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Limaye et al.

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

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

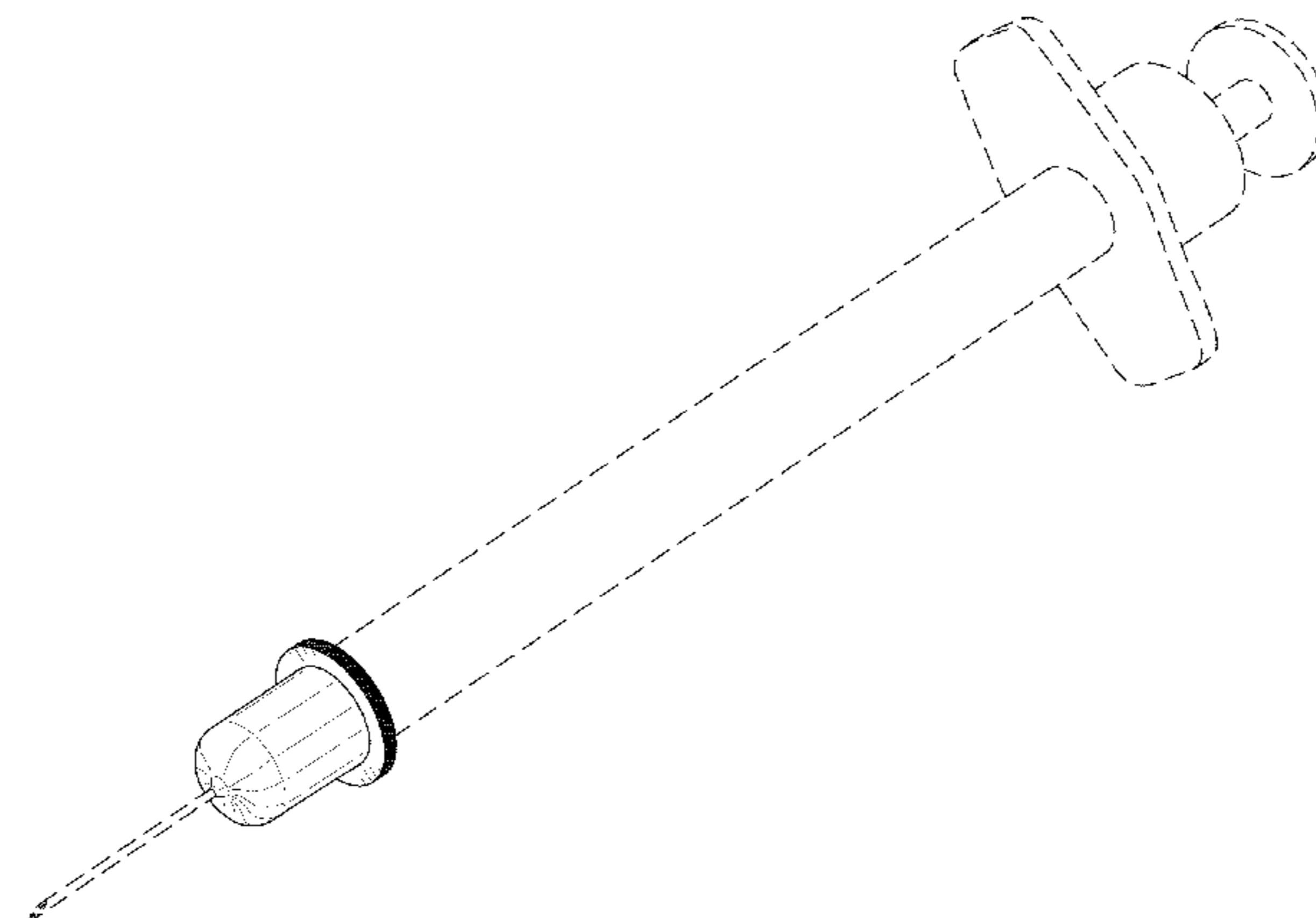
(58) **Field of Classification Search**
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See application file for complete search history.

(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	Schrage
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
D447,979	S	1/2001	Odell et al.
6,267,749	B1	7/2001	Miklos 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	Virr 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™ IC 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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Assistant Examiner — Ieisha Price

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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 circumferential surface of the hub flange at the left-hand end of the needle hub is lined for the color red;

FIG. 2 is a side elevational view of the needle hub shown in FIG. 1;

FIG. 3 is a left side end view of the needle hub shown in FIGS. 1 and 2;

FIG. 4 is a right side end view of the needle hub shown in FIGS. 1-3;

FIG. 5 is a perspective view of the needle hub shown in FIGS. 1-4, with removable end caps shown exploded from the ends of the syringe carrying the needle hub;

FIG. 6 is a perspective view of the needle hub shown in FIGS. 1-5, with the end caps shown mounted on the ends of the syringe carrying the needle hub;

FIG. 7 is a perspective view of a second embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color black;

FIG. 8 is a perspective view of a third embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color orange;

FIG. 9 is a perspective view of a fourth embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color gray;

FIG. 10 is a perspective view of a fifth embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color green;

FIG. 11 is a perspective view of a sixth embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color purple;

FIG. 12 is a perspective view of a seventh embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color pink;

FIG. 13 is a perspective view of an eighth embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color blue;

FIG. 14 is a perspective view of a ninth embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color yellow; and,

FIG. 15 is a perspective view of a tenth embodiment of the needle hub shown in FIGS. 1-6, in which the circumferential surface of the hub flange at the right-hand end of the needle hub is lined for the color brown.

Those features of the alternate embodiments which are not shown in FIGS. 7-15 will be understood to be similar to those shown in the first embodiment of FIGS. 1-6.

The dashed line renderings of the needle, end caps and portions of the syringe in FIGS. 1-15 are for illustration purposes only and form no part of the claimed design.

The drawing figures are lined to represent the colors red, black, orange, gray, green, purple, pink, blue, yellow, and brown.

1 Claim, 13 Drawing Sheets

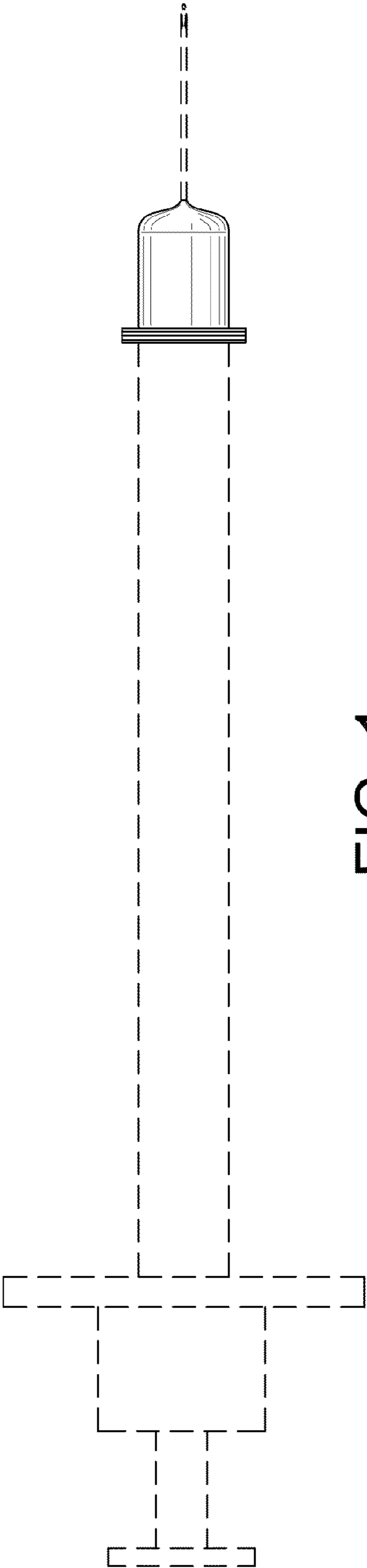


FIG. 1

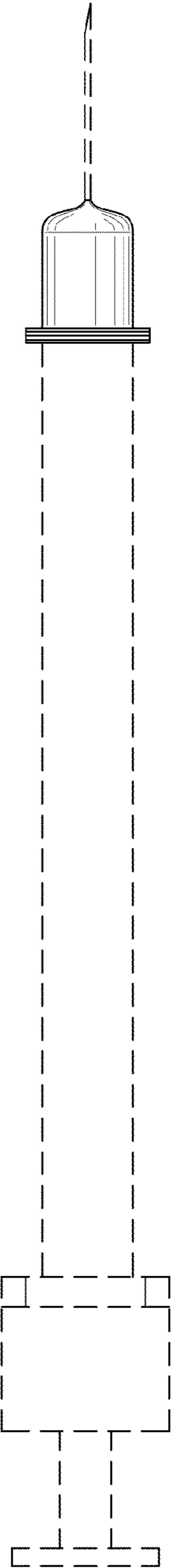


FIG. 2

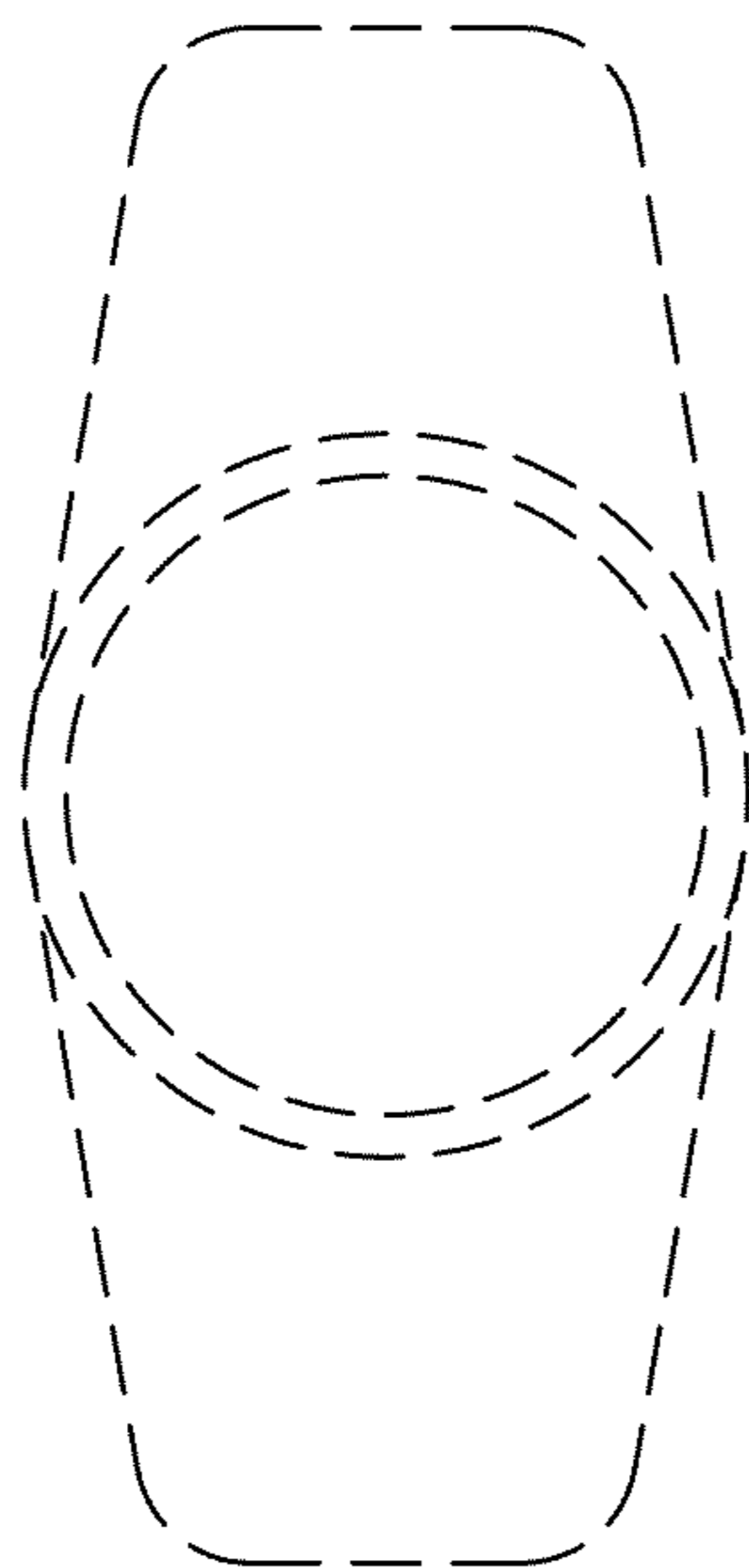


FIG. 3

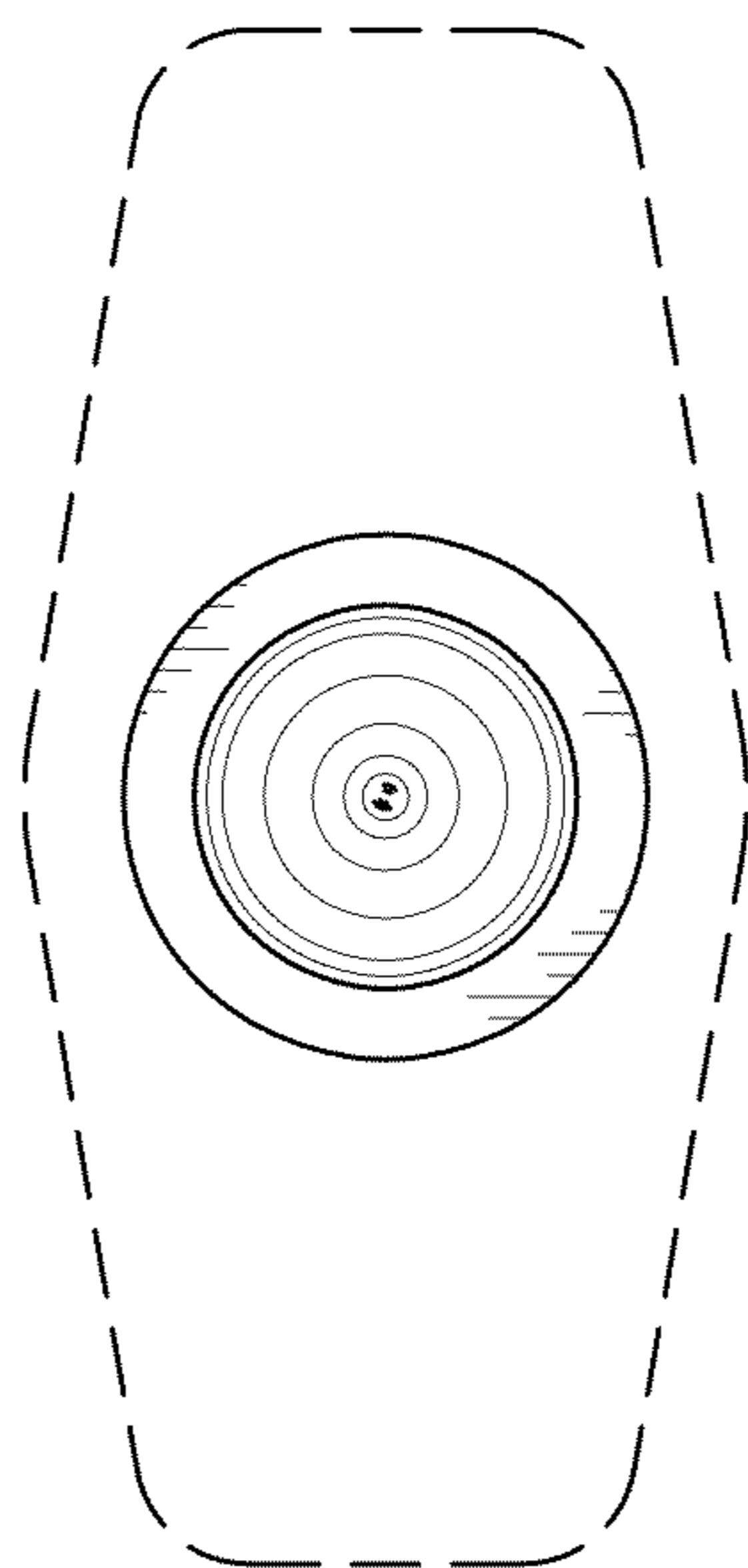


FIG. 4

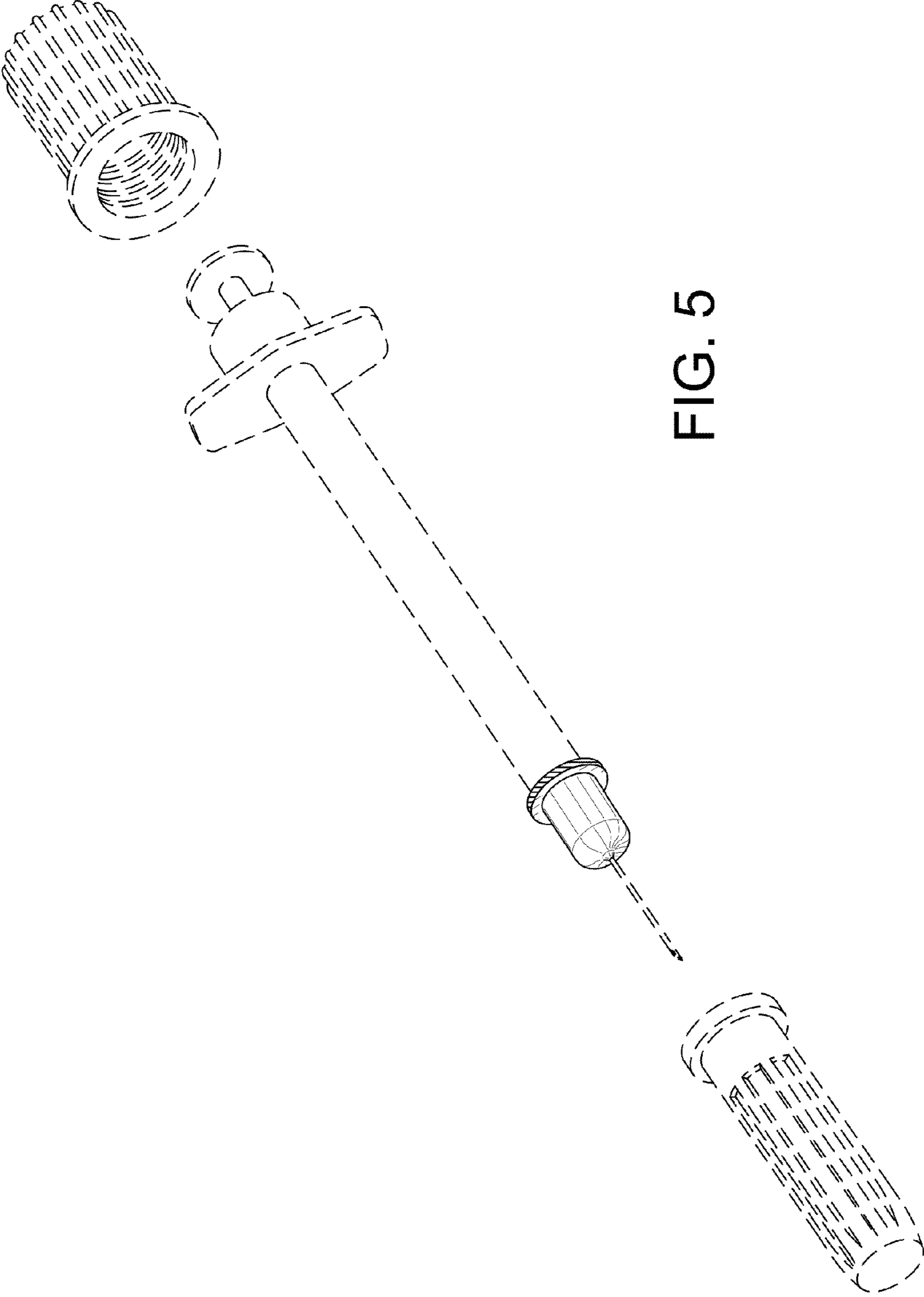


FIG. 5

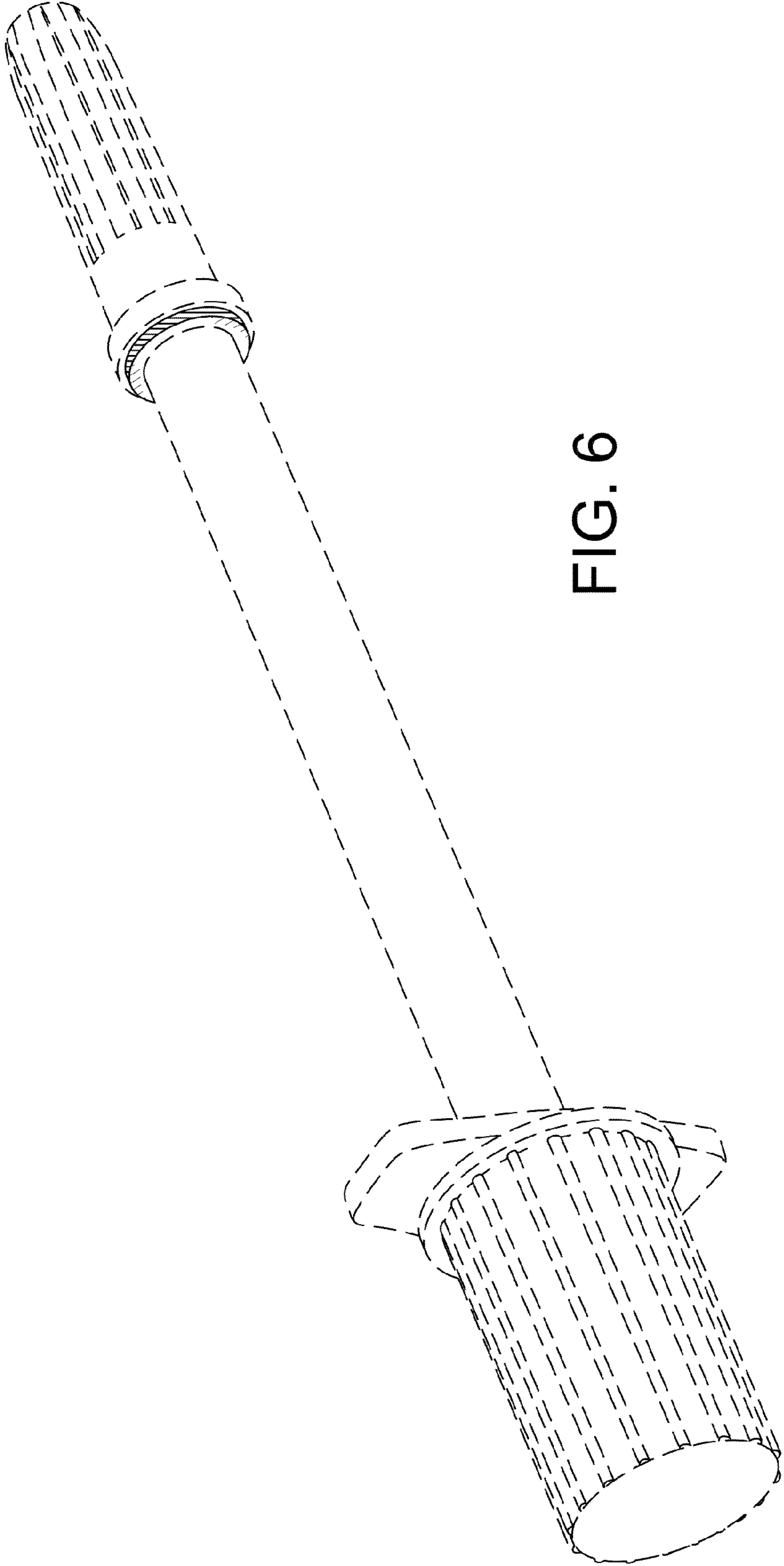


FIG. 6

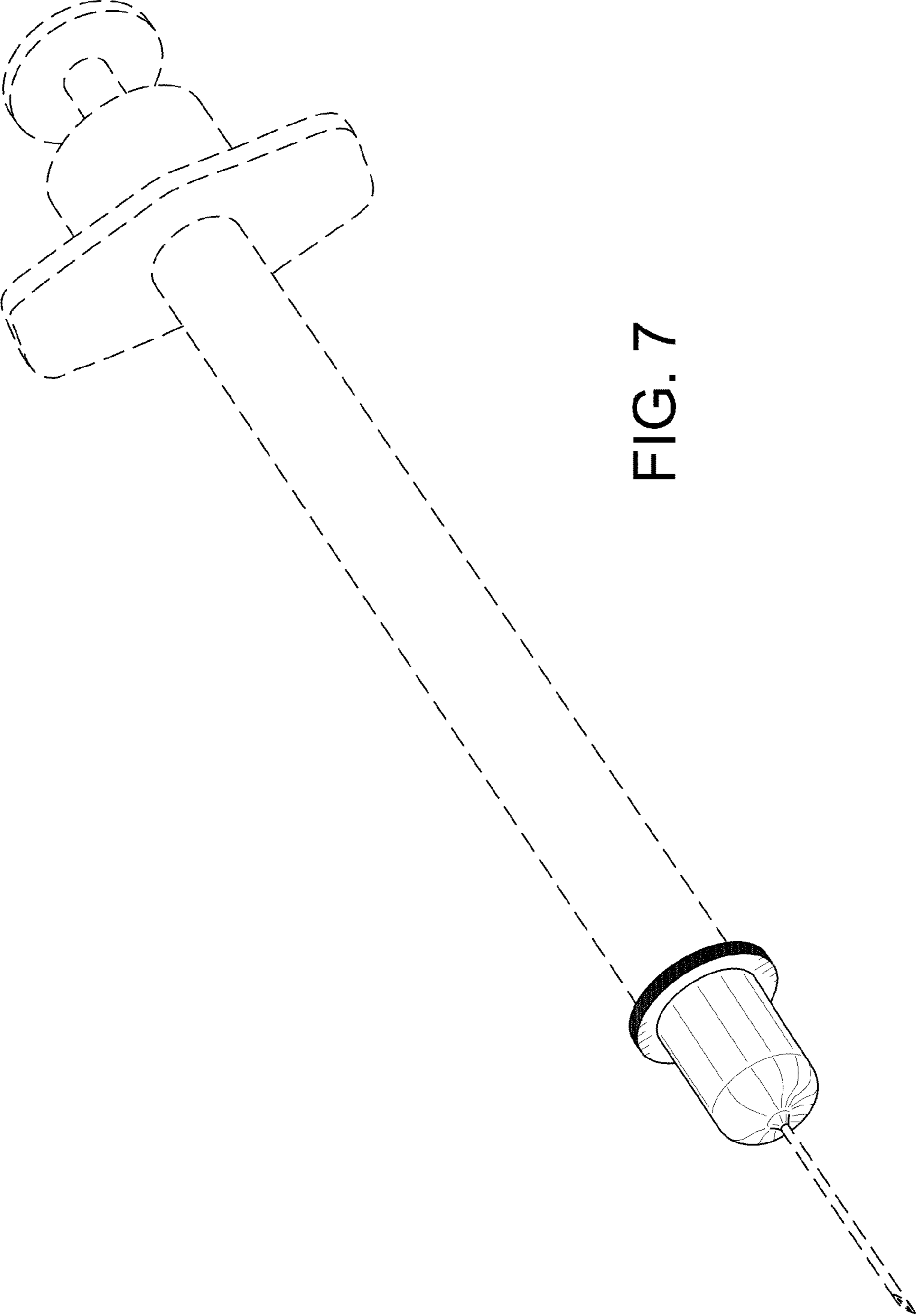


FIG. 7

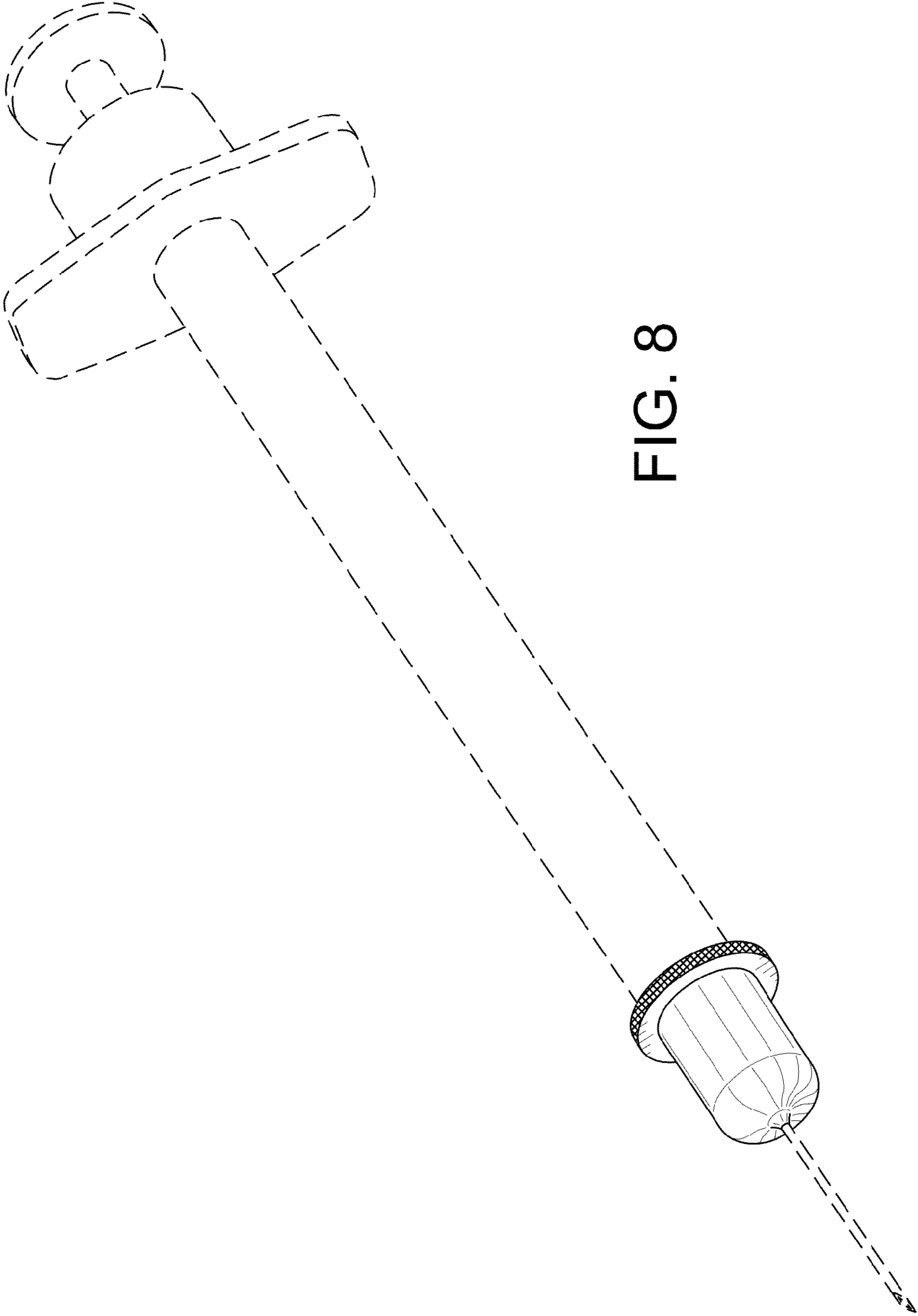


FIG. 8

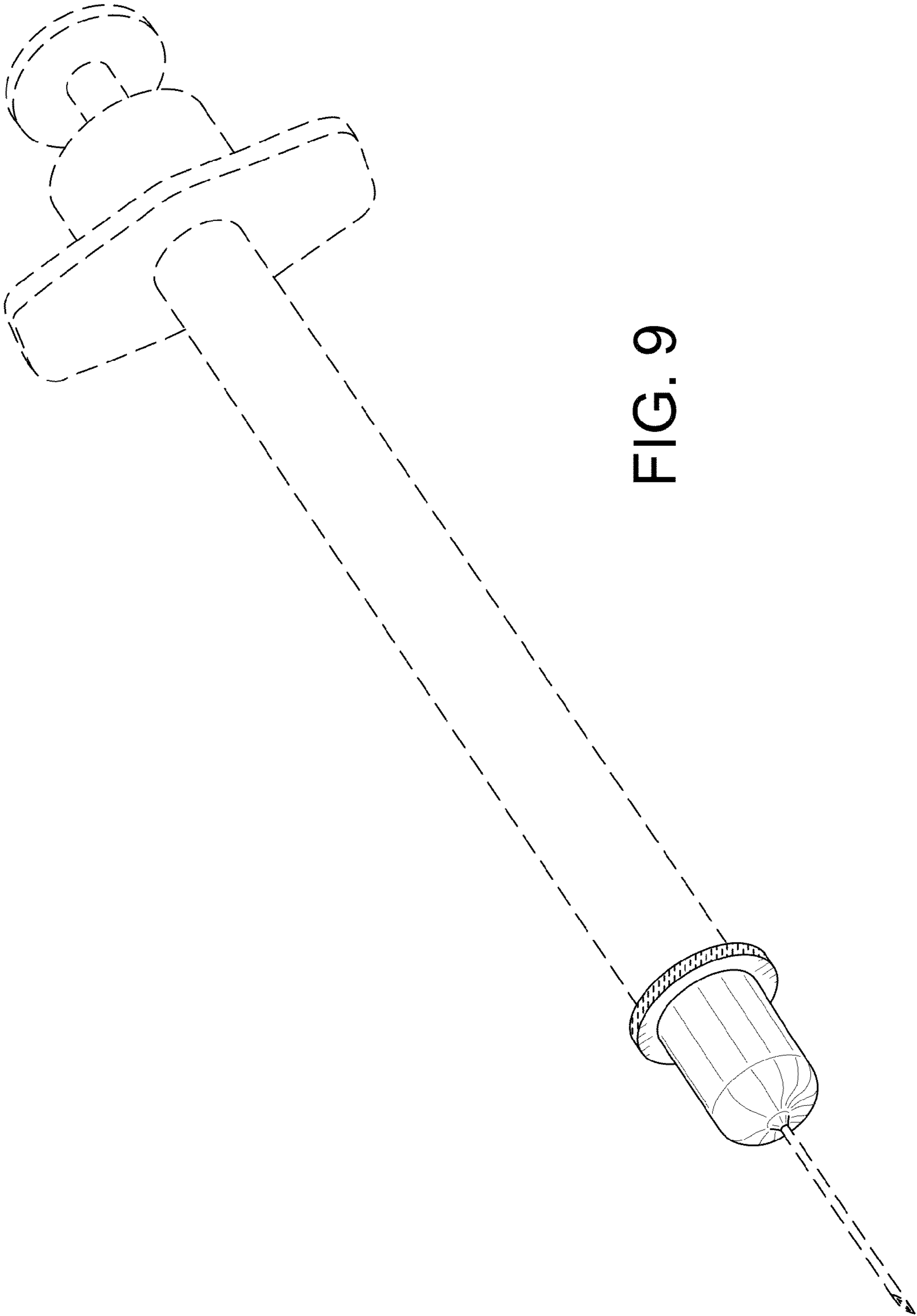


FIG. 9

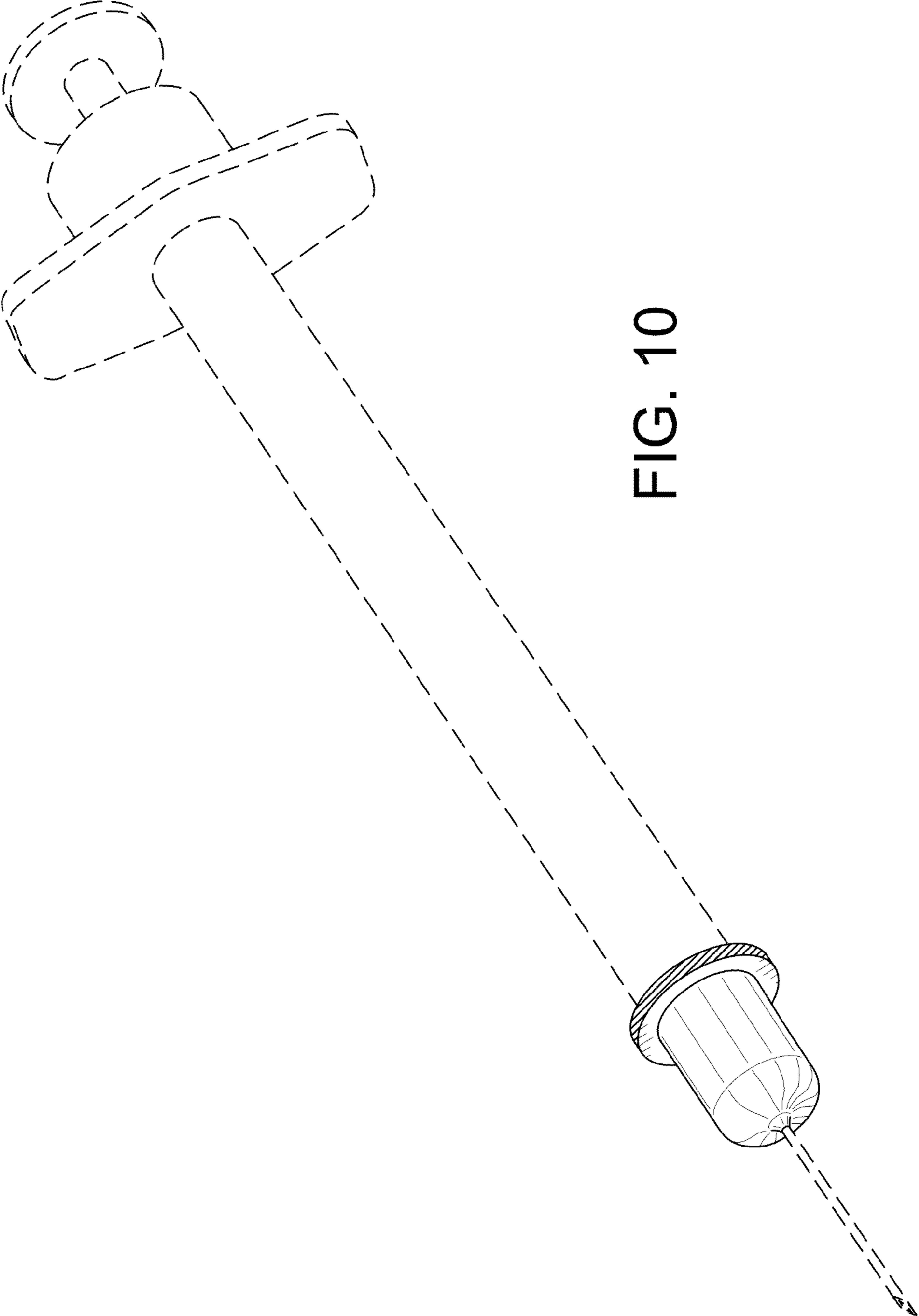


FIG. 10

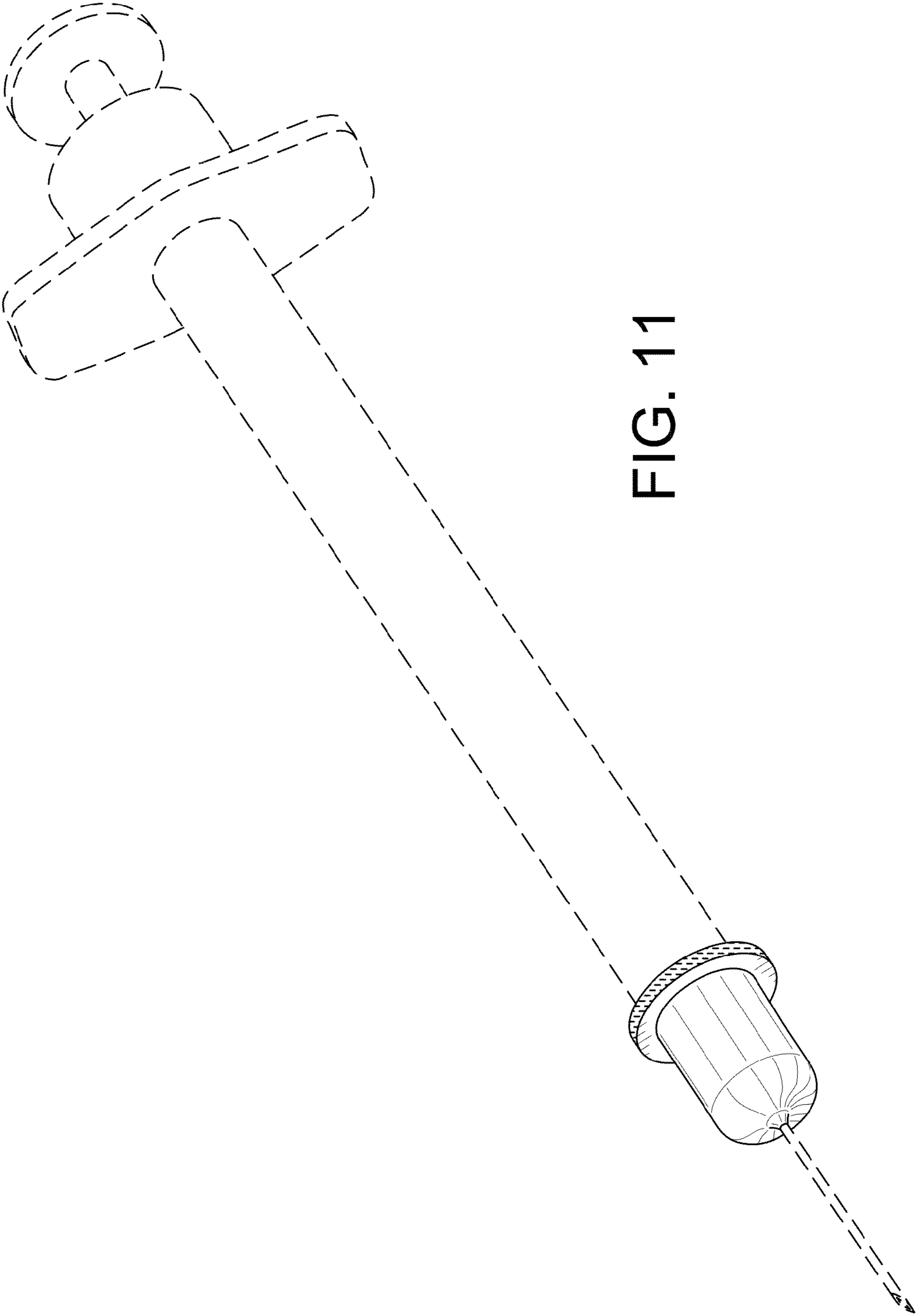


FIG. 11

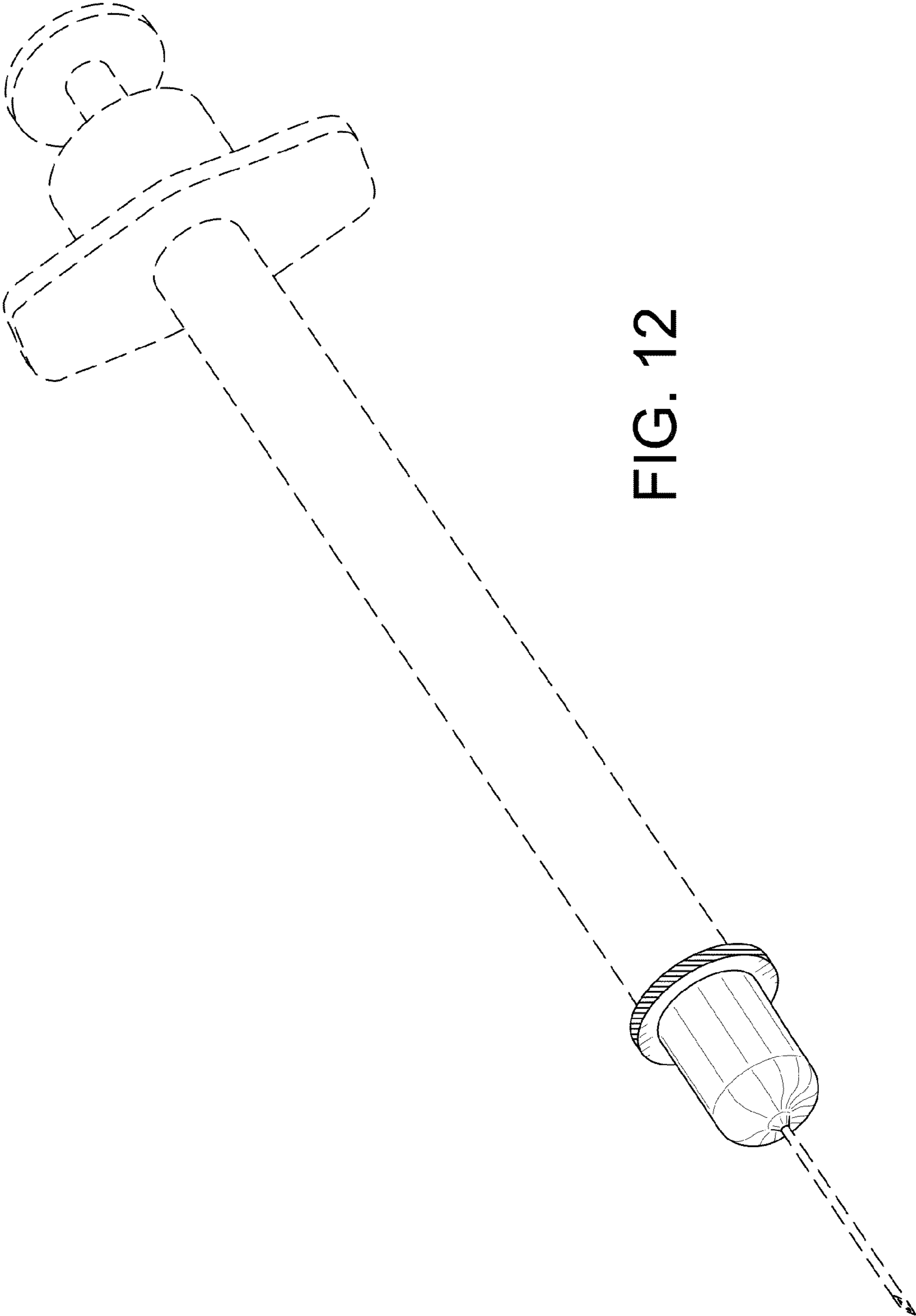


FIG. 12

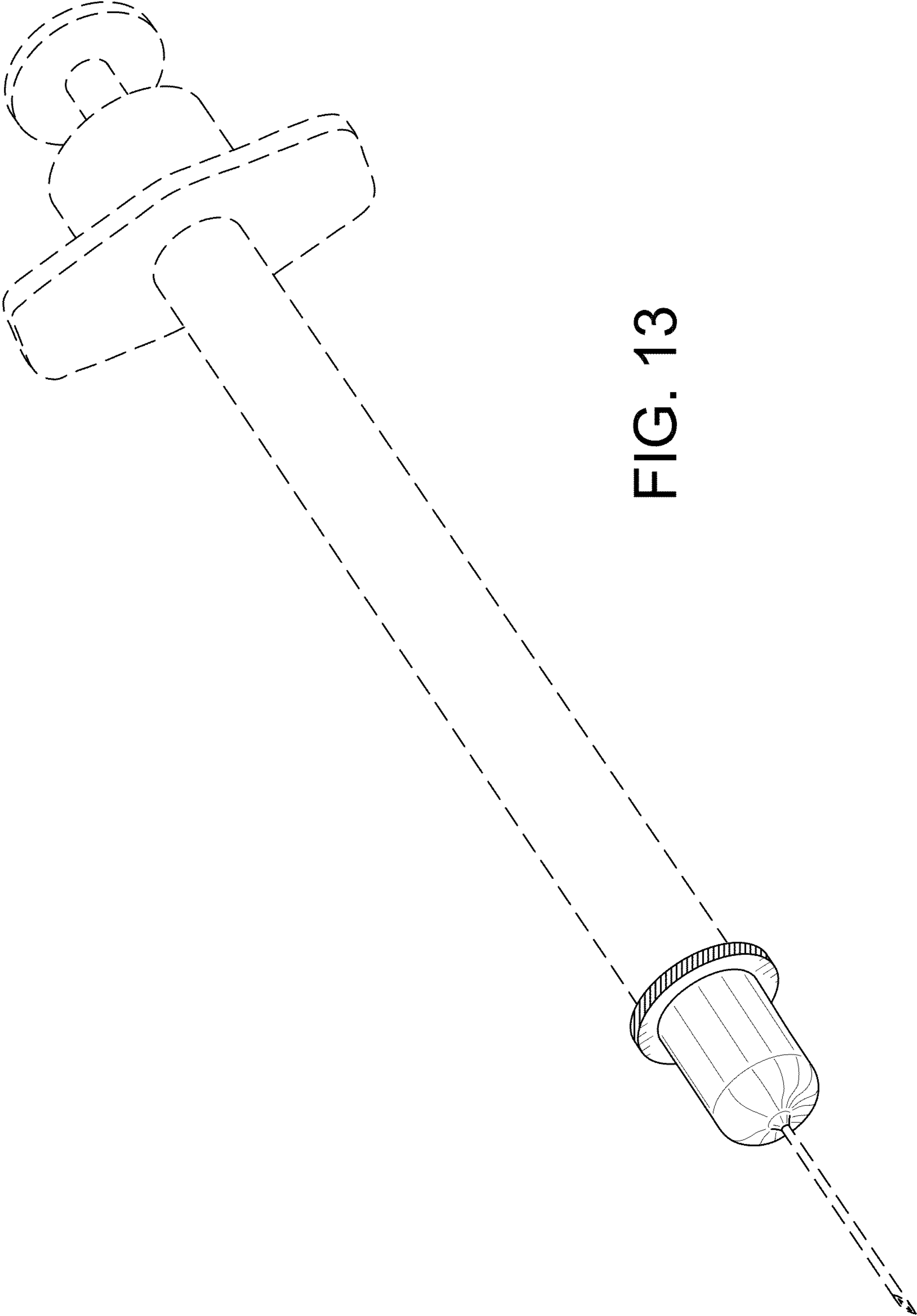


FIG. 13

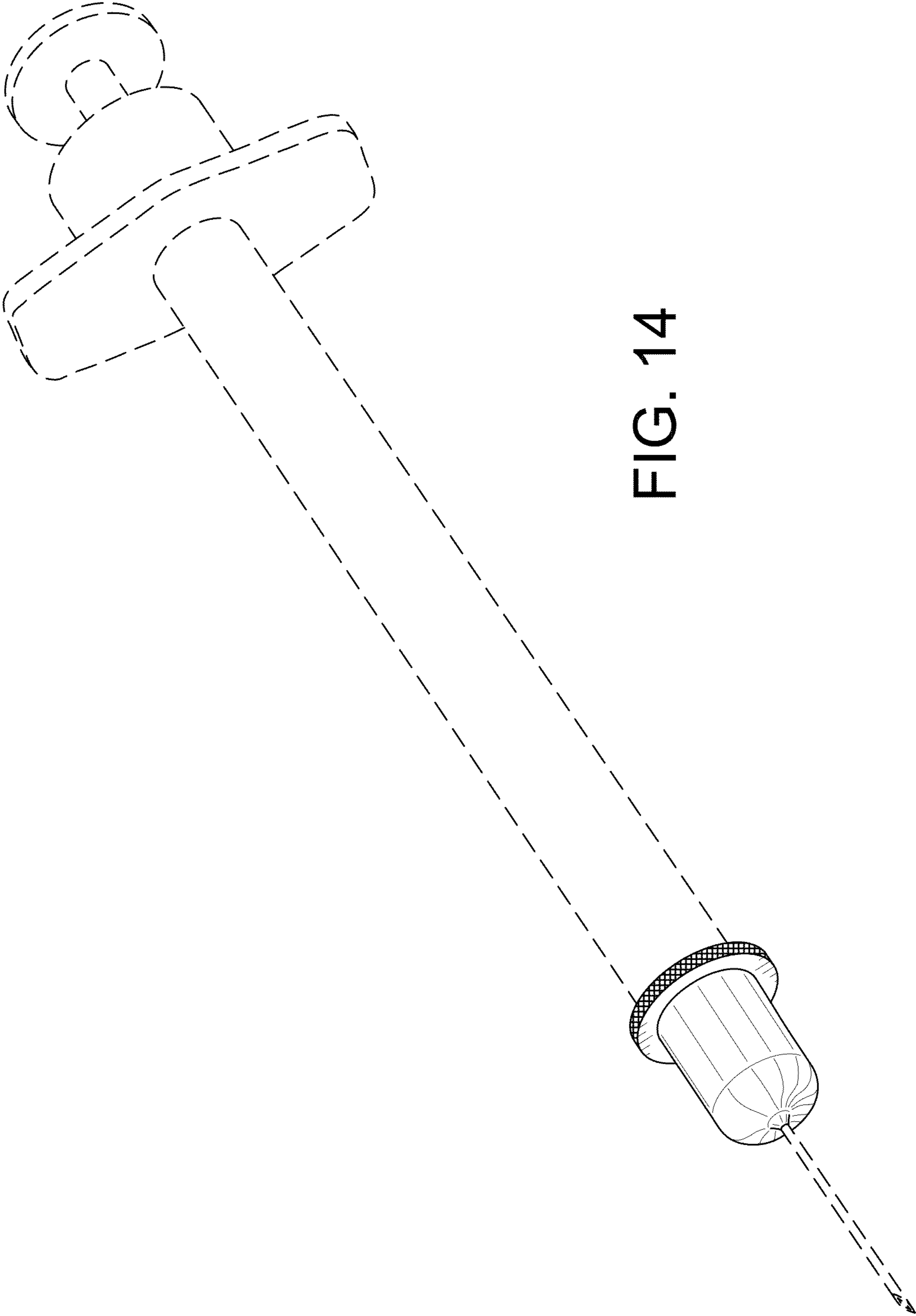


FIG. 14

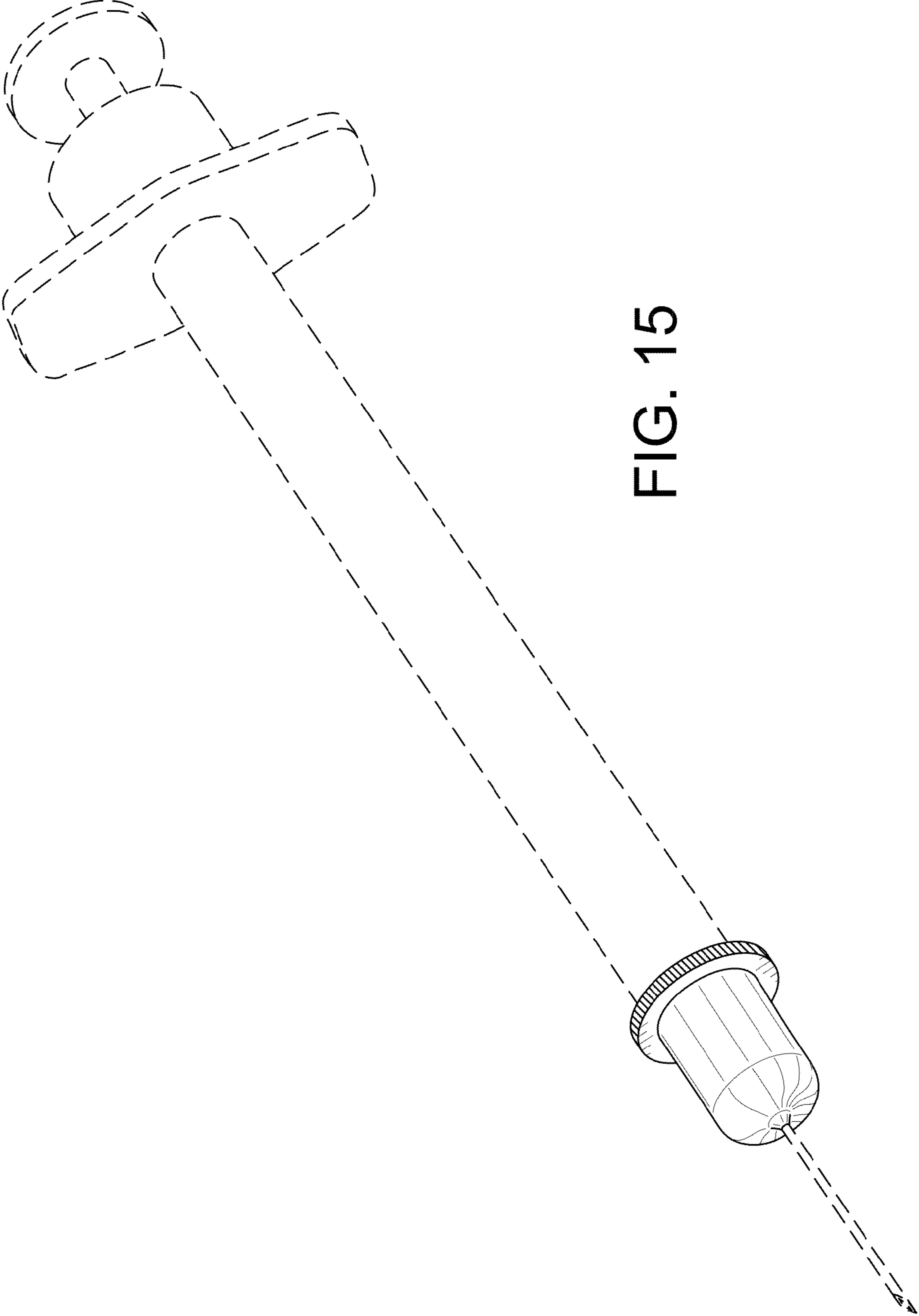


FIG. 15