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(12) **United States Design Patent** (10) **Patent No.:** **US D847,750 S**
Barrefelt et al. (45) **Date of Patent:** **** May 7, 2019**

(54) **ELECTRICAL OR OPTICAL CONNECTOR**

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

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Related U.S. Application Data

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(30) **Foreign Application Priority Data**

Jan. 26, 2015 (EM) 002620237

(51) **LOC (11) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/133**

(58) **Field of Classification Search**

USPC D13/118, 120, 123, 133-135, 145-147, D13/149, 151, 153-157, 173, 184, 199
CPC ... A61B 1/00; H01R 9/00; H01R 9/05; H01R 13/00; H01R 13/33; H01R 13/40; H01R 13/52; H01R 13/56; H01R 13/58; H01R 13/62; H01R 13/63; H01R 33/00; G02B 6/36; F16L 21/06

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D320,001 S * 9/1991 Hirabayashi D13/146
D437,294 S 2/2001 Amin

(Continued)

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Assistant Examiner — Shawn T Gingrich

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(57) **CLAIM**

The ornamental design for an electrical or optical connector, as shown and described.

DESCRIPTION

FIG. 1 is a bottom, front, and right side perspective view of an electrical or optical connector;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a left side elevation view thereof;

FIG. 5 is a right side elevation view thereof;

FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof;

FIG. 8 is a bottom, front, and right side perspective view of a second embodiment of an electrical or optical connector;

FIG. 9 is a front view thereof;

FIG. 10 is a rear view thereof;

FIG. 11 is a left side elevation view thereof;

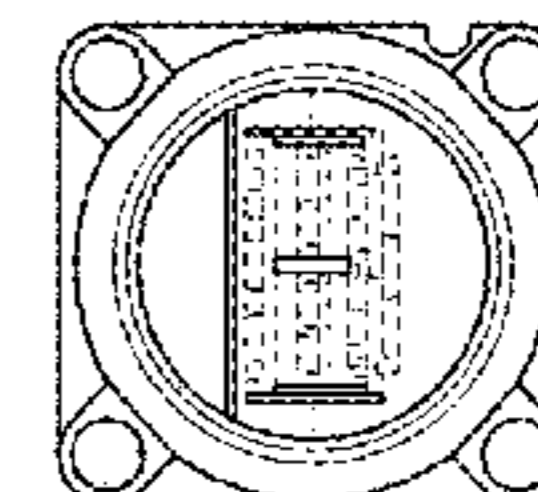
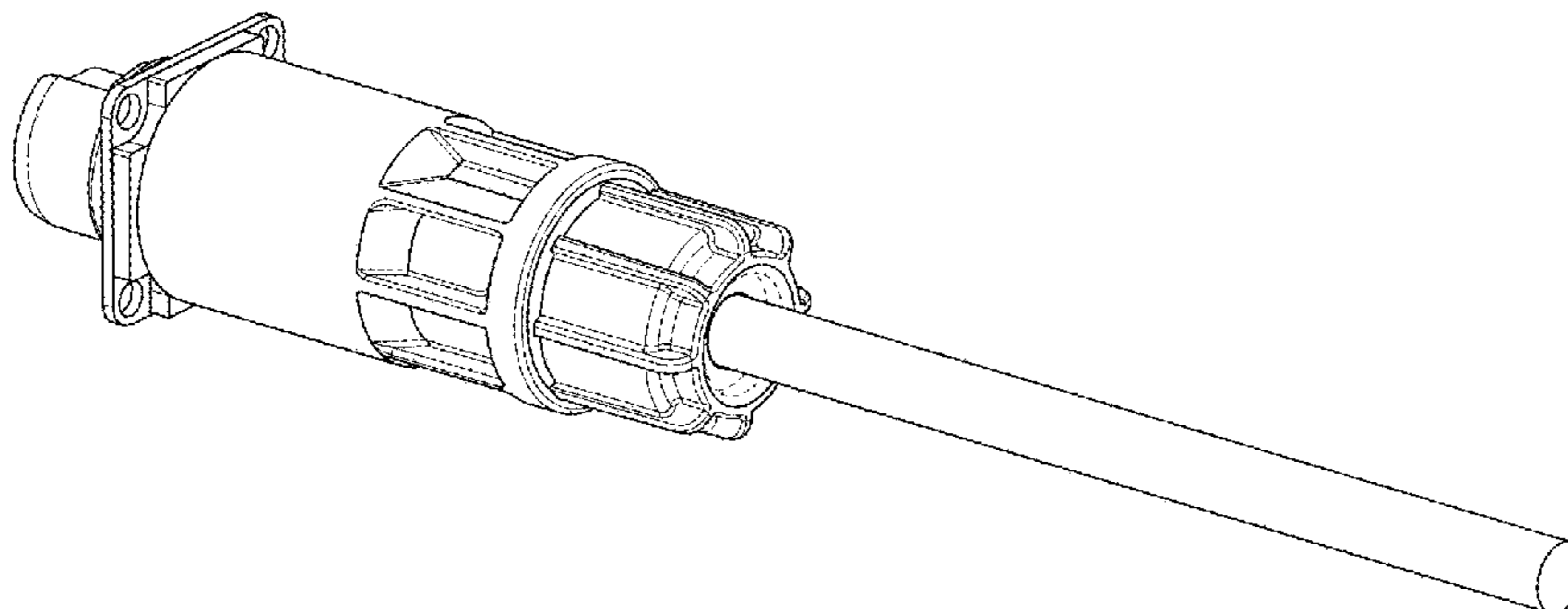
FIG. 12 is a right side elevation view thereof;

FIG. 13 is a top plan view thereof; and,

FIG. 14 is a bottom plan view thereof.

The broken lines shown in the drawings is included for the purpose of illustrating environmental structure and forms no part of the claimed design.

1 Claim, 14 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

7,934,943	B2	5/2011	Malstrom et al.	
D647,481	S *	10/2011	Ohmori	D13/133
D675,161	S	1/2013	Rayner	
D677,627	S *	3/2013	Dobler	D13/133
D714,725	S	10/2014	Vogelmann	
8,882,364	B2	11/2014	Busse et al.	
9,256,030	B2	2/2016	Belenkiy et al.	
D769,822	S *	10/2016	Reynolds	D13/146
D769,882	S	10/2016	Reynolds	
D804,426	S	12/2017	Watkins	
9,923,288	B2	3/2018	Bertrand	
D820,210	S *	6/2018	Barrefelt	D13/133
2011/0244721	A1	10/2011	Amidon	
2011/0312210	A1	12/2011	Chawgo et al.	
2011/0312211	A1	12/2011	Natoli	
2014/0057487	A1	2/2014	May	
2014/0340076	A1 *	11/2014	Ilg	H01R 13/516 324/156
2015/0369406	A1 *	12/2015	Dieduksman	H02G 3/0468 285/417
2015/0372417	A1 *	12/2015	Dieduksman	G02B 6/3807 439/461
2016/0018603	A1 *	1/2016	Mooij	G02B 6/3817 385/76
2016/0134066	A1 *	5/2016	Endo	H01R 9/05 439/578
2016/0172783	A1 *	6/2016	Endo	H01R 13/052 439/746
2017/0288335	A1	10/2017	Hsu	
2017/0299817	A1	10/2017	Huang et al.	
2017/0346200	A1	11/2017	Bertrand et al.	
2017/0365962	A1	12/2017	Gniadek	
2018/0115120	A1 *	4/2018	Islam	H01R 13/6658

* cited by examiner

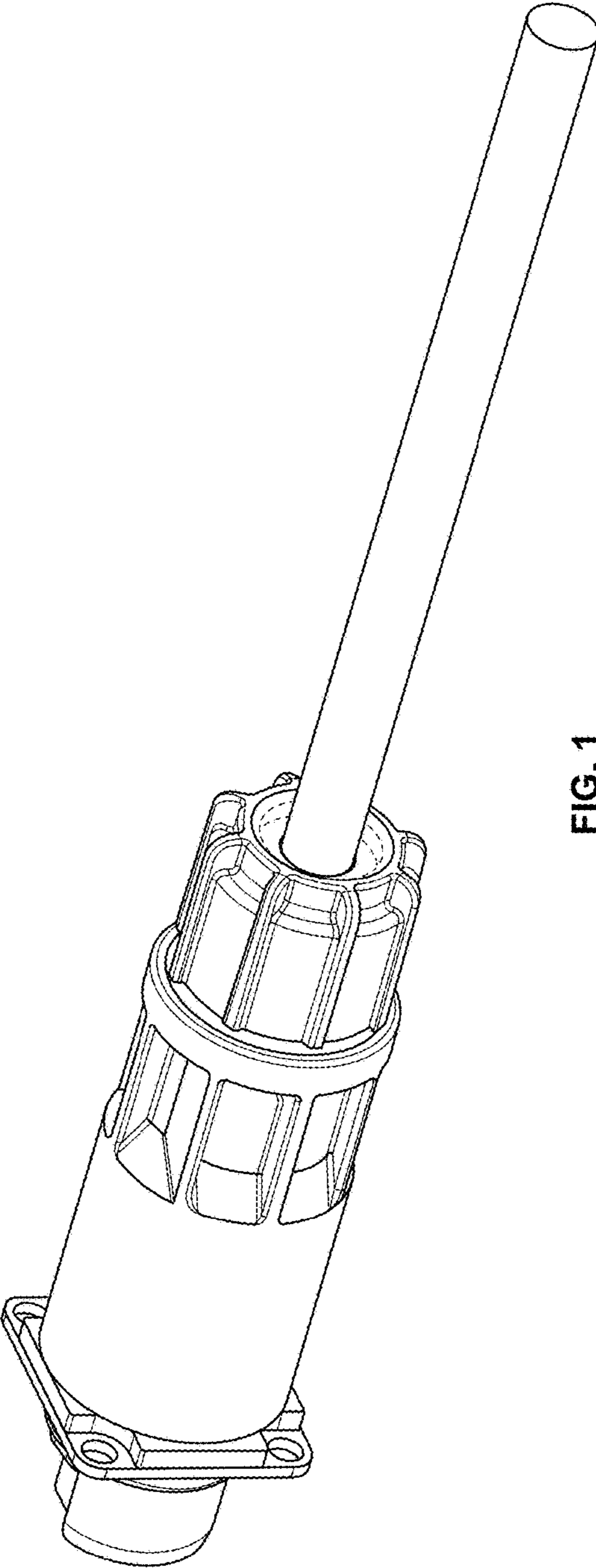


FIG. 1

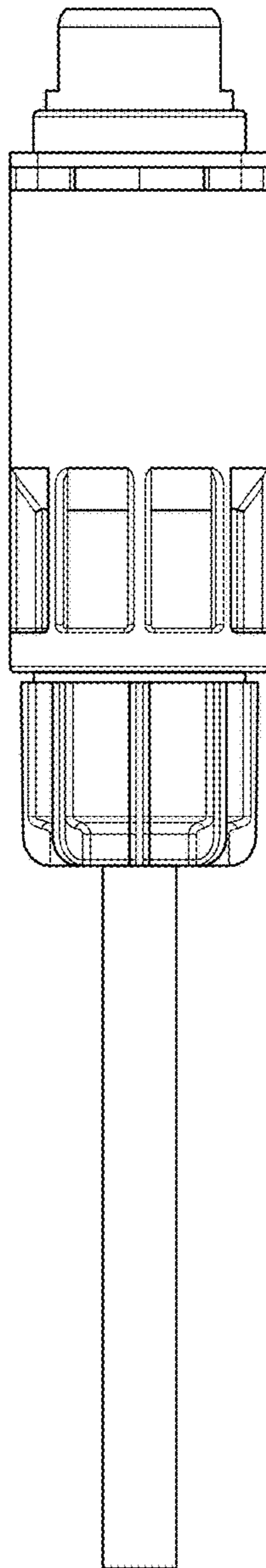


FIG. 2

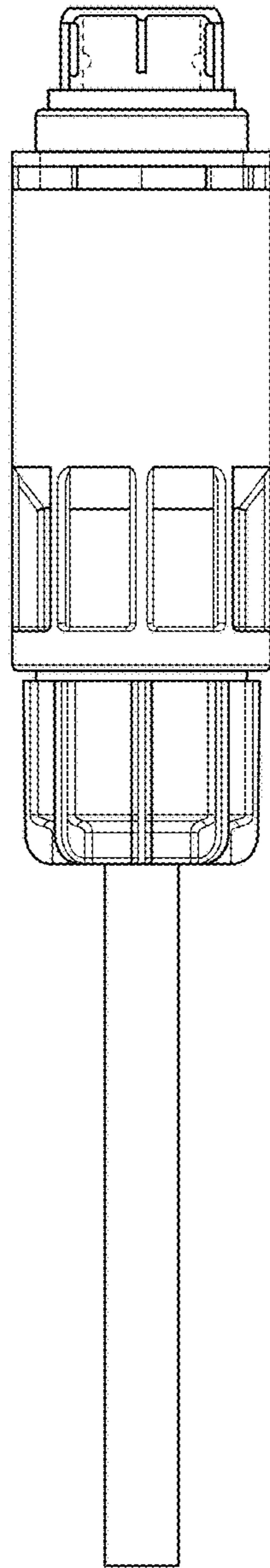


FIG. 3

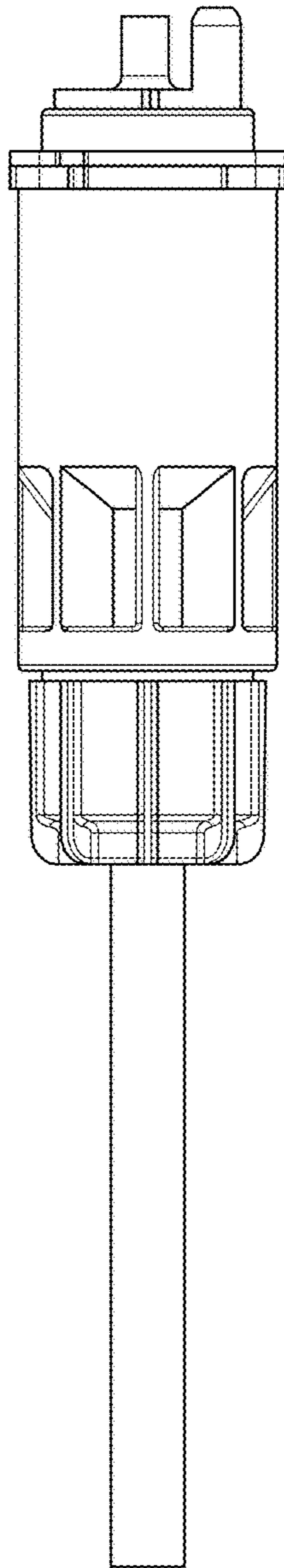


FIG. 4

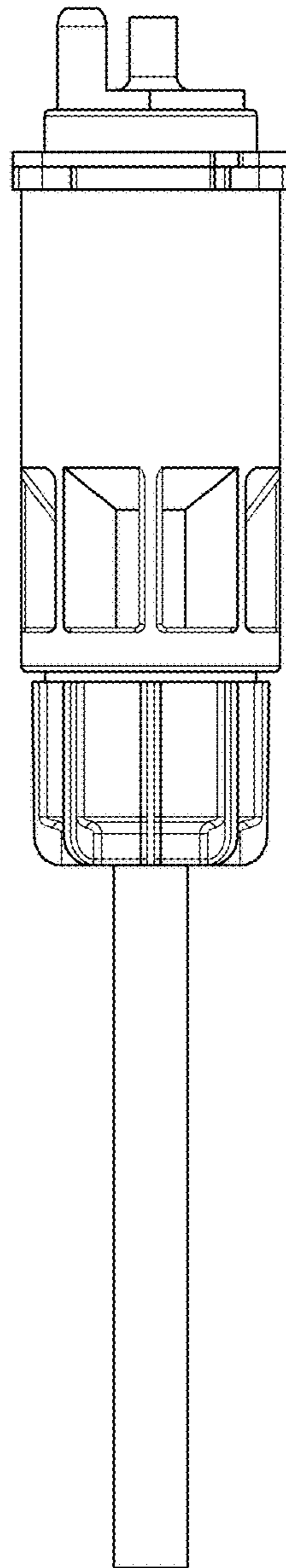


FIG. 5

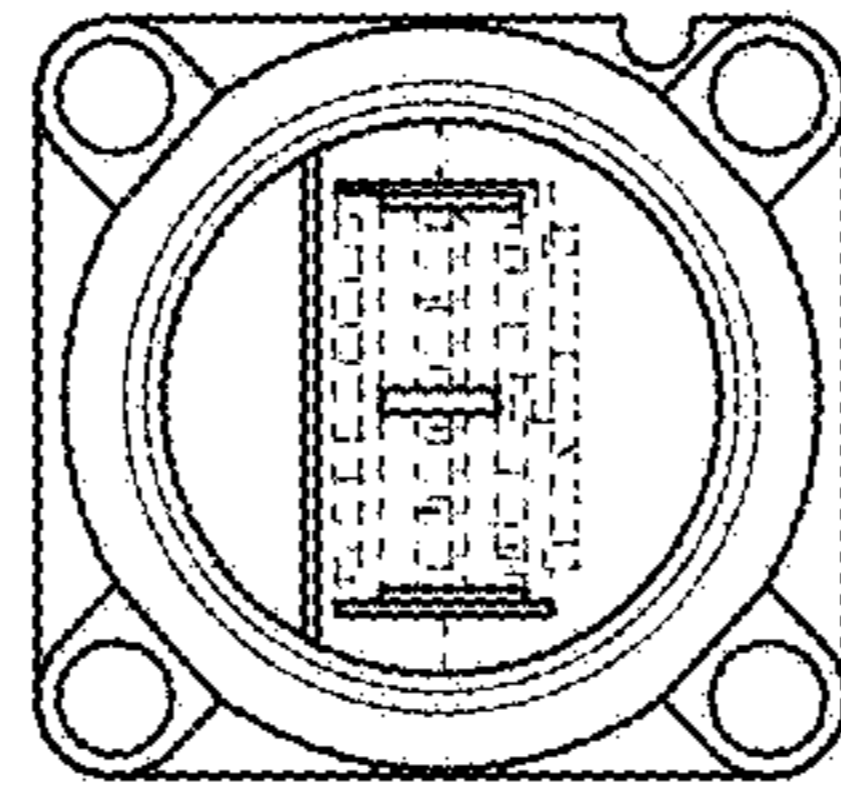


FIG. 6

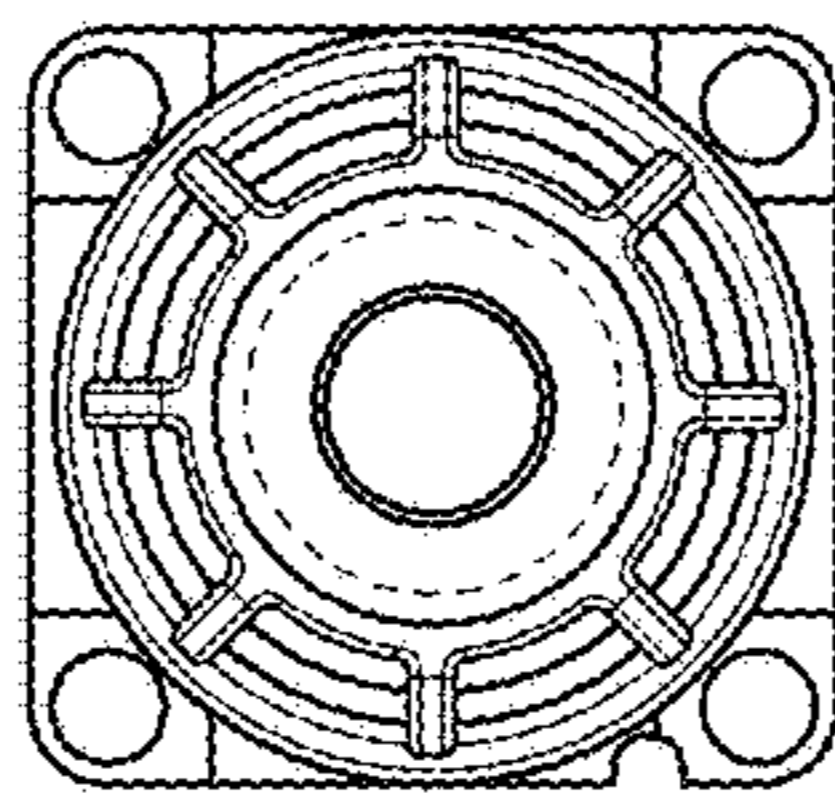


FIG. 7

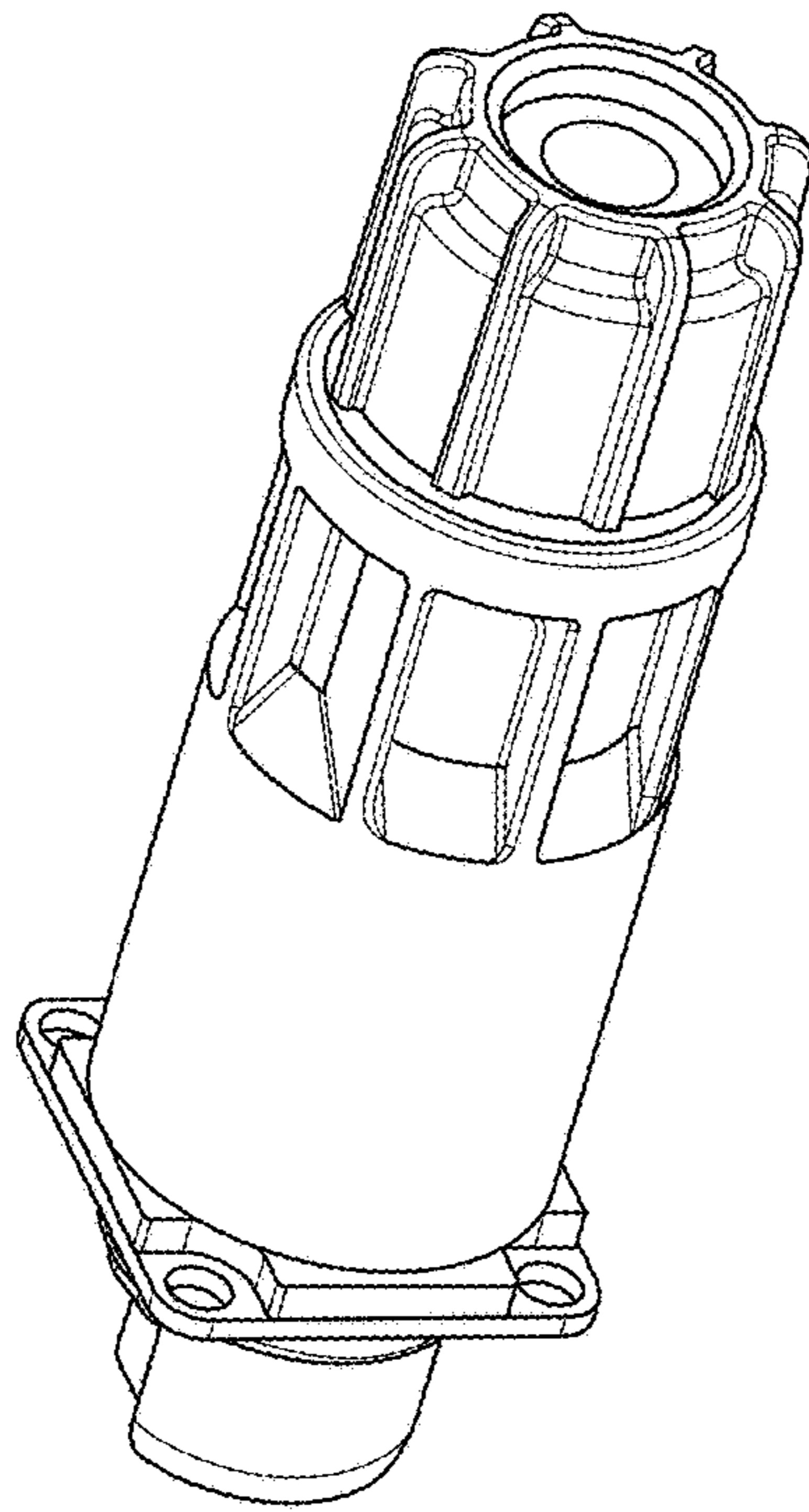


FIG. 8

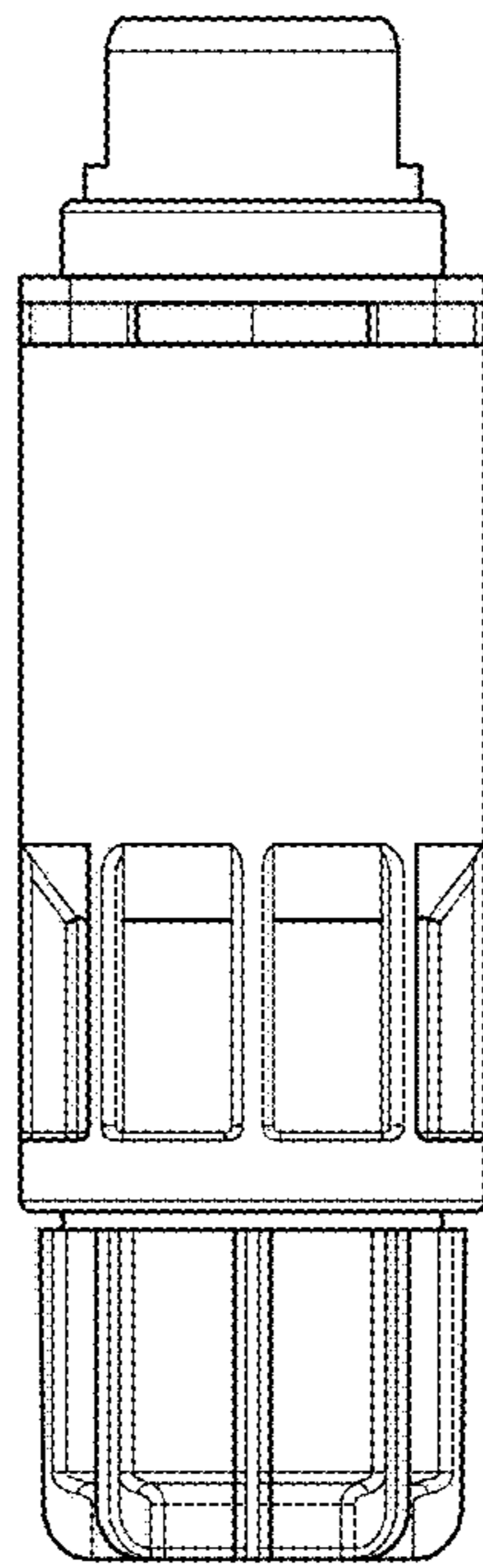


FIG. 9

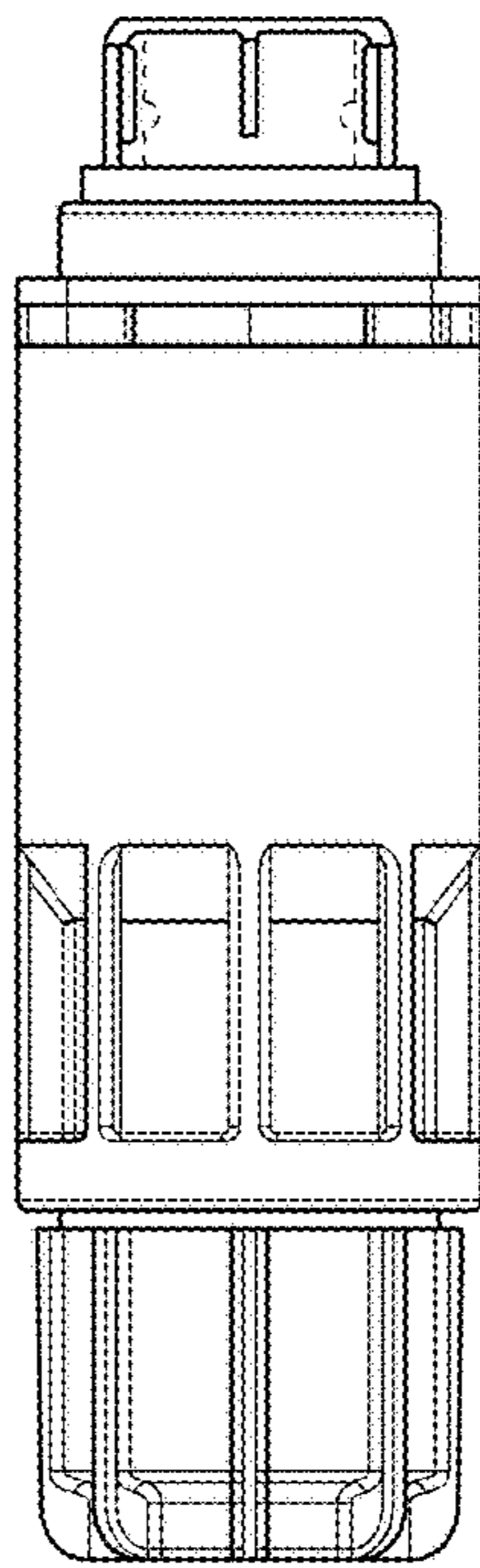


FIG. 10

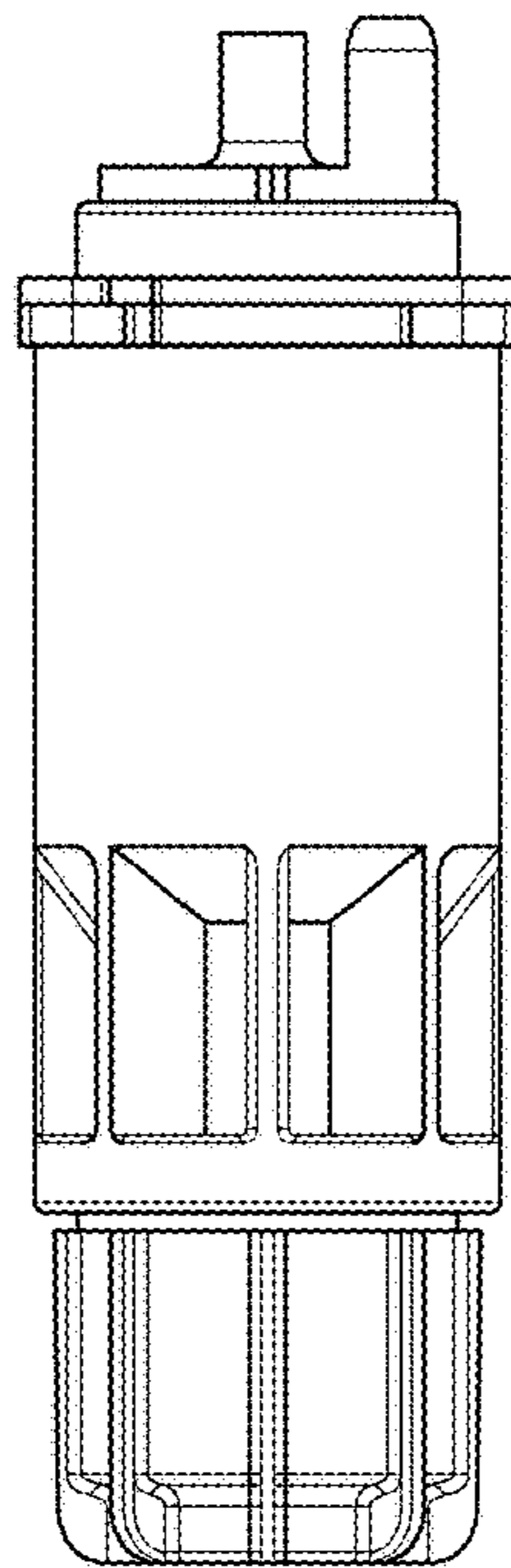


FIG. 11

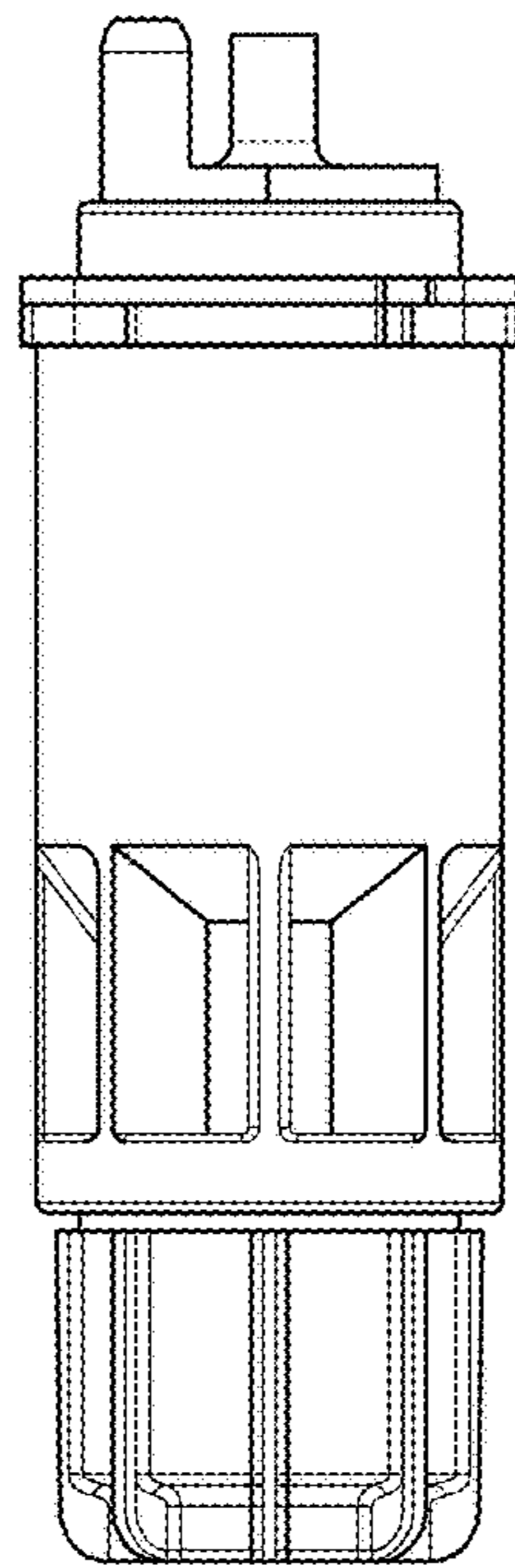


FIG. 12

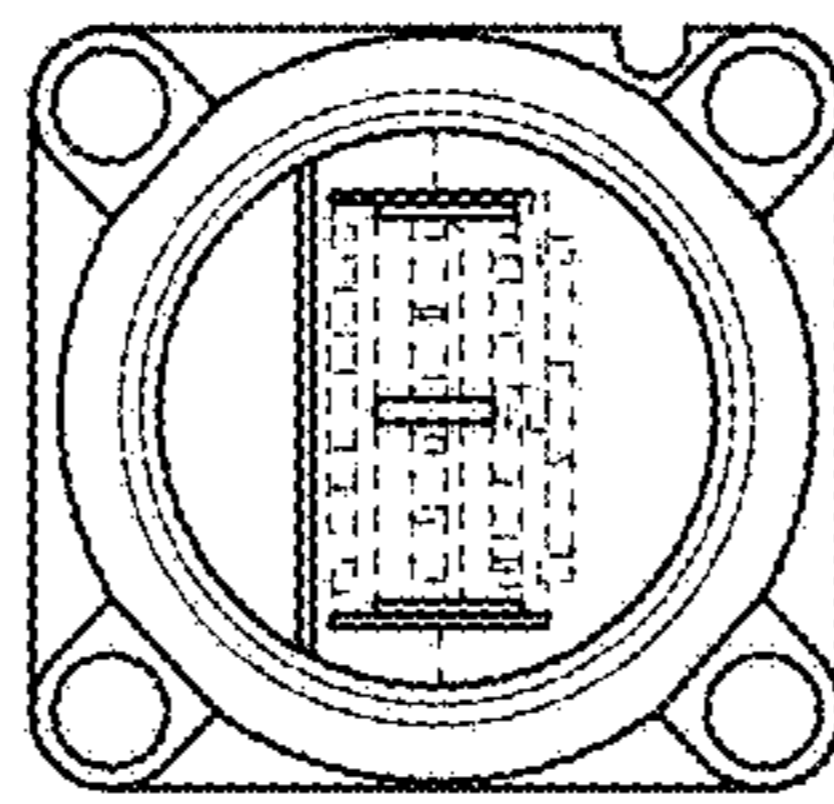


FIG. 13

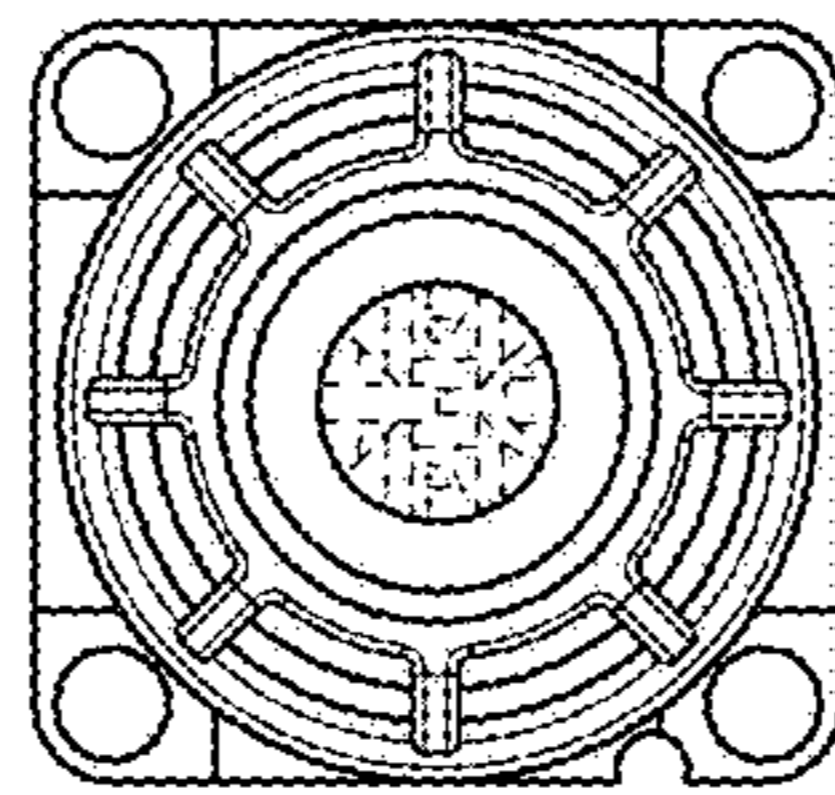


FIG. 14