



US00D913235S

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

(10) **Patent No.:** **US D913,235 S**  
(45) **Date of Patent:** **\*\* Mar. 16, 2021**

(54) **BATTERY MODULE CONNECTOR BARREL**

D389,457 S 1/1998 Beranek  
6,312,277 B1 11/2001 Holub  
6,372,377 B1 4/2002 Ovshinsky et al.  
(Continued)

(71) Applicant: **CPS Technology Holdings LLC**, New York, NY (US)

(72) Inventor: **Richard M. DeKeuster**, Racine, WI (US)

**FOREIGN PATENT DOCUMENTS**

EP 0921607 6/1999  
EP 2355209 10/2011  
(Continued)

(73) Assignee: **CPS Technology Holdings LLC**, New York, NY (US)

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

*Primary Examiner* — Jennifer O King  
(74) *Attorney, Agent, or Firm* — Boardman & Clark LLP

(21) Appl. No.: **29/714,423**

(57) **CLAIM**

The ornamental design for a connector barrel of a battery module, as shown and described in FIGS. 1-8.

(22) Filed: **Nov. 22, 2019**

**DESCRIPTION**

**Related U.S. Application Data**

(62) Division of application No. 29/576,504, filed on Sep. 2, 2016, now Pat. No. Des. 867,993.

(51) **LOC (13) Cl.** ..... **13-01**

(52) **U.S. Cl.**  
USPC ..... **D13/119**

(58) **Field of Classification Search**  
USPC ..... D13/103, 104, 110, 107, 119, 120, 133, D13/156  
CPC ..... H01R 13/641; H01M 2/1027; H01M 2/1022; H01M 2/1072; H01M 2/105; H01M 2/1077

See application file for complete search history.

(56) **References Cited**

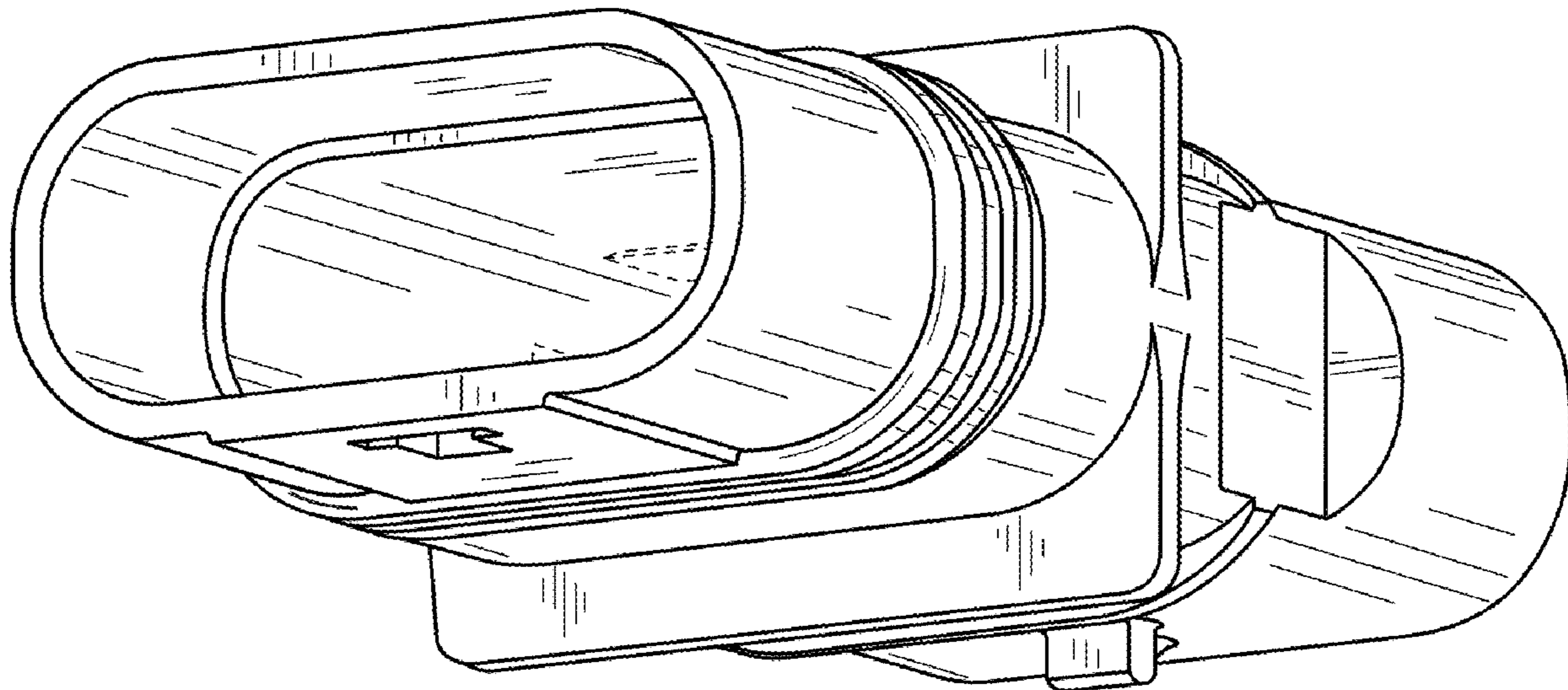
**U.S. PATENT DOCUMENTS**

D256,356 S 8/1980 Lazerson  
D319,813 S 9/1991 Kozono  
5,127,848 A 7/1992 Taguchi  
D335,647 S 5/1993 Hood  
5,378,552 A 1/1995 Dixon, Jr.  
5,681,178 A 10/1997 Kunkle

FIG. 1 is a back underside perspective view of a connector barrel showing my new design;  
FIG. 2 is a front overhead perspective view of the connector barrel of FIG. 1;  
FIG. 3 is a top plan view of the connector barrel of FIG. 1;  
FIG. 4 is a bottom plan view of the connector barrel of FIG. 1;  
FIG. 5 is a right side elevational view of the connector barrel of FIG. 1;  
FIG. 6 is a left side elevational view of the connector barrel of FIG. 1;  
FIG. 7 is a front elevational view of the connector barrel of FIG. 1; and,  
FIG. 8 is a back elevational view of the connector barrel of FIG. 1.

The broken lines shown in the drawings show portions of the battery module connector barrel which form no part of the claimed design. Where the dot-dash broken lines abut the shaded surface it is understood that those broken lines represent an unclaimed boundary between the claimed and unclaimed surfaces.

**1 Claim, 4 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

6,376,122 B1 \* 4/2002 Cheeseman ..... H01M 2/0202  
429/100

D475,014 S 5/2003 Kano  
D588,990 S 3/2009 Kok  
D589,444 S 3/2009 Kok  
7,722,372 B2 5/2010 Matsumoto et al.  
7,879,485 B2 2/2011 Yoon et al.  
7,892,011 B2 2/2011 Beer  
8,038,450 B2 10/2011 Nakagawa  
8,147,280 B2 4/2012 Fernandez et al.  
8,221,165 B2 7/2012 DeWitte  
8,237,400 B2 8/2012 Gamboa et al.  
8,241,043 B1 \* 8/2012 Lin ..... H01R 13/64  
439/39

8,328,581 B2 12/2012 DeChazal  
D675,568 S 2/2013 Drew  
D678,203 S 3/2013 Corona  
8,460,008 B1 6/2013 Lin et al.  
8,679,666 B1 3/2014 Tsukamoto et al.  
8,808,031 B2 8/2014 Zhao  
9,150,107 B2 10/2015 Ferrel  
9,321,340 B2 4/2016 Maskew  
D760,650 S 7/2016 Juds et al.  
D765,030 S \* 8/2016 Tyler ..... D13/119  
9,413,040 B2 8/2016 Murakami  
D774,458 S 12/2016 Naarup

D788,037 S 5/2017 Hung et al.  
D817,278 S \* 5/2018 Tyler ..... D13/119  
D860,131 S \* 9/2019 Siminoff ..... D13/103  
D867,993 S \* 11/2019 DeKeuster ..... D13/119  
D876,358 S \* 2/2020 Tabata ..... D13/133  
D877,064 S \* 3/2020 Jiang ..... D13/103  
D879,707 S \* 3/2020 Chuang ..... D13/103

2007/0087266 A1 4/2007 Bourke et al.  
2009/0136831 A1 5/2009 Wyser  
2014/0327444 A1 11/2014 Rollan et al.  
2015/0069829 A1 3/2015 Dulle et al.  
2015/0243946 A1 8/2015 Ahn  
2016/0043448 A1 2/2016 Fritz  
2016/0107530 A1 4/2016 Roberts et al.  
2016/0133908 A1 5/2016 Zhao  
2016/0197320 A1 7/2016 Mack et al.  
2016/0226112 A1 8/2016 Maskew et al.  
2016/0233632 A1 8/2016 Scruggs et al.  
2017/0179461 A1 6/2017 Moon et al.  
2018/0008760 A1 1/2018 Zilbershlag et al.

FOREIGN PATENT DOCUMENTS

WO 9831059 7/1998  
WO 2013188680 12/2013  
WO 2016112008 7/2016  
WO 2016167866 10/2016

\* cited by examiner

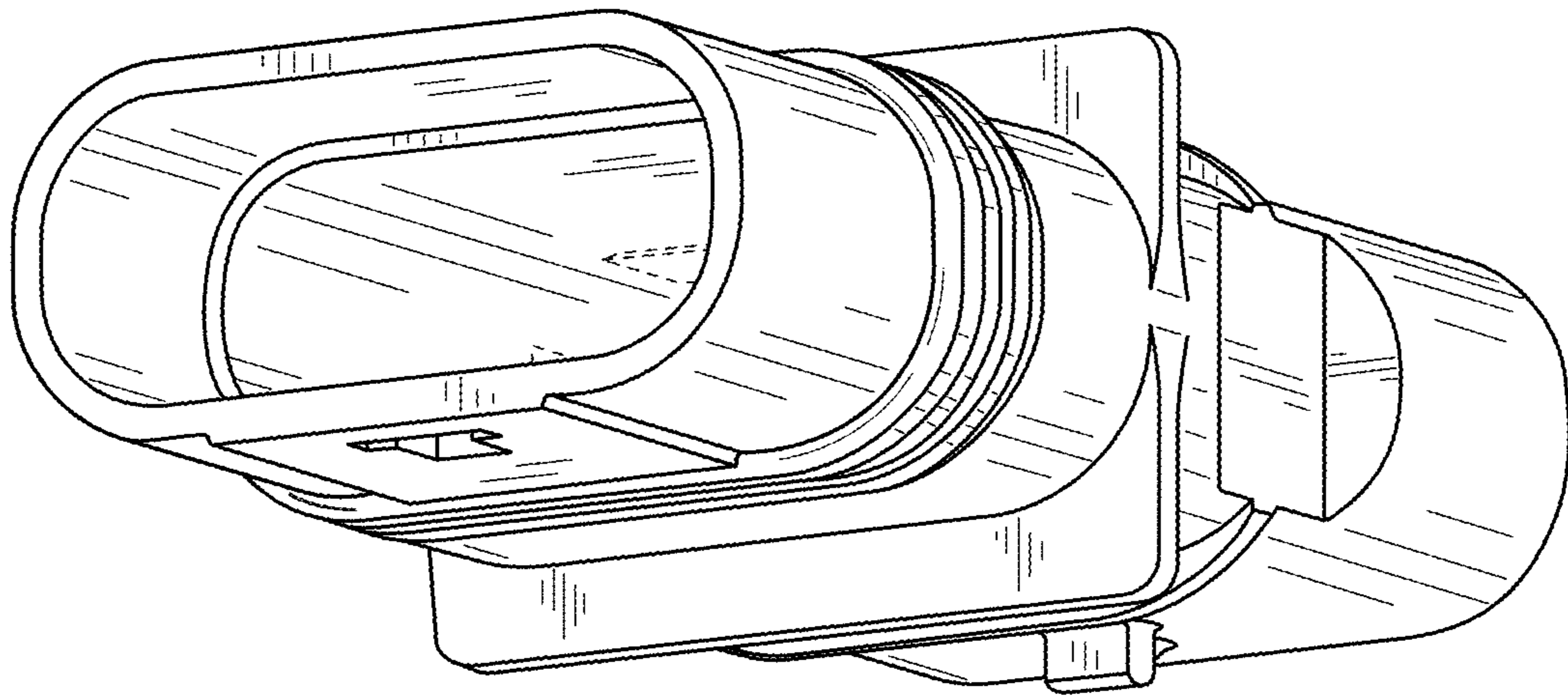


FIG. 1

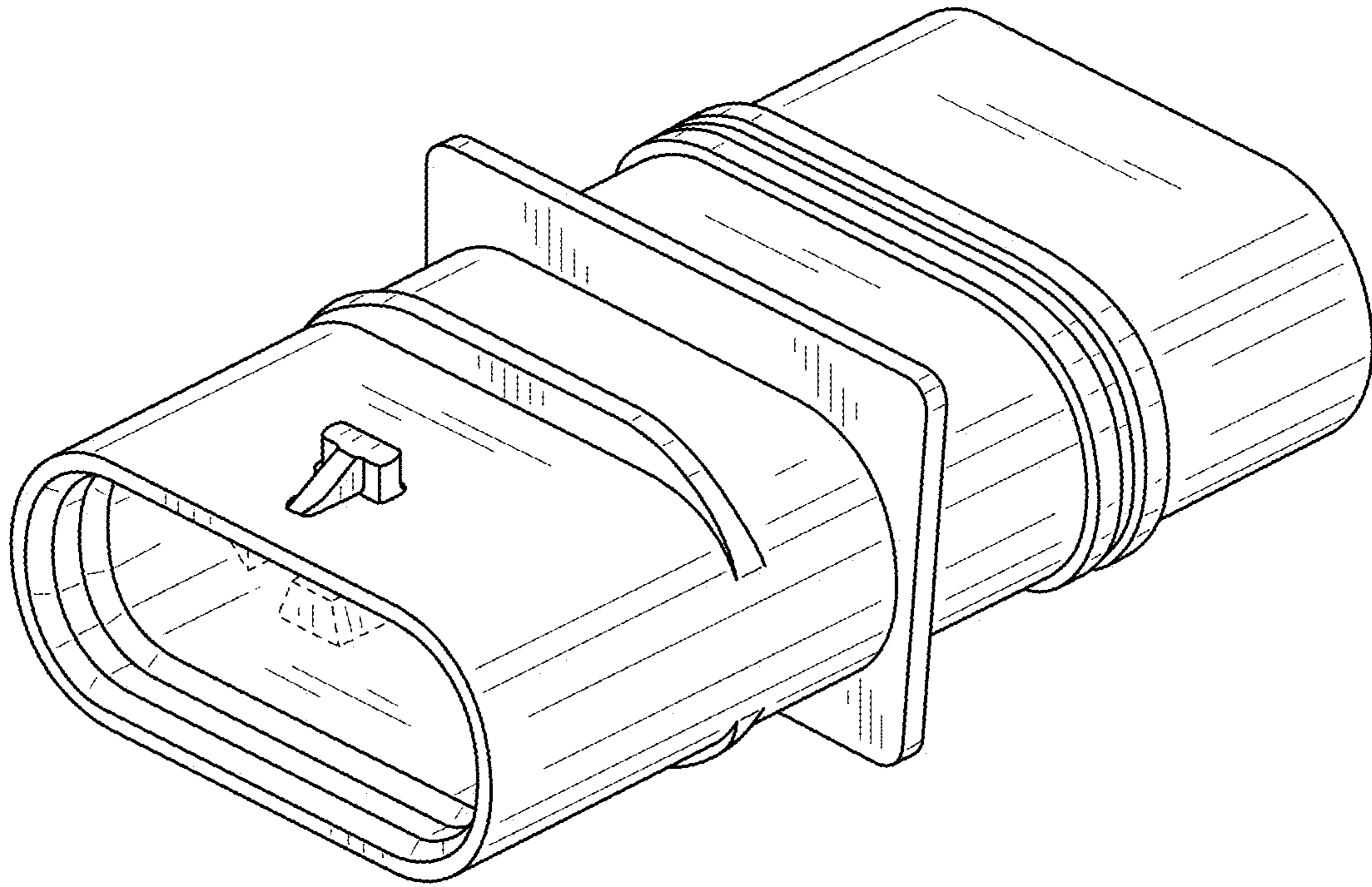


FIG. 2

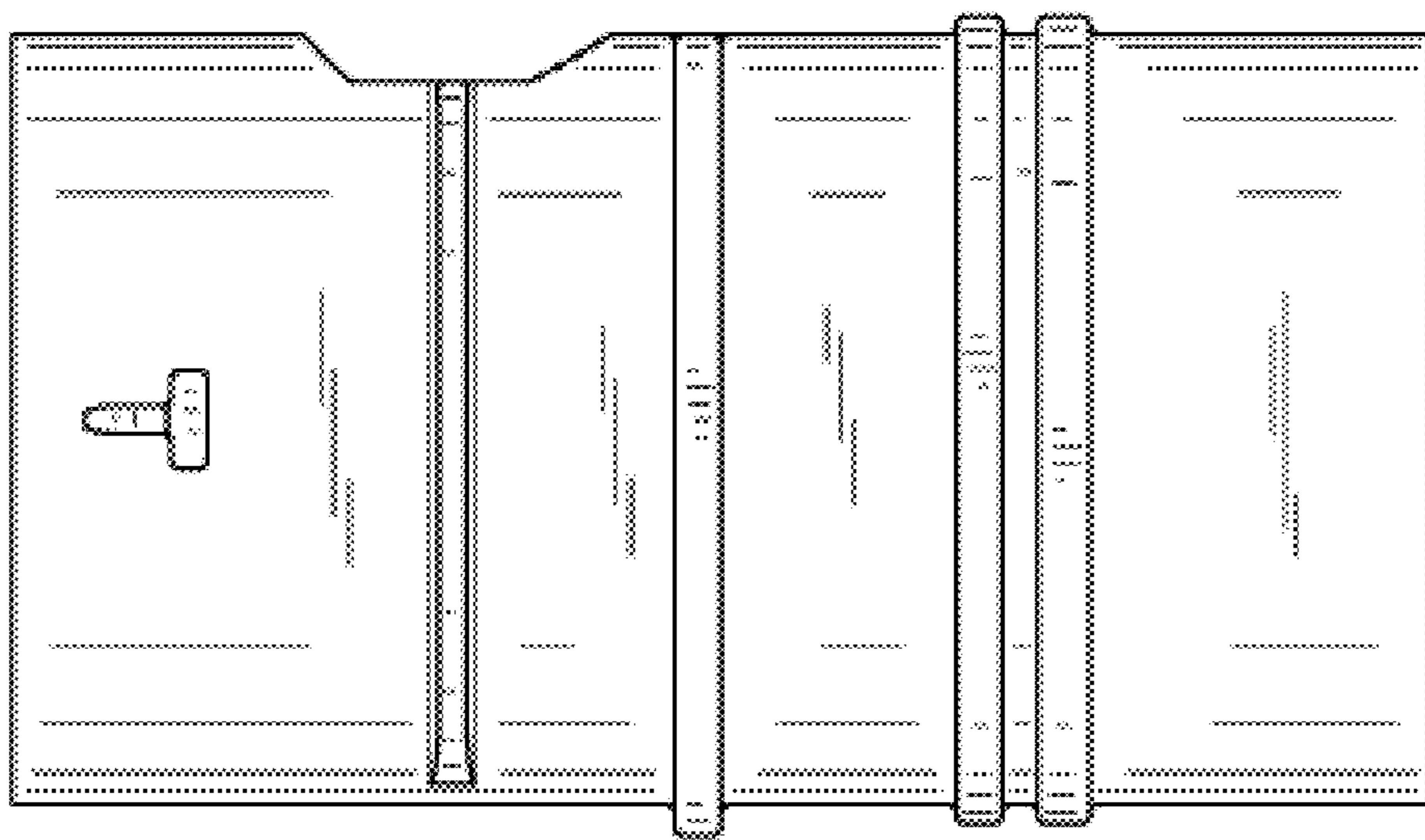


FIG. 3

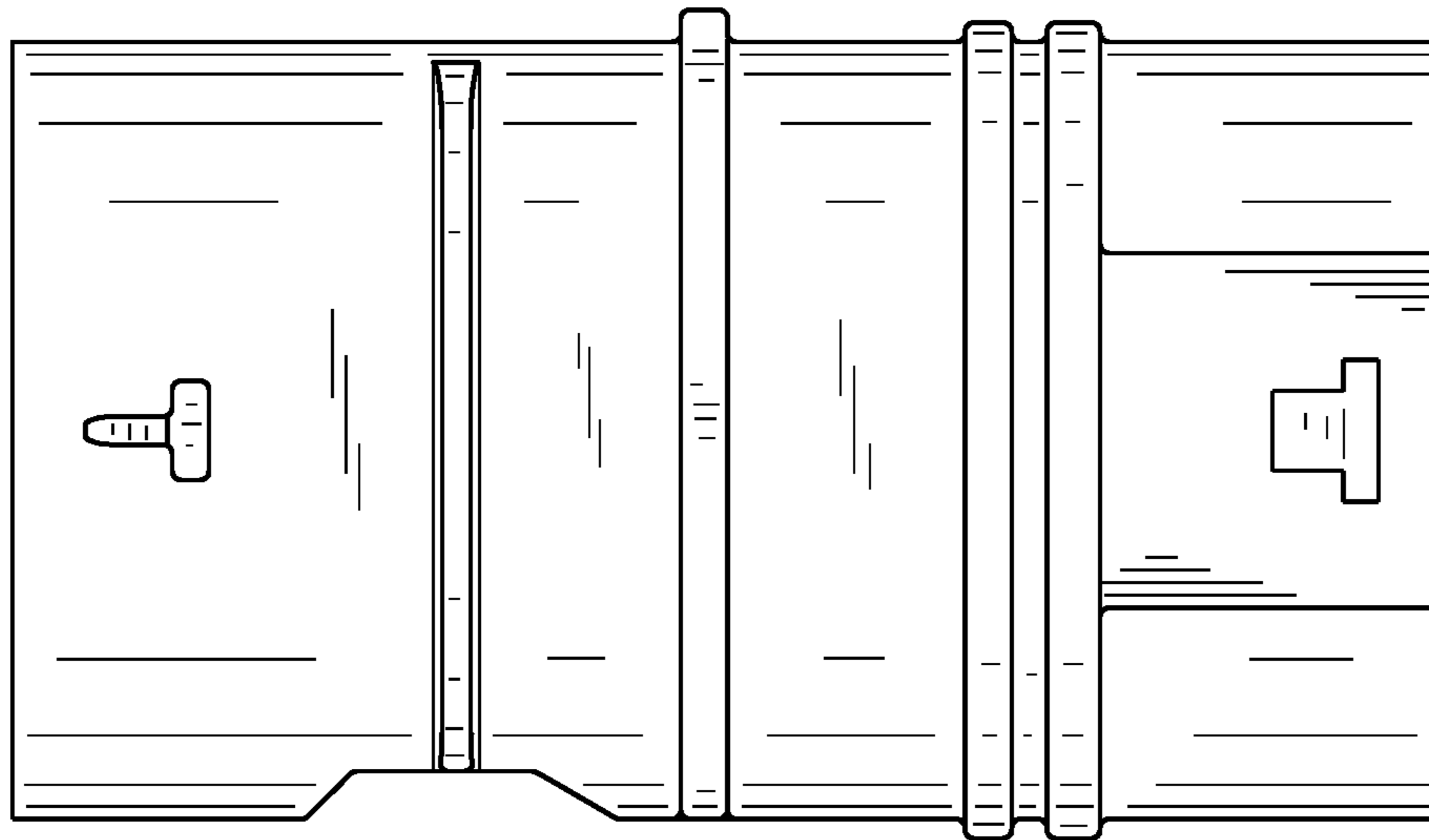


FIG. 4

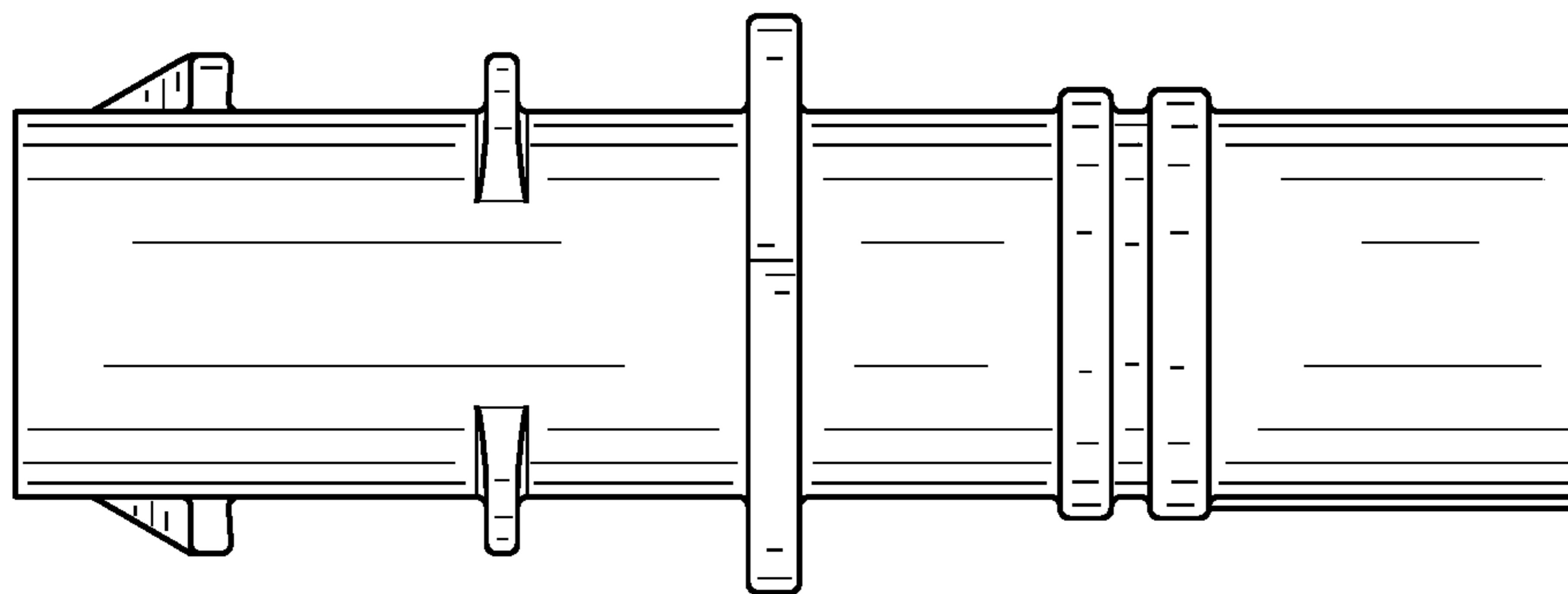


FIG. 5

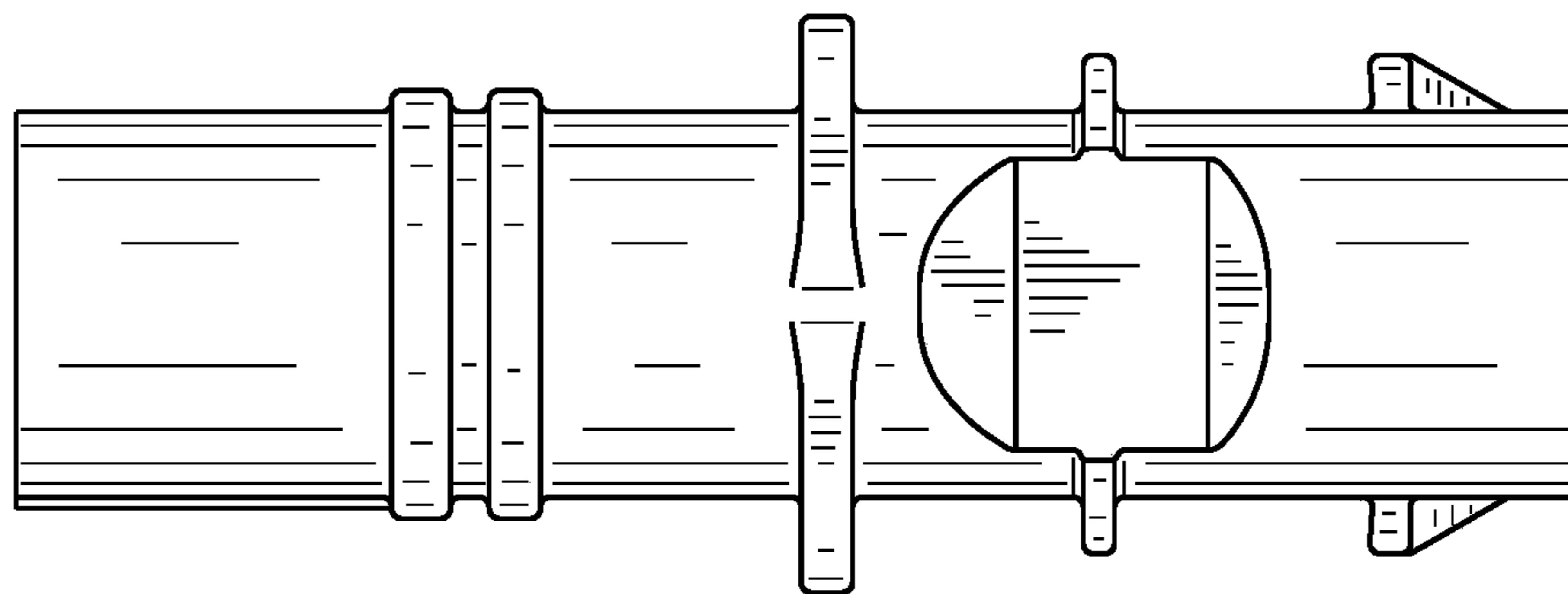


FIG. 6

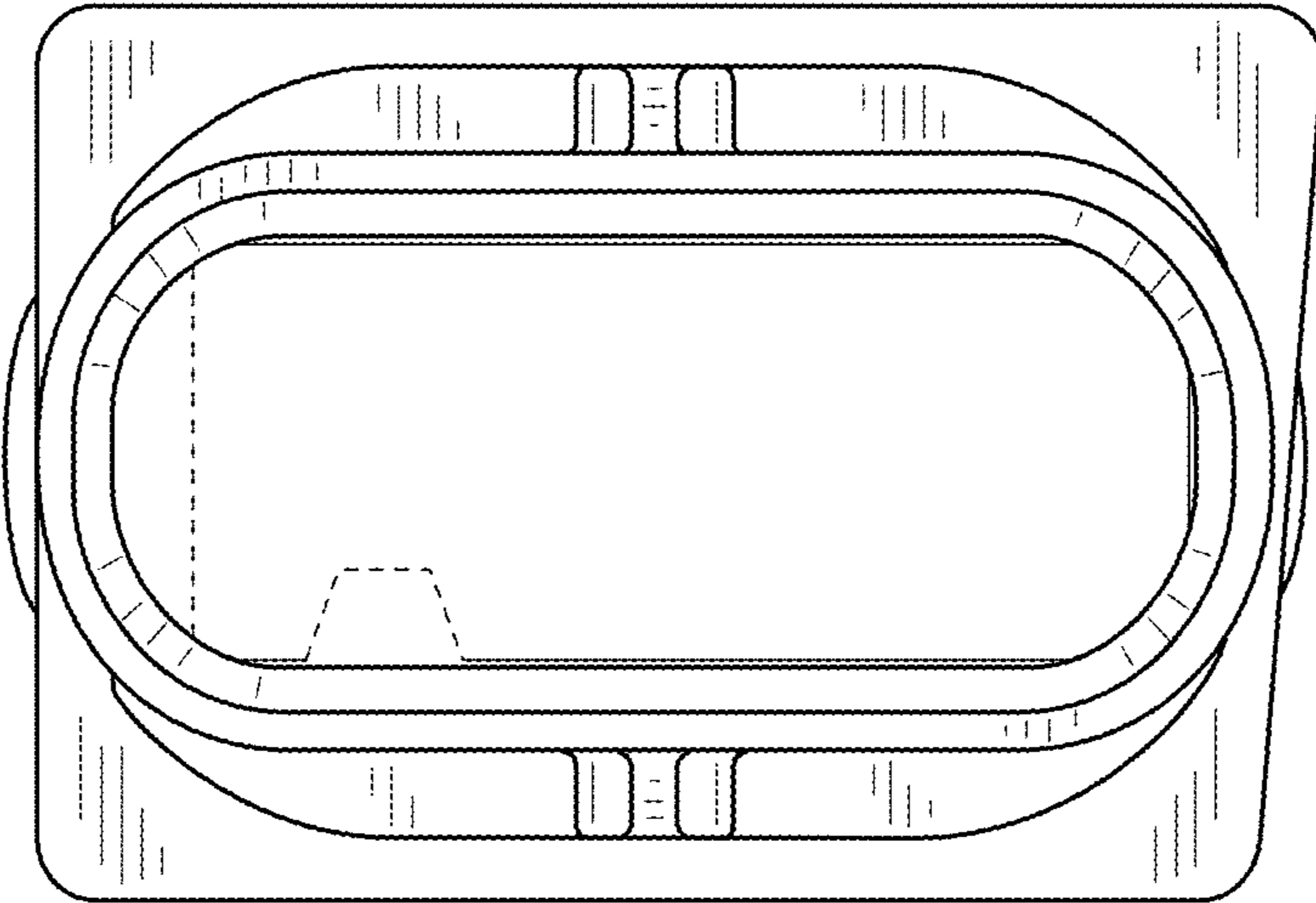


FIG. 7

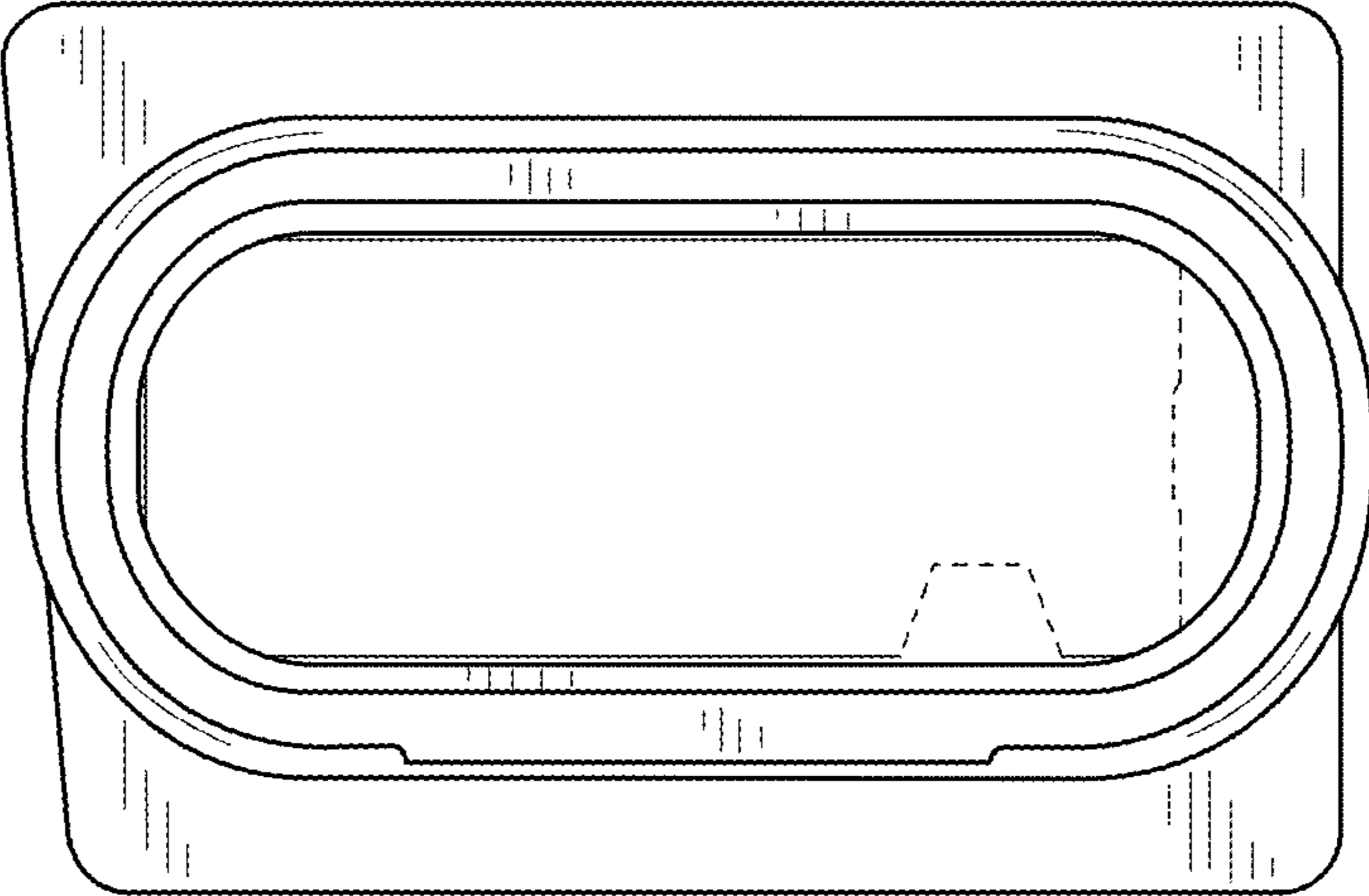


FIG. 8