



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

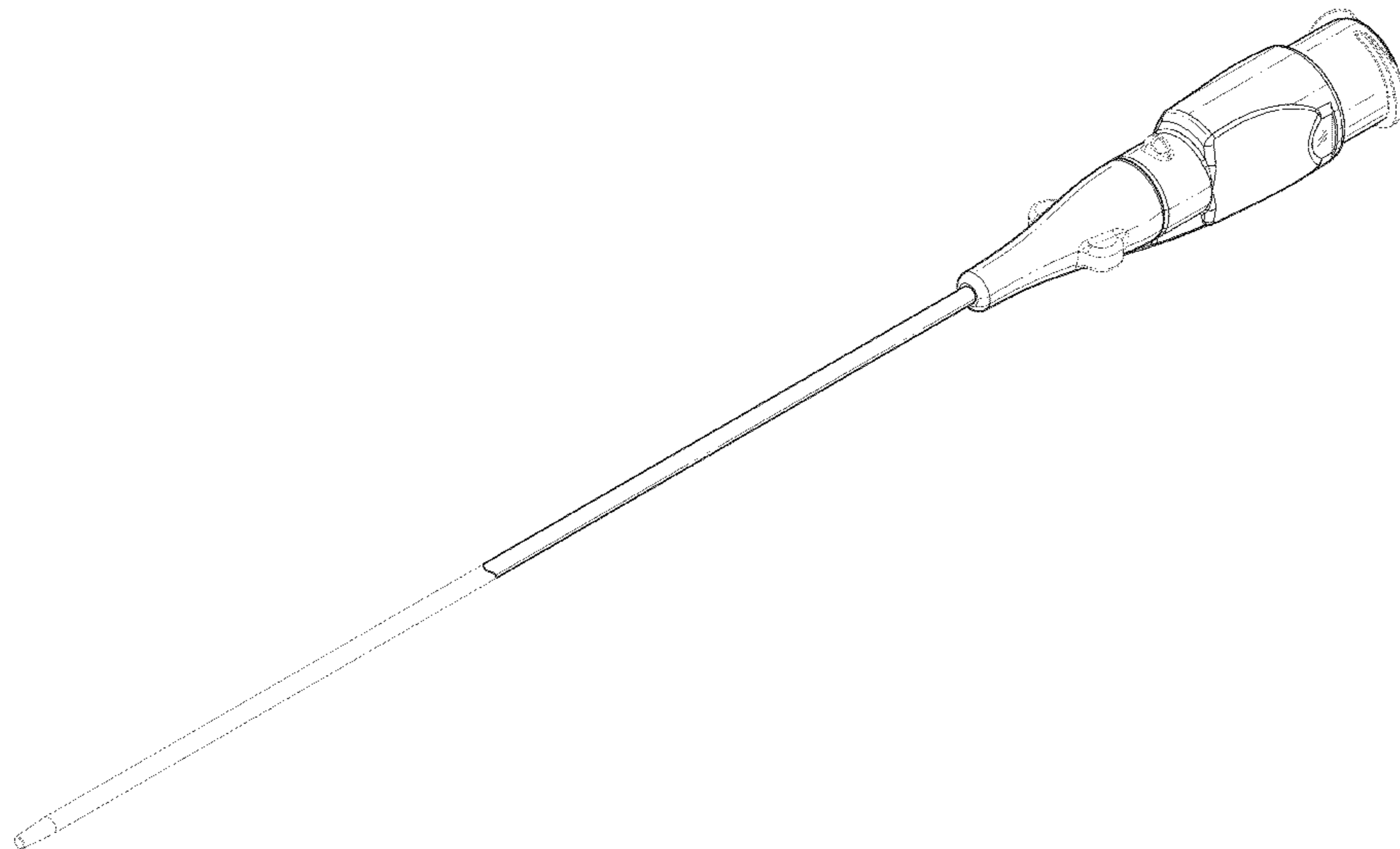
FIG. 1 is a top perspective view of a catheter;
 FIG. 2 is a bottom perspective view of the catheter illustrated in FIG. 1;
 FIG. 3 is a top view of the catheter illustrated in FIG. 1;
 FIG. 4 is a bottom view of the catheter illustrated in FIG. 1;
 FIG. 5 is a first side view of the catheter illustrated 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.

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

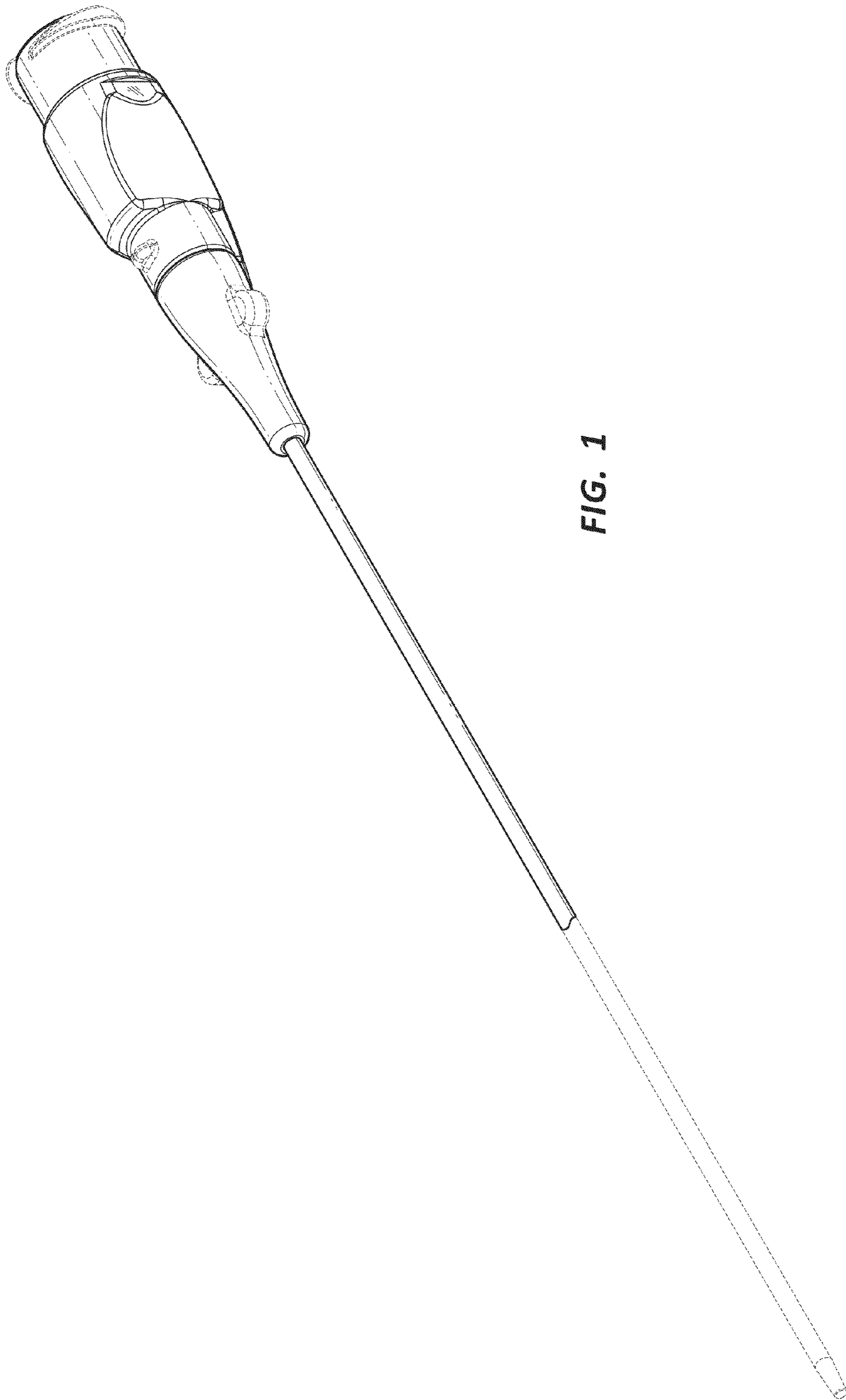


FIG. 1

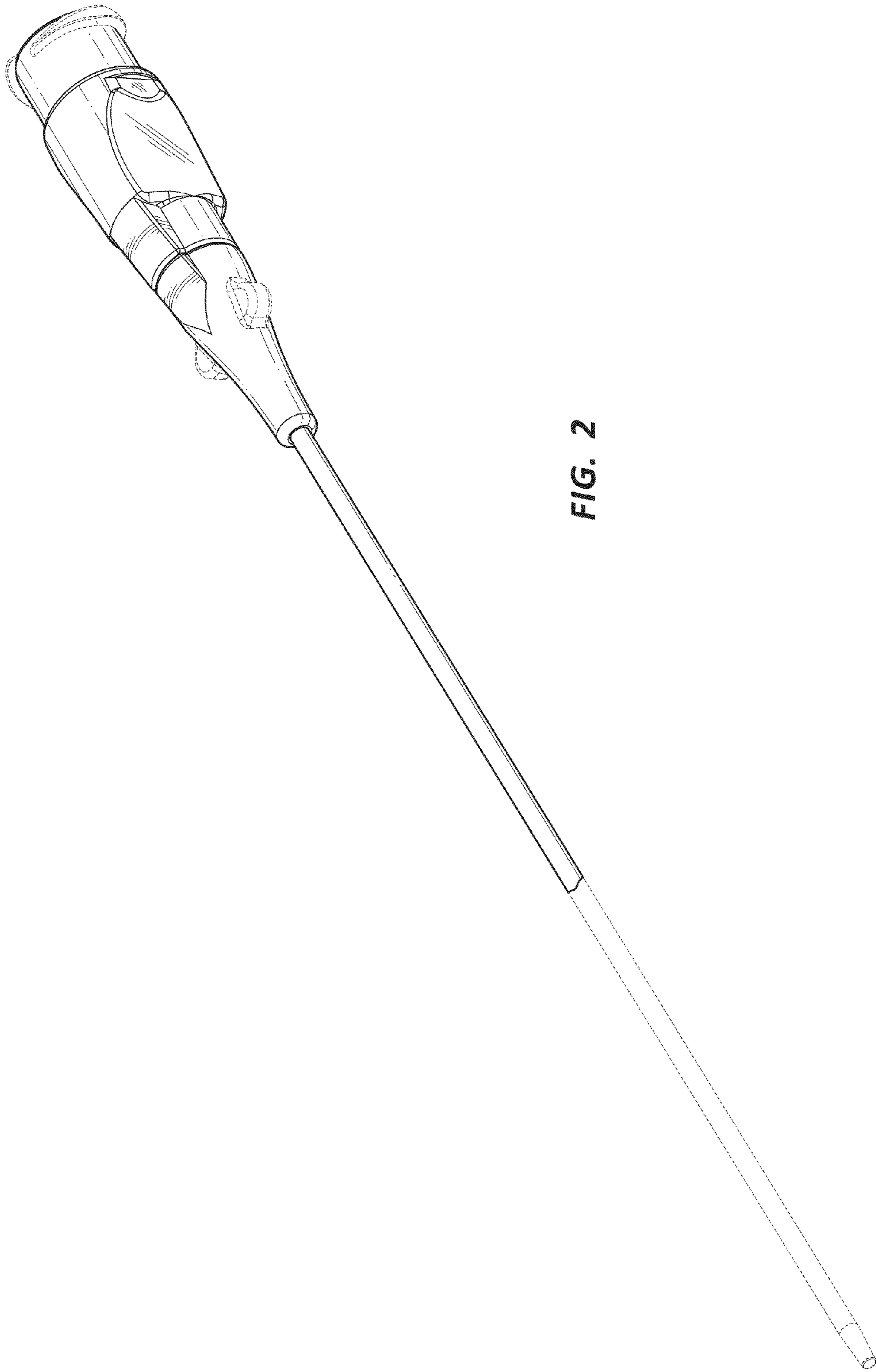


FIG. 2

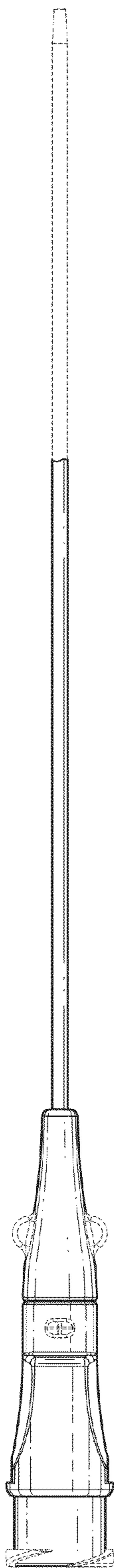


FIG. 3

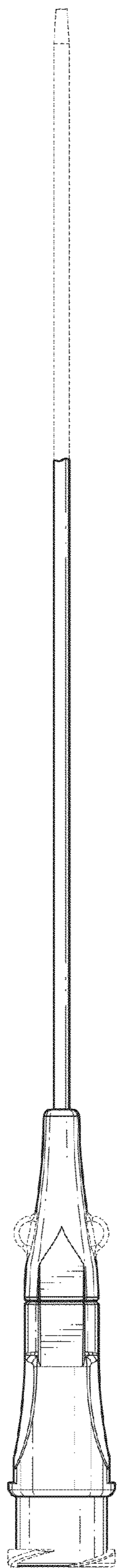


FIG. 4

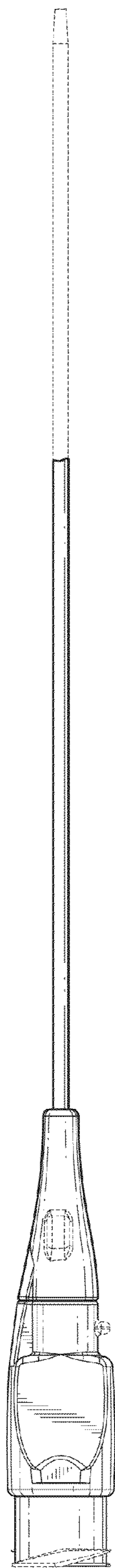


FIG. 5

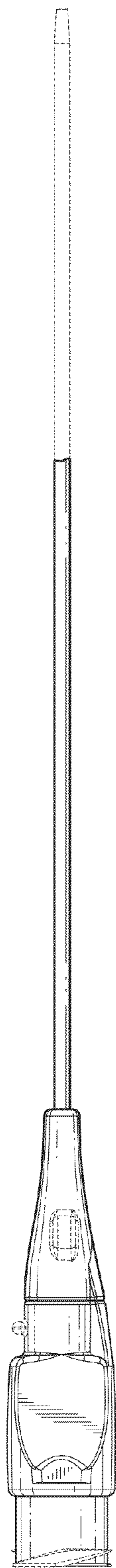


FIG. 6

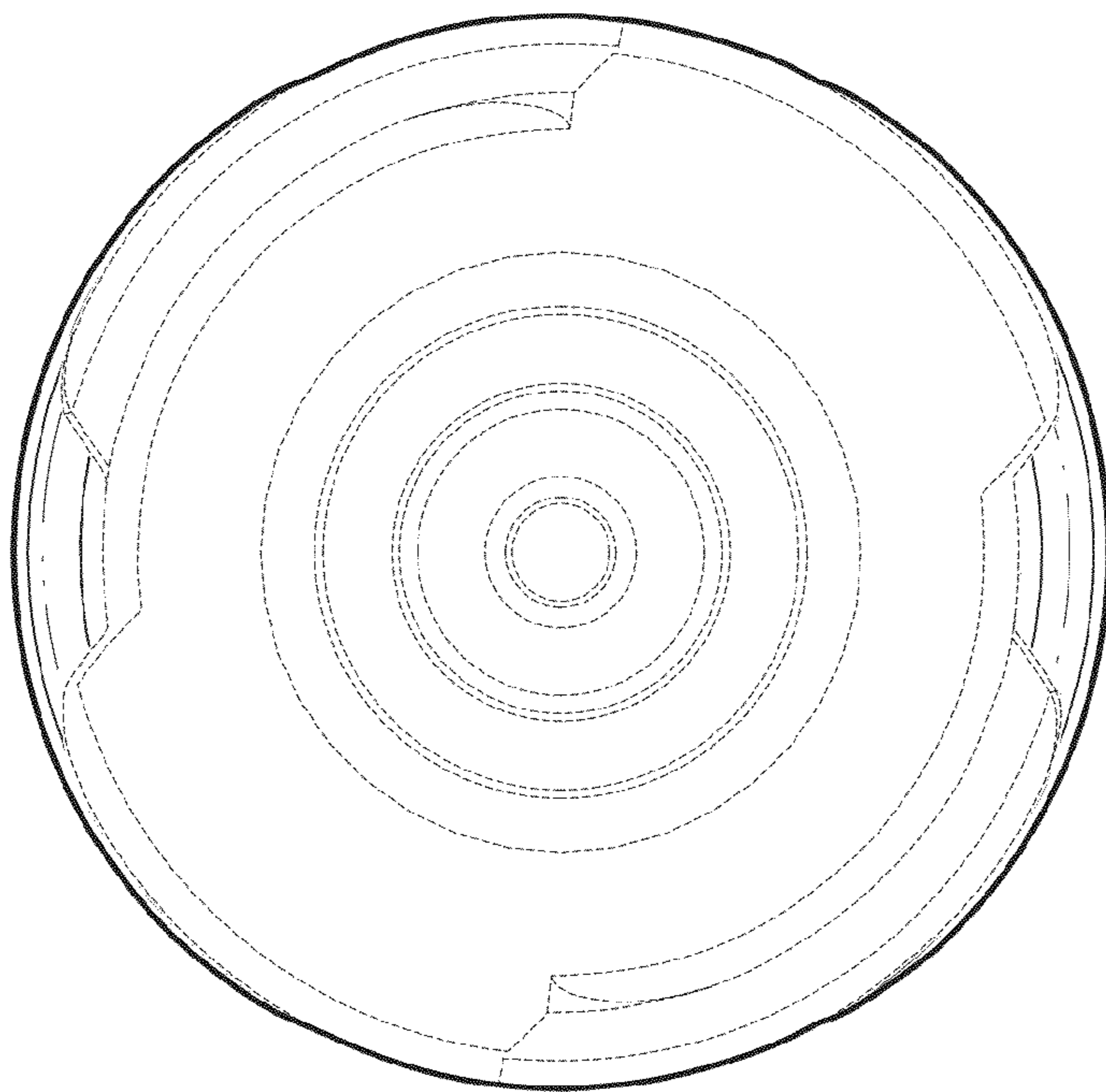


FIG. 8
(Enlarged View)

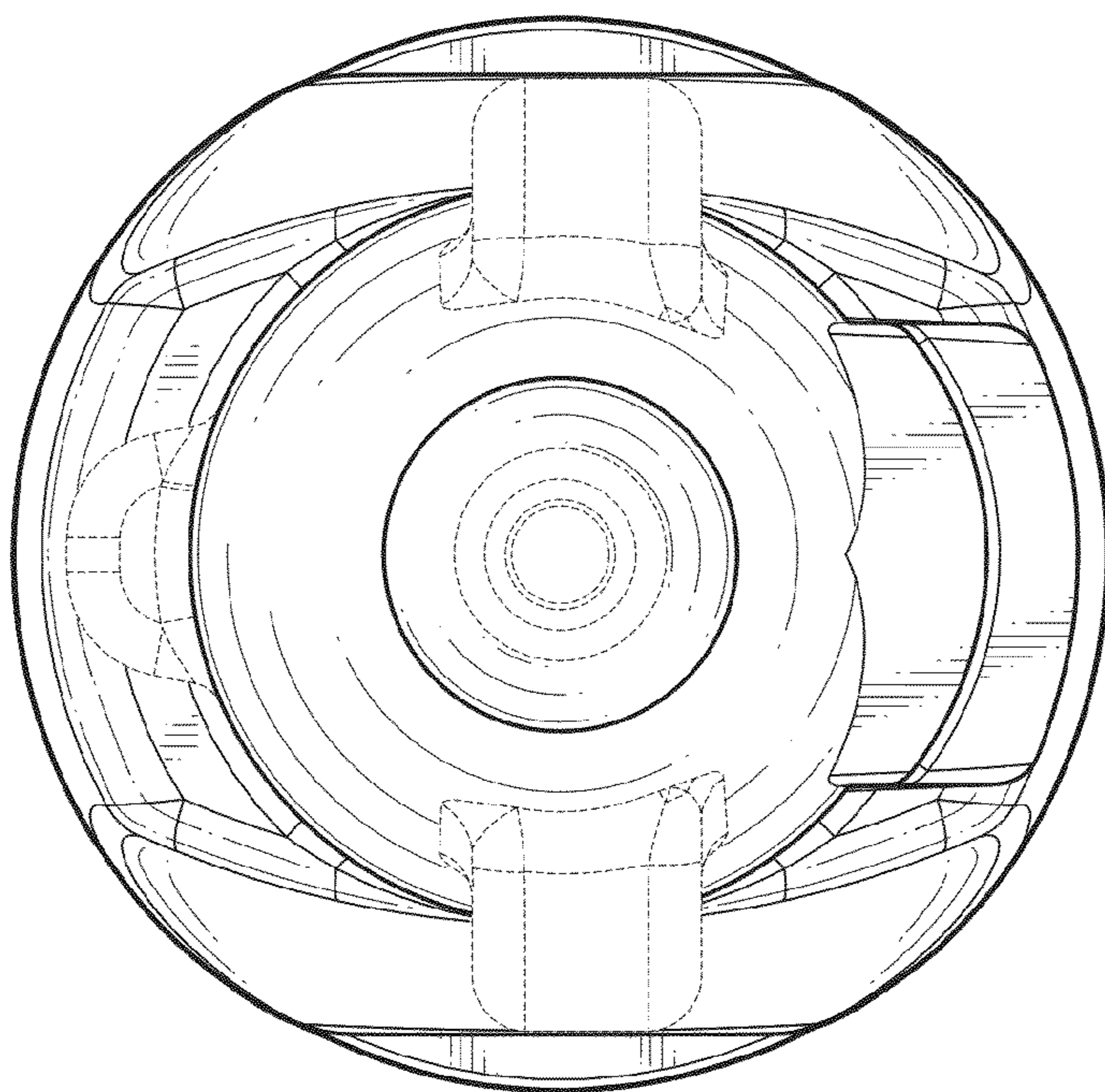


FIG. 7
(Enlarged View)