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(12) **United States Design Patent** (10) **Patent No.:** **US D903,961 S**  
**Li** (45) **Date of Patent:** **\*\* Dec. 1, 2020**

(54) **ROBOTIC VACUUM CLEANER**  
(71) Applicant: **Shenzhen Modern Business Trading Co., Ltd., Shenzhen (CN)**  
(72) Inventor: **ShaoJun Li, Guangdong (CN)**  
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(52) **U.S. Cl.**  
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See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D548,902 S \* 8/2007 Chun ..... D32/21  
7,441,298 B2 \* 10/2008 Svendsen ..... A47L 5/30  
15/49.1  
D658,341 S \* 4/2012 Nam ..... D32/21  
D660,530 S \* 5/2012 Geringer ..... D32/21  
D661,440 S \* 6/2012 Lee ..... D32/21  
D669,235 S \* 10/2012 Bassett ..... D32/21  
D682,495 S \* 5/2013 Kim ..... D32/21  
D690,478 S \* 9/2013 Li ..... D32/21  
8,584,305 B2 \* 11/2013 Won ..... A47L 5/30  
15/319  
8,741,013 B2 \* 6/2014 Swett ..... A47L 9/106  
15/319  
D771,884 S \* 11/2016 Ninomiya ..... D32/21  
D835,869 S \* 12/2018 Li ..... D32/21  
10,143,348 B2 \* 12/2018 Machida ..... A47L 9/10  
D840,617 S \* 2/2019 Dou ..... D32/21  
D843,671 S \* 3/2019 Chei ..... D32/21  
10,222,805 B2 \* 3/2019 Munich ..... G05D 1/0246

10,349,798 B2 \* 7/2019 Jun ..... A47L 9/2852  
D860,559 S 9/2019 Thackray et al.  
10,463,215 B2 \* 11/2019 Morin ..... A47L 9/2815  
D869,109 S \* 12/2019 Yu ..... D32/21  
D870,403 S \* 12/2019 Ebrahimi Afrouzi ..... D32/21  
D870,994 S \* 12/2019 Zhou ..... D32/21  
(Continued)

**OTHER PUBLICATIONS**

Deenkee DK600 (on-line), dated Jul. 12, 2019. Retrieved from Internet Jun. 3, 2020, URL: <https://web.archive.org/web/20190712184757/https://www.deenkee.com/portal/list/index/id/13.html> (1 page) (Year: 2019).\*

(Continued)

*Primary Examiner* — Kimberly Barnes  
(74) *Attorney, Agent, or Firm* — ZANIP

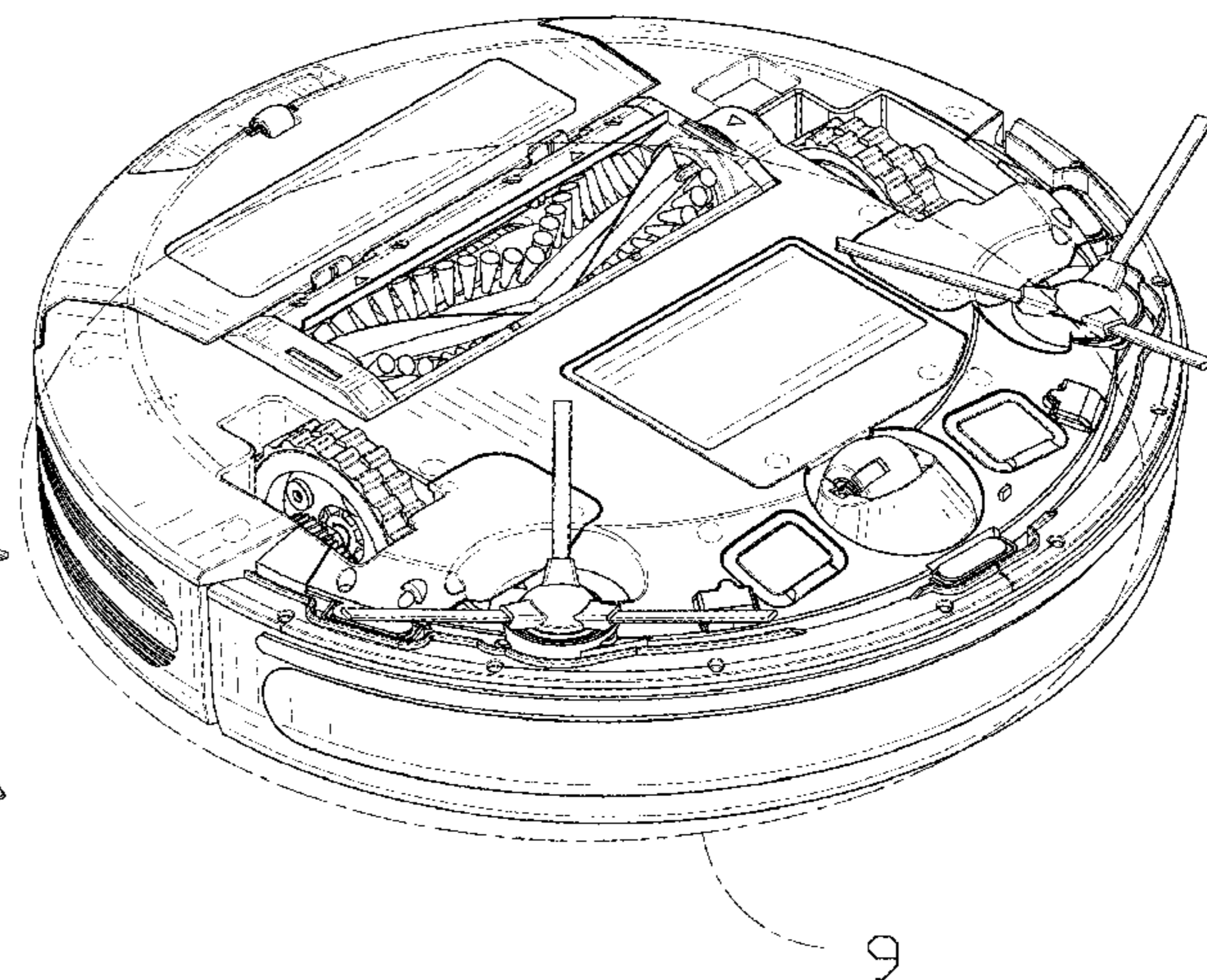
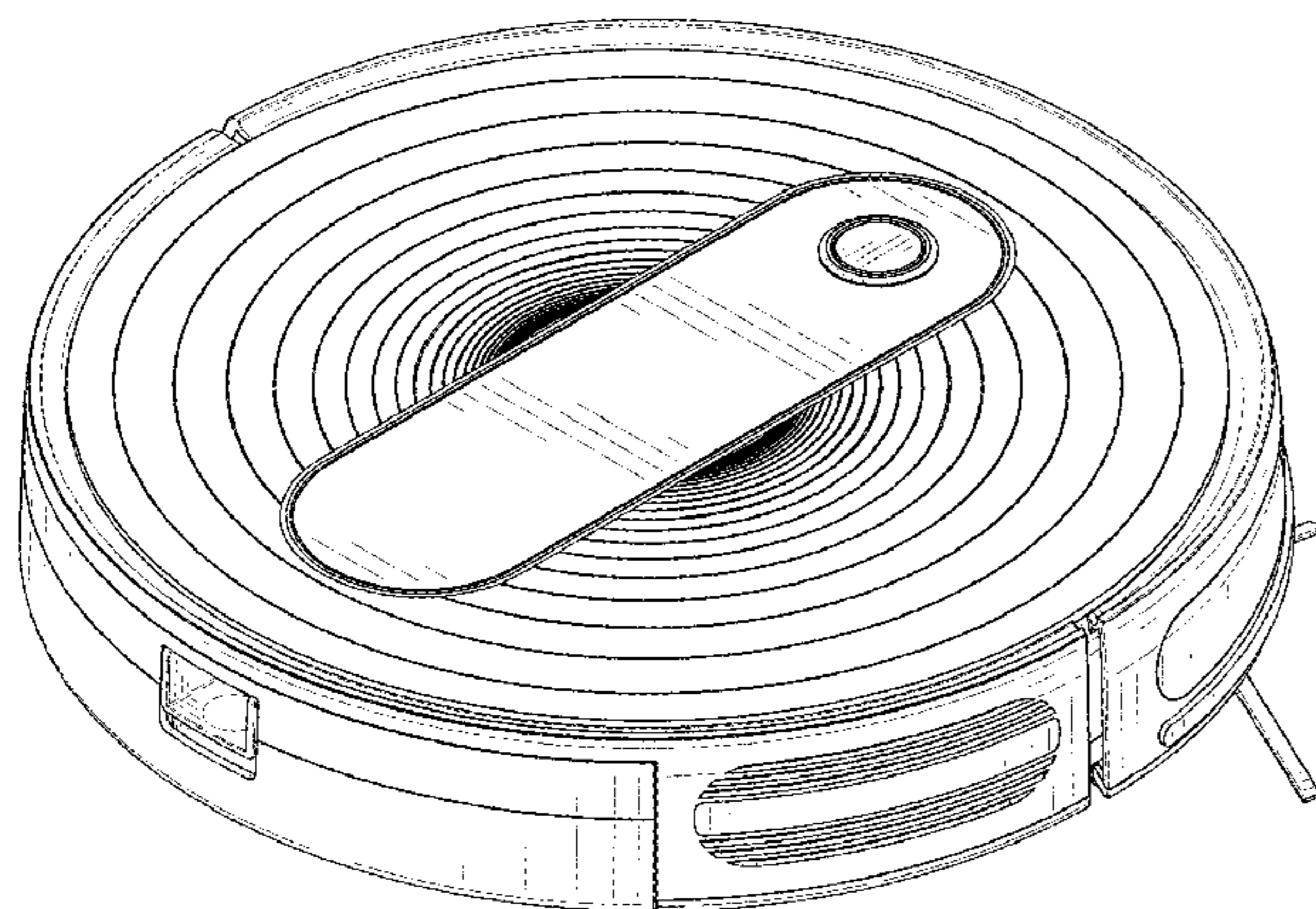
(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a front and top perspective view of a robotic vacuum cleaner, showing my new design;  
FIG. 2 is a rear and bottom perspective view thereof;  
FIG. 3 is a top plan view thereof;  
FIG. 4 is a bottom plan view thereof;  
FIG. 5 is a left side devotional view thereof;  
FIG. 6 is a right side elevational view thereof;  
FIG. 7 is a rear elevational view thereof;  
FIG. 8 is a front elevational view thereof; and,  
FIG. 9 is an enlarged view of a portion indicated in FIG. 2. The broken lines in the figures illustrate portions of the robotic vacuum cleaner that form no part of the claimed design. The dash dot dash lines in FIGS. 2 and 9 are for the purpose of depicting the cut line of the enlarged view and form no part of the claim.

**1 Claim, 9 Drawing Sheets**



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(56)

References Cited

U.S. PATENT DOCUMENTS

D871,694	S *	12/2019	Casini	.....	D32/21
D872,953	S *	1/2020	Ebrahimi Afrouzi	.....	D32/21
D876,035	S *	2/2020	Song	.....	D32/21
D884,298	S *	5/2020	Li	.....	D32/21
D885,698	S *	5/2020	Li	.....	D32/21
D885,699	S *	5/2020	Li	.....	D32/21
D890,457	S *	7/2020	Pearce	.....	D32/21
D893,819	S *	8/2020	Li	.....	D32/21
2016/0051110	A1 *	2/2016	Cao	.....	A47L 9/009 15/324
2019/0069744	A1 *	3/2019	Liggett	.....	A47L 9/2805
2019/0171222	A1 *	6/2019	Nan	.....	A47L 9/00
2019/0200823	A1 *	7/2019	Song	.....	A47L 9/30
2019/0350428	A1 *	11/2019	Hu	.....	A47L 11/4083
2020/0022553	A1 *	1/2020	Gill	.....	A47L 11/4025
2020/0037843	A1 *	2/2020	Fiebig	.....	A47L 9/2889

OTHER PUBLICATIONS

Deenkee DK600 vacuum review (on-line), dated Aug. 1, 2019. Retrieved from Internet Jun. 3, 2020, URL: <https://www.youtube.com/watch?v=G-umVIQVRf8> (1 page) (Year: 2019).\*

Bagotte BG600 Robot Vacuum Cleaner (on-line), reviewed Apr. 6, 2019. Retrieved from Internet Jun. 3, 2020, URL: <https://www.amazon.com/Bagotte-Cleaner-Self-Charging-Automatic-Hardwood/dp/B07MVTFZS7> (1 page) (Year: 2019).\*

Amarey A900 Smart Robot Vacuum Cleaner (on-line), dated Sep. 11, 2019. Retrieved from Internet Jun. 3, 2020, URL: <https://readwrite.com/2019/09/11/amarey-a900-smart-robot-vacuum-cleaner-connected-navigational-and-versatile/> (6 pages) (Year: 2019).\*

Eufy RoboVac 15C (on-line), no date available. Retrieved from Internet Jun. 3, 2020, URL: <https://www.amazon.com/eufy-Upgraded-Super-Thin-Self-Charging-Medium-Pile/dp/B07MPS81HR> (1 page).\*

Liebert C30B Robot Vacuum Cleaner (on-line), no date available. Retrieved from Internet Jun. 3, 2020, URL: <https://www.newegg.com/black-liebert-c30b-e30-robot-vacuum-cleaner/p/0UH-0049-00012#> (5 pages).\*

Proscenic 820P Robot Vacuum Cleaner (on-line), no date available. Retrieved from Internet Jun. 3, 2020, URL: <https://www.geekmaxi.com/en/robot-vacuum-cleaner-proscenic-820p-robot-vacuum-cleaner-with-wet-cleaning-function-eu-plug-1192.html> (13 pages).\*

The Best Robot Vacuums (on-line), dated Nov. 6, 2019. Retrieved from Internet Jun. 3, 2020, URL: <https://www.wired.com/gallery/best-robot-vacuums/> (7 pages) (Year: 2019).\*

\* cited by examiner

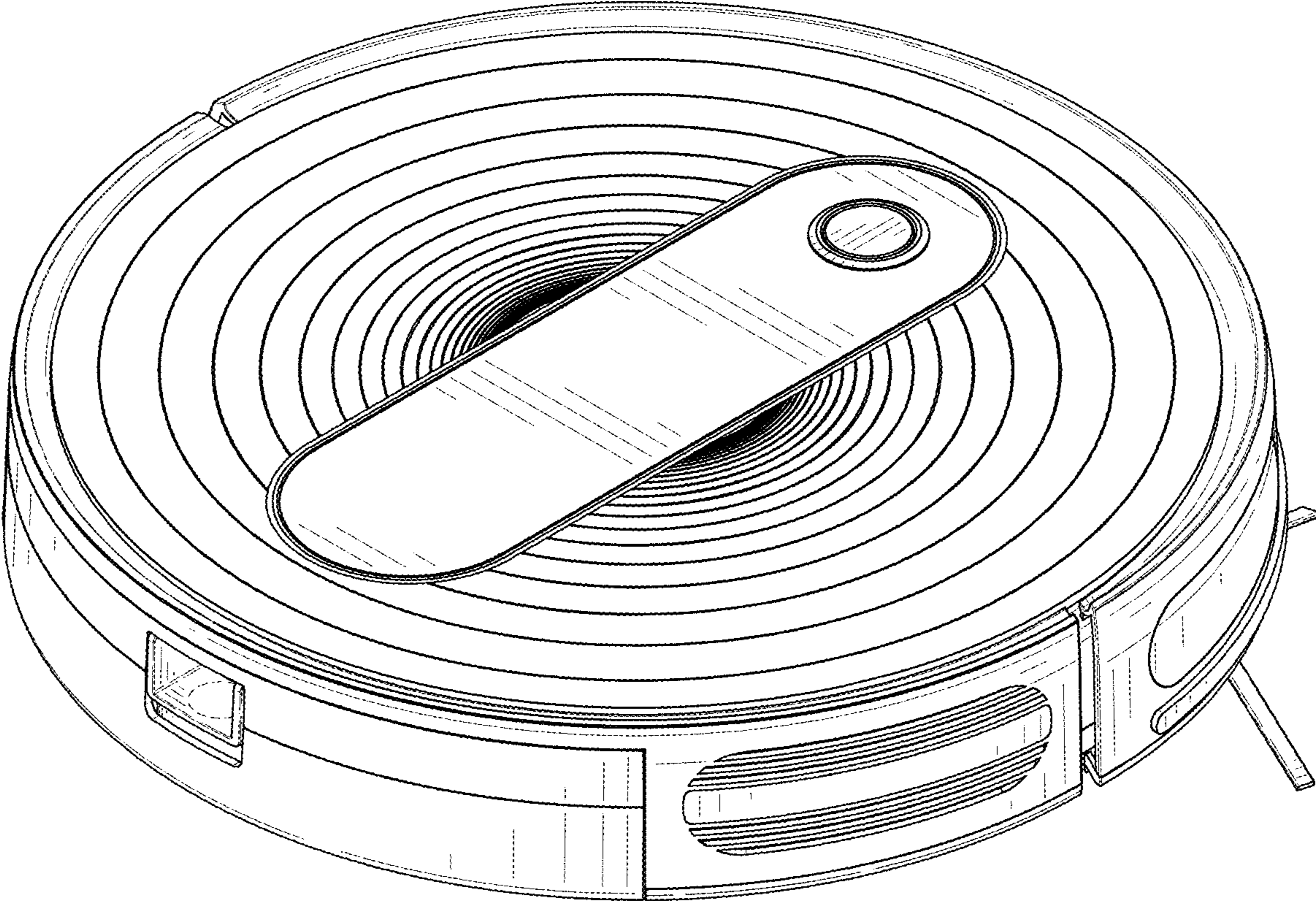


FIG. 1

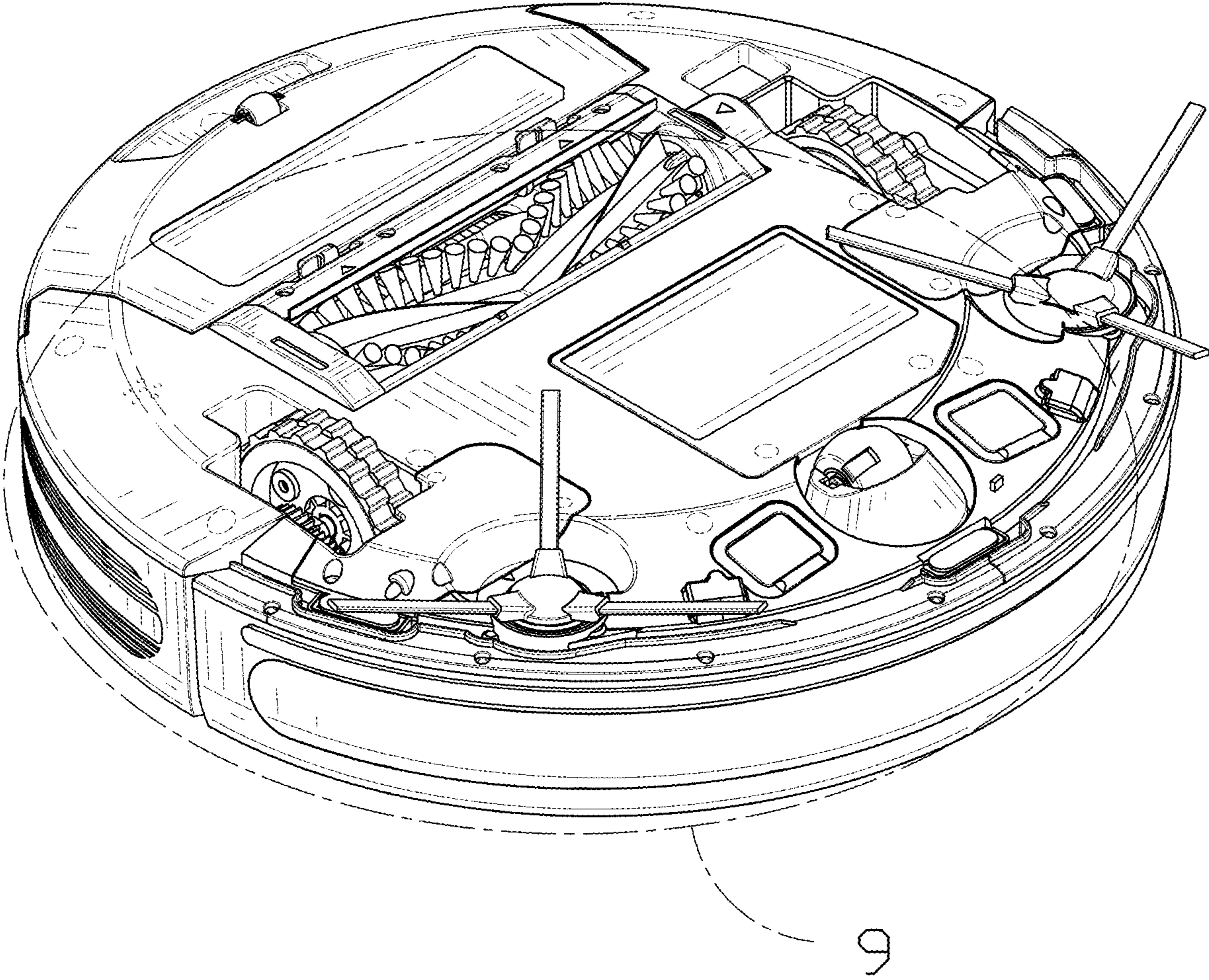


FIG. 2

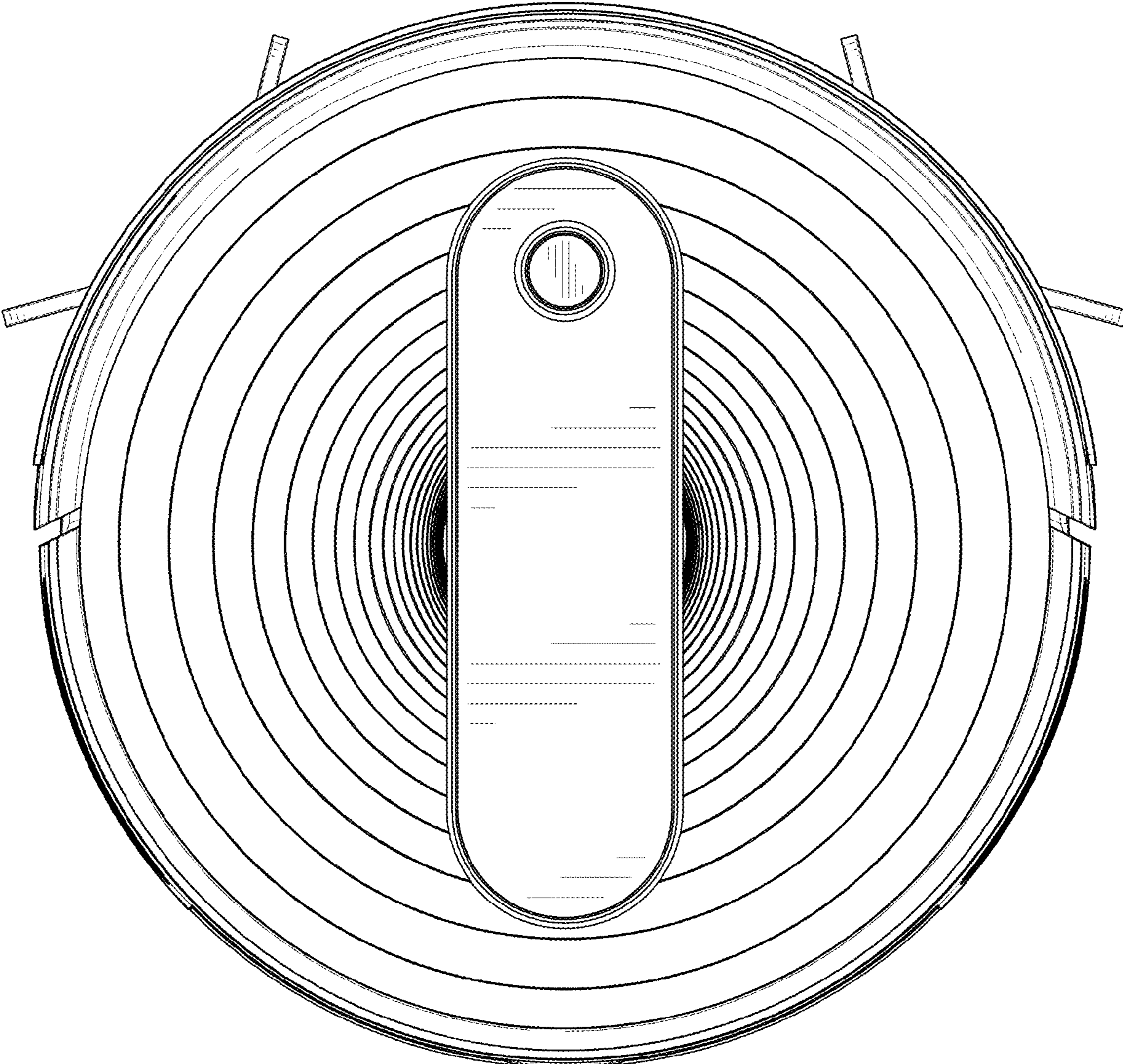


FIG. 3

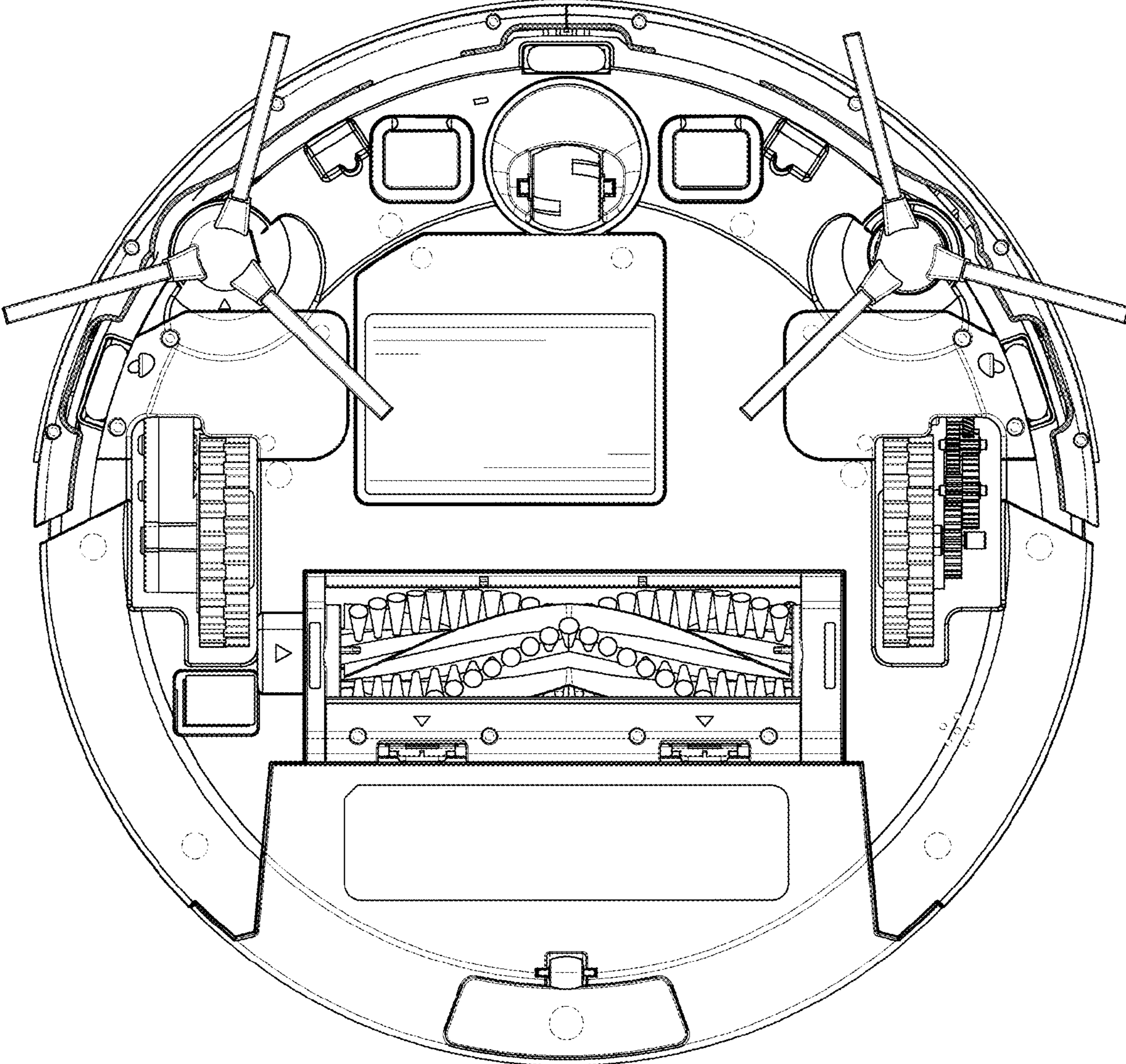


FIG. 4

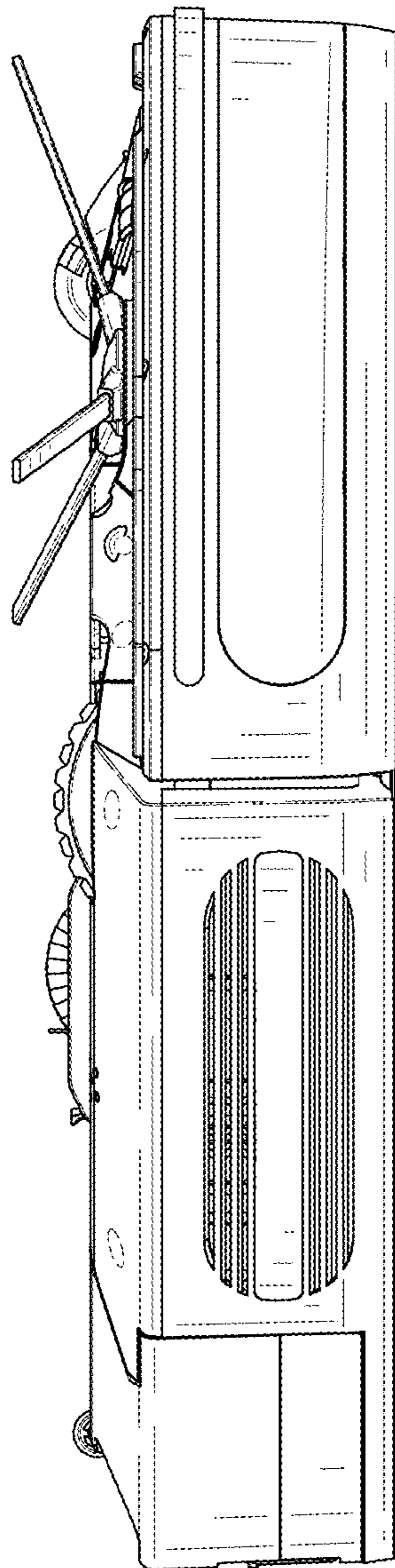


FIG. 5

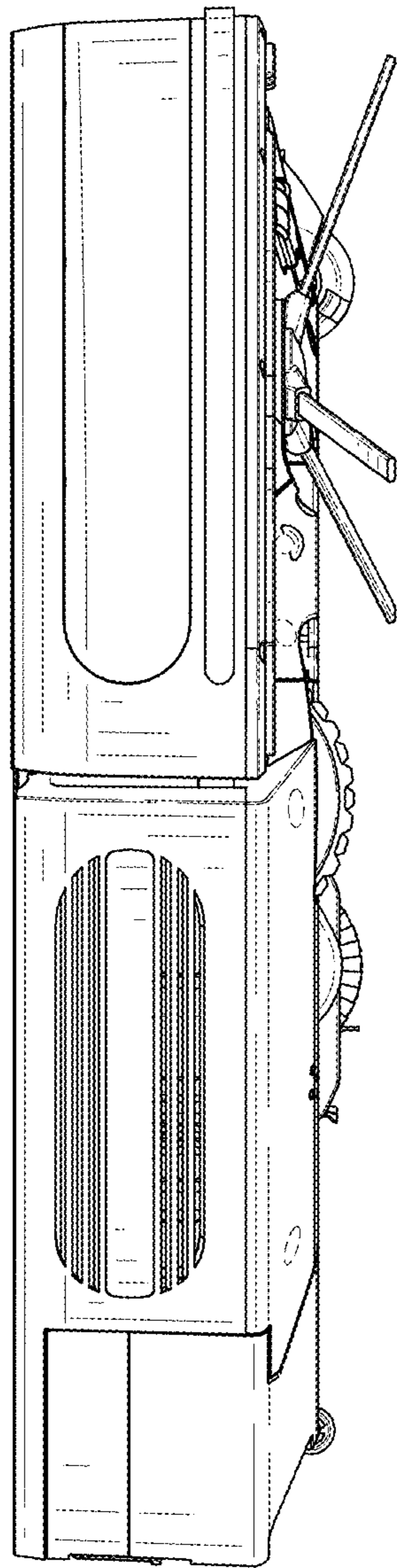


FIG. 6



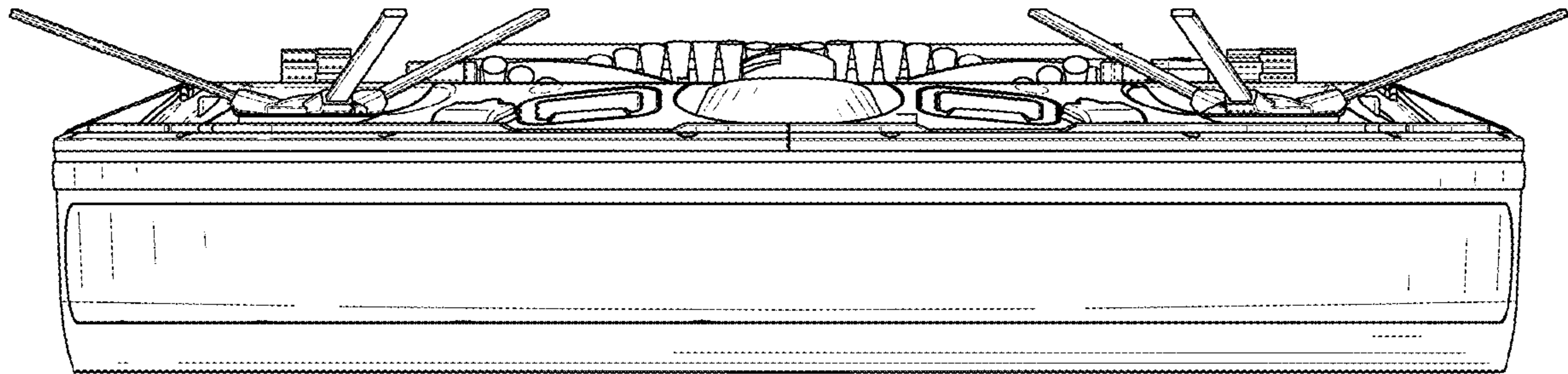


FIG. 7

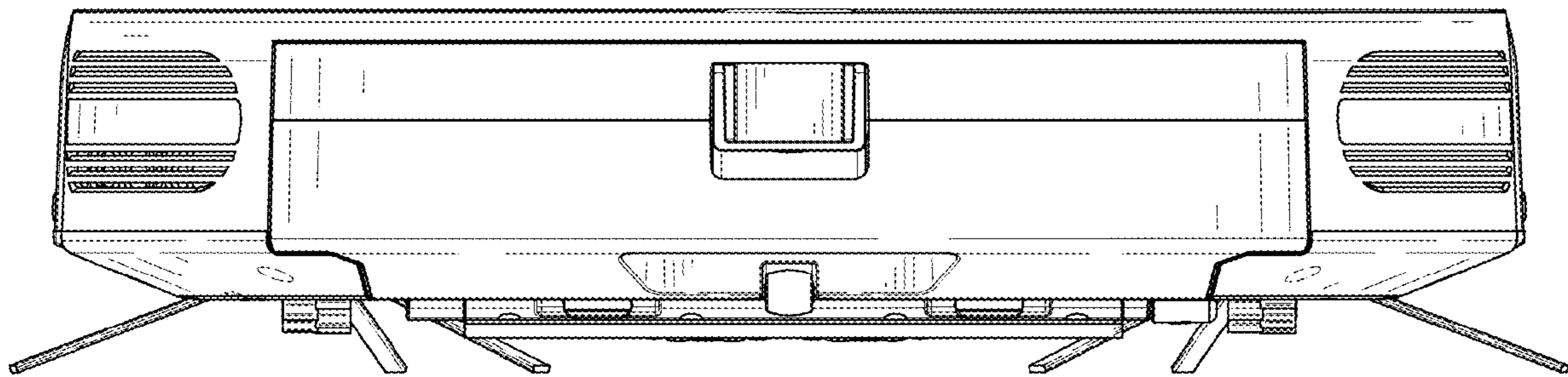


FIG. 8

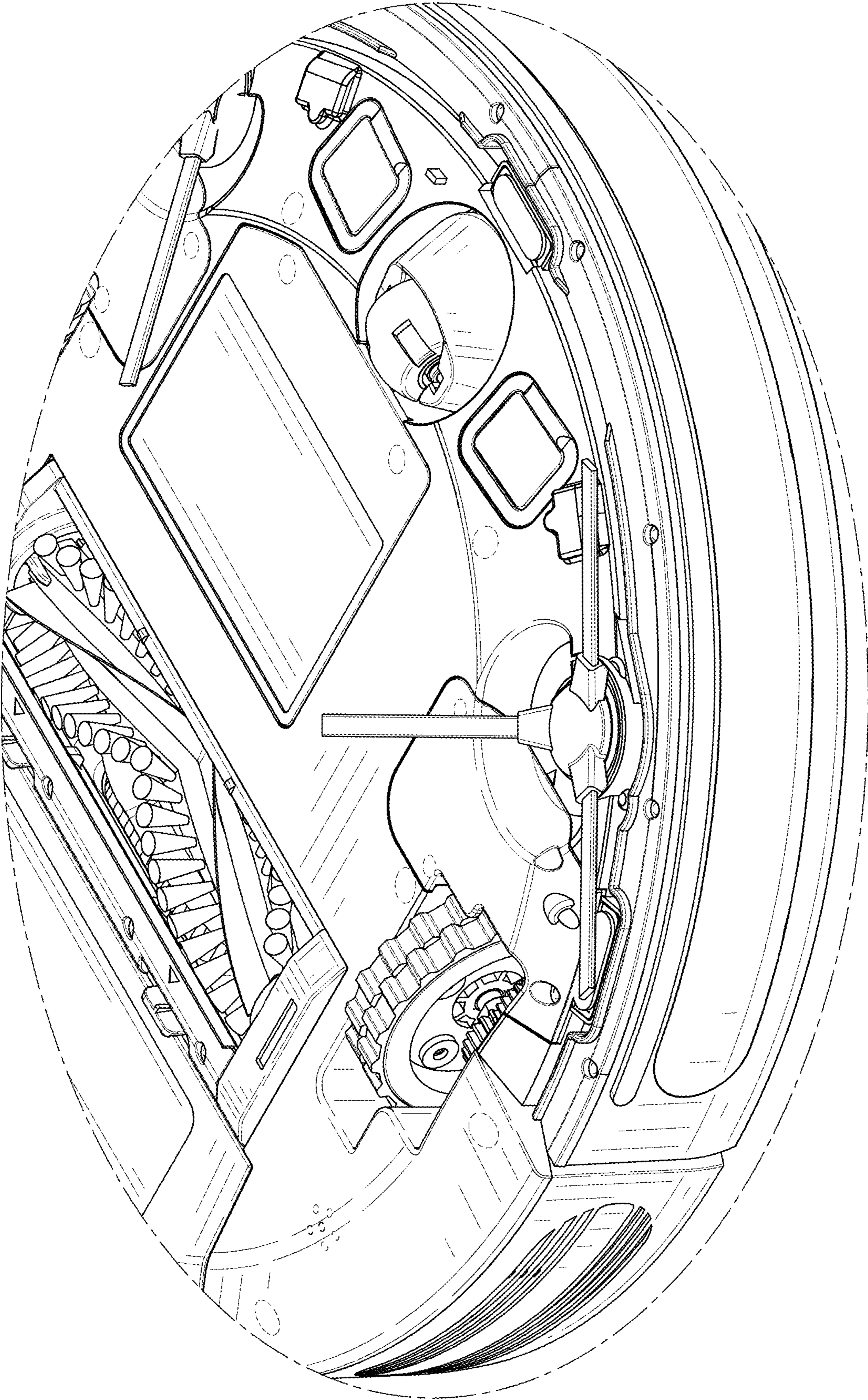


FIG. 9