



US0D1009782S

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

(10) **Patent No.:** **US D1,009,782 S**
(45) **Date of Patent:** **** Jan. 2, 2024**

(54) **SMART PULSE REPAIR CHARGER**

(71) Applicant: **Jiubing Huang**, Anhui (CN)

(72) Inventor: **Jiubing Huang**, Anhui (CN)

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

(21) Appl. No.: **29/808,863**

(22) Filed: **Sep. 23, 2021**

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

(52) **U.S. Cl.**
USPC **D13/107**

(58) **Field of Classification Search**
USPC D13/103, 104, 106, 107, 108, 110, 112,
D13/116, 119, 126, 153, 168, 184, 199;
D14/253, 432, 434
CPC H02J 7/00047; H02J 7/0049; H02J 50/05
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D786,192 S	*	5/2017	Liu	.....	D13/107
D803,151 S	*	11/2017	Zhou	.....	D13/107
D809,454 S	*	2/2018	Zhou	.....	D13/103
D896,749 S	*	9/2020	Wu	.....	D13/107
D902,851 S	*	11/2020	Wu	.....	D13/107
D930,578 S	*	9/2021	Zheng	.....	D13/110
D934,793 S	*	11/2021	Shu	.....	D13/107
D942,376 S	*	2/2022	Chung	.....	D13/107
D942,931 S	*	2/2022	Fang	.....	D13/110
D944,725 S	*	3/2022	Zeng	.....	D13/103
D954,641 S	*	6/2022	Zeng	.....	D13/103
D974,412 S	*	1/2023	Liu	.....	D15/9
D976,202 S	*	1/2023	Lei	.....	D13/107

FOREIGN PATENT DOCUMENTS

CA	202991	*	10/2022
GB	6262642	*	2/2023

JP	D1629561	*	4/2019
JP	D1700844	*	11/2021
JP	D1726912	*	10/2022
KR	301172866.0000	*	7/2022

OTHER PUBLICATIONS

Biuble Car Battery—Amazon, Announced on Aug. 29, 2020 [online],retrieved May 2, 2023, retrieved from internet, <https://www.amazon.com/BIUBLE-Battery-Starter-12800mAh-Charge/dp/B08GYFP5JK?th=1> (Year: 2020).*

(Continued)

Primary Examiner — David G Muller
Assistant Examiner — Noah Perez

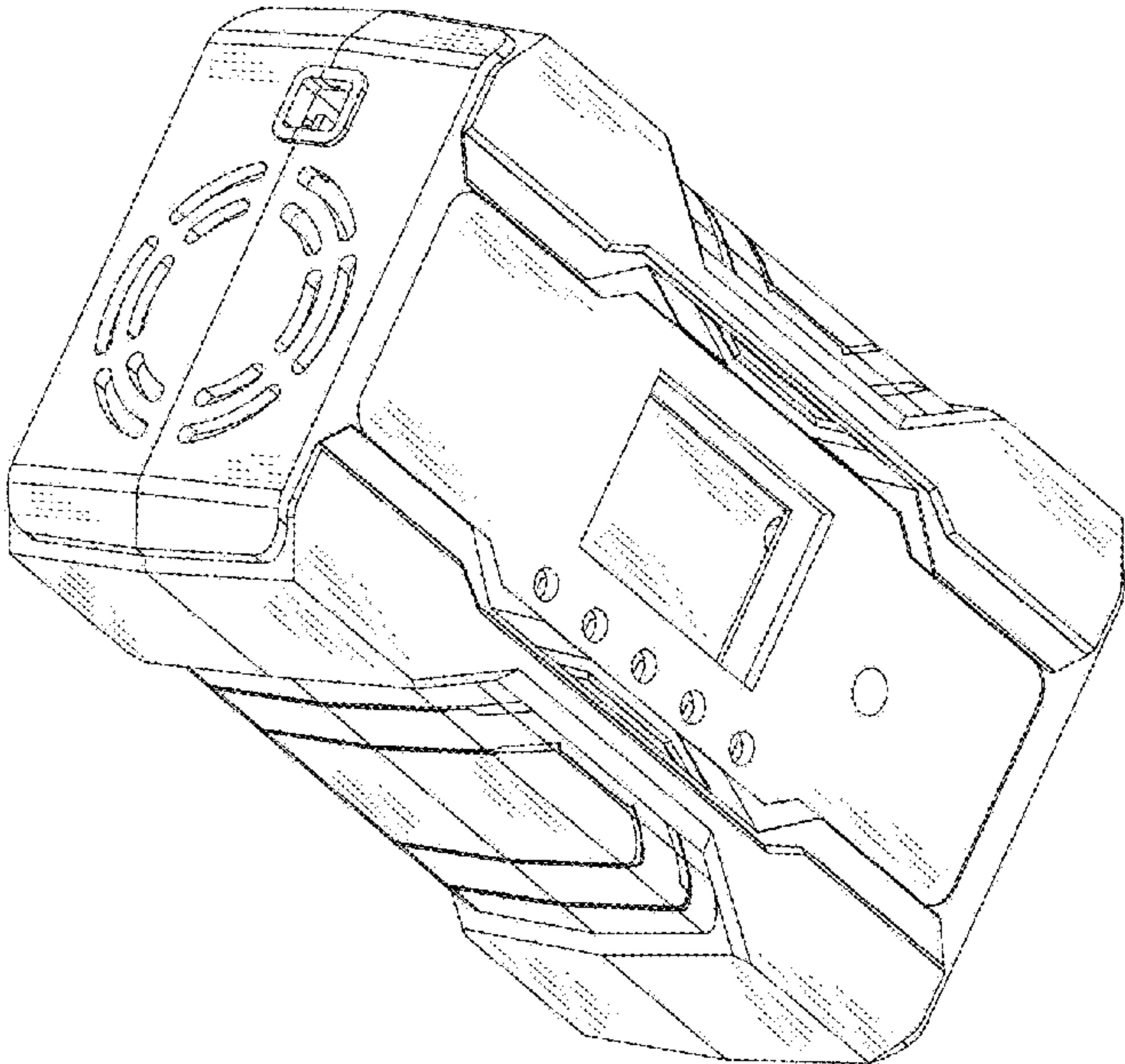
(57) **CLAIM**

The ornamental design for a smart pulse repair charger, as shown and described.

DESCRIPTION

FIG. 1 is a front and top perspective view of a smart pulse repair charger, showing my new design.
FIG. 2 is a front view of a smart pulse repair charger.
FIG. 3 is a rear view of a smart pulse repair charger.
FIG. 4 is a left side view of a smart pulse repair charger.
FIG. 5 is a right side view of a smart pulse repair charger.
FIG. 6 is a top view of a smart pulse repair charger.
FIG. 7 is a bottom view of a smart pulse repair charger; and,
FIG. 8 is a rear side perspective view of a smart pulse repair charger.
Any shading and cross-hatching are not features of the design but are utilized to illustrate the surface contours of the pulse repair charger design in the drawings.

1 Claim, 8 Drawing Sheets



(56) **References Cited**

OTHER PUBLICATIONS

Astro AI—Amazon, Announced on Feb. 7, 2022 [online], retrieved May 2, 2023, retrieved from internet, <https://www.amazon.com/AstroAI-Starter-Digital-Battery-Portable/dp/B09DS1BXBF?th=1> (Year: 2022).*

Relaxhik—Amazon, Announced on Nov. 18, 2021 [online], retrieved May 2, 2023, retrieved from internet, <https://www.amazon.com/Starter-28000mAh-Portable-Battery-Booster/dp/B09JK84MSV?th=1> (Year: 2021).*

Ussunny—Amazon, Announced on Oct. 28, 2022 [online], retrieved May 2, 2023, retrieved from internet, <https://www.amazon.com/USSUNNY-Starter-Polarity-UltraSafe-Portable/dp/B0B8HJQLCN> (Year: 2022).*

* cited by examiner

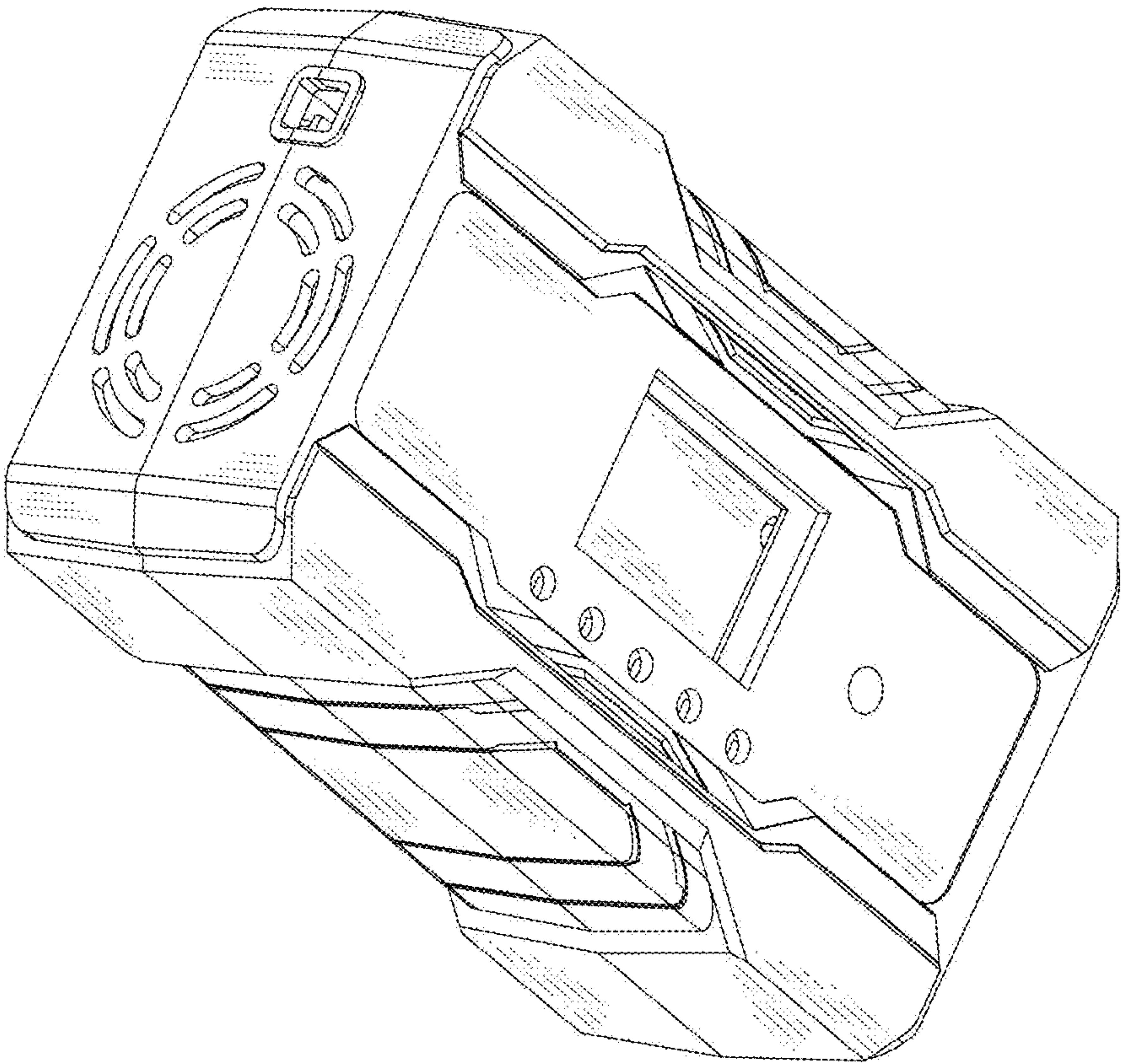


FIG. 1

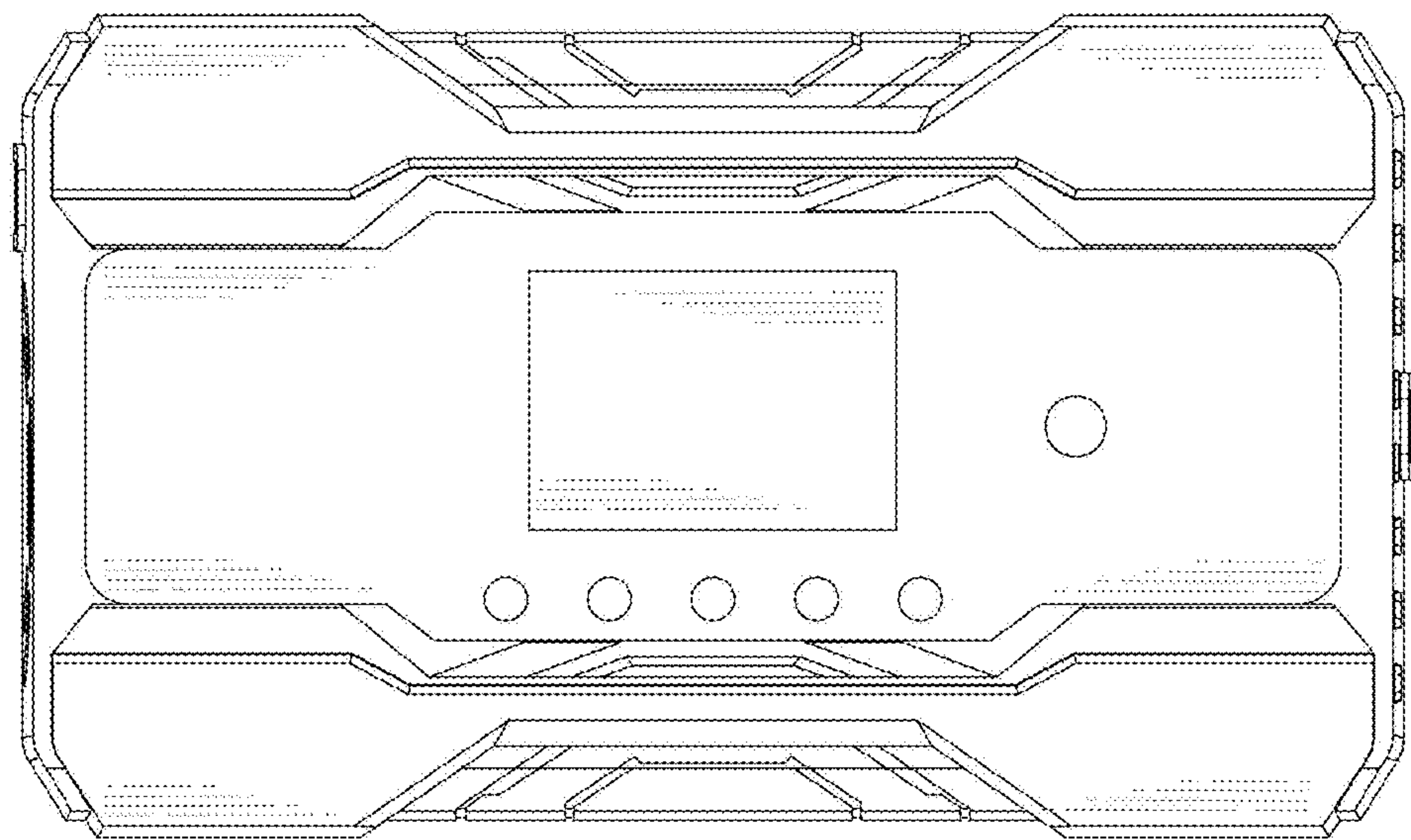


FIG. 2

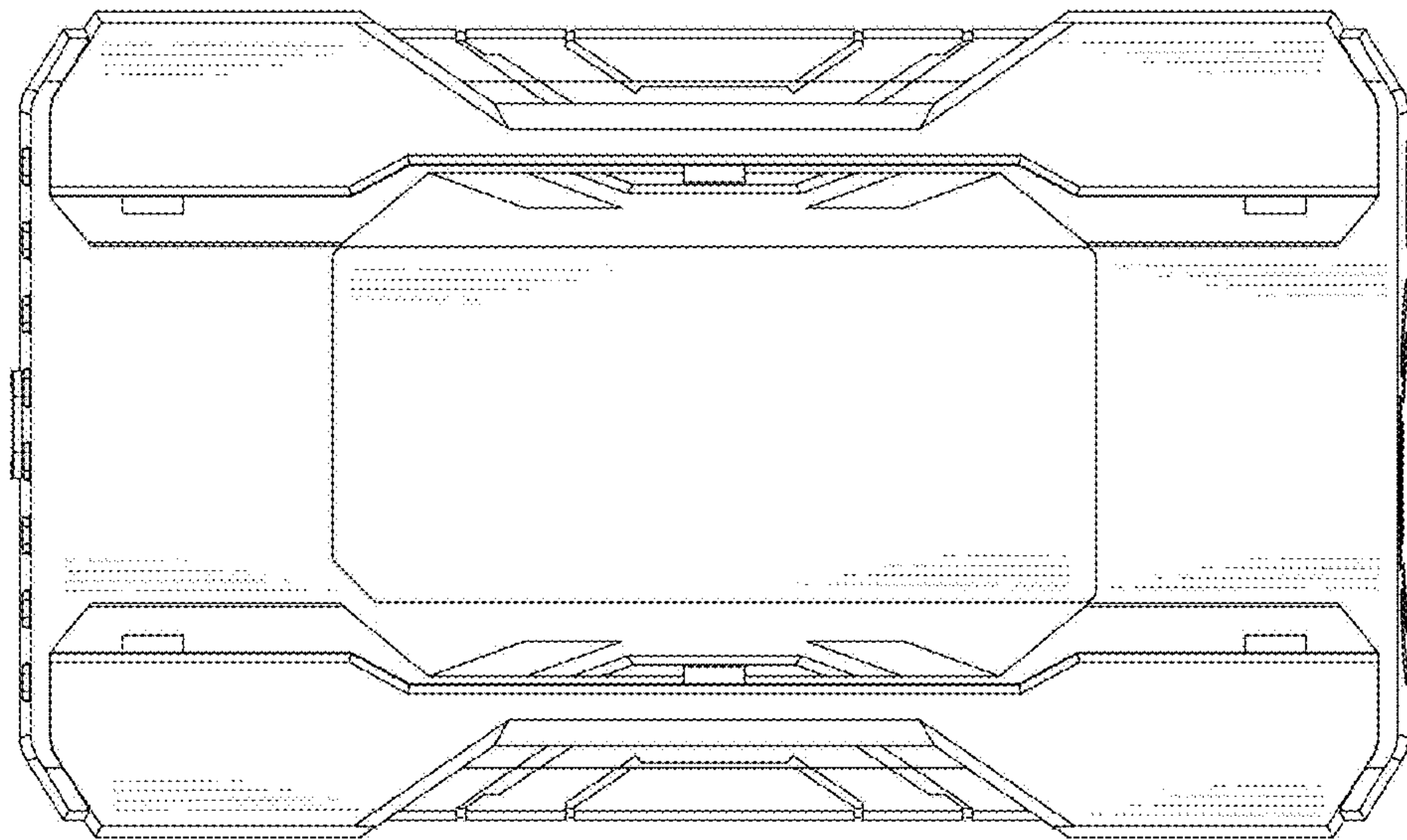


FIG. 3

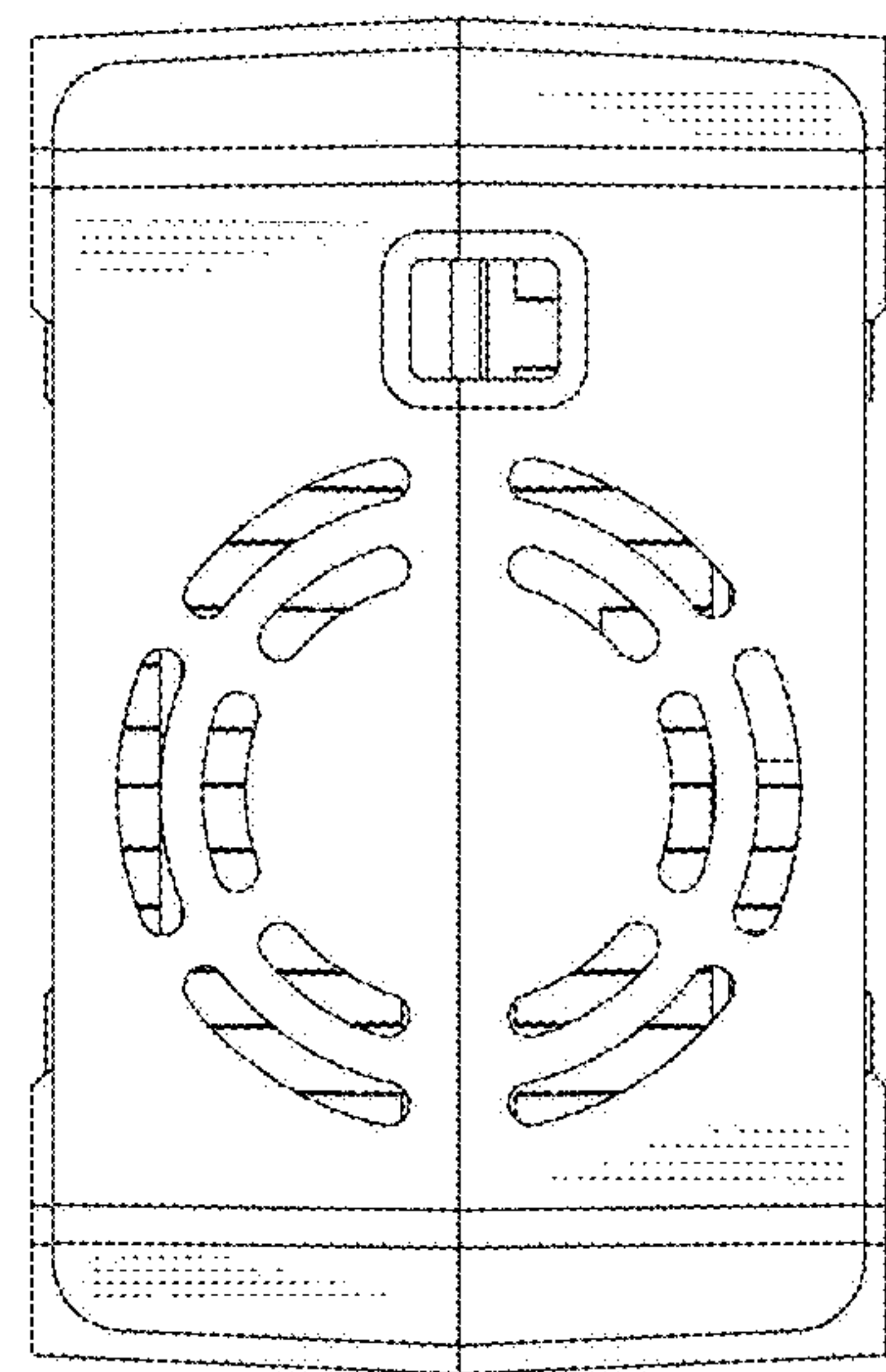


FIG. 4

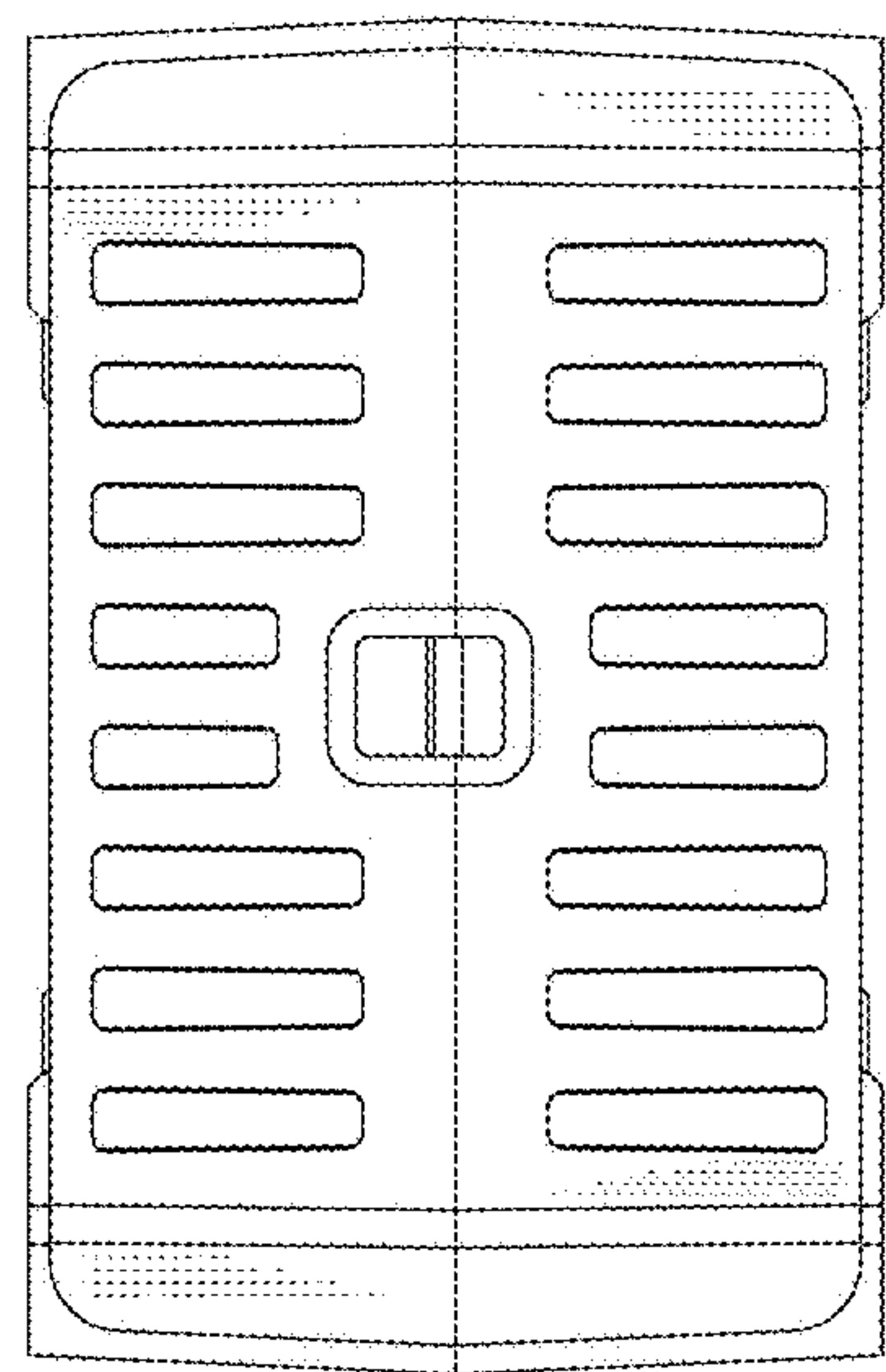


FIG. 5

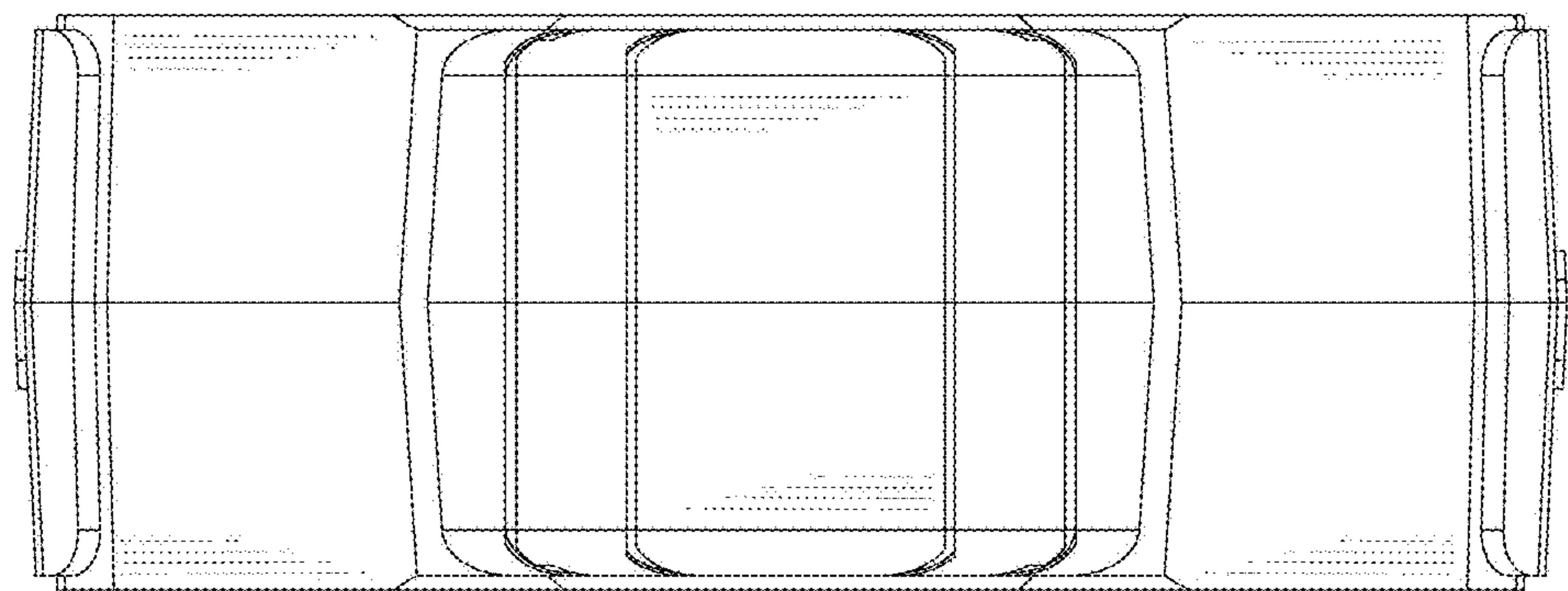


FIG. 6

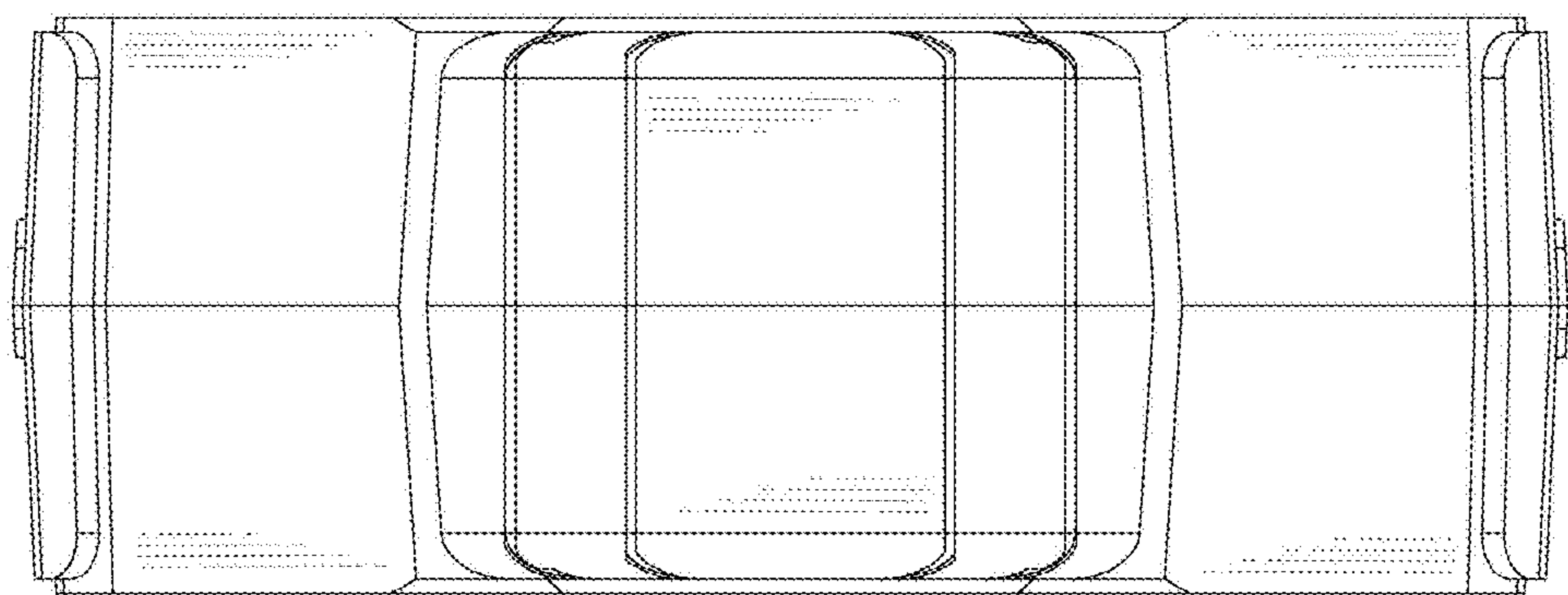


FIG. 7

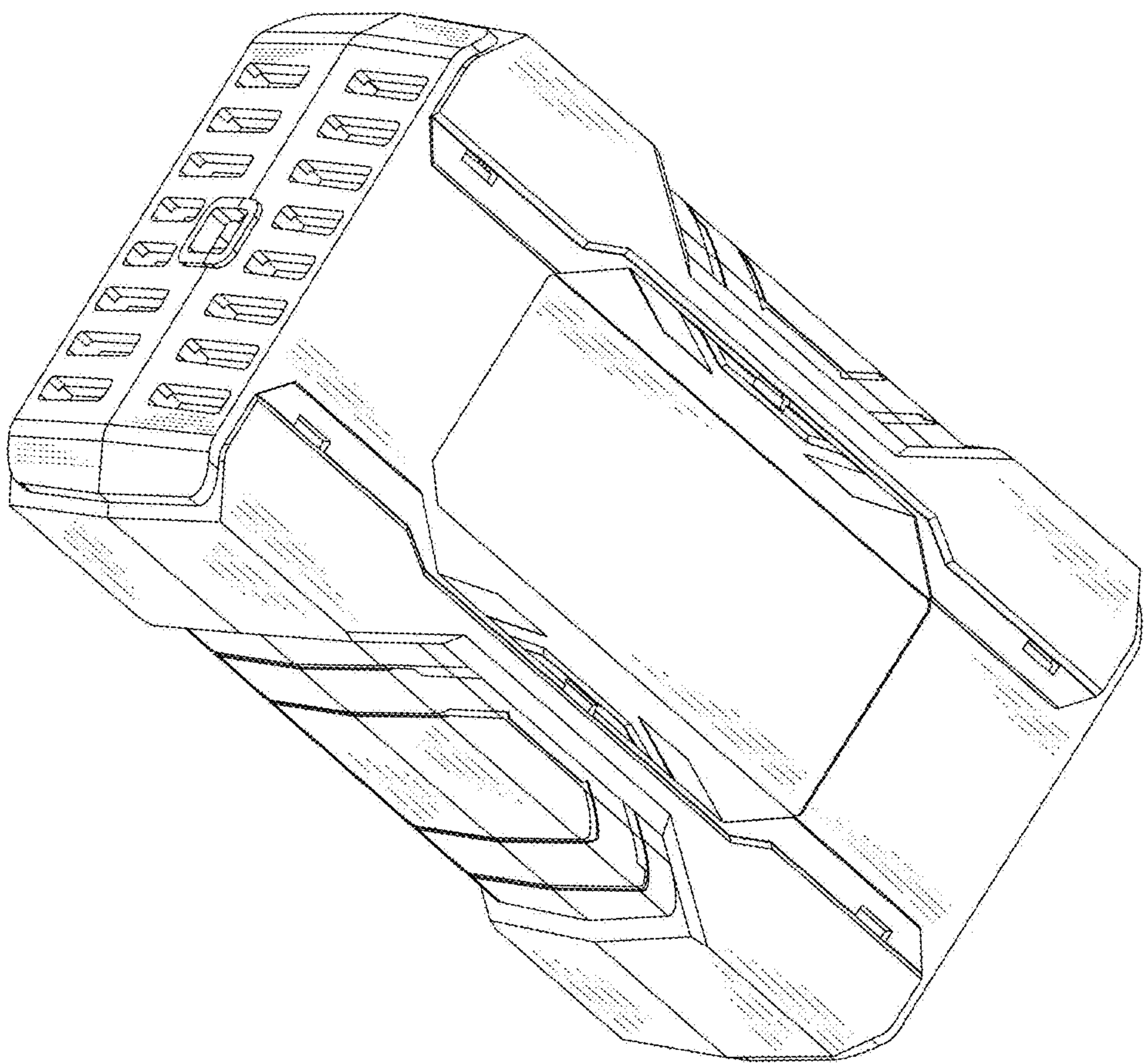


FIG. 8