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Limaye et al.

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(54) **NEEDLE HUB FOR MEDICAL SYRINGE**

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(51) **LOC (10) Cl.** **24-01**

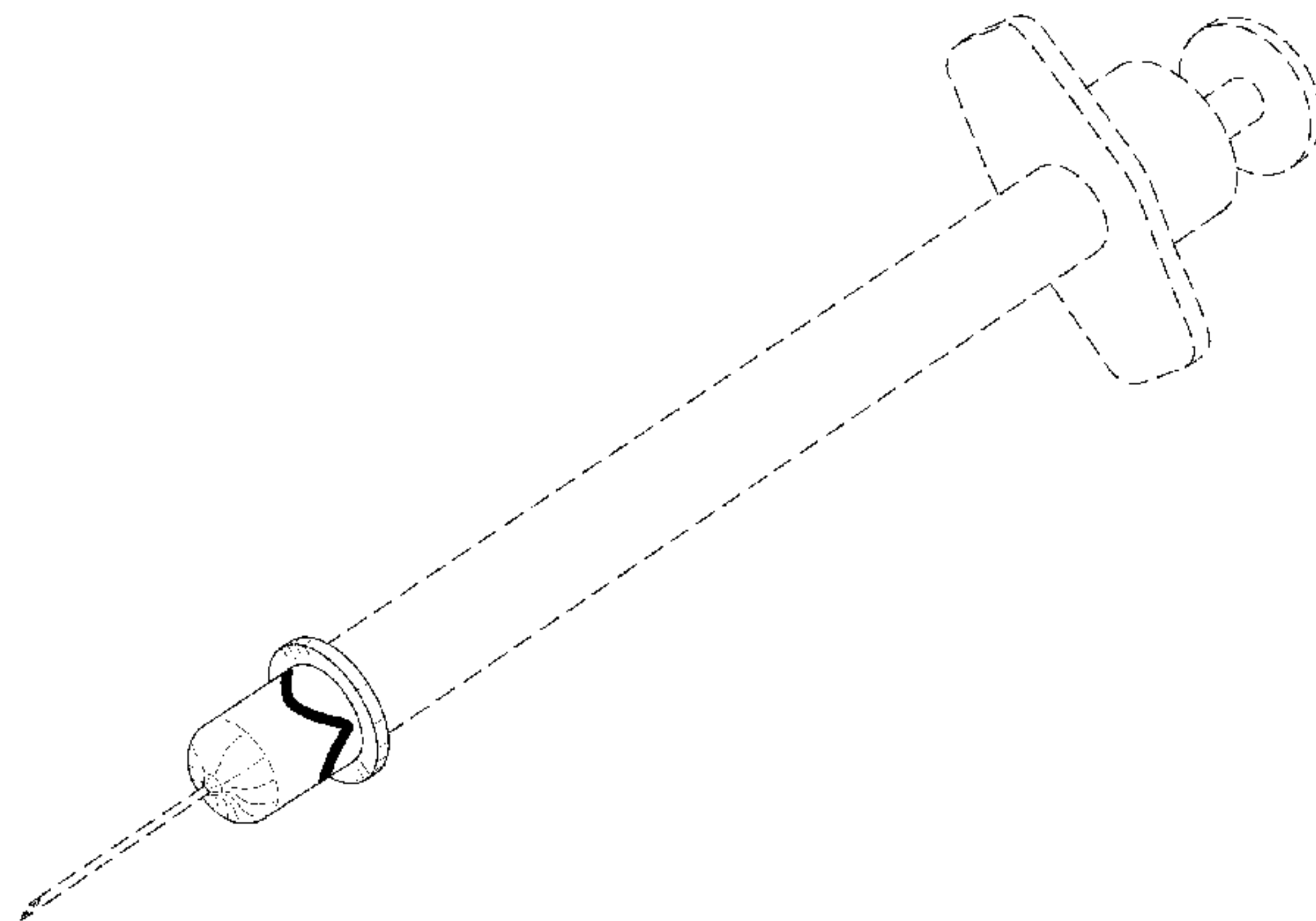
(52) **U.S. Cl.**
USPC **D24/130**

(58) **Field of Classification Search**
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CPC ... A61M 5/3216; A61M 5/32; A61M 5/3293; A61M 5/34
See application file for complete search history.

(56) **References Cited**
U.S. PATENT DOCUMENTS

4,439,187 A 3/1984 Butterfield
4,997,423 A 3/1991 Okuda et al.
5,037,393 A 8/1991 Ellgass
5,047,017 A 9/1991 Koska
5,083,921 A 1/1992 Dragan
5,188,616 A 2/1993 Nadal
5,356,406 A 10/1994 Schraga
5,730,292 A 3/1998 Jones
5,792,117 A 8/1998 Brown
5,814,017 A 9/1998 Kashmer
D419,671 S 1/2000 Jansen
6,267,749 B1 7/2001 Miklos et al.
D447,797 S 9/2001 Odell et al.
6,290,678 B1 9/2001 Aydelotte et al.
6,375,641 B2 * 4/2002 Higuchi A61M 25/06
604/158
D457,954 S 5/2002 Wallace et al.
6,494,863 B1 12/2002 Shaw et al.
D480,477 S 10/2003 Bush et al.
D493,526 S 7/2004 Hwang
D506,549 S * 6/2005 Woods D24/130

7,115,114 B2 * 10/2006 Caizza A61M 5/3216
604/164.04
D609,804 S * 2/2010 Uchida et al. D24/112
7,793,846 B2 9/2010 Jones
D636,489 S * 4/2011 D'Agostino et al. D24/130
D638,122 S 5/2011 Kosinski et al.
D638,123 S 5/2011 Kosinski et al.
D638,537 S 5/2011 Kosinski et al.
8,002,756 B2 8/2011 Walters et al.
D649,242 S 11/2011 Kosinski et al.
D650,903 S 12/2011 Kosinski et al.
D675,316 S * 1/2013 Klint et al. D24/130
8,361,055 B2 1/2013 Tucker
8,382,722 B2 * 2/2013 Carlyon A61J 1/2096
604/272
8,540,686 B2 * 9/2013 Steube A61J 1/2096
604/272
D693,002 S * 11/2013 Lundquist D24/130
D720,452 S * 12/2014 Jordan D24/130
D738,495 S * 9/2015 Strong D24/127
2004/0186437 A1 9/2004 Frenette et al.
2005/0119622 A1 6/2005 Temple
2005/0148941 A1 7/2005 Farrar et al.
2006/0079844 A1 * 4/2006 Whisson et al. 604/164.08
2006/0084925 A1 4/2006 Ramsahoye
2006/0282044 A1 * 12/2006 Mohammed 604/192
2007/0016145 A1 * 1/2007 Berler 604/240
2007/0142786 A1 6/2007 Lampropoulos et al.
2007/0208311 A1 9/2007 Farrar et al.
2008/0045929 A1 2/2008 Birnbach
2008/0171983 A1 * 7/2008 Knutson 604/117
2010/0130961 A1 5/2010 Tucker
2010/0217206 A1 8/2010 Lum et al.
2011/0022006 A1 * 1/2011 Walters A61M 5/3287
604/272
2012/0046618 A1 * 2/2012 Shams 604/241
2012/0150118 A1 * 6/2012 Keyser et al. 604/164.1
2013/0072880 A1 * 3/2013 Finke 604/190
2013/0138047 A1 * 5/2013 Takemoto et al. 604/192
2013/0267904 A1 * 10/2013 Limaye A61M 5/3293
604/189
2013/0331799 A1 * 12/2013 Dasbach A61M 5/321
604/241
2015/0005662 A1 * 1/2015 Brik A61B 10/0283
600/566
2015/0148757 A1 * 5/2015 Aeschlimann A61M 5/158
604/272
2015/0148781 A1 * 5/2015 Weilbacher A61M 39/00
604/513



FOREIGN PATENT DOCUMENTS

CN	200980872		11/2007	
EP	1 935 444	A1	6/2008	
EP	2491971	A1 *	8/2012 A61M 5/321
JP	2002253670	A *	9/2002 A61M 5/32
JP	2005/270579	A	10/2005	
WO	WO 03/037411	A1	5/2003	
WO	WO 2004/012788	A2	2/2004	

OTHER PUBLICATIONS

Becton, Dickinson and Company, Discover How BD Insulin Syringes and Pen Needles Can Help Ease Your Diabetes Injection Experience, 2011, 6 pages.
 Becton, Dickinson and Company, Hypodermic Product Catalog, Apr. 2006, 10 pages.
 Becton, Dickinson and Company, BD Safety-Lok™ Syringe, Quick Reference Card, Feb. 2001, 2 pages.
 Becton, Dickinson and Company, New Safety Needle Hub Color Chart, 2001, 1 page.
 BD Medical, BD Saf-T-Intima™ IV Catheters, BD Angiocath™ IV Catheters, Mar. 2006, 1 page.
 Becton, Dickinson and Company, BD™ Insulin Syringe with the BD Micro-Fine™ Needle, 1 page, <http://www.bd.com/us/diabetes/page.aspx?cat=7002&id=7408>, accessed on Jan. 25, 2012.
 Becton, Dickinson and Company, BD™ Insulin Syringe with BD Ultra-Fine™ Short Needle, 1 page, <http://www.bd.com/us/diabetes/page.aspx?cat=7002&id=7407>, accessed on Jan. 25, 2012.
 Becton, Dickinson and Company, BD™ Insulin Syringe with the BD Ultra-Fine™ Needle, 1 page, <http://www.bd.com/us/diabetes/page.aspx?cat=7002&id=7406>, accessed on Jan. 25, 2012.
 Becton, Dickinson and Company, BD™ Pharmacy Products, Dec. 2006, 10 pages.
 Becton, Dickinson and Company, BD Autoguard™ Shielded IV Catheters, BD IV Catheter Family, 1 page.
 Wikipedia, Syringe, 7 pages, http://en.wikipedia.org/wiki/Syringe#cite_note-3, accessed on Feb. 2, 2012.

* cited by examiner

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(57) **CLAIM**

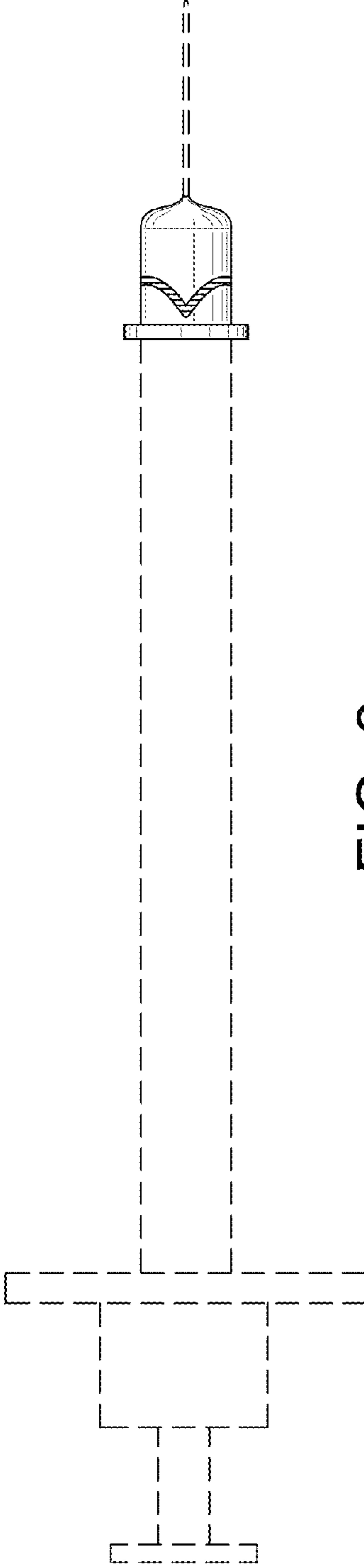
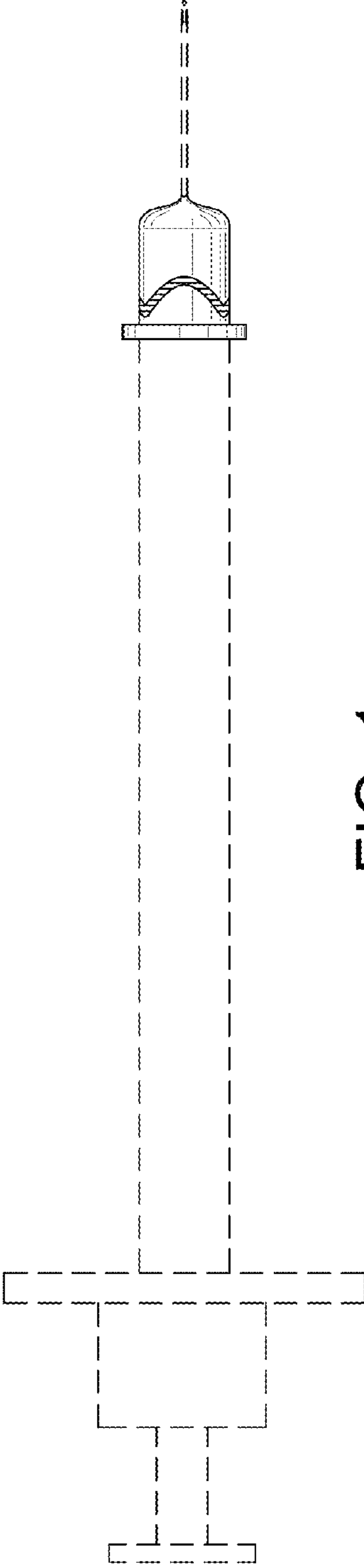
The ornamental design for a needle hub for a medical syringe, as shown and described.

DESCRIPTION

FIG. 1 is a front elevational view of a first embodiment of a needle hub for a medical syringe, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color red;
 FIG. 2 is a rear elevational view of the needle hub shown in FIG. 1;

FIG. 3 is a top elevational view of the needle hub shown in FIGS. 1 and 2;
 FIG. 4 is a bottom elevational view of the needle hub shown in FIGS. 1-3;
 FIG. 5 is a left side end view of the needle hub shown in FIGS. 1-4;
 FIG. 6 is a right side end view of the needle hub shown in FIGS. 1-5;
 FIG. 7 is a perspective view of the needle hub shown in FIGS. 1-6, with removable end caps shown exploded from the ends of the syringe carrying the needle hub;
 FIG. 8 is a perspective view of a second embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color black;
 FIG. 9 is a perspective view of a third embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color orange;
 FIG. 10 is a perspective view of a fourth embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color gray;
 FIG. 11 is a perspective view of a fifth embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color green;
 FIG. 12 is a perspective view of a sixth embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color purple;
 FIG. 13 is a perspective view of a seventh embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color pink;
 FIG. 14 is a perspective view of an eighth embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color blue;
 FIG. 15 is a perspective view of a ninth embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color yellow; and,
 FIG. 16 is a perspective view of a tenth embodiment of the needle hub shown in FIGS. 1-7, in which the cylindrical base portion of the needle hub is provided with a spiral design that is lined for the color brown.
 The broken line showing of the syringe illustrates the environment of the claimed design and forms no part thereof. Those features of the alternate embodiments which are not shown in FIGS. 8-16 will be understood to be identical to those shown in the first embodiment of FIGS. 1-7.

1 Claim, 13 Drawing Sheets



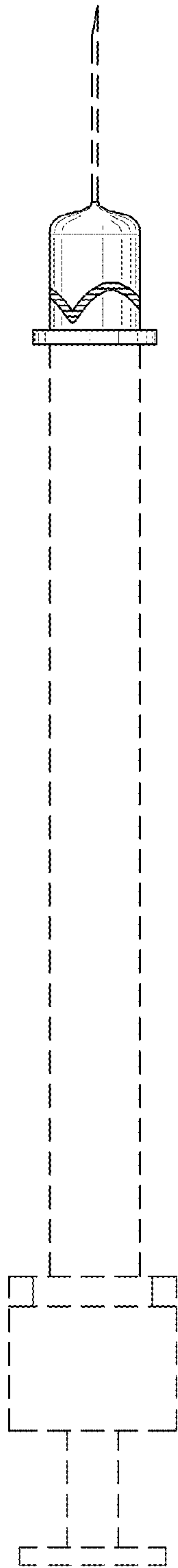


FIG. 3

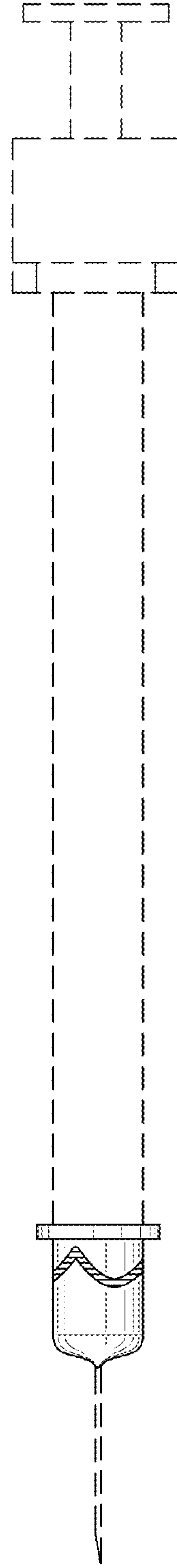


FIG. 4

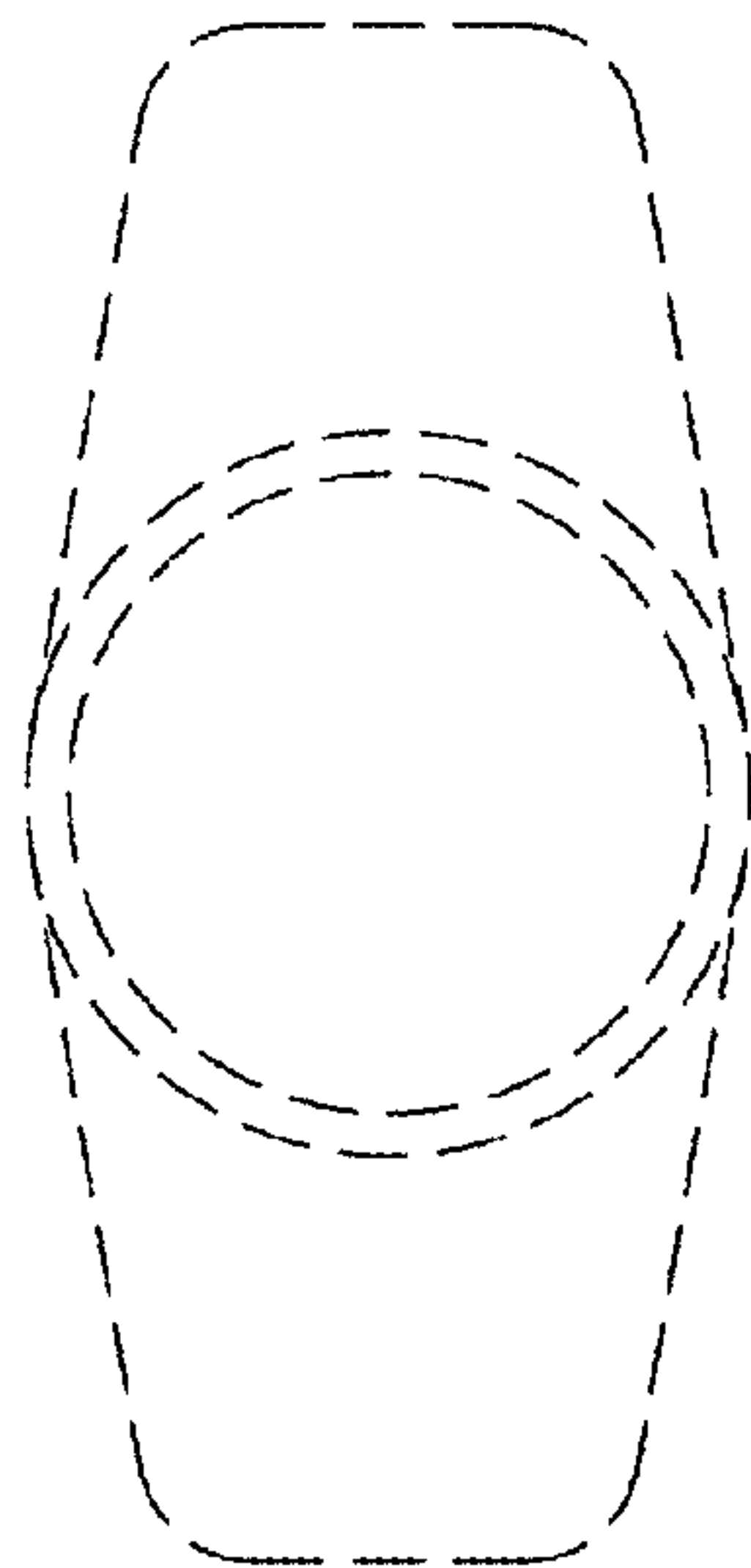


FIG. 5

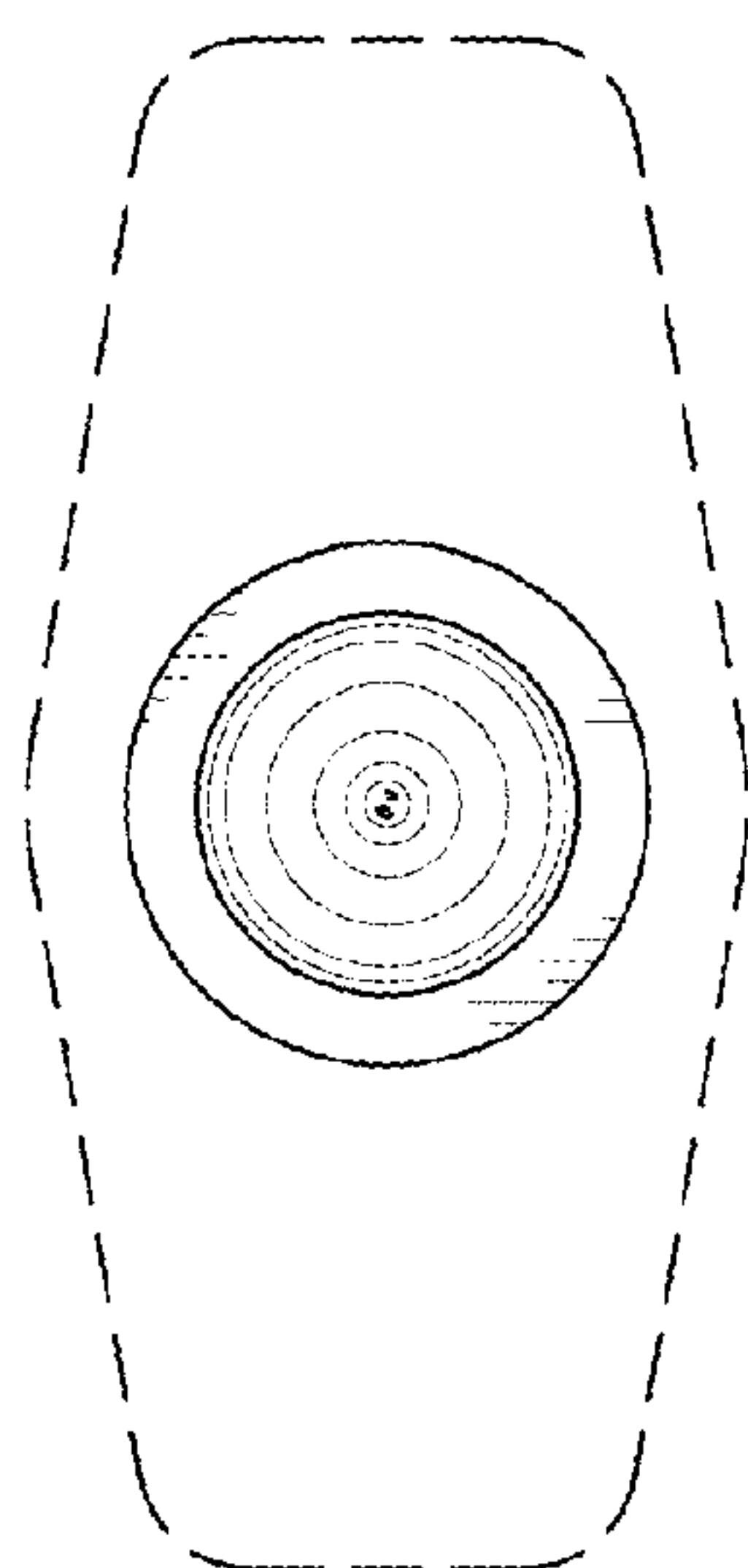


FIG. 6

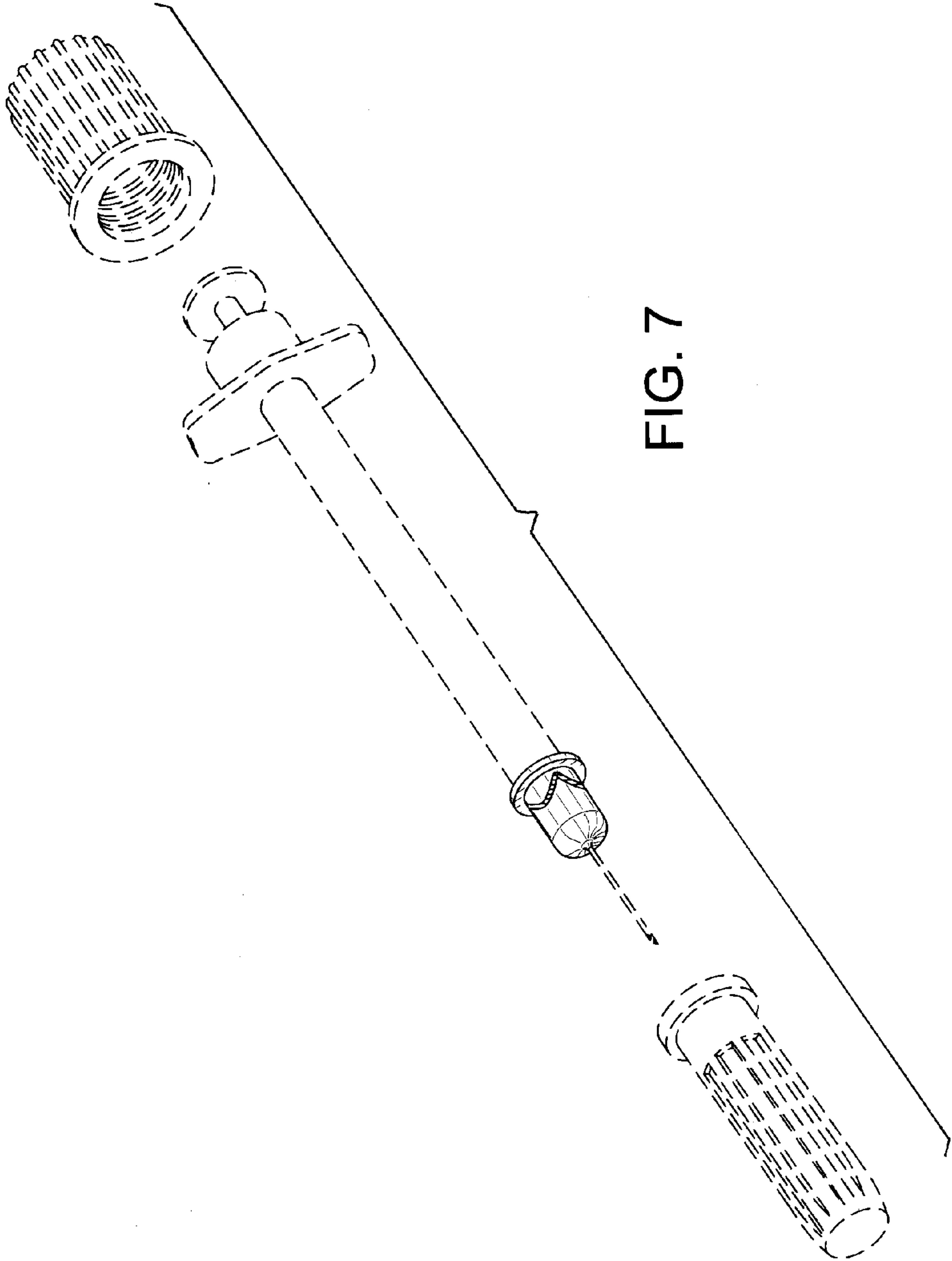


FIG. 7

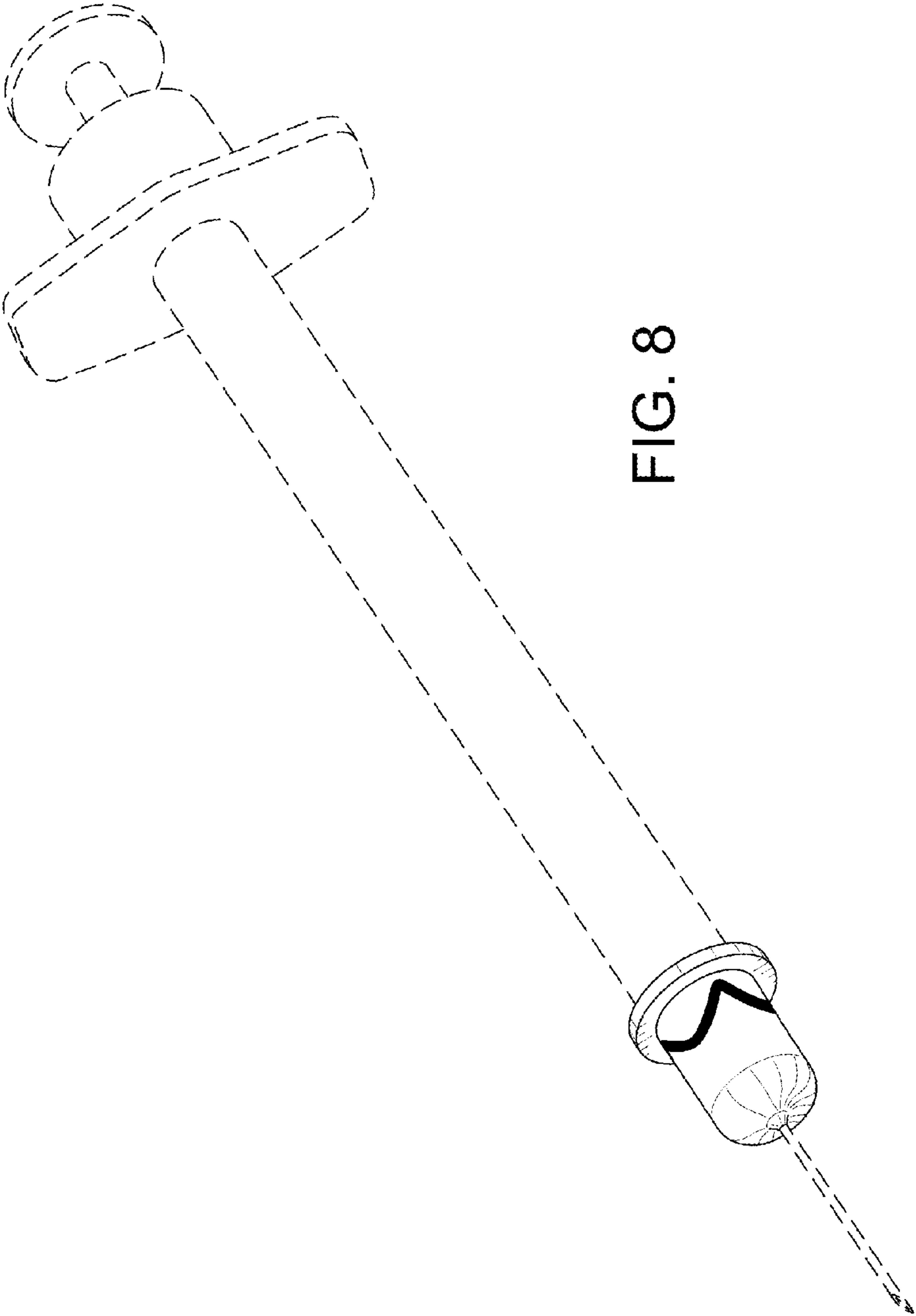


FIG. 8

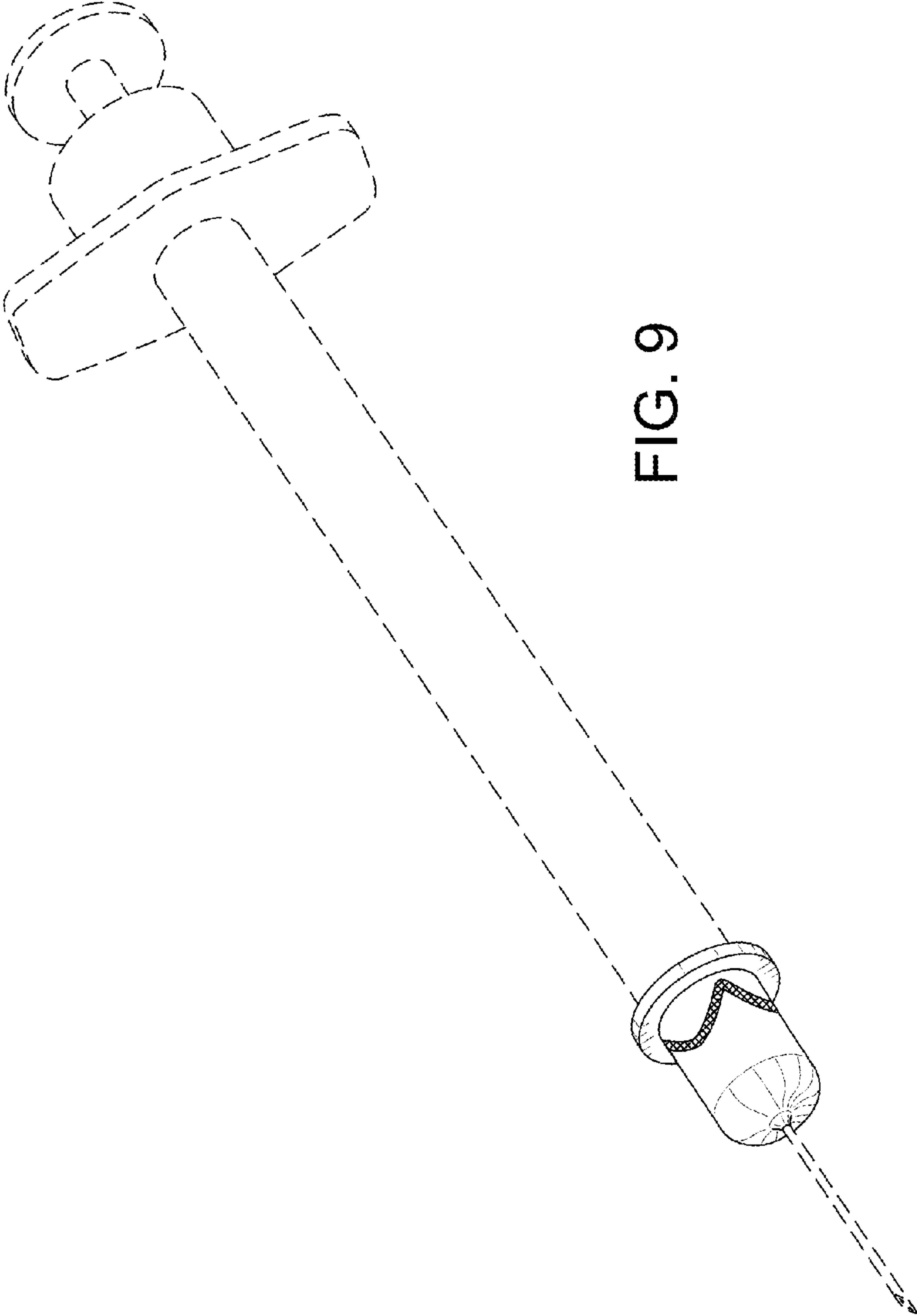


FIG. 9

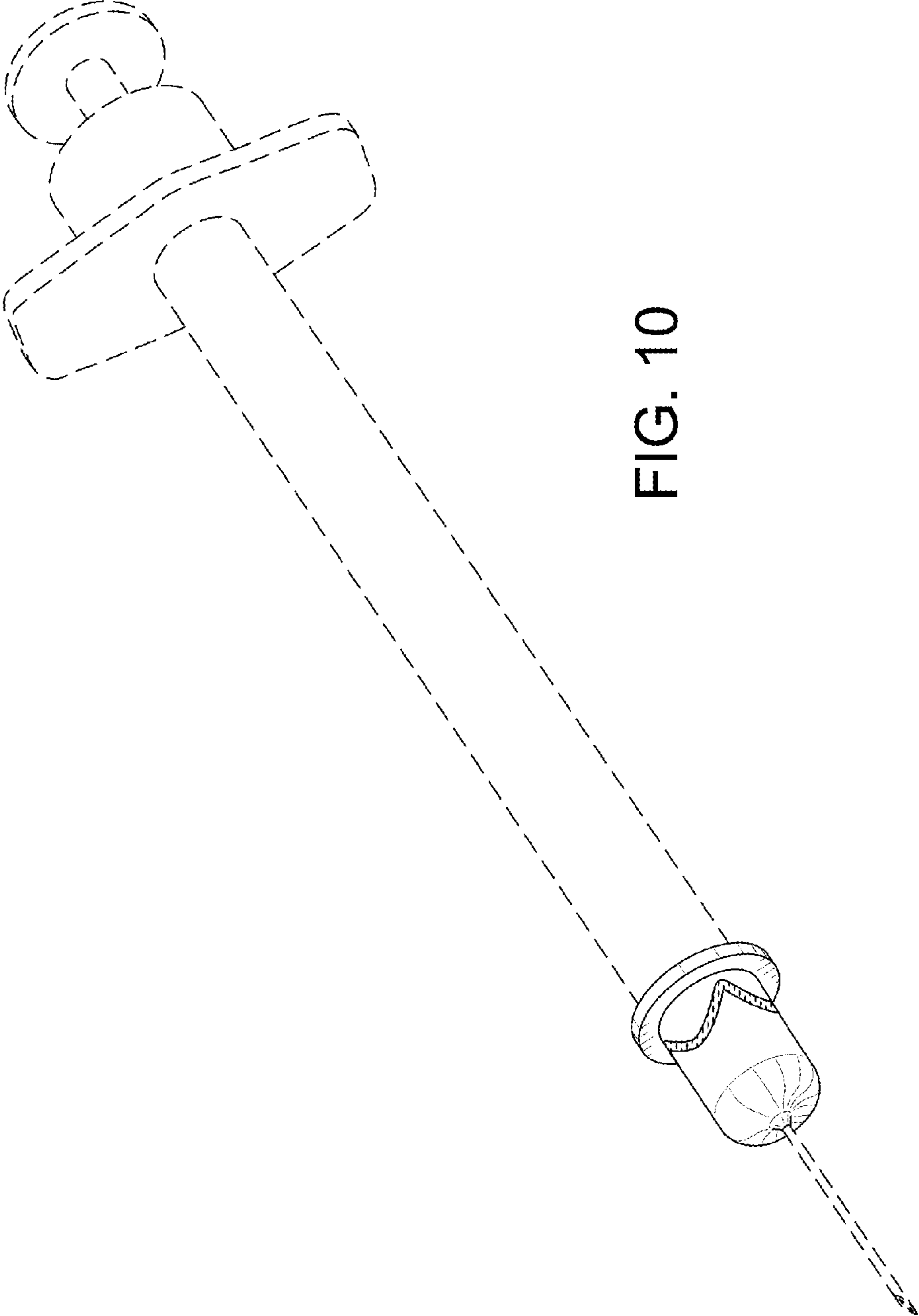


FIG. 10

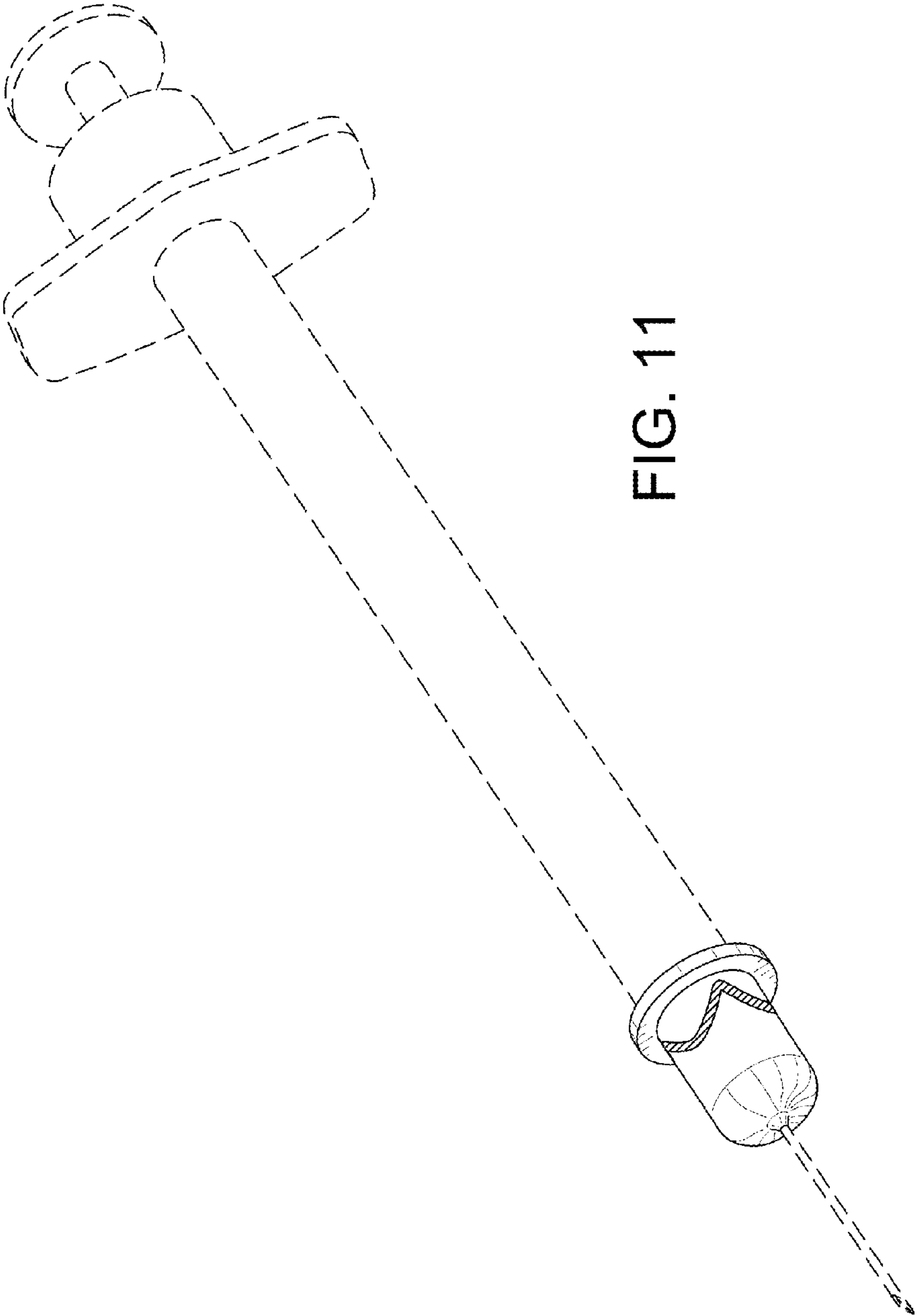


FIG. 11

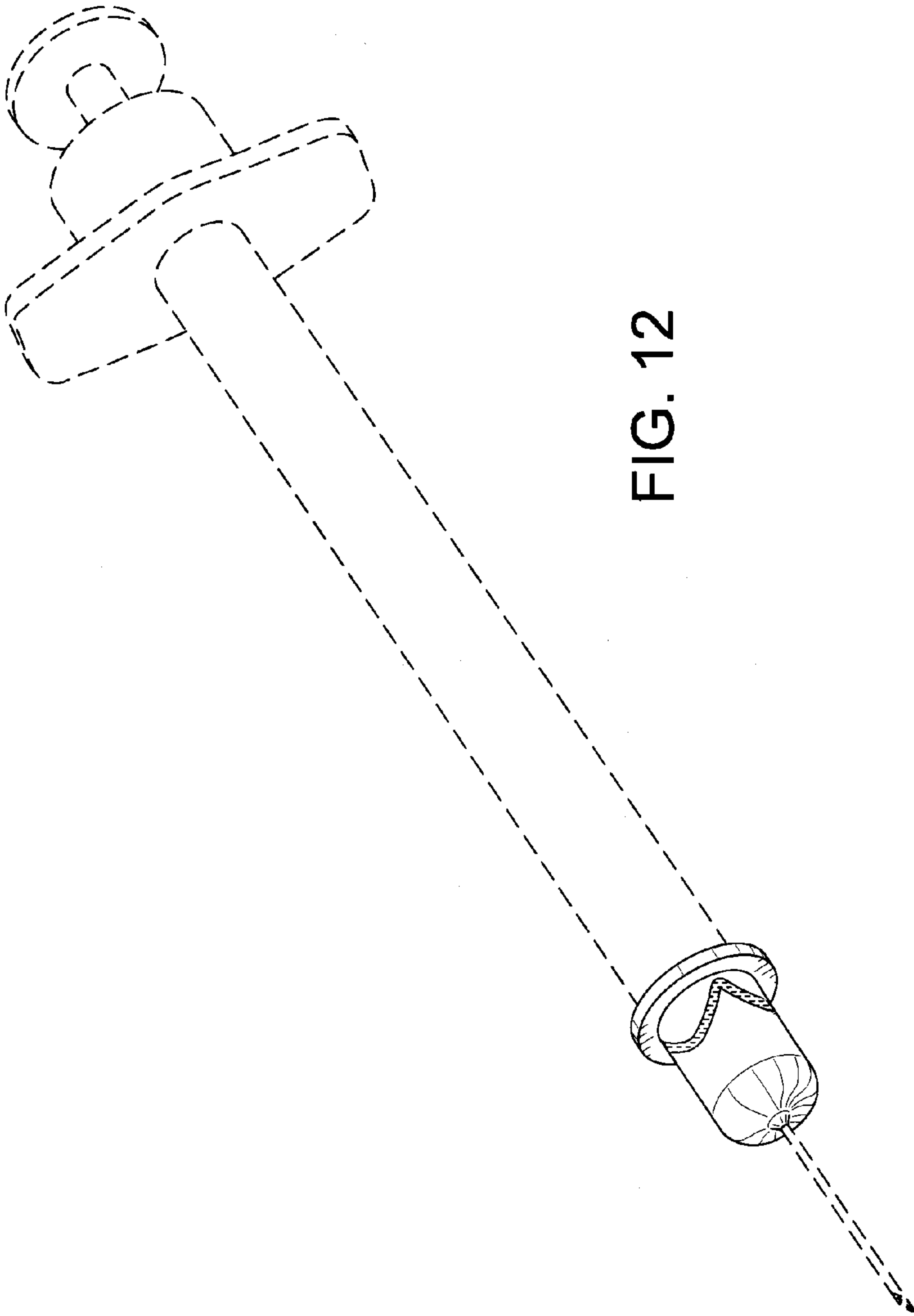


FIG. 12

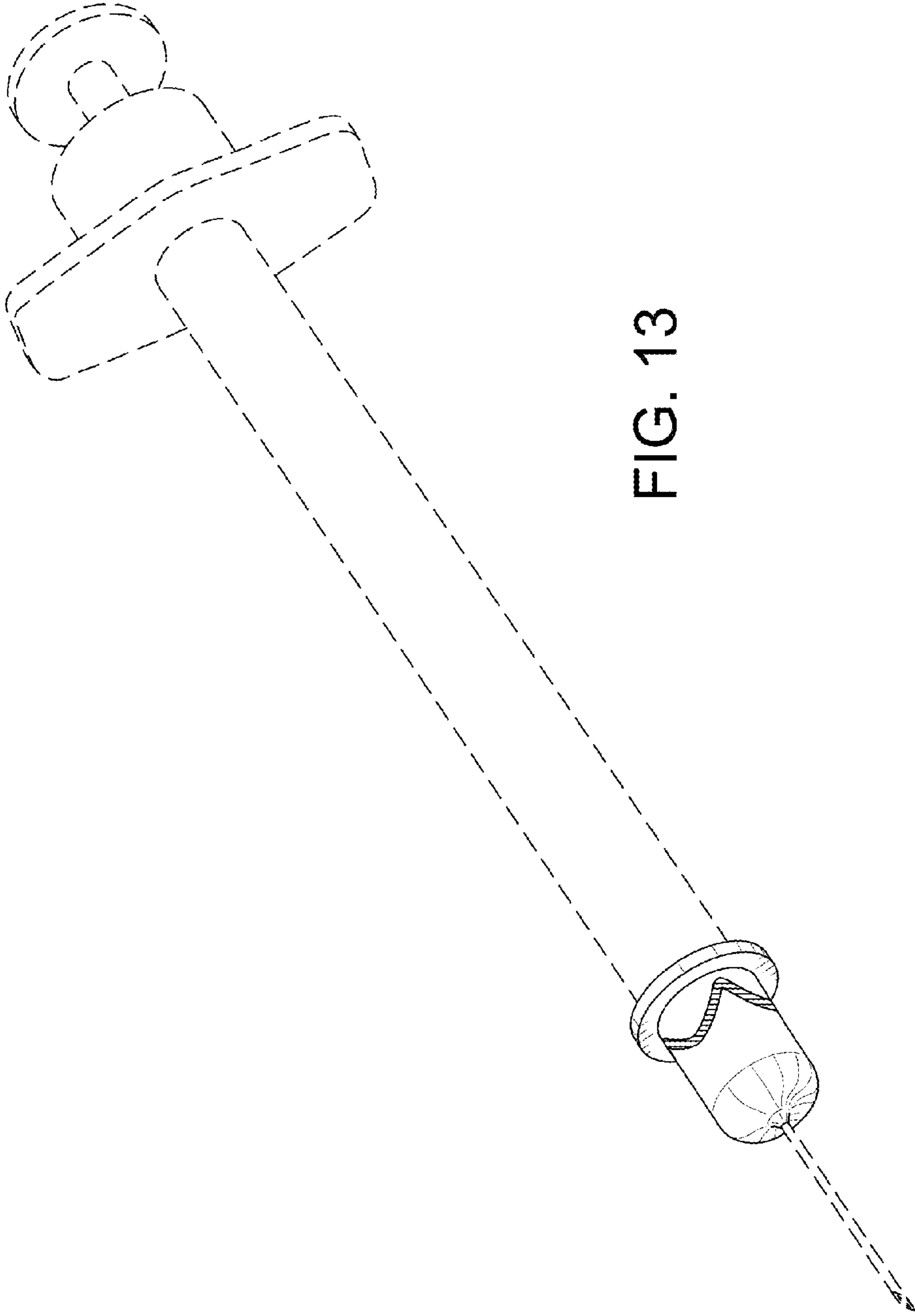


FIG. 13

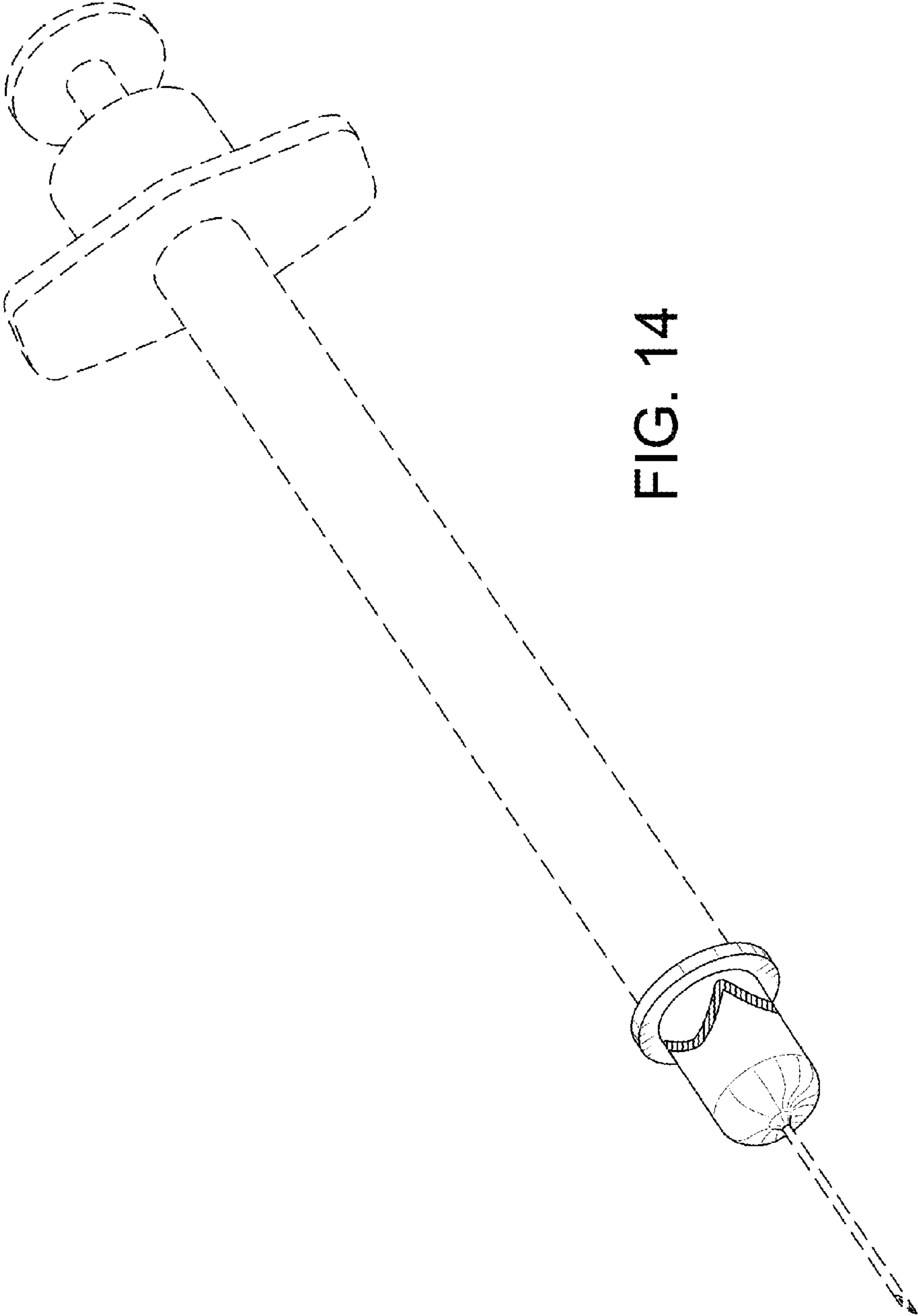


FIG. 14

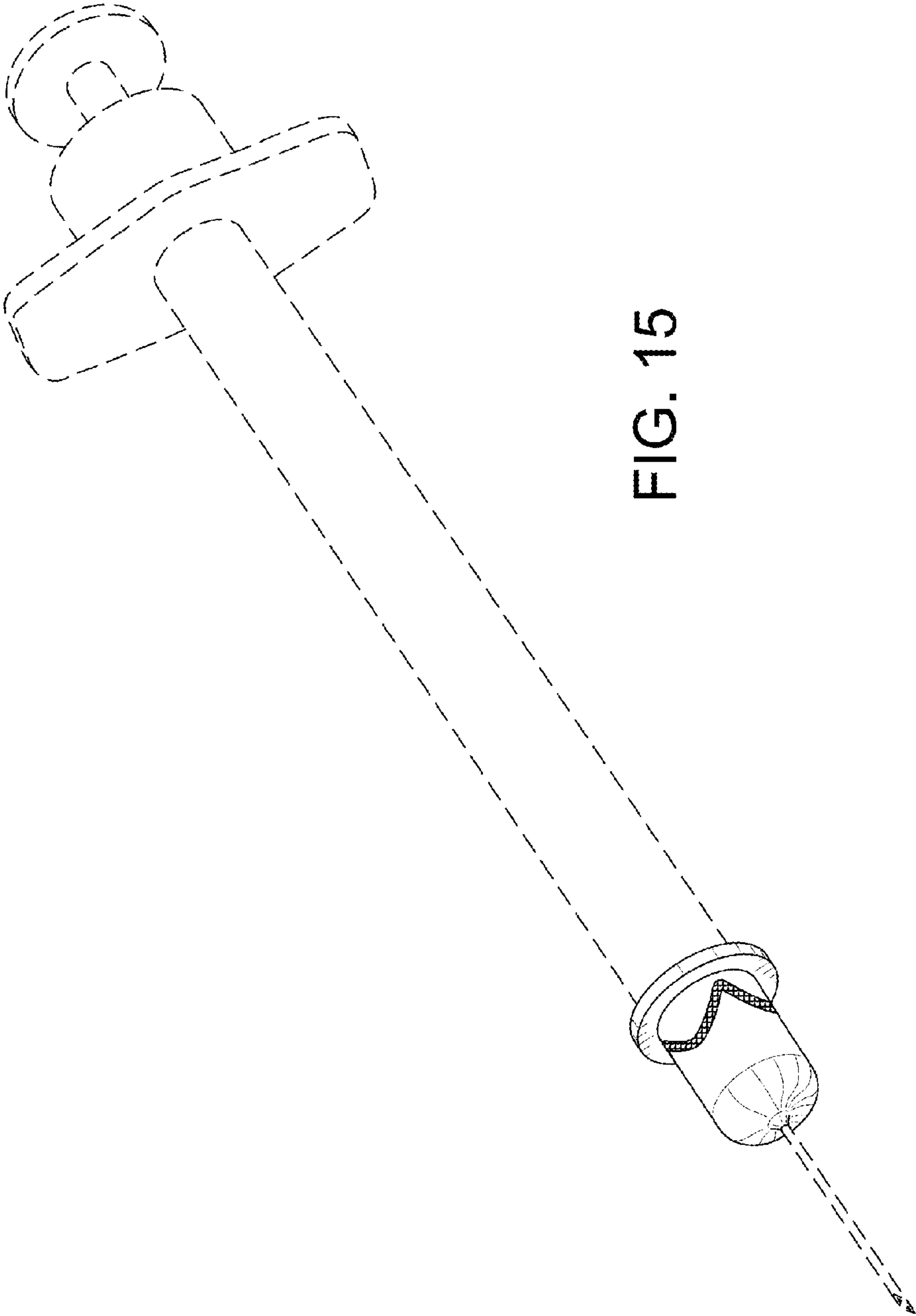


FIG. 15

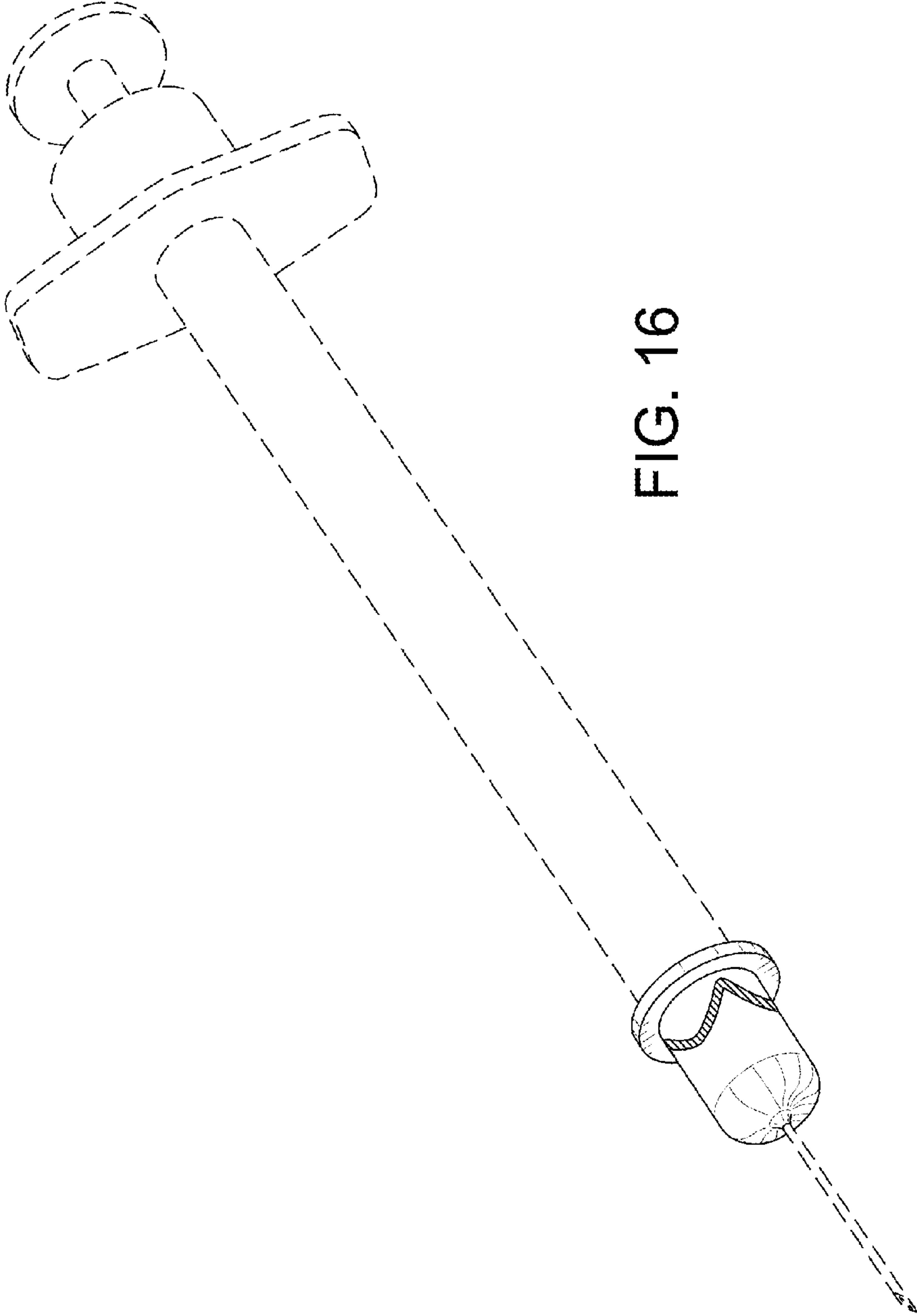


FIG. 16