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(12) **United States Design Patent** (10) **Patent No.:** **US D963,499 S**  
**Blake et al.** (45) **Date of Patent:** **\*\* Sep. 13, 2022**

(54) **MASS SPECTROMETER**

(56) **References Cited**

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U.S. PATENT DOCUMENTS

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**Andrew Pawson**, Manchester (GB);  
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D399,152 S \* 10/1998 Manos ..... D10/81  
D522,391 S \* 6/2006 Onuma ..... D10/81  
D794,211 S \* 8/2017 Ang ..... D24/232  
(Continued)

(73) Assignee: **Micromass UK Limited**, Wilmslow (GB)

FOREIGN PATENT DOCUMENTS

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

CN 303030578 \* 6/2014  
CN 305491051 \* 3/2019  
(Continued)

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OTHER PUBLICATIONS

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Kitchener, On, ,the World's First Digital Benchtop SPR System, Nicoya Launches Alto, Date first available Jan. 23, 2020, [online]retrieved Nov. 10, 2021,available from https://nicoyalife.com/blog/press-releases/alto-digital-spr-nicoya-press-release/ (Year: 202).\*

(30) **Foreign Application Priority Data**

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(51) **LOC (13) Cl.** ..... **10-04**

*Primary Examiner* — Keli L Hill

(52) **U.S. Cl.**  
USPC ..... **D10/81; D24/232**

*Assistant Examiner* — Sara S Sahneh

(58) **Field of Classification Search**  
USPC ..... D10/81-86, 94-103; D24/216, 185, 232  
CPC .. G01N 21/00; G01N 21/01; G01N 2201/022;  
G01N 2201/0221; G01N 2201/0222;  
G01N 2201/0224; G01N 2201/0225;  
G01N 2201/0227; G01N 25/08; G01N 25/085; G01N 25/10; G01N 25/12; G01N 25/14; G01N 25/142; G01N 25/145; G01N 25/147; G01N 25/16; G01N 25/18; G01N 25/20; G01N 25/22; G01N 30/06; G01N 35/026; G01N 27/62; G01N 35/08; G01N 30/72; G01N 35/0092; G01N 30/88; G01N 33/53; G01N 33/50; G01N 35/025; G01N 35/00603; G01N 35/00584; H01J 49/0413

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(57) **CLAIM**

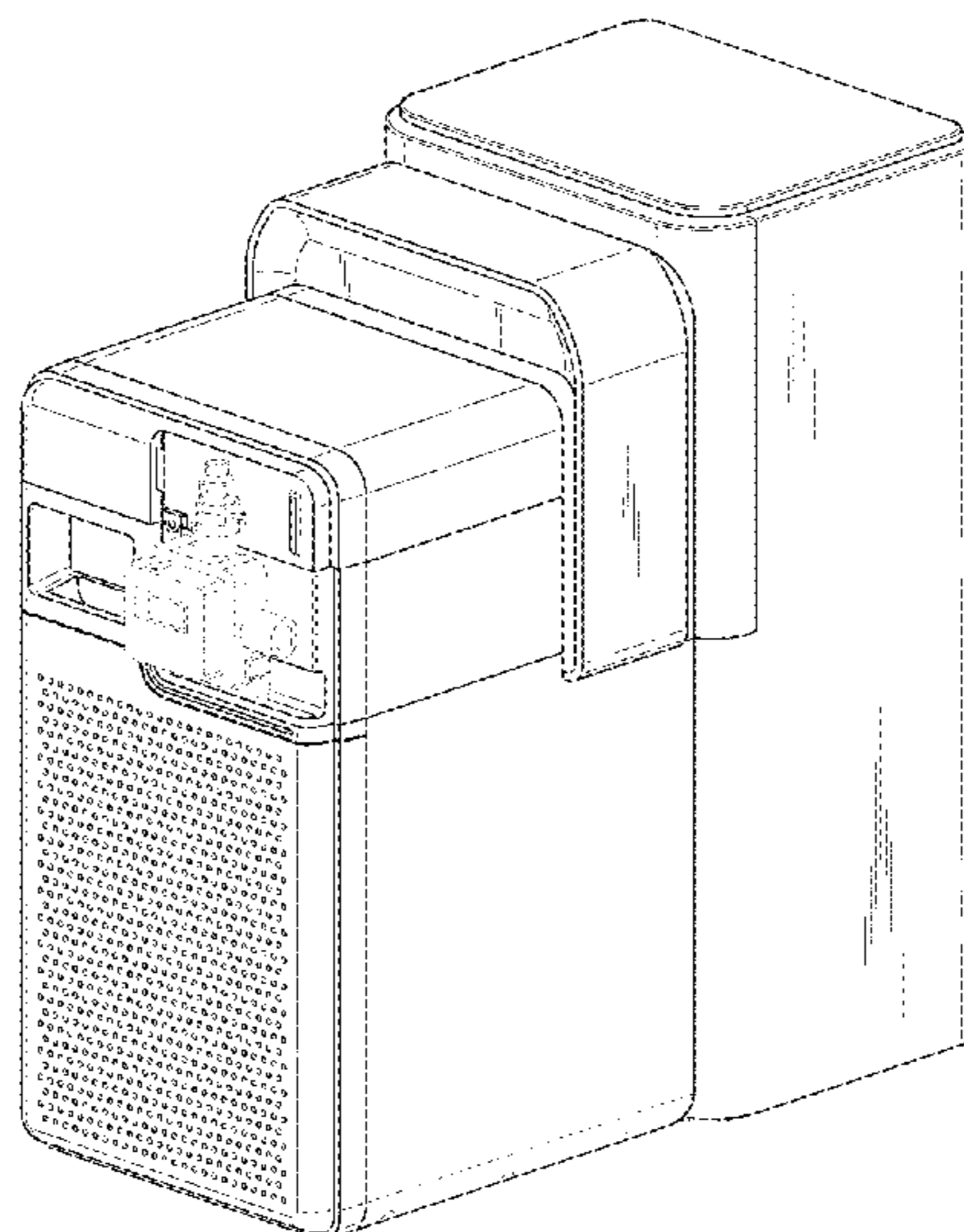
The ornamental design for a mass spectrometer, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a mass spectrometer showing the design.  
FIG. 2 is a front elevation view of the design.  
FIG. 3 is a rear elevation view of the design.  
FIG. 4 is a side elevation view of the design; and,  
FIG. 5 is a top plan view of the design.  
The portions of the mass spectrometer shown in broken lines form no part of the claimed design.

See application file for complete search history.

**1 Claim, 5 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D800,000 S \* 10/2017 Barton ..... D10/81  
 D844,471 S \* 4/2019 Stone ..... D10/81  
 D854,703 S \* 7/2019 Juhlin ..... D24/216  
 D888,985 S \* 6/2020 Hsieh ..... D24/232  
 D909,605 S \* 2/2021 Mathers ..... D24/232  
 D914,905 S \* 3/2021 Wade ..... D24/216  
 D923,199 S \* 6/2021 Luther ..... D24/233  
 2018/0149600 A1 \* 5/2018 Farrell ..... G01N 33/48785  
 2019/0371584 A1 \* 12/2019 Carney ..... H01J 49/40  
 2021/0151313 A1 \* 5/2021 Ueda ..... H01J 49/4225

FOREIGN PATENT DOCUMENTS

GB 6036377 \* 5/2018  
 GB 6036378 \* 5/2018  
 JP D1094655 \* 3/2000  
 JP D1096237 \* 11/2000  
 KR 301085998.0000 \* 3/2020

OTHER PUBLICATIONS

7 Top Mass Spectrometry Innovations from ASMS 2019, SelectScience editors, Date first available Jun. 11, 2019, [online]retrieved Nov. 10, 2021, available from <https://www.selectscience.net/top-lists/7-top-mass-spectrometry-innovations-from-asms-2019/?artID=49069> (Year: 2019).\*

\* cited by examiner

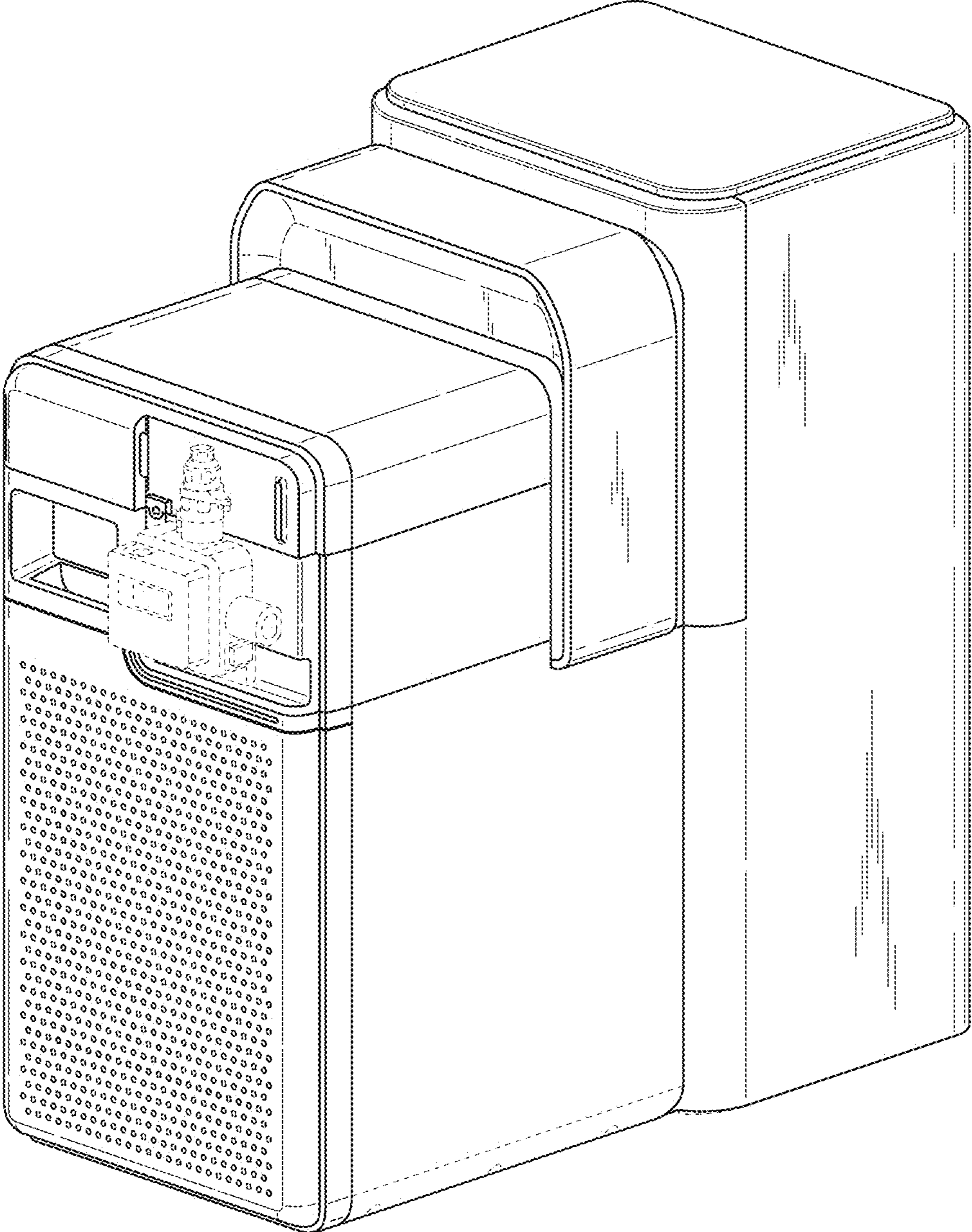


FIG. 1



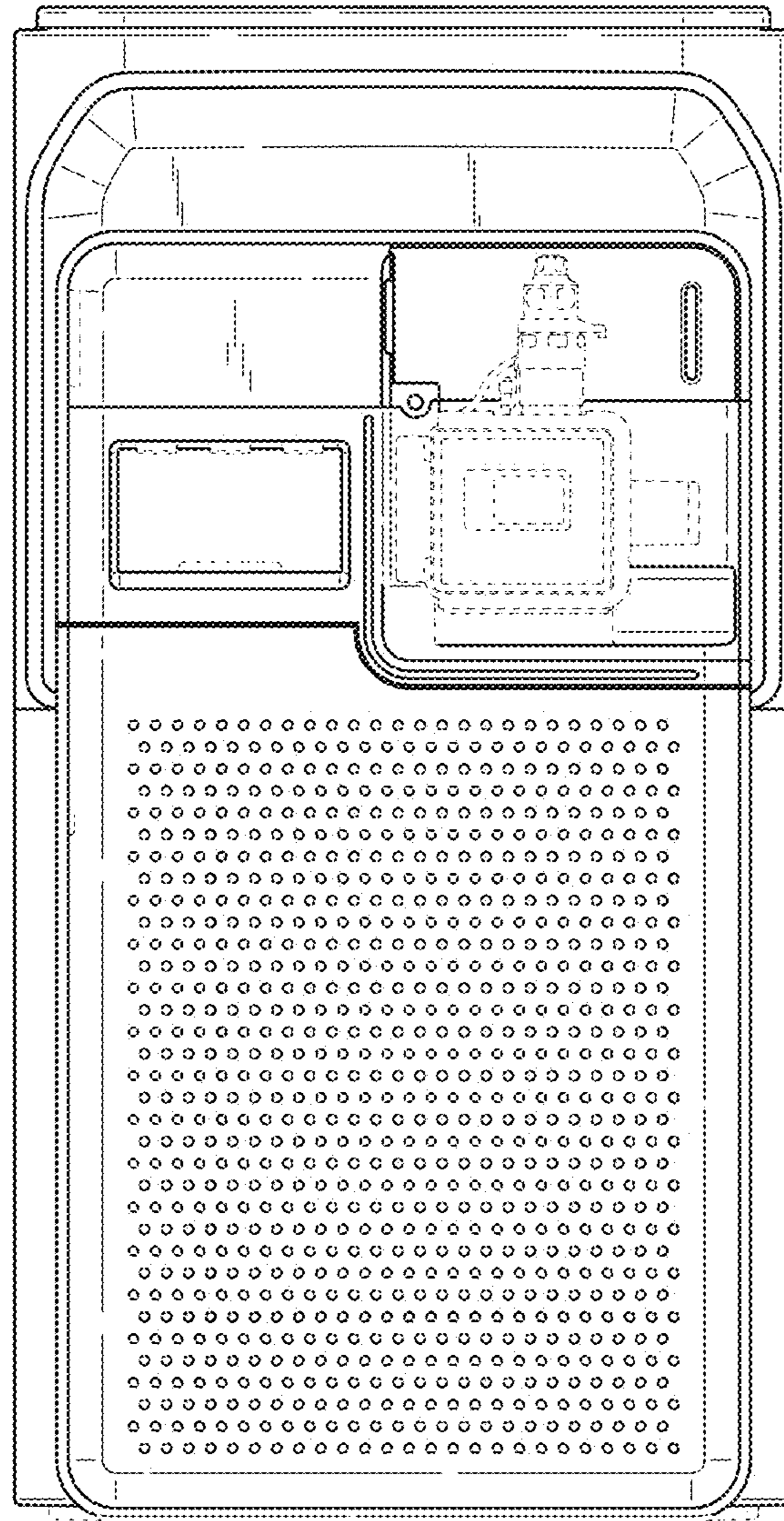


FIG. 2

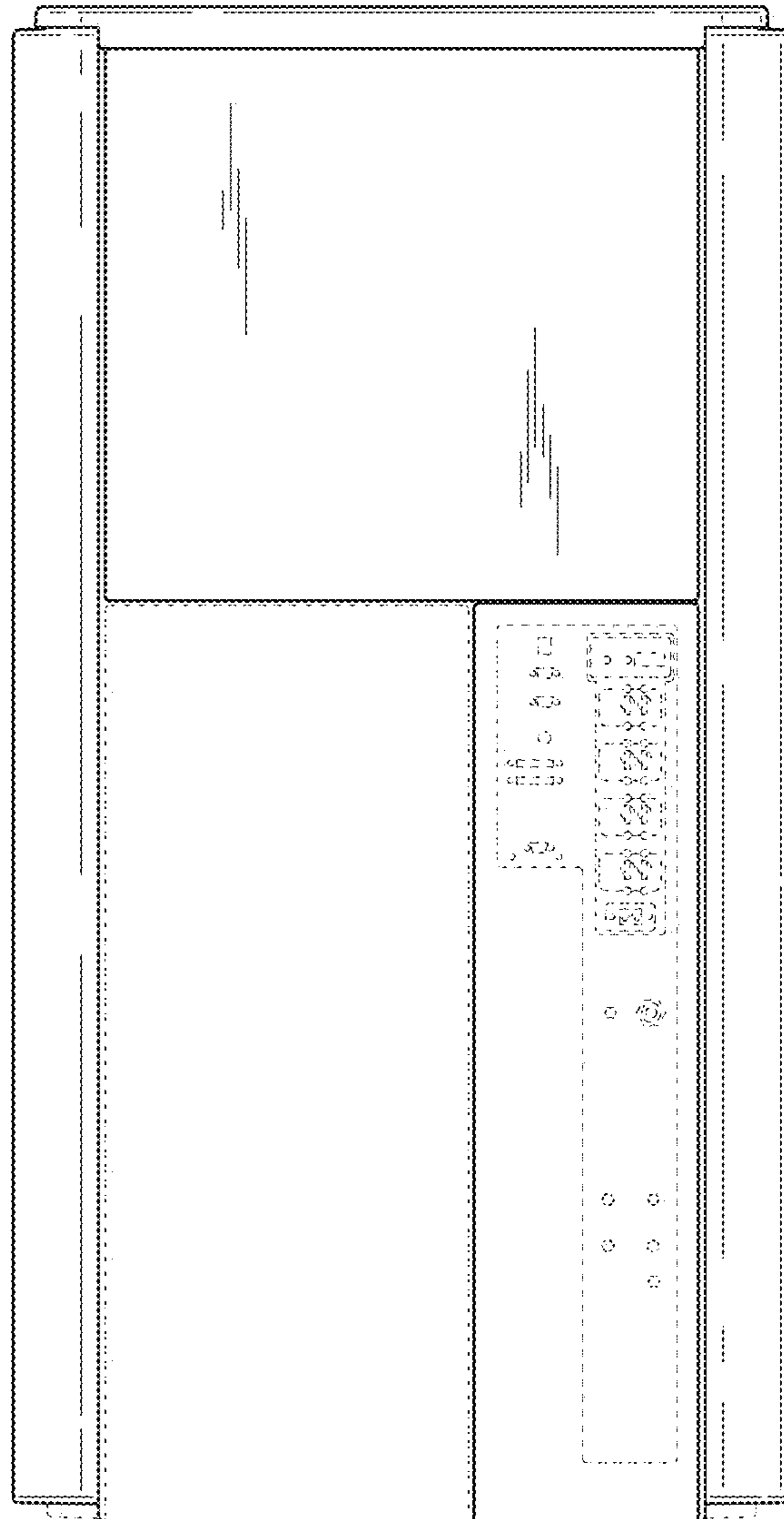


FIG. 3

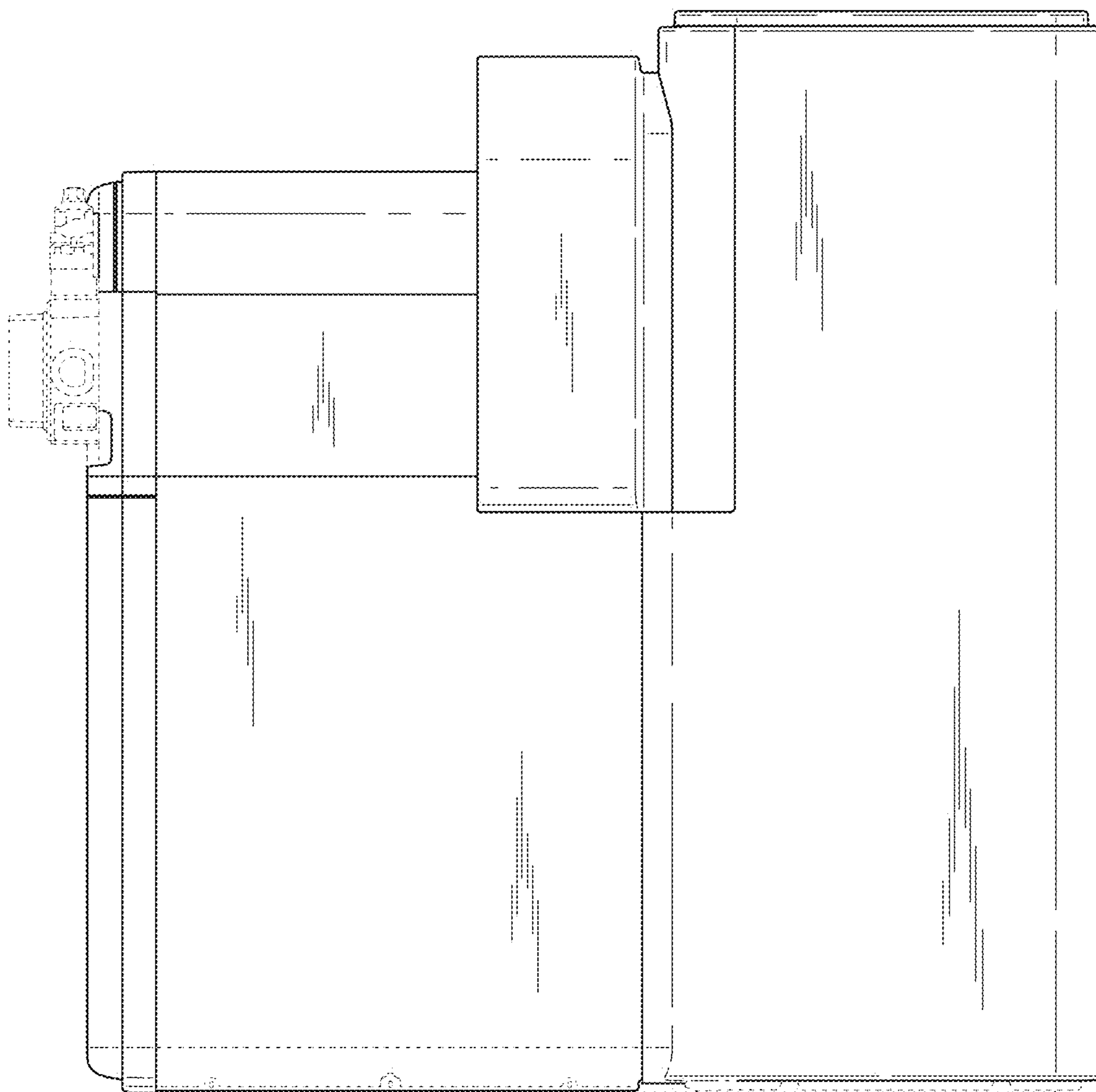


FIG. 4

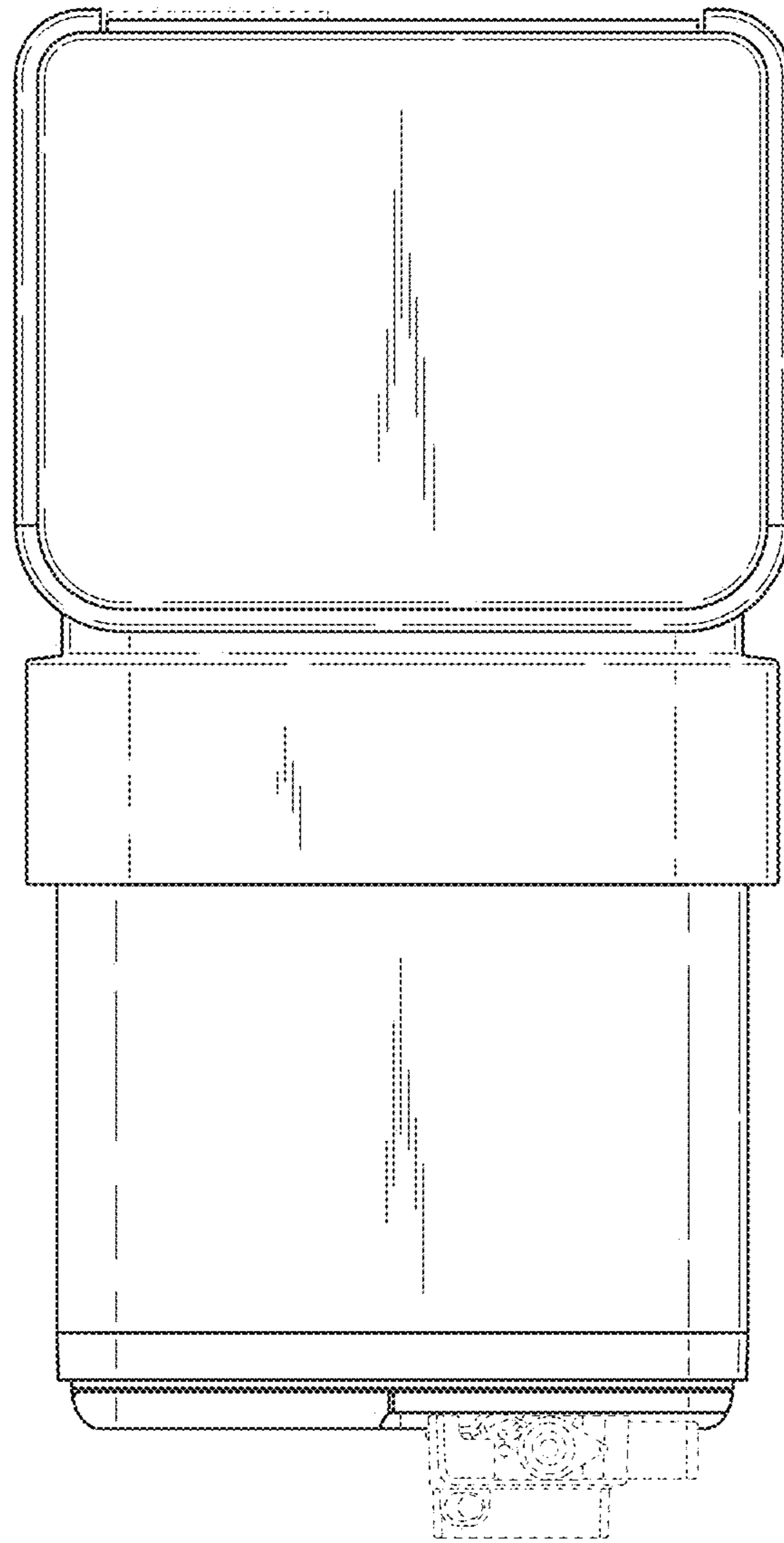


FIG. 5