

US00D936312S

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

(10) **Patent No.:** **US D936,312 S**
(45) **Date of Patent:** **** Nov. 16, 2021**

(54) **VACUUM CLEANER**

(71) Applicant: **SHENZHEN QIANHAI PATUOXUN NETWORK AND TECHNOLOGY CO., LTD**, Shenzhen (CN)

(72) Inventors: **Xianwei Liu**, Shenzhen (CN); **Guijun Mu**, Shenzhen (CN)

(73) Assignee: **SHENZHEN QIANHAI PATUOXUN NETWORK AND TECHNOLOGY CO., LTD**, Shenzhen (CN)

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

(21) Appl. No.: **29/751,904**

(22) Filed: **Sep. 24, 2020**

(51) **LOC (13) Cl.** **15-05**

(52) **U.S. Cl.**
USPC **D32/18**

(58) **Field of Classification Search**
USPC D32/17, 18, 21, 22, 31; D21/526
CPC A47L 5/24; A47L 5/26; A47L 5/28; A47L 9/102; A47L 9/122; A47L 9/127; A47L 9/1608; A47L 9/1683; A47L 9/2857; A47L 9/2884; A47L 9/32; A47L 9/322; B04C 5/185; B08B 3/04; B01D 2279/55; B23Q 11/0046; B23Q 11/0071; E04H 4/1636; Y10T 29/49716
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D302,057 S	*	7/1989	Fujii	.....	D32/18
D314,846 S	*	2/1991	deBlois	.....	D32/18
D315,622 S	*	3/1991	deBlois	.....	D32/18
D320,099 S	*	9/1991	Case	.....	D32/18
D356,191 S	*	3/1995	Phelan	.....	D32/18
D401,021 S	*	11/1998	Stephens	.....	D32/18
D404,857 S	*	1/1999	Ng	.....	D32/18
D432,743 S	*	10/2000	Santiago	.....	D32/18

D435,707 S	*	12/2000	Leung	.....	D32/18
D437,983 S	*	2/2001	Stratford	.....	D32/18
D440,720 S	*	4/2001	Stratford	.....	D32/18
D448,894 S	*	10/2001	Yuen	.....	D32/18
D459,560 S	*	6/2002	Lau	.....	D32/18

(Continued)

FOREIGN PATENT DOCUMENTS

CN	304783848	*	8/2018
CN	306351492	*	2/2021
GB	6074462	*	10/2019

OTHER PUBLICATIONS

Homasy Handheld Vacuum Cordless, available in Amazon.com, customer review oldest Sep. 16, 2017 [online], [site visited Feb. 4, 2021], Available from the internet URL: https://www.amazon.com/Homasy-Portable-Handheld-Cordless-Lightweight/dp/B078YYPBDST/ref=psdc_510114_t2_B07TBVXVX4 (Year: 2017).*

(Continued)

Primary Examiner — Dana K Weiland
Assistant Examiner — Jennylou M Binas

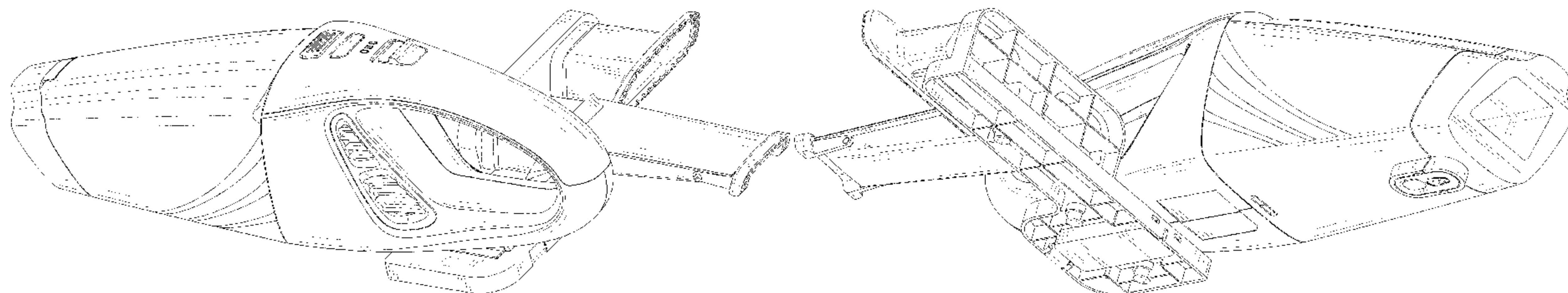
(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a perspective view of a vacuum cleaner showing the new design;
FIG. 2 is another perspective view thereof;
FIG. 3 is a front elevational view thereof;
FIG. 4 is a rear elevational view thereof;
FIG. 5 is a left side elevational view thereof;
FIG. 6 is a right side elevational view thereof;
FIG. 7 is a top plan view thereof; and,
FIG. 8 is a bottom plan view thereof.
The broken lines in the drawings depict portions of the vacuum cleaner that form no part of the claimed design.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D481,842 S * 11/2003 Tai D32/18
 D489,849 S * 5/2004 Ki D32/18
 D501,065 S * 1/2005 Ma D32/18
 D510,161 S * 9/2005 Leung D32/18
 D515,258 S * 2/2006 Robson D32/18
 D528,716 S * 9/2006 Yuen D32/18
 D564,153 S * 3/2008 Fjellman D32/18
 D660,527 S * 5/2012 Kawase D32/18
 D821,044 S 6/2018 Cao et al.
 D830,013 S 10/2018 Lee et al.
 D844,266 S * 3/2019 Wang D32/18
 D851,342 S * 6/2019 Tu D32/18
 D855,909 S * 8/2019 Ma D32/18
 D862,819 S * 10/2019 Xu D32/18
 D863,700 S * 10/2019 Tang D32/18
 D869,794 S * 12/2019 Zhou D32/18
 D869,795 S * 12/2019 Wang D32/18
 D873,514 S * 1/2020 Huang D32/18

D891,013 S * 7/2020 Lin D32/18
 D898,311 S * 10/2020 Smith D32/18
 D925,146 S * 7/2021 Liu D32/18
 D925,147 S * 7/2021 Xu D32/21

OTHER PUBLICATIONS

Holife Handheld Vacuum Cordless Cleaner, available in Amazon.com, customer review oldest Aug. 15, 2019 [online], [site visited Feb. 4, 2021], Available from the internet URL: https://www.amazon.com/dp/B07VDJGDVJ/ref=cm_sw_em_r_mt_imm_awdb_0MHDJB3JK7R9R0H328E8?_encoding=UTF8&pvc=1 (Year: 2019).
 Handheld Vacuum Cordless, 6Kpa Powerful Suction Hand Vacuum Cleaner, available in Amazon.ca, date first available Sep. 21, 2020 [online], [site visited May 4, 2021, Available from the internet URL: https://www.amazon.ca/Handheld-Cordless-Powerful-Wall-Mount-Lightweight/dp/B08JLH6FWV/ref=sr_1_2?dchild=1&key (Year: 2020).*

* cited by examiner

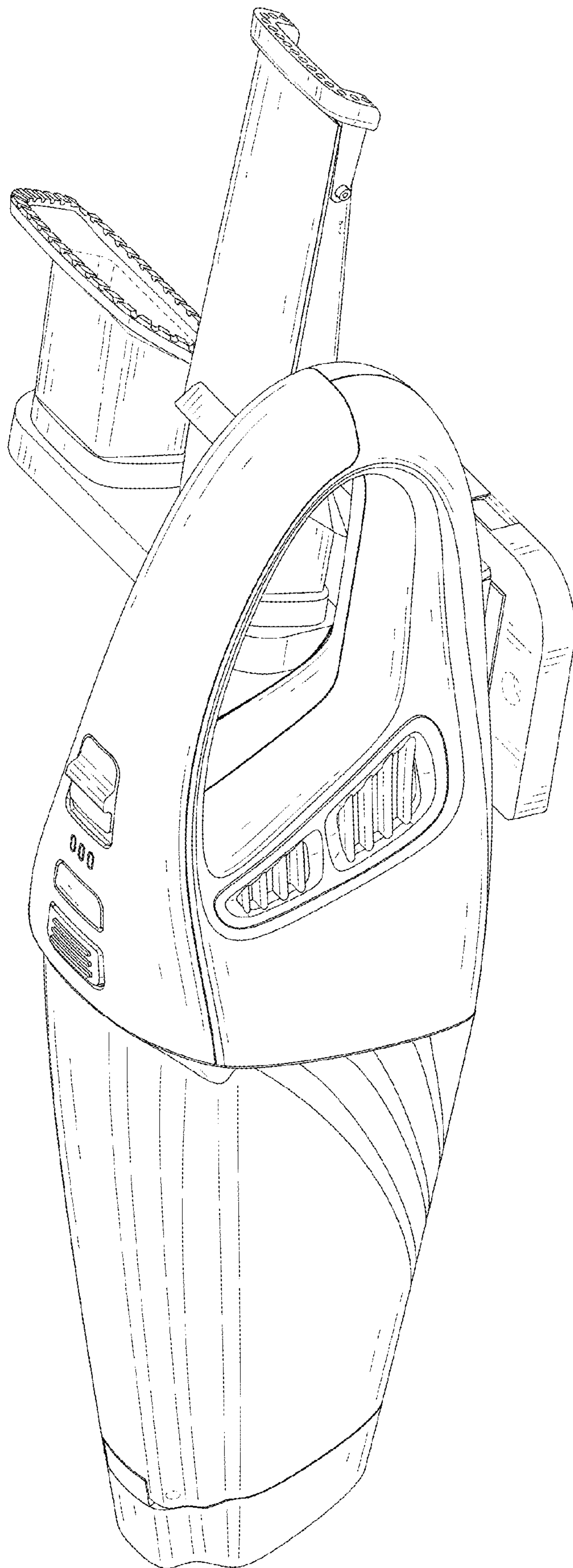


FIG. 1

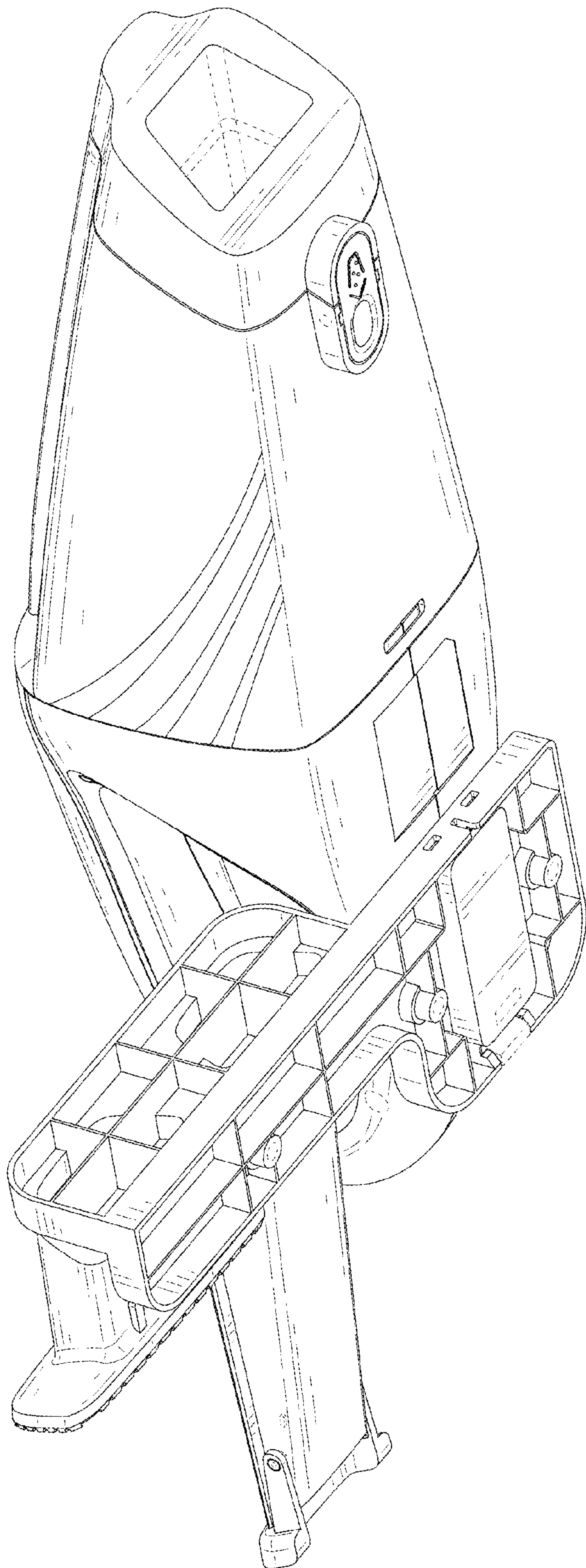


FIG. 2

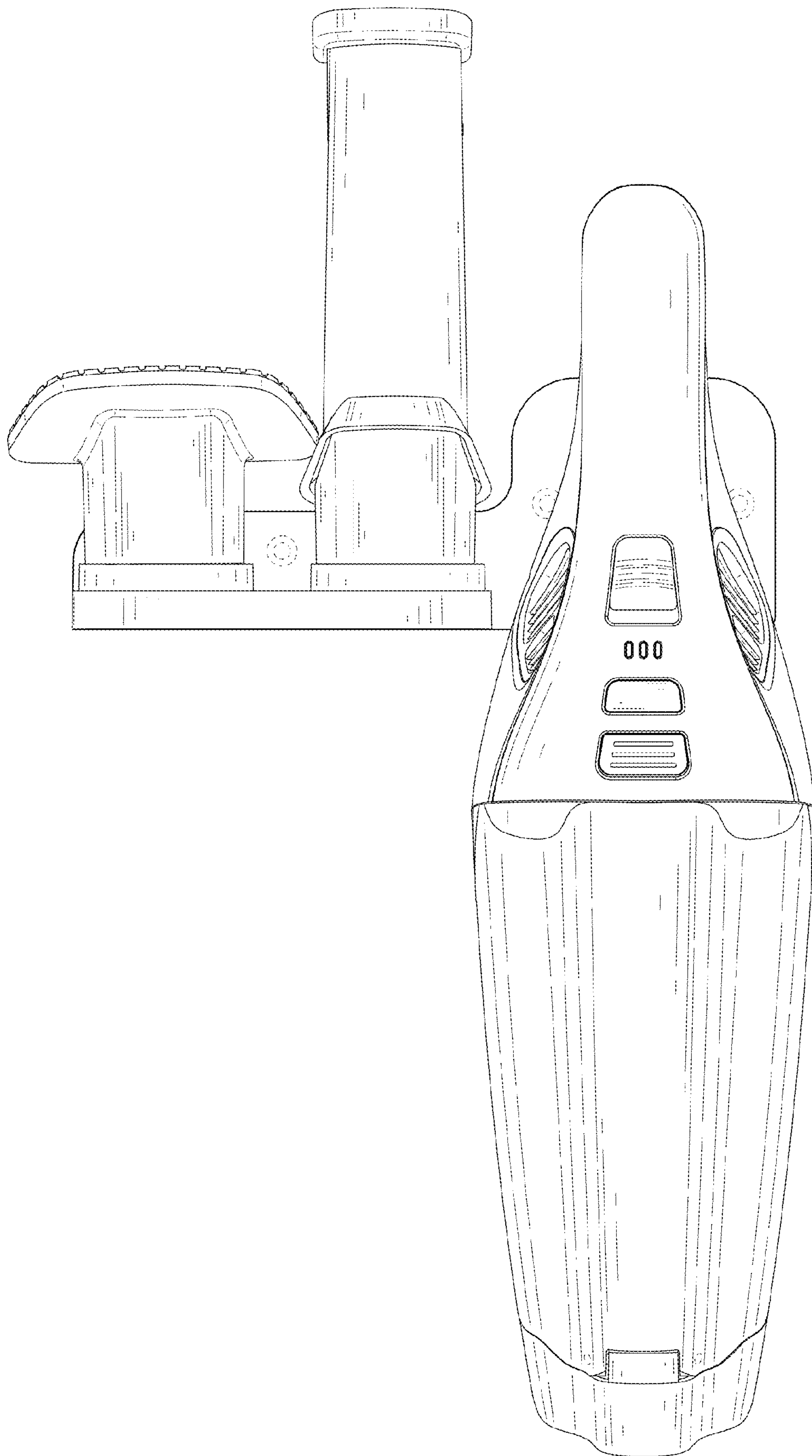


FIG. 3

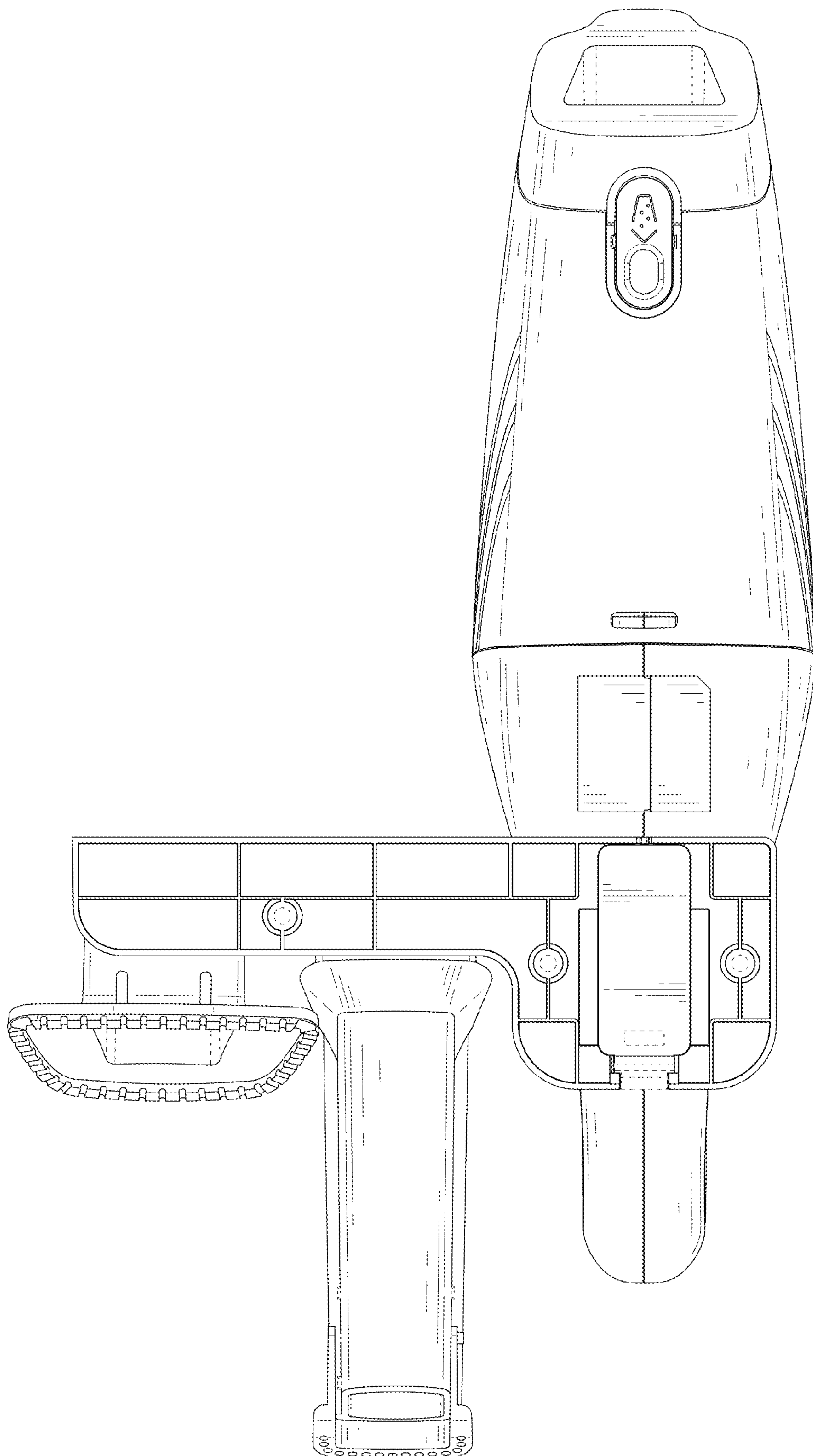


FIG. 4

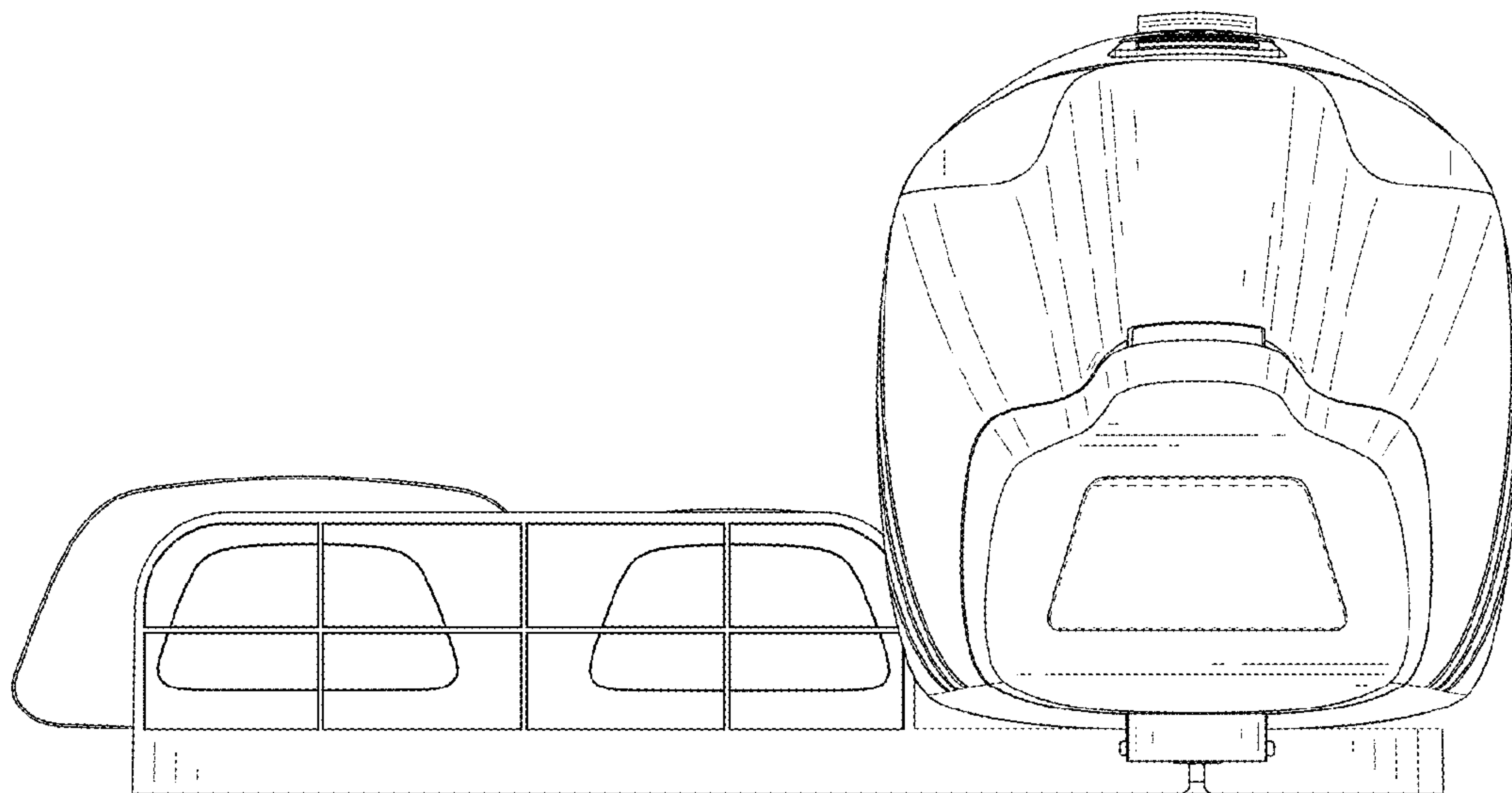


FIG. 5

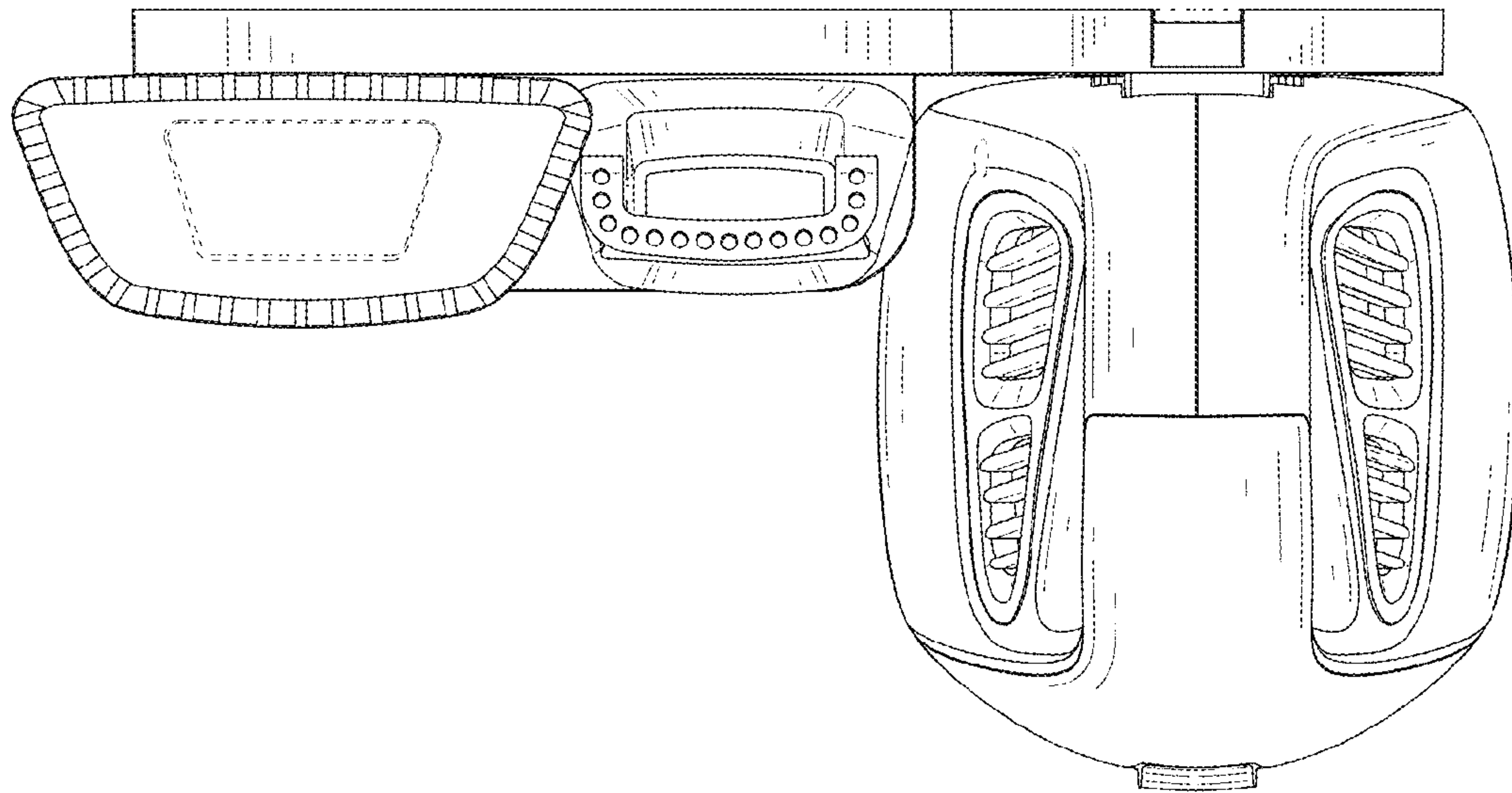


FIG. 6

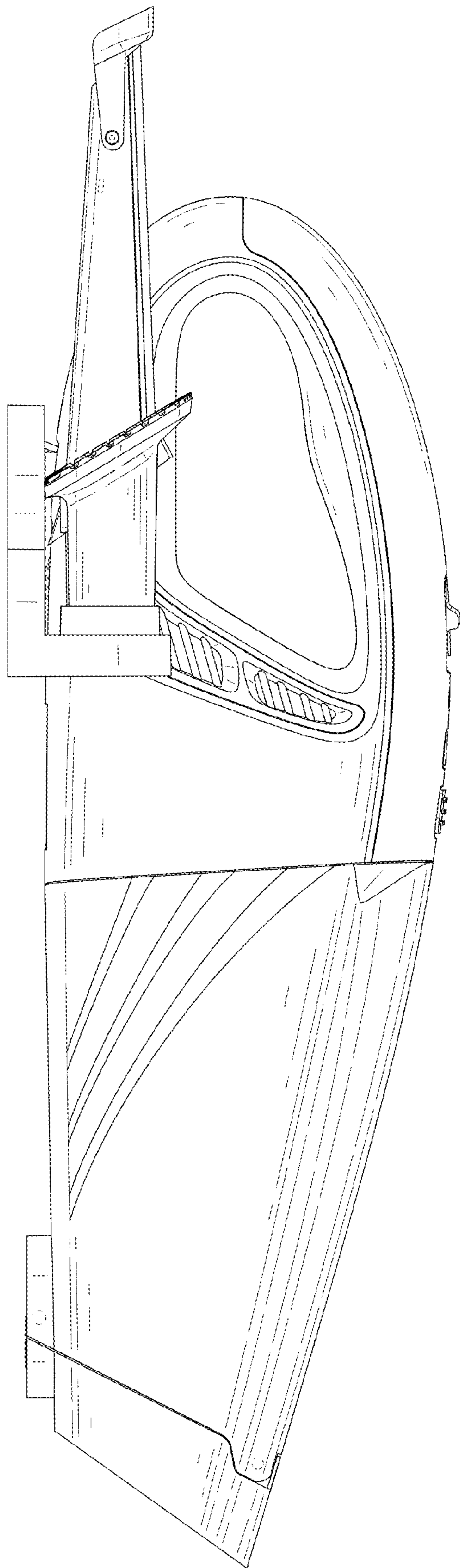


FIG. 7

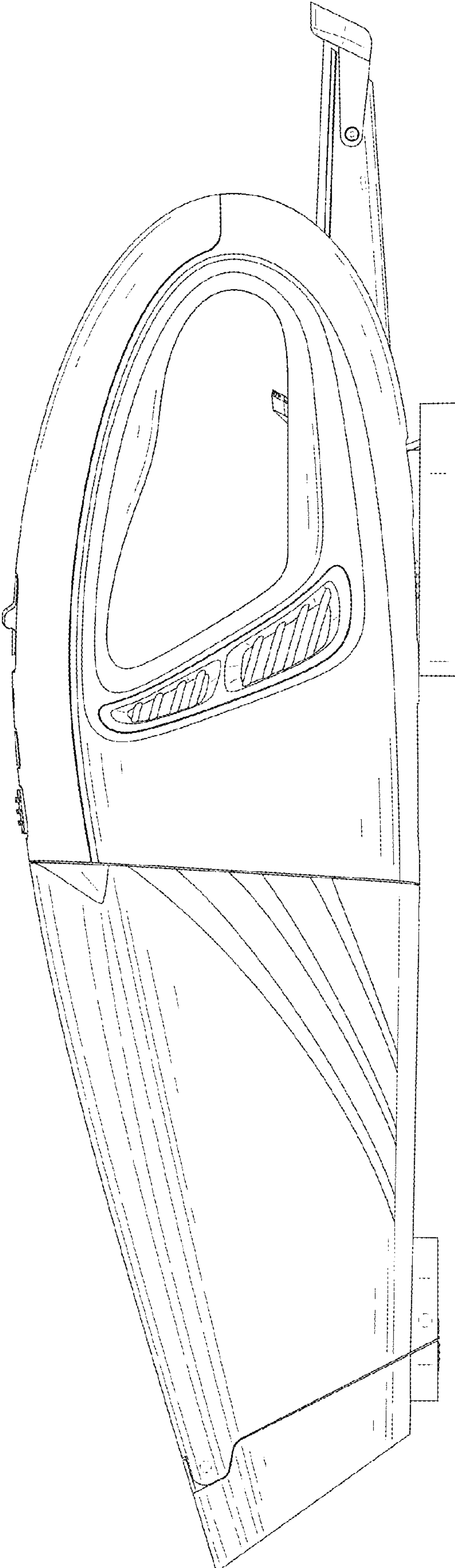


FIG. 8