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(12) **United States Design Patent** (10) **Patent No.:** **US D975,312 S**  
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(54) **REAGENT CARTRIDGE**  
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(\*\*) Term: **15 Years**

8,838,394 B2 9/2014 Kartalov et al.  
D733,314 S \* 6/2015 Lui ..... D24/227  
D733,315 S \* 6/2015 Lui ..... D24/227  
9,081,001 B2 7/2015 Cook et al.  
9,200,315 B2 12/2015 Jung et al.  
9,244,085 B2 1/2016 Samproni  
9,347,586 B2 5/2016 Williams et al.  
9,354,199 B2 5/2016 Selden et al.  
D762,875 S \* 8/2016 Lui ..... D24/227  
D767,164 S \* 9/2016 Schimmel ..... D24/226  
D774,369 S \* 12/2016 Harris ..... D7/708  
9,528,987 B2 12/2016 Yager et al.  
9,566,582 B2 2/2017 Buse et al.

(Continued)

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(51) **LOC (14) Cl.** ..... **24-02**  
(52) **U.S. Cl.**  
USPC ..... **D24/226**  
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D3/203.1, 203.3; D9/420, 423, 424, 430,  
D9/432, 732, 755-758  
CPC .... B01L 9/06; B01L 9/065; B01L 3/14; B01L  
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See application file for complete search history.

FOREIGN PATENT DOCUMENTS

CN 1370278 A 9/2002  
CN 104053607 A 9/2014

(Continued)

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(74) *Attorney, Agent, or Firm* — Merchant & Gould P.C.

(57) **CLAIM**

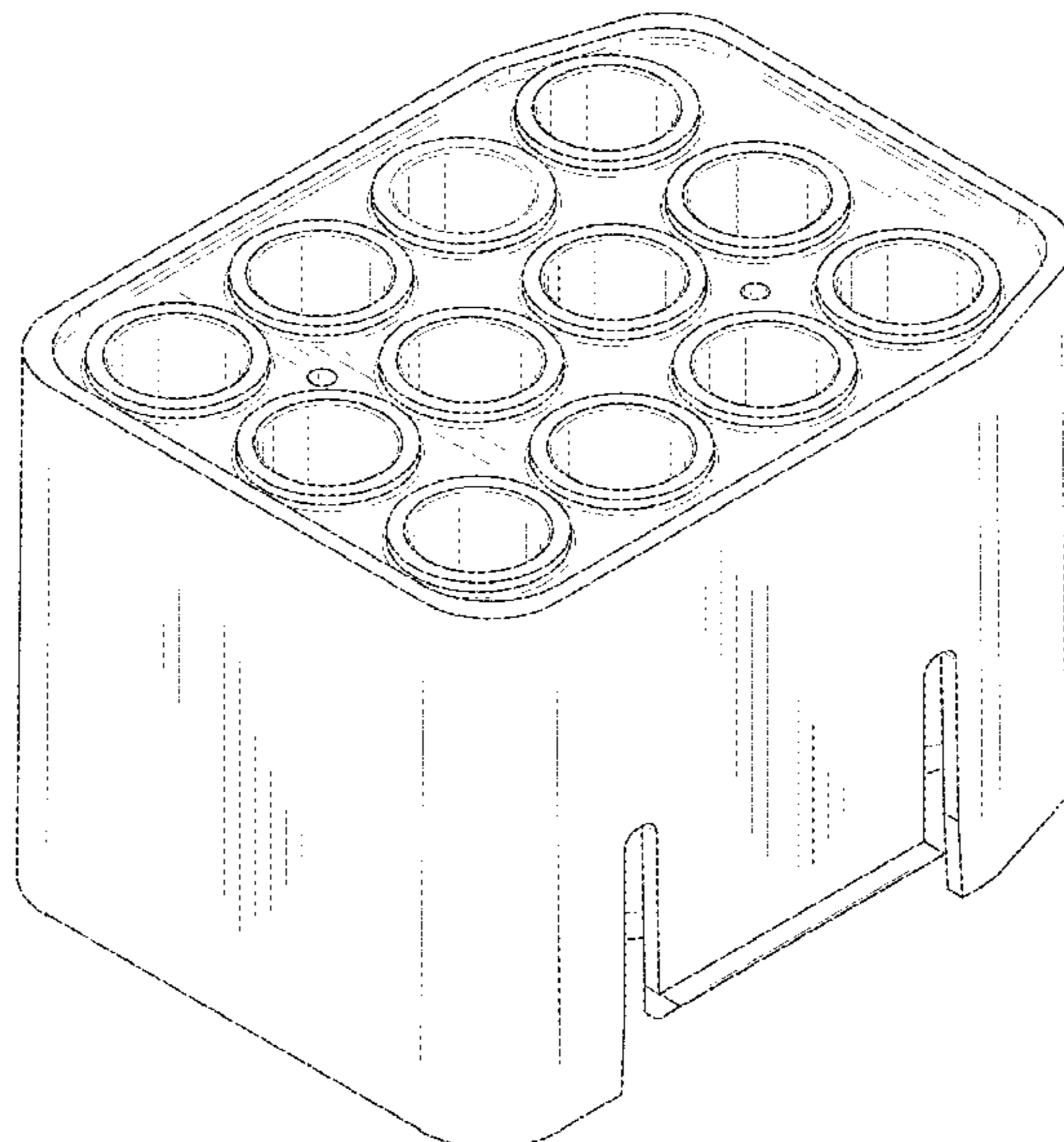
The ornamental design for a reagent cartridge, as shown and described.

**DESCRIPTION**

FIG. 1 is a top isometric view of a reagent cartridge;  
FIG. 2 is a right side view thereof;  
FIG. 3 is a left side view thereof;  
FIG. 4 is a rear view thereof;  
FIG. 5 is a front view thereof;  
FIG. 6 is a top view of thereof;  
FIG. 7 is a bottom view of thereof;  
FIG. 8 is a bottom isometric view;  
FIG. 9 is another top isometric view;  
FIG. 10 is another bottom isometric view; and,  
FIG. 11 is a cross sectional view taken along line 11-11 shown in FIG. 6.

(56) **References Cited**  
U.S. PATENT DOCUMENTS  
5,127,531 A \* 7/1992 Onodera ..... B01L 9/06  
206/446  
D332,664 S \* 1/1993 Sincock ..... D24/130  
7,048,893 B2 5/2006 Bellon  
7,435,381 B2 10/2008 Pugia et al.  
D596,758 S \* 7/2009 Constable ..... D24/230  
7,981,362 B2 7/2011 Glezer et al.  
7,985,387 B2 7/2011 Haywood et al.  
8,247,176 B2 8/2012 Petersen et al.  
8,298,834 B2 10/2012 Glezer et al.  
D684,276 S \* 6/2013 Hudson ..... D24/226

**1 Claim, 11 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D791,964 S \* 7/2017 Lui ..... D24/227  
 D800,184 S \* 10/2017 Suess ..... D15/79  
 D810,959 S \* 2/2018 Langhoff ..... D24/230  
 D823,654 S \* 7/2018 Harris ..... D7/707  
 D826,425 S \* 8/2018 Muller ..... D24/230  
 D882,818 S \* 4/2020 Leimkuehler ..... D24/227  
 D894,424 S \* 8/2020 Livingston ..... D24/227  
 D918,415 S \* 5/2021 Jones ..... D24/227  
 D923,815 S \* 6/2021 Livingston ..... D24/226  
 D932,052 S \* 9/2021 Zergiebel ..... D24/229  
 2004/0265171 A1 12/2004 Puglia et al.  
 2006/0088931 A1 4/2006 Ririe  
 2006/0212020 A1 9/2006 Rainen et al.  
 2007/0025875 A1 2/2007 Peters et al.  
 2007/0280857 A1 12/2007 Song et al.  
 2008/0138890 A1 6/2008 Horiike  
 2011/0143947 A1 6/2011 Chamberlin et al.

2013/0302809 A1 11/2013 Bru Gibert et al.  
 2015/0160245 A1 6/2015 Lieberman et al.  
 2017/0010276 A1 1/2017 Chen et al.  
 2020/0337946 A1\* 10/2020 Thorne ..... A61J 1/16

FOREIGN PATENT DOCUMENTS

CN 103430024 B 6/2016  
 EP 834729 A2 9/1996  
 EP 1770398 A1 4/2007  
 EP 2191899 A1 6/2010  
 JP 2008200028 A 9/2008  
 JP 03156819 U 11/2009  
 JP 2011137694 A 7/2011  
 JP 2012100679 A 5/2012  
 JP 2016205850 A 12/2016  
 WO 2011116256 A2 9/2011  
 WO 2016073672 A1 5/2016  
 WO 20161394224 A1 9/2016

\* cited by examiner

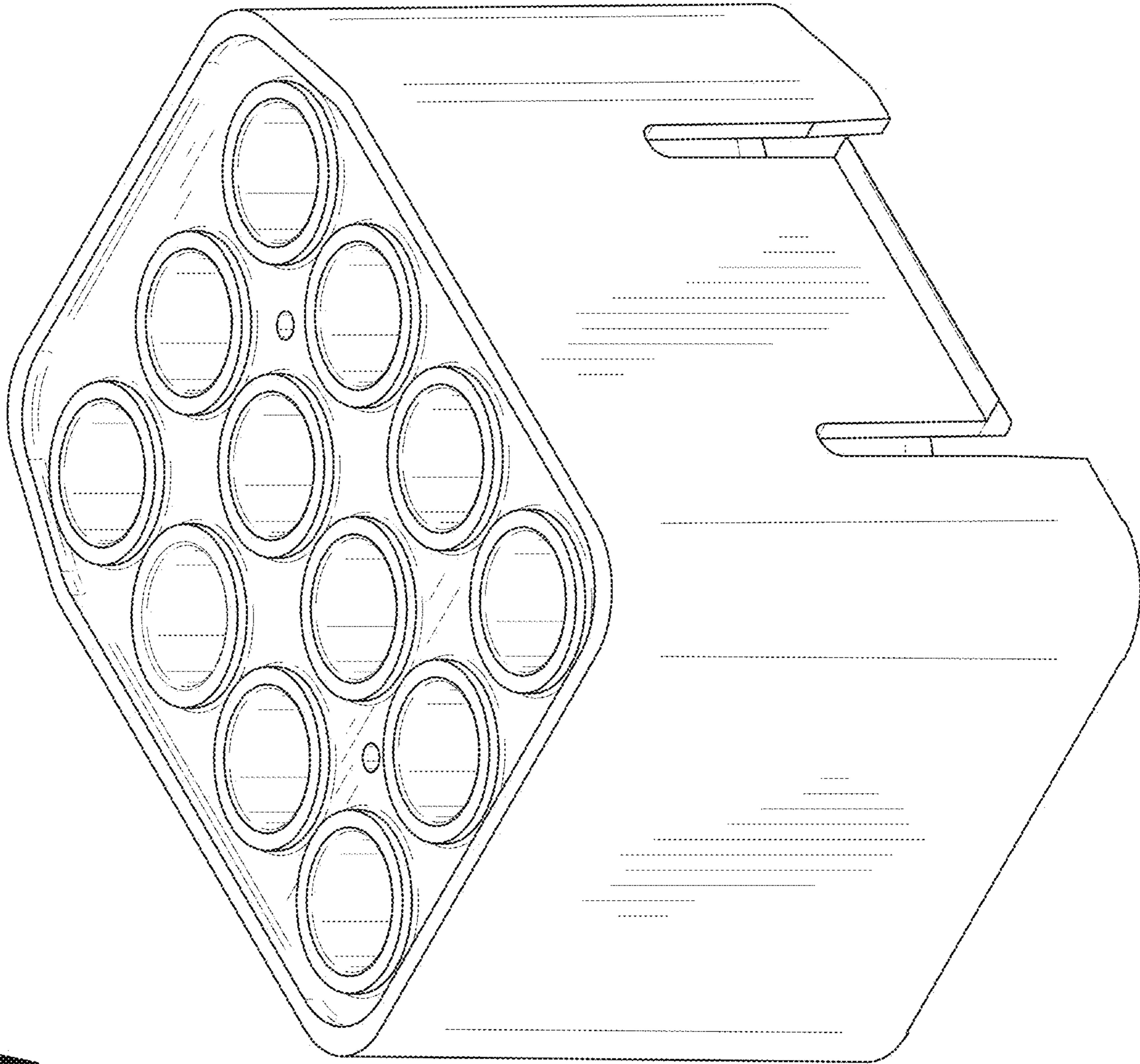


FIG. 1

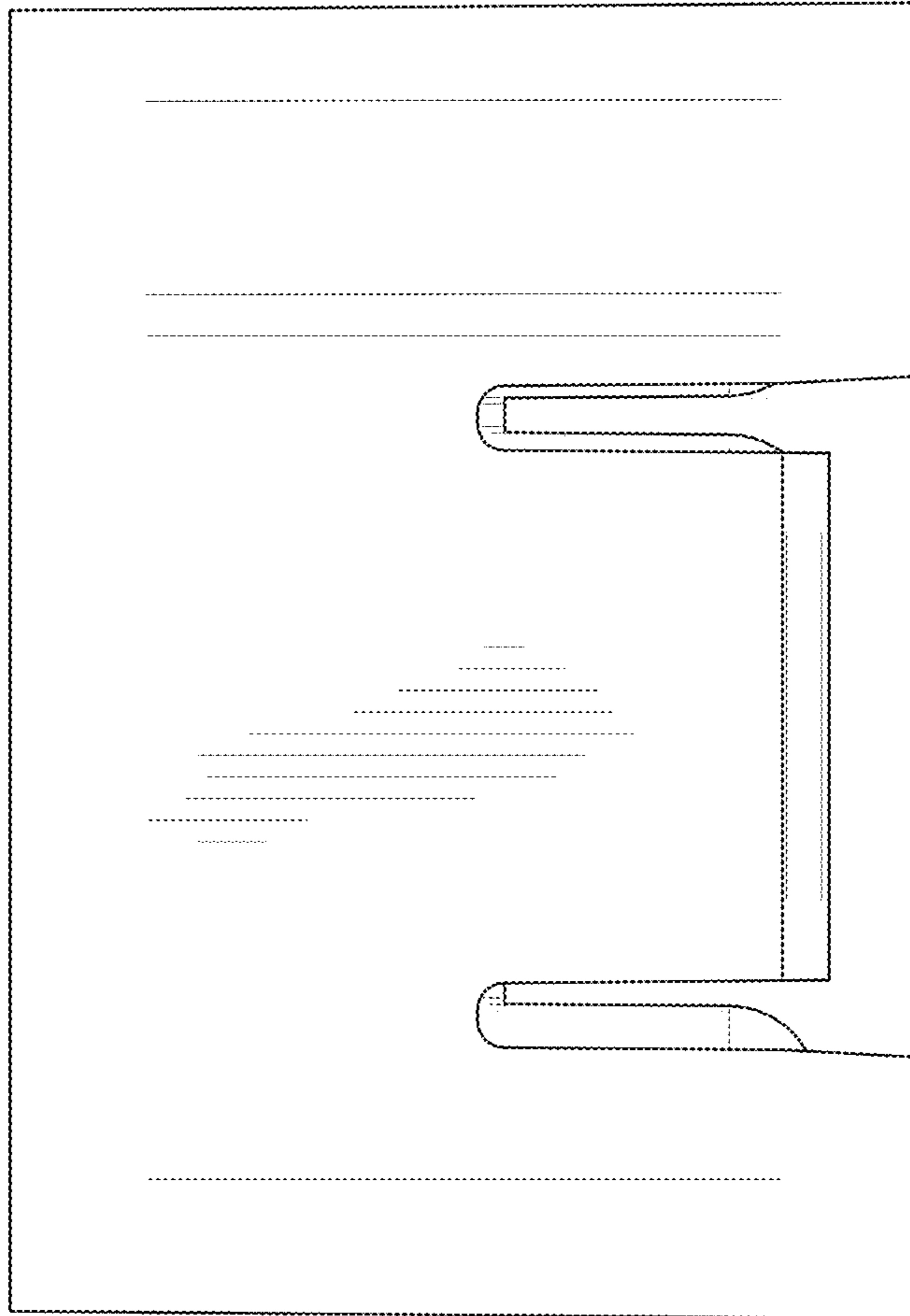


FIG. 2

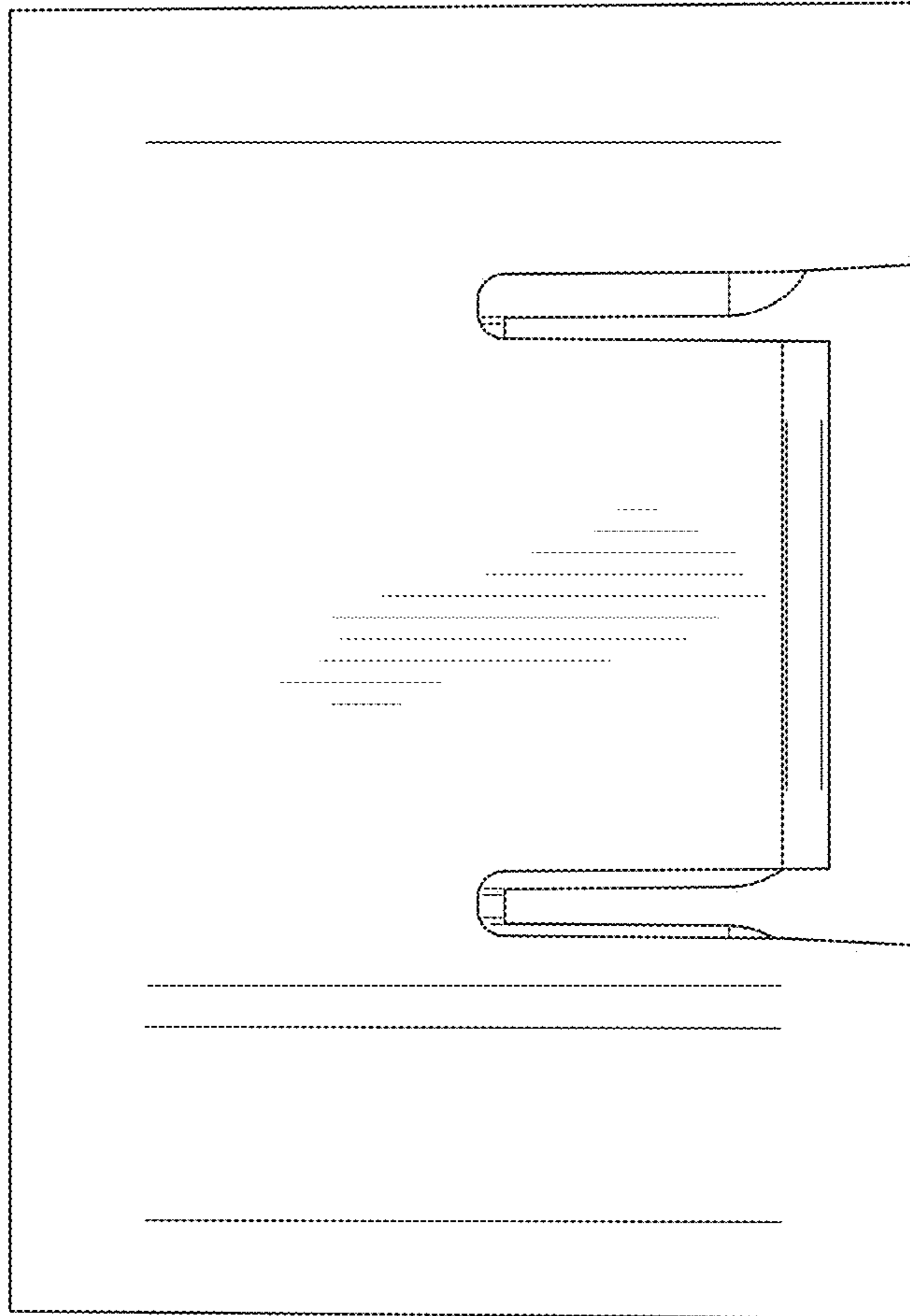


FIG. 3

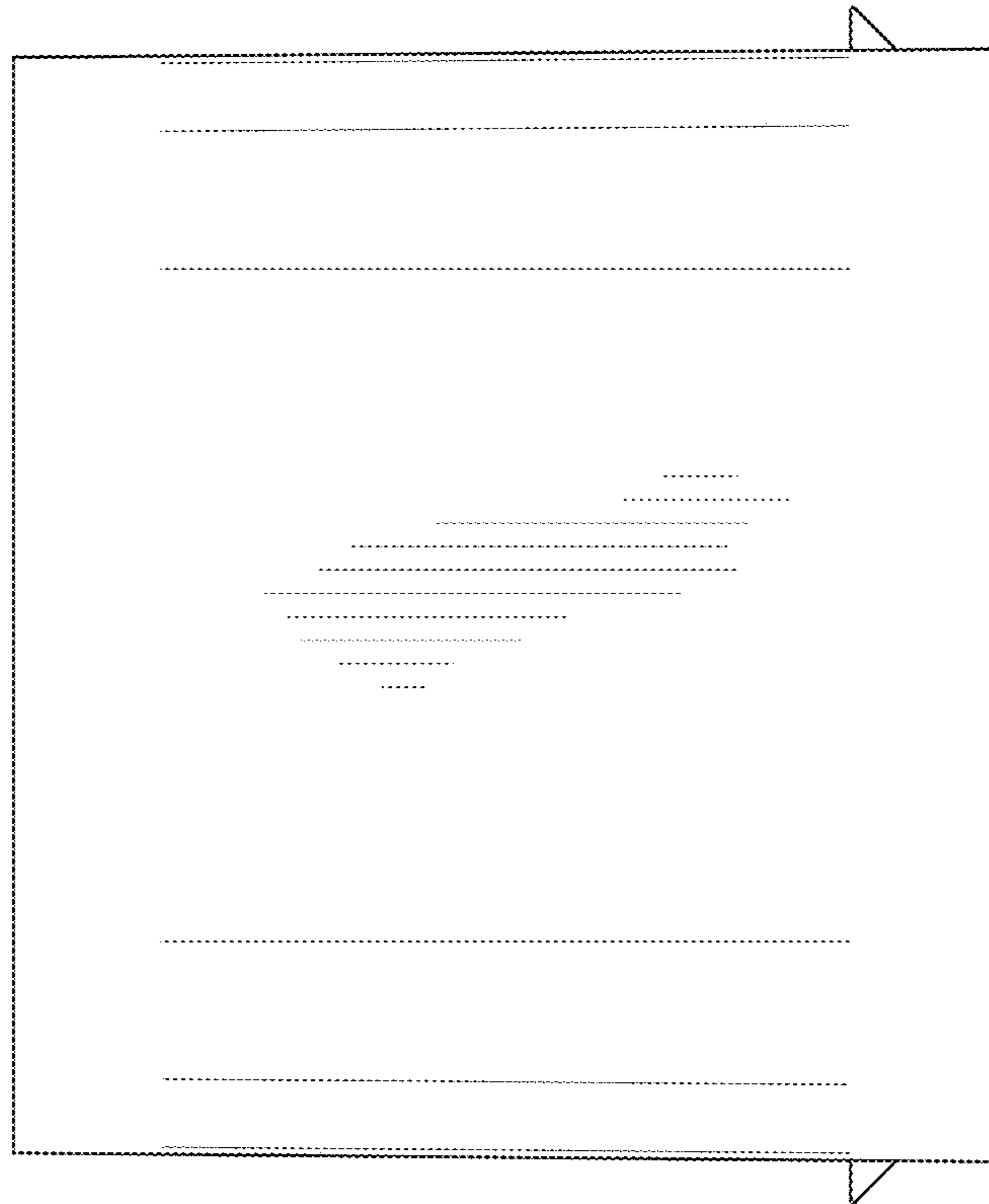
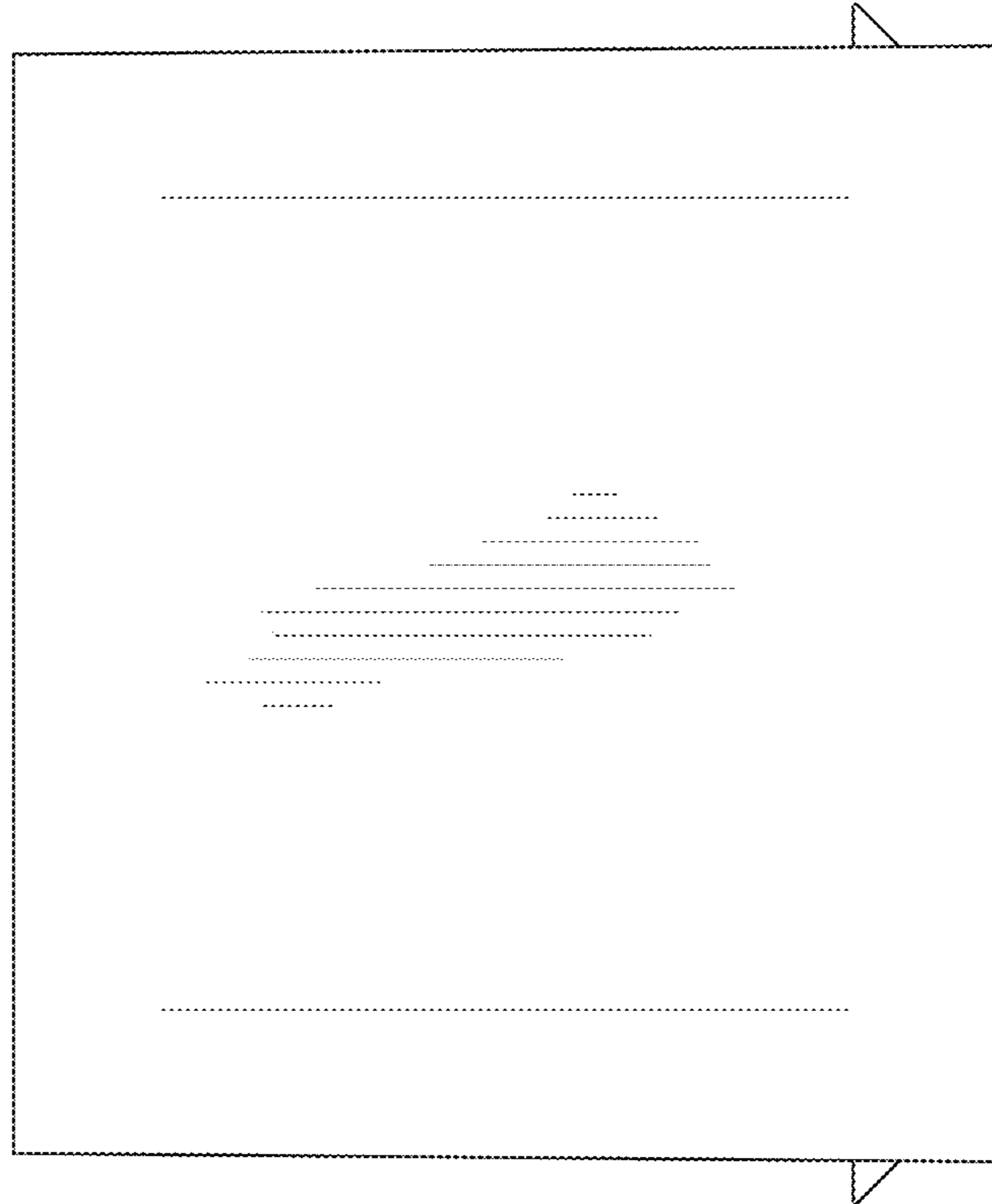


FIG. 4



**FIG. 5**

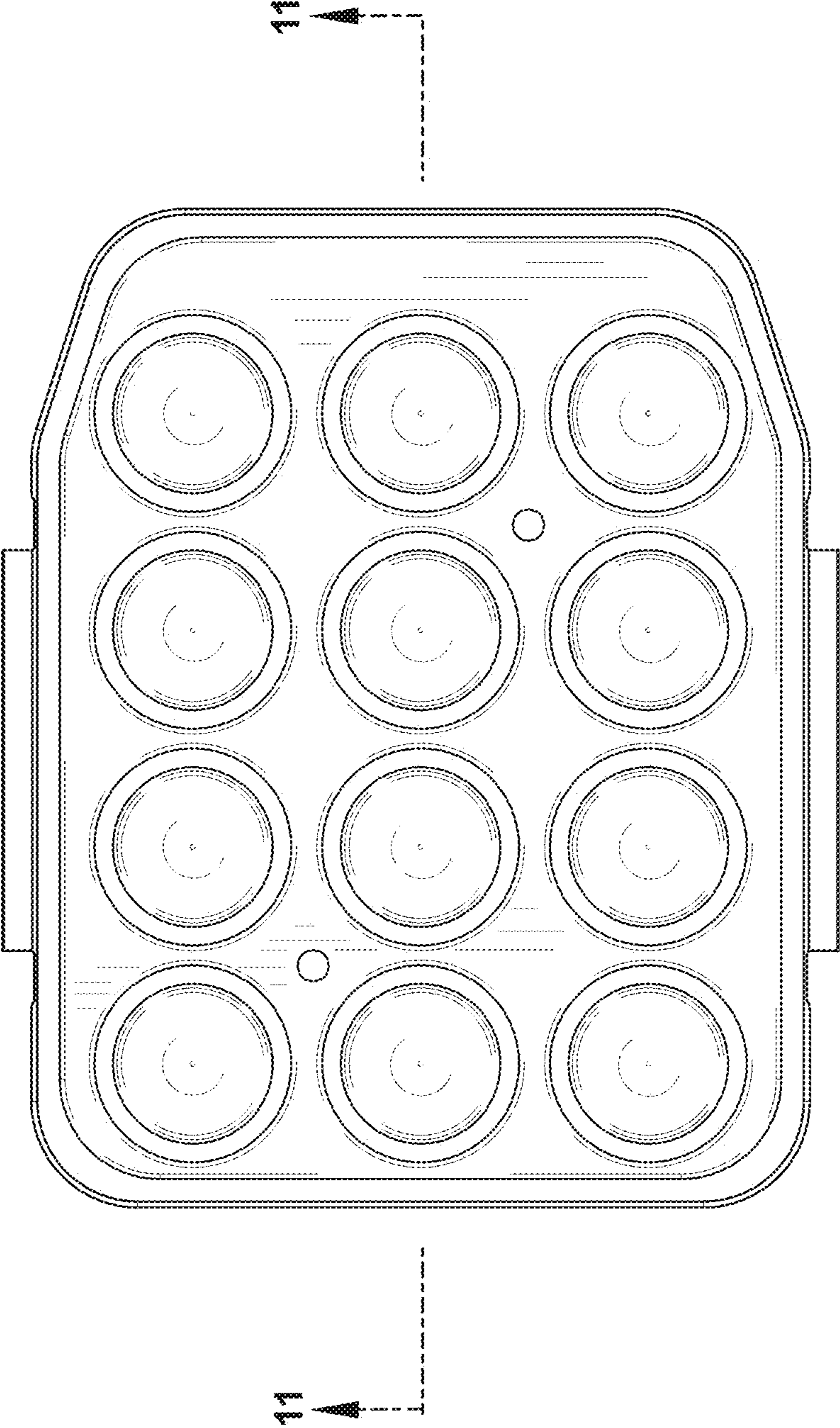


FIG. 6



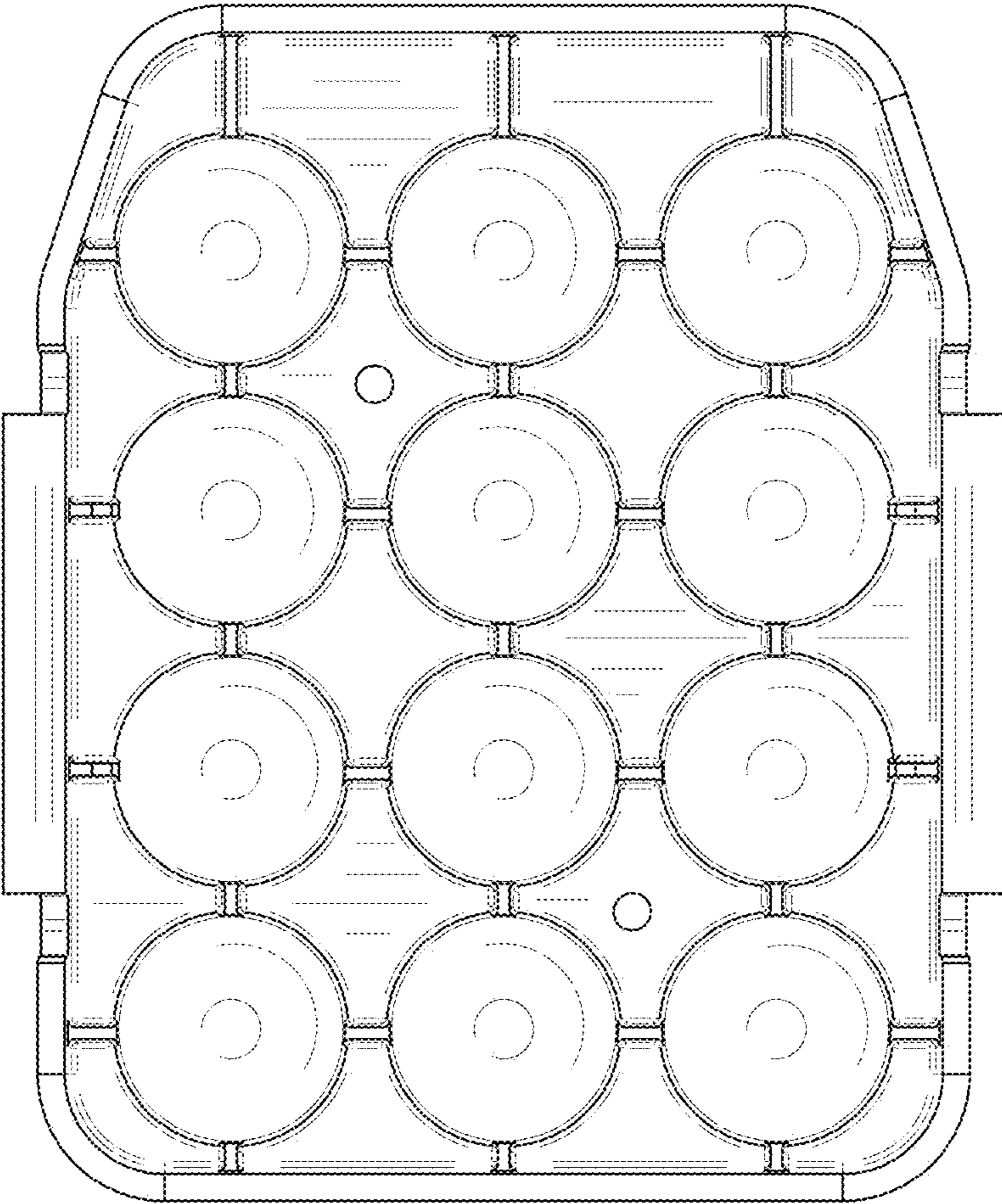


FIG. 7

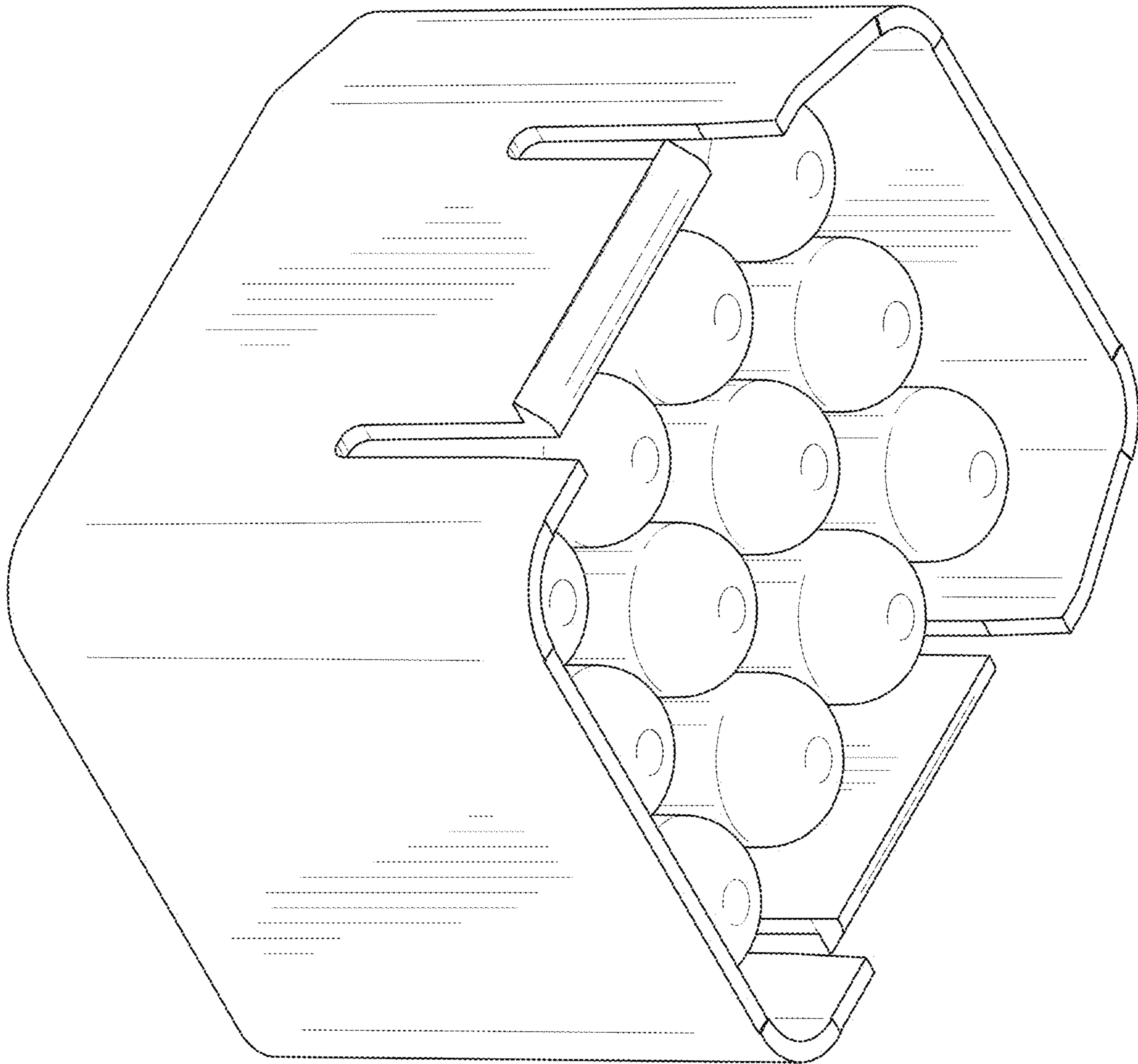


FIG. 8

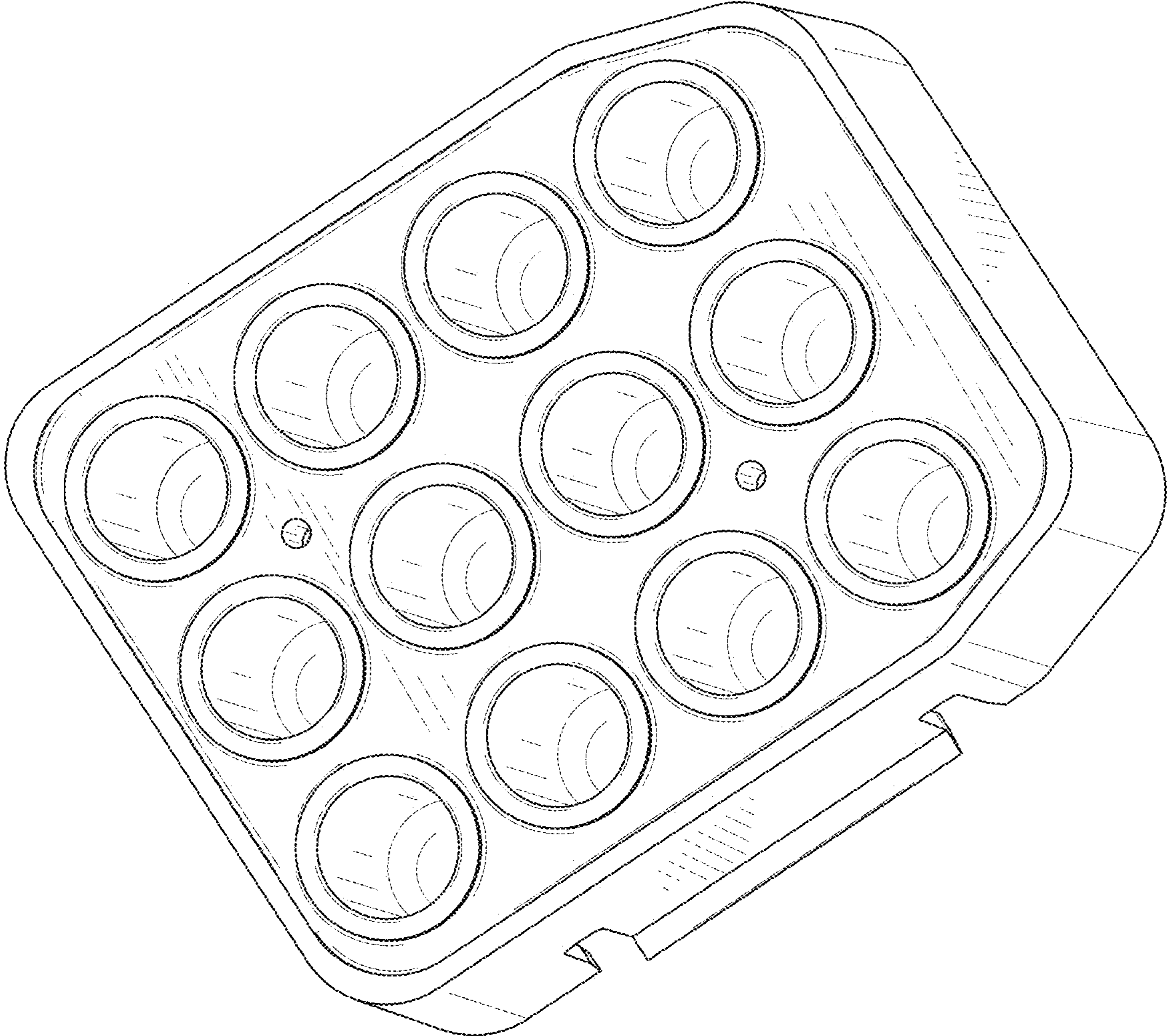


FIG. 9

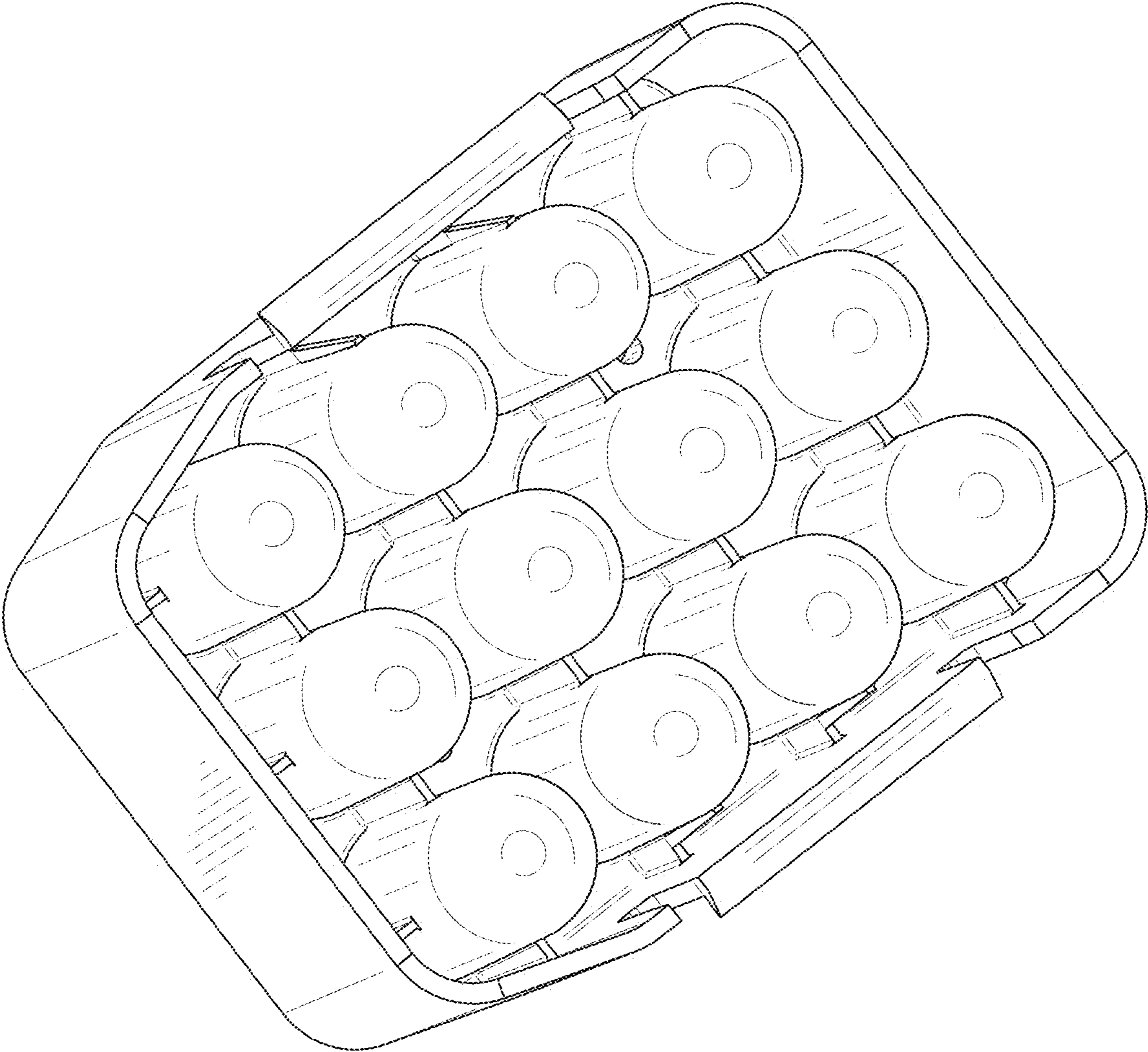


FIG. 10

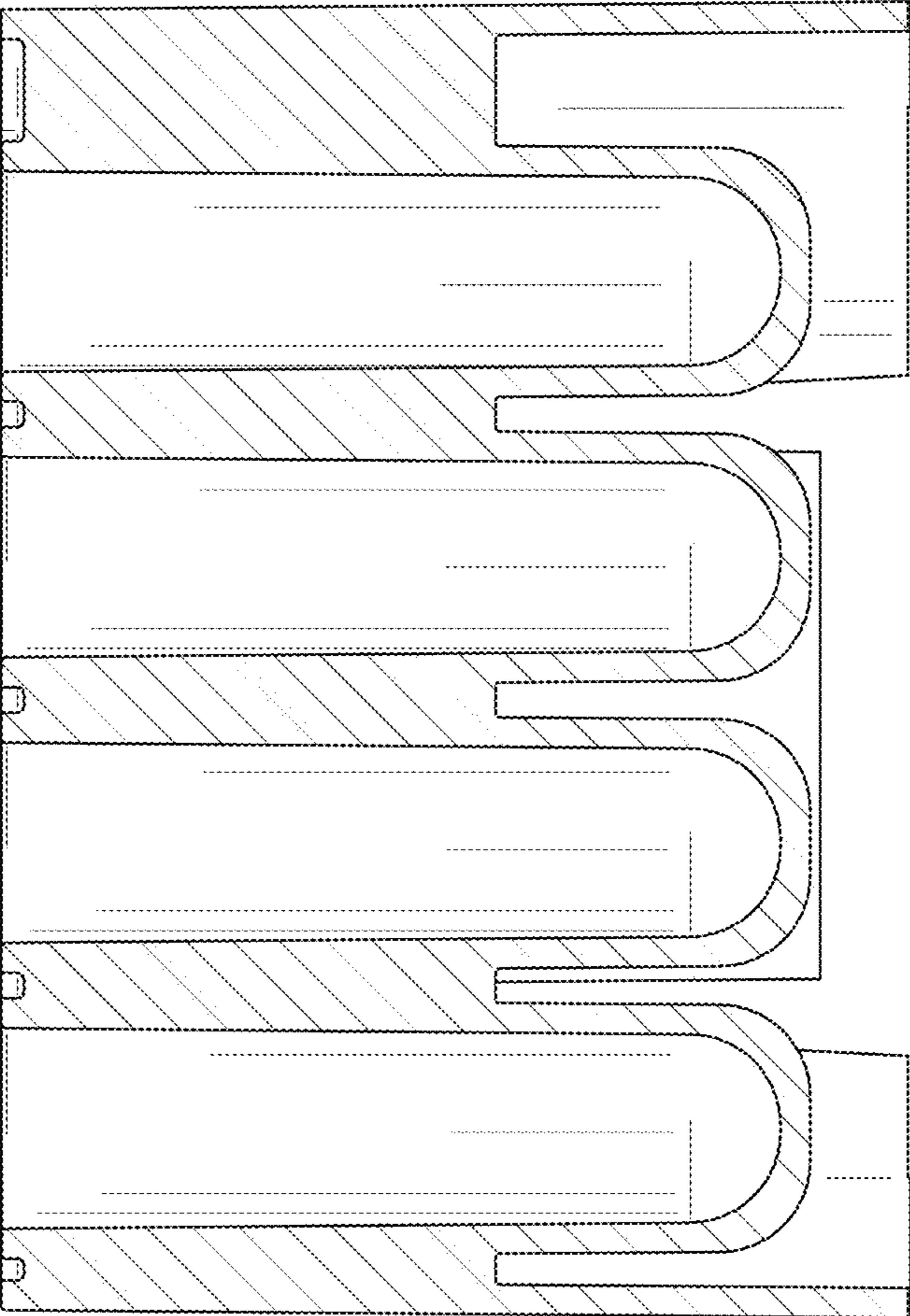


FIG. 11