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(12) **United States Design Patent** (10) **Patent No.:** **US D951,954 S**
Licitra et al. (45) **Date of Patent:** **** May 17, 2022**

(54) **DOUBLE STACK MULTIPOINT FOR MAKING OPTICAL CONNECTIONS**

(56) **References Cited**

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U.S. PATENT DOCUMENTS

D275,101 S	8/1984	Read	
D362,855 S	10/1995	Bevilacqua et al.	
D364,346 S	11/1995	Yamada	
D391,481 S	3/1998	Oxley	
D394,864 S	6/1998	Brandt	
D425,021 S	5/2000	Ko	
D482,693 S	11/2003	Nishio et al.	
D486,824 S	2/2004	Chung	
D487,086 S	2/2004	Chung	
D490,403 S	5/2004	Wu et al.	
D549,663 S	8/2007	Tsou et al.	
D559,848 S	1/2008	Siu	
D598,856 S	8/2009	Stromiedel et al.	
D598,857 S	8/2009	Stromiedel et al.	
D604,725 S	11/2009	Chen	
7,614,887 B1	11/2009	Yi et al.	
7,653,282 B2	1/2010	Blackwell, Jr. et al.	
D612,810 S	3/2010	Bender	
D613,693 S	4/2010	Bender	
D623,969 S	9/2010	Neitzel et al.	
D628,201 S	11/2010	Tian et al.	
8,059,932 B2 *	11/2011	Hill	G02B 6/46 385/135
D673,564 S	1/2013	Milliff	
D674,344 S	1/2013	Bies	
D675,106 S	1/2013	Powers et al.	
D676,391 S	2/2013	Gassauer	
D678,286 S	3/2013	Cheng	
D711,884 S	8/2014	Turksu et al.	
8,801,297 B2	8/2014	McColloch	
D716,304 S	10/2014	Orthey	
D724,079 S	3/2015	Probst et al.	
D732,041 S	6/2015	Conn et al.	
D739,822 S	9/2015	Severing	
D740,828 S	10/2015	Bucsa	
D750,023 S	2/2016	Sasano	
D753,596 S	4/2016	Bies	
D753,598 S	4/2016	Bies	
D756,302 S	5/2016	Chen et al.	
9,354,397 B2	5/2016	Bylander et al.	
D769,246 S	10/2016	Mielnik et al.	
D785,632 S	5/2017	Vanduyt et al.	
D788,112 S	5/2017	Liao	
D791,138 S	7/2017	Eliyahu	
D791,774 S	7/2017	Wilcox et al.	
D794,028 S	8/2017	Lin	
D794,478 S	8/2017	Read et al.	
D795,079 S	8/2017	Wilcox et al.	
D796,514 S	9/2017	Xu	

Related U.S. Application Data

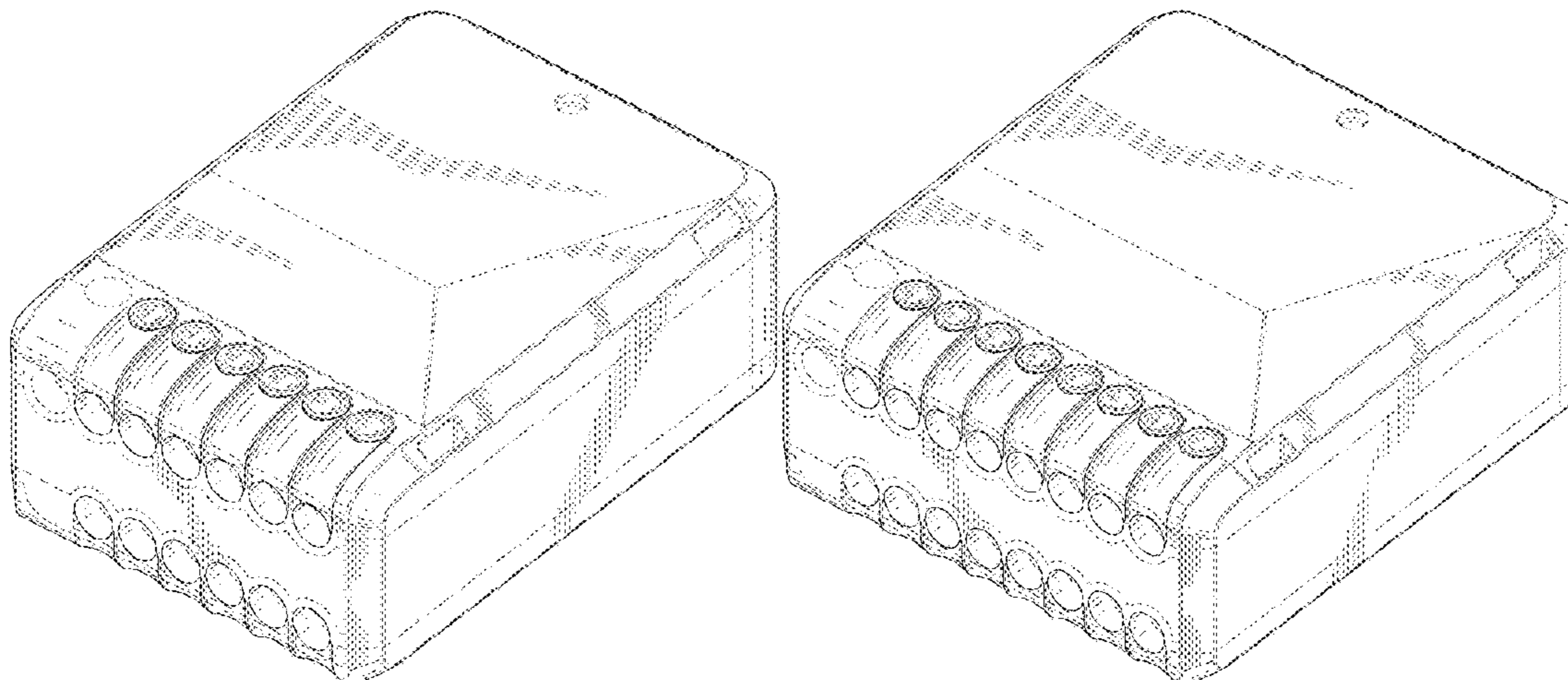
(63) Continuation of application No. 29/642,334, filed on Mar. 29, 2018, now Pat. No. Des. 941,295, and a continuation of application No. 29/642,339, filed on Mar. 29, 2018, now Pat. No. Des. 941,821, and a continuation of application No. 29/642,340, filed on Mar. 29, 2018, now Pat. No. Des. 941,296.

(51) **LOC (13) Cl.** **14-02**

(52) **U.S. Cl.**
USPC **D14/433**; D13/147

(58) **Field of Classification Search**
USPC D13/123, 133, 146, 147, 152, 154, 156, D13/158, 173, 177, 184, 199; D14/242, D14/433, 434, 435.1, 438; D9/432, 703
CPC G02B 6/38; G02B 6/3853; G02B 6/3861; G02B 6/3885; G02B 6/3893; G02B 6/4471; G02B 6/44; G02B 6/4455; G02B 6/4452; G06F 3/00; G06F 5/00; G06F 13/14; H04L 12/2832; H04L 12/2838

See application file for complete search history.



D797,747 S	9/2017	Xu	
D802,415 S	11/2017	Wilcox et al.	
D808,915 S	1/2018	Wang	
D810,693 S	2/2018	Rao et al.	
9,899,752 B2	2/2018	Wu et al.	
D813,874 S	3/2018	Magi et al.	
D815,642 S	4/2018	Wilcox et al.	
D818,952 S	5/2018	Wilcox et al.	
D818,953 S	5/2018	Xu	
D824,335 S	7/2018	Wilcox et al.	
D824,337 S	7/2018	Wilcox et al.	
D825,475 S	8/2018	Henley et al.	
D825,540 S	8/2018	Wilcox et al.	
D828,814 S	9/2018	Senofsky et al.	
D835,049 S	12/2018	Wilcox et al.	
D835,050 S	12/2018	Wilcox et al.	
D835,086 S	12/2018	Wilcox et al.	
D837,216 S	1/2019	Bagley et al.	
D837,788 S	1/2019	Bagley et al.	
D837,789 S	1/2019	Woody	
D839,210 S *	1/2019	Wilcox	D13/152
D841,583 S	2/2019	Spiegel	
D842,815 S	3/2019	Senofsky et al.	
D848,369 S	5/2019	Stolze	
D853,334 S	7/2019	Mastel	
10,379,298 B2	8/2019	Dannoux et al.	
D859,189 S	9/2019	Mendoza et al.	
D862,394 S	10/2019	Hernandez et al.	
D872,012 S	1/2020	Rao	
D878,370 S	3/2020	Bagley et al.	
D878,371 S	3/2020	Bagley et al.	
D878,372 S	3/2020	Bagley et al.	
10,585,256 B1 *	3/2020	Henley	H01R 13/639
D881,132 S	4/2020	Bagley et al.	
10,641,967 B1	5/2020	Cote et al.	
D888,060 S	6/2020	Cote et al.	
D893,432 S	8/2020	Murphy et al.	
10,809,480 B1	10/2020	Cox et al.	
D909,976 S	2/2021	Bonner et al.	
D913,246 S *	3/2021	Rosson	D13/146
D935,417 S *	11/2021	Cote	D13/147
2011/0250803 A1	10/2011	Bies	
2012/0328258 A1 *	12/2012	Barron	G02B 6/4454 385/135
2013/0259429 A1	10/2013	Czosnowski et al.	
2014/0021621 A1	8/2014	Barnette, Jr. et al.	
2014/0219621 A1	8/2014	Barnette et al.	
2015/0268436 A1	9/2015	Blackwell, Jr. et al.	
2015/0316738 A1	11/2015	McPhil Giraud et al.	
2015/0355428 A1 *	12/2015	Leeman	G02B 6/4454 385/135
2017/0153399 A1 *	6/2017	Rodriguez	G02B 6/3897
2018/0157002 A1	6/2018	Bishop et al.	
2019/0004251 A1	1/2019	Dannoux et al.	
2019/0004252 A1	1/2019	Rosson	
2019/0004255 A1	1/2019	Dannoux et al.	
2019/0004258 A1	1/2019	Dannoux et al.	
2019/0129116 A1 *	5/2019	Henley	G02B 6/4453
2019/0339460 A1	11/2019	Dannoux et al.	
2019/0353863 A1 *	11/2019	Schneider	G02B 6/4453
2020/0049922 A1	2/2020	Rosson	
2020/0132957 A1 *	4/2020	Beri	G02B 6/4471
2020/0174201 A1	6/2020	Cote et al.	
2020/0233168 A1	7/2020	Ruda	
2021/0033811 A1 *	2/2021	Dannoux	G02B 6/3897
2021/0072479 A1 *	3/2021	Ward	G02B 6/3897
2021/0096317 A1 *	4/2021	Ripumaree	G02B 6/4446
2021/0141182 A1 *	5/2021	Ward	G02B 6/4452
2021/0141184 A1 *	5/2021	Krampotich	G02B 6/4455
2021/0181443 A1 *	6/2021	Zhou	G02B 6/4446
2021/0247583 A1 *	8/2021	Elkins, II	G02B 6/4471
2021/0278607 A1 *	9/2021	Cote	G02B 6/3885
2021/0318499 A1 *	10/2021	Cote	G02B 6/3825

FOREIGN PATENT DOCUMENTS

AU	2014101479 A4	1/2015
AU	2014101470 A4	3/2015
CN	305515830 S	12/2019

CN	305515831 S	12/2019
WO	2014123940 A1	8/2014
WO	2019005190 A2	1/2019
WO	2019005191 A1	1/2019
WO	2019005192 A1	1/2019
WO	2019005193 A1	1/2019
WO	2019005194 A1	1/2019
WO	2019005195 A1	1/2019
WO	2019005196 A1	1/2019
WO	2019005197 A1	1/2019
WO	2019005198 A1	1/2019
WO	2019005199 A1	1/2019
WO	2019005200 A1	1/2019
WO	2019005201 A1	1/2019
WO	2019005202 A1	1/2019
WO	2019005203 A1	1/2019
WO	2019005204 A1	1/2019

OTHER PUBLICATIONS

Corning's New Jumper In A Box Packaging Solution, dated Jul. 20, 2016, [online], [site visited Dec. 14, 2018]. Available from Internet, <URL: <https://www.youtube.com/watch?v=XUNYr-XAbVc>> (Year: 2016).

E Catalog Corning. OptiSheath® Multipurpose Enclosure. No Date Specified. <https://ecatalog.corning.com/optical-communications/CALA/en/closures/Fiber-Optic-Closures/OptiSheath%C2%AE-Multipurpose-Enclosure/p/optisheath-multipurpose-enclosure?clear=true>.

Multiports. (Design—(Copyrights) Questel) orbit.com. [Online PDF compilation of references] 32 pgs. Print Dates Range Dec. 16, 2015-Nov. 5, 2019 [Retrieved Mar. 2, 2021]; <https://www.orbit.com/export/UCZAH96B/pdf4/51722d28-a125-44ac-8fcf-9bcc531e5048-20453.pdf> (Year: 2021).

* cited by examiner

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(57) CLAIM

The ornamental design for a double stack multiport for making optical connections, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a first embodiment of a double stack multiport for making optical connections showing our new design;

FIG. 2 is a top view thereof of FIG. 1;

FIG. 3 is a bottom view thereof of FIG. 1;

FIG. 4 is a right side view thereof of FIG. 1;

FIG. 5 is a left side view thereof of FIG. 1;

FIG. 6 is a front view thereof of FIG. 1; and

FIG. 7 is a rear view thereof of FIG. 1.

FIG. 8 is a front perspective view of a second embodiment of a double stack multiport for making optical connections showing our new design;

FIG. 9 is a top view thereof of FIG. 8;

FIG. 10 is a bottom view thereof of FIG. 8;

FIG. 11 is a right side view thereof of FIG. 8;

FIG. 12 is a left side view thereof of FIG. 8;

FIG. 13 is a front view thereof of FIG. 8; and

FIG. 14 is a rear view thereof of FIG. 8.

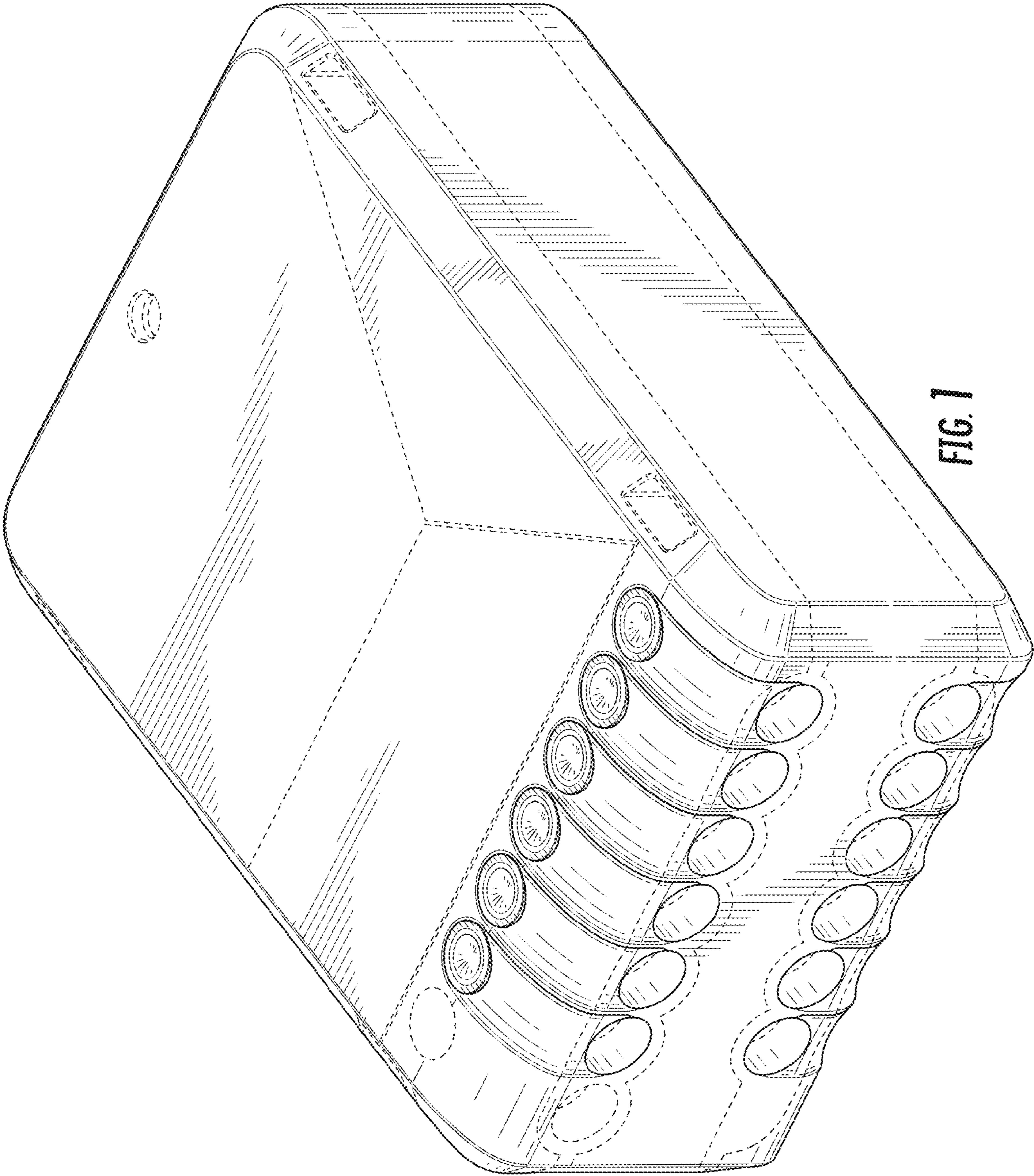
FIG. 15 is a front perspective view of a third embodiment of a double stack multiport for making optical connections showing our new design;

FIG. 16 is a top view thereof of FIG. 15;

FIG. 17 is a bottom view thereof of FIG. 15;

FIG. 18 is a right side view thereof of FIG. 15;
FIG. 19 is a left side view thereof of FIG. 15;
FIG. 20 is a front view thereof of FIG. 15; and
FIG. 21 is a rear view thereof of FIG. 15.
FIG. 22 is a front perspective view of a fourth embodiment
of a double stack multiport for making optical connections
showing our new design;
FIG. 23 is a top view thereof of FIG. 22;
FIG. 24 is a bottom view thereof of FIG. 22;
FIG. 25 is a right side view thereof of FIG. 22;
FIG. 26 is a left side view thereof of FIG. 22;
FIG. 27 is a front view thereof of FIG. 22; and,
FIG. 28 is a rear view thereof of FIG. 22.
In FIGS. 1-28, the evenly-spaced broken lines are included
for the purpose of illustrating environmental structure and
form no part of the claimed design.

1 Claim, 20 Drawing Sheets



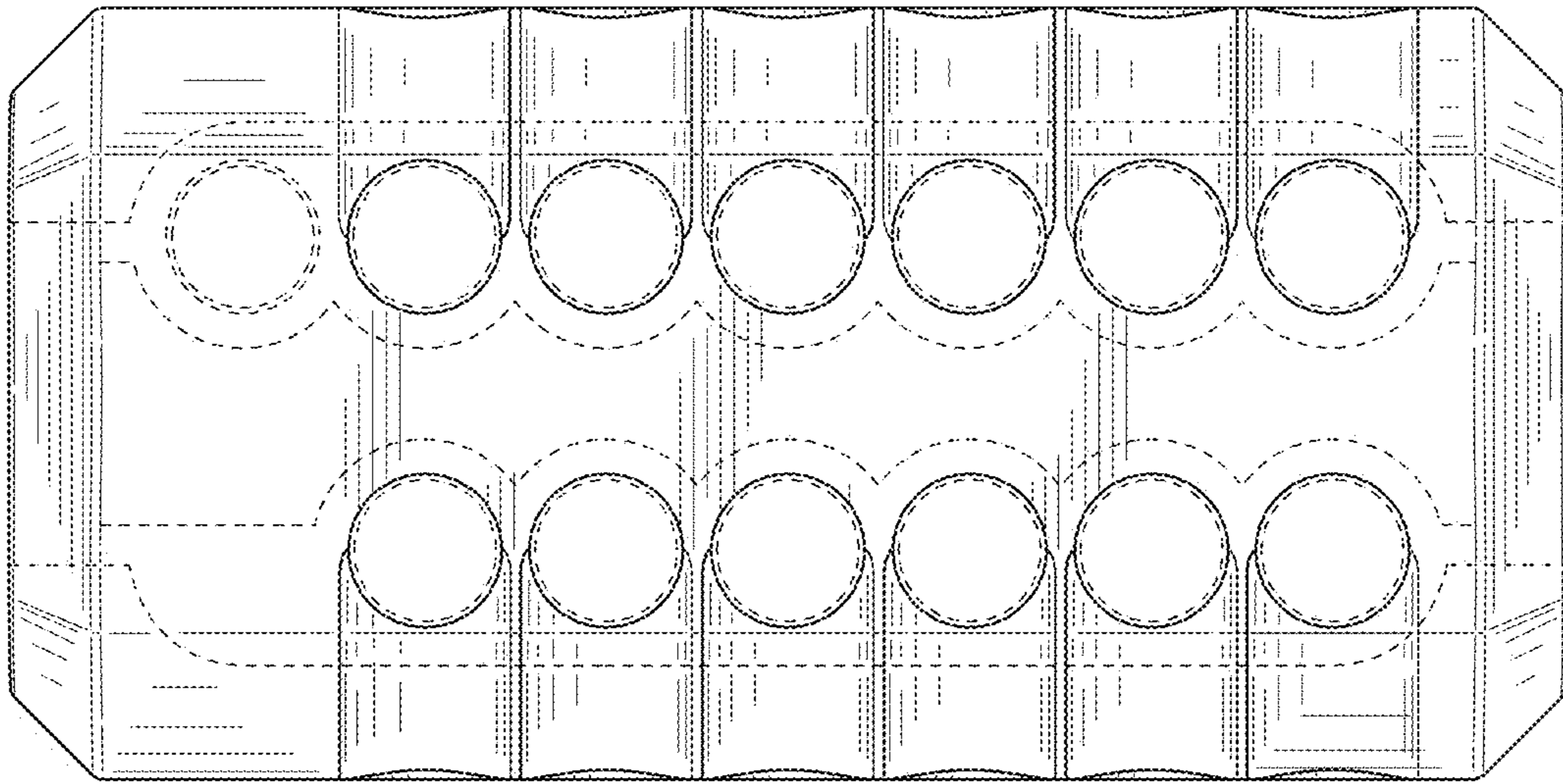


FIG. 2

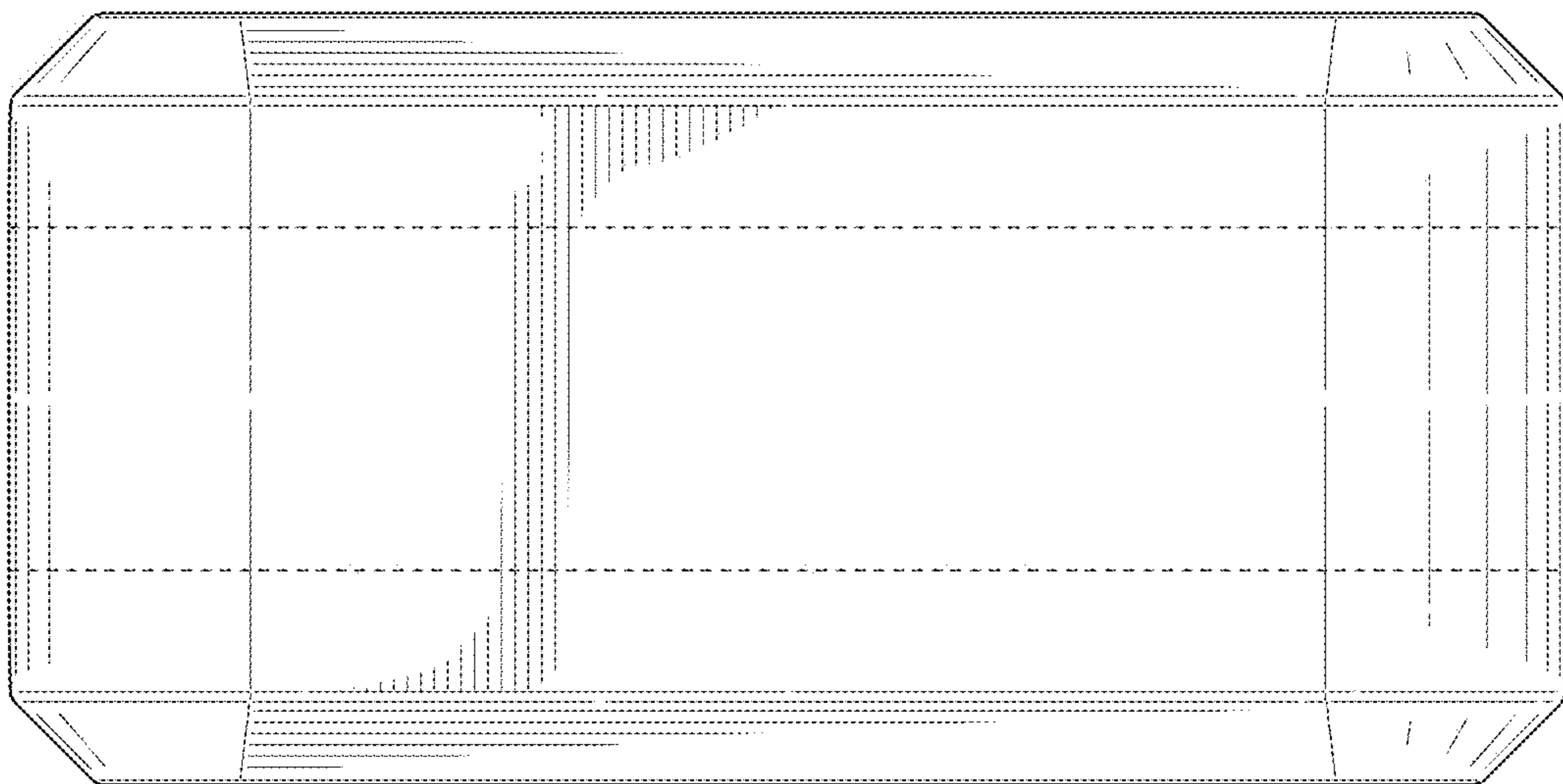


FIG. 3

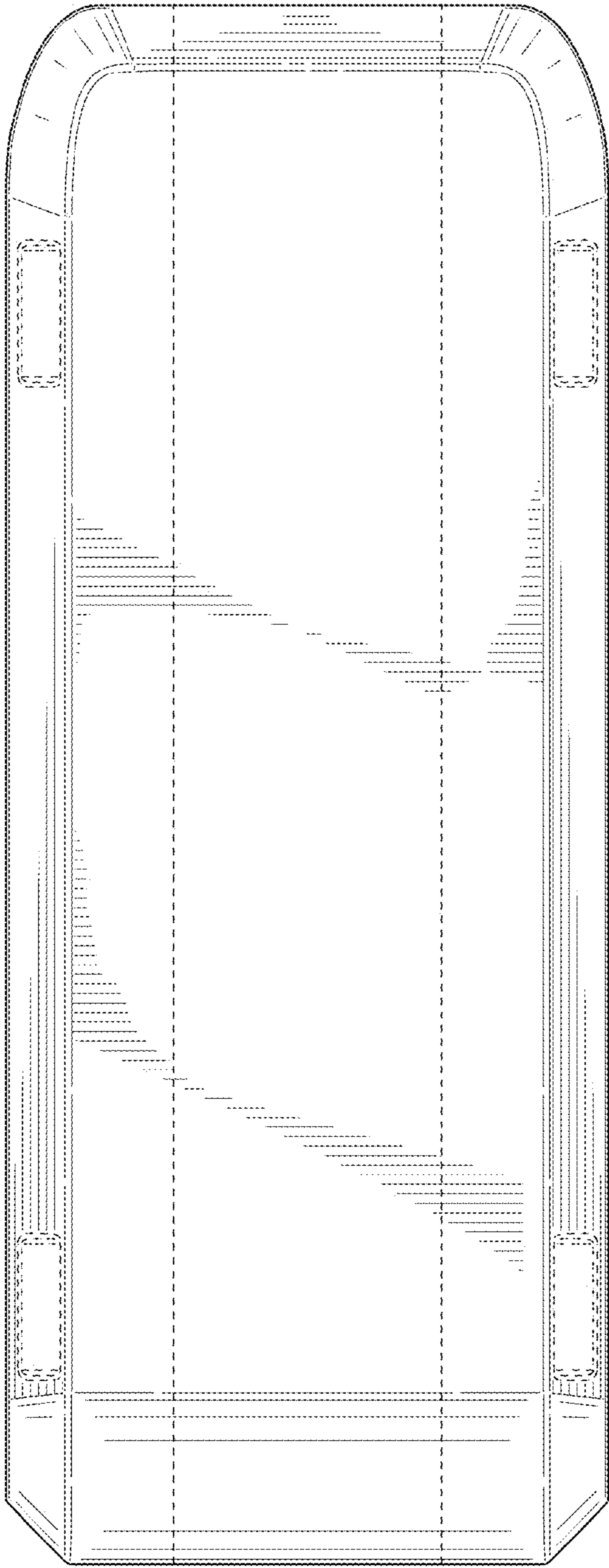


FIG. 4

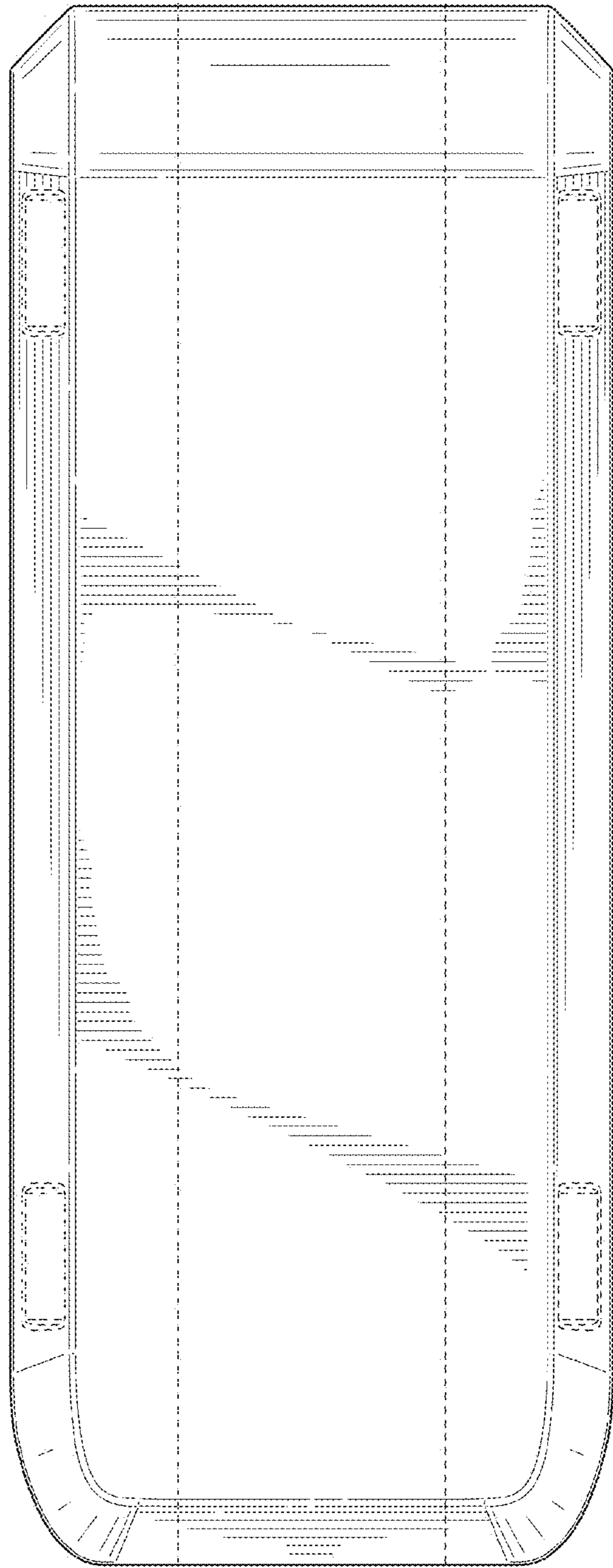


FIG. 5

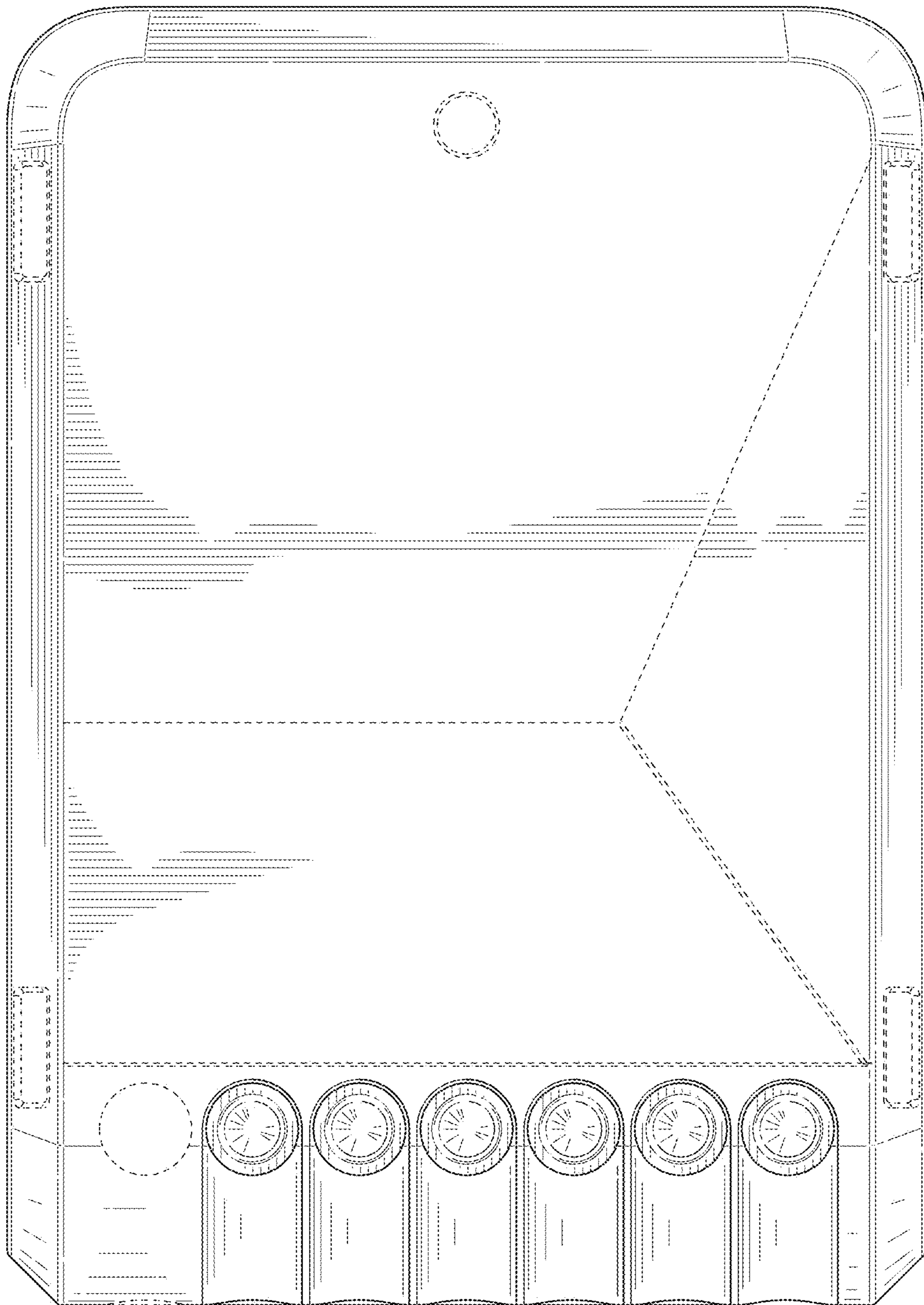


FIG. 6

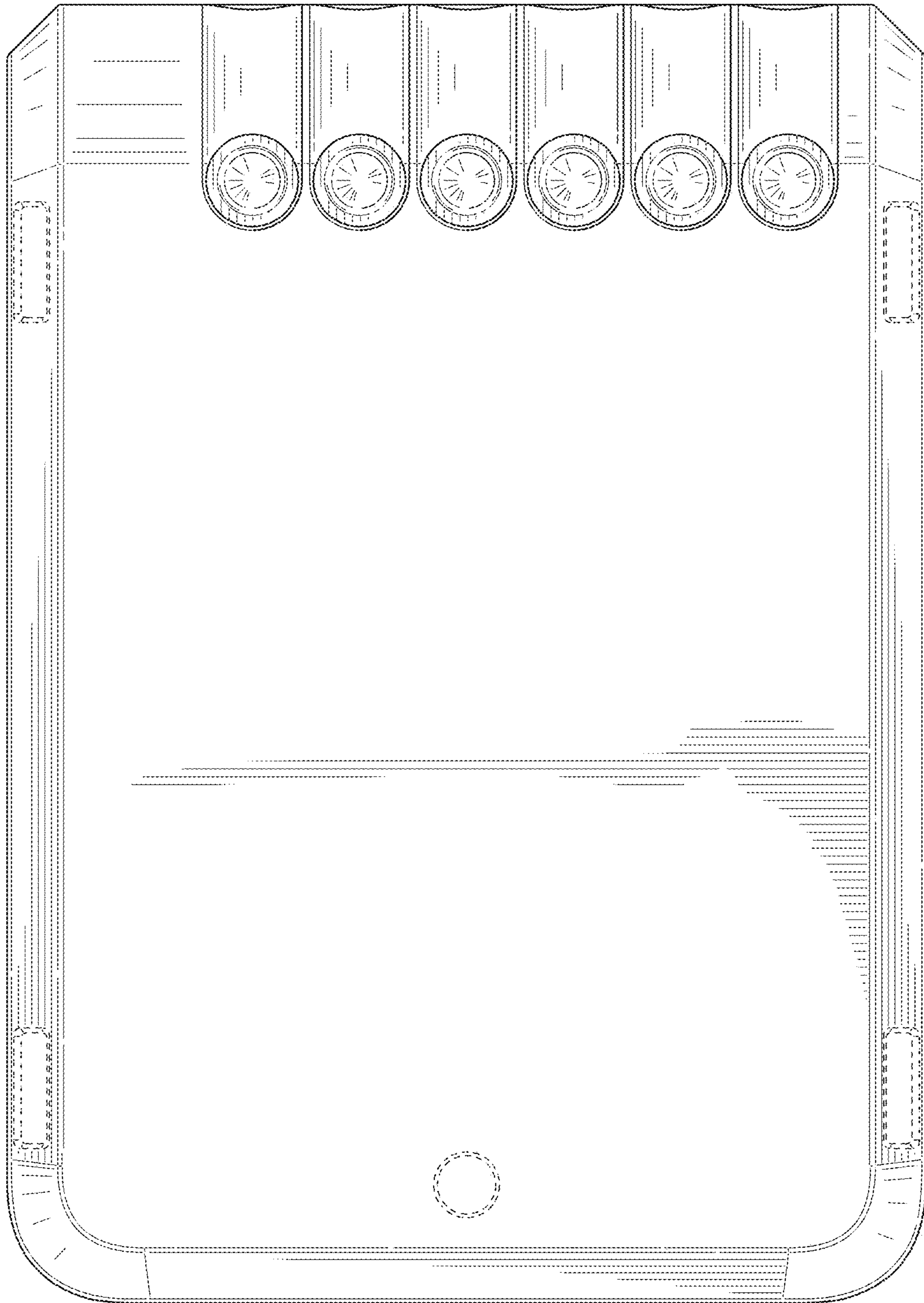
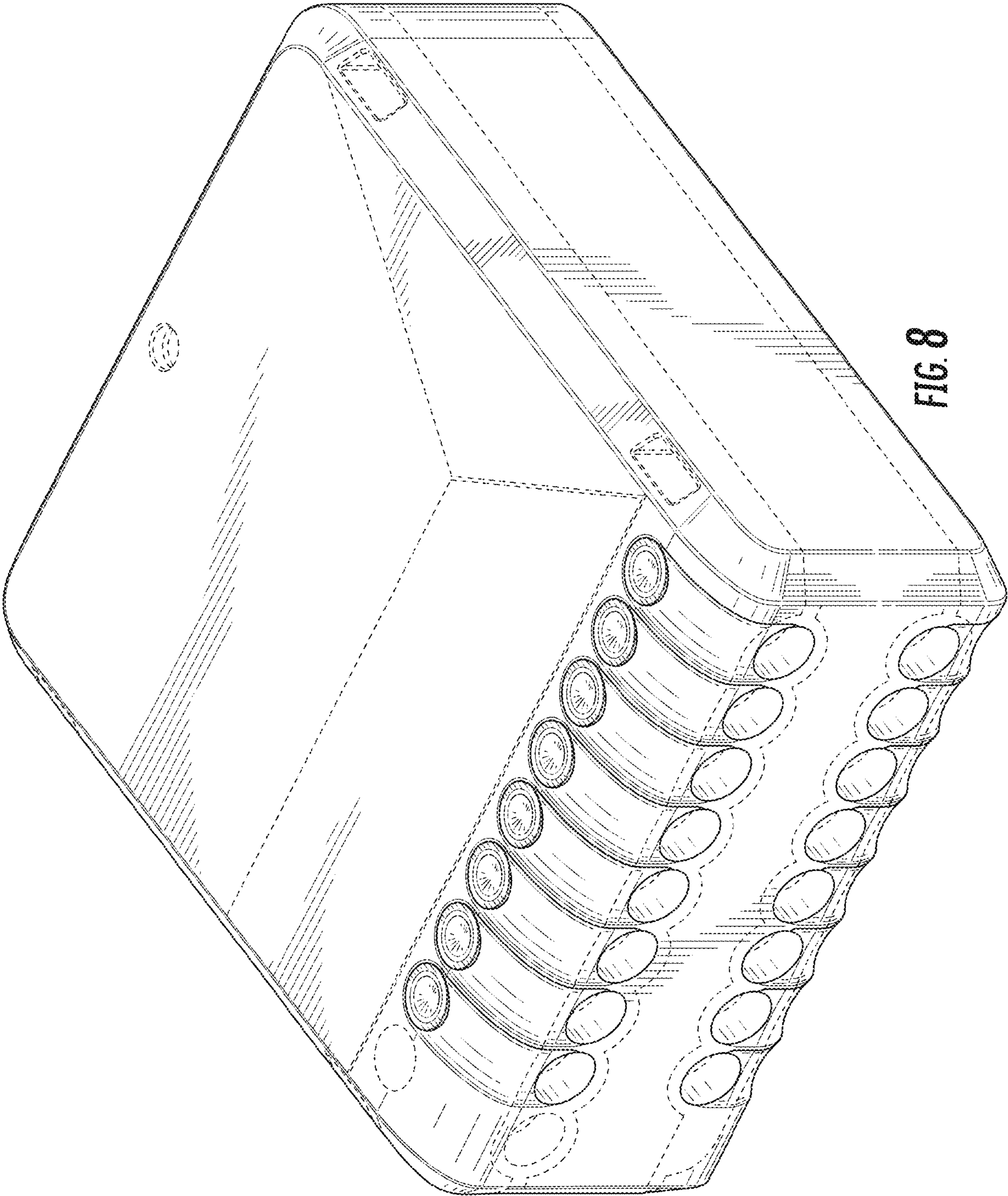


FIG. 7



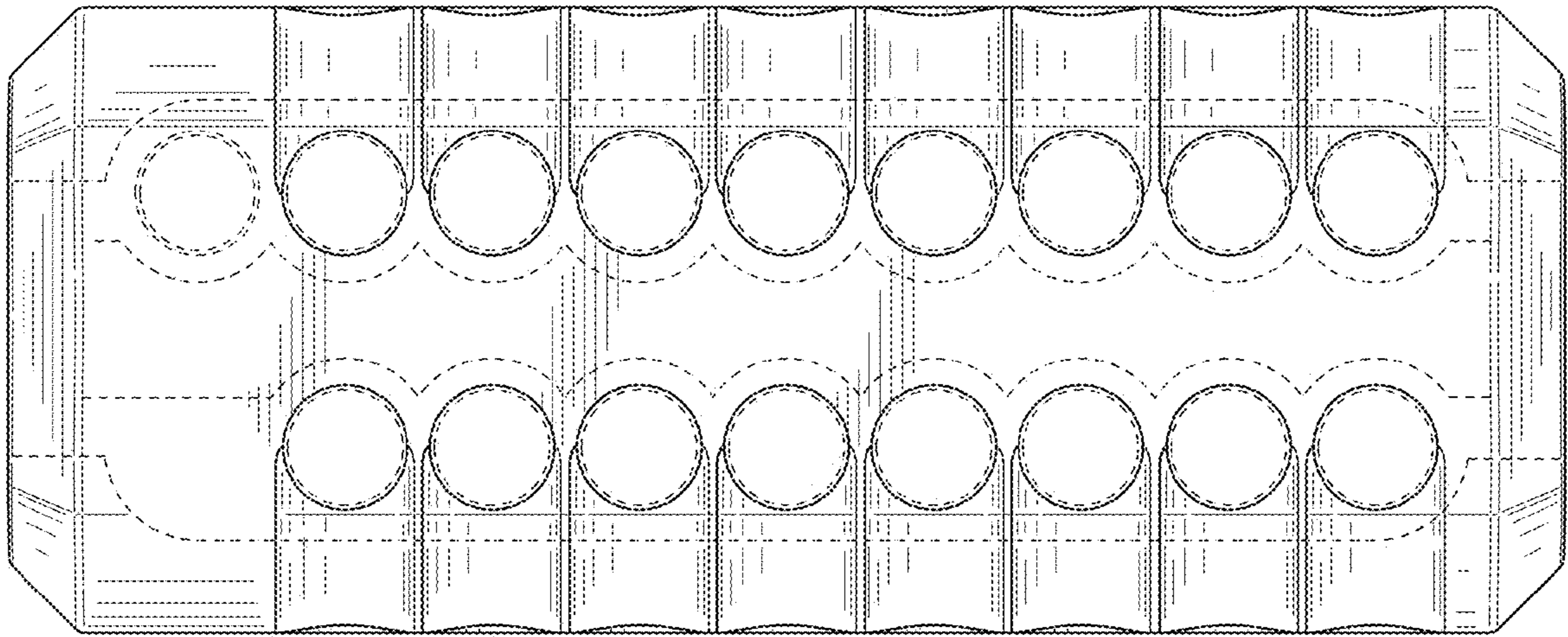


FIG. 9

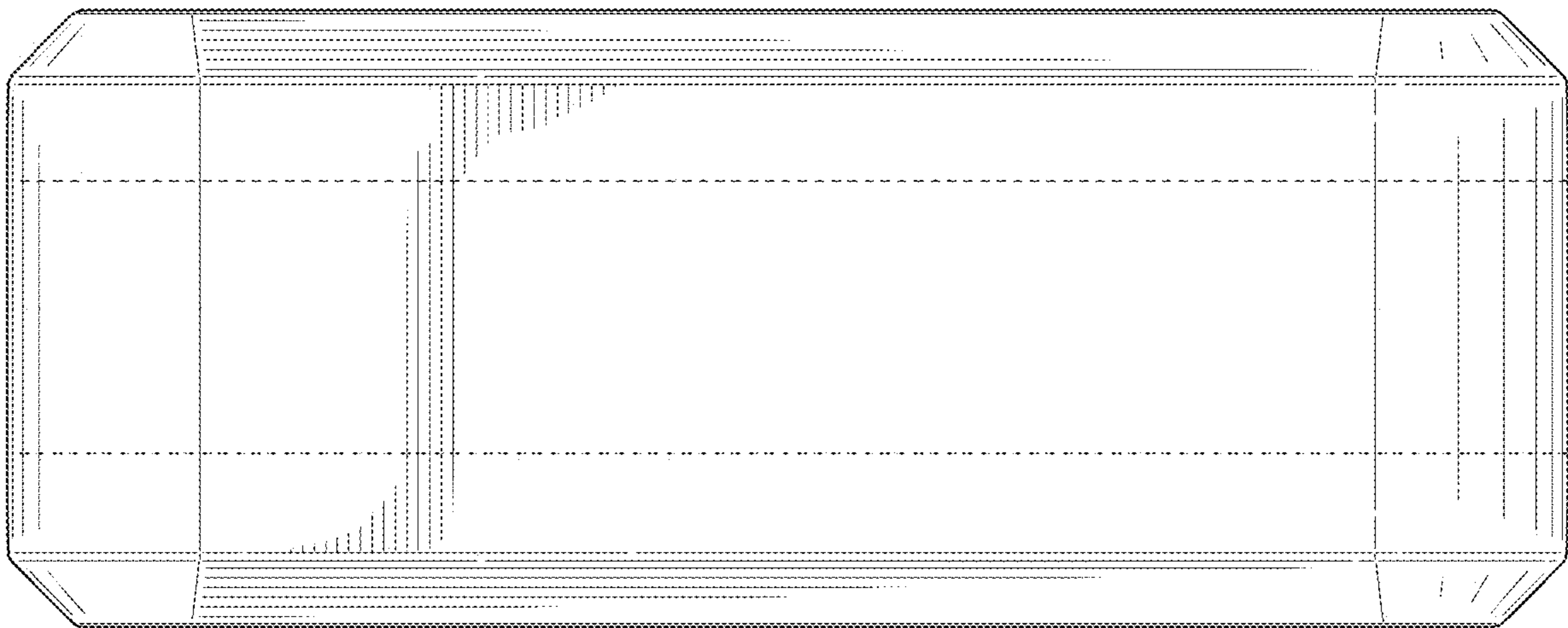


FIG. 10

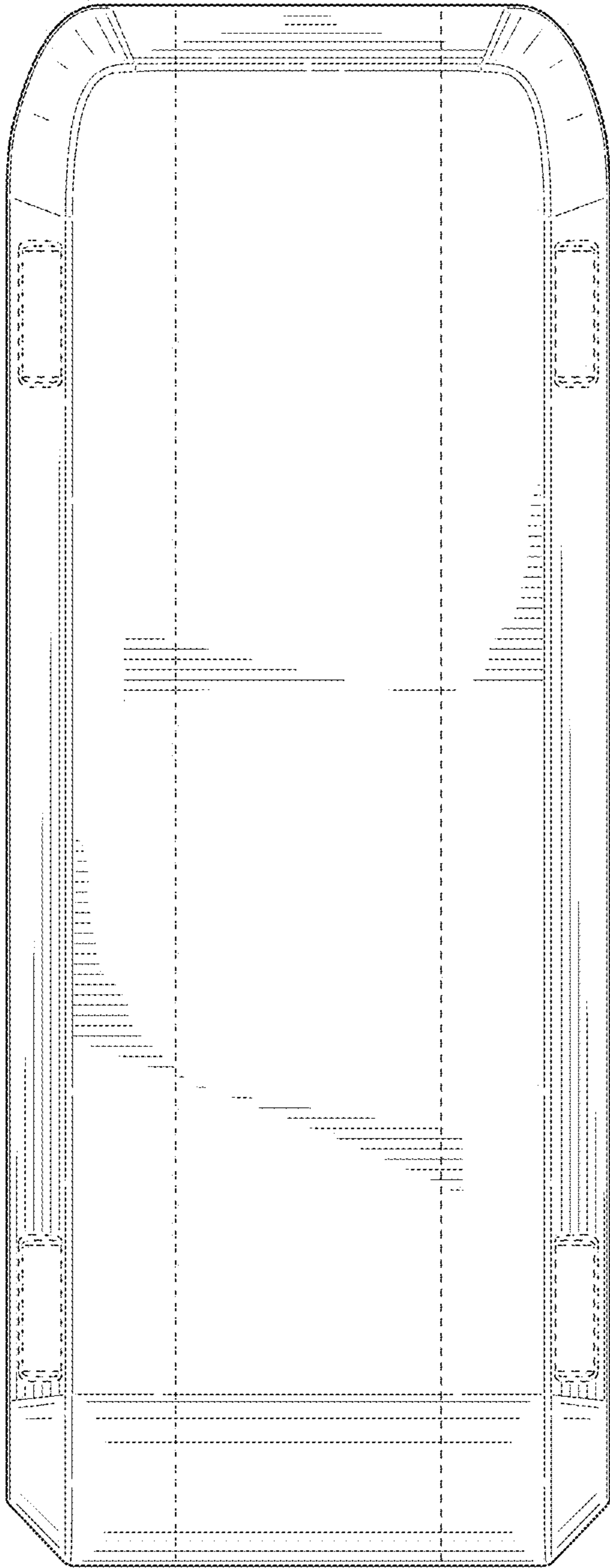


FIG. 11

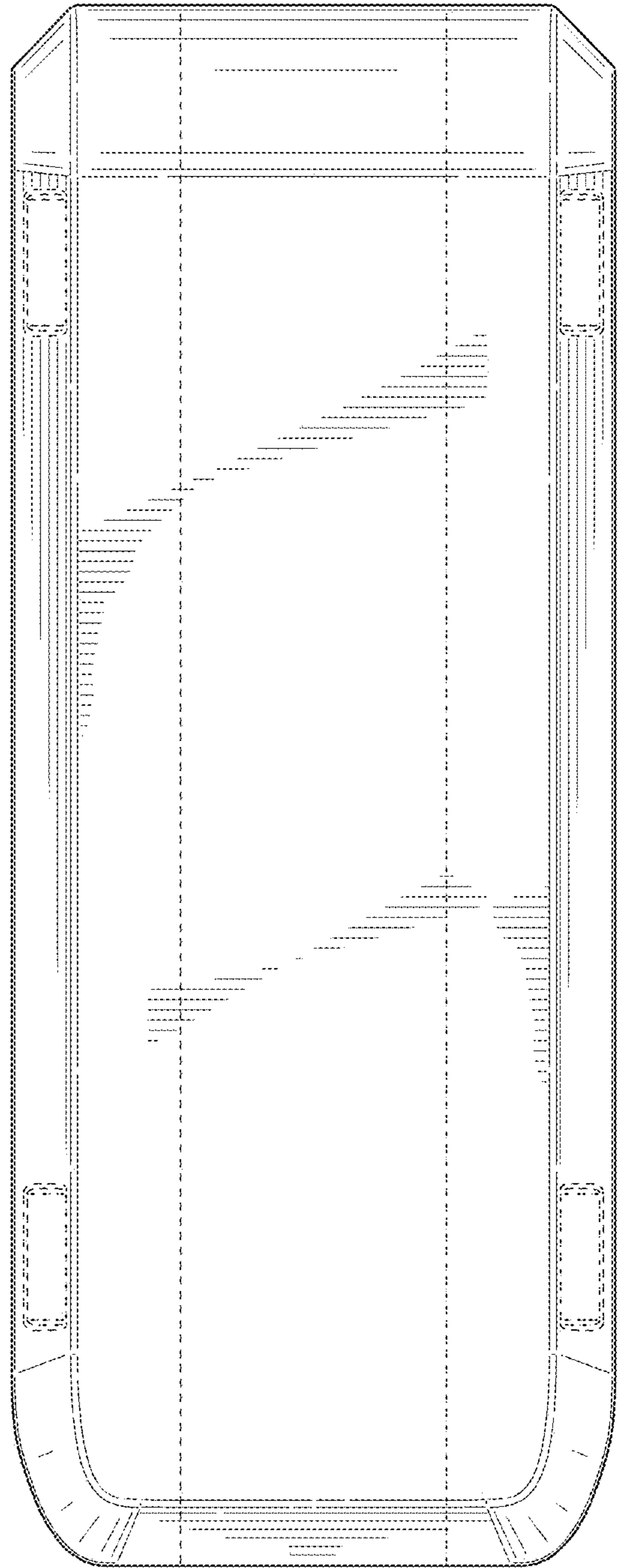


FIG. 12

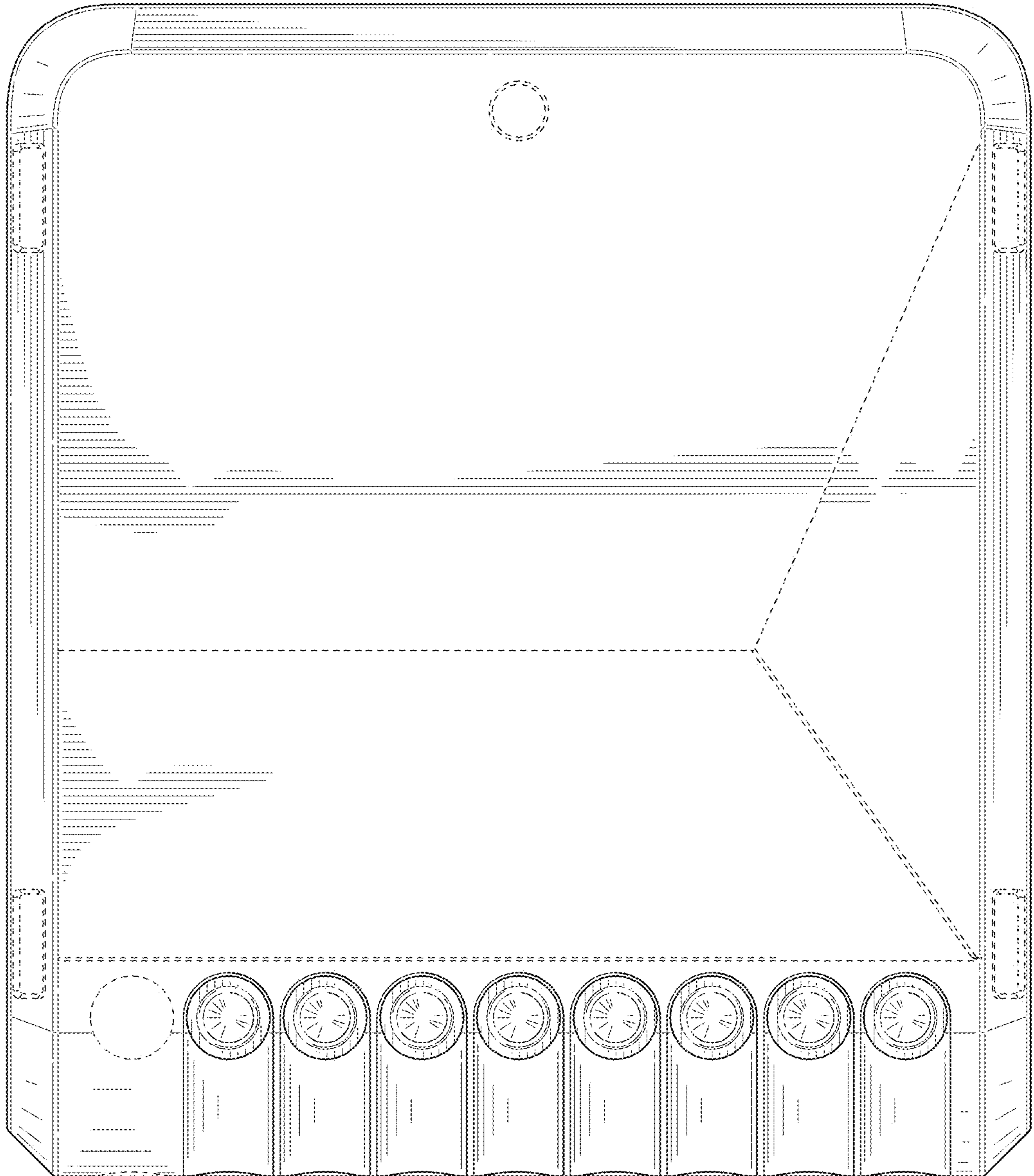


FIG. 13

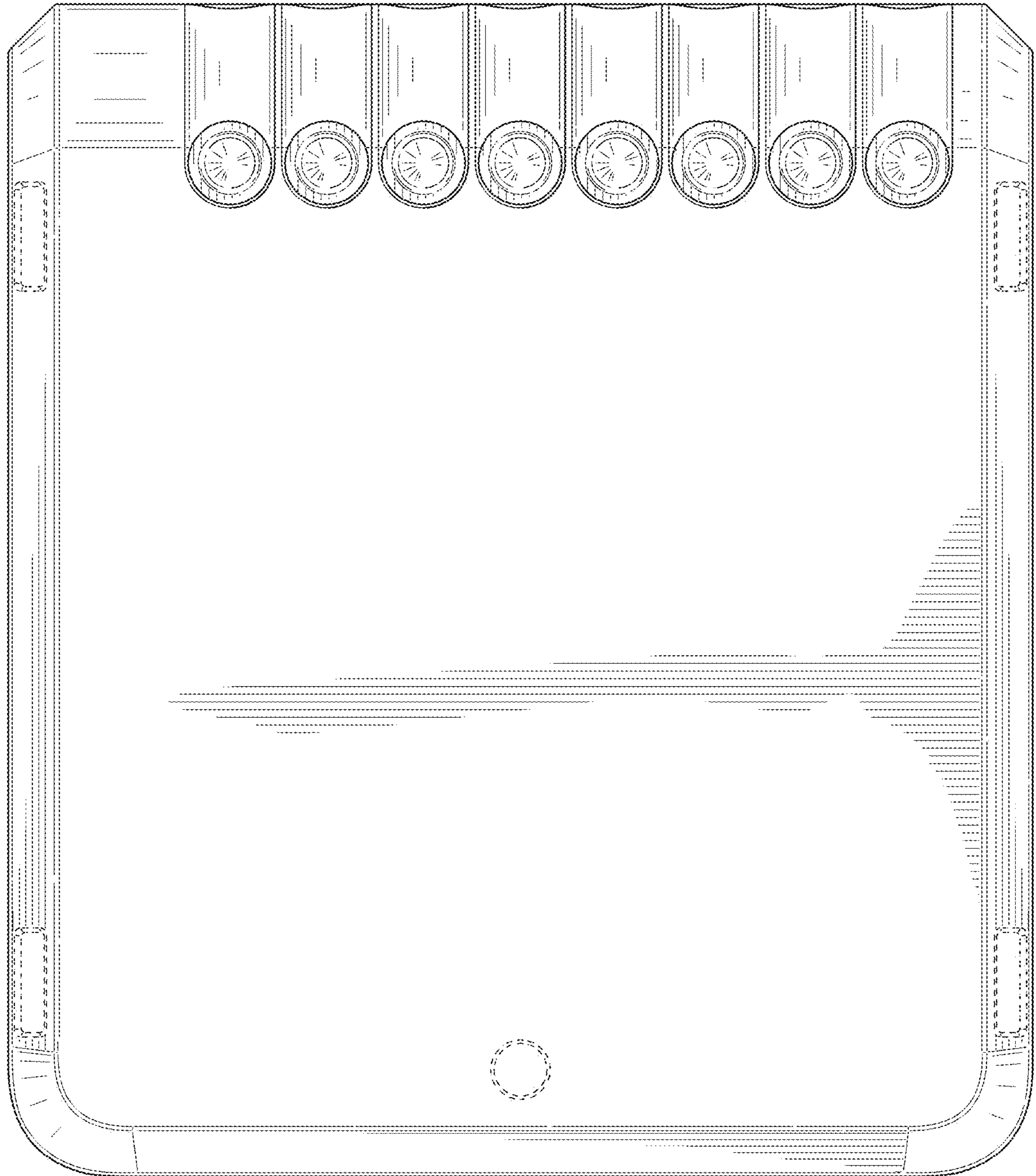
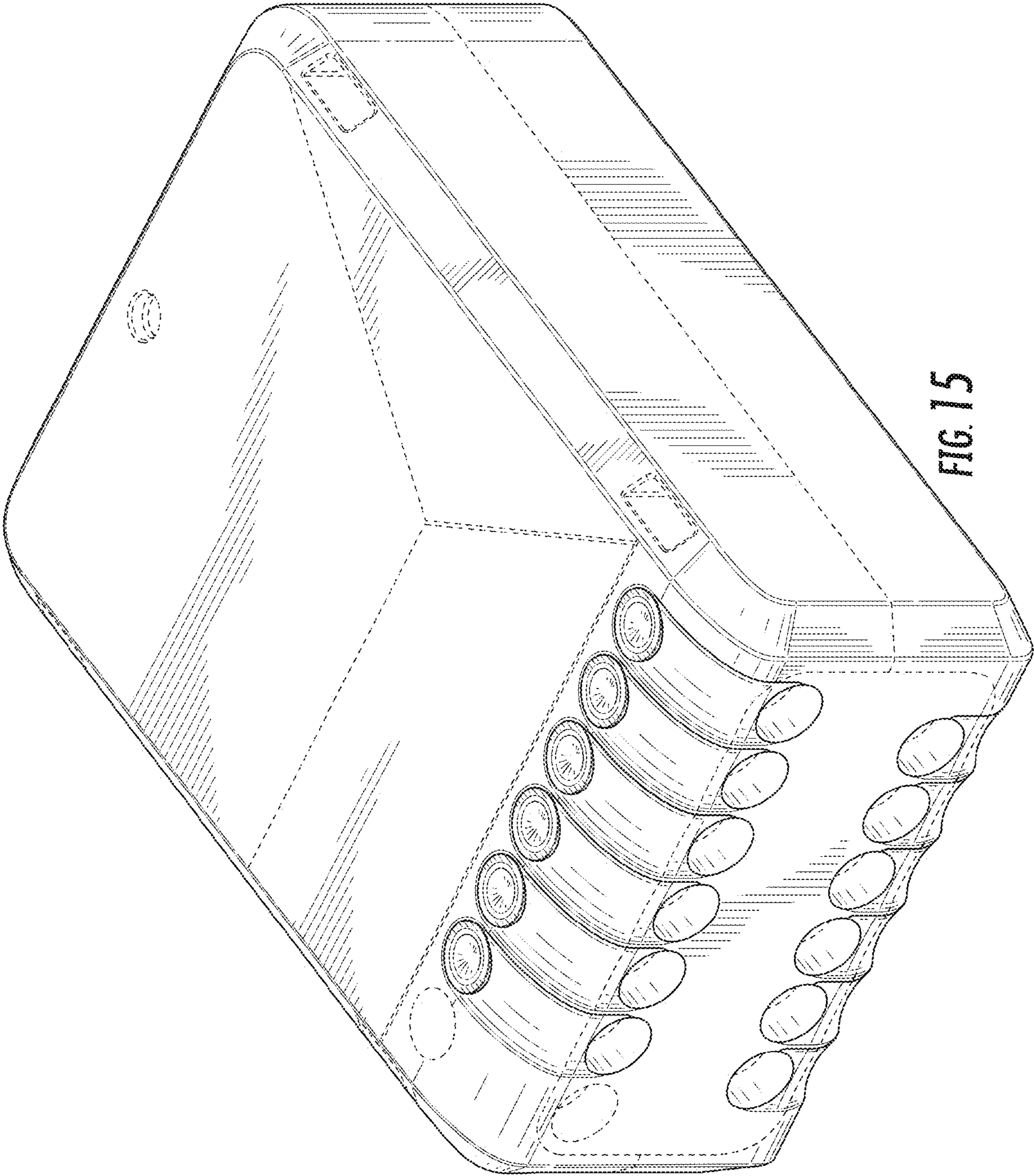


FIG. 14



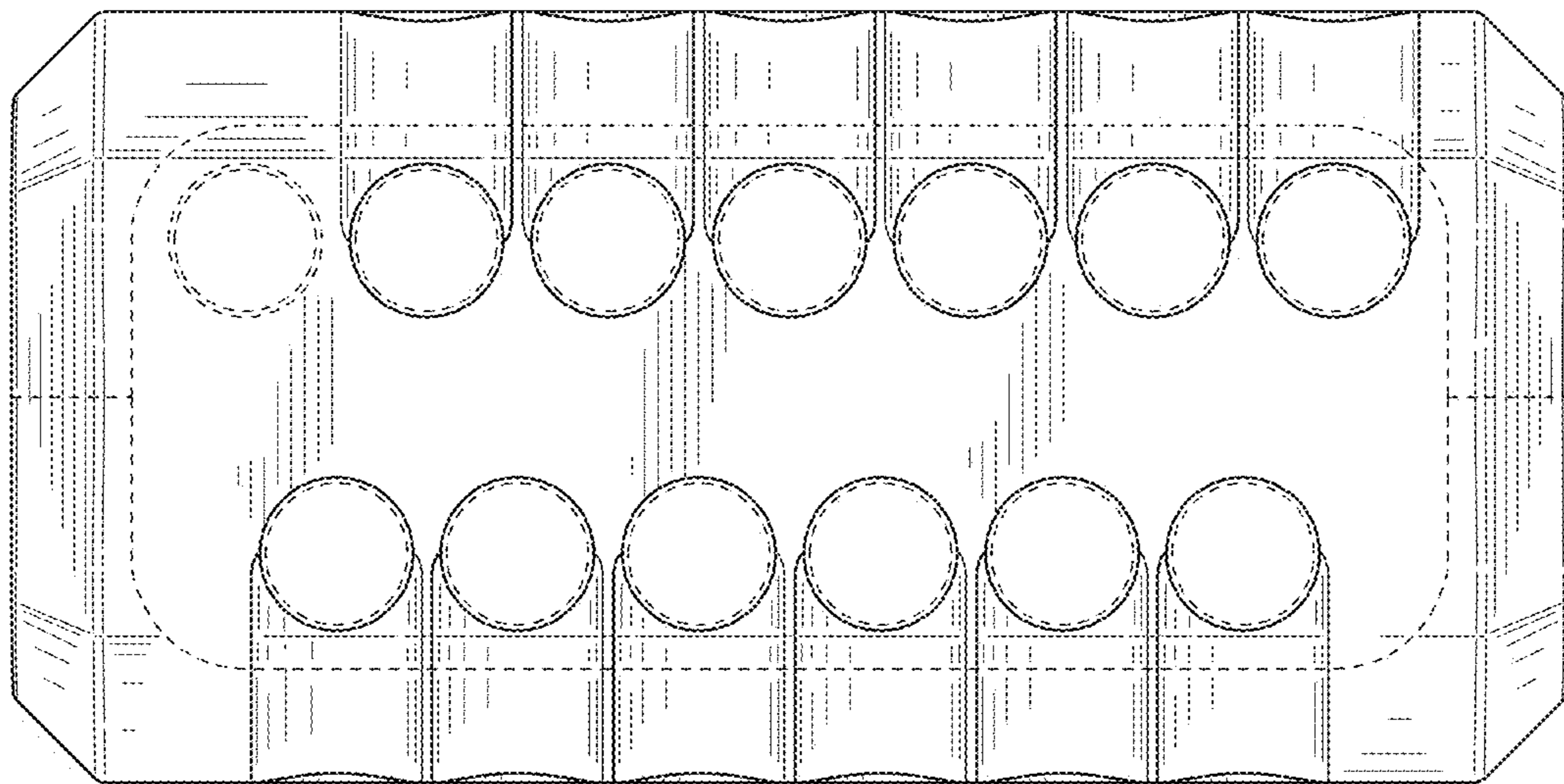


FIG. 16

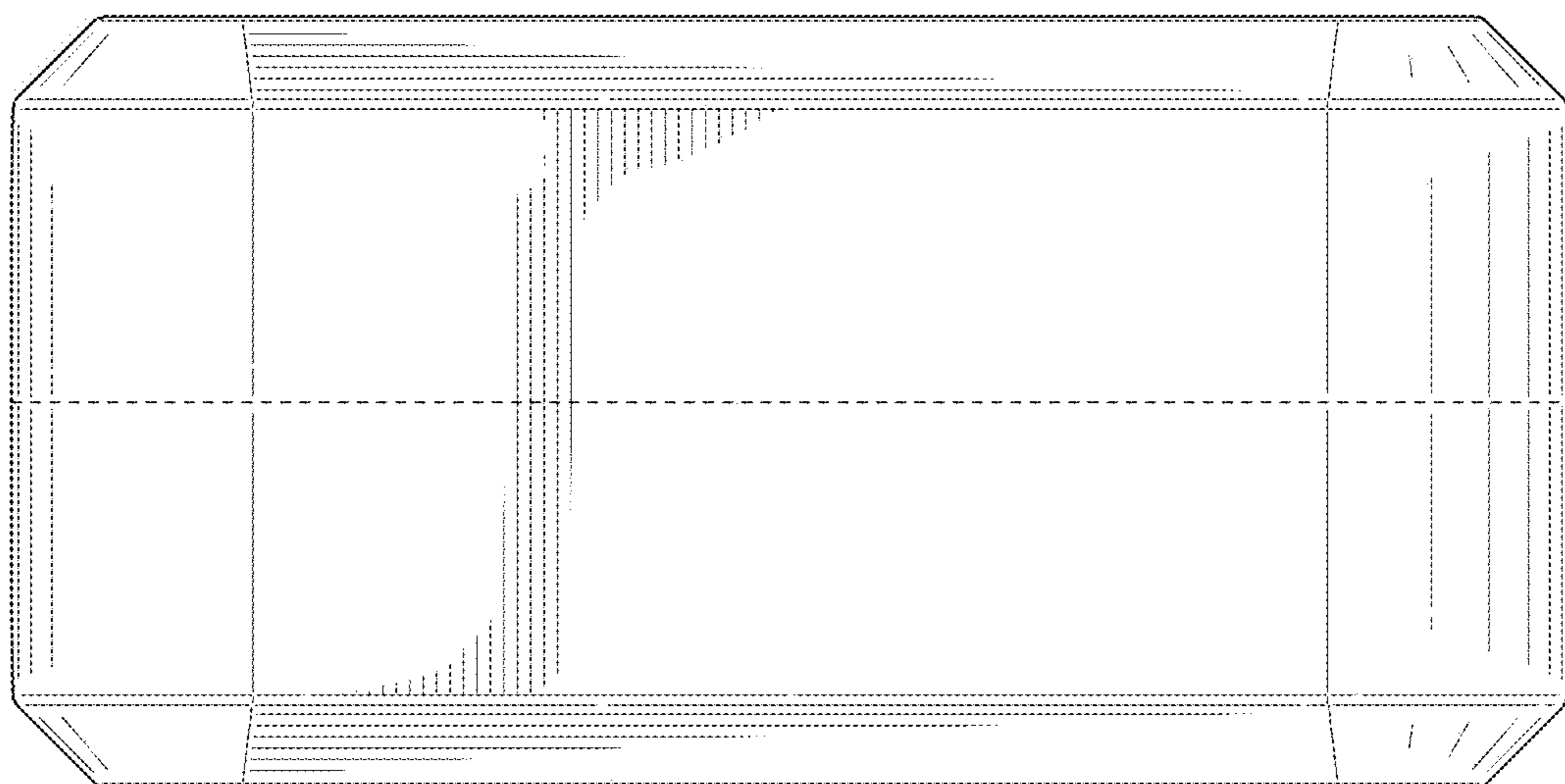


FIG. 17

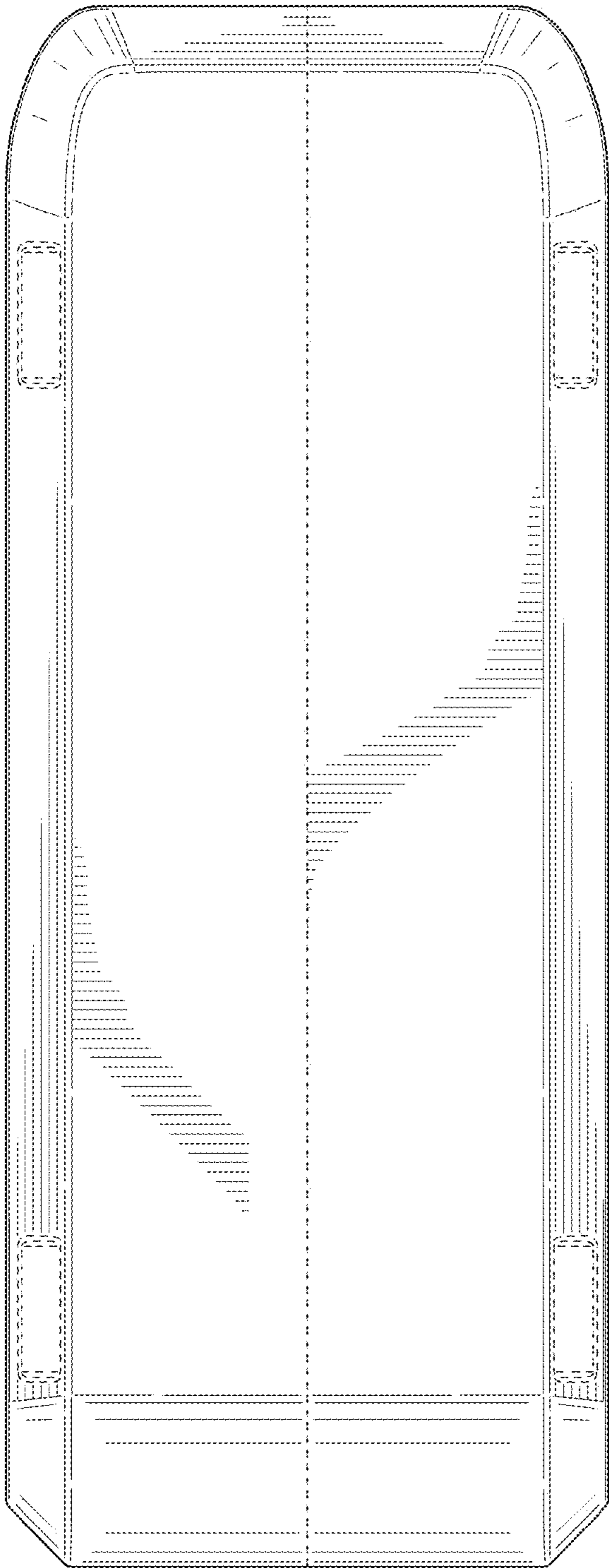


FIG. 18

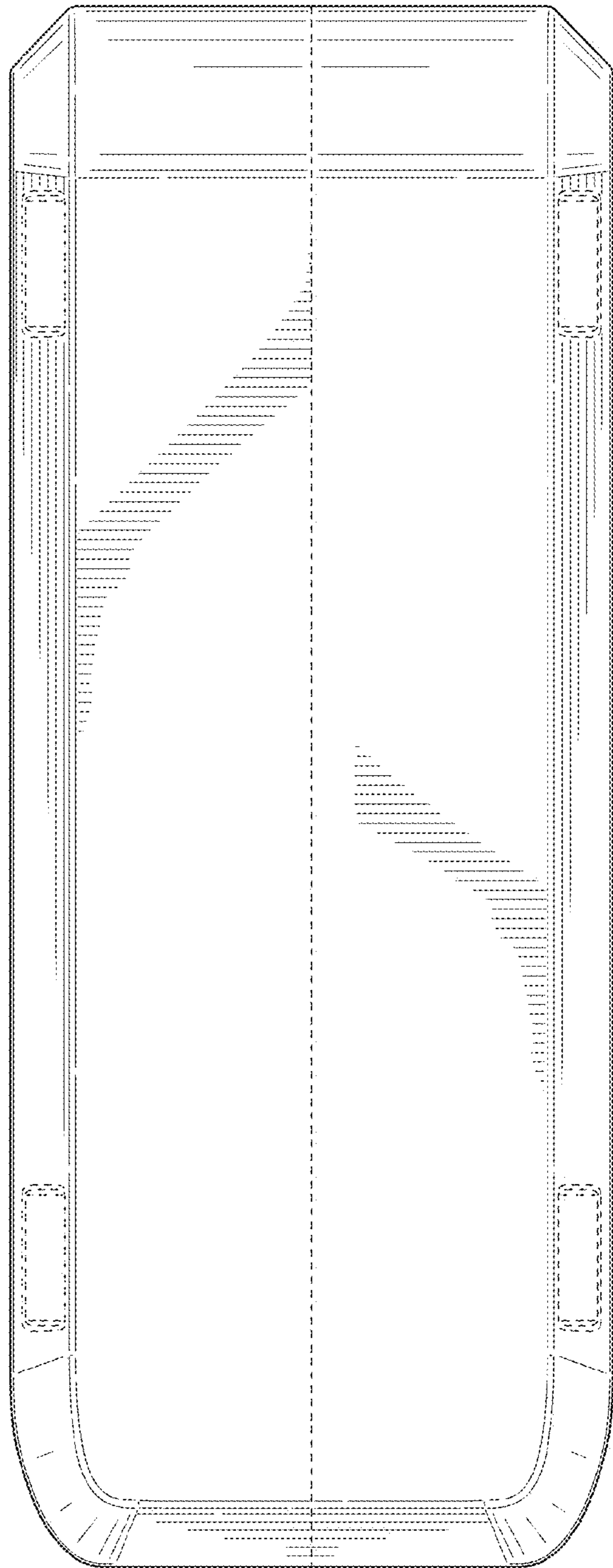


FIG. 19

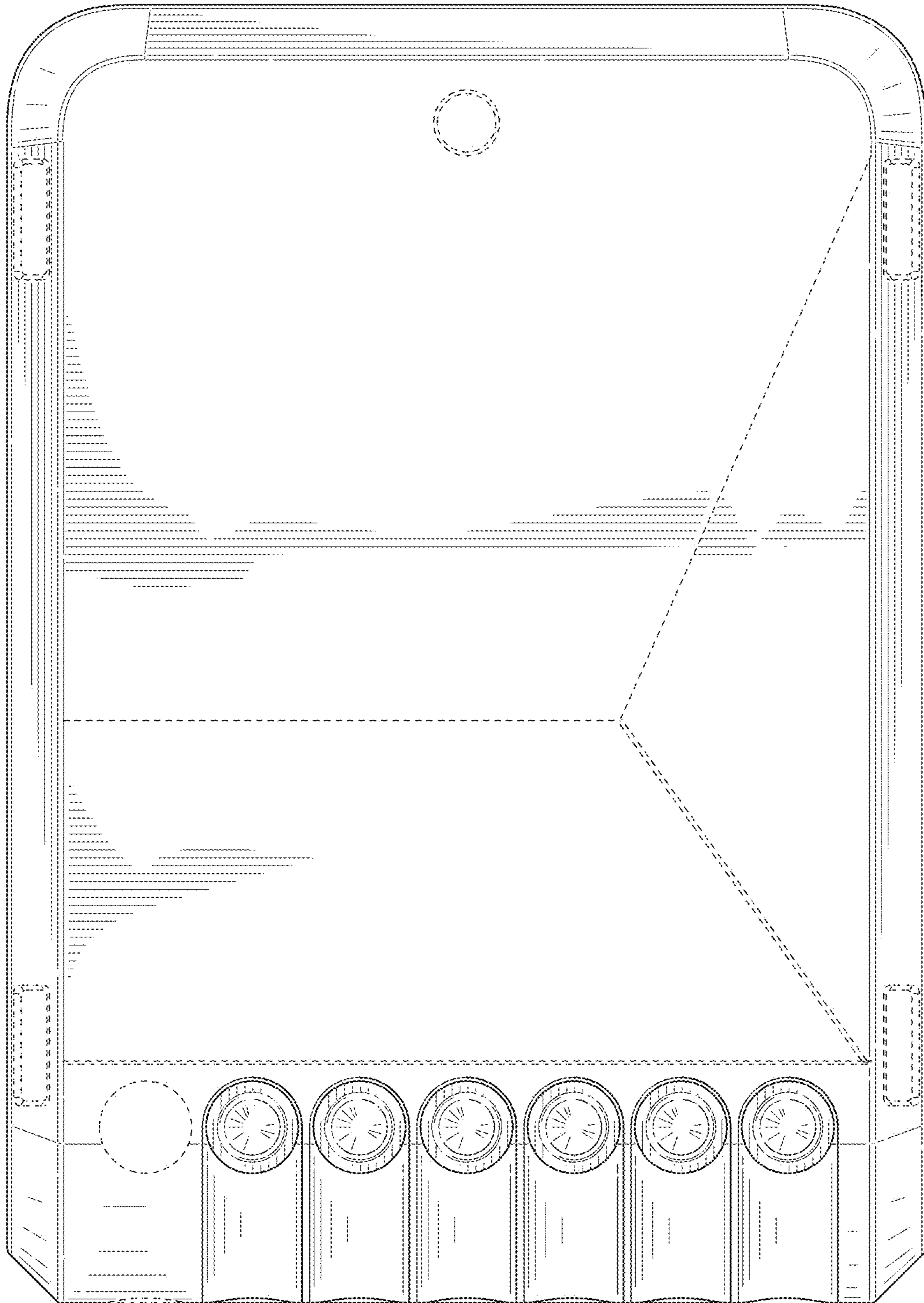


FIG. 20

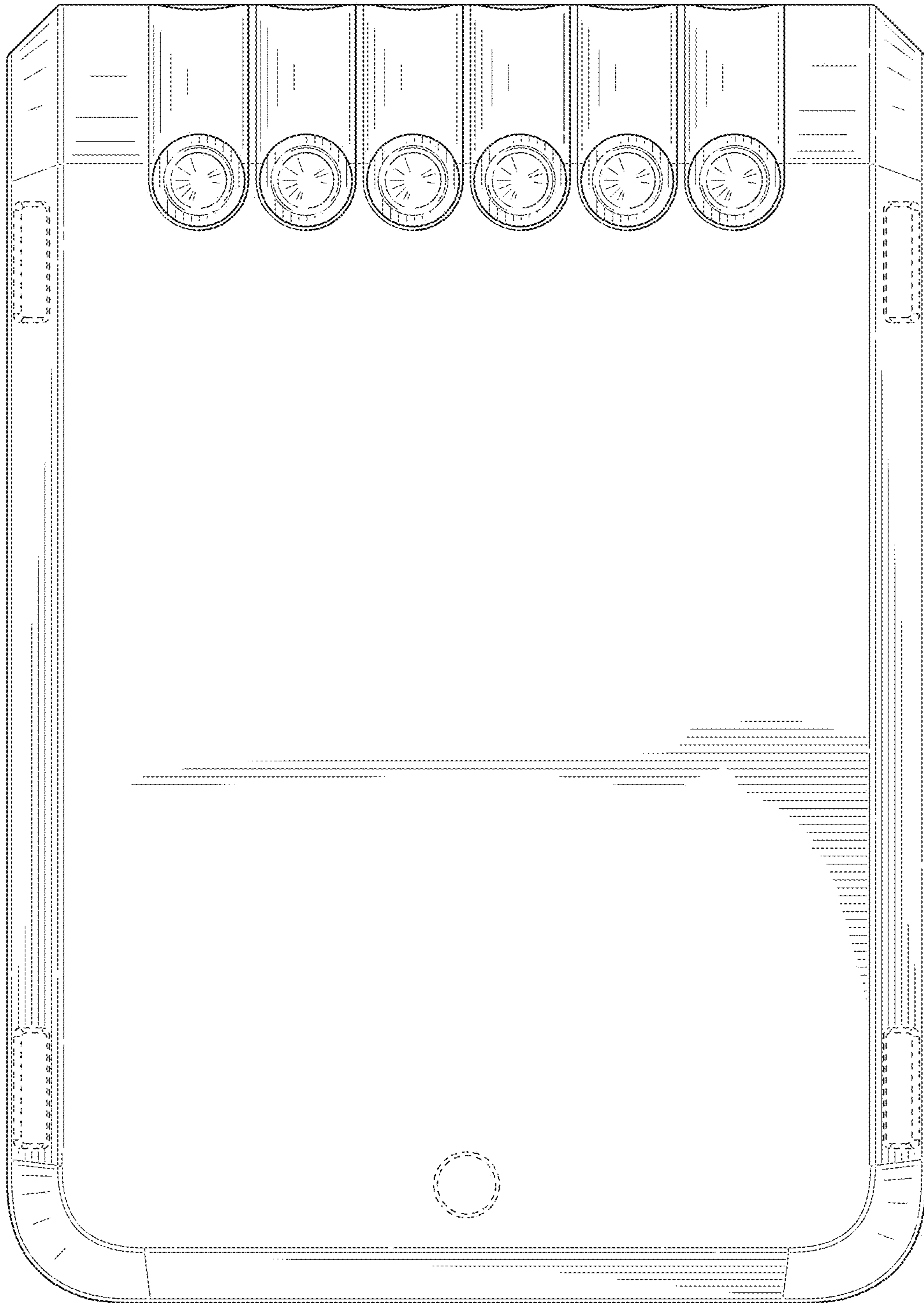
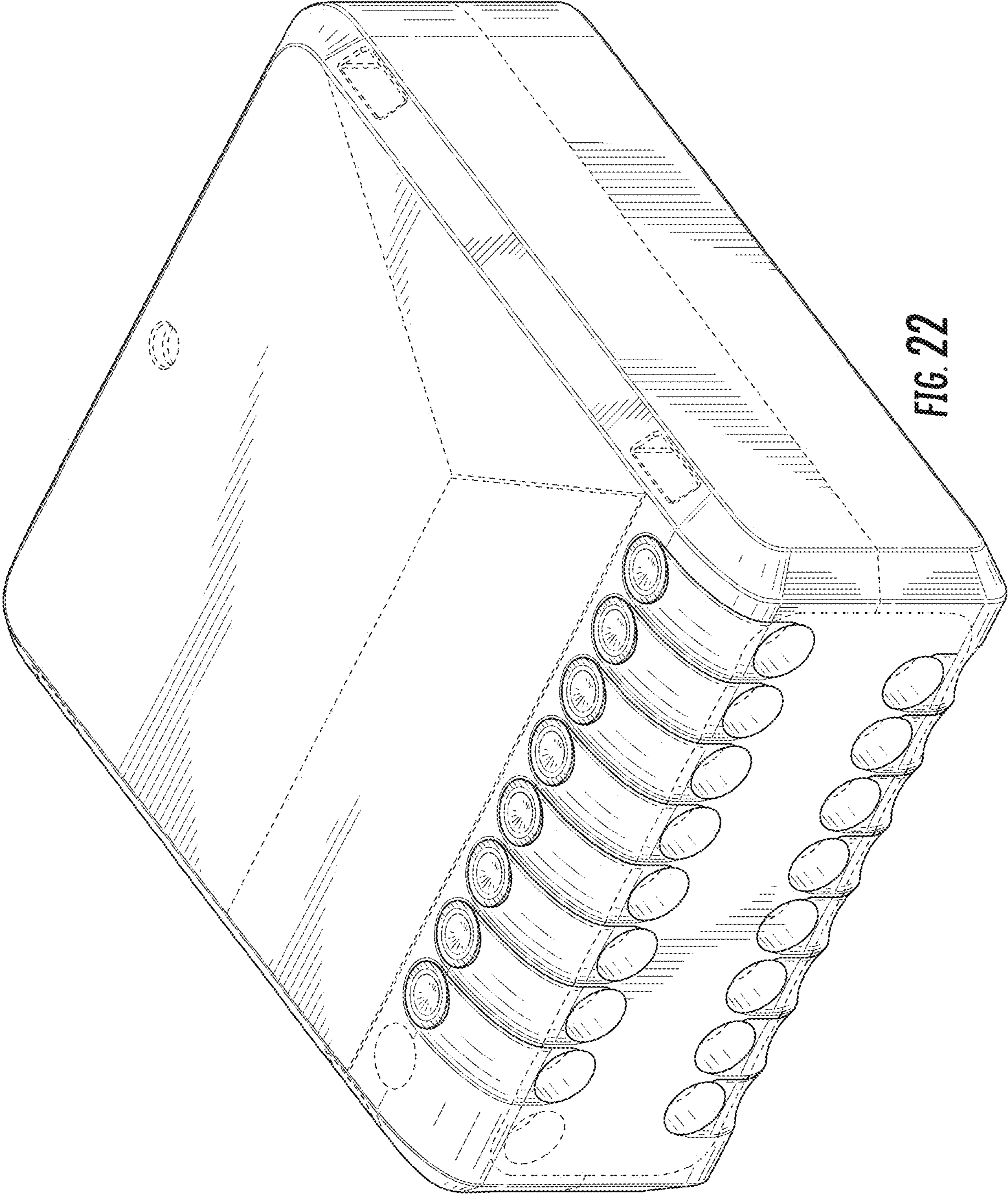


FIG. 21



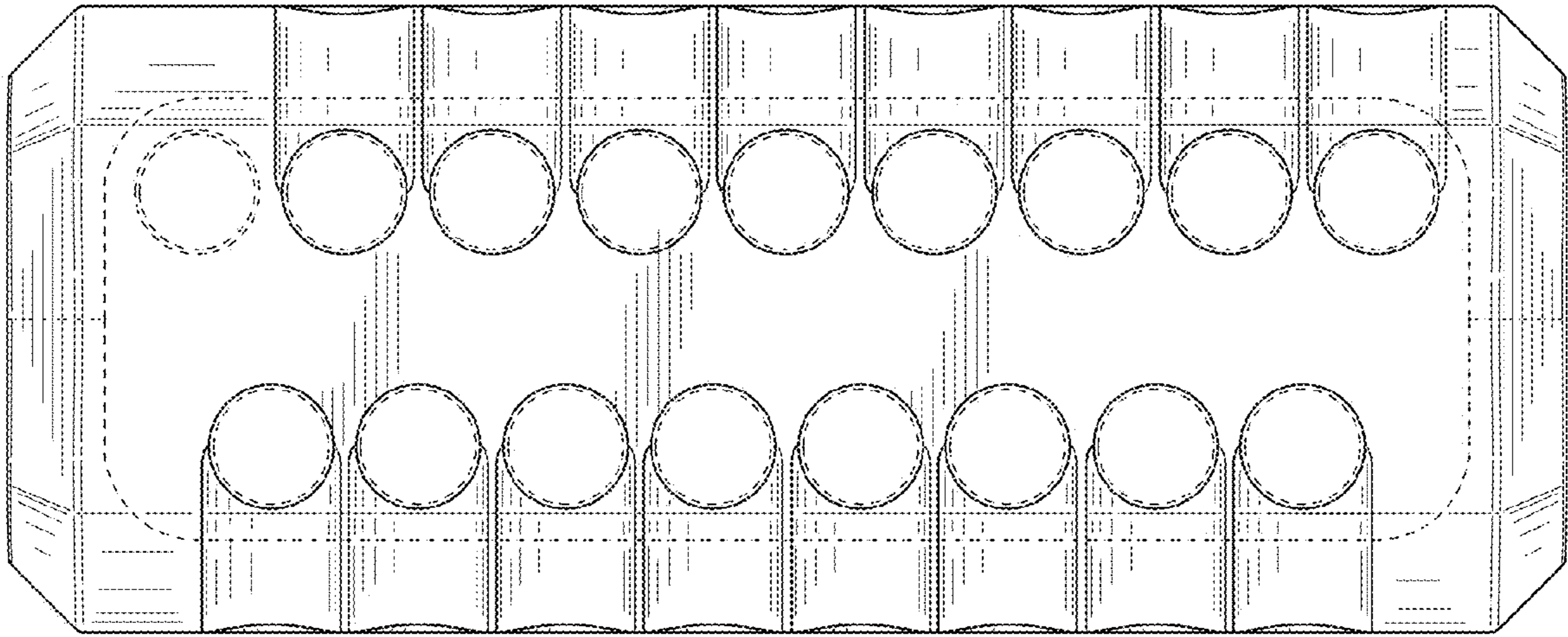


FIG. 23

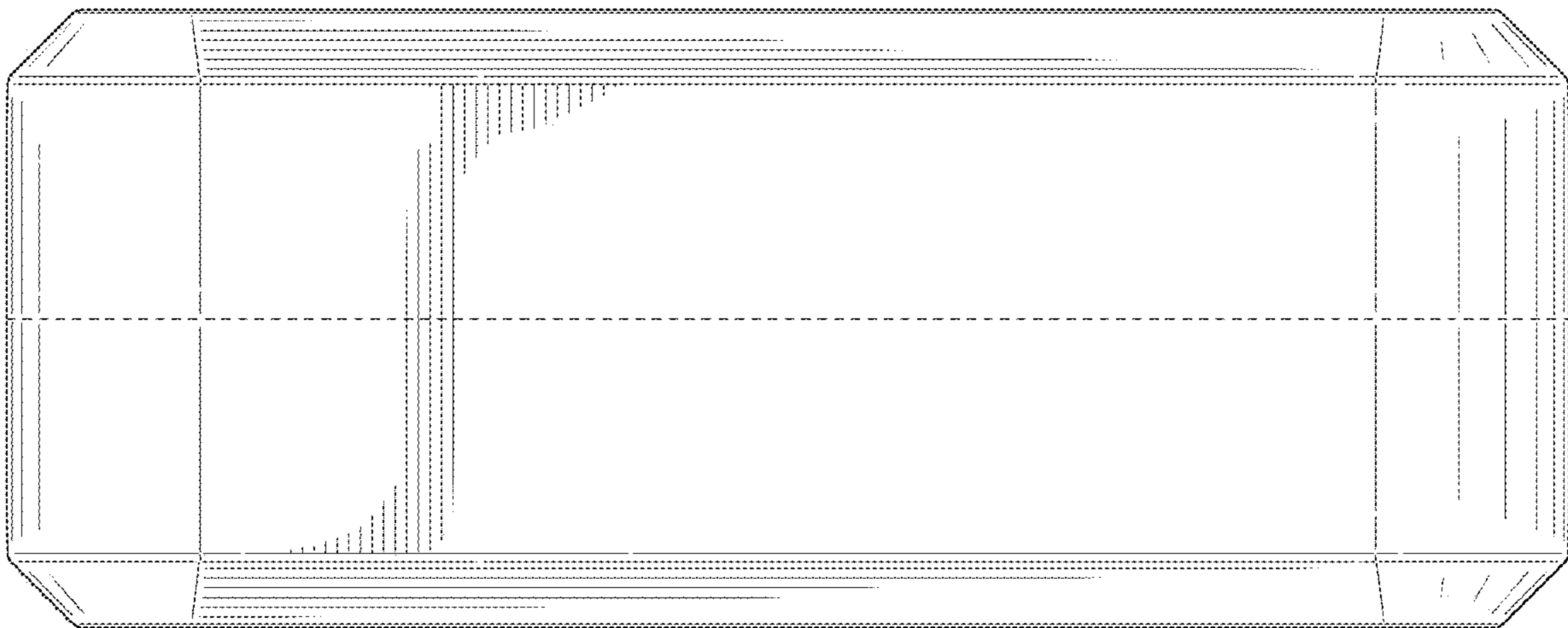


FIG. 24

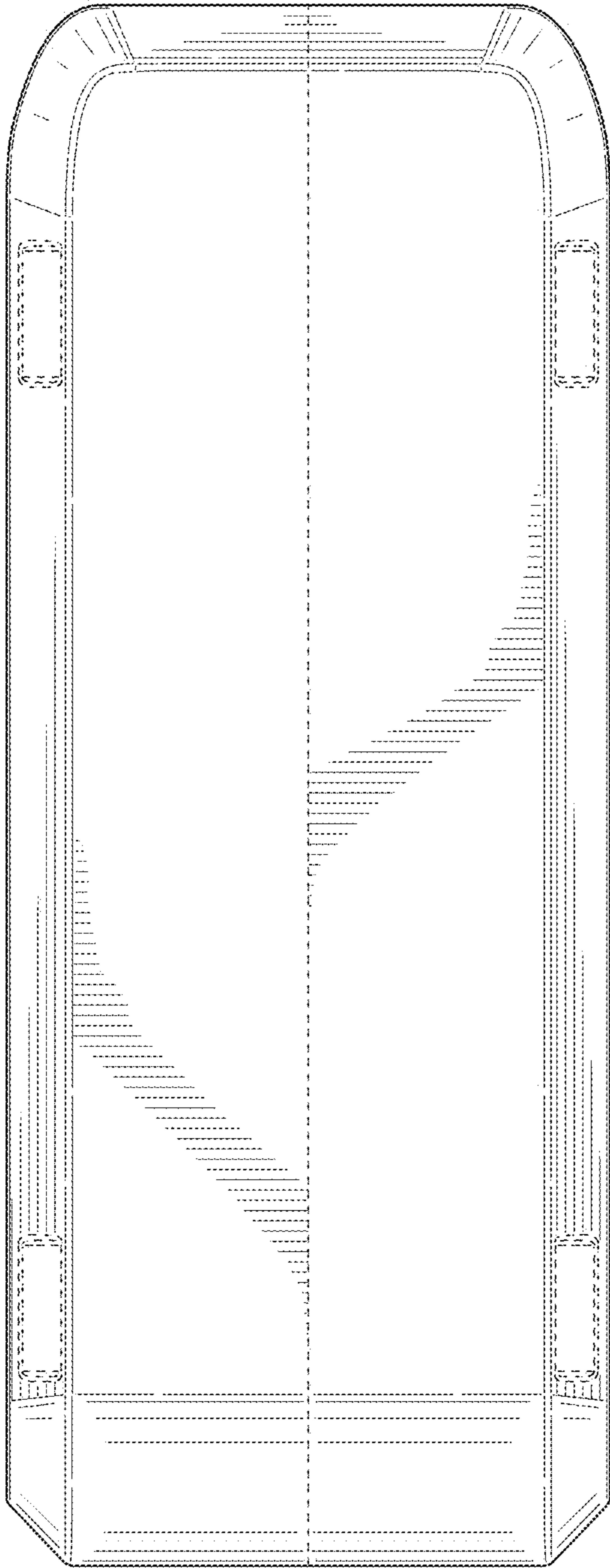


FIG. 25

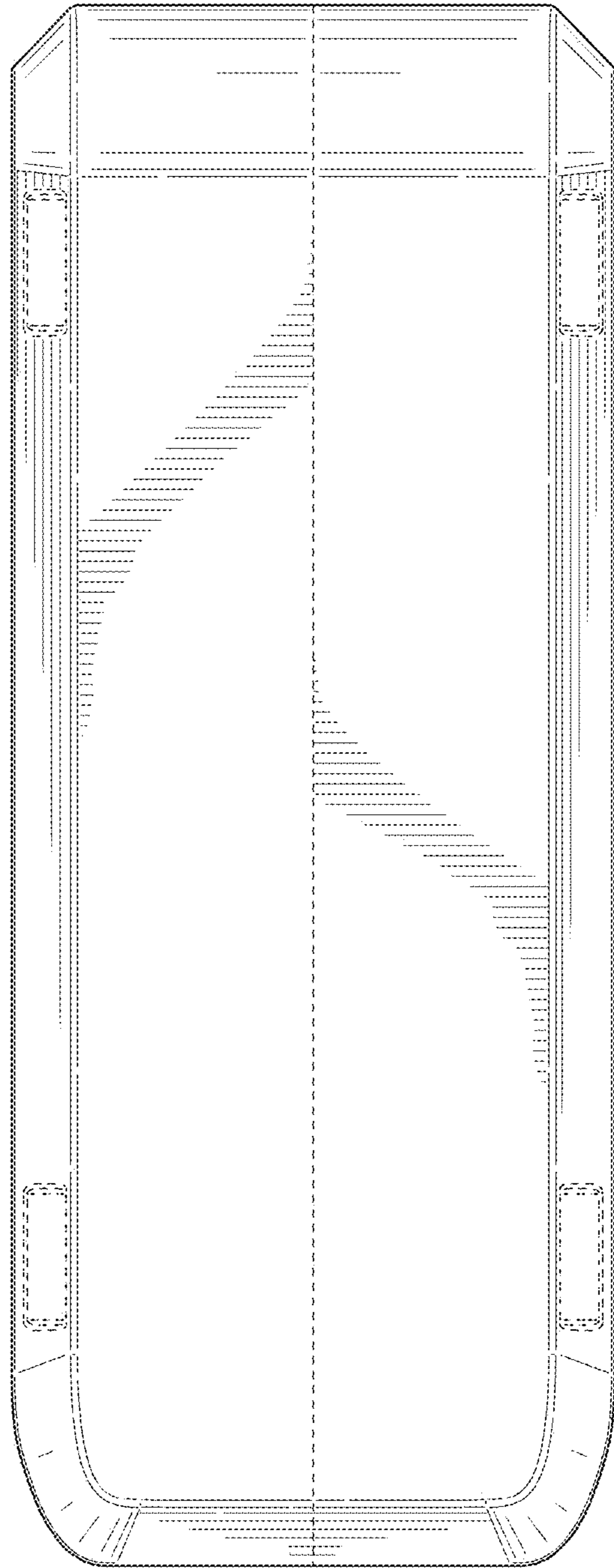


FIG. 26

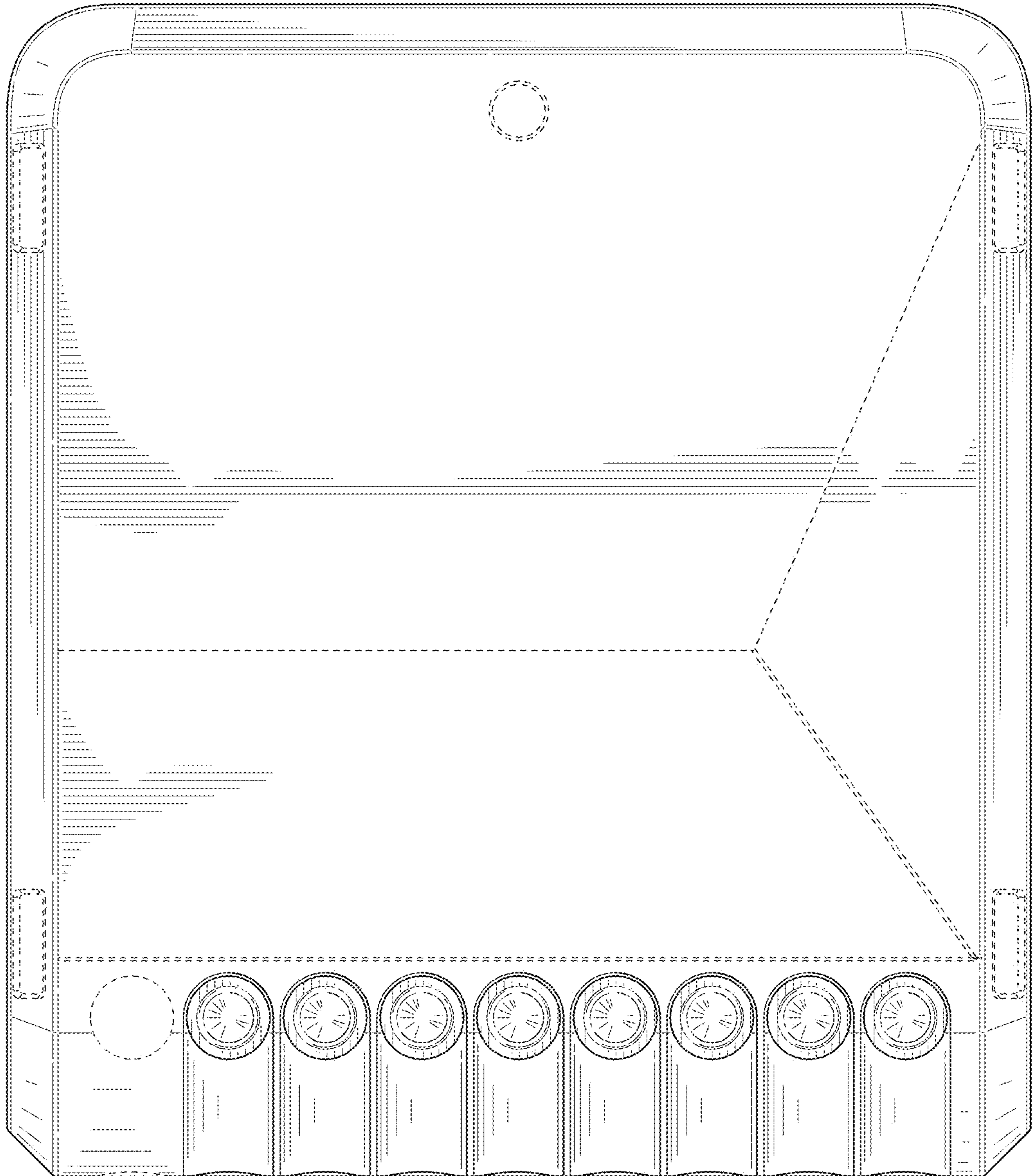


FIG. 27

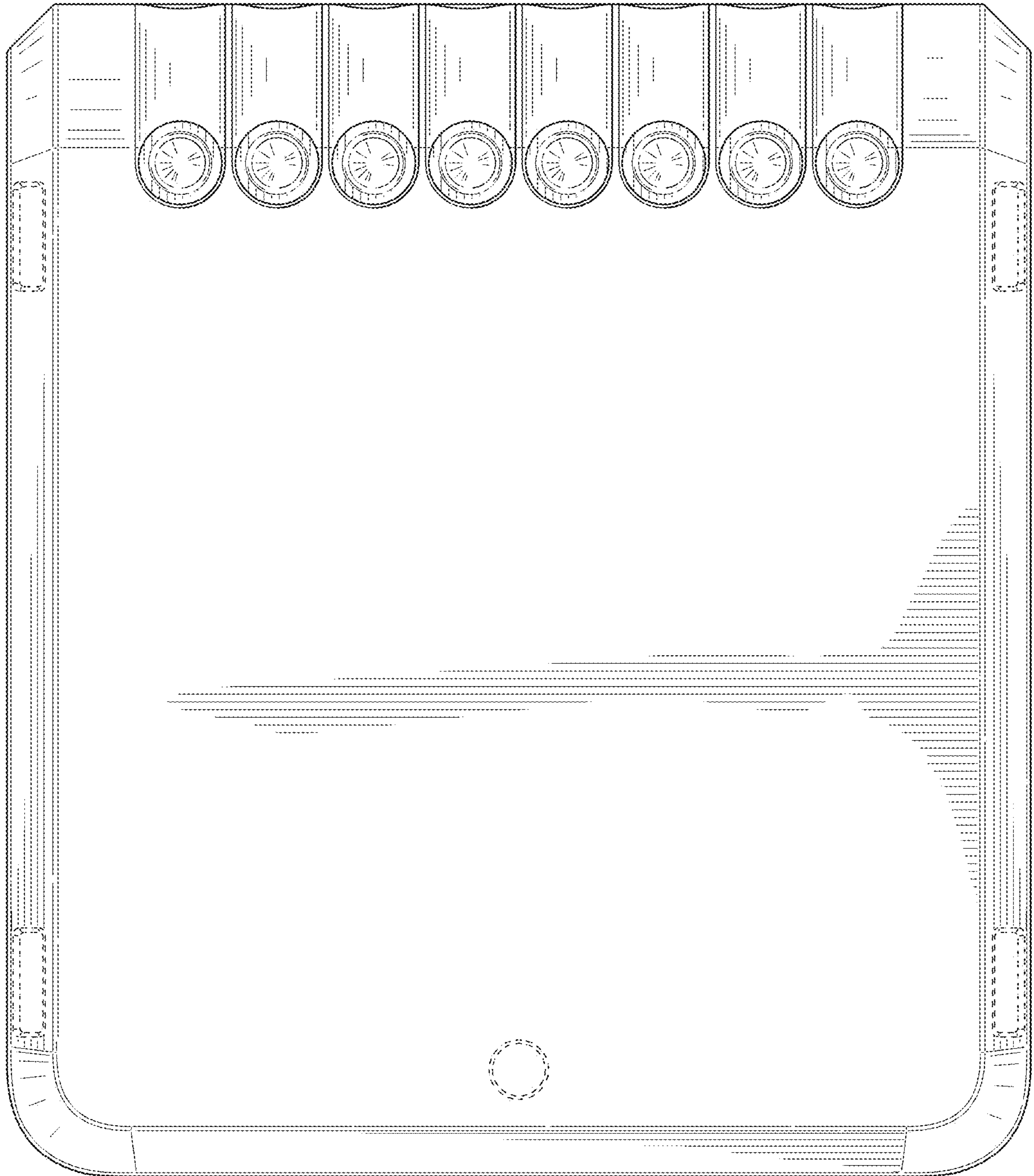


FIG. 28