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

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(54) **ROLLER PUMP**

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

(21) Appl. No.: **29/526,771**

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(51) **LOC (10) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/111**

(58) **Field of Classification Search**  
USPC ..... D15/7-9; D23/231, 232, 225; 417/60,  
417/235, 265, 321, 355, 358, 363, 359,  
(Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

2,899,905 A \* 8/1959 Becher ..... F04B 43/0072  
251/6  
D254,806 S \* 4/1980 Kitai ..... D10/85  
(Continued)

**OTHER PUBLICATIONS**

Sorin | S5 Brochure, Sorin Group USA, Inc., 2010.  
MetaVision Perfusion™, A point-of-care clinical information sys-  
tem for perfusionists, MAQUET Getinge Group 2015 <<http://www.maquet.com/int/products/metavision-perfusion/>>.

(Continued)

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(57) **CLAIM**

The ornamental design for a roller pump, as shown and  
described.

**DESCRIPTION**

FIG. 1 is an oblique perspective view of the roller pump of  
this disclosure.

FIG. 2 is a rear view of the roller pump of this disclosure.

FIG. 3 is a front view of the roller pump of this disclosure.

FIG. 4 is a side view of the right-hand side of the roller pump  
of this disclosure.

FIG. 5 is a side view of the left-hand side of the roller pump  
of this disclosure.

FIG. 6 is a plan view of the roller pump of this disclosure.

FIG. 7 is a bottom view of the roller pump of this disclosure.

FIG. 8 is an oblique perspective view of another roller pump  
embodiment of this disclosure.

FIG. 9 is a rear view of the roller pump of the embodiment  
of FIG. 8.

FIG. 10 is a front view of the roller pump of the embodiment  
of FIG. 8.

FIG. 11 is a side view of the right-hand side of the roller  
pump of the embodiment of FIG. 8.

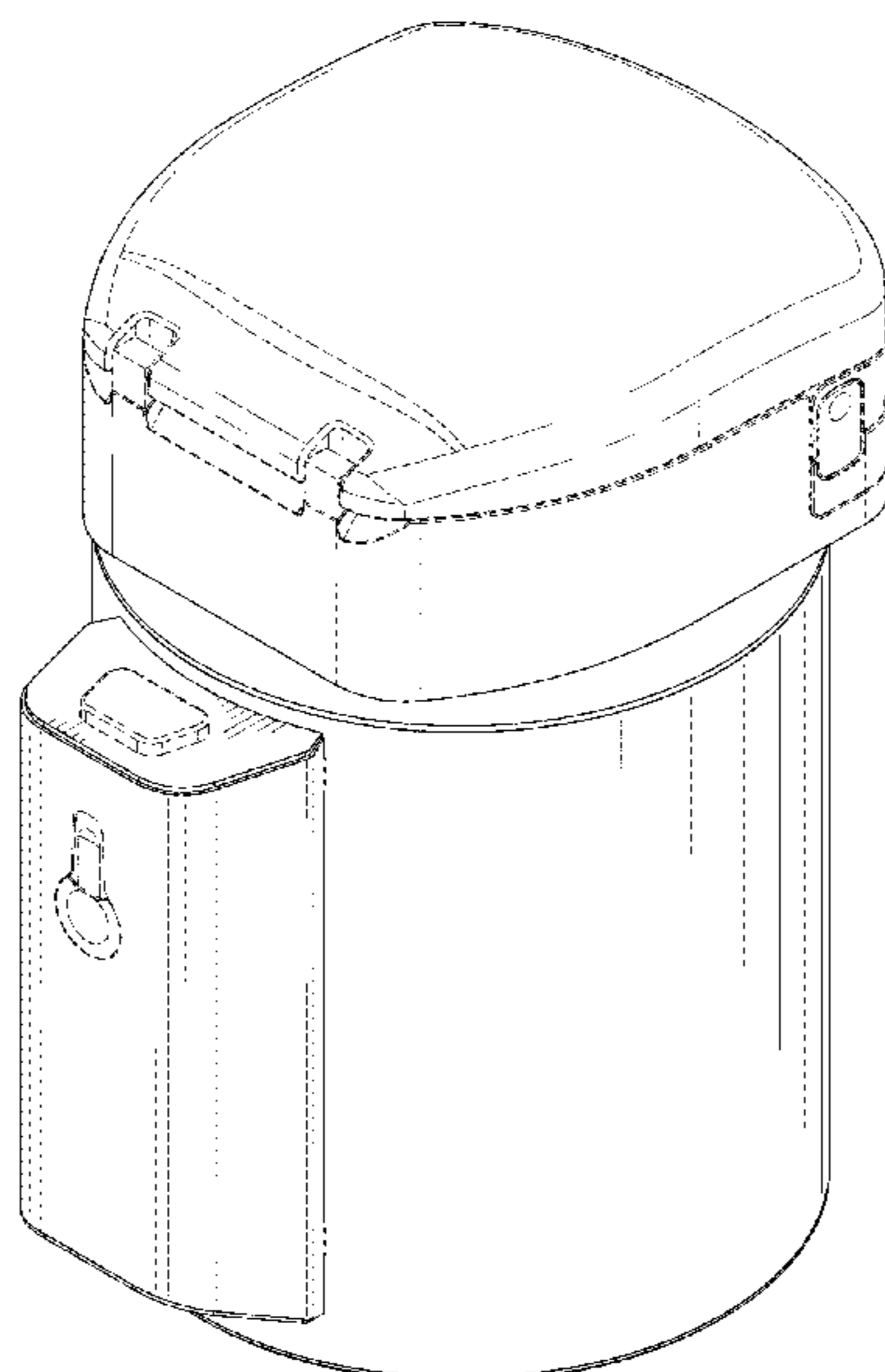
FIG. 12 is a side view of the left-hand side of the roller pump  
of the embodiment of FIG. 8.

FIG. 13 is a plan view of the roller pump of the embodiment  
of FIG. 8; and,

FIG. 14 is a bottom view of the roller pump of the embodi-  
ment of FIG. 8.

The broken line showing of edges and a fitting is included  
for the purpose of illustrating environmental matter and  
forms no part of the claimed design.

**1 Claim, 14 Drawing Sheets**



(58) **Field of Classification Search**

USPC ..... 417/410.1, 415–416, 405, 900, 476, 63,  
417/477.1, 477.3; 60/408, 412;  
184/26–37; 415/140–147; 123/495, 509;  
137/565.34; D24/108, 111, 164, 169;  
604/135  
CPC ..... F02M 37/04; F02M 37/14; F04B 43/12  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D285,347 S *	8/1986	Nelson .....	D24/111
D328,952 S *	8/1992	Arioka .....	D10/46
5,538,405 A *	7/1996	Patno .....	A61M 1/3693
			417/326
5,637,095 A *	6/1997	Nason .....	A61M 5/14244
			604/135
7,001,153 B2 *	2/2006	McDowell .....	F04B 43/1253
			417/477.1
7,252,485 B2 *	8/2007	Ito .....	F04B 43/1253
			417/477.3
D619,241 S *	7/2010	Olsson .....	D24/107
D735,319 S *	7/2015	Sabin .....	D24/111
D735,865 S *	8/2015	Nishimura .....	D24/164
D739,026 S *	9/2015	Anger .....	D24/164
2014/0127063 A1	5/2014	Petersen et al.	

OTHER PUBLICATIONS

Heart-Lung Machine HL20 Brochure, MAQUET Cardiopulmonary AG 2012.  
“Heart Lung Machine Fundraising.” Aug. 18, 2015. Web. Nov. 6, 2015. <<http://www.heartcentreforchildren.com.au/heart-lung-machine-fundraising.html>>.  
Heart-lung machines. surgeryencyclopedia.com. Advameg, Inc. 2015. Web. Nov. 5, 2015. <<http://www.surgeryencyclopedia.com/Fi-La/Heart-Lung-Machines.html>>.  
Machine coeur-poumon HL30. Feb. 21, 2013. Web. Nov. 18, 2015. <<file:///C:/Users/u2002449/Downloads/mes-130225-MachineCoeurPoumonHL30-Maquet.pdf>>.  
Terumo Advanced Perfusion System 1. Terumo Cardiovascular Group. Nov. 2014. Web. Nov. 18, 2015. <[http://www.terumo-cvs.com/doc/848594\\_Terumo-System1\\_Brochure%20\\_Nov2013\\_LowRes\\_Pgs.pdf](http://www.terumo-cvs.com/doc/848594_Terumo-System1_Brochure%20_Nov2013_LowRes_Pgs.pdf)>.  
Product Catalog Jostra HL 20. MAQUET Cardiopulmonary AG. Web. Nov. 18, 2015. <[http://glavm.ru/upload/information\\_system\\_18/2/8/7/item\\_287/information\\_items\\_property\\_343.pdf](http://glavm.ru/upload/information_system_18/2/8/7/item_287/information_items_property_343.pdf)>.  
Sorin article, <http://www.sorin.com/products/cardiac-surgery/perfusion/hlm/s5>, printed on Jun. 13, 2015, 11 pages.  
Hessel, Eugene A., “Circuitry and Cannulation Techniques”, Chapter 5, *Cardiopulmonary Bypass: Principles and Practices*, edited by Glenn P. Gravlee, 3rd edition, 2008, pp. 63-65.  
Sorin | S5 System Operating Instructions, Sorin Group Deutschland GmbH, 2006, 2007.

\* cited by examiner

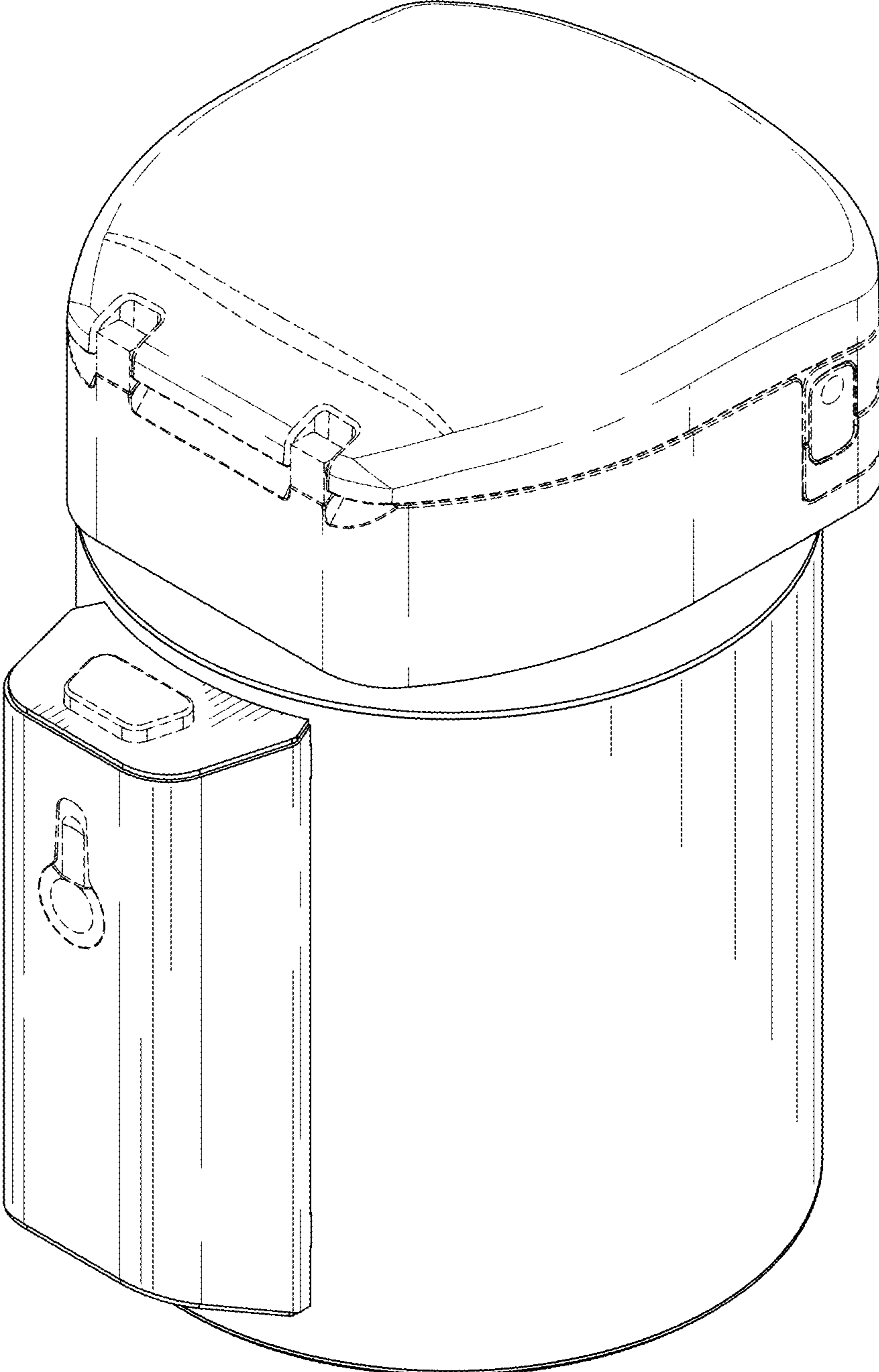


FIG. 1

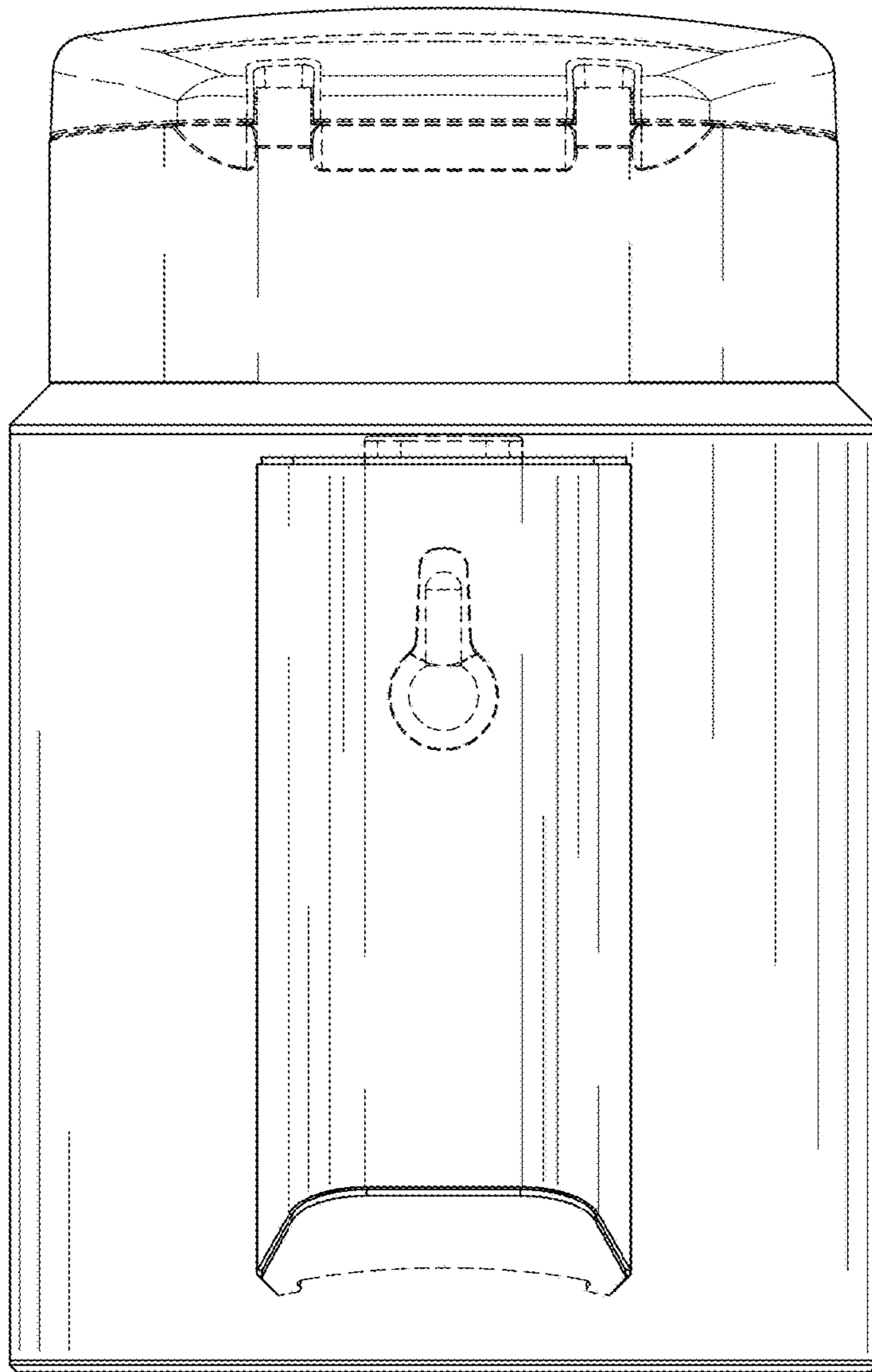


FIG. 2

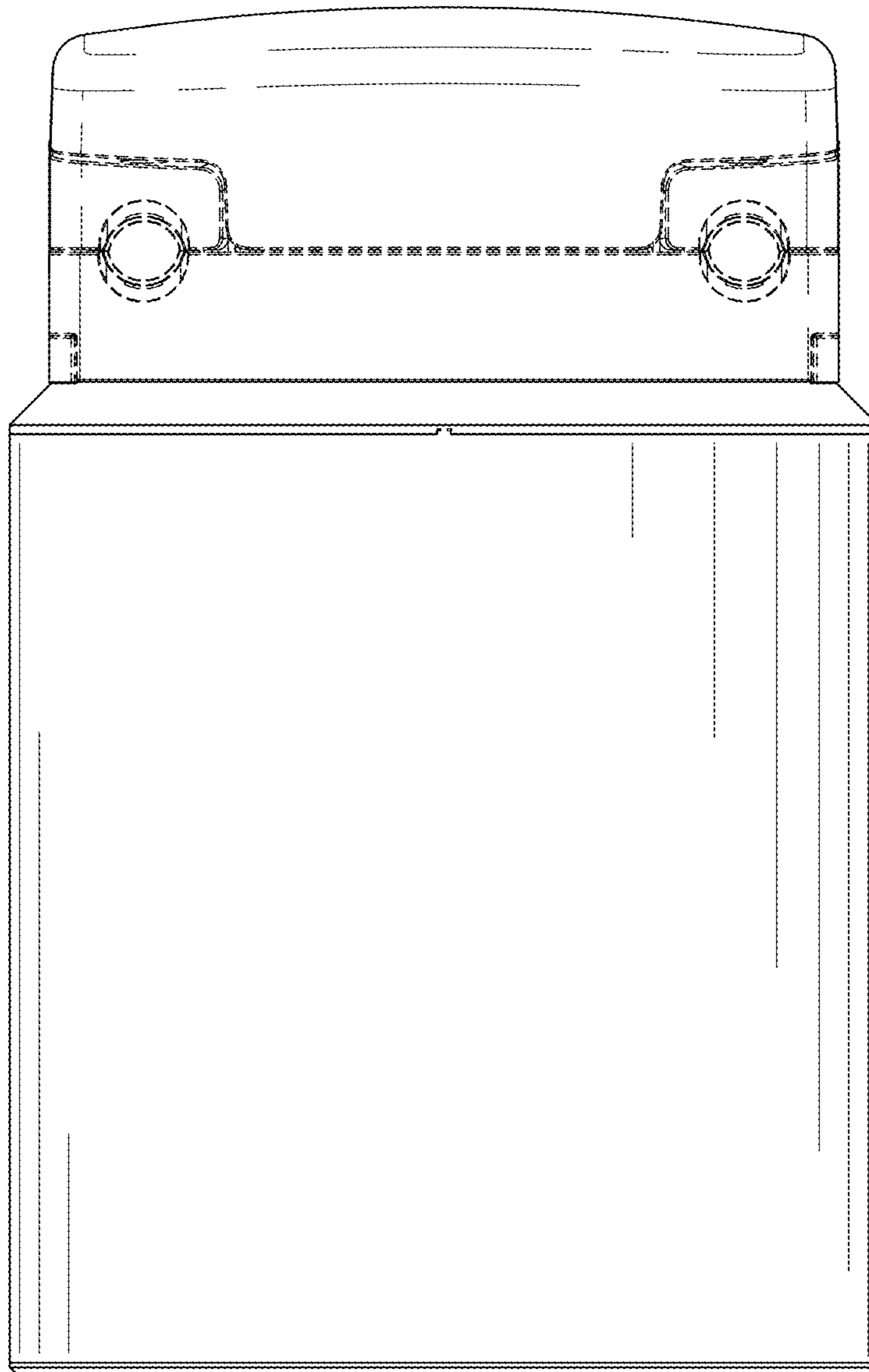


FIG. 3

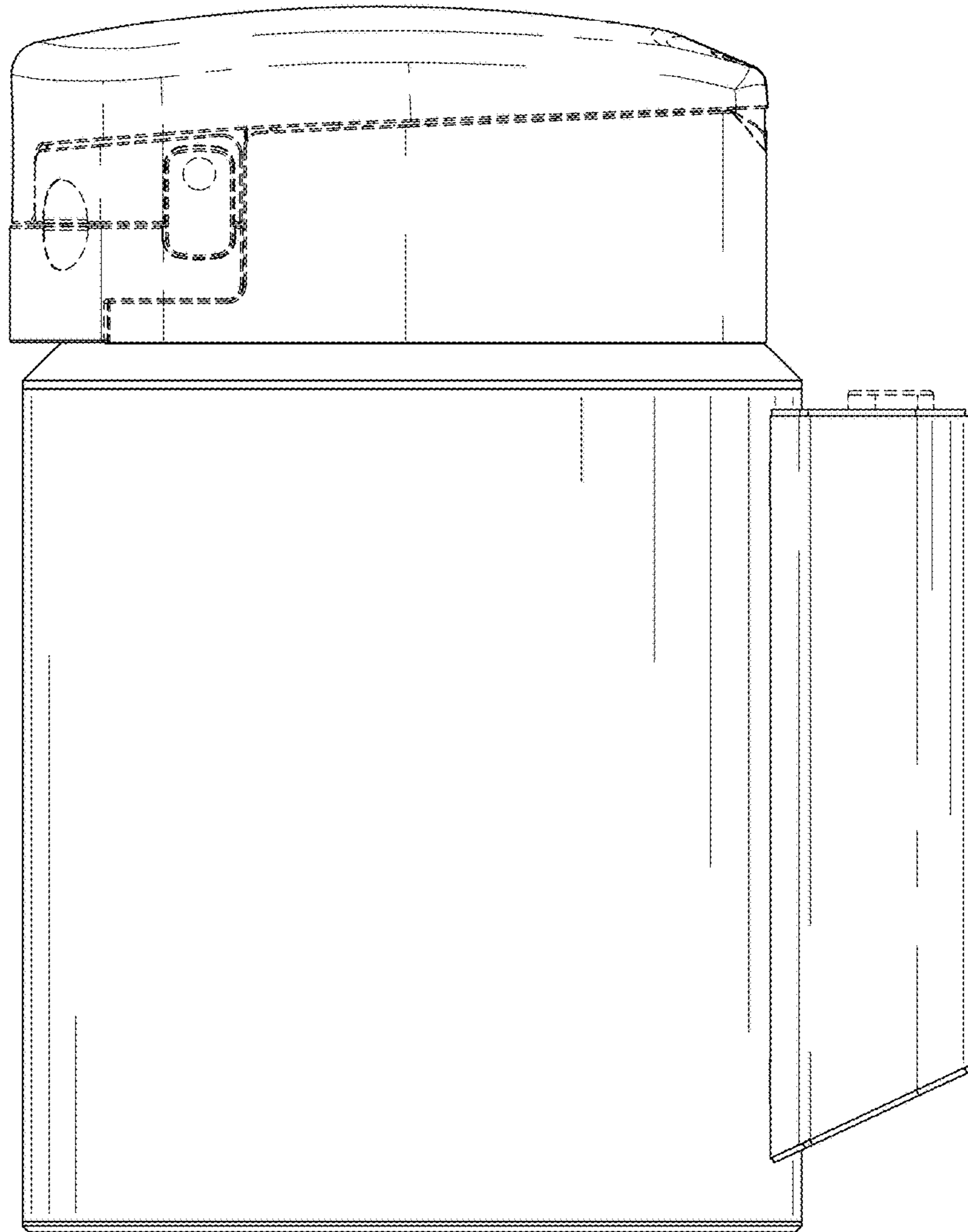


FIG.4

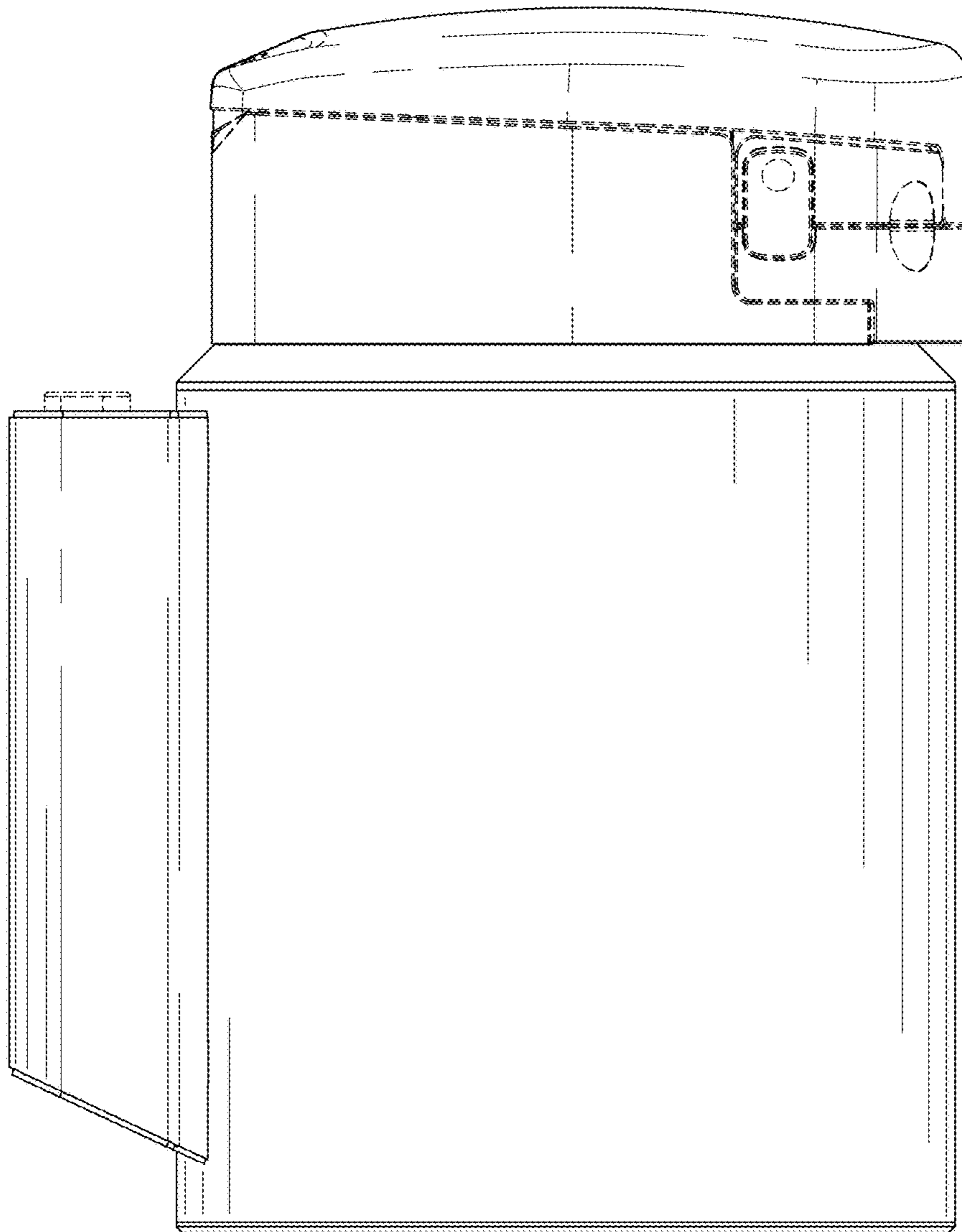


FIG. 5

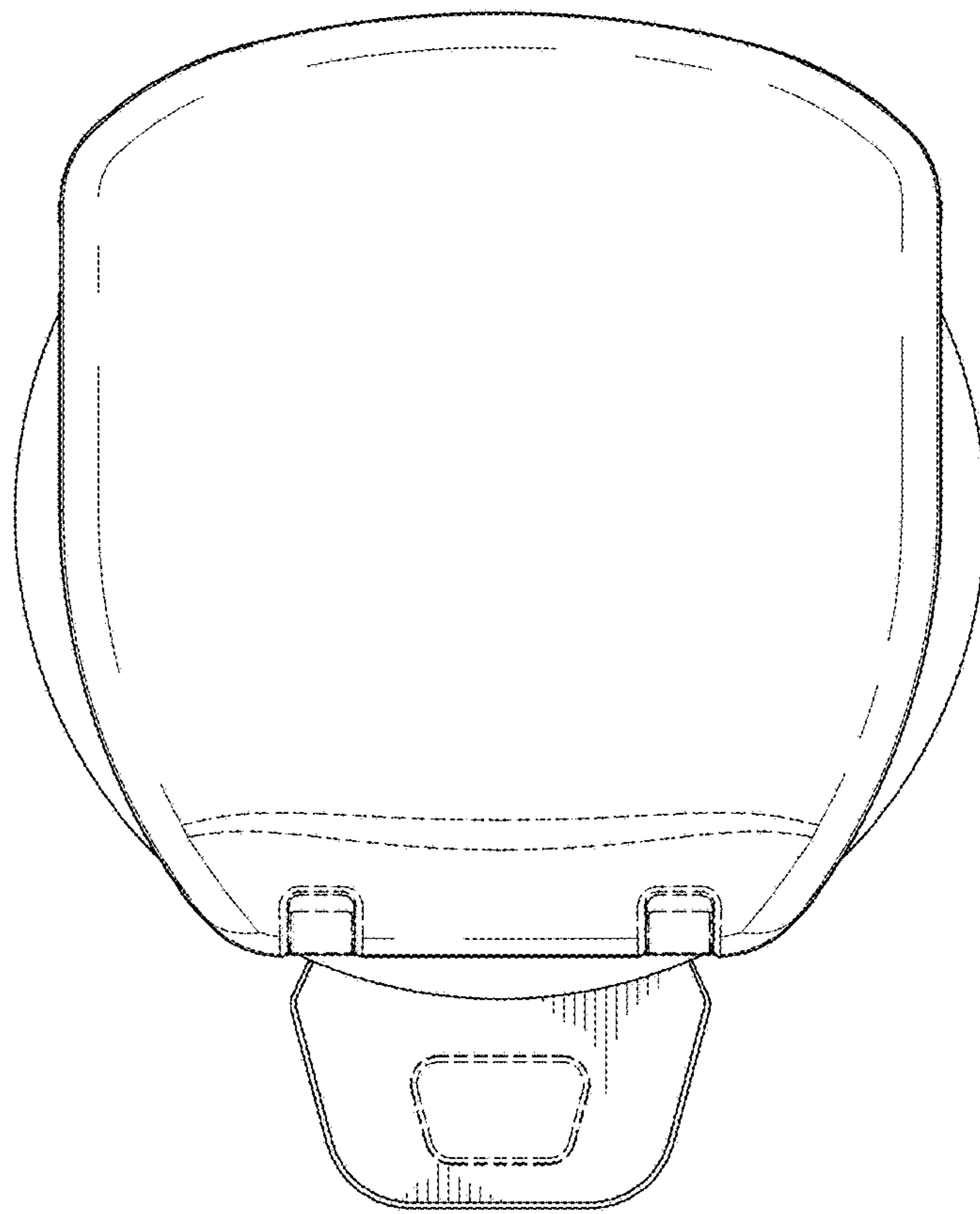


FIG.6



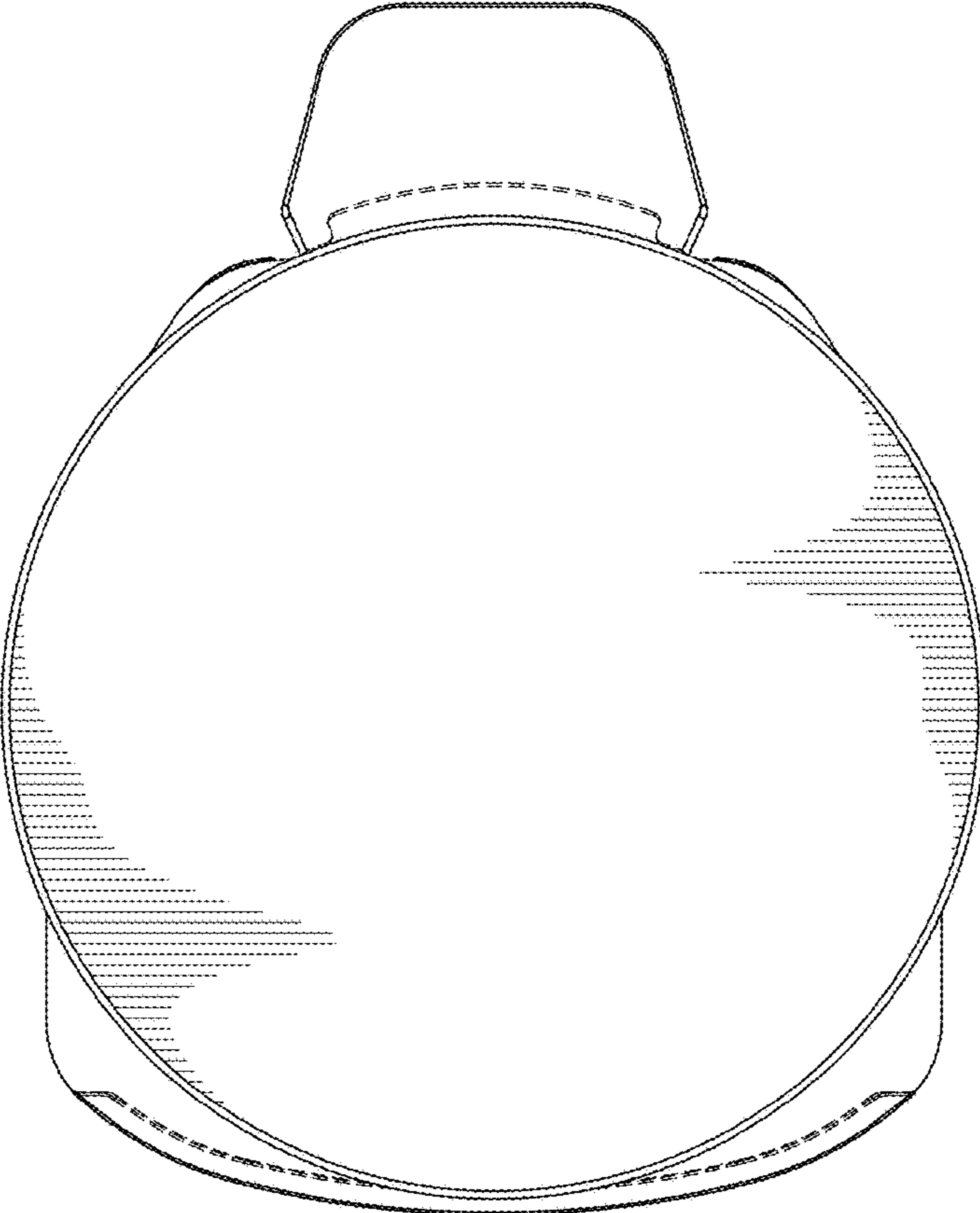


FIG. 7

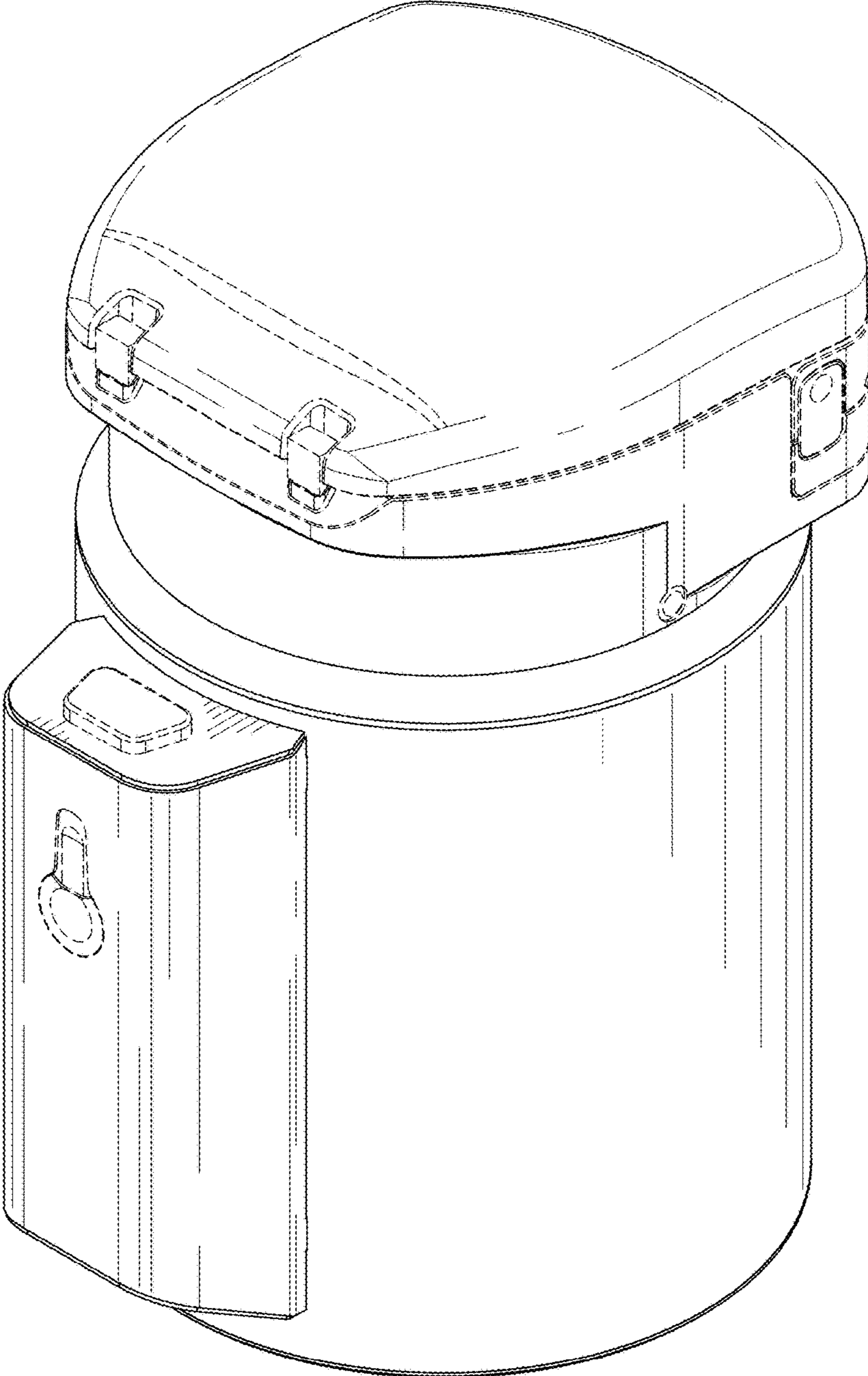


FIG. 8

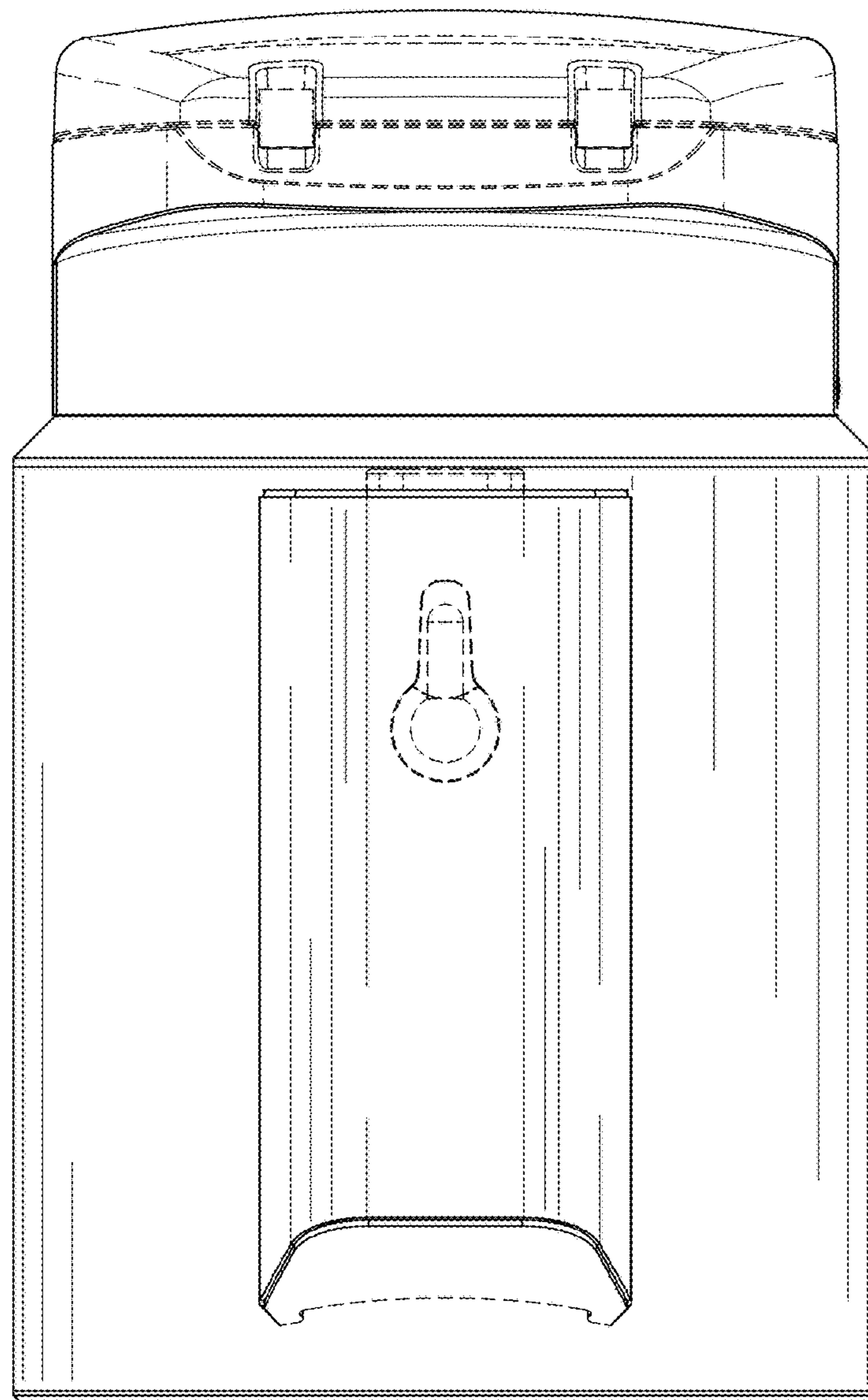


FIG. 9

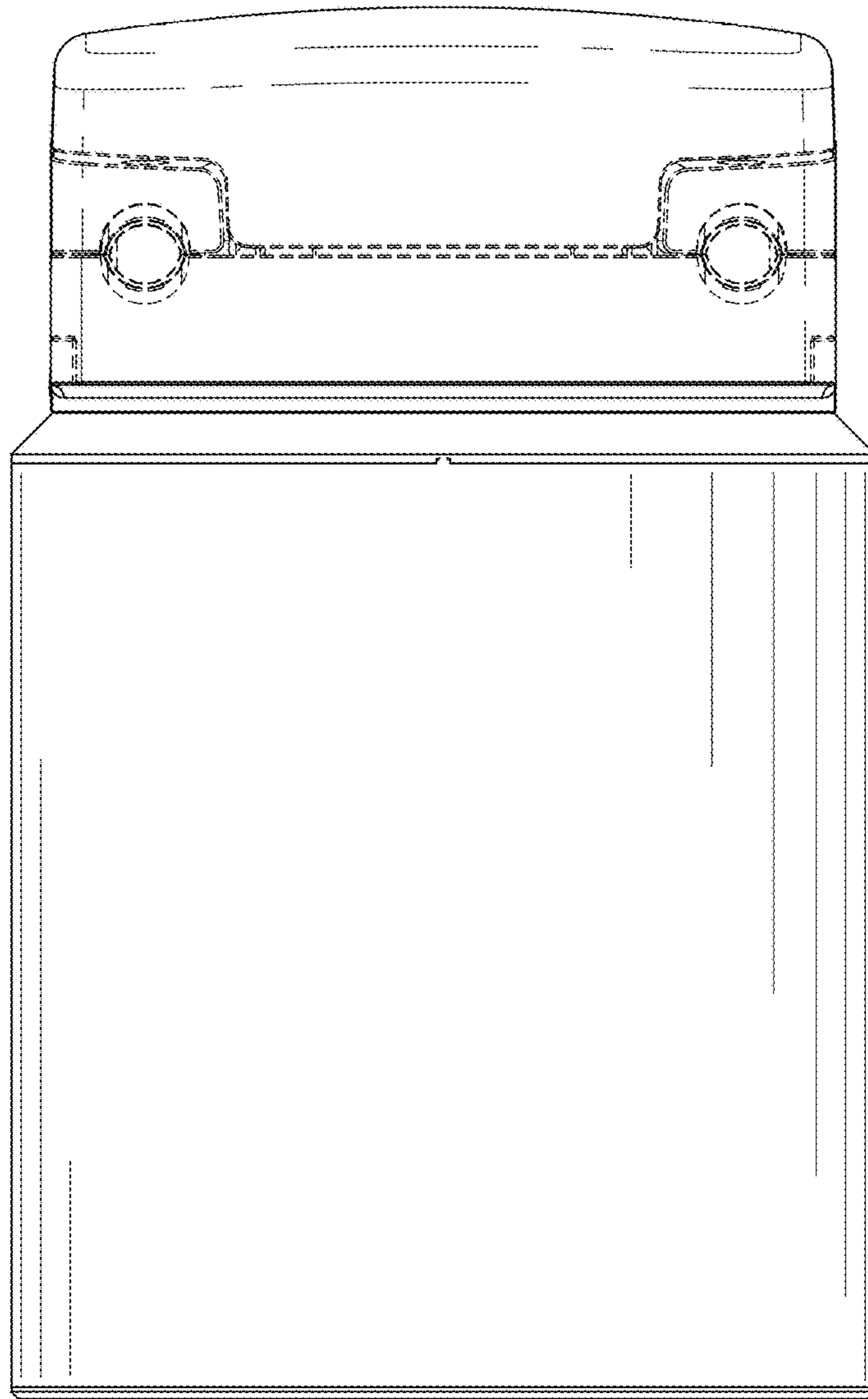


FIG. 10

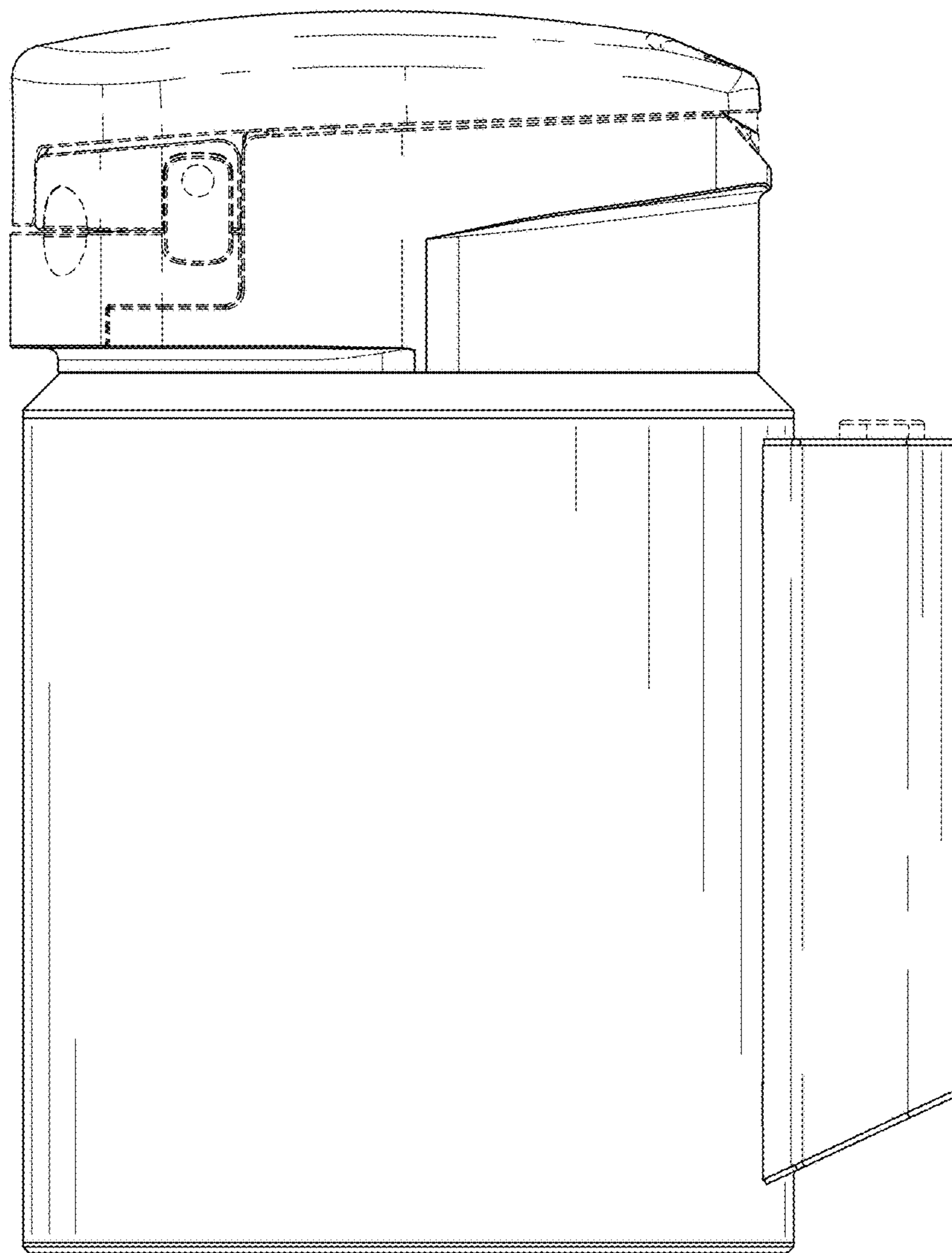


FIG. 11

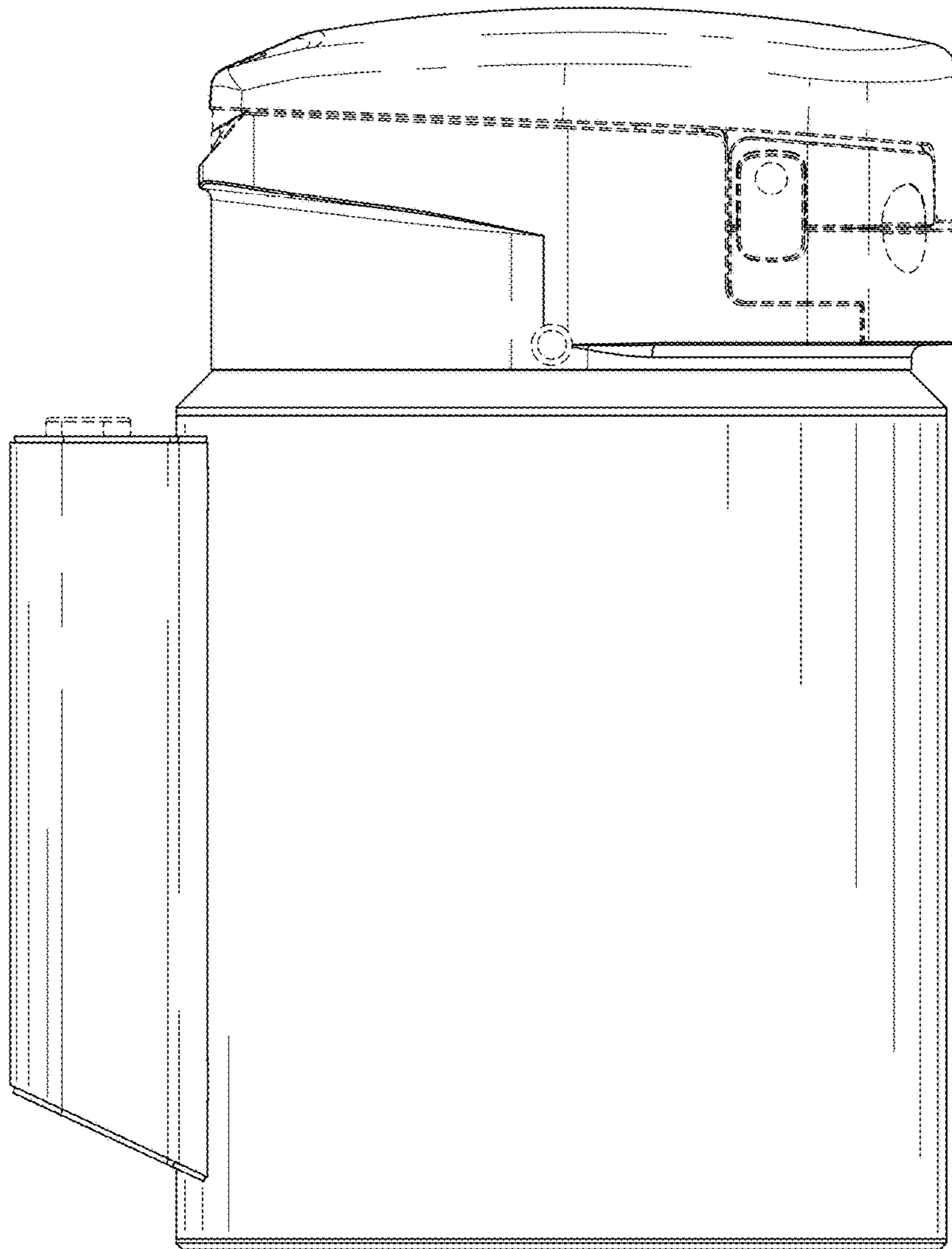


FIG. 12

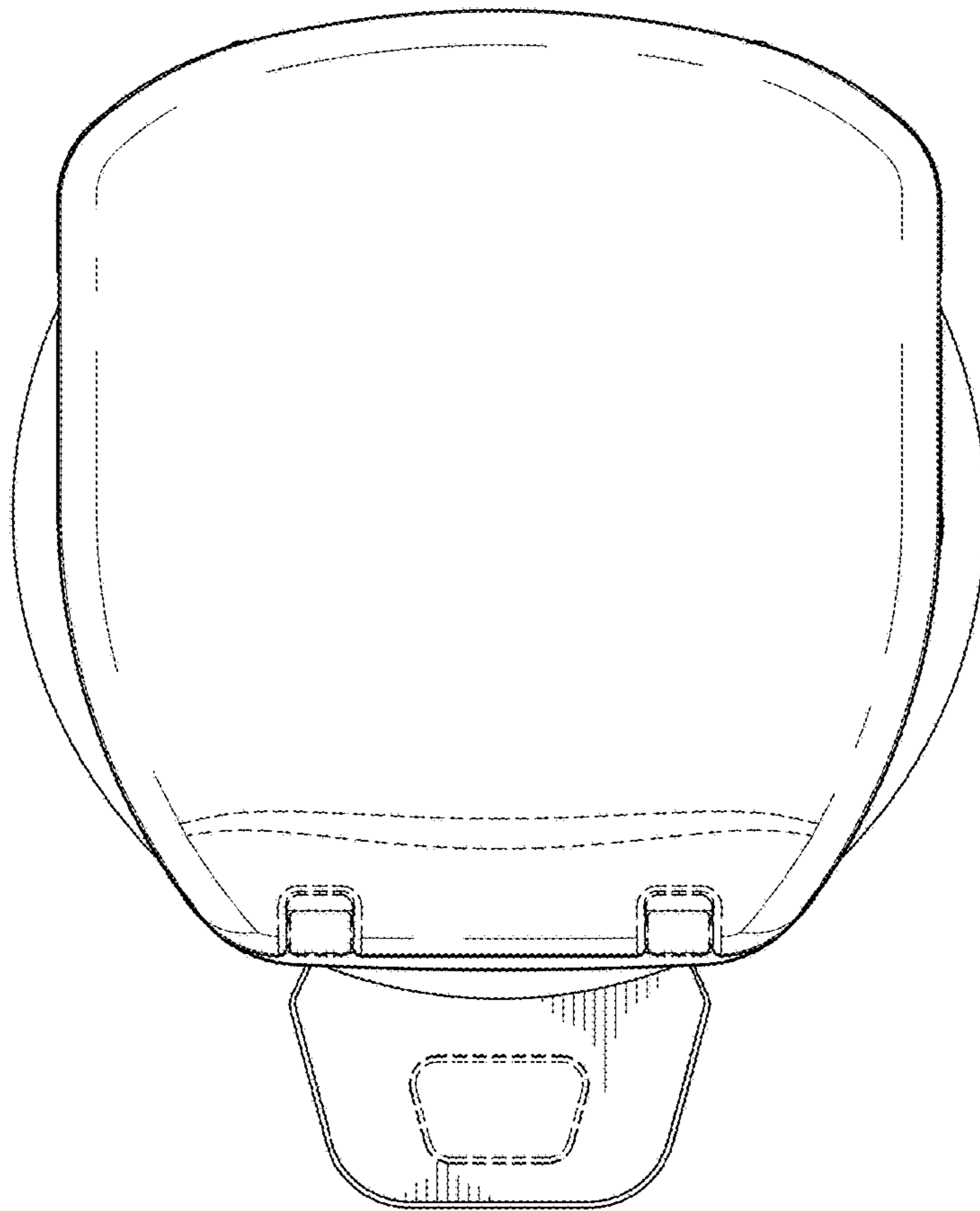


FIG. 13

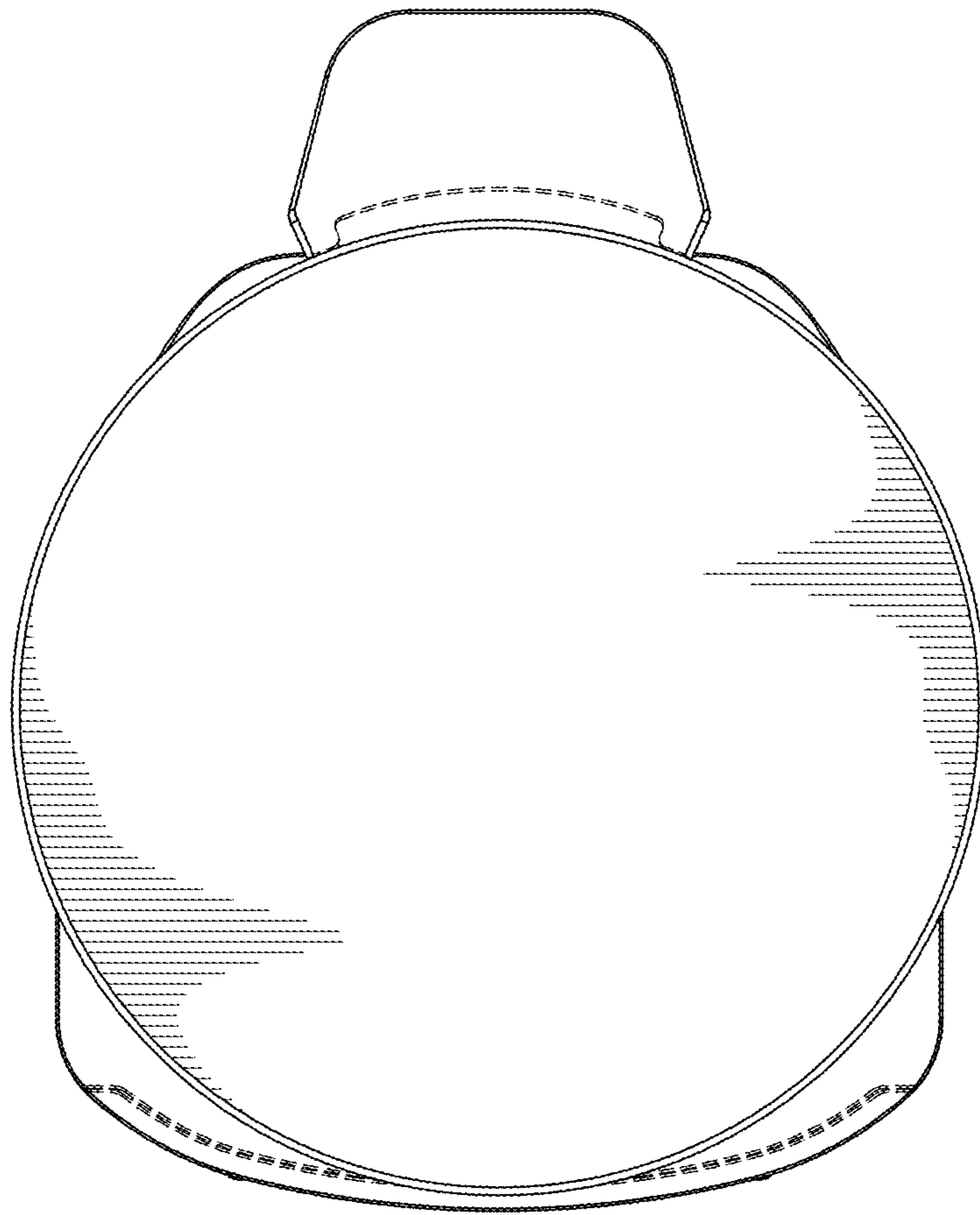


FIG. 14