



US00D735321S

(12) **United States Design Patent**  
**Blanchard**

(10) **Patent No.:** **US D735,321 S**

(45) **Date of Patent:** **\*\* Jul. 28, 2015**

(54) **CATHETER**

(75) Inventor: **Daniel B. Blanchard**, North Salt Lake, UT (US)

(73) Assignee: **C. R. Bard, Inc.**, Murray Hill, NJ (US)

(\*\*) Term: **14 Years**

(21) Appl. No.: **29/431,405**

(22) Filed: **Sep. 6, 2012**

4,354,491 A 10/1982 Marbry  
4,417,886 A 11/1983 Frankhouser et al.  
4,581,019 A 4/1986 Curelaru et al.  
D287,877 S 1/1987 Holewinski et al.

(Continued)

**FOREIGN PATENT DOCUMENTS**

EP 747075 A2 12/1996  
WO 0012167 A1 3/2000

(Continued)

**OTHER PUBLICATIONS**

BD Angiocath™ Autoguard™ Shielded IV Catheter Brochure, © 2001.

(Continued)

**Related U.S. Application Data**

(63) Continuation of application No. 13/107,781, filed on May 13, 2011.

(51) **LOC (10) Cl.** ..... **24-02**

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

(58) **Field of Classification Search**  
USPC ..... D24/112–114, 108, 127, 130, 133  
CPC ..... A61M 25/0612; A61M 25/0643;  
A61M 25/06; A61M 25/0693; A61M 5/32;  
A61M 5/3273; A61M 5/3257  
See application file for complete search history.

*Primary Examiner* — Sheryl Lane  
*Assistant Examiner* — Nicole Shiflet  
(74) *Attorney, Agent, or Firm* — Rutan & Tucker, LLP

(57) **CLAIM**  
The ornamental design for a catheter, as shown and described.

**DESCRIPTION**

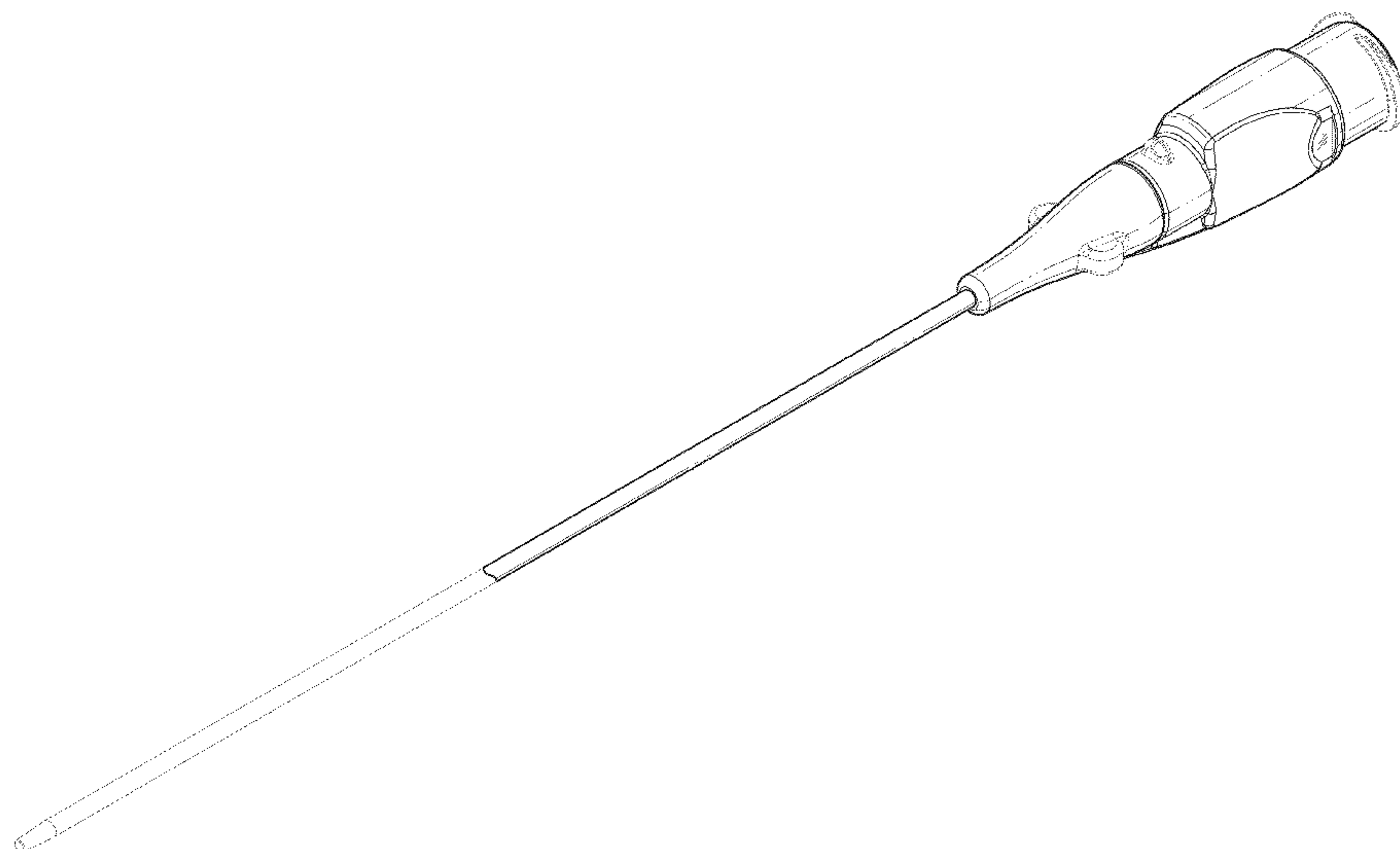
FIG. 1 is a top perspective view of a catheter;  
FIG. 2 is a bottom perspective view of the catheter illustrated in FIG. 1;  
FIG. 3 is a top view of the catheter illustrated in FIG. 1;  
FIG. 4 is a bottom view of the catheter illustrated in FIG. 1;  
FIG. 5 is a first side view of the catheter illustrated in FIG. 1;  
FIG. 6 is a second side view of the catheter illustrated in FIG. 1;  
FIG. 7 is a front view of the catheter illustrated in FIG. 1; and,  
FIG. 8 is a rear view of the catheter illustrated in FIG. 1.  
The broken lines in the figure drawings represent portions of the article and form no part of the claimed design.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D138,589 S \* 8/1944 Brandenburg ..... D24/114  
3,185,151 A 5/1965 Czorny  
3,297,030 A 1/1967 Czorny et al.  
3,500,828 A 3/1970 Podhora  
3,589,361 A 6/1971 Loper et al.  
3,592,192 A 7/1971 Harautuneian  
3,682,173 A 8/1972 Center  
3,921,631 A 11/1975 Thompson  
3,995,628 A 12/1976 Gula et al.  
4,079,738 A 3/1978 Dunn et al.

**1 Claim, 4 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

4,728,322 A	3/1988	Walker et al.	5,522,807 A	6/1996	Luther
4,772,267 A	9/1988	Brown	5,531,701 A	7/1996	Luther
4,781,703 A	11/1988	Walker et al.	5,533,988 A	7/1996	Dickerson et al.
4,792,531 A	12/1988	Kakahana	5,554,136 A	9/1996	Luther
4,826,070 A	5/1989	Kakahana	5,562,631 A	10/1996	Bogert
4,828,547 A	5/1989	Sahi et al.	5,562,633 A	10/1996	Wozencroft et al.
4,834,708 A	5/1989	Pillari	5,569,202 A	10/1996	Kovalic et al.
4,840,613 A	6/1989	Balbierz	5,569,217 A	10/1996	Luther
4,840,622 A	6/1989	Hardy	5,591,194 A	1/1997	Berthiaume
4,846,812 A	7/1989	Walker et al.	5,599,291 A	2/1997	Balbierz et al.
4,869,259 A	9/1989	Elkins	5,613,663 A	3/1997	Schmidt et al.
D304,079 S	10/1989	McFarlane	5,634,475 A	6/1997	Wolvek
4,871,358 A	10/1989	Gold	5,634,913 A	6/1997	Stinger
4,883,699 A	11/1989	Aniuk et al.	5,651,772 A	7/1997	Arnett
4,894,052 A	1/1990	Crawford	D383,538 S *	9/1997	Erskine et al. .... D24/130
4,906,956 A	3/1990	Kakahana	5,674,241 A	10/1997	Bley et al.
4,911,691 A	3/1990	Aniuk et al.	5,683,368 A	11/1997	Schmidt
4,913,704 A	4/1990	Kurimoto	5,683,370 A	11/1997	Luther et al.
4,917,671 A *	4/1990	Chang ..... 604/168.01	5,685,855 A	11/1997	Erskine
4,955,863 A	9/1990	Walker et al.	5,685,858 A	11/1997	Kawand
4,994,042 A	2/1991	Vadher	5,685,860 A	11/1997	Chang et al.
4,994,047 A	2/1991	Walker et al.	5,688,249 A	11/1997	Chang et al.
5,009,642 A	4/1991	Sahi	5,702,369 A	12/1997	Mercereau
5,019,048 A	5/1991	Margolin	5,725,503 A	3/1998	Arnett
5,019,049 A	5/1991	Haining	5,730,150 A	3/1998	Peppel et al.
D318,733 S	7/1991	Wyzgala	5,738,660 A	4/1998	Luther
5,034,347 A	7/1991	Kakahana	5,743,882 A	4/1998	Luther
D321,250 S *	10/1991	Jepson et al. .... D24/112	5,743,888 A	4/1998	Wilkes et al.
5,061,254 A	10/1991	Karakelle et al.	5,749,371 A	5/1998	Zadini et al.
5,078,694 A	1/1992	Wallace	5,755,693 A	5/1998	Walker et al.
5,093,692 A	3/1992	Su et al.	5,762,630 A	6/1998	Bley et al.
5,098,395 A	3/1992	Fields	5,762,636 A	6/1998	Rupp et al.
5,108,375 A	4/1992	Harrison et al.	5,765,682 A	6/1998	Bley et al.
5,108,376 A	4/1992	Bonaldo	5,807,342 A	9/1998	Musgrave et al.
5,112,312 A	5/1992	Luther	5,813,411 A	9/1998	Van Bladel et al.
5,120,317 A	6/1992	Luther	5,817,069 A	10/1998	Arnett
5,125,906 A	6/1992	Fleck	5,824,001 A *	10/1998	Erskine ..... 604/158
5,135,487 A	8/1992	Morrill et al.	5,827,202 A	10/1998	Miraki et al.
5,137,515 A	8/1992	Hogan	5,839,470 A	11/1998	Hiejima et al.
5,149,326 A	9/1992	Woodgrift et al.	5,846,259 A	12/1998	Berthiaume
5,156,596 A	10/1992	Balbierz et al.	5,851,196 A	12/1998	Arnett
5,158,544 A	10/1992	Weinstein	5,853,393 A	12/1998	Bogert
5,186,168 A	2/1993	Spofford et al.	5,855,615 A	1/1999	Bley et al.
5,186,712 A	2/1993	Kelso et al.	5,879,332 A	3/1999	Schwemberger et al.
5,190,528 A	3/1993	Fonger et al.	5,885,251 A	3/1999	Luther
5,192,301 A	3/1993	Kamiya et al.	5,891,105 A	4/1999	Mahurkar
5,195,974 A	3/1993	Hardy	5,902,274 A	5/1999	Yamamoto et al.
5,215,527 A	6/1993	Beck et al.	5,902,832 A	5/1999	Van Bladel et al.
5,217,435 A	6/1993	Kring	5,913,848 A	6/1999	Luther et al.
5,219,335 A	6/1993	Willard et al.	5,916,208 A	6/1999	Luther et al.
5,225,369 A	7/1993	Su et al.	5,928,199 A	7/1999	Nakagami
5,226,899 A	7/1993	Lee et al.	5,944,690 A	8/1999	Falwell et al.
D338,955 S	8/1993	Gresl et al.	5,947,930 A	9/1999	Schwemberger et al.
5,257,980 A	11/1993	Van Antwerp et al.	5,951,520 A	9/1999	Burzynski et al.
D345,419 S *	3/1994	Horrigan et al. .... D24/130	5,954,698 A	9/1999	Pike
5,297,546 A	3/1994	Spofford et al.	5,957,893 A	9/1999	Luther et al.
5,312,361 A	5/1994	Zadini et al.	5,964,744 A	10/1999	Balbierz et al.
5,352,205 A	10/1994	Dales et al.	5,997,510 A	12/1999	Schwemberger
5,358,796 A	10/1994	Nakamura et al.	6,004,294 A	12/1999	Brimhall et al.
5,368,661 A	11/1994	Nakamura et al.	6,004,295 A	12/1999	Langer et al.
D353,668 S *	12/1994	Banks et al. .... D24/112	6,011,988 A	1/2000	Lynch et al.
5,395,341 A	3/1995	Slater	6,022,319 A	2/2000	Willard et al.
5,397,311 A	3/1995	Walker et al.	6,045,734 A	4/2000	Luther et al.
5,405,323 A	4/1995	Rogers et al.	6,056,726 A	5/2000	Isaacson
5,415,177 A	5/1995	Zadini et al.	6,066,100 A	5/2000	Willard et al.
5,419,766 A	5/1995	Chang et al.	6,080,137 A	6/2000	Pike
5,431,506 A	7/1995	Masunaga	6,126,641 A	10/2000	Shields
5,454,785 A	10/1995	Smith	6,139,532 A	10/2000	Howell et al.
5,458,658 A	10/1995	Sircom	6,176,842 B1	1/2001	Tachibana et al.
5,480,389 A	1/1996	McWha et al.	6,203,527 B1	3/2001	Zadini et al.
5,482,395 A	1/1996	Gasparini	6,213,978 B1	4/2001	Voyten
5,484,419 A	1/1996	Fleck	6,228,062 B1	5/2001	Howell et al.
5,496,281 A *	3/1996	Krebs ..... 604/168.01	6,228,073 B1	5/2001	Noone et al.
5,507,300 A	4/1996	Mukai et al.	6,268,399 B1	7/2001	Hultine et al.
D371,195 S *	6/1996	Krebs ..... D24/112	6,270,480 B1	8/2001	Dorr et al.
			6,309,379 B1	10/2001	Willard et al.
			D452,003 S *	12/2001	Niermann ..... D24/112
			6,368,337 B1	4/2002	Kieturakis et al.
			6,379,333 B1	4/2002	Brimhall et al.



(56)

References Cited

U.S. PATENT DOCUMENTS

D457,955 S 5/2002 Bilitz  
 D460,179 S 7/2002 Isoda et al.  
 6,422,989 B1 7/2002 Hektner  
 6,451,052 B1 9/2002 Burmeister et al.  
 6,461,362 B1 10/2002 Halseth et al.  
 6,475,217 B1 11/2002 Platt  
 6,478,779 B1 11/2002 Hu  
 6,497,681 B1 12/2002 Brenner  
 D471,980 S 3/2003 Caizza  
 6,527,759 B1 3/2003 Tachibana et al.  
 6,540,725 B1 4/2003 Ponzi  
 6,544,239 B2 4/2003 Kinsey et al.  
 6,547,762 B1 4/2003 Botich et al.  
 6,582,402 B1 6/2003 Erskine  
 6,595,955 B2 7/2003 Ferguson et al.  
 6,626,869 B1 9/2003 Bint  
 6,632,201 B1 10/2003 Mathias et al.  
 6,638,252 B2 10/2003 Moulton et al.  
 6,645,178 B1 11/2003 Junker et al.  
 6,652,490 B2 11/2003 Howell  
 6,663,592 B2 12/2003 Rhad et al.  
 6,666,865 B2 12/2003 Platt  
 6,679,900 B2 1/2004 Kieturakis et al.  
 6,695,856 B2 2/2004 Kieturakis et al.  
 6,695,860 B1 2/2004 Ward et al.  
 6,712,790 B1 3/2004 Prestidge et al.  
 6,749,588 B1 6/2004 Howell et al.  
 6,796,962 B2 9/2004 Ferguson et al.  
 6,860,871 B2 3/2005 Kuracina et al.  
 6,902,546 B2 6/2005 Ferguson  
 6,916,311 B2 7/2005 Vojtasek  
 6,953,448 B2 10/2005 Moulton et al.  
 6,960,191 B2 11/2005 Howlett et al.  
 6,972,002 B2 12/2005 Thorne  
 7,001,396 B2 2/2006 Glazier et al.  
 7,004,927 B2 2/2006 Ferguson et al.  
 7,025,746 B2 4/2006 Tal  
 7,141,040 B2 11/2006 Lichtenberg  
 7,153,276 B2 12/2006 Barker et al.  
 7,179,244 B2 2/2007 Smith et al.  
 7,191,900 B2 3/2007 Opie et al.  
 7,303,548 B2 12/2007 Rhad et al.  
 7,354,422 B2 4/2008 Riesenberger et al.  
 7,422,572 B2 9/2008 Popov et al.  
 7,458,954 B2 12/2008 Ferguson et al.  
 7,494,010 B2 2/2009 Opie et al.  
 7,530,965 B2 5/2009 Villa et al.  
 7,566,323 B2 7/2009 Chang  
 D601,243 S 9/2009 Bierman et al.  
 D604,839 S \* 11/2009 Crawford et al. .... D24/130  
 7,611,485 B2 11/2009 Ferguson  
 7,618,395 B2 11/2009 Ferguson  
 7,654,988 B2 2/2010 Moulton et al.  
 7,658,725 B2 2/2010 Bialecki et al.  
 D612,043 S 3/2010 Young et al.  
 D615,197 S 5/2010 Koh et al.  
 7,722,567 B2 5/2010 Tal  
 D617,893 S 6/2010 Bierman et al.  
 7,736,339 B2 6/2010 Woehr et al.  
 7,753,887 B2 7/2010 Botich et al.  
 7,762,993 B2 7/2010 Perez  
 7,798,994 B2 9/2010 Brimhall  
 7,828,773 B2 11/2010 Swisher et al.  
 7,905,857 B2 3/2011 Swisher  
 7,922,696 B2 4/2011 Tal et al.  
 7,922,698 B2 4/2011 Riesenberger et al.  
 7,935,080 B2 5/2011 Howell et al.  
 8,029,472 B2 10/2011 Leinsing et al.  
 D653,329 S 1/2012 Lee-Sepsick  
 D667,111 S 9/2012 Robinson  
 8,273,054 B2 9/2012 St. Germain et al.  
 D672,456 S 12/2012 Lee-Sepsick  
 8,337,471 B2 12/2012 Baid  
 D675,318 S \* 1/2013 Luk et al. .... D24/130  
 D710,495 S \* 8/2014 Wu et al. .... D24/112

D713,957 S \* 9/2014 Woehr et al. .... D24/112  
 8,932,258 B2 1/2015 Blanchard et al.  
 2003/0032922 A1 2/2003 Moorehead  
 2003/0153874 A1 8/2003 Tal  
 2003/0187396 A1 10/2003 Ponzi  
 2004/0092879 A1 5/2004 Kraus et al.  
 2004/0111059 A1 6/2004 Howlett et al.  
 2004/0236288 A1 11/2004 Howell et al.  
 2005/0020940 A1 1/2005 Opie et al.  
 2005/0040061 A1 2/2005 Opie et al.  
 2005/0197623 A1 9/2005 Leeflang et al.  
 2005/0245847 A1 11/2005 Schaeffer  
 2005/0273057 A1 12/2005 Popov  
 2006/0229563 A1 10/2006 O'Reagan et al.  
 2007/0060999 A1 3/2007 Randall et al.  
 2007/0100284 A1 5/2007 Leinsing et al.  
 2007/0191777 A1 8/2007 King  
 2007/0193903 A1 8/2007 Opie et al.  
 2008/0108944 A1 5/2008 Woehr et al.  
 2008/0262430 A1 10/2008 Anderson et al.  
 2008/0262431 A1 10/2008 Anderson et al.  
 2008/0294111 A1 11/2008 Tal et al.  
 2008/0300574 A1 12/2008 Belson et al.  
 2009/0030380 A1 1/2009 Binmoeller  
 2009/0036836 A1 2/2009 Nystrom et al.  
 2009/0048566 A1 2/2009 Ferguson et al.  
 2009/0131872 A1 5/2009 Popov  
 2009/0292243 A1 \* 11/2009 Harding et al. .... 604/110  
 2010/0036331 A1 2/2010 Sen  
 2010/0094310 A1 4/2010 Warring et al.  
 2010/0168674 A1 7/2010 Shaw et al.  
 2010/0204675 A1 8/2010 Woehr et al.  
 2010/0210934 A1 8/2010 Belson  
 2010/0246707 A1 9/2010 Michelitsch  
 2010/0331732 A1 12/2010 Raulerson et al.  
 2011/0009827 A1 1/2011 Bierman et al.  
 2011/0015573 A1 1/2011 Maan et al.  
 2011/0021994 A1 1/2011 Anderson et al.  
 2011/0137252 A1 6/2011 Oster et al.  
 2011/0251559 A1 10/2011 Tal et al.  
 2011/0282285 A1 11/2011 Blanchard et al.  
 2011/0288482 A1 11/2011 Farrell et al.  
 2011/0306933 A1 12/2011 Djordjevic et al.  
 2012/0078231 A1 3/2012 Hoshinouchi  
 2012/0123332 A1 5/2012 Erskine  
 2012/0184896 A1 7/2012 DeLegge et al.  
 2012/0220942 A1 8/2012 Hall et al.  
 2012/0220956 A1 8/2012 Kuracina et al.  
 2014/0031752 A1 1/2014 Blanchard et al.  
 2014/0094774 A1 4/2014 Blanchard

FOREIGN PATENT DOCUMENTS

WO 0107103 A1 2/2001  
 WO 0241932 A2 5/2002  
 WO 2008030999 A2 3/2008  
 WO 2009031161 A1 3/2009  
 WO 2011036574 A1 3/2011  
 WO 2014133617 A1 9/2014

OTHER PUBLICATIONS

BD Saf-T-Intima™ Integrated Safety IV Catheter Brochure, © 2001.  
 Becton Dickinson, Insyte® AutoGuard™ Shielded I.V. Catheter Brochure, 1998.  
 Hadaway, Lynn C., A Midline Alternative to Central and Peripheral Venous Access, Caring Magazine, May 1990, pp. 45-50.  
 Menlo Care, Landmark™ Aquavene® Catheters Brochure, 1992.  
 Menlo Care, Landmark® Midline Catheters Brochure, 1991.  
 Menlo Care, Publications on Aquavene® Technology, Aug. 1992.  
 PR Newswire, Luther Medical Products, Inc. Receives Approval to Supply Improved Neonatal Product to Japan, Aug. 20, 1998.  
 Razor, Julia S, Review of Catheter-related infection rates: comparison of conventional catheter materials with Aquavene®, JVAN vol. 1, No. 3, Spring 1991.  
 Walmire, B. and Razor, J.S., Midline catheter: Virtually bloodless insertion technique and needle safety tube minimize potential for

(56)

**References Cited**

OTHER PUBLICATIONS

transmission of bloodborne disease. Sponsored by national Foundation for Infectious Diseases. 5th National forum on AIDS, Hepatitis, and other blood-borne diseases. Atlanta, GA, Mar. 1992.  
U.S. Appl. No. 13/405,096, filed Feb. 24, 2012 Non-Final Office Action dated Nov. 18, 2014.  
U.S. Appl. No. 14/044,623, filed Oct. 2, 2013 Notice of Allowance dated Nov. 6, 2014.

CN 201180029526.7 filed Dec. 14, 2012 First Office Action dated Apr. 21, 2014.

U.S. Appl. No. 13/107,781, filed May 13, 2011 Final Office Action dated Jul. 18, 2014.

U.S. Appl. No. 13/107,781, filed May 13, 2011 Non-Final Office Action dated Dec. 30, 2013.

U.S. Appl. No. 13/405,096, filed Feb. 24, 2012 Advisory Action dated Apr. 18, 2014.

\* cited by examiner

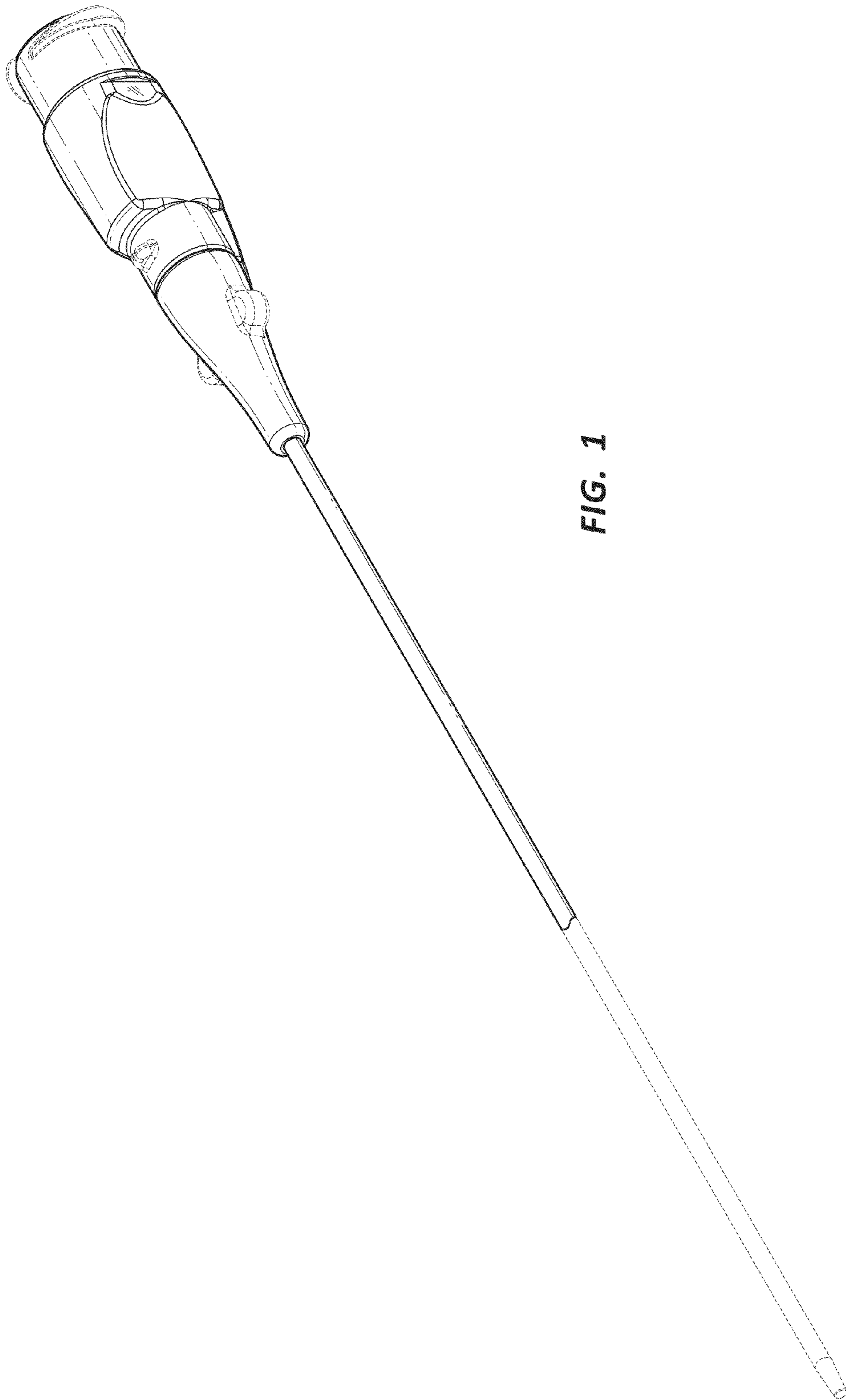


FIG. 1

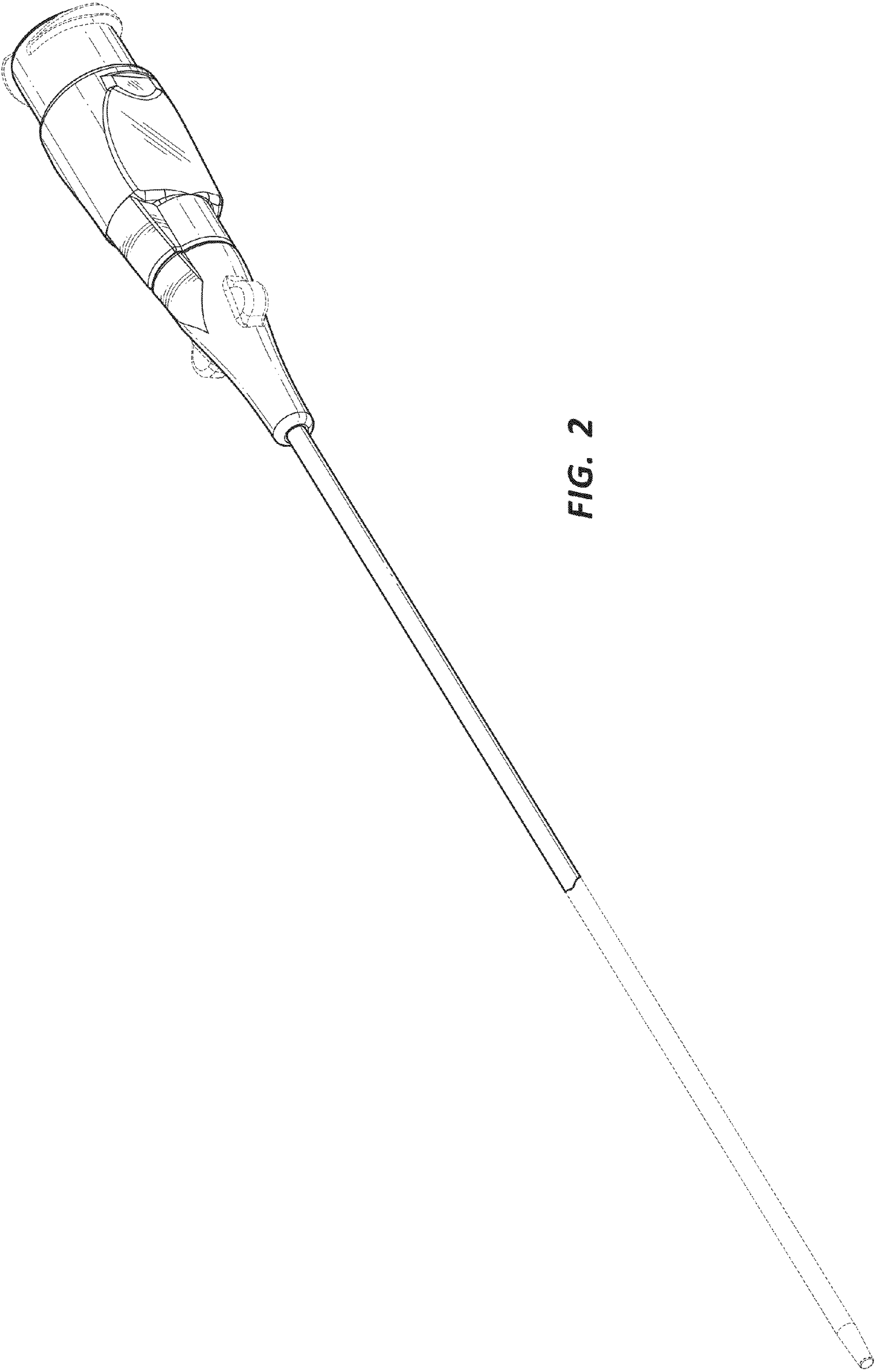


FIG. 2



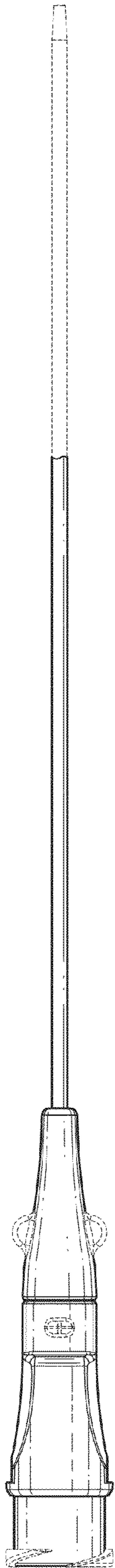


FIG. 3

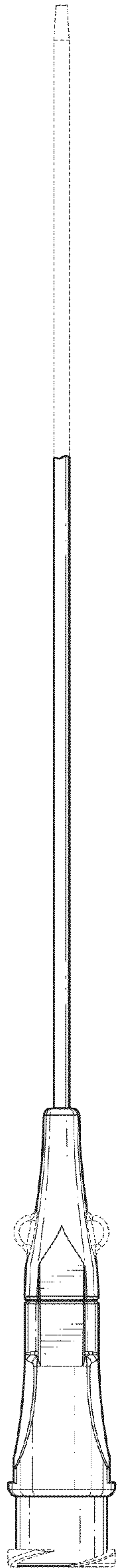


FIG. 4

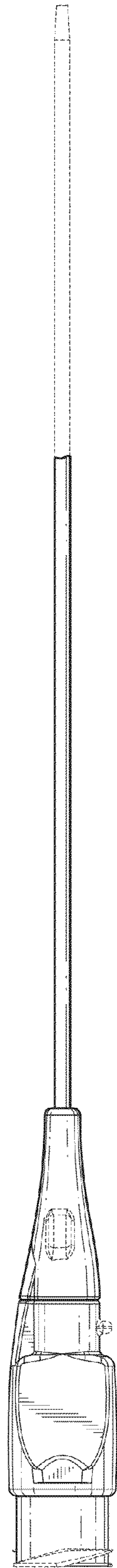


FIG. 5

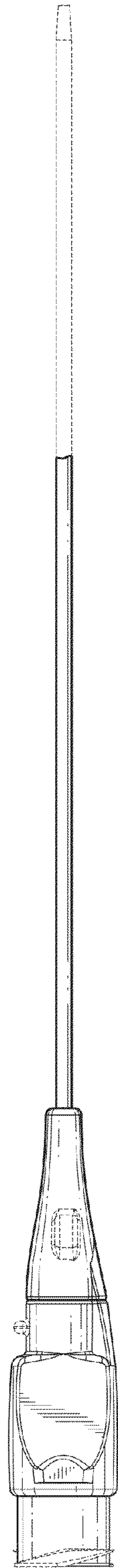
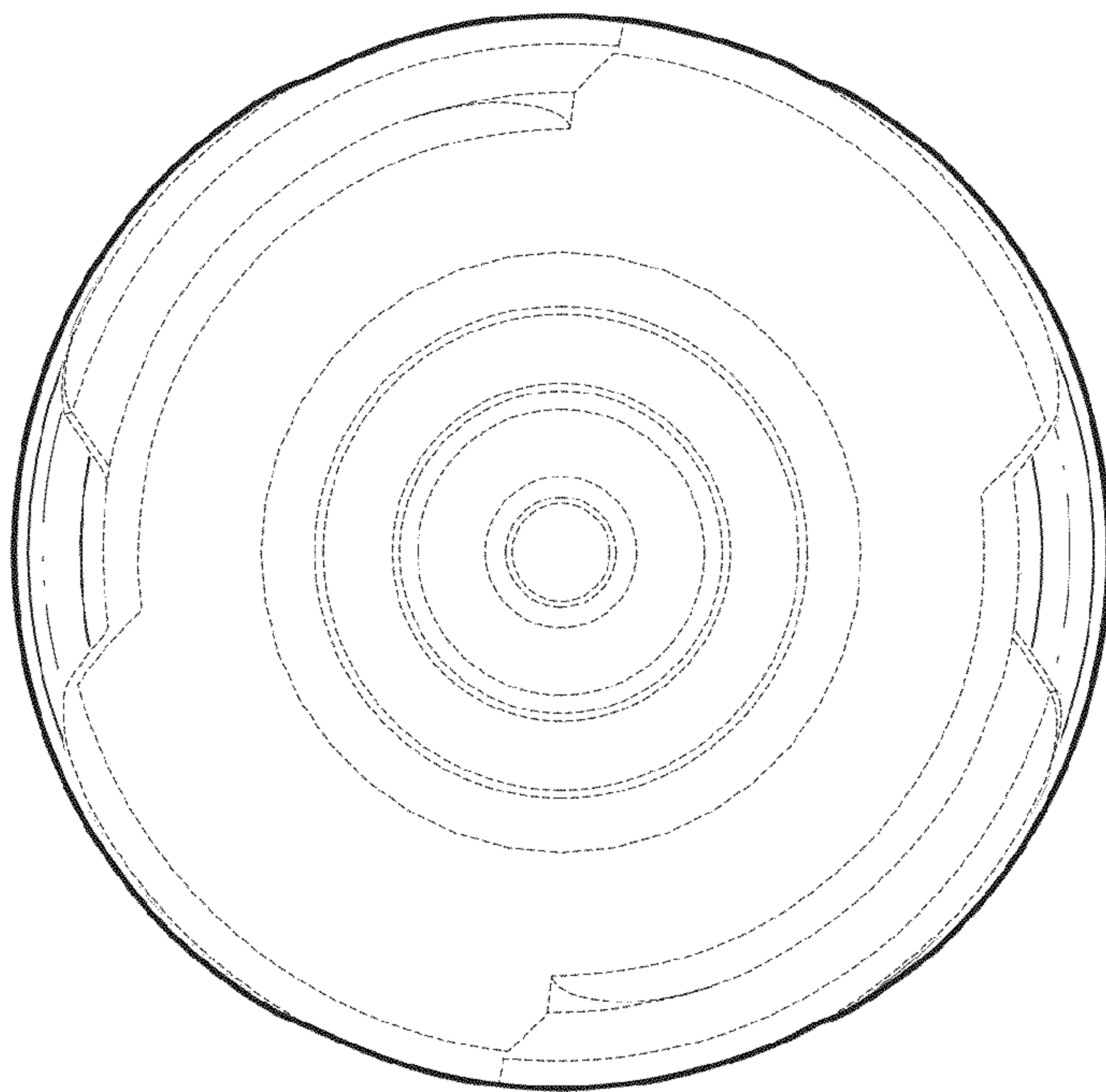
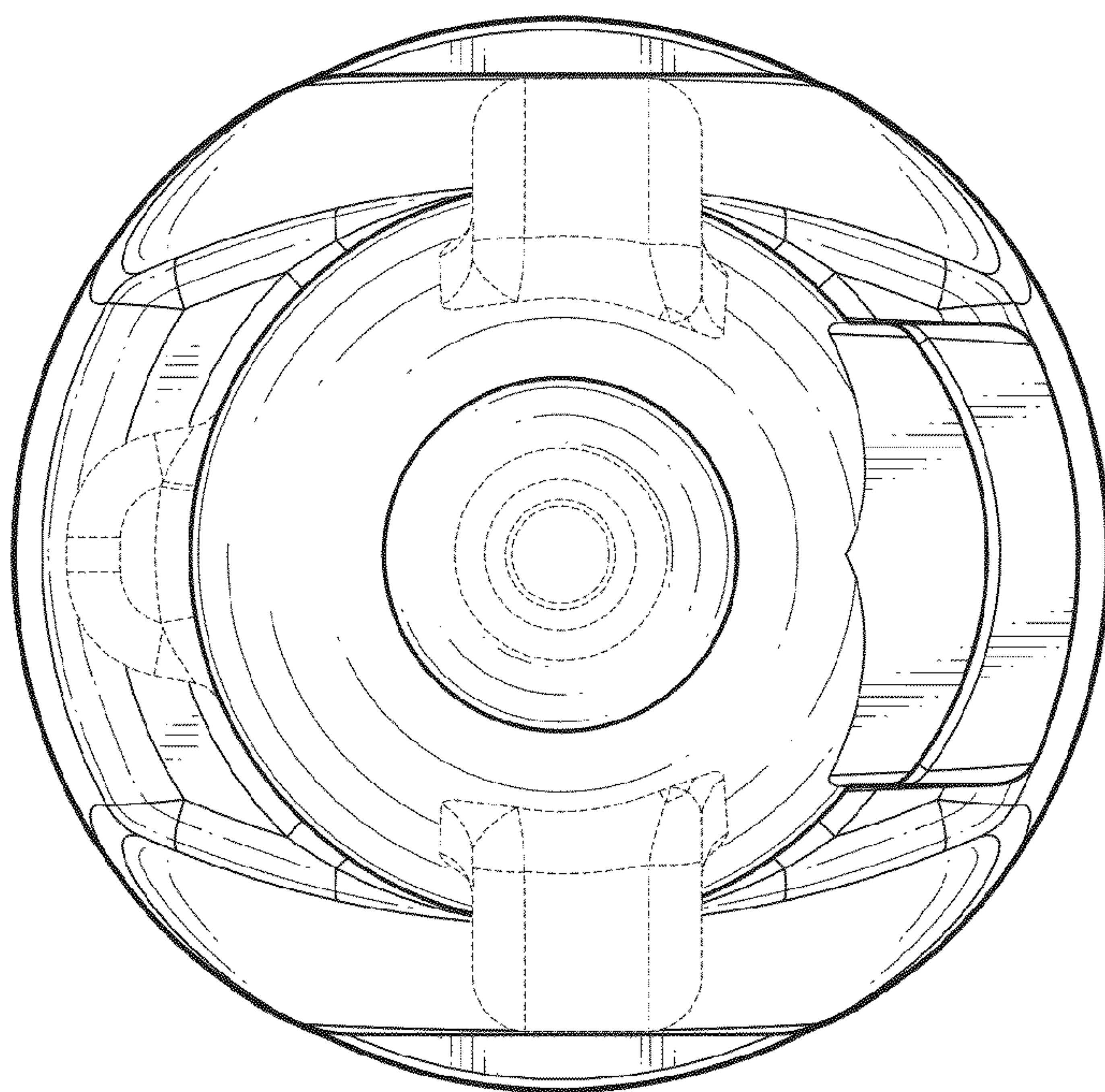


FIG. 6



**FIG. 8**  
*(Enlarged View)*



**FIG. 7**  
*(Enlarged View)*