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(12) **United States Design Patent** (10) **Patent No.:** **US D980,162 S**
Hua (45) **Date of Patent:** **** Mar. 7, 2023**

(54) **CHARGER FOR ROBOTIC VACUUM CLEANER**

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

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(52) **U.S. Cl.**
USPC **D13/108; D32/31**

(58) **Field of Classification Search**
USPC D13/107-108, 110, 118-119, 184, 199;
D14/251, 253, 432, 434, 447; D32/31
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7/02; H02J 7/0026; H02J 7/0042; H02J
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A47L 2201/022

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D639,735 S 6/2011 Lee et al.
D691,553 S * 10/2013 Deoksang D13/108
D698,310 S * 1/2014 Yun D13/108
9,462,920 B1 * 10/2016 Morin A47L 9/2842
D782,412 S 3/2017 Kim et al.
D908,992 S * 1/2021 Jang D32/30
D946,519 S * 3/2022 Gao D13/108

D948,822 S * 4/2022 Kim D32/31
D961,177 S * 8/2022 Jang D32/31
2012/0143428 A1 * 6/2012 Kim G05D 1/0242
701/23
2013/0199570 A1 * 8/2013 Lee A47L 9/009
15/319
2013/0335900 A1 * 12/2013 Jang A47L 9/2884
361/679.01

(Continued)

OTHER PUBLICATIONS

“Yeedi vac Station Robot Vacuum and Mop, Self Emptying 3-in-1, 3000Pa Suction, 200Mins Runtime with Clean Schedule, Smart Mapping and Carpest Detection, Editable Map, Virtual Boundary”, Amazon.com, first available on Apr. 21, 2021. Retrieved from the internet: <<https://www.amazon.com/Station-Self-Emptying-Editable-Schedule-Boundary/dp/B092VCXDB1/>>. (Year: 2021).*

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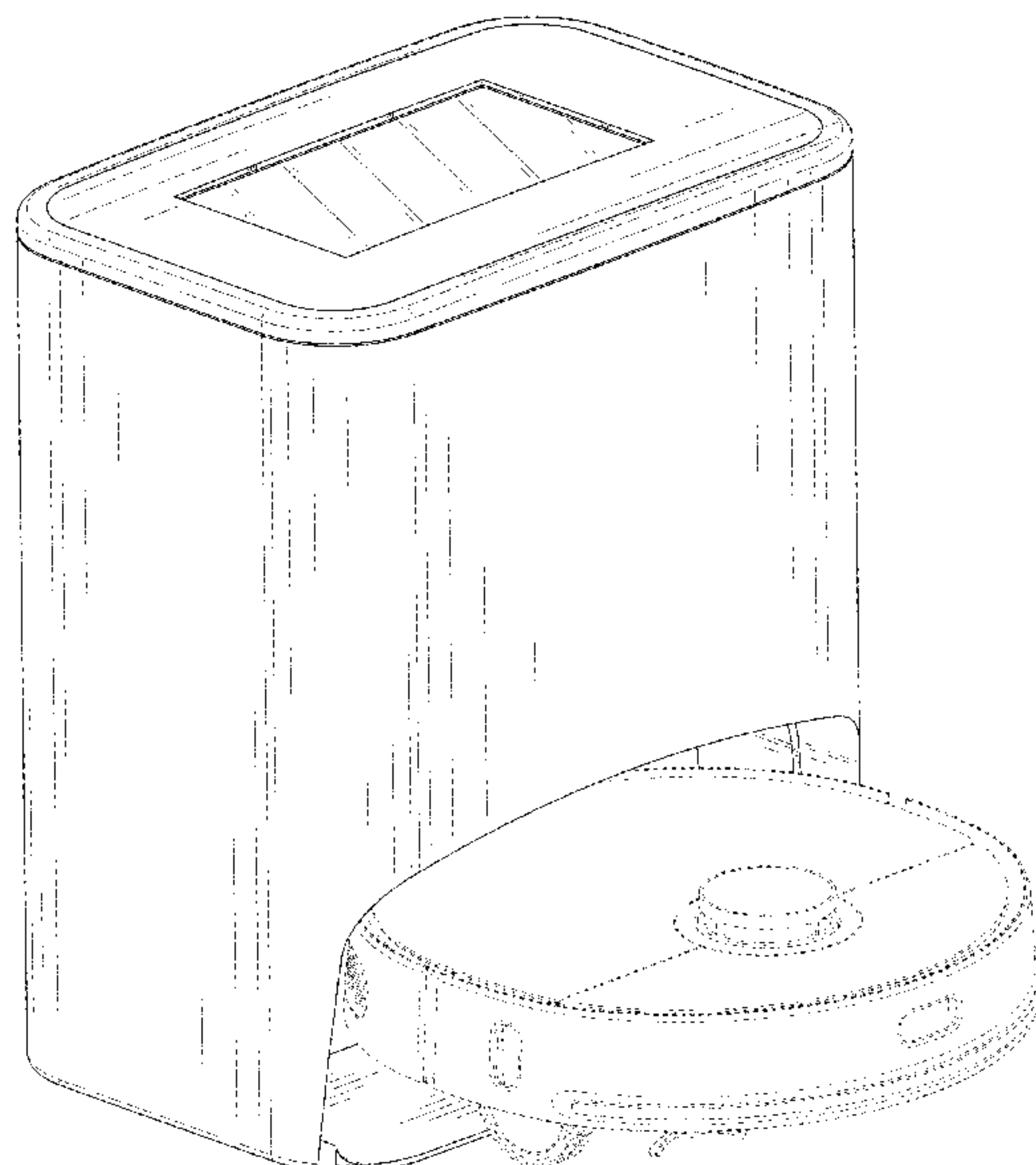
(57) **CLAIM**

The ornamental design for a charger for robotic vacuum cleaner, as shown and described.

DESCRIPTION

FIG. 1 is a front, left and top perspective view of a charger for robotic vacuum cleaner, showing a first embodiment my new design;
FIG. 2 is a right, rear and bottom perspective view thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a rear view thereof;
FIG. 5 is a left side view thereof;
FIG. 6 is a right side view thereof;
FIG. 7 is a top plan view thereof; and,
FIG. 8 is a bottom plan view thereof.
The broken lines in the figures illustrate portions of the charger for robotic vacuum cleaner that form no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2016/0183752 A1* 6/2016 Morin A47L 9/009
15/340.1
2020/0077858 A1* 3/2020 Zhang A47L 11/4061
2020/0187736 A1* 6/2020 Jeong A47L 9/2873
2020/0359868 A1* 11/2020 Bo A47L 9/2873
2020/0405107 A1* 12/2020 Na A47L 5/22
2021/0330157 A1* 10/2021 Conrad A47L 9/248
2021/0330168 A1* 10/2021 Conrad B01D 46/0032
2022/0022718 A1* 1/2022 Wu G05D 1/0214
2022/0047139 A1* 2/2022 Jeong A47L 9/2805
2022/0161671 A1* 5/2022 Liu A47L 11/4005
2022/0257075 A1* 8/2022 Kim A47L 9/2857

* cited by examiner

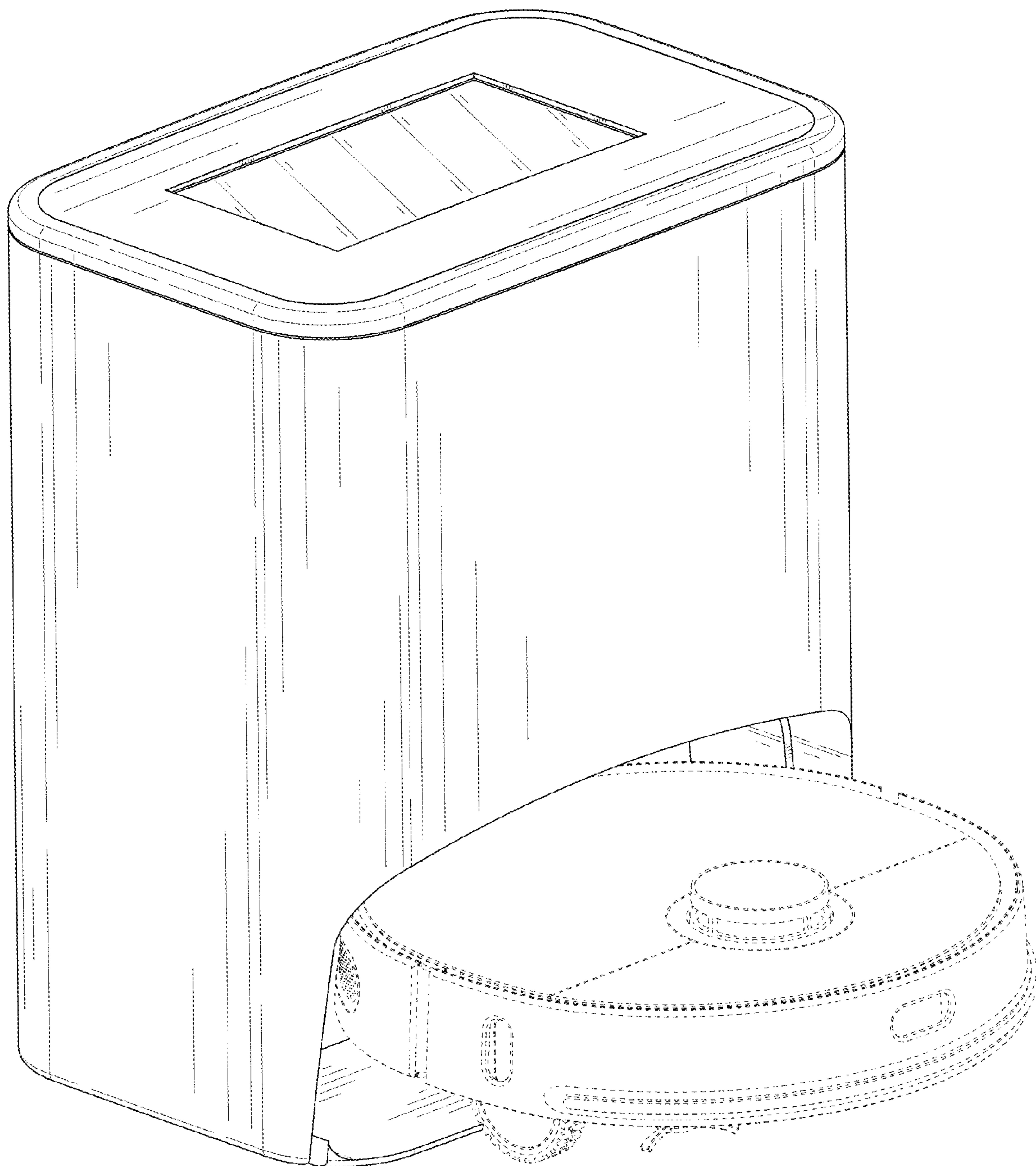


FIG. 1

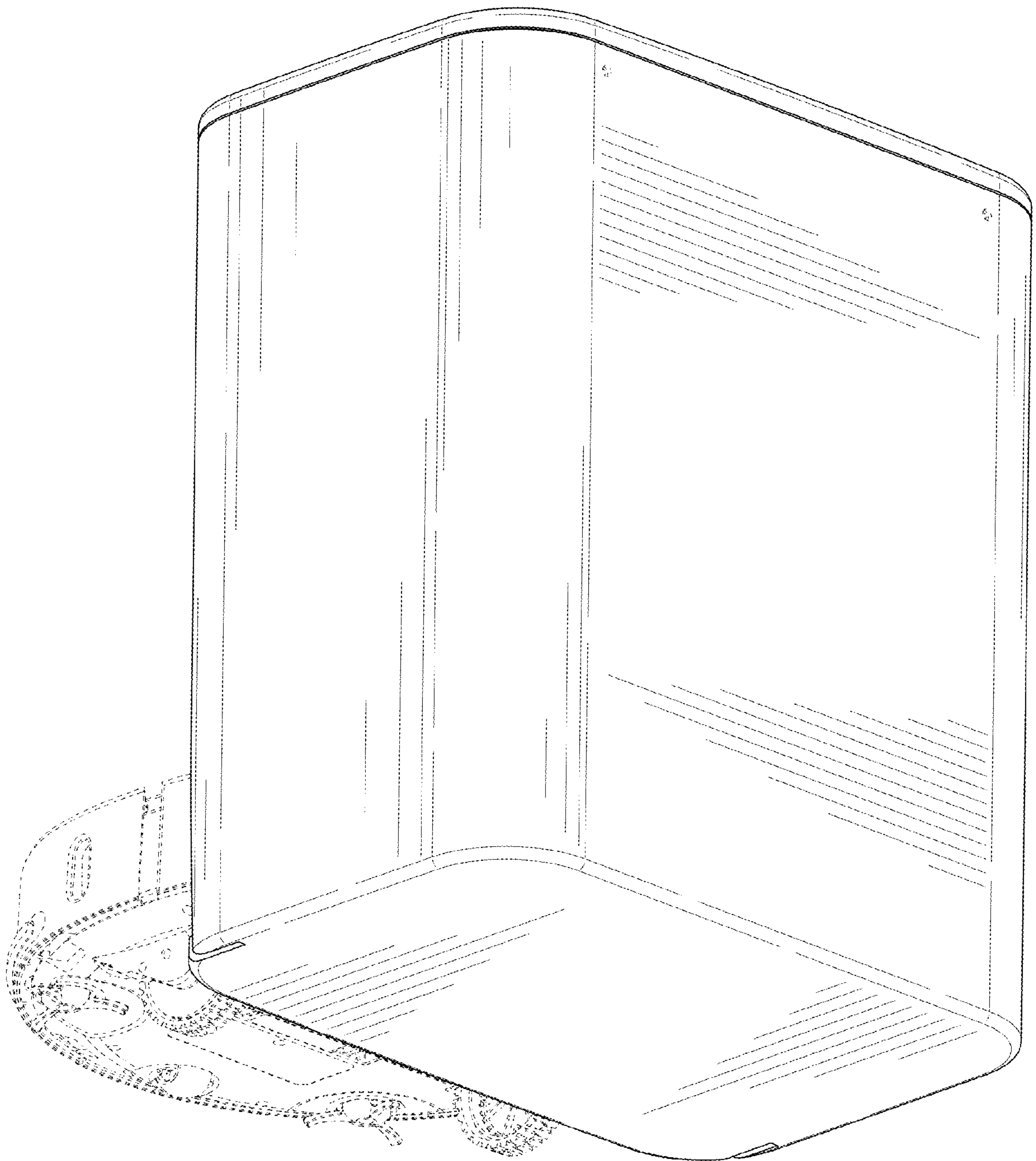


FIG. 2

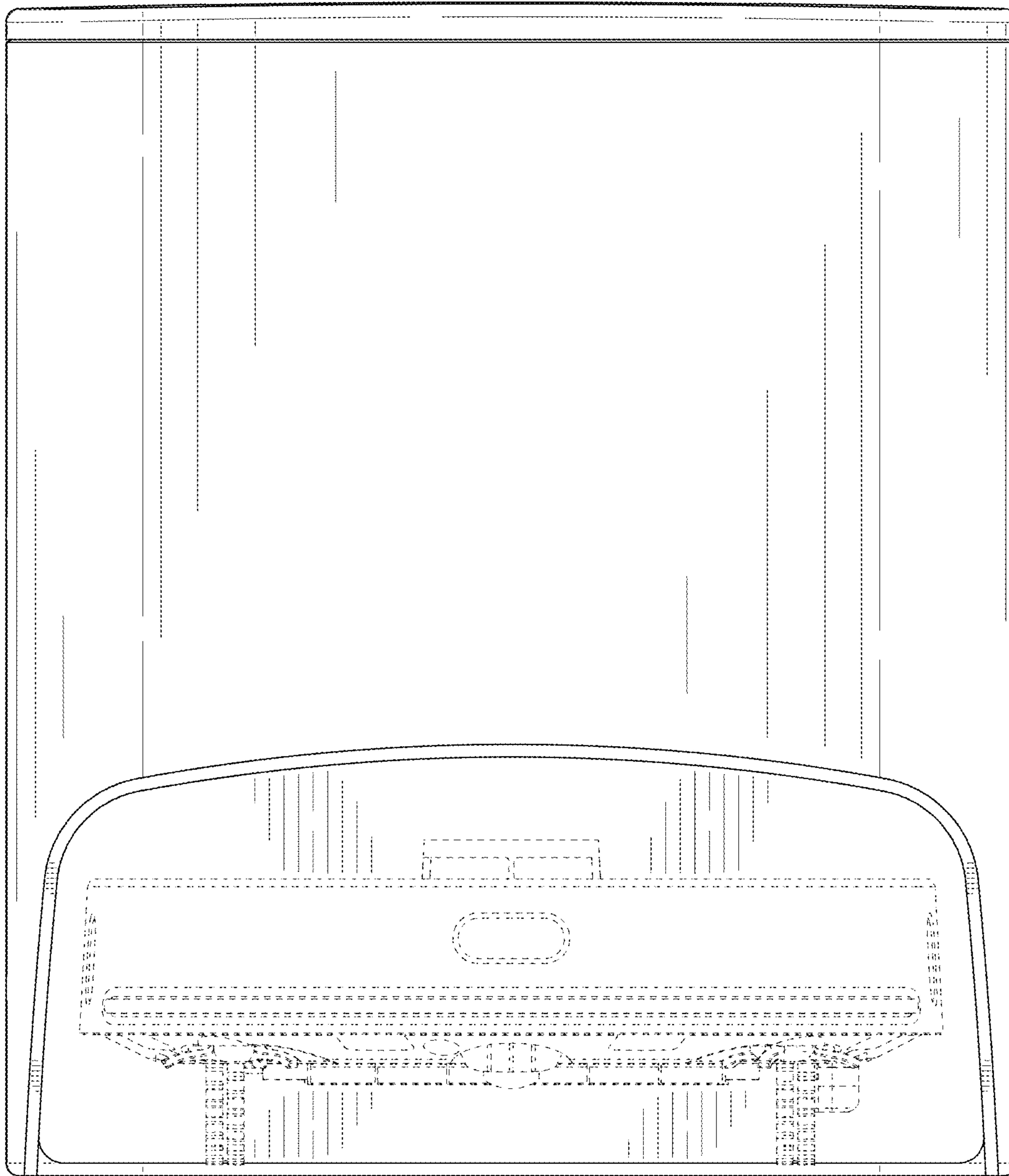


FIG. 3

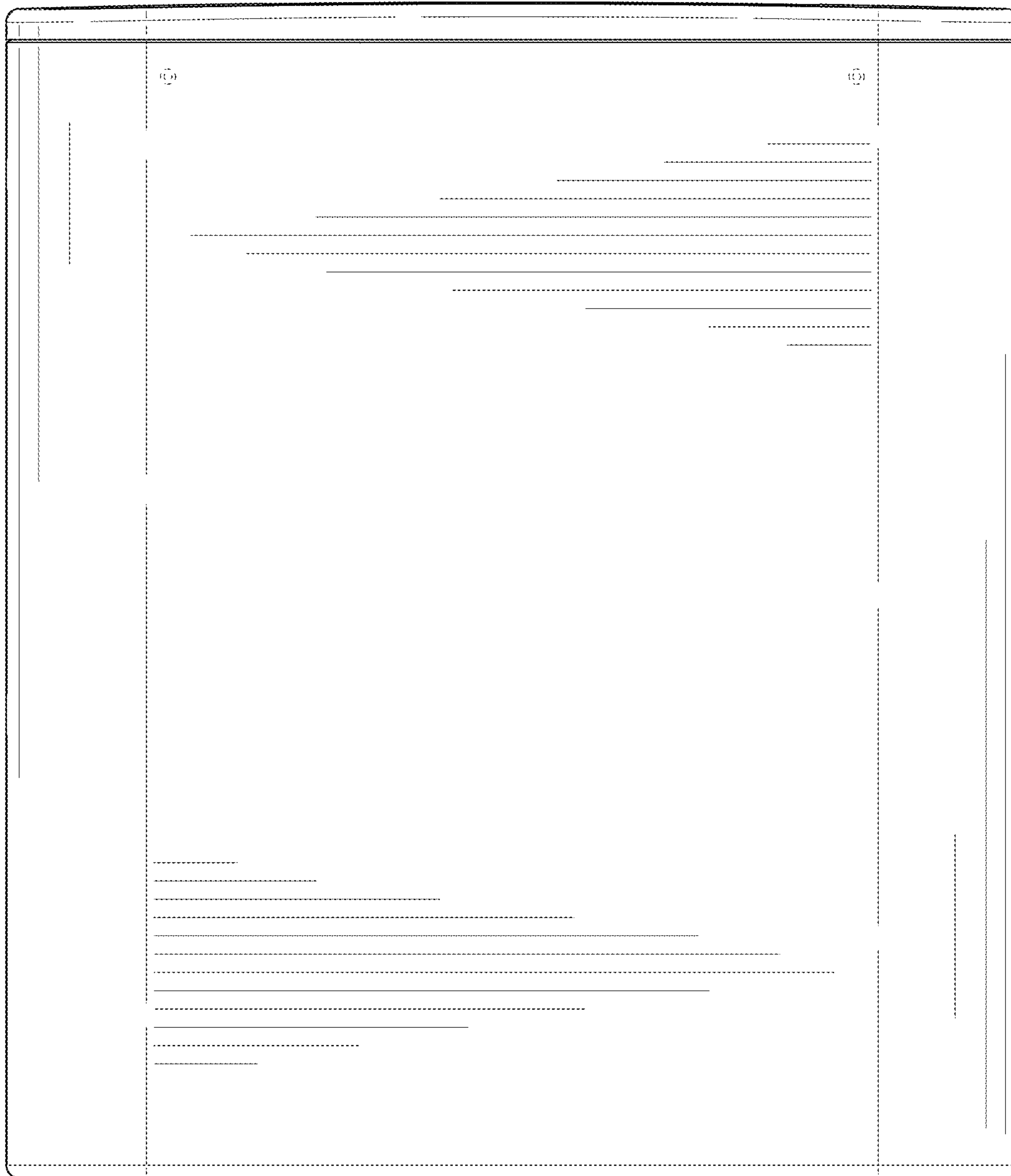


FIG. 4

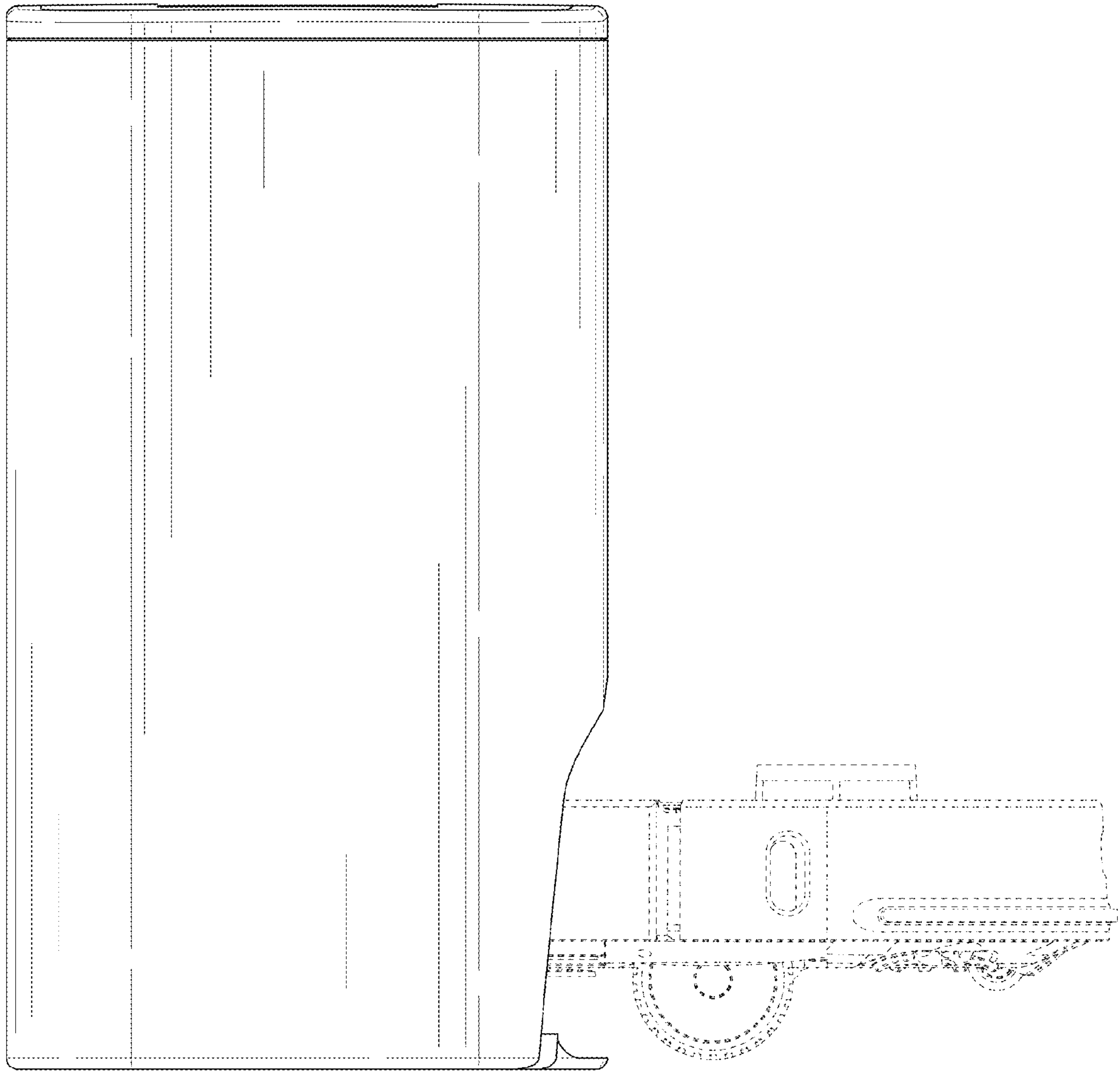


FIG. 5

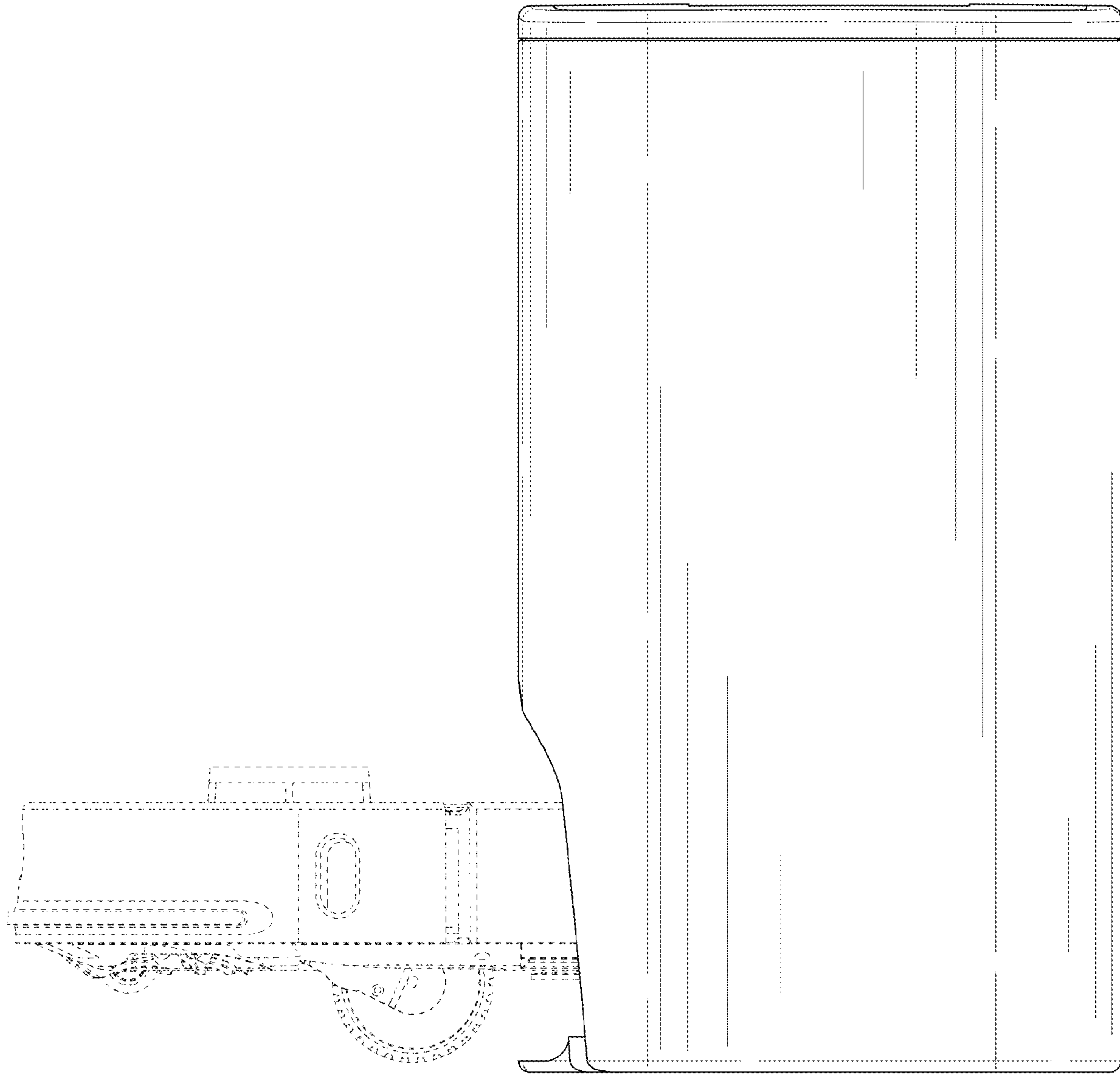


FIG. 6

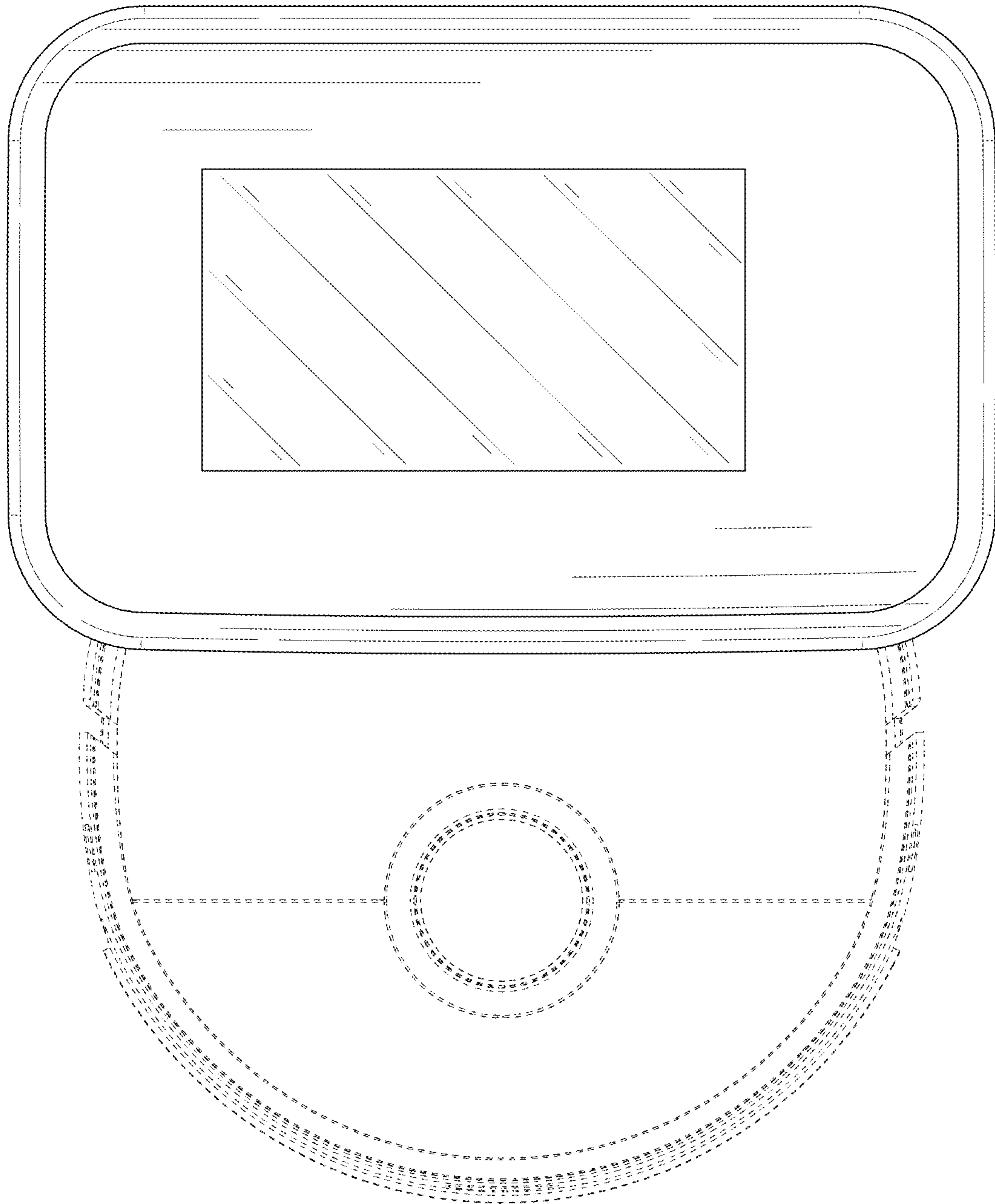


FIG. 7

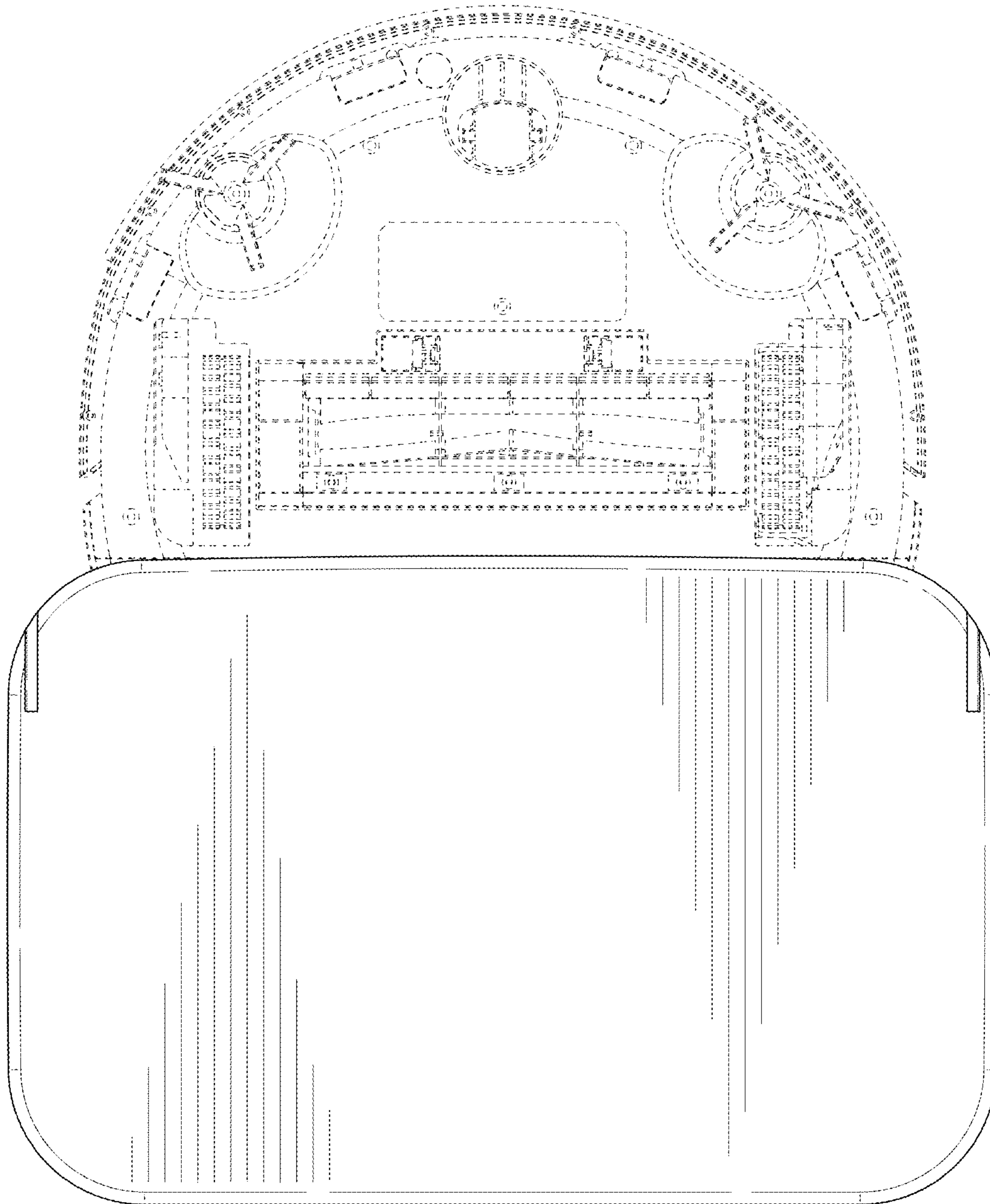


FIG. 8