



US00D644536S

(12) **United States Design Patent**  
**Witz et al.**

(10) **Patent No.:** **US D644,536 S**

(45) **Date of Patent:** **\*\* Sep. 6, 2011**

(54) **SUPPORT LEDGE OF A PREFORM**

(75) Inventors: **Jean-Christophe Witz**, Yutz (FR);  
**Arnold Mai**, Irrel (DE); **Laurent**  
**Christel Sigler**, Hettange-Grande (FR)

(73) Assignee: **Husky Injection Molding Systems**  
**Ltd.**, Bolton, Ontario (CA)

(\*\*) Term: **14 Years**

(21) Appl. No.: **29/305,692**

(22) Filed: **Mar. 26, 2008**

(51) **LOC (9) Cl.** ..... **09-99**

(52) **U.S. Cl.** ..... **D9/740**

(58) **Field of Classification Search** ..... D26/1-4;  
313/37-38, 271-279, 316, 333; 315/46-49,  
315/66-69; D9/740-745

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,904,061	A	9/1975	Keeler	
4,337,870	A	7/1982	Keeler	
D292,373	S *	10/1987	Costa	D9/740
5,599,567	A	2/1997	Gellert	
6,557,714	B2	5/2003	Babcock et al.	
6,659,297	B2	12/2003	Gregory et al.	
D499,495	S *	12/2004	Walterscheid	D26/1
D569,737	S *	5/2008	Ogawa et al.	D9/740
D626,664	S *	11/2010	Chan	D26/1
2006/0283210	A1	12/2006	Dubuis et al.	

**FOREIGN PATENT DOCUMENTS**

CA	2505697	A1	5/2004
CA	2509181	A1	12/2006

**OTHER PUBLICATIONS**

Husky Injection Molding Systems LTD., HyPET Preform Systems,  
Mar. 2010, 8 pages, 10-015, Printed in Canada .

[http://www.pet-verpackungengmbh.de/fileadmin/user\\_upload/datenbank/bilder\\_pdf/21g\\_100\\_7mm\\_PCO28\\_Petcycle\\_sp8av134\\_pc.pdf](http://www.pet-verpackungengmbh.de/fileadmin/user_upload/datenbank/bilder_pdf/21g_100_7mm_PCO28_Petcycle_sp8av134_pc.pdf).

\* cited by examiner

*Primary Examiner* — Marcus Jackson

(74) *Attorney, Agent, or Firm* — Husky Intellectual Property Services

(57) **CLAIM**

We claim the ornamental design for a support ledge of a preform, as shown and described.

**DESCRIPTION**

FIG. 1 depicts a perspective view of the preform having a support ledge according to a first embodiment, in a first direction;

FIG. 2 depicts a perspective view of the preform having the support ledge of FIG. 1 in a second direction;

FIG. 3 depicts a front view of a preform having the support ledge of FIG. 1;

FIG. 4 depicts a side view of a preform having the support ledge of FIG. 1;

FIG. 5 depicts a perspective view of the preform having a support ledge according to a second embodiment, in a first direction;

FIG. 6 depicts a perspective view of the preform having the support ledge of FIG. 5 in a second direction;

FIG. 7 depicts a front view of a preform having the support ledge of FIG. 5;

FIG. 8 depicts a side view of a preform having the support ledge of FIG. 5;

FIG. 9 depicts a perspective view of the preform having a support ledge according to a third embodiment, in a first direction;

FIG. 10 depicts a perspective view of the preform having the support ledge of FIG. 9 in a second direction;

FIG. 11 depicts a front view of a preform having the support ledge of FIG. 9;

FIG. 12 depicts a side view of a preform having the support ledge of FIG. 9;

FIG. 13 depicts a perspective view of the preform having a support ledge according to a fourth embodiment, in a first direction;

FIG. 14 depicts a perspective view of the preform having the support ledge of FIG. 13 in a second direction;

FIG. 15 depicts a front view of a preform having the support ledge of FIG. 13;

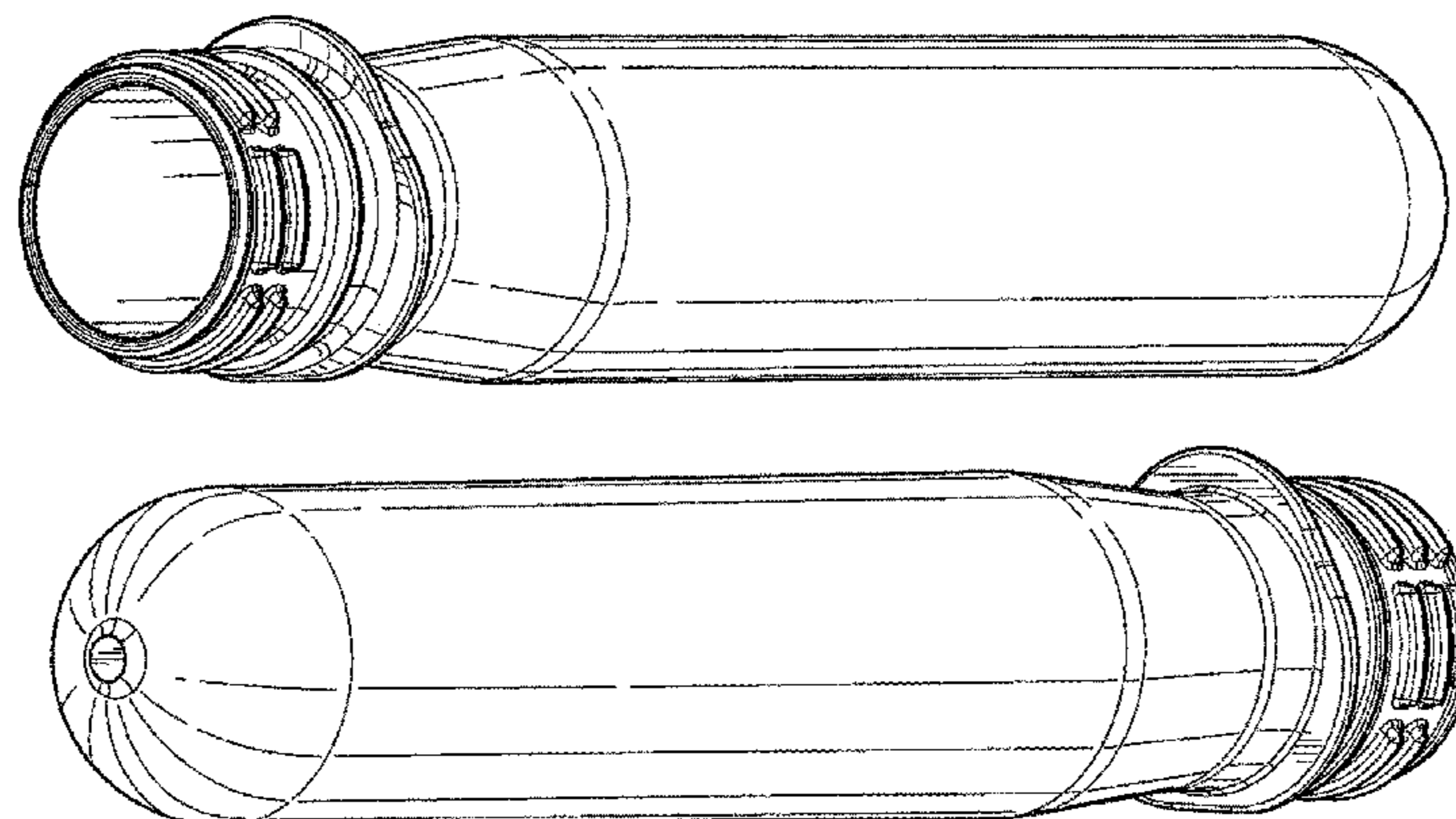






FIG. 129 depicts a perspective view of the preform having a support ledge according to a thirty third embodiment, in a first direction;

FIG. 130 depicts a perspective view of the preform having the support ledge of FIG. 129 in a second direction;

FIG. 131 depicts a front view of a preform having the support ledge of FIG. 129;

FIG. 132 depicts a side view of a preform having the support ledge of FIG. 129;

FIG. 133 depicts a perspective view of the preform having a support ledge according to a thirty fourth embodiment, in a first direction;

FIG. 134 depicts a perspective view of the preform having the support ledge of FIG. 133 in a second direction;

FIG. 135 depicts a front view of a preform having the support ledge of FIG. 133;

FIG. 136 depicts a side view of a preform having the support ledge of FIG. 133;

FIG. 137 depicts a perspective view of the preform having a support ledge according to a thirty fifth embodiment, in a first direction;

FIG. 138 depicts a perspective view of the preform having the support ledge of FIG. 137 in a second direction;

FIG. 139 depicts a front view of a preform having the support ledge of FIG. 137;

FIG. 140 depicts a side view of a preform having the support ledge of FIG. 137;

FIG. 141 depicts a perspective view of the preform having a support ledge according to a thirty sixths embodiment, in a first direction;

FIG. 142 depicts a perspective view of the preform having the support ledge of FIG. 141 in a second direction;

FIG. 143 depicts a front view of a preform having the support ledge of FIG. 141;

FIG. 144 depicts a side view of a preform having the support ledge of FIG. 141;

FIG. 145 depicts a perspective view of the preform having a support ledge according to a thirty sevenths embodiment, in a first direction;

FIG. 146 depicts a perspective view of the preform having the support ledge of FIG. 145 in a second direction;

FIG. 147 depicts a front view of a preform having the support ledge of FIG. 145;

FIG. 148 depicts a side view of a preform having the support ledge of FIG. 145;

FIG. 149 depicts a perspective view of the preform having a support ledge according to a thirty eighths embodiment, in a first direction;

FIG. 150 depicts a perspective view of the preform having the support ledge of FIG. 149 in a second direction;

FIG. 151 depicts a front view of a preform having the support ledge of FIG. 149;

FIG. 152 depicts a side view of a preform having the support ledge of FIG. 149;

FIG. 153 depicts a perspective view of the preform having a support ledge according to a thirty ninths embodiment, in a first direction;

FIG. 154 depicts a perspective view of the preform having the support ledge of FIG. 153 in a second direction;

FIG. 155 depicts a front view of a preform having the support ledge of FIG. 153;

FIG. 156 depicts a side view of a preform having the support ledge of FIG. 153;

FIG. 157 depicts a perspective view of the preform having a support ledge according to a fortieth embodiment, in a first direction;

FIG. 158 depicts a perspective view of the preform having the support ledge of FIG. 157 in a second direction;

FIG. 159 depicts a front view of a preform having the support ledge of FIG. 157;

FIG. 160 depicts a side view of a preform having the support ledge of FIG. 157;

FIG. 161 depicts a perspective view of the preform having a support ledge according to a forty first embodiment, in a first direction;

FIG. 162 depicts a perspective view of the preform having the support ledge of FIG. 161 in a second direction;

FIG. 163 depicts a front view of a preform having the support ledge of FIG. 161;

FIG. 164 depicts a side view of a preform having the support ledge of FIG. 161;

FIG. 165 depicts a perspective view of the preform having a support ledge according to a forty second embodiment, in a first direction;

FIG. 166 depicts a perspective view of the preform having the support ledge of FIG. 165 in a second direction;

FIG. 167 depicts a front view of a preform having the support ledge of FIG. 165;

FIG. 168 depicts a side view of a preform having the support ledge of FIG. 165;

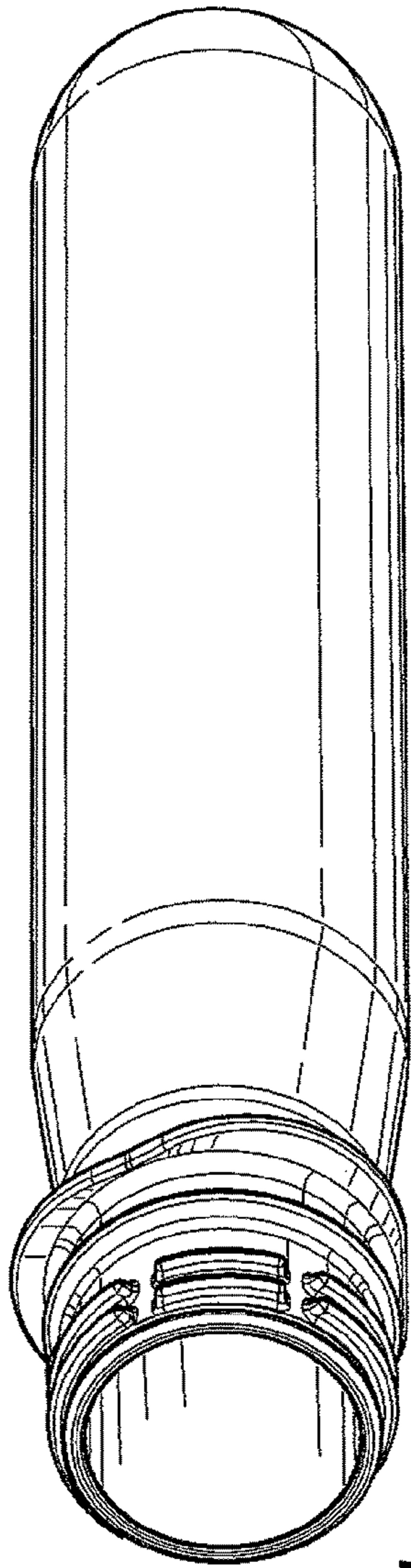
FIG. 169 depicts a perspective view of the preform having a support ledge according to a forty third embodiment, in a first direction;

FIG. 170 depicts a perspective view of the preform having the support ledge of FIG. 169 in a second direction;

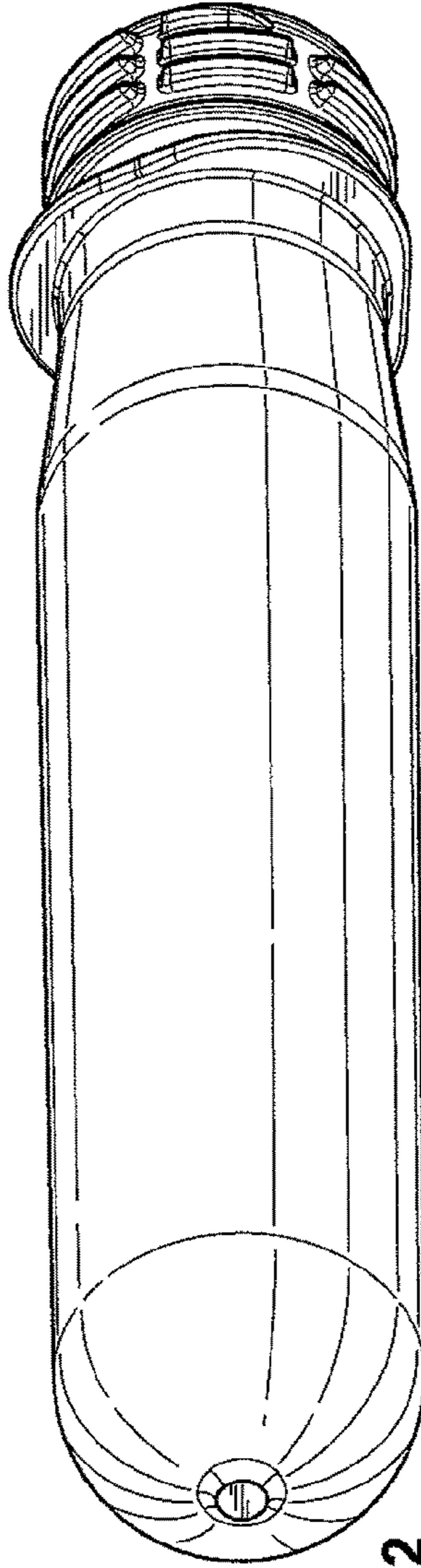
FIG. 171 depicts a front view of a preform having the support ledge of FIG. 169; and,

FIG. 172 depicts a side view of a preform having the support ledge of FIG. 169.

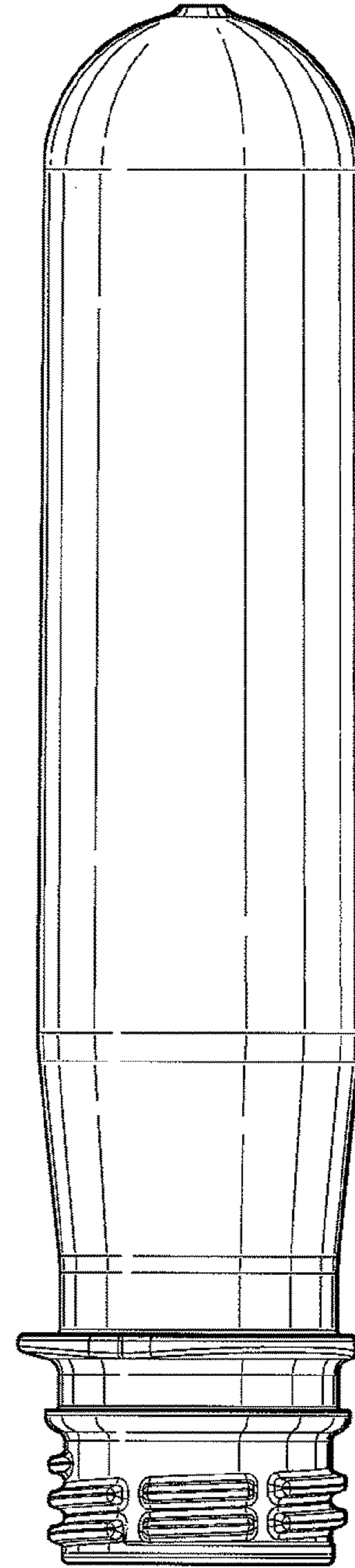
**1 Claim, 43 Drawing Sheets**



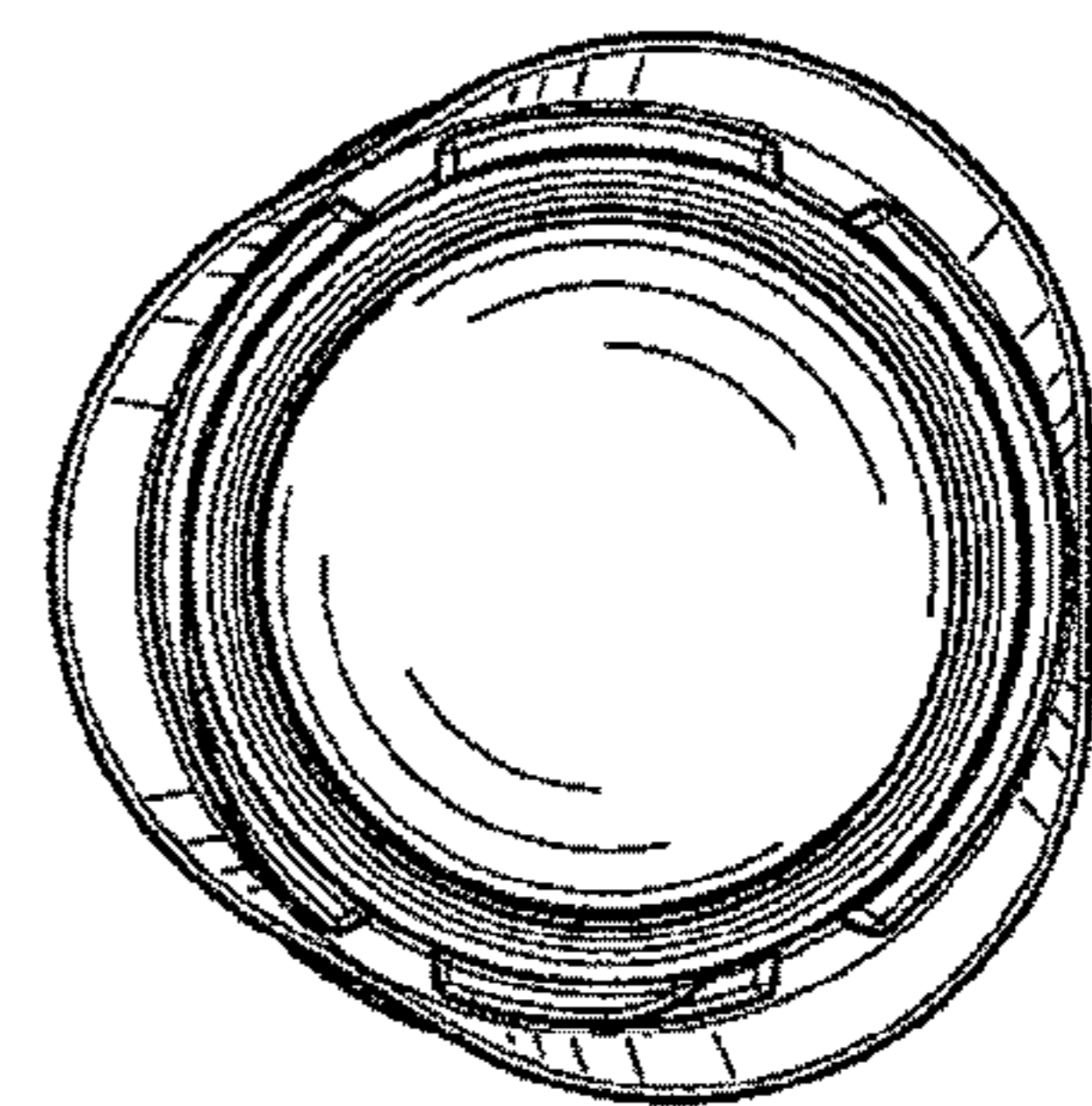
**FIG. 1**



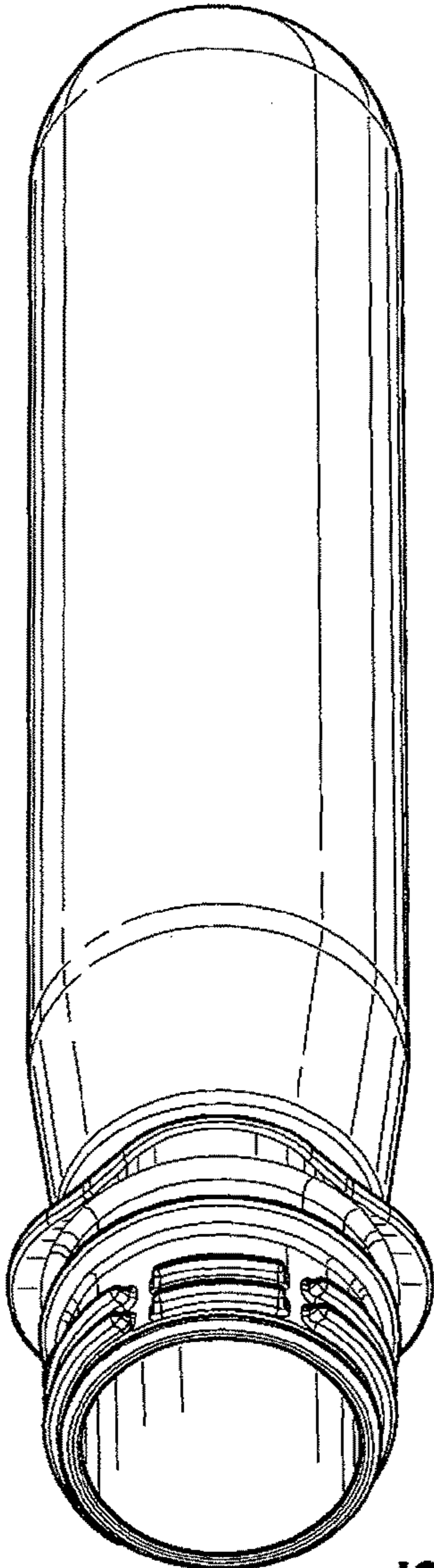
**FIG. 2**



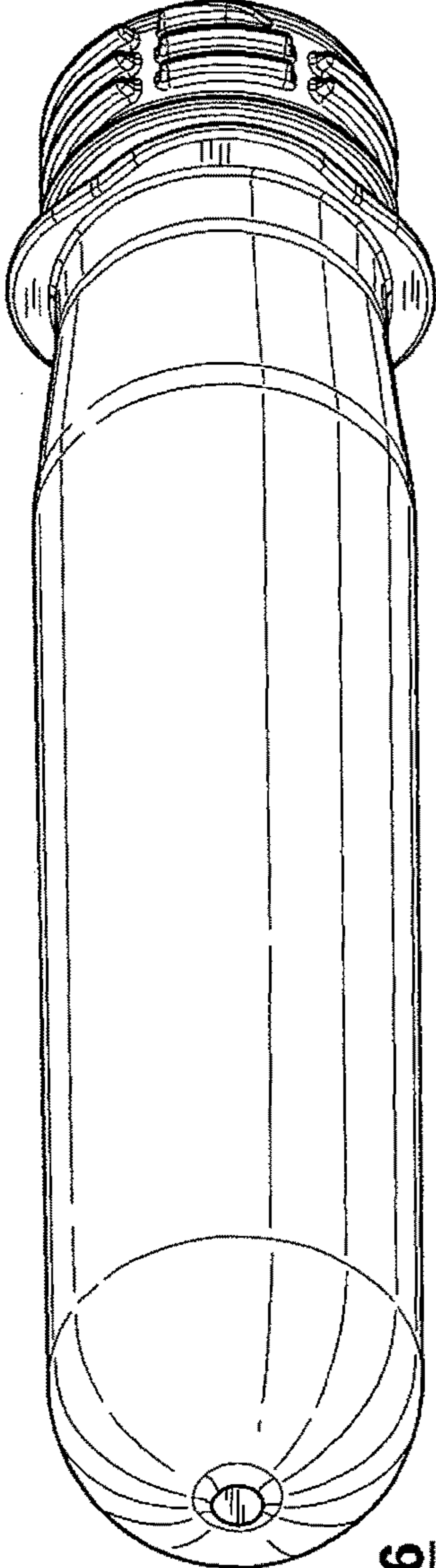
**FIG. 4**



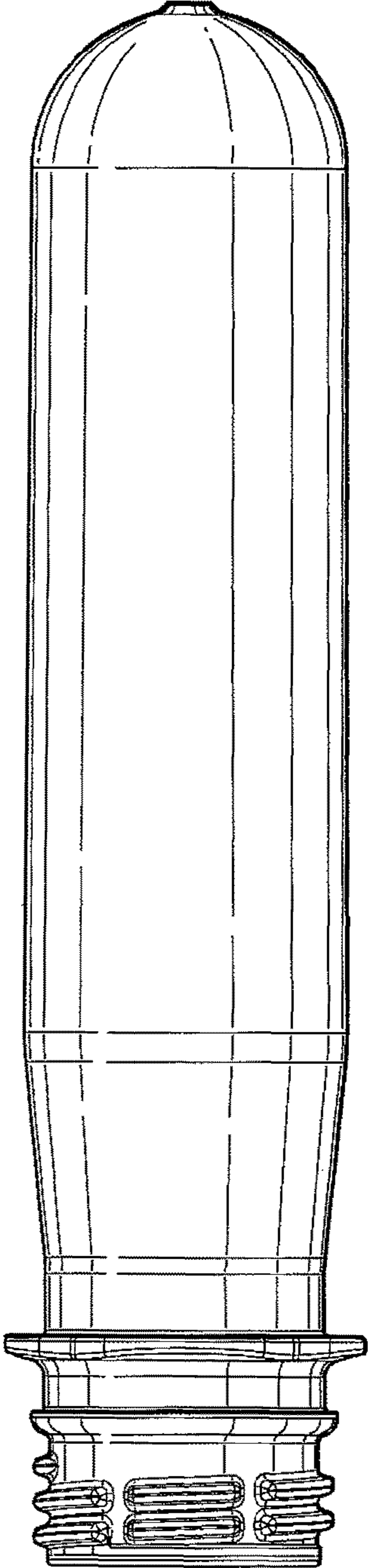
**FIG. 3**



**FIG. 5**



**FIG. 6**



**FIG. 7**

**FIG. 8**

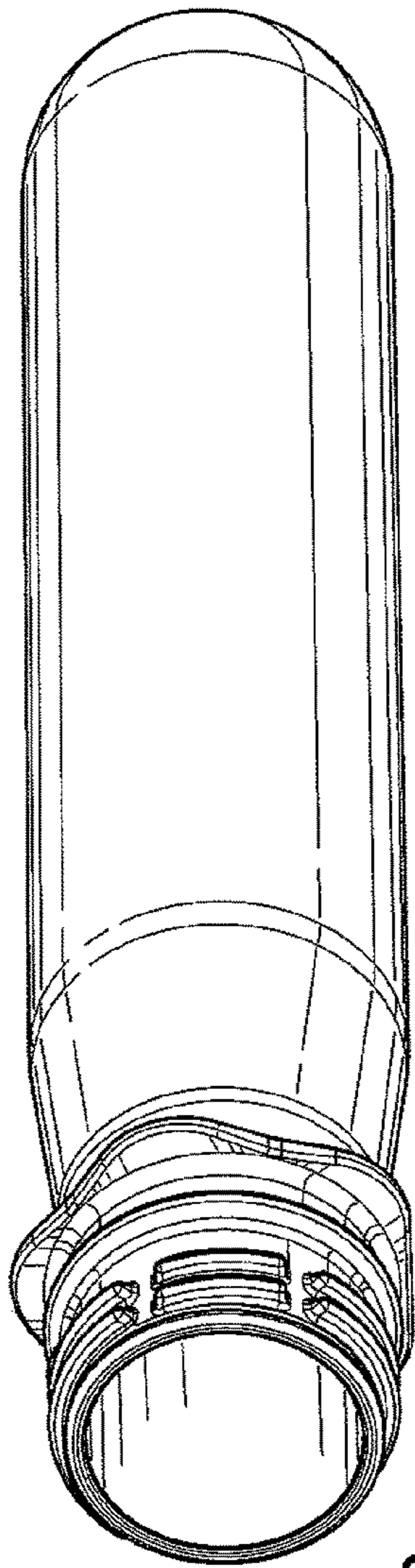


FIG. 9

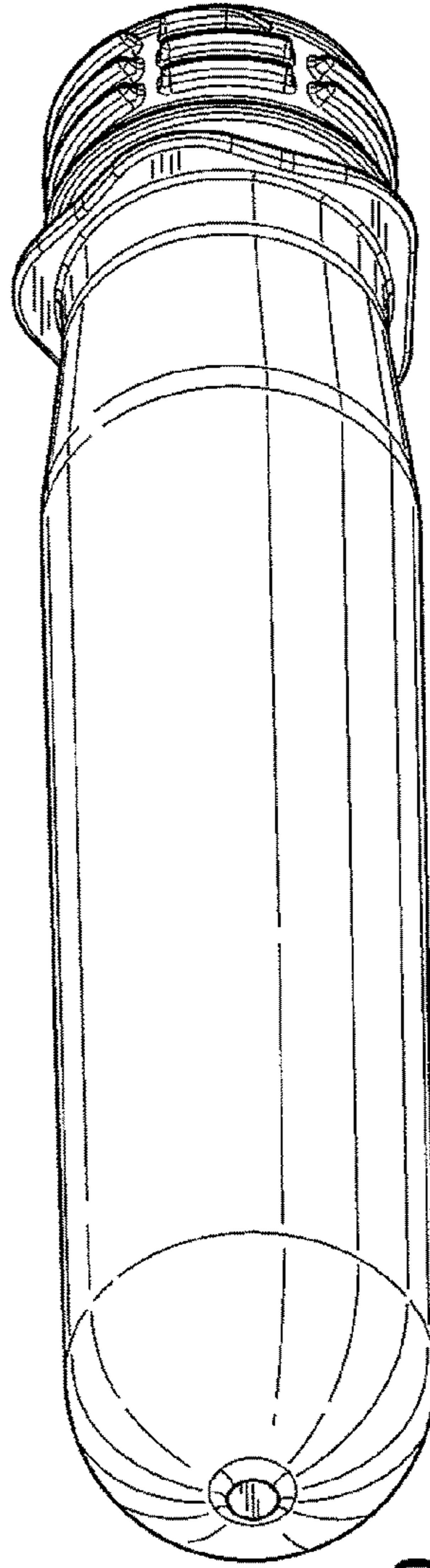


FIG. 10

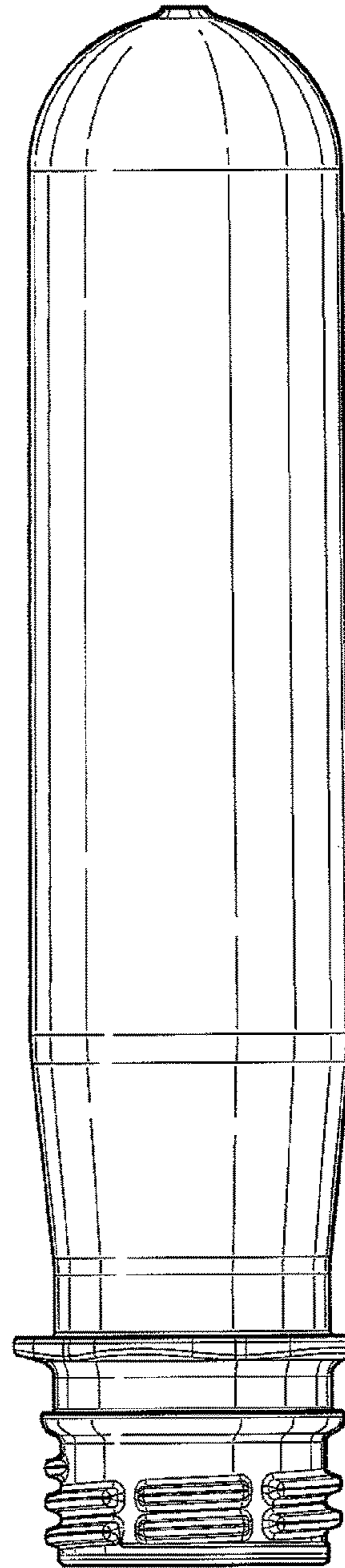


FIG. 12

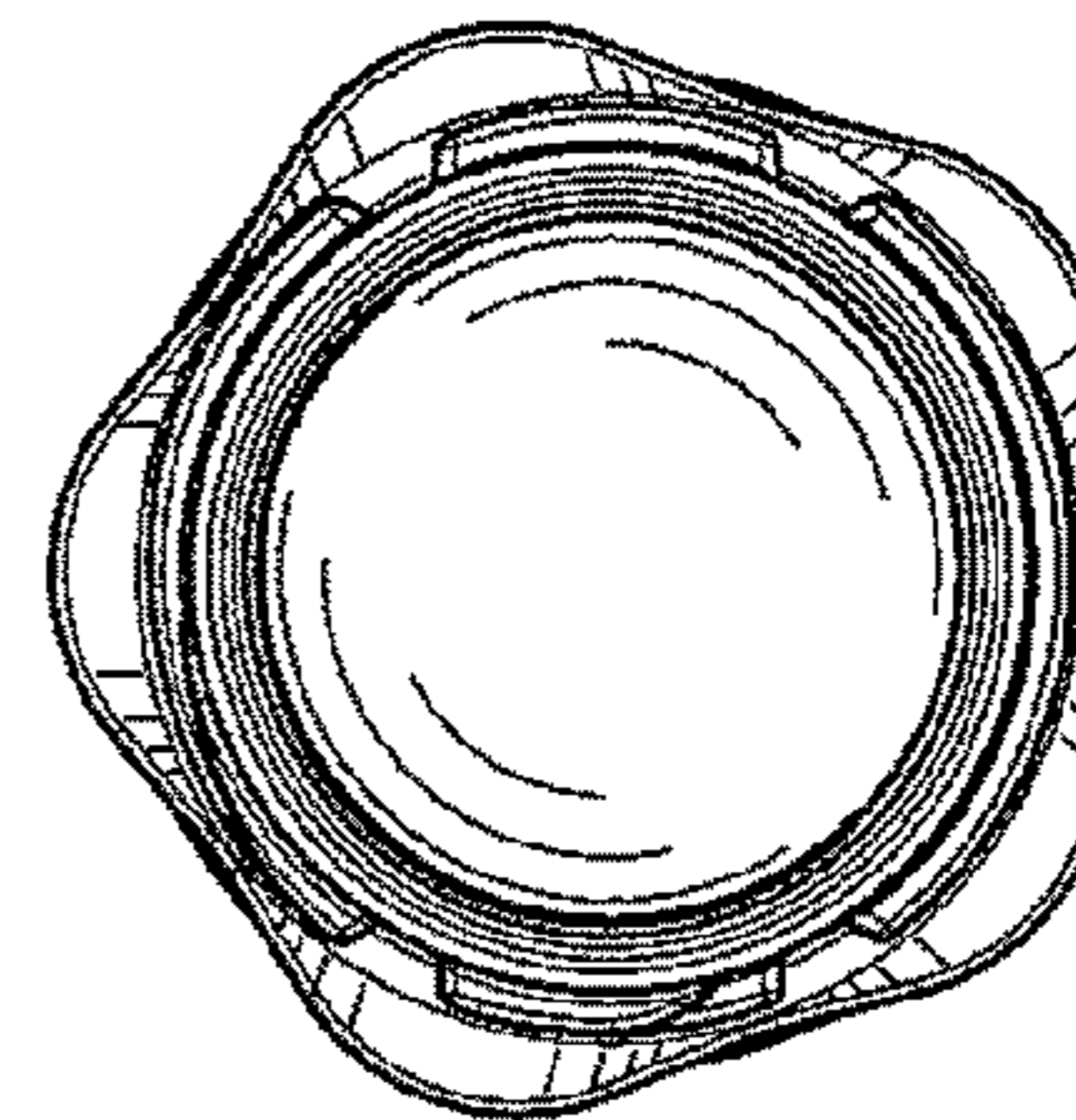
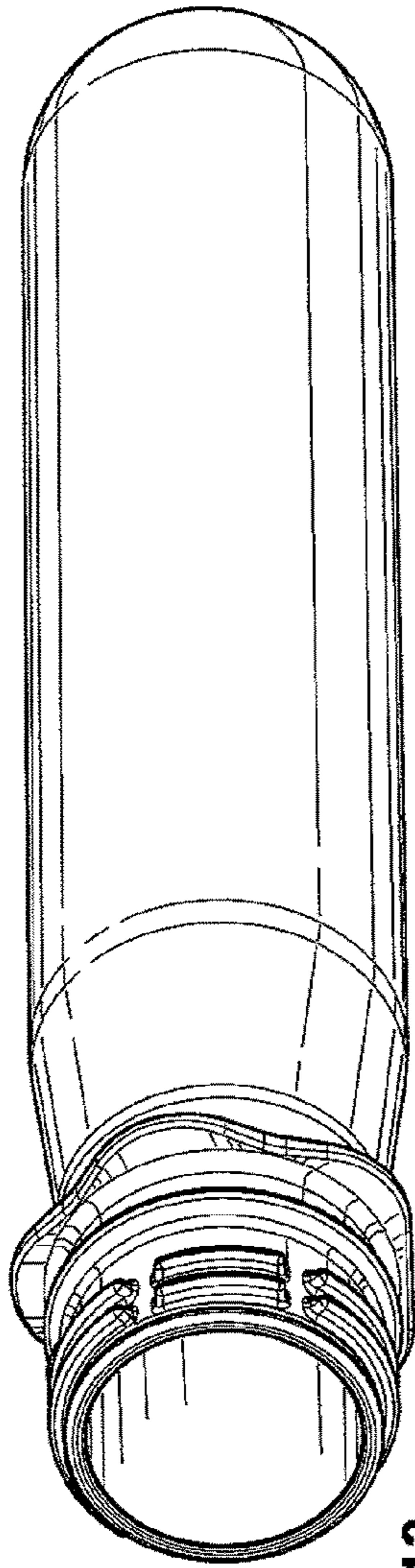
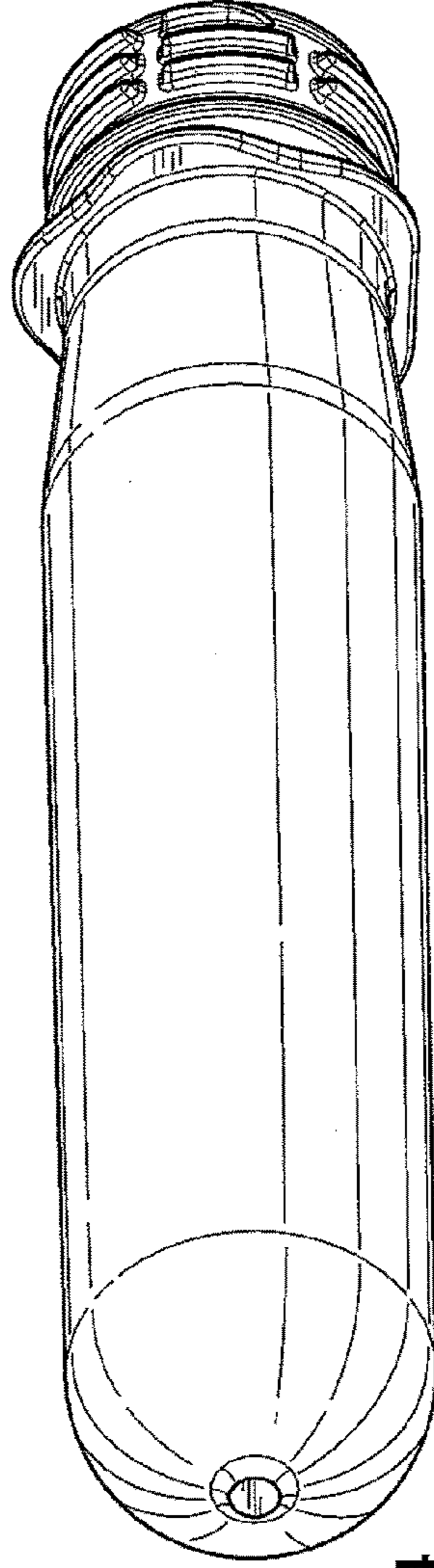


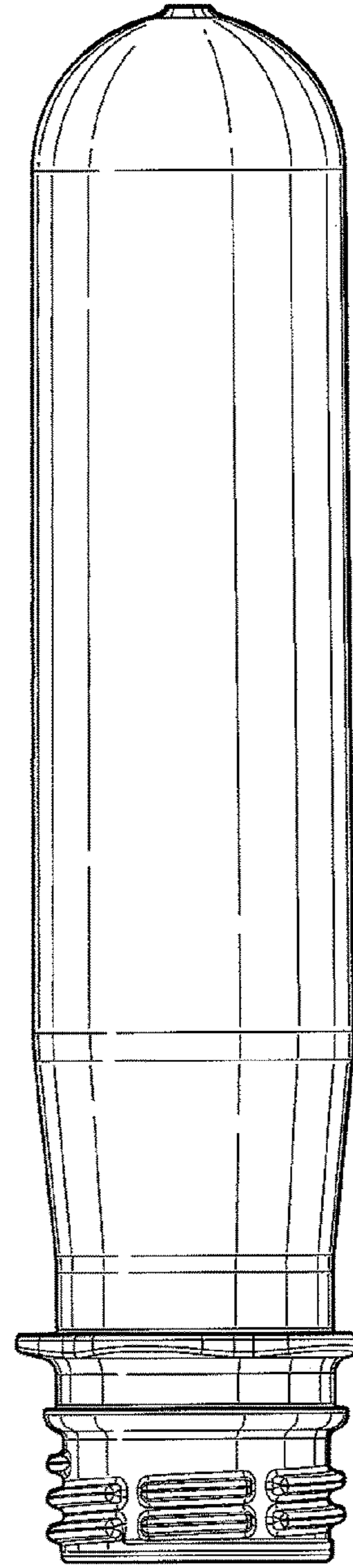
FIG. 11



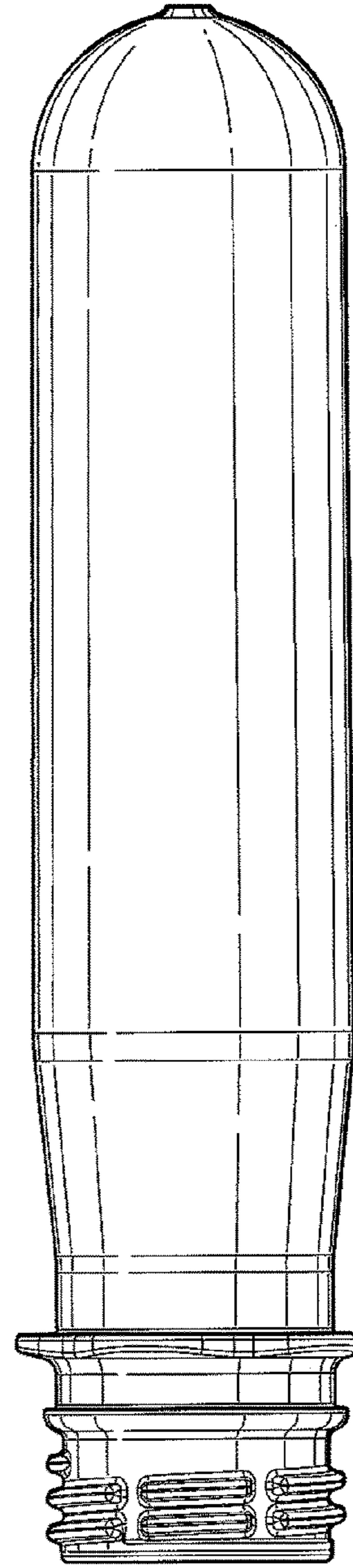
**FIG. 13**



**FIG. 14**

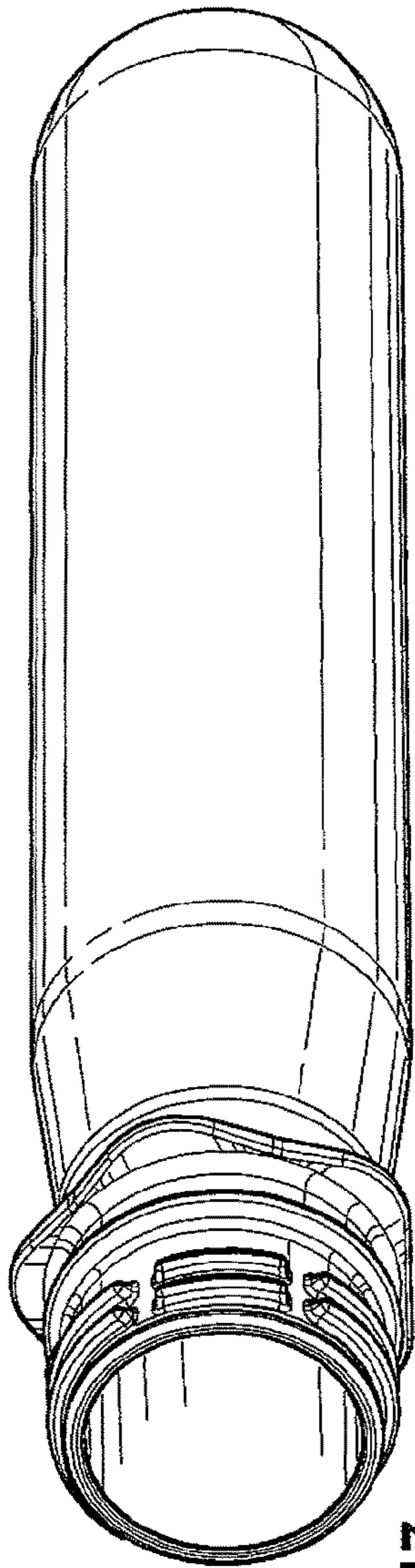


**FIG. 15**

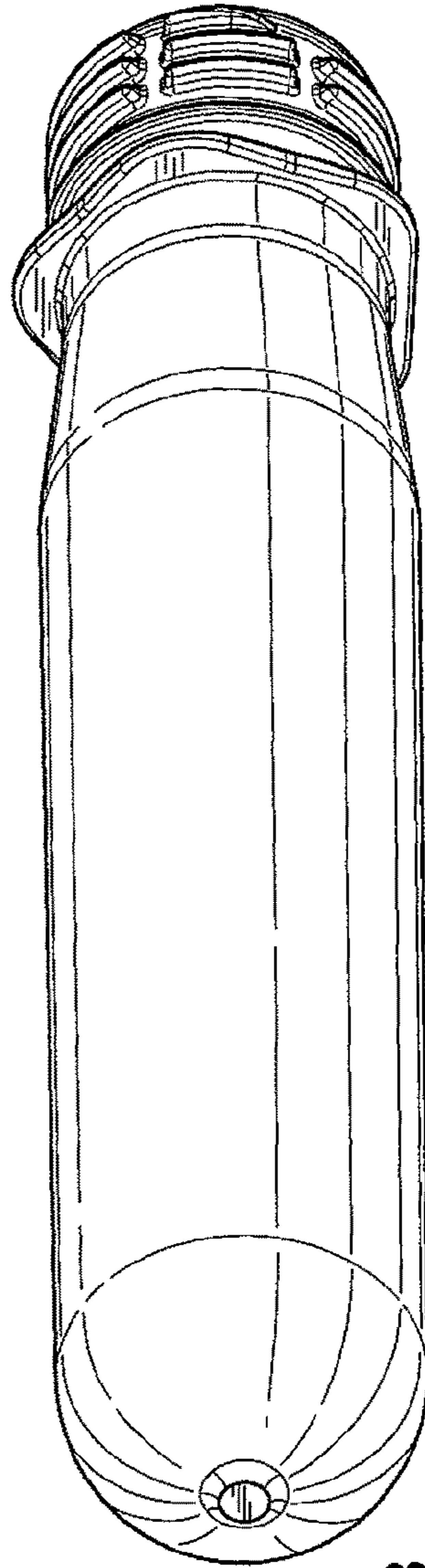


**FIG. 16**

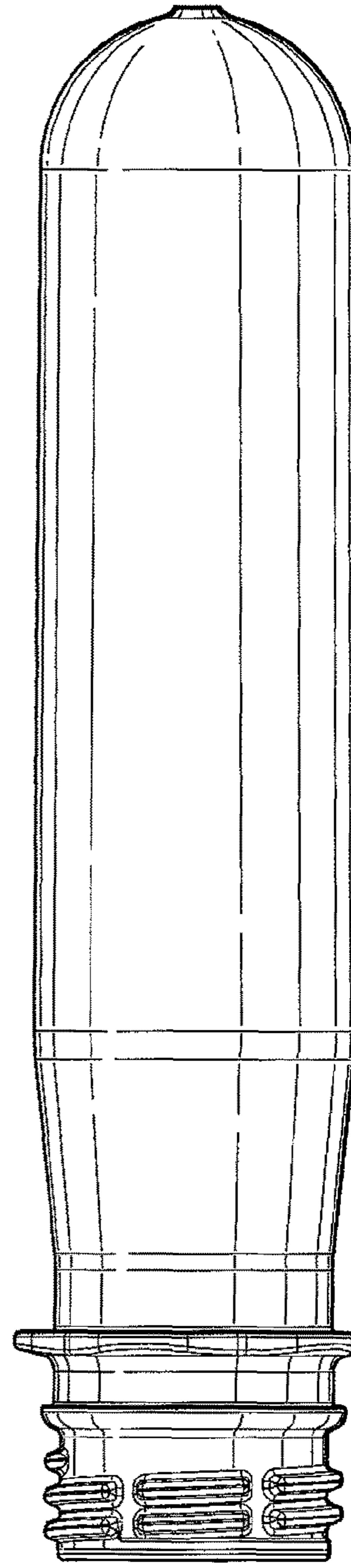




**FIG. 17**

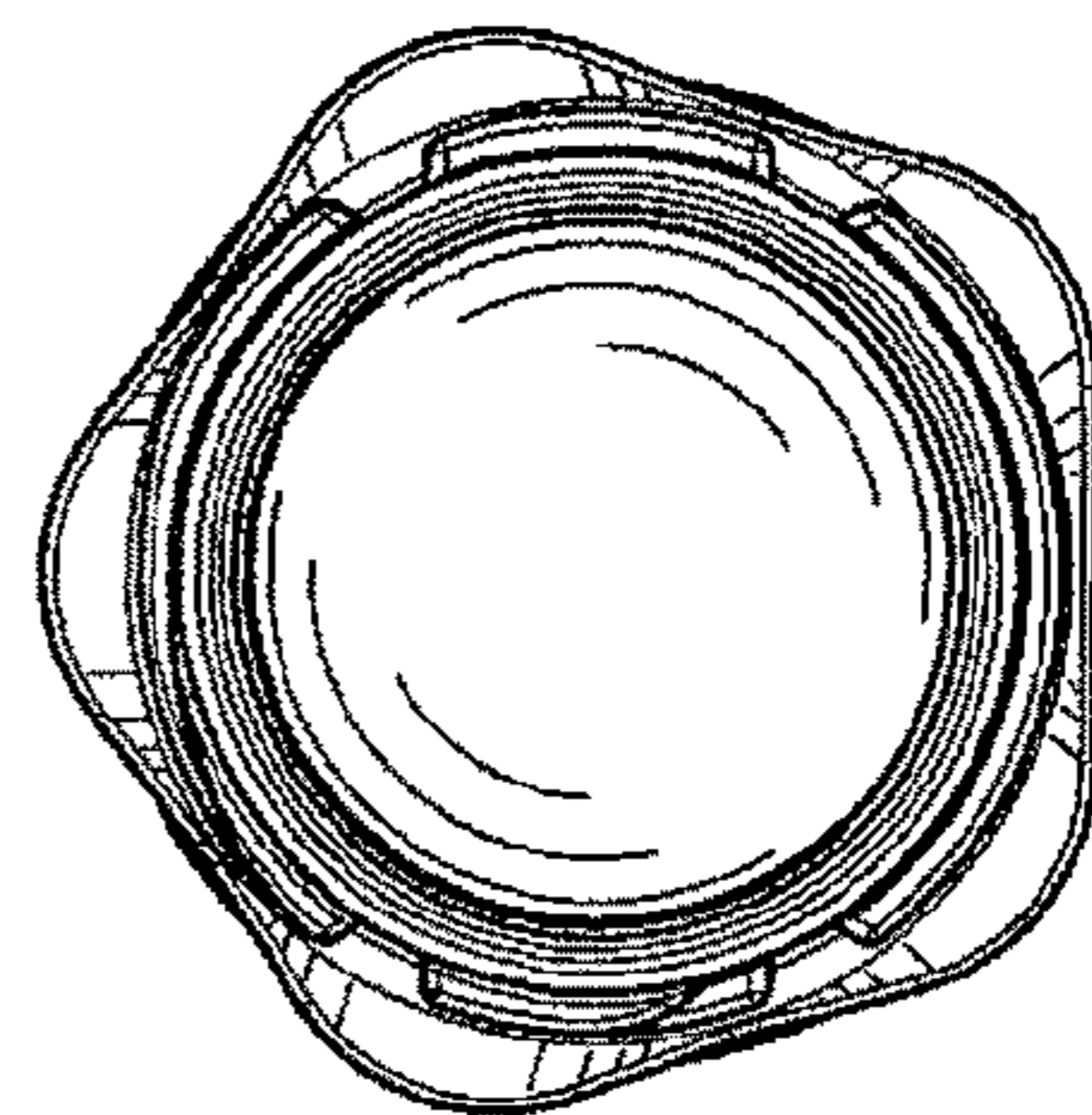


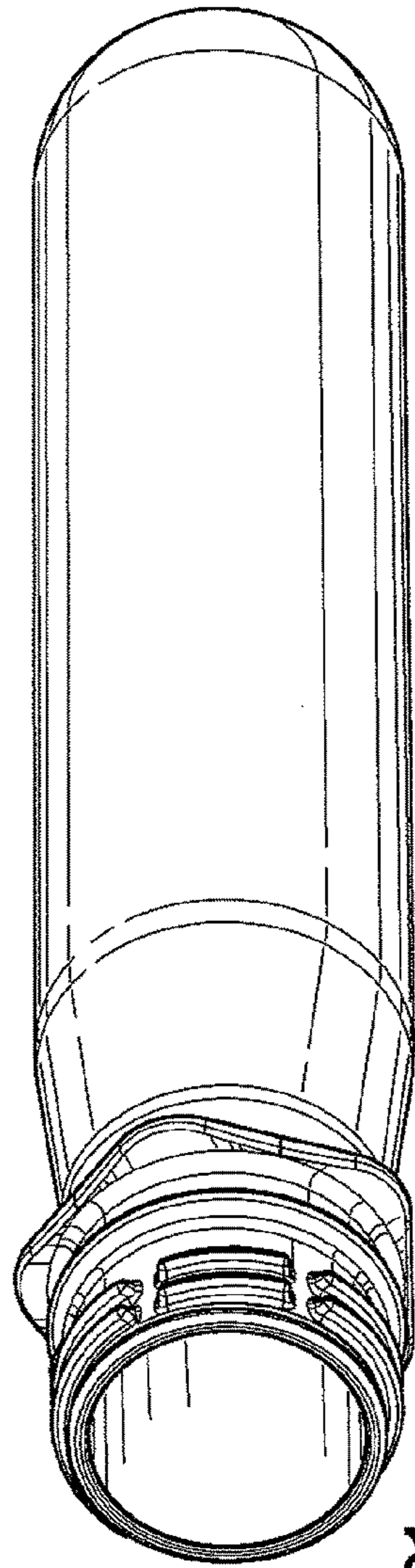
**FIG. 18**



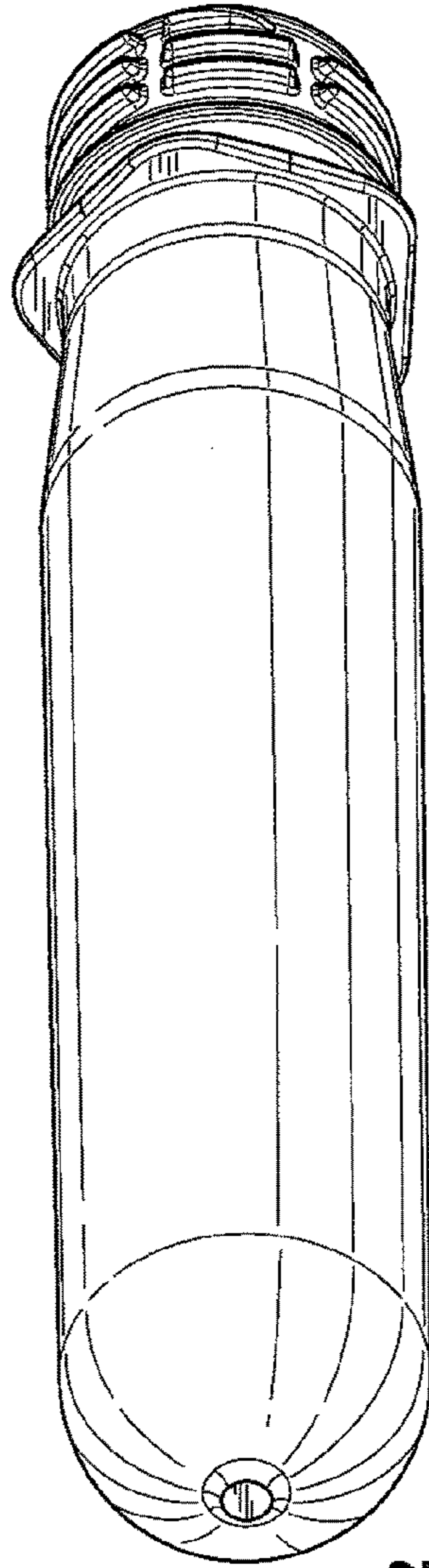
**FIG. 19**

**FIG. 20**

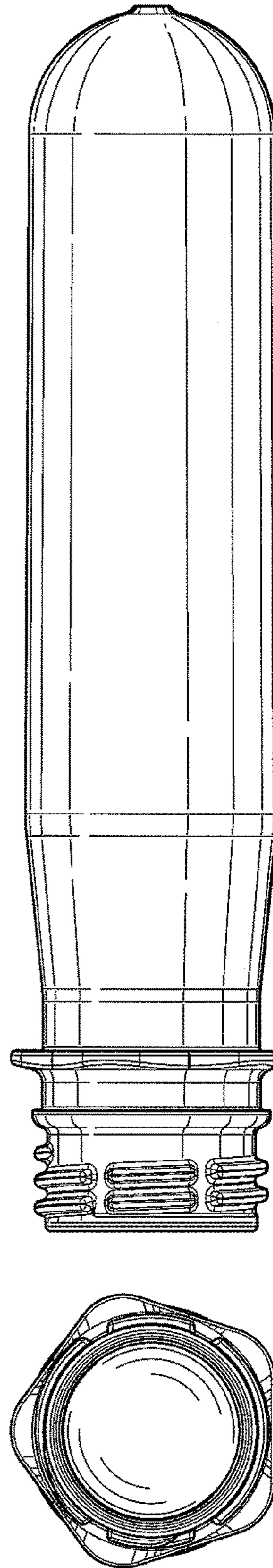




**FIG. 21**



**FIG. 22**



**FIG. 23**

**FIG. 24**

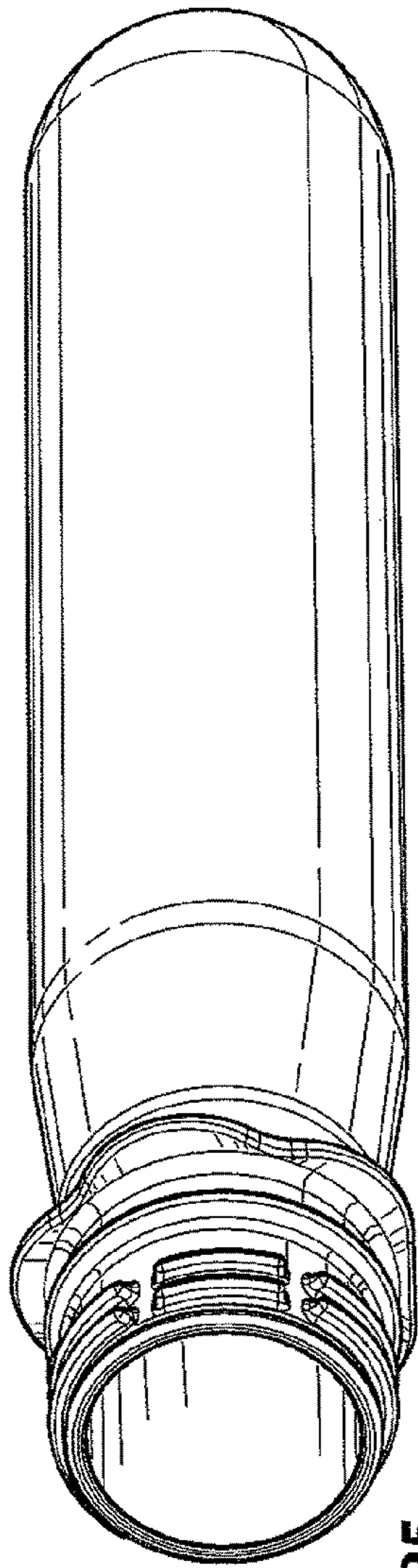


FIG. 25

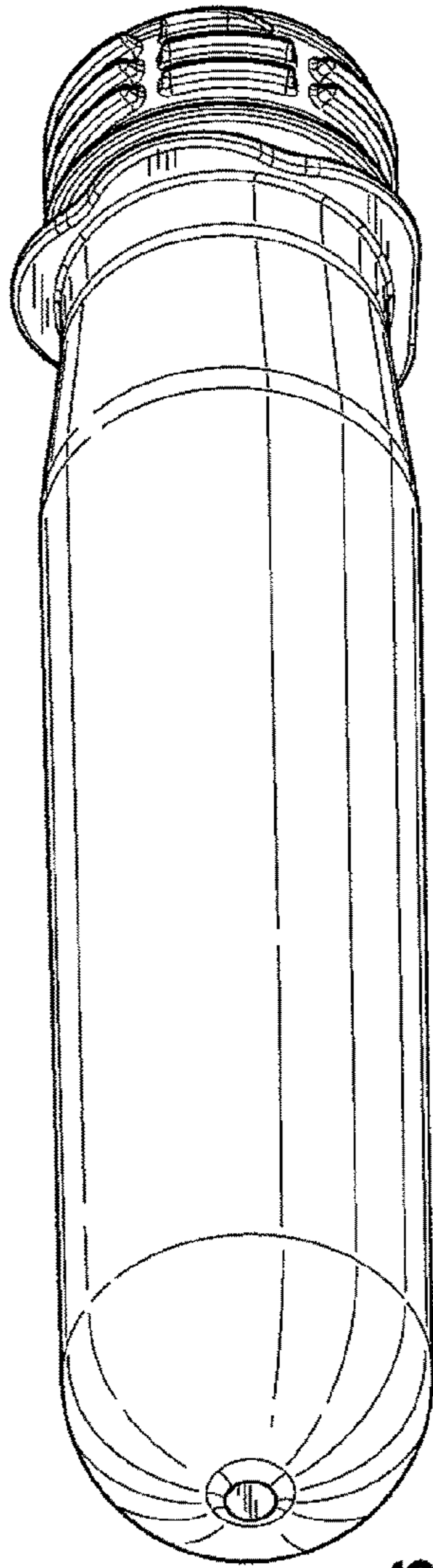


FIG. 26

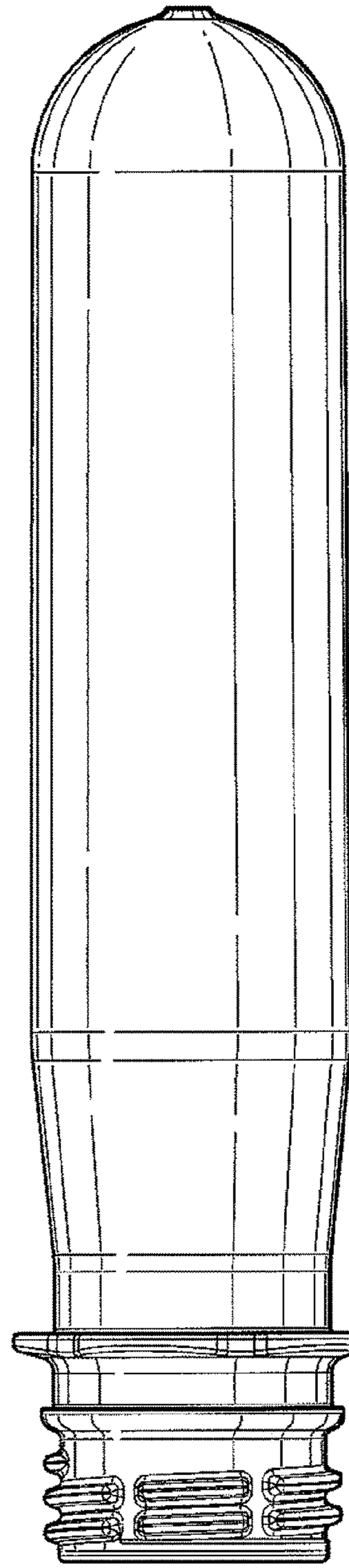


FIG. 27

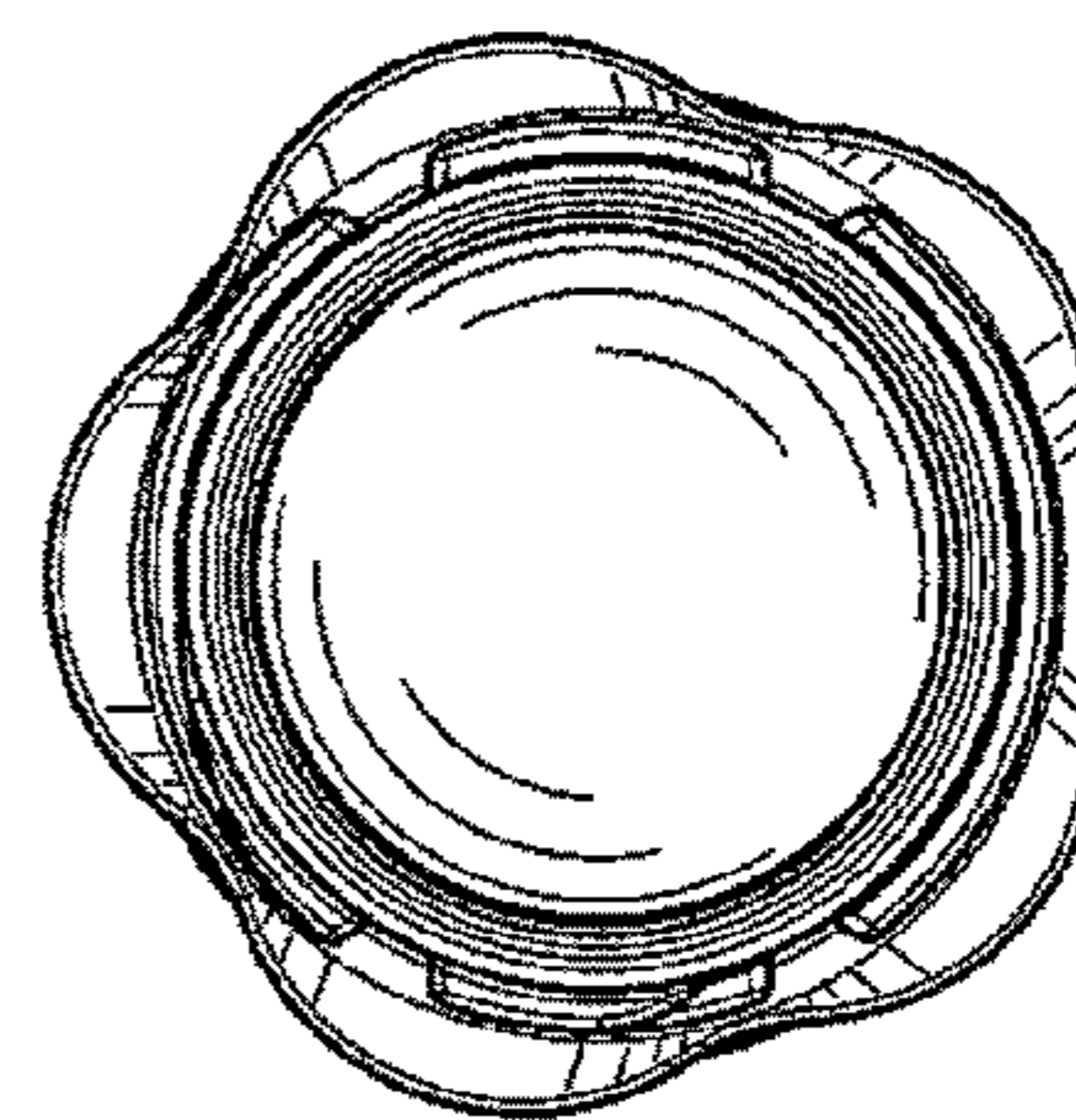
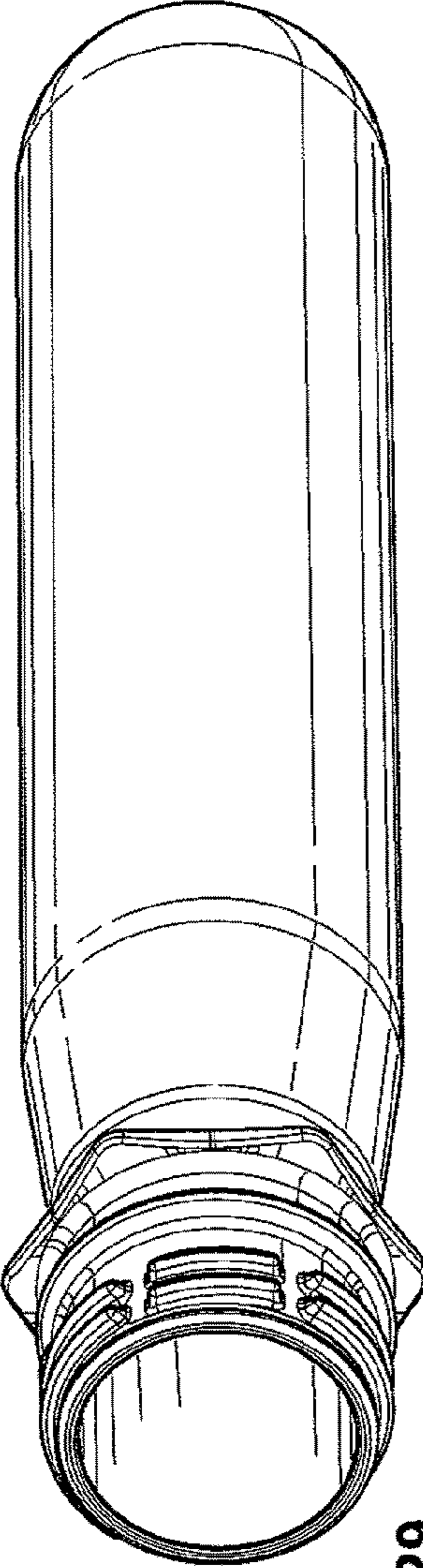
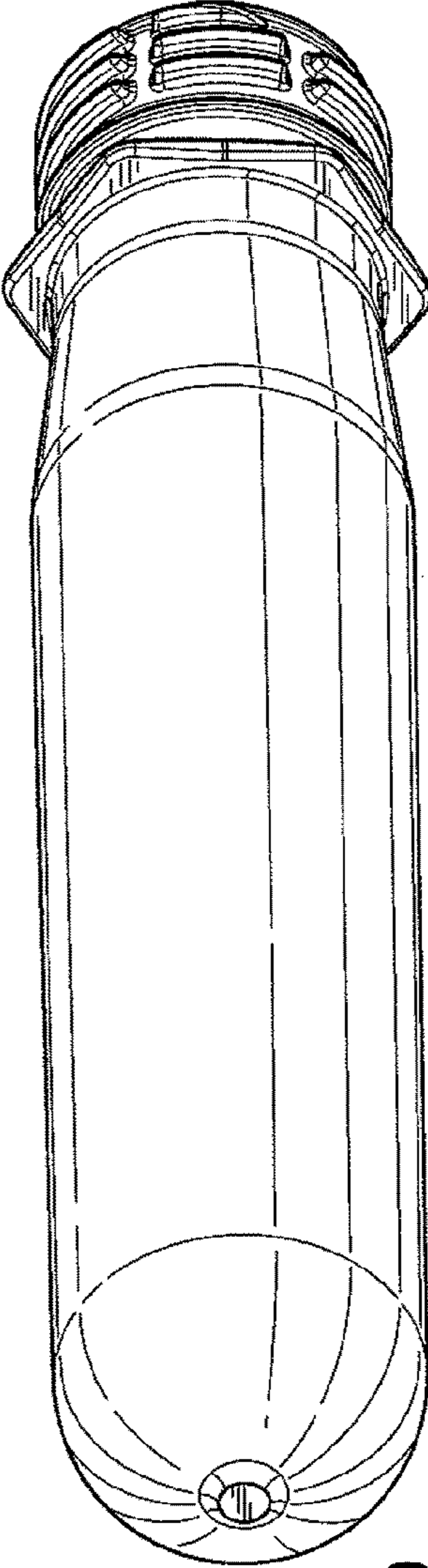


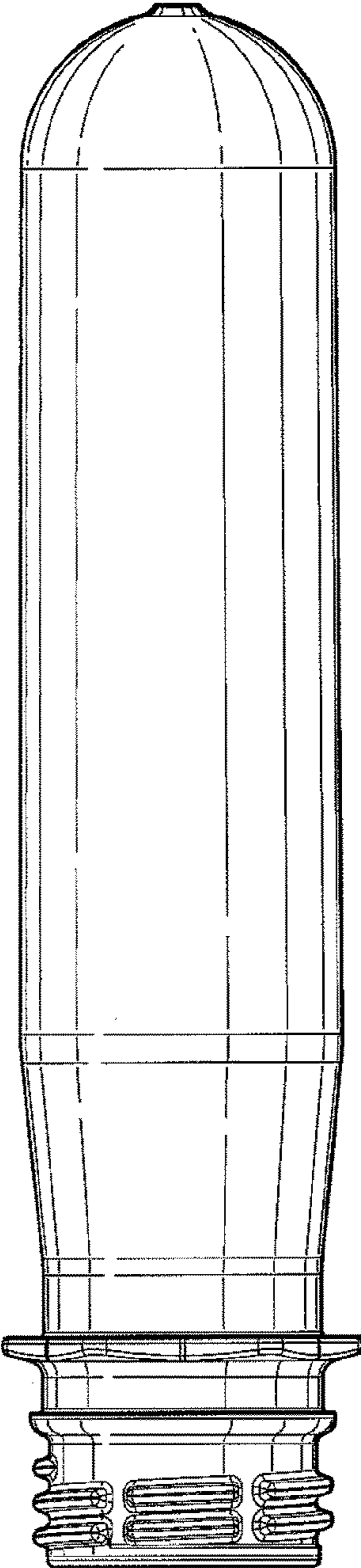
FIG. 28



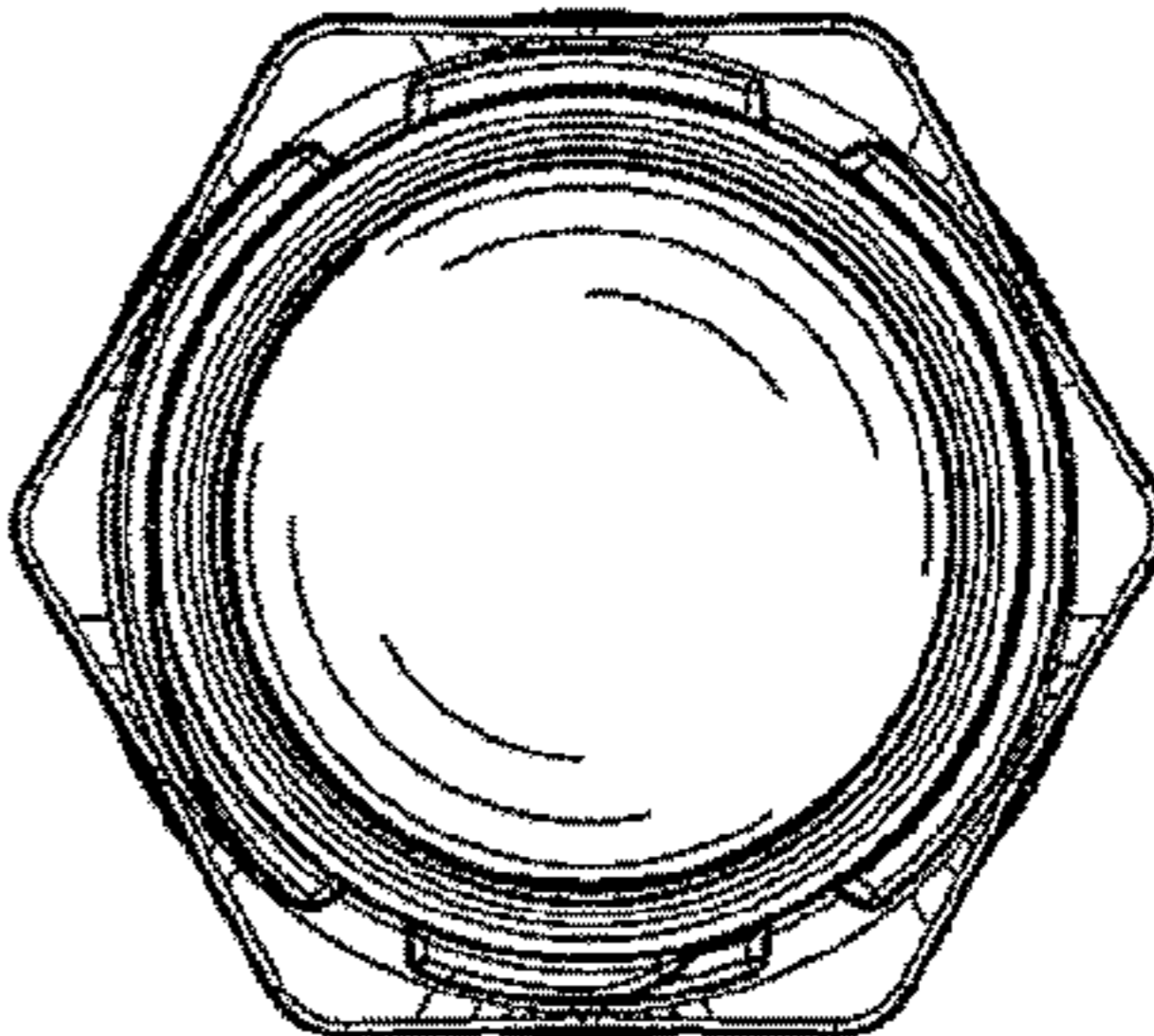
**FIG. 29**



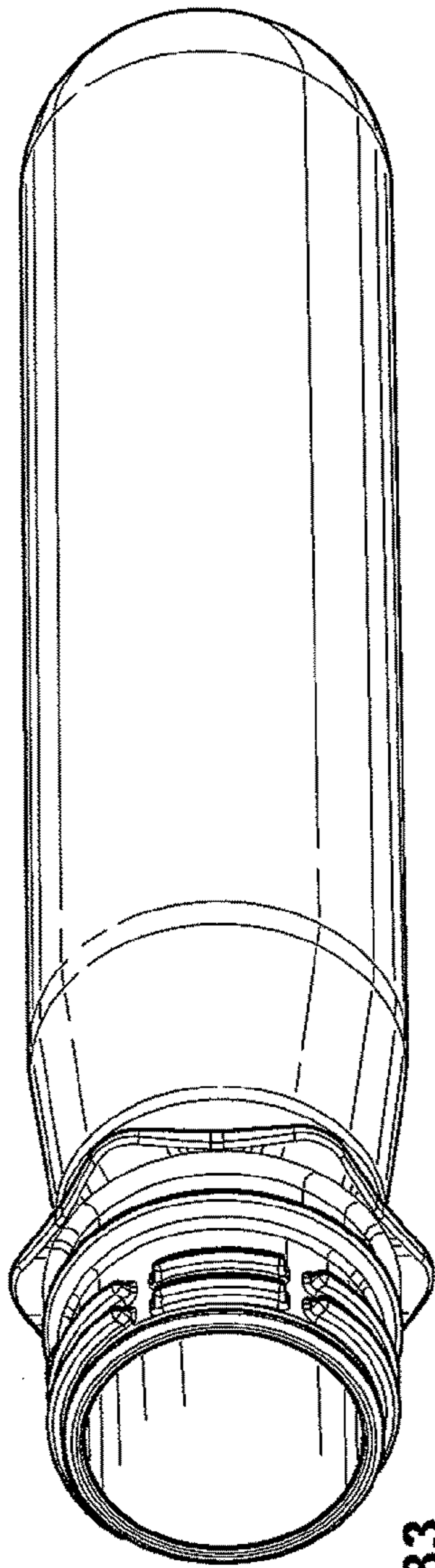
**FIG. 30**



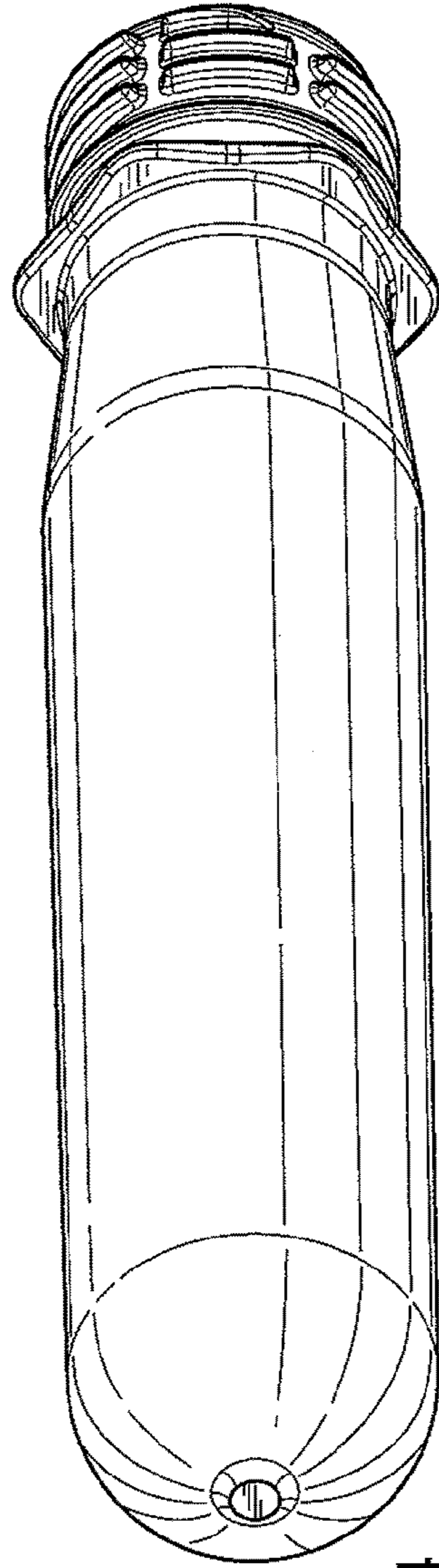
**FIG. 32**



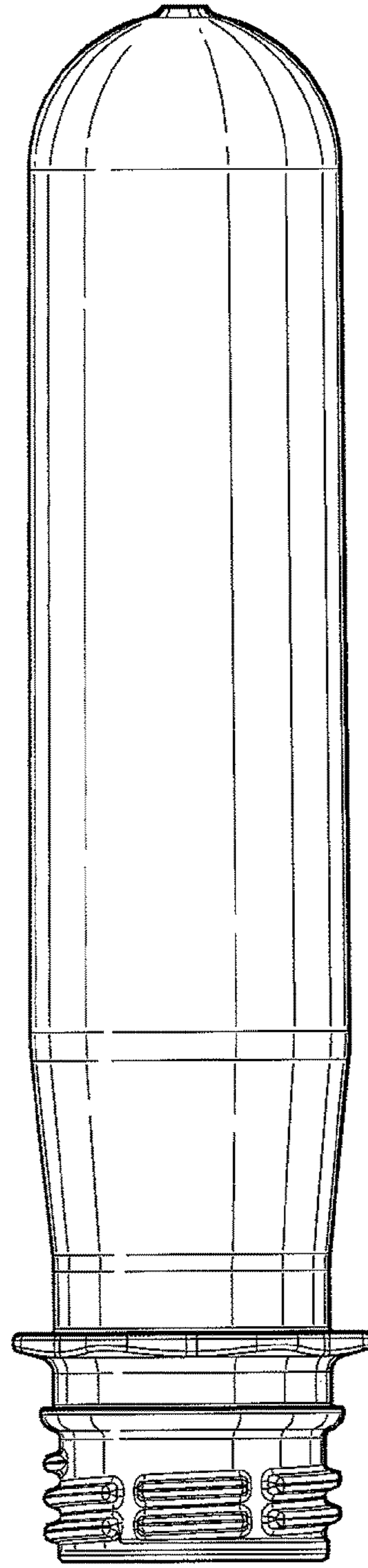
**FIG. 31**



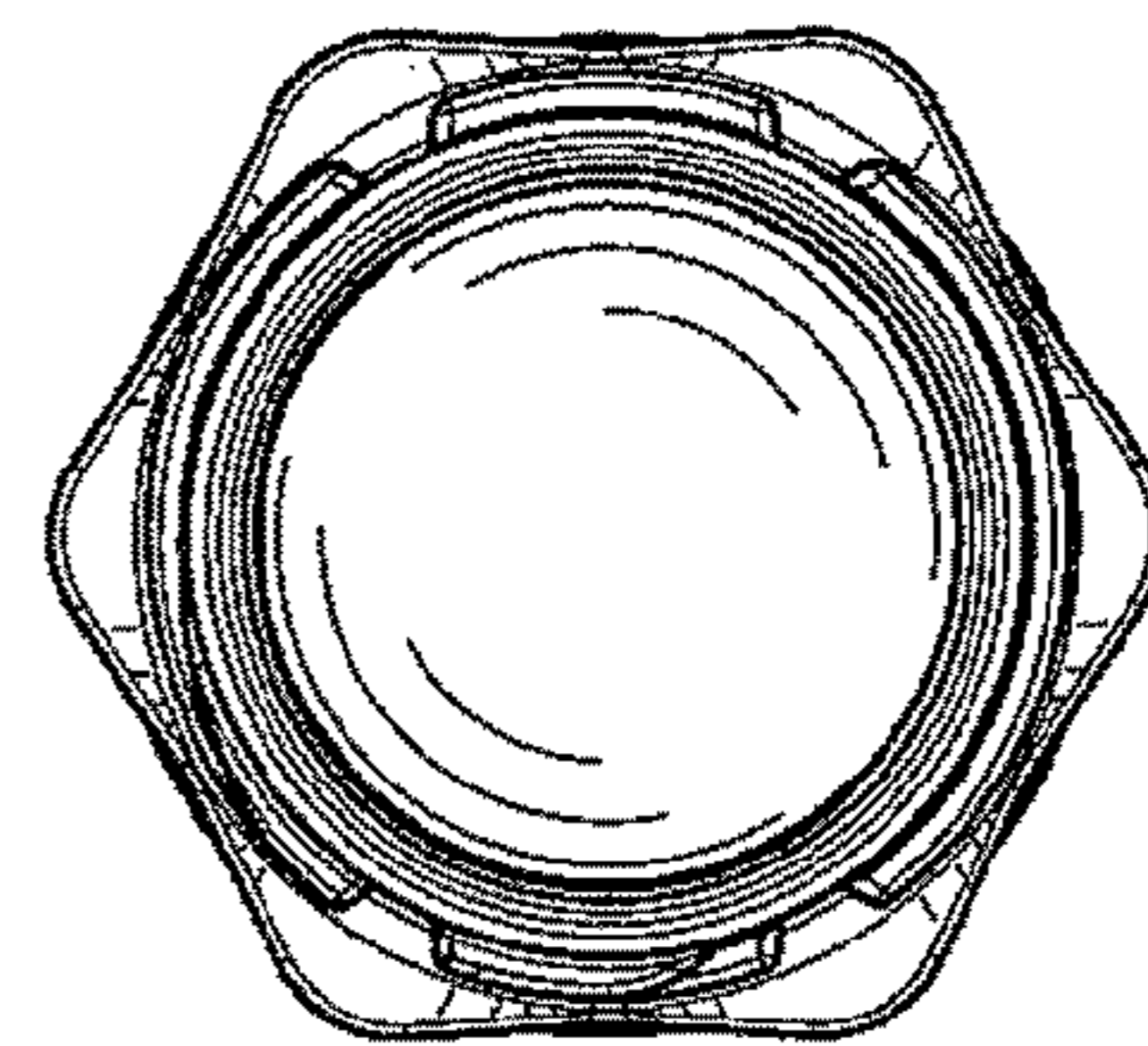
**FIG. 33**



**FIG. 34**



**FIG. 35**



**FIG. 36**

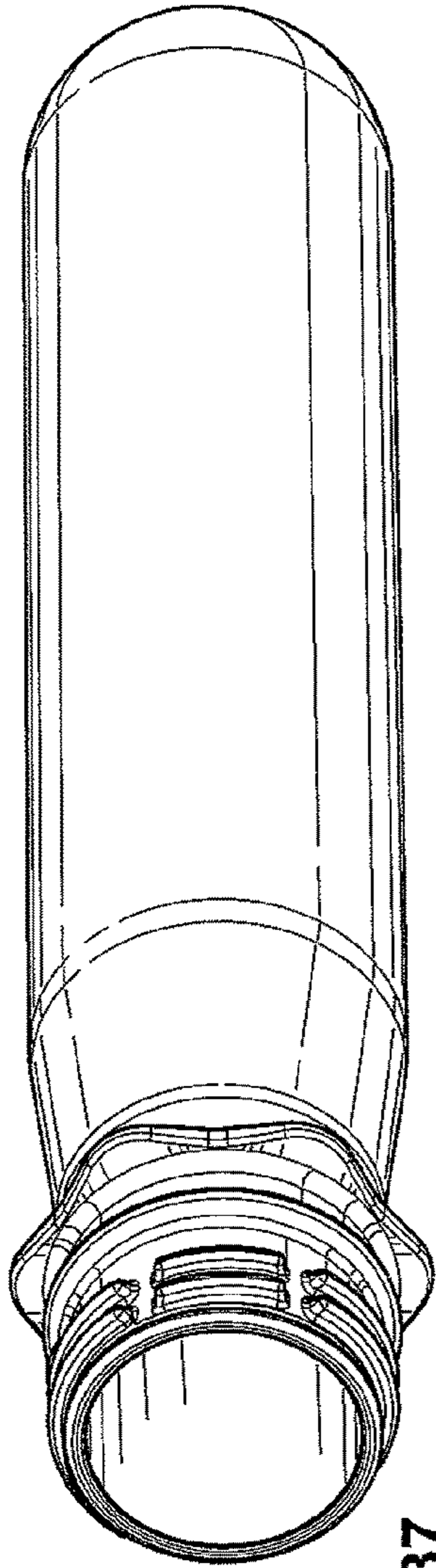


FIG. 37

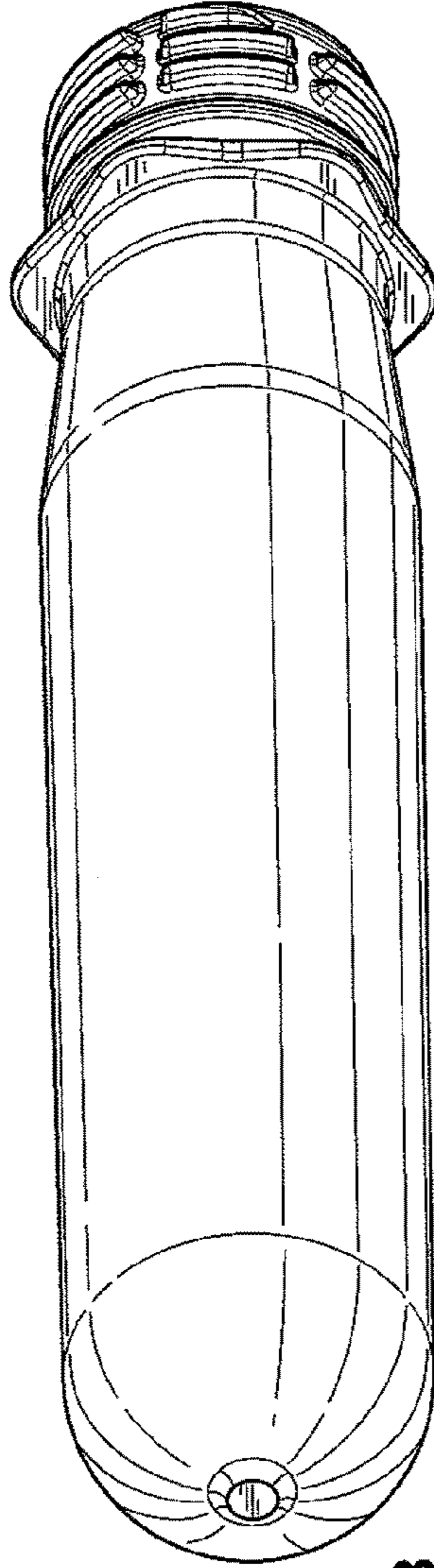


FIG. 38

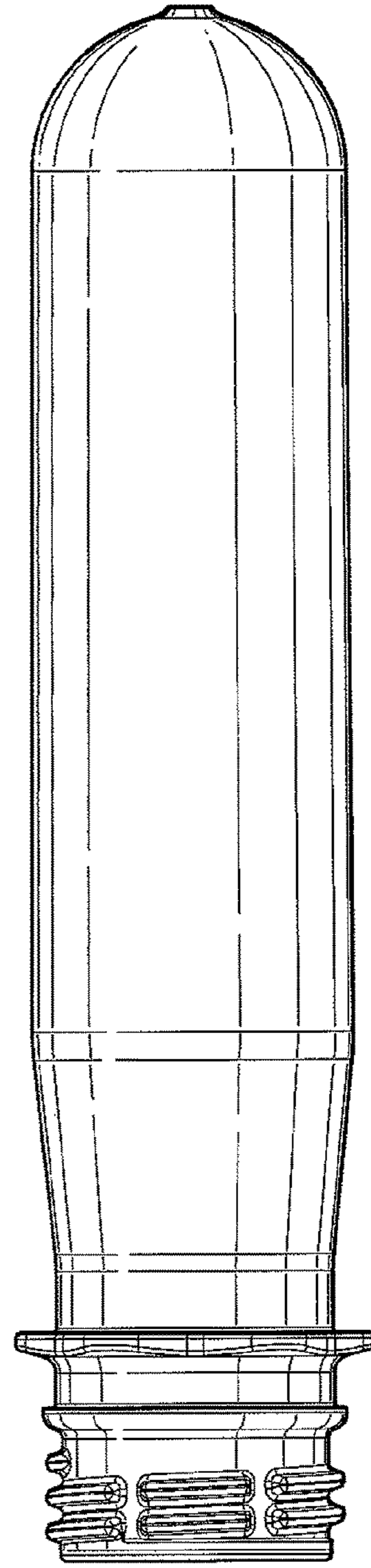


FIG. 40

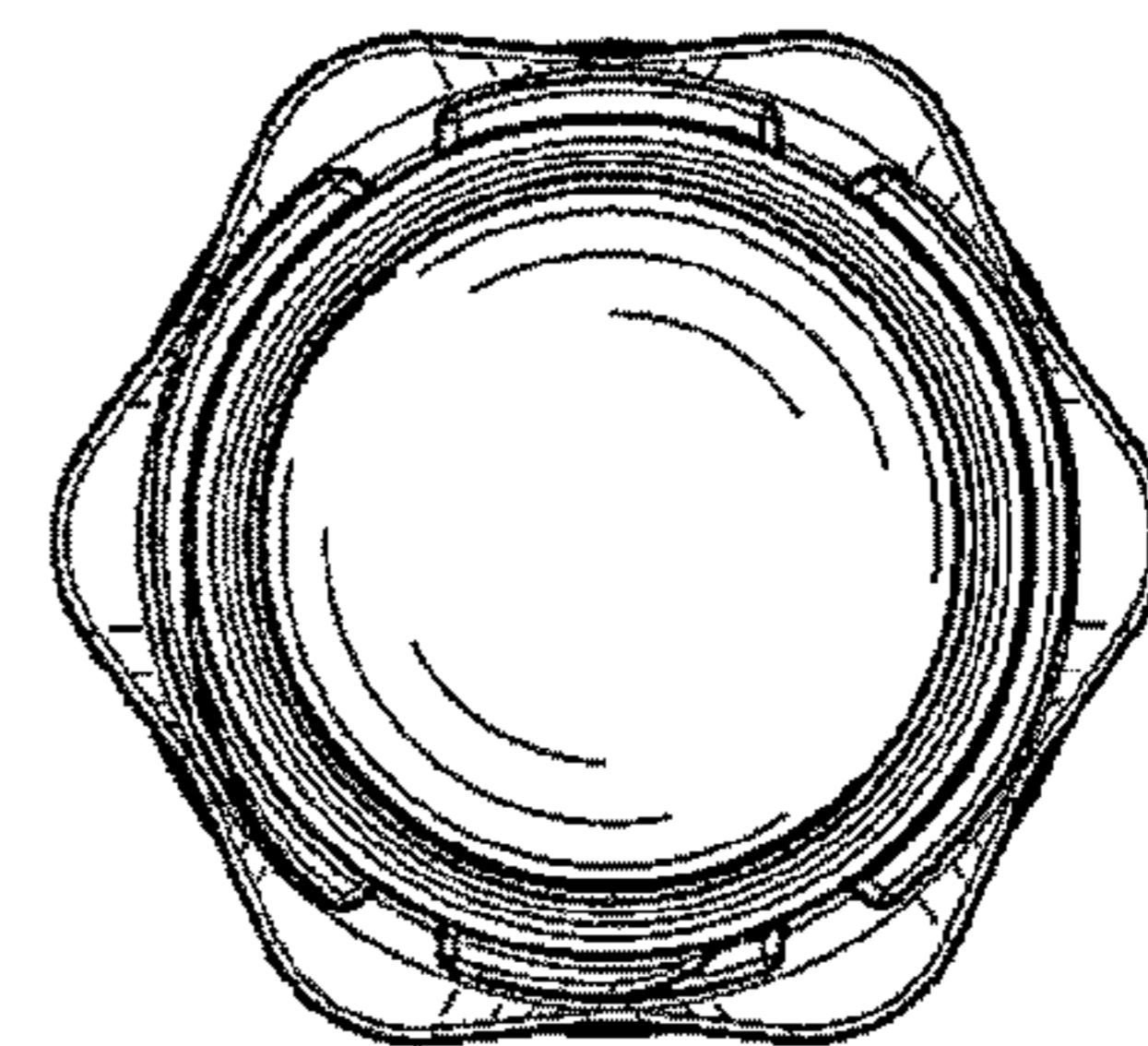
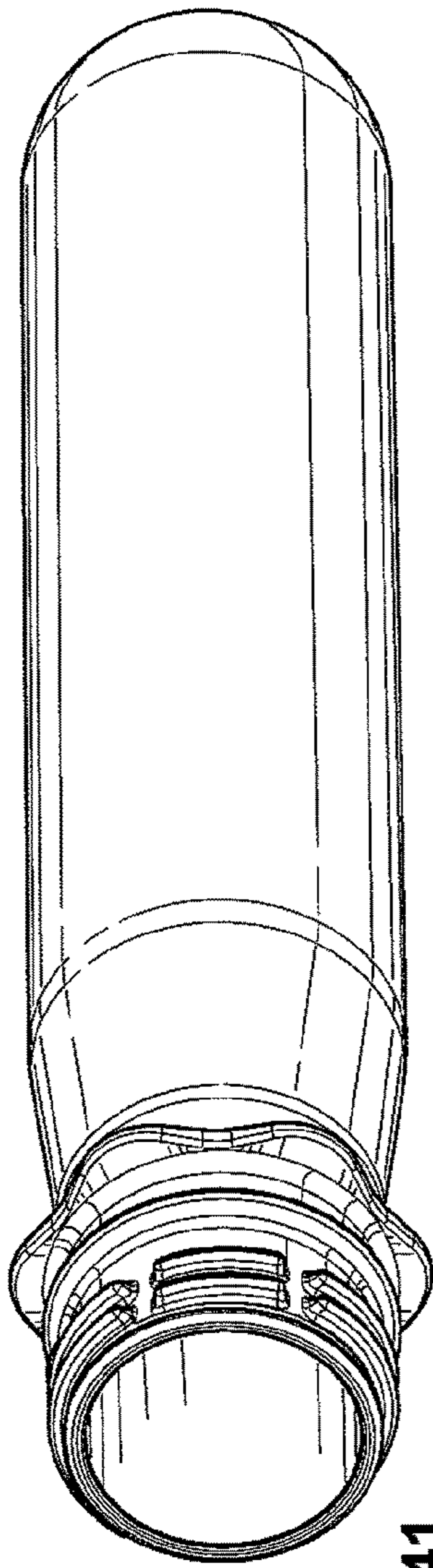
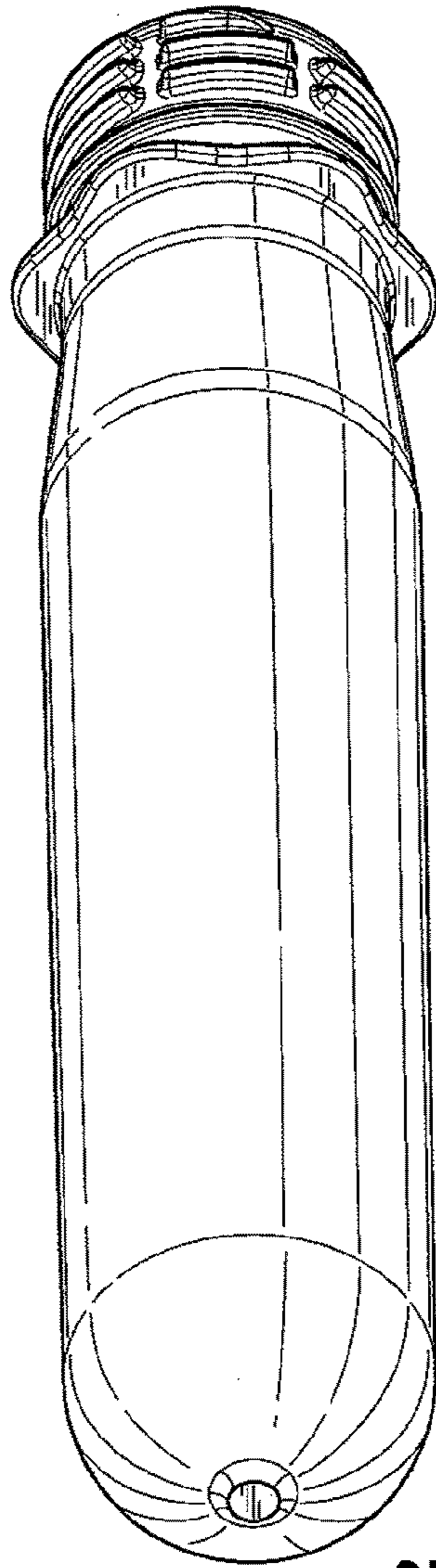


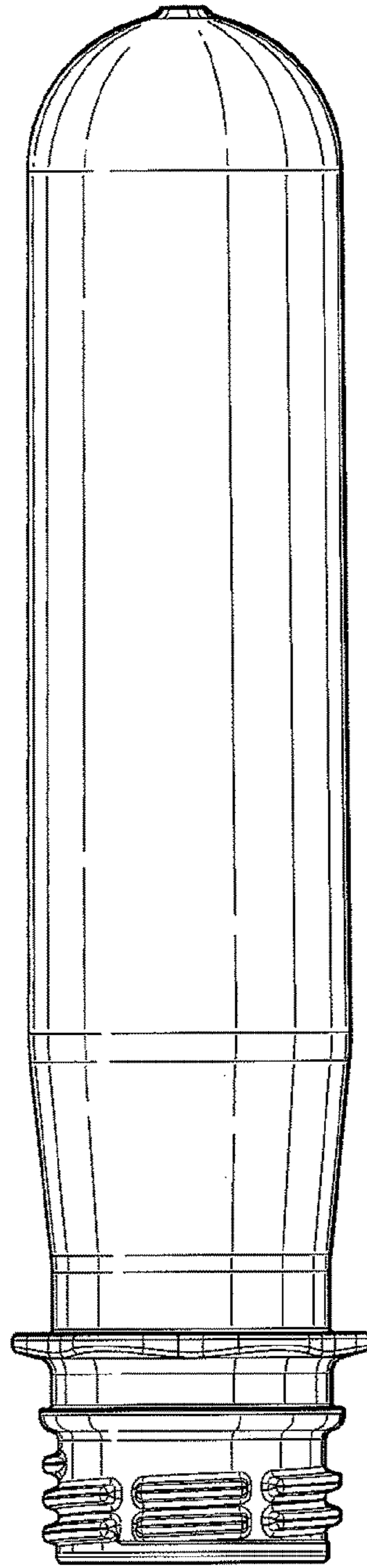
FIG. 39



**FIG. 41**

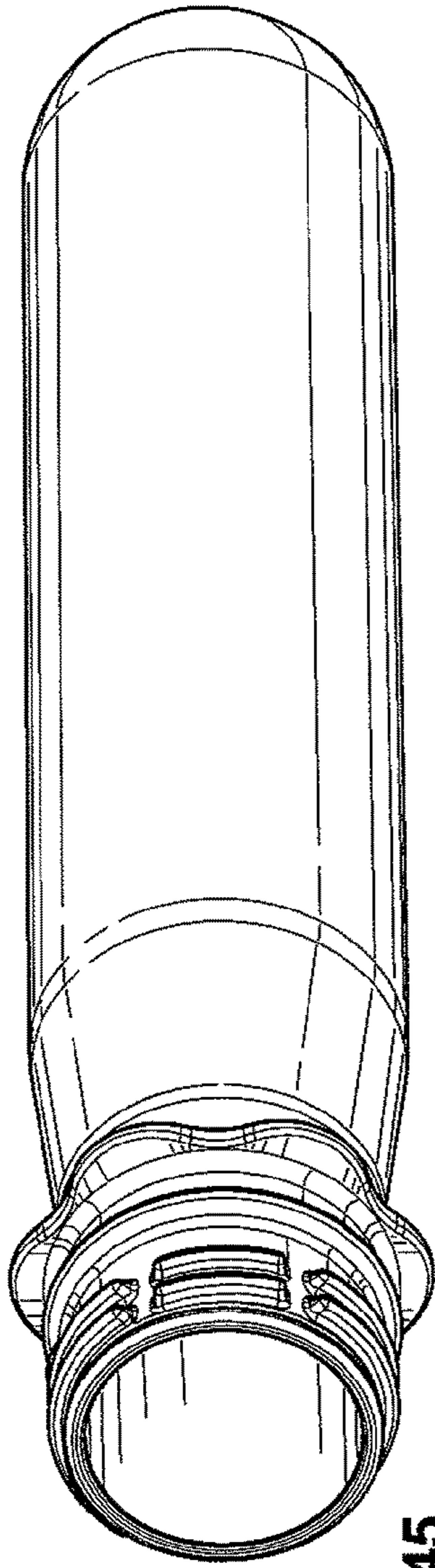


**FIG. 42**

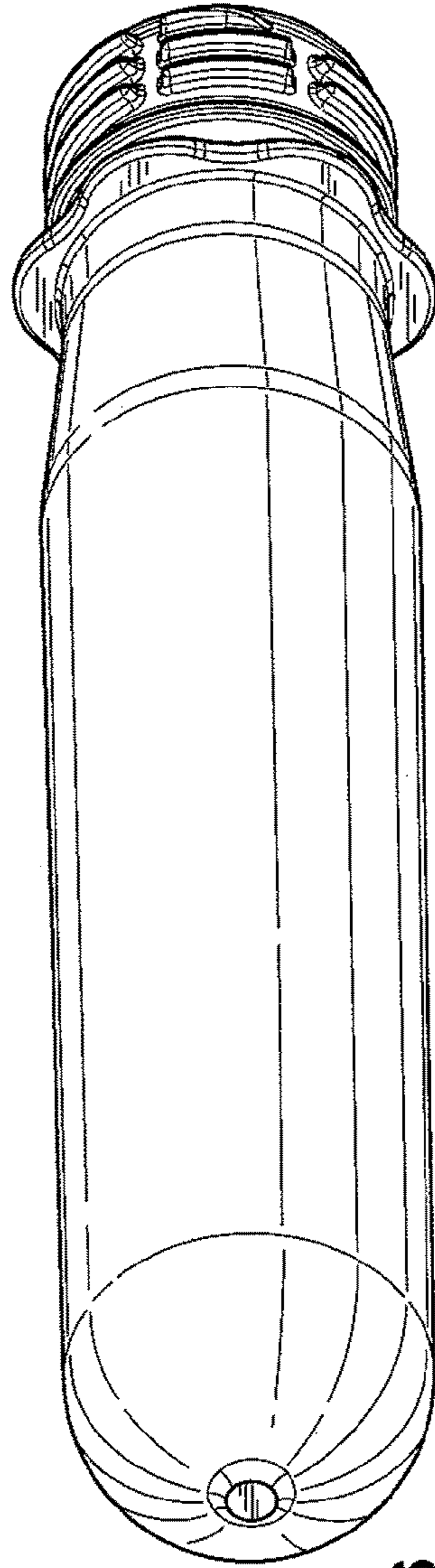


**FIG. 43**

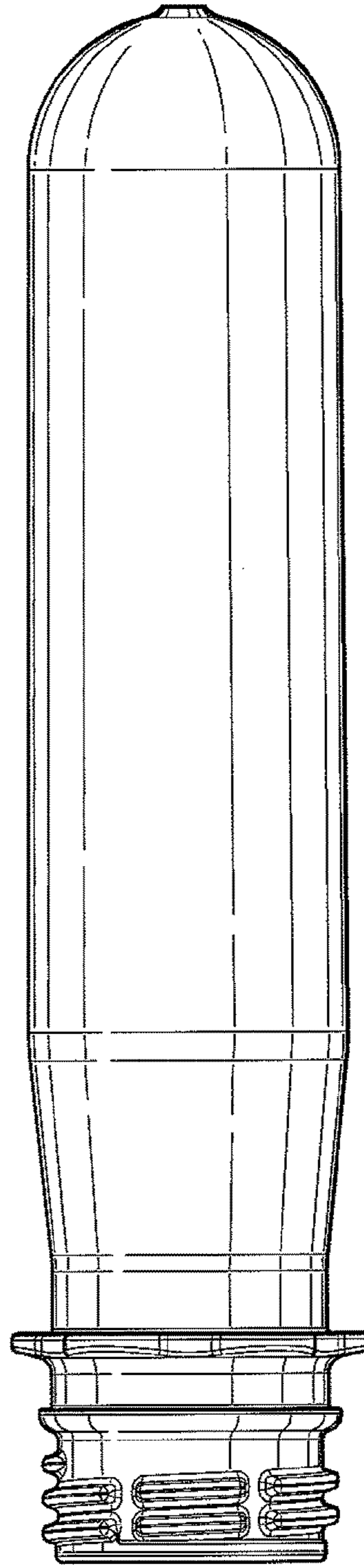
**FIG. 44**



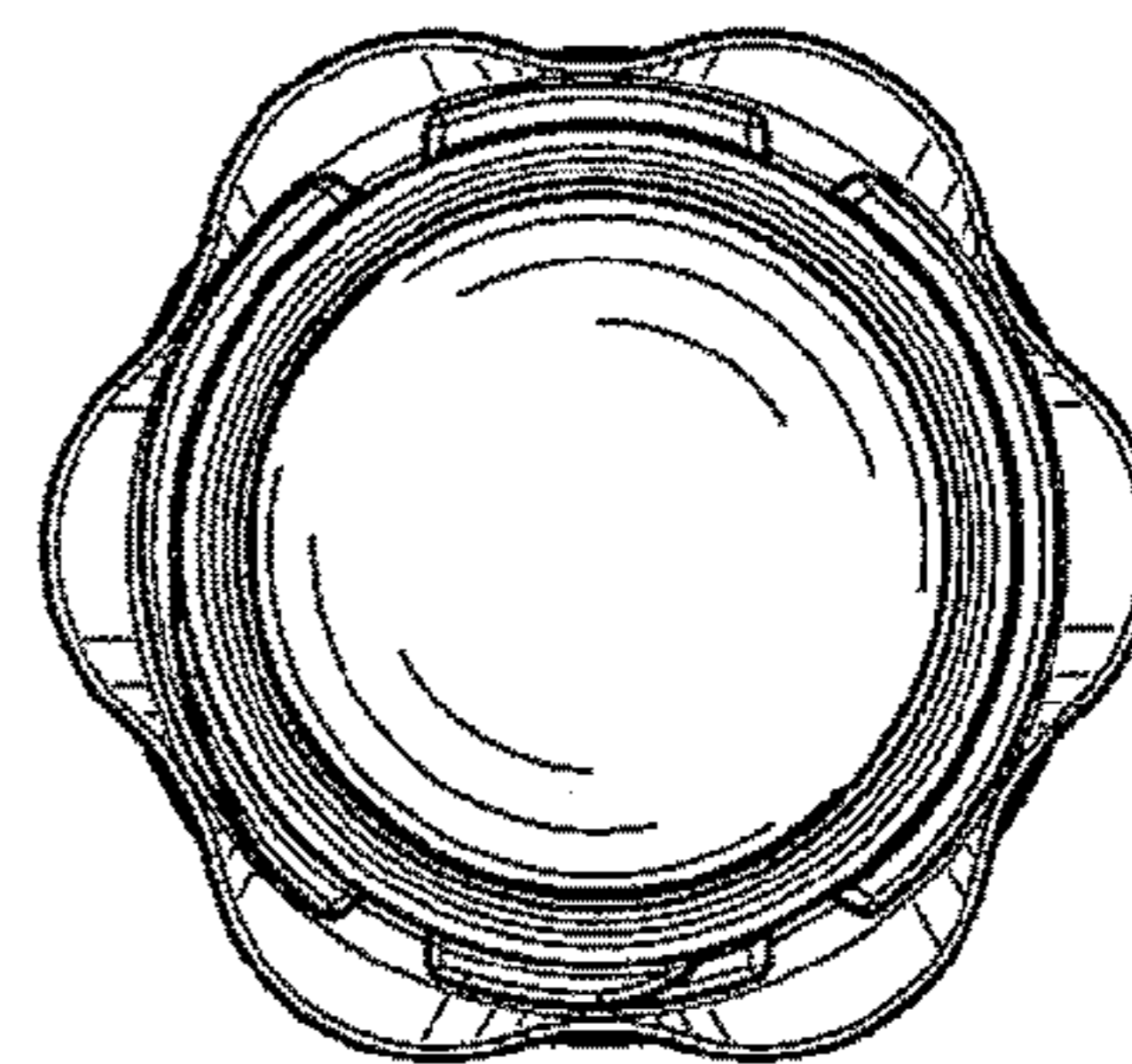
**FIG. 45**



**FIG. 46**

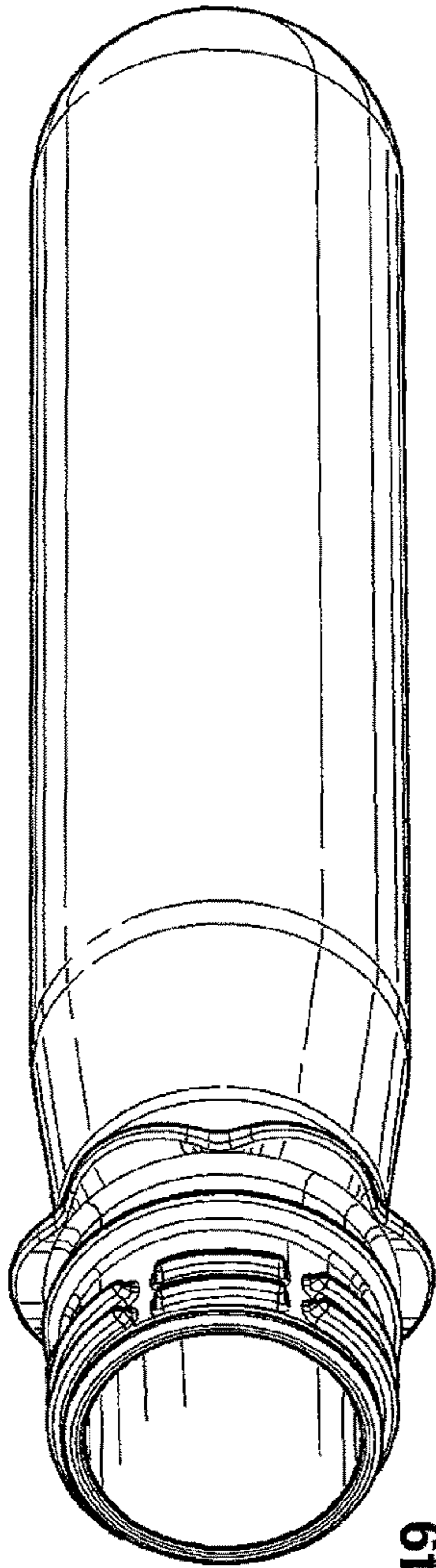


**FIG. 47**

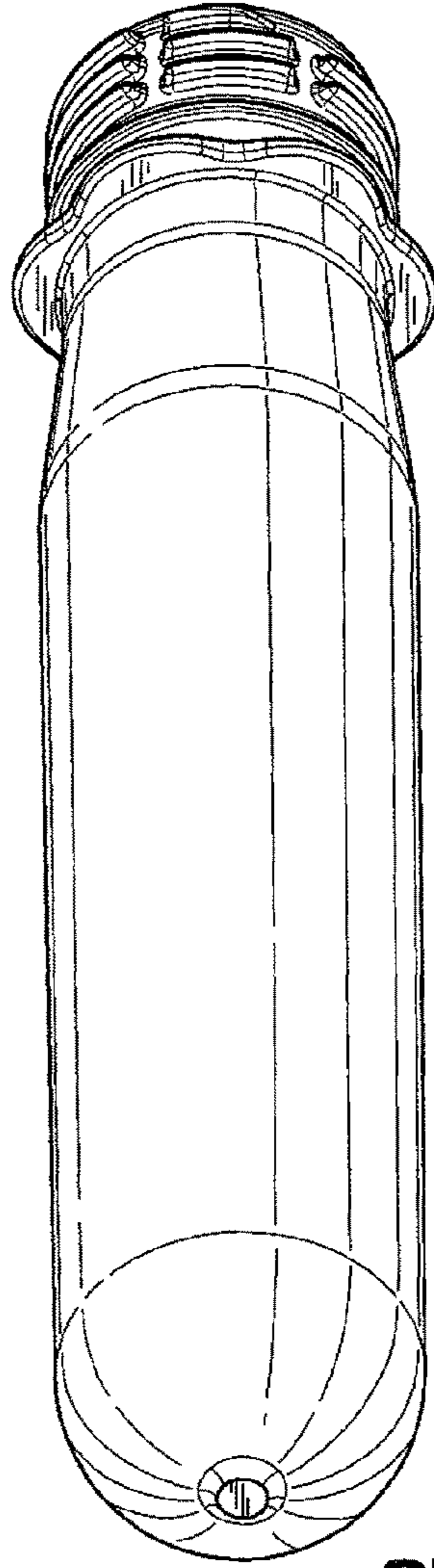


**FIG. 48**

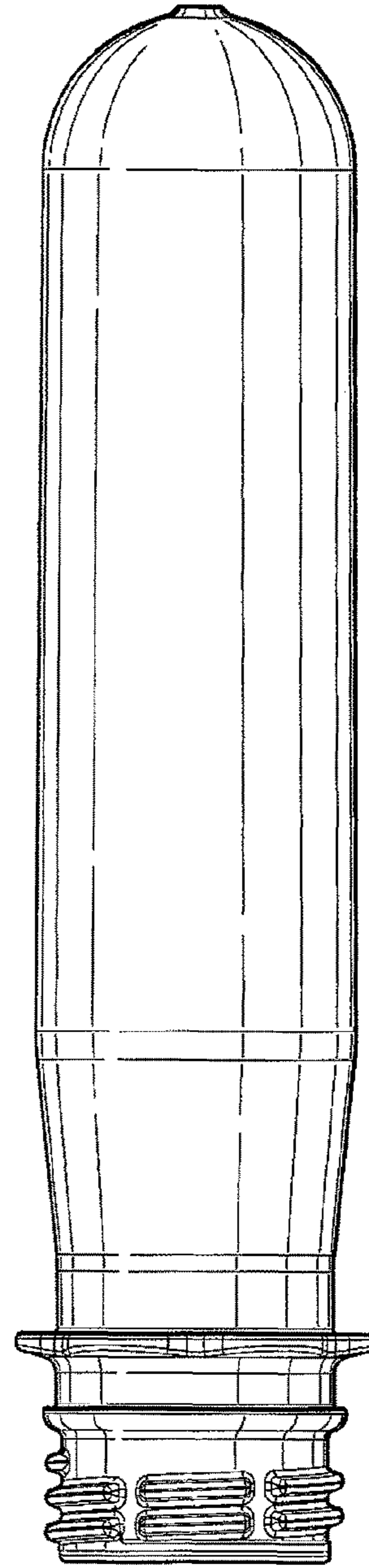




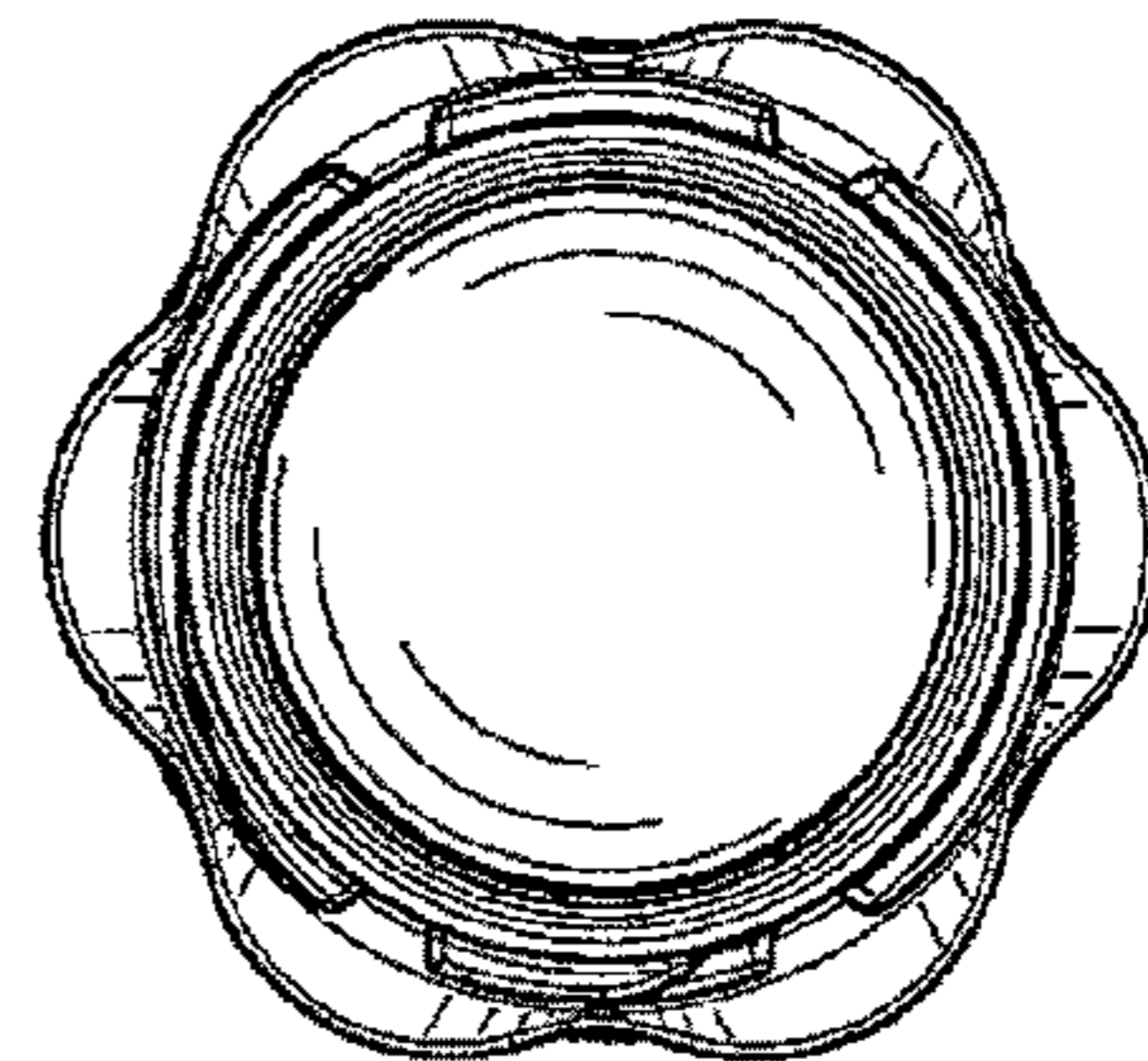
**FIG. 49**



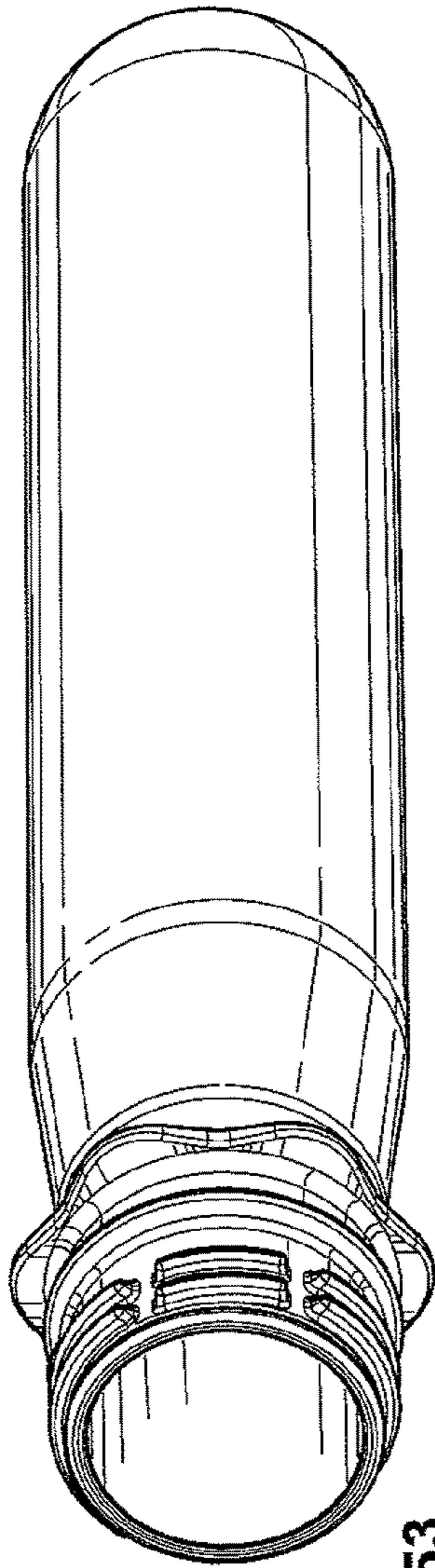
**FIG. 50**



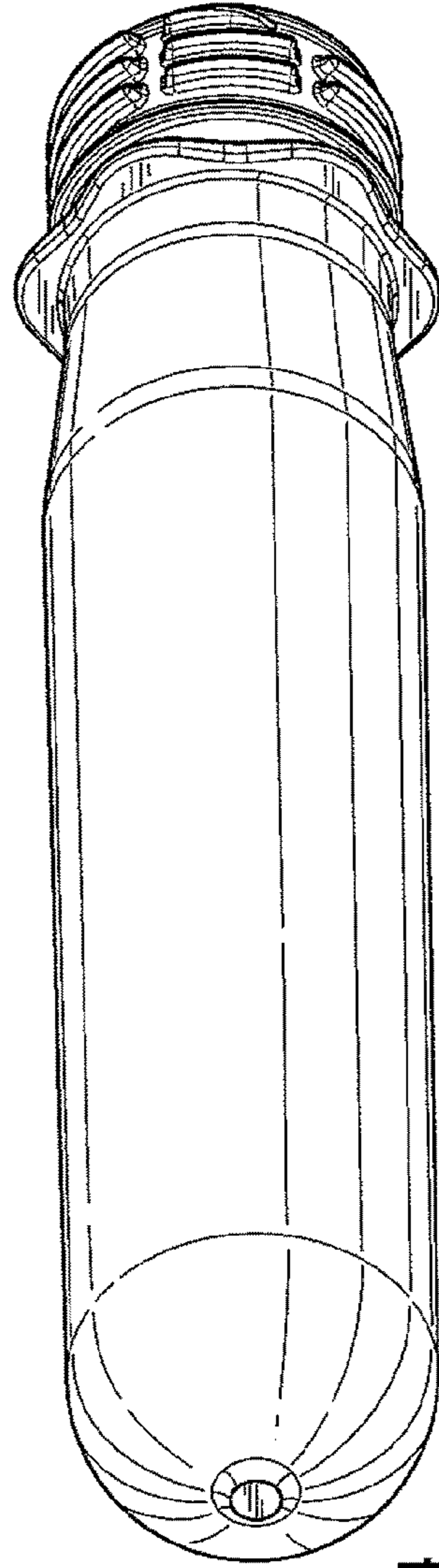
**FIG. 52**



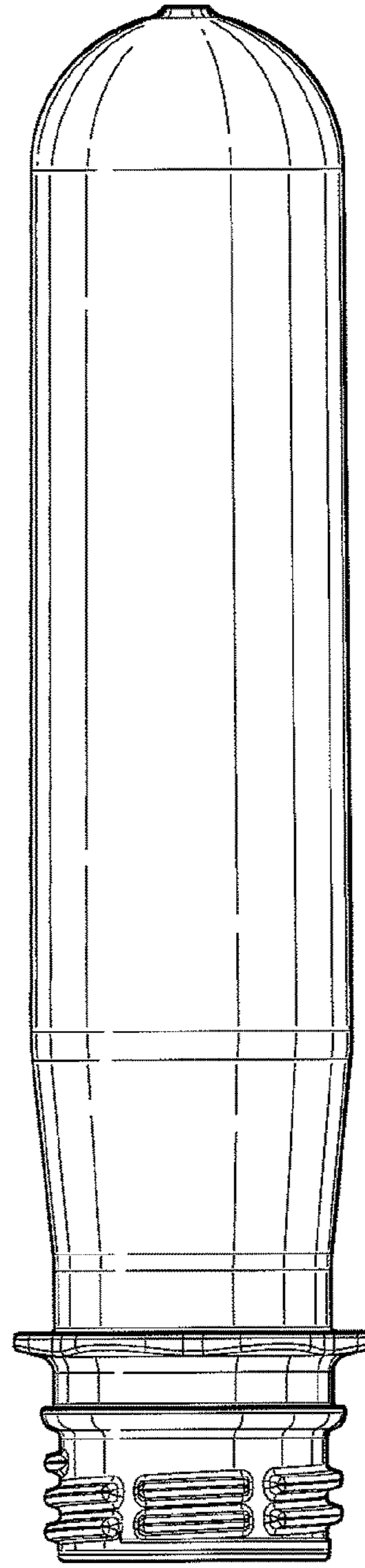
**FIG. 51**



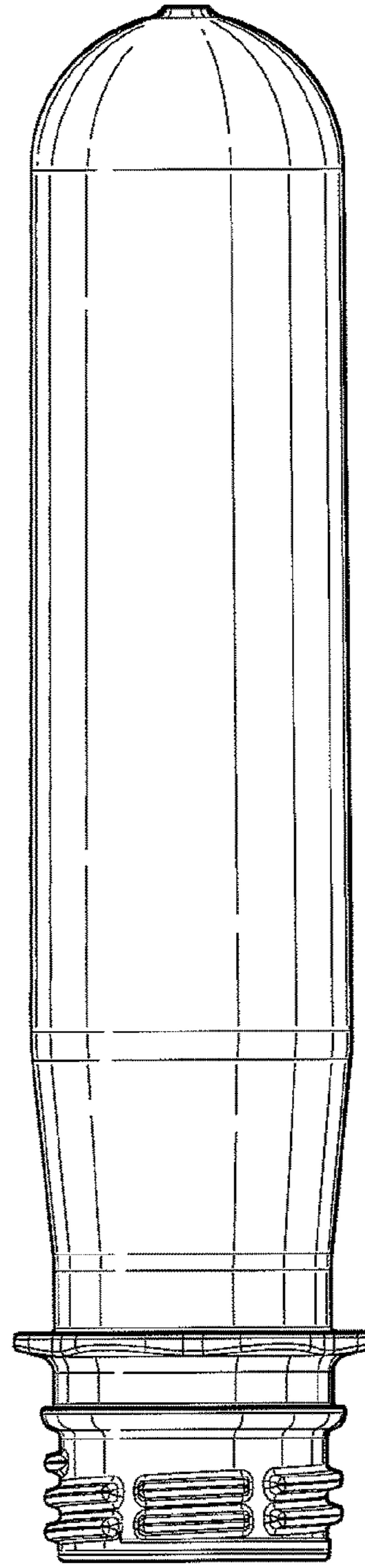
**FIG. 53**



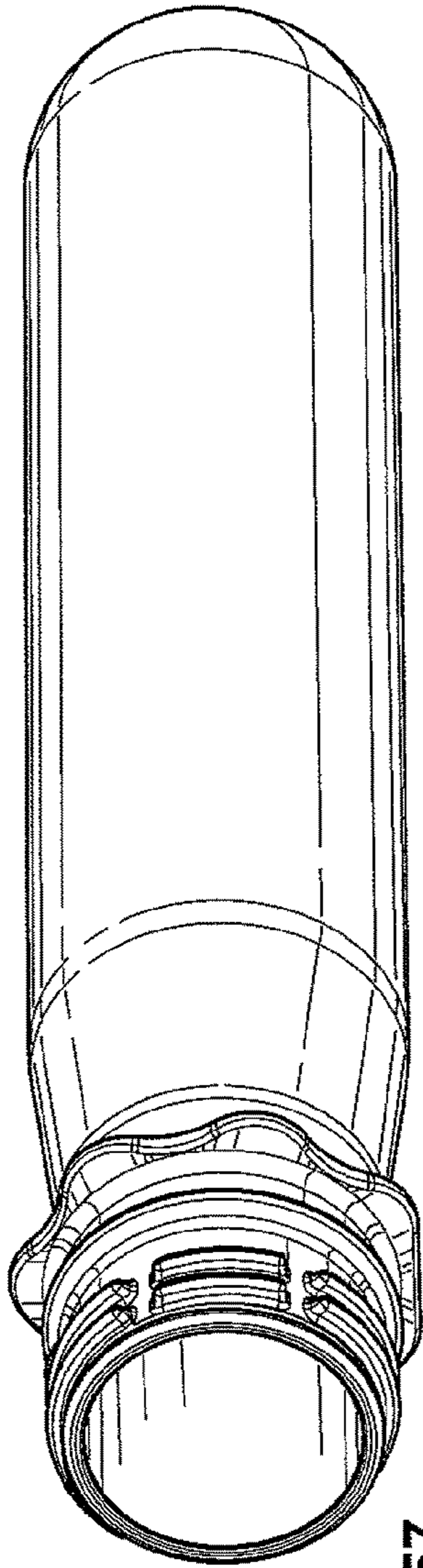
**FIG. 54**



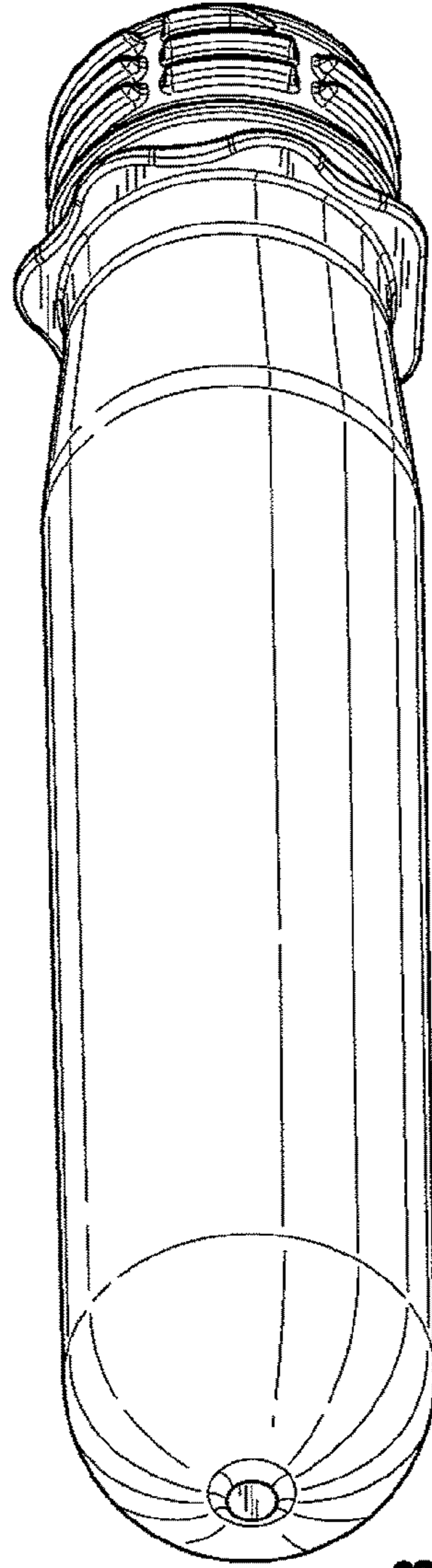
**FIG. 55**



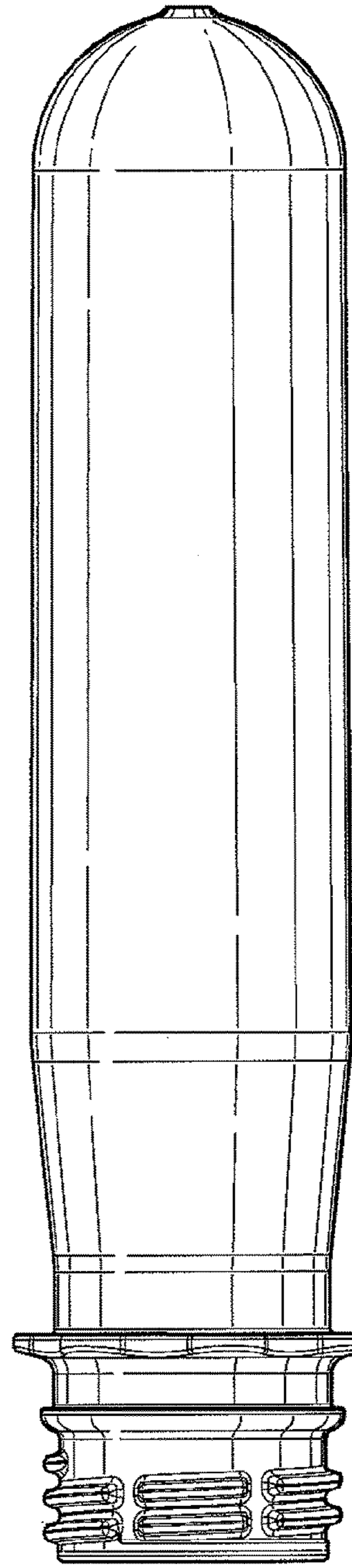
**FIG. 56**



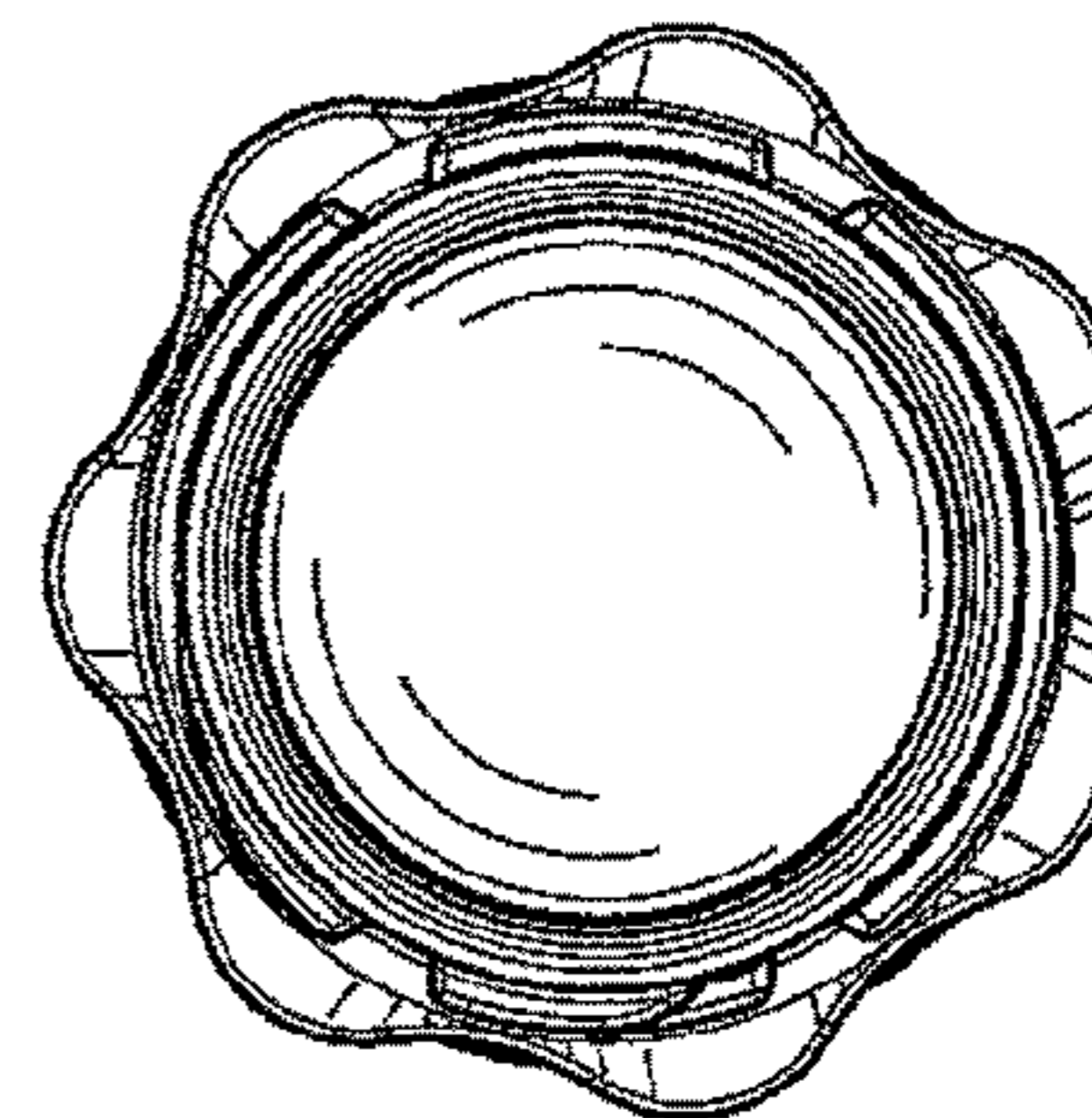
**FIG. 57**



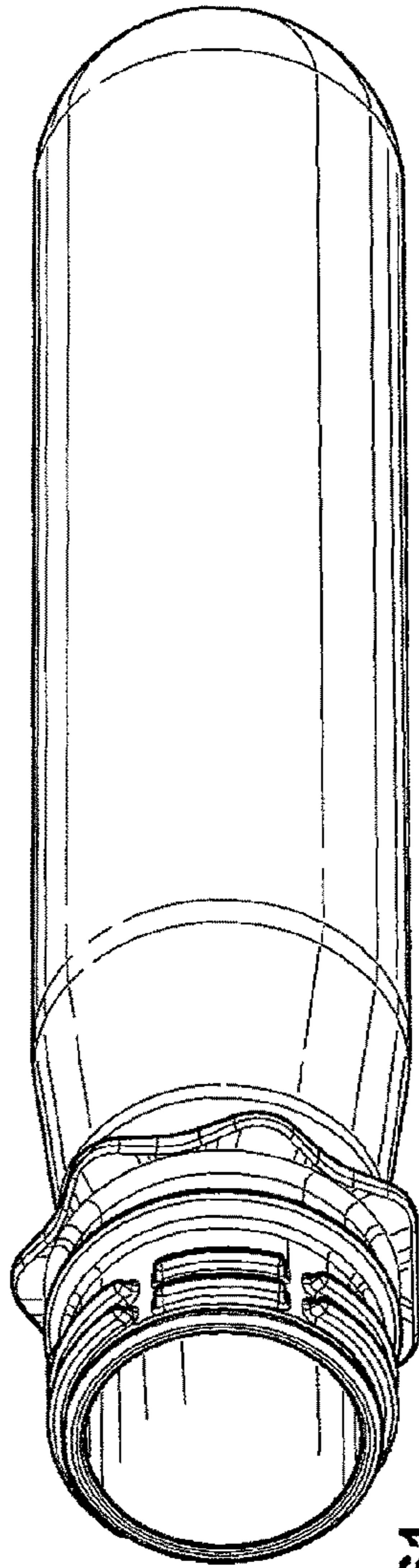
**FIG. 58**



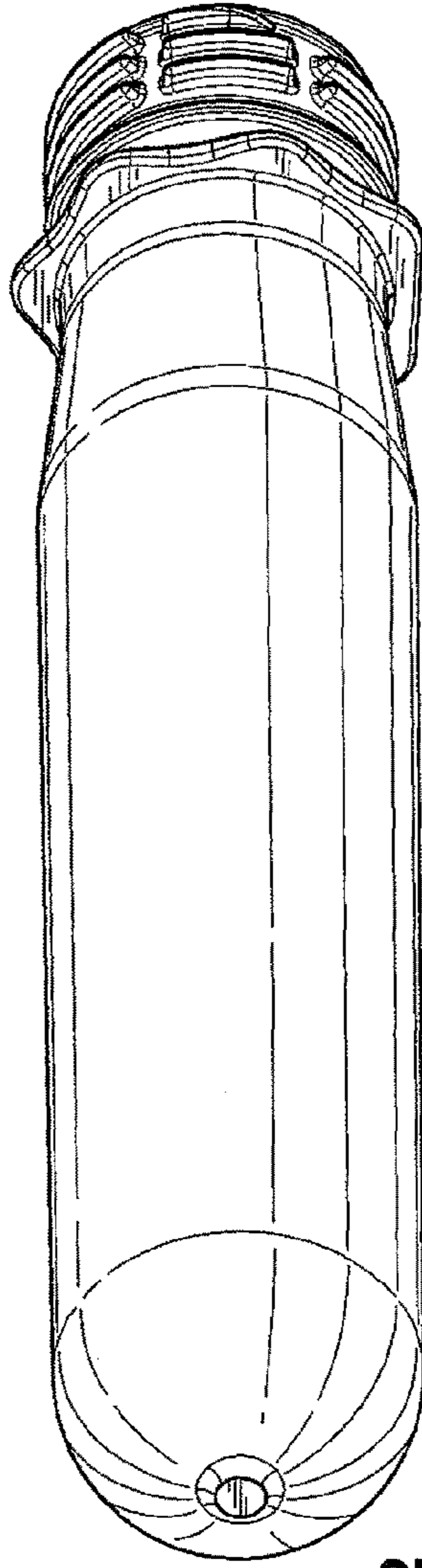
**FIG. 60**



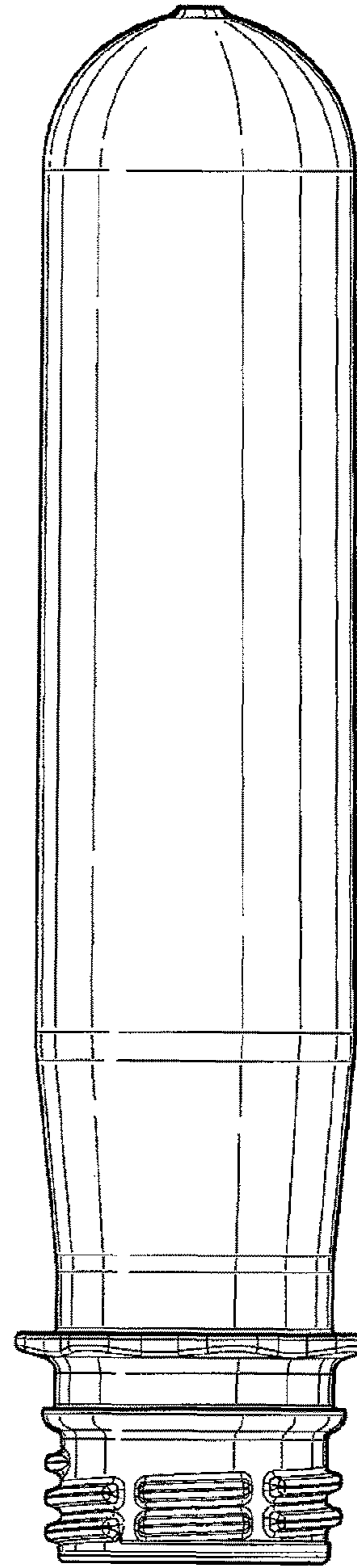
**FIG. 59**



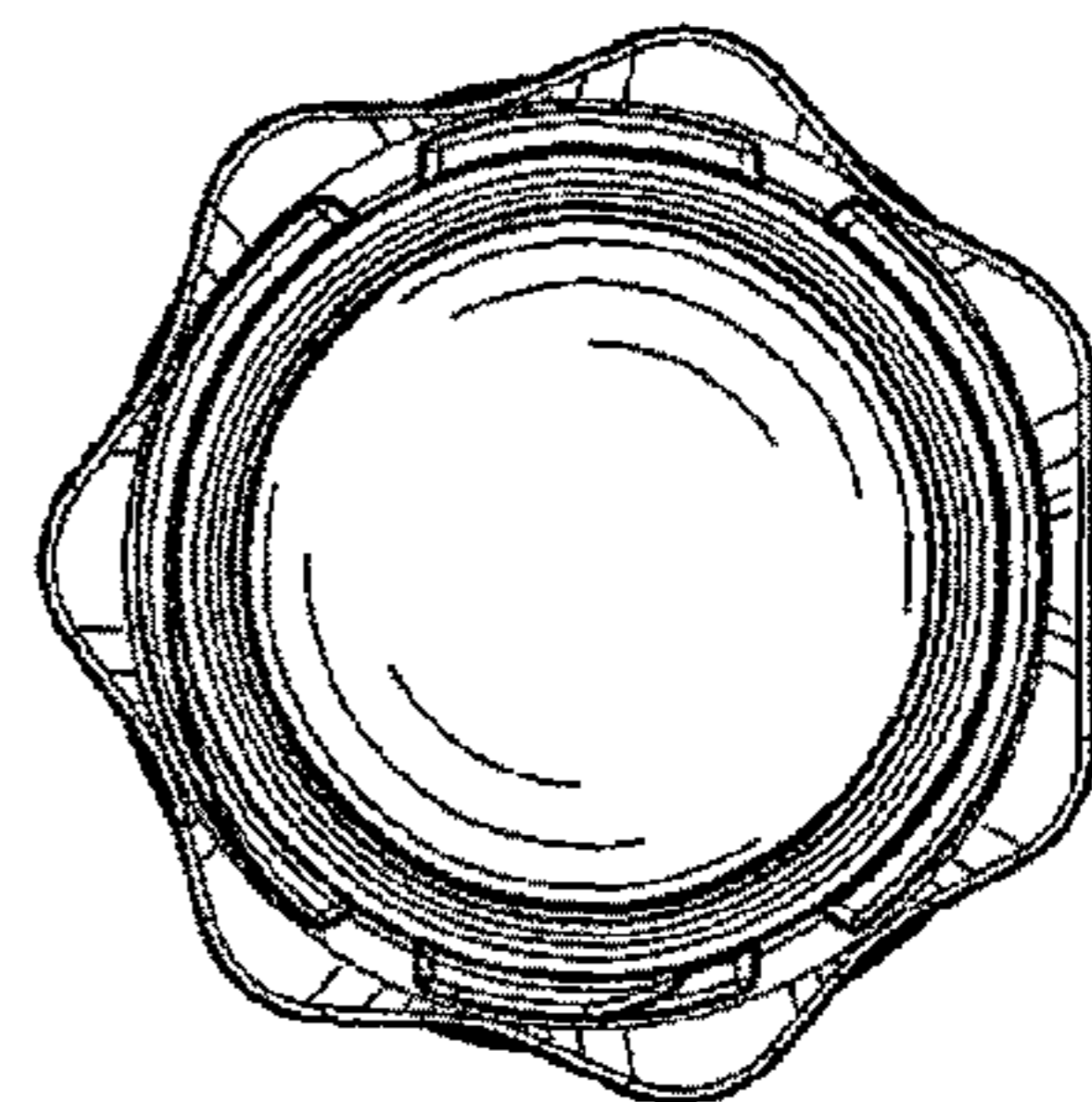
**FIG. 61**



**FIG. 62**



**FIG. 63**



**FIG. 64**

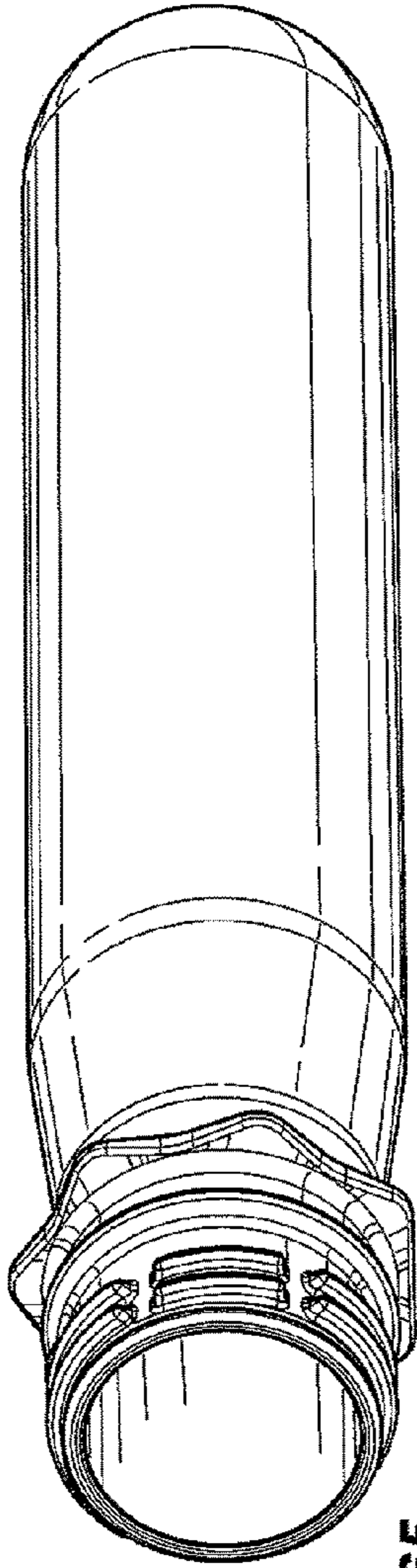


FIG. 65

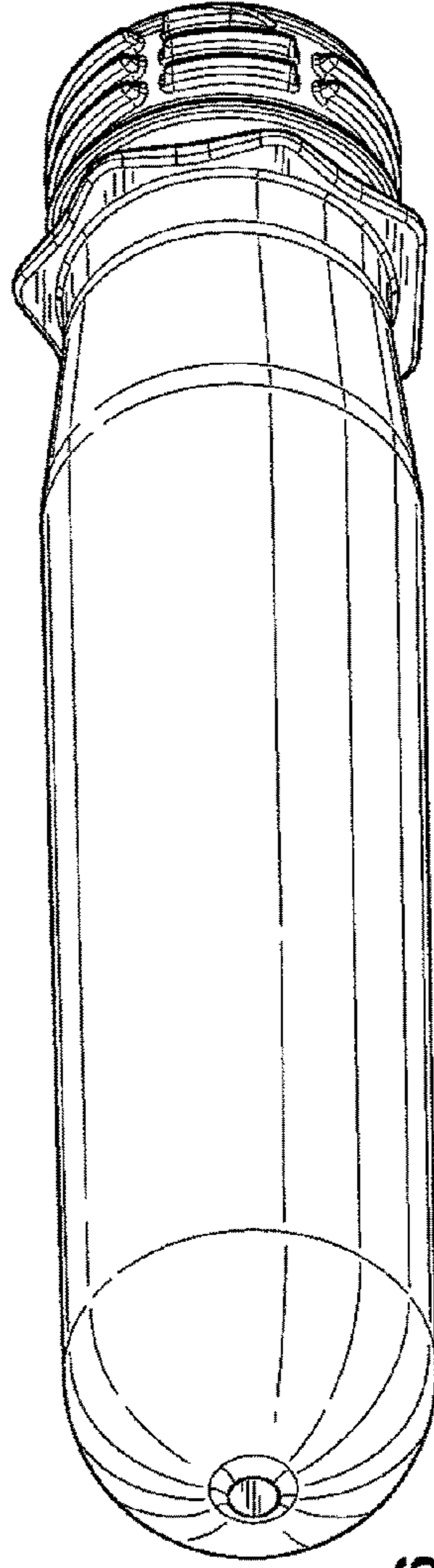


FIG. 66

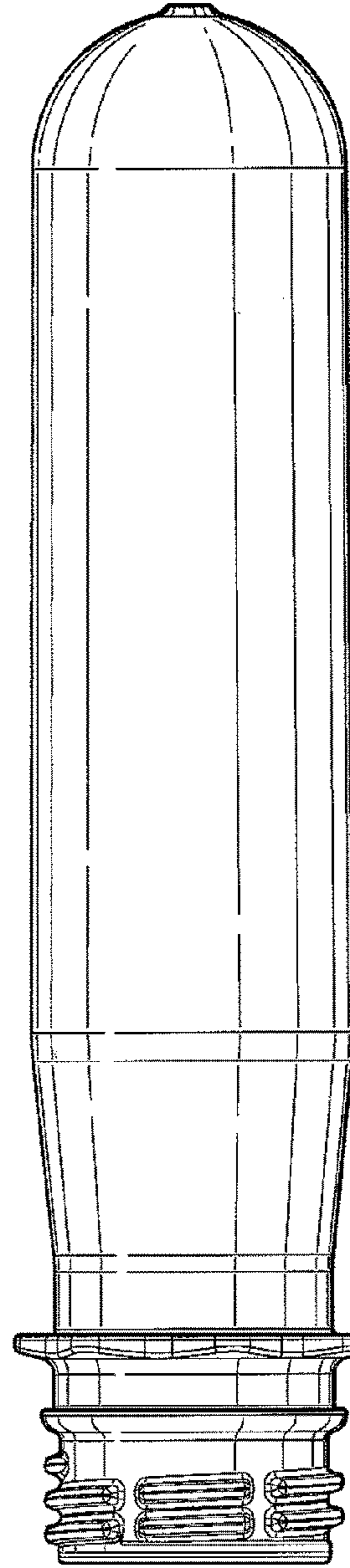
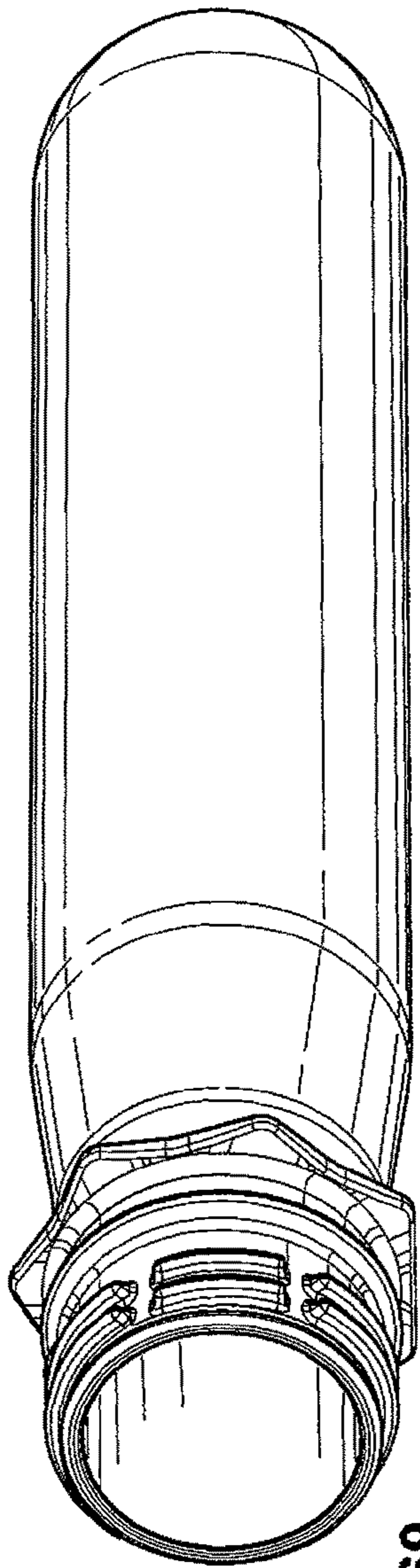
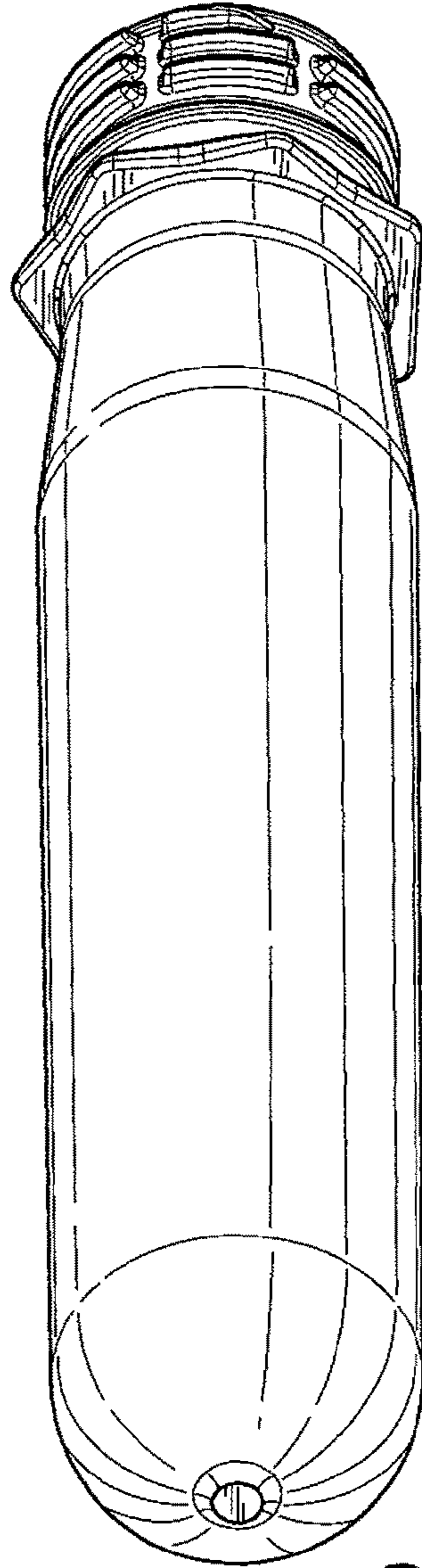


FIG. 67

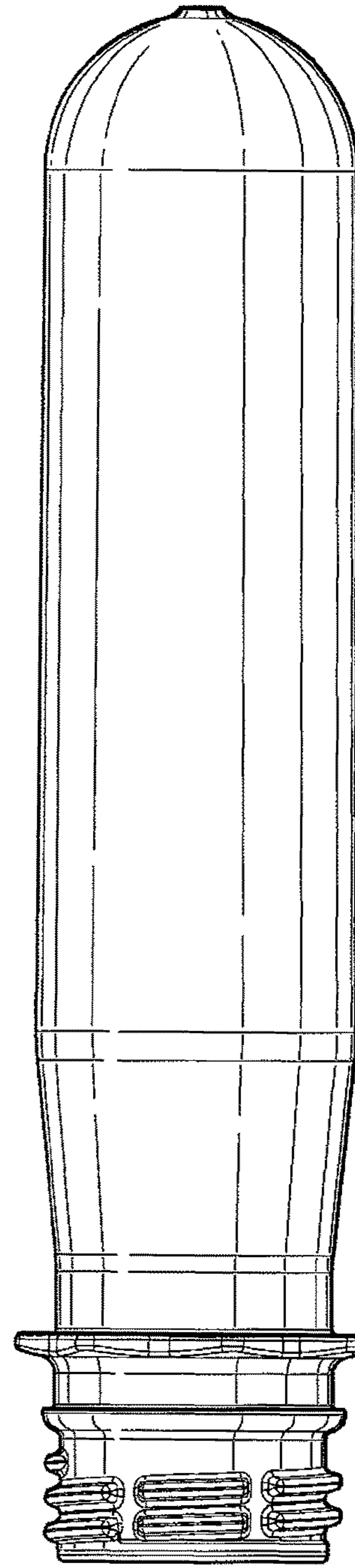
FIG. 68



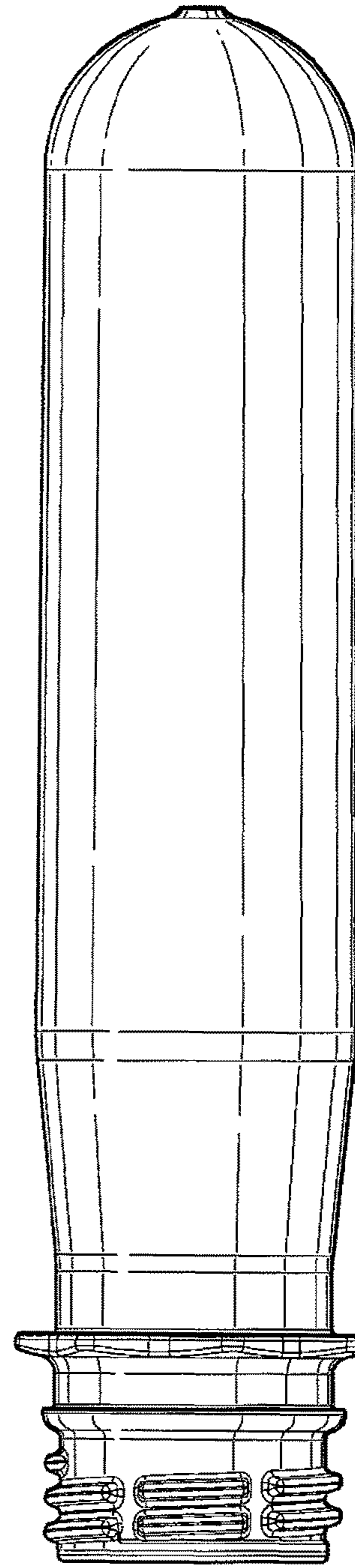
**FIG. 69**



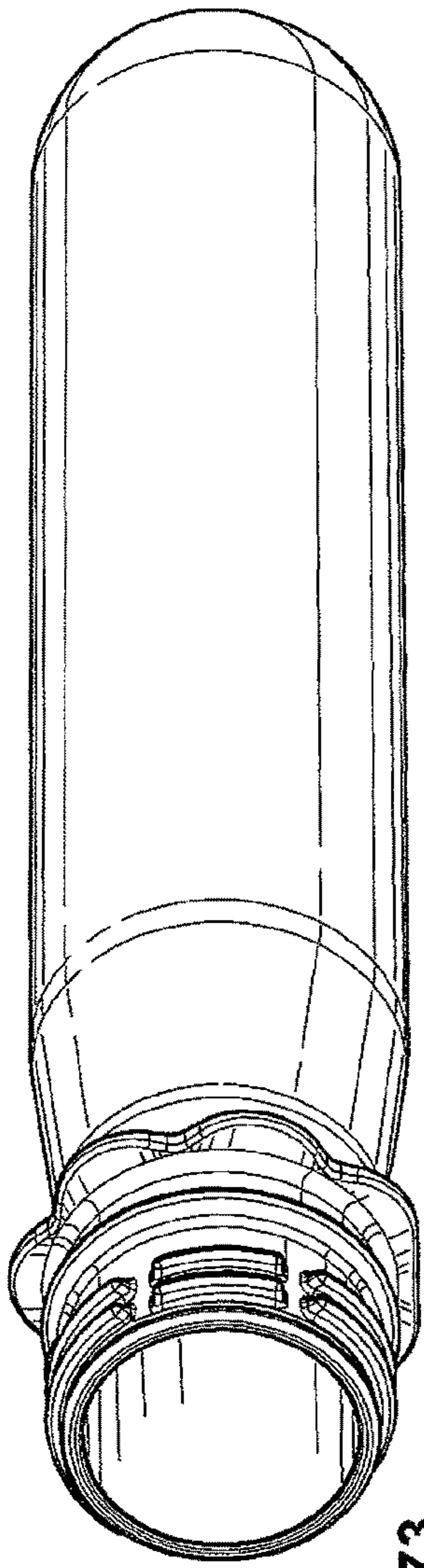
**FIG. 70**



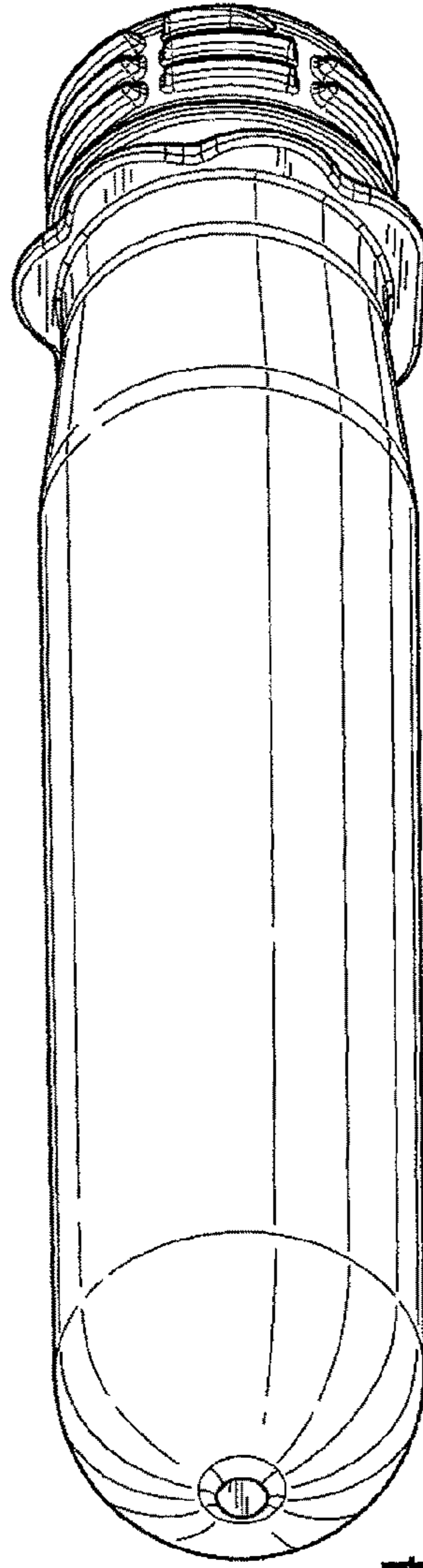
**FIG. 71**



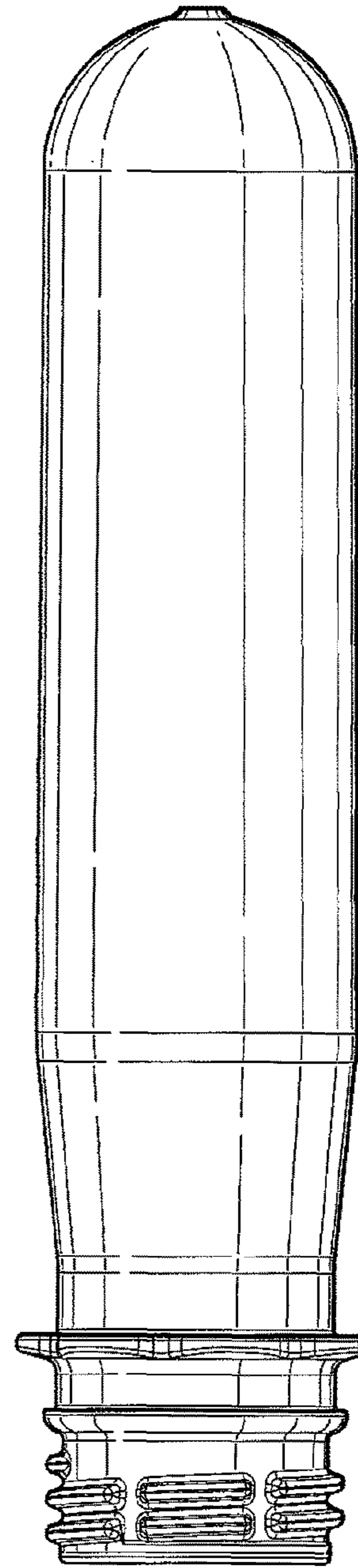
**FIG. 72**



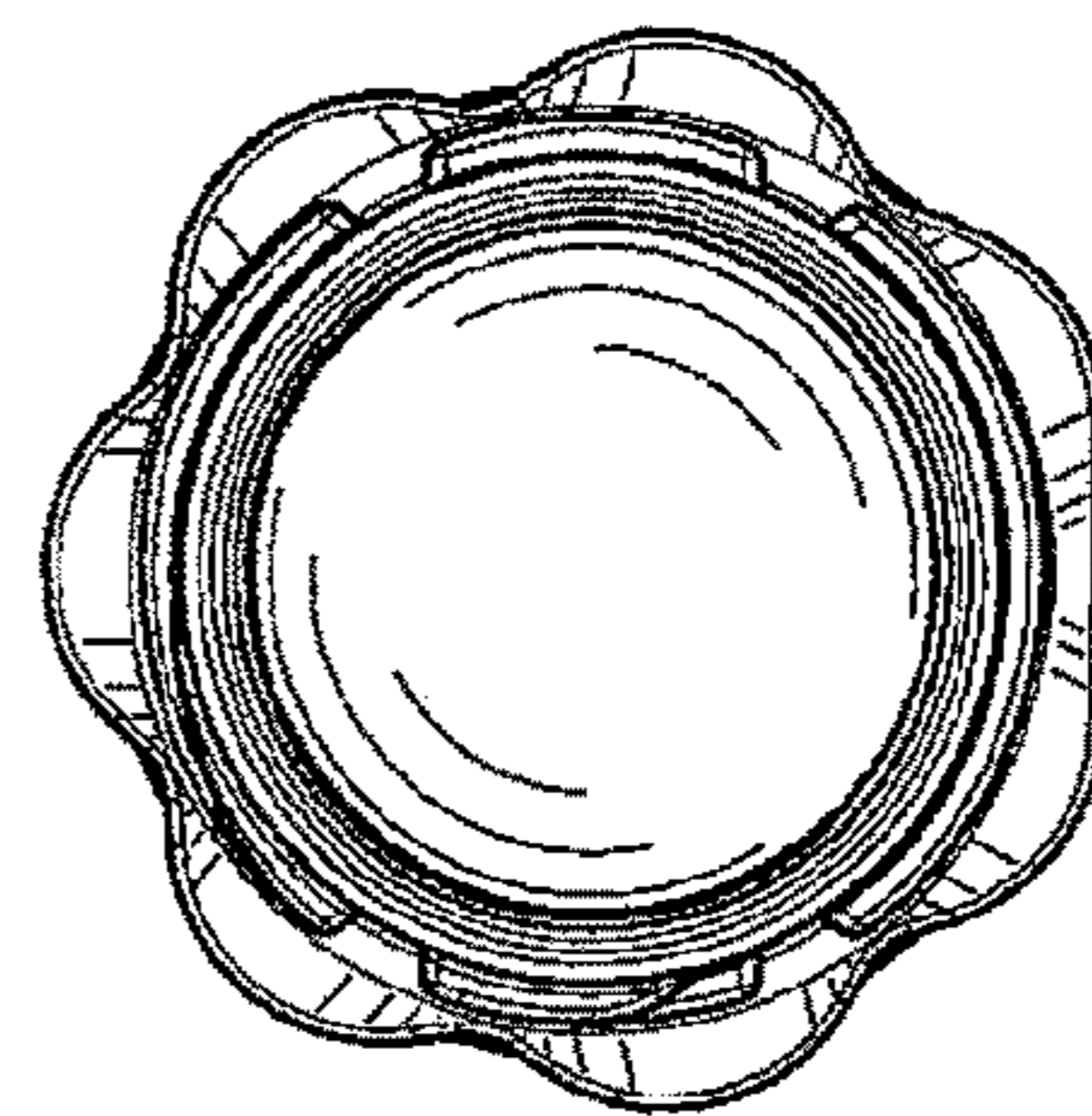
**FIG. 73**



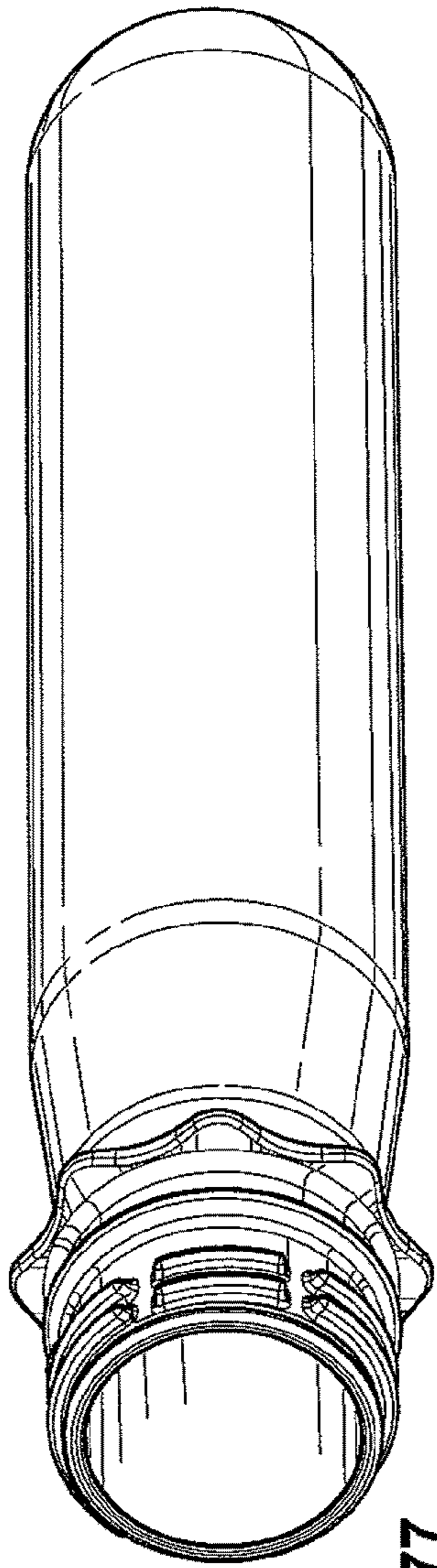
**FIG. 74**



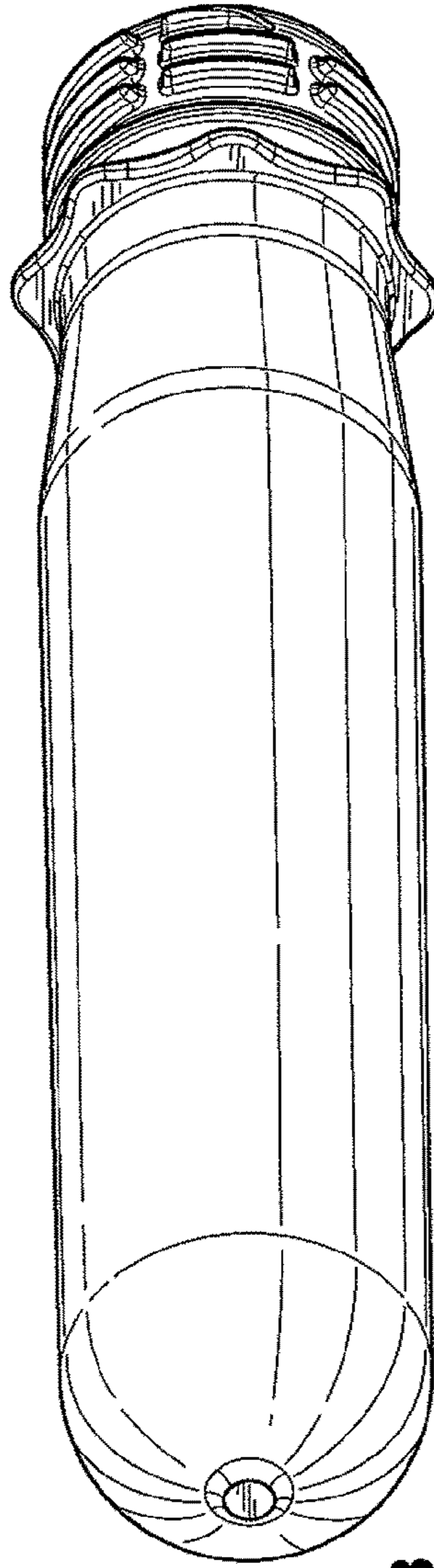
**FIG. 75**



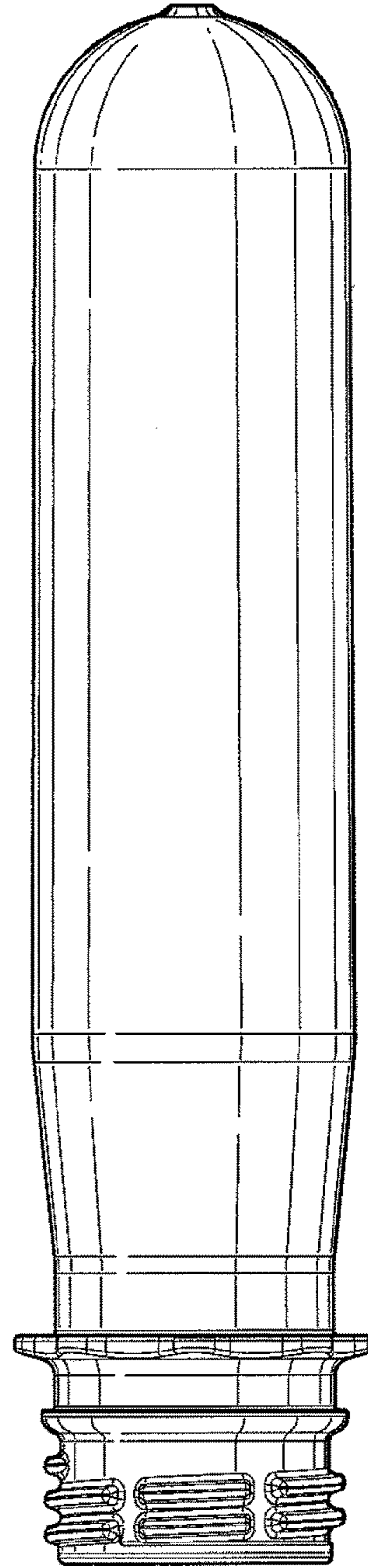
**FIG. 76**



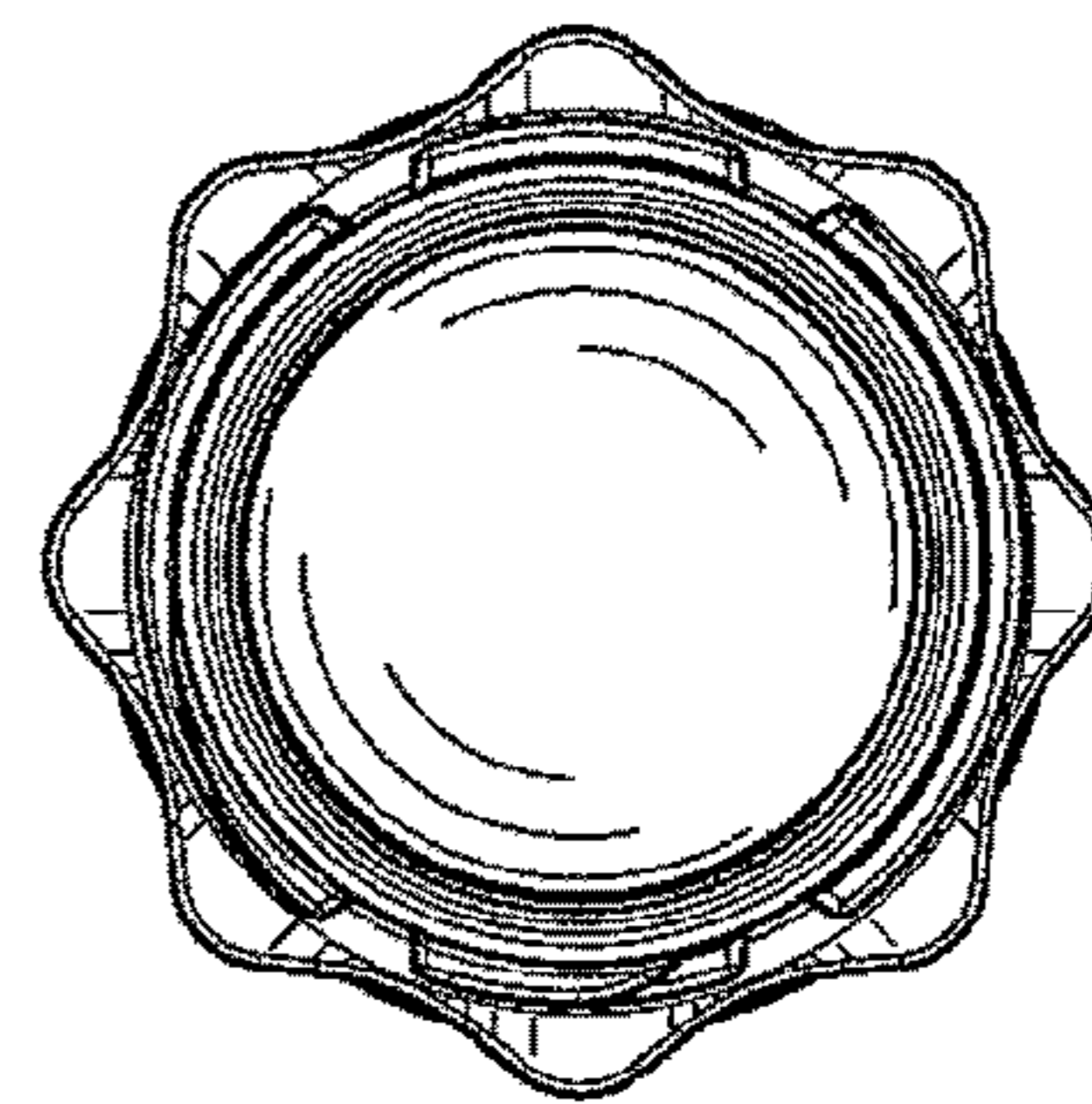
**FIG. 77**



**FIG. 78**

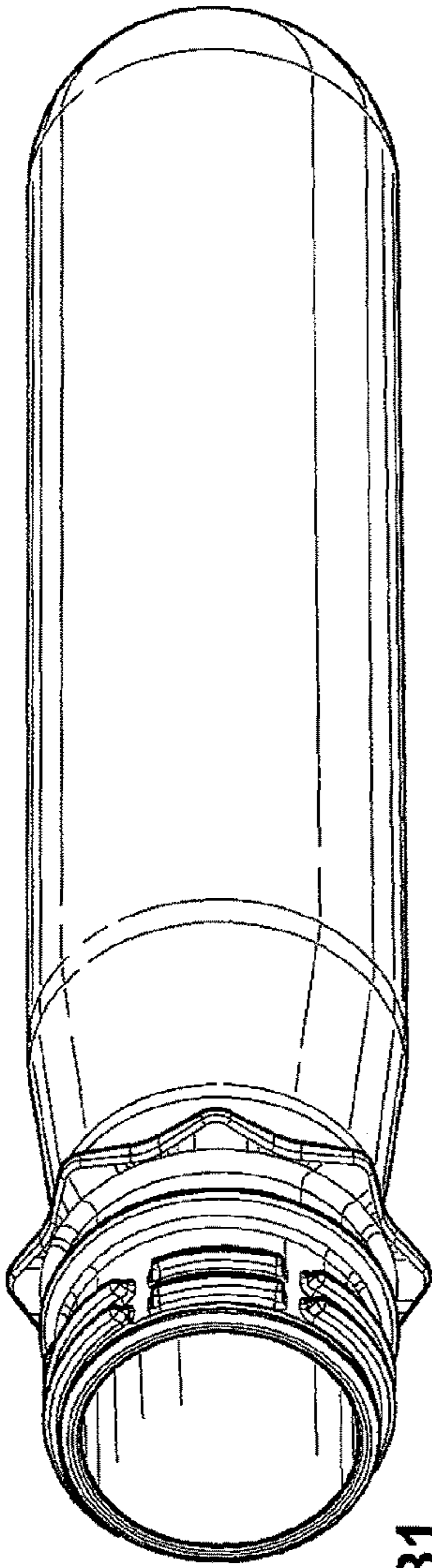


**FIG. 80**

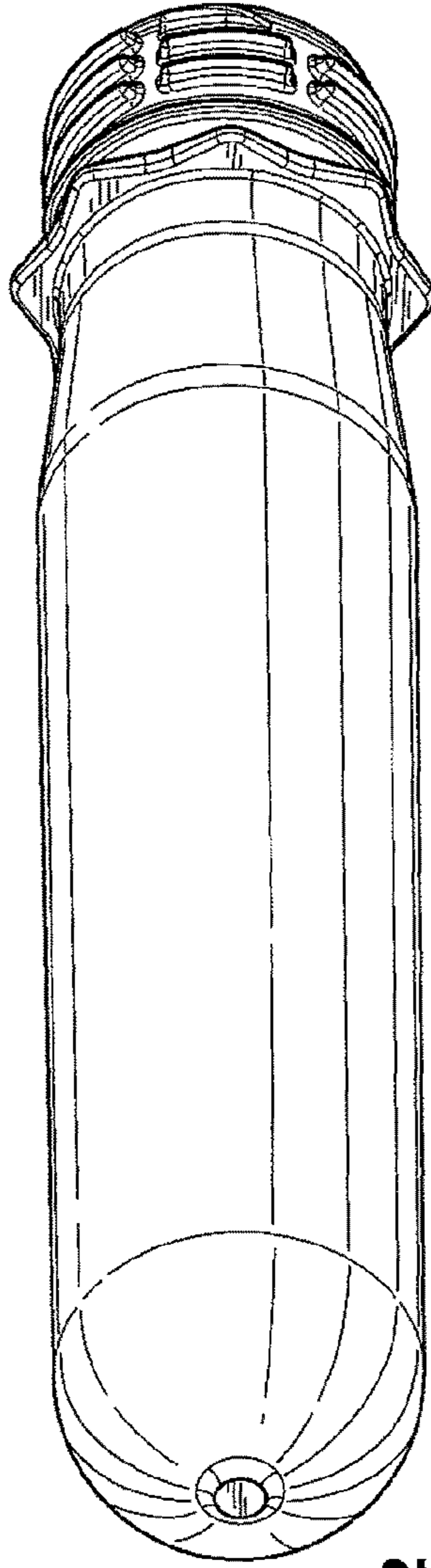


**FIG. 79**

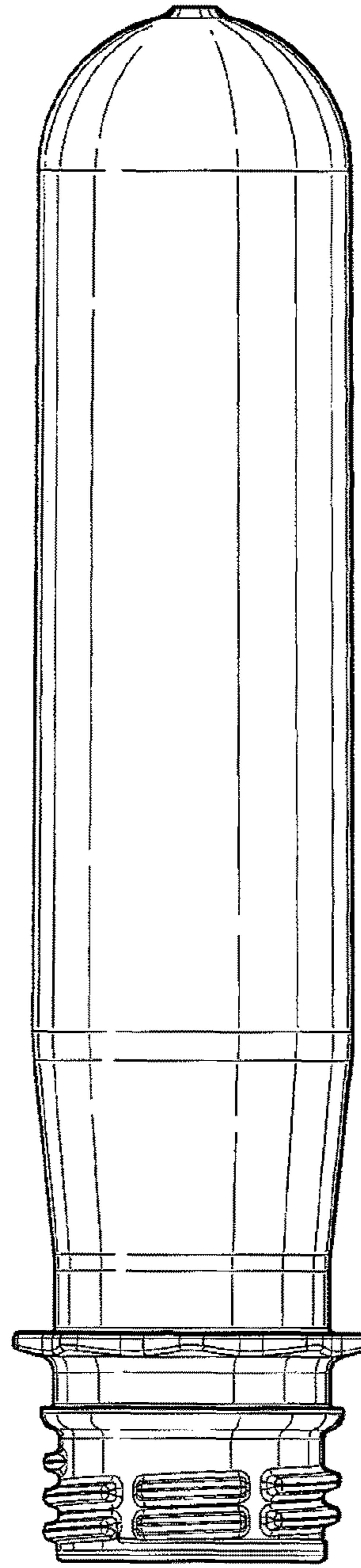




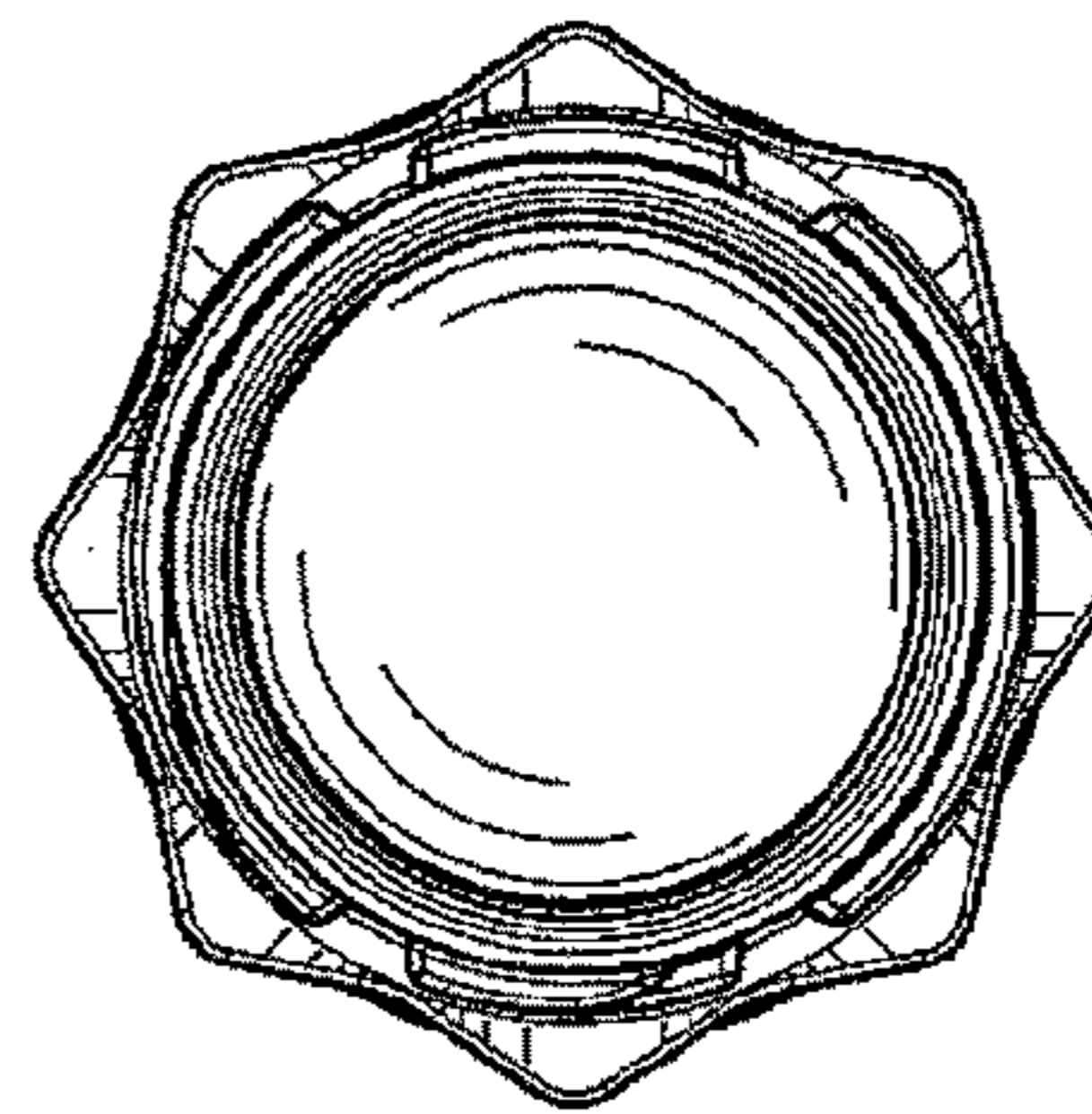
**FIG. 81**



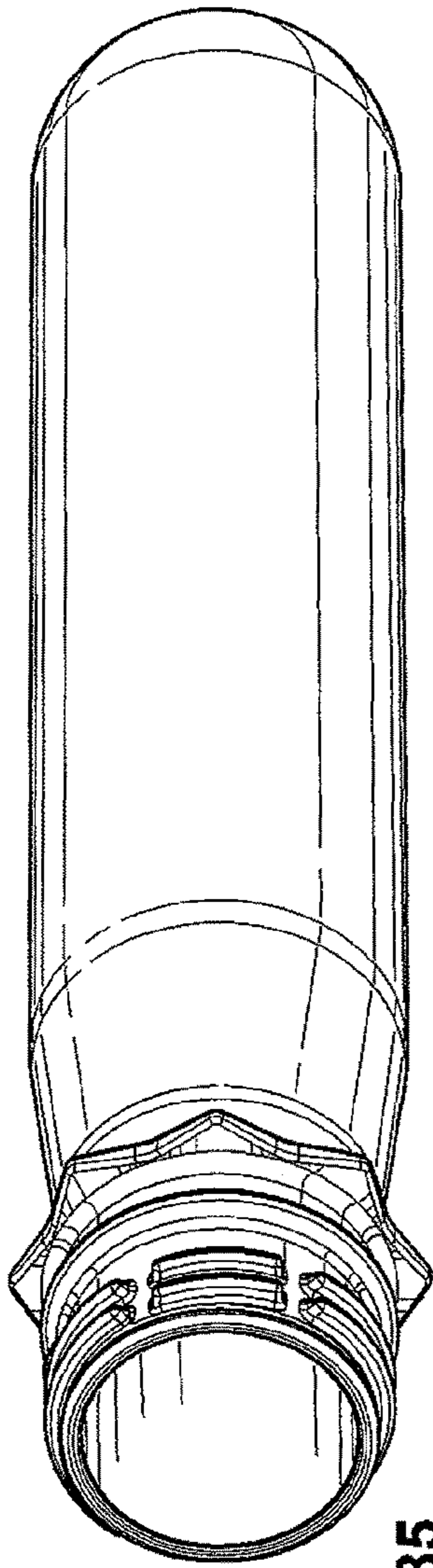
**FIG. 82**



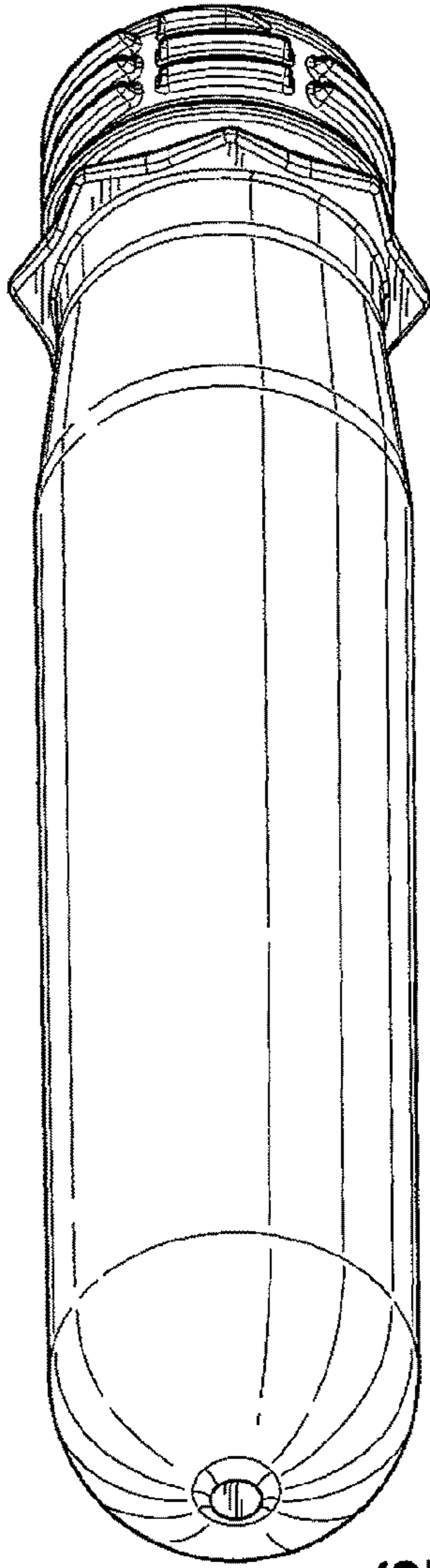
**FIG. 83**



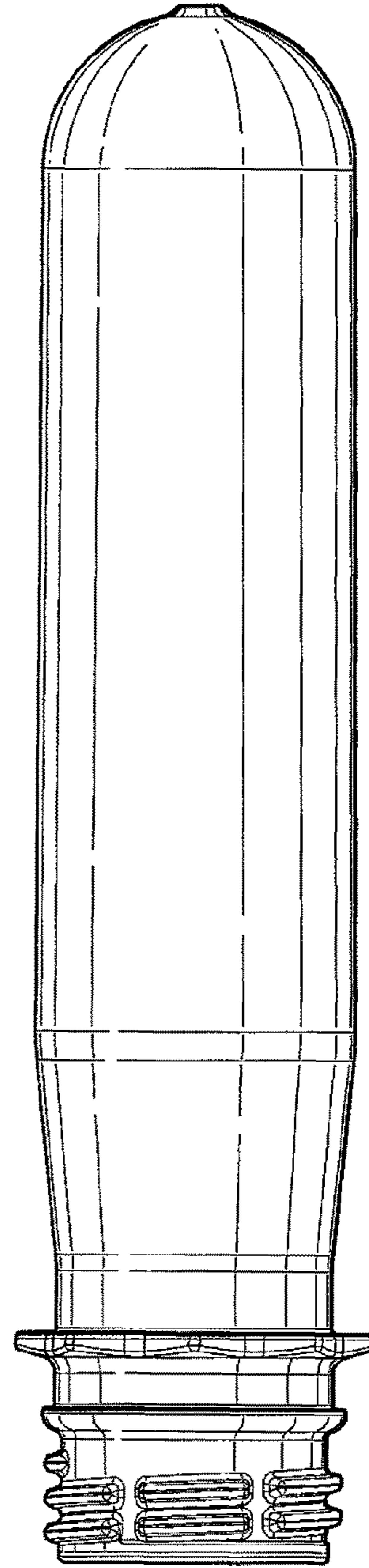
**FIG. 84**



**FIG. 85**

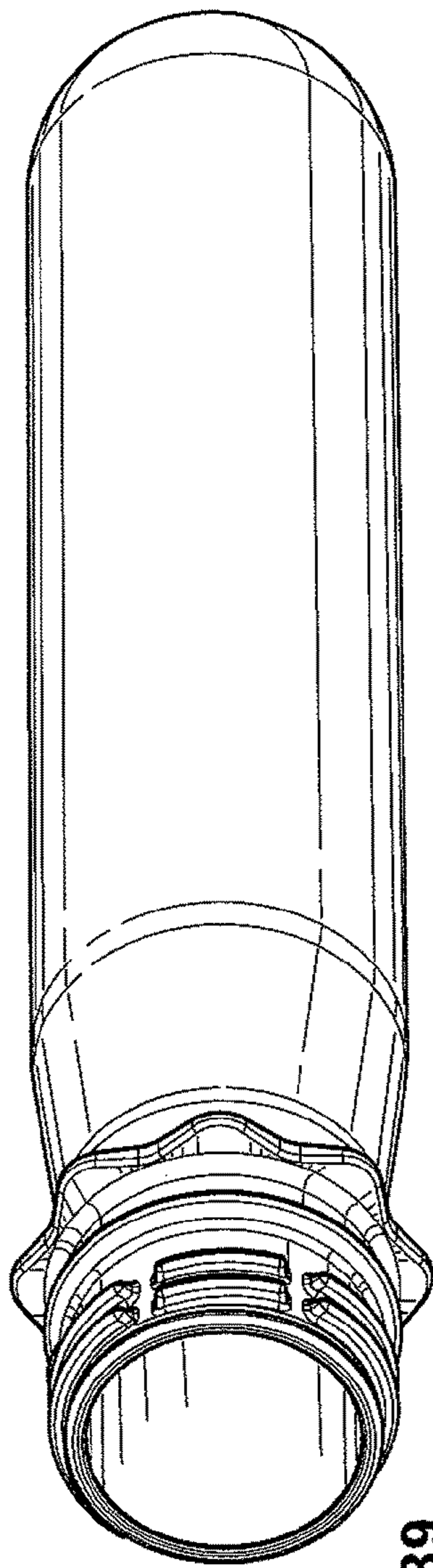


**FIG. 86**

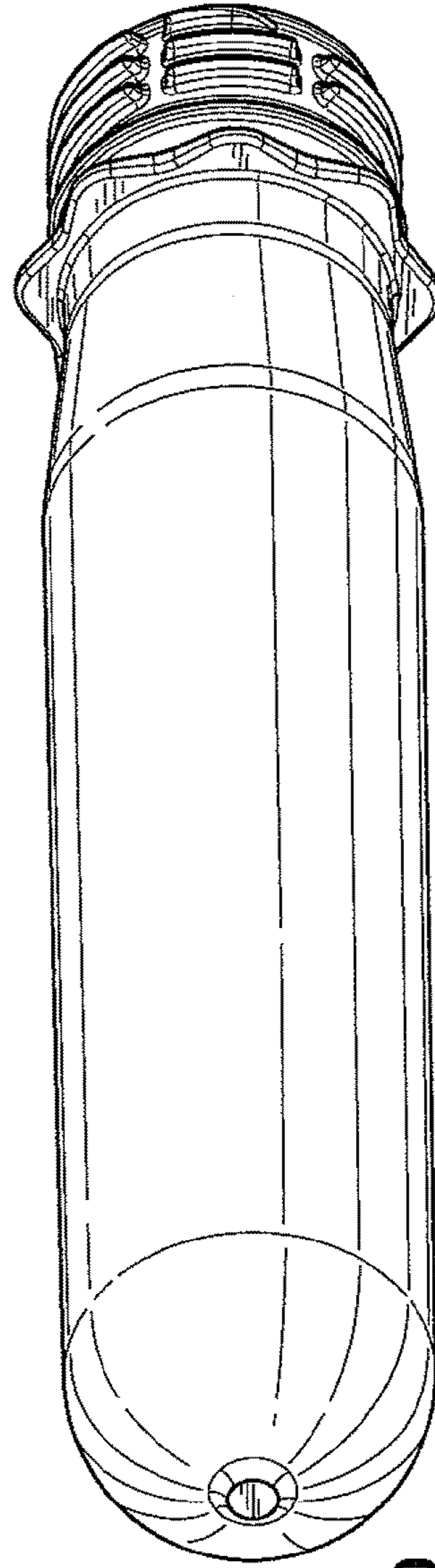


**FIG. 87**

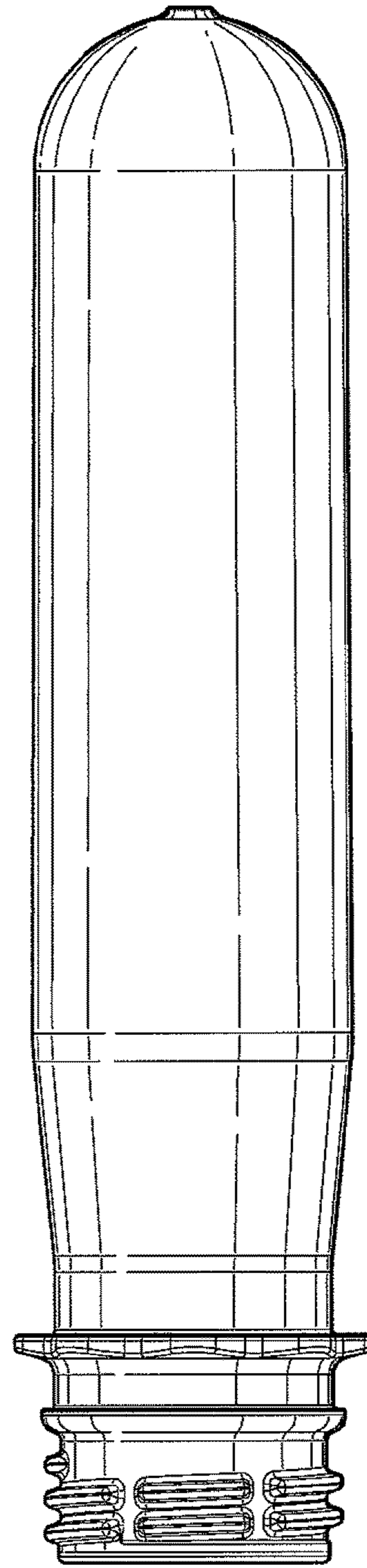
**FIG. 88**



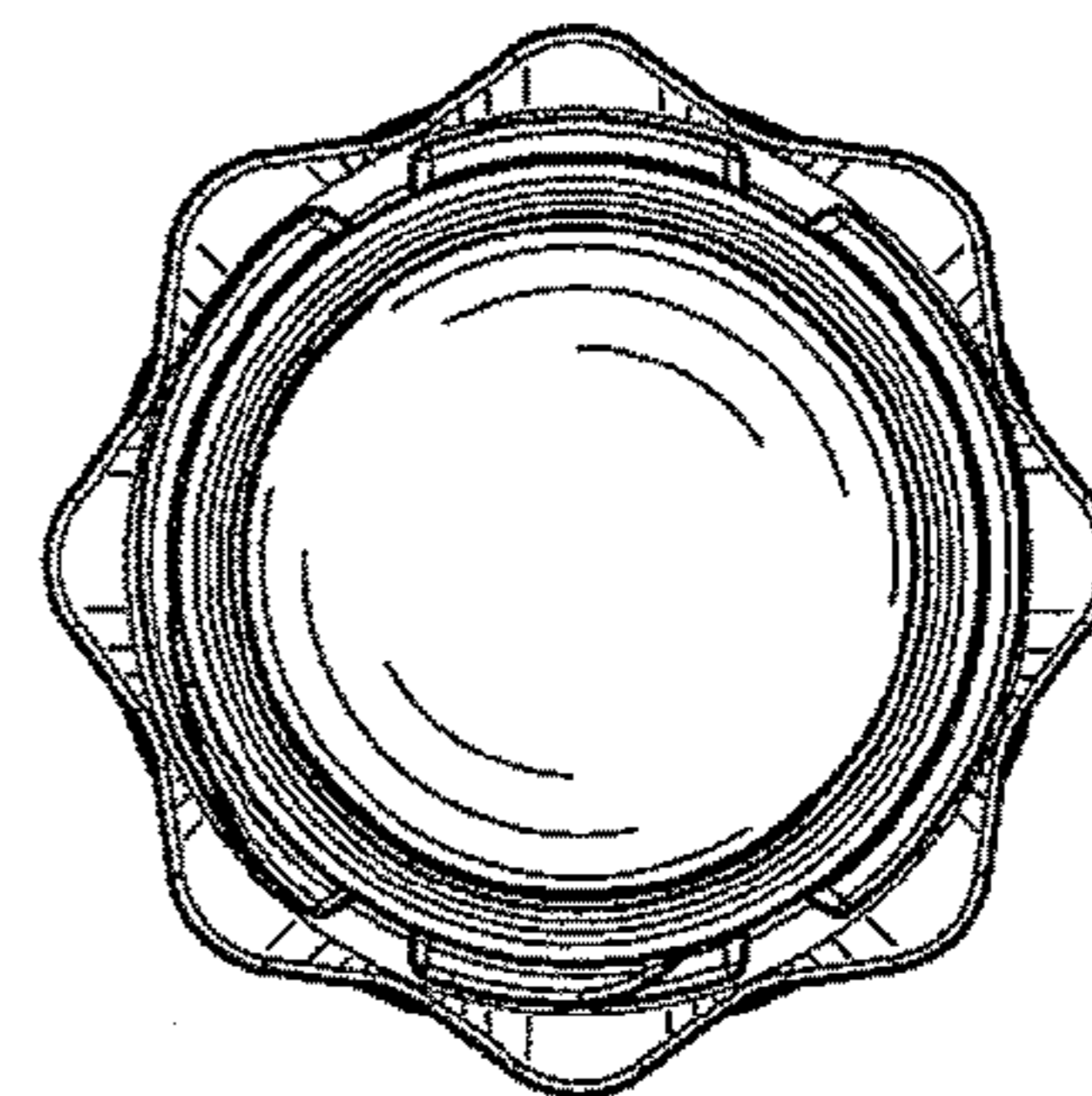
**FIG. 89**



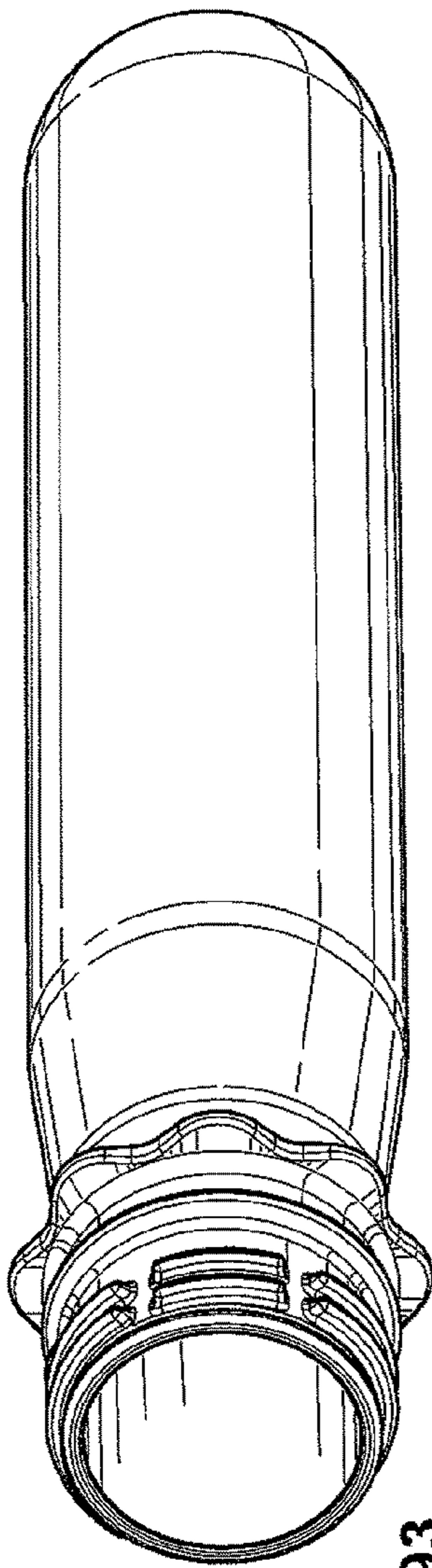
**FIG. 90**



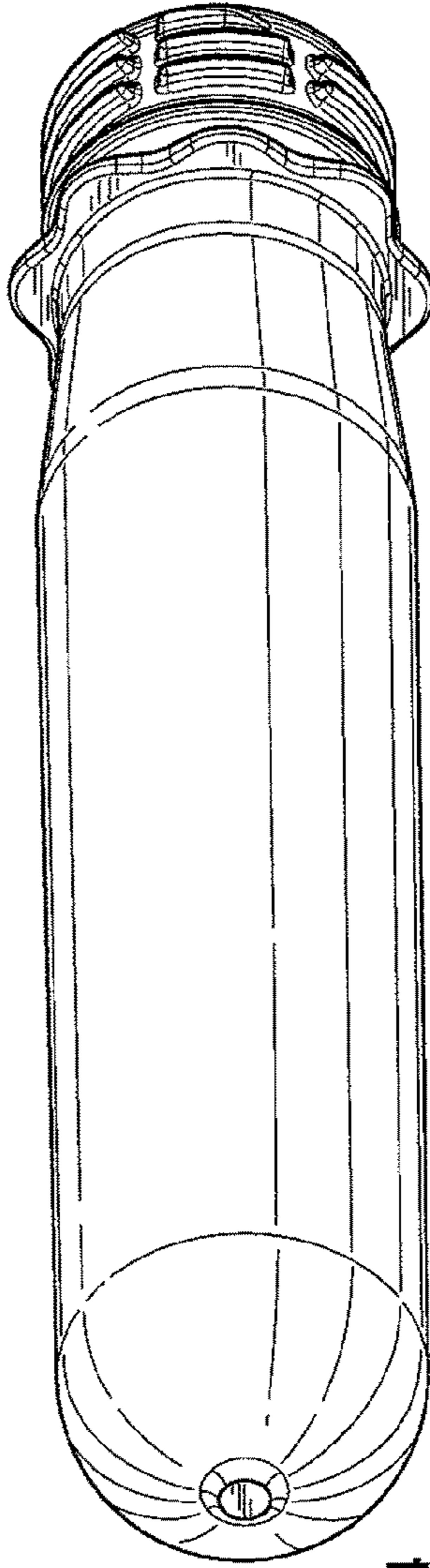
**FIG. 91**



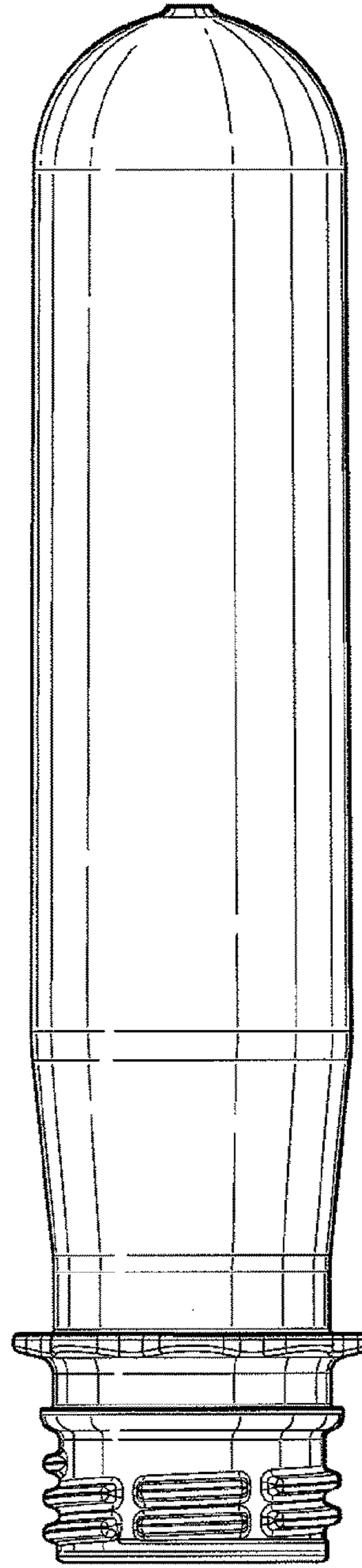
**FIG. 92**



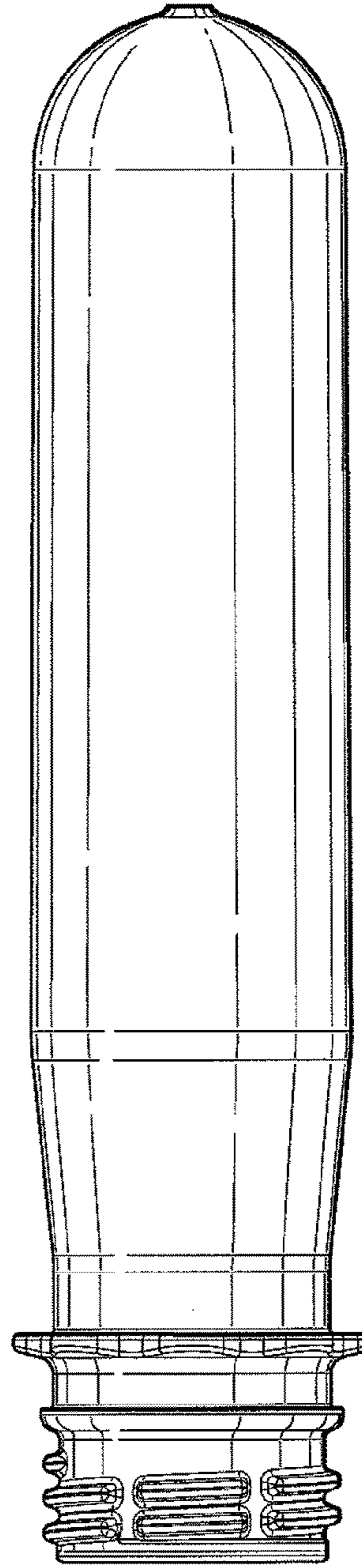
**FIG. 93**



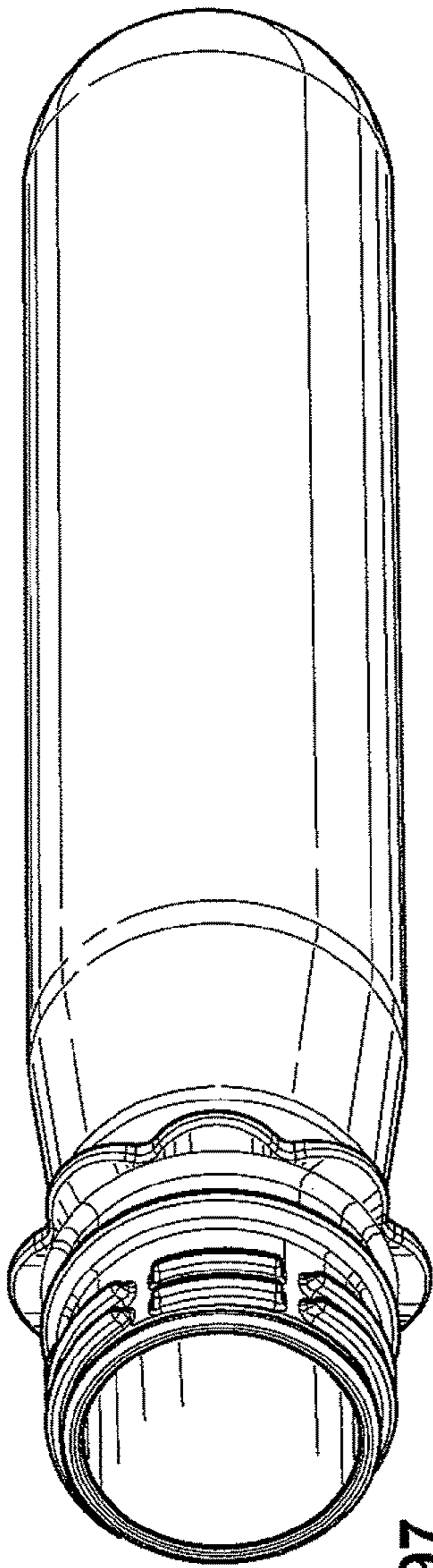
**FIG. 94**



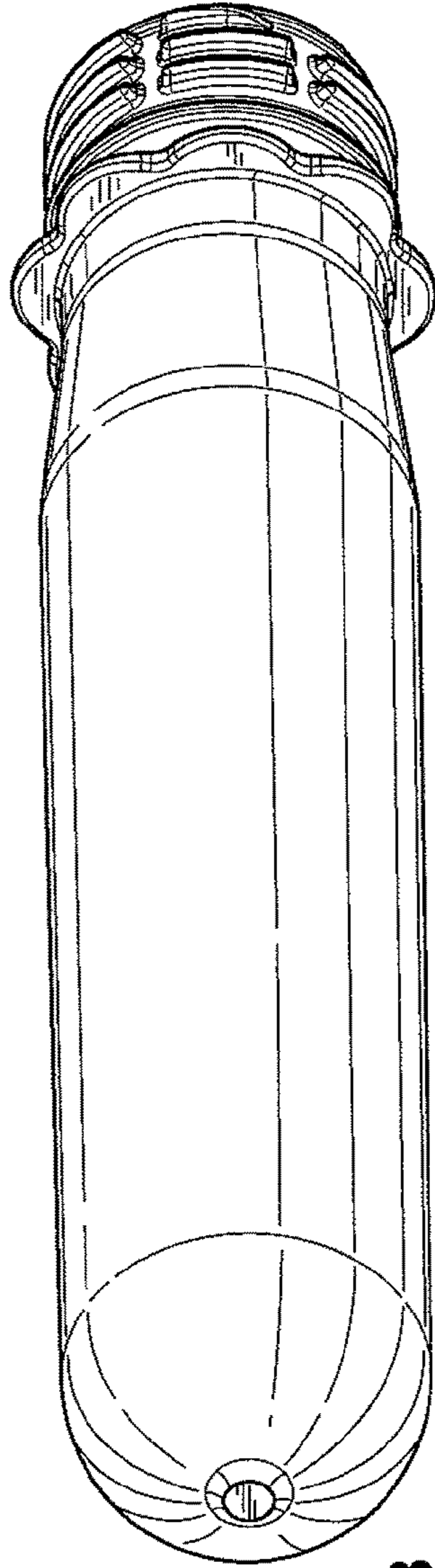
**FIG. 95**



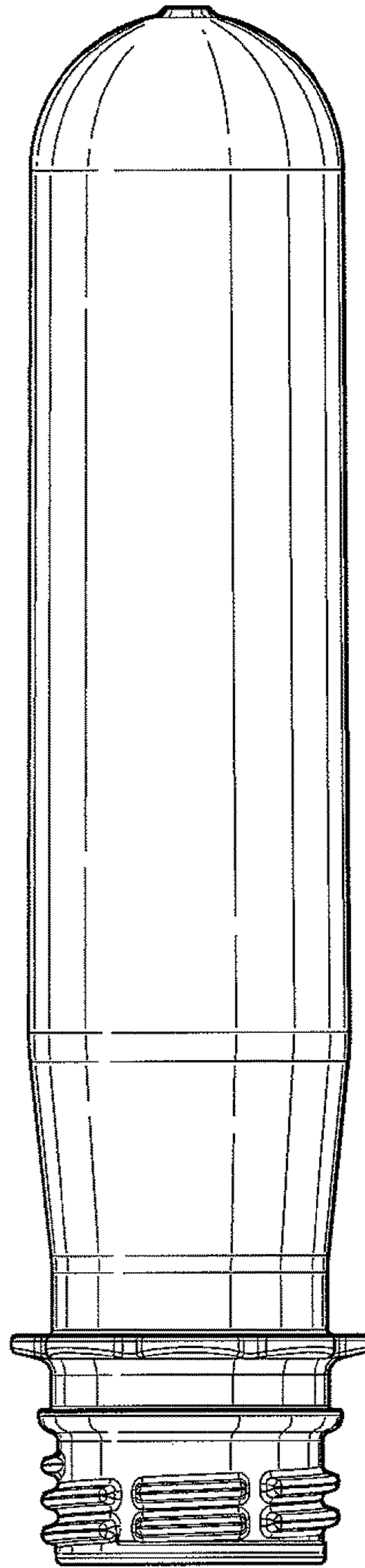
**FIG. 96**



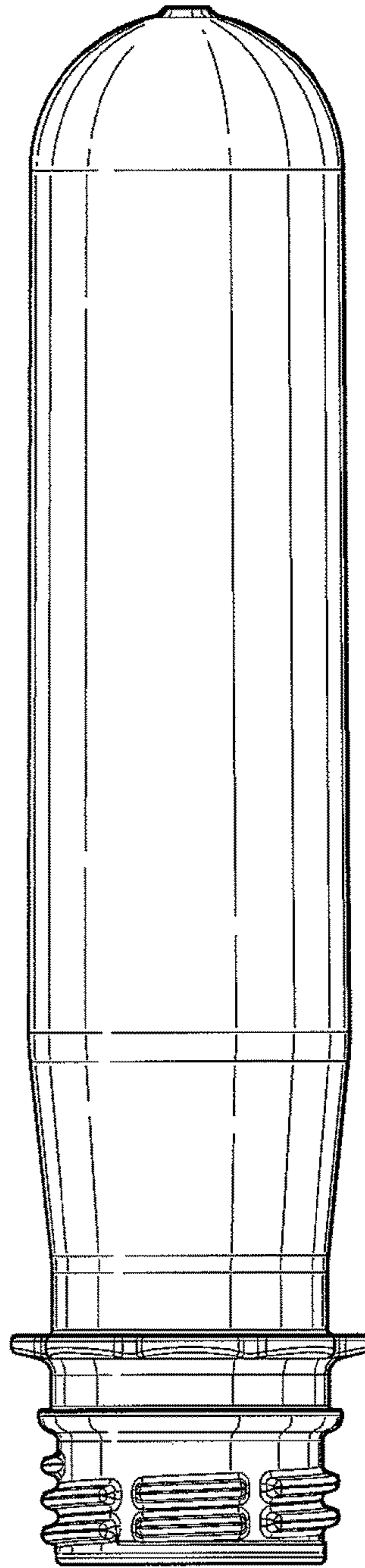
**FIG. 97**



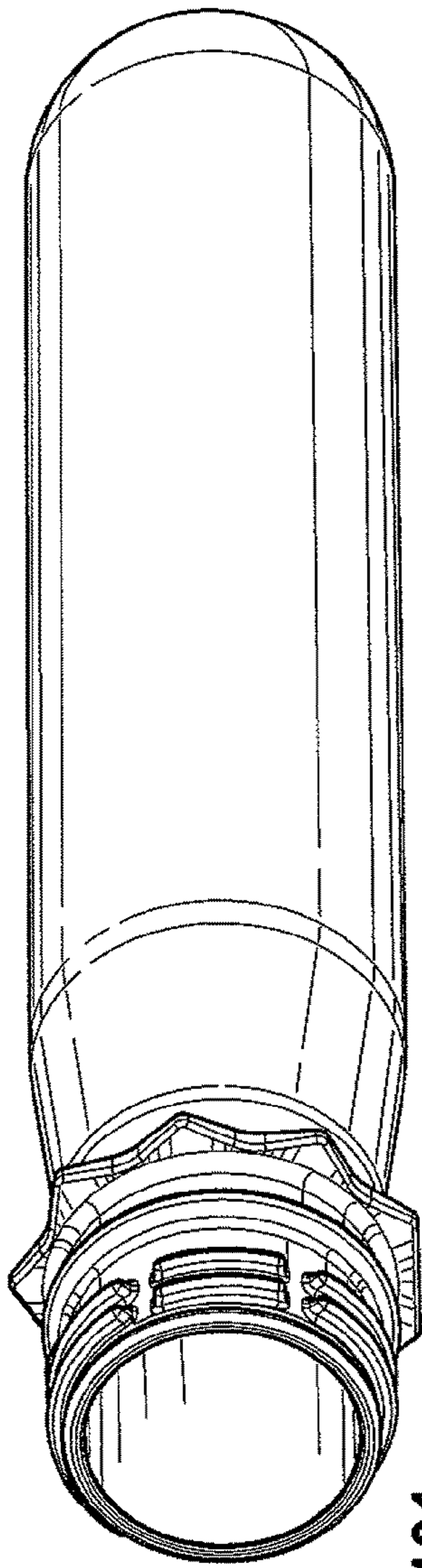
**FIG. 98**



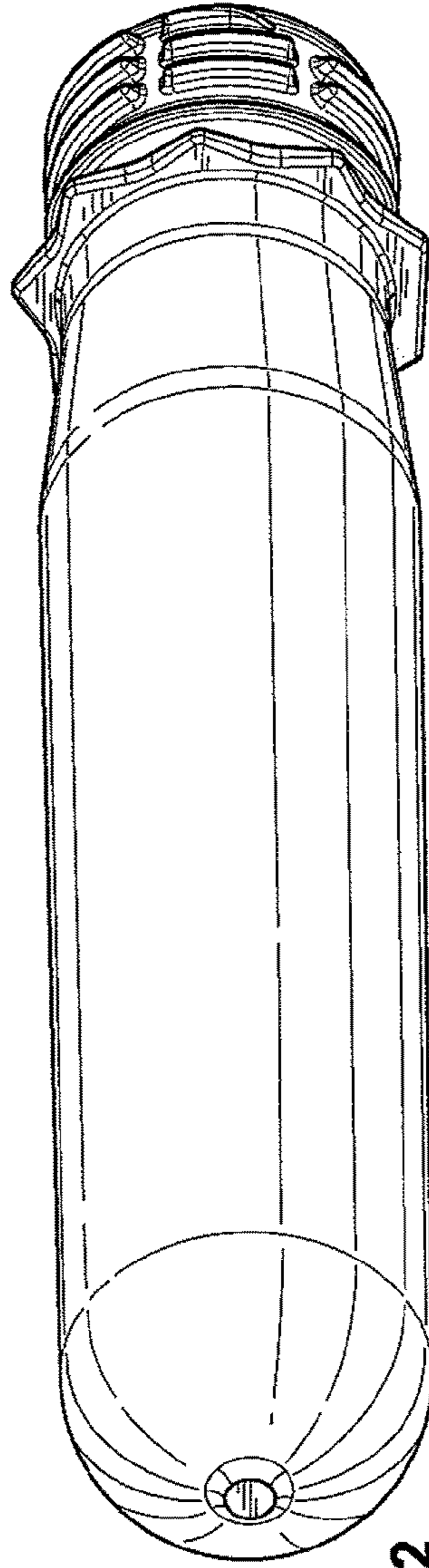
**FIG. 99**



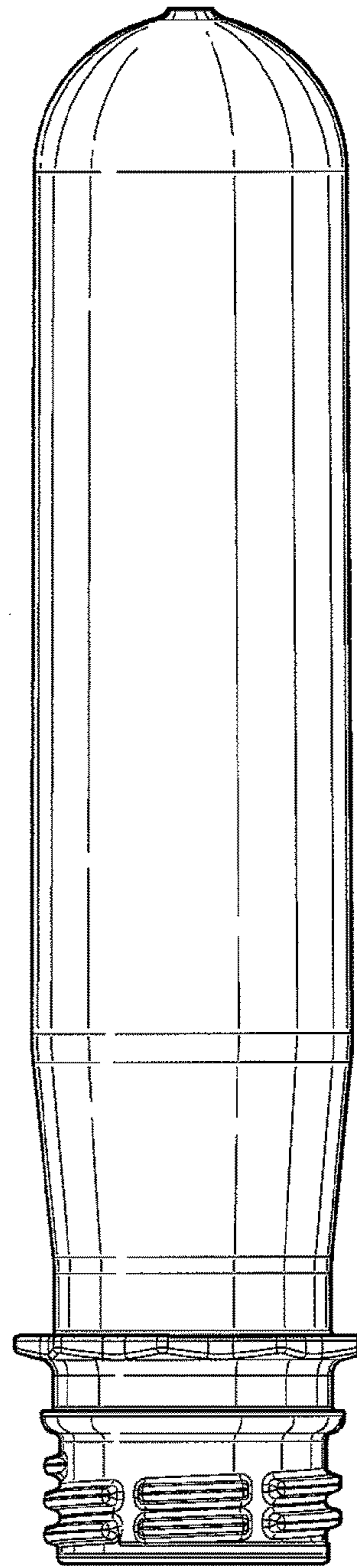
**FIG. 100**



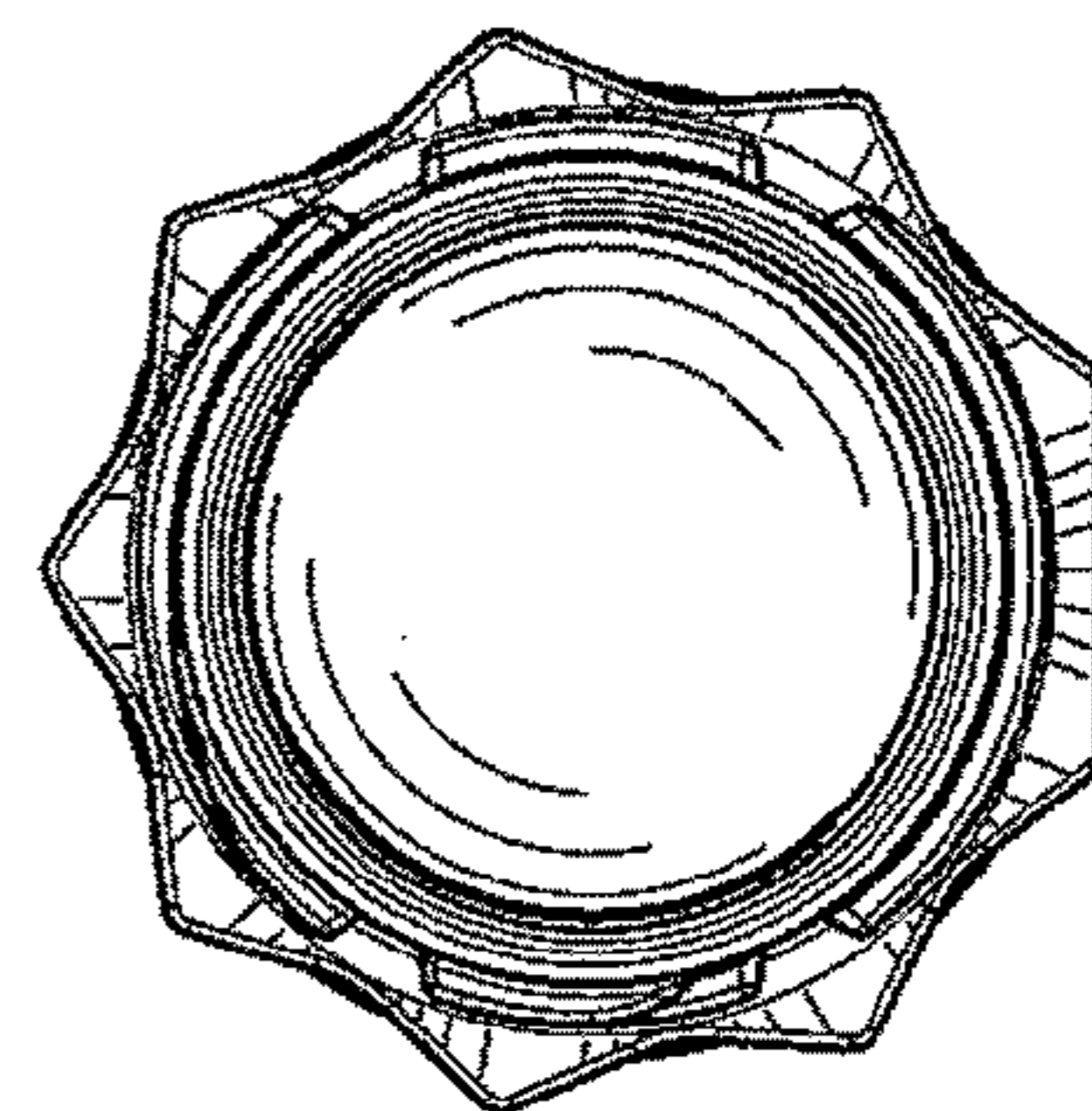
**FIG. 101**



**FIG. 102**



**FIG. 103**



**FIG. 104**

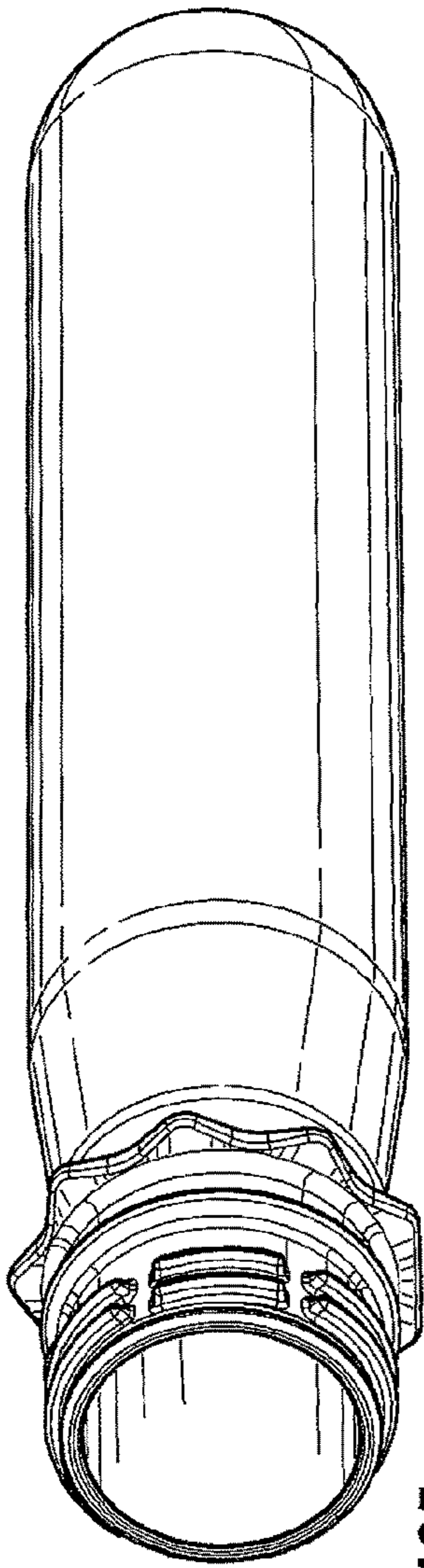


FIG. 105

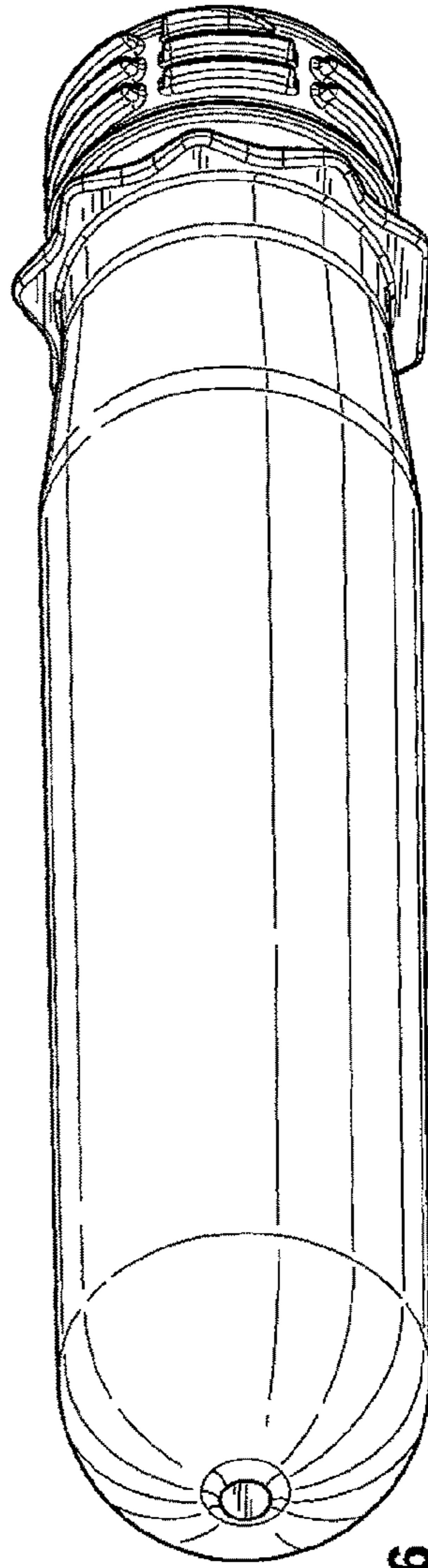


FIG. 106

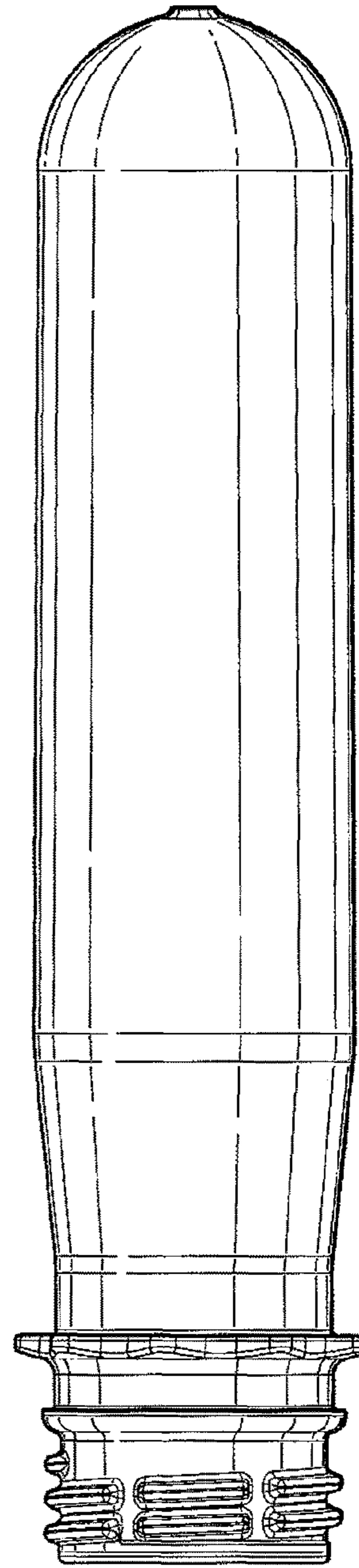


FIG. 107

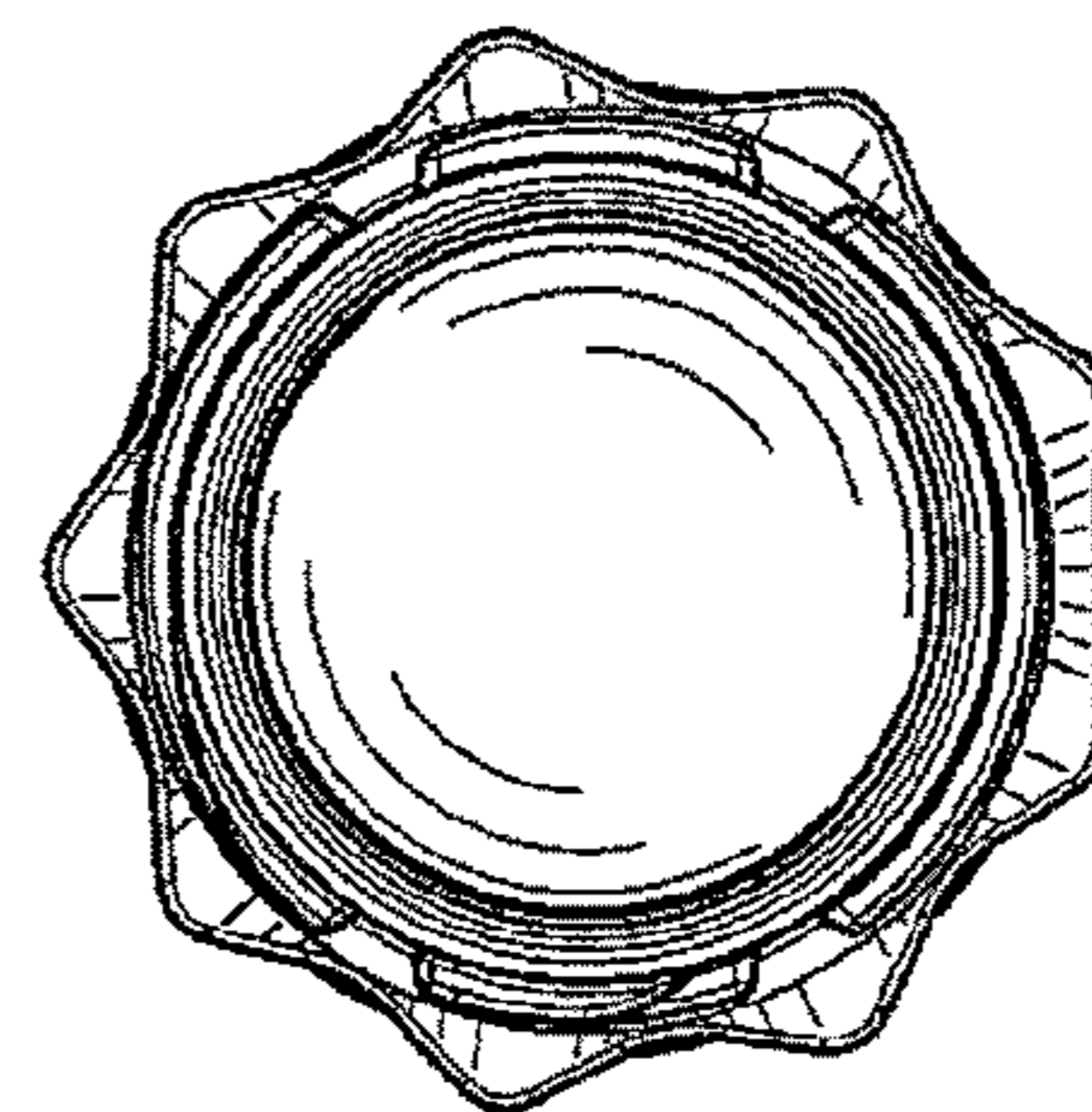
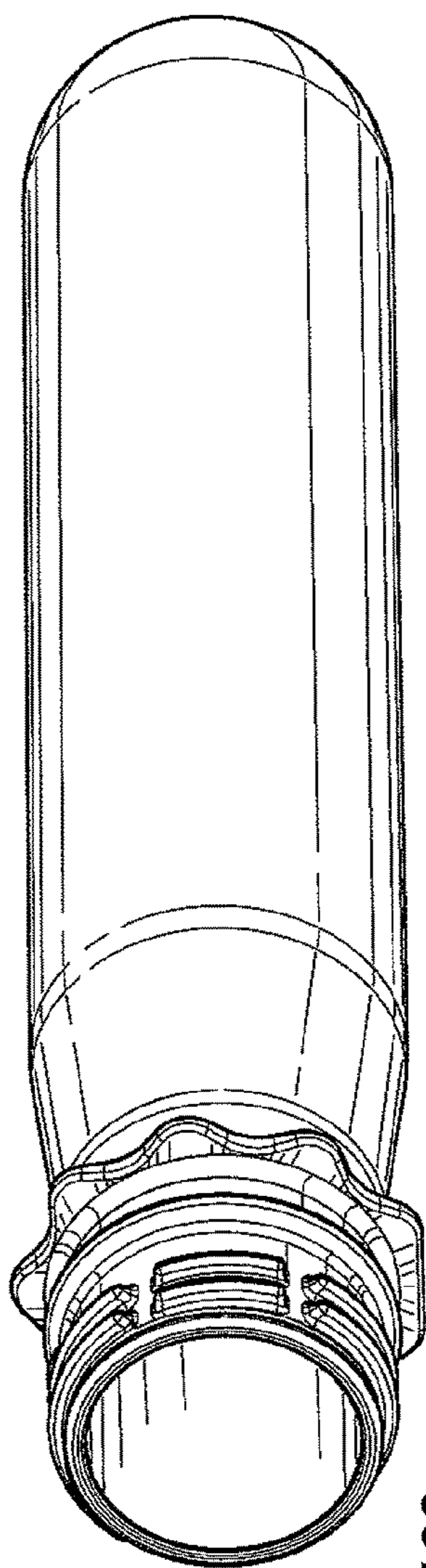
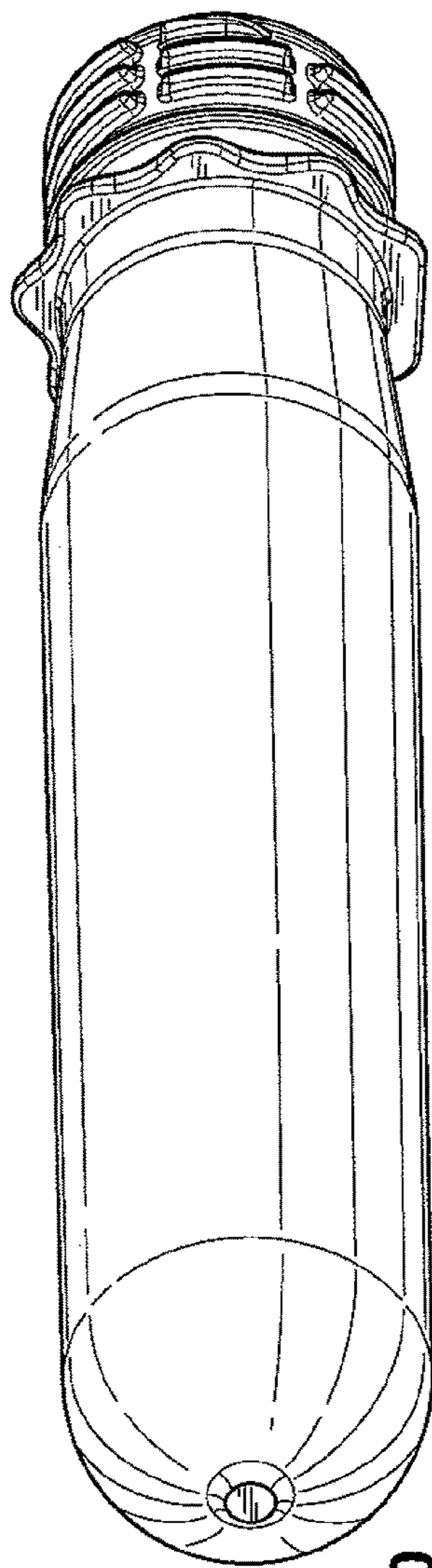


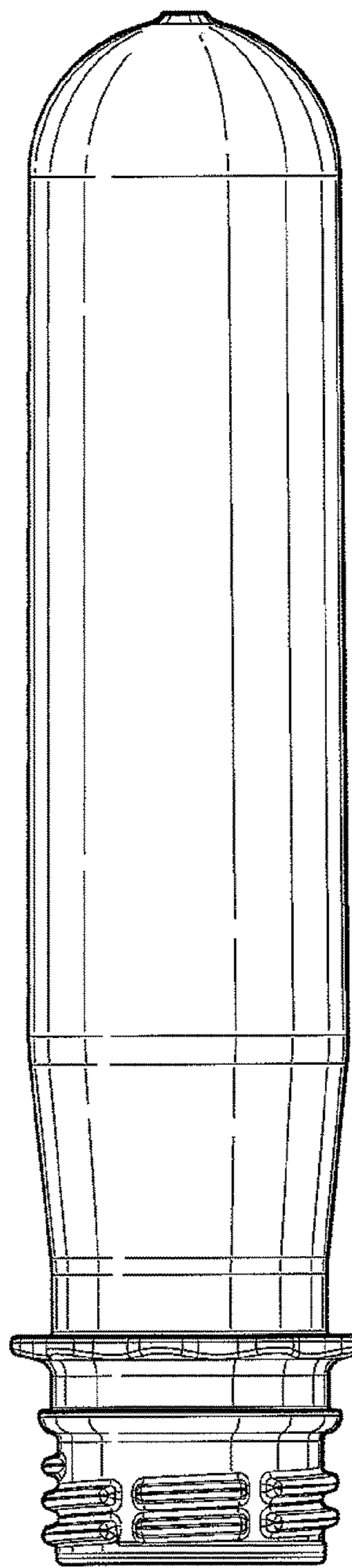
FIG. 108



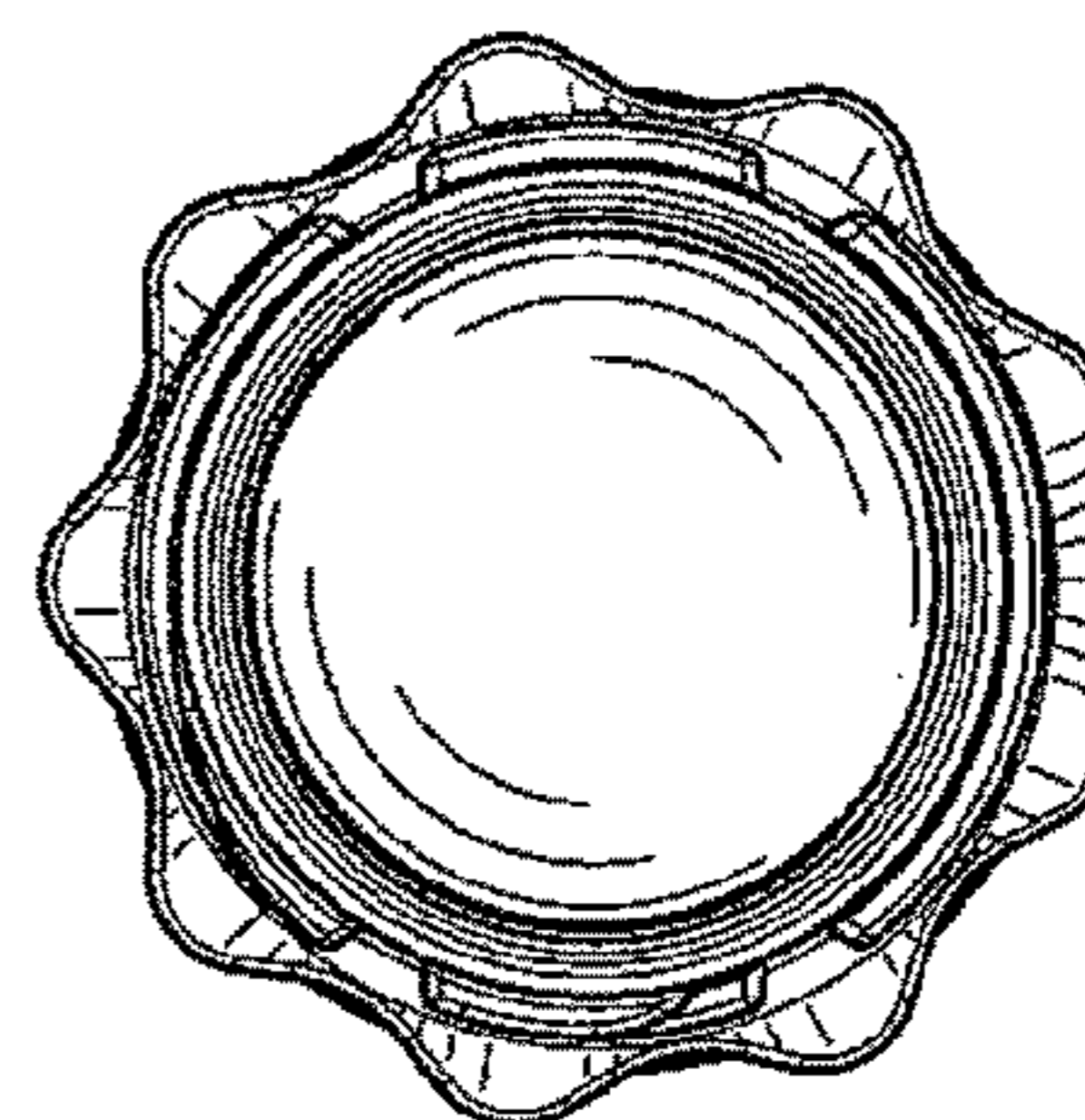
**FIG. 109**



**FIG. 110**



**FIG. 111**



**FIG. 112**



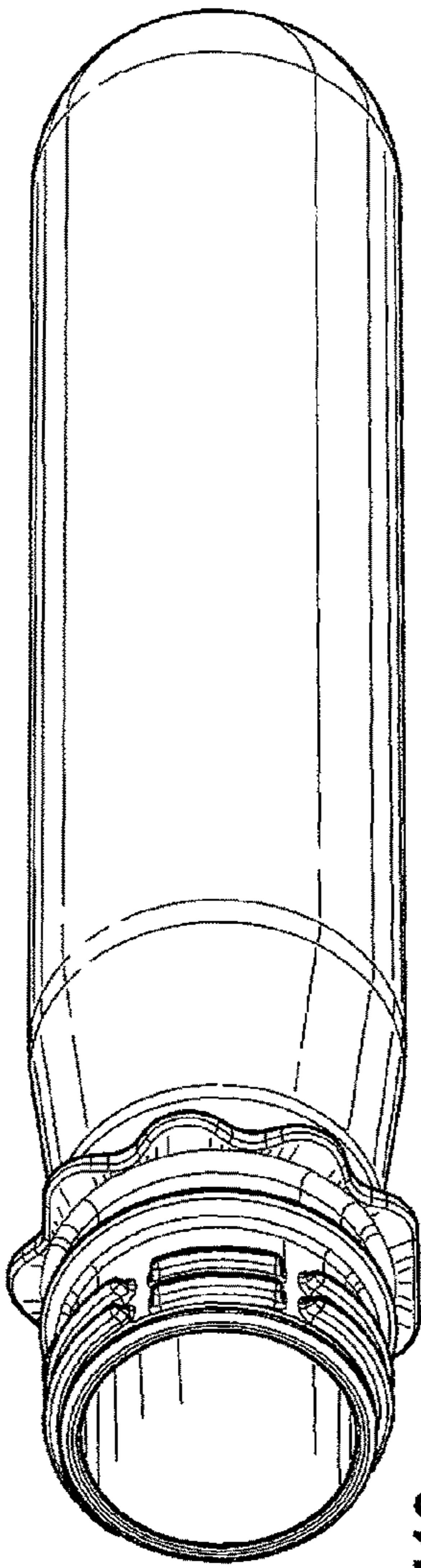


FIG. 113

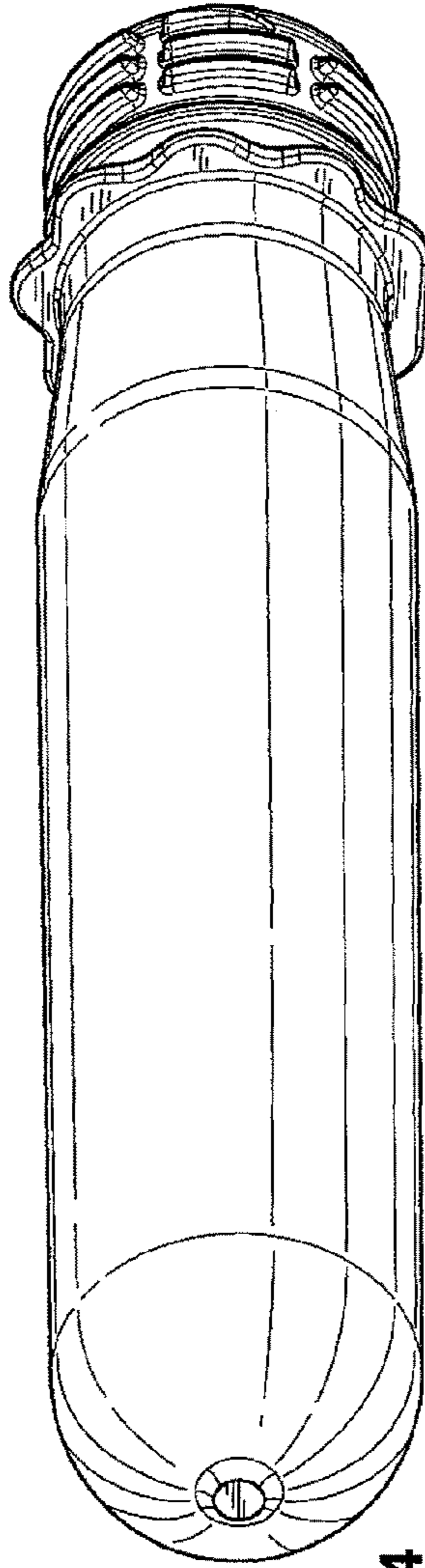


FIG. 114

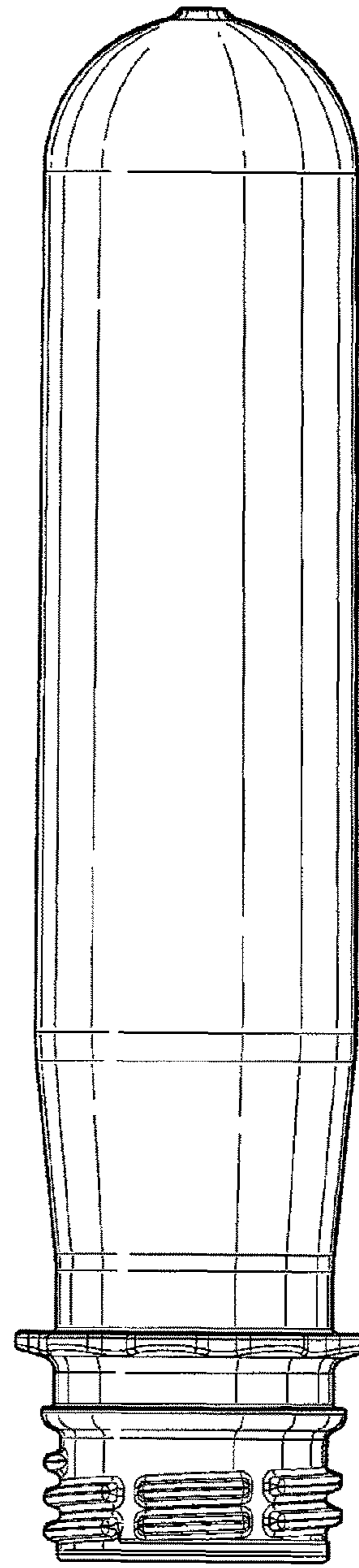


FIG. 116

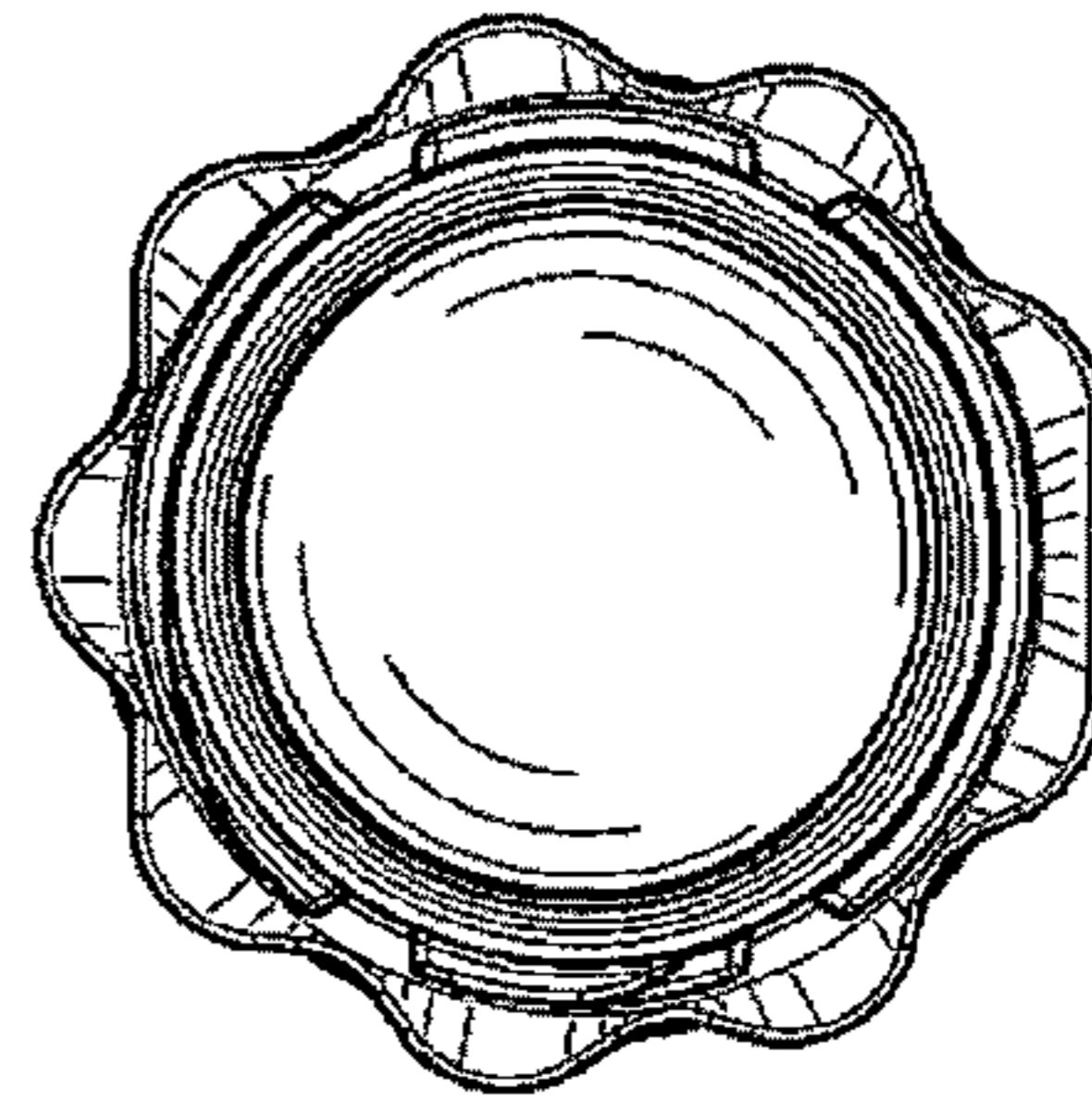


FIG. 115

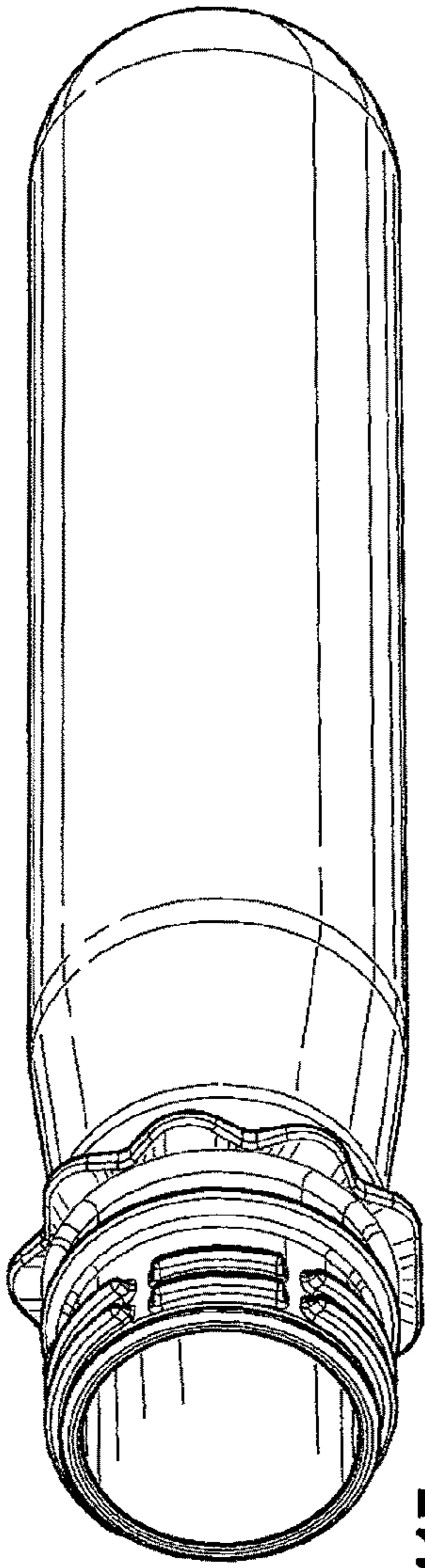


FIG. 117

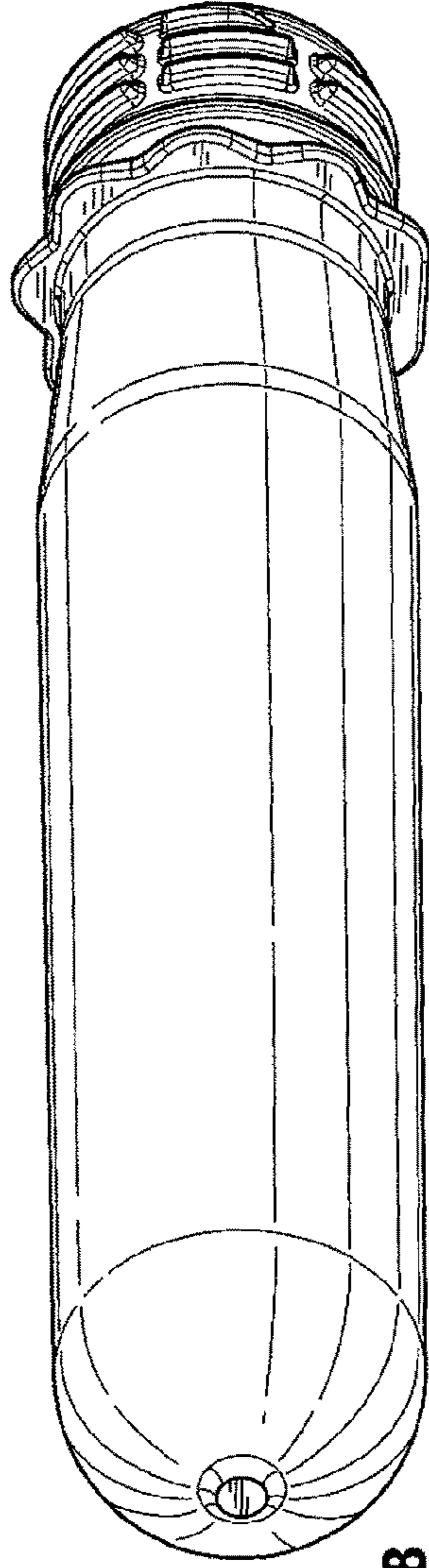


FIG. 118

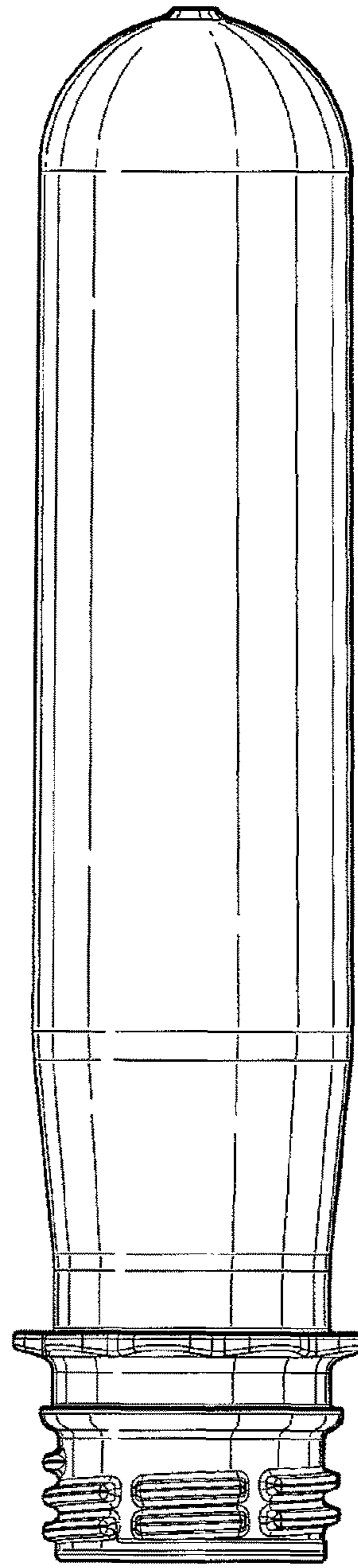


FIG. 120

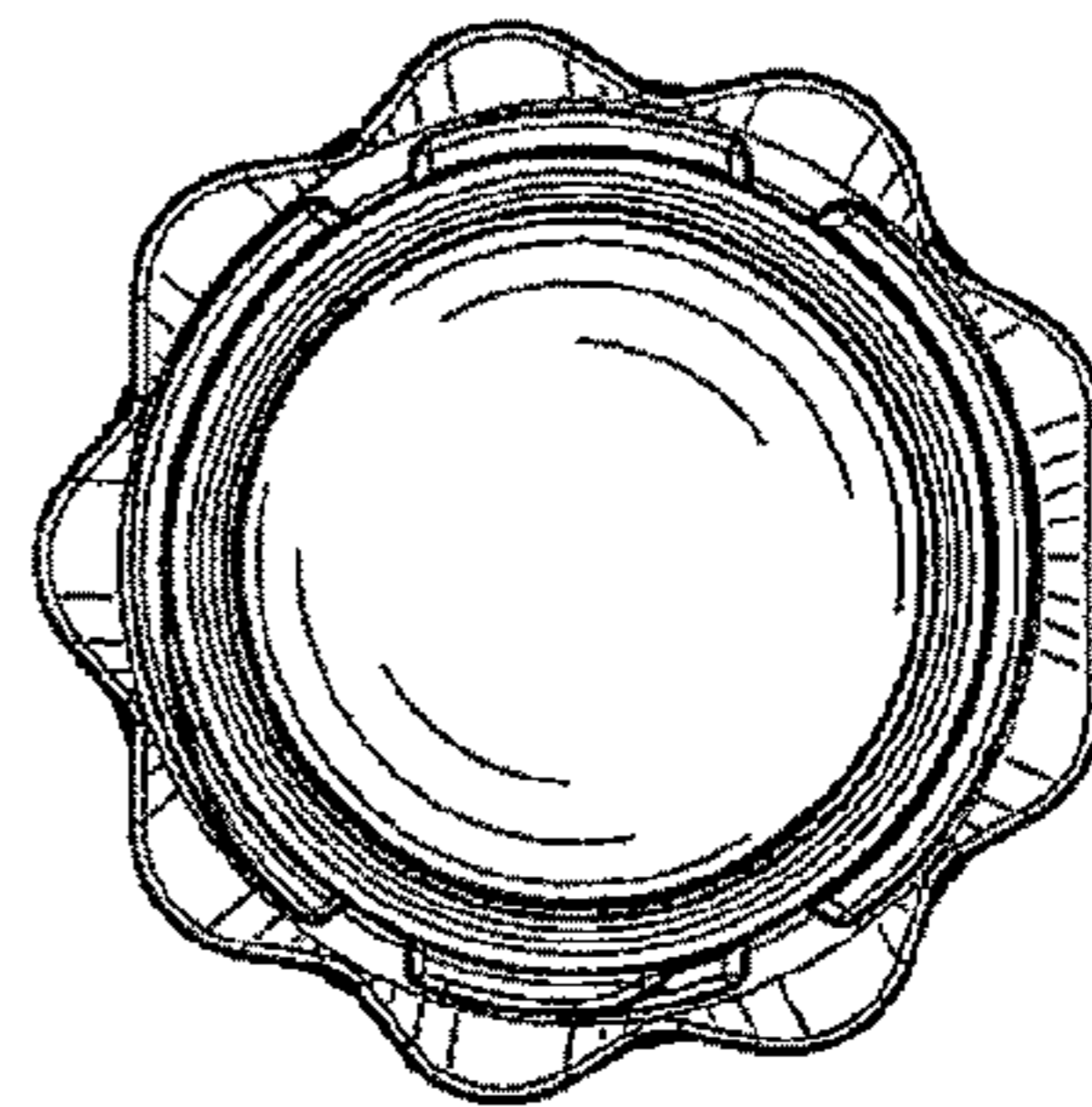


FIG. 119

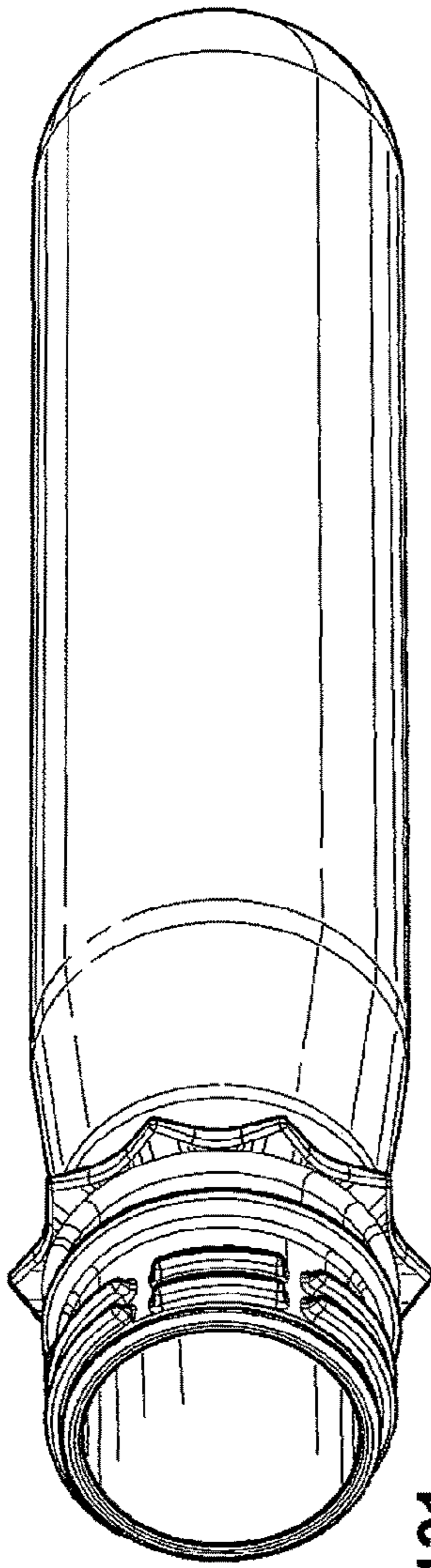


FIG. 121

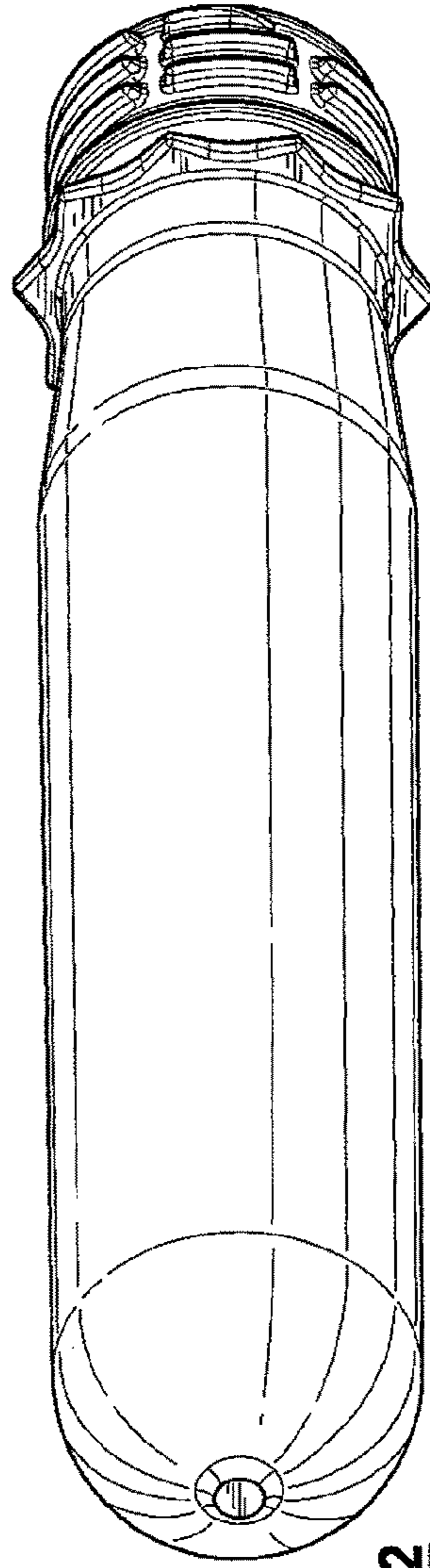


FIG. 122

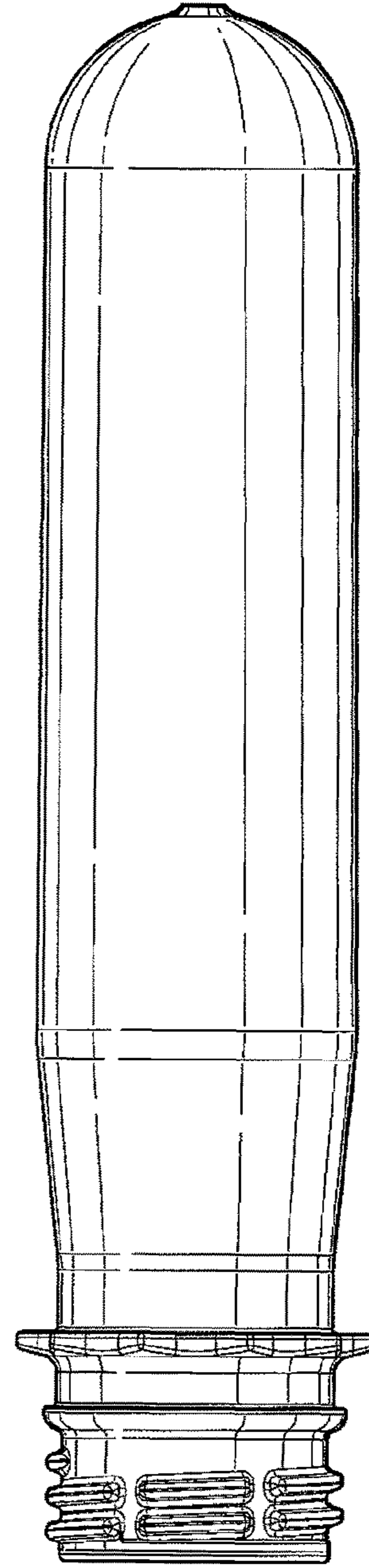


FIG. 124

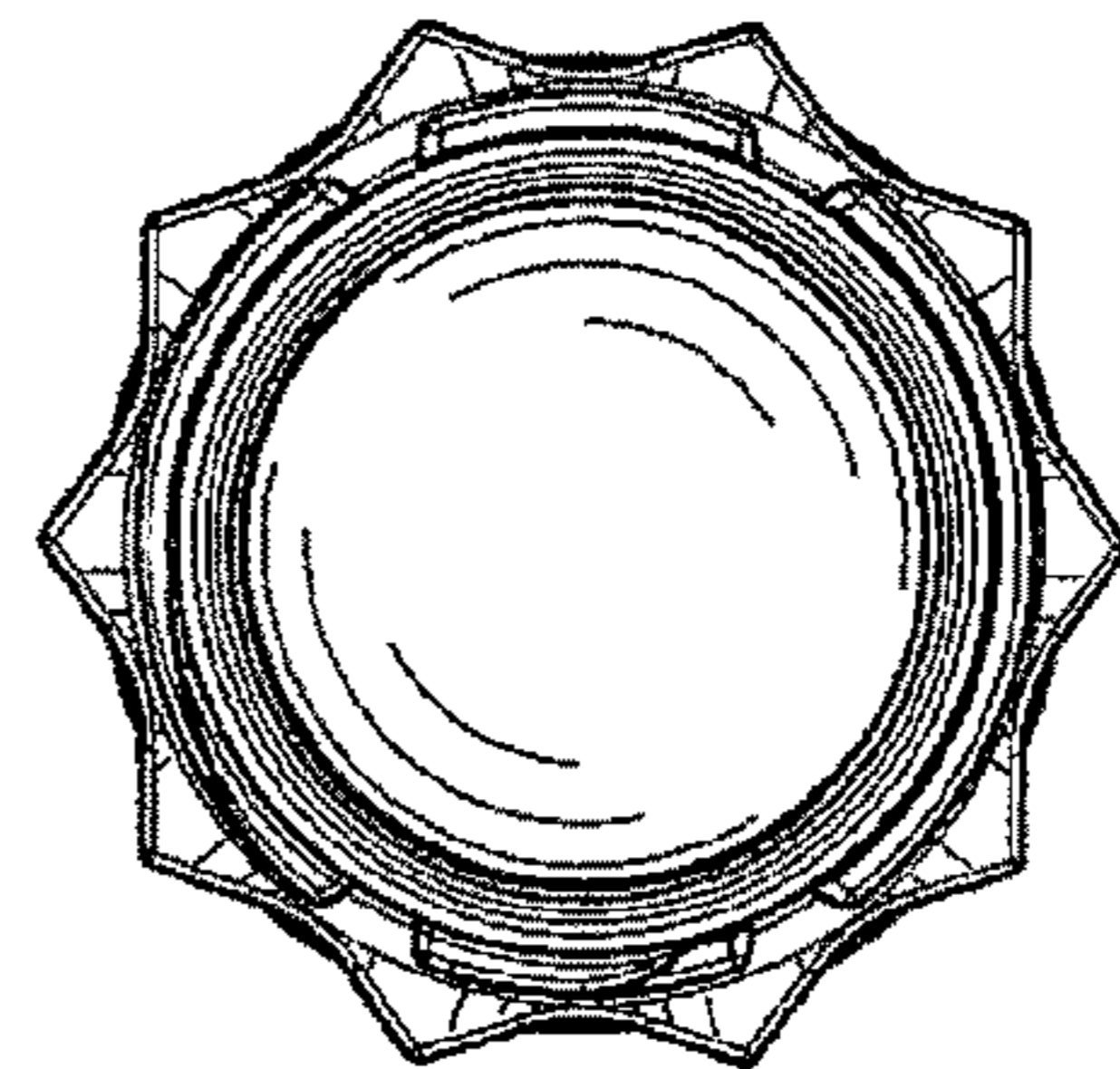


FIG. 123

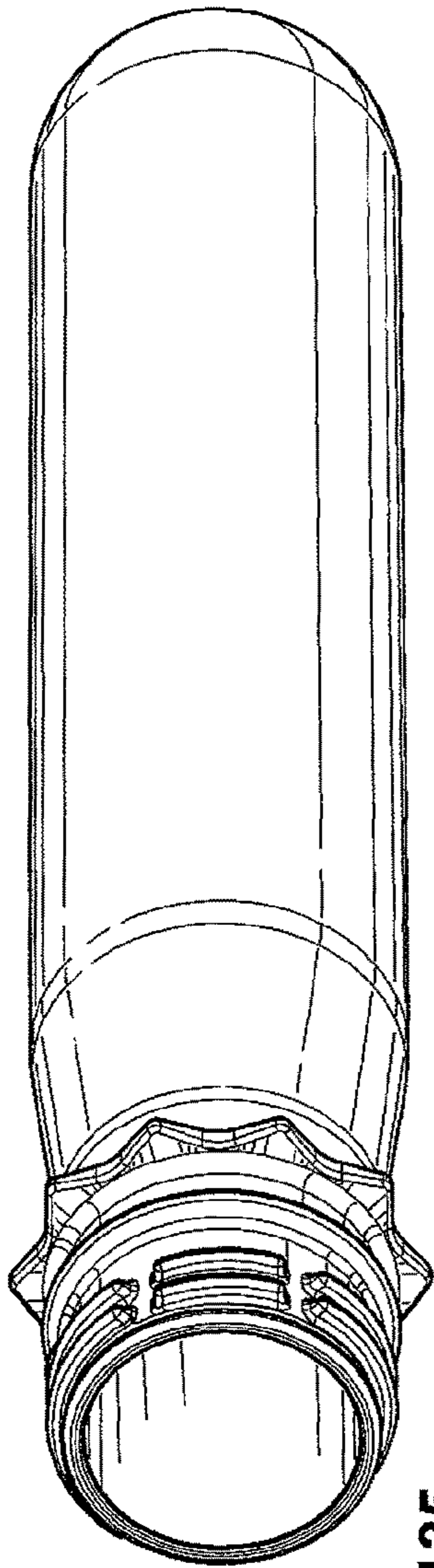


FIG. 125

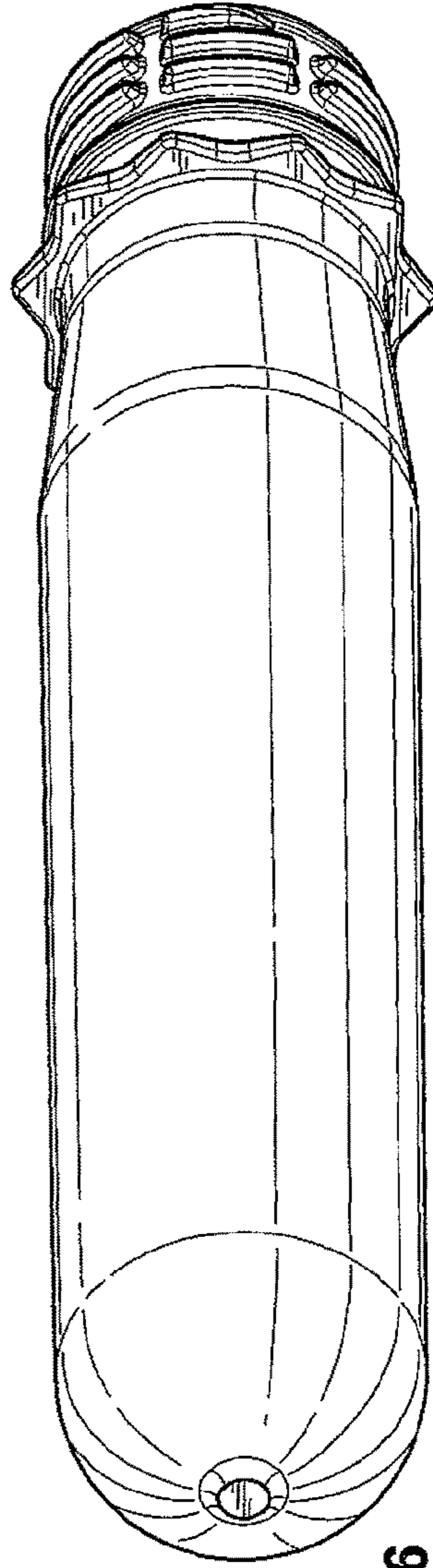


FIG. 126

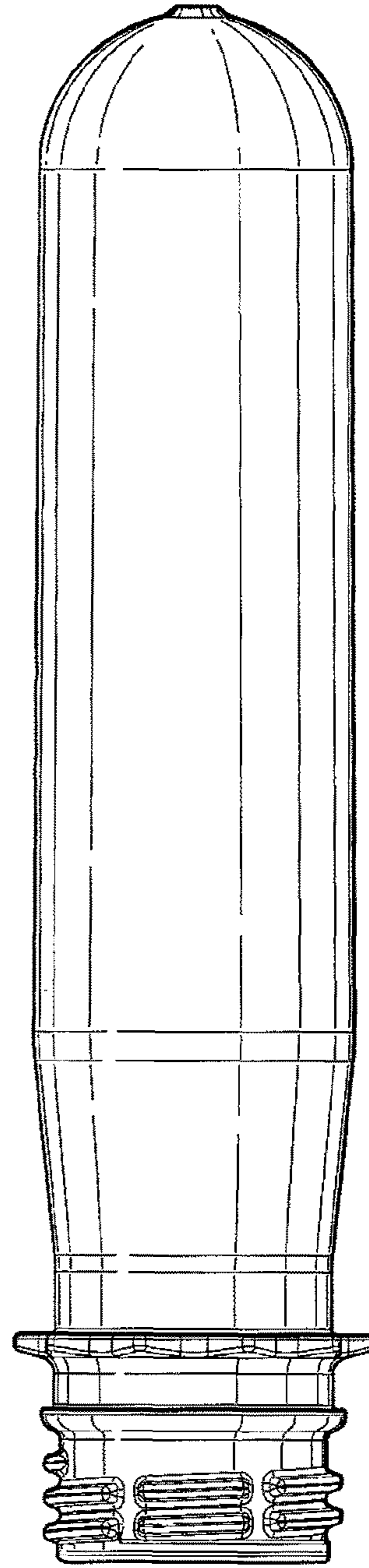


FIG. 127

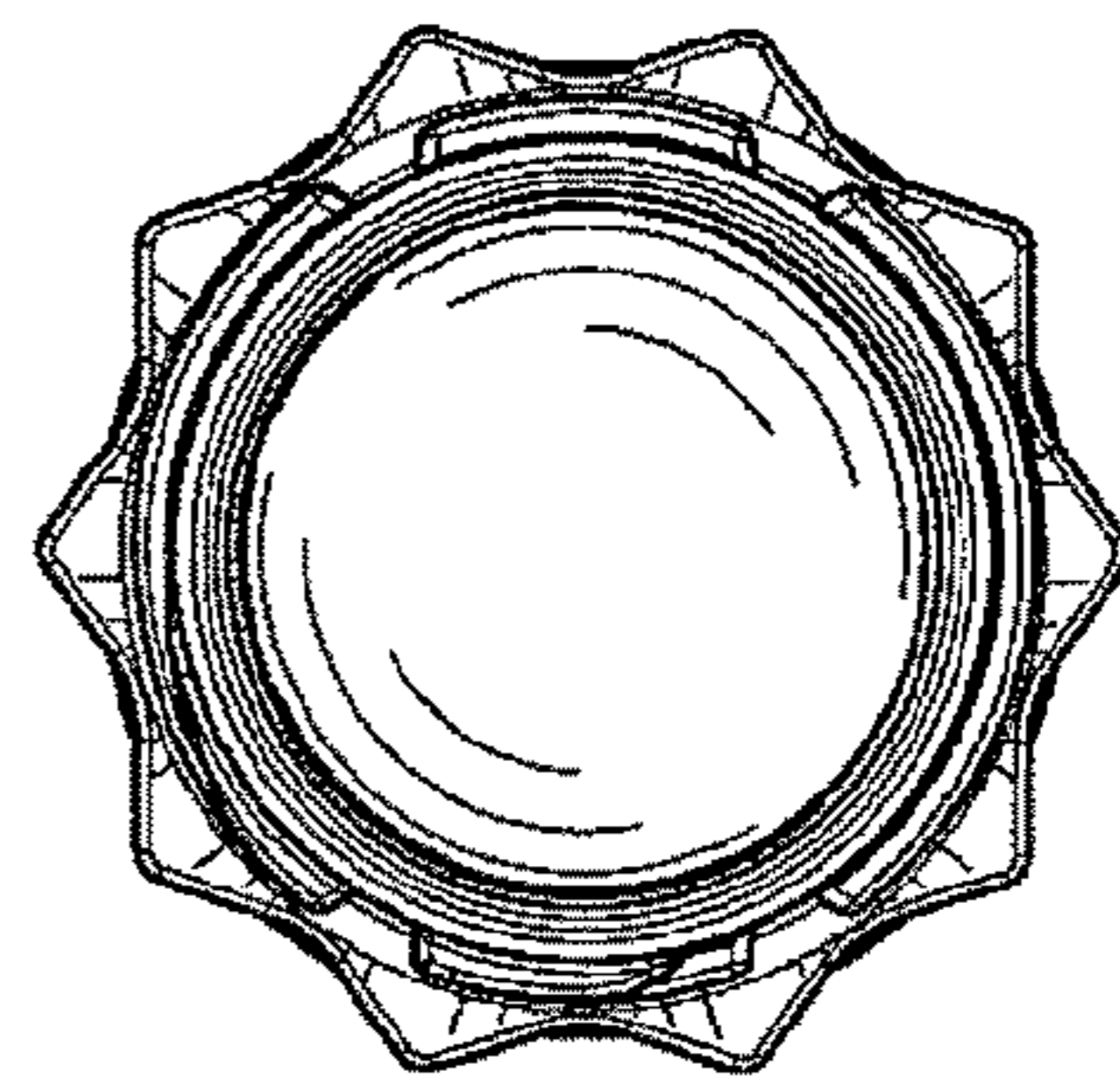
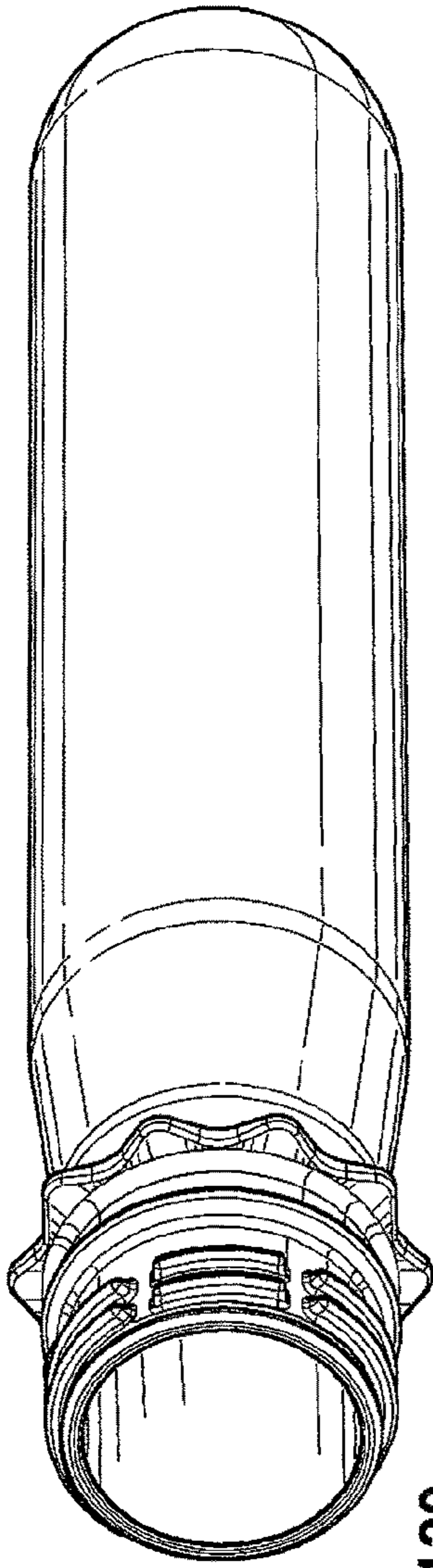
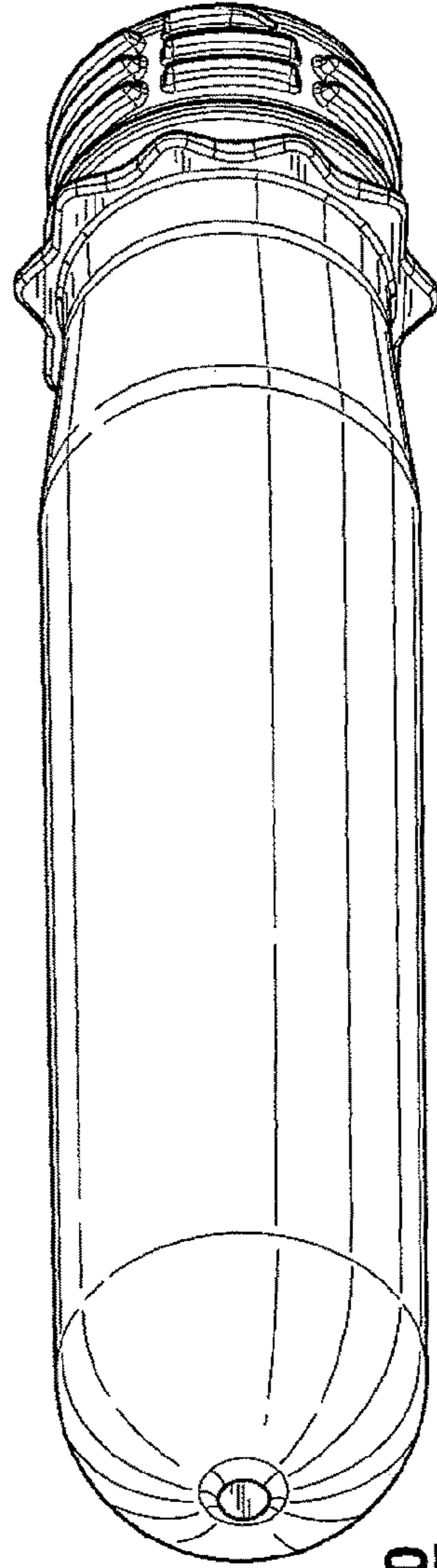


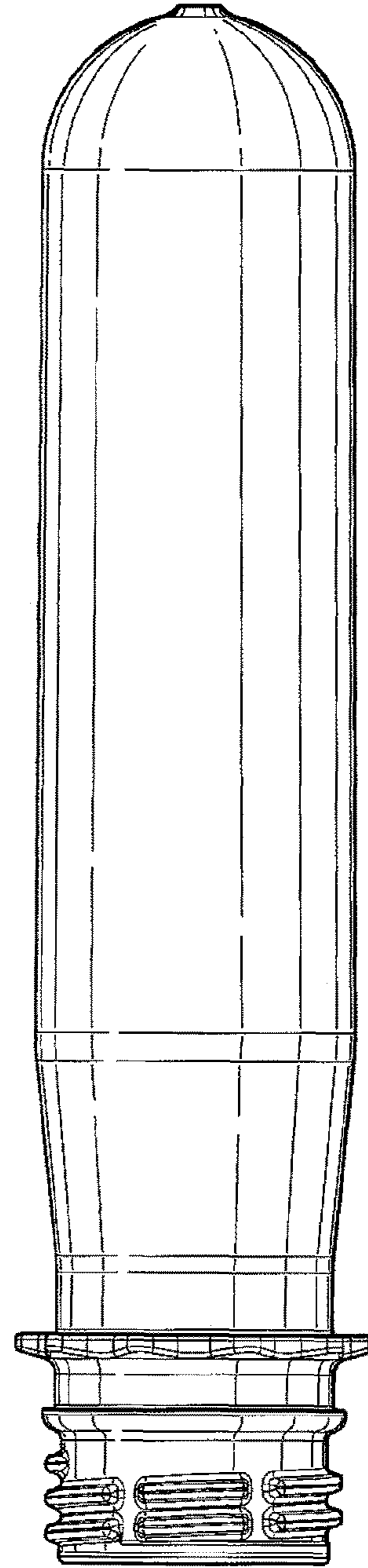
FIG. 128



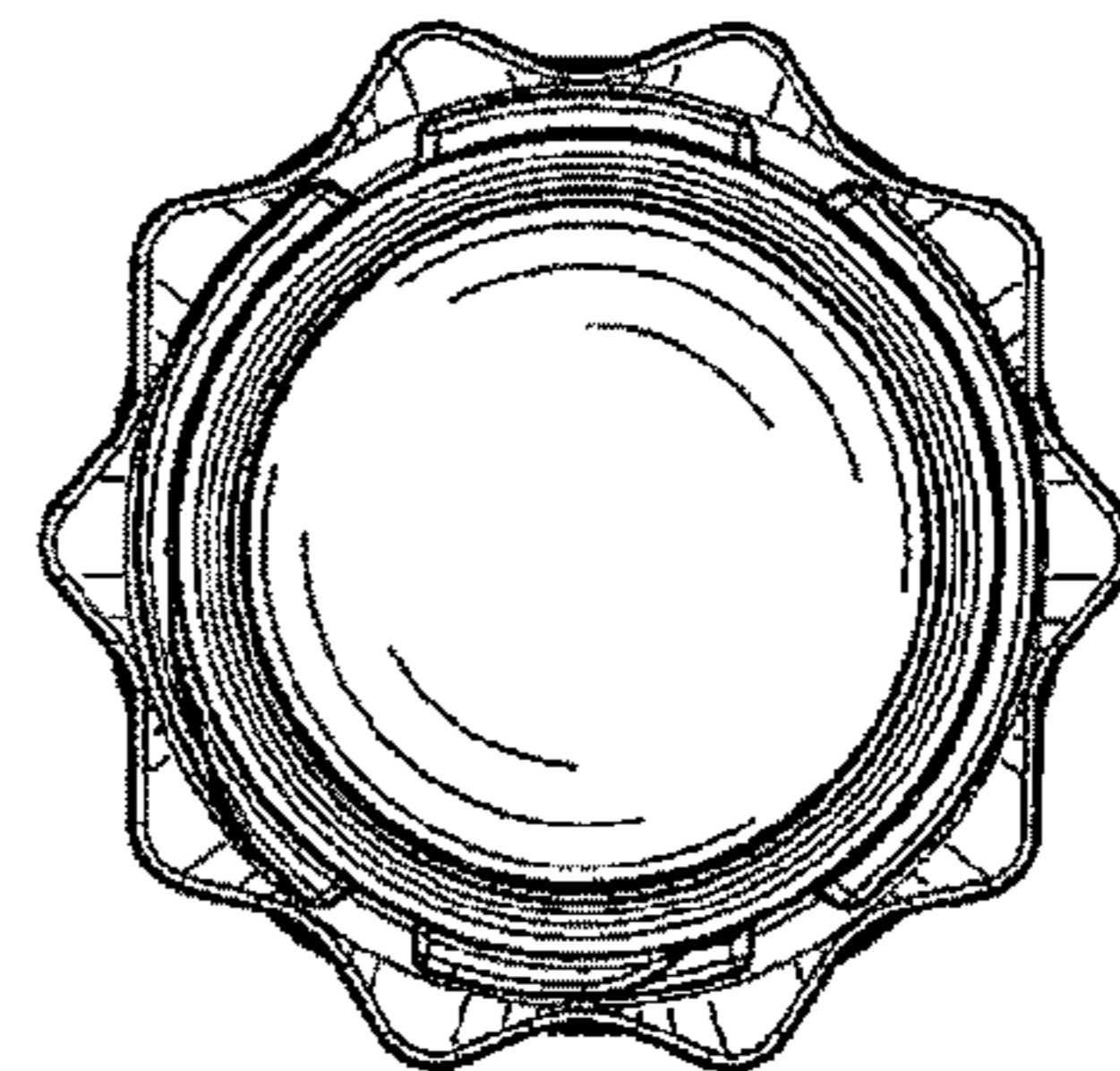
**FIG. 129**



**FIG. 130**



**FIG. 132**



**FIG. 131**

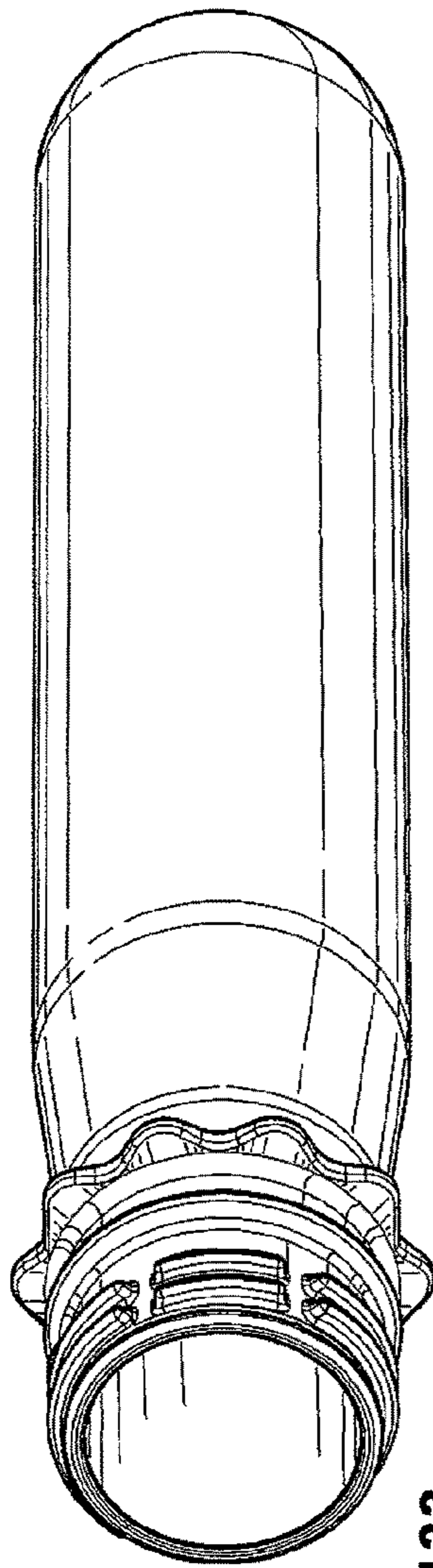


FIG. 133

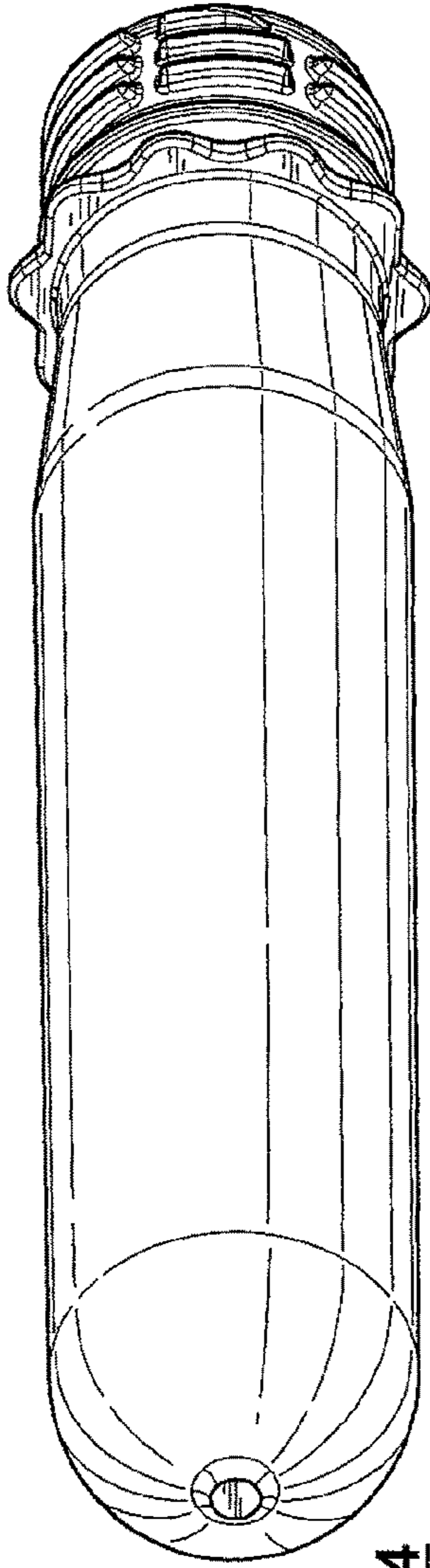


FIG. 134

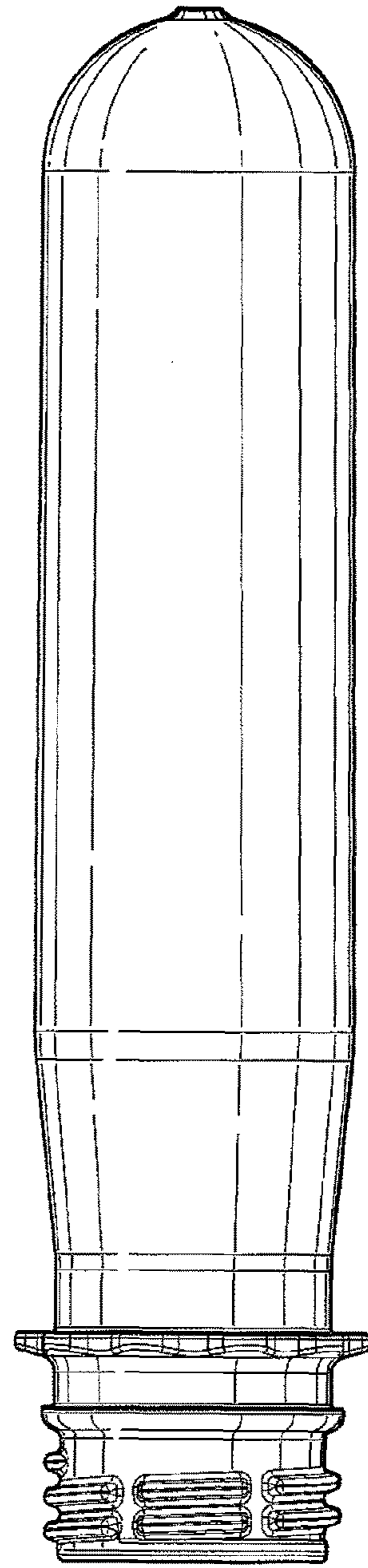


FIG. 135

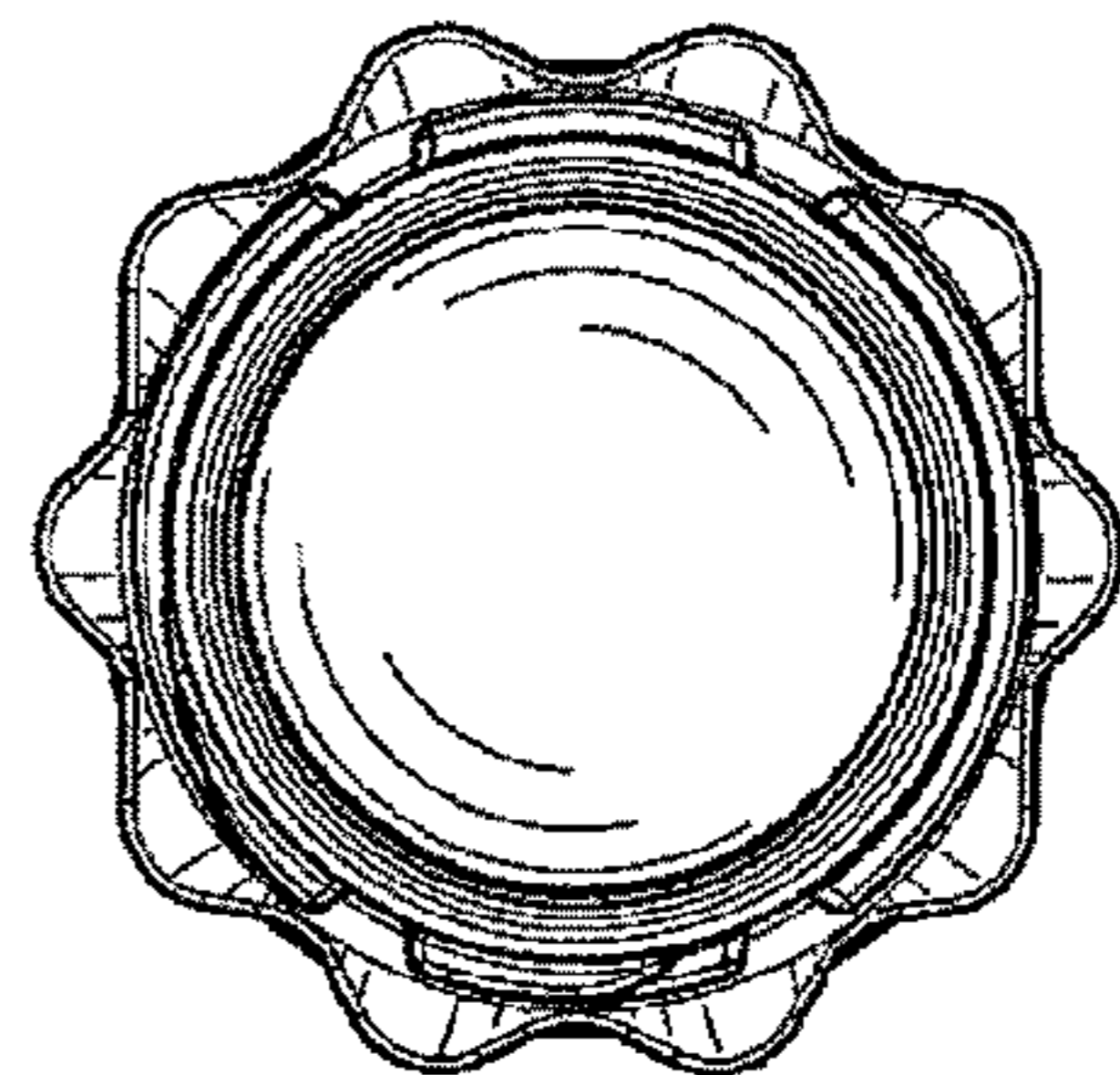


FIG. 136

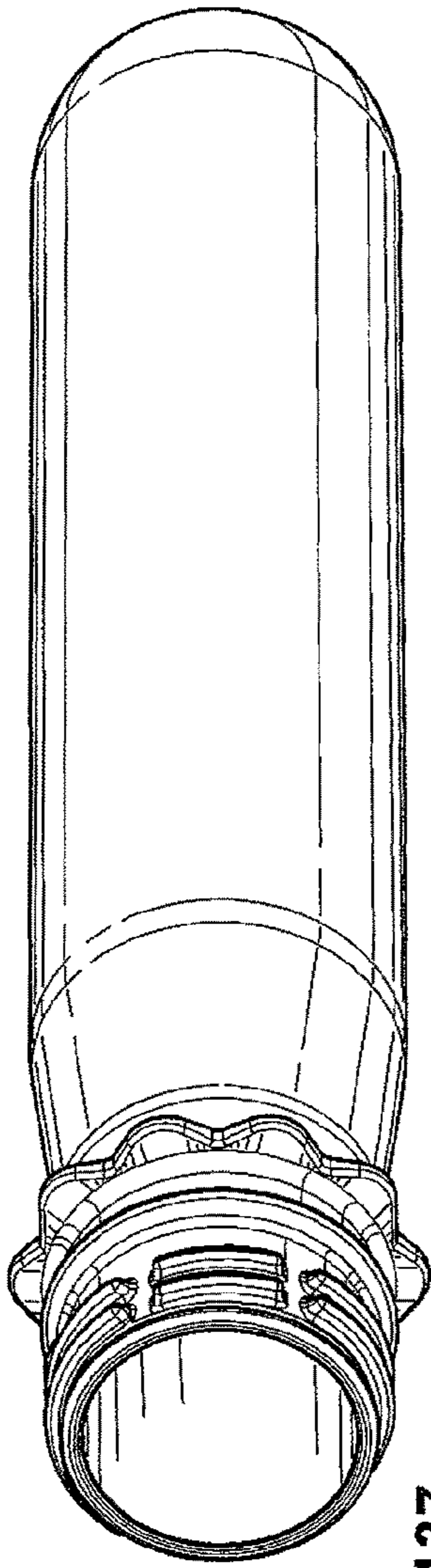


FIG. 137

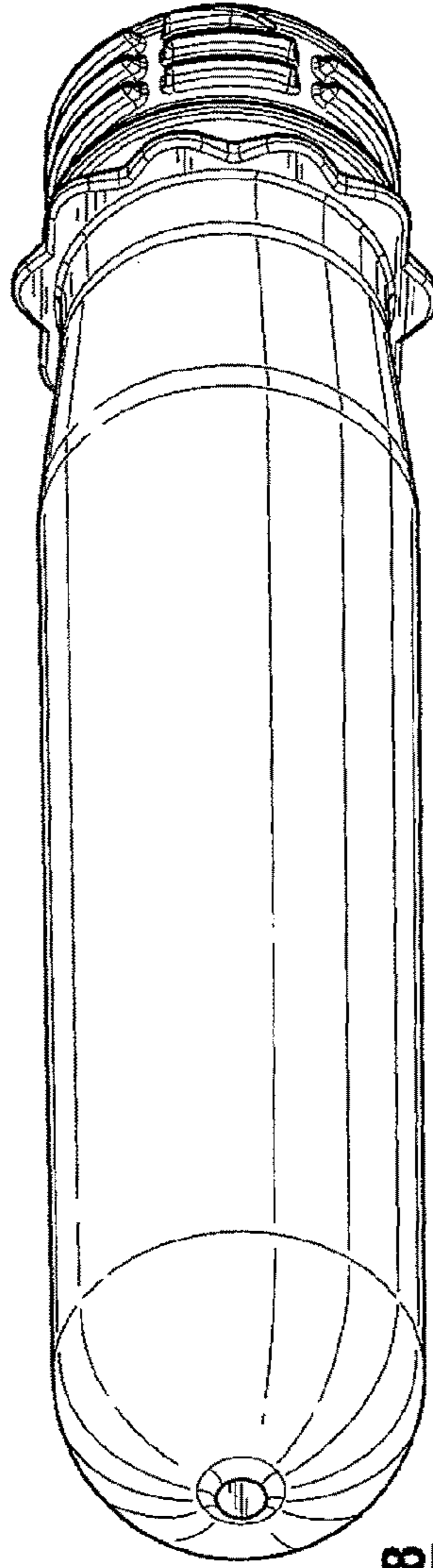


FIG. 138

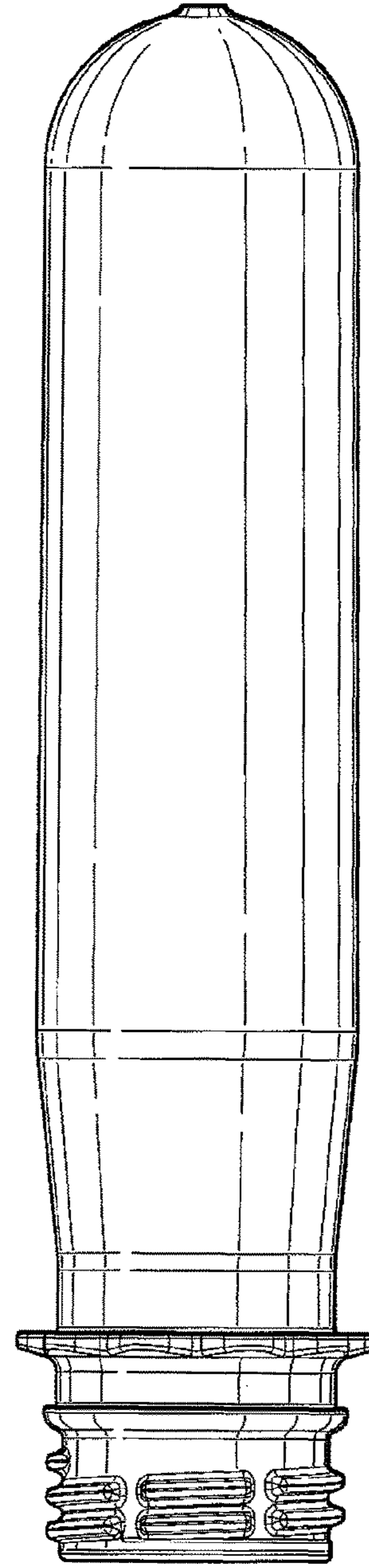


FIG. 139

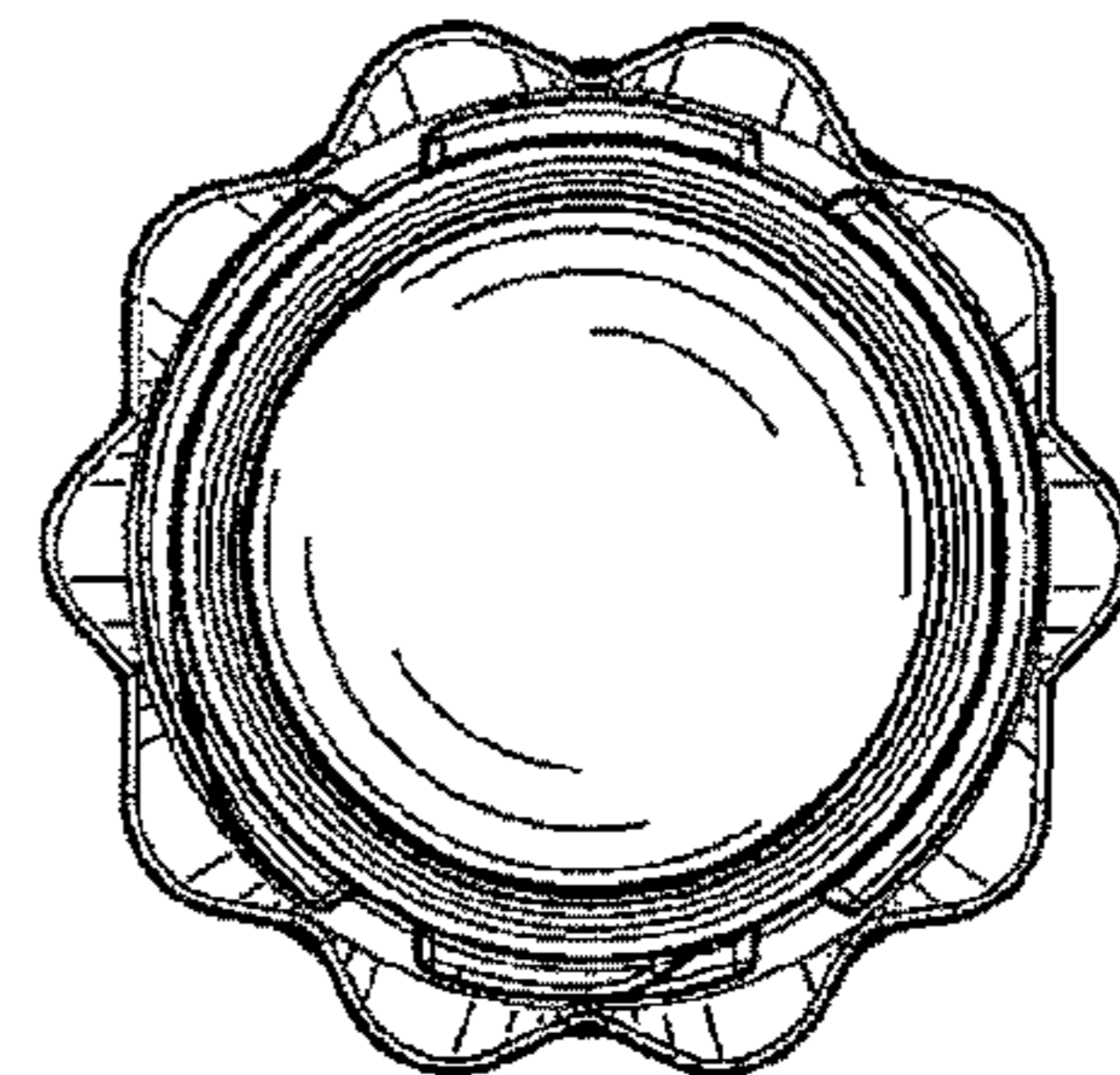


FIG. 140

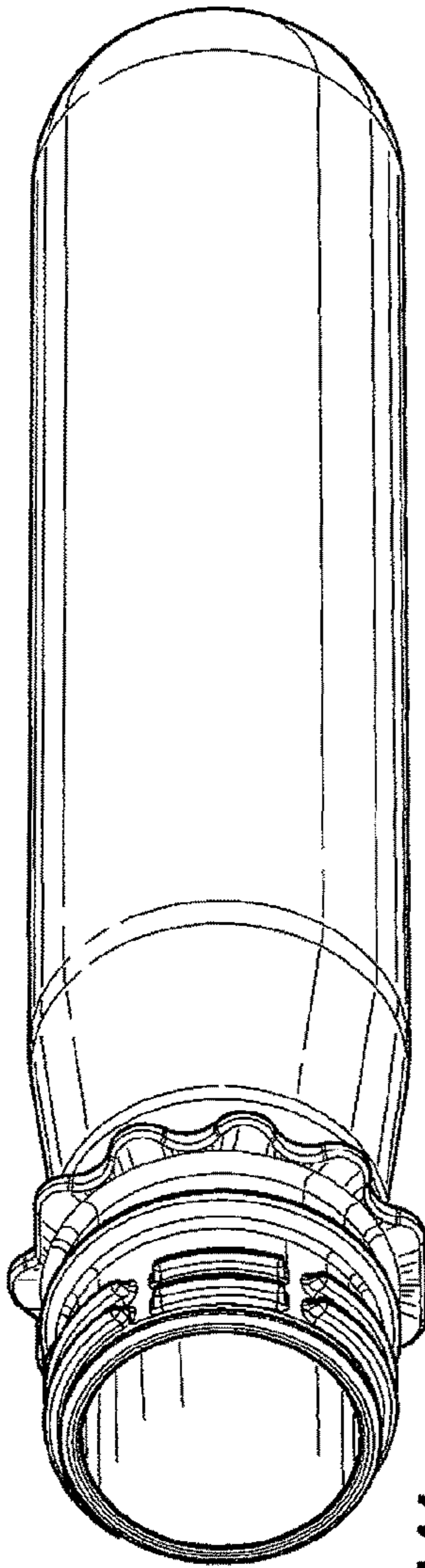


FIG. 141

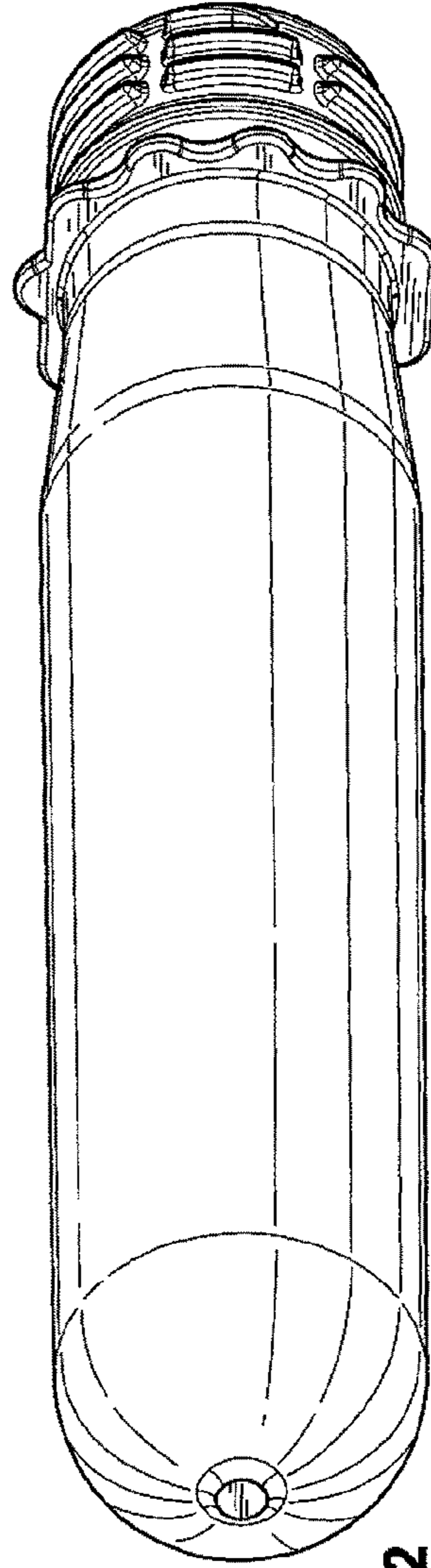


FIG. 142

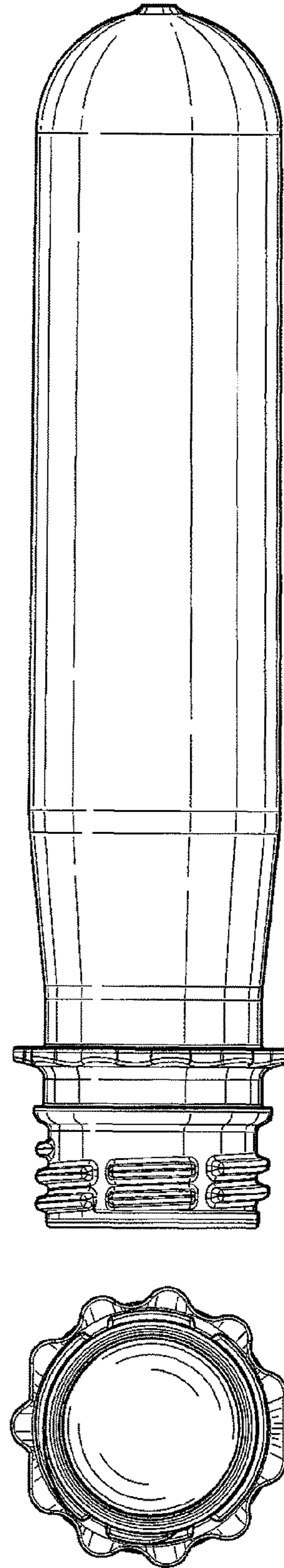


FIG. 143

FIG. 144



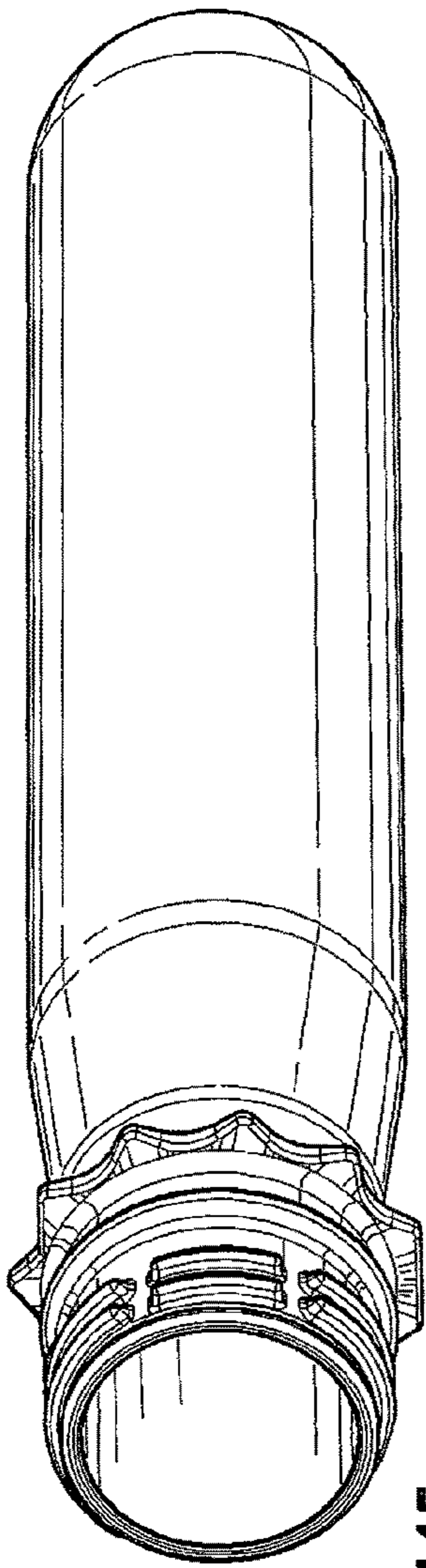


FIG. 145

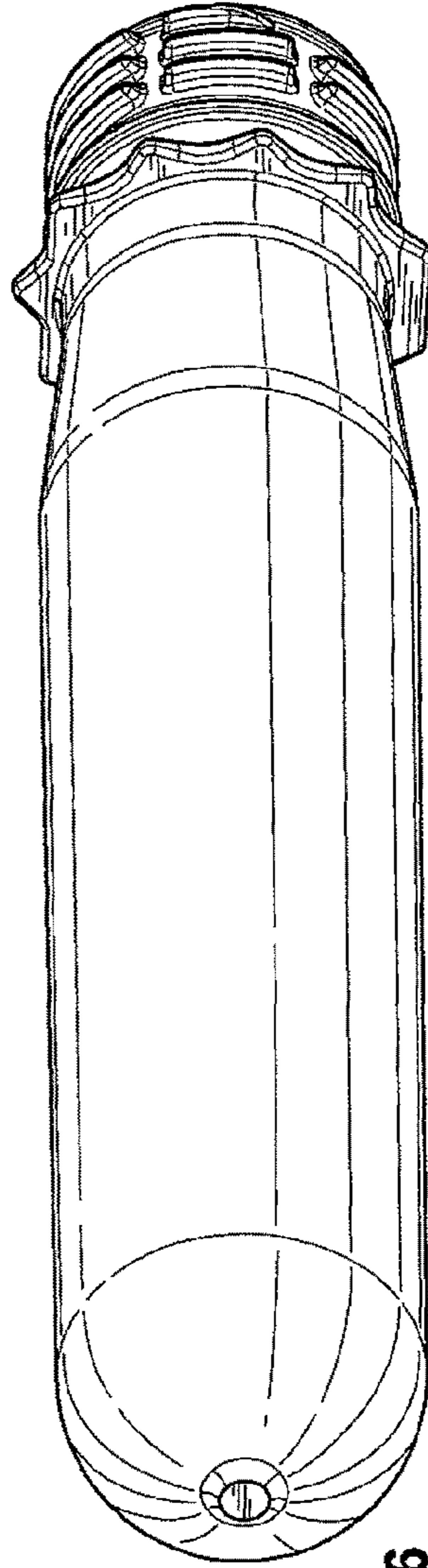


FIG. 146

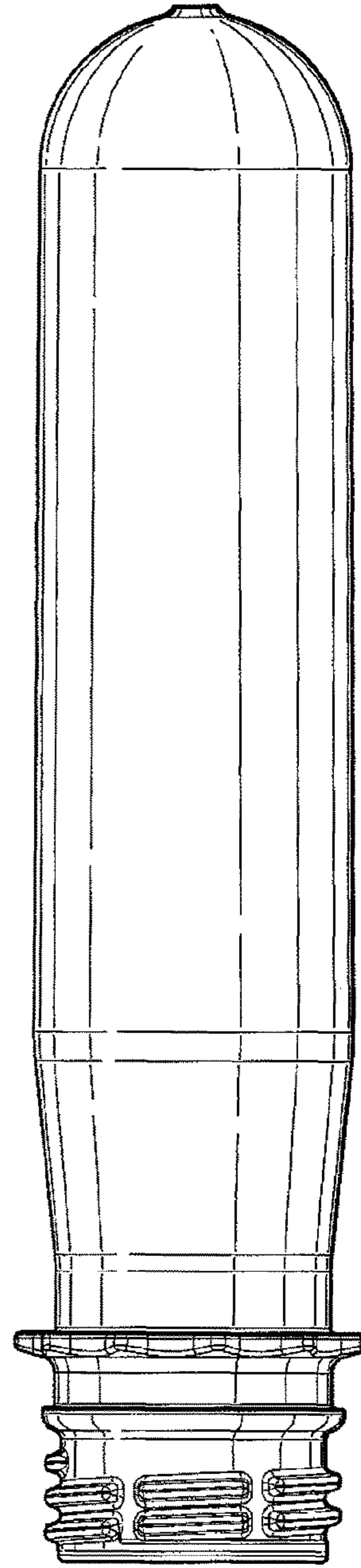


FIG. 147

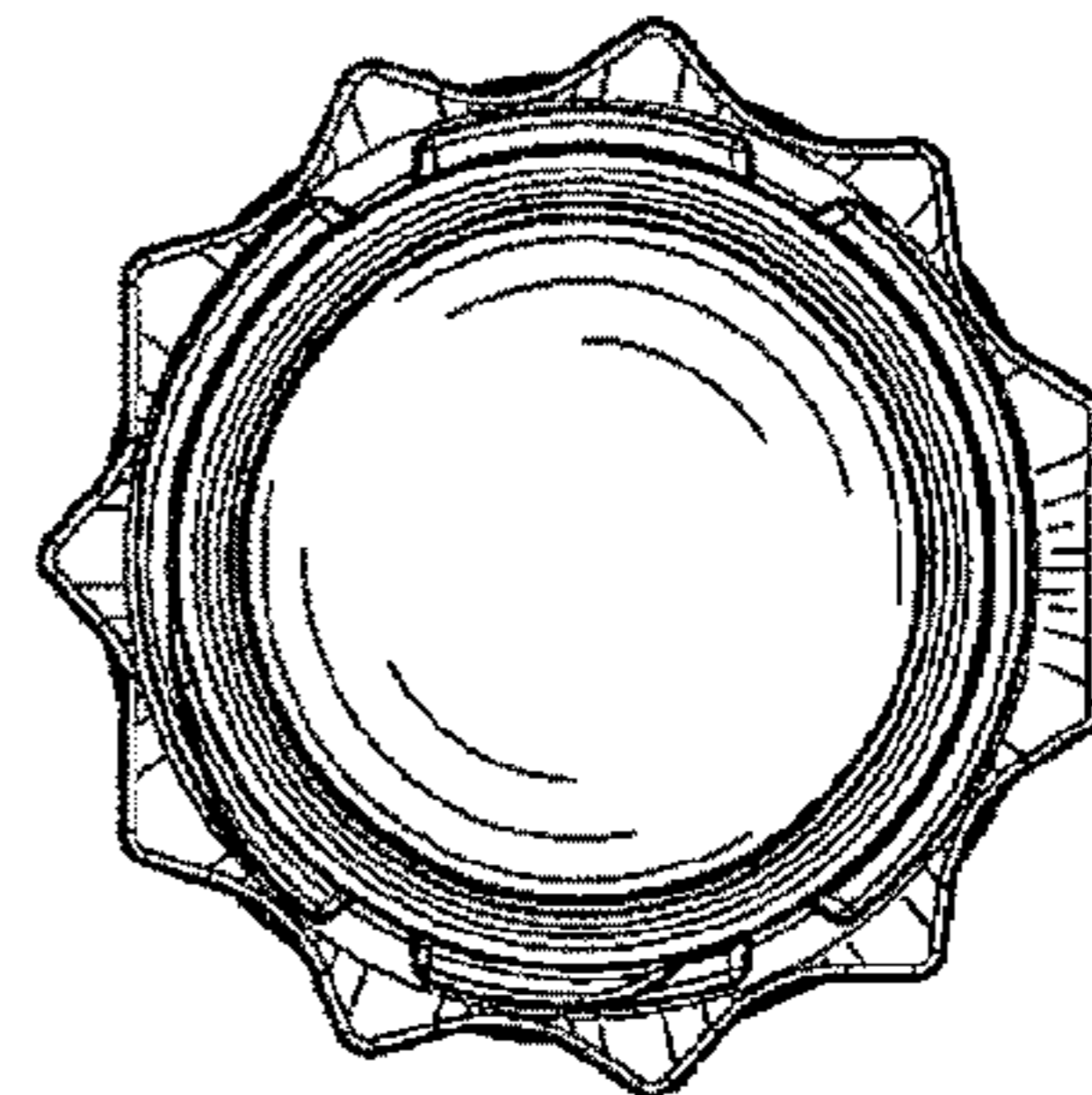
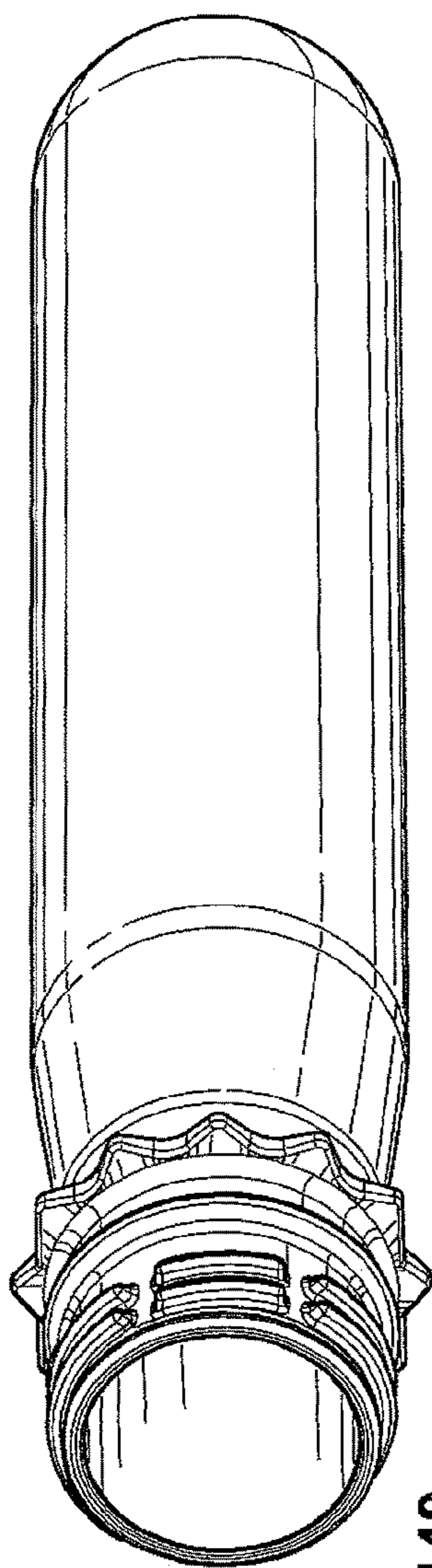
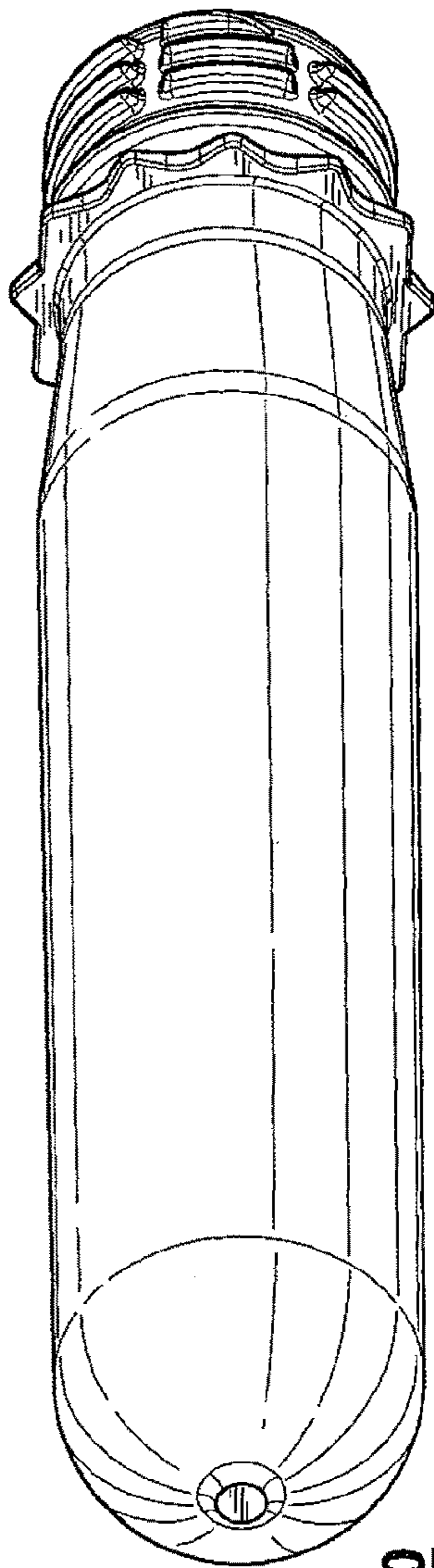


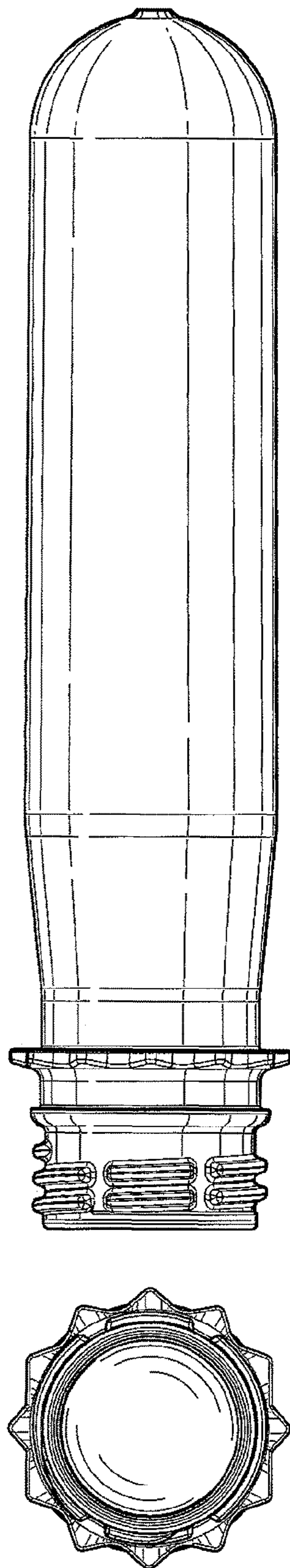
FIG. 148



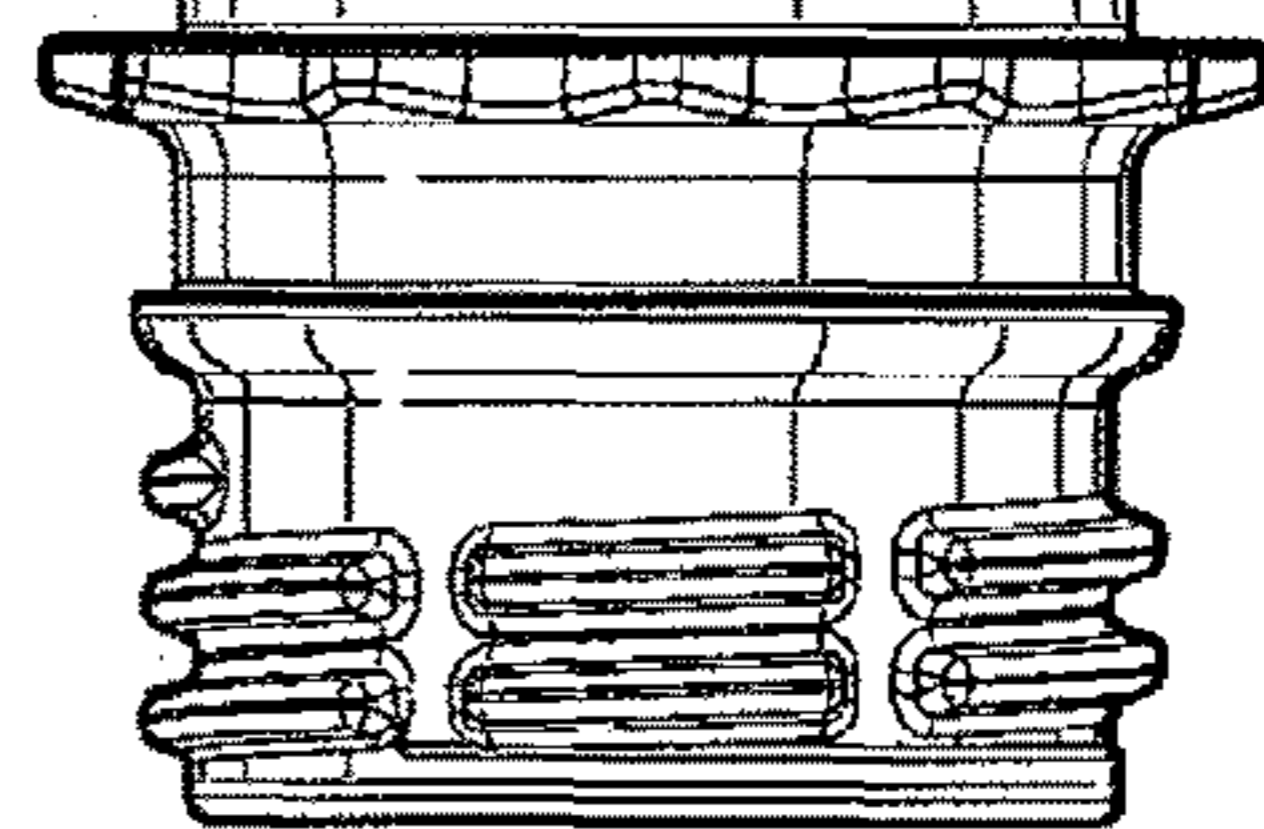
**FIG. 149**



**FIG. 150**



**FIG. 151**



**FIG. 152**

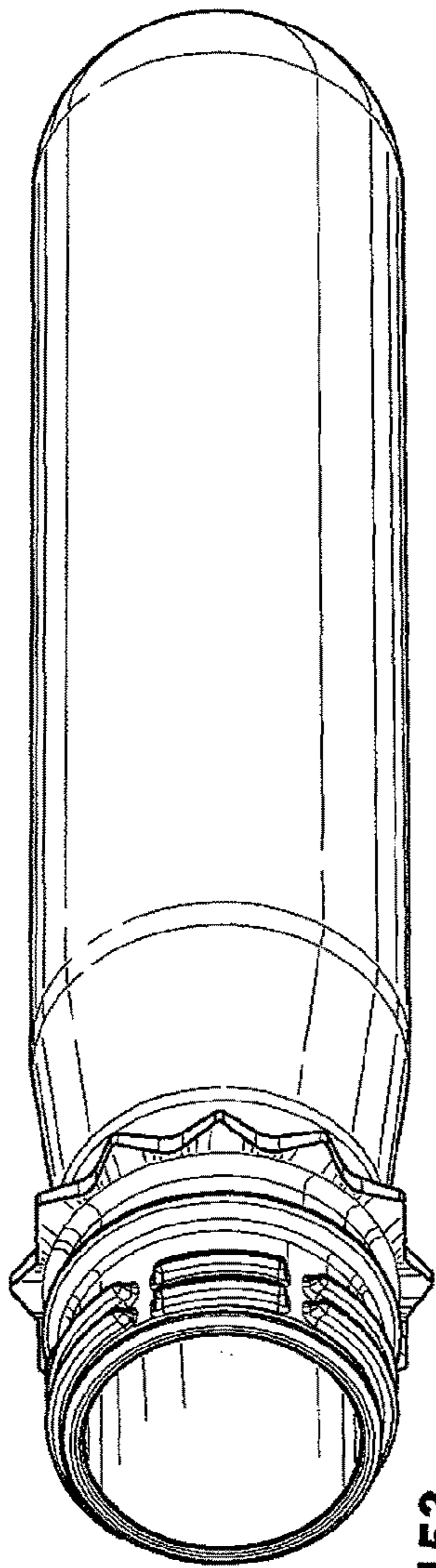


FIG. 153

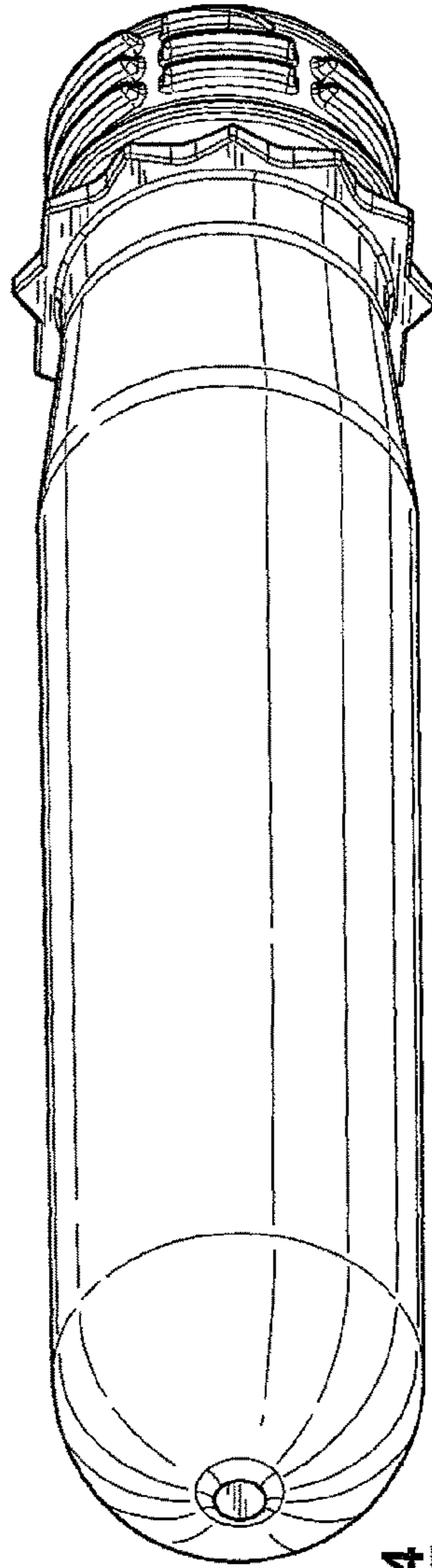


FIG. 154

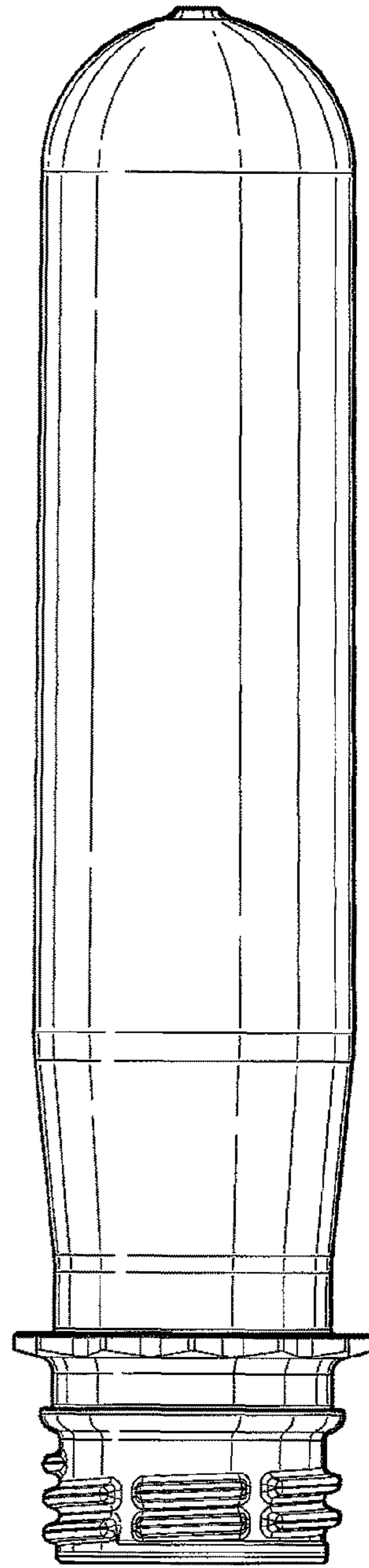
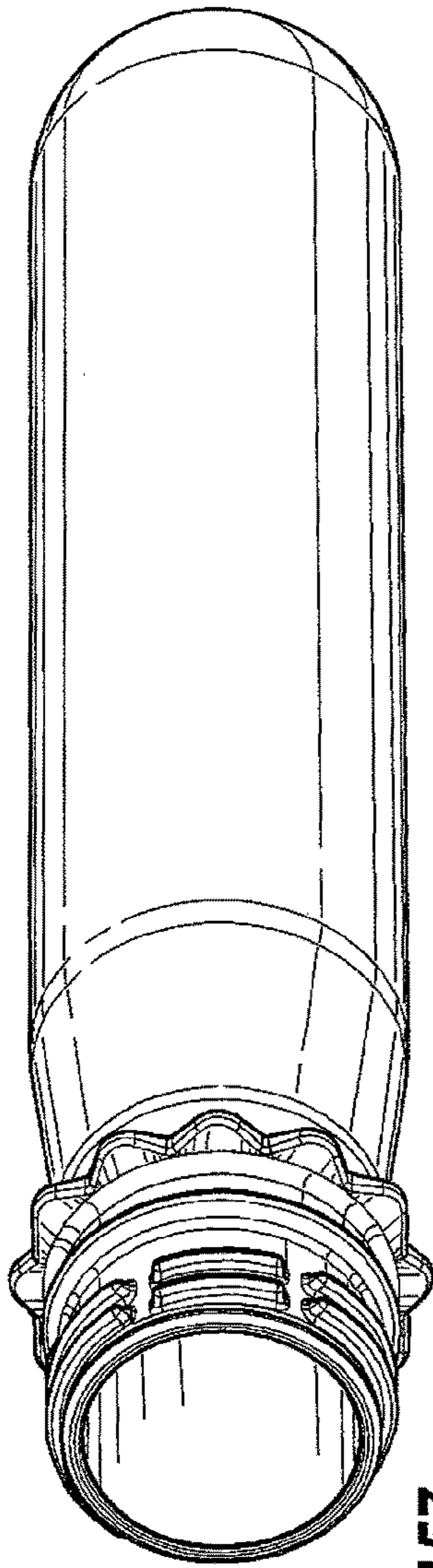
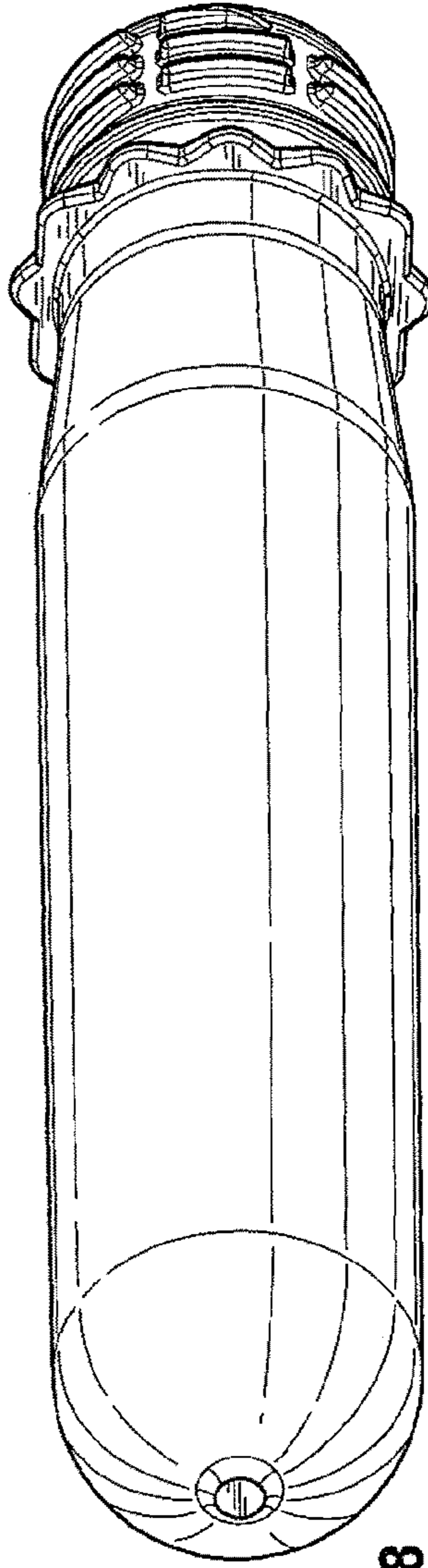


FIG. 155

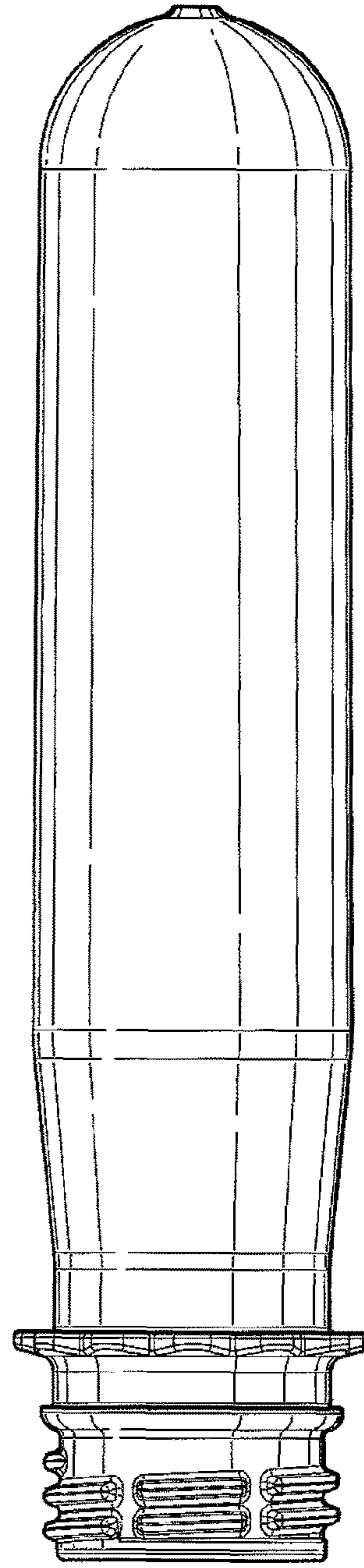
FIG. 156



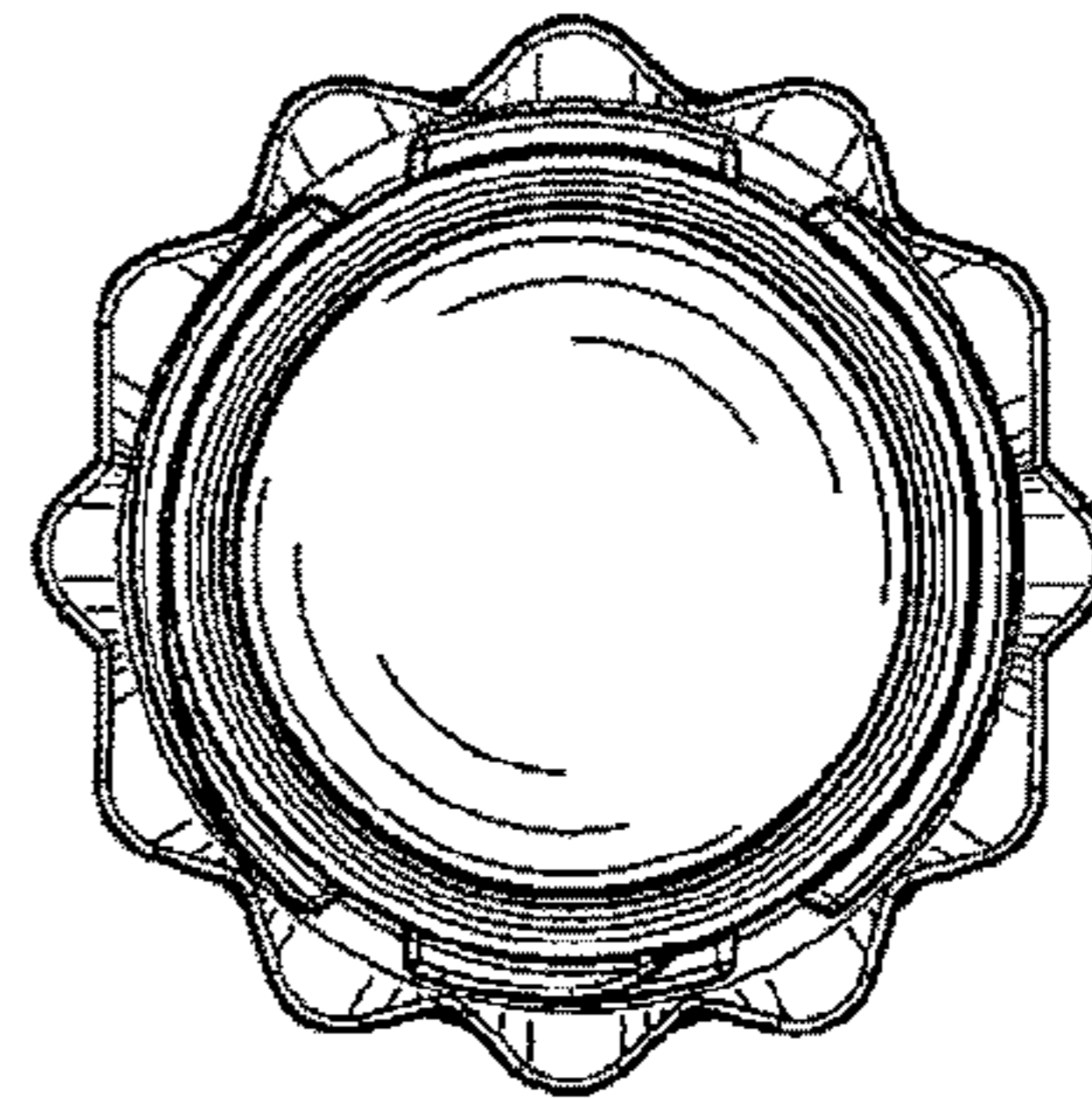
**FIG. 157**



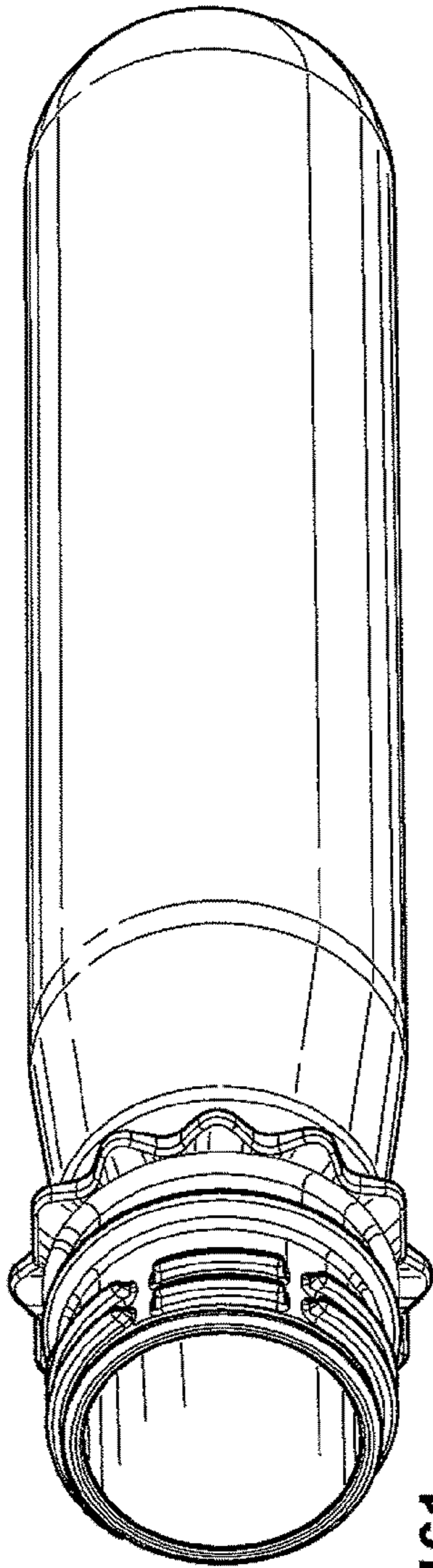
**FIG. 158**



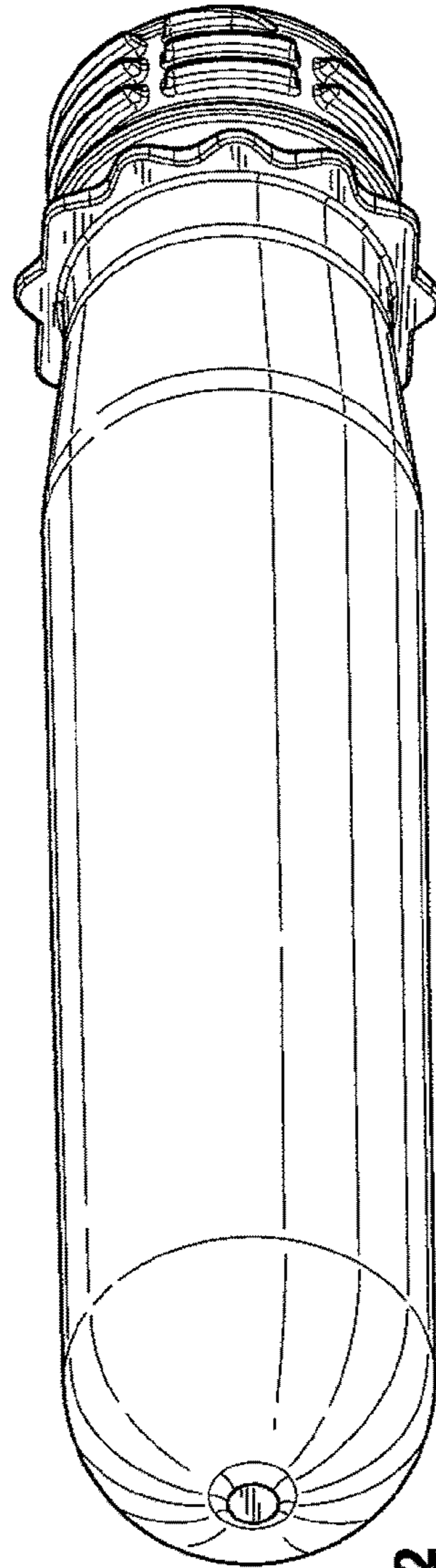
**FIG. 160**



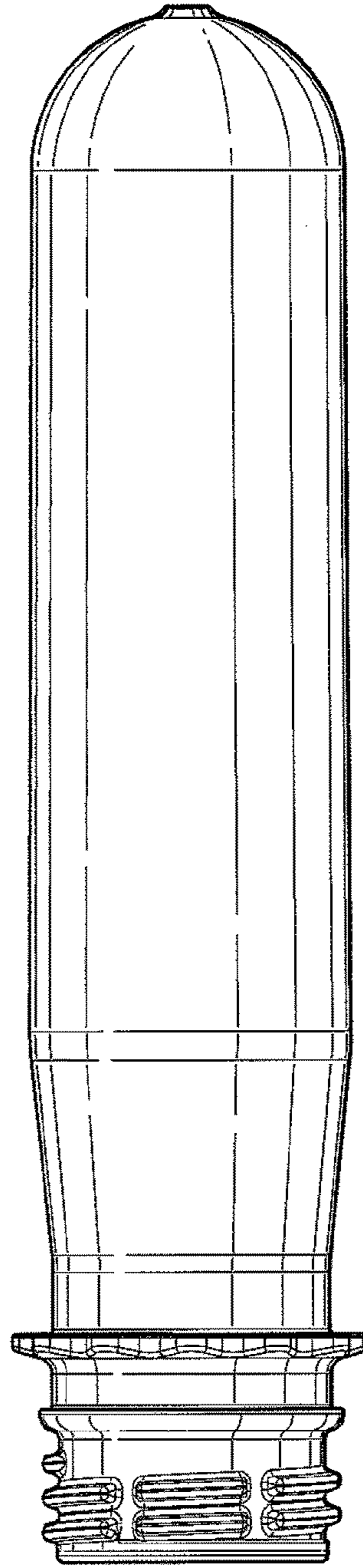
**FIG. 159**



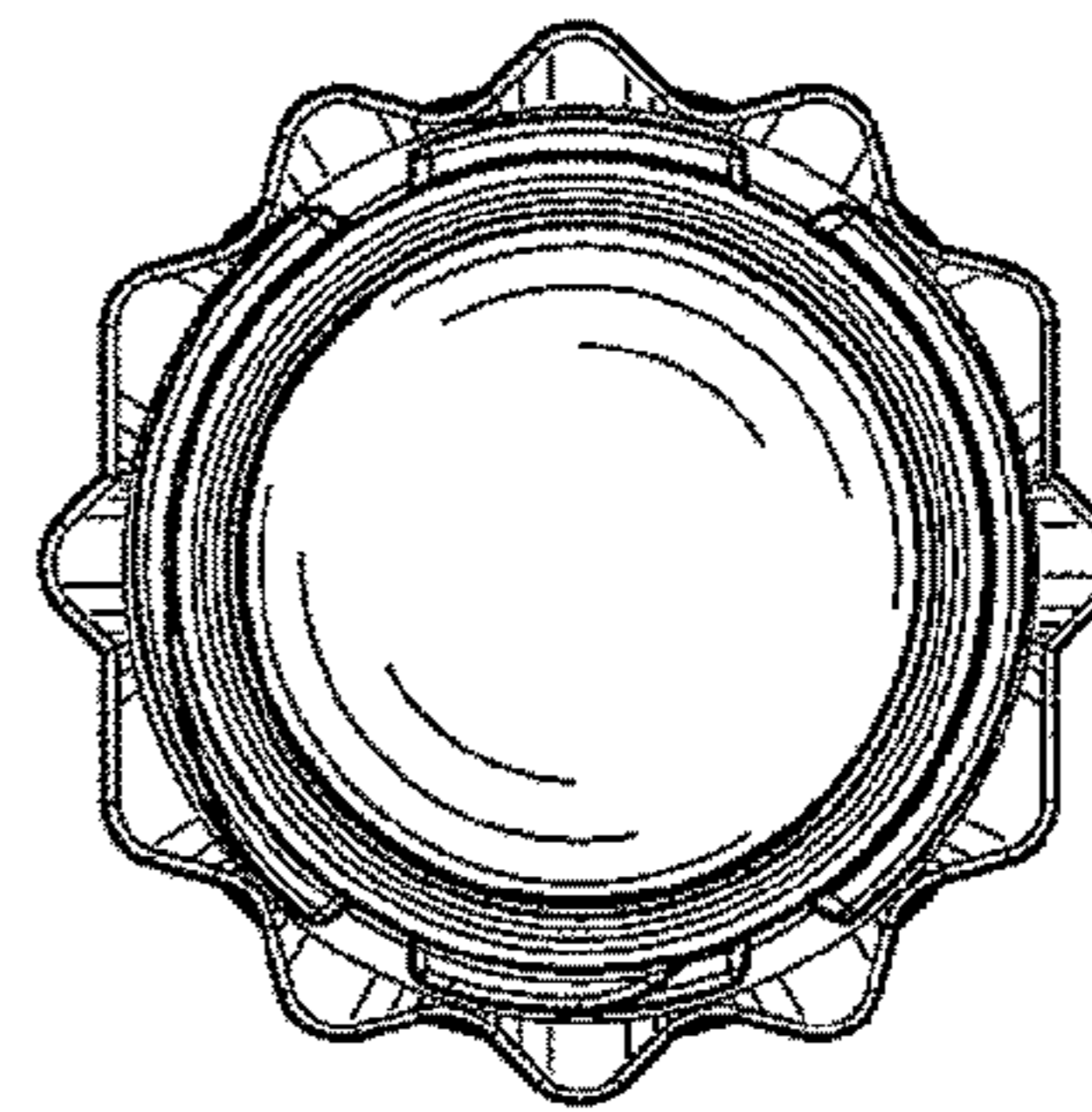
**FIG. 161**



**FIG. 162**



**FIG. 163**



**FIG. 164**

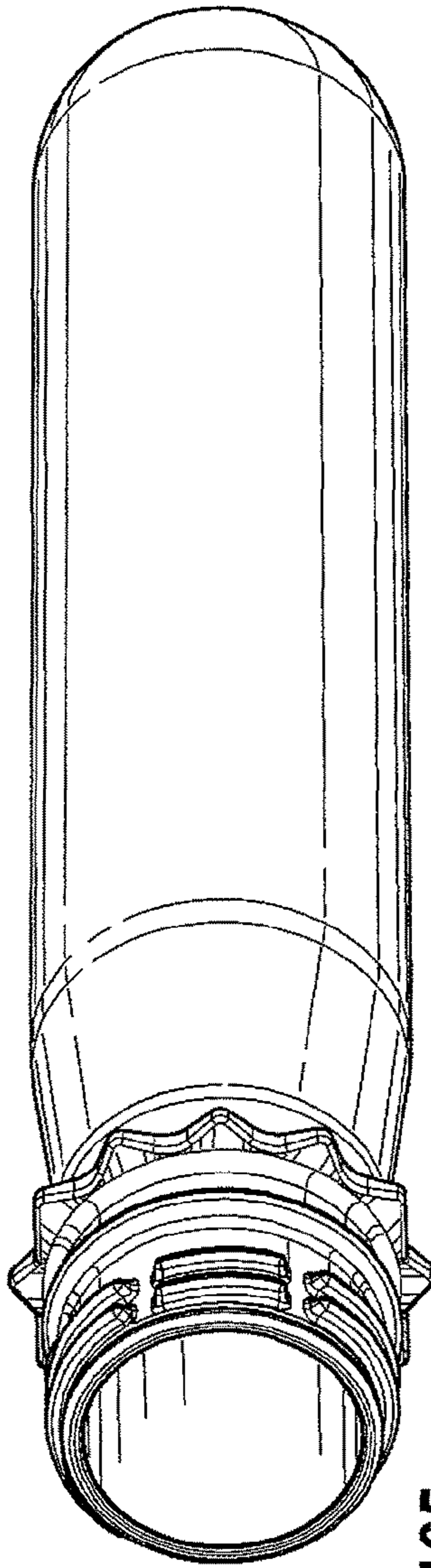


FIG. 165

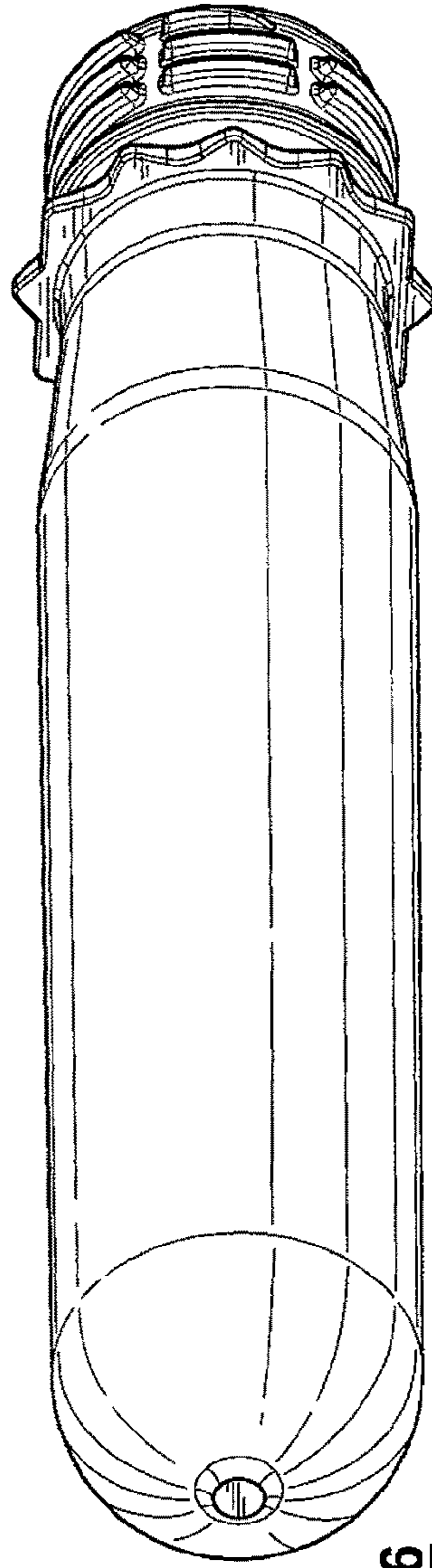


FIG. 166

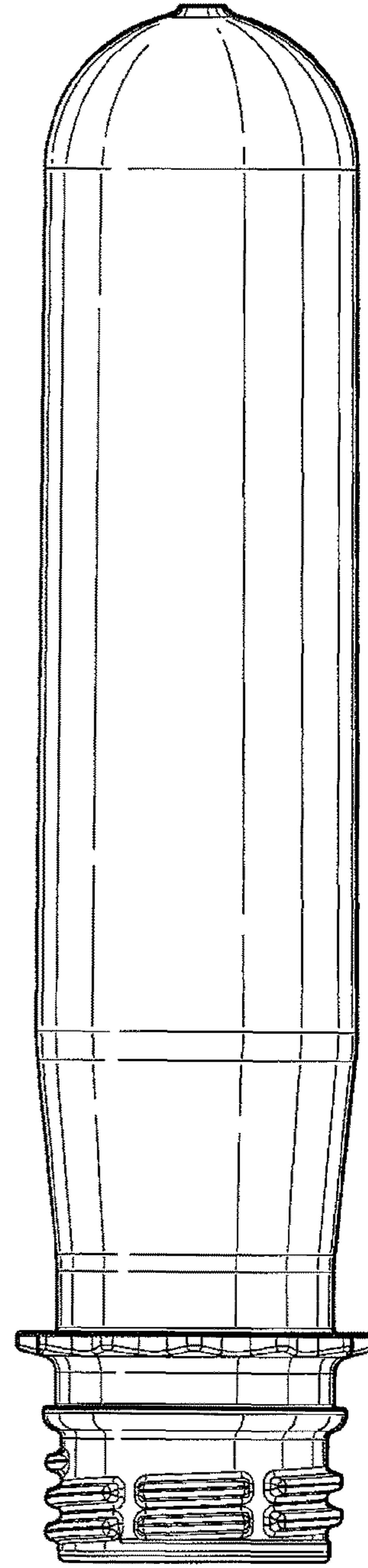


FIG. 167

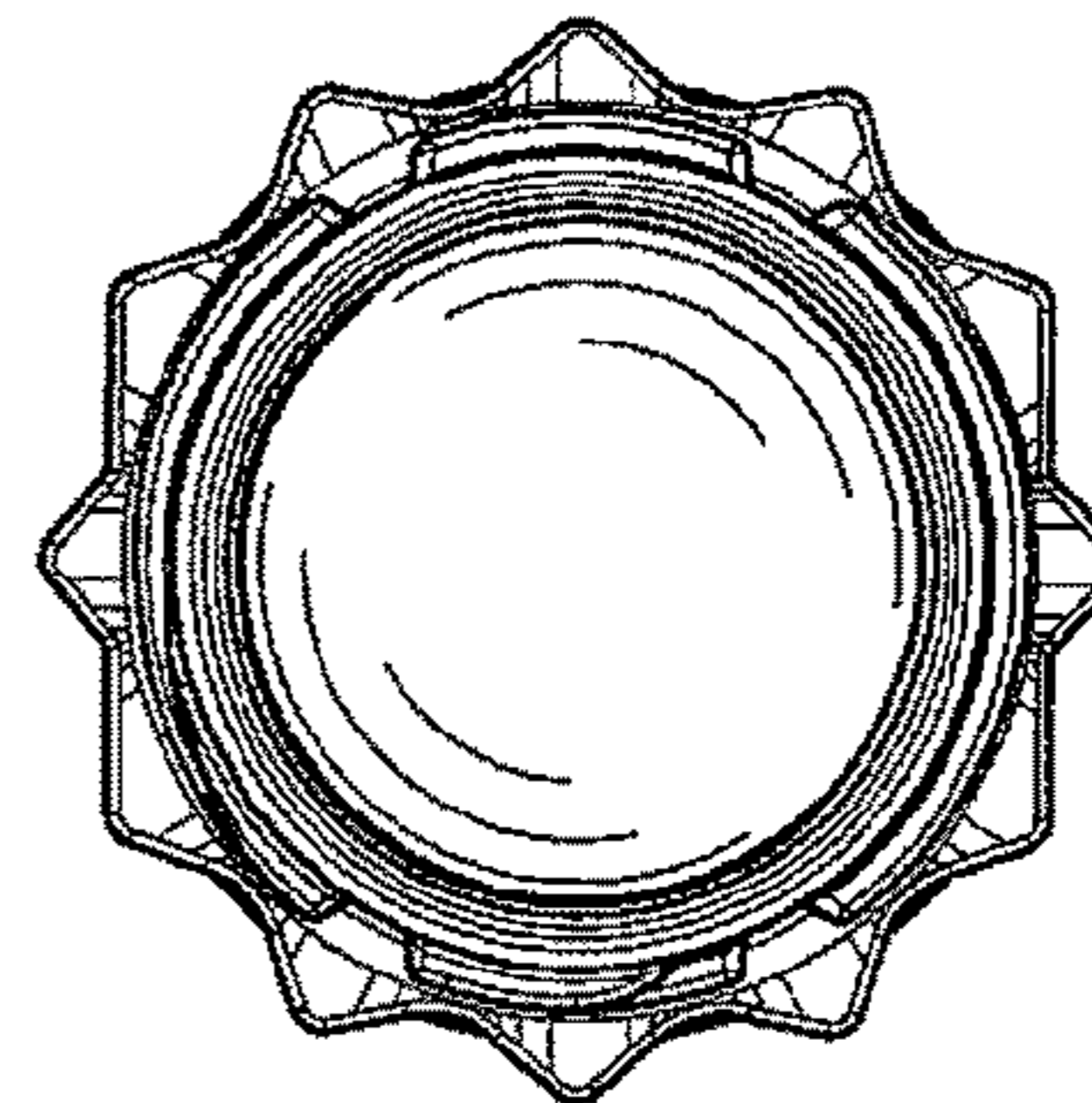


FIG. 168

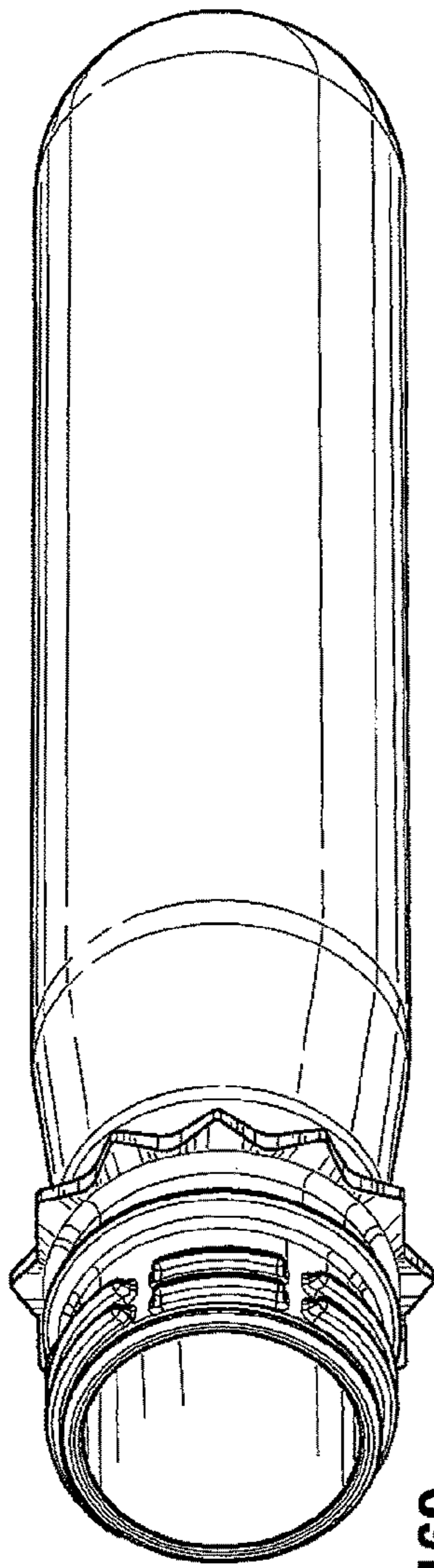


FIG. 169

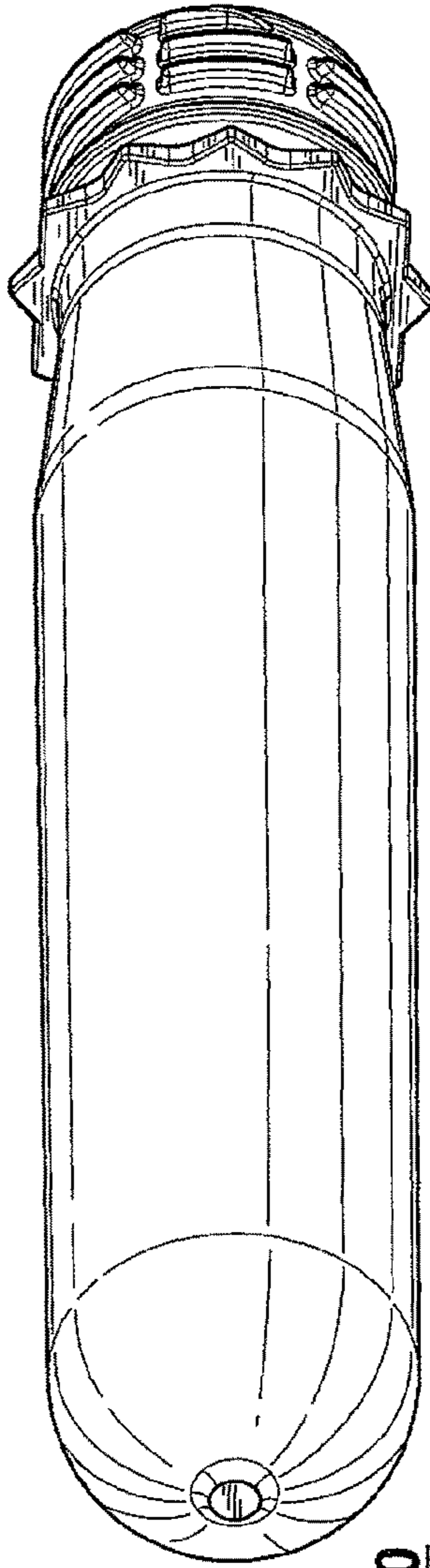


FIG. 170

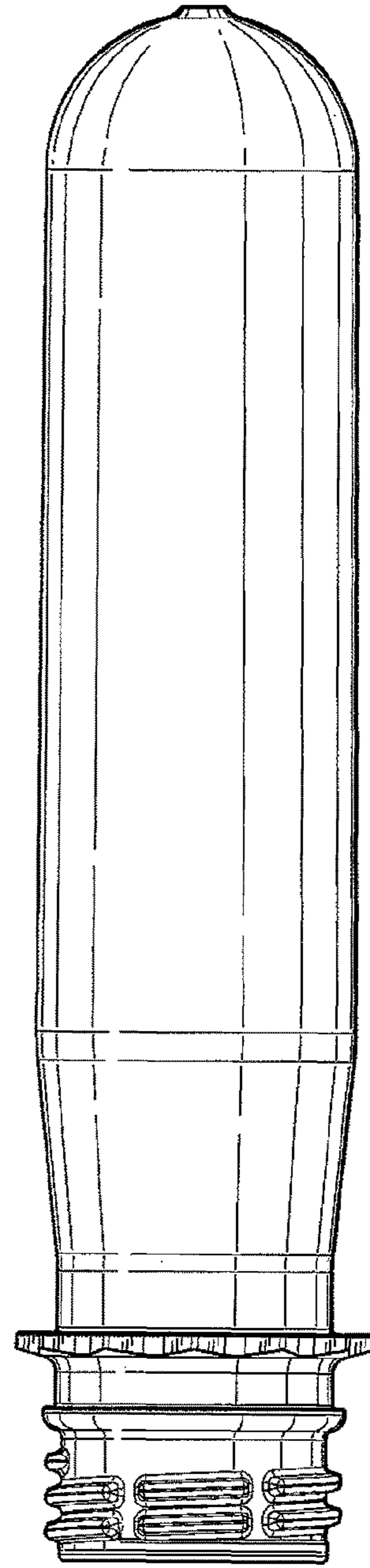


FIG. 171

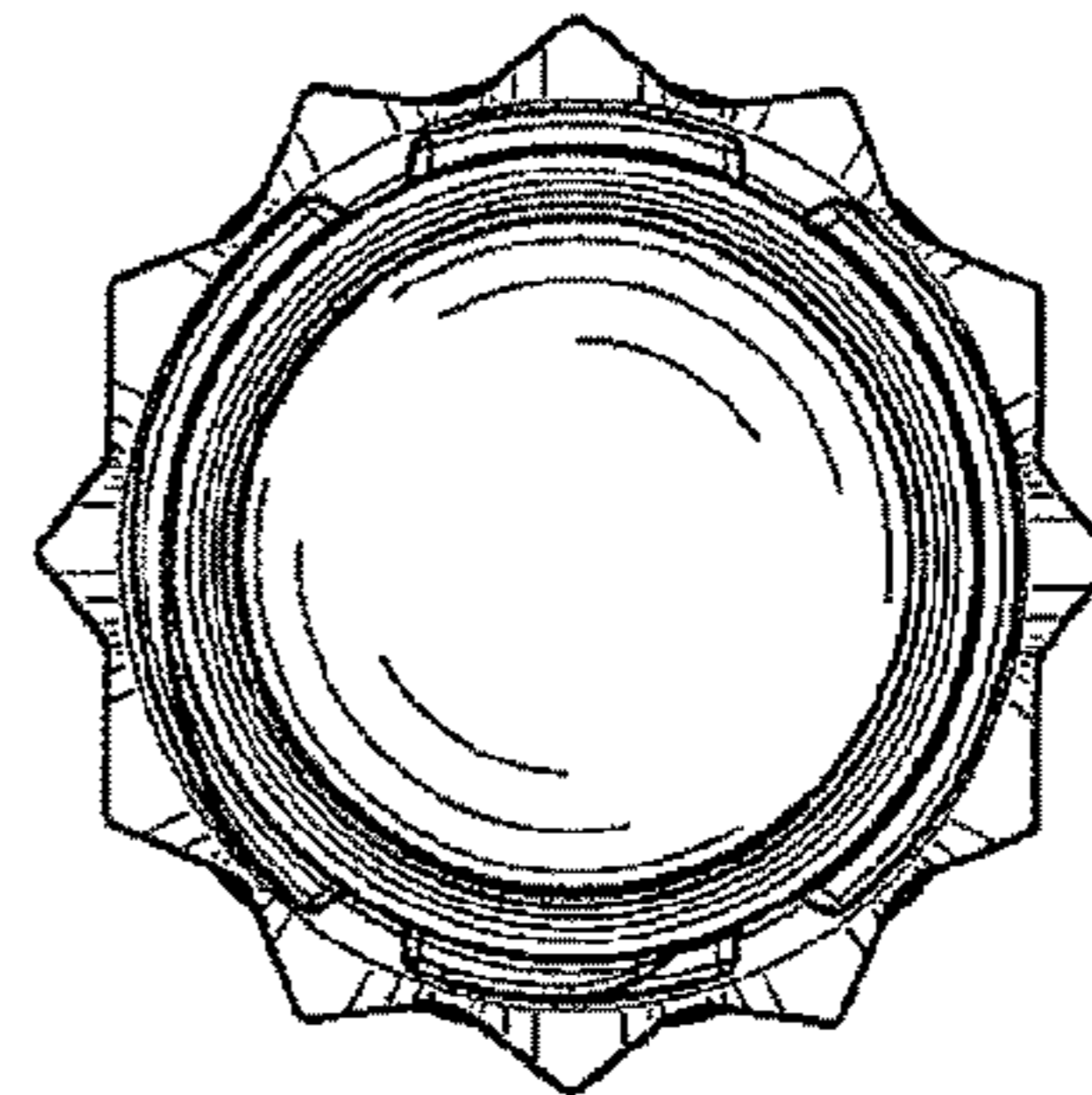


FIG. 172