

US00D847975S

(12) **United States Design Patent** (10) **Patent No.:** **US D847,975 S**
Ishikawa (45) **Date of Patent:** **** May 7, 2019**

(54) **NOZZLE USED FOR SPRAYING MEDICAL DRUG SOLUTION**

(71) Applicants: **ANEST IWATA CORPORATION**, Kanagawa-Ken (JP); **3-D MATRIX, LTD.**, Tokyo (JP)

(72) Inventor: **Hidetoshi Ishikawa**, Yokohama (JP)

(73) Assignees: **ANEST IWATA CORPORATION**, Yokohama-Shi, Kanagawa (JP); **3-D MATRIX, LTD.**, Chiyoda-Ku, Tokyo (JP)

(**) Term: **15 Years**

(21) Appl. No.: **35/503,654**

(22) Filed: **Mar. 14, 2017**

(80) **Hague Agreement Data**

Int. Filing Date: **Mar. 14, 2017**
Int. Reg. No.: **DM/095329**
Int. Reg. Date: **Mar. 14, 2017**
Int. Reg. Pub. Date: **Sep. 15, 2017**

(30) **Foreign Application Priority Data**

Sep. 23, 2016 (JP) 2016-020450

(51) **LOC (11) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/112**

(58) **Field of Classification Search**
USPC D24/112; D23/213; D8/2; D9/448
CPC A61M 2210/0612; A61M 1/0064; A61M 1/0058; A61M 3/0279; A61M 3/0283
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D254,270 S *	2/1980	Ziegler	600/107
4,781,704 A *	11/1988	Potter	A61J 15/003 604/105
D333,616 S *	3/1993	Perkins	D9/448
D350,287 S *	9/1994	Kobayashi	D23/213
D352,344 S *	11/1994	Mizuguchi	D23/213
D374,076 S *	9/1996	Hillstead	D24/112
D573,257 S *	7/2008	Rehbein	D24/112
D663,832 S *	7/2012	Essinger	D24/112
D724,200 S *	3/2015	Brannon	D24/112
8,992,412 B2 *	3/2015	Cahill	A61F 2/0027 600/30
D822,162 S *	7/2018	Bonaventura	D23/225

* cited by examiner

Primary Examiner — Robert M. Spear

(74) *Attorney, Agent, or Firm* — Leydig, Voit & Mayer

(57) **CLAIM**

The ornamental design for a nozzle used for spraying medical drug solution, as shown and described.

DESCRIPTION

1. Nozzle used for spraying medical drug solution

1.1 : Front

1.2 : Back

1.3 : Top

1.4 : Bottom

1.5 : Right side view

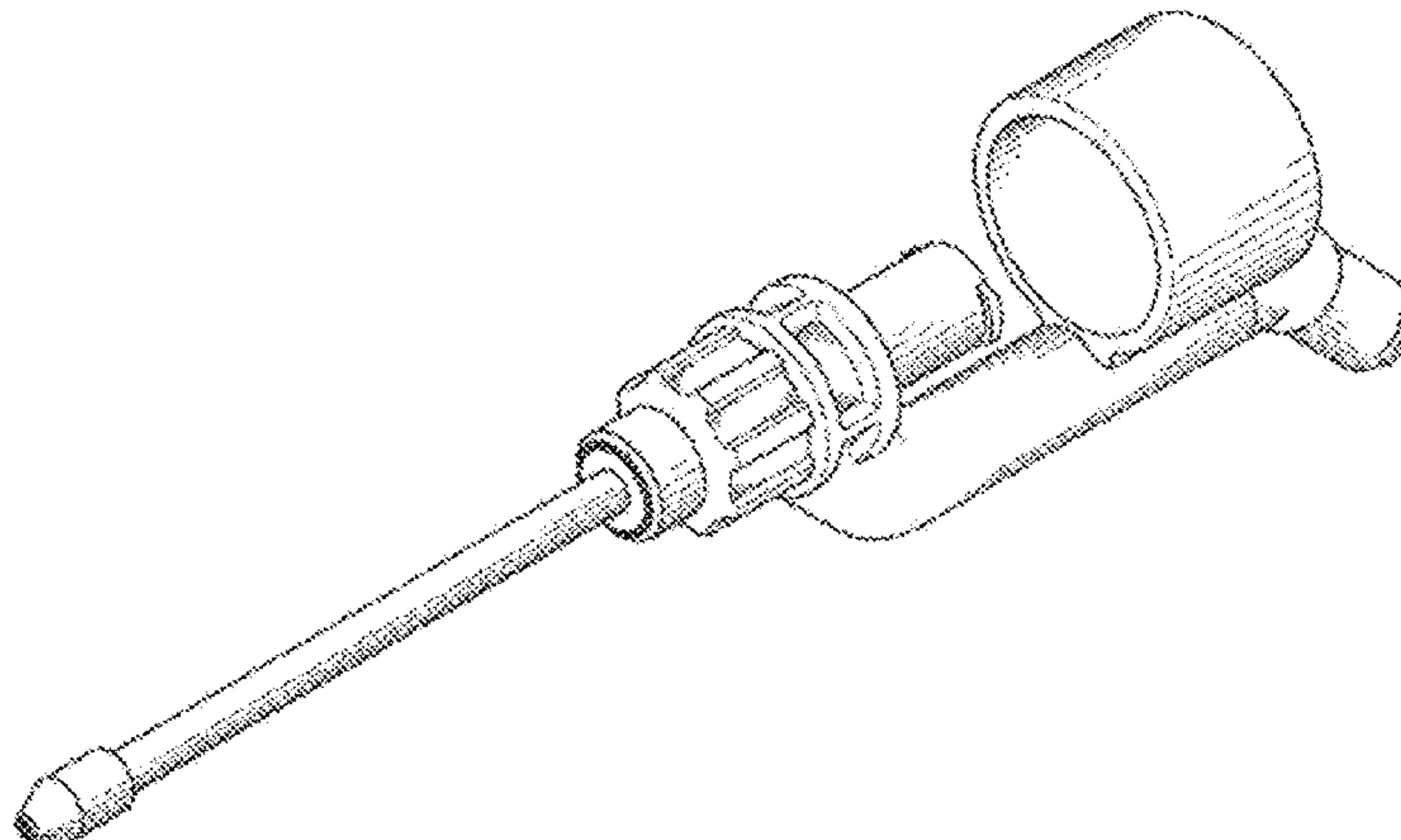
1.6 : Left

1.7 : Perspective view from above 1

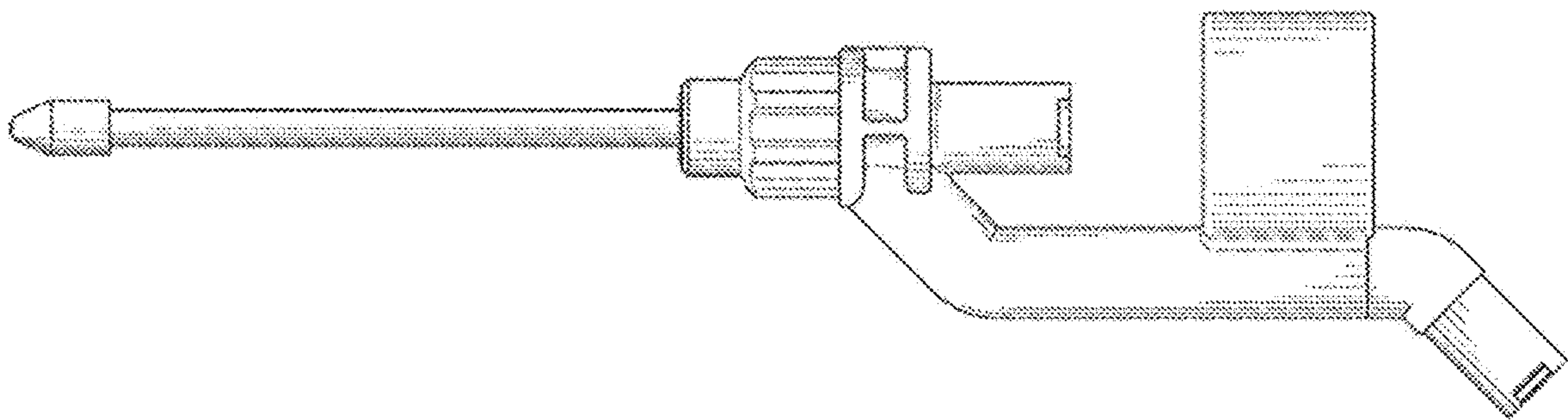
1.8 : Perspective view from above 2

The present article is a nozzle used for spraying a drug solution, such as a hemostatic agent, into a human body that has been opened up during surgery.

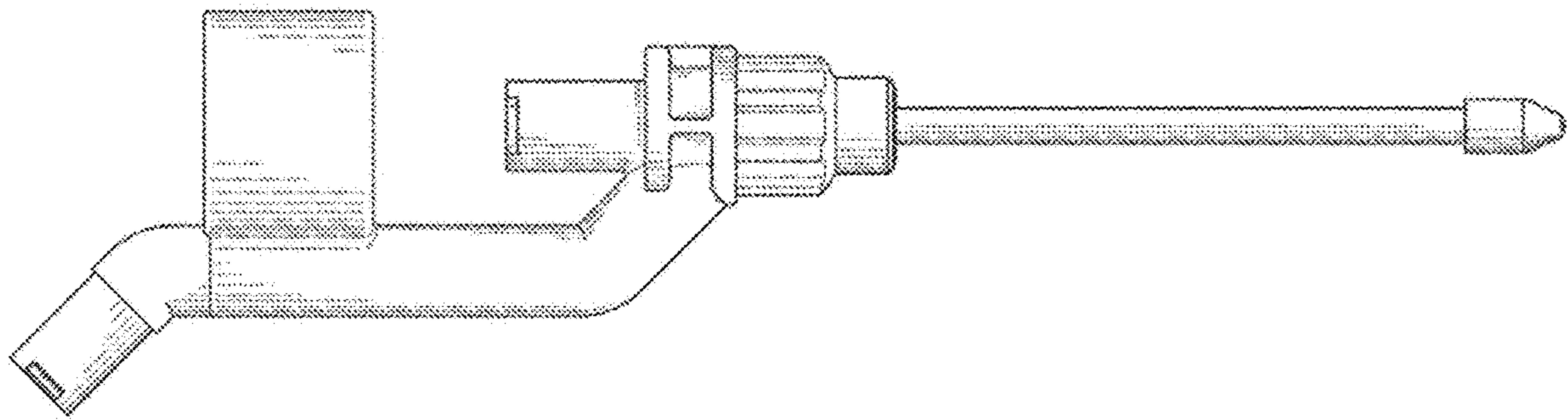
1 Claim, 8 Drawing Sheets



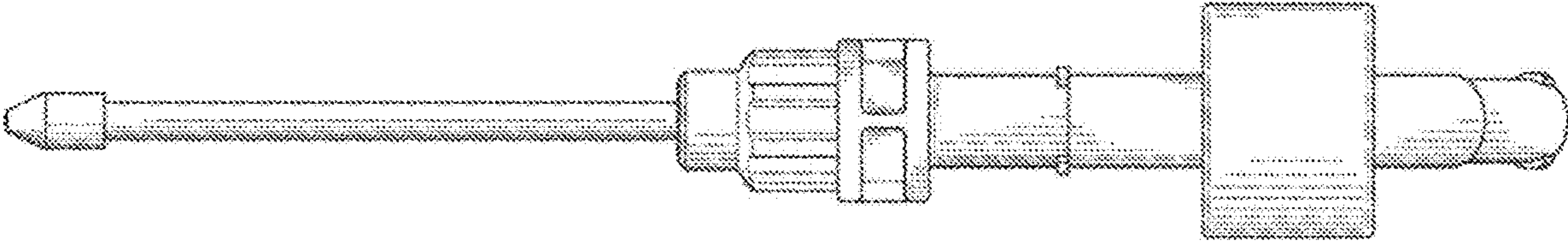
1.1



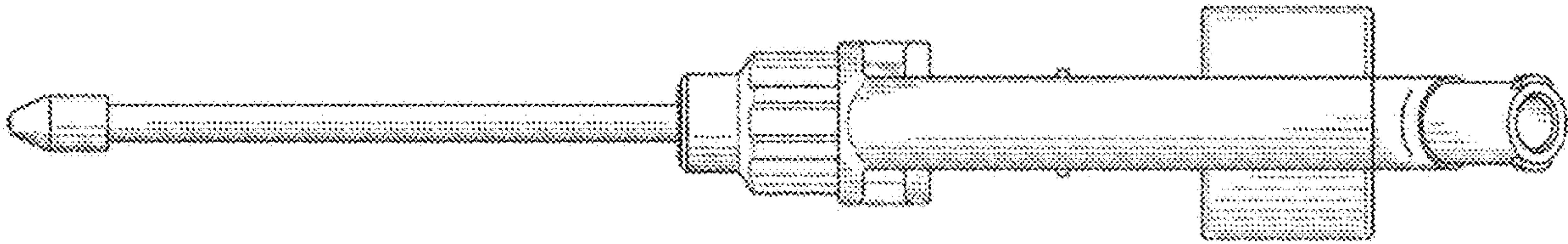
1.2



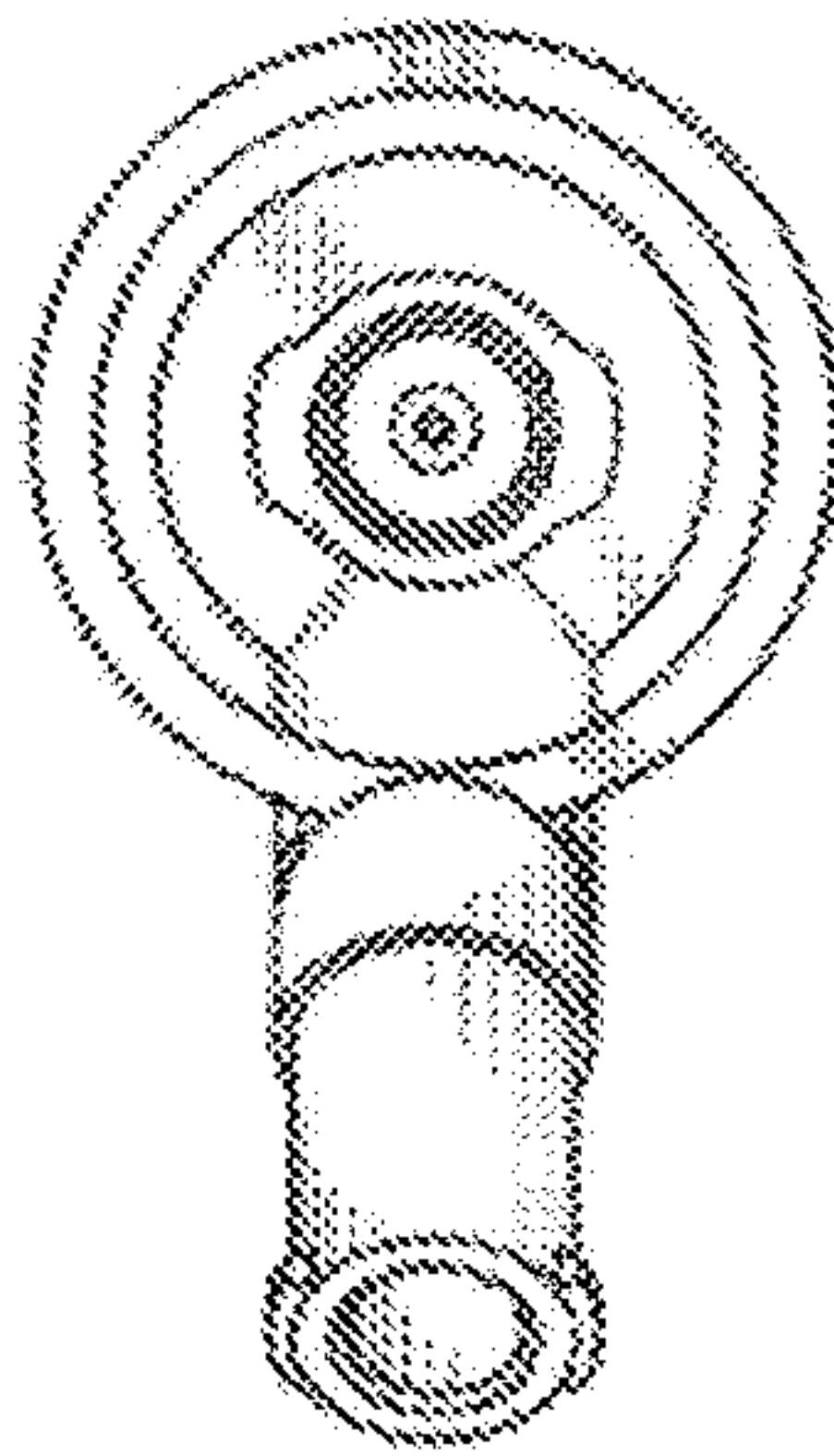
1.3



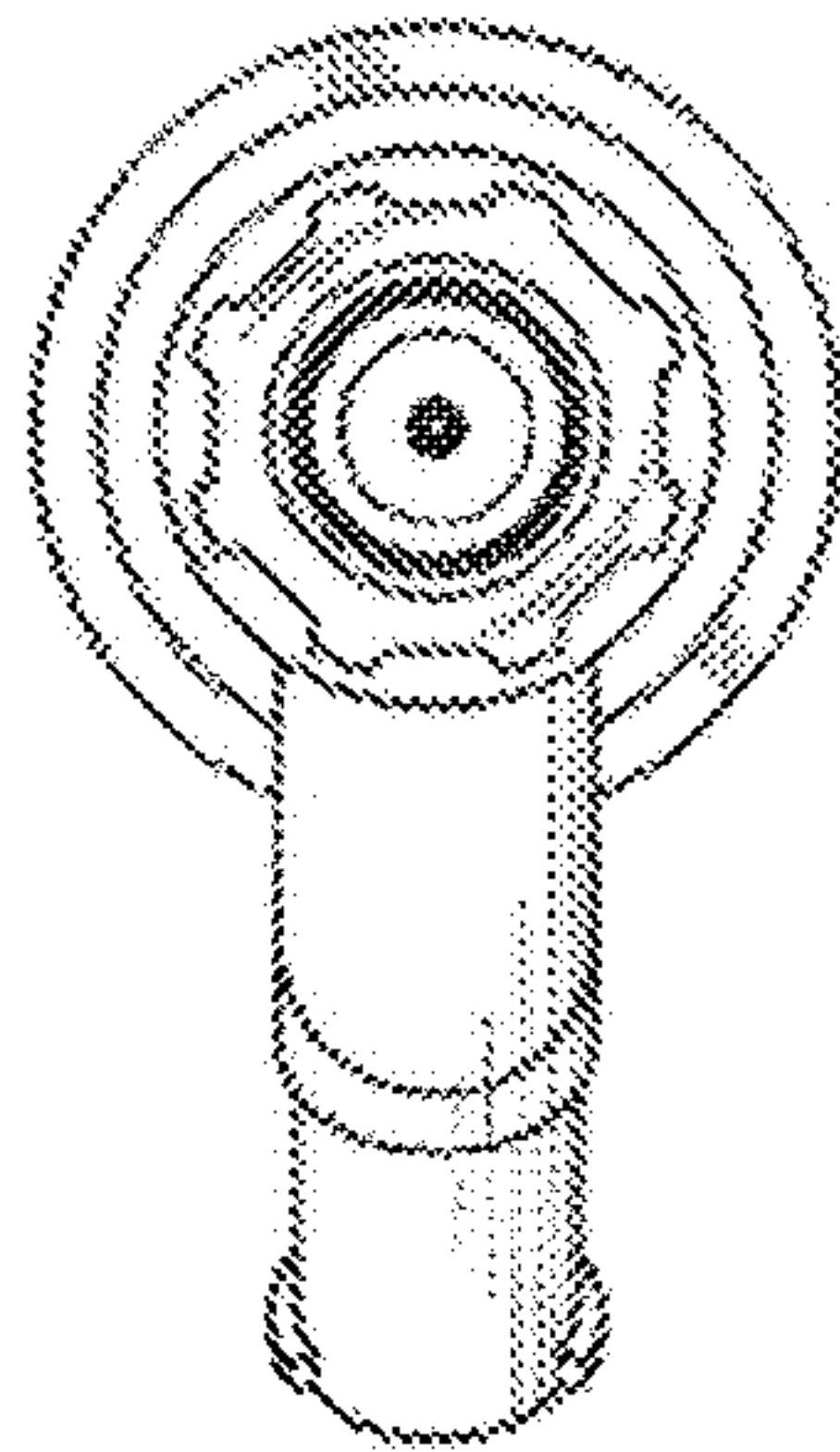
1.4



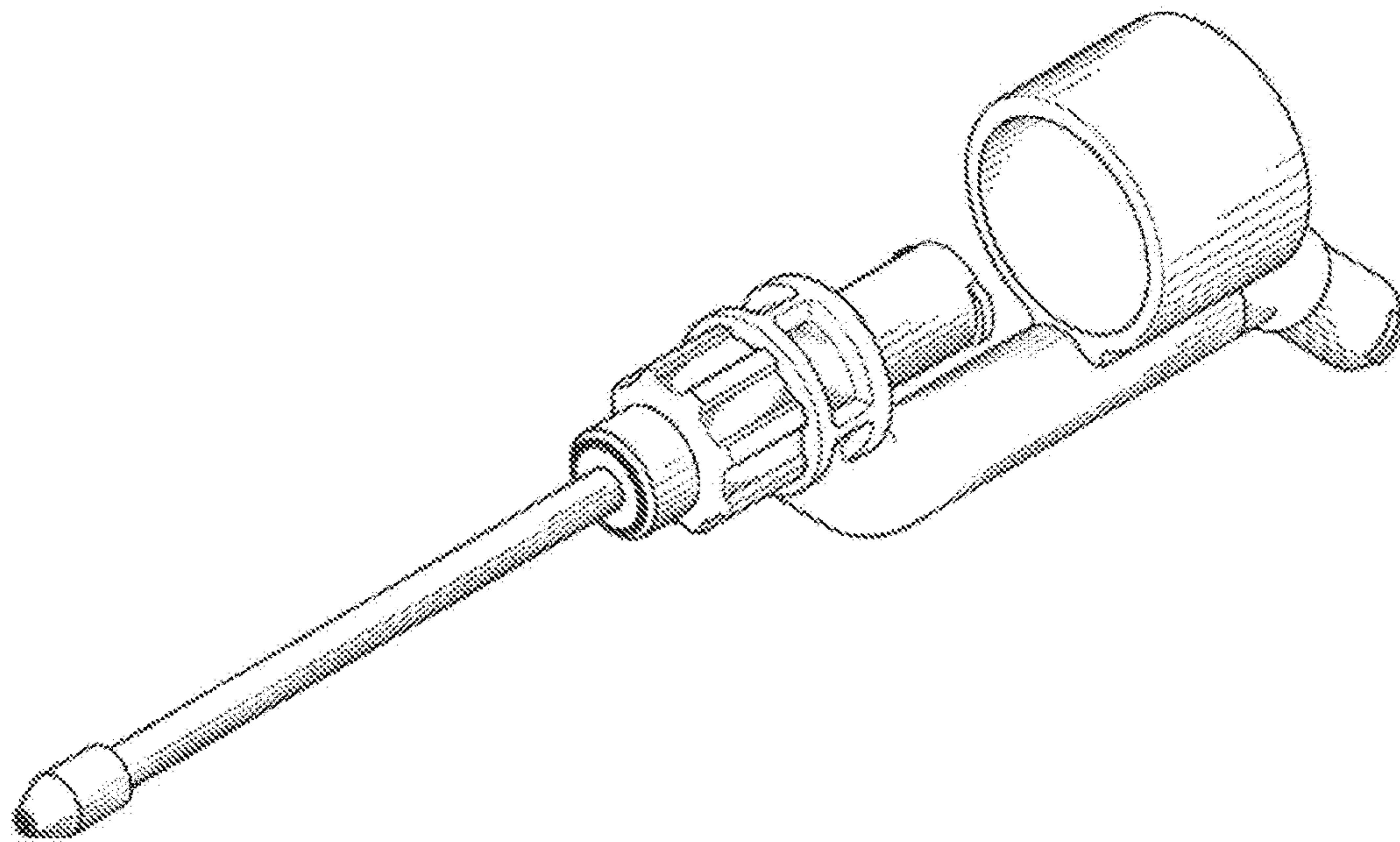
1.5



1.6



1.7



1.8

