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(12) **United States Design Patent** (10) **Patent No.:** **US D938,023 S**
Hernandez (45) **Date of Patent:** **** *Dec. 7, 2021**

- (54) **DRUG DELIVERY SYRINGE** D335,344 S * 5/1993 Hastings D24/114
- (71) Applicant: **Certa Dose, Inc.**, Denver, CO (US) 5,468,224 A 11/1995 Souryal
- (72) Inventor: **Caleb Hernandez**, Arvada, CO (US) 5,573,529 A 11/1996 Haak et al.
- (73) Assignee: **CERTA DOSE, INC.**, Denver, CO (US) 5,692,640 A 12/1997 Caulfield et al.
- (*) Notice: This patent is subject to a terminal disclaimer. 5,773,258 A 6/1998 Birch et al.
- (**) Term: **15 Years** 6,132,416 A 10/2000 Broselow
- (21) Appl. No.: **29/588,627** D447,797 S * 9/2001 Odell D24/112
- (22) Filed: **Dec. 21, 2016** 6,322,543 B1 11/2001 Singh et al.

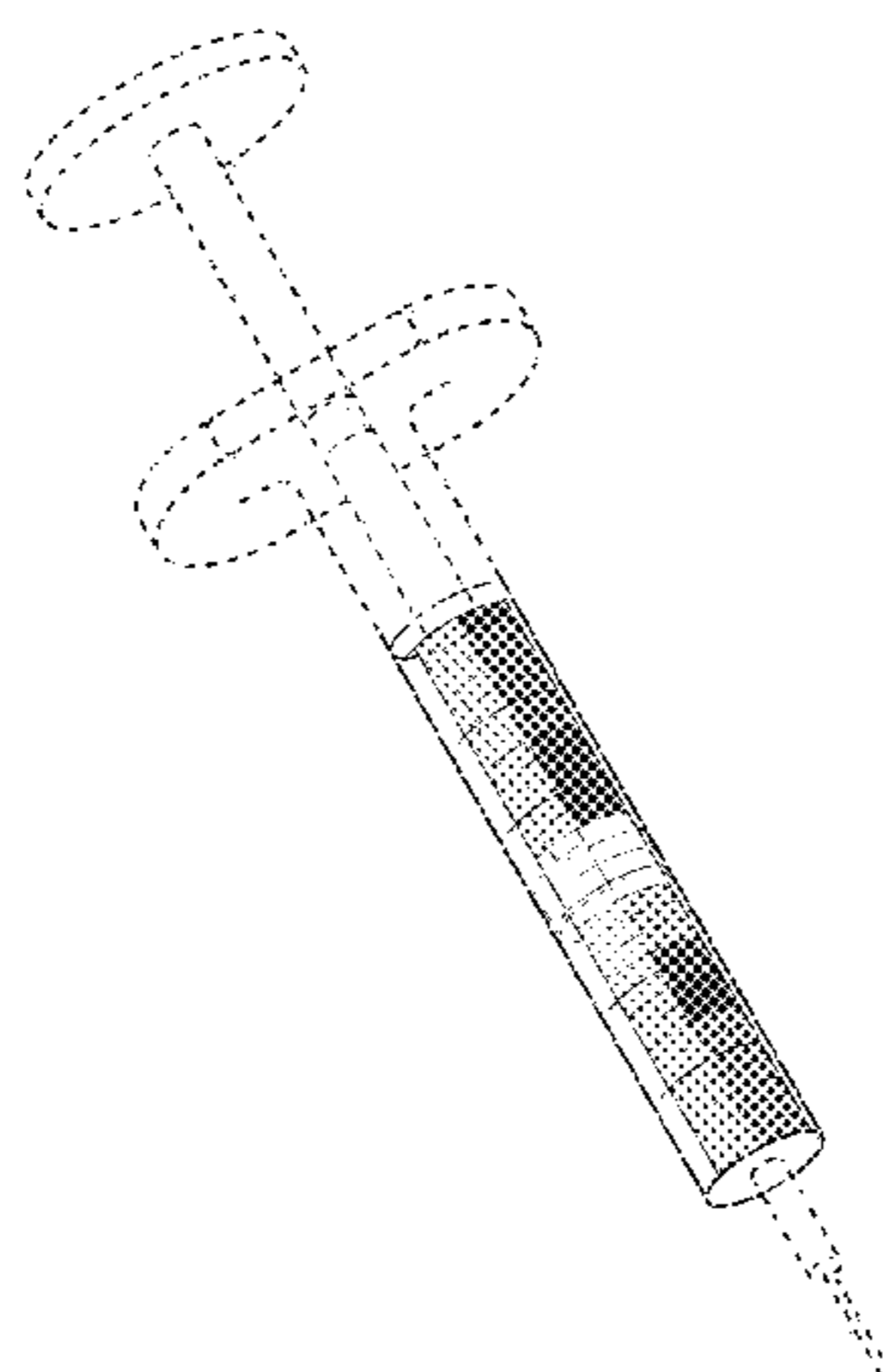
Related U.S. Application Data

- (63) Continuation-in-part of application No. 15/282,732, filed on Sep. 30, 2016, and a continuation-in-part of application No. 14/392,087, filed on Sep. 2, 2015. 6,338,200 B1 1/2002 Baxa et al.
- (51) **LOC (13) Cl.** **24-02** D460,820 S * 7/2002 Niedospial, Jr. D24/130
- (52) **U.S. Cl.** **D24/130** 6,436,075 B1 * 8/2002 Liao A61M 5/3205 604/181
- (58) **Field of Classification Search** 6,764,469 B2 7/2004 Broselow
- USPC **D24/130** D500,342 S 12/2004 Stewart et al.
- USPC D24/112-114, 108, 133, 130, 127, 186; 606/181, 185; 604/264, 272, 187, 181, 604/184, 227 D500,524 S 1/2005 Stewart et al.
- CPC A61M 2005/3125; A61M 5/31545; A61M 5/178; A61M 3/00; A61M 5/20; A61M 5/31; A61M 5/3146; A61M 5/3129; A61M 5/3148; A61M 5/315 6,936,034 B2 * 8/2005 Watkins A61M 5/3243 359/441
- See application file for complete search history. D545,429 S * 6/2007 Hays D24/114

(56) **References Cited**

U.S. PATENT DOCUMENTS

D280,734 S	9/1985	Bateman	9,019,307 B1	4/2015	Grimm
4,713,888 A	12/1987	Broselow	D741,871 S	10/2015	Chung et al.
4,716,888 A	1/1988	Wesner	9,159,249 B2	10/2015	Ferrara
4,823,469 A	4/1989	Broselow	D745,534 S	12/2015	Cho
4,926,885 A	5/1990	Hinkle	D747,726 S	1/2016	Virk et al.
5,010,656 A	4/1991	Broselow	D748,105 S	1/2016	Virk et al.
5,016,651 A	5/1991	Stalcup et al.	9,271,896 B2	3/2016	Clements
			9,272,099 B2	3/2016	Limaye et al.
			9,345,638 B2	5/2016	Ferrara
			9,345,639 B2	5/2016	Ferrara
			D771,807 S *	11/2016	Zalewski D24/130
			D780,913 S *	3/2017	Murasawa D24/130
			D783,397 S	4/2017	Riffe
			9,682,195 B2	6/2017	Tucker
			D797,759 S	9/2017	Tsujimura et al.
			D798,886 S	10/2017	Prophete et al.
			9,839,750 B2	12/2017	Limaye et al.
			D810,283 S *	2/2018	Amend Kwasnik D24/113
			9,931,469 B2	4/2018	Shain et al.
			9,950,126 B2	4/2018	Basile et al.



D819,060 S	5/2018	Friedman et al.
10,195,347 B1 *	2/2019	Berkman A61M 5/31
D846,383 S	4/2019	Hernandez
2002/0087121 A1	7/2002	Slushman
2002/0088131 A1	7/2002	Baxa et al.
2004/0024368 A1	2/2004	Broselow
2004/0082855 A1	4/2004	Robar et al.
2004/0186437 A1	9/2004	Frenette et al.
2005/0090782 A1	4/2005	Marshall et al.
2005/0215957 A1	9/2005	Hynes
2006/0000480 A1	1/2006	Broselow
2006/0137696 A1	6/2006	Broselow
2007/0100288 A1	5/2007	Bozeman et al.
2007/0127623 A1	6/2007	Goldman et al.
2007/0135772 A1	6/2007	Grogan, Jr.
2007/0201614 A1	8/2007	Goldman et al.
2008/0188814 A1	8/2008	Lavi-Loebl et al.
2008/0232542 A1	9/2008	Lin
2009/0126743 A1	5/2009	Wingert
2009/0149815 A1	6/2009	Kiel et al.
2010/0056895 A1	3/2010	Temple et al.
2013/0012886 A1	1/2013	Kawachi
2013/0101079 A1	4/2013	Hough et al.
2013/0204225 A1	8/2013	Creaturo
2015/0057608 A1	2/2015	Hitscherich, Jr. et al.
2015/0306318 A1	10/2015	Lockhart et al.
2016/0022912 A1	1/2016	Hernandez
2016/0022920 A1	1/2016	Reeves
2016/0136050 A1	5/2016	Clements
2016/0166774 A1	6/2016	Leary
2016/0166775 A1	6/2016	Oakley et al.
2016/0250416 A1	9/2016	Hultgren
2017/0095615 A1	4/2017	Fischer et al.
2017/0151391 A1	6/2017	Hernandez
2017/0245811 A1	8/2017	Hernandez
2017/0304152 A1	10/2017	Hernandez
2017/0367930 A1	12/2017	Gompf et al.
2018/0043103 A1	2/2018	Nandigala et al.
2018/0154088 A1	6/2018	Broselow
2018/0221581 A1	8/2018	Kumar et al.

FOREIGN PATENT DOCUMENTS

EP	0983761	3/2000
EP	2548597 A1	1/2013
GB	2461013 A	12/2009
JP	2008-171582 A	7/2008
JP	2011-143652 A	7/2011
WO	WO 2010/112558	10/2010
WO	WO 2011/114917	9/2011
WO	WO 2013/116353	8/2013
WO	WO 2017/193082	11/2017
WO	WO 2017/197145	11/2017

OTHER PUBLICATIONS

International Search Report and Written Opinion for International Application No. PCT/US2019/014623, dated Apr. 12, 2019, 12 pages.

Med Alliance Group, Inc., Certa Dose Epinephrine Convenience Kit, Accurate Dosing Confirmed [Online], Retrieved from the Internet on Jun. 20, 2018; <URL: <https://www.medalliancegroup.com/product/certadose-epinephrine/>>, 3 pages.

Excel Spreadsheets Group, 4+ Simple Excel Spreadsheet [Online], Retrieved from the Internet on Feb. 20, 2018; <URL:<http://excelspreadsheetsgroup.com/4-simple-excel-spreadsheet/>>, 4 pages.

Ryu, G. S. et al. "Analysis of liquid medication dose errors made by patients and caregivers using alternative measuring devices", J Manag Care Pharm. Jul.-Aug. 2012;18(6):439-45.

Luten, R. et al. "Managing the unique size-related issues of pediatric resuscitation: reducing cognitive load with resuscitation aids", Acad Emerg Med. Aug. 2002;9(8):840-7.

Moreira, M. E., et al. "Novel, Color-Coded Prefilled Syringe Significantly Decreases Time to Medication Administration, Preparation for Endotracheal Intubation, And Eliminates Critical Dosing

Errors in Simulated Pediatric Resuscitations," Circulation. Journal of the American Heart Association. Dec. 4, 2012. 126(23): 2798. LBRS-358.

Melker, R. et al. "A pediatric gastric tube airway," Critical Care Medicine. 1981. The Williams & Watkins Co.; 9(5):426-427.

Supplementary European Search Report for European Application No. 13742871.0, dated Jul. 17, 2015, 6 pages.

International Search Report and Written Opinion for International Application No. PCT/US2013/023873, dated Jun. 2, 2013, 12 pages.

International Search Report and Written Opinion for International Application No. PCT/US2017/031420, dated Aug. 14, 2017, 6 pages.

International Search Report and Written Opinion for International Application No. PCT/US2017/032207, dated Jul. 26, 2017, 9 pages.

Critical Care Medicine; "A pediatric gastric tube airway," The Williams & Watkins Co.; 9(5):426-427 (1981).

"Color Coding System Measures Kids' Meds," Healthy Living, KABC-TV/DT, Mar. 24, 2009, 5 pages.

McFadden, M., "New dosing system takes the guesswork out of giving medicine to kids," WNDU—Channel 16, Mar. 12, 2009, 3 pages.

Moreira, M. E. et al., "Color-Coded Prefilled Medication Syringe Decrease Time to Delivery and Dosing Error in Simulated Emergency Department Pediatric Resuscitations," Annals of Emergency Medicine, United States of America, American College of Emergency Physicians, Aug. 2015, vol. 66, No. 2, pp. 97-106.

HMC Pharmacy, "New Procedure: Emergency syringes," Harborview Medical Center (Oct. 2010), 1 page.

Frush, K. S. et al., "Evaluation of a Method to Reduce Over-the-Counter Medication Dosing Error," Arch. Pediatr. Adolesc. Med., 158:620-624 (Jul. 2004).

* cited by examiner

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(74) Attorney, Agent, or Firm — Neugeboren O'Dowd PC

(57) CLAIM

The ornamental designs for a drug delivery syringe, as shown and described.

DESCRIPTION

The file of this patent contains at least one drawing/photograph executed in color. Copies of this patent with color drawing(s)/photograph(s) will be provided by the Office upon request and payment of the necessary fee.

FIG. 1 is a perspective view of an embodiment of a design for a drug delivery syringe;

FIG. 2 is a front view of the design for the drug delivery syringe of FIG. 1;

FIG. 3 is a back view of the design for the drug delivery syringe of FIG. 1;

FIG. 4 is a first side view of the design for the drug delivery syringe of FIG. 1;

FIG. 5 is a second side view of the design for the drug delivery syringe of FIG. 1;

FIG. 6 is a top view of the design for the drug delivery syringe of FIG. 1;

FIG. 7 is a bottom view of the design for the drug delivery syringe of FIG. 1;

FIG. 8 is a perspective view of another embodiment of a design for a drug delivery syringe;

FIG. 9 is a front view of the design for the drug delivery syringe of FIG. 8;

FIG. 10 is a back view of the design for the drug delivery syringe of FIG. 8;

FIG. 11 is a first side view of the design for the drug delivery syringe of FIG. 8;

FIG. 12 is a second side view of the design for the drug delivery syringe of FIG. 8;

FIG. 13 is a top view of the design for the drug delivery syringe of FIG. 8;

FIG. 14 is a bottom view of the design for the drug delivery syringe of FIG. 8;

FIG. 15 is a perspective view of another embodiment of a design for a drug delivery syringe;

FIG. 16 is a front view of the design for the drug delivery syringe of FIG. 15;

FIG. 17 is a back view of the design for the drug delivery syringe of FIG. 15;

FIG. 18 is a first side view of the design for the drug delivery syringe of FIG. 15;

FIG. 19 is a second side view of the design for the drug delivery syringe of FIG. 15;

FIG. 20 is a top view of the design for the drug delivery syringe of FIG. 15;

FIG. 21 is a bottom view of the design for the drug delivery syringe of FIG. 15;

FIG. 22 is a perspective view of another embodiment of a design for a drug delivery syringe;

FIG. 23 is a front view of the design for the drug delivery syringe of FIG. 22;

FIG. 24 is a back view of the design for the drug delivery syringe of FIG. 22;

FIG. 25 is a first side view of the design for the drug delivery syringe of FIG. 22;

FIG. 26 is a second side view of the design for the drug delivery syringe of FIG. 22;

FIG. 27 is a top view of the design for the drug delivery syringe of FIG. 22; and,

FIG. 28 is a bottom view of the design for the drug delivery syringe of FIG. 22.

The broken line showing of parts of the drawings is included for the purpose of illustrating use and environment and forms no part of the claimed design.

**1 Claim, 8 Drawing Sheets
(4 of 8 Drawing Sheet(s) Filed in Color)**

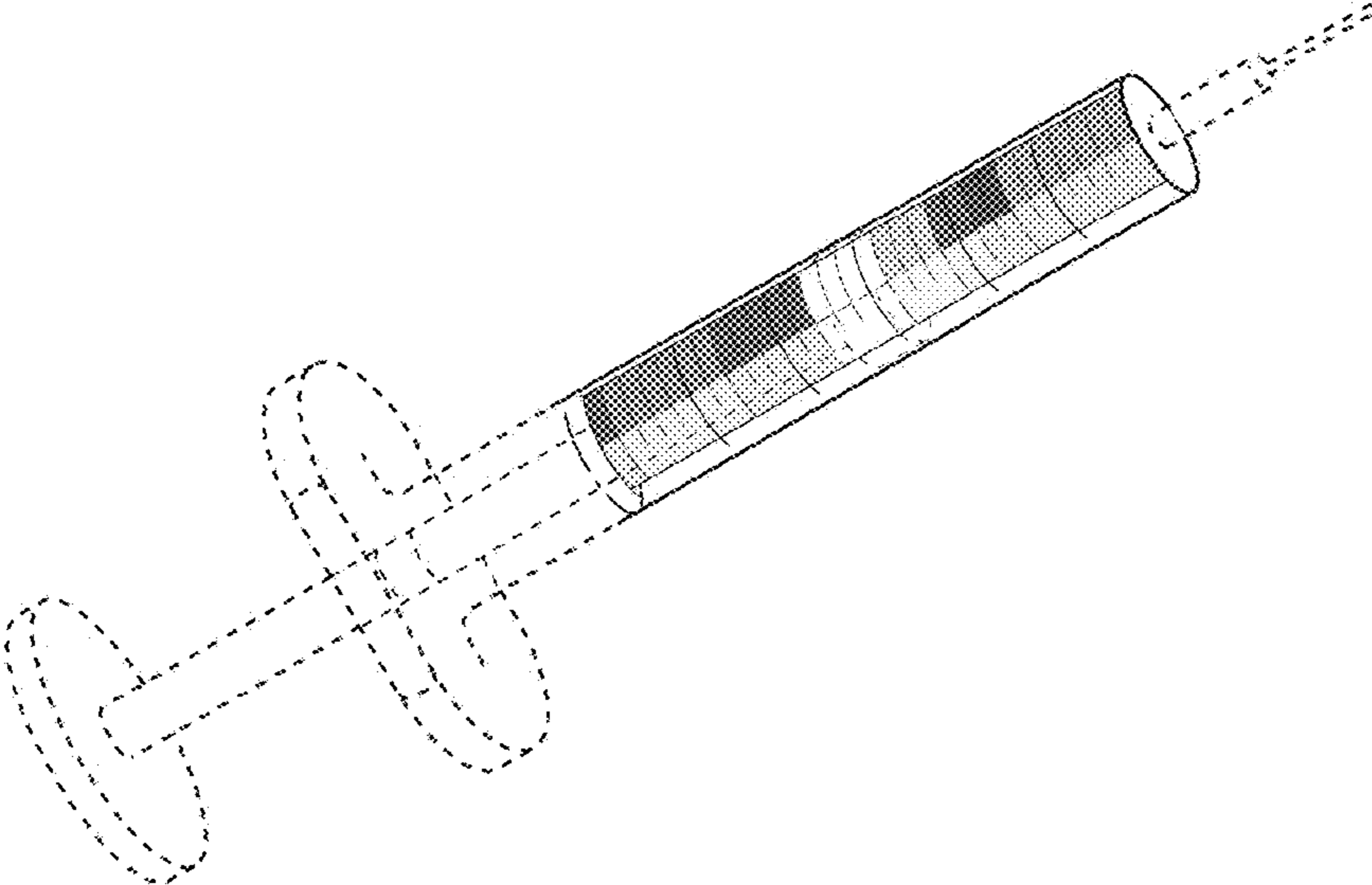


FIG. 1

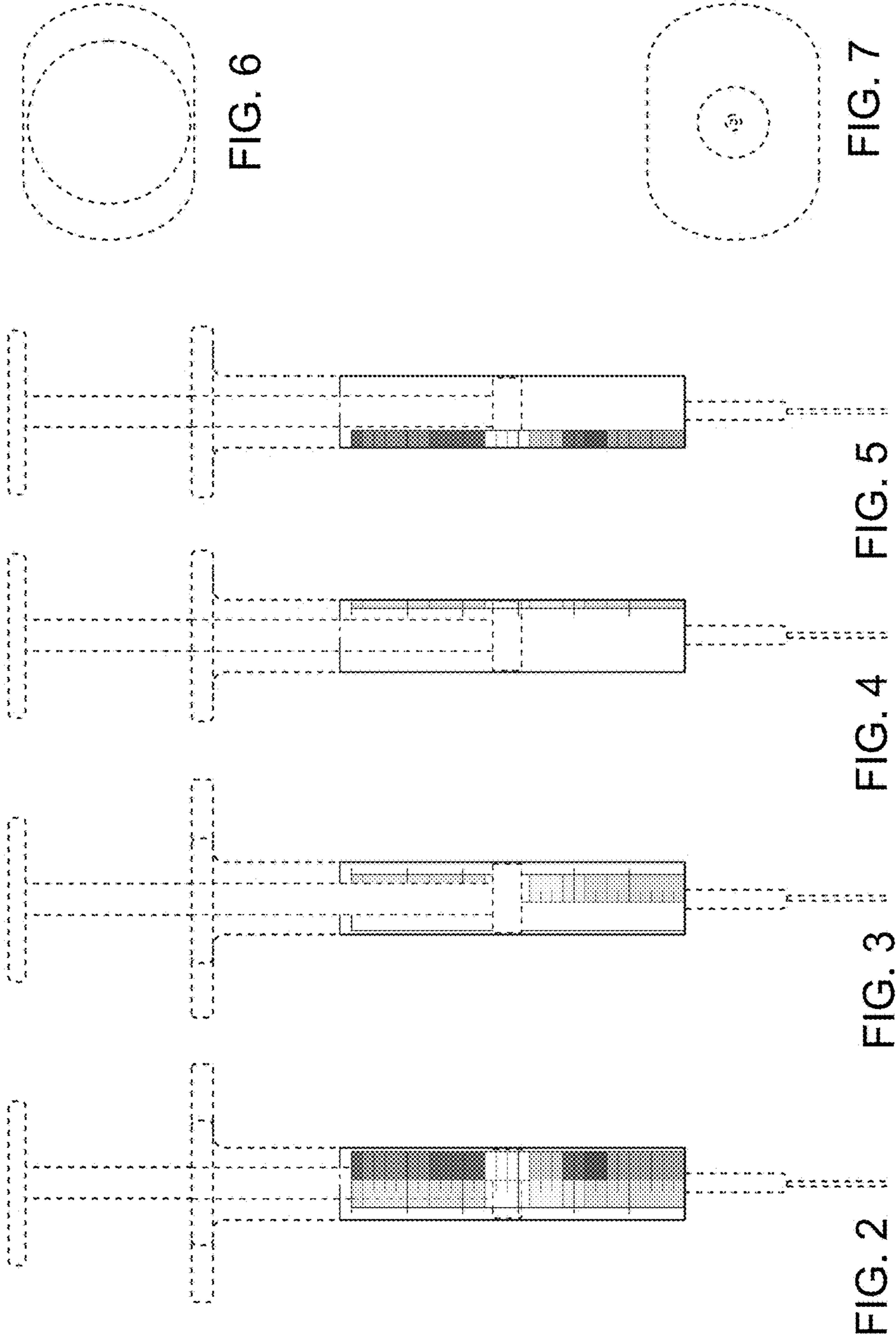


FIG. 6

FIG. 7

FIG. 5

FIG. 4

FIG. 3

FIG. 2

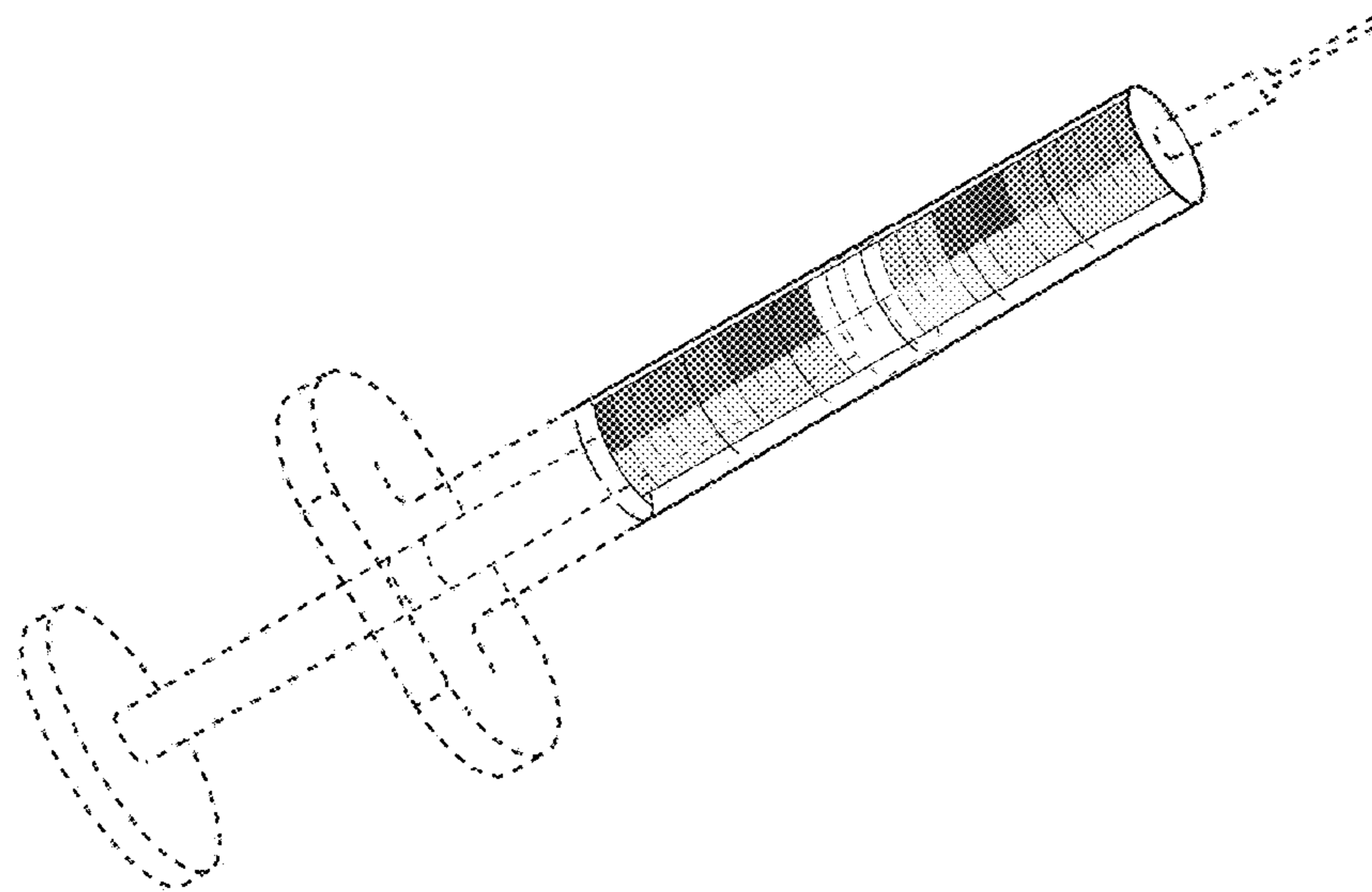


FIG. 8

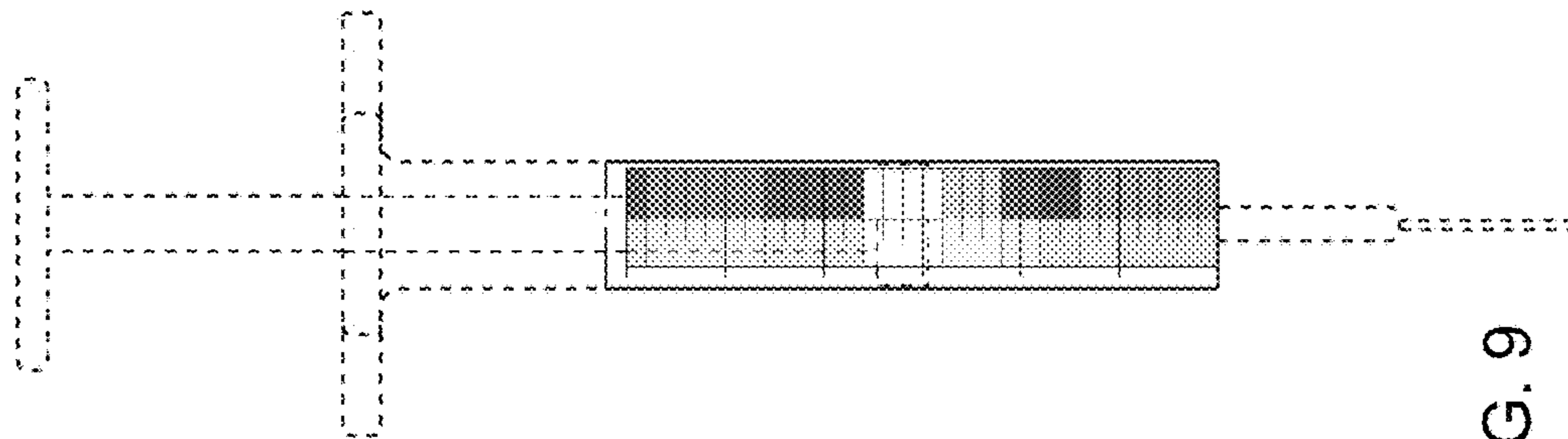


FIG. 9

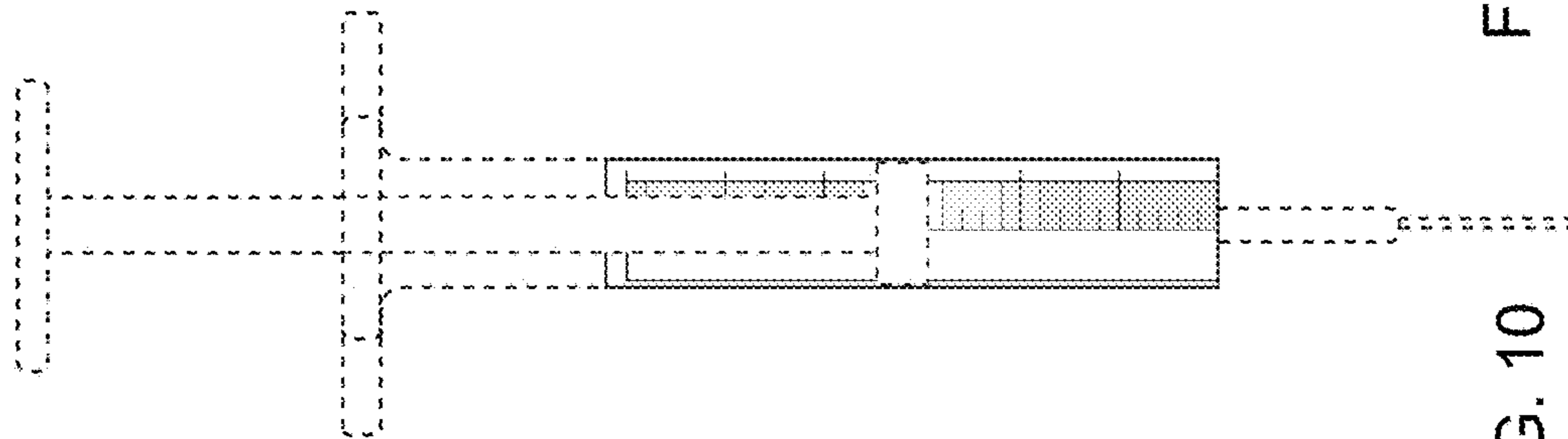


FIG. 10

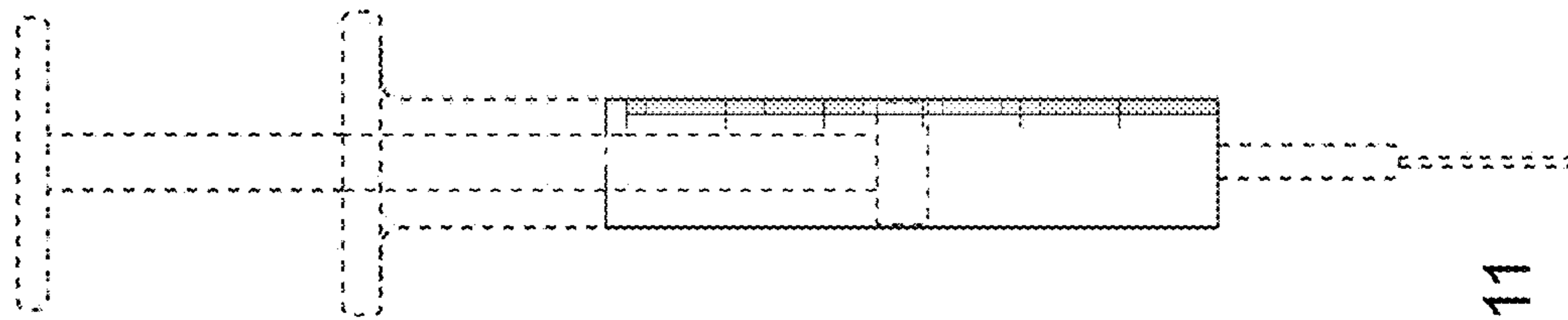


FIG. 11

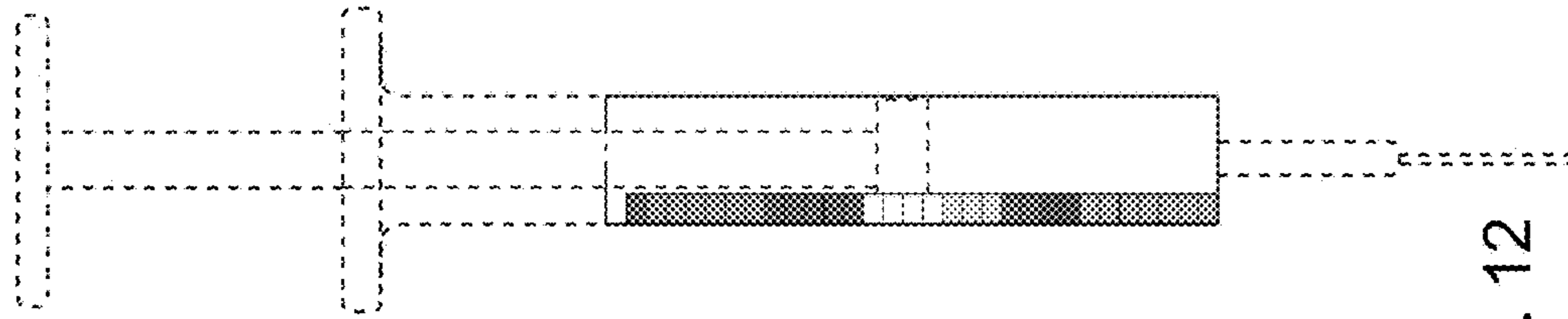


FIG. 12

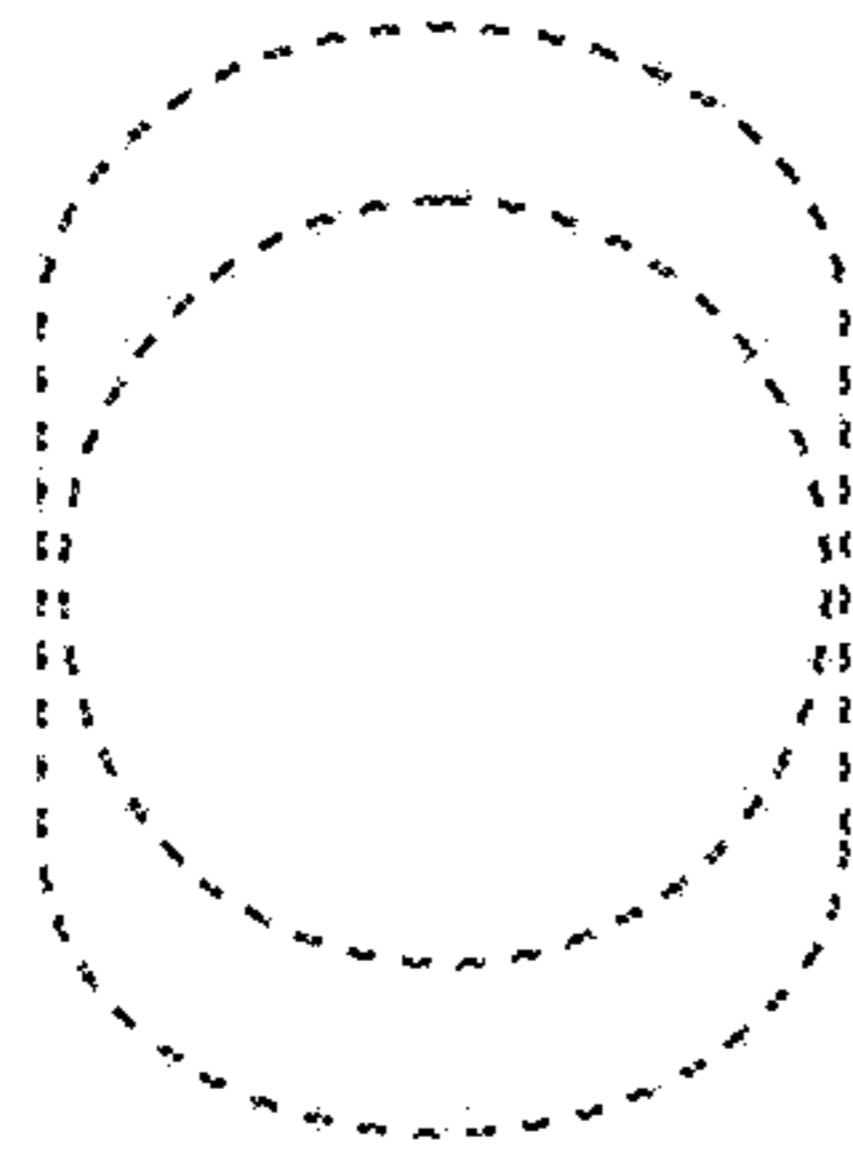


FIG. 13

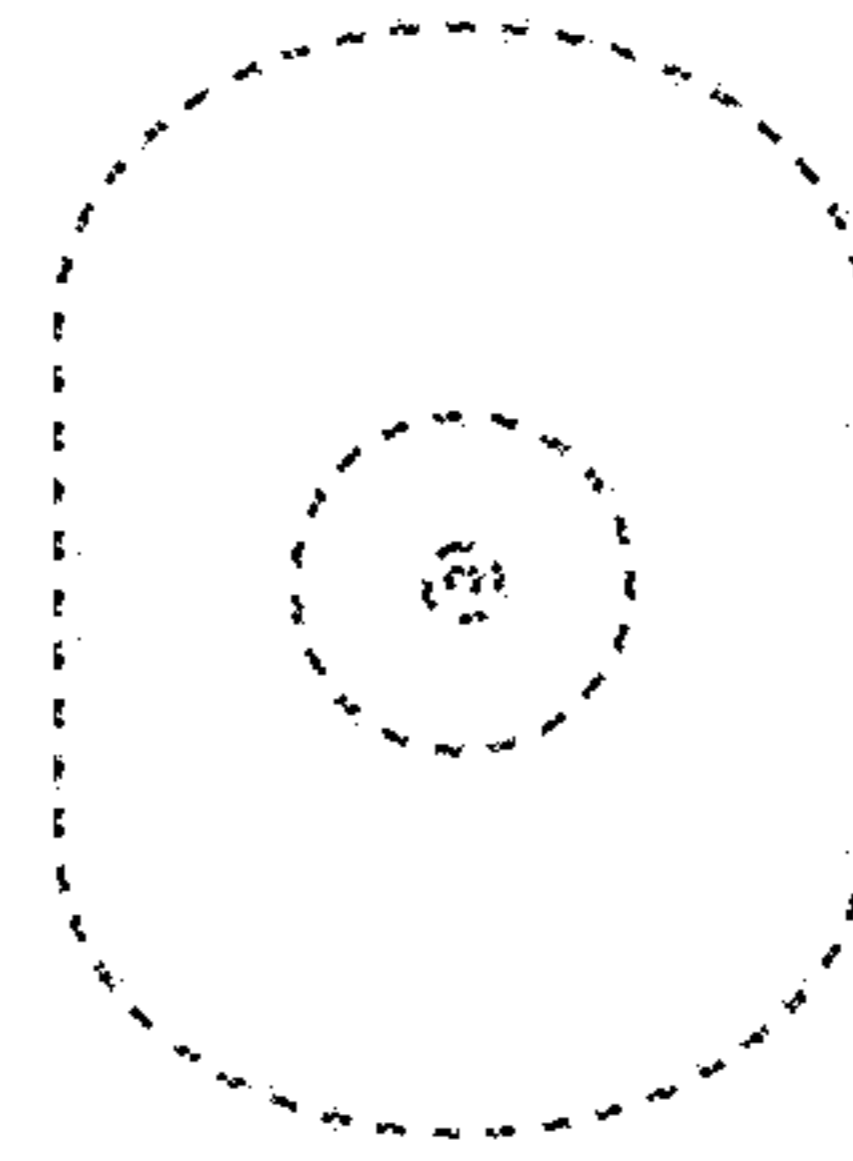


FIG. 14

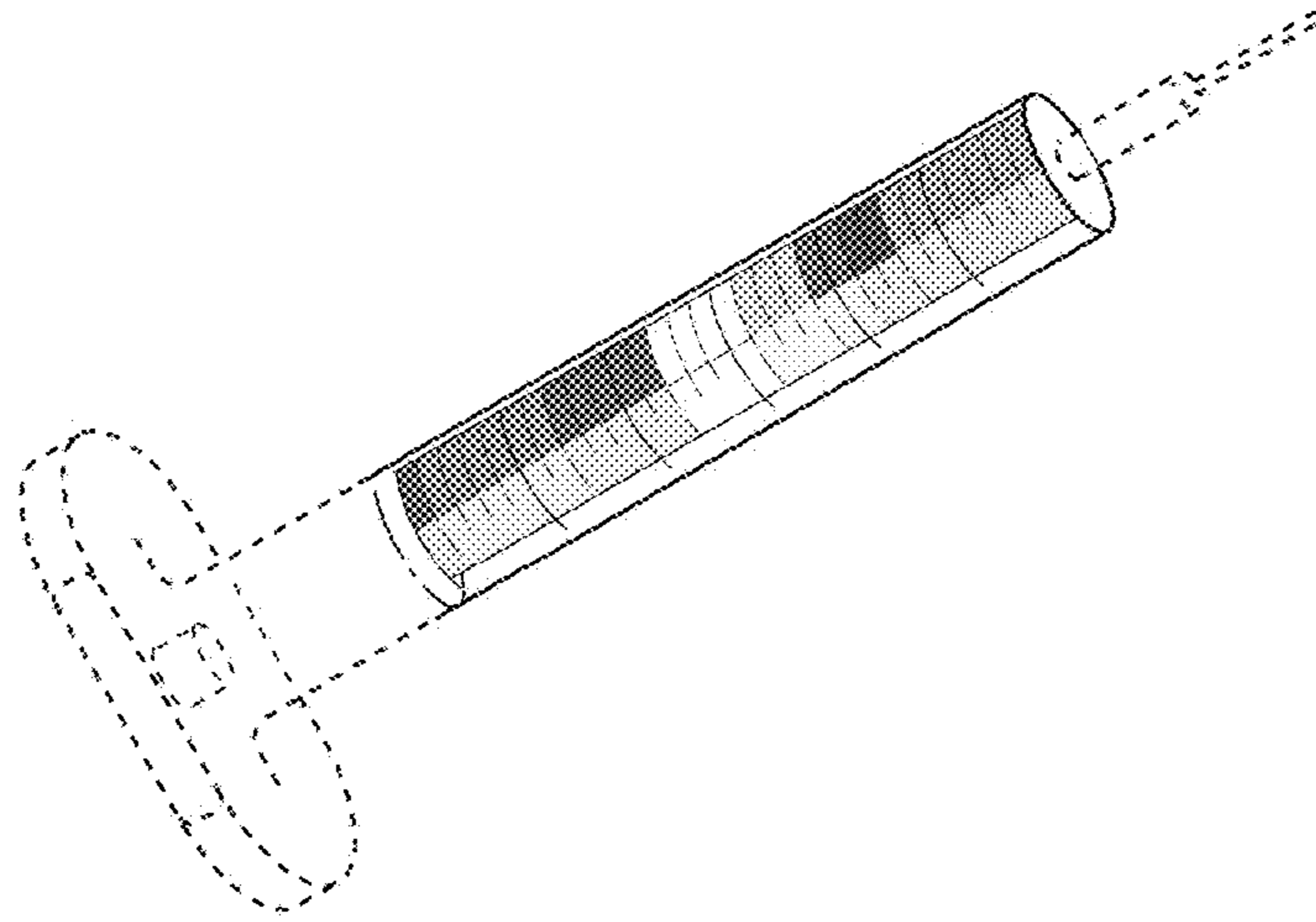


FIG. 15

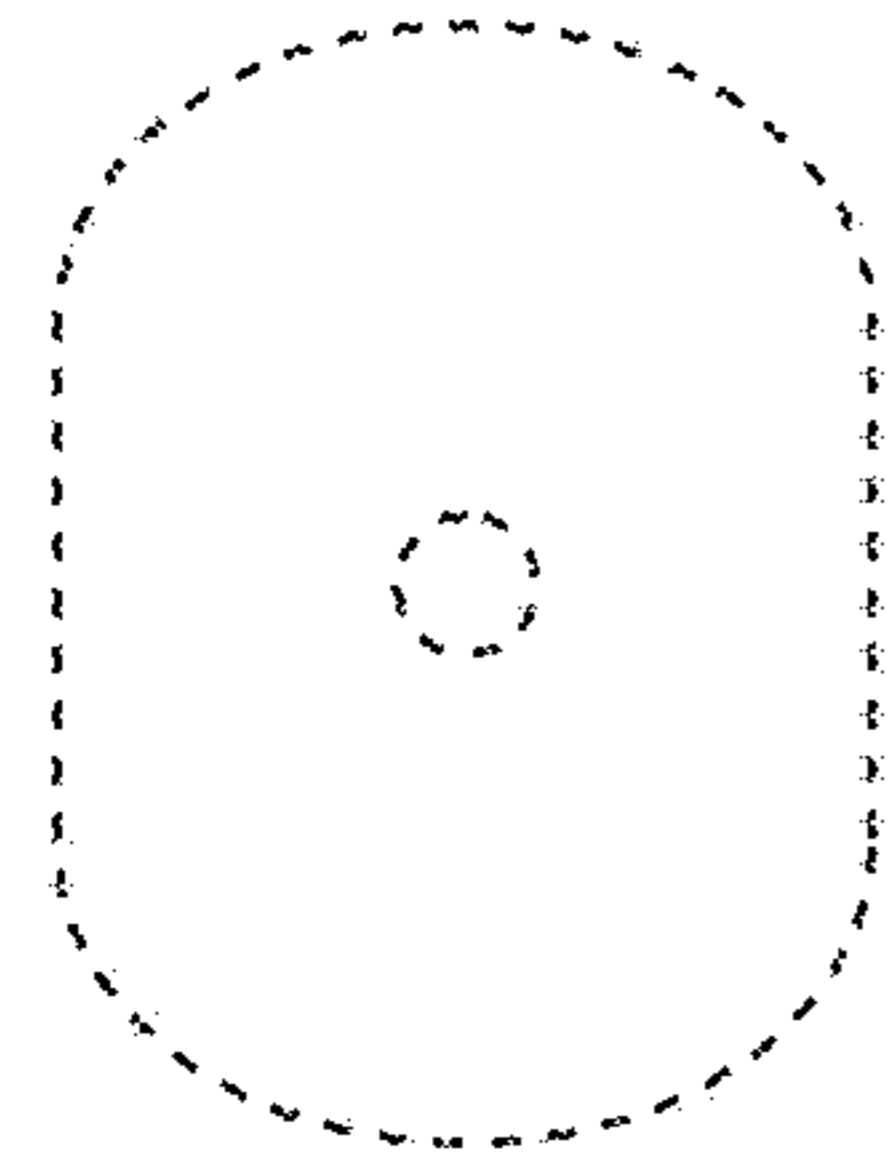


FIG. 20

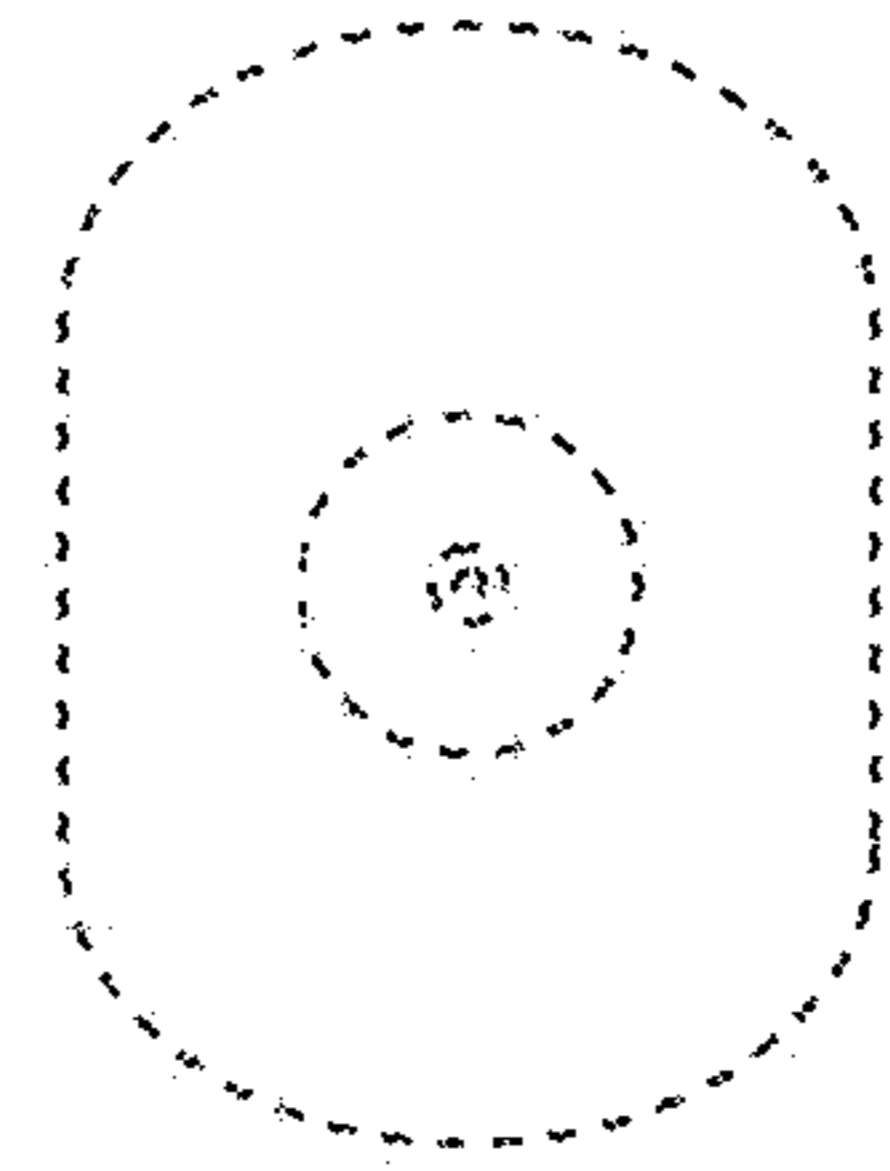


FIG. 21

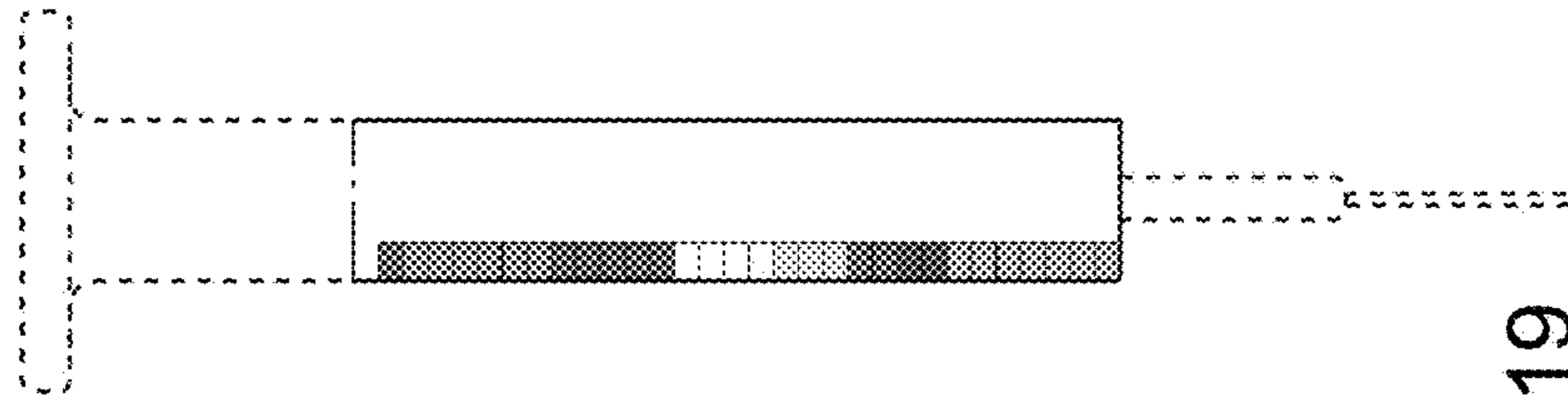


FIG. 19

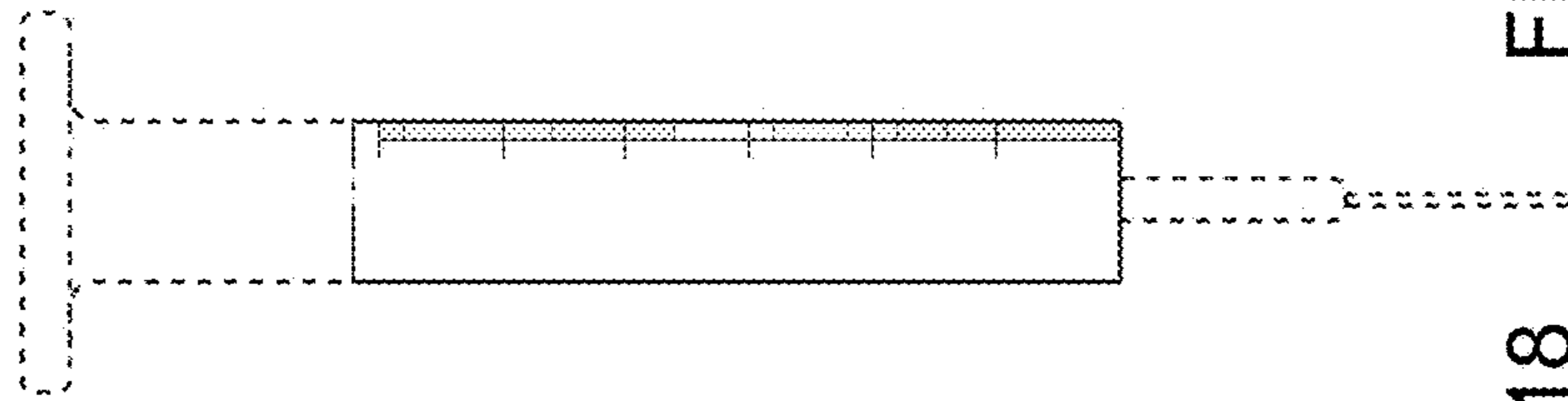


FIG. 18

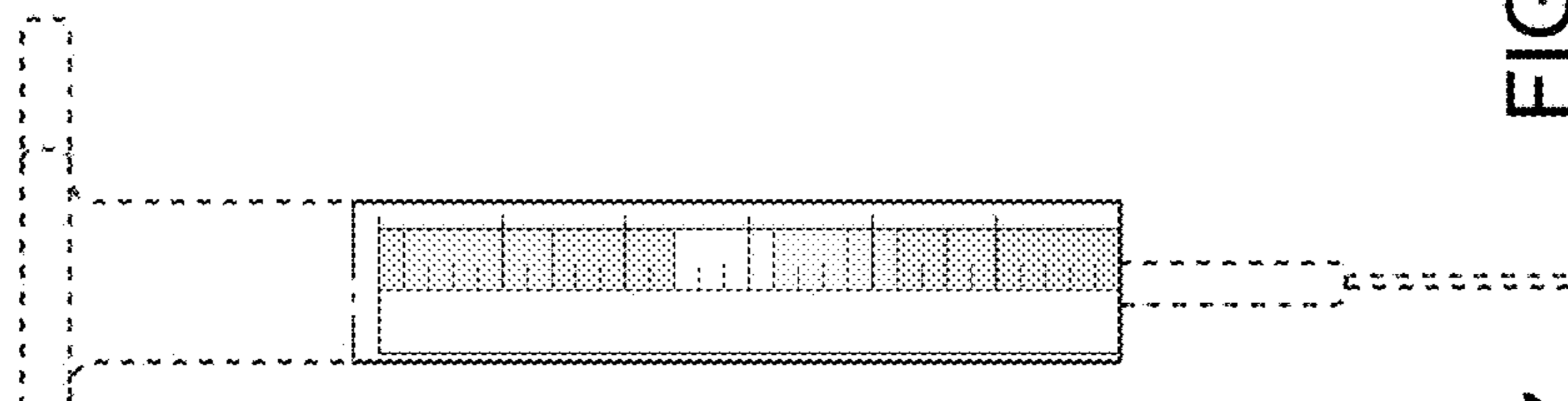


FIG. 17

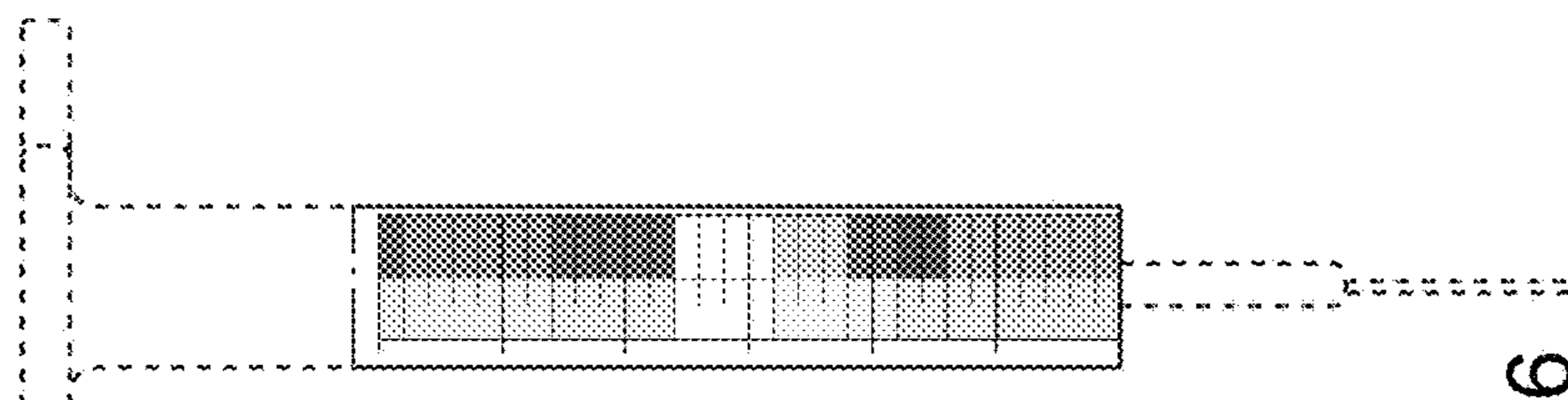


FIG. 16

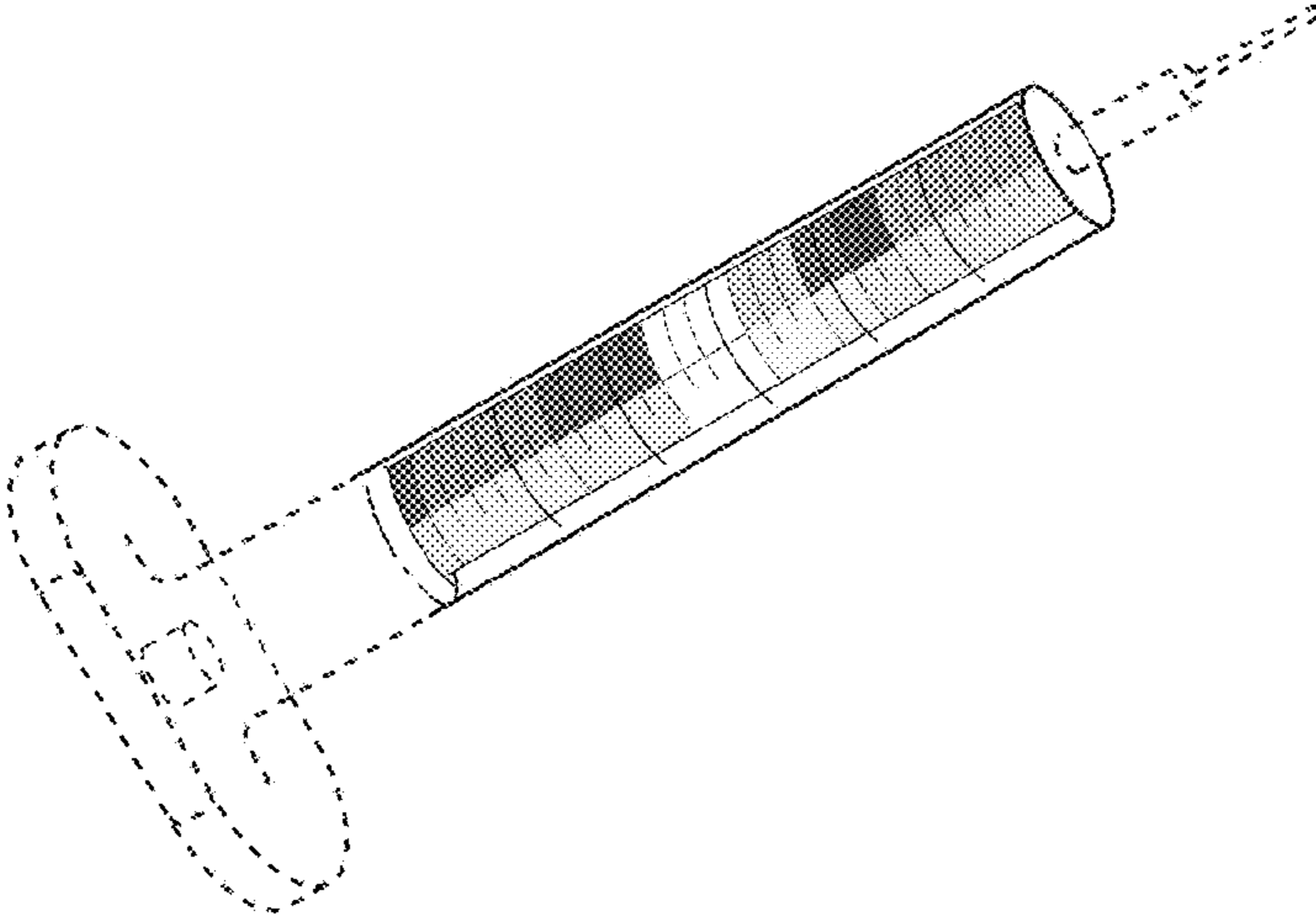


FIG. 22

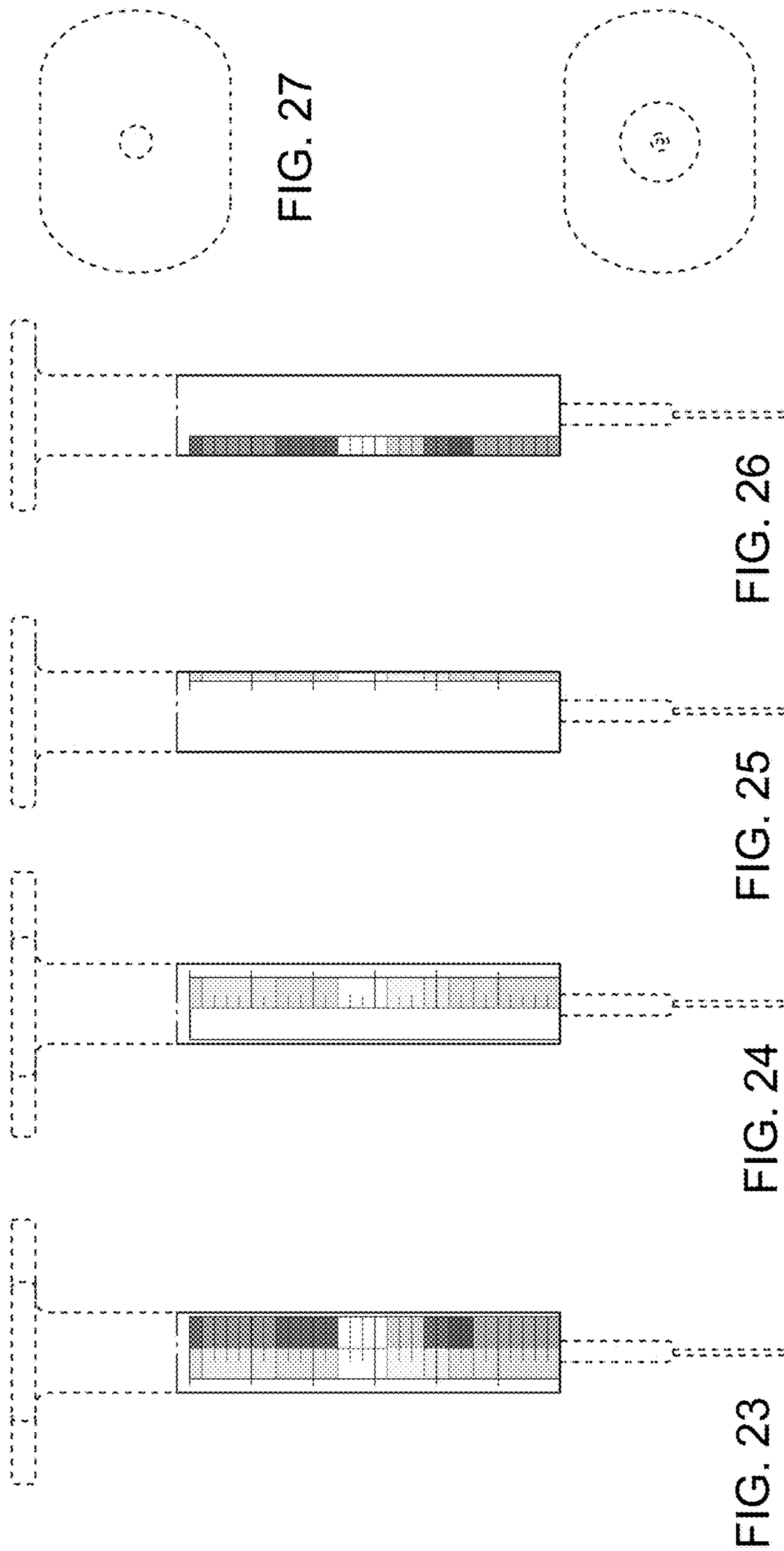


FIG. 27

FIG. 28

FIG. 26

FIG. 25

FIG. 24

FIG. 23