



US00D804004S

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

(10) **Patent No.:** **US D804,004 S**

(45) **Date of Patent:** **\*\* Nov. 28, 2017**

(54) **AIR FILTER ELEMENT**

(71) Applicant: **MANN+HUMMEL GMBH**,  
Ludwigsburg (DE)

(72) Inventors: **Pedro Miguel Pereira Madeira**,  
Bietigheim-Bissingen (DE); **Pascal Neef**,  
Renningen (DE); **Nadine Sorger**,  
Stuttgart (DE)

(73) Assignee: **MANN+HUMMEL GMBH**,  
Ludwigsburg (DE)

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

(21) Appl. No.: **29/506,958**

(22) Filed: **Oct. 22, 2014**

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 14/017,767,  
filed on Sep. 4, 2013, and a continuation-in-part of  
application No. 29/467,257, filed on Sep. 17, 2013.

(51) **LOC (10) Cl.** ..... **23-04**

(52) **U.S. Cl.**  
USPC ..... **D23/365**

(58) **Field of Classification Search**  
USPC ..... D23/365, 209, 363, 358, 386, 354, 341,  
D23/364; 55/385.3, 502, 497, 506, 505,  
55/521, 495, 422, 493, DIG. 30;  
210/435, 130, 136, 248, 339, 448, 452,  
210/497.1; D15/5  
CPC ..... B01D 46/00  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D437,402 S \* 2/2001 Gieseke ..... D23/365  
D484,584 S \* 12/2003 Anderson ..... D23/365  
D506,539 S \* 6/2005 Bishop ..... D23/365

D545,396 S \* 6/2007 Casey ..... D23/209  
D585,536 S \* 1/2009 Wang ..... D23/364  
D595,811 S \* 7/2009 Stadtler ..... D23/249  
8,048,187 B2 \* 11/2011 Merritt ..... B01D 46/0001  
55/498  
8,088,190 B2 \* 1/2012 Patel ..... B01D 46/0005  
55/487  
D657,041 S \* 4/2012 Bull ..... D23/393

(Continued)

*Primary Examiner* — David Muller

*Assistant Examiner* — Nathan Johnston

(74) *Attorney, Agent, or Firm* — James Hasselbeck

(57) **CLAIM**

We claim the ornamental design for an air filter element, as shown and described.

**DESCRIPTION**

FIG. 1 is a top front perspective view of an air filter showing our new design, the top rear perspective view is identical; FIG. 2 is a front elevation view thereof, the rear elevation view is identical;

FIG. 3 is a right side elevation view thereof, the left side elevation view is identical;

FIG. 4 is a top plan view thereof;

FIG. 5 is a bottom plan view thereof;

FIG. 6 is a bottom rear perspective view thereof;

FIG. 7 is an enlarged view of the circled region “FIG. 7” of FIG. 6;

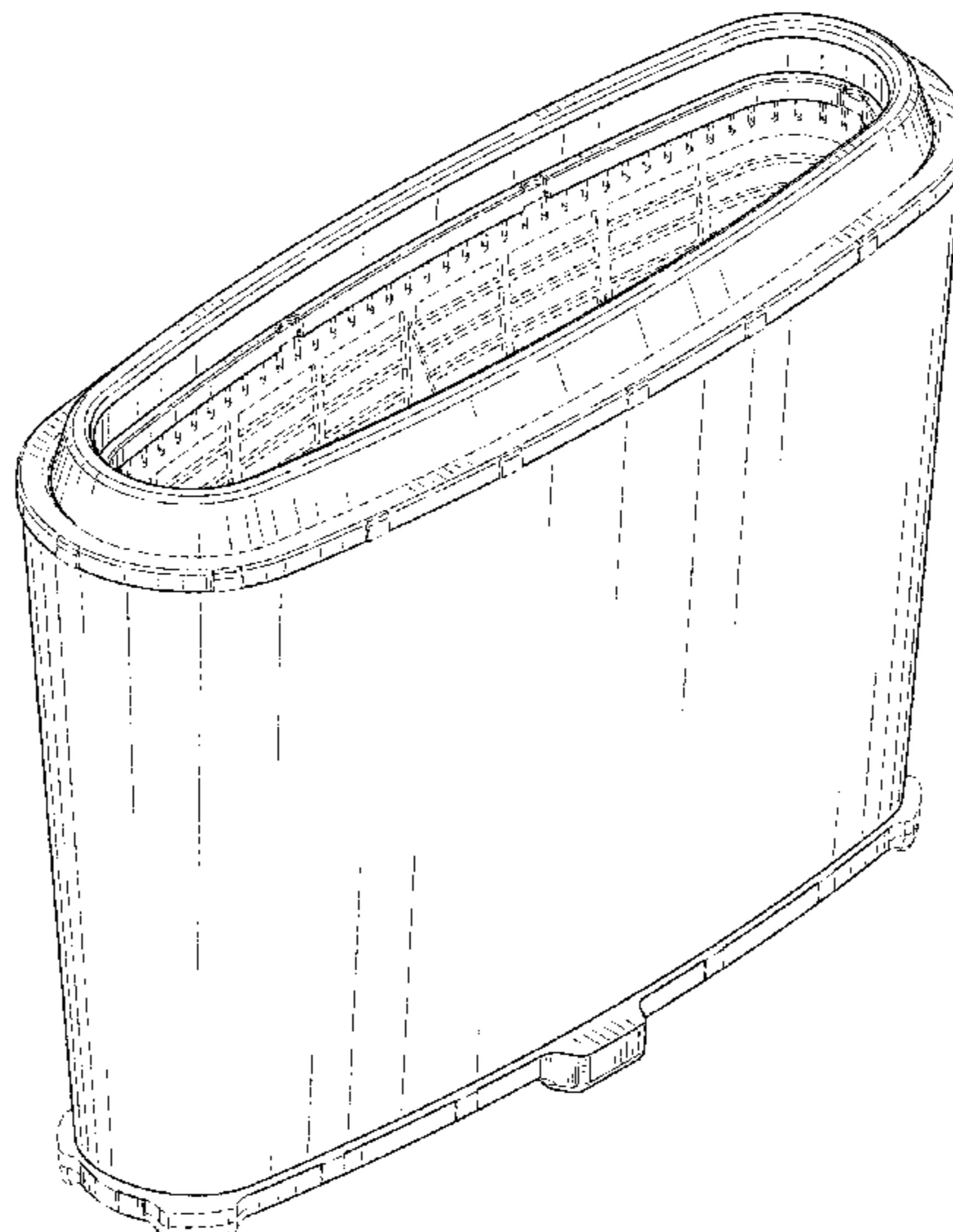
FIG. 8 is an enlarged view of the circled region “FIG. 8” of FIG. 2;

FIG. 9 is an enlarged view of the circled region “FIG. 9” of FIG. 3; and,

FIG. 10 is an enlarged view of the circled region “FIG. 10” of FIG. 5.

The broken line showing of the air filter element is included for the purpose of illustrating portions of the “article” and forms no part of the claimed design.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

8,246,702 B2 \* 8/2012 Ackermann ..... B01D 46/0021  
123/198 E  
D690,407 S \* 9/2013 Williams ..... D23/365  
2010/0252495 A1 \* 10/2010 Reid ..... B01D 29/012  
210/339  
2014/0373495 A1 \* 12/2014 Madeira ..... F02M 35/0204  
55/502

\* cited by examiner

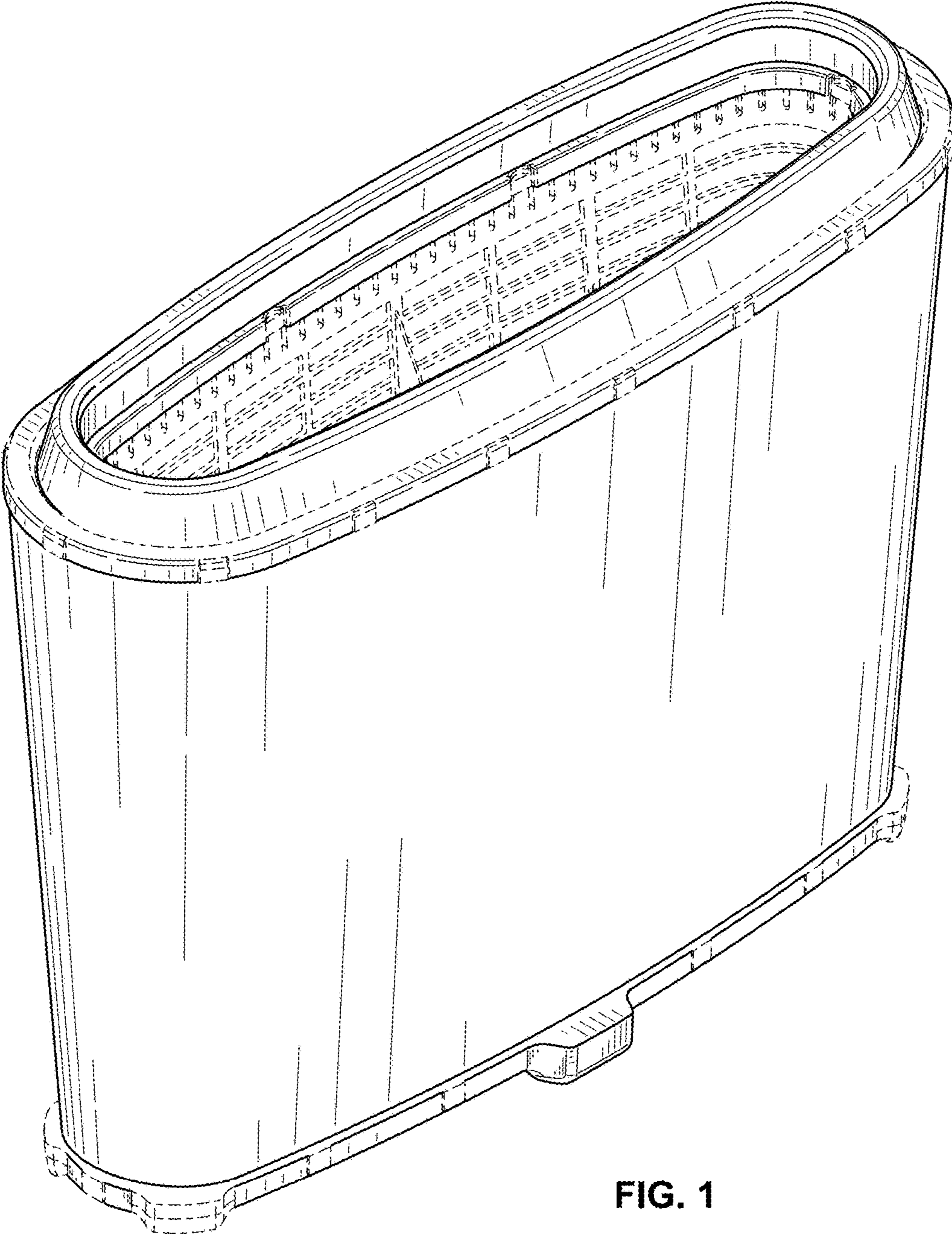


FIG. 1

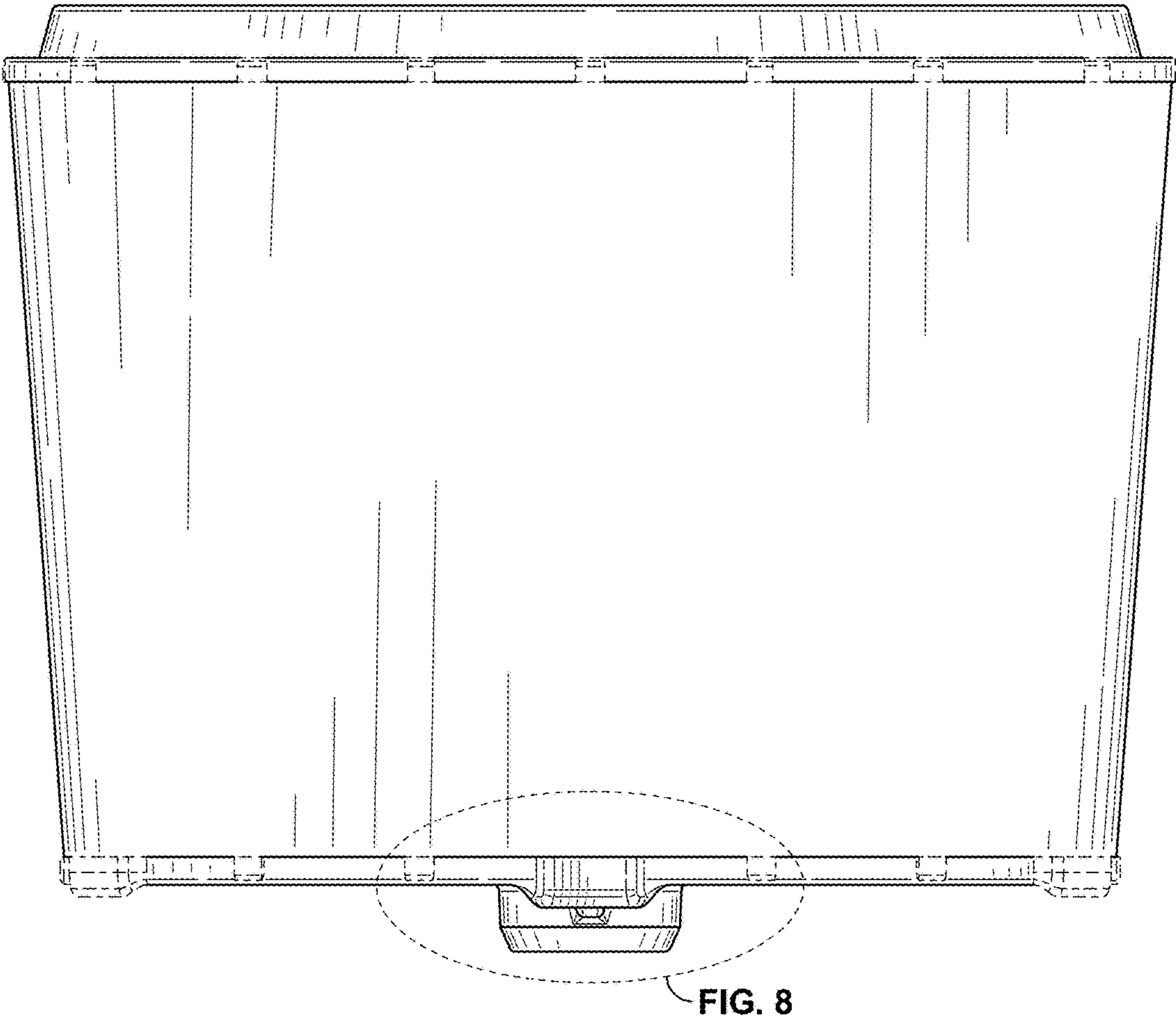


FIG. 2

FIG. 8

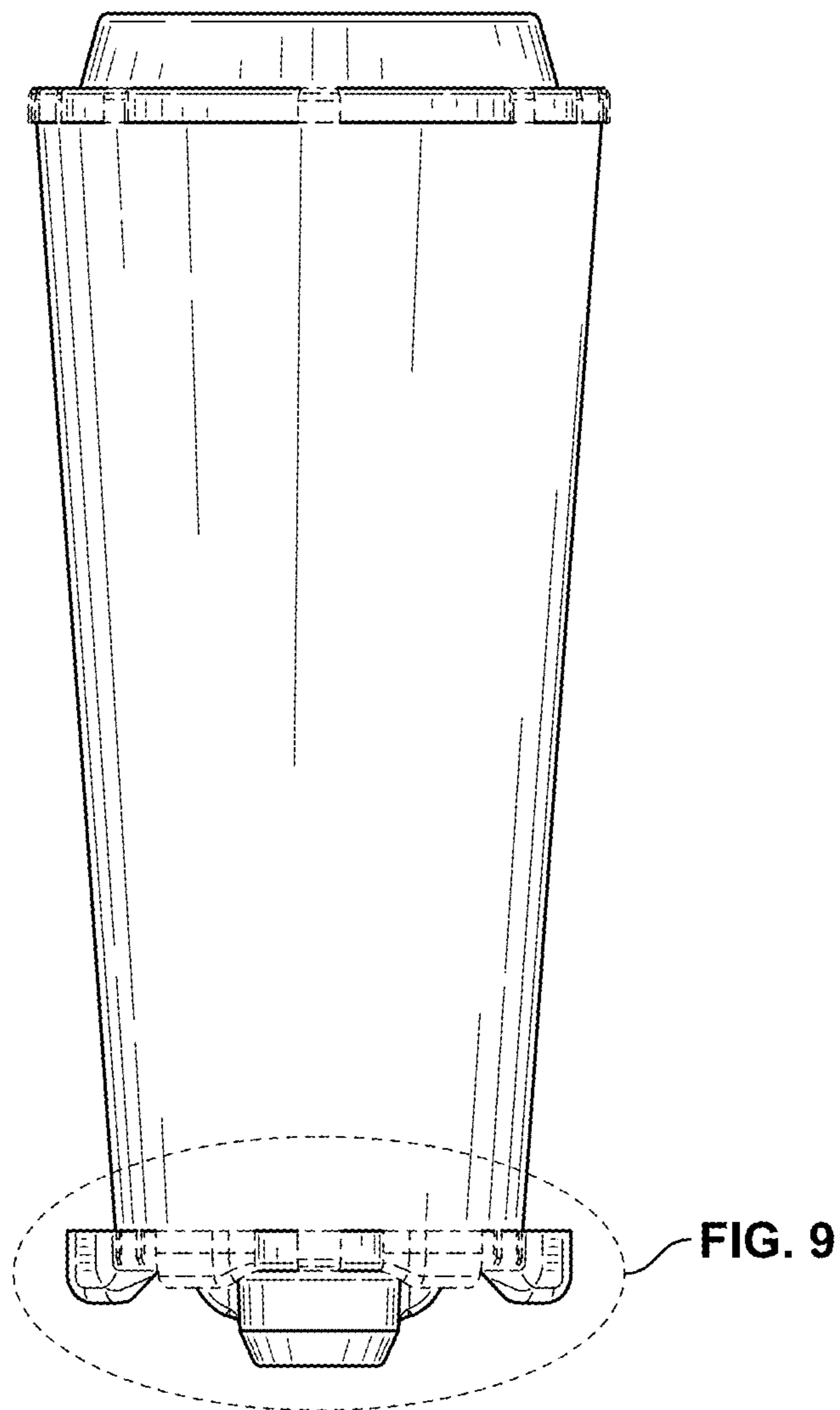


FIG. 3



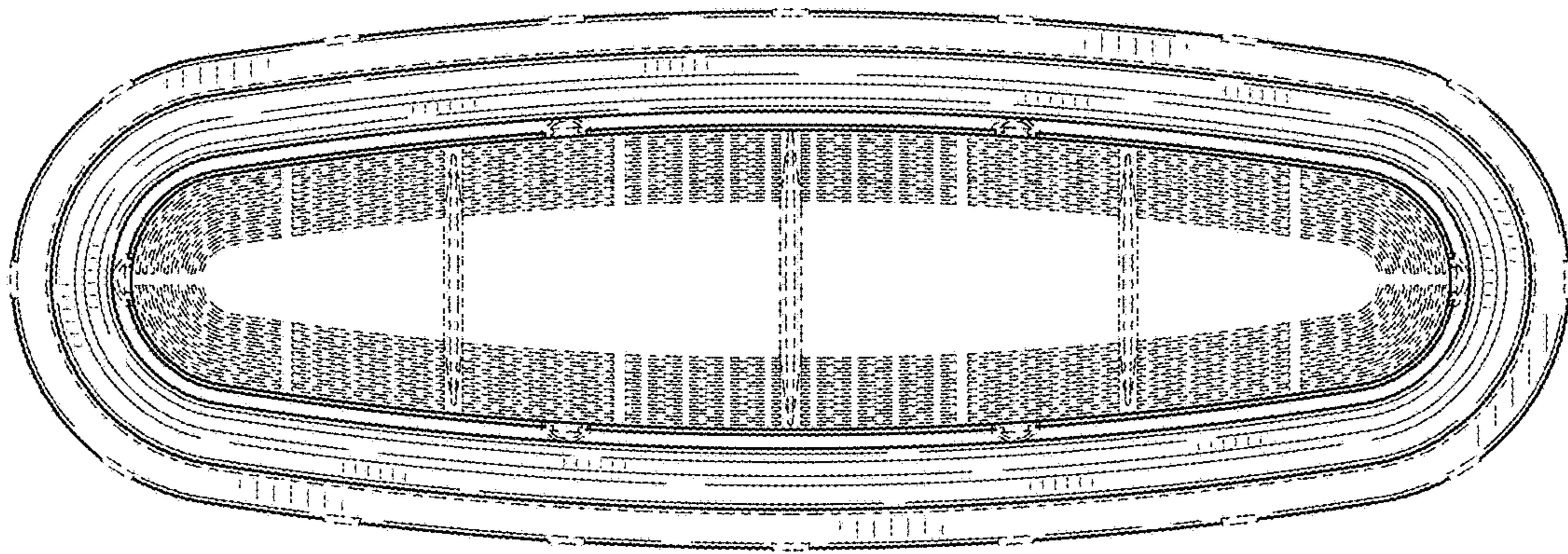


FIG. 4

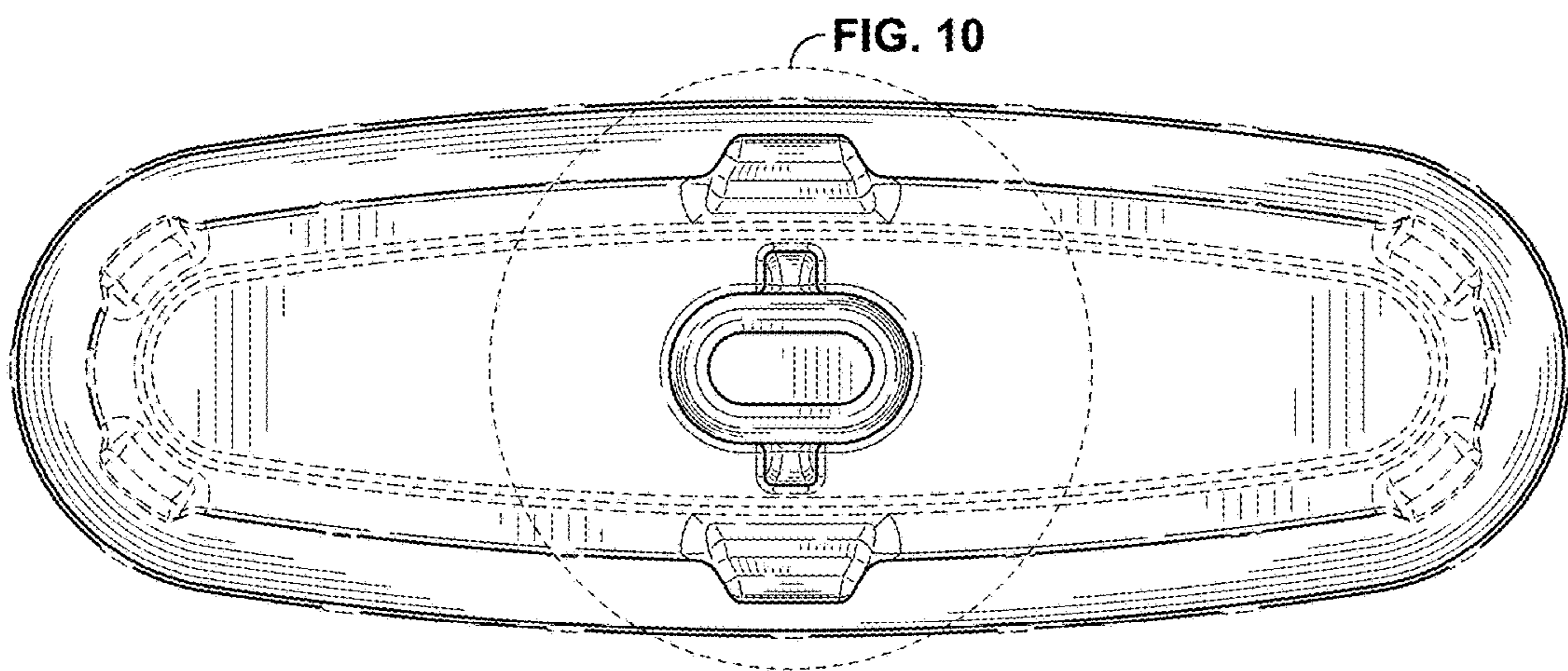


FIG. 5

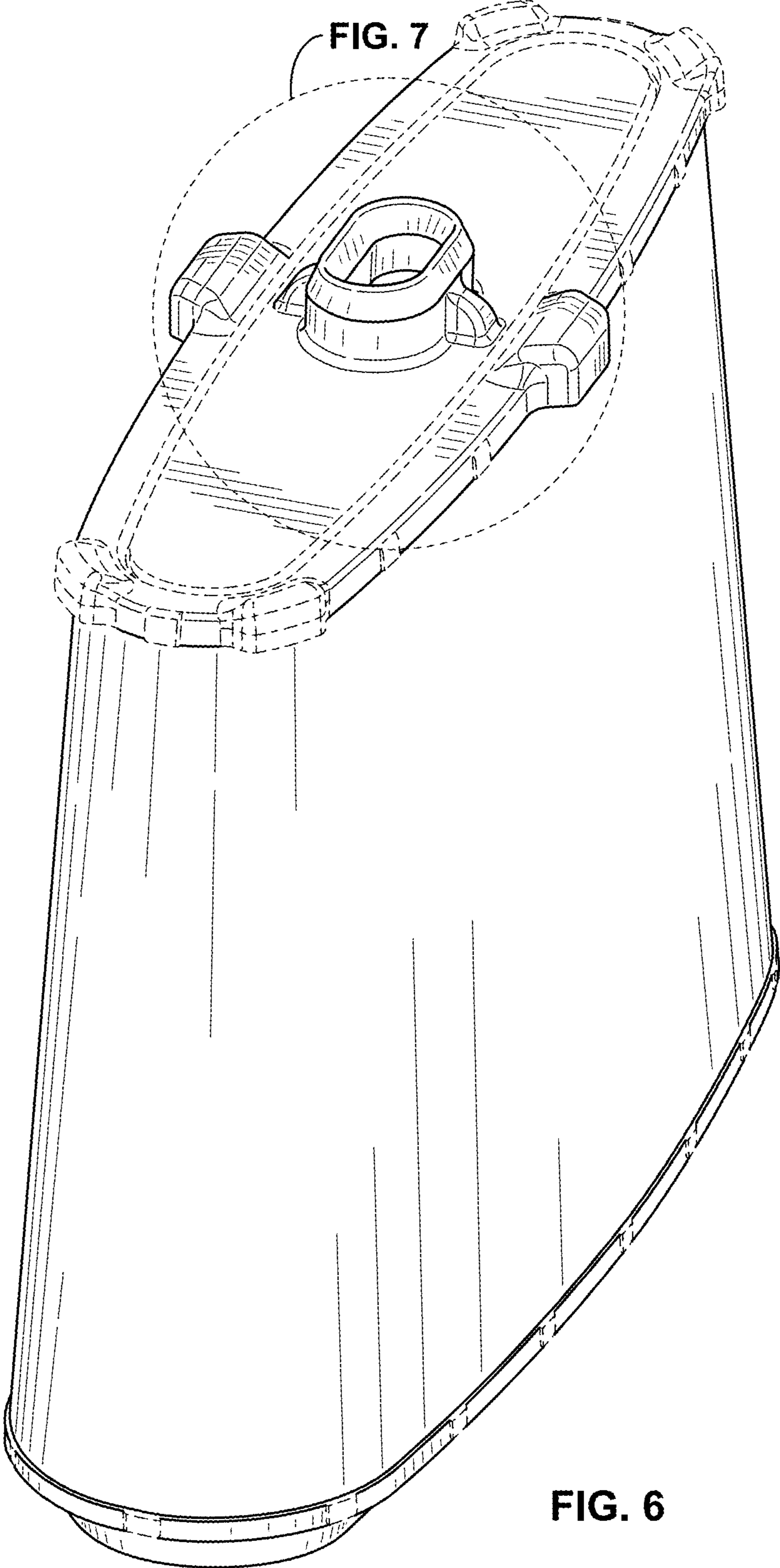


FIG. 7

FIG. 6

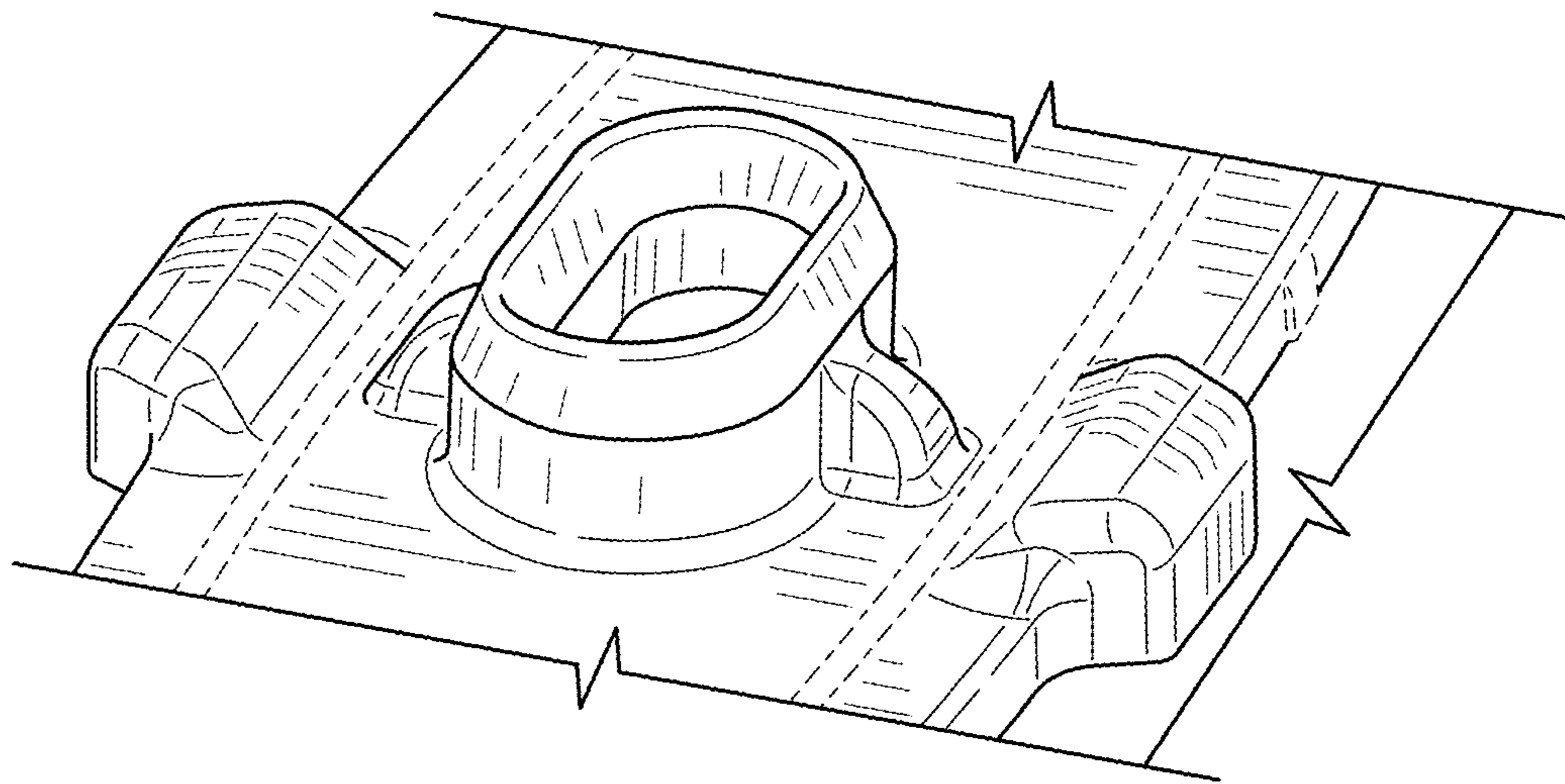


FIG. 7

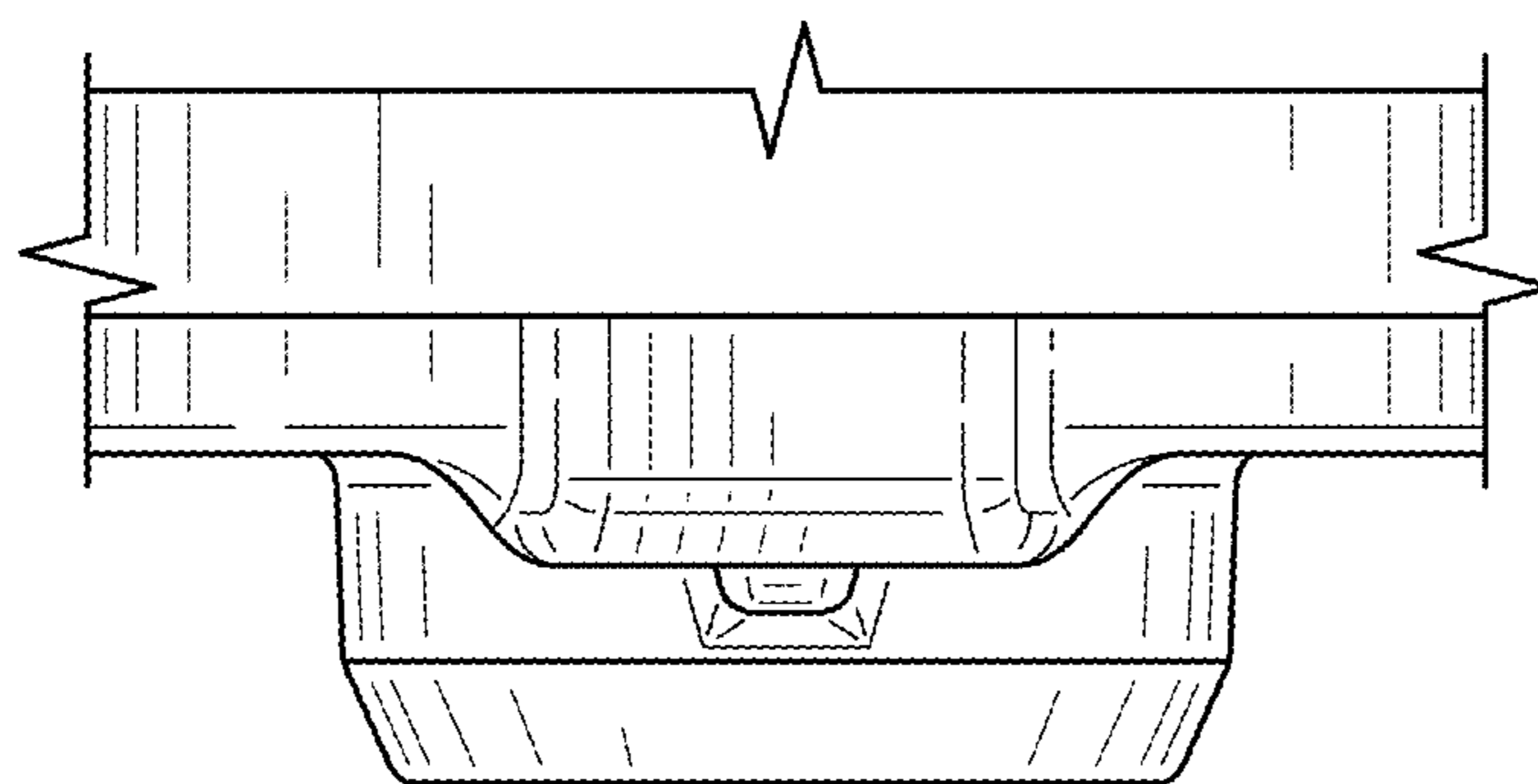


FIG. 8



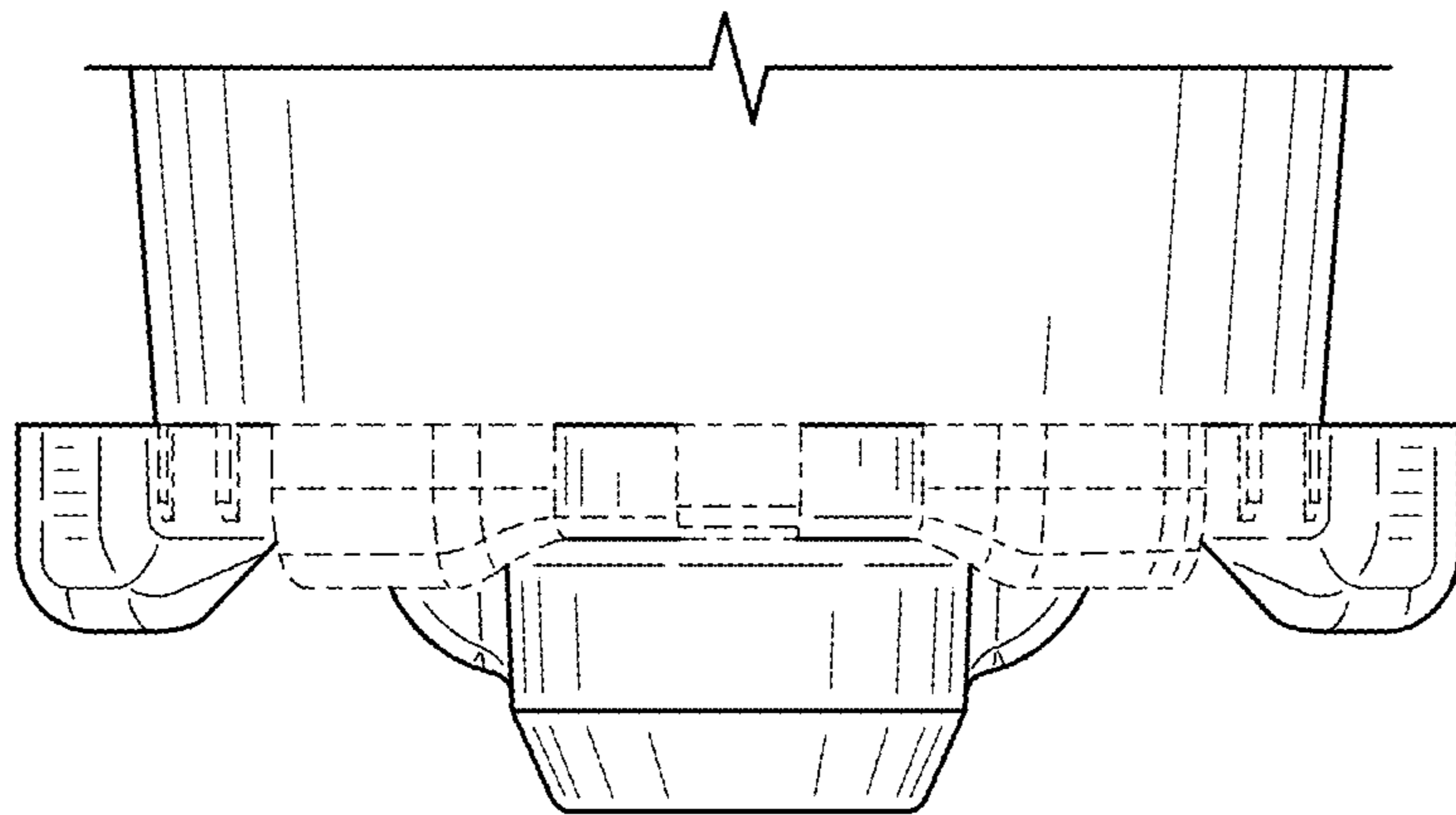


FIG. 9

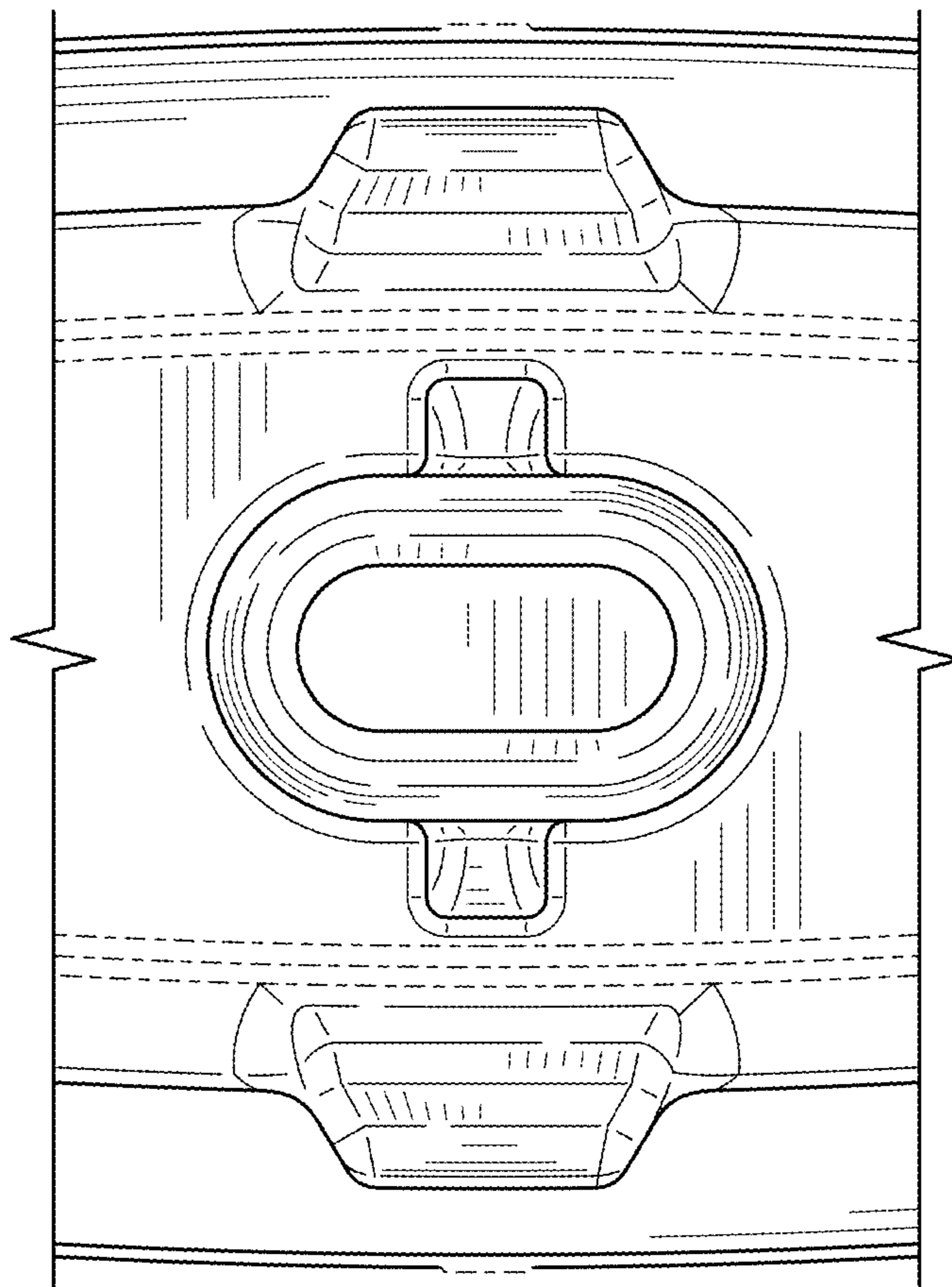


FIG. 10