015 Fangrow et al.
 9,149,623 B1 10/2015 Colman
 9,289,587 B2 3/2016 Colman
 D756,200 S * 5/2016 McDonald D8/354
 9,427,715 B2 8/2016 Palazzolo et al.
 9,433,562 B2 9/2016 Ingram et al.
 2005/0209555 A1 9/2005 Middleton et al.
 2006/0217679 A1 9/2006 Hanly et al.
 2007/0076401 A1 4/2007 Carrez et al.
 2007/0078441 A1 * 4/2007 Adams A61J 15/0015
 604/533
 2008/0183153 A1 7/2008 Enns
 2008/0312640 A1 12/2008 Grant
 2009/0230075 A1 9/2009 Springer
 2009/0321611 A1 12/2009 Moberg
 2010/0022951 A1 1/2010 Ferrera et al.
 2014/0020788 A1 1/2014 Kyle et al.
 2014/0246616 A1 9/2014 Fangrow
 2014/0276466 A1 9/2014 Yeh et al.
 2014/0276651 A1 9/2014 Schultz

2014/0323995 A1 10/2014 Clauson et al.
 2016/0001056 A1 1/2016 Nelson et al.
 2016/0030293 A1 2/2016 Dorsey et al.
 2016/0067422 A1 3/2016 Davis et al.
 2016/0067471 A1 3/2016 Ingram et al.
 2016/0143815 A1 5/2016 Koelper et al.
 2016/0159635 A1 * 6/2016 Davis B67D 3/0041
 141/366
 2016/0206845 A1 7/2016 Colman et al.
 2016/0367439 A1 * 12/2016 Davis A61J 1/2096
 2017/0014616 A1 1/2017 Davis et al.
 2017/0239141 A1 * 8/2017 Davis A61J 1/2048

FOREIGN PATENT DOCUMENTS

DE 102005030510 A1 1/2007
 EP 0960616 A2 12/1999
 EP 2269685 A2 1/2011
 EP 3042691 A1 7/2016
 FR 2930428 A1 10/2009
 JP 4743229 B2 8/2011
 WO 9200717 A1 1/1992
 WO 9846278 A1 10/1998
 WO 9932155 A2 7/1999
 WO 2005065767 A2 7/2005
 WO 2009090627 A1 7/2009
 WO 2013081699 A2 6/2013
 WO 2015034045 A1 3/2015
 WO 2016089869 A1 6/2016

OTHER PUBLICATIONS

Baxa (Baxter) Rapidfill Connector; date unknown; 1 pg.
 Covidien ENFit Coupling; Mar. 2014; 1 pg.
 International Search Report & Written Opinion for PCT/US2016/023771; dated Jun. 27, 2016; 17 pgs.
 International Search Report & Written Opinion for PCT/US2016/038051; dated Sep. 2, 2016; 13 pgs.
 International Search Report & Written Opinion for PCT/US2016/042514; dated Nov. 10, 2016; 12 pgs.
 New ISO Tubing Connector Standards: A Follow-Up to the Sentinel Event Alert Webinar PowerPoint Presentation; www.jointcommission.org; 50 pgs; Dec. 3, 2014.
 New Tube Feeding Connectors Webinar PowerPoint Presentation; www.oley.org; 24 pgs; Jun. 24, 2014.
 Non Sterile Luer Lock to Oral Slip Adapter; Health Care Logistics, Inc.; 1 pg; date unknown.
 Oral Slip to Oral Slip Adapter; Health Care Logistics Inc.; 1 pg; date unknown.
 Specialty Medical Products Coupling (Item Code SMP-SCFF); Apr. 10, 2014; 1 pg.
 Sterile Luer Lock to Oral Slip Adapter; Health Care Logistics, Inc.; 1 pg; date unknown.
 Tulip Medical GEMS Syringe Locks & Single-Use Anaerobic Transfers; 1 pg; date unknown.
 Vygon Fluid Dispensing Connector; 1 pg; date unknown.
 International Search Report & Written Opinion for PCT/US2017/019021 dated Sep. 22, 2017; 10 pgs.
 Invitation to Pay Additional Fees for PCT/US2017/019021; Jun. 6, 2017; 12 pgs.
 International Search Report & Written Opinion for PCT/US2017/056391 dated Jan. 18, 2018; 16 pgs.

* cited by examiner

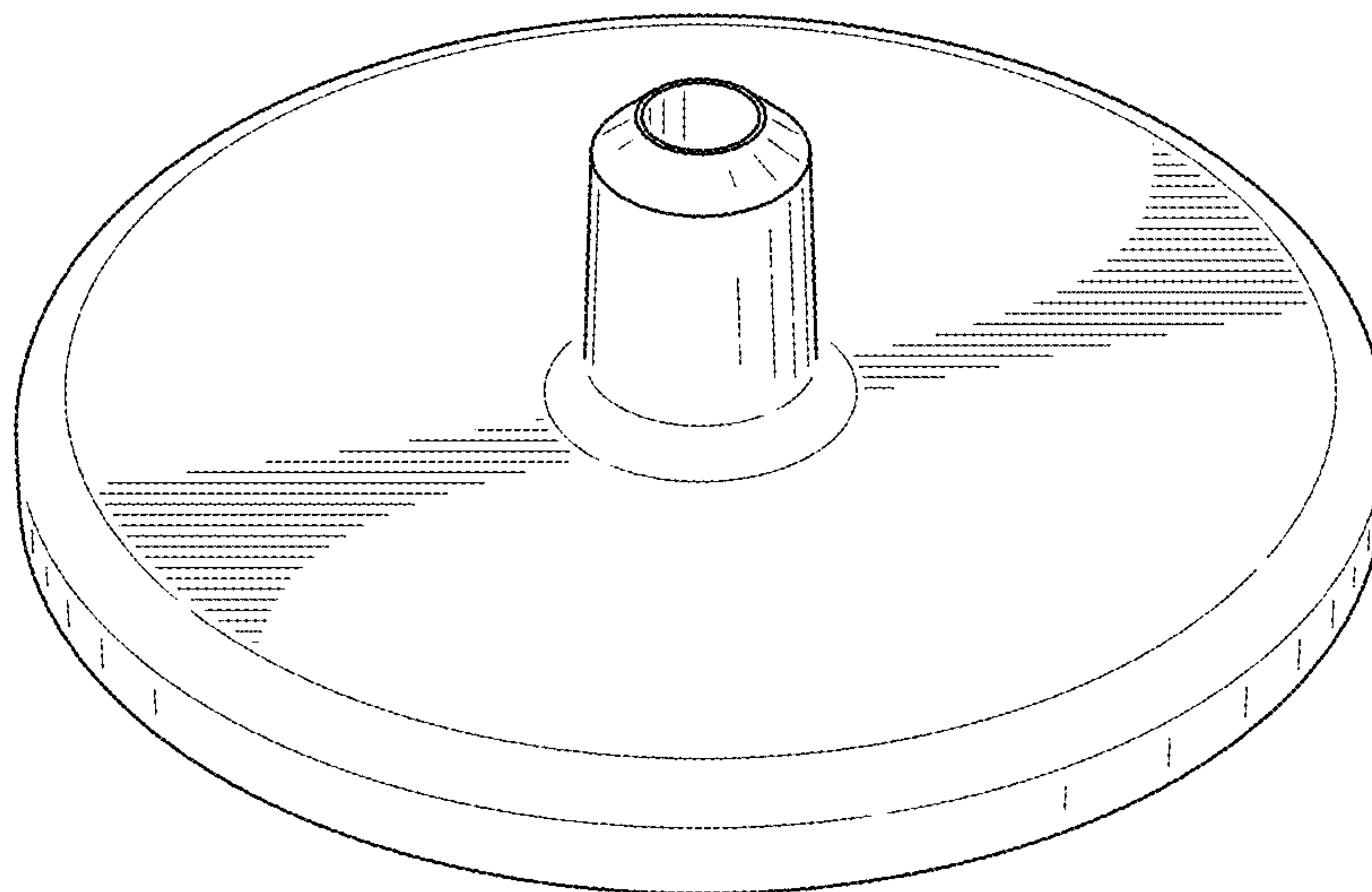


FIG. 1

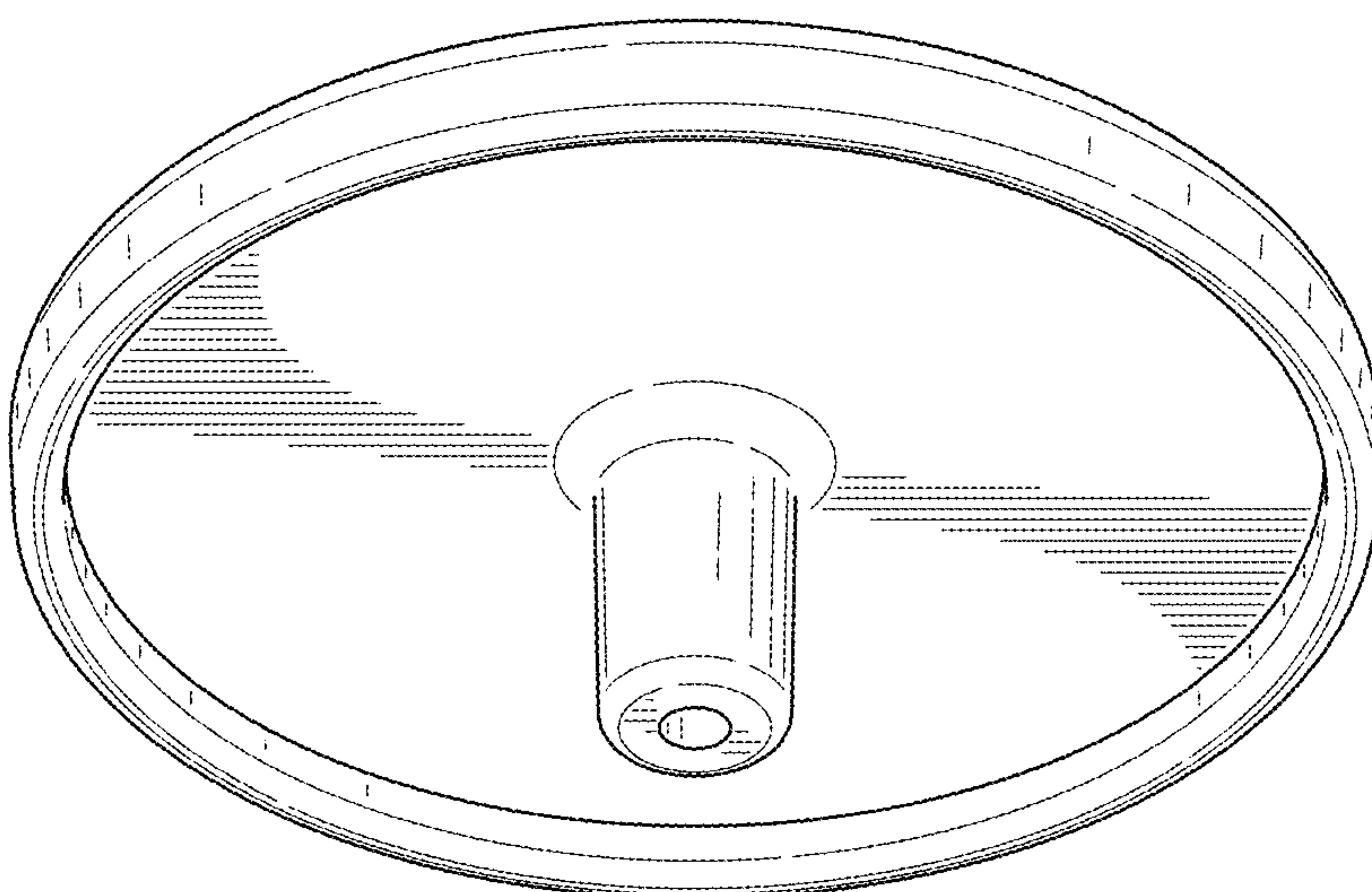


FIG. 2

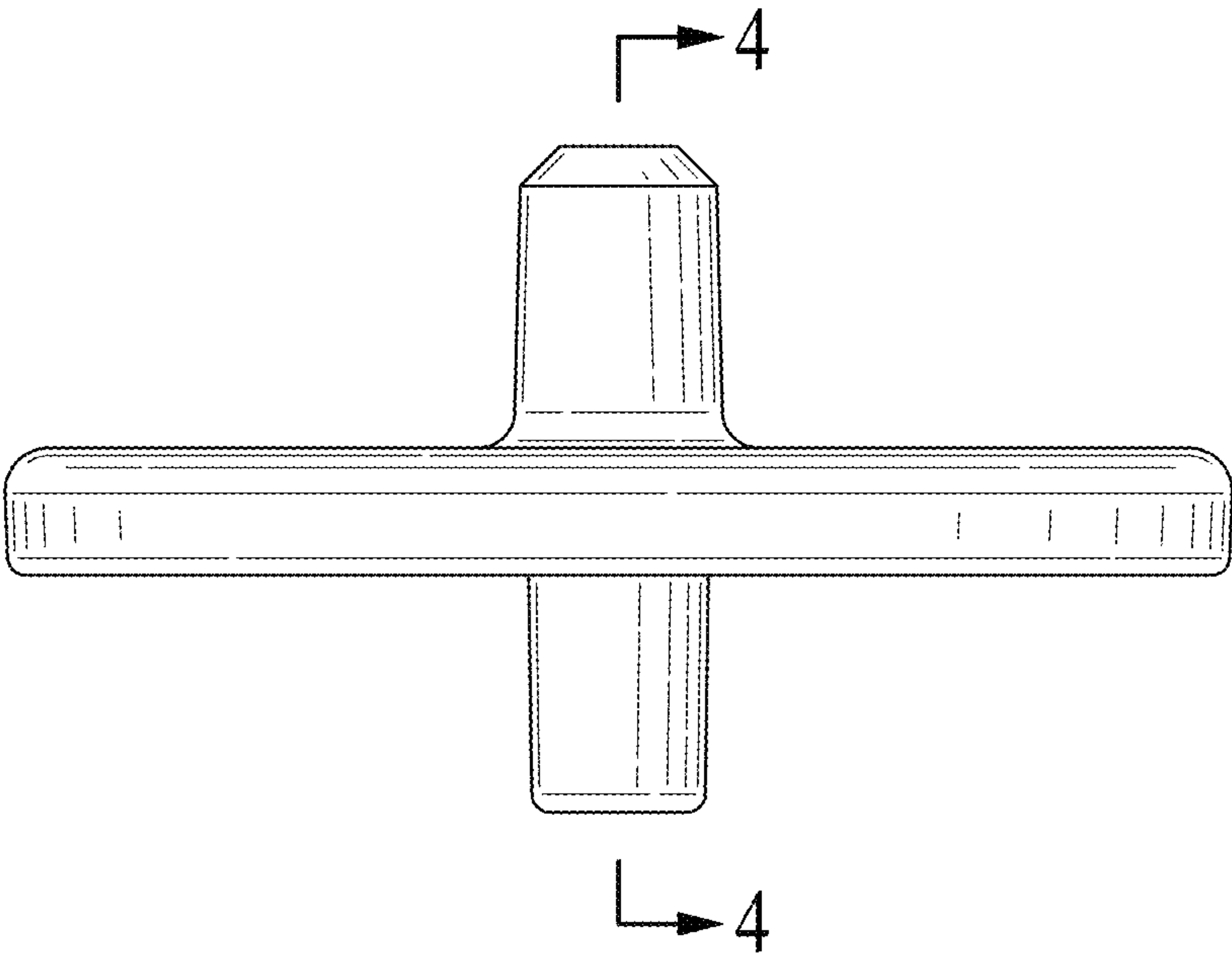


FIG. 3

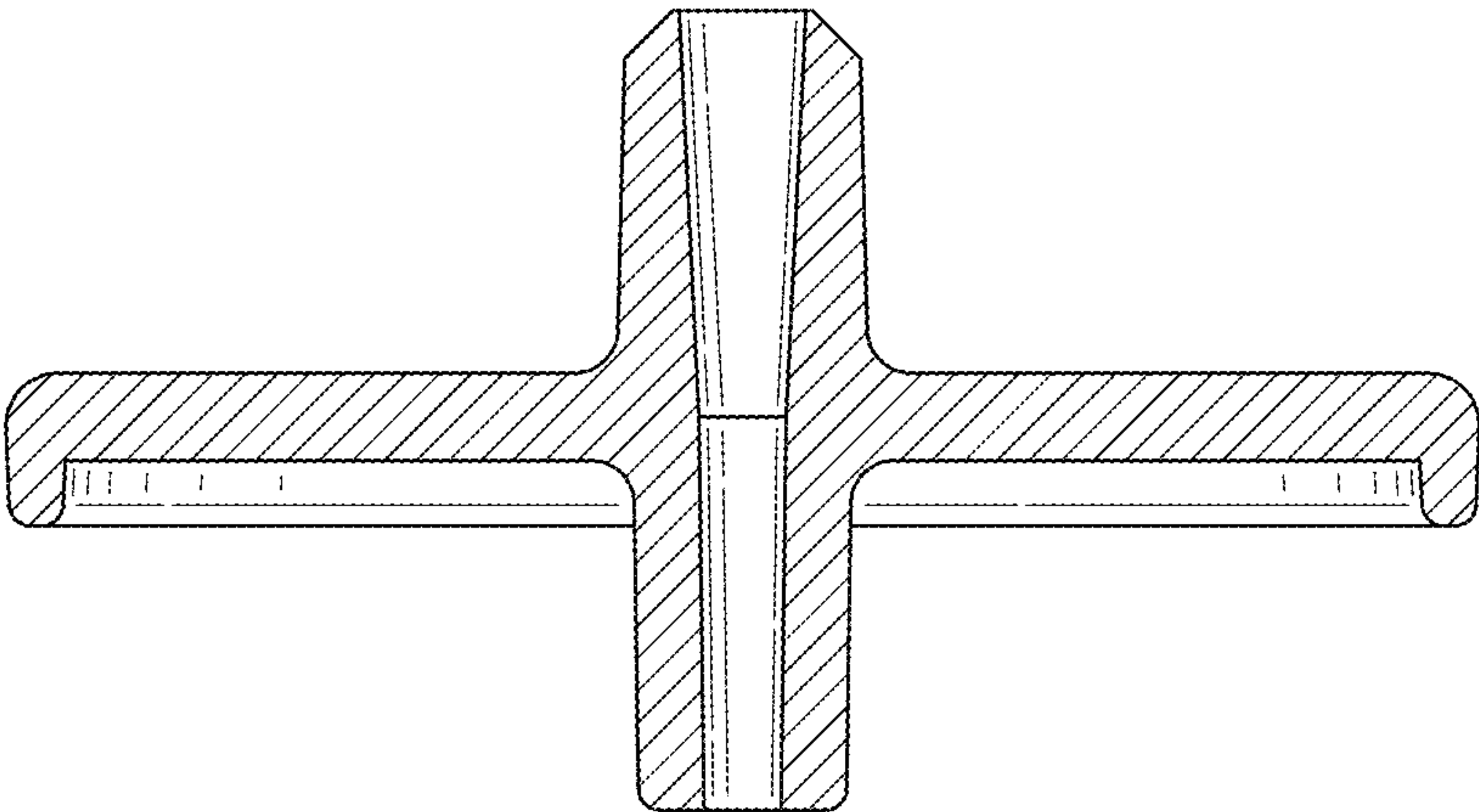


FIG. 4

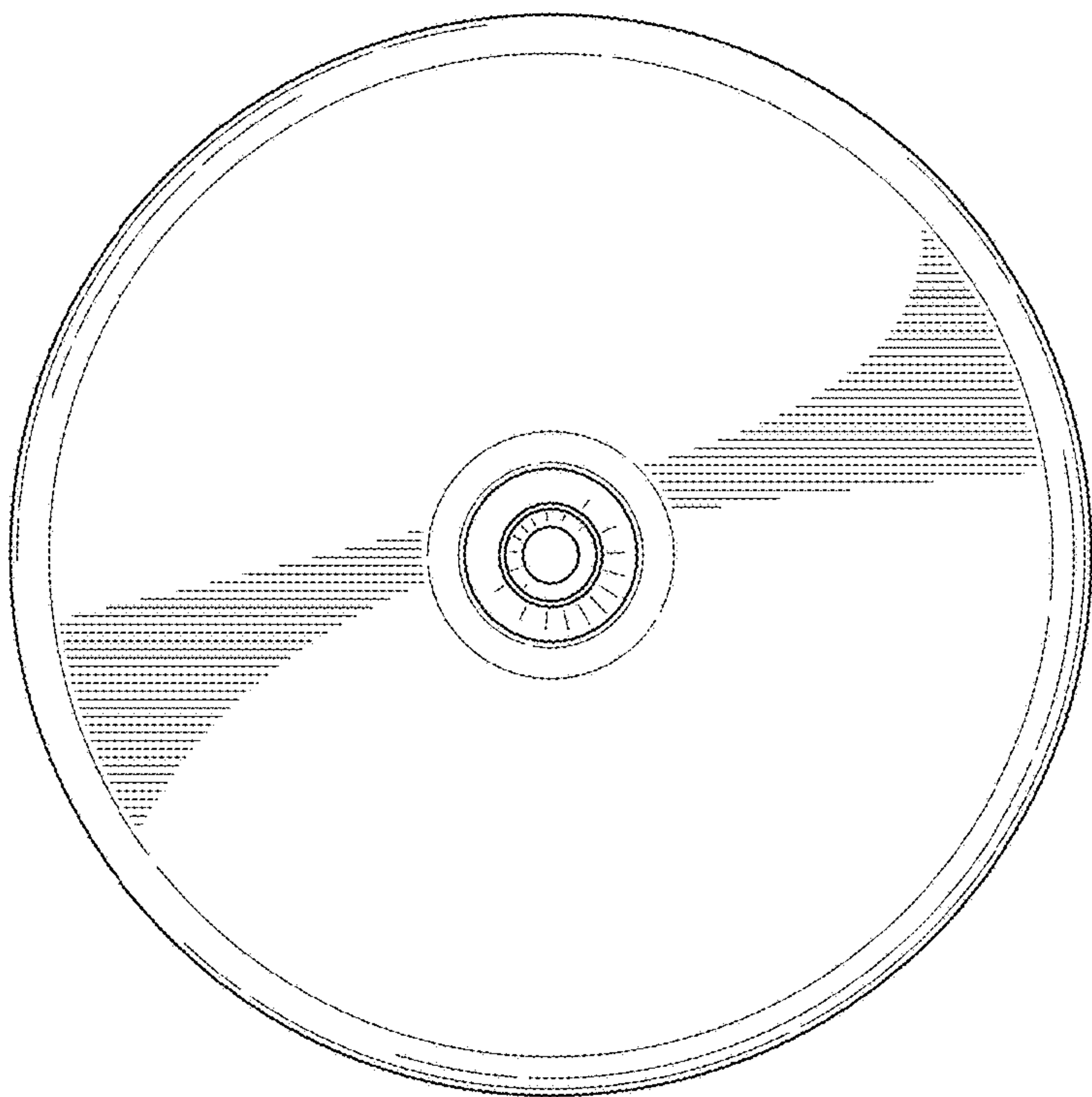


FIG. 5

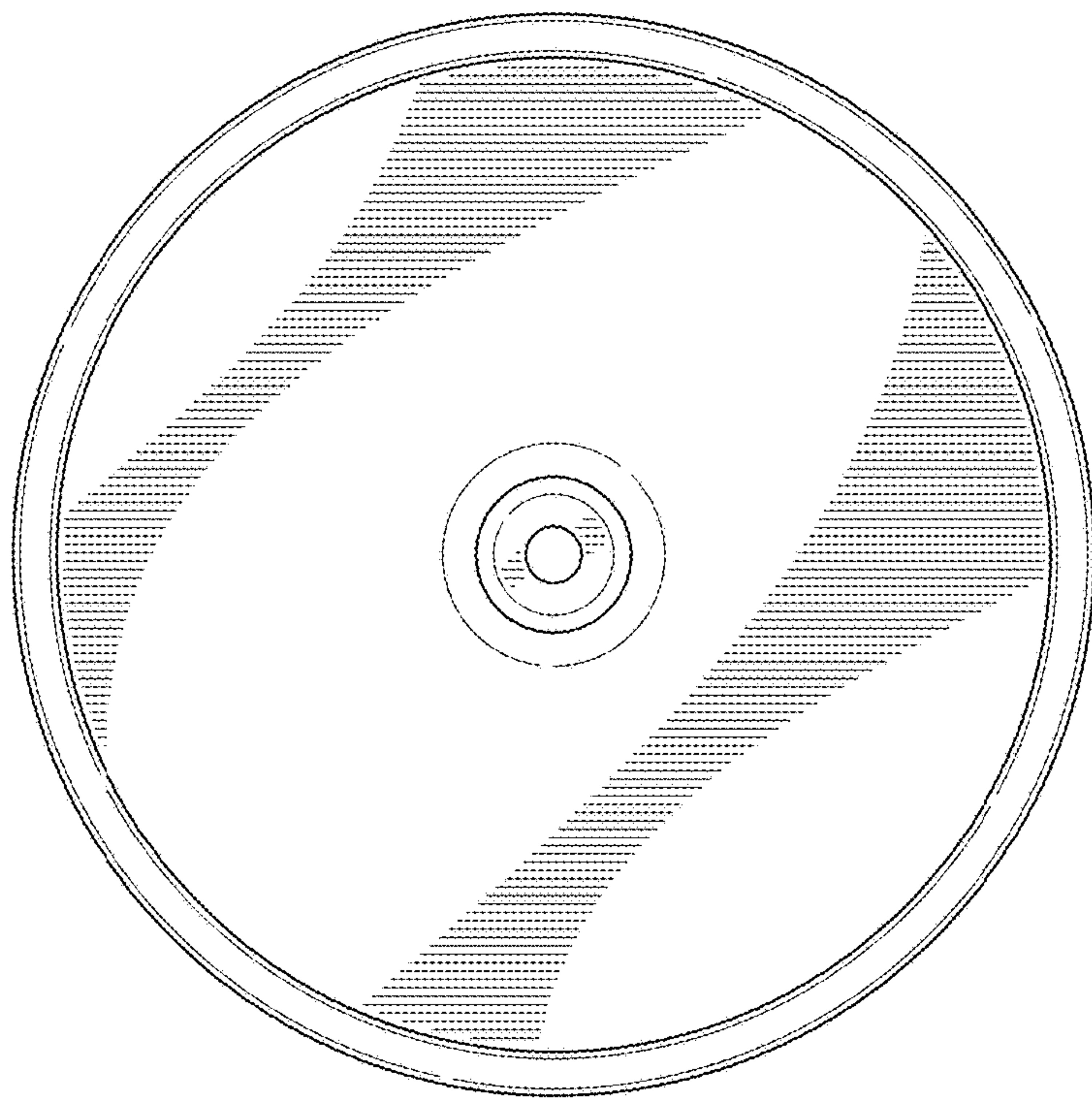


FIG. 6