



US00D826397S

(12) **United States Design Patent** (10) **Patent No.:** **US D826,397 S**
Green (45) **Date of Patent:** **** *Aug. 21, 2018**

(54) **AIR REMOVAL DEVICE**

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(*) Notice: This patent is subject to a terminal disclaimer.
(**) Term: **15 Years**

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(22) Filed: **Mar. 1, 2016**
(51) **LOC (11) Cl.** **24-02**
(52) **U.S. Cl.**
USPC **D24/112**
(58) **Field of Classification Search**
USPC D24/112-114, 108, 133, 130, 127, 186;
600/101, 139, 143; 604/4.01, 6.05, 264,
604/272, 187, 181, 184, 227; 606/181,
606/185; 128/200.24, 207.14, 207.15;
422/44
CPC A61M 25/00; A61M 39/00; A61M 27/00;
A61M 25/0043; A61M 25/0067; A61M
25/0097
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,610,230 A 10/1971 Andersen
4,365,630 A 12/1982 McFarlane
(Continued)

FOREIGN PATENT DOCUMENTS

CN 301729330 S 11/2011
CN 301729332 S 11/2011
(Continued)

OTHER PUBLICATIONS

U.S. Office Action dated Sep. 30, 2016, from related U.S. Appl. No. 29/545,199.
(Continued)

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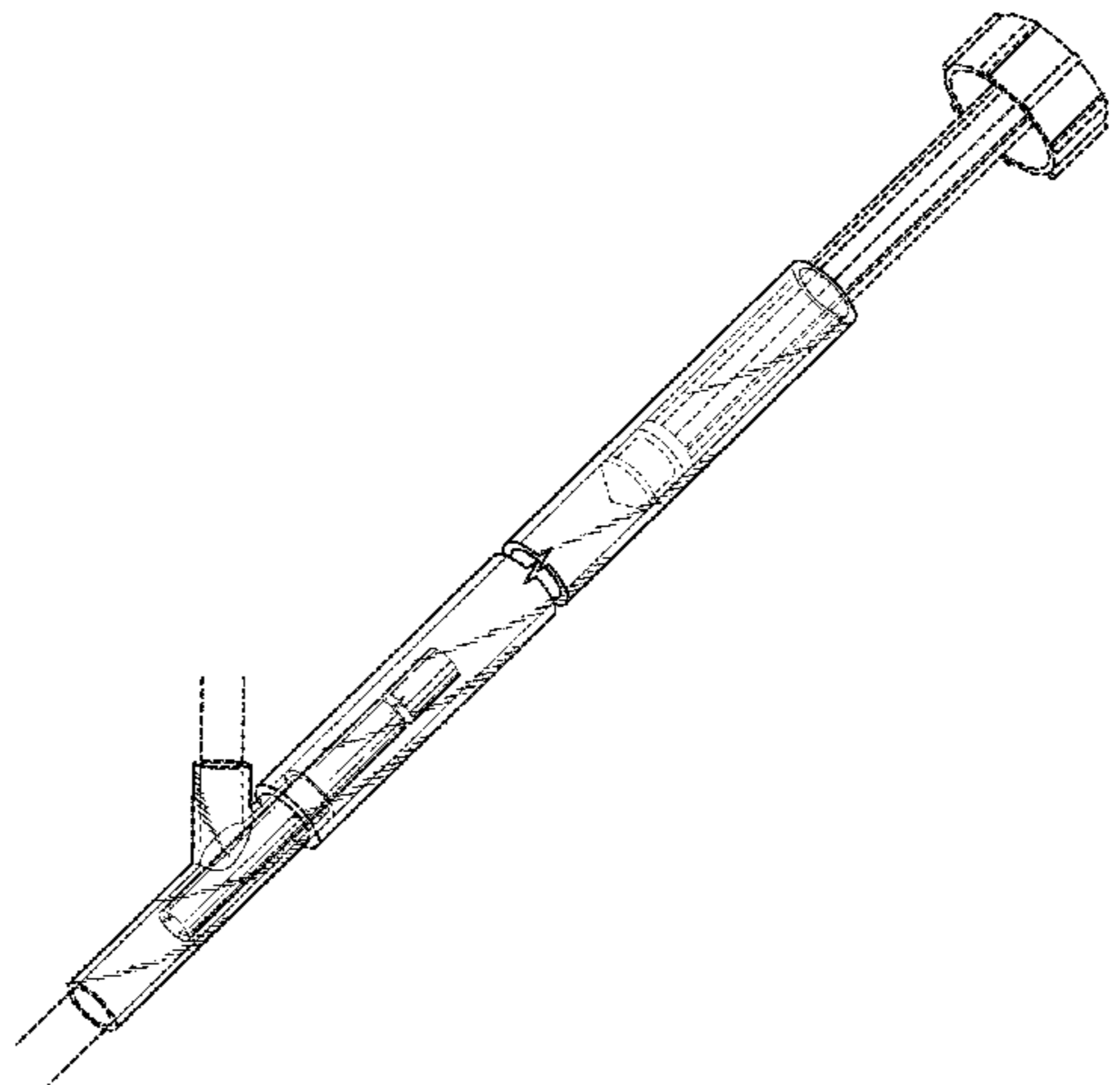
(57) **CLAIM**

I claim the ornamental design for an air removal device, as shown and described.

DESCRIPTION

FIG. 1 is a top front perspective view of the claimed design; FIG. 2 is a right side elevation view thereof; FIG. 3 is a left side elevation view thereof; FIG. 4 is a front elevation view thereof; FIG. 5 is a rear elevation view thereof; FIG. 6 is a top plan view thereof; and FIG. 7 is a bottom plan view thereof; FIG. 8 is a top front perspective view of the claimed design according to the second embodiment; FIG. 9 is a right side elevation view thereof; FIG. 10 is a left side elevation view thereof; FIG. 11 is a front elevation view thereof; FIG. 12 is a rear elevation view thereof; FIG. 13 is a top plan view thereof; and, FIG. 14 is a bottom plan view thereof. The broken line showing of air removal device is included for the purpose of illustrating portions of the “article” and forms no part of the claimed design. The air removal device is shown with symbolic breaks in its length. The appearance of any portion of the article between the break lines forms no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D282,204 S	1/1986	Holt	
D304,079 S	10/1989	McFarlane	
D323,889 S	2/1992	Wyatt et al.	
D338,955 S	8/1993	Gresl et al.	
D339,189 S	9/1993	Nilsson	
5,284,486 A *	2/1994	Kotula	A61B 17/32075 606/159
D363,702 S	10/1995	McFadden	
D370,063 S	5/1996	Spreckelmeier	
D372,311 S	7/1996	Koros et al.	
D376,645 S *	12/1996	Lindgren	D24/112
6,053,899 A *	4/2000	Slanda	A61B 17/0483 604/500
D446,865 S *	8/2001	Conway	D24/216
D449,104 S	10/2001	Baker et al.	
6,315,755 B1 *	11/2001	Sussman	A61F 9/00736 239/13
D452,004 S	12/2001	Baker et al.	
D457,955 S	5/2002	Bilitz	
D458,134 S	6/2002	Berish et al.	
D461,555 S *	8/2002	Binet	D24/114
D482,121 S	11/2003	Harding et al.	
D482,447 S	11/2003	Harding et al.	
6,716,189 B1 *	4/2004	Jarvik	A61M 1/101 604/4.01
D495,417 S	8/2004	Doelling et al.	
D520,041 S	5/2006	Wheat	
D522,595 S	6/2006	Donahue et al.	
D586,913 S	2/2009	Leroy et al.	
D593,801 S *	6/2009	Wilson	D24/114
7,569,029 B2	8/2009	Clark	
D600,793 S *	9/2009	Bierman	D24/112
D612,050 S	3/2010	Baynham	
7,896,832 B2	3/2011	Zafirelis et al.	
D642,548 S	8/2011	Bowen III	
D647,496 S	10/2011	Tung	
8,029,728 B2	10/2011	Lindsay	
8,062,270 B2	11/2011	Sweeney	
D657,867 S *	4/2012	Effenberger	D24/114
8,211,047 B2	7/2012	Cerasoli et al.	
D667,546 S	9/2012	Becker	
8,313,954 B2	11/2012	Leach et al.	
D672,238 S	12/2012	Aziz et al.	
D673,673 S	1/2013	Wang	
D674,479 S	1/2013	Merchant et al.	
8,393,328 B2	3/2013	Angel et al.	
8,394,052 B2 *	3/2013	Jessop	B65D 25/082 604/187
8,574,219 B2	11/2013	Adams et al.	
D715,423 S	10/2014	Rogers	
D715,921 S	10/2014	Wan	
D720,850 S	1/2015	Hsia et al.	
D722,160 S	2/2015	Armstrong	
D727,499 S *	4/2015	Schad	D24/146
D733,291 S	6/2015	Wang	
D741,476 S	10/2015	Hiraoka et al.	
D748,253 S	1/2016	Ratjen et al.	
D751,691 S	3/2016	Shaw et al.	
D753,283 S *	4/2016	Efinger	D24/108
D758,579 S *	6/2016	Keckstein	D24/133
D761,961 S *	7/2016	Tan	D24/143
D768,868 S *	10/2016	Inoue	D24/216
D773,664 S *	12/2016	DeNeui	D24/147
D774,181 S *	12/2016	Green	D24/112
D782,026 S *	3/2017	Bresco Torras	D24/108
2011/0118704 A1 *	5/2011	Riaz	A61M 25/04 604/544
2013/0092640 A1	4/2013	Cassidy et al.	
2015/0343157 A1	12/2015	Basile et al.	
2016/0067391 A1 *	3/2016	Real	A61B 17/3421 604/543
2016/0129220 A1 *	5/2016	Jagadeesan	A61M 39/06 604/508

FOREIGN PATENT DOCUMENTS

CN	301978850 S	7/2012
EM	003359108-0001	8/2016
EM	003359108-0002	8/2016
EP	2 497 512	9/2012
GB	2 039 434	6/1994
GB	3 011 694	3/2003
GB	3 011 695	3/2003
JP	05-058151	8/1993
JP	D1296417	2/2007
JP	2007-508061 A	4/2007
SU	1134199	1/1985
SU	1215718	3/1986
WO	WO-2006/083220 A1	8/2006
WO	WO-2012/128816	9/2012
WO	WO-2013/099946 A1	7/2013

OTHER PUBLICATIONS

Canadian Examiner's Report dated Dec. 19, 2016, from related application No. 170250.

Japanese Office Action dated Jan. 10, 2017, from related application No. 2016-18812.

Japanese Office Action dated Jan. 10, 2017, from related application No. 2016-18813.

BD A-Line Syringe Without Needle 3ml Slip Tip, https://online.ebos.co.nz/default.cfm?action=displayproduct&product_code=21120424, 1 page.

BD SAF-T-Intima Closed IV Catheter System, <http://www.bd.com/infusion/products/ivcatheters/sti.asp>, 2 pages.

Canadian Examiner's Report dated Mar. 28, 2017, from related application No. 170250.

Extracorporeal Membrane Oxygenation, an Anesthesiologist's Perspective: Physiology and Principles, <http://annals.in/article.asp?issn=0971-9784;year=2011;volume=14;issue=3;page=218;epage=229;aulast=Chauhan;type=3>.

IV Gravity Sets, <https://sentramedical.co.uk/portfolio-view/iv-gravity-sets/>, 2 pages.

Latex Short Type Y Injection Port for I.V. Tube, <http://eastmed01.en.made-in-china.com/product/PqcQUOKAXdpz/China-Latex-Short-Type-YInjection-Port-for-I-V-Tube.html>, 3 pages.

Pen Type IV Cannula Without Valve and Without Wings With CE&ISO Approval, <http://sell.lulusoso.com/selling-leads/1215085/Y-type-I-V-Cannula-Types-of-cannula.html>, 7 pages.

SAF-T-Intima Intravenous Cannula, <http://www.clhgroup.co.uk/products/saf-t-intima-intravenous-cannula/3331/>, 1 page.

Starting Intravenous Lines, <http://www.mrprotocols.com/sset/iv.html>, 5 pages.

International Preliminary Report on Patentability dated Aug. 25, 2016, from related international application No. PCT/US2014/016595.

PCT International Search Report and Written Opinion dated Nov. 6, 2014, from related application No. PCT/US2014/016595.

U.S. Notice of Allowance dated Jul. 16, 2014, from related U.S. Appl. No. 29/456,396.

U.S. Notice of Allowance dated Oct. 28, 2016, from related U.S. Appl. No. 29/545,199.

U.S. Office Action dated Aug. 31, 2017, from U.S. Appl. No. 29/536,128.

Extended European Search Report dated Aug. 31, 2017, from application No. 14882436.0.

Japanese Office Action dated Sep. 19, 2017, from application No. 2016-552330.

U.S. Office Action dated Jun. 30, 2017, from U.S. Appl. No. 29/596,365.

U.S. Notice of Allowance dated Oct. 18, 2017, from U.S. Appl. No. 29/536,128.

* cited by examiner

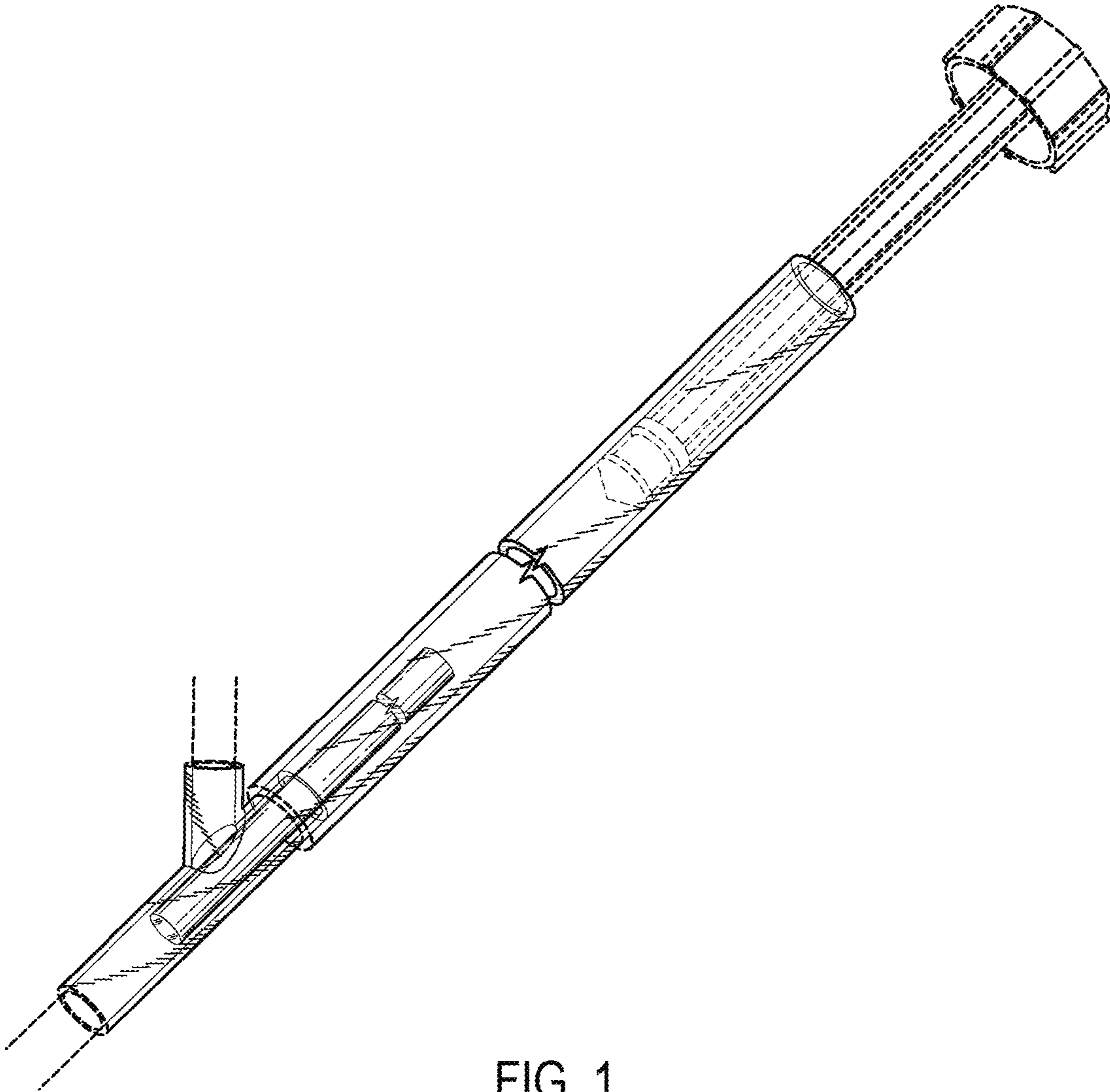


FIG. 1

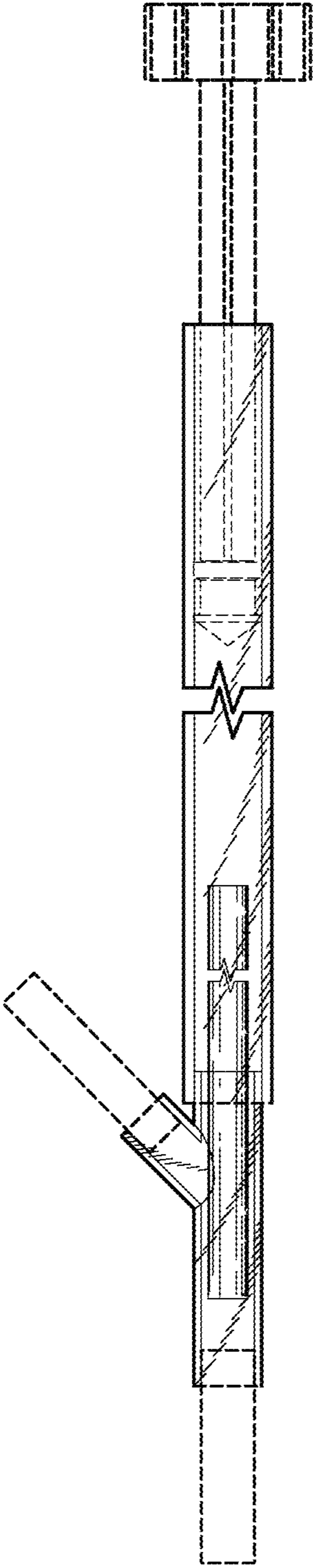


FIG. 2

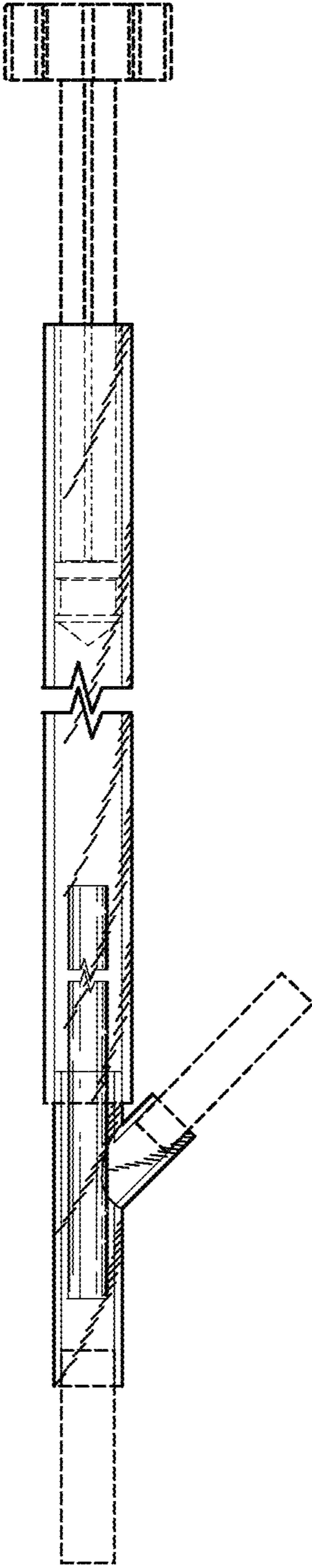


FIG. 3

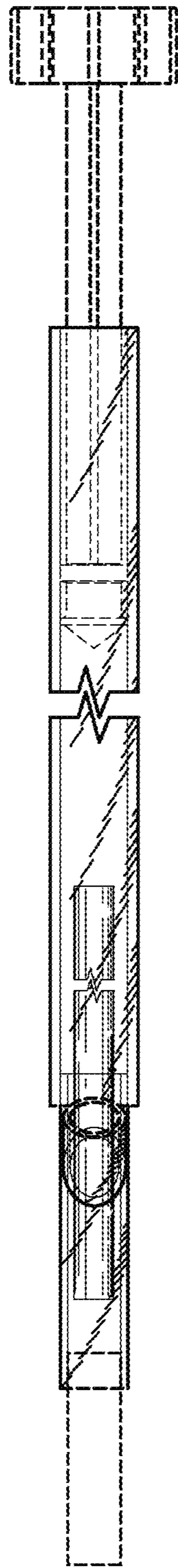


FIG. 4

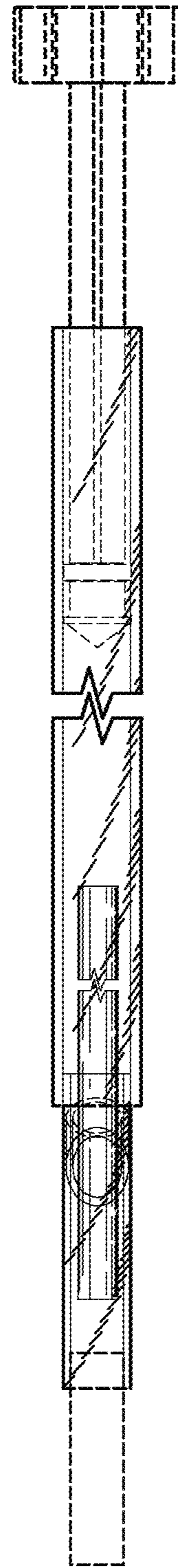


FIG. 5

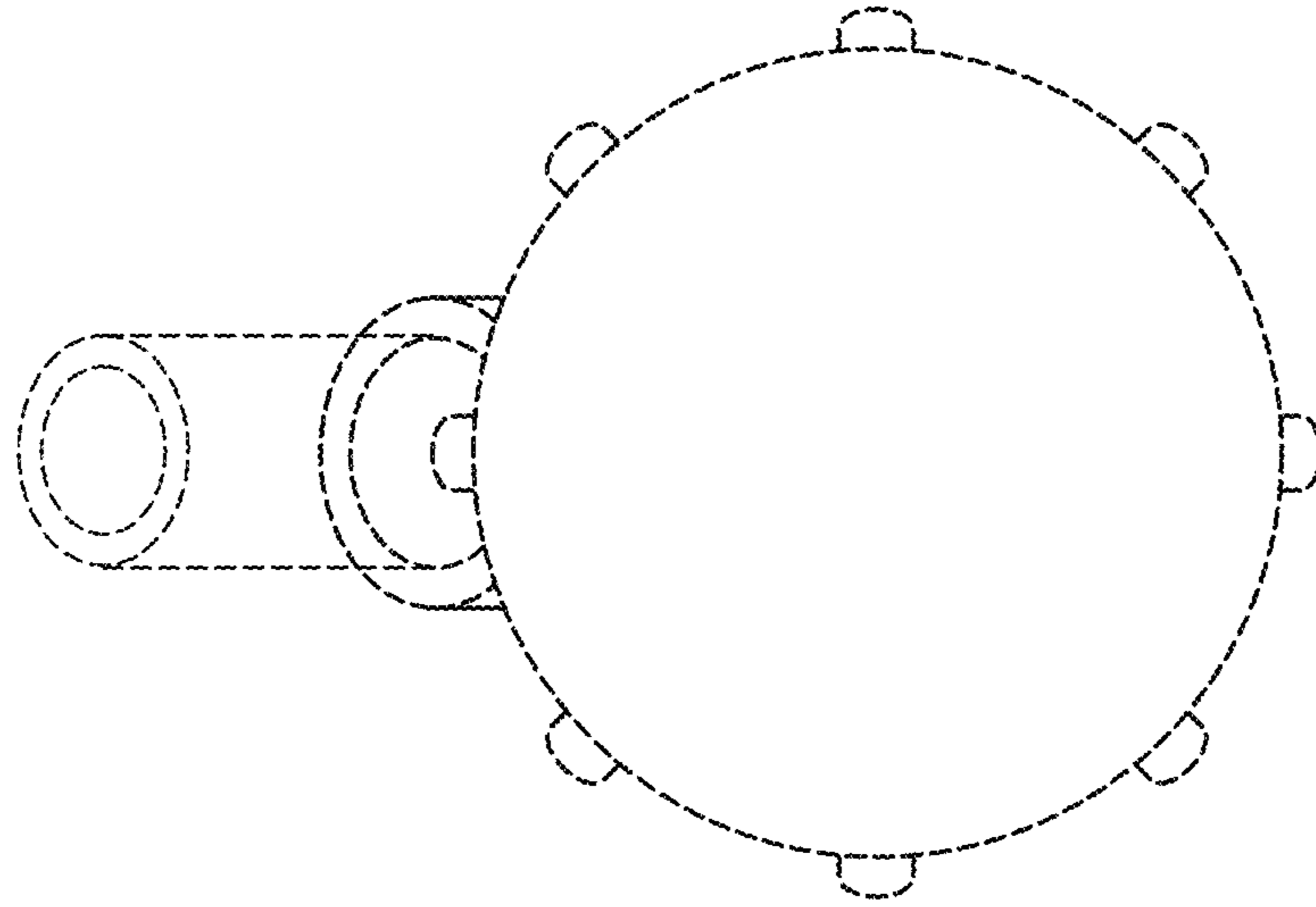


FIG. 6

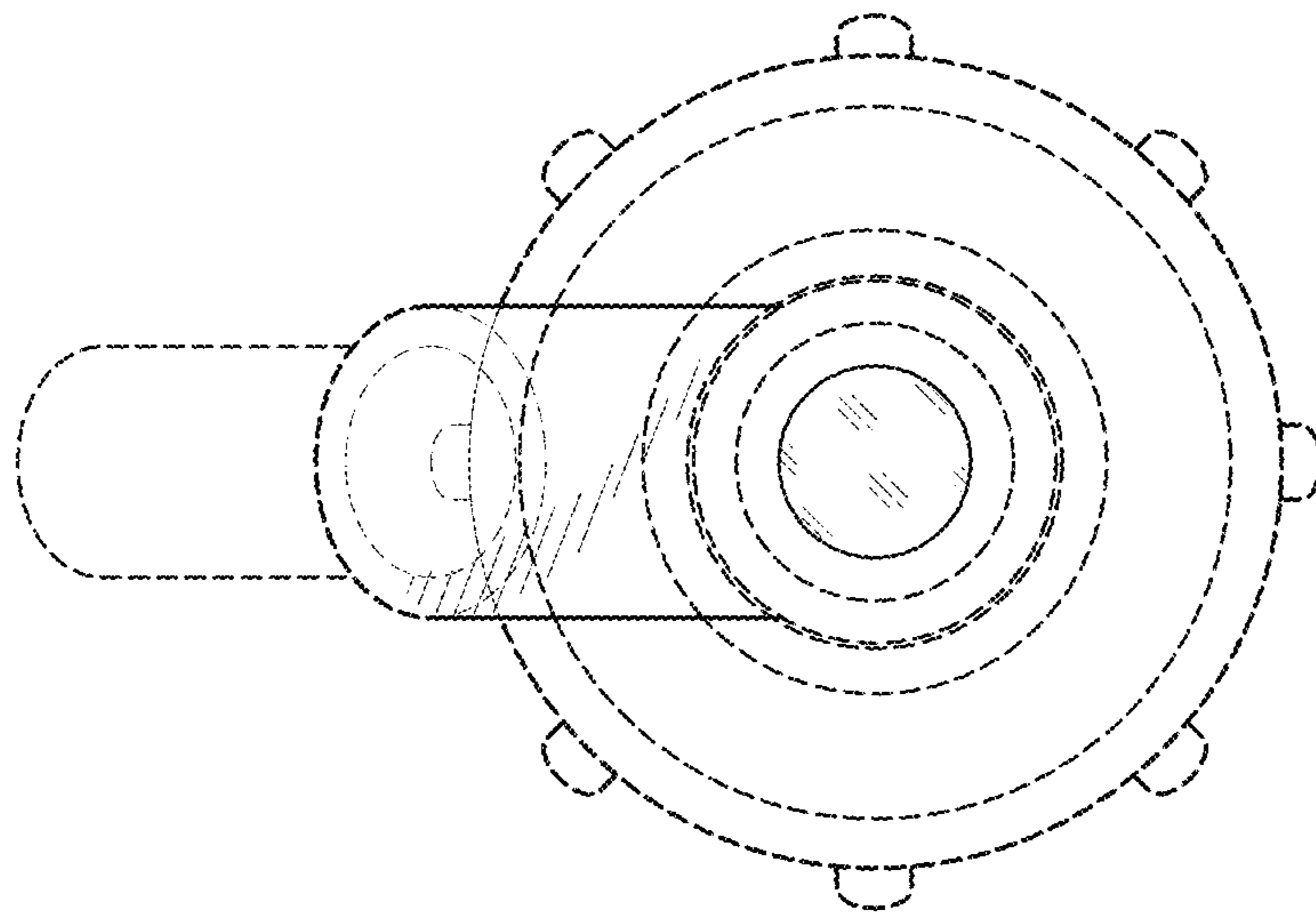


FIG. 7

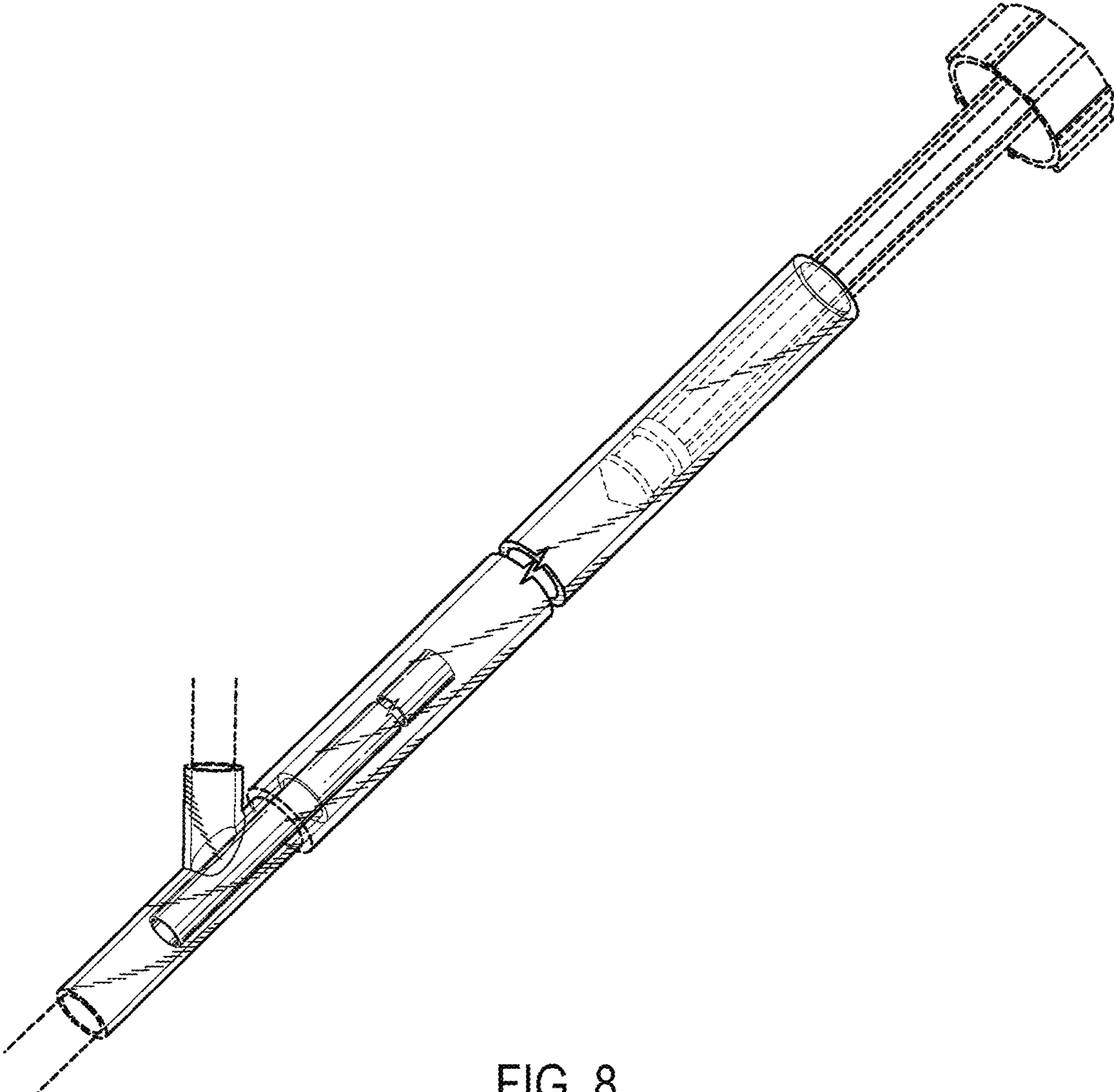


FIG. 8

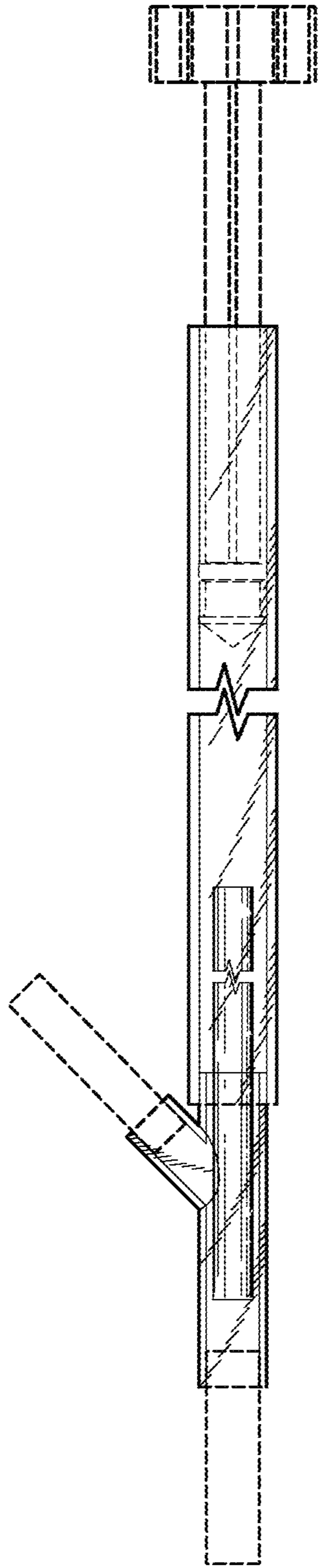


FIG. 9

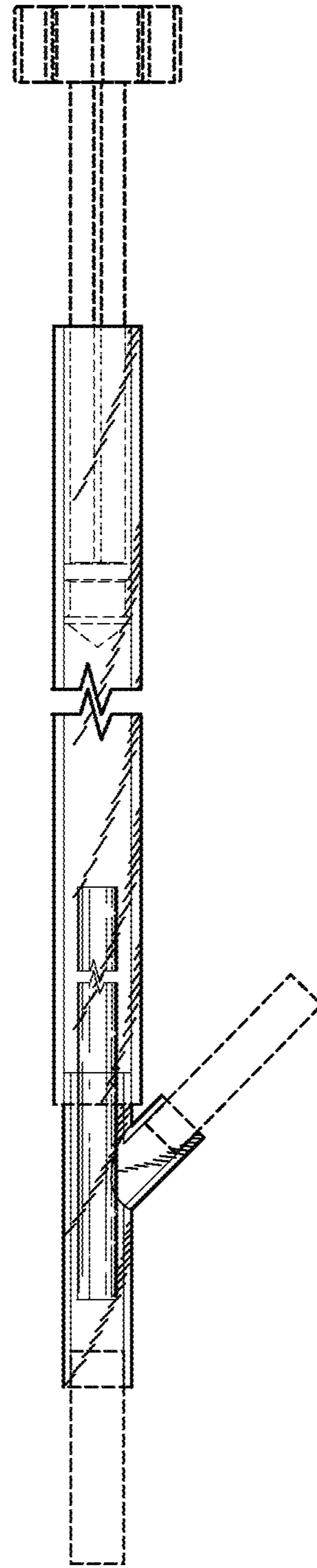


FIG. 10

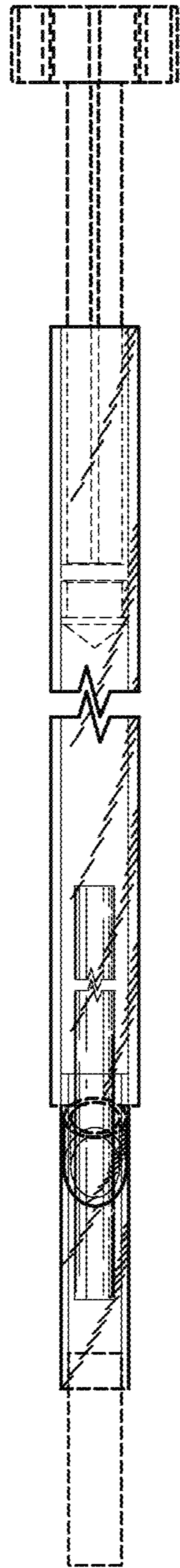


FIG. 11

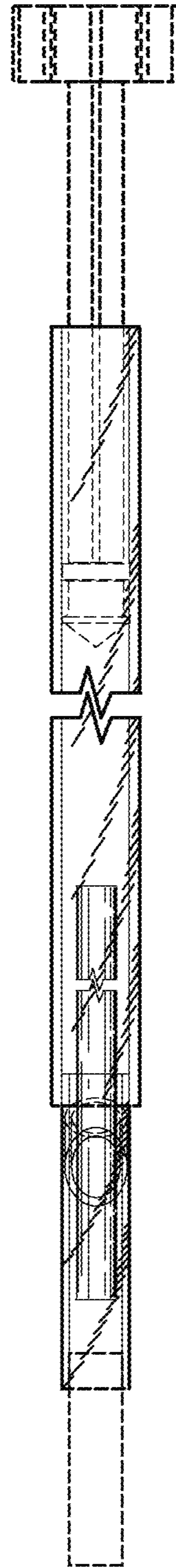


FIG. 12

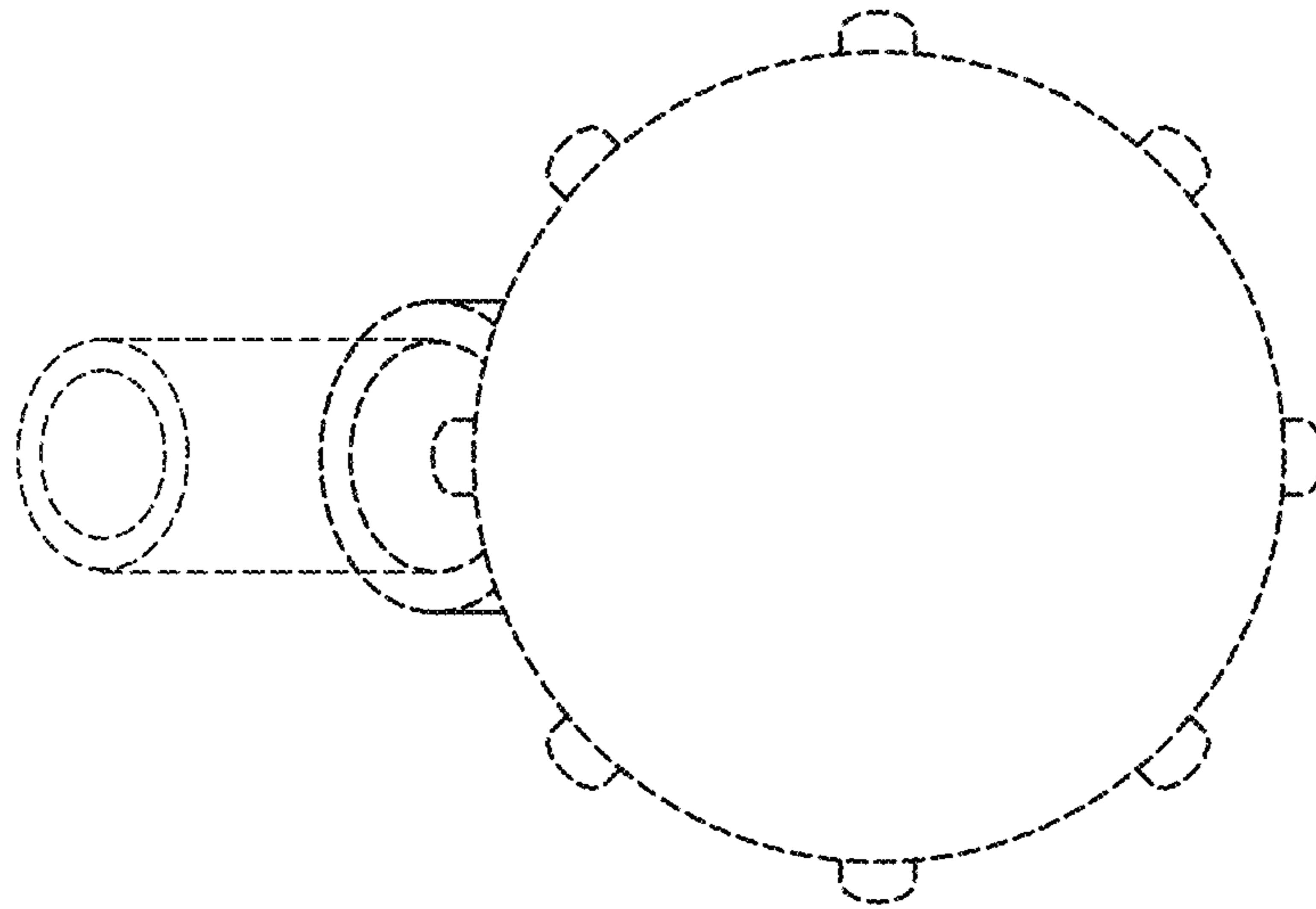


FIG. 13

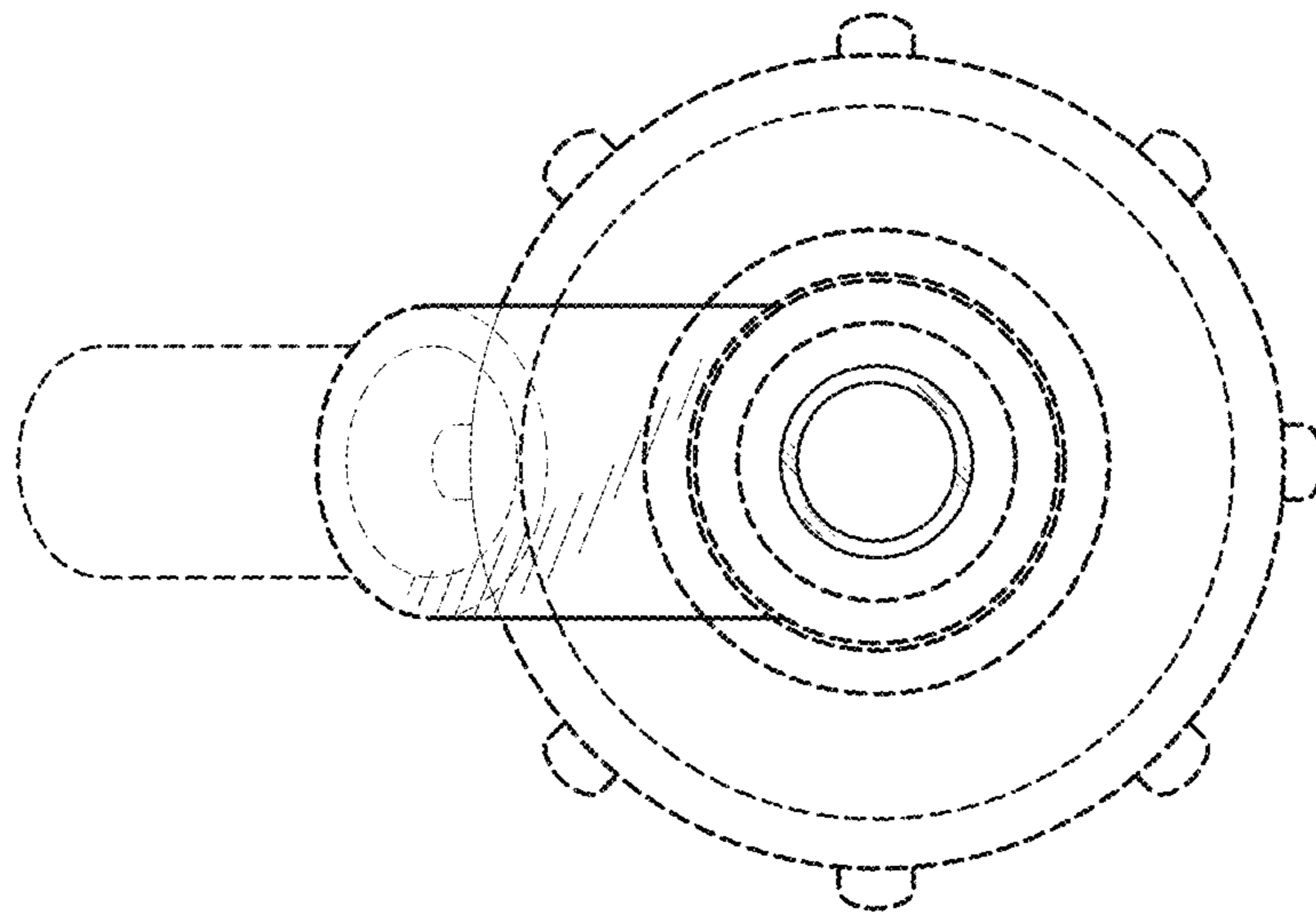


FIG. 14