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(12) **United States Design Patent**  
**Cho et al.**

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(54) **SERVICE ROBOT**  
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(73) Assignee: **SAMSUNG ELECTRONICS CO., LTD.**, Gyeonggi-Do (KR)

D869,533 S \* 12/2019 Kim ..... A63H 11/00  
D15/199  
D870,787 S \* 12/2019 Kim ..... D15/199  
D871,474 S \* 12/2019 Kolb ..... D15/199  
D879,174 S \* 3/2020 Kammermeier ..... D15/199  
10,576,617 B1 \* 3/2020 Asada ..... B25J 11/008  
D881,961 S \* 4/2020 Bergeron ..... D15/199  
D883,353 S \* 5/2020 Zhang ..... D15/199  
D883,354 S \* 5/2020 Jafarzadeh ..... D15/199  
D884,043 S \* 5/2020 Song ..... D15/199

(Continued)

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(30) **Foreign Application Priority Data**

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(51) **LOC (14) Cl.** ..... **15-99**

(52) **U.S. Cl.**  
USPC ..... **D15/199**

(58) **Field of Classification Search**  
USPC ..... D7/605, 606, 629; D12/14, 86, 88, 90,  
D12/91; D15/199; D21/578-583, 621;  
D34/34  
CPC ..... B25J 5/007; B25J 11/008; B60G 5/01;  
B60G 2300/07; Y10S 901/01  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D620,511 S \* 7/2010 Publ ..... D23/207  
D644,256 S \* 8/2011 Kitano ..... D15/199  
D700,923 S \* 3/2014 Lin ..... D15/199  
D821,265 S \* 6/2018 Mäkelä ..... D3/271.12  
D822,739 S \* 7/2018 Kato ..... D15/199  
D826,302 S \* 8/2018 Tsukamoto ..... D15/199  
D840,619 S \* 2/2019 Kim ..... A47J 37/0713  
D15/199

**FOREIGN PATENT DOCUMENTS**

CN 305492645 12/2019  
CN 305820907 6/2020

(Continued)

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(57) **CLAIM**

The ornamental design for a service robot, as shown and described.

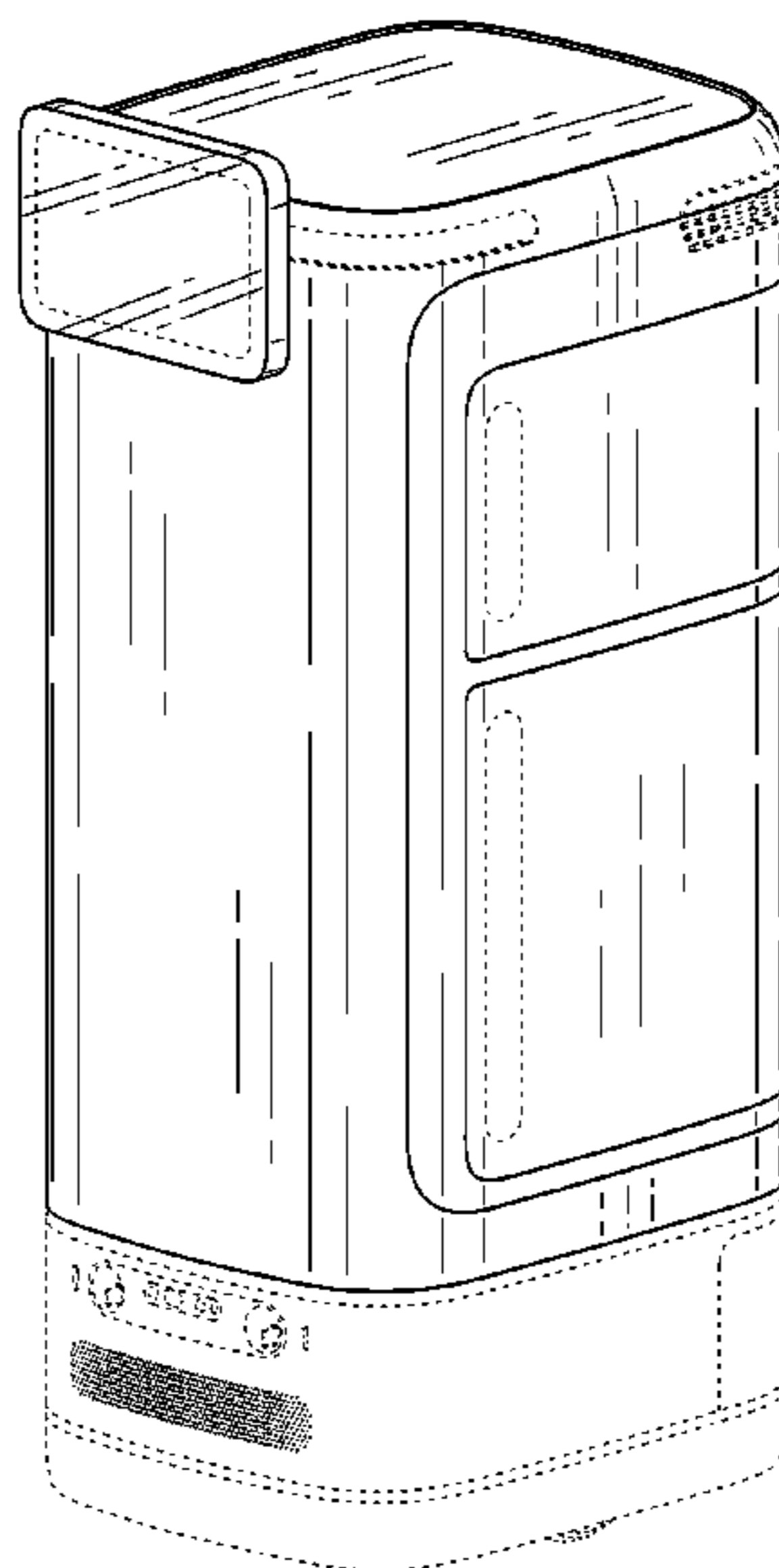
**DESCRIPTION**

FIG. 1 is a perspective view of a service robot, showing our new design;  
FIG. 2 is a front view thereof;  
FIG. 3 is a rear view thereof;  
FIG. 4 is a left-side view thereof;  
FIG. 5 is a right-side view thereof;  
FIG. 6 is a top view thereof;  
FIG. 7 is a bottom view thereof;  
FIG. 8 is another perspective view thereof; and,  
FIG. 9 is an enlarged view of the encircled portion '9' in FIG. 2.

The broken lines depicting portions of the service robot form no part of the claimed design.

The dot-dot-dash broken lines encircling enlargement portions of the design form no part of the claimed design.

**1 Claim, 9 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D888,790 S \* 6/2020 Yao ..... D15/199  
D908,151 S \* 1/2021 Song ..... D15/199  
D908,152 S \* 1/2021 Cacioppo ..... D15/199  
D908,153 S \* 1/2021 Cacioppo ..... D15/199  
D909,441 S \* 2/2021 Zhao ..... D15/199  
D909,442 S \* 2/2021 Zhao ..... D15/199  
D915,486 S \* 4/2021 Gidwell ..... D15/199  
D918,978 S \* 5/2021 Li ..... D15/199  
D919,687 S \* 5/2021 Song ..... D15/199  
D921,083 S \* 6/2021 Hernandez ..... D15/199  
D922,465 S \* 6/2021 Lee ..... B25J 11/00  
D924,956 S \* 7/2021 Pajevic ..... D15/199  
D931,921 S \* 9/2021 Haddadin ..... D15/199  
D934,932 S \* 11/2021 Han ..... D15/199  
D934,933 S \* 11/2021 Cho ..... D15/199

D934,934 S \* 11/2021 Park ..... D15/199  
D939,004 S \* 12/2021 Gidwell ..... D15/199  
D939,602 S \* 12/2021 Wang ..... B25J 11/00  
D15/199  
D944,305 S \* 2/2022 Liu ..... D15/199  
D947,915 S \* 4/2022 Li ..... D15/199  
2005/0216126 A1 \* 9/2005 Koselka ..... B25J 5/007  
700/259  
2016/0114488 A1 \* 4/2016 Mascorro Medina .....  
B25J 11/008  
901/1

FOREIGN PATENT DOCUMENTS

CN 305867738 6/2020  
CN 305928873 7/2020  
DM 207982 1/2020  
WO WO-2022019376 A1 \* 1/2022

\* cited by examiner

FIG. 1

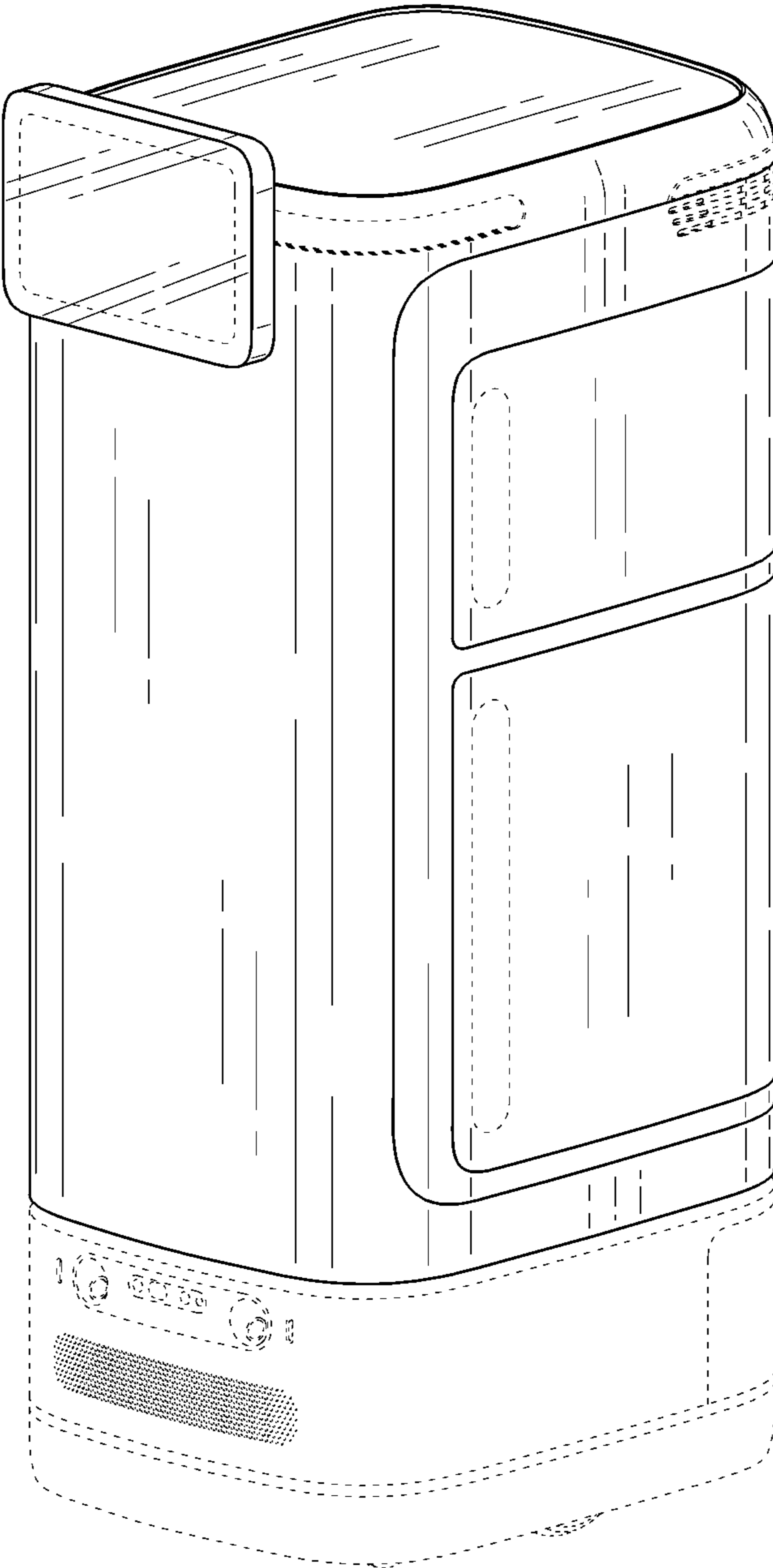


FIG. 2

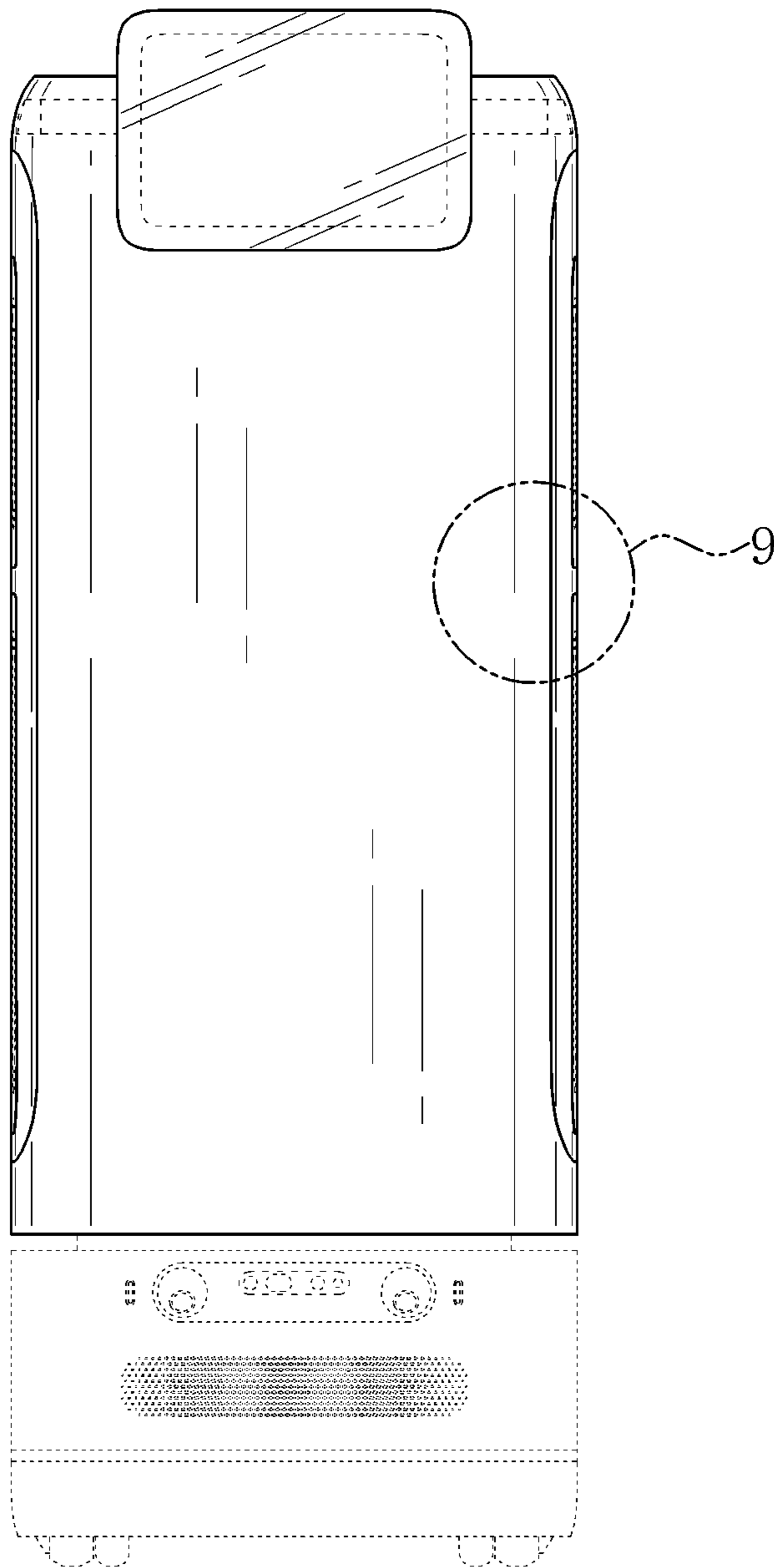


FIG. 3

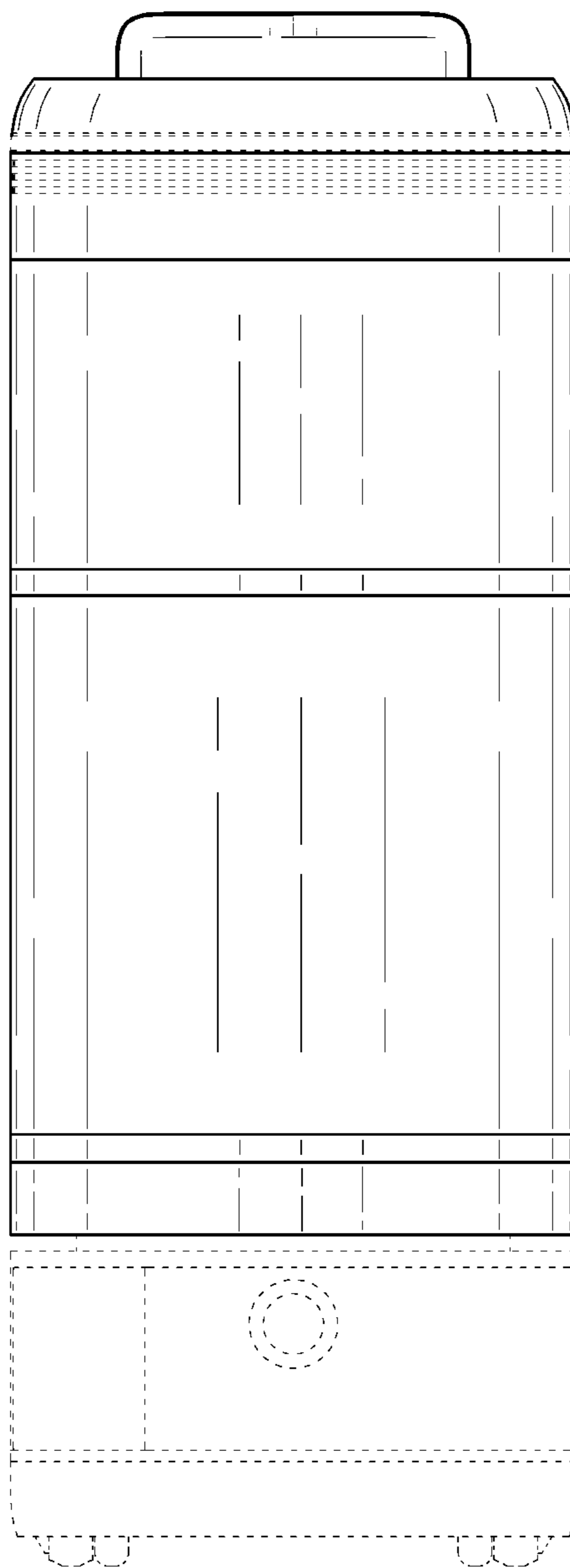


FIG. 4

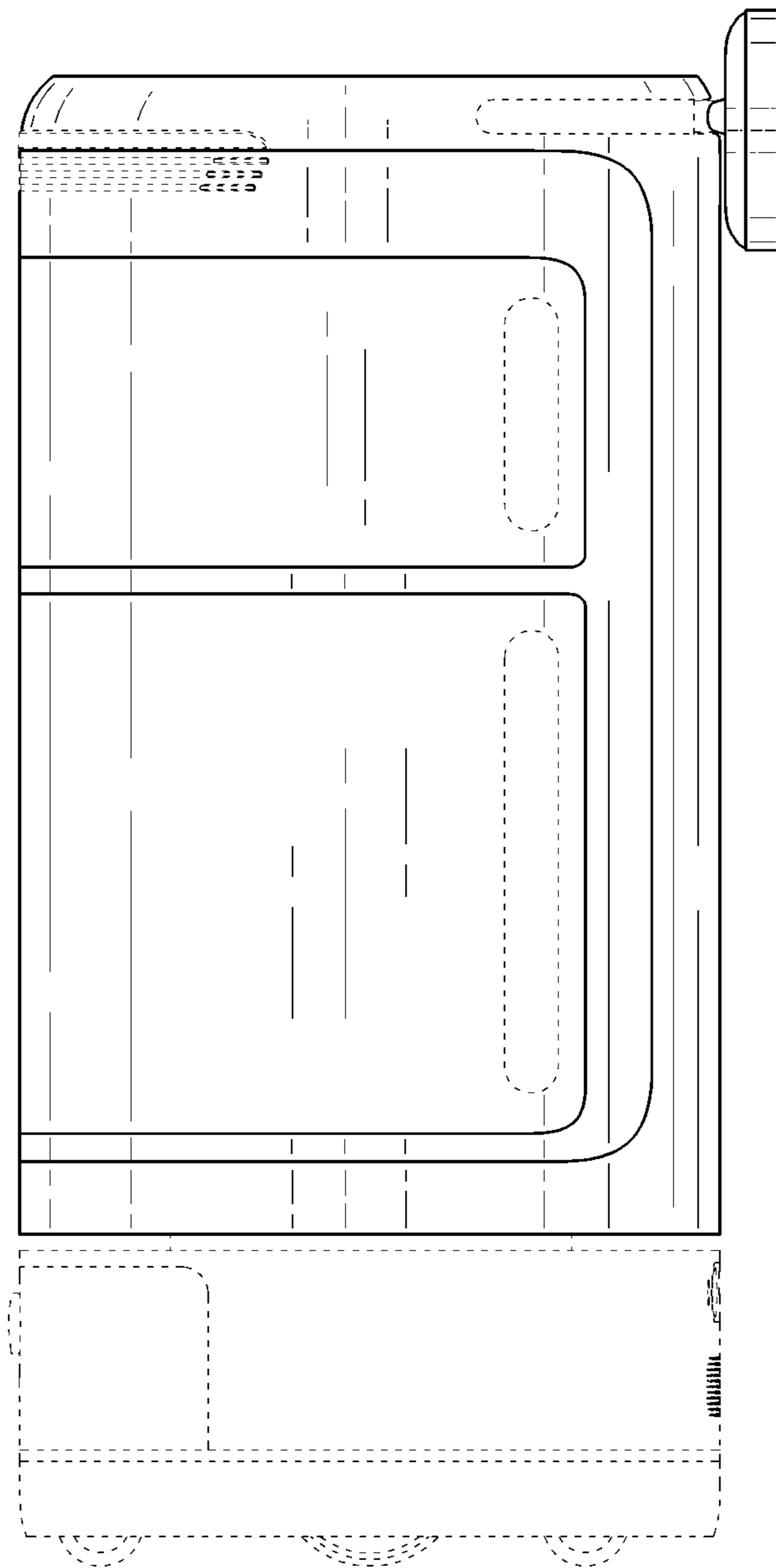


FIG. 5

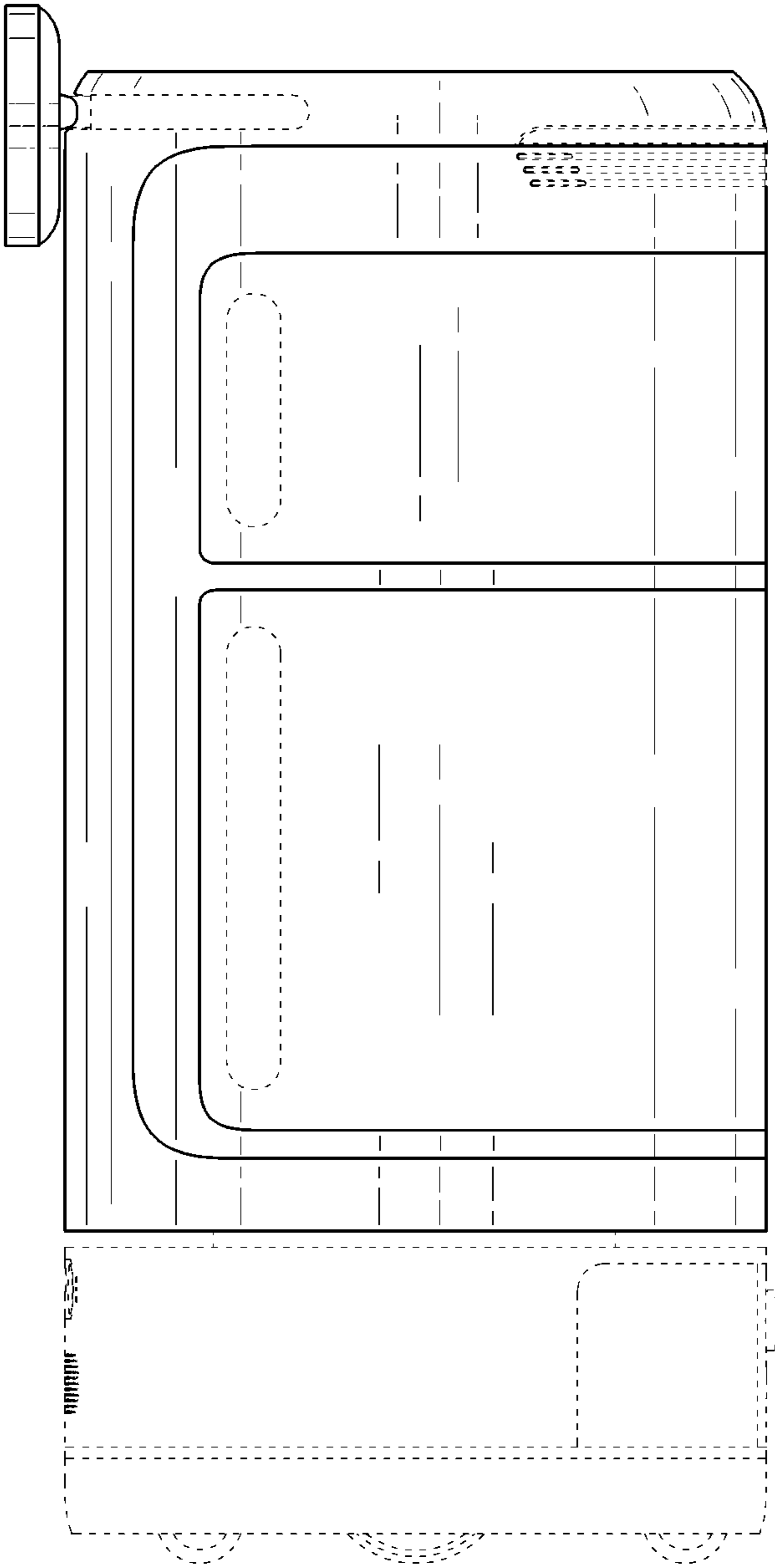


FIG. 6

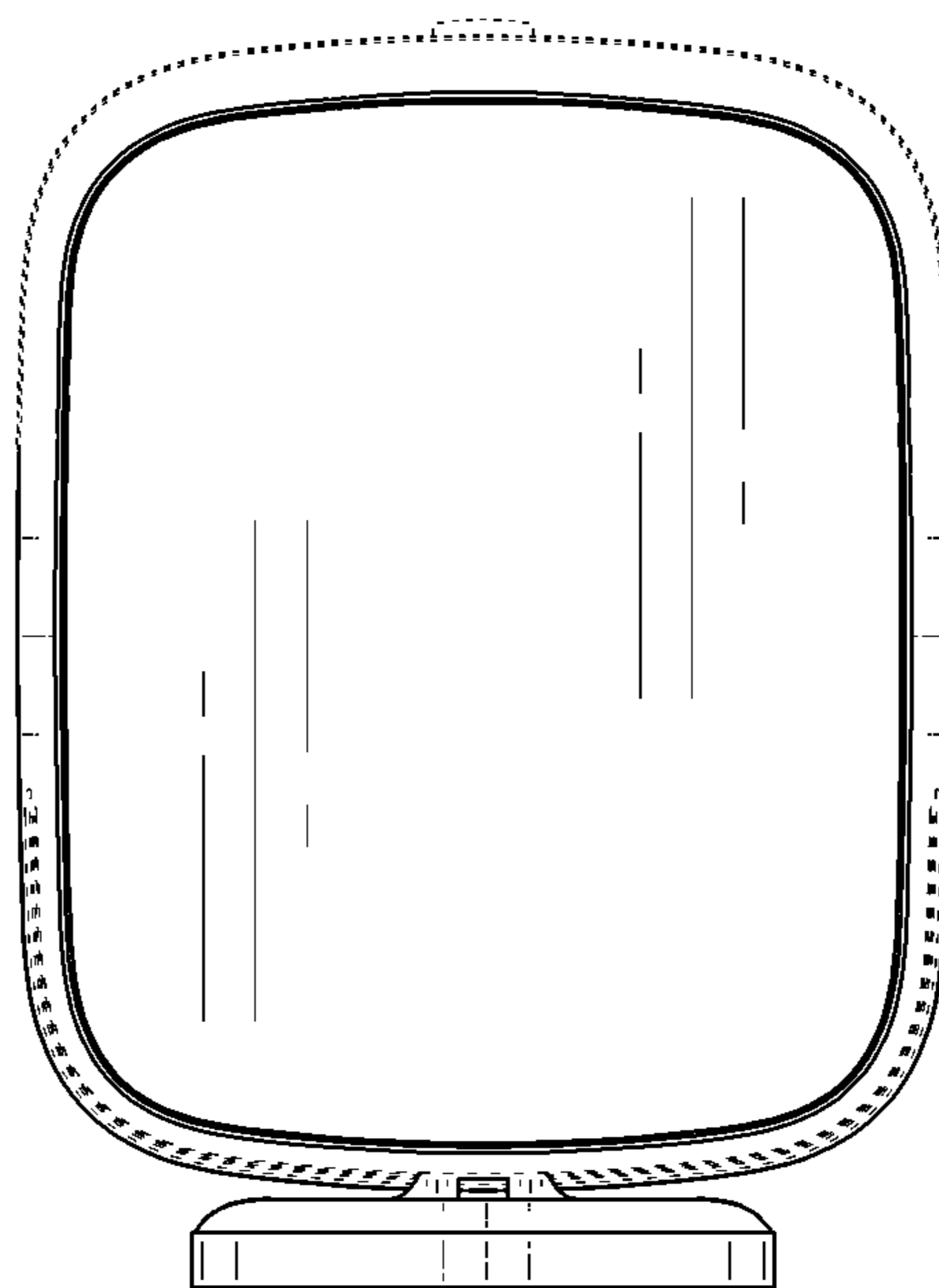




FIG. 7

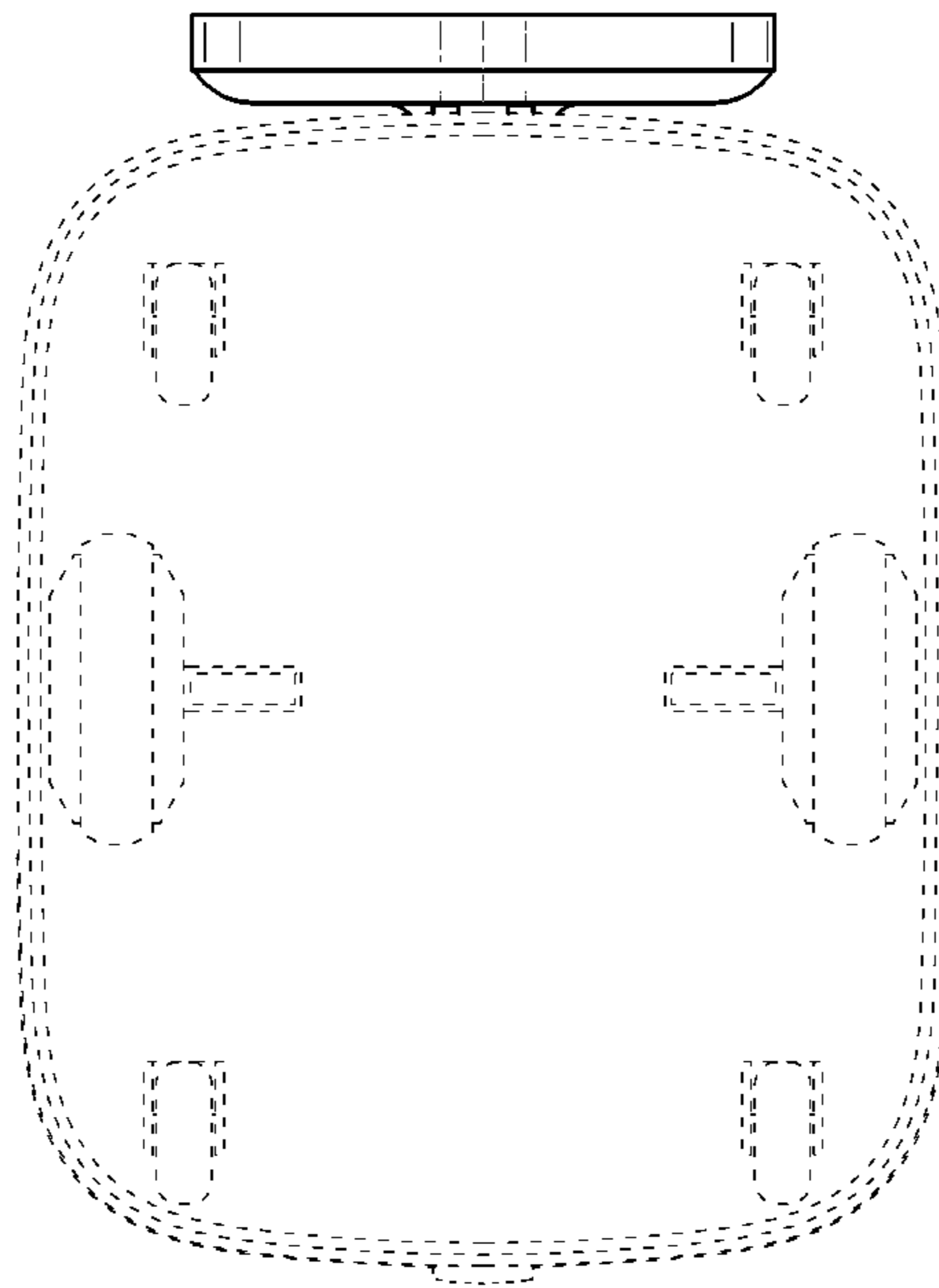


FIG. 8

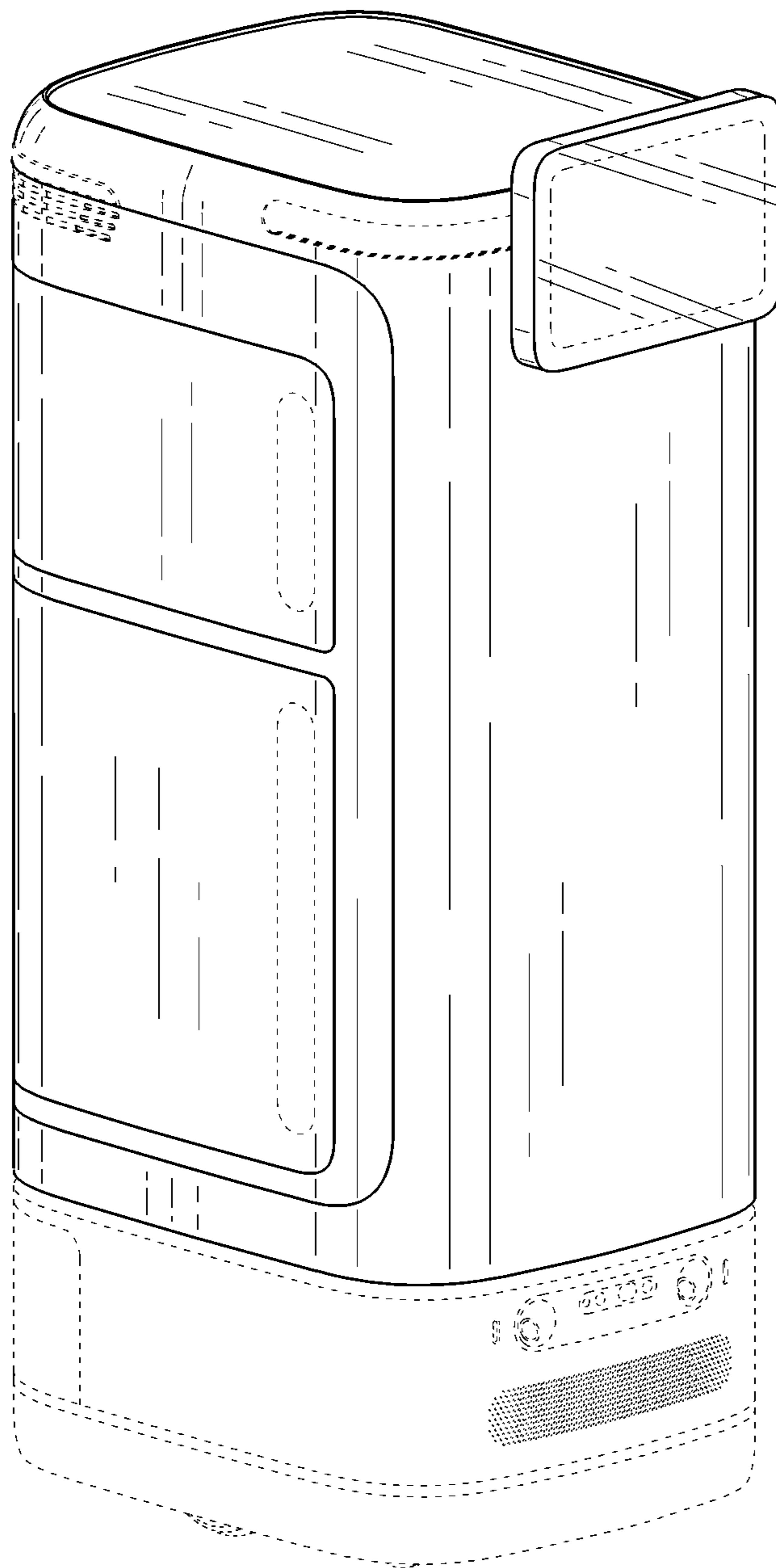


FIG. 9

