



US00D929336S

(12) **United States Design Patent** (10) **Patent No.:** **US D929,336 S**
Cagle (45) **Date of Patent:** **** Aug. 31, 2021**

(54) **ELECTRICAL INTERFACE**

(71) Applicant: **TECHTRONIC CORDLESS GP,**
Anderson, SC (US)

(72) Inventor: **Clint Cagle,** Easley, SC (US)

(73) Assignee: **TECHTRONIC CORDLESS GP,**
Anderson, SC (US)

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

(21) Appl. No.: **29/704,572**

(22) Filed: **Sep. 5, 2019**

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

(52) **U.S. Cl.**
USPC **D13/120**

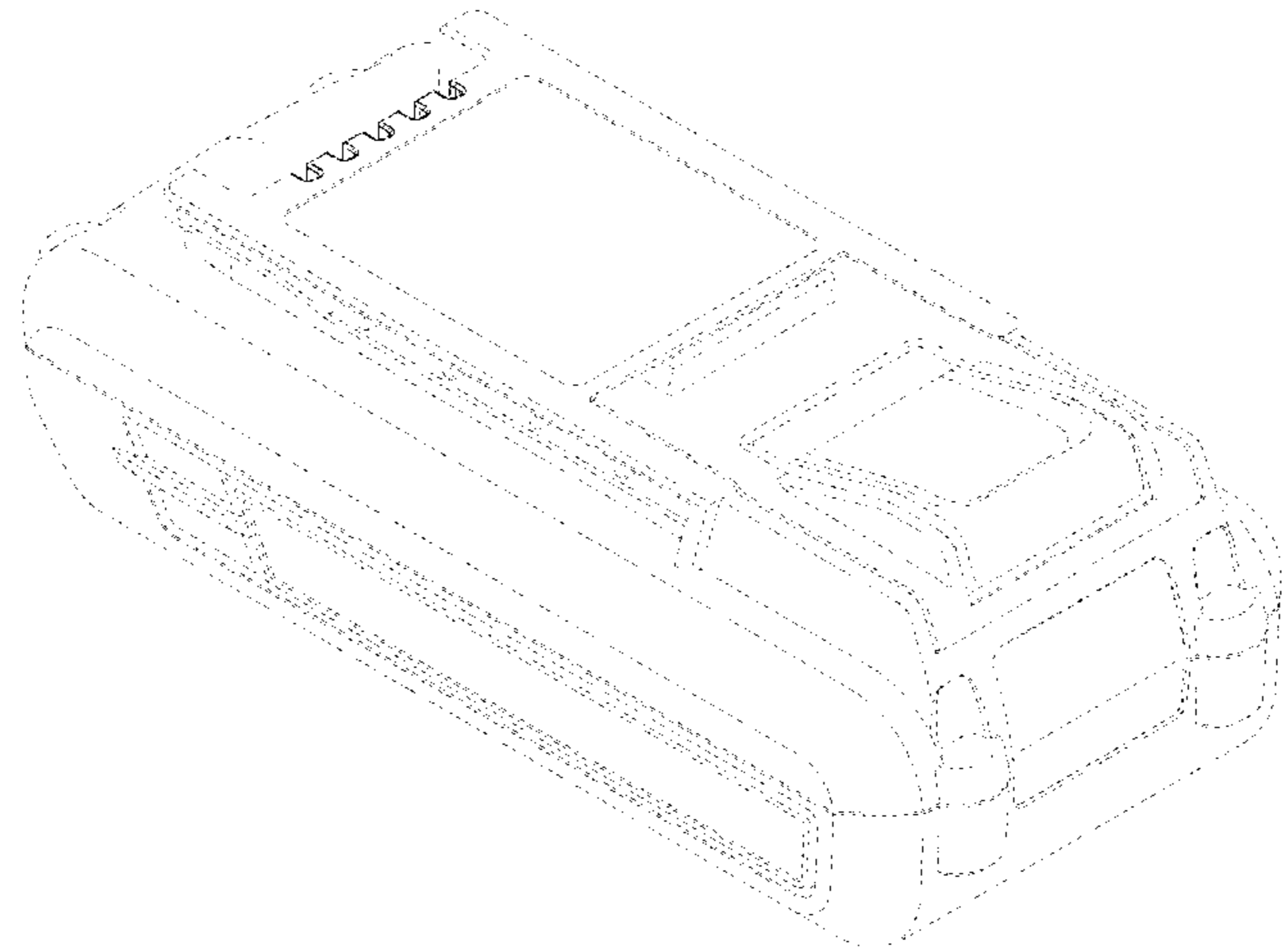
(58) **Field of Classification Search**
USPC D13/103, 107, 108, 109, 119, 120, 121;
D8/70
CPC H01M 2220/30
See application file for complete search history.

7,157,882	B2	1/2007	Johnson et al.
7,157,883	B2	1/2007	Johnson et al.
7,164,257	B2	1/2007	Johnson et al.
D537,408	S	2/2007	Aglassinger
7,176,654	B2	2/2007	Meyer et al.
D545,759	S *	7/2007	Ino D13/103
7,262,580	B2	8/2007	Meyer et al.
D550,152	S *	9/2007	Okuda D13/103
7,321,219	B2	1/2008	Meyer et al.
7,323,847	B2	1/2008	Meyer et al.
7,342,381	B2	3/2008	Johnson et al.
D584,461	S	1/2009	Sweeney
D584,732	S	1/2009	Cho et al.
7,492,124	B2	2/2009	Johnson et al.
D587,695	S	3/2009	Leng et al.
7,504,804	B2	3/2009	Johnson et al.
7,508,167	B2	3/2009	Meyer et al.
D596,130	S	7/2009	Chen et al.
D597,935	S	8/2009	Aglassinger
7,570,013	B2	8/2009	Graeber et al.
7,667,437	B2	2/2010	Johnson et al.
D614,569	S	4/2010	Yang
D615,716	S	5/2010	Tinius
D618,172	S	6/2010	Yang
7,772,805	B2	8/2010	Yamamoto et al.
D623,131	S	9/2010	Kawakami et al.
7,791,318	B2	9/2010	Johnson et al.
D633,036	S	2/2011	Murray
D635,917	S	4/2011	Okuda
D636,723	S	4/2011	Yamamoto et al.
7,944,181	B2	5/2011	Johnson et al.
7,952,326	B2	5/2011	Johnson et al.
D640,196	S	6/2011	Shuang et al.
D640,197	S	6/2011	Park et al.
D640,975	S	7/2011	Okuda et al.
D641,111	S	7/2011	Houghton
D643,809	S	8/2011	Okuda et al.
7,993,769	B2	8/2011	Tsai et al.
8,018,198	B2	9/2011	Meyer et al.
D647,856	S	11/2011	Chiang
D647,857	S	11/2011	Huang et al.
D651,560	S	1/2012	Park et al.
D652,793	S	1/2012	Tschopp
D654,018	S	2/2012	Conley et al.
D657,307	S	4/2012	Zhao
D658,578	S *	5/2012	Davis D13/103
8,212,529	B2	7/2012	Yamamoto
8,228,036	B2	7/2012	Meyer
8,269,458	B2	9/2012	Cruise et al.
D668,219	S	10/2012	Zhao et al.
8,358,108	B2	1/2013	Seman, Jr. et al.
8,378,624	B2	2/2013	Boyles et al.
D682,194	S	5/2013	Jiang et al.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,477,130	A	12/1995	Hashimoto et al.
5,508,123	A	4/1996	Fan
5,568,039	A	10/1996	Fernandez
5,764,028	A	6/1998	Freiman et al.
D396,447	S	7/1998	Lloyd et al.
D400,322	S	10/1998	Webster et al.
5,903,137	A	5/1999	Freiman et al.
5,945,809	A	8/1999	Inaba et al.
5,955,867	A	9/1999	Cummings et al.
D415,100	S *	10/1999	Buck D13/103
D463,774	S	10/2002	Buck
D468,874	S	1/2003	Nawrozki et al.
D469,931	S	2/2003	Nawrozki et al.
D472,879	S	4/2003	Ouchi et al.
D509,189	S *	9/2005	Buck D13/120
D511,744	S	11/2005	Hsu et al.
D512,373	S	12/2005	Tsai et al.
D514,060	S	1/2006	Wong et al.
D524,728	S	7/2006	Watson
D535,253	S	1/2007	Buck



8,441,230 B2	5/2013	Boyles et al.	
D684,528 S	6/2013	Murray	
D685,730 S	7/2013	Hamm et al.	
8,525,479 B2	9/2013	Meyer et al.	
8,741,461 B2	6/2014	Yoneda et al.	
8,803,481 B2	8/2014	Tachikawa et al.	
D714,721 S *	10/2014	Zhang	D13/119
8,933,667 B2	1/2015	Park et al.	
D735,960 S	8/2015	Zhang	
9,118,189 B2	8/2015	Meyer et al.	
D748,877 S	2/2016	Tirone et al.	
9,331,365 B2	5/2016	Cruise et al.	
D767,487 S	9/2016	Huang	
D770,377 S *	11/2016	Kondo	D13/103
D782,980 S	4/2017	Zhang et al.	
D784,261 S	4/2017	Rowe et al.	
9,673,648 B2	6/2017	Johnson et al.	
9,680,325 B2	6/2017	Johnson et al.	
D801,917 S	11/2017	Jiang	
D801,920 S	11/2017	Yoon	
9,859,548 B2	1/2018	Cruise et al.	
9,893,384 B2	2/2018	Velderman et al.	
D811,999 S	3/2018	Nommensen et al.	
D818,948 S	5/2018	Waldron	
9,966,772 B2	5/2018	Uesugi	
D819,562 S *	6/2018	Waldron	D13/103
10,008,864 B2	6/2018	Meyer et al.	
D831,566 S	10/2018	Nommensen et al.	
10,124,455 B2	11/2018	Ito et al.	
D836,552 S	12/2018	Crowe et al.	
D840,926 S	2/2019	Howell	
D849,681 S	5/2019	Howell	
D850,364 S	6/2019	Constin	
D853,319 S *	7/2019	Nommensen	D13/103
D855,019 S	7/2019	Rustill	
D887,969 S	6/2020	Howell	
10,686,319 B2	6/2020	Wohltmann et al.	
D890,692 S *	7/2020	Elder	D13/103
D892,586 S	8/2020	Matteo	
D893,413 S	8/2020	Grulke	
D894,118 S	8/2020	Liu et al.	
D894,827 S	9/2020	Watson	
D907,576 S *	1/2021	Cayon	D13/119
D908,083 S	1/2021	Kuang et al.	
D911,267 S *	2/2021	Matteo	D13/103
D912,487 S	3/2021	Chandrasekharan et al.	
D913,231 S	3/2021	Zugen et al.	
10,938,079 B2 *	3/2021	Beyerl	H01M 50/20
2004/0087196 A1	5/2004	Lang et al.	
2004/0106036 A1	6/2004	Geis et al.	
2007/0285055 A1	12/2007	Meyer et al.	
2009/0184685 A1	7/2009	Sim et al.	
2011/0169457 A1	7/2011	Mitani et al.	
2011/0181243 A1	7/2011	Mabuchi et al.	
2012/0276776 A1	11/2012	Becker et al.	
2013/0069594 A1	3/2013	Jung	
2013/0089764 A1 *	4/2013	Melnyk	H01M 50/20 429/72
2013/0106363 A1	5/2013	Seman, Jr. et al.	
2013/0330576 A1 *	12/2013	Kolden	H01M 50/502 429/7
2014/0106195 A1 *	4/2014	Milbourne	H01M 50/209 429/99
2014/0306660 A1	10/2014	Suzuki et al.	
2015/0061549 A1	3/2015	Shima	
2015/0115875 A1	4/2015	Oomiya et al.	
2015/0340887 A1	11/2015	Meyer et al.	
2016/0072106 A1 *	3/2016	Baumgartner	H02J 7/00 320/113
2016/0195097 A1	7/2016	Patrick	
2017/0222454 A1	8/2017	Bakker	
2017/0271893 A1	9/2017	Brozek	
2018/0140146 A1	5/2018	Zhu et al.	
2018/0309304 A1	10/2018	Meyer et al.	
2019/0061652 A1	2/2019	Yeom et al.	
2019/0067957 A1	2/2019	Yeom	
2019/0089168 A1	3/2019	Yeom	
2021/0083237 A1 *	3/2021	Cherry	H01M 50/24

FOREIGN PATENT DOCUMENTS

AU	2019100756	A4	8/2019
CA	3090555	A1	8/2019
CL	201903645		7/2020
CL	201903647		7/2020
CL	201903648		7/2020
CN	1532988	A	9/2004
CN	1870346	A	11/2006
CN	1897399	A	1/2007
CN	1909325	A	2/2007
CN	101017984	A	8/2007
CN	101043149	A	9/2007
CN	101399386	A	4/2009
CN	101716762	A	6/2010
CN	102035054	A	4/2011
CN	102055246	A	5/2011
CN	103135062	A	6/2013
CN	103390917	A	11/2013
CN	103580087	A	2/2014
CN	203434607	U	2/2014
CN	103730699	A	4/2014
CN	104901354	A	9/2015
CN	105322611	A	2/2016
CN	105449790	A	3/2016
CN	105453375	A	3/2016
CN	105648962	A	6/2016
CN	106160067	A	11/2016
CN	106786964	A	5/2017
CN	107732329	A	2/2018
CN	107919690	A	4/2018
CN	207910511	U	9/2018
CN	109066940	A	12/2018
CN	109120037	A	1/2019
CN	208316322	U	1/2019
DE	102014205116	A1	9/2015
EM	004104453		10/2017
EM	004663953		9/2018
EM	004682623		12/2018
EP	2083495	B1	7/2009
WO	2018028639	A1	2/2018
WO	2018143562	A1	8/2018

OTHER PUBLICATIONS

Amazon.com. LiBatter40V 5.0Ah Replacement Battery. <https://www.amazon.com/LiBatter-Lithium-Premium-Battery-Compatible/dp/B07RPLWRH5> Date first available: May 2019 (Year: 2019).*

Energup, “Bateria de litio (Energup),” <amazon.com> Chilean examination report alleges a publication date of Sep. 21, 2018 (1 page).

Greenworks, “Greenworks 29842 24V,” <amazon.com> Chilean examination report alleges a publication date of Jun. 29, 2016 (1 page).

Makita, “DC18RC—Cargador de bateria Makita,” <amazon.com> Chilean examination report alleges a publication date of Jun. 6, 2018 (1 page).

Ridgid, “Ridgid 105 MPH Cordless GEN5X 18-Volt Jobsite Hand-held Blower,” <<https://www.amazon.com/RIDGID-Cordless-18-Volt-Jobsite-Handheld/dp/B078ZRGS7H>> Chilean examination report alleges a publication date of Aug. 15, 2018.

Ryobi, “18 Volt One+ Blower,” Operator’s Manual, Revision 05, Mar. 22, 2019 (26 pages).

Ryobi, “40V Lithium Ion Battery Charger,” Operator’s Manual, Revision 02, Aug. 23, 2019 (16 pages).

Ryobi, “Ryobi 1004-040-931,” <amazon.com> Chilean examination report alleges a publication date of Jun. 4, 2019 (1 page).

Ryobi, “Ryobi ry24602,” <amazon.com> Chilean examination report alleges a publication date of Sep. 23, 2015 (1 page).

Vanon, “2Pack 6000mAh High Capacity (Vanon),” <amazon.com> Chilean examination report alleges a publication date of Mar. 25, 2019 (1 page).

Libater, “Battery 40V MAX 5.0Ah,” <amazon.com> Chilean examination report alleges a publication date of May 19, 2019 (1 page).

Examination Report issued by the Chilean Patent Office for Application No. 2020-000517 dated Nov. 19, 2020 (19 pages including statement of relevance).

Examination Report issued by the Chilean Patent Office for Application No. 2020-000518 dated Nov. 19, 2020 (16 pages including statement of relevance).

Examination Report issued by the Chilean Patent Office for Application No. 2020-000519 dated Mar. 18, 2021 (17 pages including statement of relevance).

* cited by examiner

Primary Examiner — Jennifer O King
(74) *Attorney, Agent, or Firm* — Michael Best & Friedrich LLP

(57) **CLAIM**

I claim the ornamental design for an electrical interface, as shown and described.

DESCRIPTION

FIG. 1 is a right rear top perspective view of an electrical interface.

FIG. 2 is an enlarged view of the electrical interface shown in FIG. 1.

FIG. 3 is a left top front perspective view of the electrical interface shown in FIG. 2.

FIG. 4 is a right top front perspective view of the electrical interface shown in FIG. 2.

FIG. 5 is a front view of the electrical interface shown in FIG. 2.

FIG. 6 is a top view of the electrical interface shown in FIG. 2.

FIG. 7 is a right rear top perspective view of a battery pack.

FIG. 8 is a left front top perspective view of the battery pack shown in FIG. 7.

FIG. 9 is a right front top perspective view of the battery pack shown in FIG. 7.

FIG. 10 is a left side view of the battery pack shown in FIG. 7.

FIG. 11 is a right side view of the battery pack shown in FIG. 7.

FIG. 12 is a rear view of the battery pack shown in FIG. 7.

FIG. 13 is a front view of the battery pack shown in FIG. 7.

FIG. 14 is a top view of the battery pack shown in FIG. 7.

FIG. 15 is a bottom view of the battery pack shown in FIG. 7.

FIG. 16 is a right rear top perspective view of a battery pack.

FIG. 17 is a left front top perspective view of the battery pack shown in FIG. 16.

FIG. 18 is a right front top perspective view of the battery pack shown in FIG. 16.

FIG. 19 is a left side view of the battery pack shown in FIG. 16.

FIG. 20 is a right side view of the battery pack shown in FIG. 16.

FIG. 21 is a rear view of the battery pack shown in FIG. 16.

FIG. 22 is a front view of the battery pack shown in FIG. 16.

FIG. 23 is a top view of the battery pack shown in FIG. 16.

FIG. 24 is a bottom view of the battery pack shown in FIG. 16.

FIG. 25 is a right rear top perspective view of a battery pack.

FIG. 26 is a left front top perspective view of the battery pack shown in FIG. 25.

FIG. 27 is a right front top perspective view of the battery pack shown in FIG. 25.

FIG. 28 is a left side view of the battery pack shown in FIG. 25.

FIG. 29 is a right side view of the battery pack shown in FIG. 25.

FIG. 30 is a rear view of the battery pack shown in FIG. 25.

FIG. 31 is a front view of the battery pack shown in FIG. 25.

FIG. 32 is a top view of the battery pack shown in FIG. 25.

FIG. 33 is a bottom view of the battery pack shown in FIG. 25.

FIG. 34 is a right rear top perspective view of a battery pack.

FIG. 35 is a left front top perspective view of the battery pack shown in FIG. 34.

FIG. 36 is a right front top perspective view of the battery pack shown in FIG. 34.

FIG. 37 is a left side view of the battery pack shown in FIG. 34.

FIG. 38 is a right side view of the battery pack shown in FIG. 34.

FIG. 39 is a rear view of the battery pack shown in FIG. 34.

FIG. 40 is a front view of the battery pack shown in FIG. 34.

FIG. 41 is a top view of the battery pack shown in FIG. 34;

and,

FIG. 42 is a bottom view of the battery pack shown in FIG. 34.

The broken lines represent portions of the electrical interface that form no part of the claimed design.

With respect to FIGS. 1-6, the claimed electrical interface is not visible in the orthogonal right side, orthogonal left side, orthogonal rear, and orthogonal bottom views, which are therefore omitted.

1 Claim, 38 Drawing Sheets

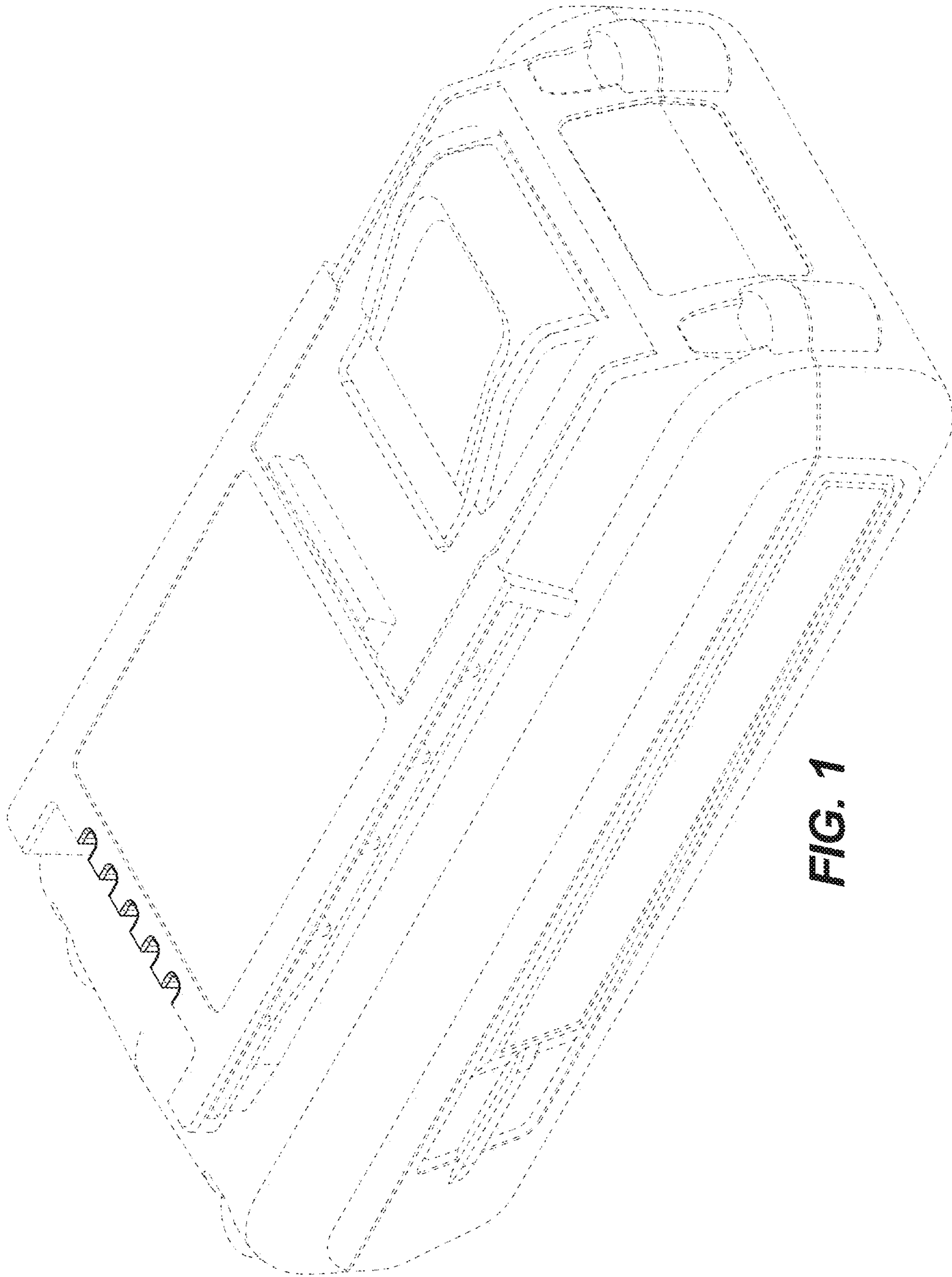


FIG. 1

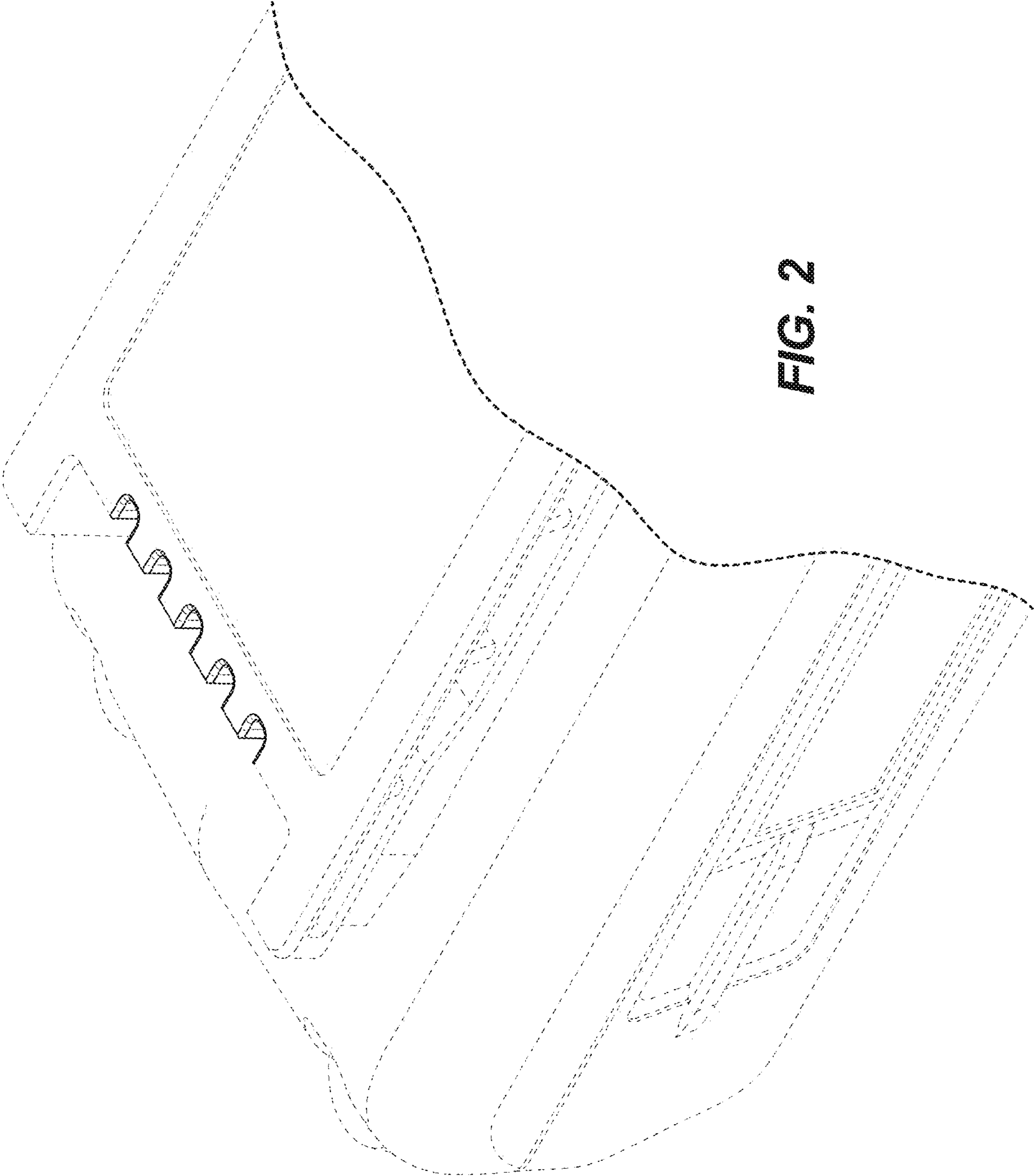


FIG. 2

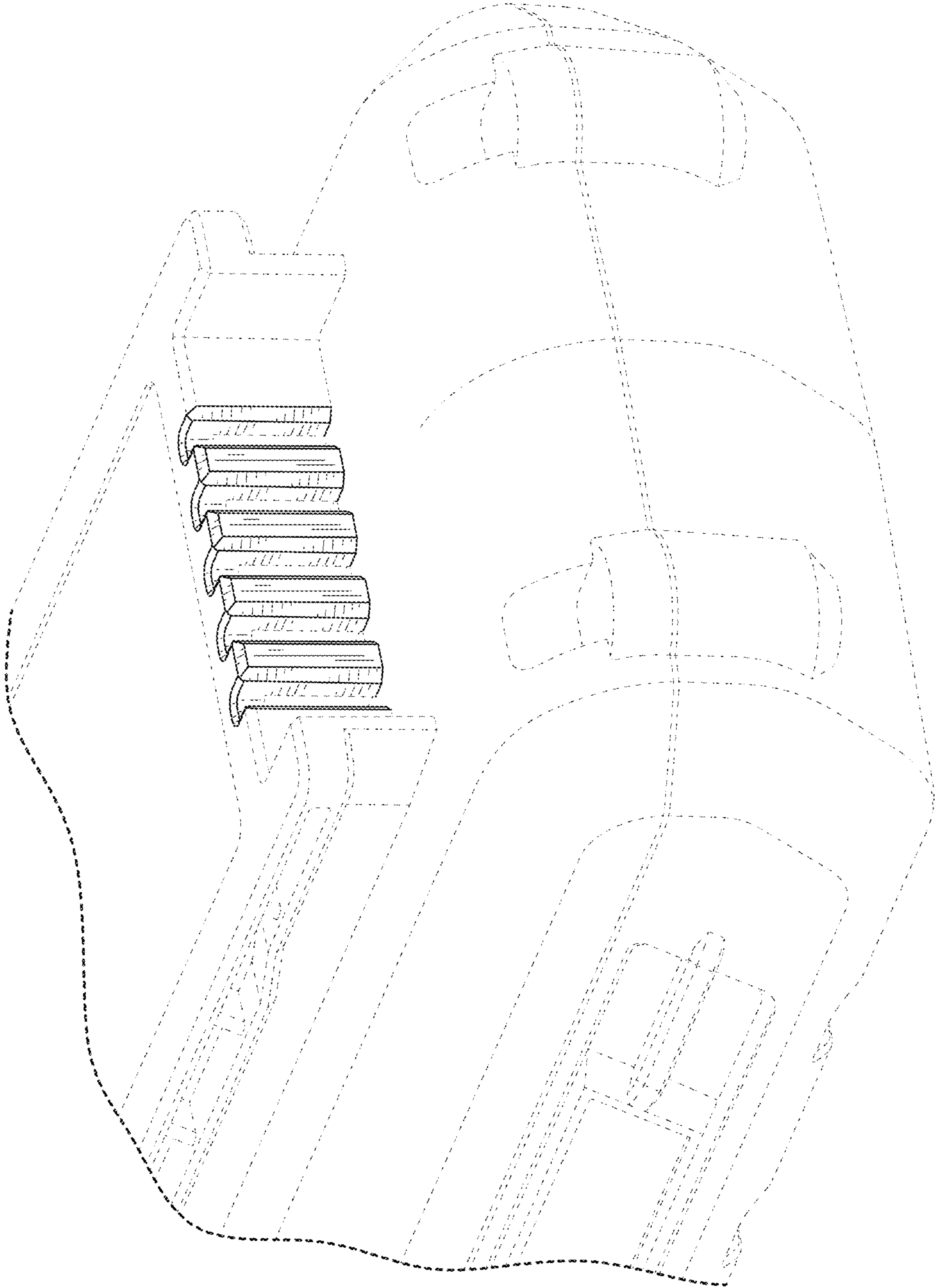


FIG. 3

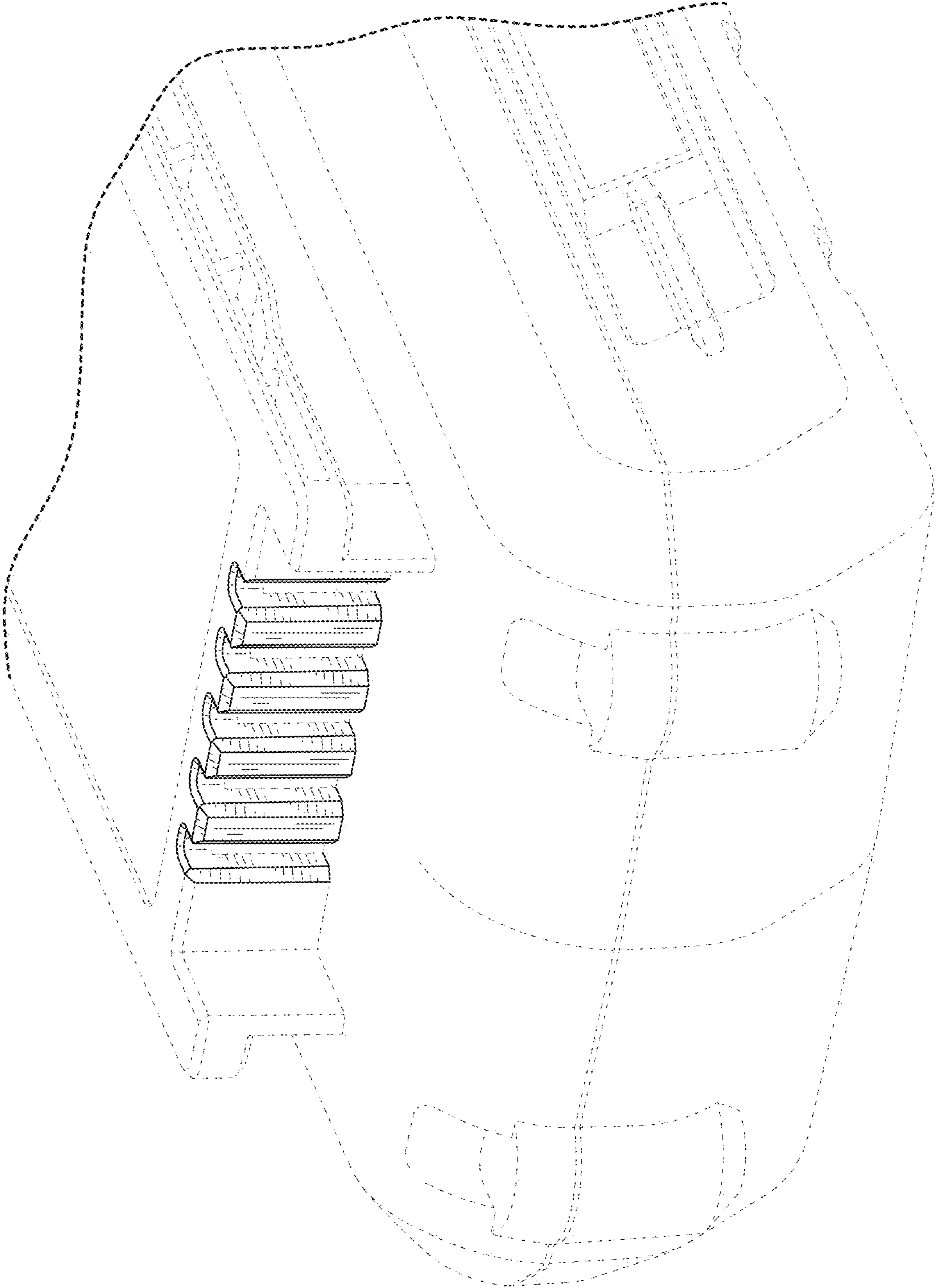


FIG. 4

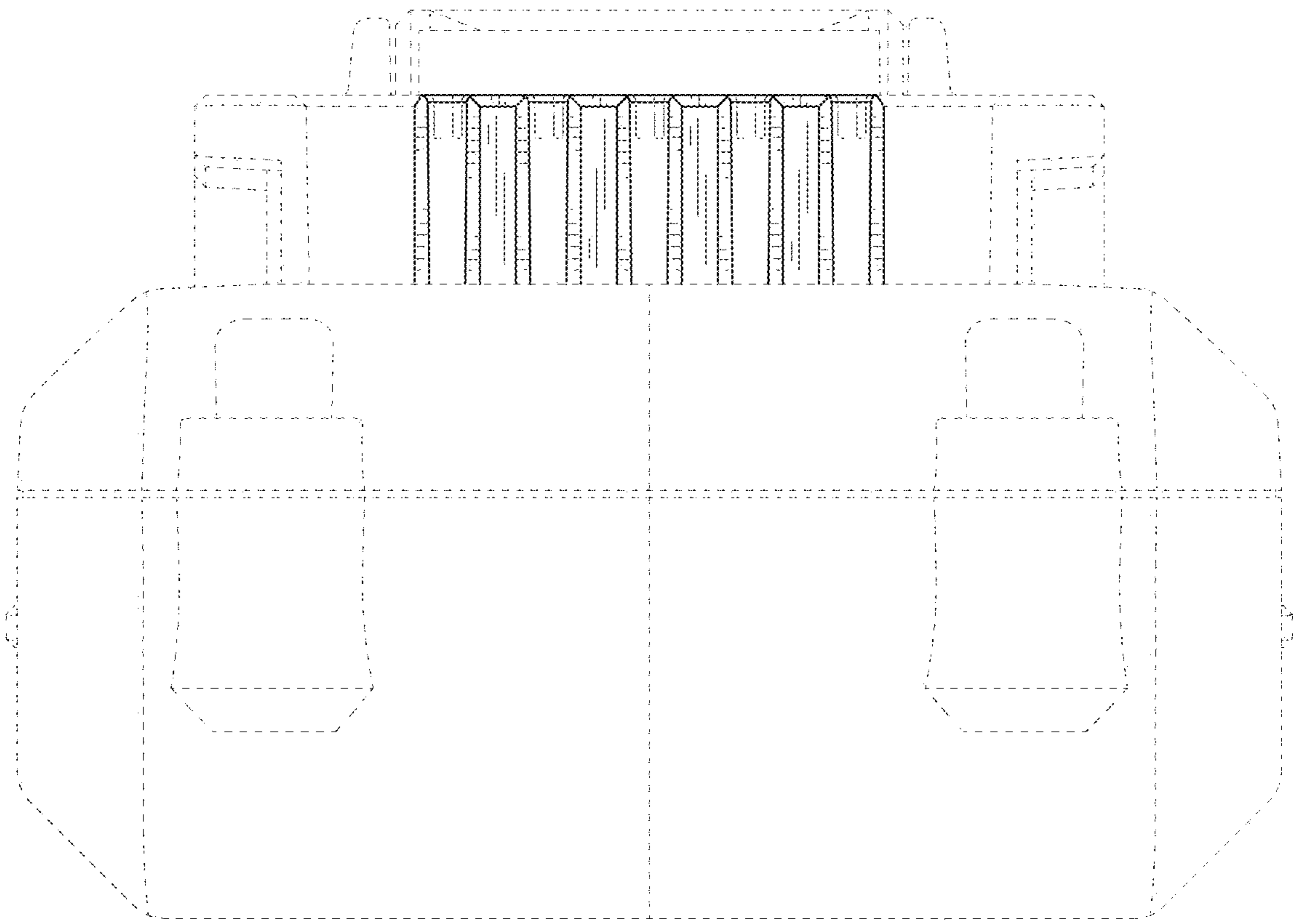


FIG. 5

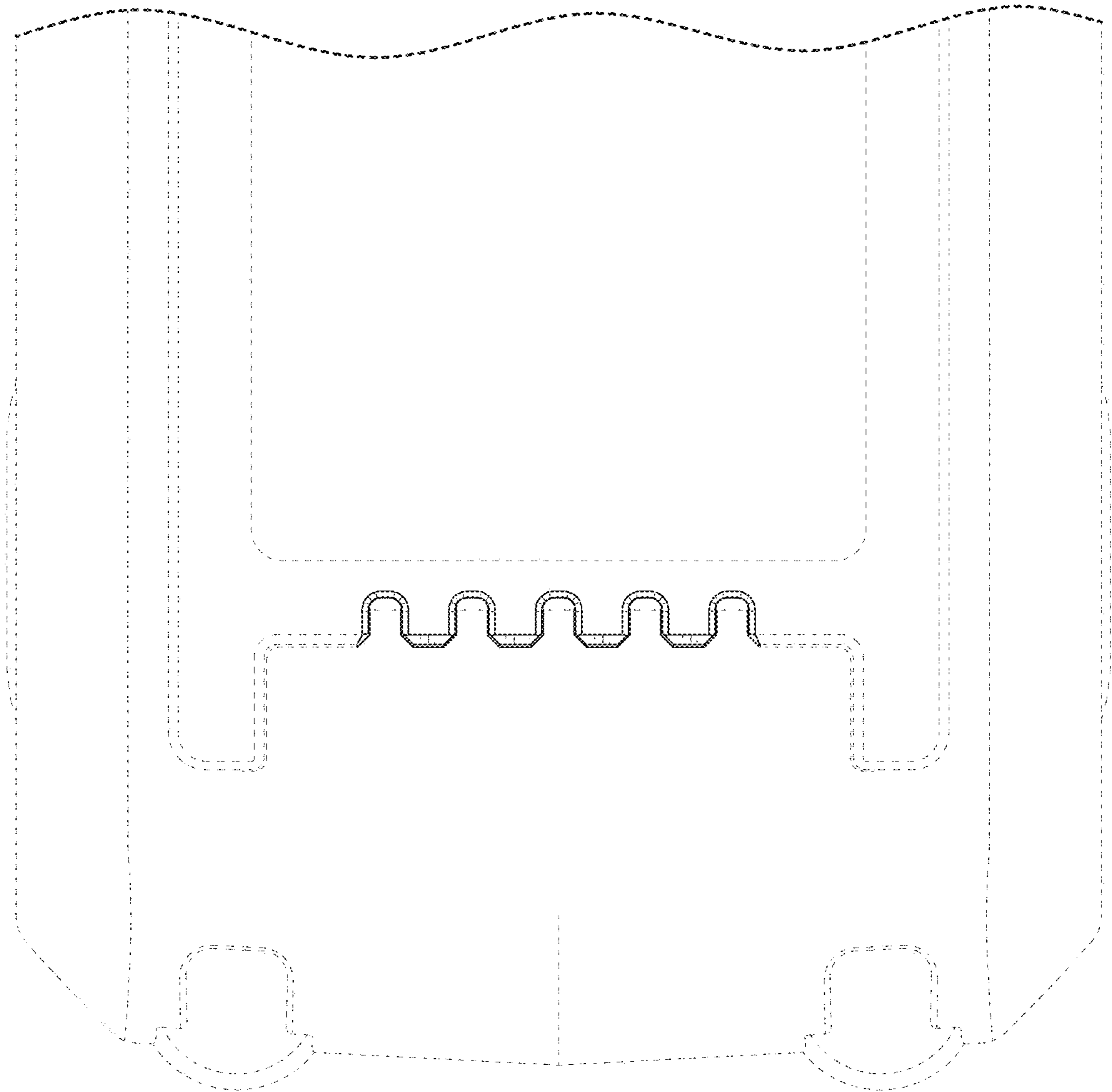


FIG. 6

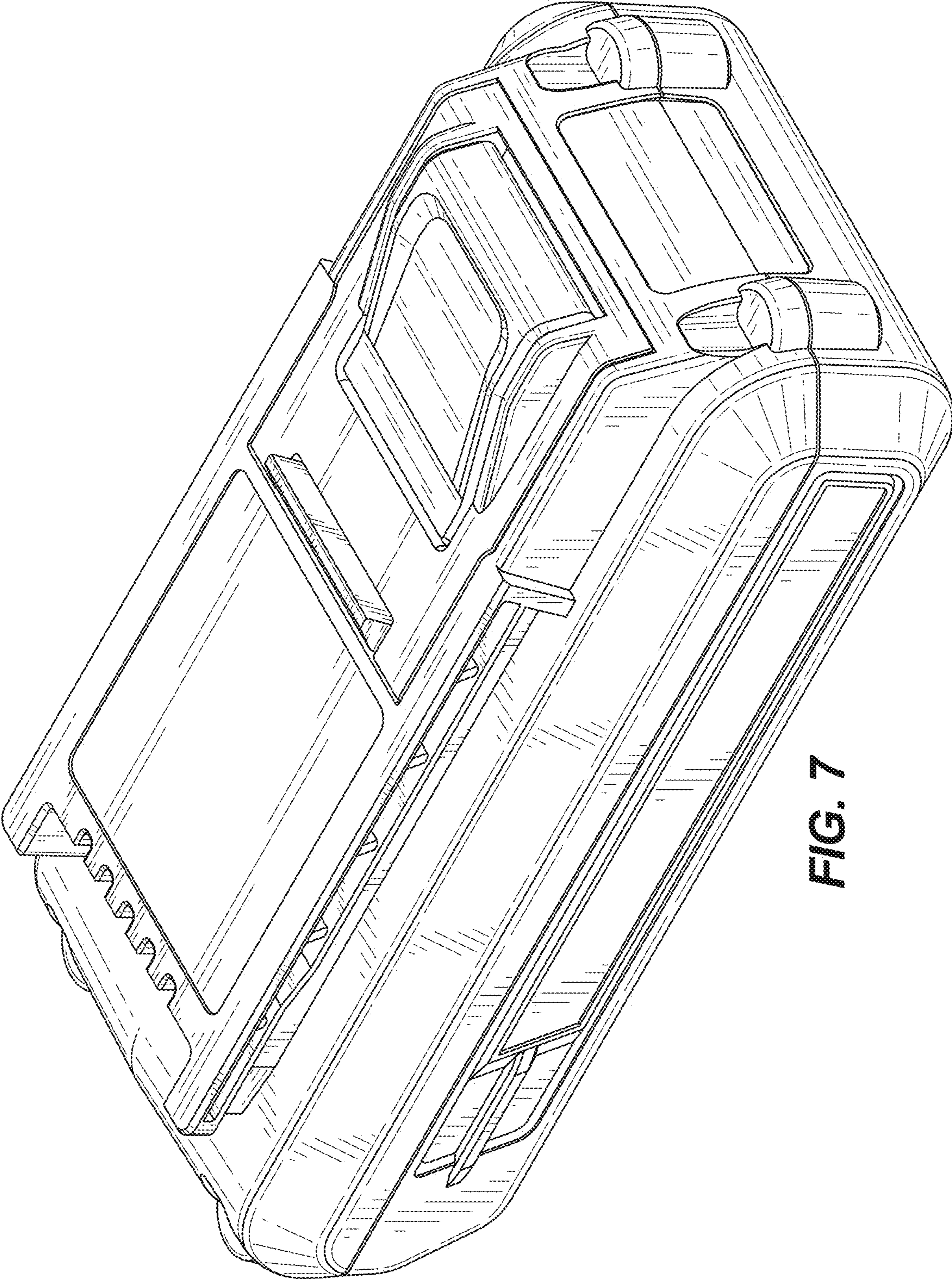


FIG. 7

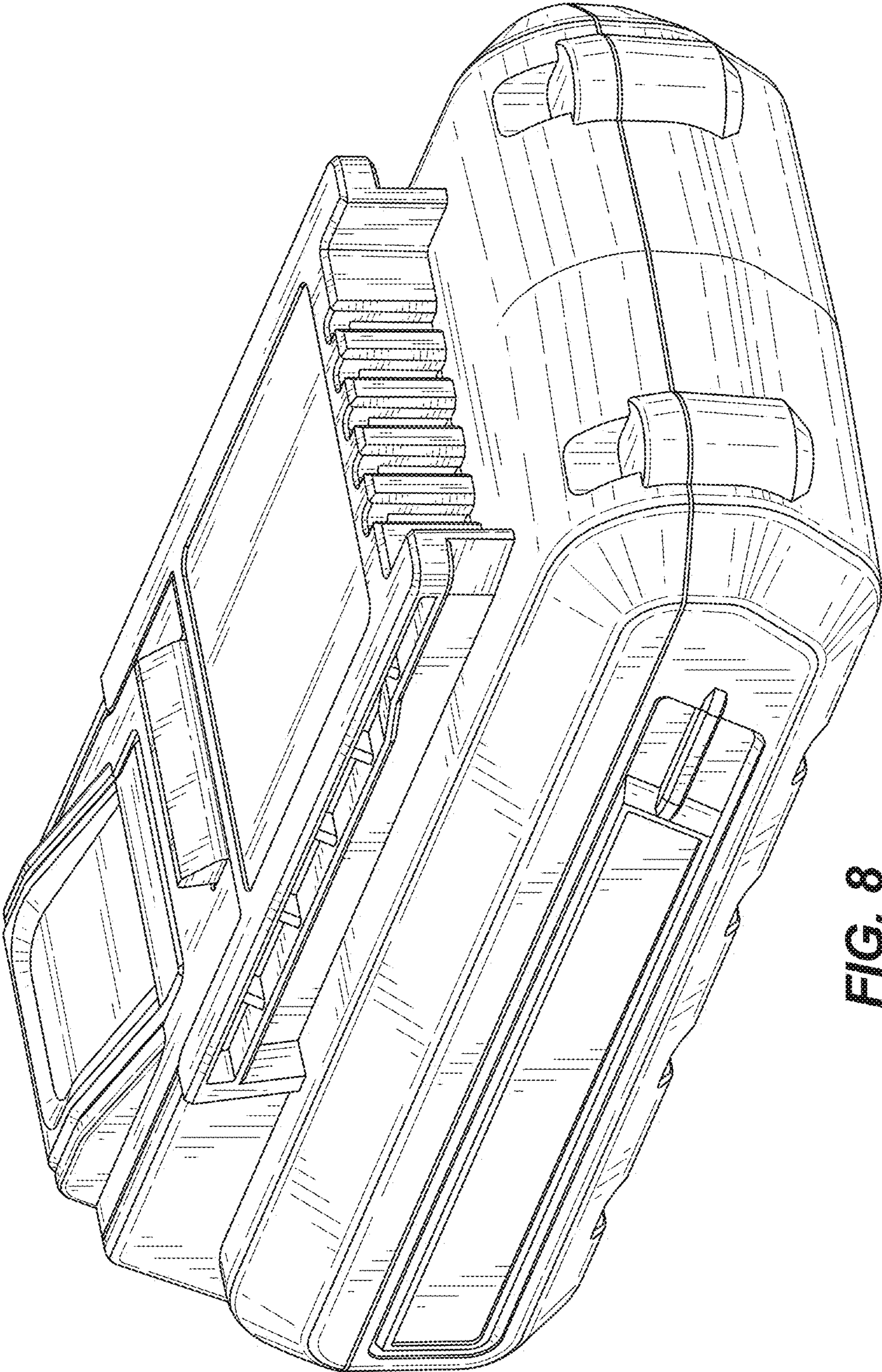


FIG. 8

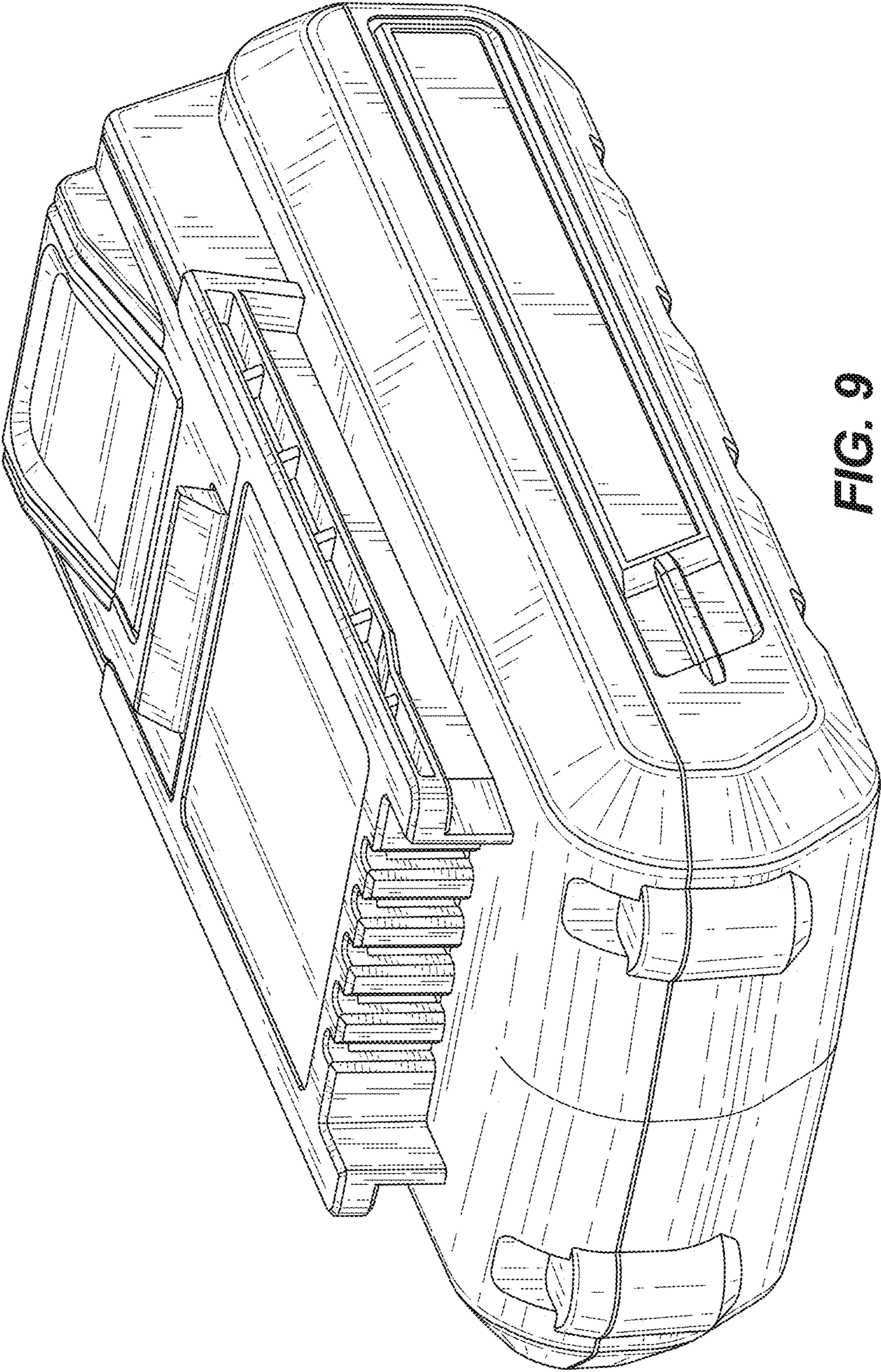


FIG. 9

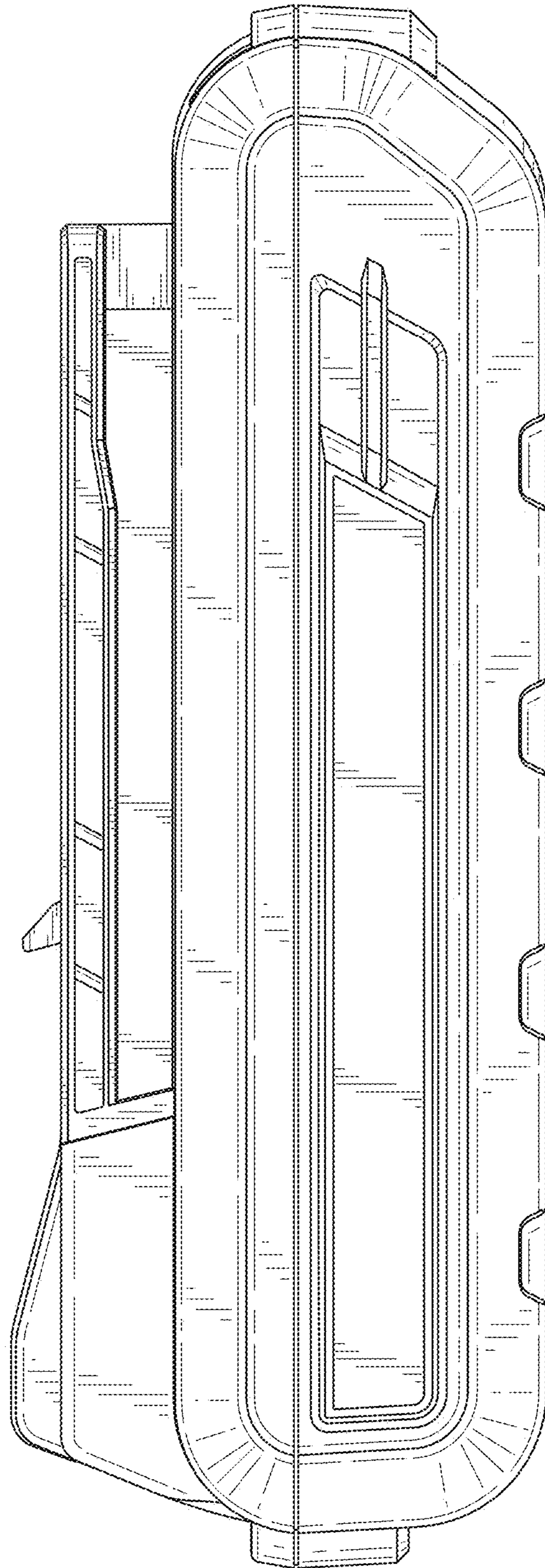


FIG. 10

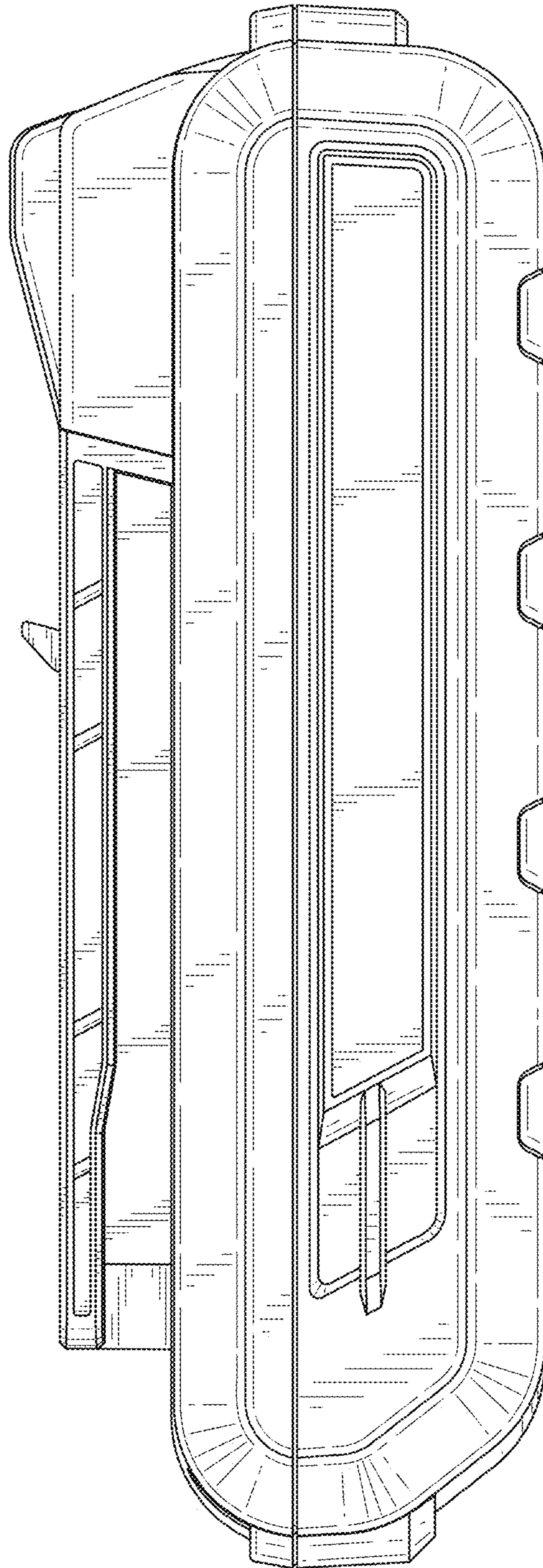


FIG. 11

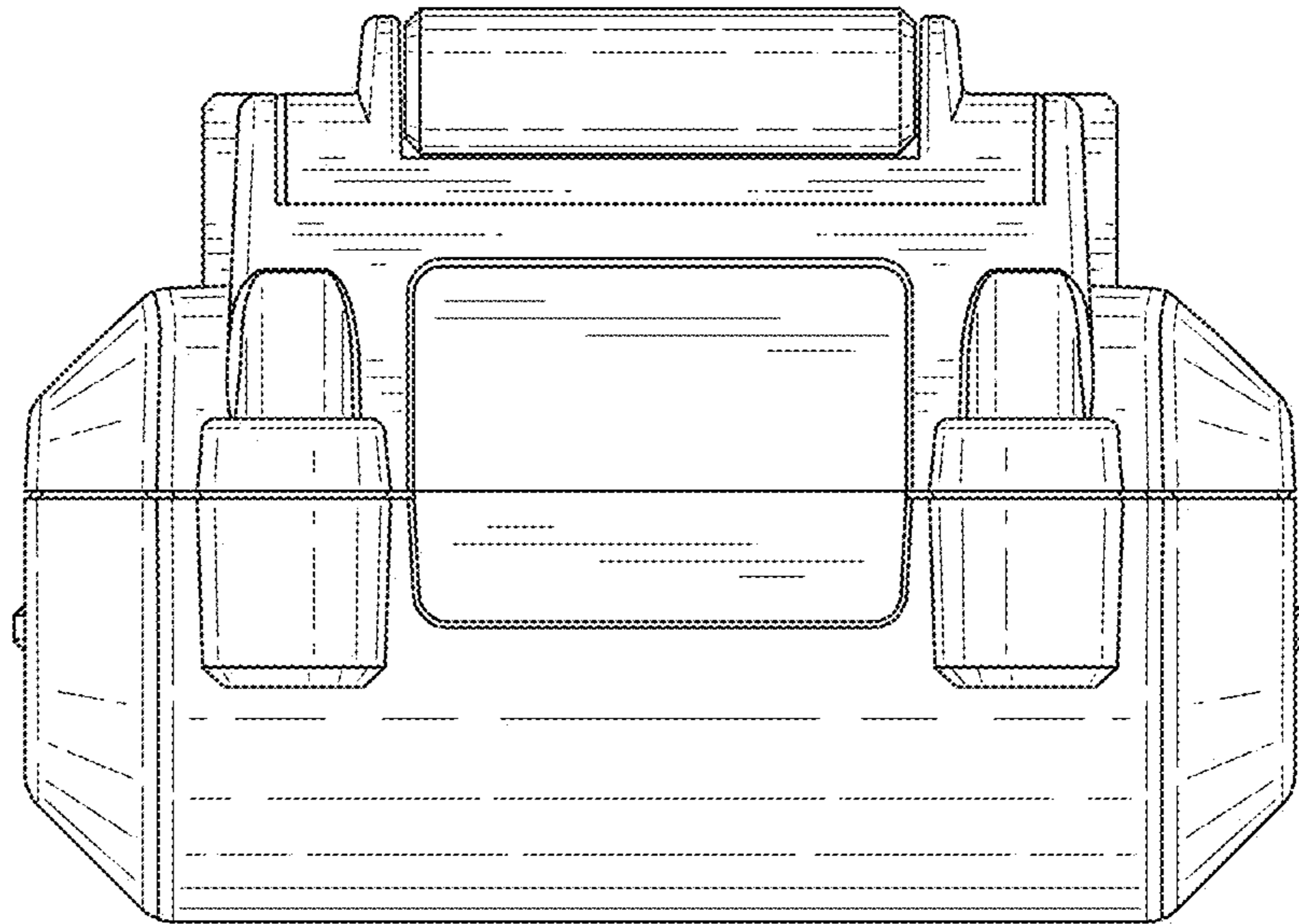


FIG. 12

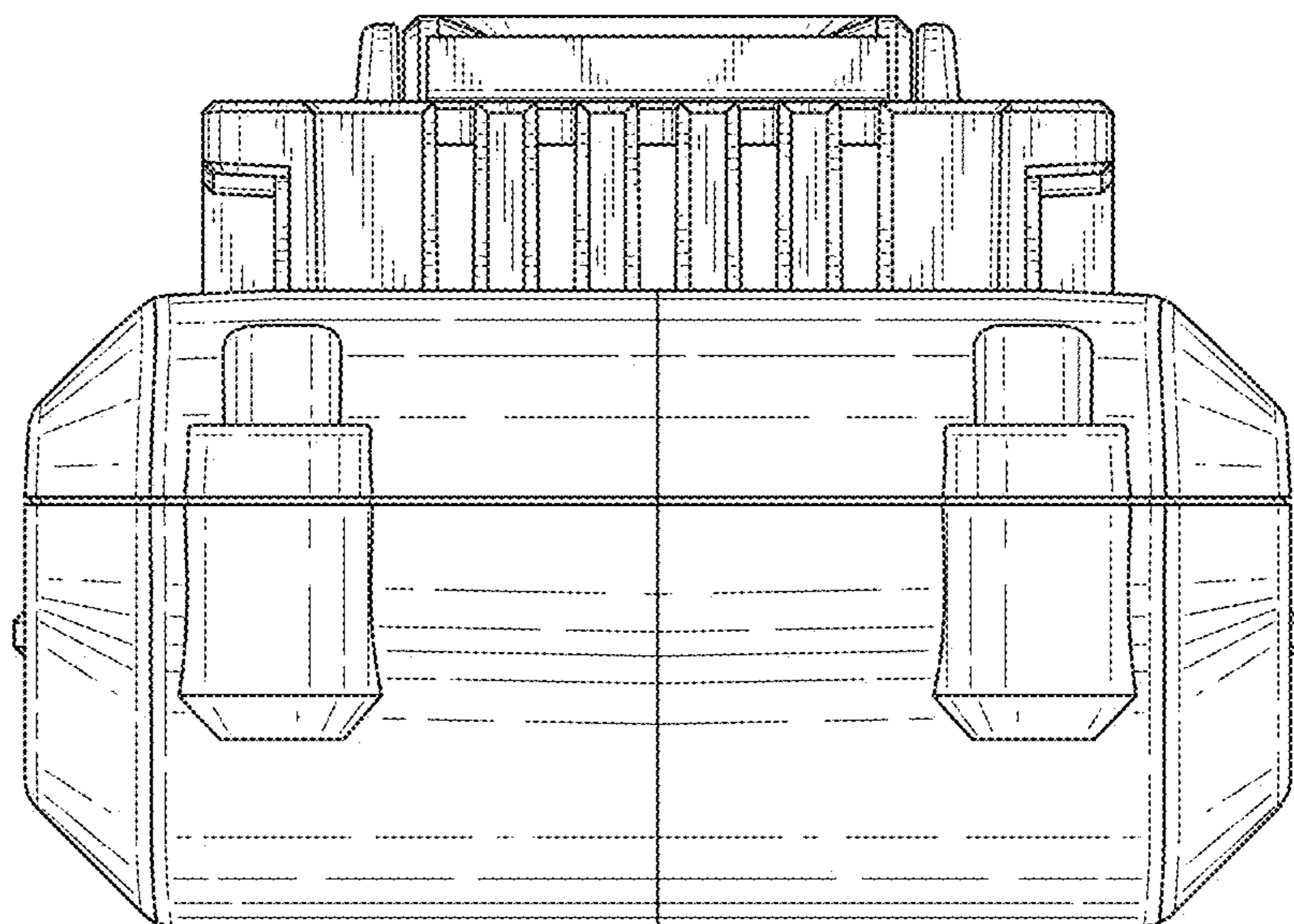


FIG. 13

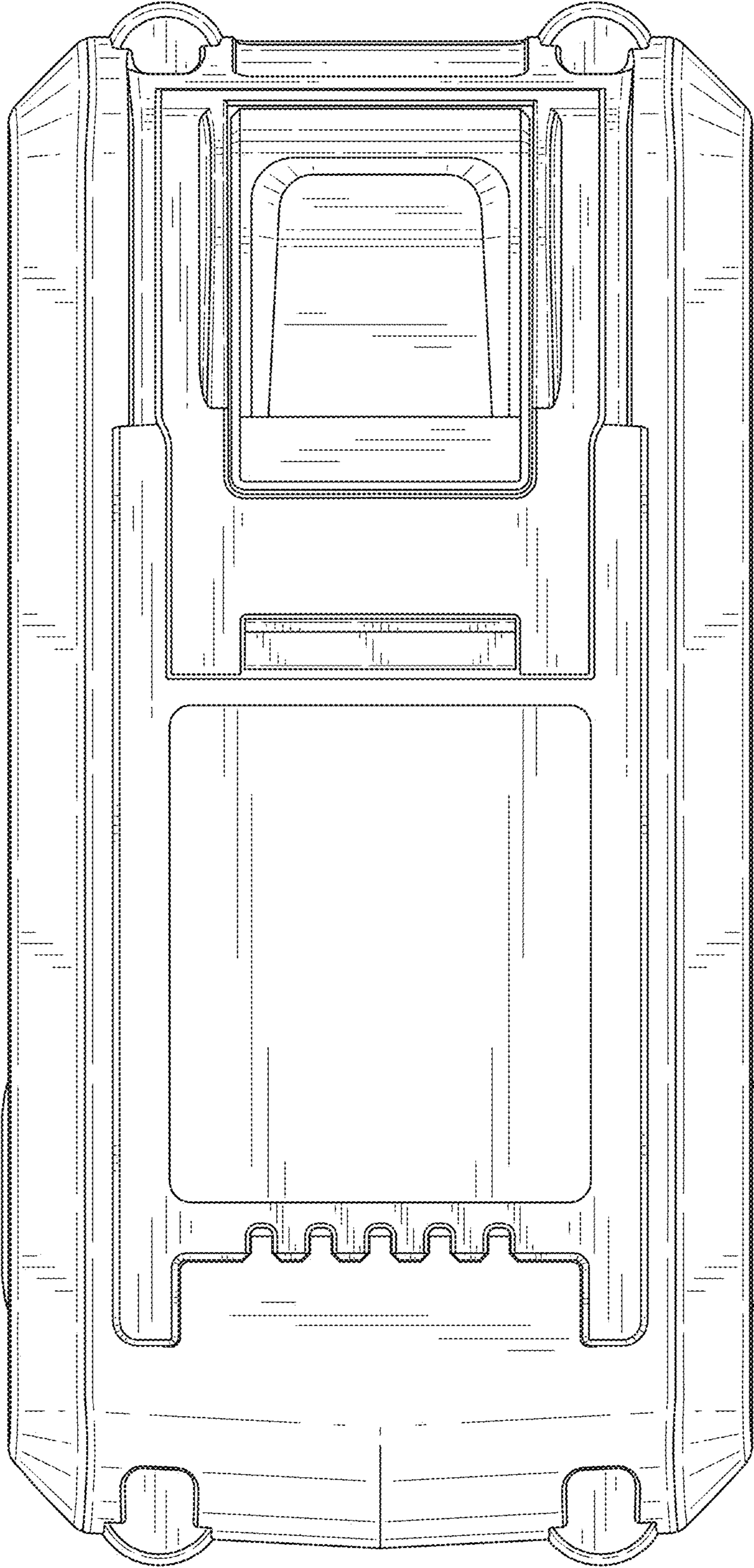


FIG. 14

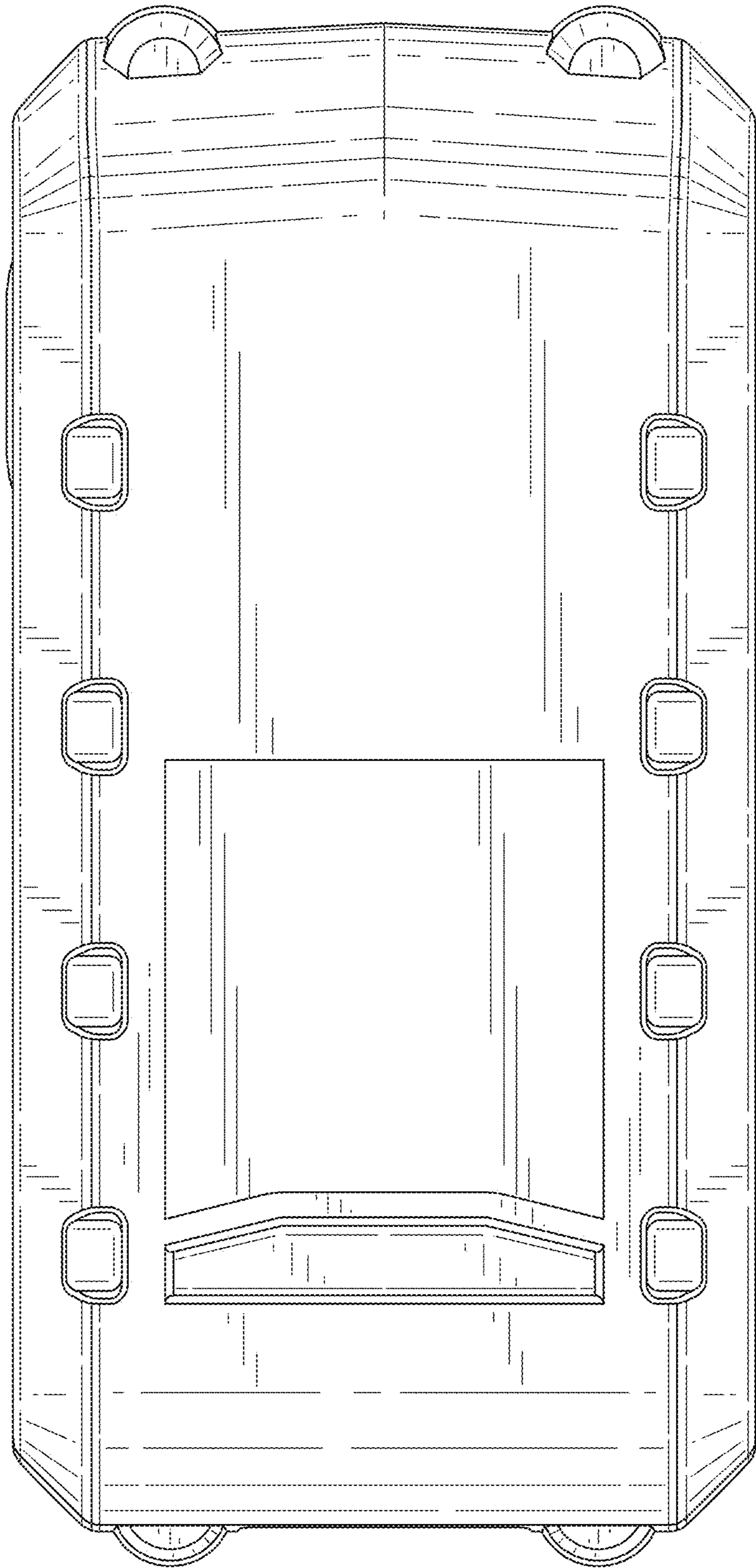


FIG. 15

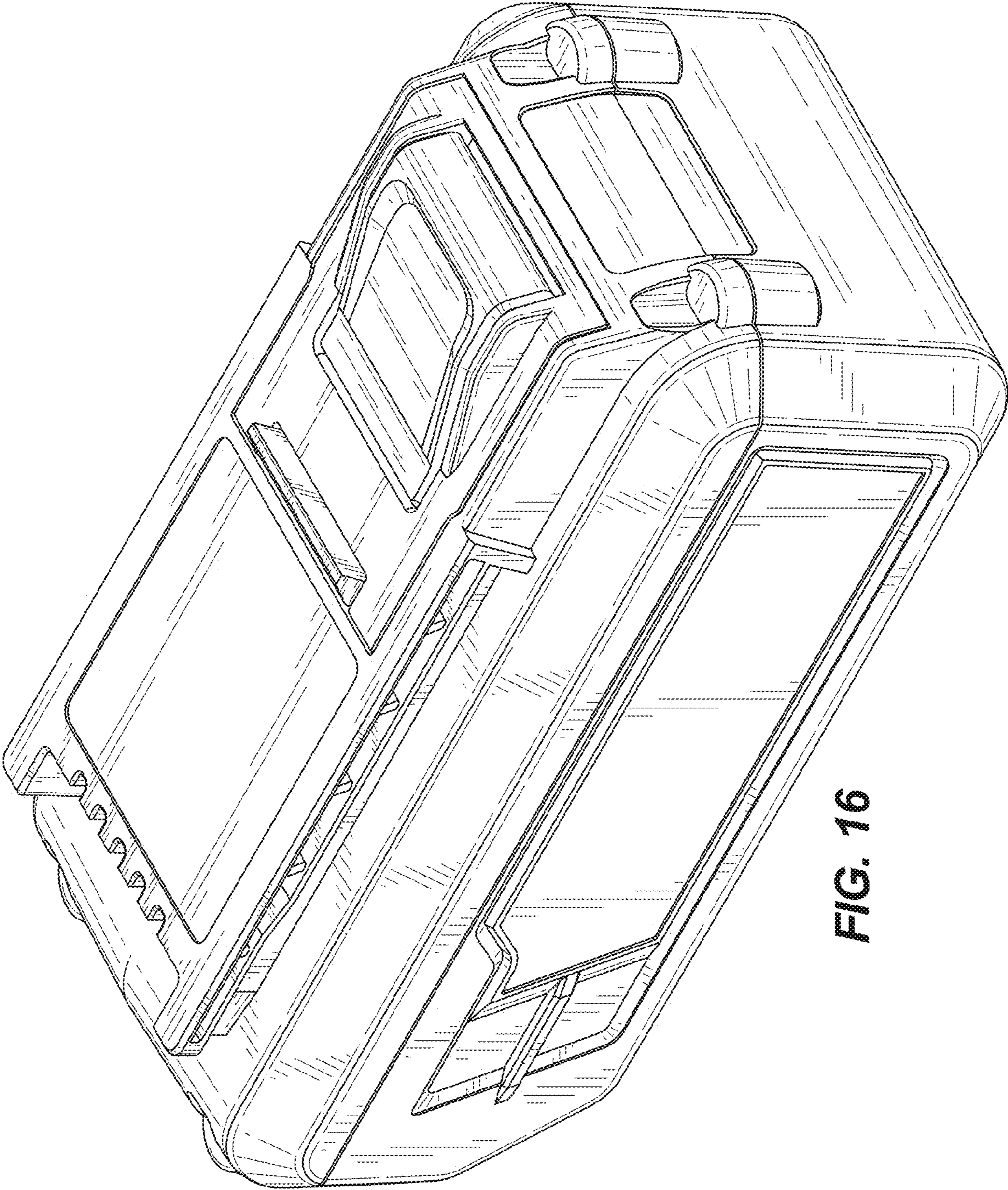


FIG. 16

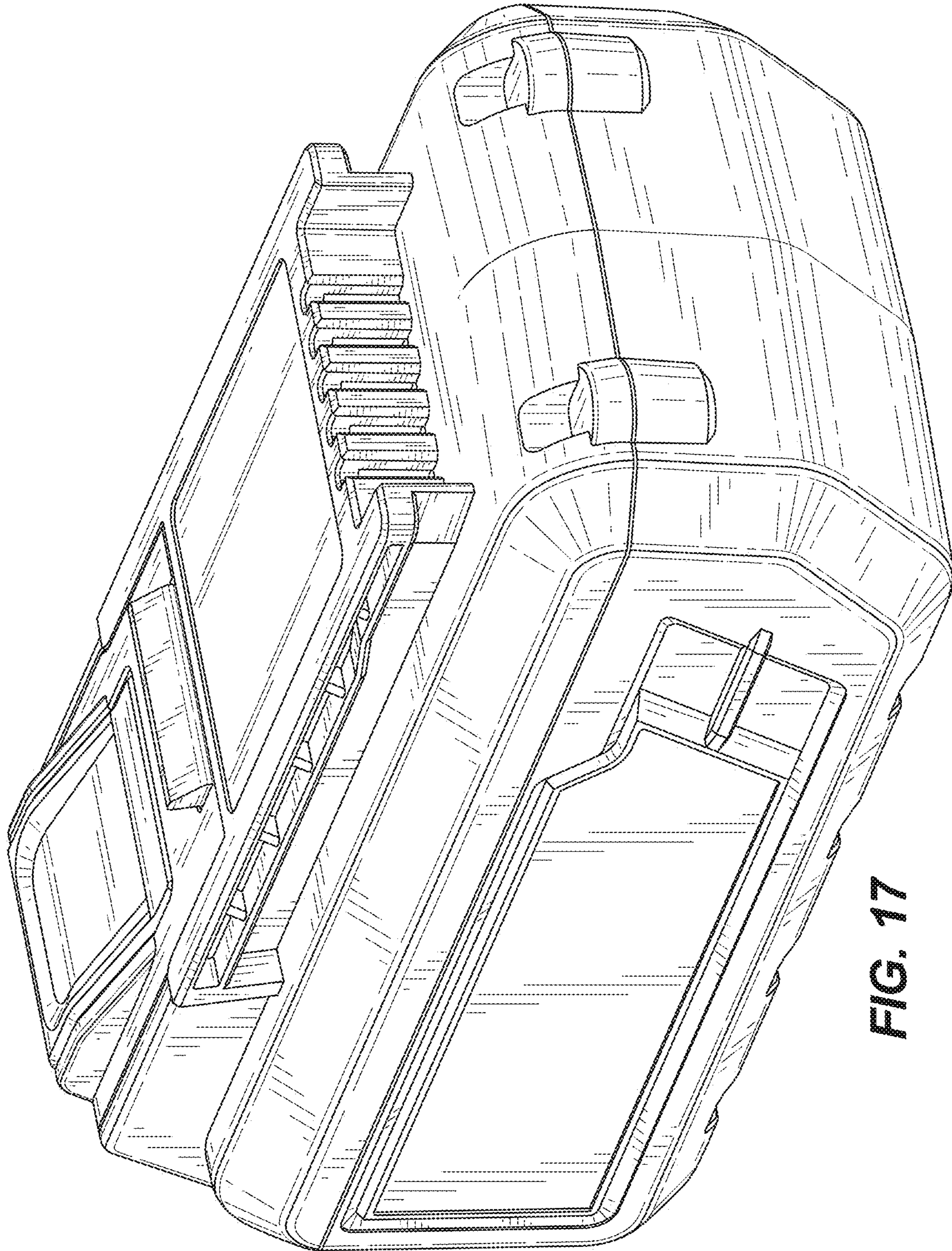


FIG. 17

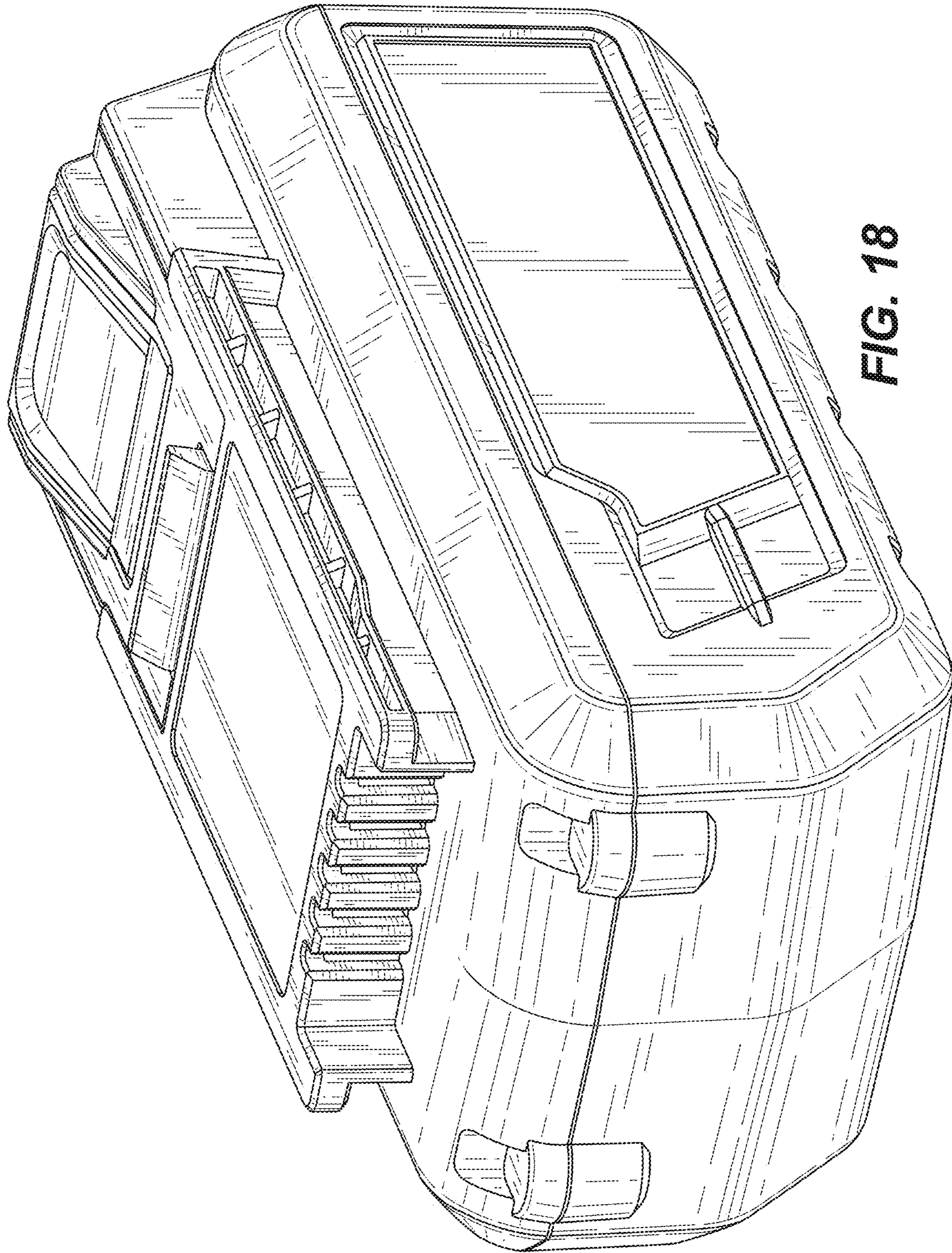


FIG. 18

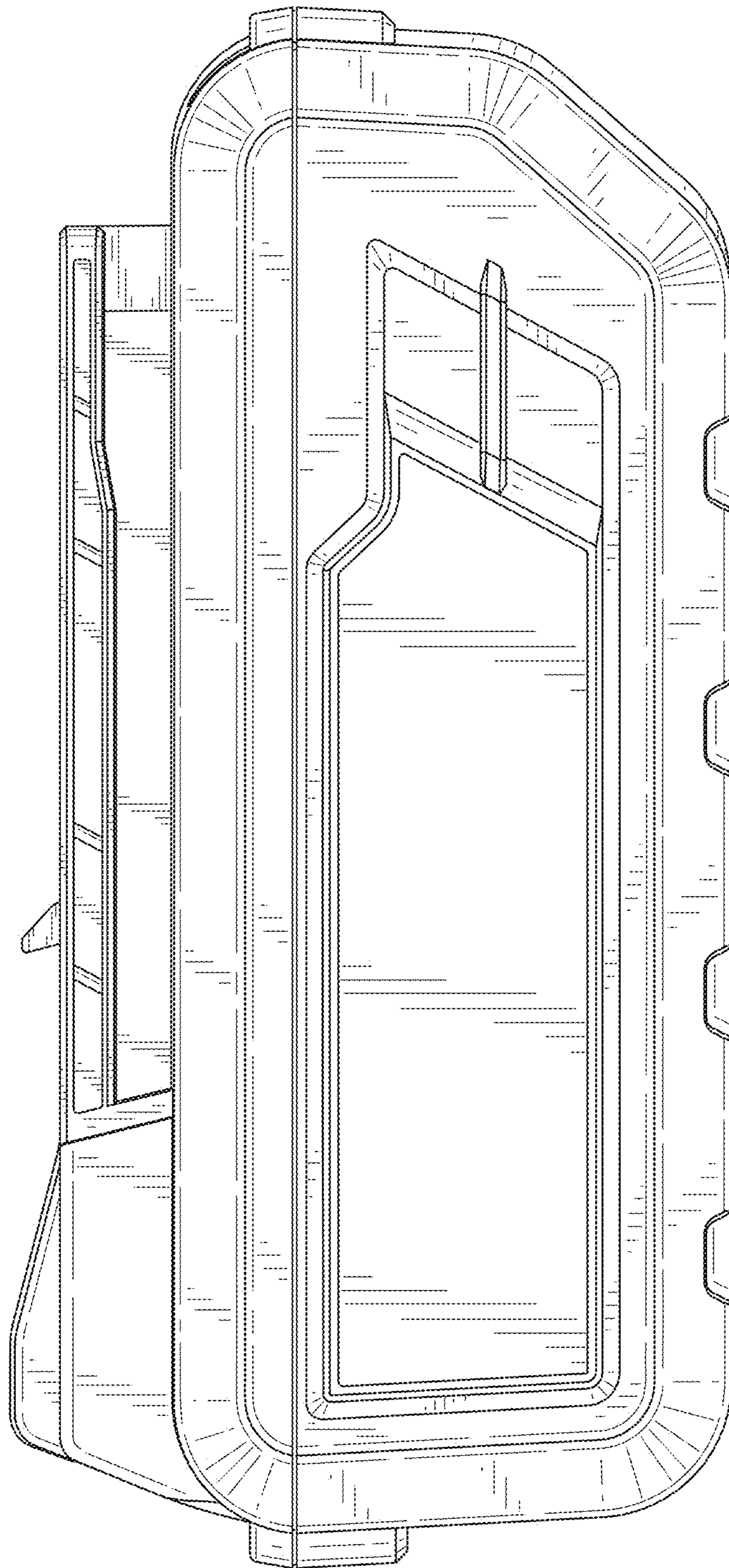


FIG. 19

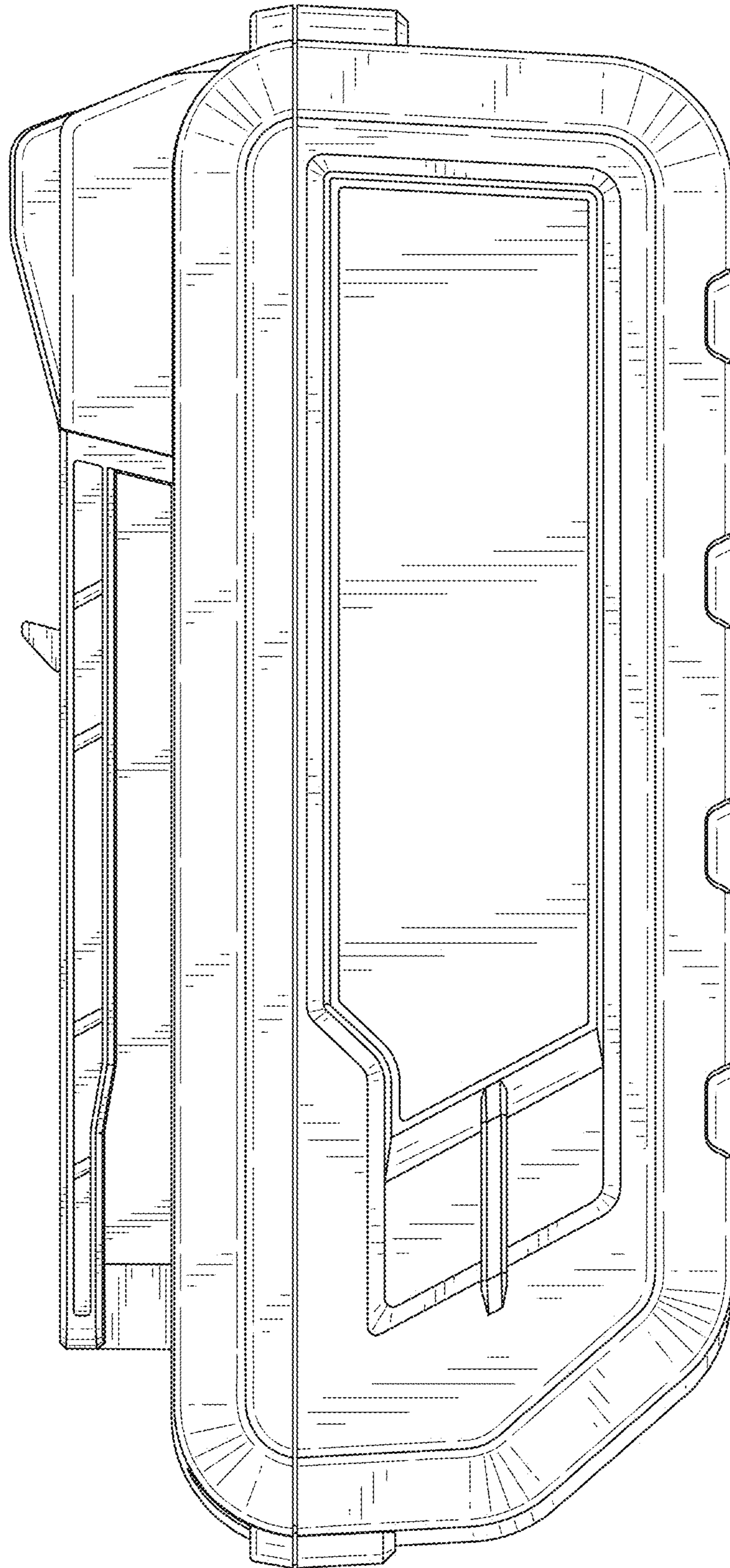


FIG. 20

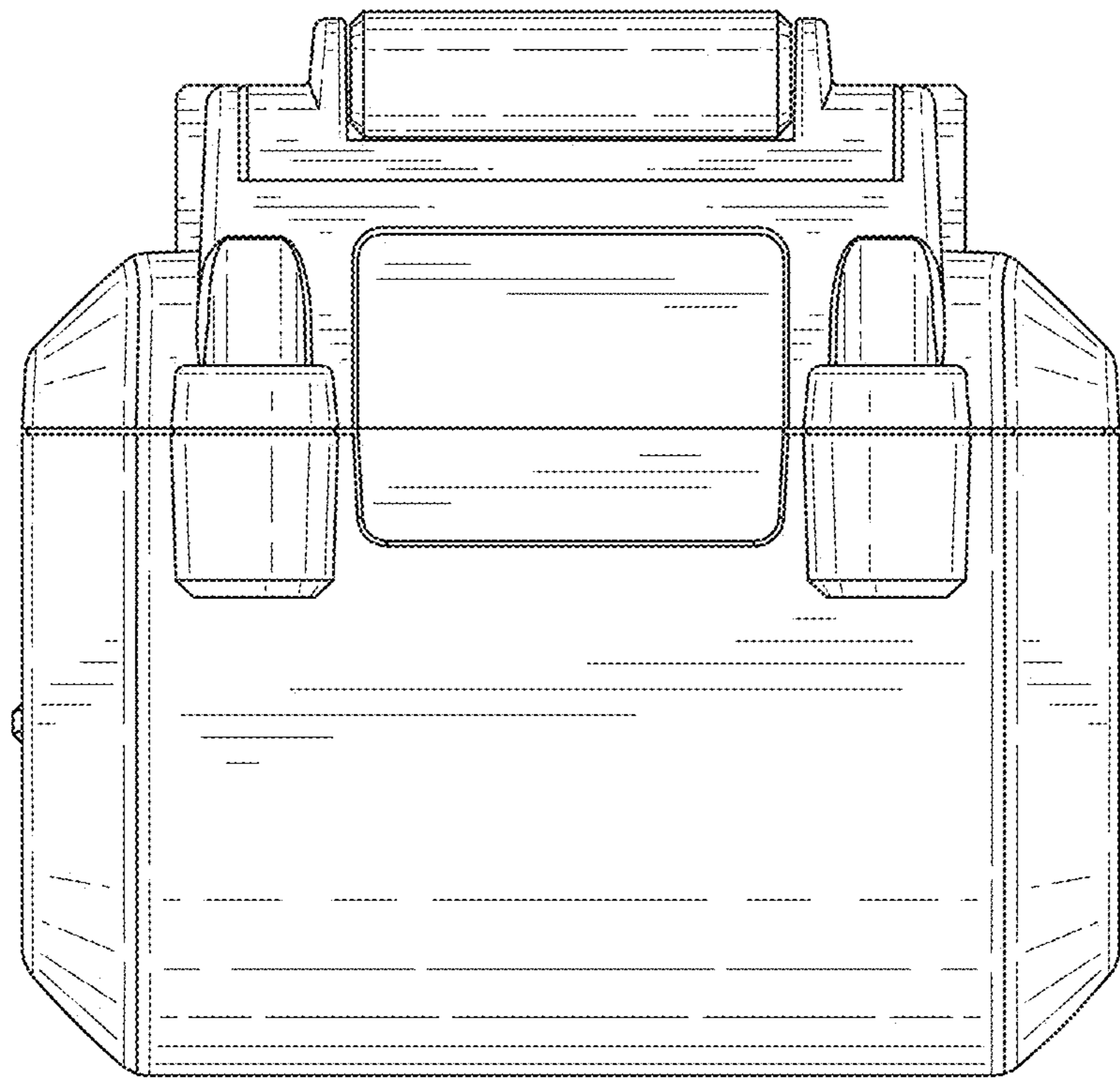


FIG. 21

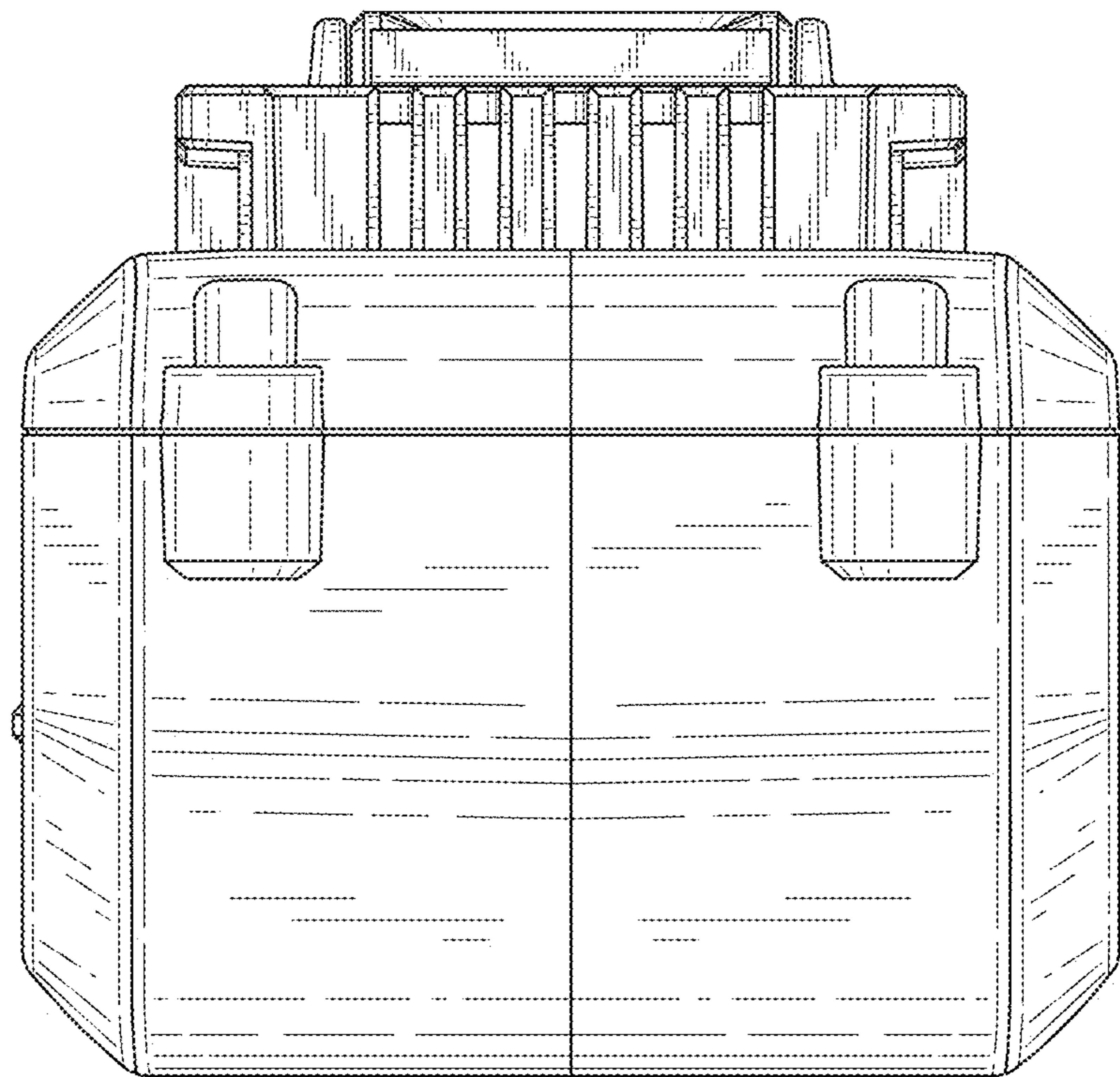


FIG. 22

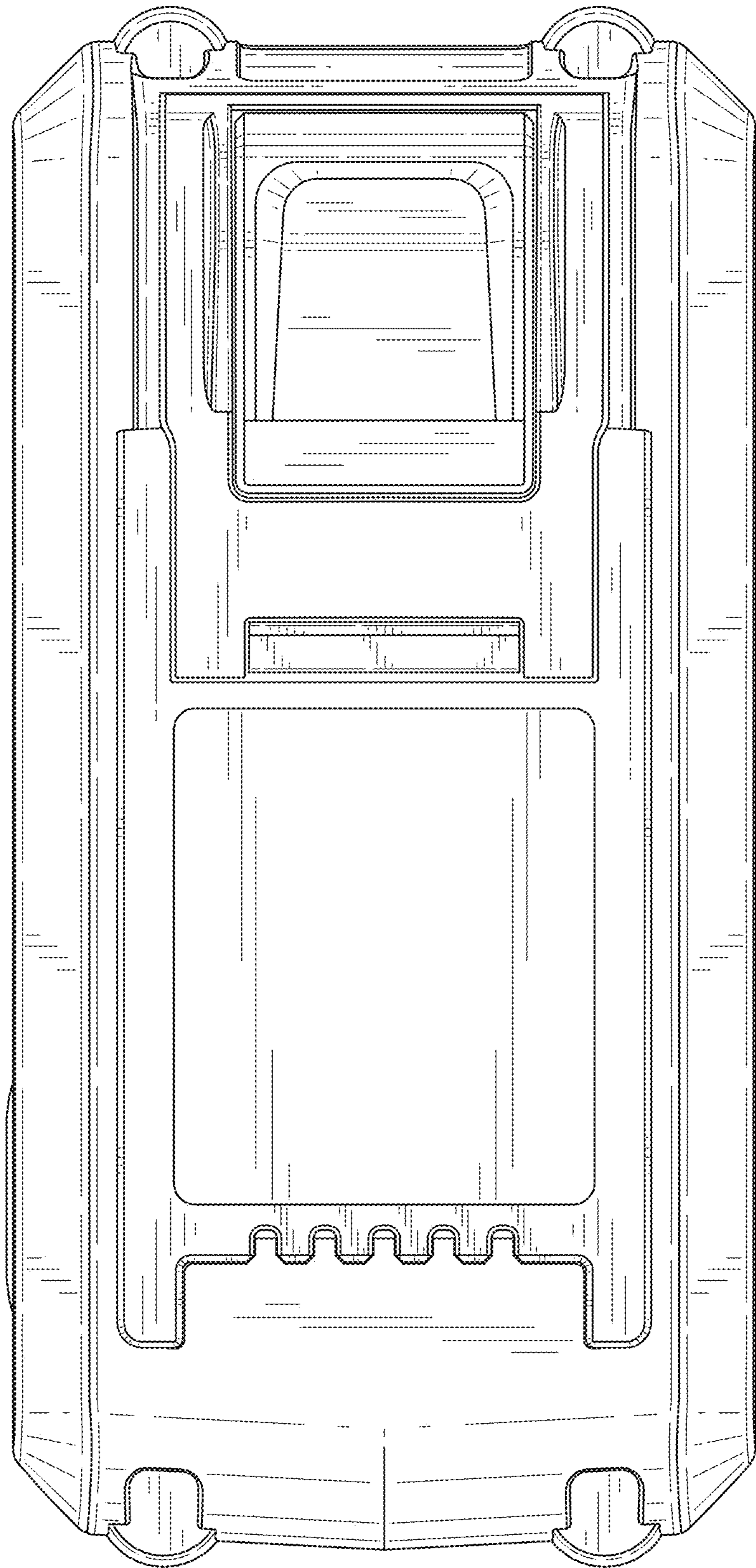


FIG. 23

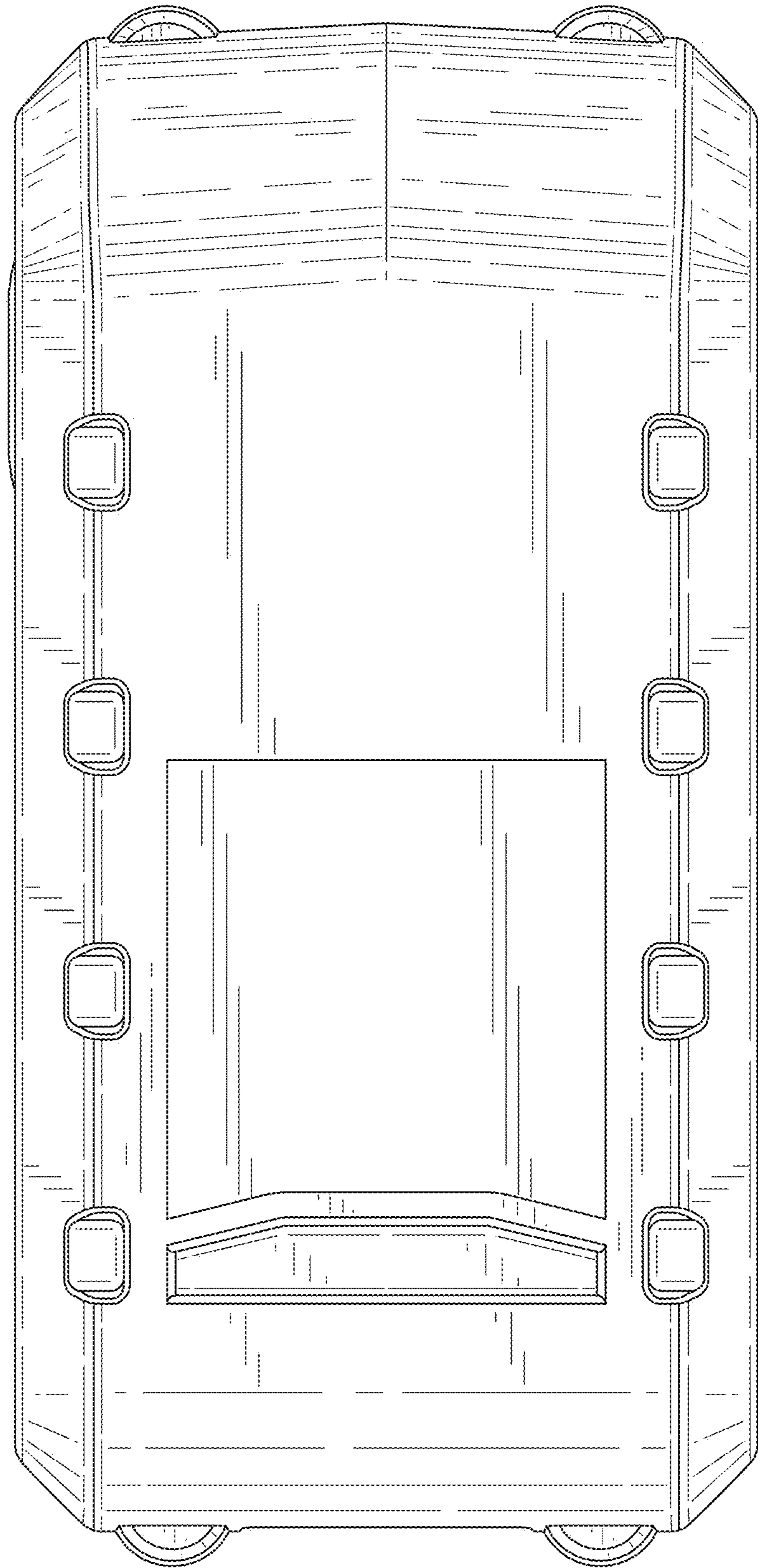


FIG. 24

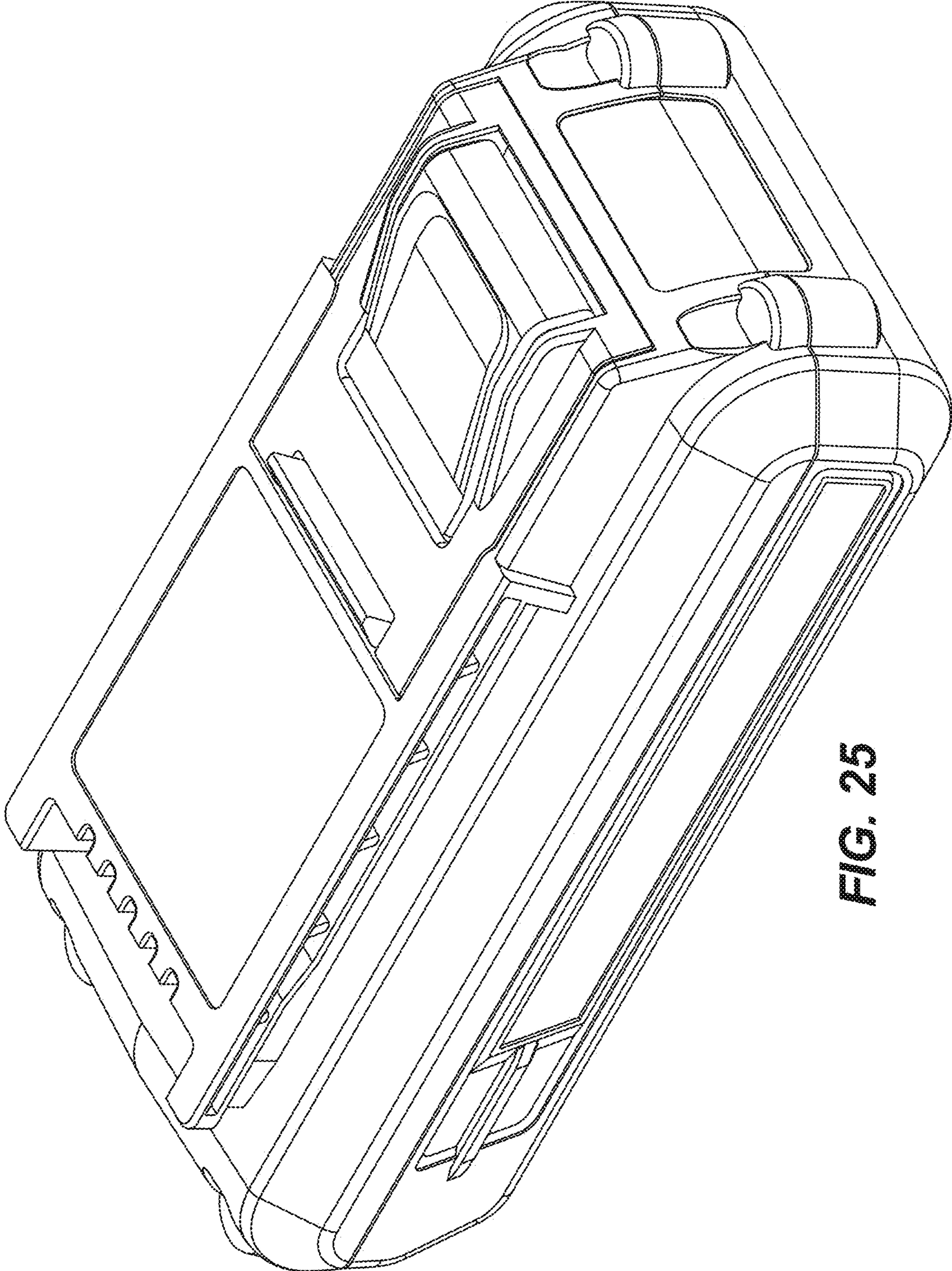


FIG. 25

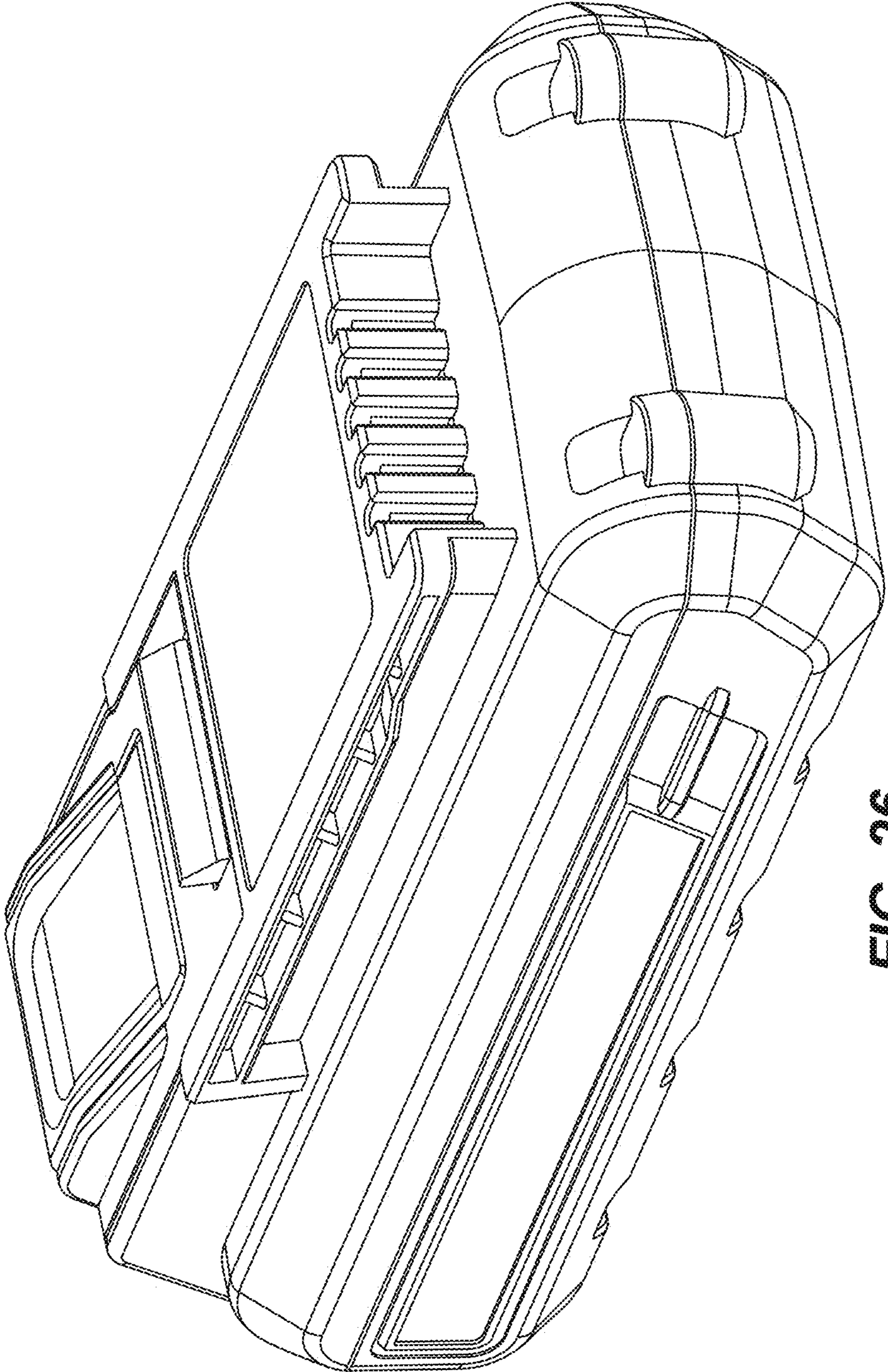


FIG. 26

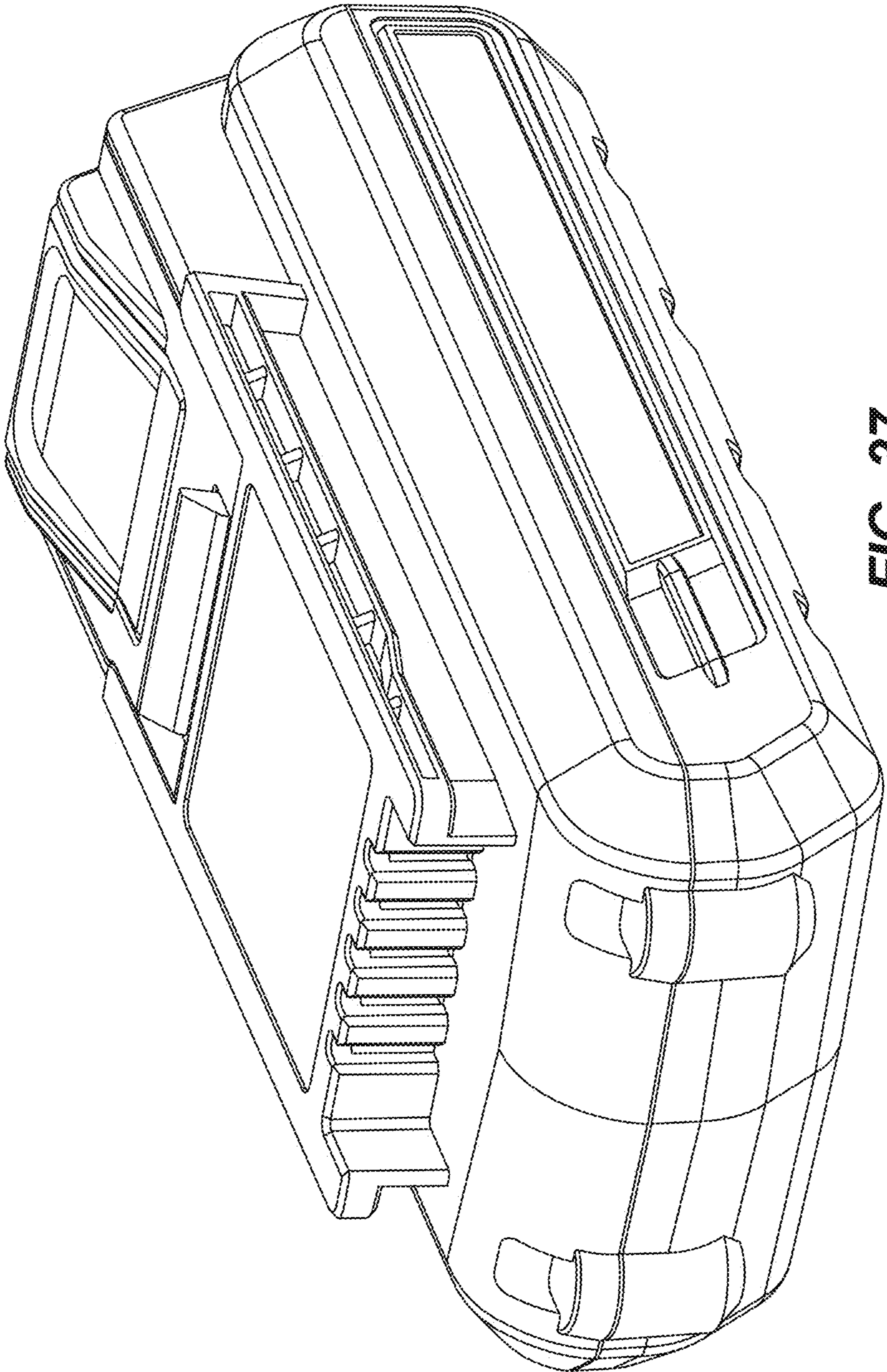


FIG. 27

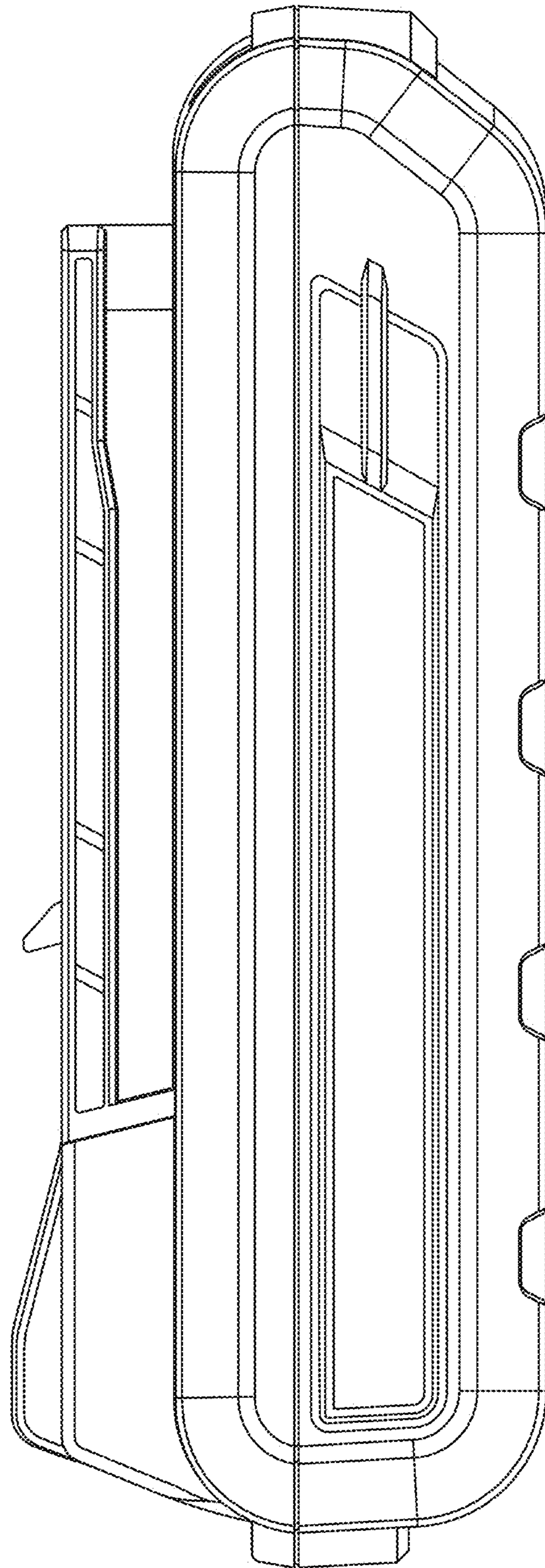


FIG. 28

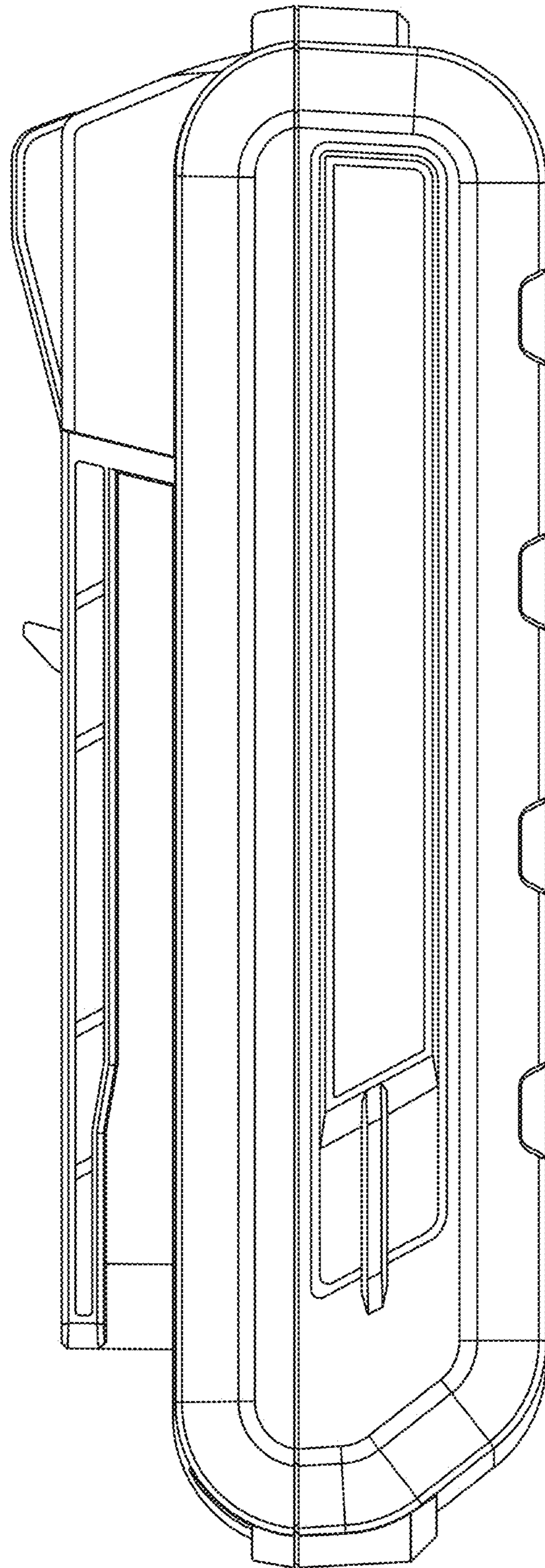


FIG. 29

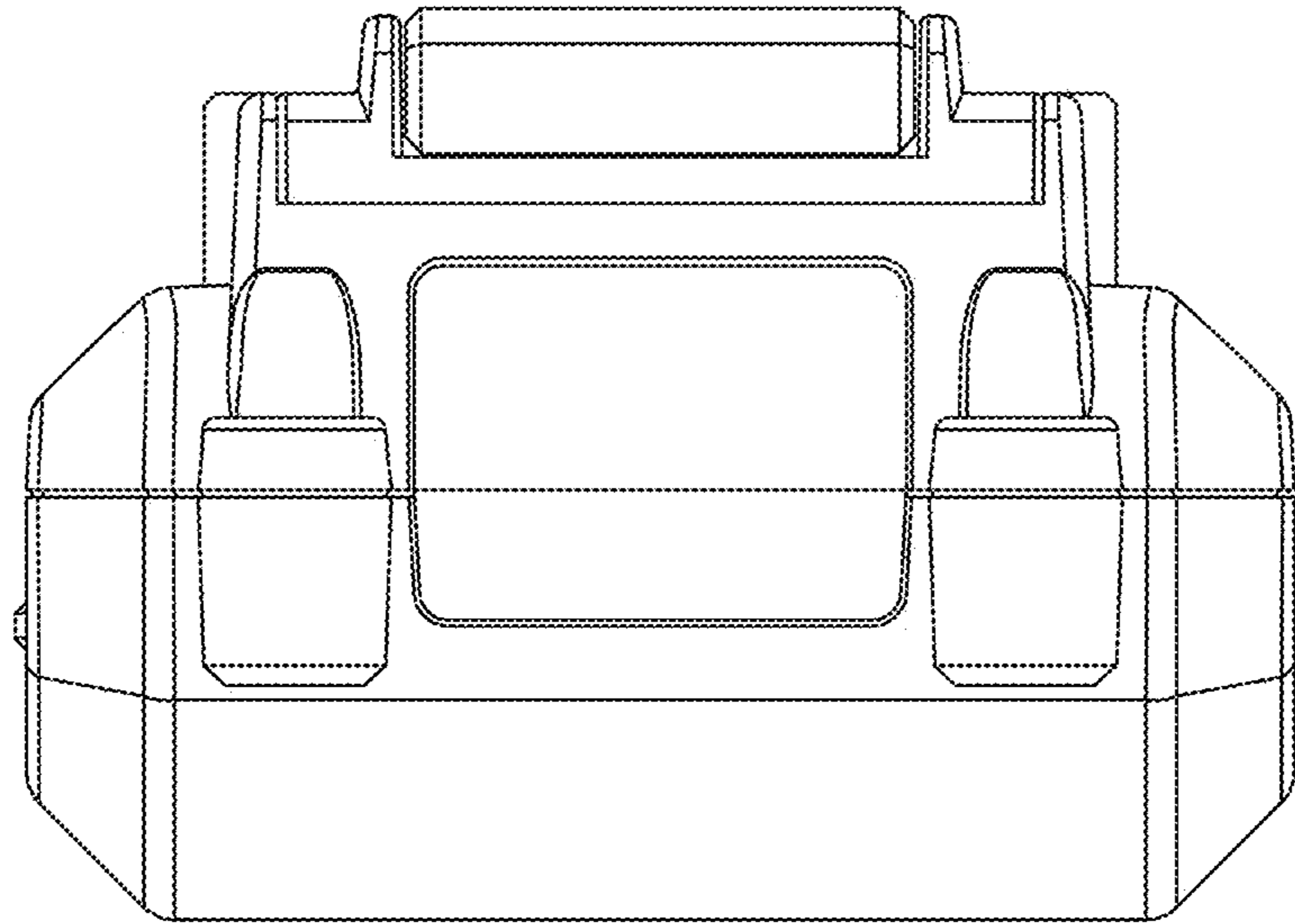


FIG. 30

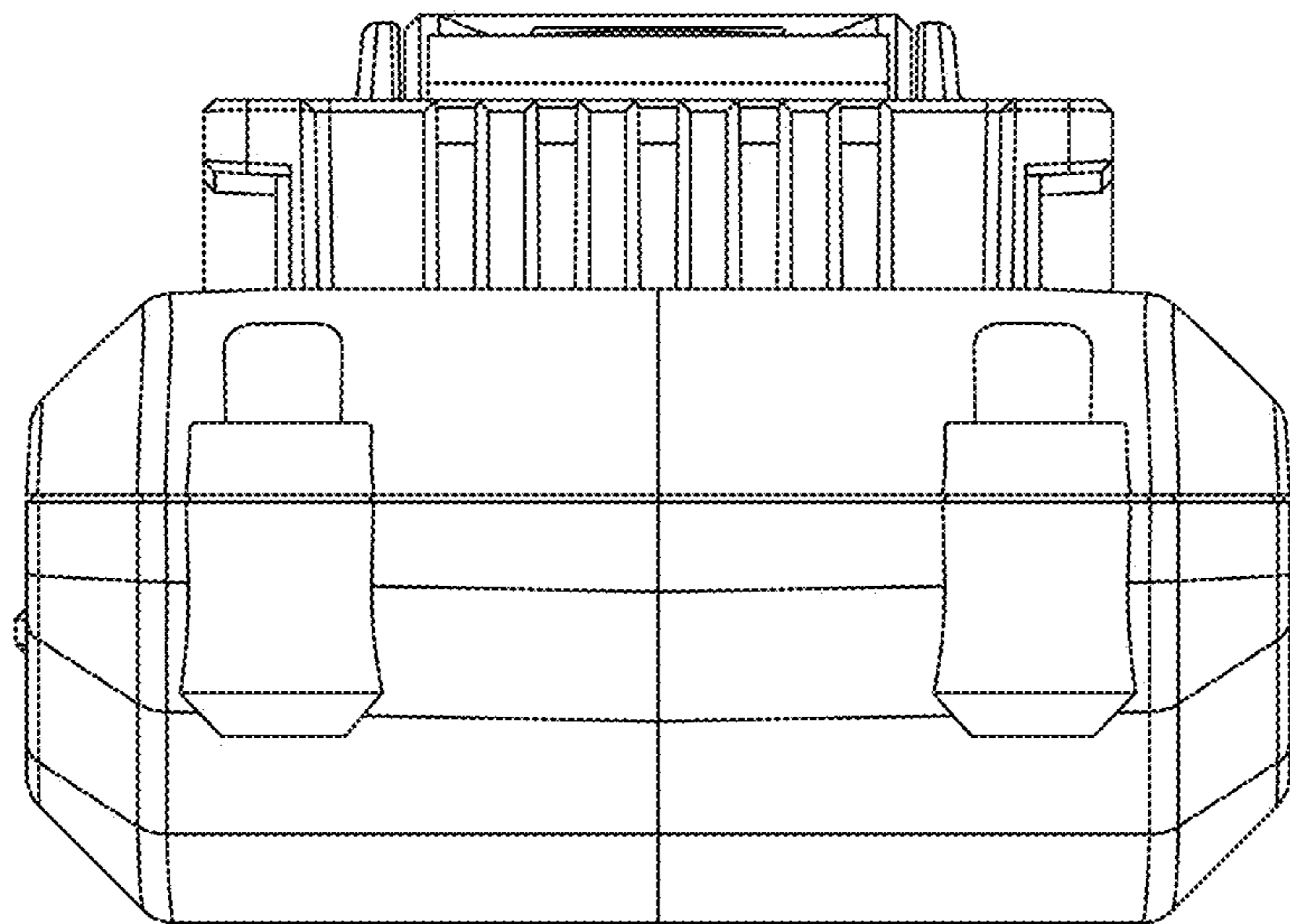


FIG. 31

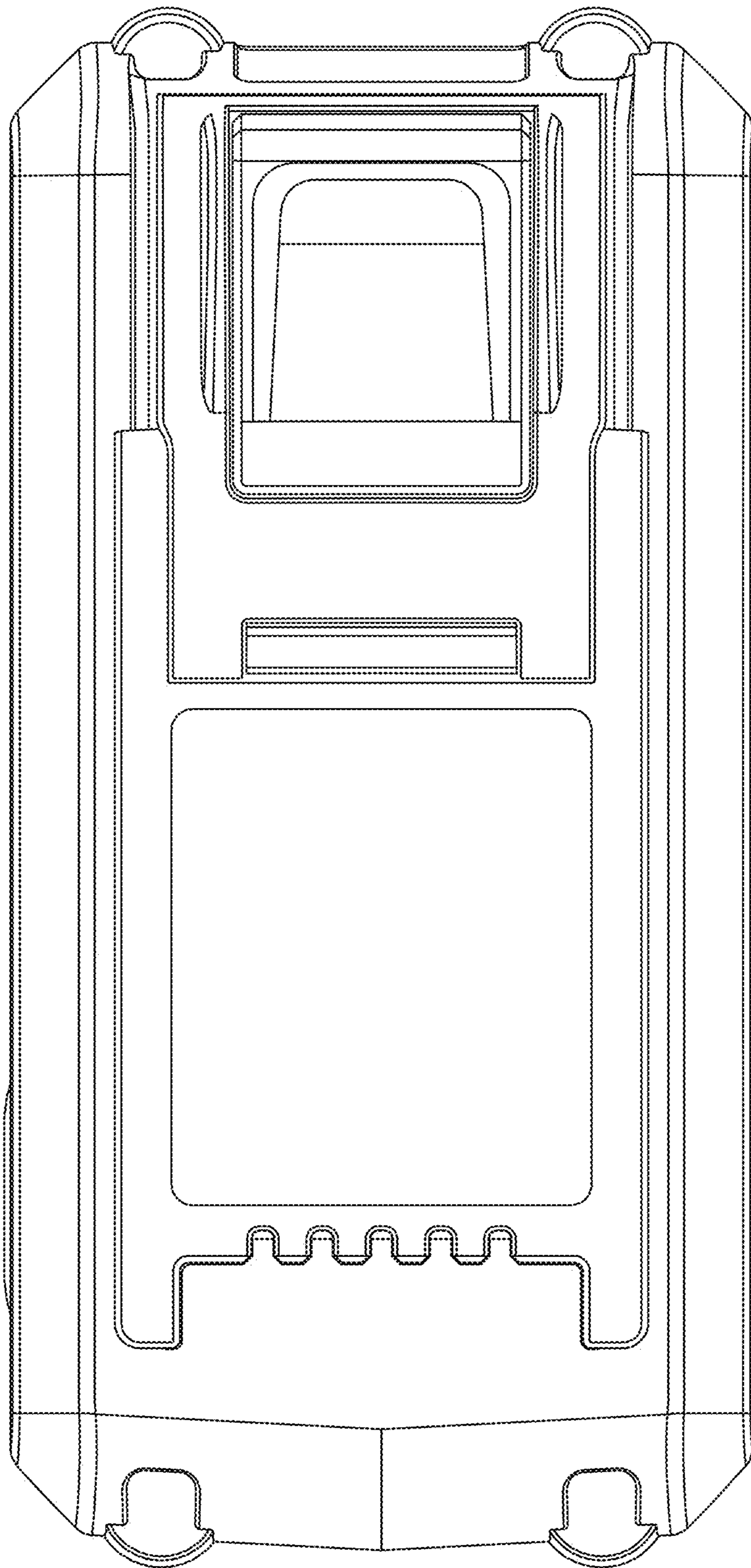


FIG. 32

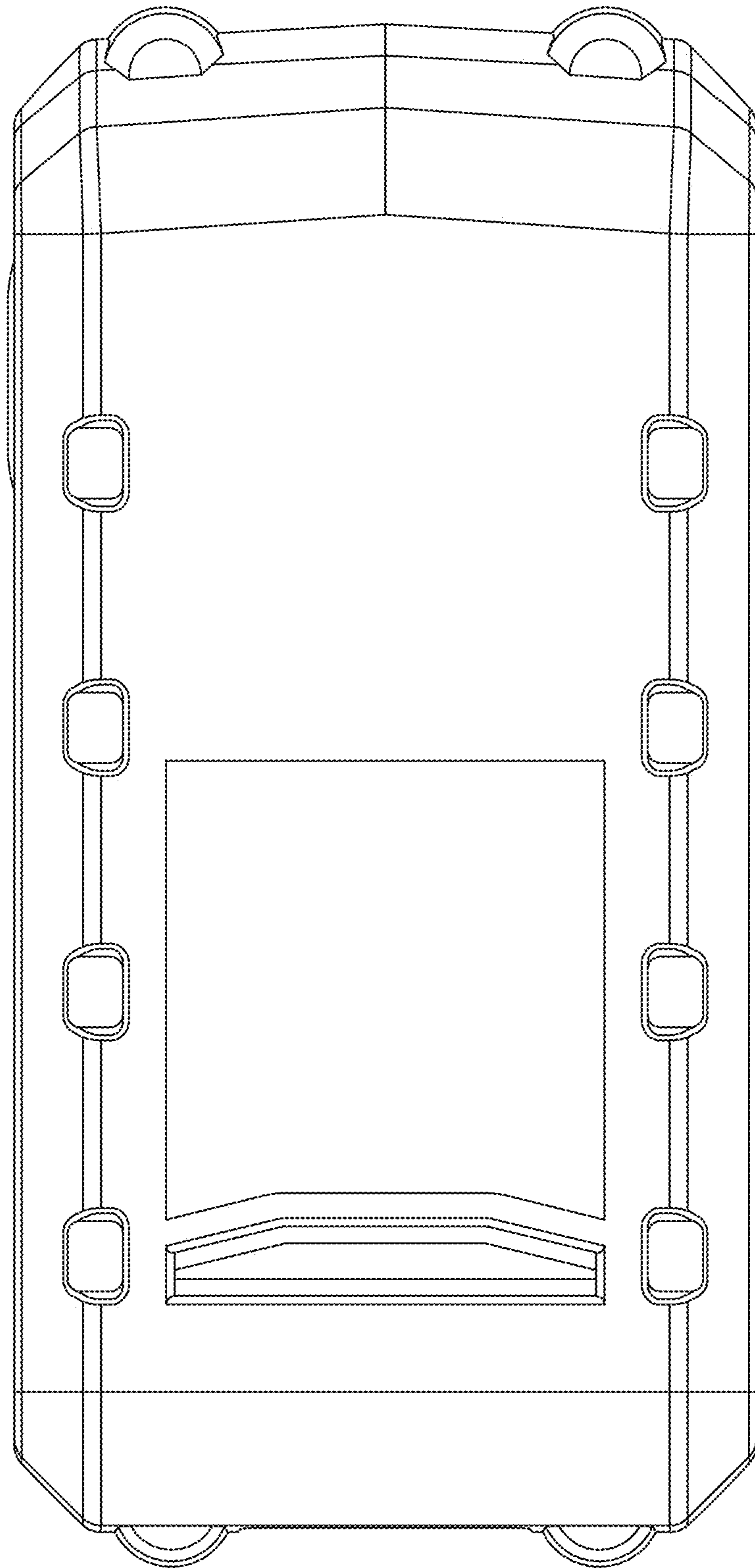


FIG. 33

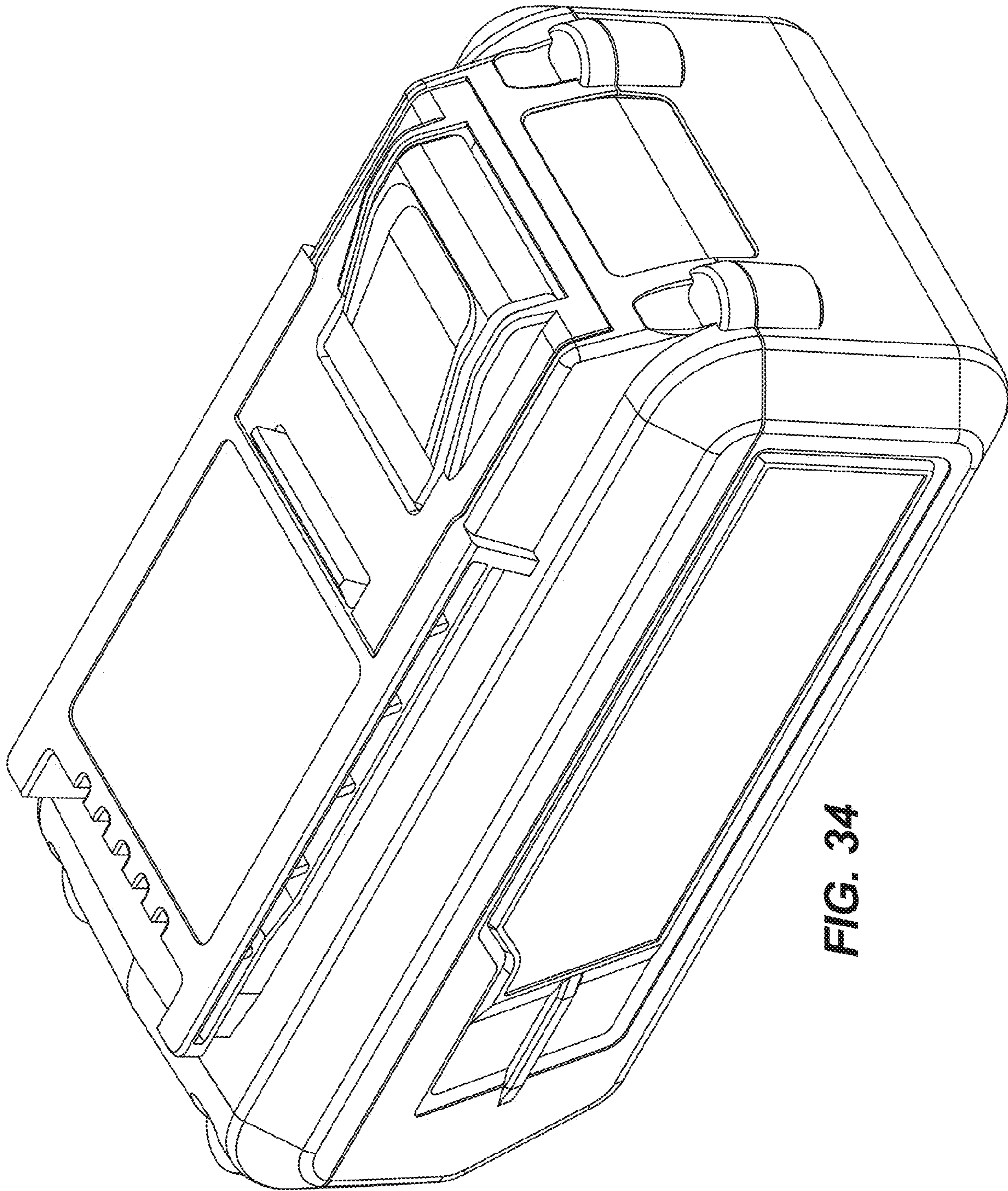


FIG. 34

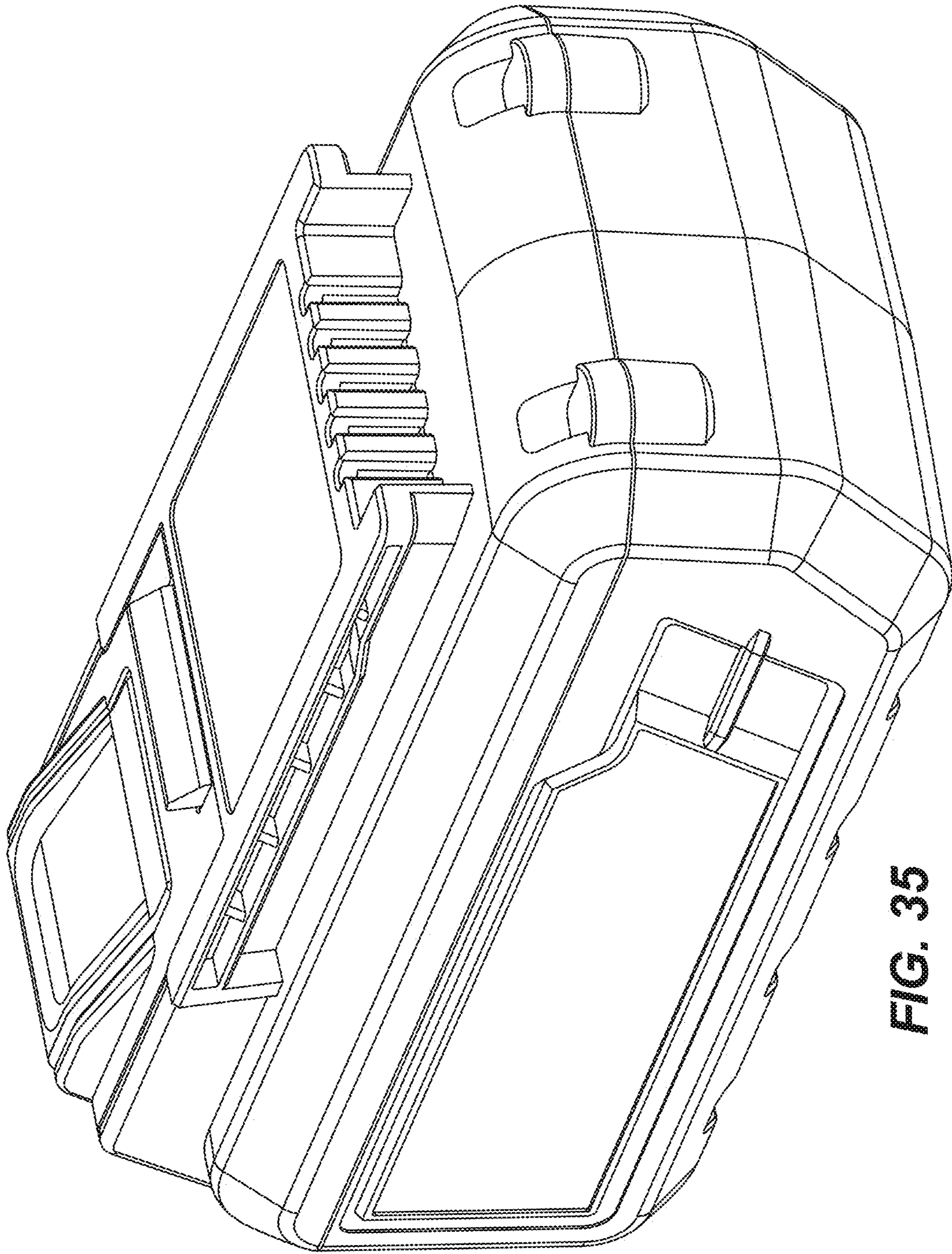


FIG. 35

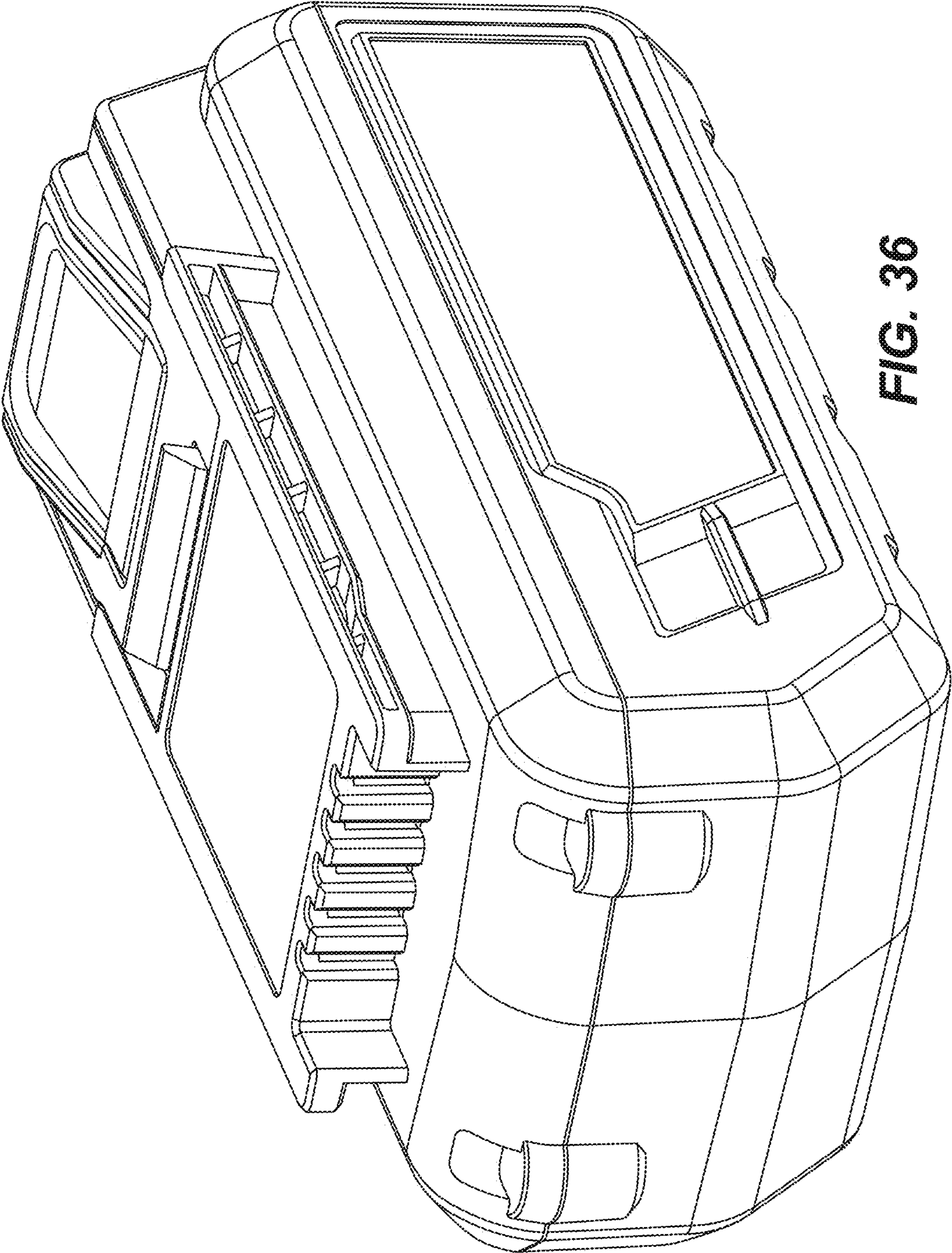


FIG. 36

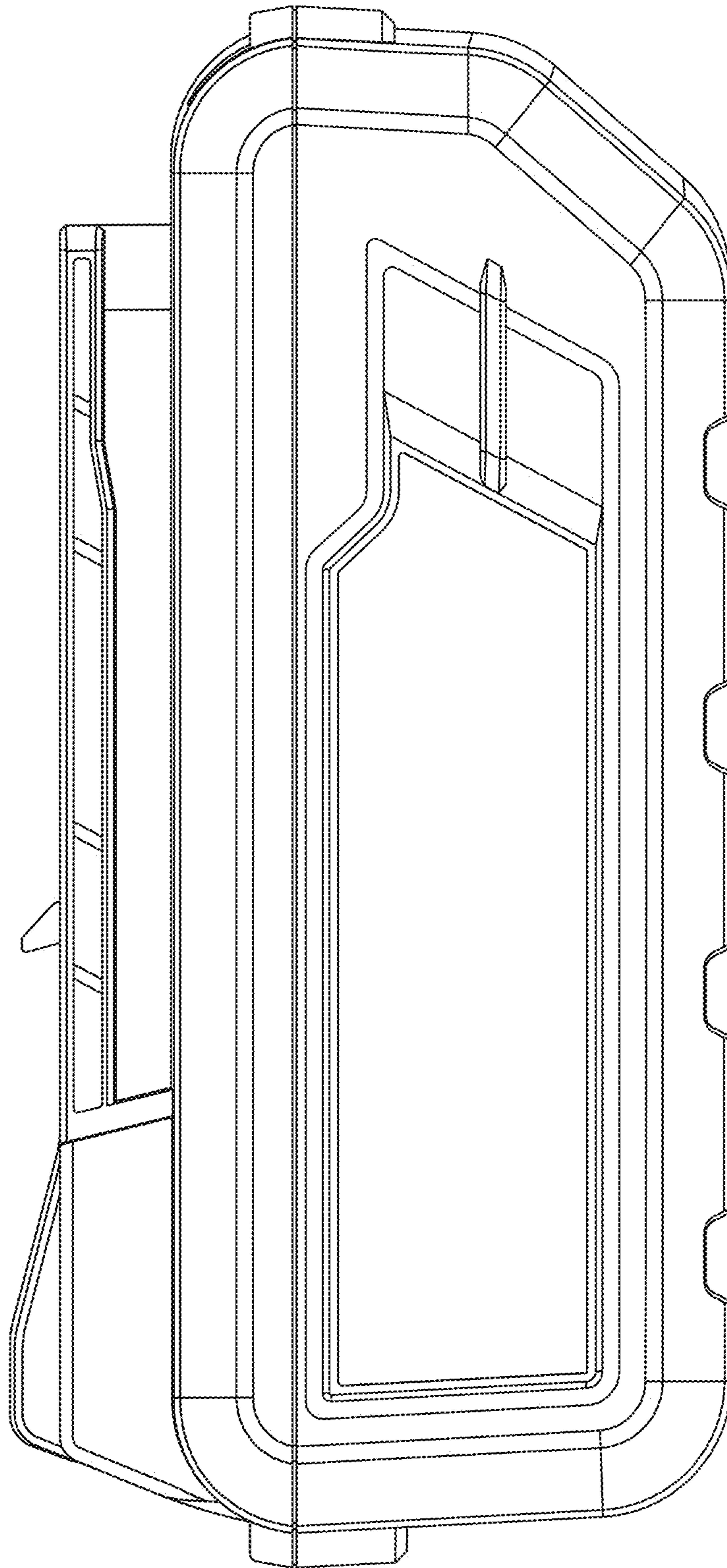


FIG. 37

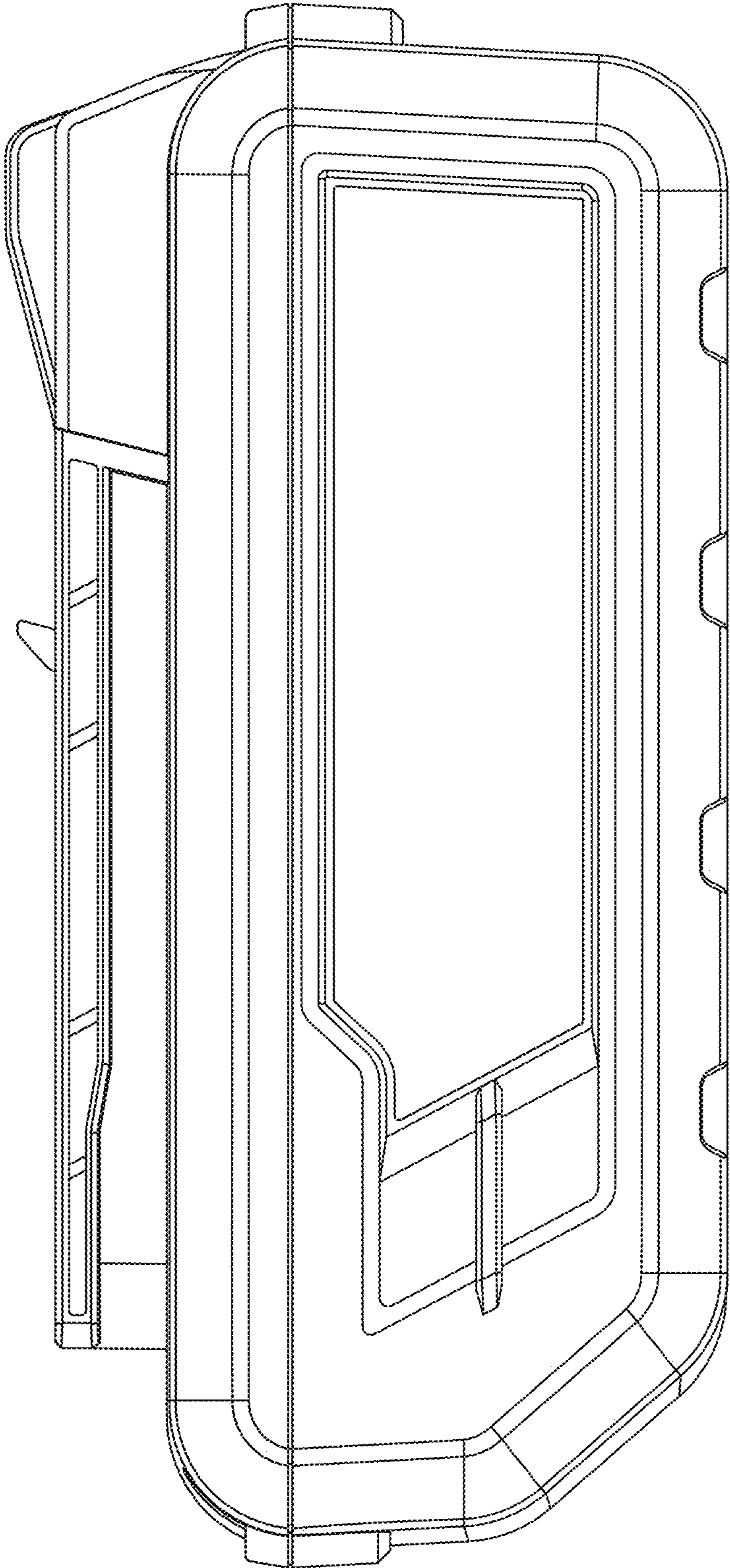


FIG. 38

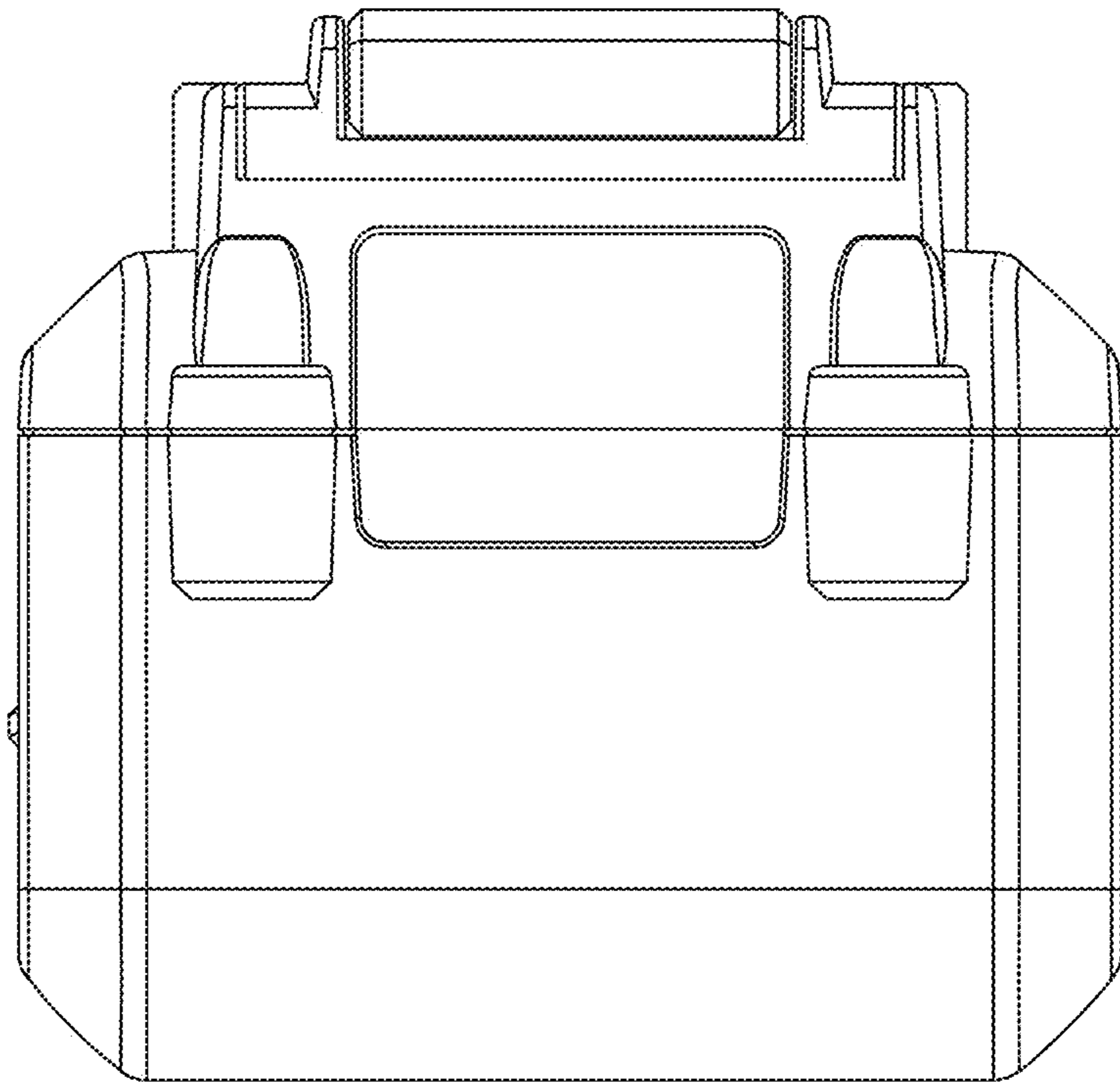


FIG. 39

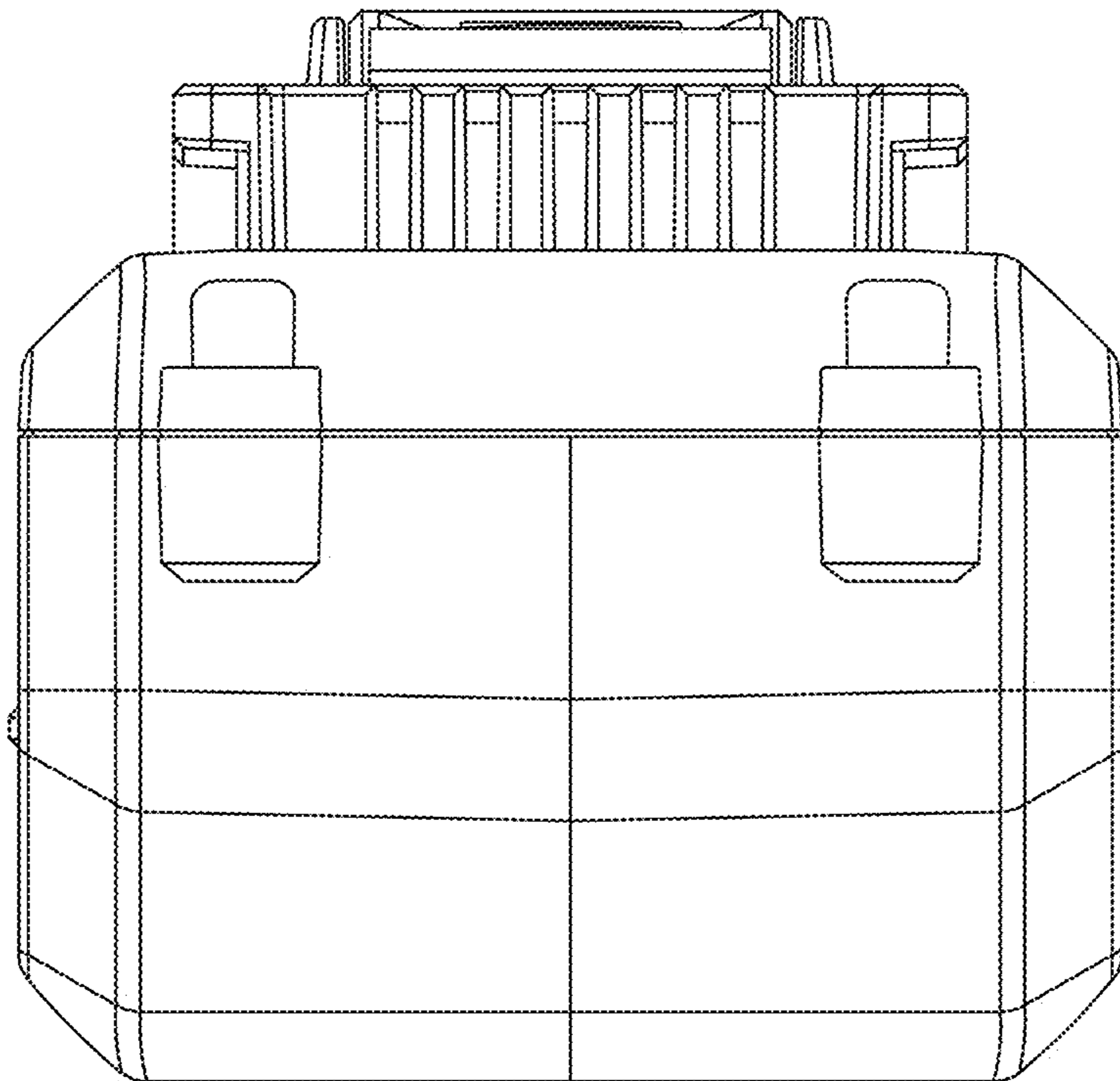


FIG. 40

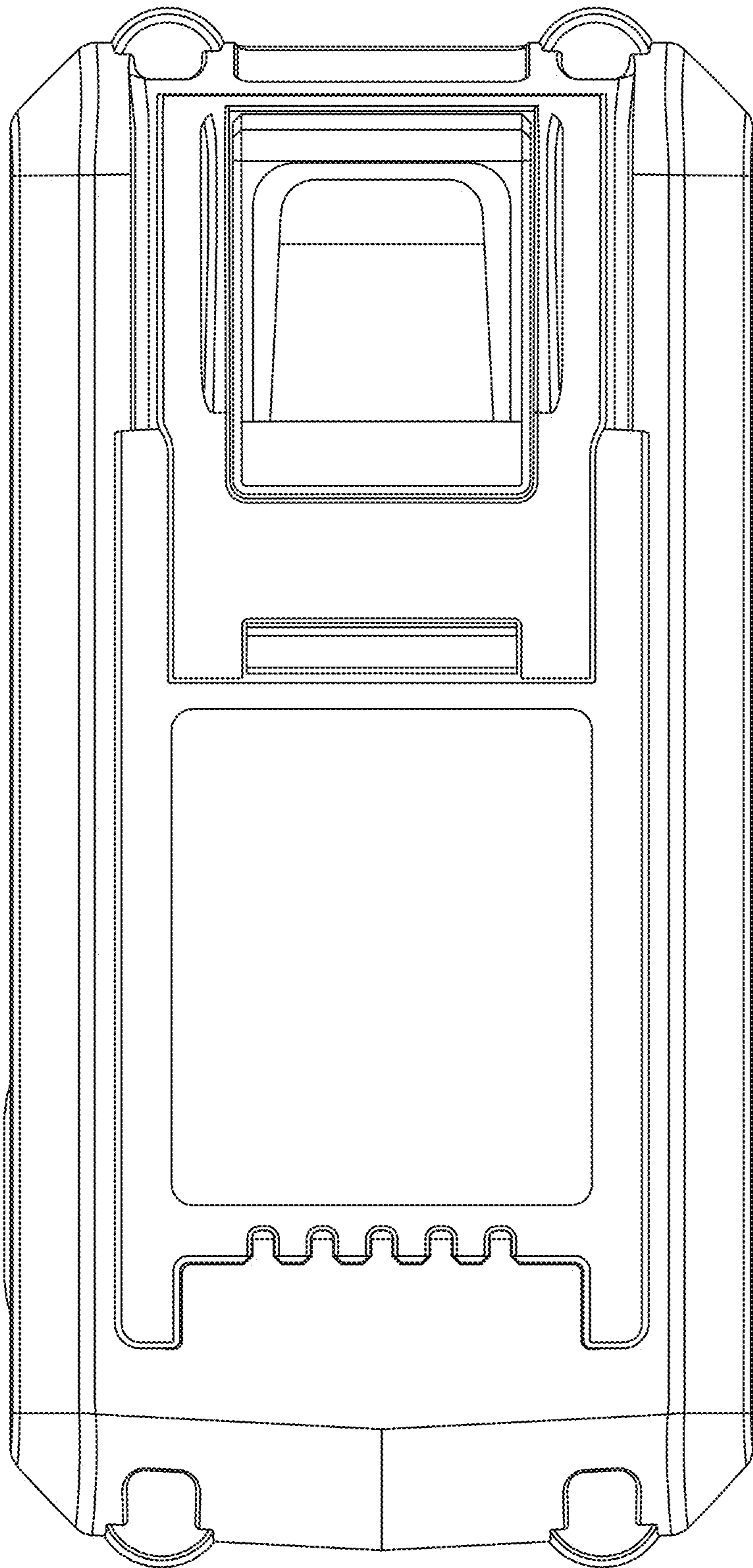


FIG. 41

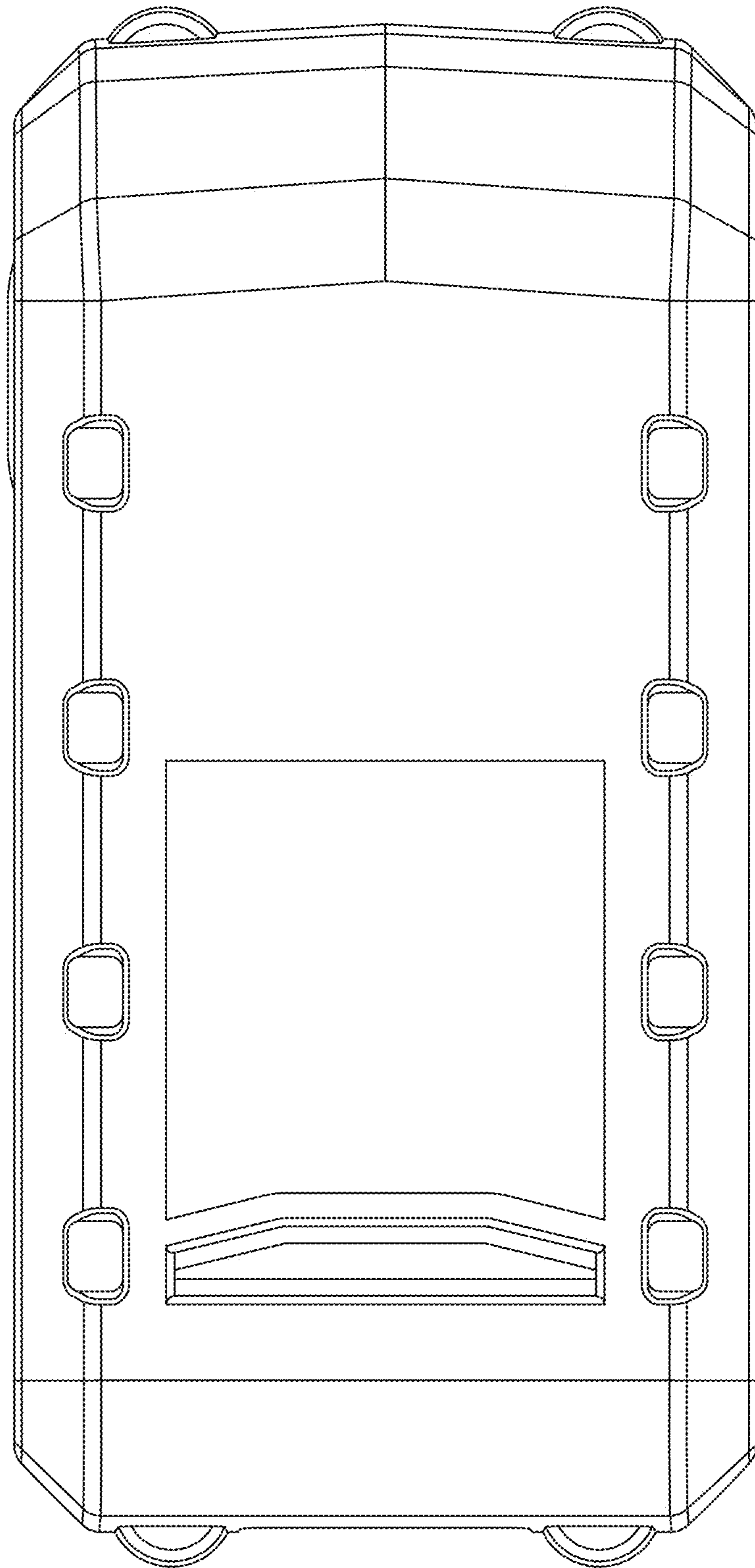


FIG. 42

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : D929,336 S
APPLICATION NO. : 29/704572
DATED : August 31, 2021
INVENTOR(S) : Clint Cagle

Page 1 of 10

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

Delete the title page and substitute therefore with the attached title pages.

On Page 3, Column 1, the Description should read as follows:

FIG. 1 is a right rear top perspective view of an electrical interface.

FIG. 2 is an enlarged view of the electrical interface shown in FIG. 1.

FIG. 3 is a left top front perspective view of the electrical interface shown in FIG. 2.

FIG. 4 is a right top front perspective view of the electrical interface shown in FIG. 2.

FIG. 5 is a front view of the electrical interface shown in FIG. 2.

FIG. 6 is a top view of the electrical interface shown in FIG. 2.

In the Drawings

Please replace FIGS. 1-42 with FIGS. 1-6 as shown on the attached pages.

Signed and Sealed this
Second Day of April, 2024
Katherine Kelly Vidal

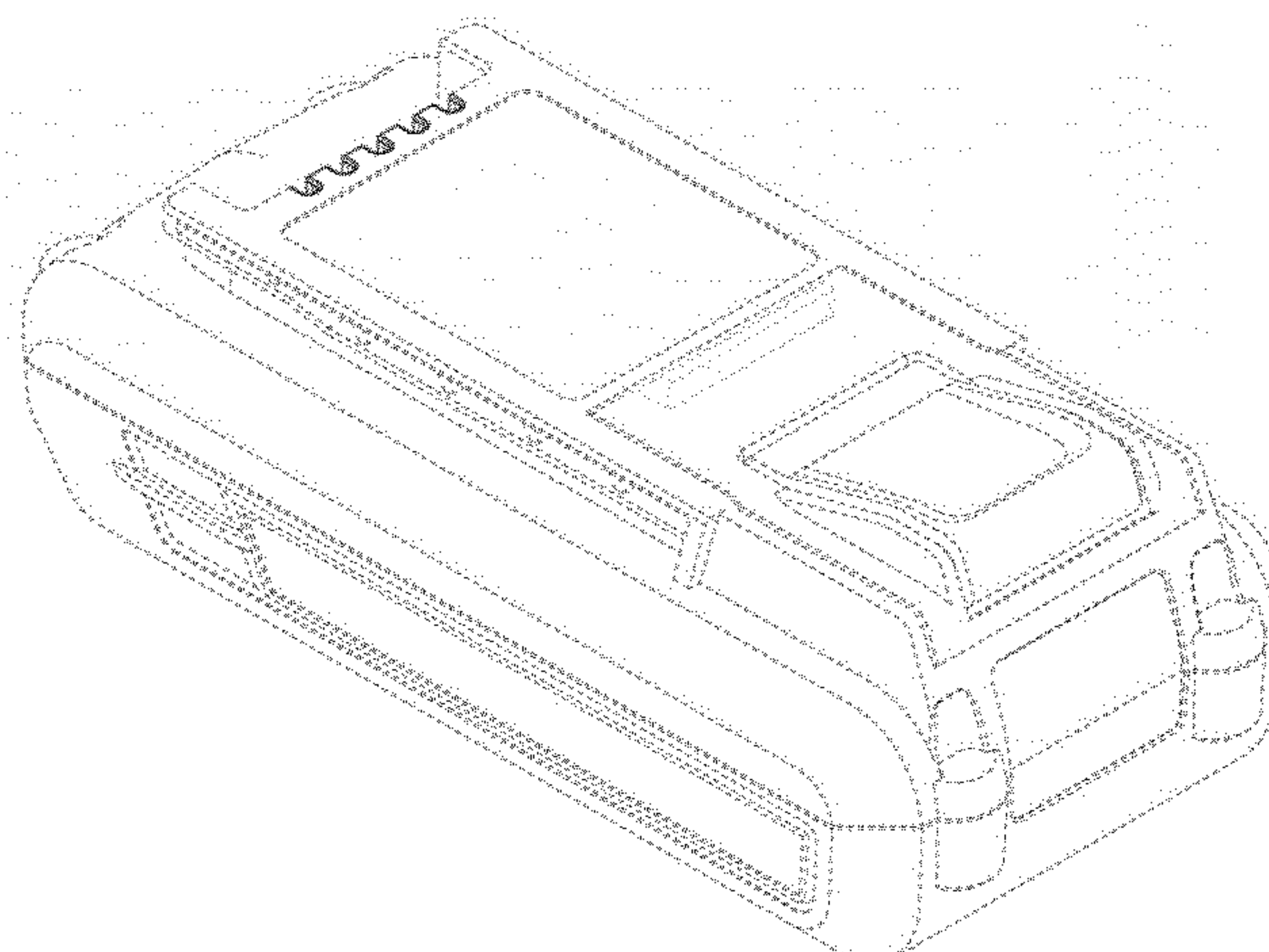
Katherine Kelly Vidal
Director of the United States Patent and Trademark Office

(12) **United States Design Patent** (10) **Patent No.:** **US D929,336 S**
Cagle (45) **Date of Patent:** **** Aug. 31, 2021**

(54) **ELECTRICAL INTERFACE** 7,157,882 B2 1/2007 Johnson et al.
 7,157,883 B2 1/2007 Johnson et al.
 7,164,257 B2 1/2007 Johnson et al.
 (71) Applicant: **TECHTRONIC CORDLESS GP,** D537,408 S 2/2007 Aglassinger
 Anderson, SC (US) 7,176,654 B2 2/2007 Meyer et al.
 D545,759 S * 7/2007 Ino D13/103
 (72) Inventor: **Clint Cagle, Easley, SC (US)** 7,262,580 B2 8/2007 Meyer et al.
 D550,152 S * 9/2007 Okuda D13/103
 (73) Assignee: **TECHTRONIC CORDLESS GP,** 7,321,219 B2 1/2008 Meyer et al.
 Anderson, SC (US) 7,325,847 B2 1/2008 Meyer et al.
 7,342,381 B2 3/2008 Johnson et al.
 D584,461 S 1/2009 Sweeney
 D584,732 S 1/2009 Cho et al.
 (**) Term: **15 Years** 7,492,124 B2 2/2009 Johnson et al.
 D587,695 S 3/2009 Leng et al.
 (21) Appl. No.: **29/704,572** 7,504,804 B2 3/2009 Johnson et al.
 7,508,167 B2 3/2009 Meyer et al.
 (22) Filed: **Sep. 5, 2019** D596,130 S 7/2009 Chen et al.
 (51) **LOC (13) CL** **13-02** D597,935 S 8/2009 Aglassinger
 (52) **U.S. CL** **D13/120** 7,570,013 B2 8/2009 Graeber et al.
 USPC **D13/120** D614,569 S 4/2010 Yang
 (58) **Field of Classification Search** D615,716 S 5/2010 Timius
 USPC D13/103, 107, 108, 109, 119, 120, 121; D618,172 S 6/2010 Yang
 D8/70 7,772,805 B2 8/2010 Yamamoto et al.
 CPC H01M 2220/30 D623,131 S 9/2010 Kawakami et al.
 See application file for complete search history. 7,793,318 B2 9/2010 Johnson et al.
 D633,036 S 2/2011 Murray
 D635,917 S 4/2011 Okuda
 D636,723 S 4/2011 Yamamoto et al.

(56) **References Cited**
U.S. PATENT DOCUMENTS

5,477,130 A	12/1995	Hashimoto et al.	7,944,181 B2	5/2011	Johnson et al.
5,508,123 A	4/1996	Fan	7,952,326 B2	5/2011	Johnson et al.
5,568,039 A	10/1996	Fernandez	D640,196 S	6/2011	Shuang et al.
5,764,028 A	6/1998	Freiman et al.	D640,197 S	6/2011	Park et al.
D396,447 S	7/1998	Lloyd et al.	D640,975 S	7/2011	Okuda et al.
D400,322 S	10/1998	Webster et al.	D641,111 S	7/2011	Boughton
5,903,137 A	5/1999	Freiman et al.	D643,809 S	8/2011	Okuda et al.
5,945,809 A	8/1999	Inaba et al.	7,993,769 B2	8/2011	Tsai et al.
5,955,867 A	9/1999	Cummings et al.	8,018,198 B2	9/2011	Meyer et al.
D415,100 S *	10/1999	Buck D13/103	D647,856 S	11/2011	Chiang
D463,774 S	10/2002	Buck	D647,857 S	11/2011	Huang et al.
D468,874 S	1/2003	Nawrozki et al.	D651,560 S	1/2012	Park et al.
D469,931 S	2/2003	Nawrozki et al.	D652,793 S	1/2012	Tschopp
D472,879 S	4/2003	Onchi et al.	D654,018 S	2/2012	Conley et al.
D509,189 S *	9/2005	Buck D13/120	D657,307 S	4/2012	Zhao
D511,744 S	11/2005	Hsu et al.	D658,578 S *	5/2012	Davis D13/103
D512,373 S	12/2005	Tsai et al.	8,212,529 B2	7/2012	Yamamoto
D514,060 S	1/2006	Wong et al.	8,228,036 B2	7/2012	Meyer
D524,728 S	7/2006	Watson	8,269,458 B2	9/2012	Cruise et al.
D535,253 S	1/2007	Buck	D668,219 S	10/2012	Zhao et al.
			8,358,108 B2	1/2013	Seman, Jr. et al.
			8,378,624 B2	2/2013	Boyles et al.
			D682,194 S	5/2013	Jiang et al.



US D929,336 S

Page 2

8,441,230	B2	5/2013	Boyles et al.	
D684,528	S	6/2013	Murray	
D685,730	S	7/2013	Hamri et al.	
8,525,479	B2	9/2013	Meyer et al.	
8,741,461	B2	6/2014	Yoneda et al.	
8,803,481	B2	8/2014	Tachikawa et al.	
D714,721	S *	10/2014	Zhang	D13/119
8,933,667	B2	1/2015	Park et al.	
D735,960	S	8/2015	Zhang	
9,118,189	B2	8/2015	Meyer et al.	
D748,877	S	2/2016	Tirone et al.	
9,331,365	B2	5/2016	Cruise et al.	
D767,487	S	9/2016	Huang	
D770,377	S *	11/2016	Kondo	D13/103
D782,980	S	4/2017	Zhang et al.	
D784,261	S	4/2017	Rowe et al.	
9,673,648	B2	6/2017	Johnson et al.	
9,680,325	B2	6/2017	Johnson et al.	
D801,917	S	11/2017	Jiang	
D801,920	S	11/2017	Yoon	
9,859,548	B2	1/2018	Cruise et al.	
9,893,384	B2	2/2018	Velderman et al.	
D811,999	S	3/2018	Nommensen et al.	
D818,948	S	5/2018	Waldron	
9,966,772	B2	5/2018	Uesugi	
D819,562	S *	6/2018	Waldron	D13/103
10,008,864	B2	6/2018	Meyer et al.	
D831,566	S	10/2018	Nommensen et al.	
10,124,455	B2	11/2018	Ito et al.	
D836,552	S	12/2018	Crowe et al.	
D840,926	S	2/2019	Howell	
D849,681	S	5/2019	Howell	
D850,364	S	6/2019	Constin	
D853,319	S *	7/2019	Nommensen	D13/103
D855,019	S	7/2019	Rustill	
D887,969	S	6/2020	Howell	
10,686,319	B2	6/2020	Wohlmann et al.	
D890,692	S *	7/2020	Elder	D13/103
D892,586	S	8/2020	Matteo	
D893,413	S	8/2020	Grulke	
D894,118	S	8/2020	Liu et al.	
D894,827	S	9/2020	Watson	
D907,576	S *	1/2021	Cayon	D13/119
D908,083	S	1/2021	Kuang et al.	
D911,267	S *	2/2021	Matteo	D13/103
D912,487	S	3/2021	Chandrasekharan et al.	
D913,231	S	3/2021	Zugen et al.	
10,938,079	B2 *	3/2021	Beyerl	H01M 50:20
2004/0087196	A1	5/2004	Lang et al.	
2004/0106036	A1	6/2004	Geis et al.	
2007/0285055	A1	12/2007	Meyer et al.	
2009/0184685	A1	7/2009	Sim et al.	
2011/0169457	A1	7/2011	Mirani et al.	
2011/0181243	A1	7/2011	Mabuchi et al.	
2012/0276776	A1	11/2012	Becker et al.	
2013/0069594	A1	3/2013	Jung	
2013/0089764	A1 *	4/2013	Melnyk	H01M 50:20 429:72
2013/0106363	A1	5/2013	Seman, Jr. et al.	
2013/0330576	A1 *	12/2013	Kolden	H01M 50:502 429:7
2014/0106195	A1 *	4/2014	Milbourne	H01M 50:209 429:99
2014/0306660	A1	10/2014	Suzuki et al.	
2015/0061549	A1	3/2015	Shima	
2015/0115875	A1	4/2015	Oomiya et al.	
2015/0340887	A1	11/2015	Meyer et al.	
2016/0072106	A1 *	3/2016	Baumgartner	H02J 7/00 320:113
2016/0195097	A1	7/2016	Patrick	
2017/0222454	A1	8/2017	Bakker	
2017/0271893	A1	9/2017	Brozek	
2018/0140146	A1	5/2018	Zhu et al.	
2018/0309304	A1	10/2018	Meyer et al.	
2019/0061652	A1	2/2019	Yeom et al.	
2019/0067957	A1	2/2019	Yeom	
2019/0089168	A1	3/2019	Yeom	
2021/0083237	A1 *	3/2021	Cherry	H01M 50:24

FOREIGN PATENT DOCUMENTS

AU	2019100756	A4	8/2019
CA	3090555	A1	8/2019
CL	201903645		7/2020
CL	201903647		7/2020
CL	201903648		7/2020
CN	1532988	A	9/2004
CN	1870346	A	11/2006
CN	1897399	A	1/2007
CN	1909325	A	2/2007
CN	101017984	A	8/2007
CN	101043149	A	9/2007
CN	101399386	A	4/2009
CN	101716762	A	6/2010
CN	102035054	A	4/2011
CN	102055246	A	5/2011
CN	103135062	A	6/2013
CN	103300917	A	11/2013
CN	103580087	A	2/2014
CN	203434607	U	2/2014
CN	103730699	A	4/2014
CN	104901354	A	9/2015
CN	105322611	A	2/2016
CN	105449790	A	3/2016
CN	105453375	A	3/2016
CN	105648962	A	6/2016
CN	106160067	A	11/2016
CN	106786964	A	5/2017
CN	107732329	A	2/2018
CN	107919690	A	4/2018
CN	207910511	U	9/2018
CN	109066940	A	12/2018
CN	109120037	A	1/2019
CN	208316322	U	1/2019
DE	102014205116	A1	9/2015
EM	004104453		10/2017
EM	004663953		9/2018
EM	004682623		12/2018
EP	2083495	B1	7/2009
WO	2018028639	A1	2/2018
WO	2018143562	A1	8/2018

OTHER PUBLICATIONS

Amazon.com. LiBatter40V 5.0Ah Replacement Battery. <https://www.amazon.com/LiBatter-Lithium-Premium-Battery-Compatible/dp/B07RPLWRH5> Date first available: May 2019 (Year: 2019).*

Energup. "Bateria de litio (Energup)." <amazon.com> Chilean examination report alleges a publication date of Sep. 21, 2018 (1 page).

Greenworks, "Greenworks 29842 24V." <amazon.com> Chilean examination report alleges a publication date of Jun. 29, 2016 (1 page).

Makita, "DC18RC---Cargador de bateria Makita." <amazon.com> Chilean examination report alleges a publication date of Jun. 6, 2018 (1 page).

Ridgid, "Ridgid 105 MPH Cordless GEN5X 18-Volt Jobsite Handheld Blower." <<https://www.amazon.com/RIDGID-Cordless-18-Volt-Jobsite-Handheld/dp/B078ZRG57H>> Chilean examination report alleges a publication date of Aug. 15, 2018.

Ryobi, "18 Volt One+ Blower." Operator's Manual, Revision 05, Mar. 22, 2019 (26 pages).

Ryobi, "40V Lithium Ion Battery Charger," Operator's Manual, Revision 02, Aug. 23, 2019 (16 pages).

Ryobi, "Ryobi 1004-040-931." <amazon.com> Chilean examination report alleges a publication date of Jun. 4, 2019 (1 page).

Ryobi, "Ryobi ry24602." <amazon.com> Chilean examination report alleges a publication date of Sep. 23, 2015 (1 page).

Vanon, "2Pack 6000mAh High Capacity (Vanon)." <amazon.com> Chilean examination report alleges a publication date of Mar. 25, 2019 (1 page).

Libater, "Battery 40V MAX 5.0Ah." <amazon.com> Chilean examination report alleges a publication date of May 19, 2019 (1 page).

US D929,336 S

Page 3

Examination Report issued by the Chilean Patent Office for Application No. 2020-000517 dated Nov. 19, 2020 (19 pages including statement of relevance).

Examination Report issued by the Chilean Patent Office for Application No. 2020-000518 dated Nov. 19, 2020 (16 pages including statement of relevance).

Examination Report issued by the Chilean Patent Office for Application No. 2020-000519 dated Mar. 18, 2021 (17 pages including statement of relevance).

* cited by examiner

Primary Examiner — Jennifer O King
(74) Attorney, Agent, or Firm — Michael Best & Friedrich LLP

(57) CLAIM

I claim the ornamental design for an electrical interface, as shown and described.

DESCRIPTION

FIG. 1 is a right rear top perspective view of an electrical interface.

FIG. 2 is an enlarged view of the electrical interface shown in FIG. 1.

FIG. 3 is a left top front perspective view of the electrical interface shown in FIG. 2.

FIG. 4 is a right top front perspective view of the electrical interface shown in FIG. 2.

FIG. 5 is a front view of the electrical interface shown in FIG. 2.

FIG. 6 is a top view of the electrical interface shown in FIG. 2.

FIG. 7 is a right rear top perspective view of a battery pack.

FIG. 8 is a left front top perspective view of the battery pack shown in FIG. 7.

FIG. 9 is a right front top perspective view of the battery pack shown in FIG. 7.

FIG. 10 is a left side view of the battery pack shown in FIG. 7.

FIG. 11 is a right side view of the battery pack shown in FIG. 7.

FIG. 12 is a rear view of the battery pack shown in FIG. 7.

FIG. 13 is a front view of the battery pack shown in FIG. 7.

FIG. 14 is a top view of the battery pack shown in FIG. 7.

FIG. 15 is a bottom view of the battery pack shown in FIG. 7.

FIG. 16 is a right rear top perspective view of a battery pack.

FIG. 17 is a left front top perspective view of the battery pack shown in FIG. 16.

FIG. 18 is a right front top perspective view of the battery pack shown in FIG. 16.

FIG. 19 is a left side view of the battery pack shown in FIG. 16.

FIG. 20 is a right side view of the battery pack shown in FIG. 16.

FIG. 21 is a rear view of the battery pack shown in FIG. 16.

FIG. 22 is a front view of the battery pack shown in FIG. 16.

FIG. 23 is a top view of the battery pack shown in FIG. 16.

FIG. 24 is a bottom view of the battery pack shown in FIG. 16.

FIG. 25 is a right rear top perspective view of a battery pack.

FIG. 26 is a left front top perspective view of the battery pack shown in FIG. 25.

FIG. 27 is a right front top perspective view of the battery pack shown in FIG. 25.

FIG. 28 is a left side view of the battery pack shown in FIG. 25.

FIG. 29 is a right side view of the battery pack shown in FIG. 25.

FIG. 30 is a rear view of the battery pack shown in FIG. 25.

FIG. 31 is a front view of the battery pack shown in FIG. 25.

FIG. 32 is a top view of the battery pack shown in FIG. 25.

FIG. 33 is a bottom view of the battery pack shown in FIG. 25.

FIG. 34 is a right rear top perspective view of a battery pack.

FIG. 35 is a left front top perspective view of the battery pack shown in FIG. 34.

FIG. 36 is a right front top perspective view of the battery pack shown in FIG. 34.

FIG. 37 is a left side view of the battery pack shown in FIG. 34.

FIG. 38 is a right side view of the battery pack shown in FIG. 34.

FIG. 39 is a rear view of the battery pack shown in FIG. 34.

FIG. 40 is a front view of the battery pack shown in FIG. 34.

FIG. 41 is a top view of the battery pack shown in FIG. 34; and,

FIG. 42 is a bottom view of the battery pack shown in FIG. 34.

The broken lines represent portions of the electrical interface that form no part of the claimed design.

With respect to FIGS. 1-6, the claimed electrical interface is not visible in the orthogonal right side, orthogonal left side, orthogonal rear, and orthogonal bottom views, which are therefore omitted.

1 Claim, 6 Drawing Sheets

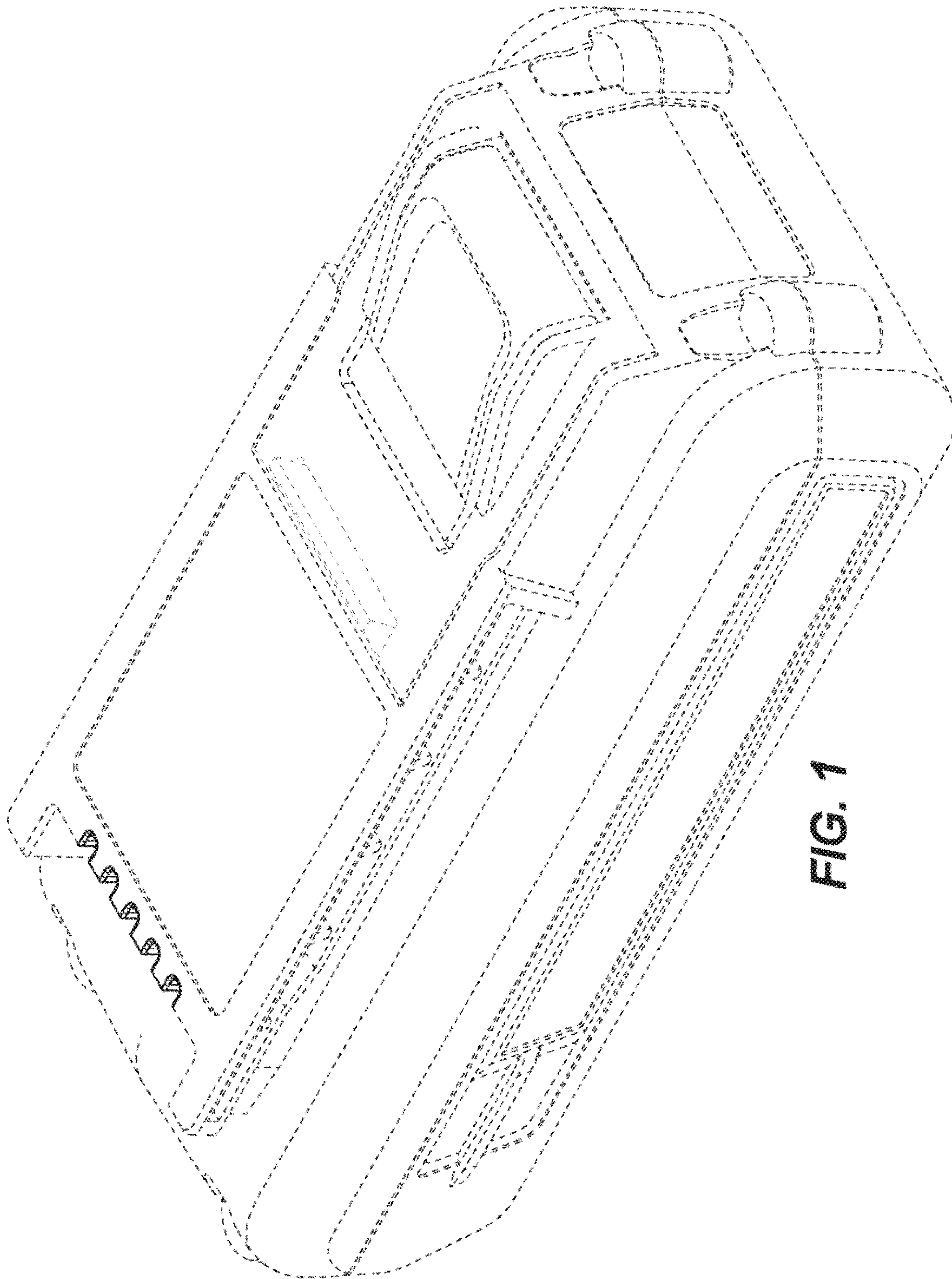


FIG. 1

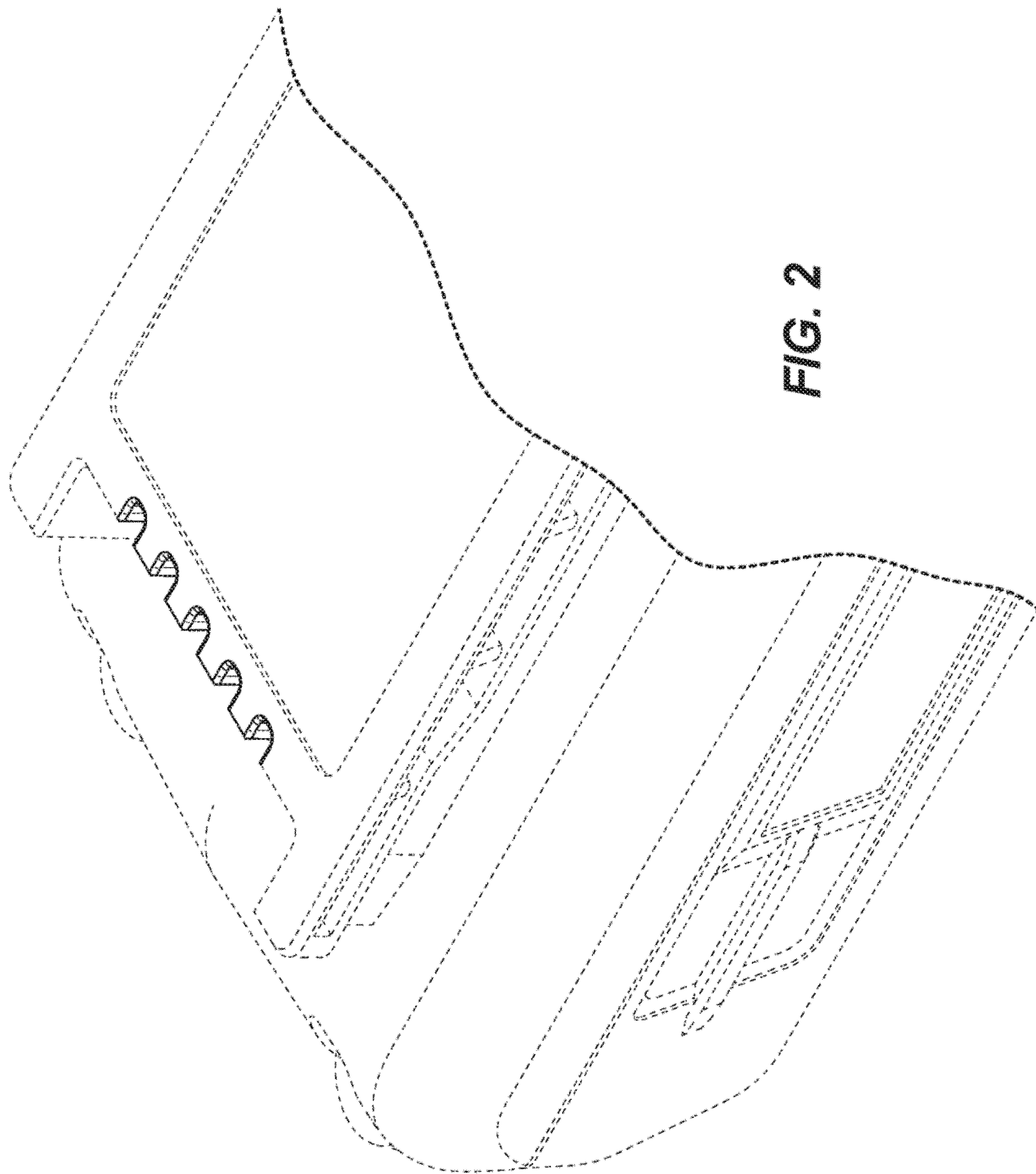


FIG. 2

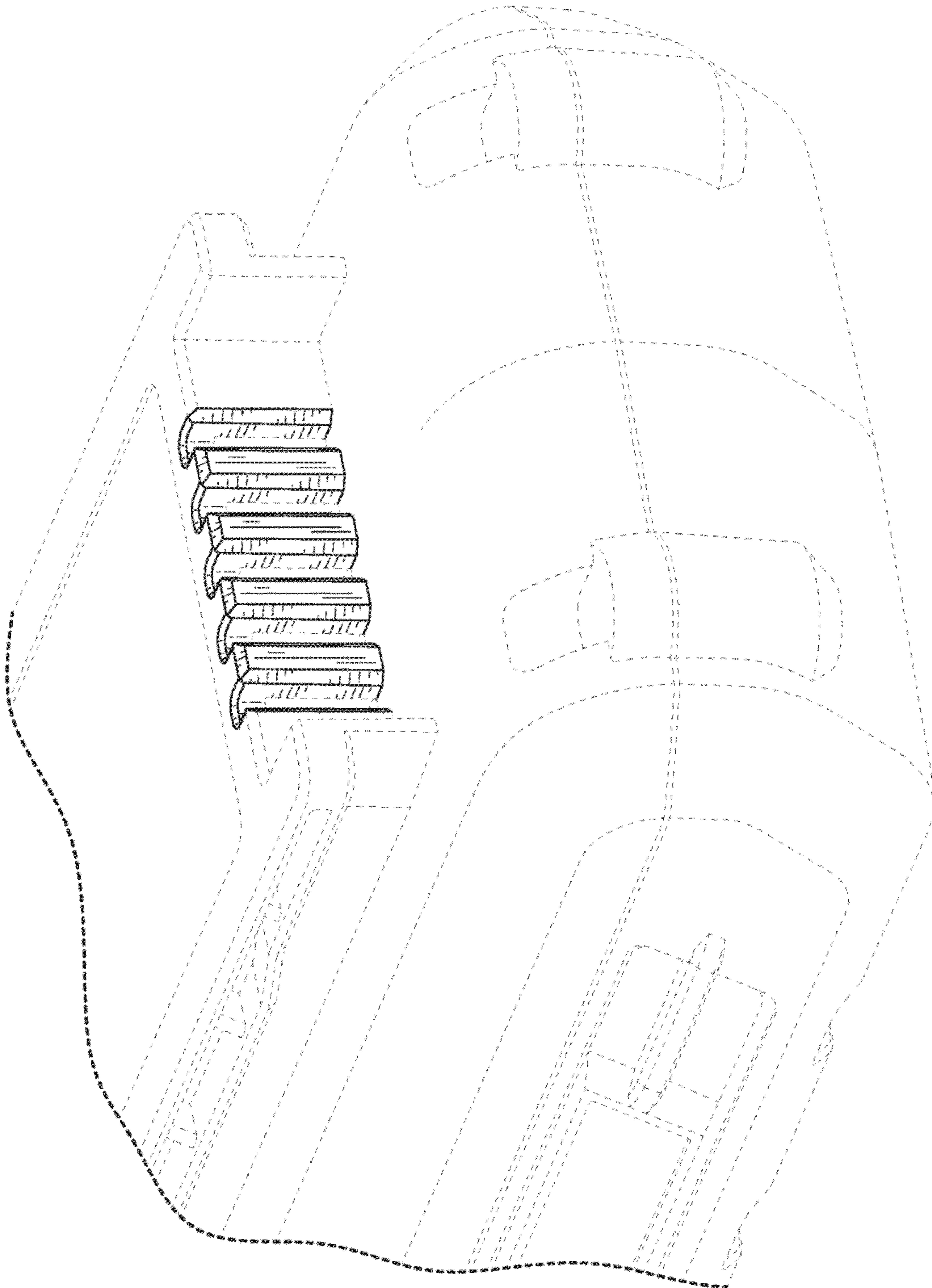


FIG. 3

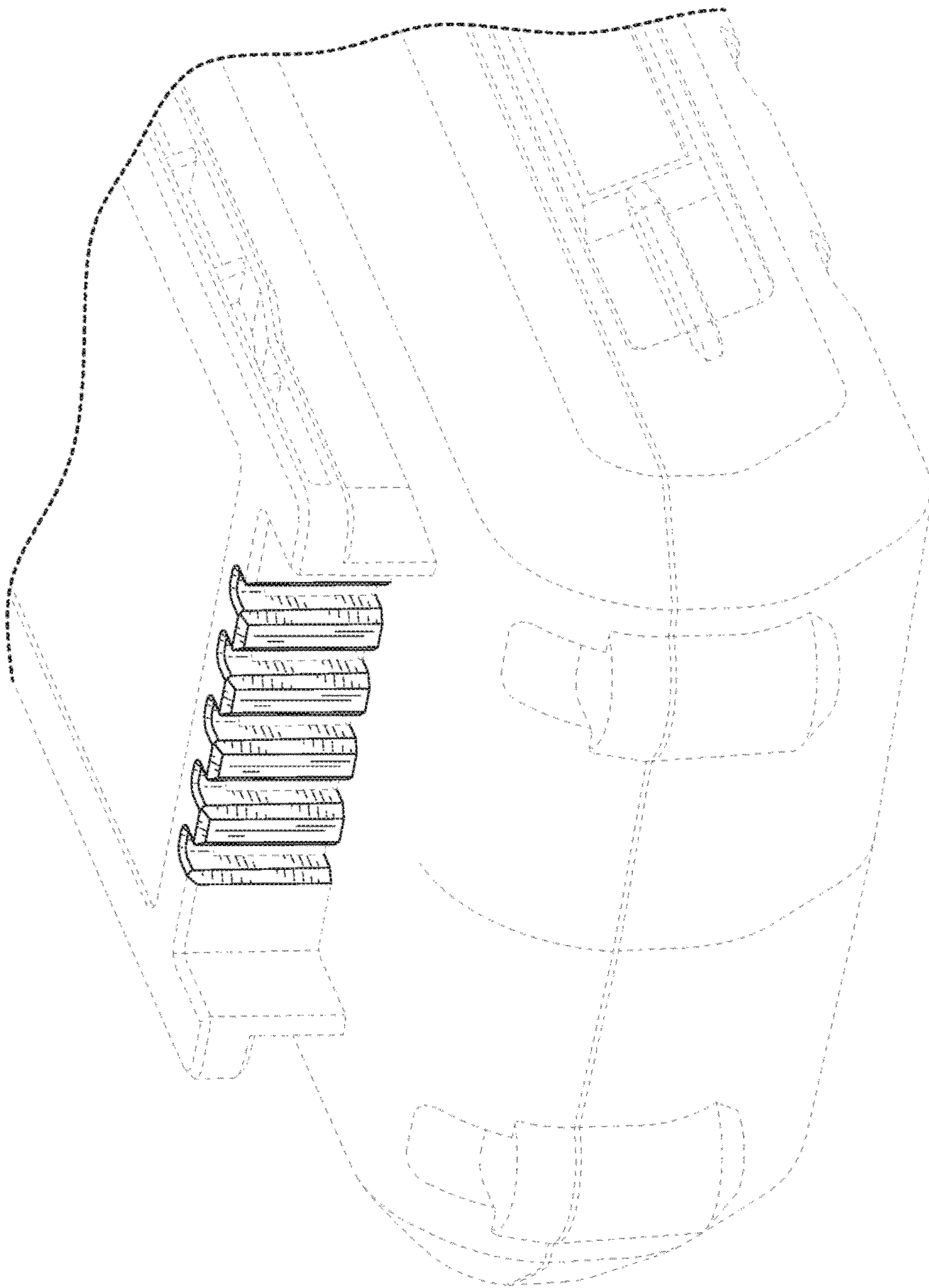


FIG. 4

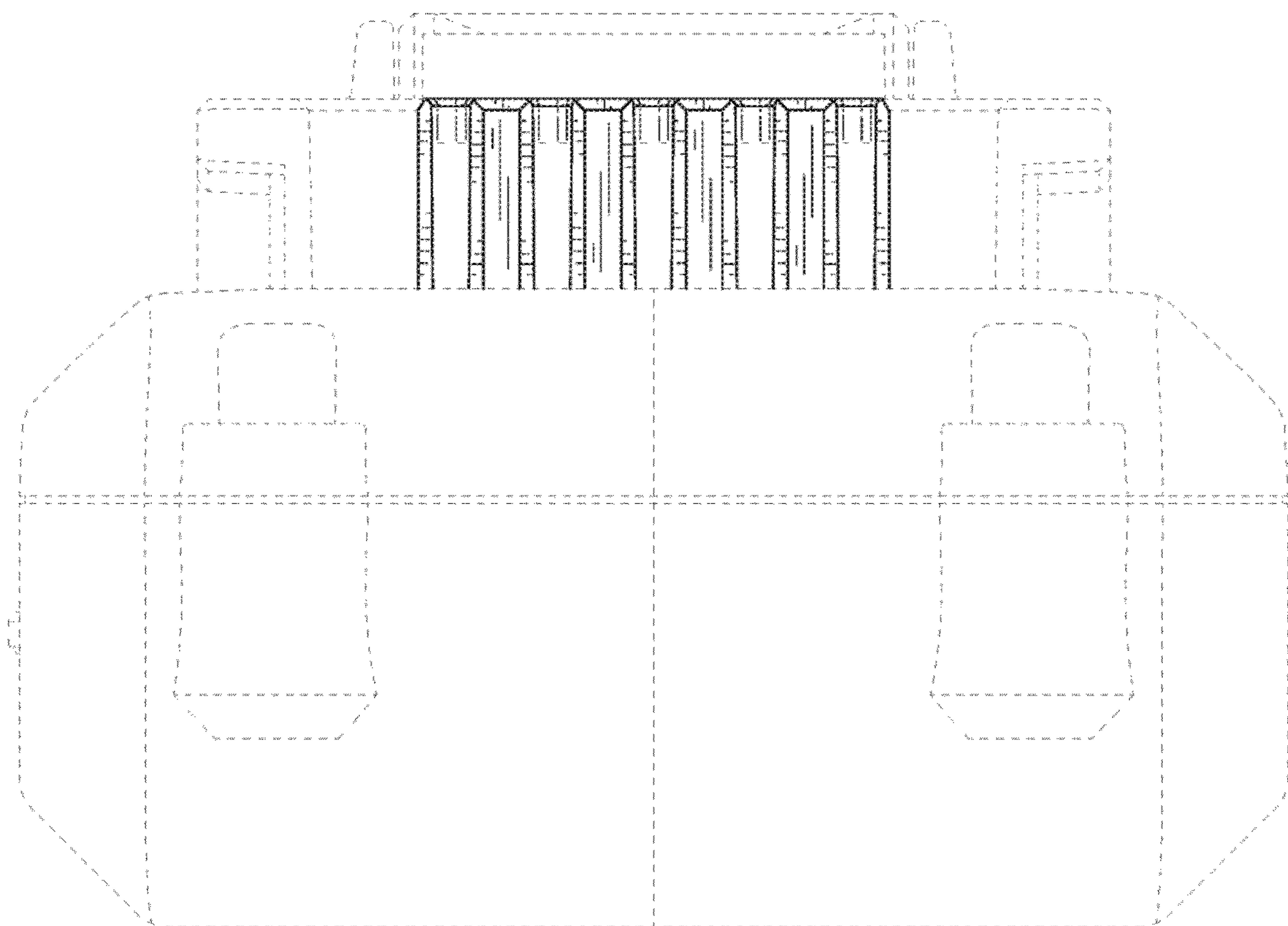


FIG. 5

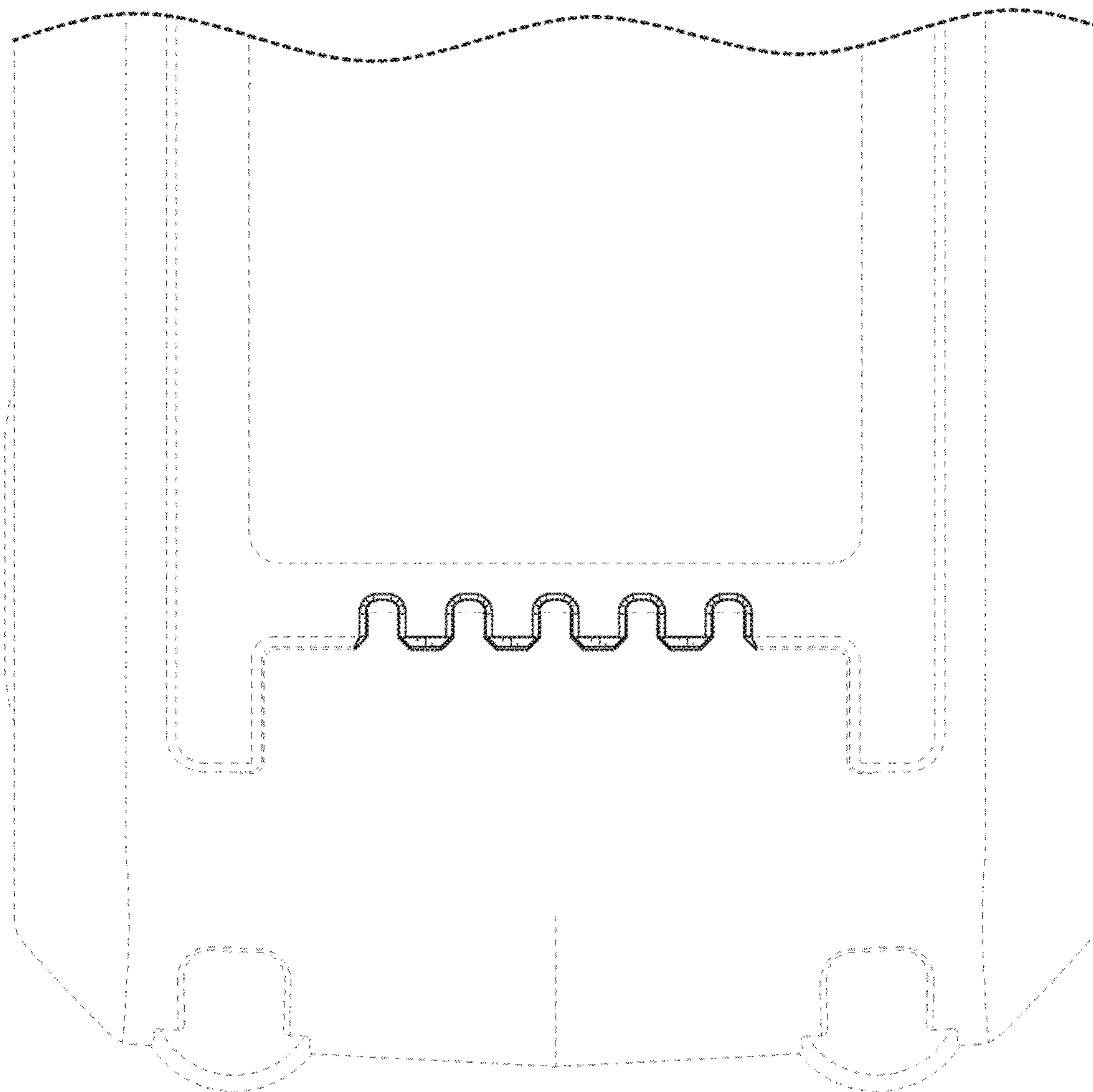


FIG. 6