



US00D891014S

(12) **United States Design Patent**  
**Chu**

(10) **Patent No.:** **US D891,014 S**

(45) **Date of Patent:** **\*\* Jul. 21, 2020**

(54) **VACUUM CLEANER**

(71) Applicant: **Suzhou Sheng Jiajie Intelligent Technology Co., Ltd.**, Suzhou, Jiangsu (CN)

(72) Inventor: **Haisheng Chu**, Jiangsu (CN)

(73) Assignee: **Suzhou Sheng Jiajie Intelligent Technology Co., Ltd.**, Suzhou (CN)

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

(21) Appl. No.: **29/701,367**

(22) Filed: **Aug. 12, 2019**

(30) **Foreign Application Priority Data**

Jul. 25, 2019 (CN) ..... 2019 3 0399187

(51) **LOC (12) Cl.** ..... **15-05**

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

(58) **Field of Classification Search**  
USPC .... D32/31-33, 25, 17-18, 21; D6/553, 569, D6/570; 15/323  
CPC . A47L 9/00; A47L 9/02; A47L 9/0018; A47L 9/0027; A47L 9/0036; A47L 9/0045; A47L 9/0009; A47L 9/0054; A47L 7/0057  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D272,572 S \* 2/1984 Parise ..... D32/31  
D294,755 S \* 3/1988 Lackner ..... D32/31  
D295,334 S \* 4/1988 Fonville ..... D32/31  
D295,910 S \* 5/1988 Hill ..... D32/31  
D308,267 S \* 5/1990 Bradd ..... D13/108  
5,029,359 A \* 7/1991 Ortega ..... A47L 7/04  
15/246.3

D334,260 S \* 3/1993 Kieft ..... D32/31  
D354,380 S \* 1/1995 Stephens ..... D32/31  
5,528,794 A \* 6/1996 Tomasiak ..... A47L 9/0009  
15/323  
D391,703 S \* 3/1998 Miller ..... D32/22  
5,943,731 A \* 8/1999 Wood ..... A47L 9/0018  
15/323  
D422,764 S \* 4/2000 Wood ..... D32/31  
6,058,558 A \* 5/2000 Kim ..... A47L 9/0045  
15/323  
6,070,288 A \* 6/2000 Luyckx ..... A47L 9/0009  
15/323  
D434,886 S \* 12/2000 Wareham ..... D32/31  
D435,152 S \* 12/2000 Stephens ..... D32/31  
(Continued)

**FOREIGN PATENT DOCUMENTS**

CN 302612544 S 10/2012

*Primary Examiner* — Michael A. Pratt

(74) *Attorney, Agent, or Firm* — Wayne & Ken, LLC; Tony Hom

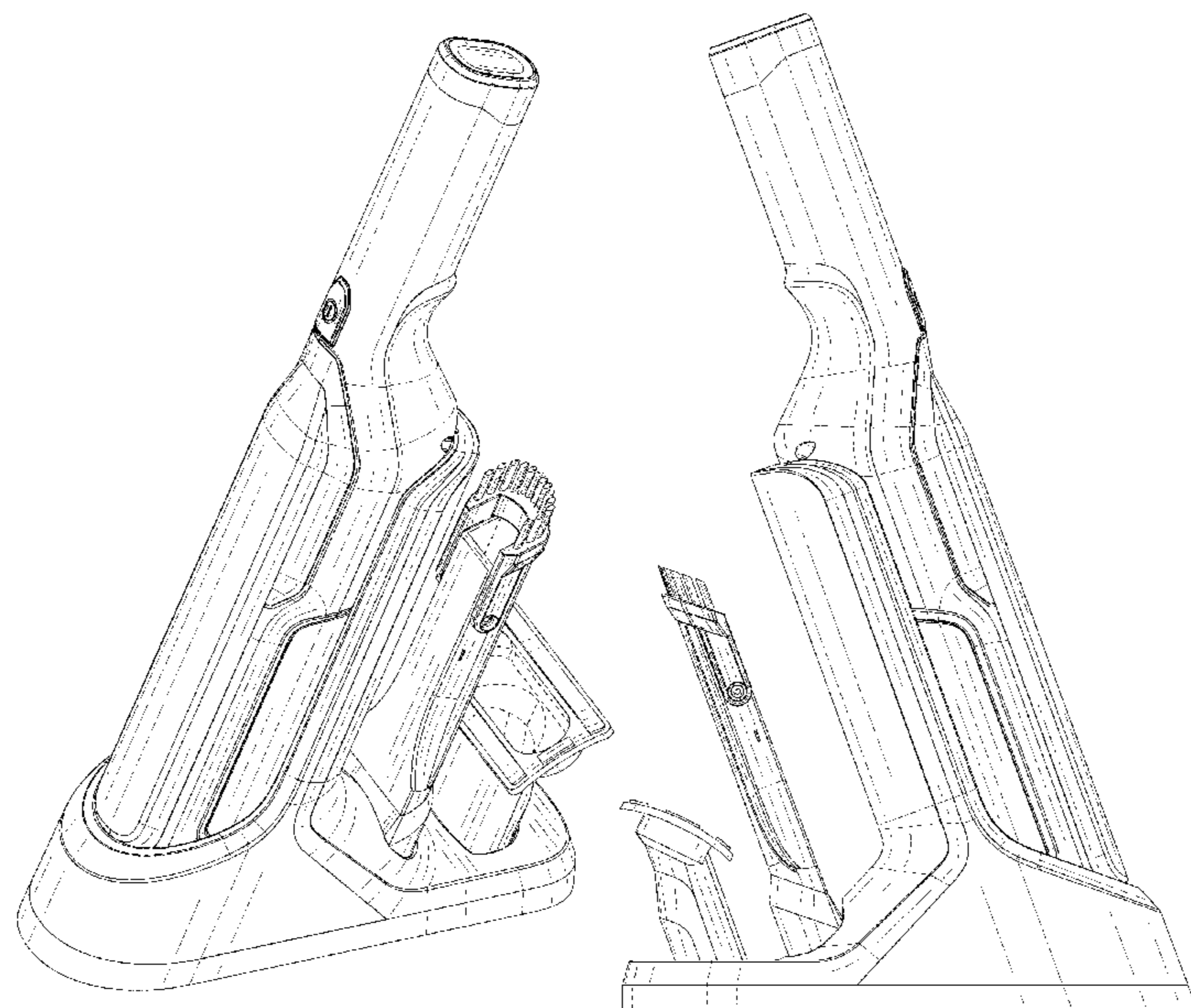
(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a perspective view of a vacuum cleaner showing my new design;  
FIG. 2 is another perspective view thereof;  
FIG. 3 is a front elevation view thereof;  
FIG. 4 is a back elevation view thereof;  
FIG. 5 is a left side view thereof;  
FIG. 6 is a right side view thereof;  
FIG. 7 is a top plan view thereof; and,  
FIG. 8 is a bottom plan view thereof.  
The broken lines in the drawing depict environmental subject matter only and form no part of the claimed design.

**1 Claim, 8 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

6,345,407 B1 \* 2/2002 Jupp ..... A47L 9/0009  
15/323  
D463,079 S \* 9/2002 Leyden ..... D32/31  
D469,226 S \* 1/2003 Stephens  
D469,228 S \* 1/2003 Wareham ..... D32/31  
D481,180 S 10/2003 Fujii  
D537,585 S 2/2007 Kim  
7,284,297 B2 \* 10/2007 Shanor ..... A47L 9/0018  
15/246.2  
D568,009 S \* 4/2008 Lam ..... D32/21  
D623,367 S \* 9/2010 Gottschall ..... D32/31  
D629,577 S 12/2010 Bassett et al.  
D647,261 S \* 10/2011 Schultz ..... D32/18  
D651,373 S \* 12/2011 Fan ..... D32/18  
D655,872 S \* 3/2012 Jin ..... D32/21  
D672,102 S \* 12/2012 Schouten ..... D32/18  
D713,109 S \* 9/2014 Seasholtz ..... D32/31  
D762,335 S \* 7/2016 Fry ..... D32/31

\* cited by examiner

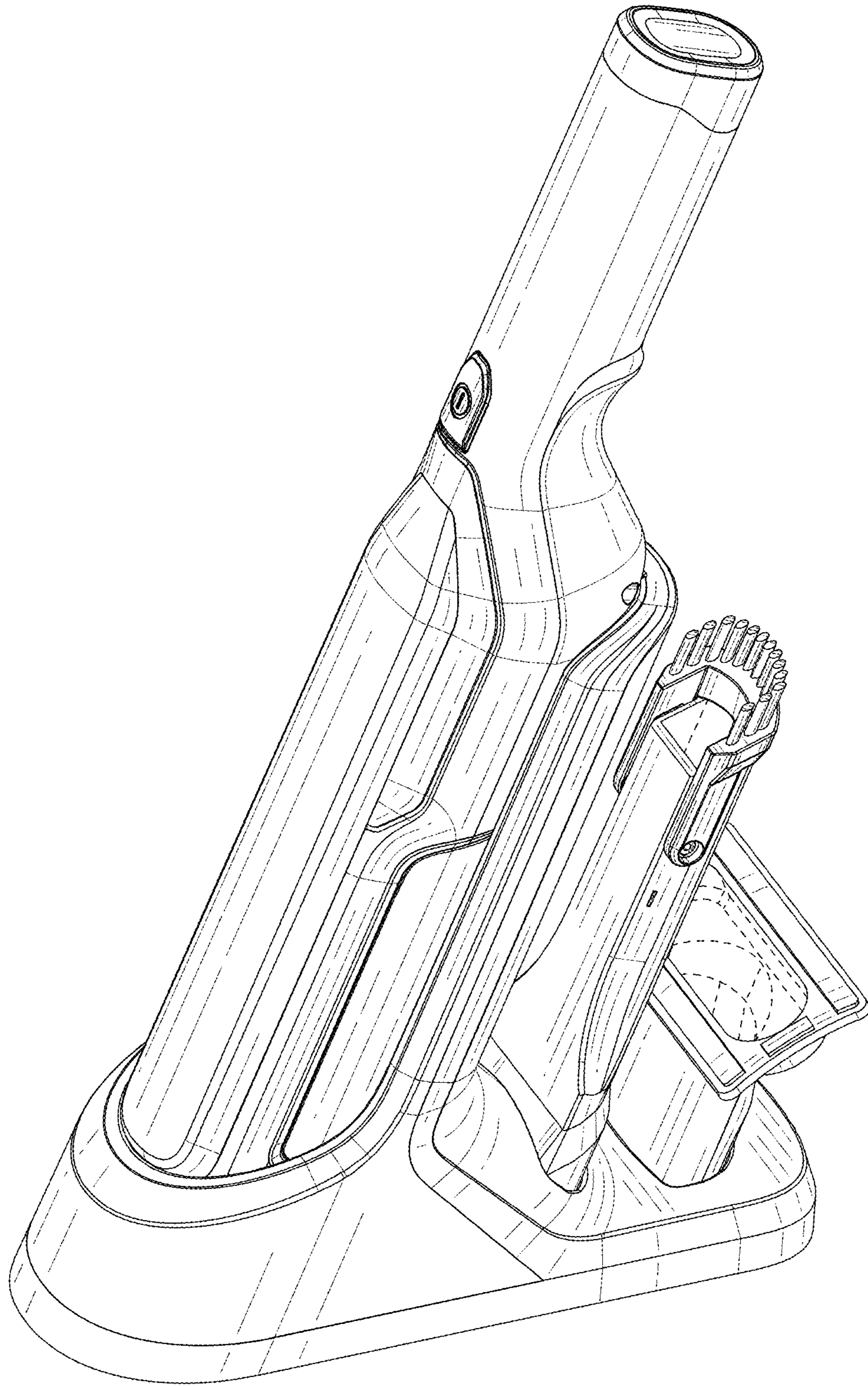


FIG. 1



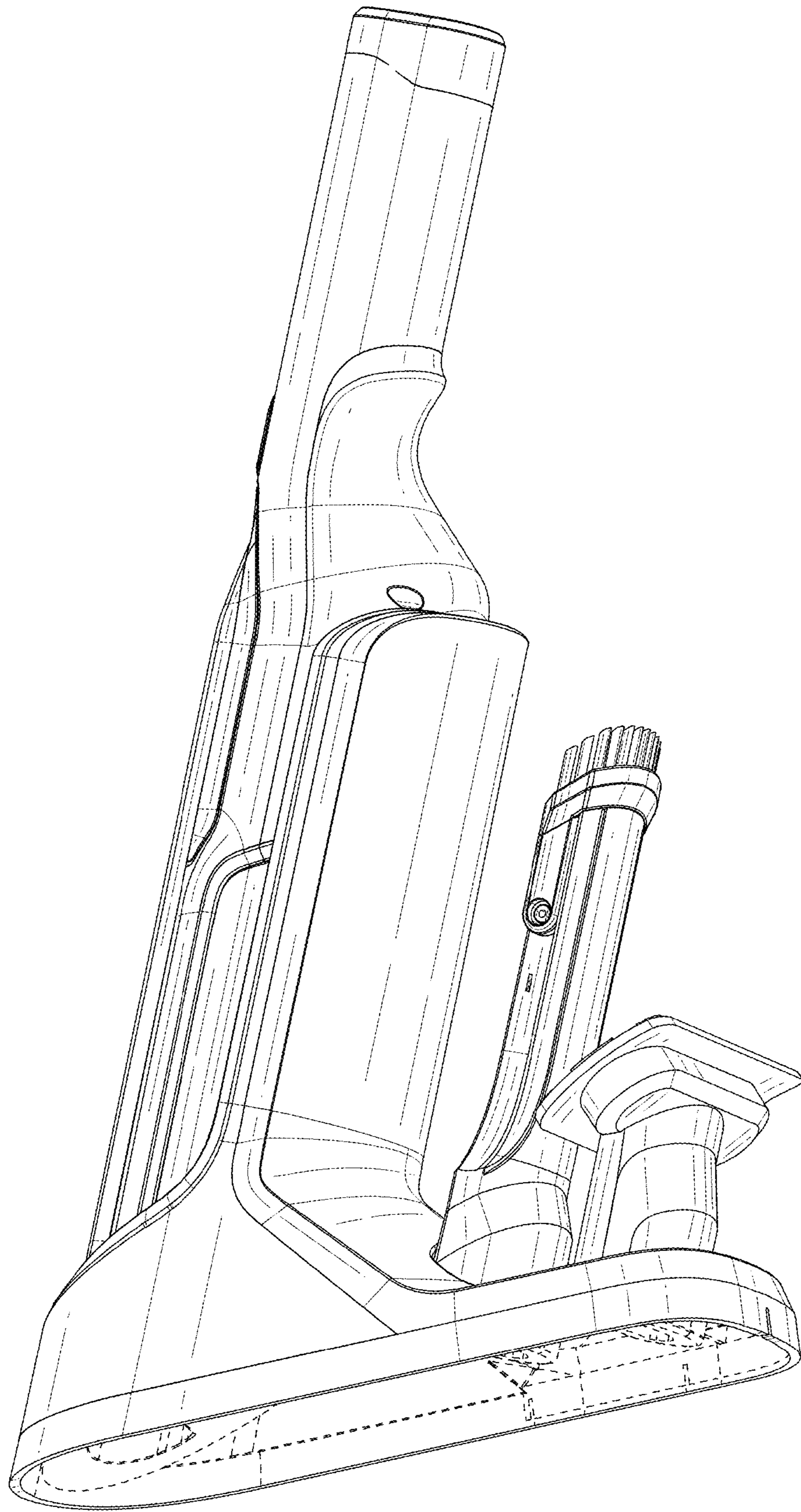


FIG. 2

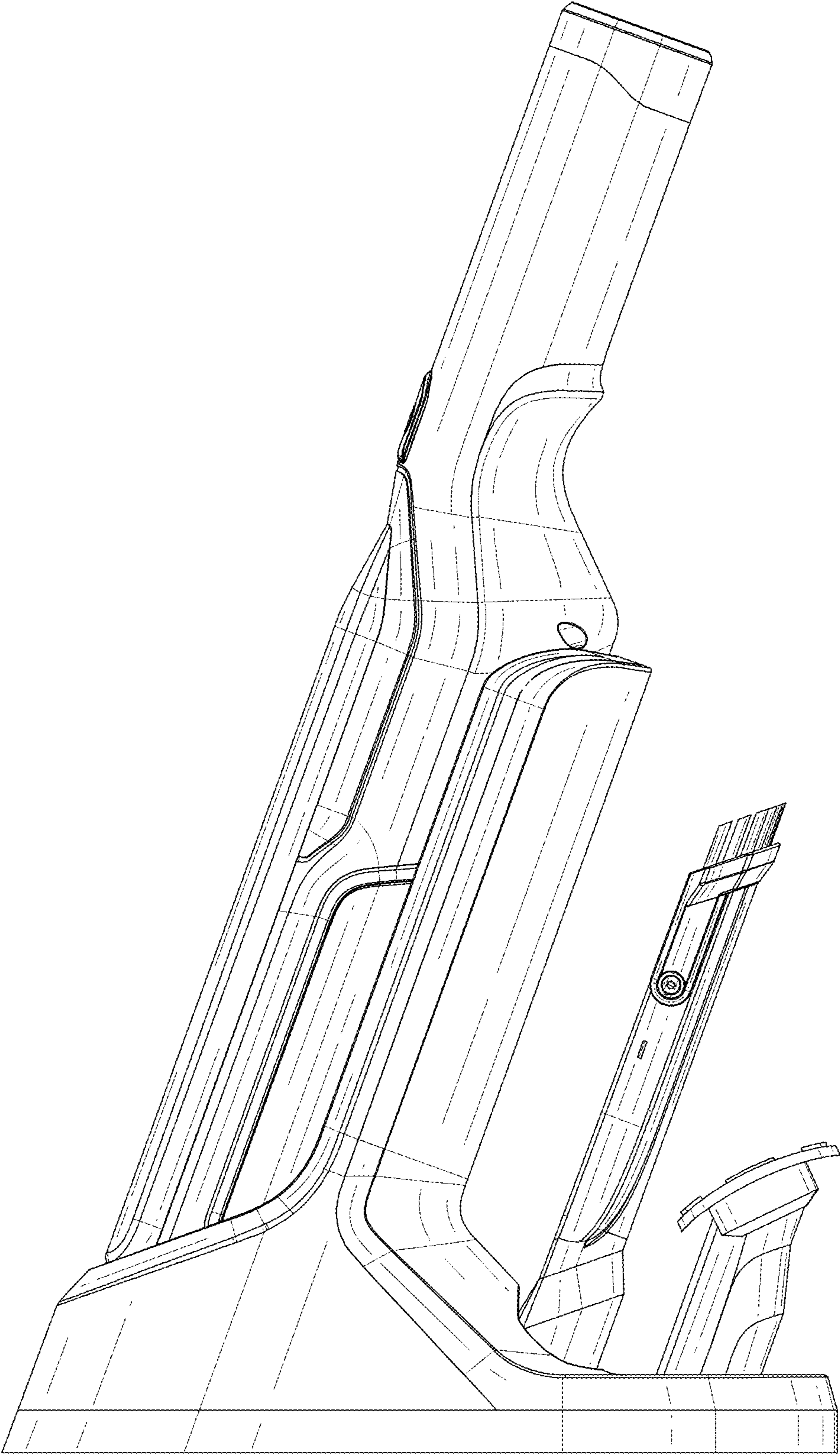


FIG. 3

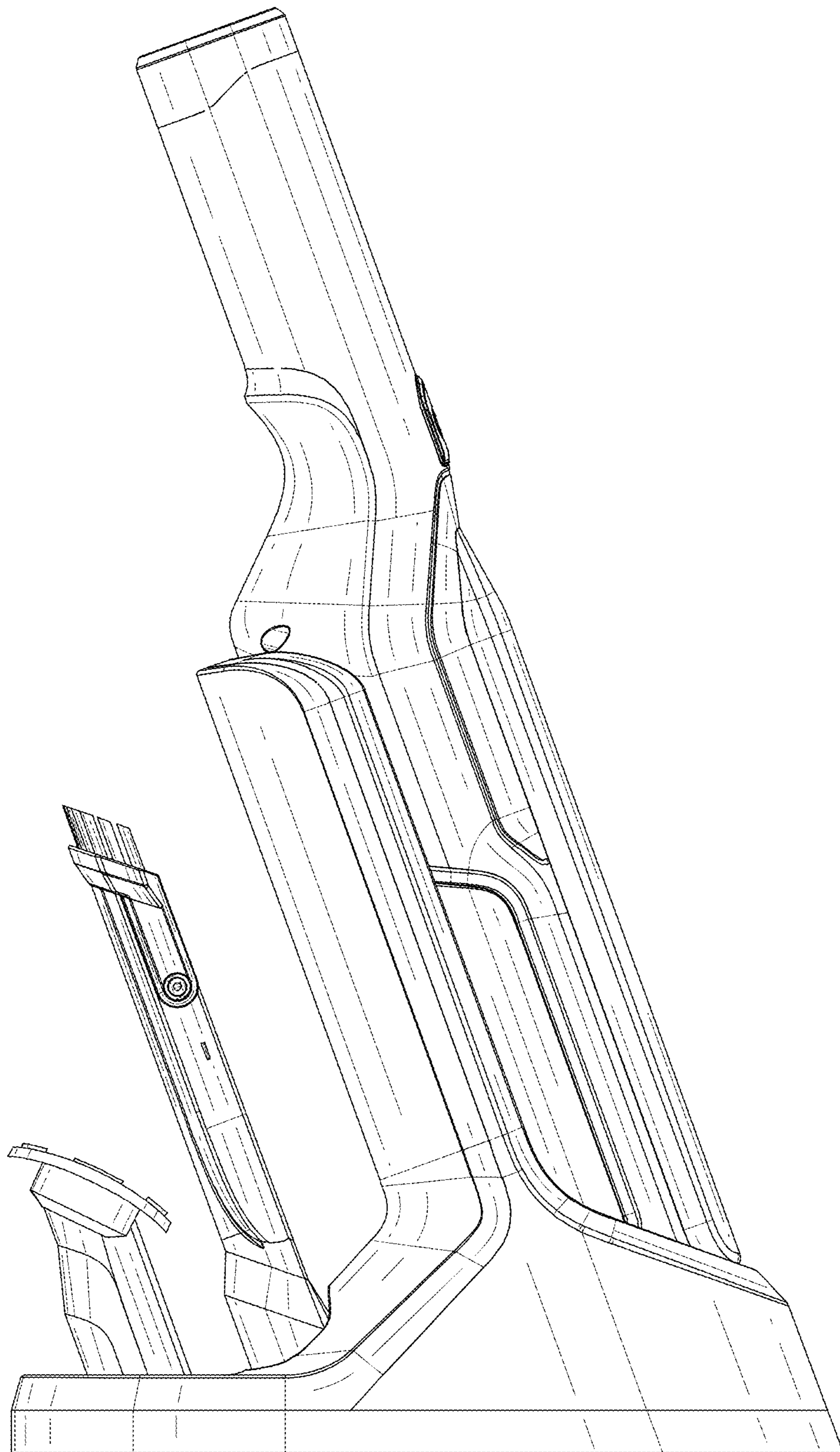


FIG. 4

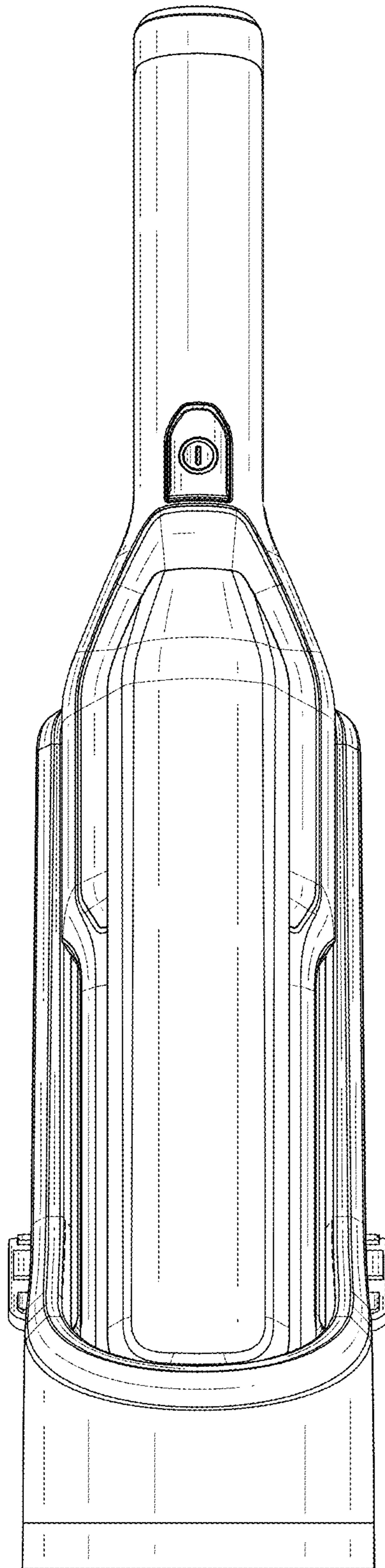


FIG. 5



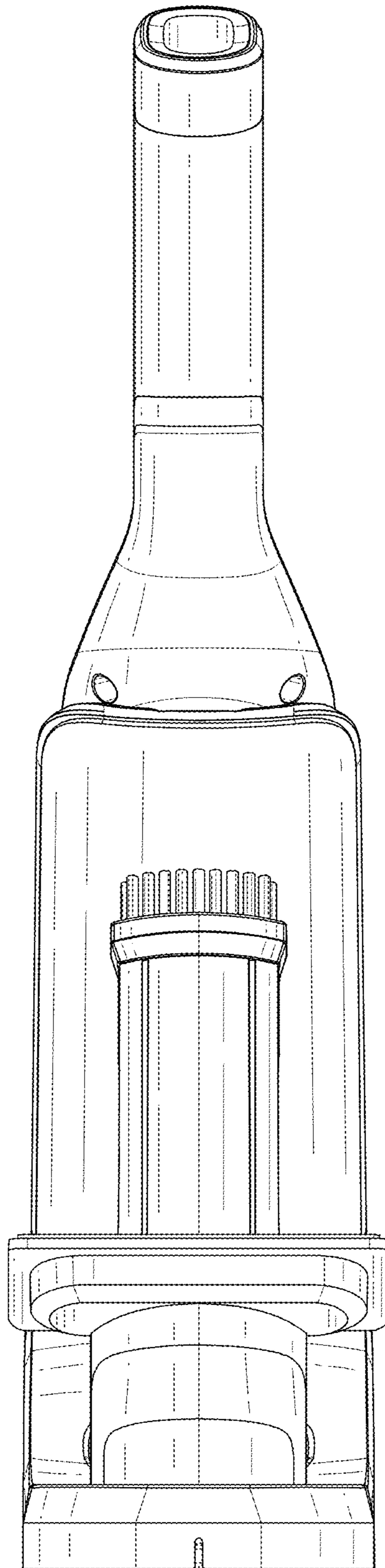


FIG. 6



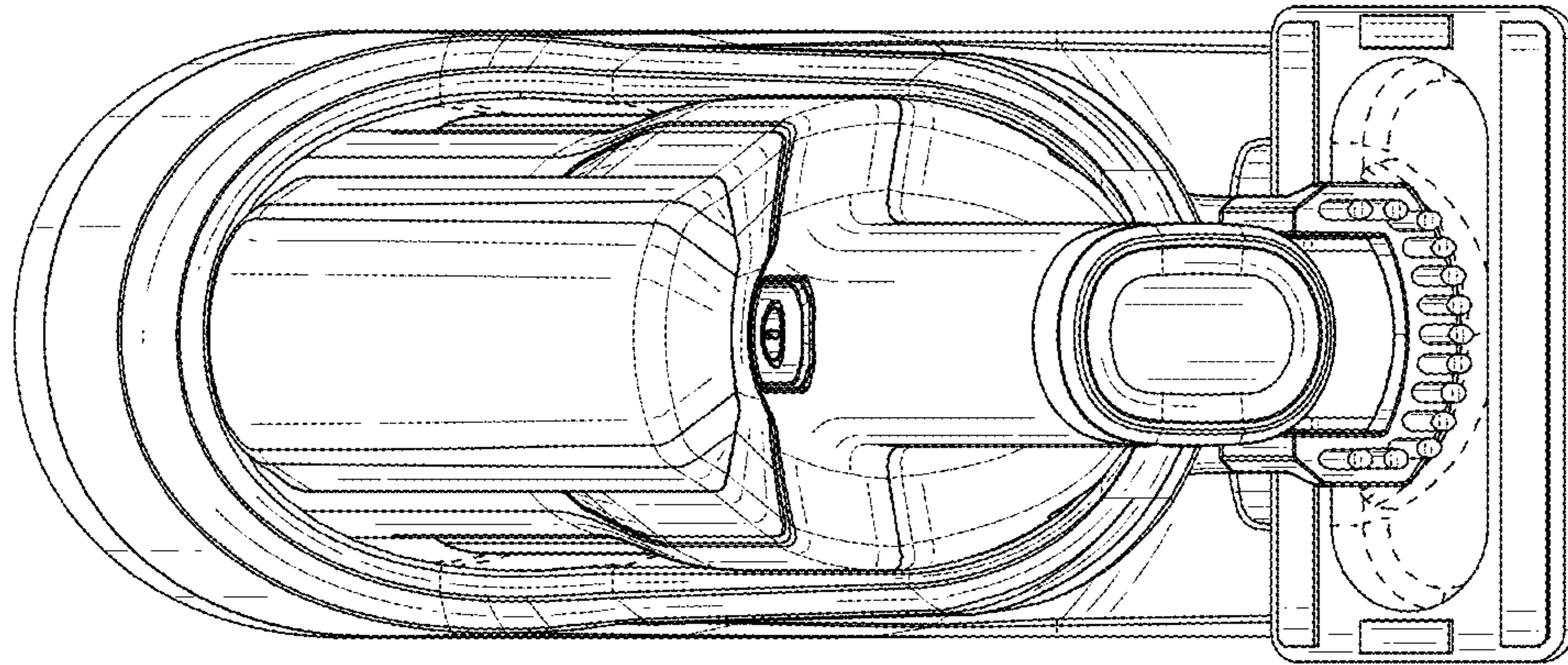


FIG. 7

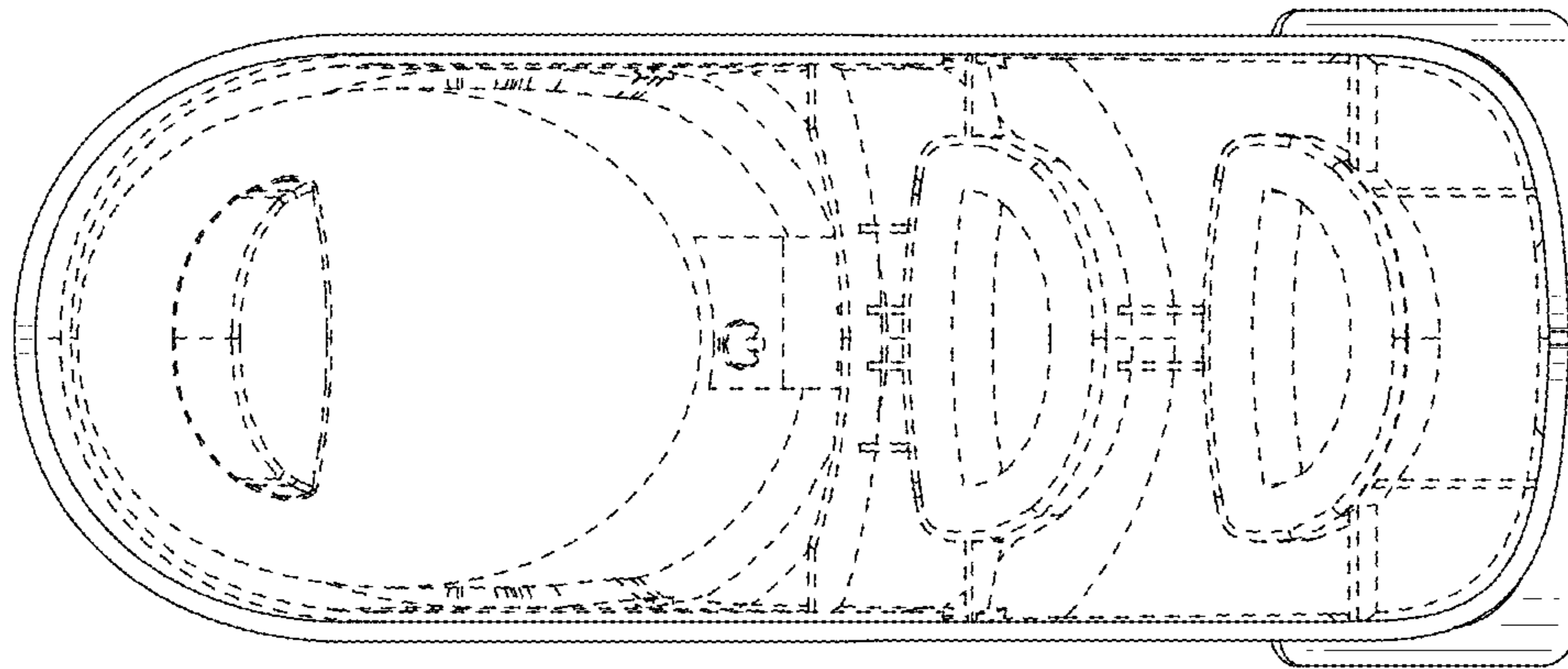


FIG. 8