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(12) **United States Design Patent**  
**Torma**

(10) **Patent No.:** **US D958,751 S**  
(45) **Date of Patent:** **\*\* Jul. 26, 2022**

(54) **CONNECTOR**

(71) Applicant: **STÄUBLI ELECTRICAL CONNECTORS AG**, Allschwil (CH)

(72) Inventor: **Andreas Torma**, Lorrach (DE)

(73) Assignee: **STAUBLI ELECTRICAL CONNECTORS AG**, Allschwil (CH)

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

(21) Appl. No.: **29/794,320**

(22) Filed: **Jun. 11, 2021**

**Related U.S. Application Data**

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(30) **Foreign Application Priority Data**

May 13, 2019 (WO) ..... DM/202743

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

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

(58) **Field of Classification Search**  
USPC ..... D13/133, 146, 147, 123, 184, 199, 118,  
D13/120, 154, 155, 156, 158, 152  
(Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D415,102 S \* 10/1999 Suzuki ..... D13/133  
D559,193 S \* 1/2008 Stavoe ..... D13/133  
(Continued)

**OTHER PUBLICATIONS**

Dreamky—T-branch cable connectors for solar panels. Date: Jun. 10, 2013. [online]. [Site visited Sep. 15, 2021]. Available from

Internet URL: <https://www.amazon.co.uk/dp/B00985T7U2/> (Year: 2013).\*

(Continued)

*Primary Examiner* — Brett Miller

*Assistant Examiner* — Landon Thomas Cassell

(74) *Attorney, Agent, or Firm* — Sughrue Mion, PLLC

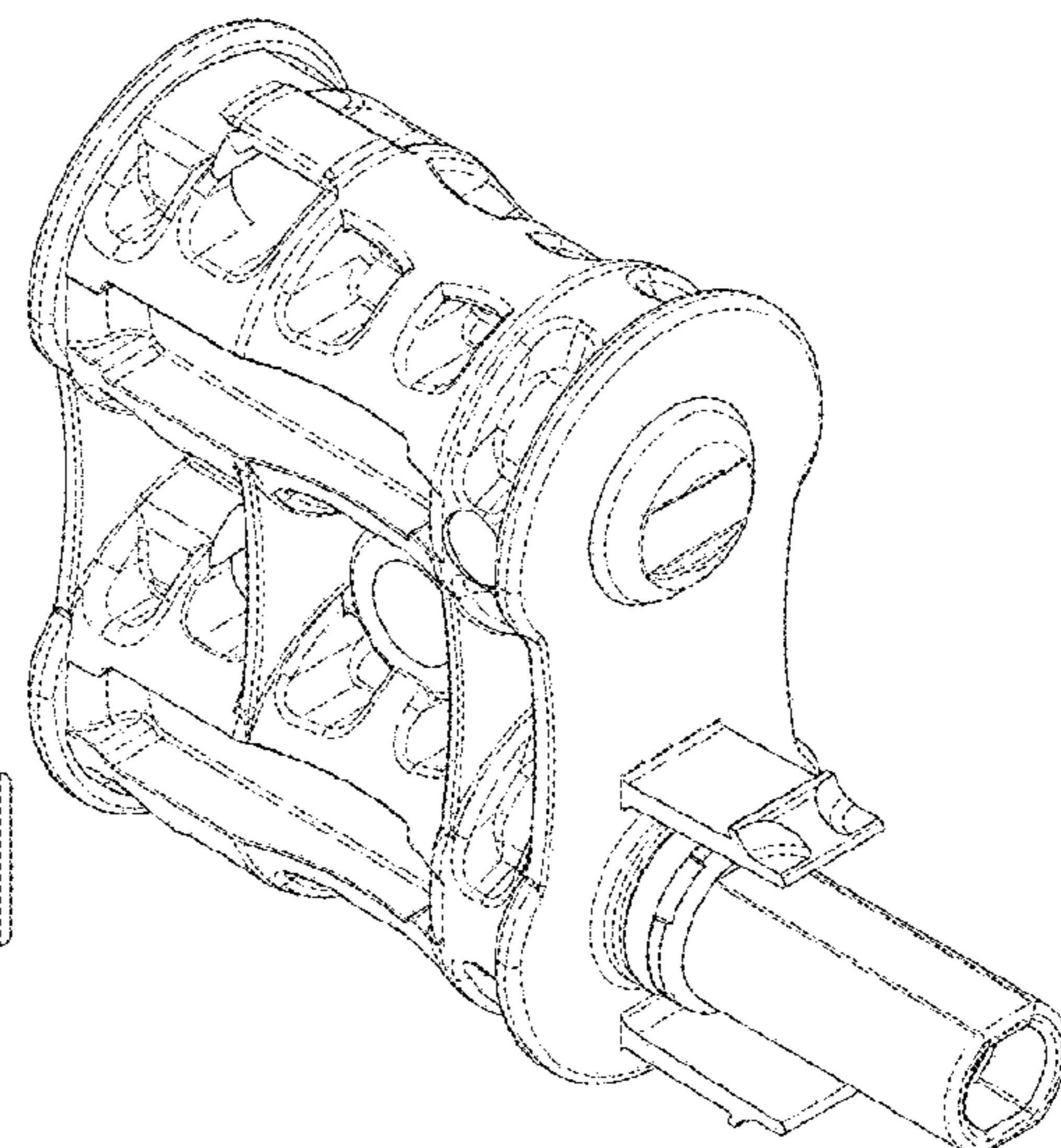
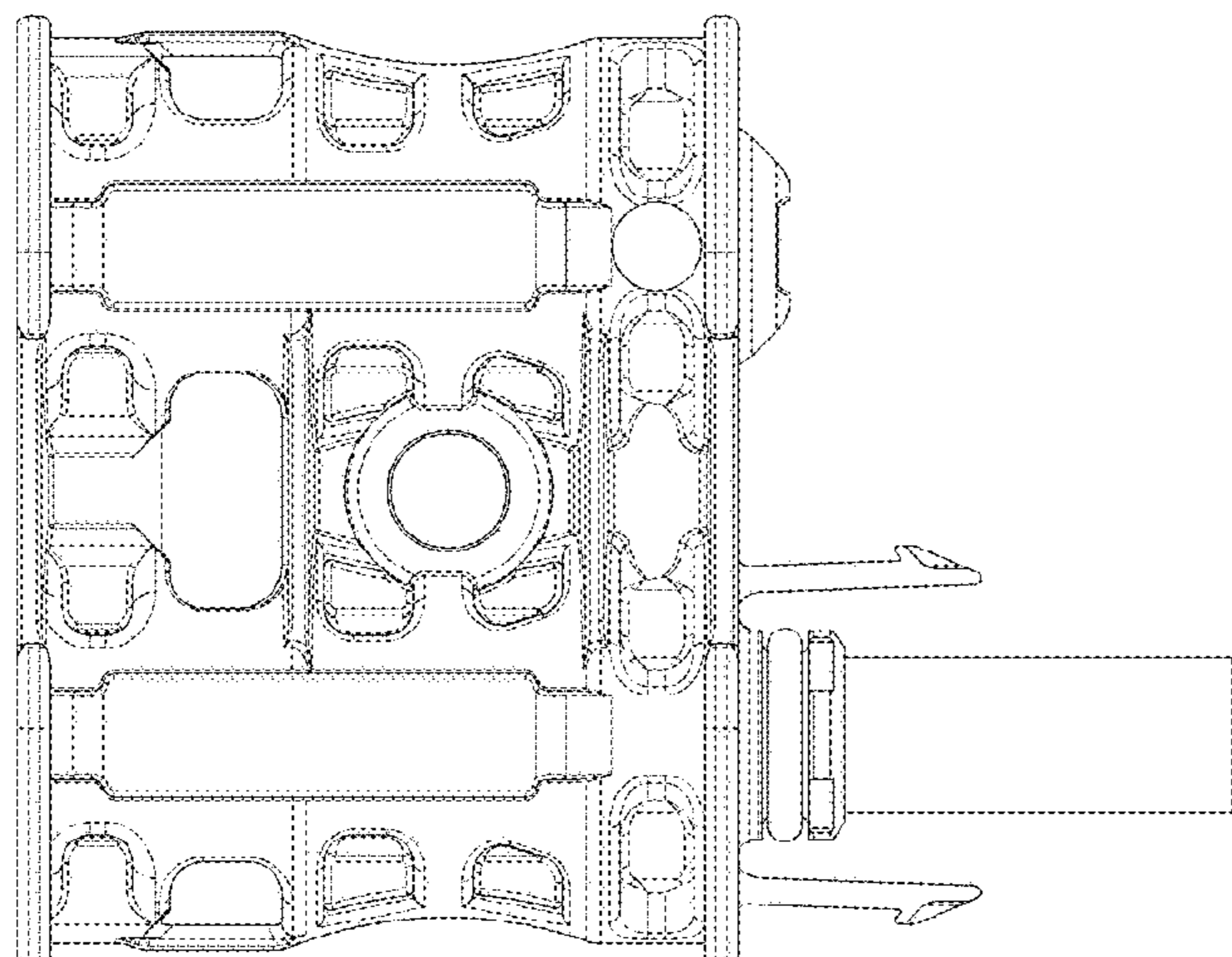
(57) **CLAIM**

The ornamental design for connector, as shown and described.

**DESCRIPTION**

FIG. 1 is a left side perspective view from the front of a first embodiment of a connector that is the subject of the invention;  
FIG. 2 is an enlarged right side elevational view thereof;  
FIG. 3 is an enlarged rear view thereof;  
FIG. 4 is a top view thereof;  
FIG. 5 is a left side perspective view from the bottom thereof;  
FIG. 6 is an enlarged front view thereof;  
FIG. 7 is a bottom view thereof;  
FIG. 8 is an enlarged left side elevational view thereof;  
FIG. 9 is a right side elevational view of a second embodiment of a connector that is the subject of the invention;  
FIG. 10 is a bottom view thereof;  
FIG. 11 is a left side perspective view from the bottom thereof;  
FIG. 12 is a front view thereof;  
FIG. 13 is a left side elevational view thereof;  
FIG. 14 is a rear view thereof;  
FIG. 15 is a left side perspective view from the front thereof; and,  
FIG. 16 is a top view thereof.  
The broken lines in the drawings depict portions of the connector that form no part of the claimed design.

**1 Claim, 16 Drawing Sheets**



(58) **Field of Classification Search**

CPC ..... H01R 13/52; H01R 13/5202;  
 H01R 13/5205; H01R 13/5208; H01R  
 13/5213; H01R 13/639; H01R 13/40;  
 H01R 13/74; H01R 13/62; H01R  
 2201/00; H01R 9/223; H01R 4/4818;  
 H01R 4/24; H01R 4/48; H01R 4/38;  
 H01R 4/2441; H01R 4/2458; H01R 4/60;  
 H02S 40/34; H02S 40/30

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D589,445	S	3/2009	Arai	
D618,616	S	6/2010	Kesler	
D670,647	S	11/2012	Ebihara	
D670,649	S *	11/2012	Ebihara	D13/133
D670,650	S	11/2012	Ebihara	
D673,118	S	12/2012	Giefers	
D673,500	S *	1/2013	Feige	D13/133
D682,209	S	5/2013	Henrink	
D691,560	S *	10/2013	Wang	D13/133
D691,949	S *	10/2013	Torma	D13/133
D692,381	S	10/2013	Torma	
D700,576	S *	3/2014	Torma	D13/133
D714,723	S *	10/2014	Vogelmann	D13/133
D722,971	S	2/2015	Smith	
D723,467	S	3/2015	Smith	
D735,671	S	8/2015	Kuhnert	
D840,341	S *	2/2019	Menolotto	D13/133
D847,749	S *	5/2019	Barrefelt	D13/133
D847,753	S *	5/2019	Barrefelt	D13/133
10,355,638	B2	7/2019	Lu	
10,658,833	B2	5/2020	Galín	
D902,861	S	11/2020	Hirmke	
2010/0255724	A1 *	10/2010	Cours	H01R 13/639 439/595

2012/0205149	A1 *	8/2012	Lenel	H02S 40/34 174/547
2013/0084757	A1 *	4/2013	Keswani	H01R 4/4818 439/727
2013/0237095	A1 *	9/2013	Keswani	H01R 4/4836 439/626
2016/0111807	A1 *	4/2016	Wu	H01R 13/6581 439/587
2019/0028058	A1 *	1/2019	Lu	H01R 25/162

OTHER PUBLICATIONS

Haitech—MC4 Solar Cable. Date: Sep. 6, 2018. [online]. [Site visited Sep. 15, 2021]. Available from Internet URL: <https://www.amazon.co.uk/dp/B07H563YVB/> (Year: 2018).\*

Connectors. (Design—© Questel) orbit.com. [Online PDF compilation of references] 31 pgs. Print Dates Range Jul. 6, 2009-Oct. 20, 2020 [Retrieved Sep. 17, 2021] <https://www.orbit.com/export/UCZAH96B/pdf4/08bb64b6-9fe6-4534-8b15-e74c33602b96-223626.pdf> (Year: 2021).\*

MC4 compatible T-branch cable connectors. Date: Jun. 10, 2013. [online]. [Site visited Apr. 1, 2021], Available from Internet URL: <https://www.amazon.co.uk/dp/B00985T7U2/> (Year: 2013).

Branch Connector MC4-Evo 2. Date: Not listed, [online]. [Site visited Apr. 1, 2021]. Available from Internet URL: <https://www.staubli.com/en-us/file/26786.show> (Year: NA).

Solar Panel Cable. Date: Jun. 14, 2018. [online]. [Site visited Apr. 1, 2021], Available from Internet URL: <https://www.amazon.co.uk/dp/B078TNM53T/> (Year: 2018).

Connectors. (Design—© Questel) orbit.com. [Online PDF compilation of references] 16 pgs. Print Dates Range Oct. 12, 2016-Feb. 22, 2019 [Retrieved Apr. 2, 2021] <https://www.orbit.com/export/UCZAH96B/pdf4/3ab579e5-3e59-4748-a9c6-956b642ab6dc-192743.pdf> (Year: 2021).

\* cited by examiner

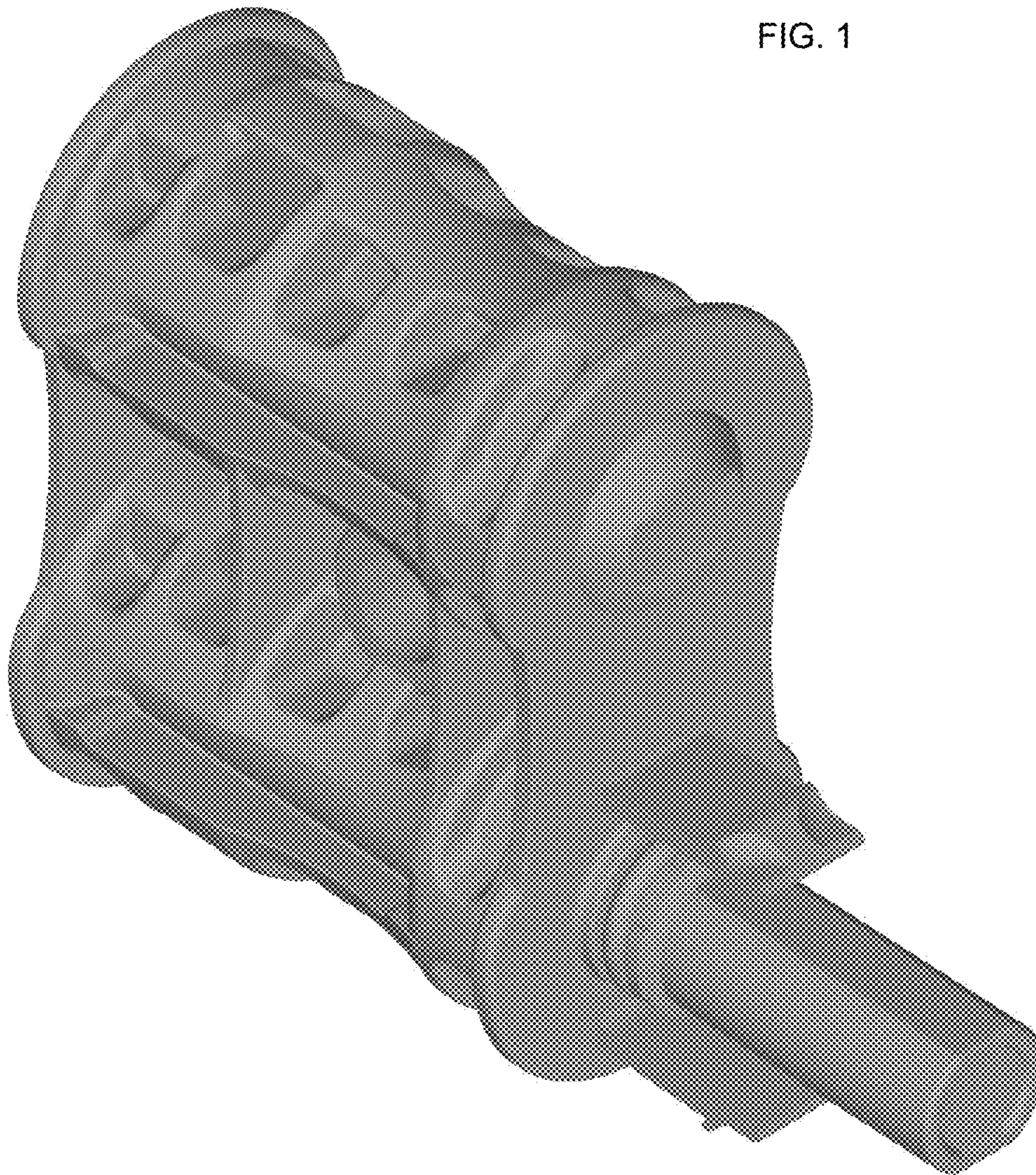


FIG. 1

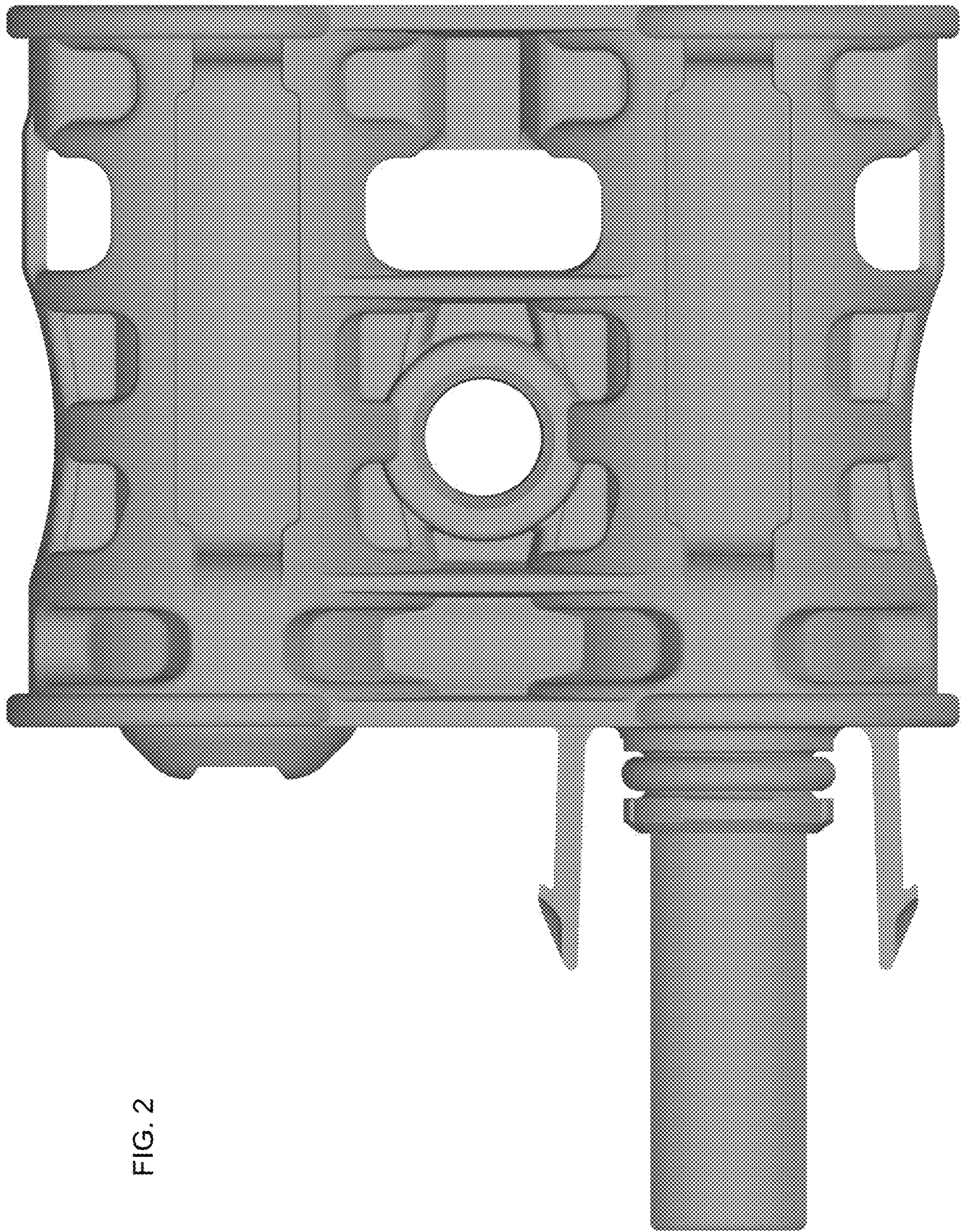
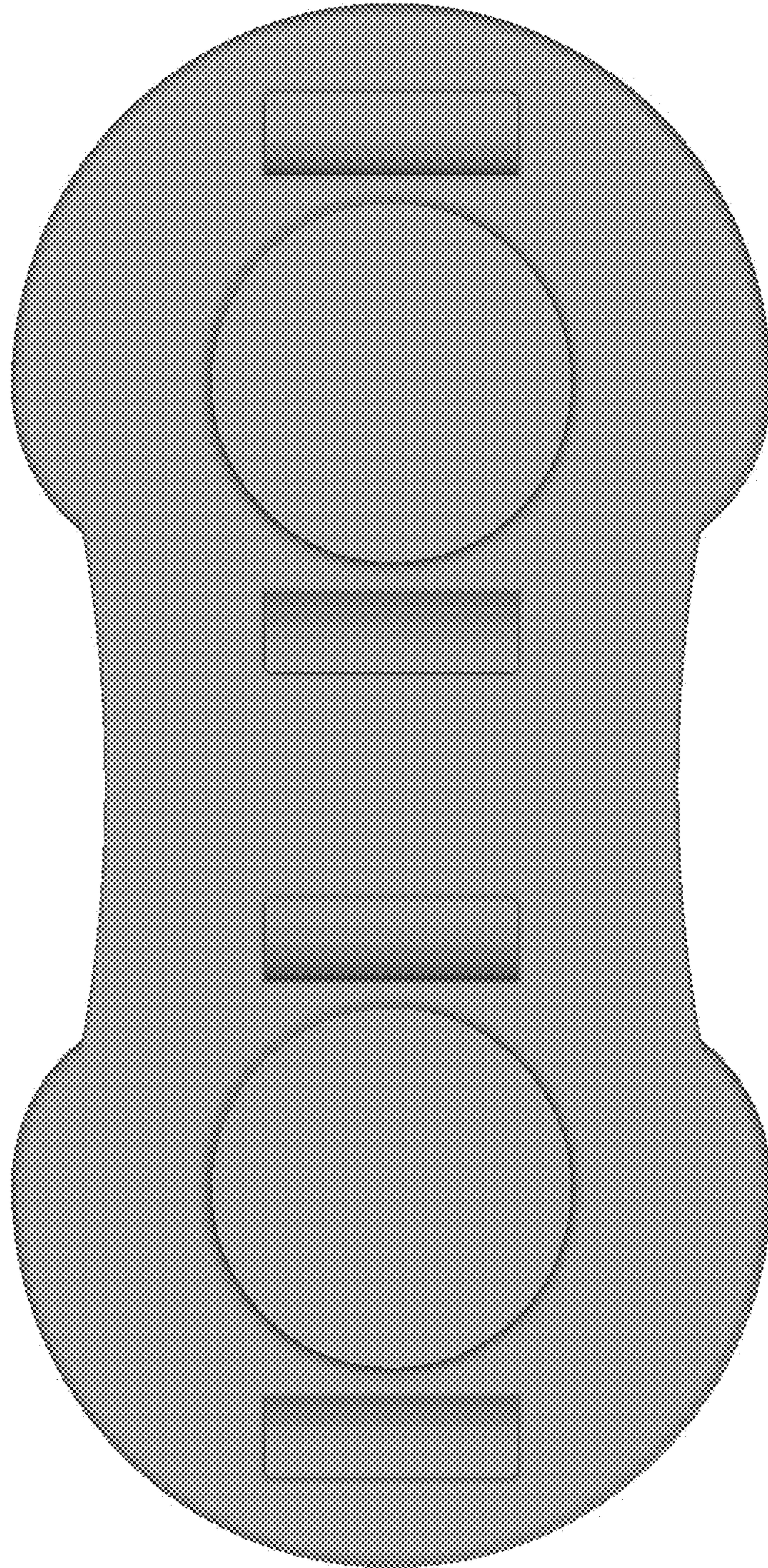


FIG. 2

FIG. 3



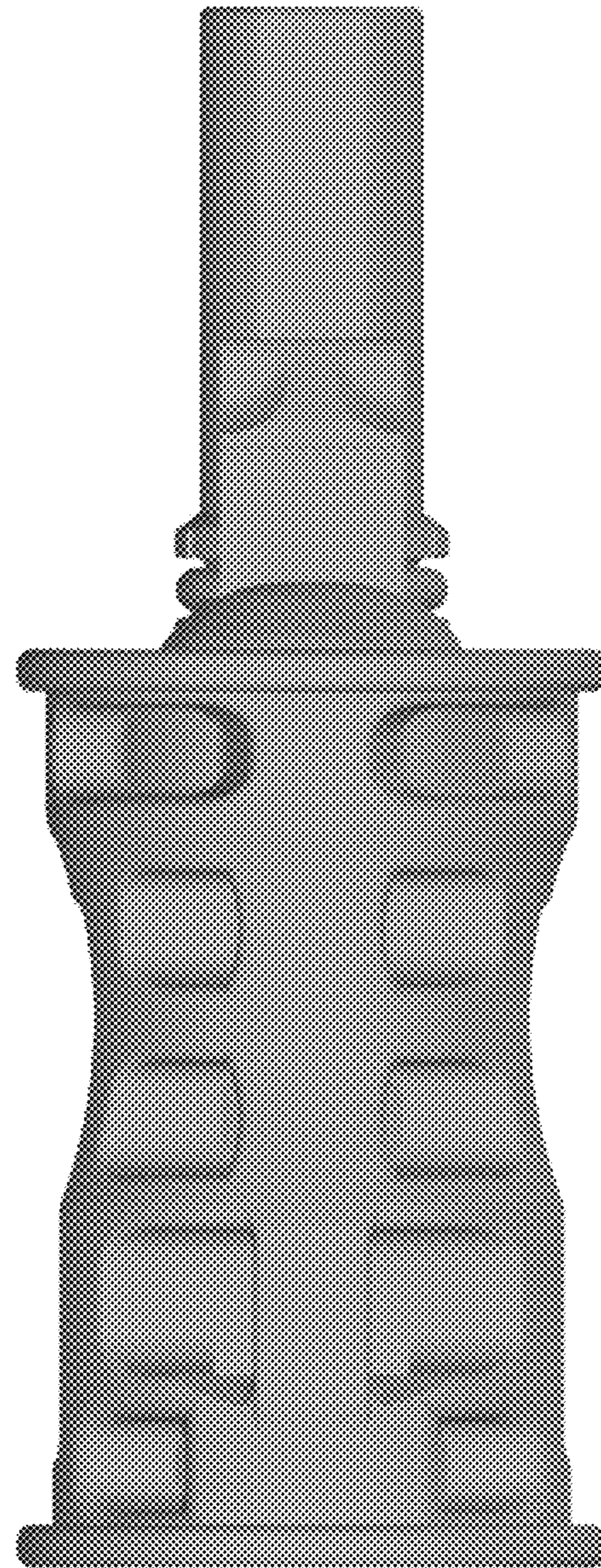
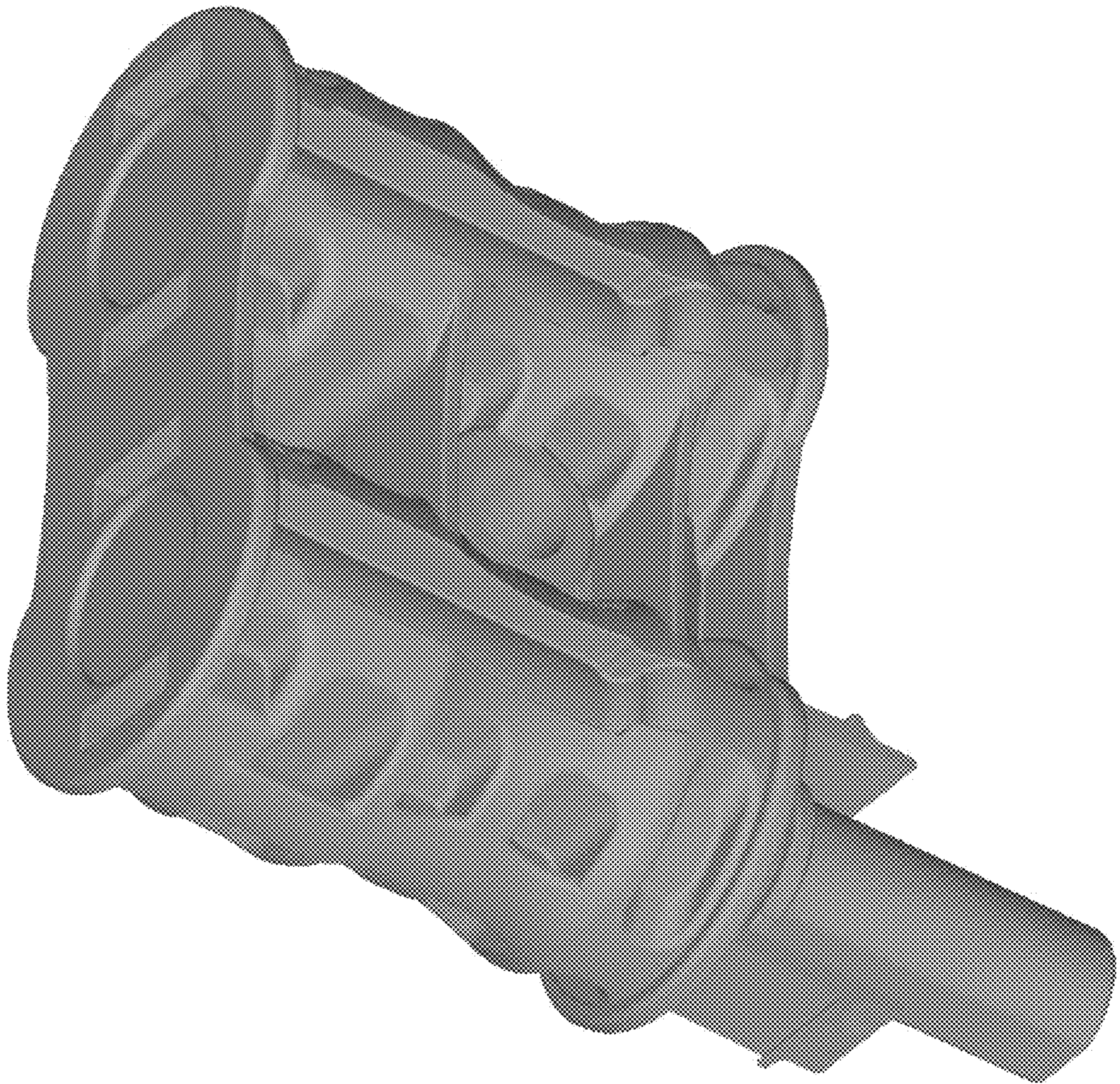


FIG. 4

FIG. 5



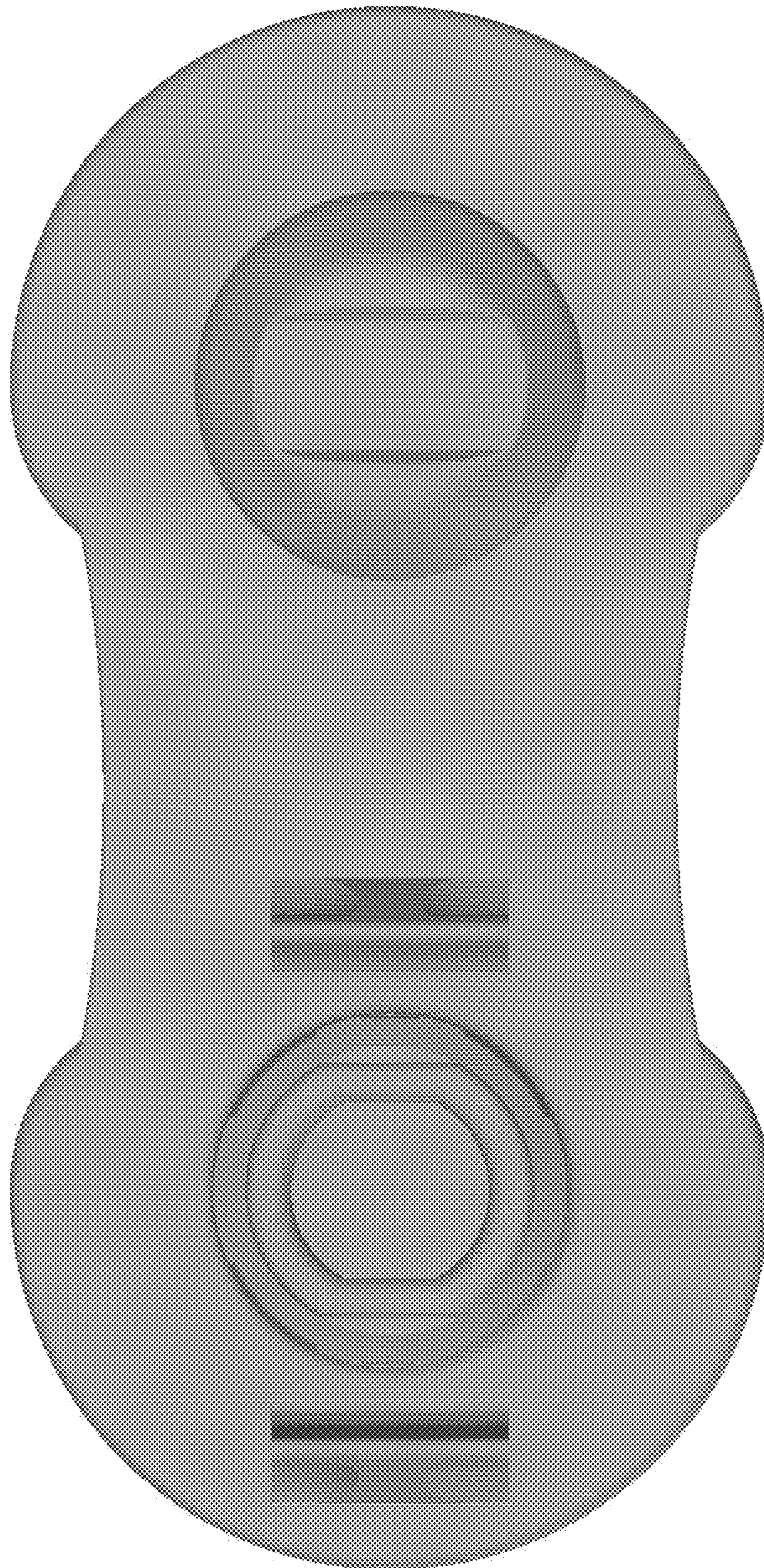


FIG. 6



FIG. 7

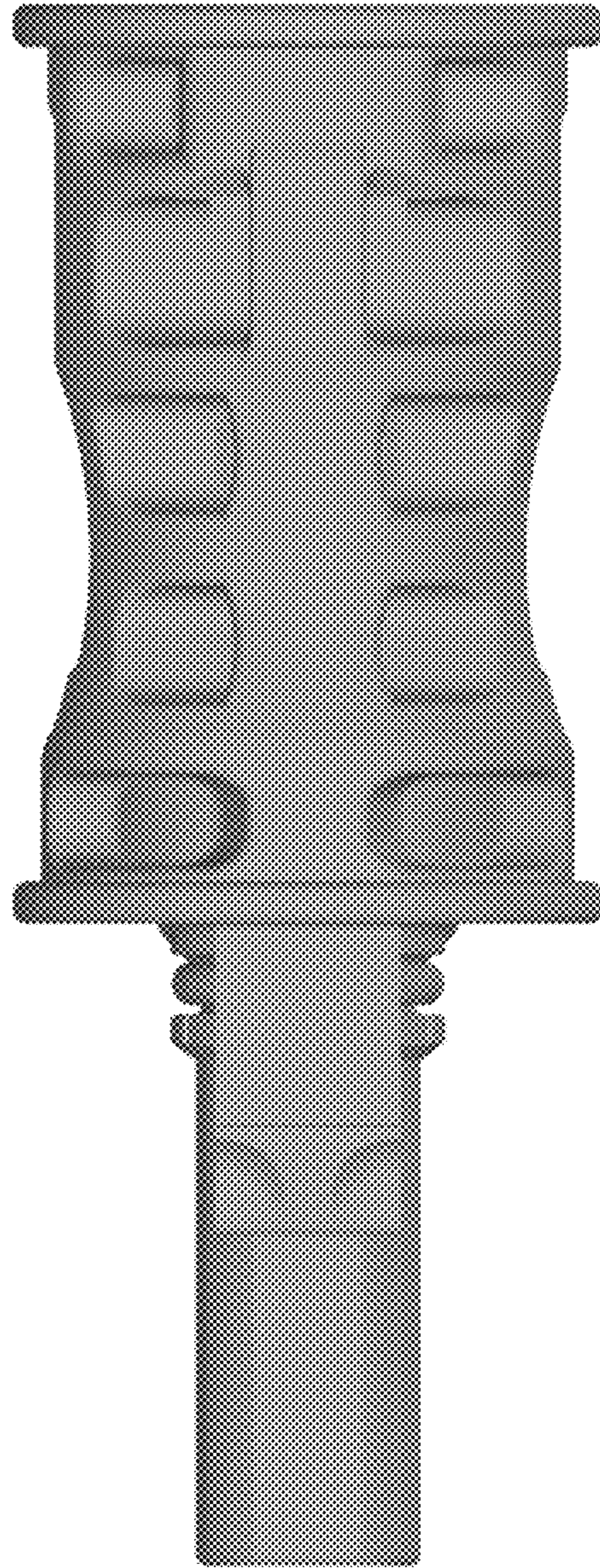
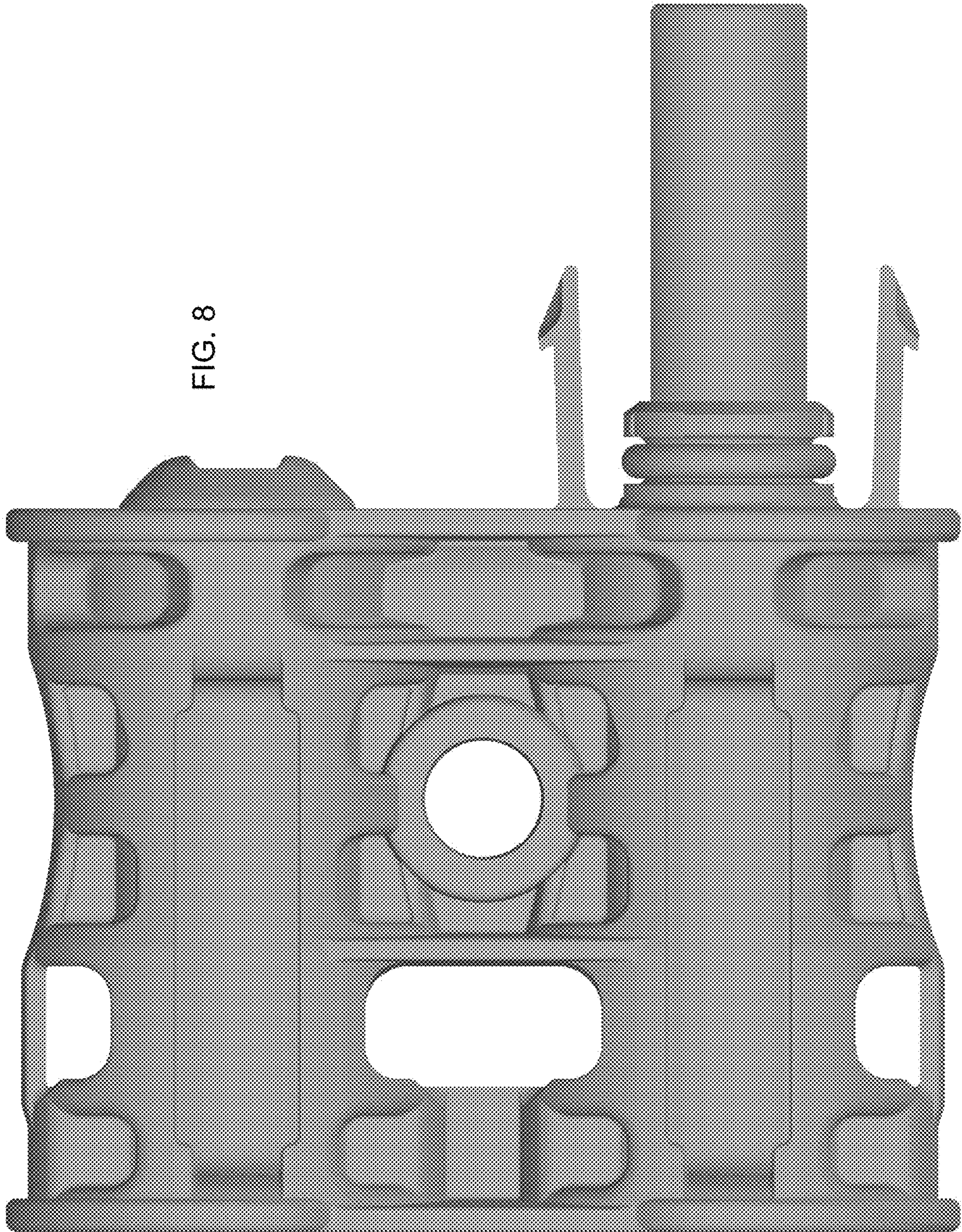


FIG. 8



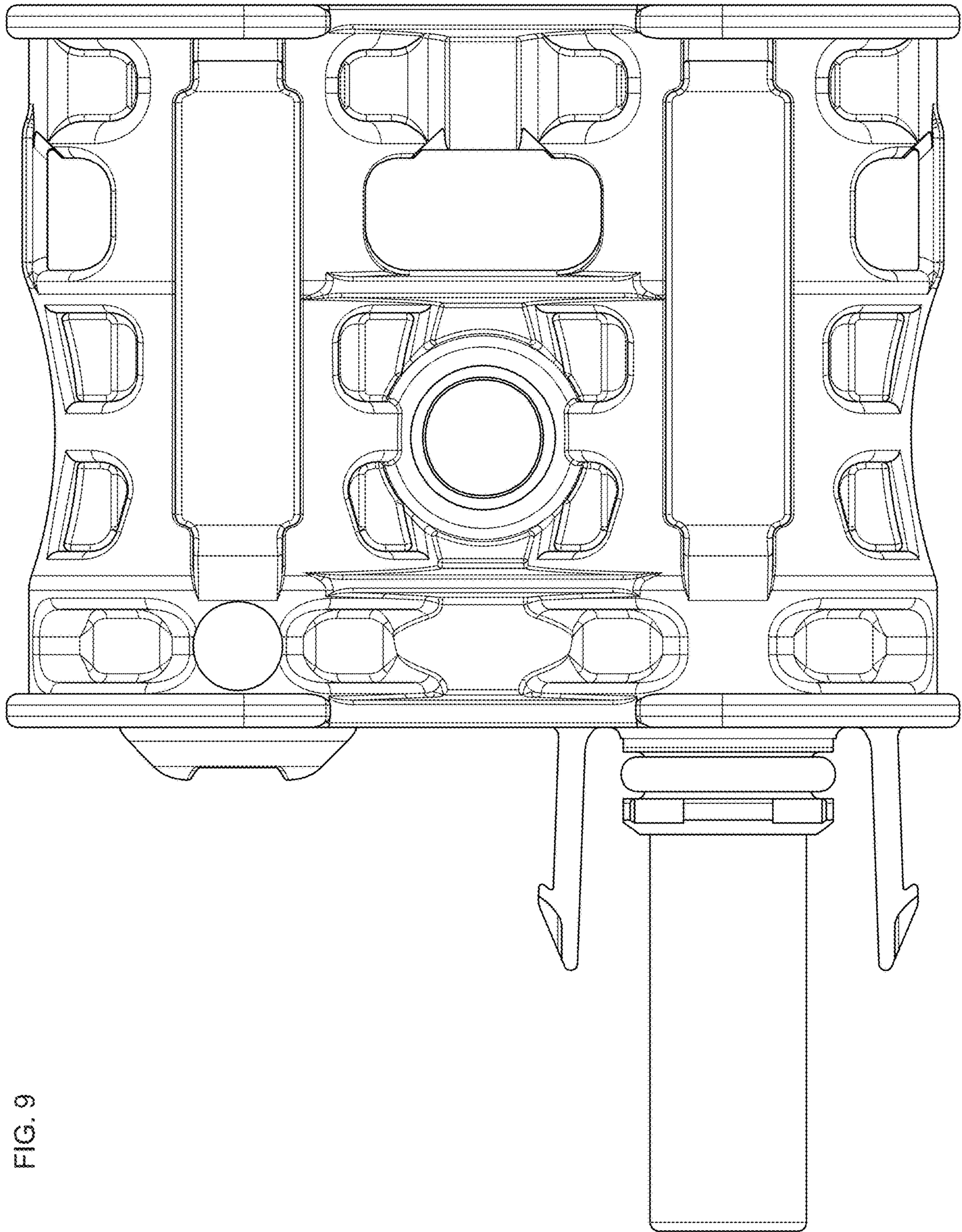


FIG. 9

FIG. 10

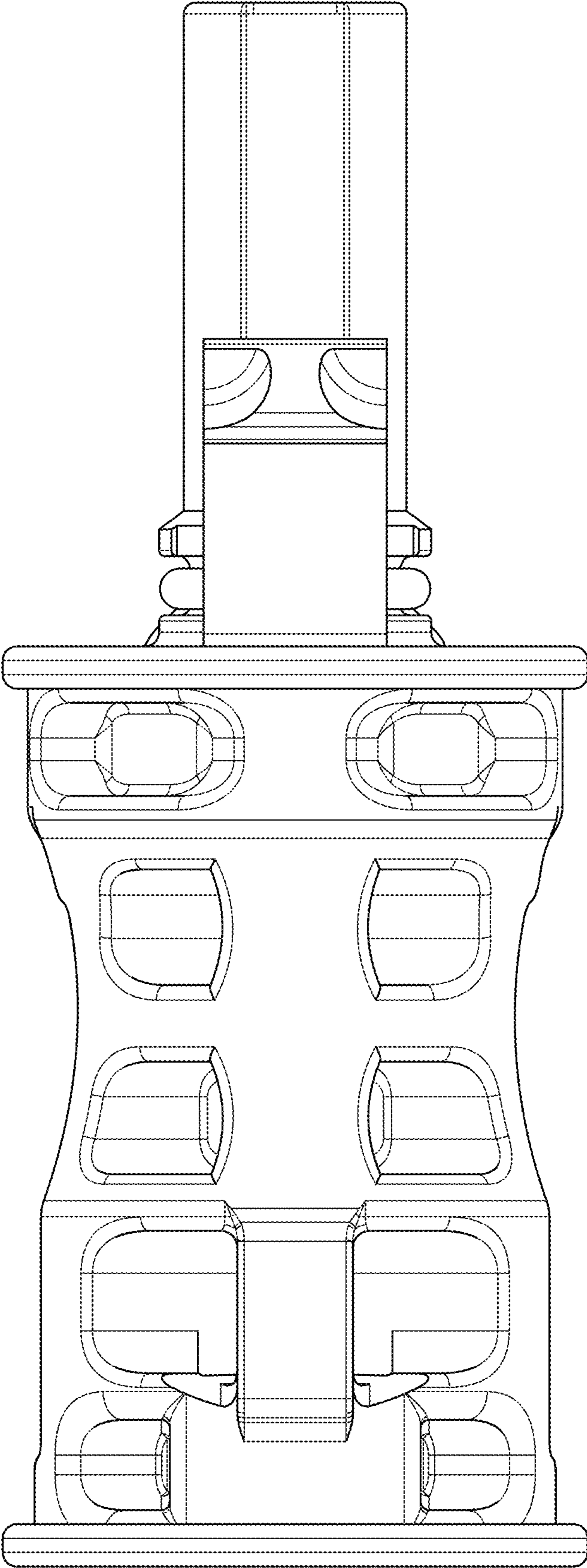


FIG. 11

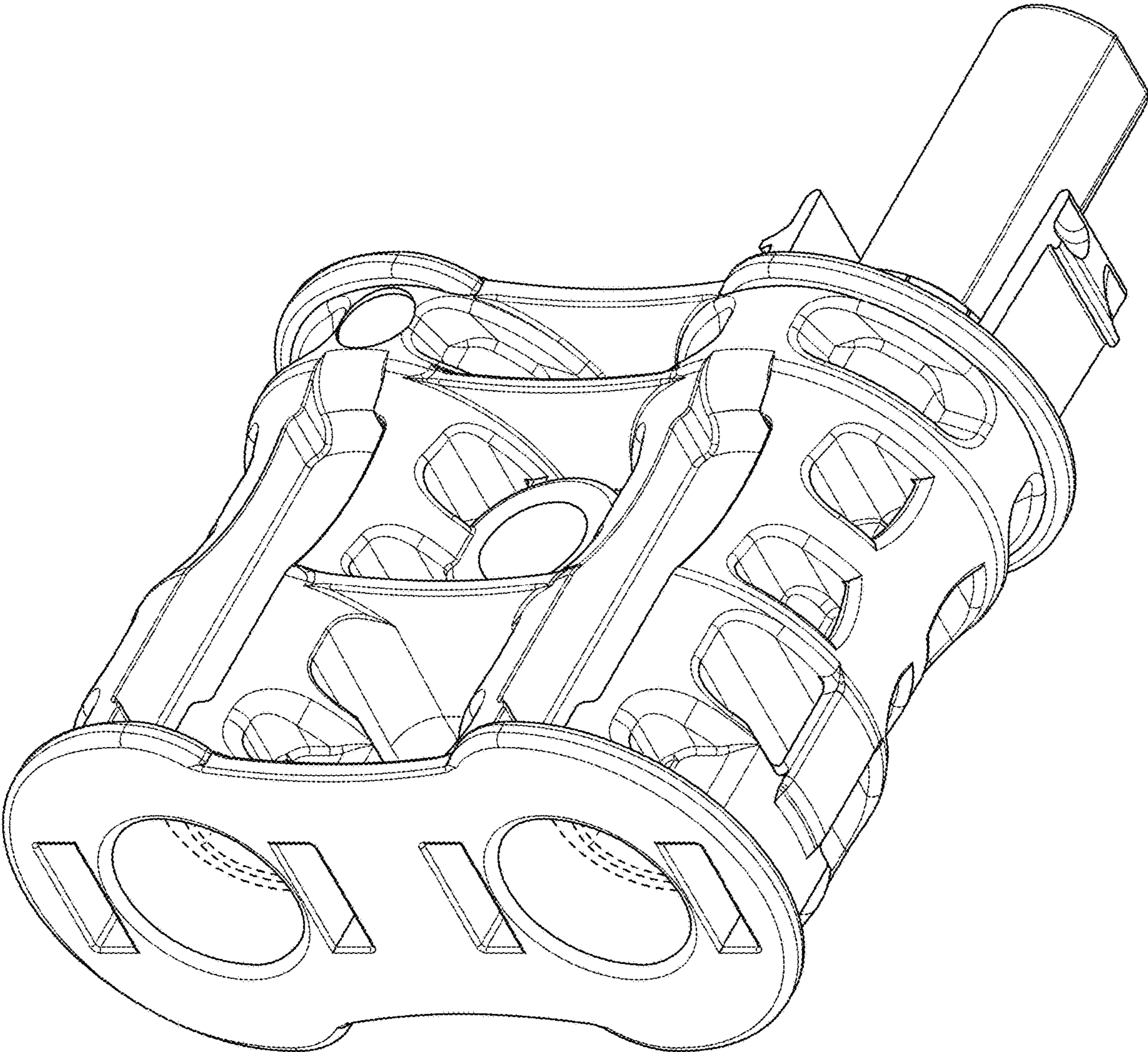


FIG. 12

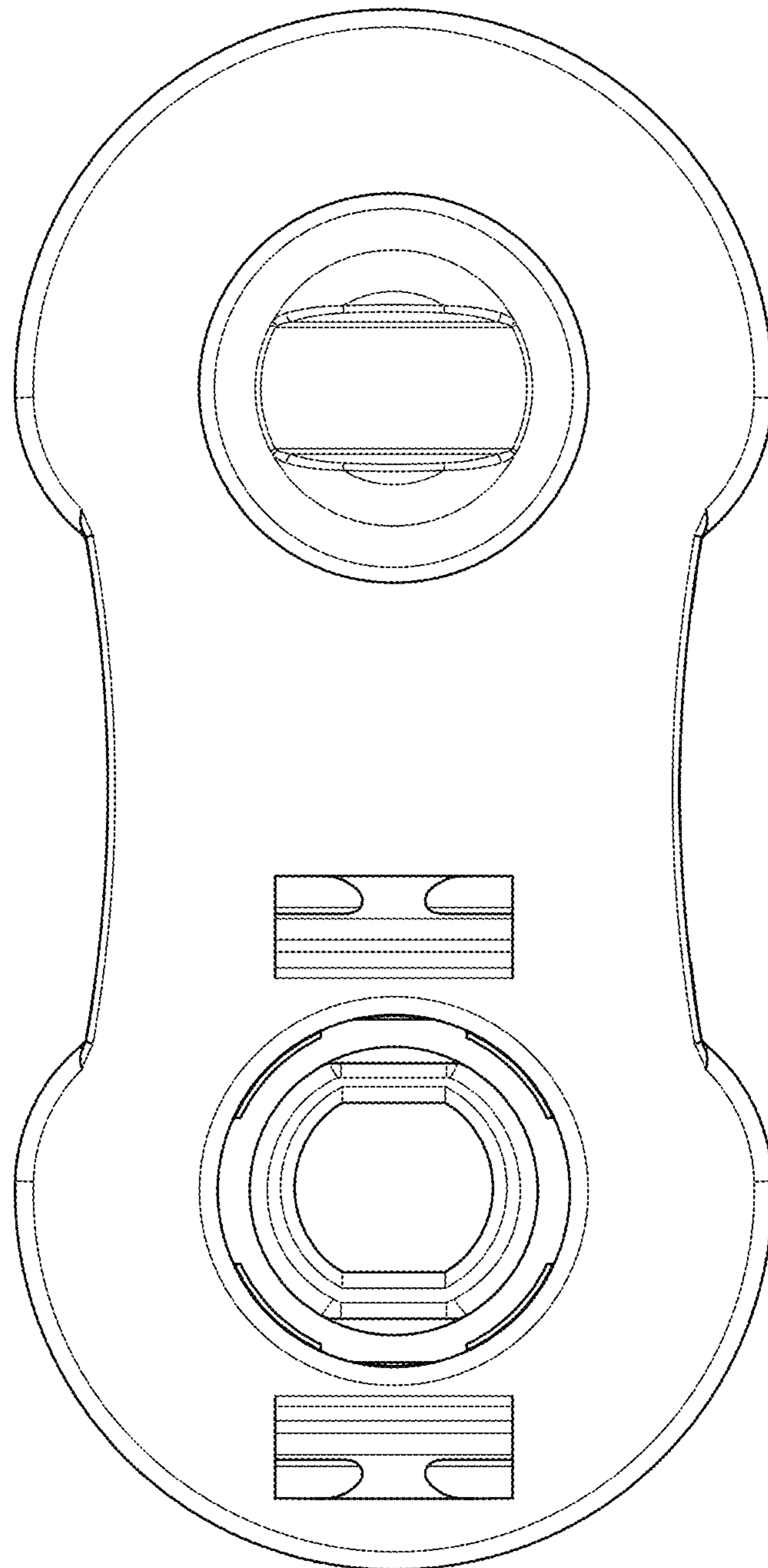


FIG. 13

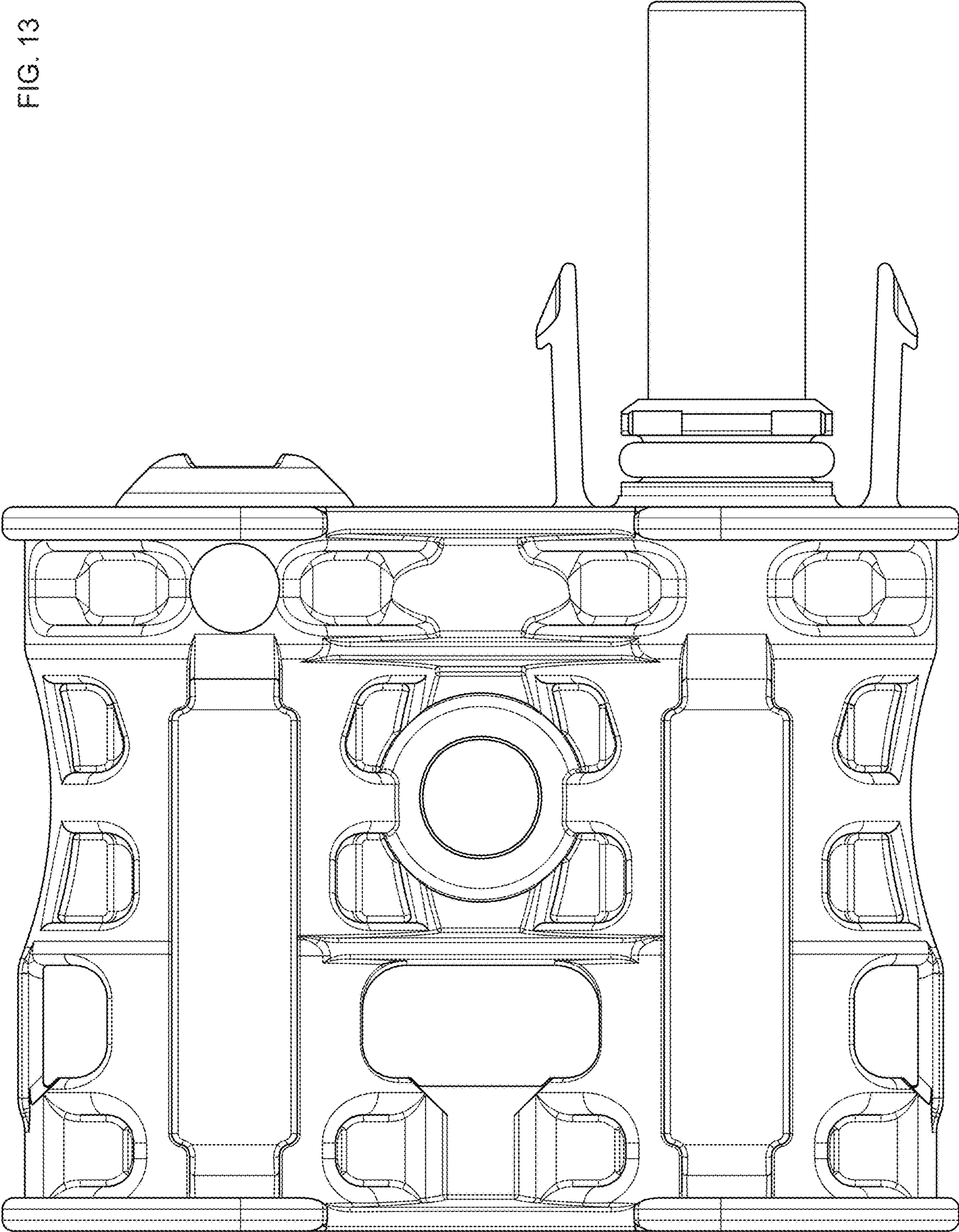


FIG. 14

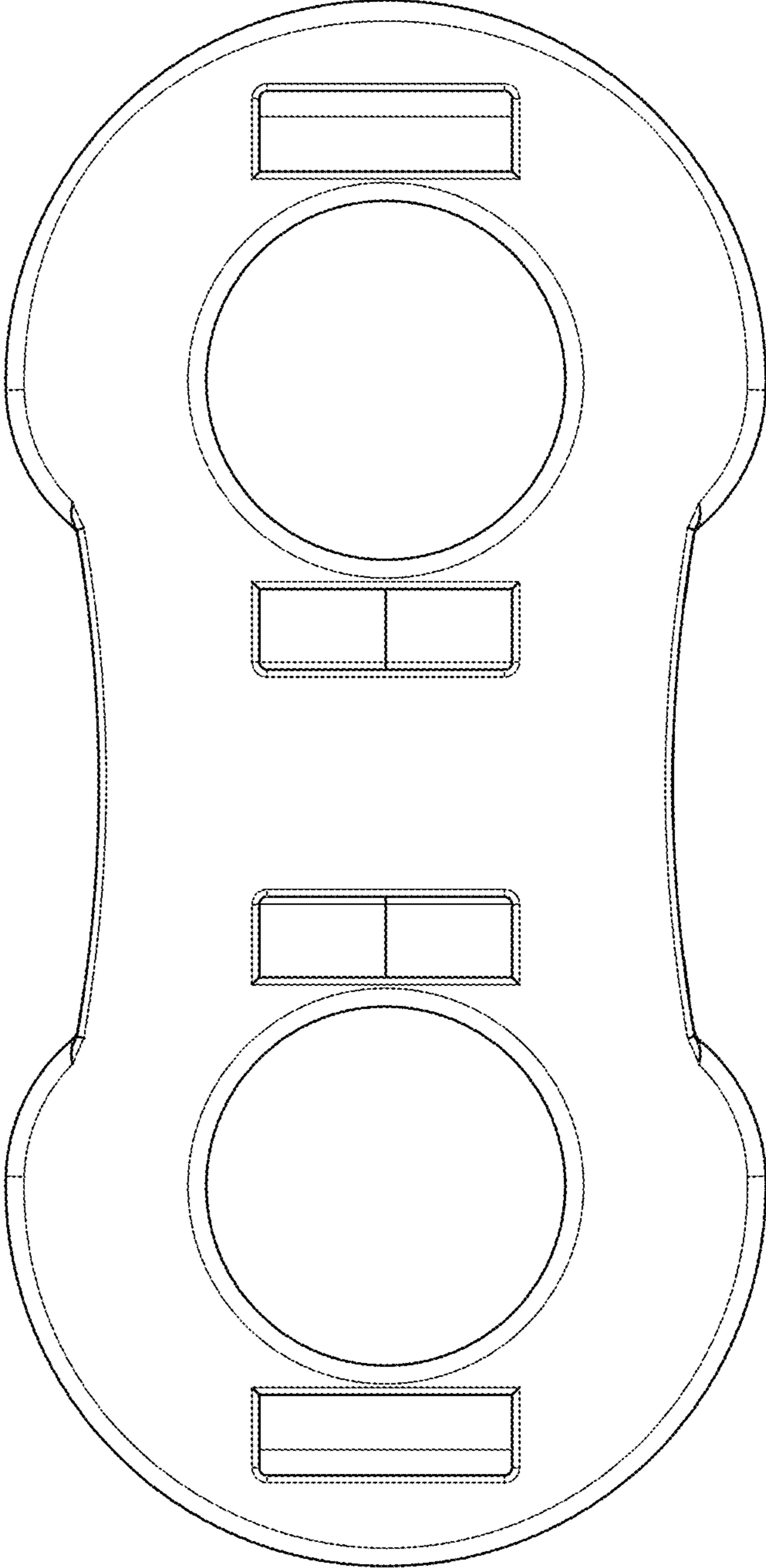




FIG. 15

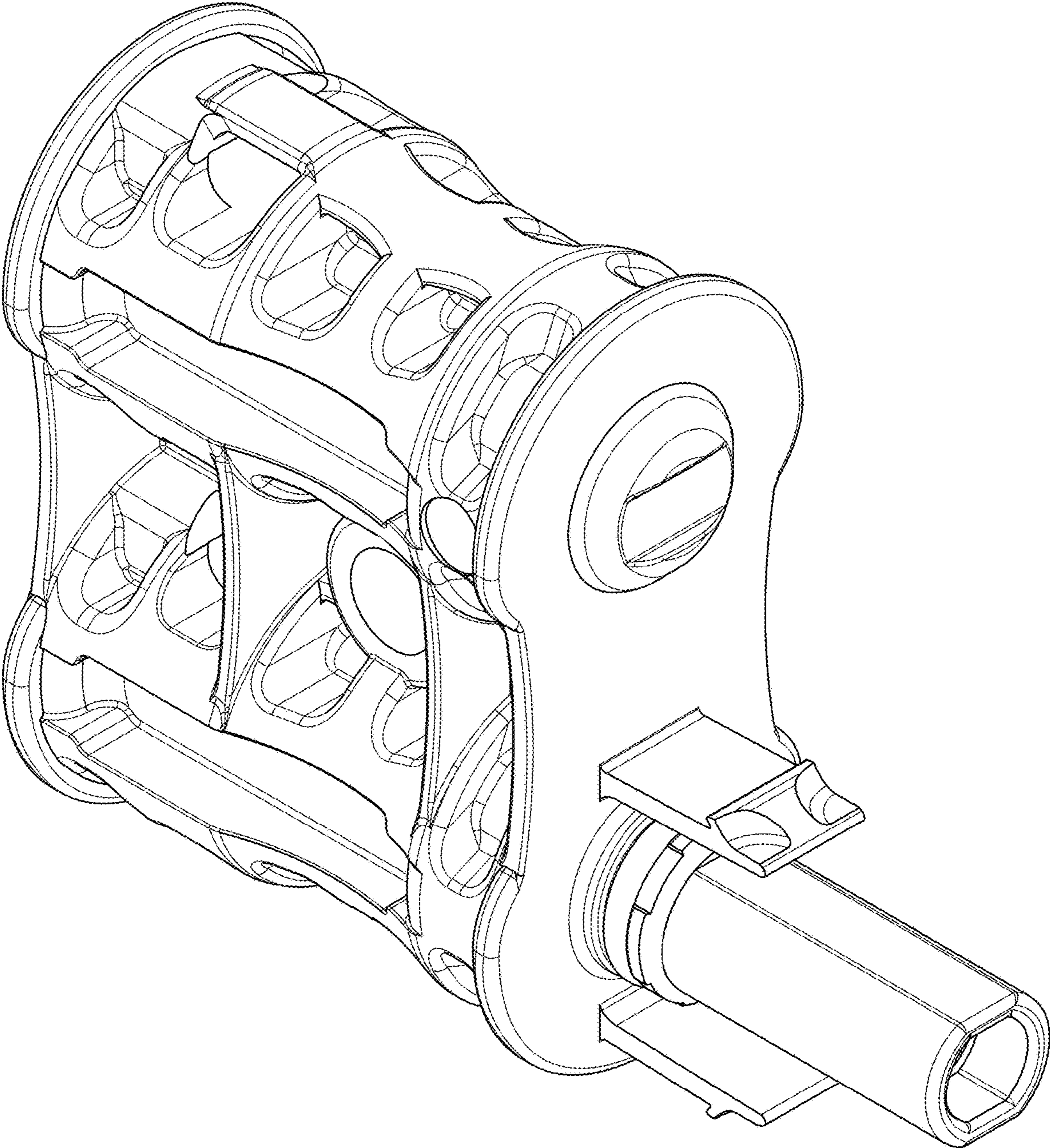


FIG. 16

