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# (12) United States Design Patent

Liu et al.

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(54) **SOLAR PANEL**

(71) Applicant: **Xiamen Topunive Technology Co., Ltd.**, Fujian (CN)

(72) Inventors: **Dexiang Liu**, Fujian (CN); **Yilin Xie**, Fujian (CN); **Yu Chen**, Fujian (CN)

(73) Assignee: **Xiamen Topunive Technology Co., Ltd.**, Xiamen (CN)

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

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(30) **Foreign Application Priority Data**

Apr. 29, 2022 (CN) ..... 202230252992.2

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

(52) **U.S. Cl.**
USPC ..... **D13/102**

(58) **Field of Classification Search**
USPC ..... D10/104.1; D13/109, 118, 119, 184, D13/199; D14/371, 432, 439, 441, 447, D14/451; D21/480, 484; D25/109, 140, D25/144
CPC .. F21S 8/086; F21S 8/088; F21S 9/032; F21S 9/035; H01L 31/042; H01L 31/022425; H01L 31/18
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D663,262 S * 7/2012 Cheung ..... D13/102
D778,234 S * 2/2017 Cheung ..... D13/102
D790,452 S * 6/2017 Kojima ..... D13/102
D817,265 S * 5/2018 Liu ..... D13/102
D830,296 S * 10/2018 Liu ..... D13/102
D901,376 S * 11/2020 Lu ..... D13/102
D917,380 S * 4/2021 Gao ..... D13/102
D931,796 S * 9/2021 Huang ..... D13/102
D943,509 S * 2/2022 Huang ..... D13/102
D945,358 S * 3/2022 Kang ..... D13/102
D965,510 S * 10/2022 Li ..... D13/102
(Continued)

OTHER PUBLICATIONS

Foldable Solar Panels. (Design—© Questel) orbit.com. [Online PDF compilation of references] 50 pgs. Print Dates Range Apr. 25, 2023-Feb. 20, 2014 [Retrieved Oct. 18, 2023].*
(Continued)

*Primary Examiner* — George D. Kirschbaum
*Assistant Examiner* — Suzanne E Tisdell

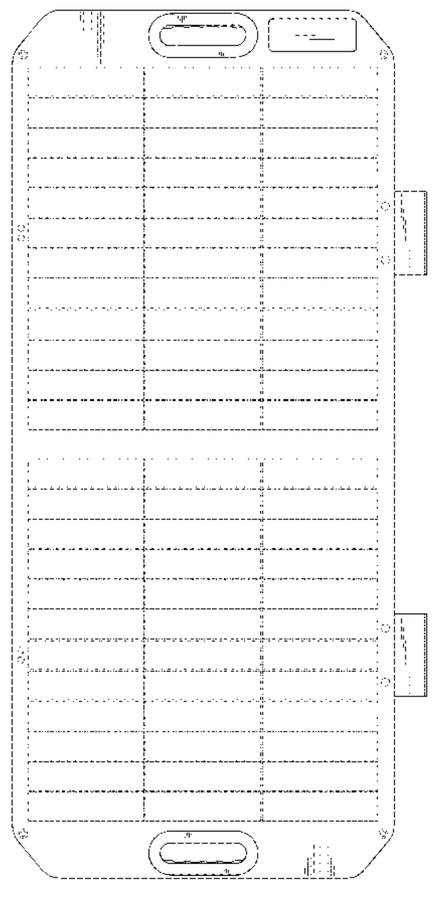
(57) **CLAIM**

The ornamental design for a solar panel, as shown and described.

**DESCRIPTION**

FIG. **1** is a front elevational view of a solar panel showing our new design;
FIG. **2** is a rear elevational view thereof;
FIG. **3** is a left side view thereof;
FIG. **4** is a right side view thereof;
FIG. **5** is a top plan view thereof;
FIG. **6** is a bottom plan view thereof;
FIG. **7** is a front, bottom and right side perspective view thereof;
FIG. **8** is a rear, top and left side perspective view thereof;
FIG. **9** is an enlarged view of portion **9** in FIG. **7**;
FIG. **10** is a right side perspective view showing the solar panel in a folded state; and,
FIG. **11** is a left side perspective view showing the solar panel in a folded state.
The broken lines in the drawings illustrate portions of the solar panel which form no part of the claimed design.

**1 Claim, 10 Drawing Sheets**



(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | | | |
|---|---|---|---|---|---|
| D967,752 | S | * | 10/2022 | Xia | D13/102 |
| D999,156 | S | * | 9/2023 | Qin | D13/102 |

OTHER PUBLICATIONS

18 Watt Foldable Solar Panel. Before Nov. 19, 2021. Harbor Freight. https://www.harborfreight.com/18-watt-foldable-solar-panel-57968.html.*

Solar Panel Portable, Foldable Solar Charger. Before Oct. 13, 2022. Amazon. https://www.amazon.com/Portable-Kickstand-Monocrystalline-efficient-Waterproof/product-reviews/B0B68WN6S5/ref=cm_cr_arp_d_paging_btm_next_2?ie=UTF8&reviewerType=all_reviews&pageNumber=2.*

Togo Power 100W Portable Solar Panel for Jackery Explorer. Before Mar. 28, 2021. Amazon. https://www.amazon.com/TogoPower-Portable-Foldable-GoalZero-Generator/dp/B087TGY5RQ.*

* cited by examiner

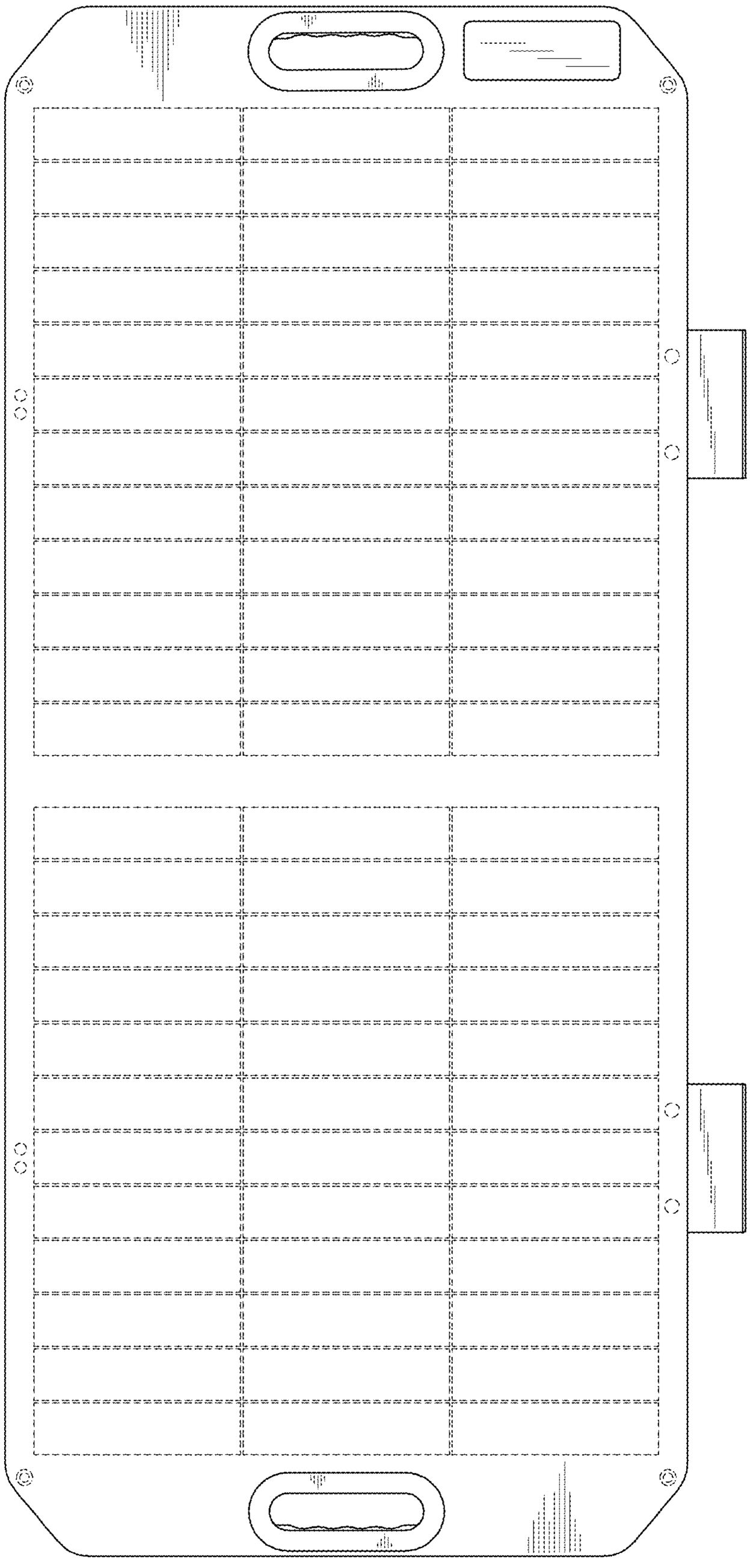


FIG.1

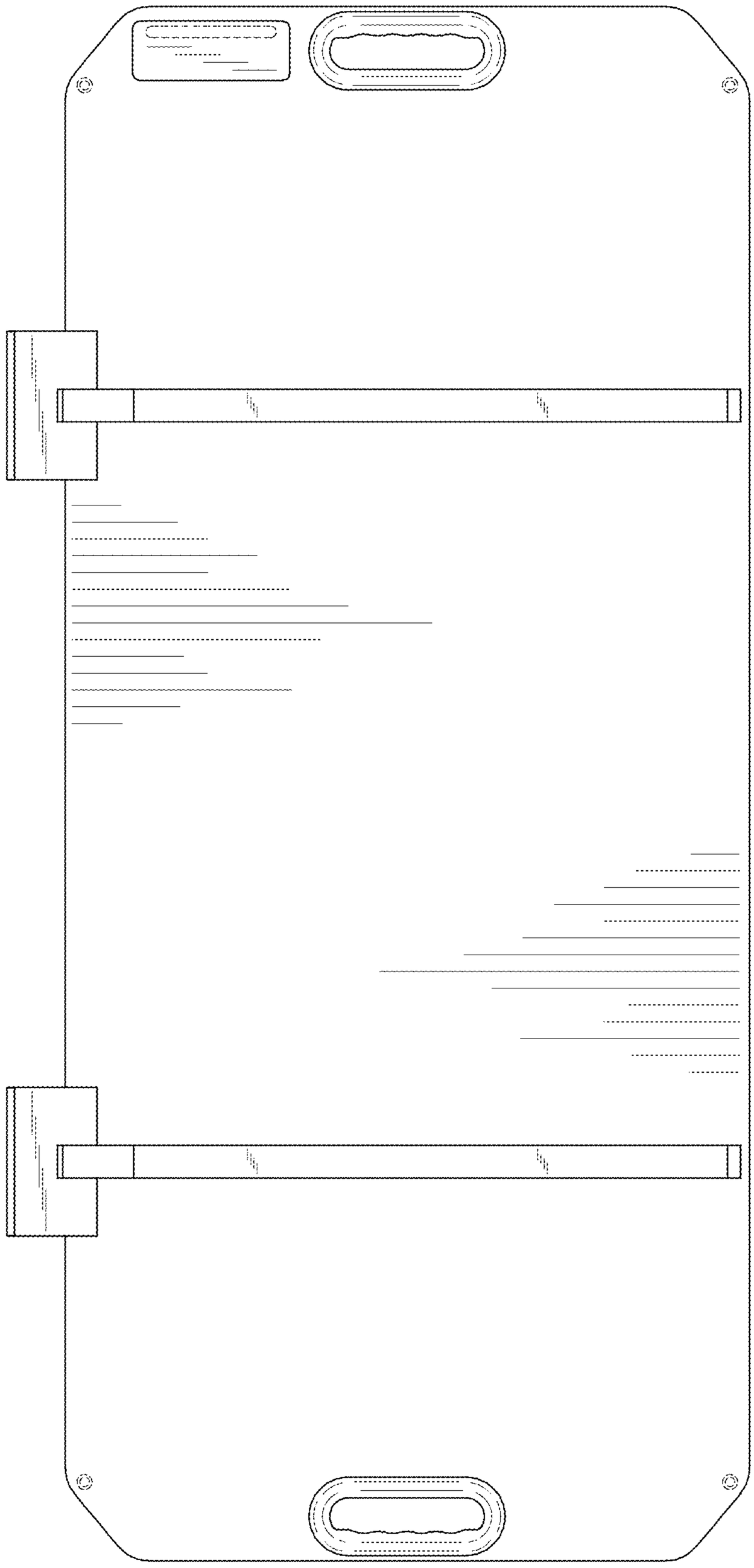


FIG.2

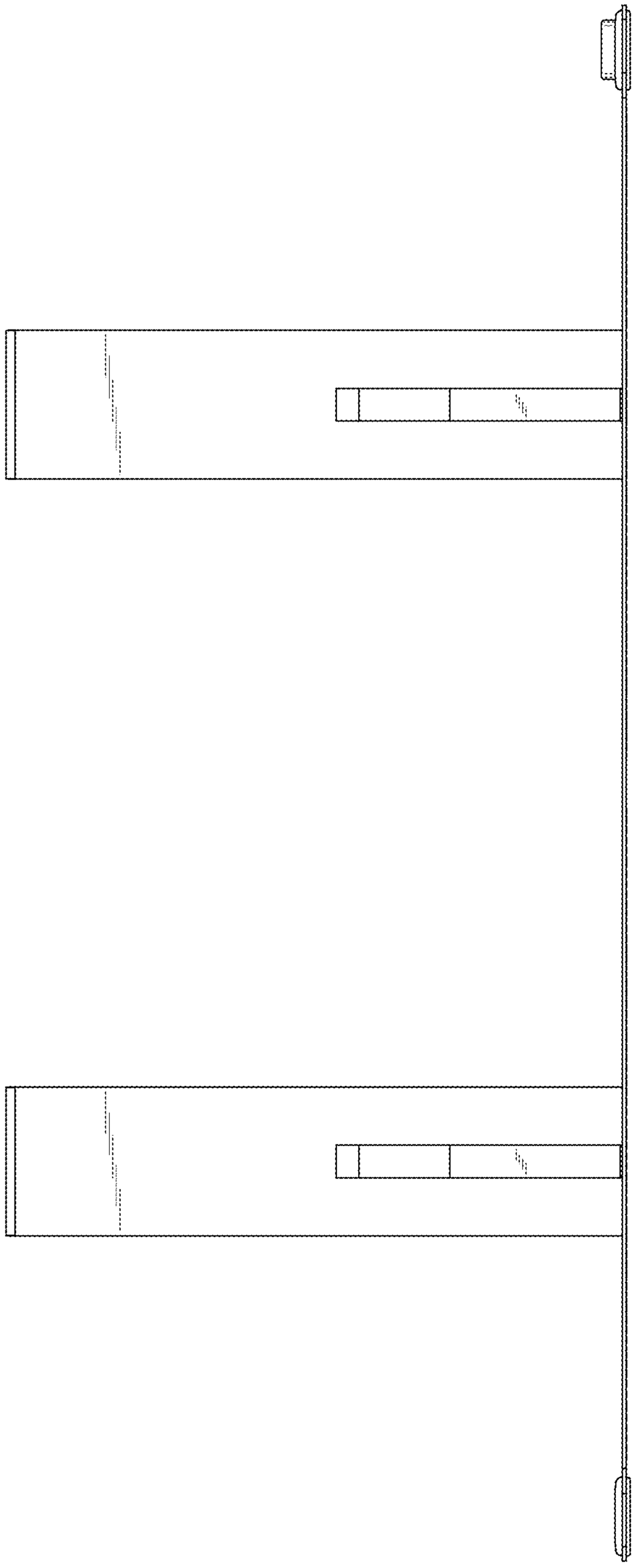


FIG.3

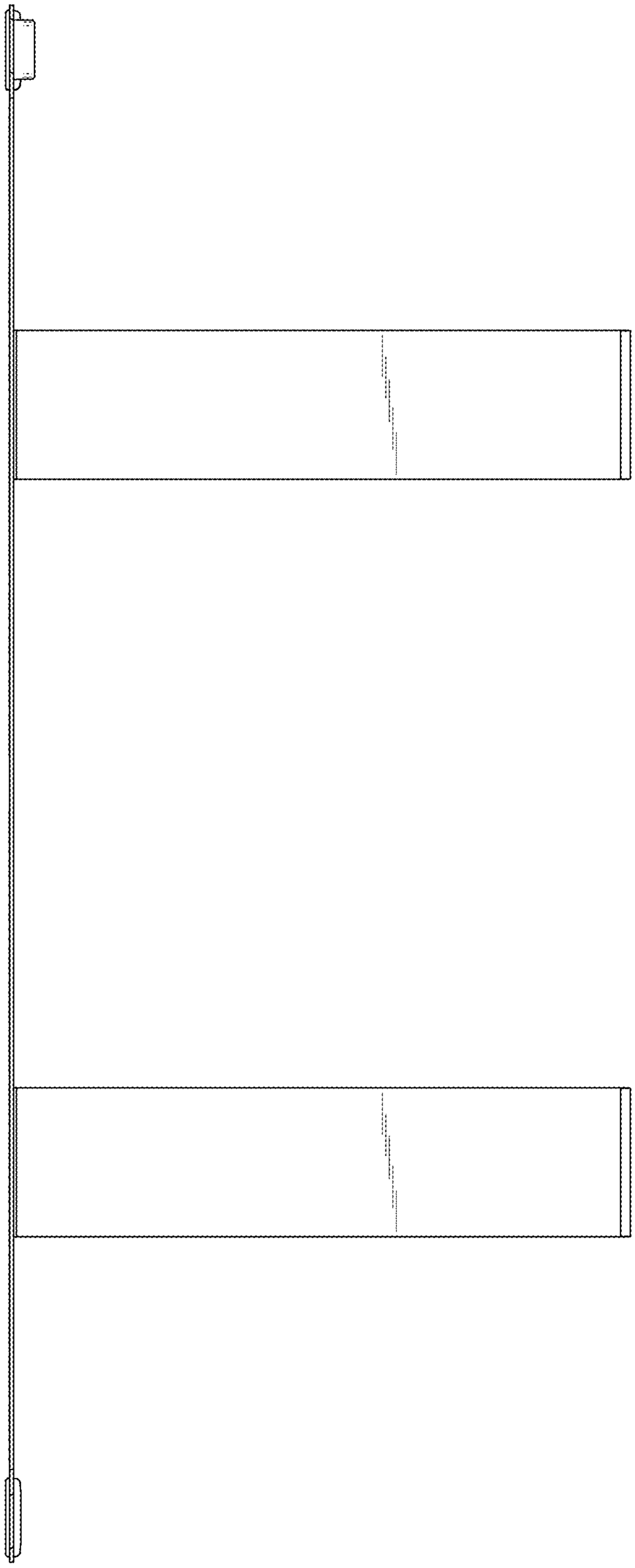


FIG.4

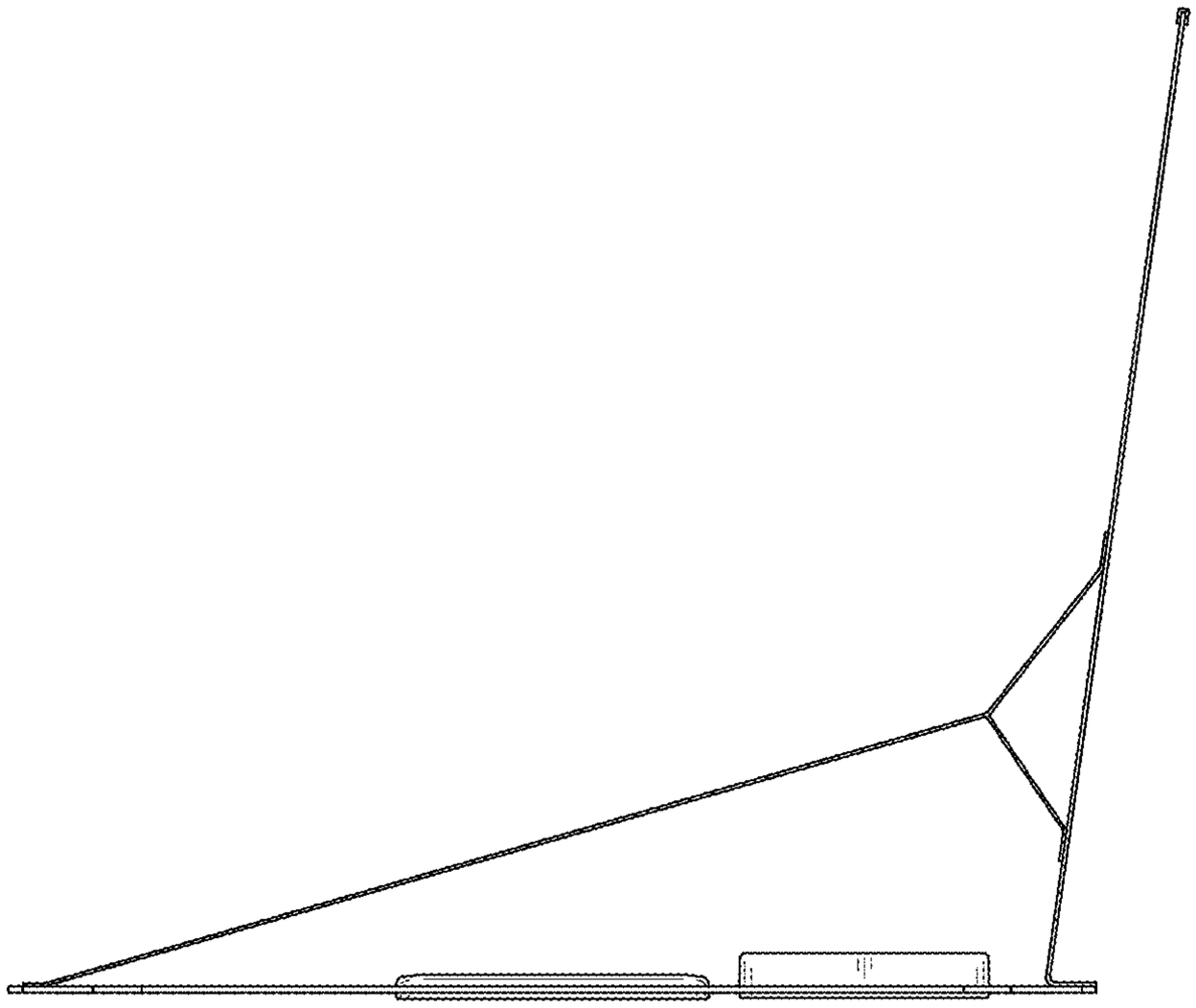


FIG.5

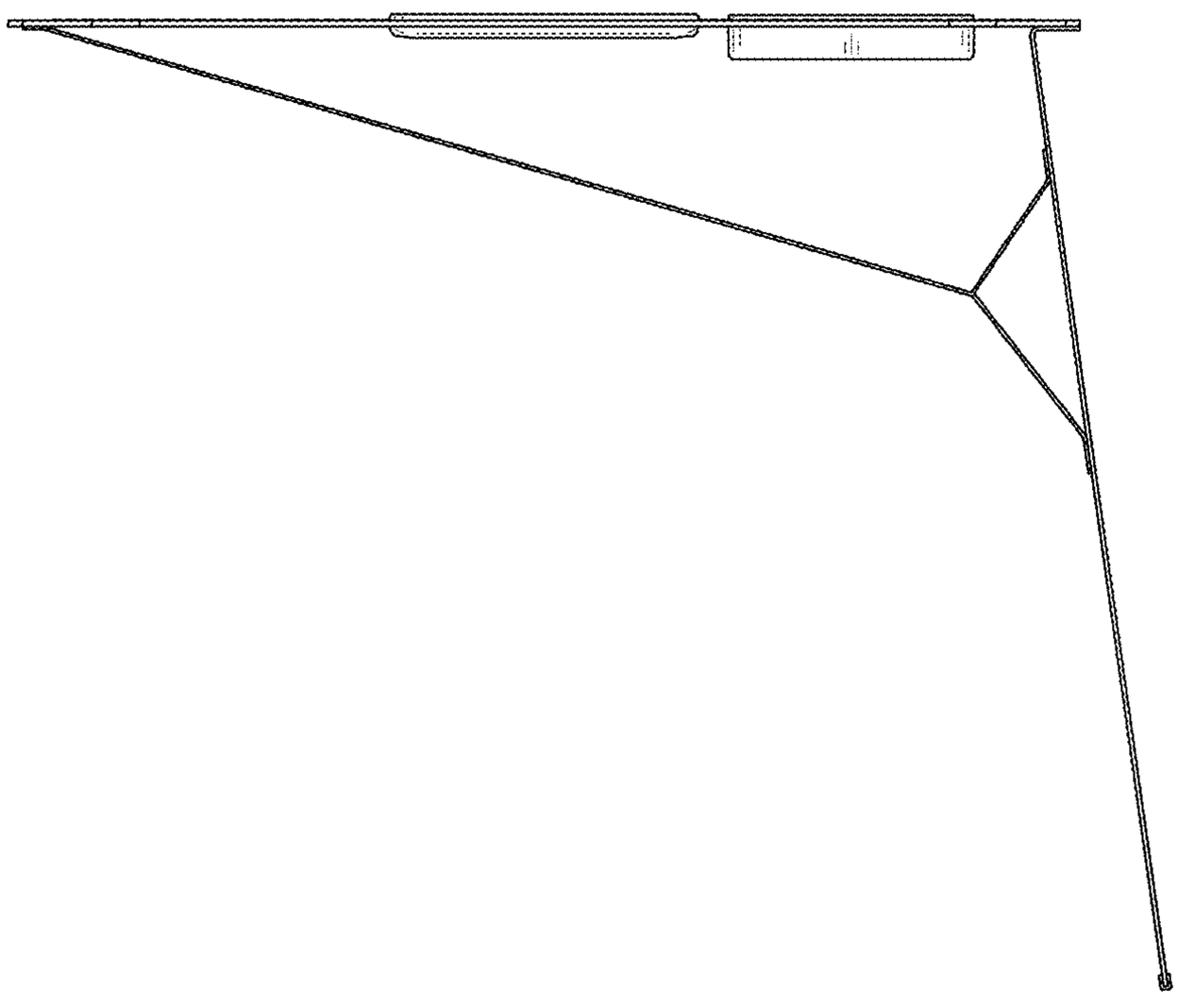


FIG.6

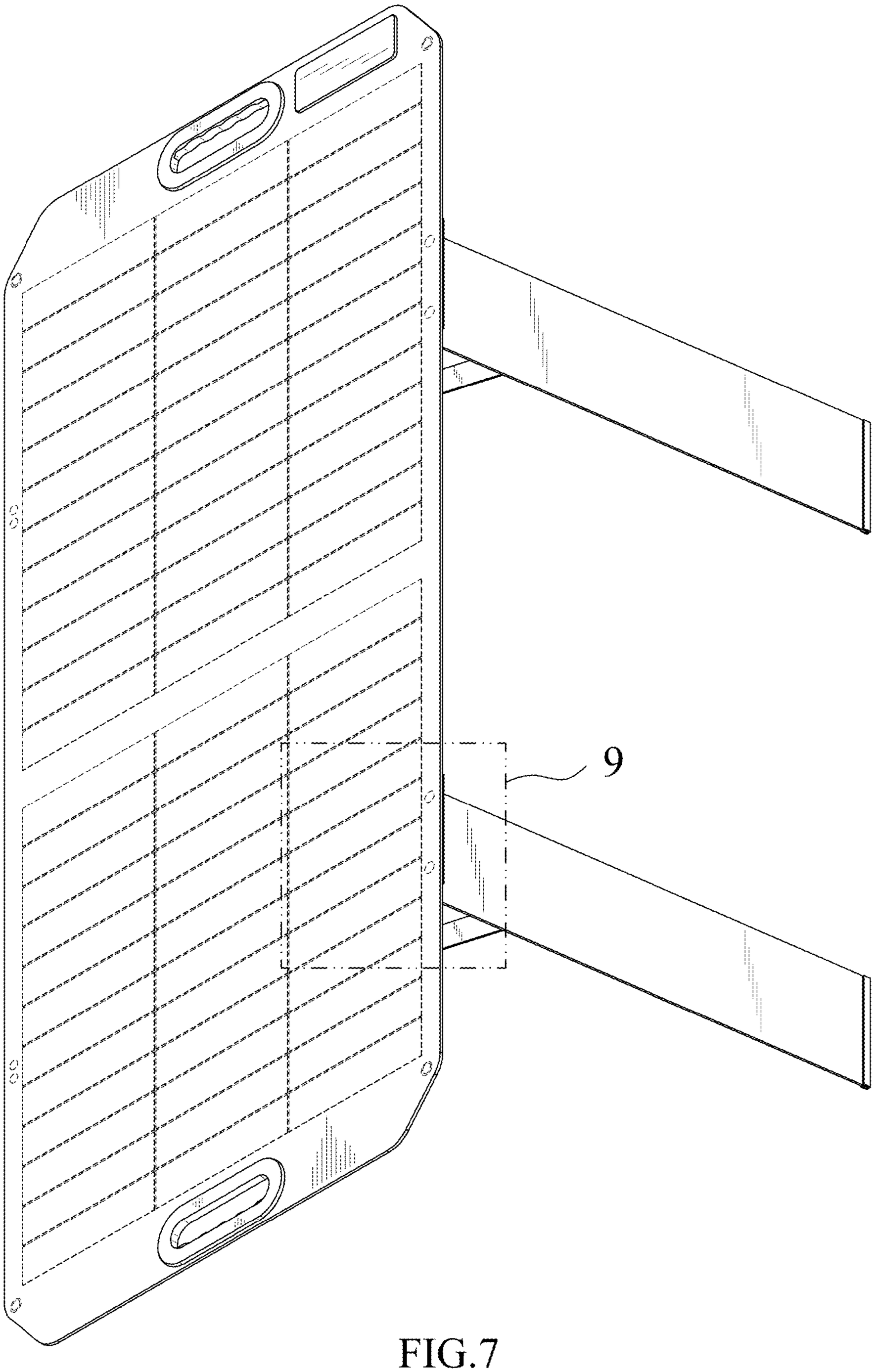



FIG.7

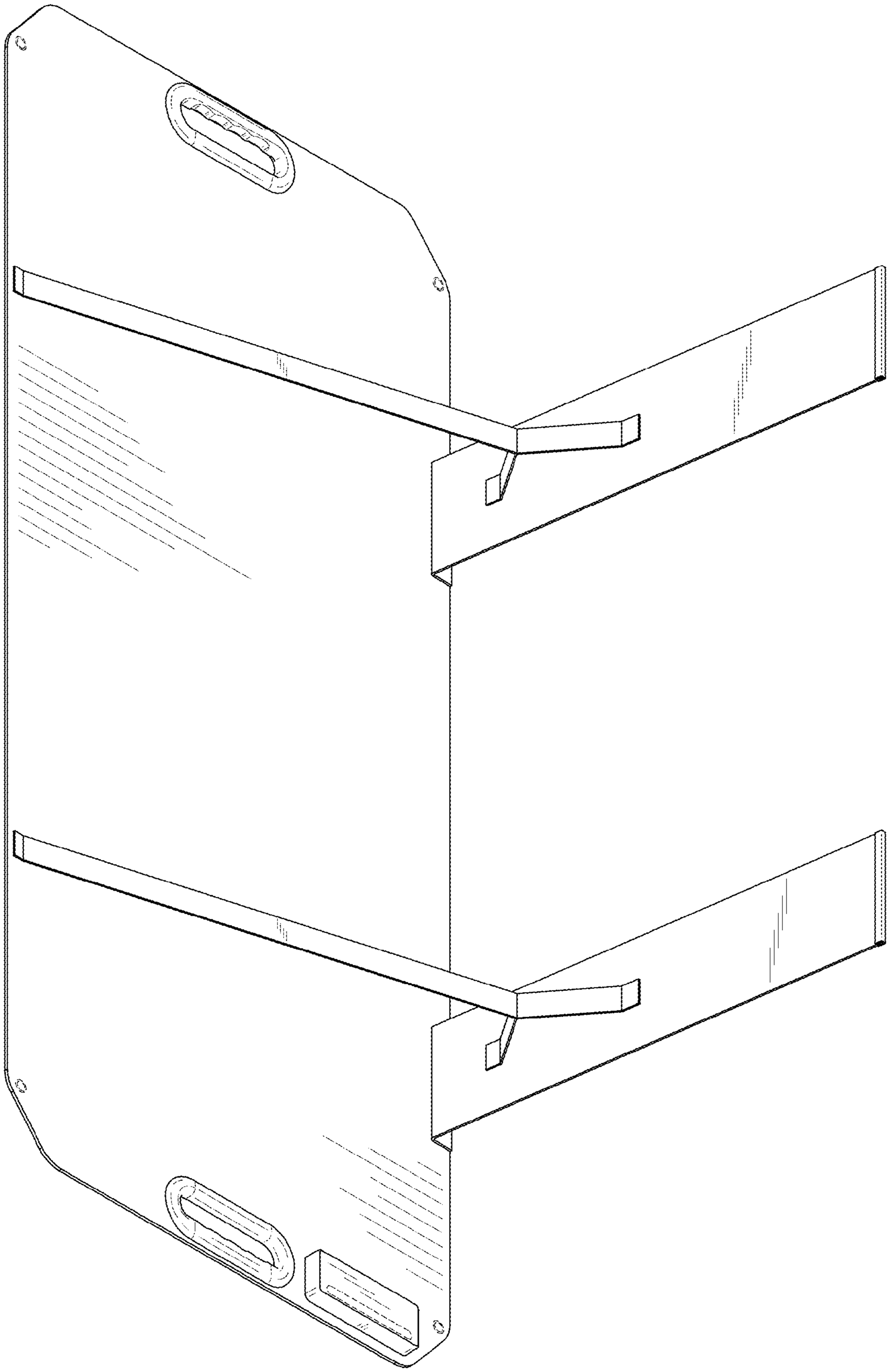


FIG.8

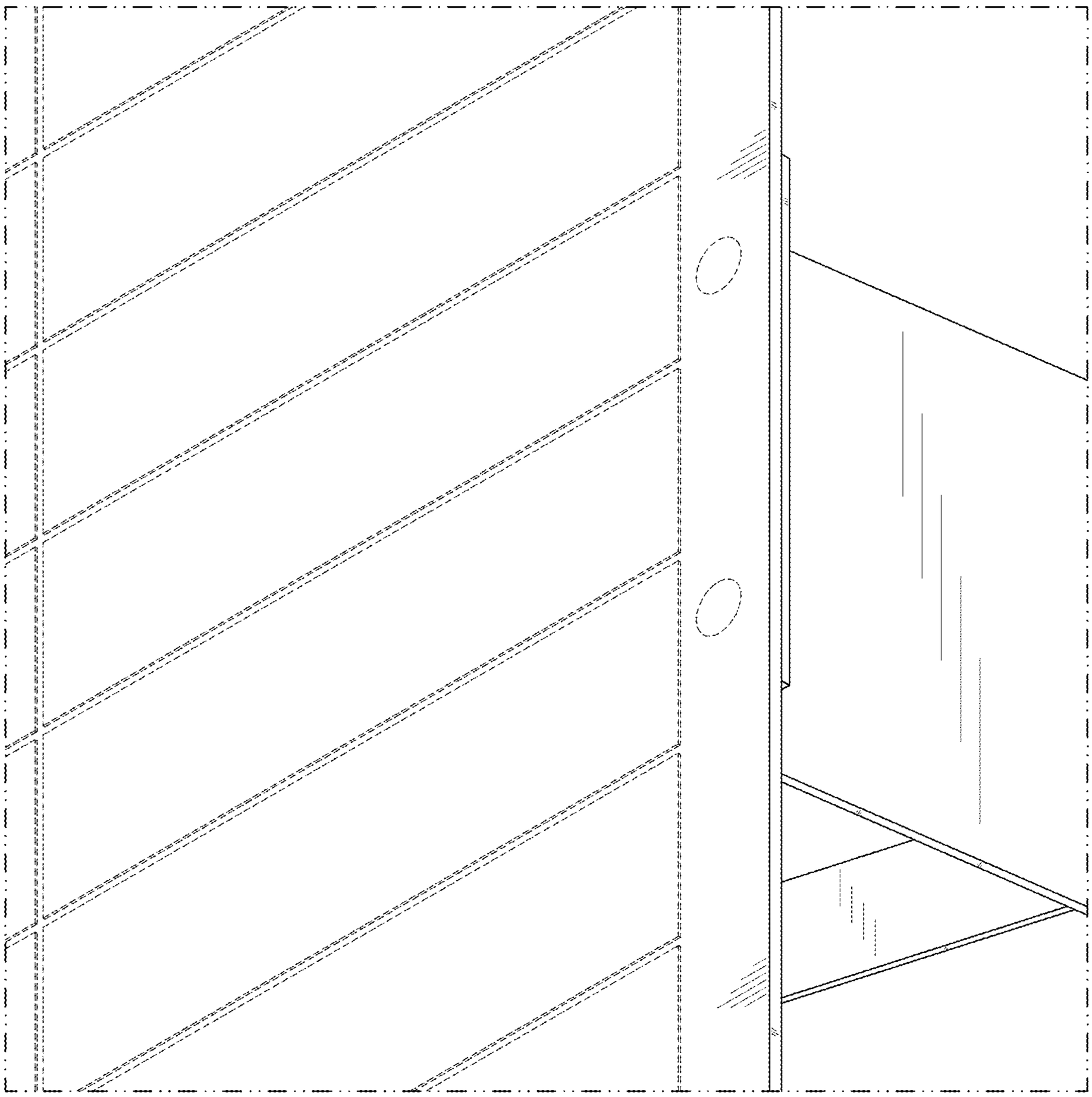


FIG.9

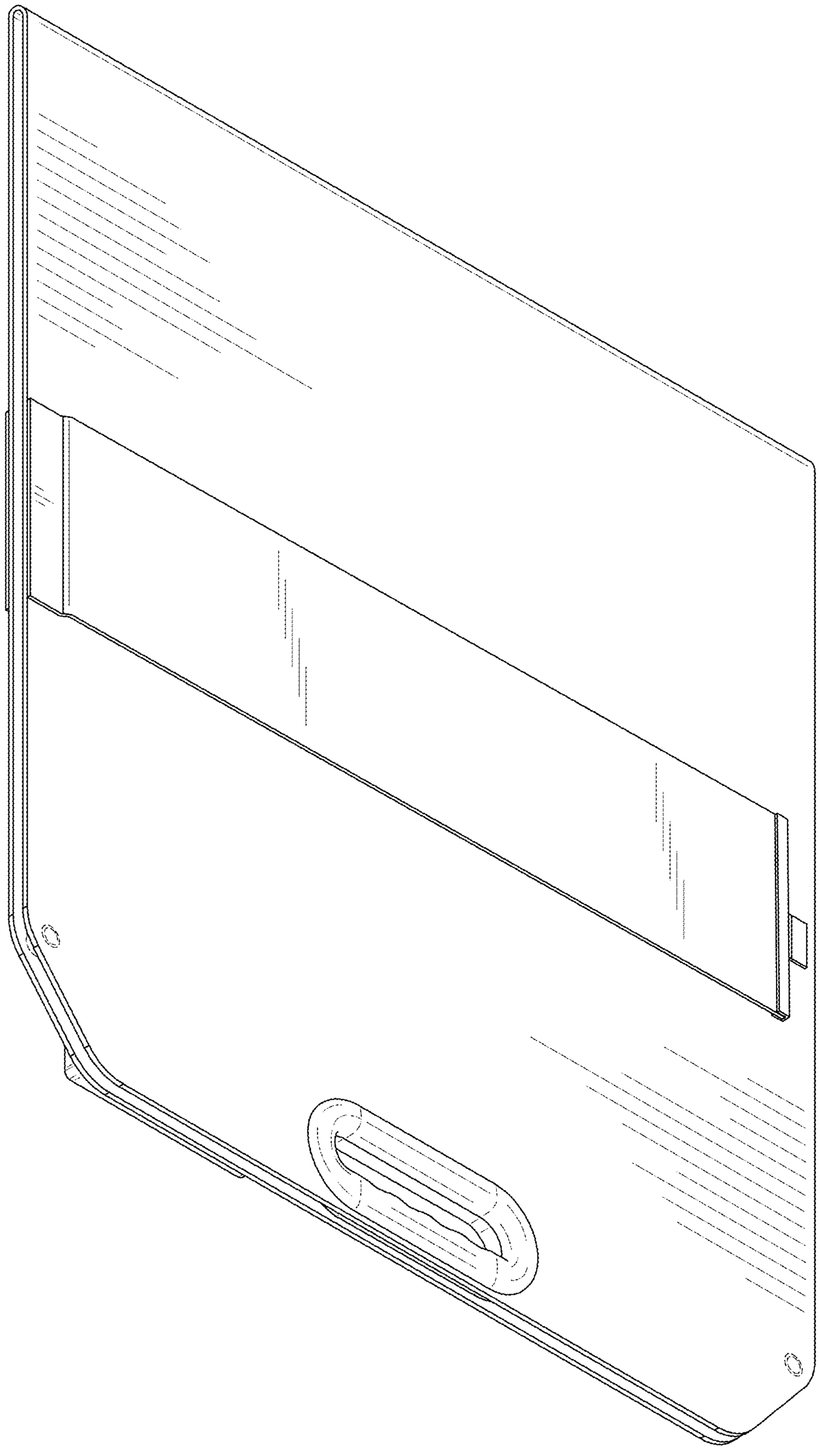


FIG.10

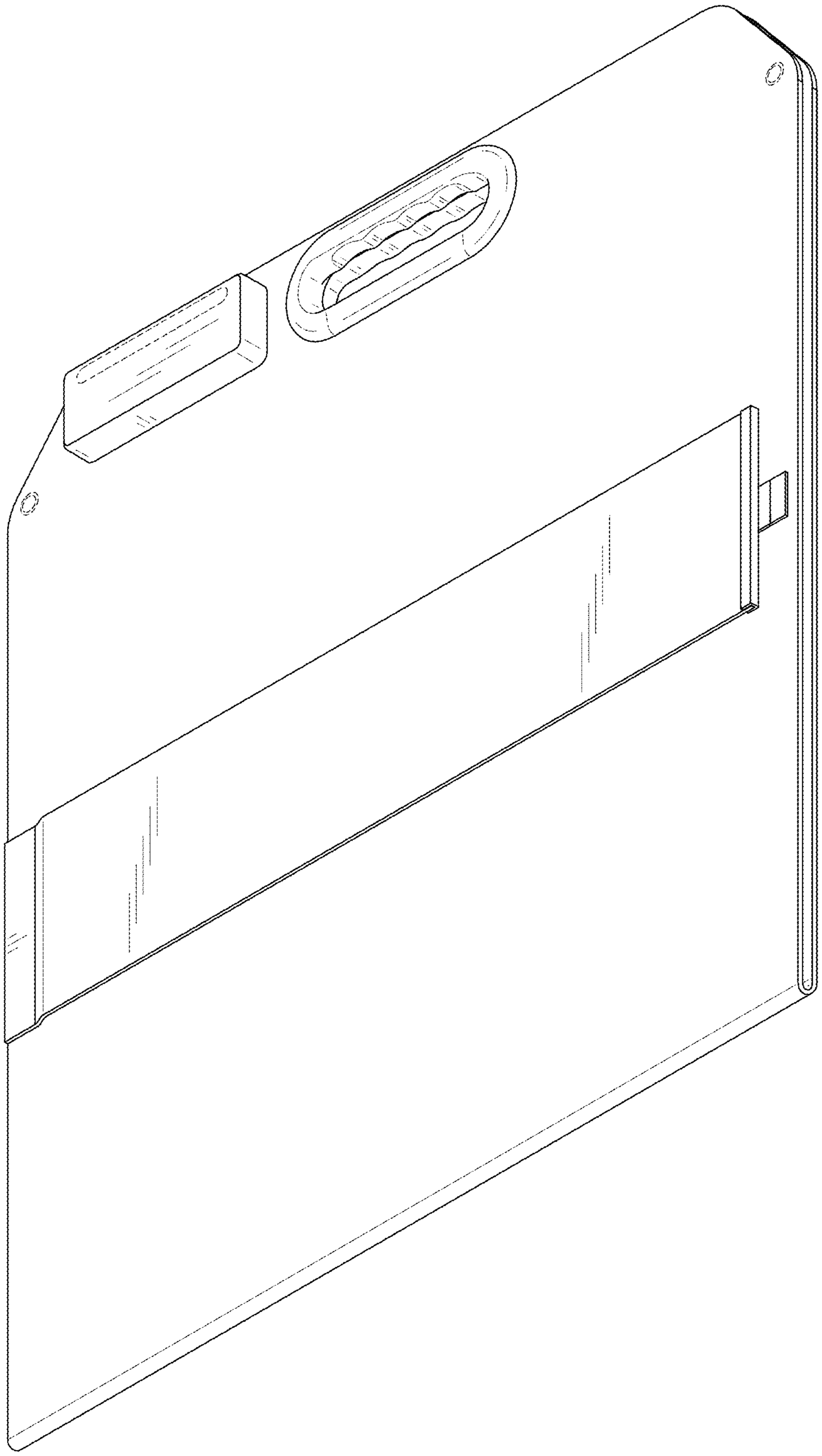


FIG.11