



US00D814032S

(12) **United States Design Patent** (10) **Patent No.:** **US D814,032 S**
Zhou et al. (45) **Date of Patent:** **** *Mar. 27, 2018**

- (54) **TROCAR** D700,326 S * 2/2014 Minnelli D24/146
- (71) Applicant: **Guangzhou T.K Medical Instrument Co., Ltd.,** Guangzhou (CN) D713,033 S * 9/2014 Sauer D24/146
- (72) Inventors: **Xing Zhou,** Guangzhou (CN); D736,926 S * 8/2015 Minnelli D24/147
- Shaoming Zhu,** Guangzhou (CN); D785,175 S * 4/2017 Zhou D24/146
- Linhai Liu,** Guangzhou (CN); **Huaping Xu,** Guangzhou (CN); **Jiajiang Wei,** Guangzhou (CN) 2004/0230161 A1* 11/2004 Zeiner A61B 17/34 604/167.06
- 2005/0070946 A1* 3/2005 Franer A61B 17/3498 606/185
- 2006/0264992 A1* 11/2006 Franer A61B 17/3462 606/167
- 2007/0066988 A1* 3/2007 Datta A61B 17/3417 606/185

(73) Assignee: **GUANGZHOU T.K MEDICAL INSTRUMENT CO., LTD.,** Guangzhou, Guangdong (CN)

(Continued)

OTHER PUBLICATIONS

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

Guangzhou, Certificate of Registration, AU201611581, dated May 3, 2016, 7 pgs.

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

(Continued)

(21) Appl. No.: **29/564,225**

Primary Examiner — Thomas Johannes

Assistant Examiner — Samantha Q. Lawrence

(22) Filed: **May 11, 2016**

(74) *Attorney, Agent, or Firm* — Morgan, Lewis & Bockius LLP

(30) **Foreign Application Priority Data**

Dec. 10, 2015 (CN) 2015 3 0520181

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

(52) **U.S. Cl.** **D24/146**

(58) **Field of Classification Search**
USPC D7/649; D8/93, 97, 300, 310, 311, 313; D19/110, 115; D24/146, 147, 148
CPC .. B26B 3/00; B26B 1/10; B26B 5/005; A61B 17/089; A61B 17/1617; A61B 17/3211; A61B 17/3417

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D541,417 S * 4/2007 Albrecht D24/146
D542,918 S * 5/2007 Albrecht D24/146

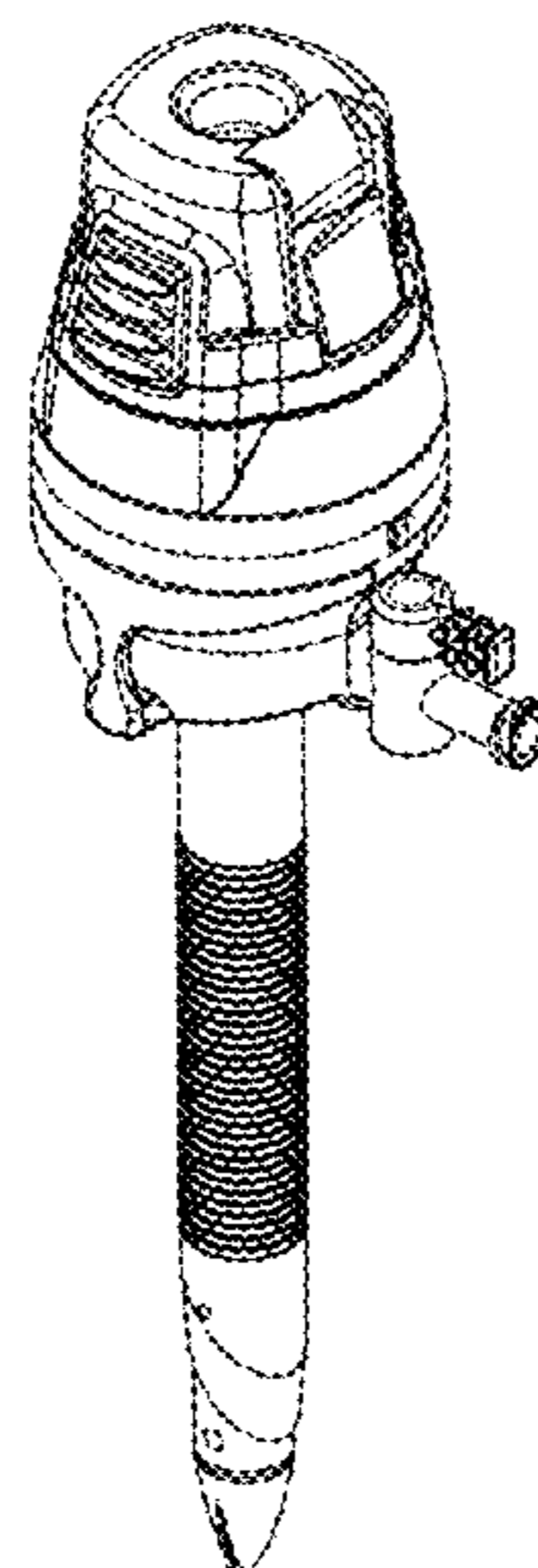
(57) **CLAIM**

The ornamental design for a trocar, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a trocar;
FIG. 2 is a first side view thereof;
FIG. 3 is a second side view thereof;
FIG. 4 is a third side view thereof;
FIG. 5 is a fourth side view thereof;
FIG. 6 is a top view thereof; and,
FIG. 7 is a bottom view thereof.
The broken lines shown in the drawings represent portions of the trocar that form no part of the claimed design.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2007/0185453 A1* 8/2007 Michael A61B 17/3462
604/164.01
2007/0260273 A1* 11/2007 Cropper A61B 1/00087
606/185
2008/0228214 A1* 9/2008 Hoan A61B 17/34
606/185
2010/0016878 A1* 1/2010 Smith A61B 17/3417
606/185
2013/0237902 A1* 9/2013 McGinley A61B 17/3462
604/26
2013/0338694 A1* 12/2013 Fischvogt A61B 17/3494
606/185

OTHER PUBLICATIONS

Guangzhou, Certificate of Registration, CA168080, dated Nov. 16, 2016, 1 pg.

Guangzhou, Office Action, JP2016-006396, dated Jun. 24, 2016, 4 pgs.

Guangzhou, Decision to Grant, JP2016-006396, dated Jul. 7, 2016, 5 pgs.

Guangzhou, Certificate of Registration, JP2016-006396, dated Jul. 29, 2016, 5 pgs.

Guangzhou, Notice to File a Response, KR30-2016-0014805, dated Sep. 12, 2016, 3 pgs.

Guangzhou, Design Patent Decision (NOA), KR30-2016-0014805, dated Dec. 13, 2016, 3 pgs.

Guangzhou, Letters Patent, KR30-2016-0014805, dated Dec. 20, 2016, 11 pgs.

Guangzhou, Decision to Grant, TW105301487, dated Oct. 19, 2016, 3 pgs.

Guangzhou, Certificate of Grant, TW105301487, dated Feb. 11, 2017, 2 pgs.

* cited by examiner

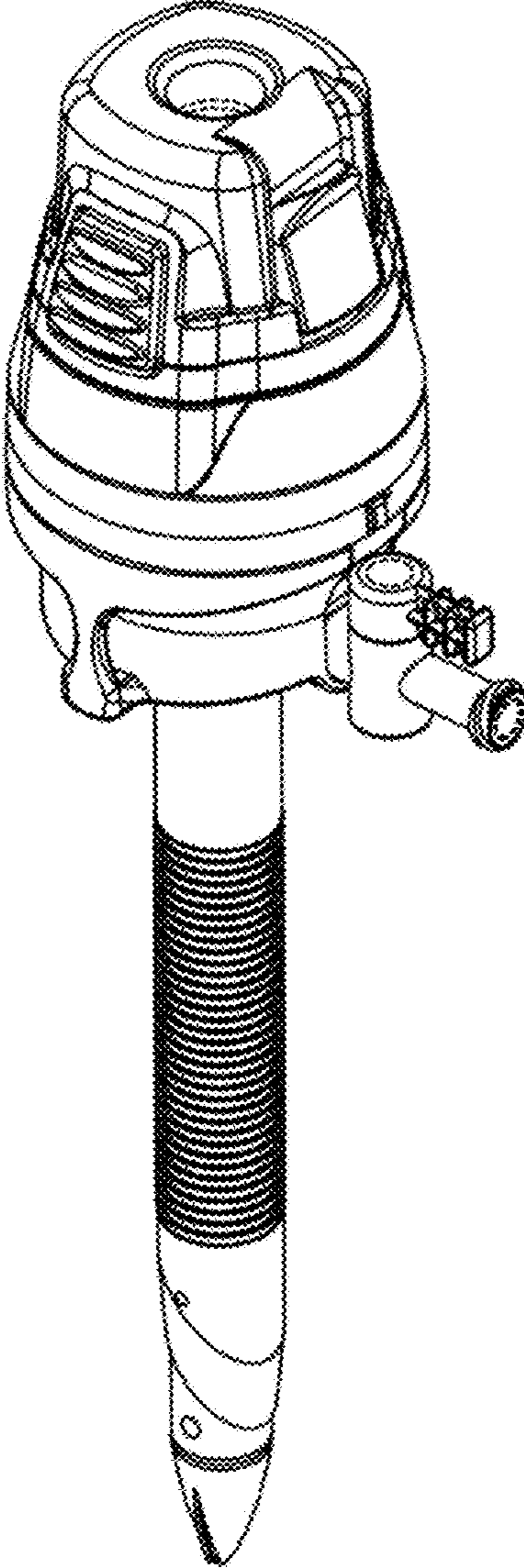


FIG. 1

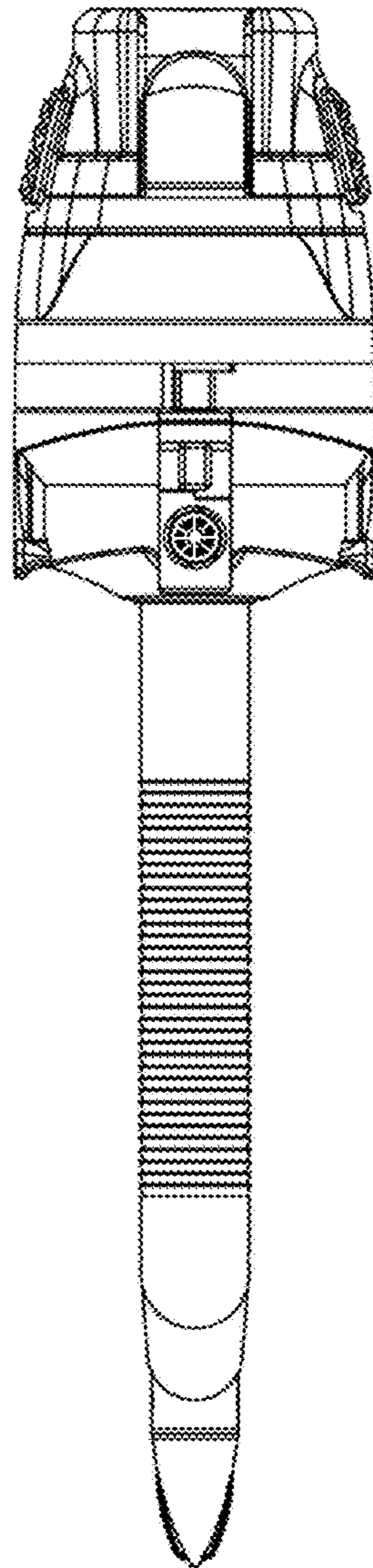


FIG. 2

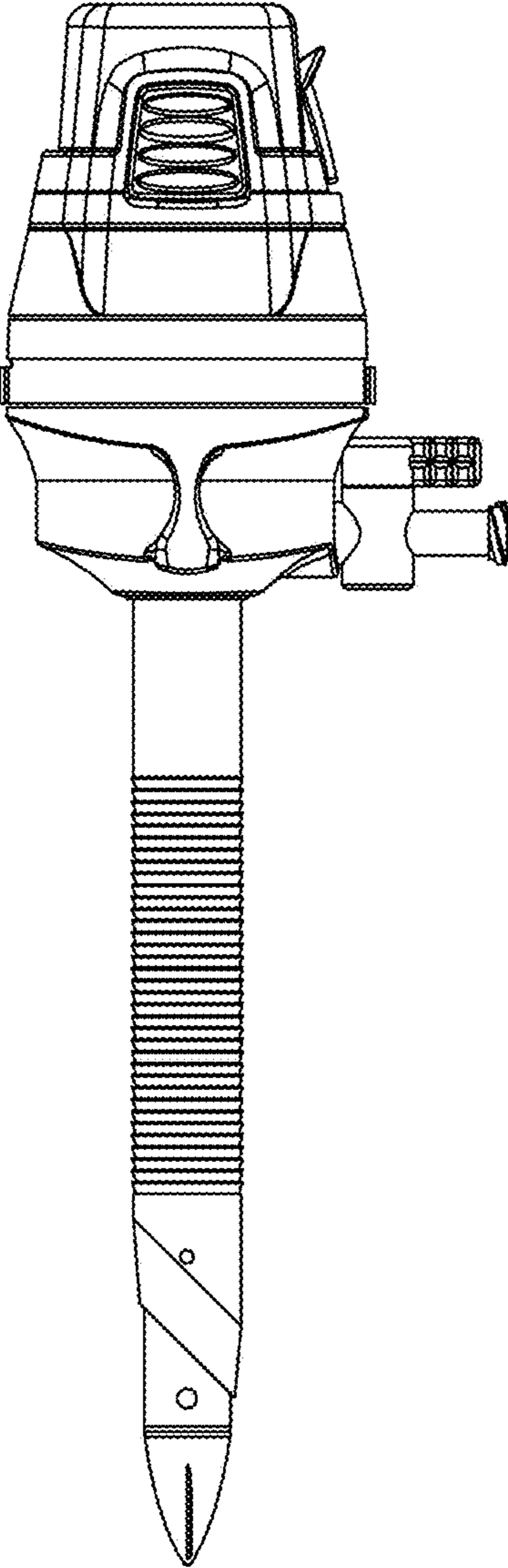


FIG. 3

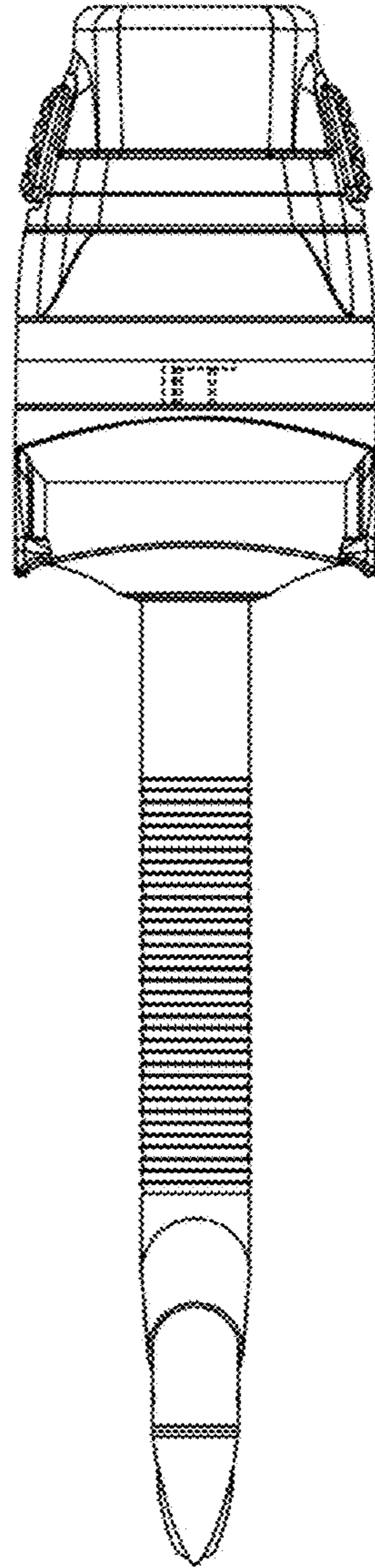


FIG. 4

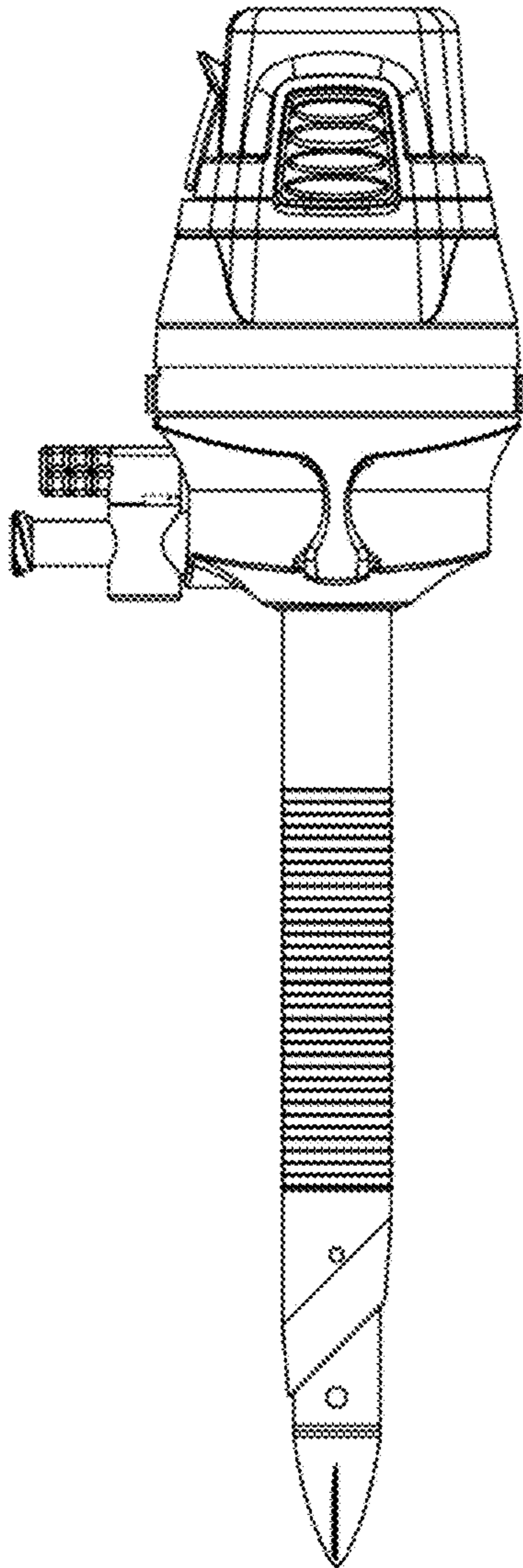


FIG. 5

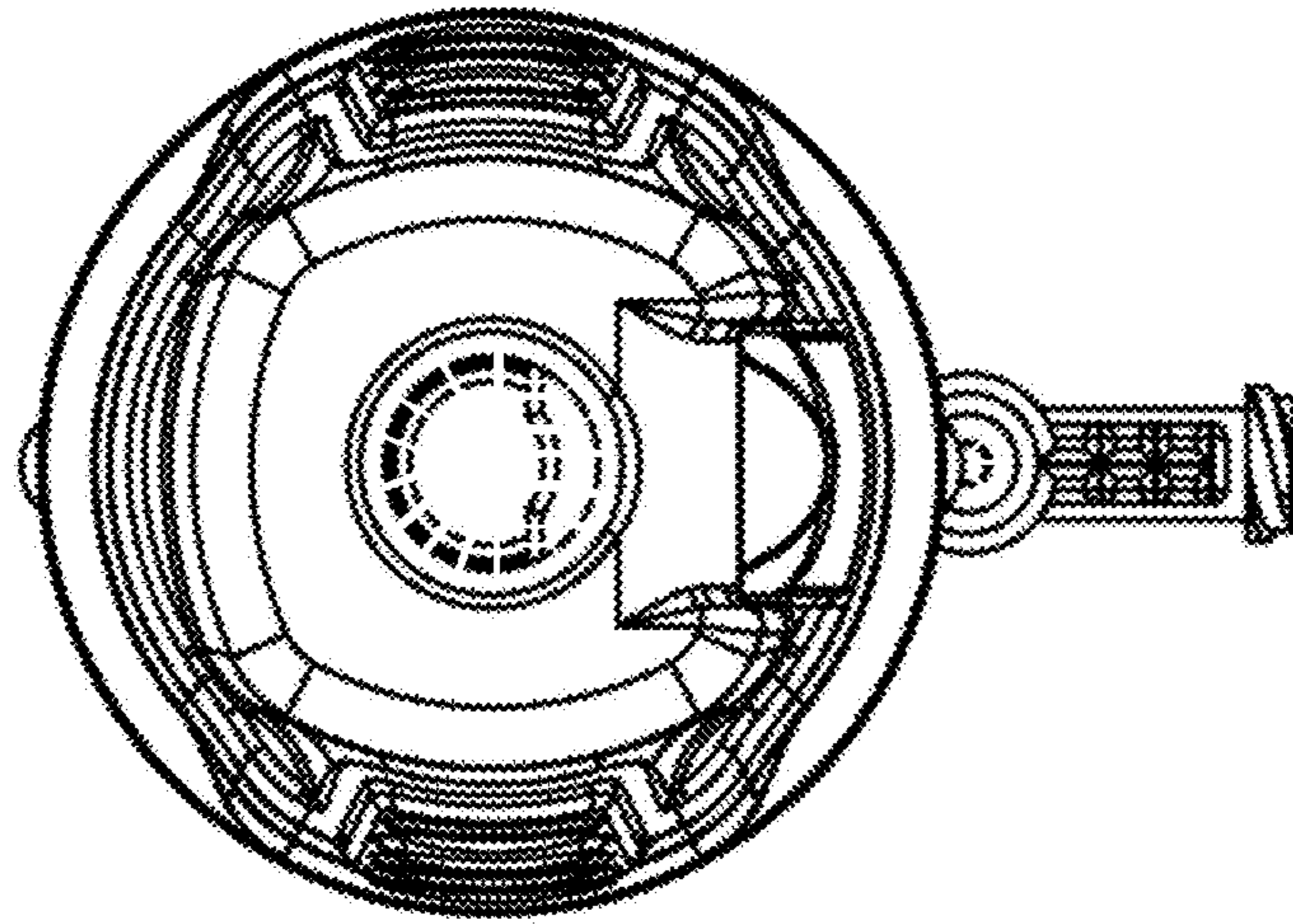


FIG. 6

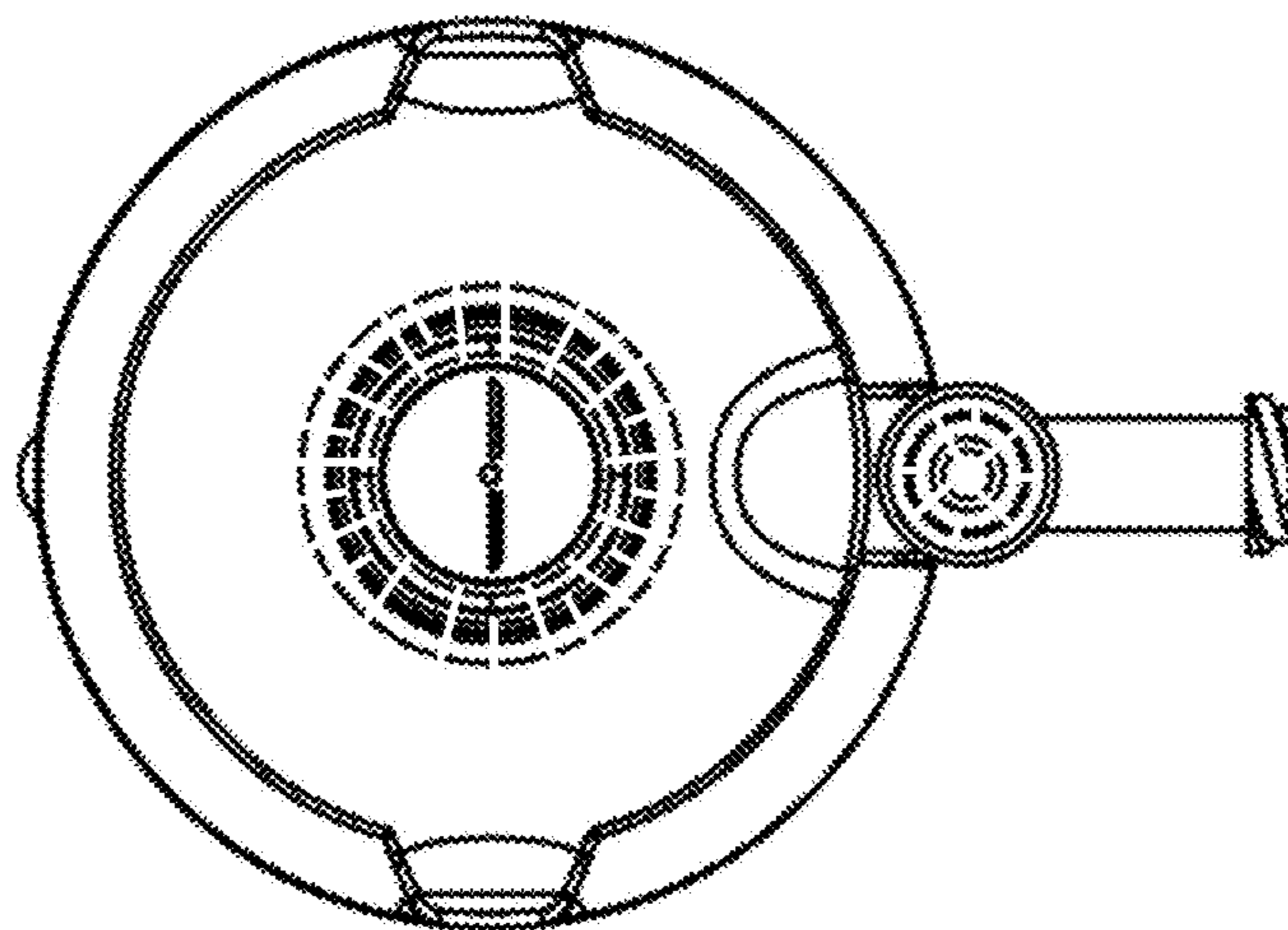


FIG. 7