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(12) **United States Design Patent** (10) **Patent No.:** **US D794,791 S**
Zhou et al. (45) **Date of Patent:** **** Aug. 15, 2017**

(54) **TROCAR**
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D541,417 S * 4/2007 Albrecht D24/146
D542,918 S * 5/2007 Albrecht D24/146
8,206,411 B2 * 6/2012 Thompson A61B 17/3462
600/184
D700,326 S * 2/2014 Minelli D24/146
D753,303 S * 4/2016 Dannaher D24/146
2004/0230161 A1 * 11/2004 Zeiner A61B 17/34
604/167.06
2005/0070946 A1 * 3/2005 Franer A61B 17/3498
606/185

(Continued)

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OTHER PUBLICATIONS
Guangzhou, Certificate of Grant, TW 104302917, Aug. 21, 2016, 2 pgs.

(Continued)

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(30) **Foreign Application Priority Data**

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(57) **CLAIM**

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

(51) **LOC (10) Cl.** **24-02**
(52) **U.S. Cl.**
USPC **D24/146**
(58) **Field of Classification Search**
USPC D7/649; D8/93, 97, 300, 310, 311, 313;
D19/110, 115; D24/146, 147, 148
See application file for complete search history.

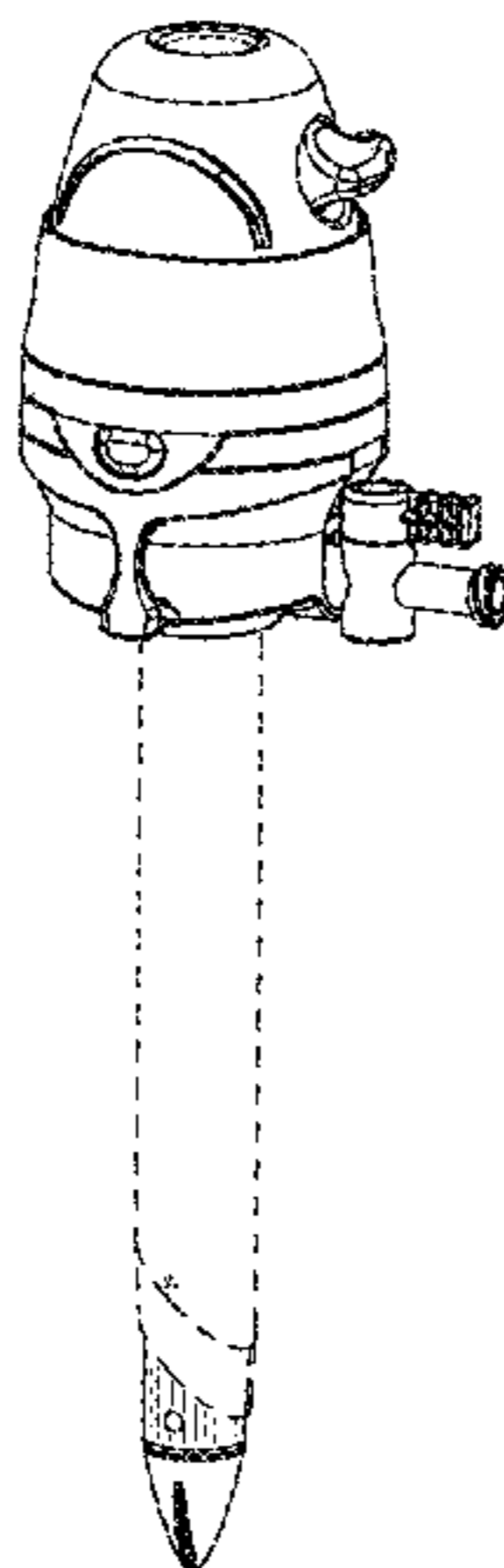
DESCRIPTION

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

(56) **References Cited**
U.S. PATENT DOCUMENTS

5,662,615 A * 9/1997 Blake, III A61B 17/3462
604/167.06
D449,887 S * 10/2001 Haberland D24/146

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2006/0264992 A1* 11/2006 Franer A61B 17/3462
606/167
2007/0066988 A1* 3/2007 Datta A61B 17/3417
606/185
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
2009/0270817 A1* 10/2009 Moreno A61B 17/3462
604/264
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, Office Action, CA162690, Nov. 17, 2015, 2 pgs.
Guangzhou, Certificate of Registration, HK1501140-4M001, Sep. 11, 2015, 9 pgs.
Guangzhou, Certificate of Registration, HK1501140-4M002, Sep. 11, 2015, 9 pgs.
Guangzhou, Certificate of Registration, HK1501140-4M003, Sep. 11, 2015, 9 pgs.
Guangzhou, Certificate of Registration, HK1501140-4M004, Sep. 11, 2015, 9 pgs.
Guangzhou, Certificate of Registration, HK1501140-4M005, Sep. 11, 2015, 9 pgs.
Guangzhou, Office Action, JP2015013103, Mar. 28, 2016, 5 pgs.
Guangzhou, Certificate of Registration, JP2015-013103, May 20, 2016, 5 pgs.
Guangzhou, Office Action, JP2015013104, Mar. 28, 2016, 5 pgs.
Guangzhou, Certificate of Registration, JP2015-013104, May 20, 2016, 5 pgs.
Guangzhou, Office Action, JP2015013105, Mar. 28, 2016, 5 pgs.
Guangzhou, Certificate of Registration, JP2015-013105, May 20, 2016, 5 pgs.

Guangzhou, Office Action, JP2015013106, Mar. 28, 2016, 5 pgs.
Guangzhou, Certificate of Registration, JP2015-013106, May 20, 2016, 5 pgs.
Guangzhou, Certificate of Registration, JP2015012275, Nov. 27, 2015, 3 pgs.
Guangzhou, Certificate of Registration, JP2015012276, Nov. 27, 2015, 3 pgs.
Guangzhou, Notice to File a Response, KR20150027740, Apr. 10, 2016, 11 pgs.
Guangzhou, Decision of a Design Registration, (Decision to Allow), KR30-2015-0027740, Design No. M001, Nov. 30, 2015, 3 pgs.
Guangzhou, Certificate of Design Registration, KR30-20150027740-M01, Feb. 29, 2016, 12 pgs.
Guangzhou, Decision of a Related Design Registration, (Decision to Allow), KR30-2015-0027740, Design No. M002, Mar. 11, 2016, 3 pgs.
Guangzhou, Decision of a Related Design Registration, (Decision to Allow), KR30-2015-0027740, Design No. M003, Jul. 4, 2016, 3 pgs.
Guangzhou, Decision of a Related Design Registration, (Decision to Allow), KR30-2015-0027740, Design No. M004, Jul. 4, 2016, 3 pgs.
Guangzhou, Decision of a Related Design Registration, (Decision to Allow), KR30-2015-0027740, Design No. M005, Jul. 4, 2016, 3 pgs.
Guangzhou, Decision of a Related Design Registration, (Decision to Allow), KR30-2015-0027740, Design No. M006, Jun. 29, 2016, 3 pgs.
Guangzhou, Notice of Allowance, TW104302917, Jun. 14, 2016, 3 pgs.
Guangzhou, Certificate of Registration, CA162690, Nov. 16, 2016, 1 pg.
Guangzhou, Certificate of Grant, TW104302917, Aug. 21, 2016, 4 pgs.
Guangzhou, Notice of Allowance, TW104302917D01, Nov. 25, 2016, 4 pgs.
Guangzhou, Notice of Allowance, TW104302917D02, Nov. 25, 2016, 4 pgs.
Guangzhou, Notice of Allowance, TW104302917D03, Nov. 25, 2016, 4 pgs.
Guangzhou, Notice of Allowance, TW104302917D05, Nov. 25, 2016, 4 pgs.

* cited by examiner

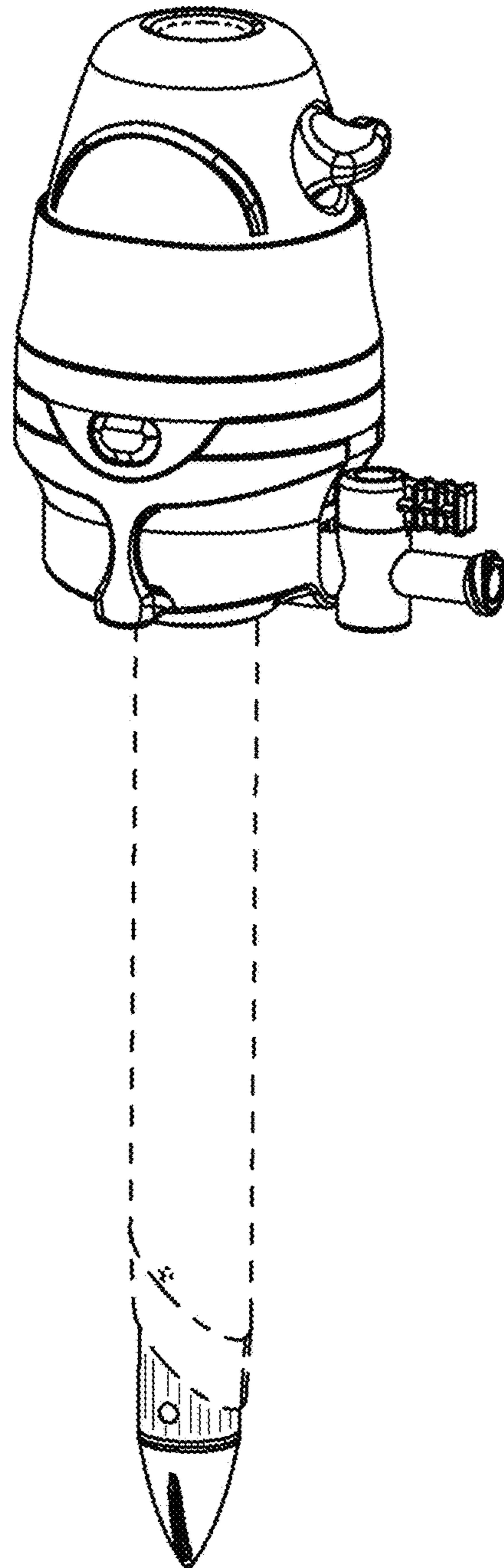


FIG. 1

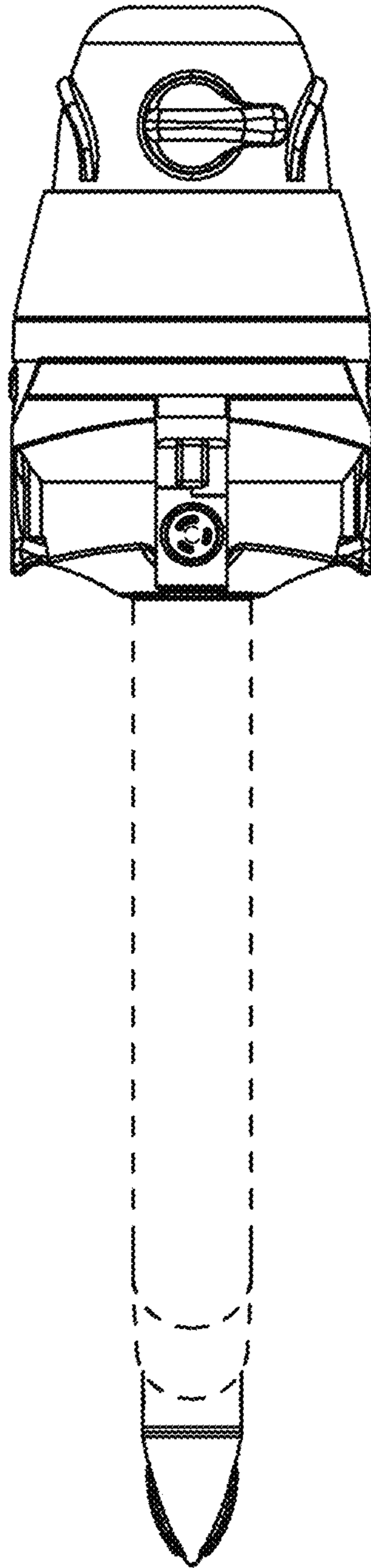


FIG. 2

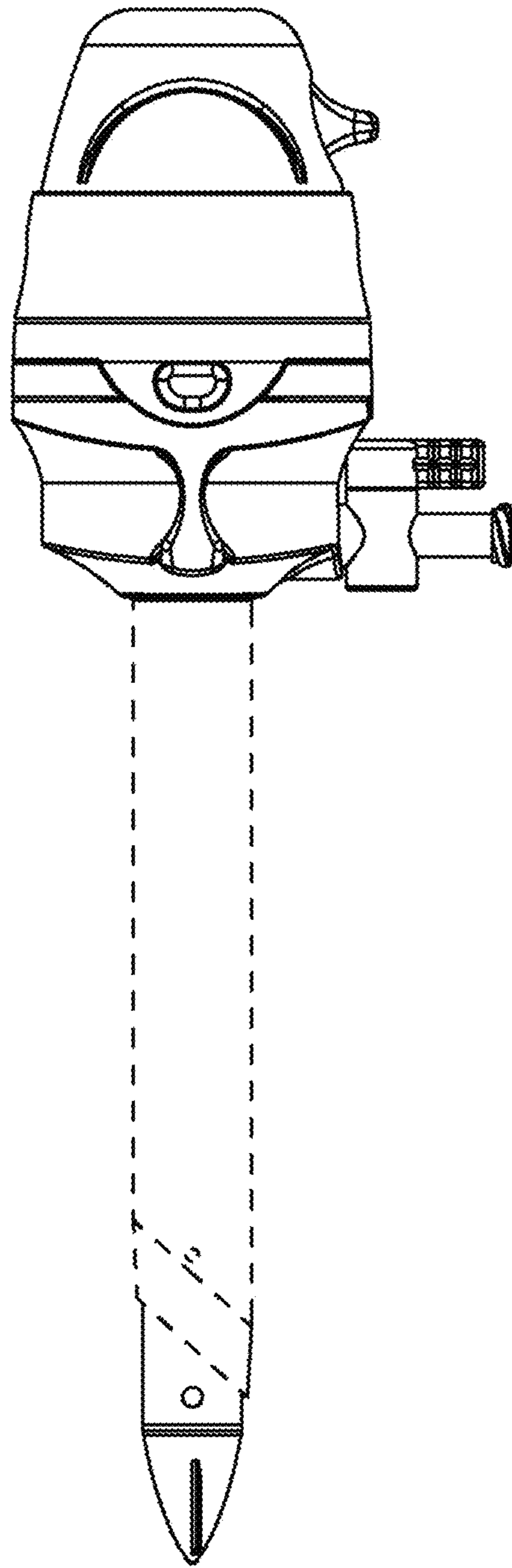


FIG. 3

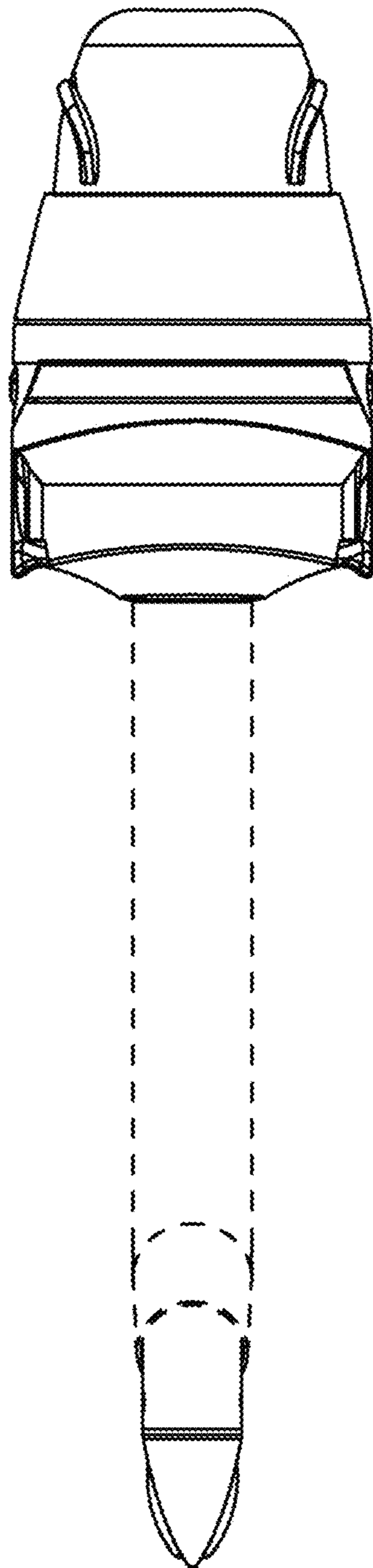


FIG. 4

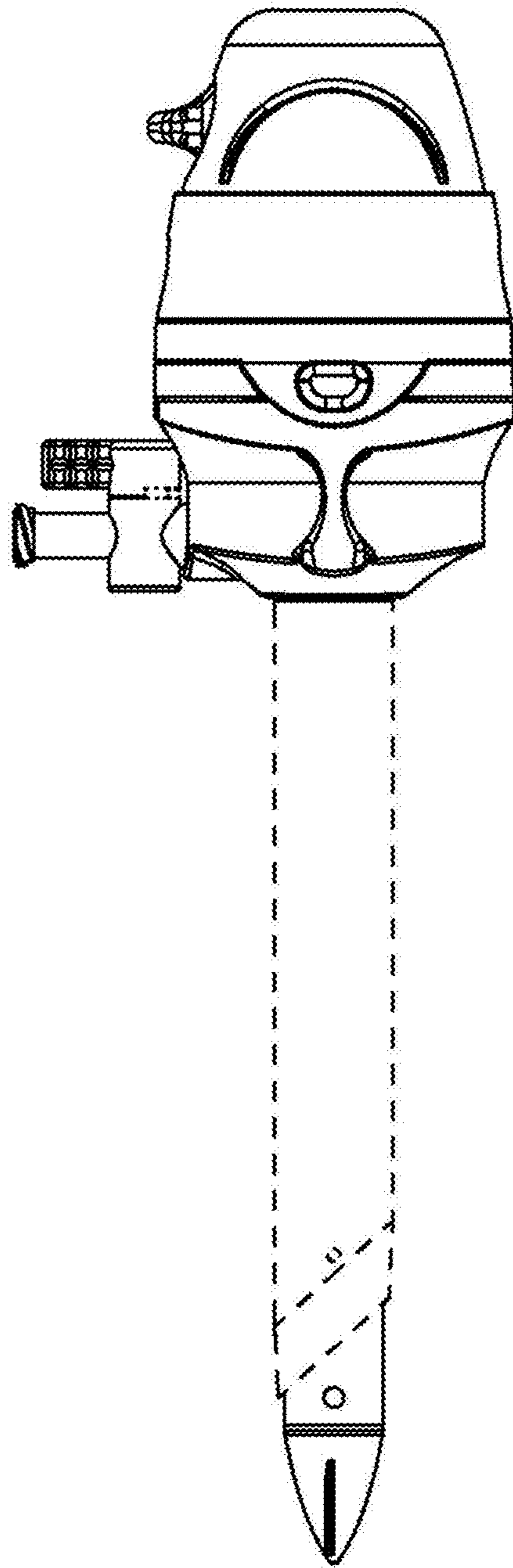


FIG. 5

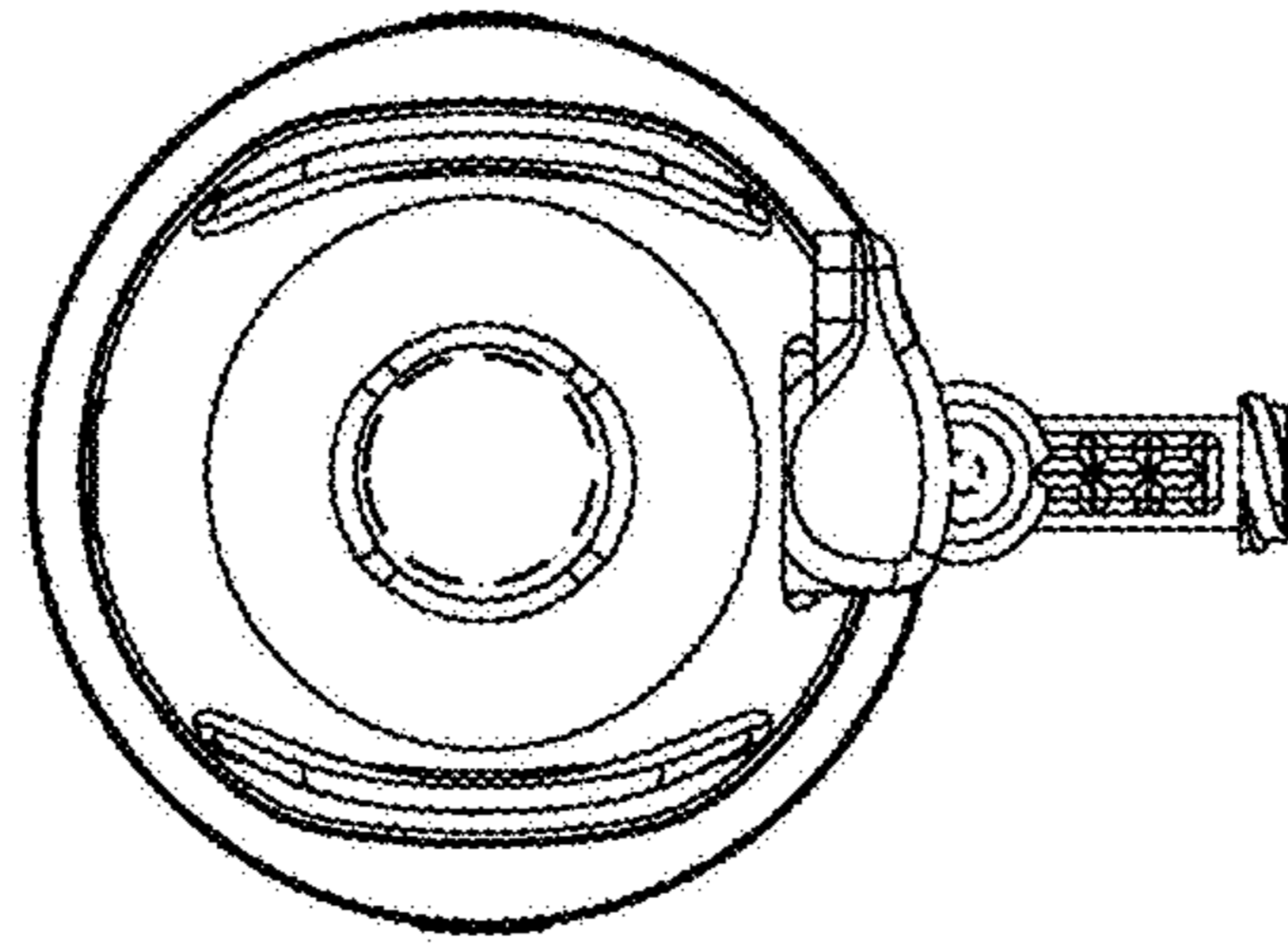


FIG. 6

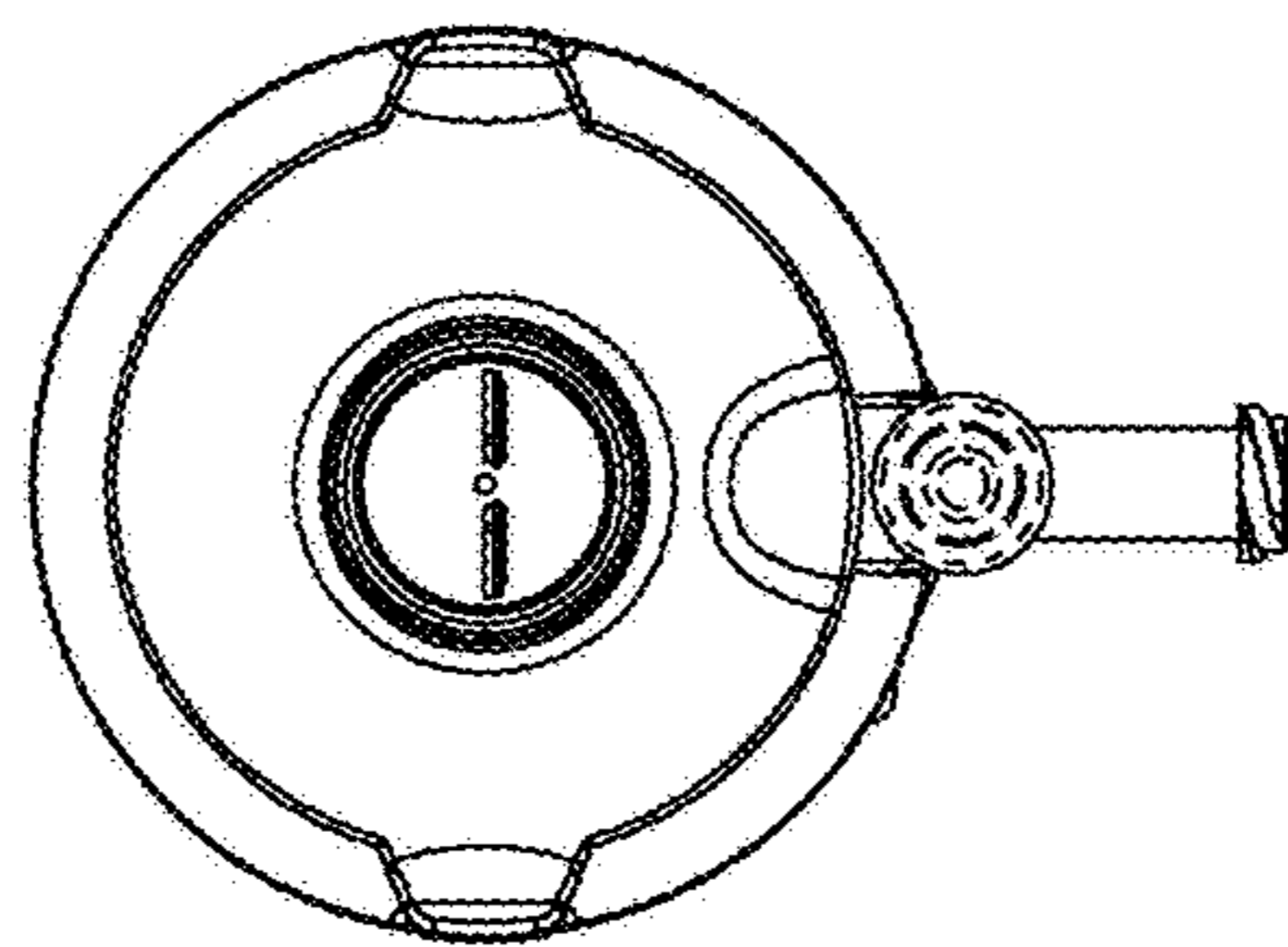


FIG. 7