



US00D984371S

(12) **United States Design Patent** (10) **Patent No.:** **US D984,371 S**
Kim et al. (45) **Date of Patent:** **** Apr. 25, 2023**

(54) **CHARGING STAND EQUIPPED WITH DUST REMOVAL FOR VACUUM CLEANER**

from <https://www.homedepot.com/p/LG-Electronics-CordZero-All-in-One-Cordless-Stick-Vacuum-Cleaner-A939KBGS/319148737>. (Year: 2021).*

(71) Applicant: **LG ELECTRONICS INC.**, Seoul (KR)

(Continued)

(72) Inventors: **Seongmin Kim**, Seoul (KR); **Hoil Jeon**, Seoul (KR); **Seunghyun Song**, Seoul (KR); **Jinju Kim**, Seoul (KR); **Nerry Son**, Seoul (KR)

Primary Examiner — Kendra Leslie Hamilton

Assistant Examiner — Amanda Christensen

(74) *Attorney, Agent, or Firm* — Birch, Stewart, Kolasch & Birch, LLP

(73) Assignee: **LG ELECTRONICS INC.**, Seoul (KR)

(57) **CLAIM**

We claim the ornamental design for a charging stand equipped with dust removal for vacuum cleaner, as shown and described.

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

(21) Appl. No.: **29/768,927**

(22) Filed: **Feb. 2, 2021**

DESCRIPTION

(30) **Foreign Application Priority Data**

Aug. 7, 2020 (KR) 30-2020-0036954

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

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

(58) **Field of Classification Search**
USPC D13/103, 107, 108, 109, 118, 119, 184, D13/199; D14/251, 252, 253, 432, 433, D14/434, 439, 447; D32/18, 31; D34/7
(Continued)

FIG. 1 is a top, front, right side perspective view of a charging stand equipped with dust removal for vacuum cleaner, showing our new design with the upper lid closed, in a first configuration;

FIG. 2 is a top, rear, left side perspective view thereof;

FIG. 3 is a front elevation view thereof;

FIG. 4 is a rear elevation view thereof;

FIG. 5 is a left-side elevation view thereof;

FIG. 6 is a right-side elevation view thereof;

FIG. 7 is a top plan view thereof;

FIG. 8 is a bottom plan view thereof;

FIG. 9 is a top, front, right side perspective view of the charging stand, shown with the upper lid closed, in a second configuration;

FIG. 10 is a top, front, right side perspective view of the charging stand, shown with the upper lid open, in a third configuration;

FIG. 11 is a front elevation view of the charging stand, shown in the first configuration and in a state of use; and,

FIG. 12 is a top, front, right side perspective view of detail "12" identified in FIG. 9, shown enlarged for clarity of disclosure.

The broken lines represent portions of the charging stand equipped with dust removal for vacuum cleaner that form no

(56) **References Cited**

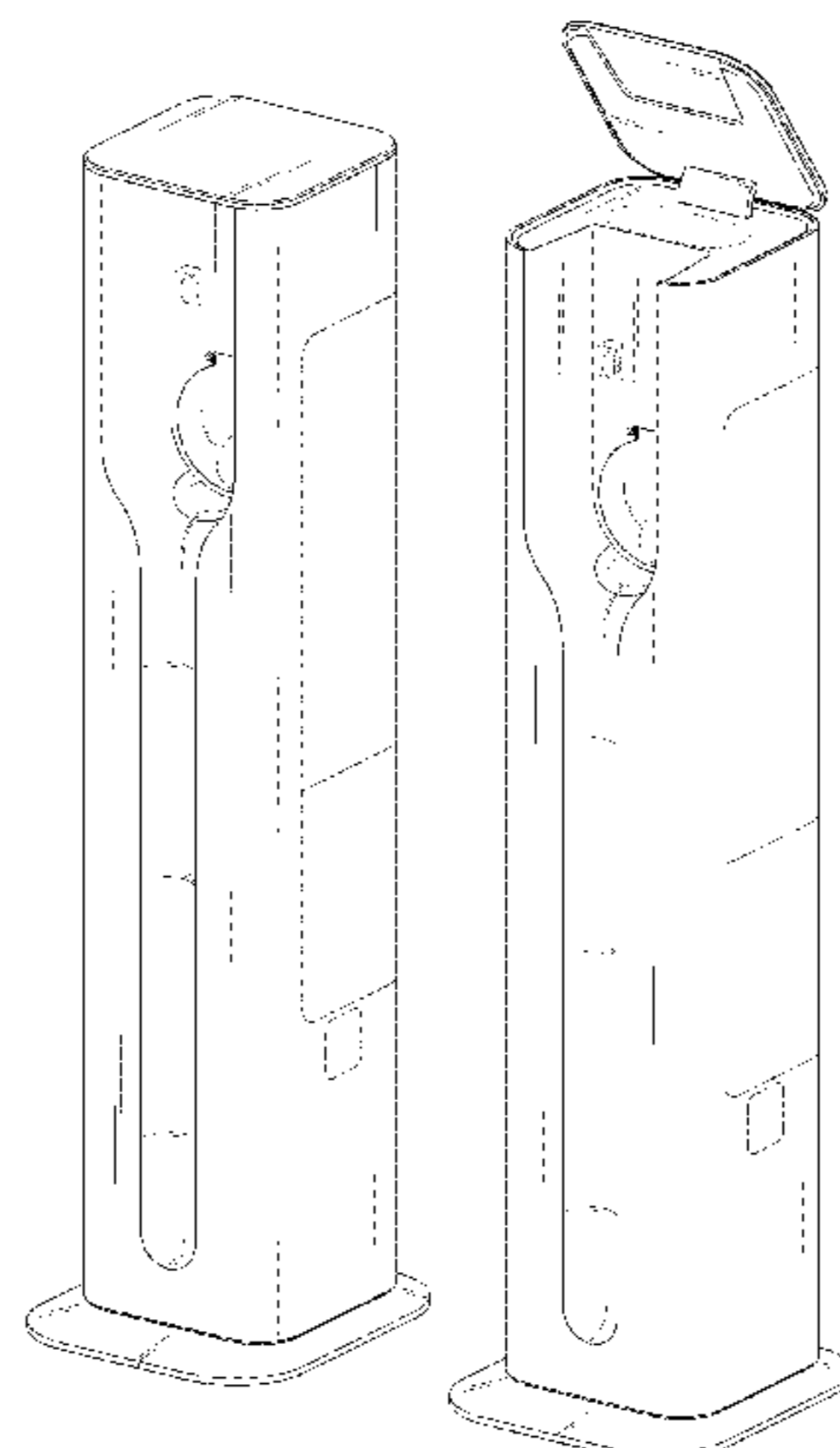
U.S. PATENT DOCUMENTS

D676,376 S * 2/2013 Yamada D13/107
D790,457 S * 6/2017 Vargas D13/108
(Continued)

OTHER PUBLICATIONS

"LG Electronics CordZero Vacuum Cleaner". Found online May 18, 2022 at [homedepot.com](https://www.homedepot.com). Reference dated Oct. 2, 2021. Retrieved

(Continued)



part of the claimed design. The broken lines on the vacuum cleaner part in FIG. 11 are for environment purpose only and form no part thereof.

1 Claim, 12 Drawing Sheets

(58) Field of Classification Search

CPC H02J 15/00; H02J 7/0027; H01M 10/00
See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

D800,652	S	*	10/2017	Yang	.....	D13/107
D835,576	S	*	12/2018	Jenkins	.....	D13/108
D924,522	S	*	7/2021	Jang	.....	D34/7
11,134,818	B2	*	10/2021	Kim	.....	A47L 9/30
D948,821	S	*	4/2022	Uim	.....	D32/31

D948,822	S	*	4/2022	Kim	.....	D32/31
D950,485	S	*	5/2022	Mercer	.....	D13/107
2016/0183752	A1	*	6/2016	Morin	.....	A47L 9/00
						15/340.1
2017/0319038	A1	*	11/2017	Kim	.....	A47L 5/28
2019/0298135	A1	*	10/2019	Hwang	.....	A47L 5/225
2021/0038034	A1	*	2/2021	Na	.....	A47L 9/149

OTHER PUBLICATIONS

“EV Charging Stations”. Found online May 18, 2022 at news.utoledo.edu. Reference dated Jan. 24, 2011. Retrieved from https://news.utoledo.edu/index.php/01_24_2011/ut-installs-electric-car-charging-stations-on-campus. (Year: 2011).*

“Standard Charging Cradle”. Found online May 18, 2022 at poly.com. Reference dated Jul. 8, 2015. Retrieved from https://tineye.com/Search/703e9881fe6e439d78214baf71906f0d6a5e53aa?sort=crawl_date&order=asc&page=1. (Year: 2015).*

* cited by examiner

FIG. 1

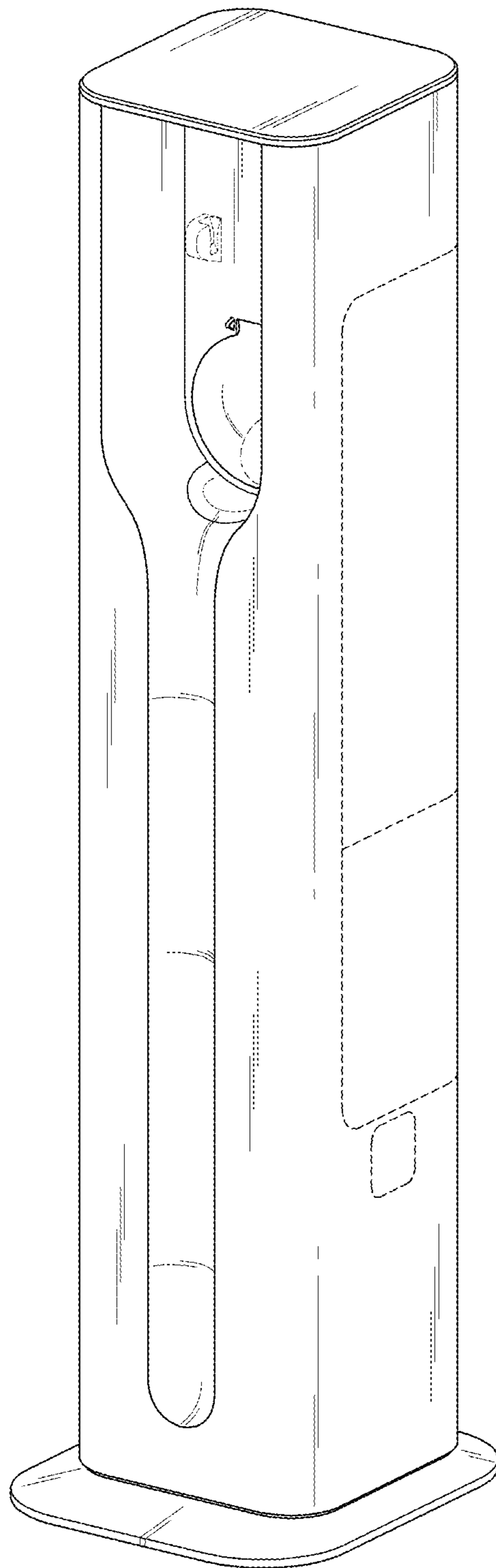


FIG. 2

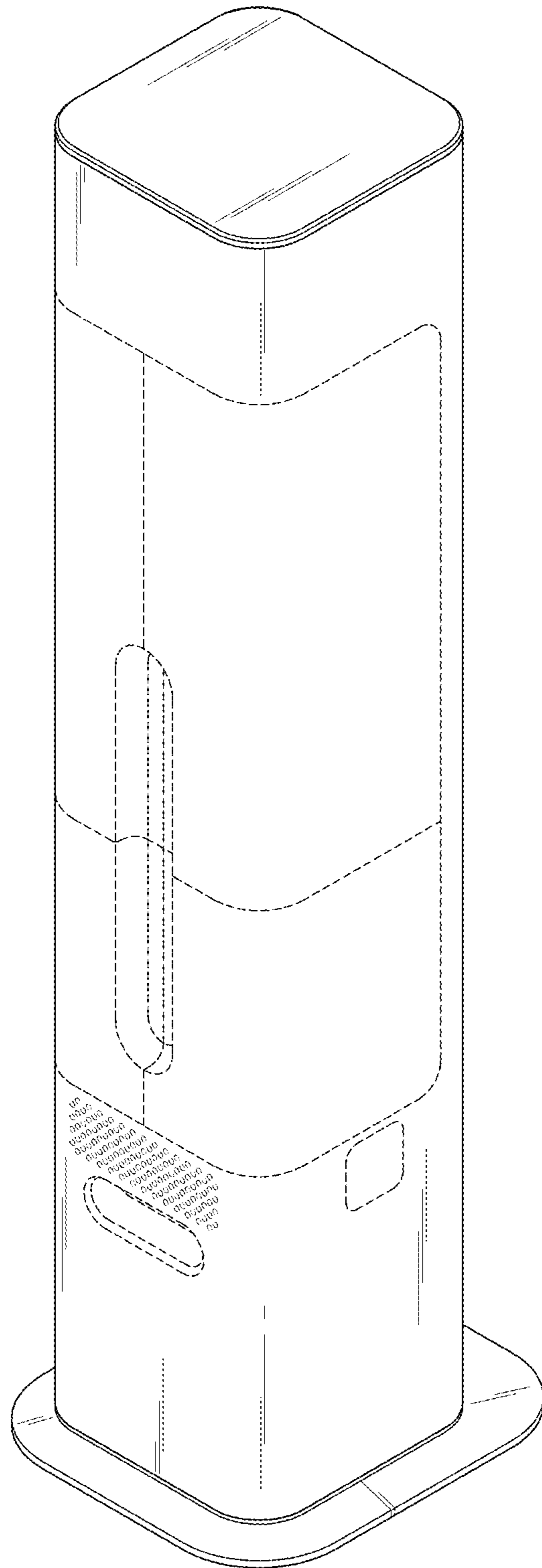


FIG. 3

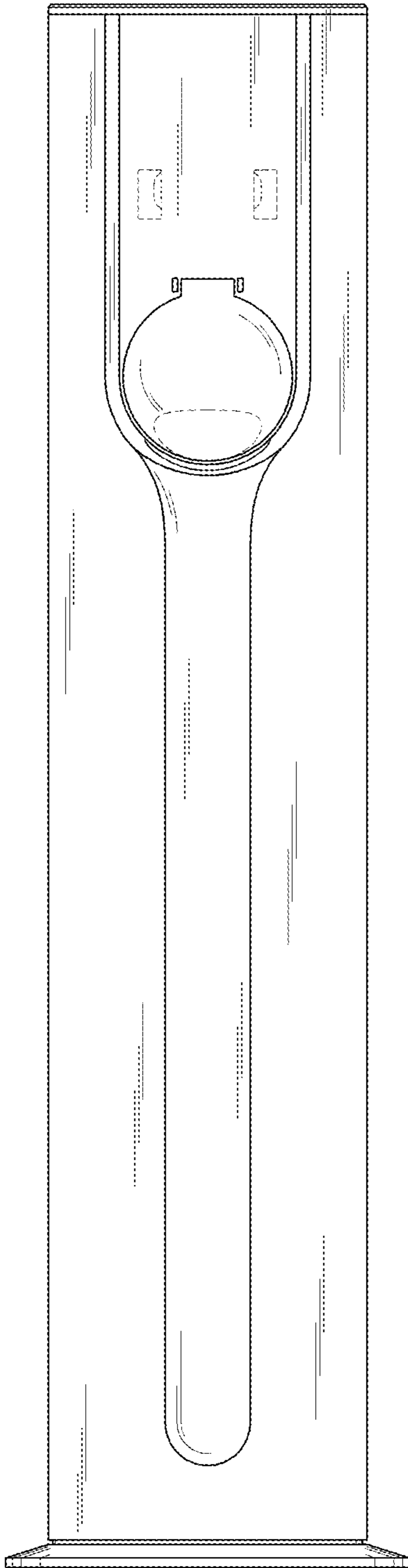


FIG. 4

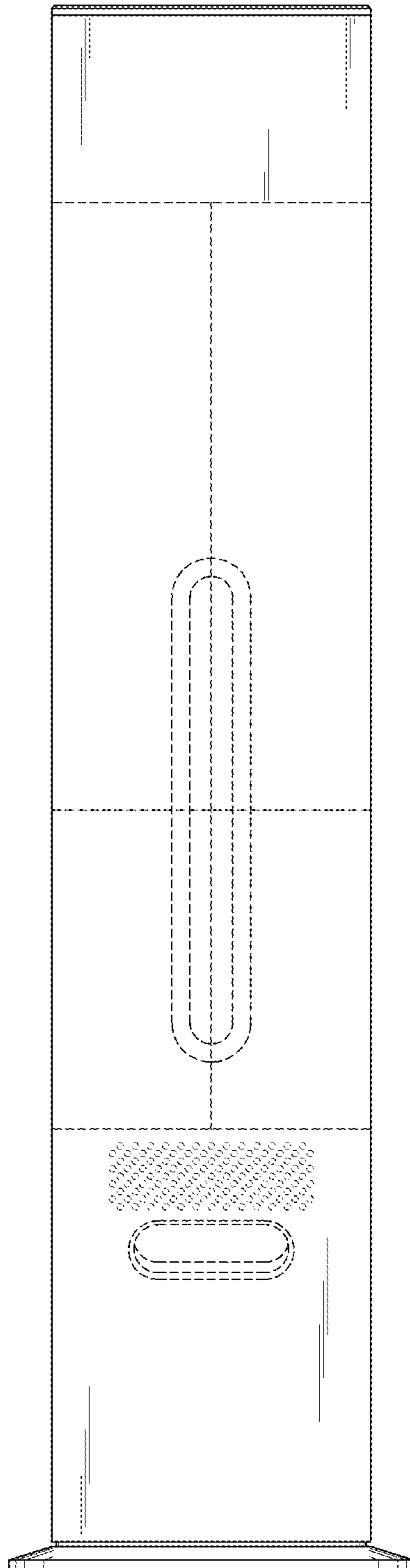


FIG. 5

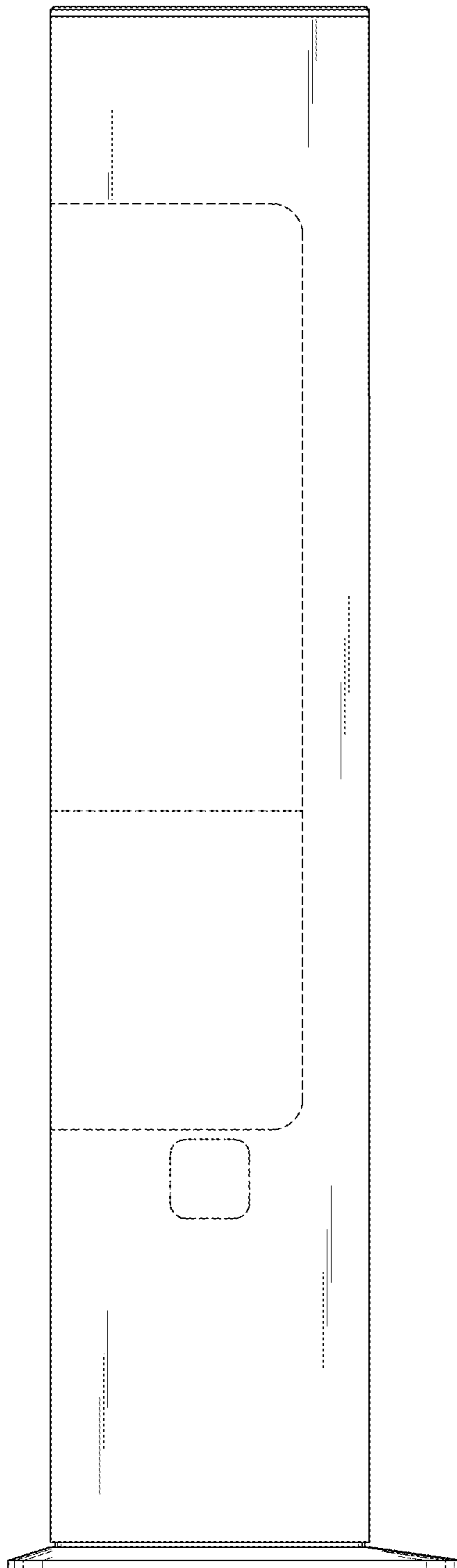


FIG. 6

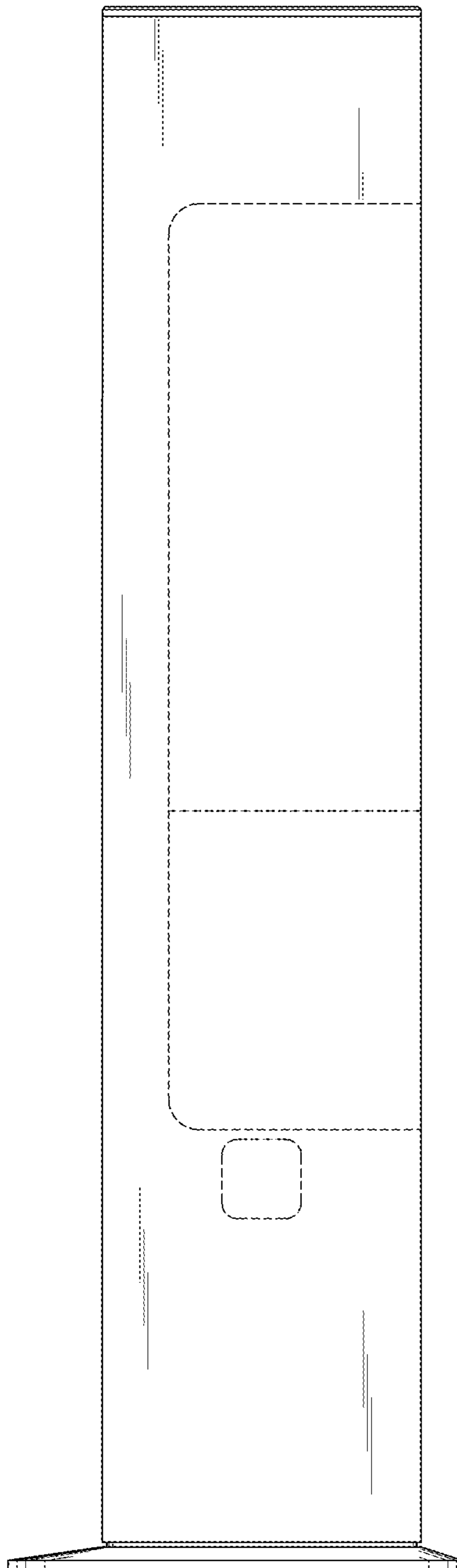


FIG. 7

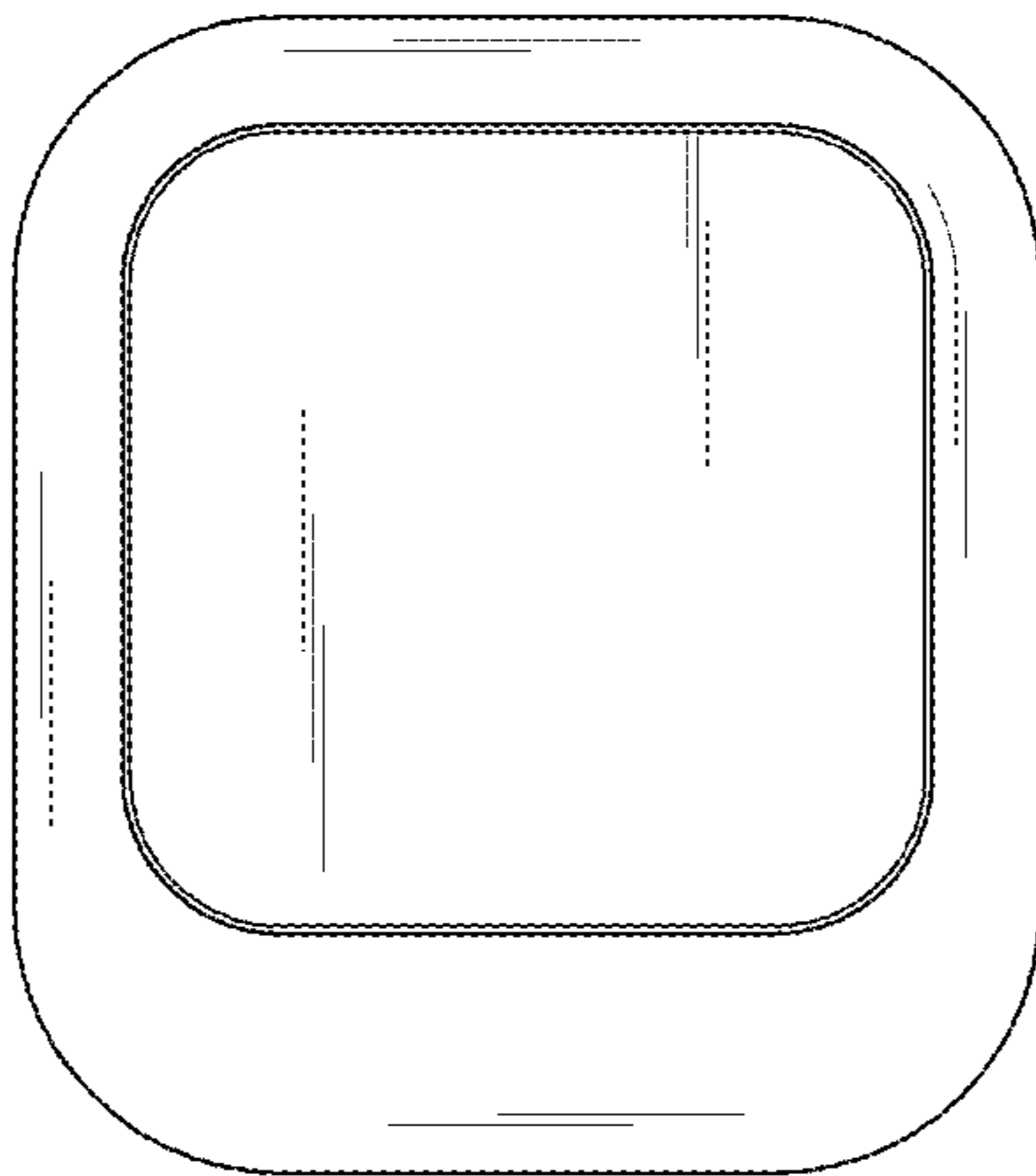


FIG. 8

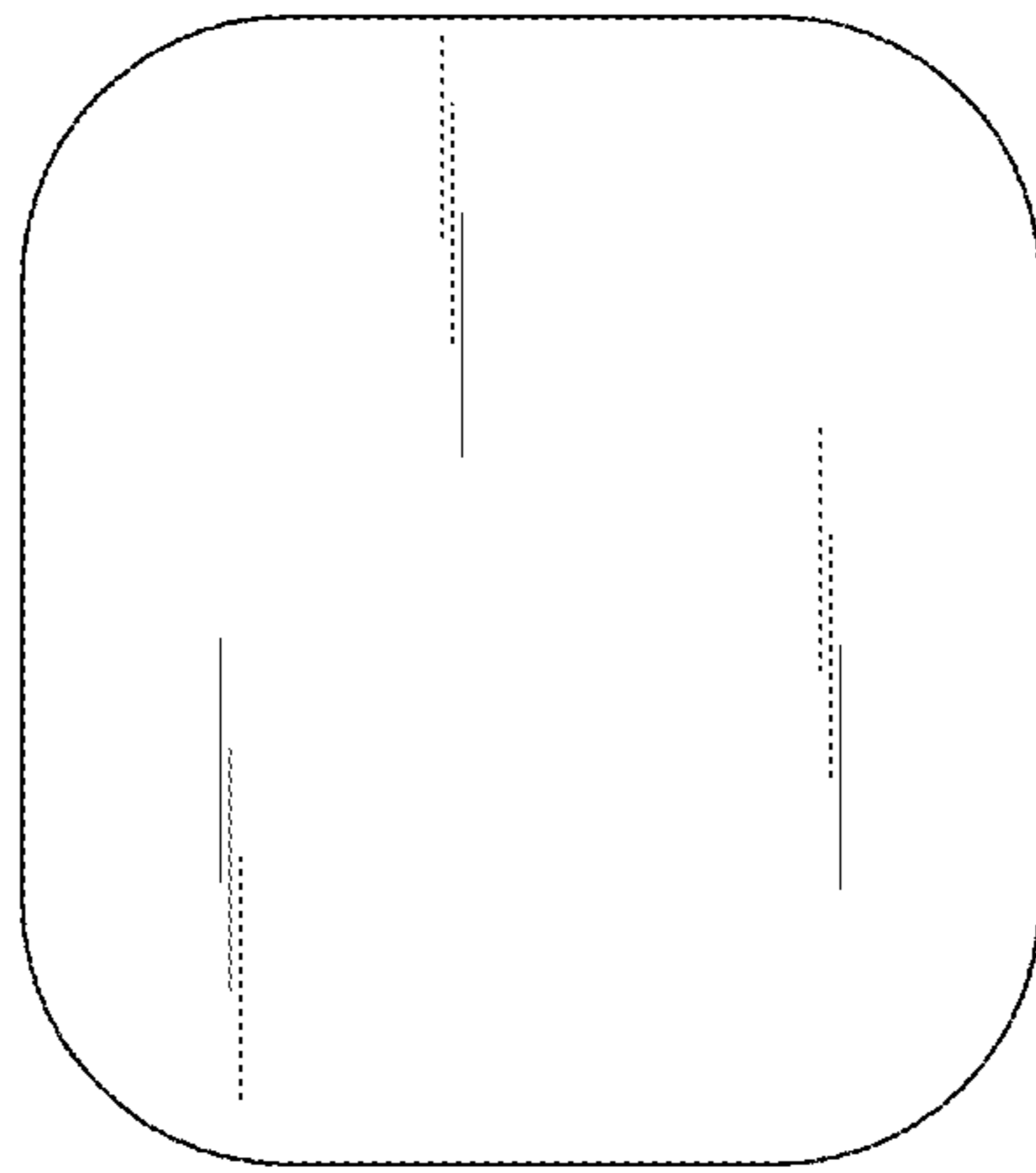


FIG. 9

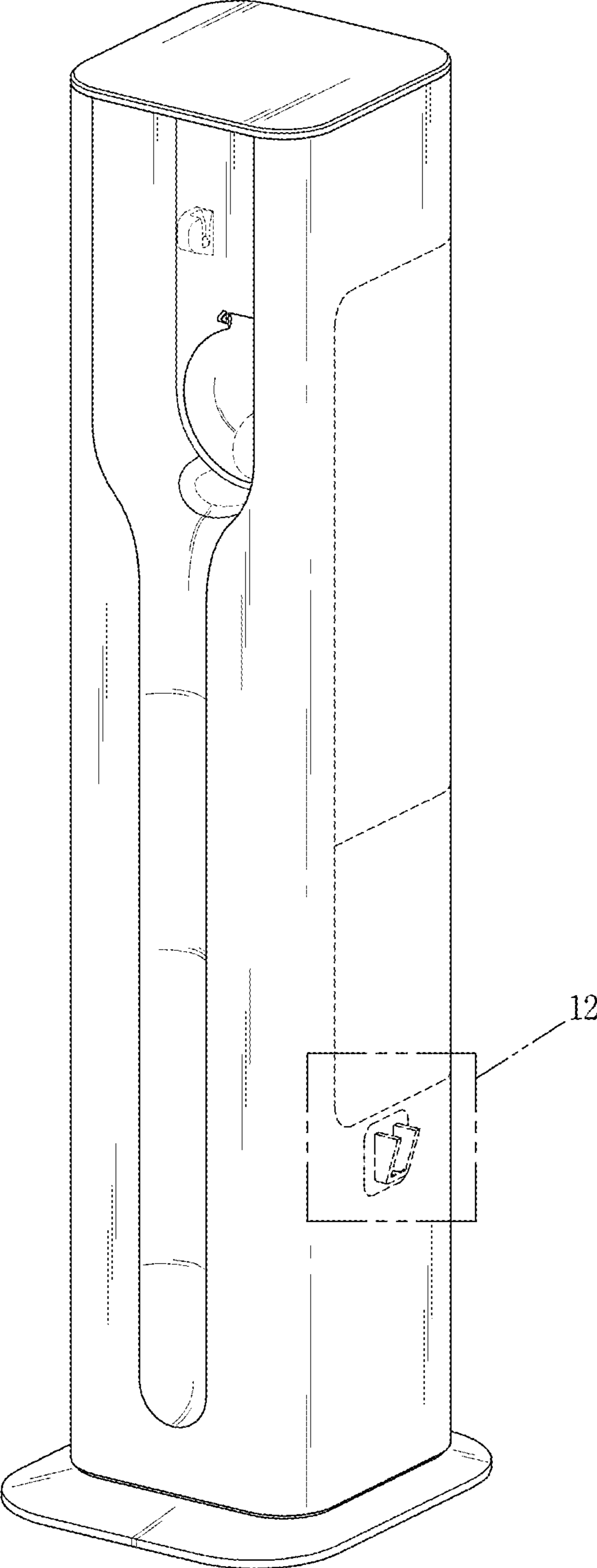


FIG. 10

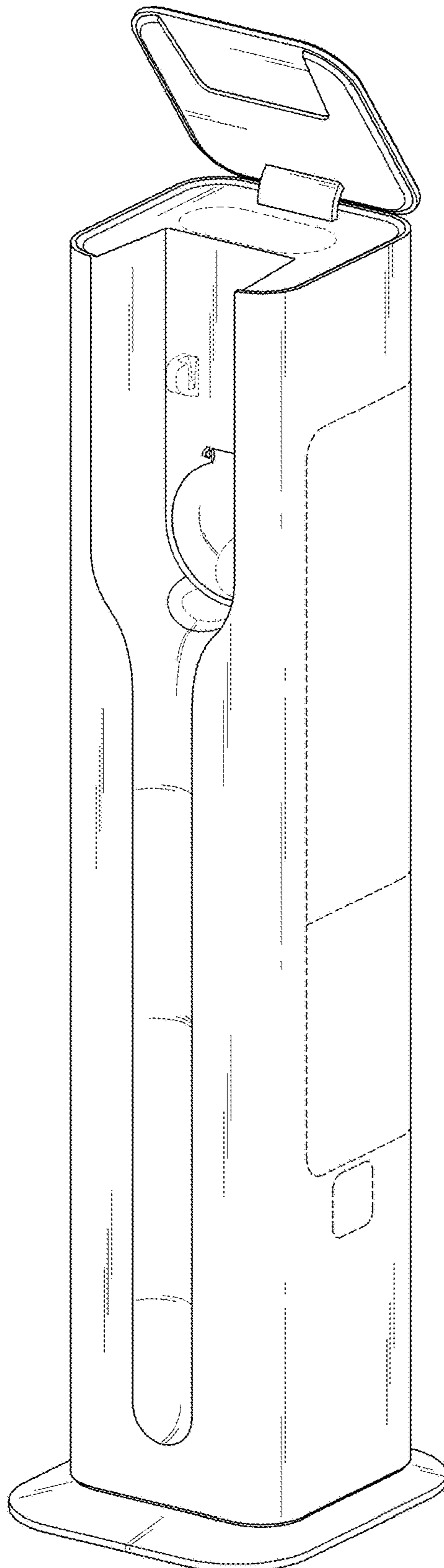


FIG. 11

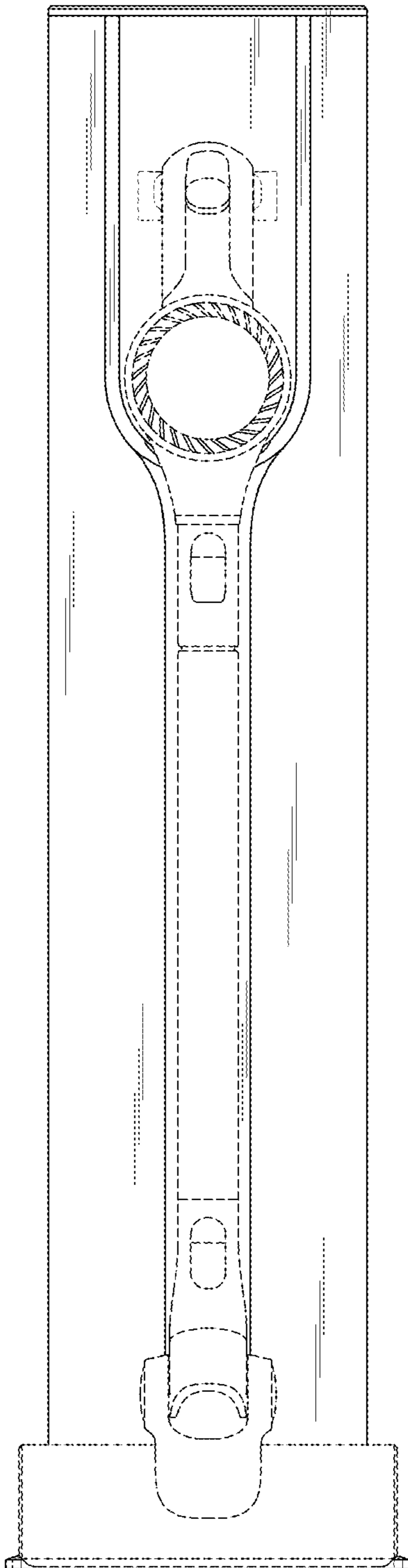


FIG. 12

