



US00D875932S

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

(10) **Patent No.:** **US D875,932 S**

(45) **Date of Patent:** **\*\* Feb. 18, 2020**

(54) **SURGICAL INSTRUMENT END PORTION**

4,752,024 A 6/1988 Green et al.

D304,234 S 10/1989 Green

(71) Applicant: **Intuitive Surgical Operations, Inc.**,  
Sunnyvale, CA (US)

5,158,222 A 10/1992 Green et al.

D331,971 S 12/1992 Main

D345,795 S 4/1994 Green

(72) Inventors: **Timothy B. Hulford**, Burlingame, CA  
(US); **Robert B. Hubler**, Woodinville,  
WA (US); **Elie Eyram Ahovi**, San  
Francisco, CA (US)

5,360,154 A 11/1994 Green

D433,753 S 11/2000 Weiss

D589,147 S 3/2009 Colleran et al.

**OTHER PUBLICATIONS**

(73) Assignee: **INTUITIVE SURGICAL  
OPERATIONS, INC.**, Sunnyvale, CA  
(US)

Co-pending U.S. Appl. No. 29/581,071, filed Oct. 14, 2016.  
Co-pending U.S. Appl. No. 29/581,074, filed Oct. 14, 2016.  
Vertut, Jean and Phillipe Coiffet, Robot Technology: Teleoperation  
and Robotics Evolution and Development, English translation,  
Prentice-Hall, Inc., Inglewood Cliffs, NJ, USA 1986, Volume 3A,  
332 pages.

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

*Primary Examiner* — Wan Laymon

(21) Appl. No.: **29/680,608**

(74) *Attorney, Agent, or Firm* — Haynes and Boone, LLP

(22) Filed: **Feb. 18, 2019**

(57) **CLAIM**

**Related U.S. Application Data**

The ornamental design for a surgical instrument end portion,  
as shown and described.

(63) Continuation of application No. 29/581,076, filed on  
Oct. 14, 2016, now Pat. No. Des. 843,575.

(51) **LOC (12) Cl.** ..... **24-02**

**DESCRIPTION**

(52) **U.S. Cl.**

USPC ..... **D24/145**

(58) **Field of Classification Search**

USPC ..... D24/144–145, 127, 133; 227/19

CPC ..... A61B 17/068; A61B 17/0684; A61B

17/0686; A61B 17/115; A61B

2017/07214; A61B 2017/07257

See application file for complete search history.

FIG. 1 is a perspective view of a surgical instrument end  
portion showing the new design;  
FIG. 2 is a front elevation view thereof;  
FIG. 3 is a right elevation view thereof;  
FIG. 4 is a rear elevation view thereof;  
FIG. 5 is a left elevation view thereof;  
FIG. 6 is a bottom view thereof;  
FIG. 7 is a top view thereof; and,  
FIG. 8 is another perspective view thereof.

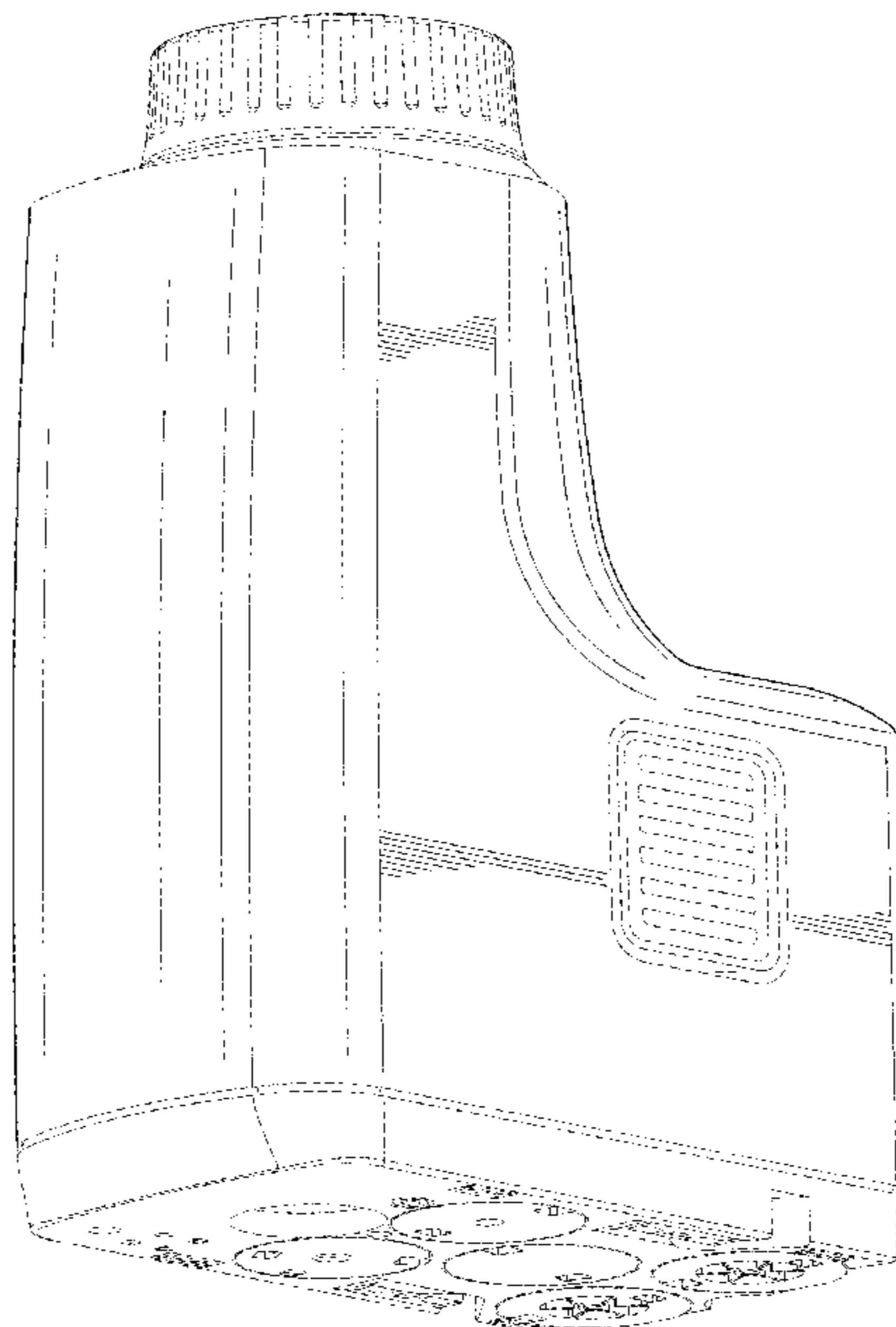
(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,646,745 A 3/1987 Noiles  
4,665,917 A 5/1987 Clanton et al.  
4,700,703 A 10/1987 Resnick et al.

The broken lines shown in FIGS. 1-8 illustrate portions of  
the surgical instrument end portion that form no part of the  
claimed design.

**1 Claim, 8 Drawing Sheets**



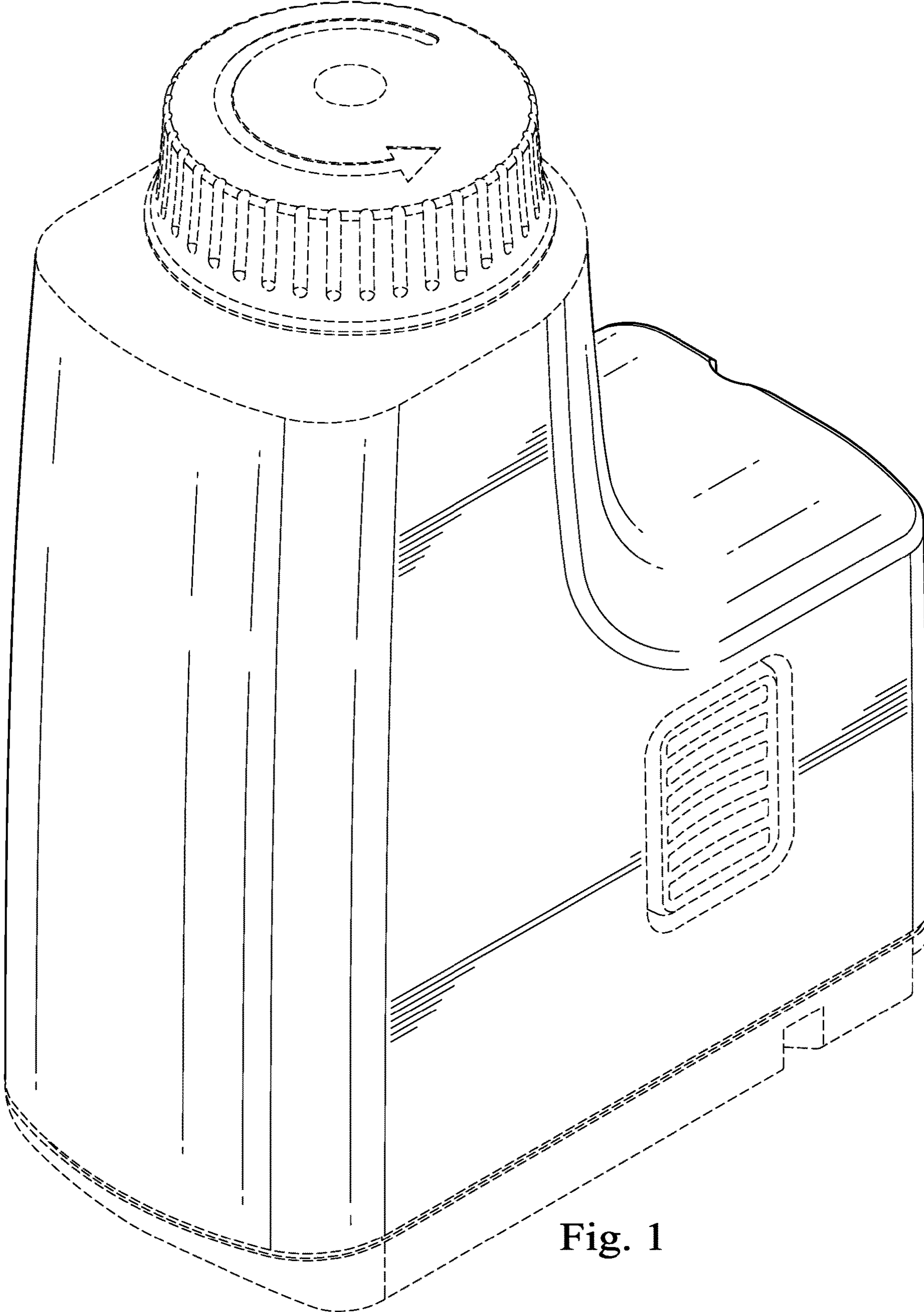


Fig. 1

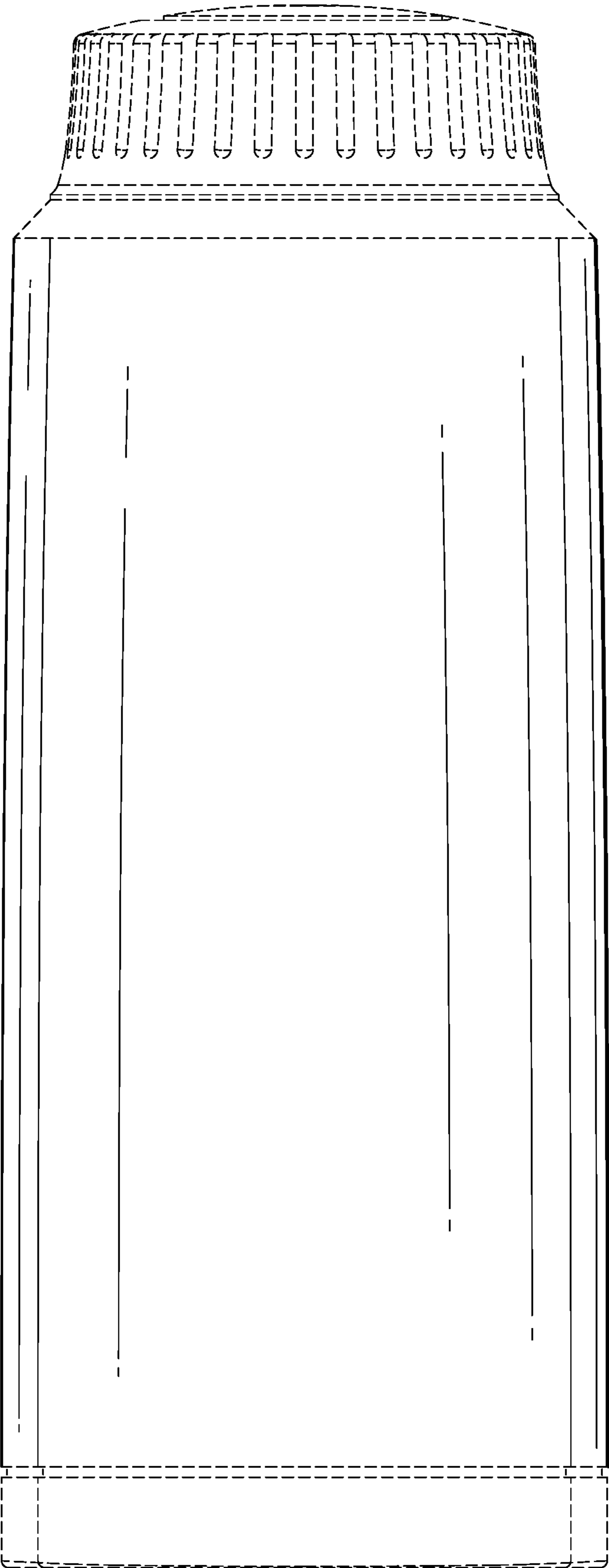


Fig. 2

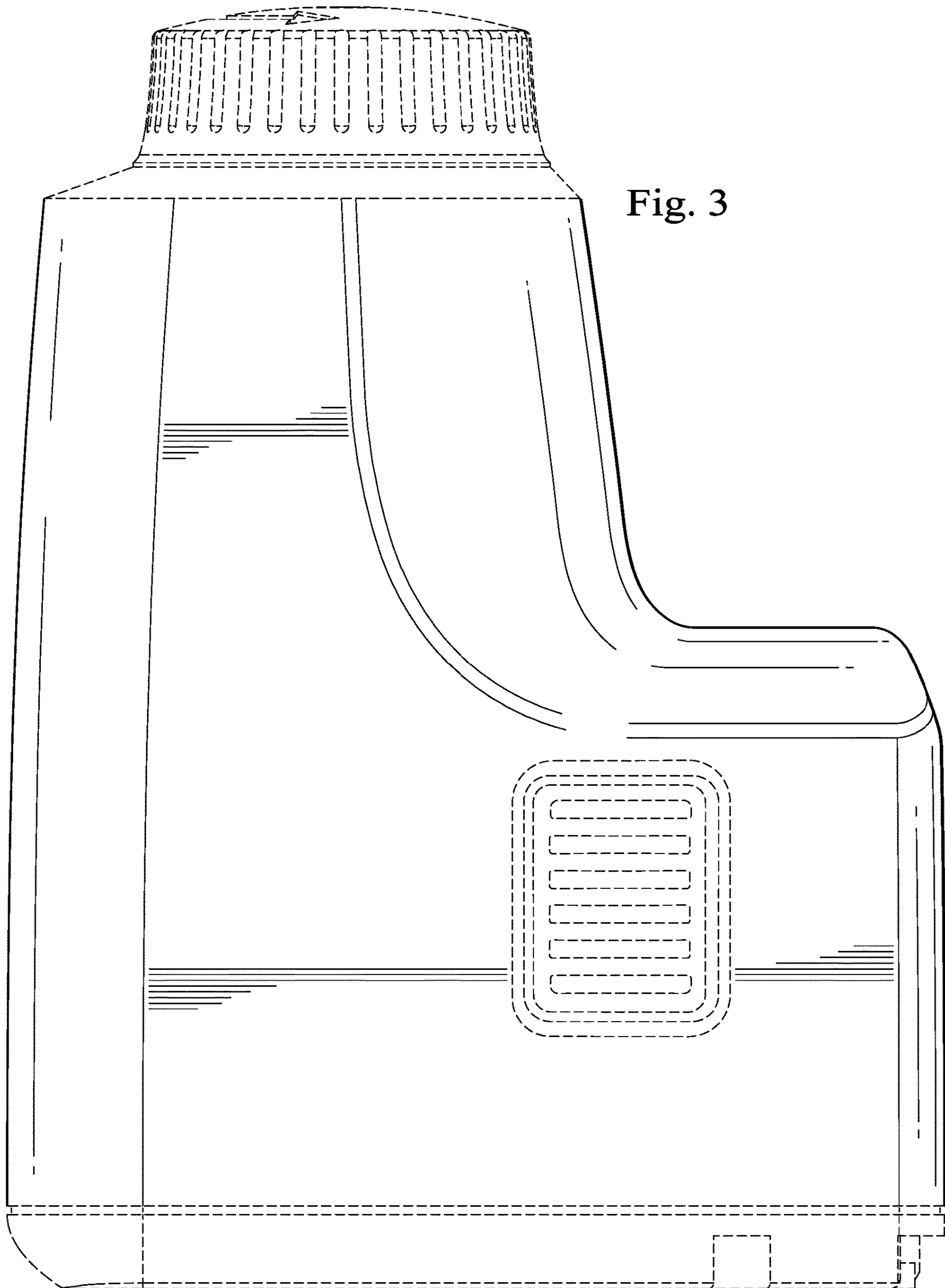


Fig. 3

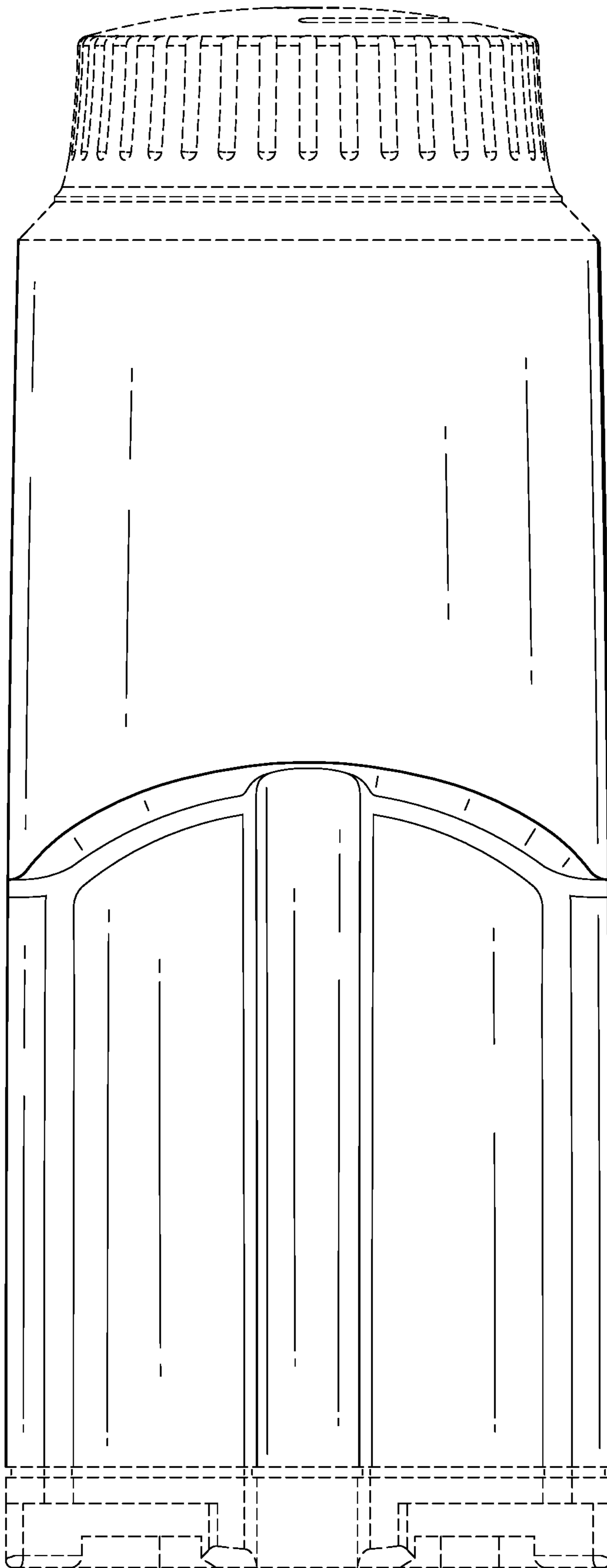
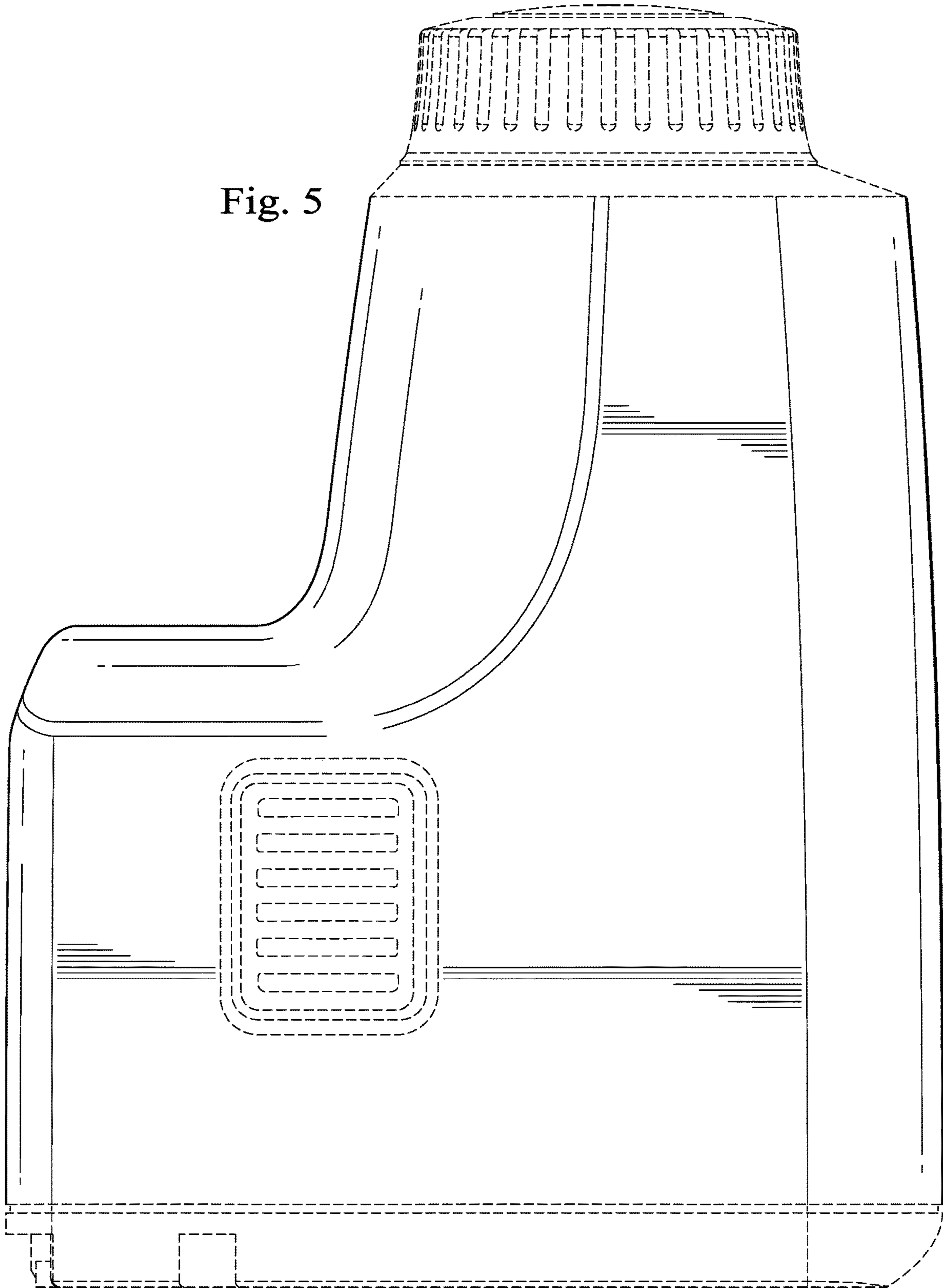


Fig. 4

Fig. 5



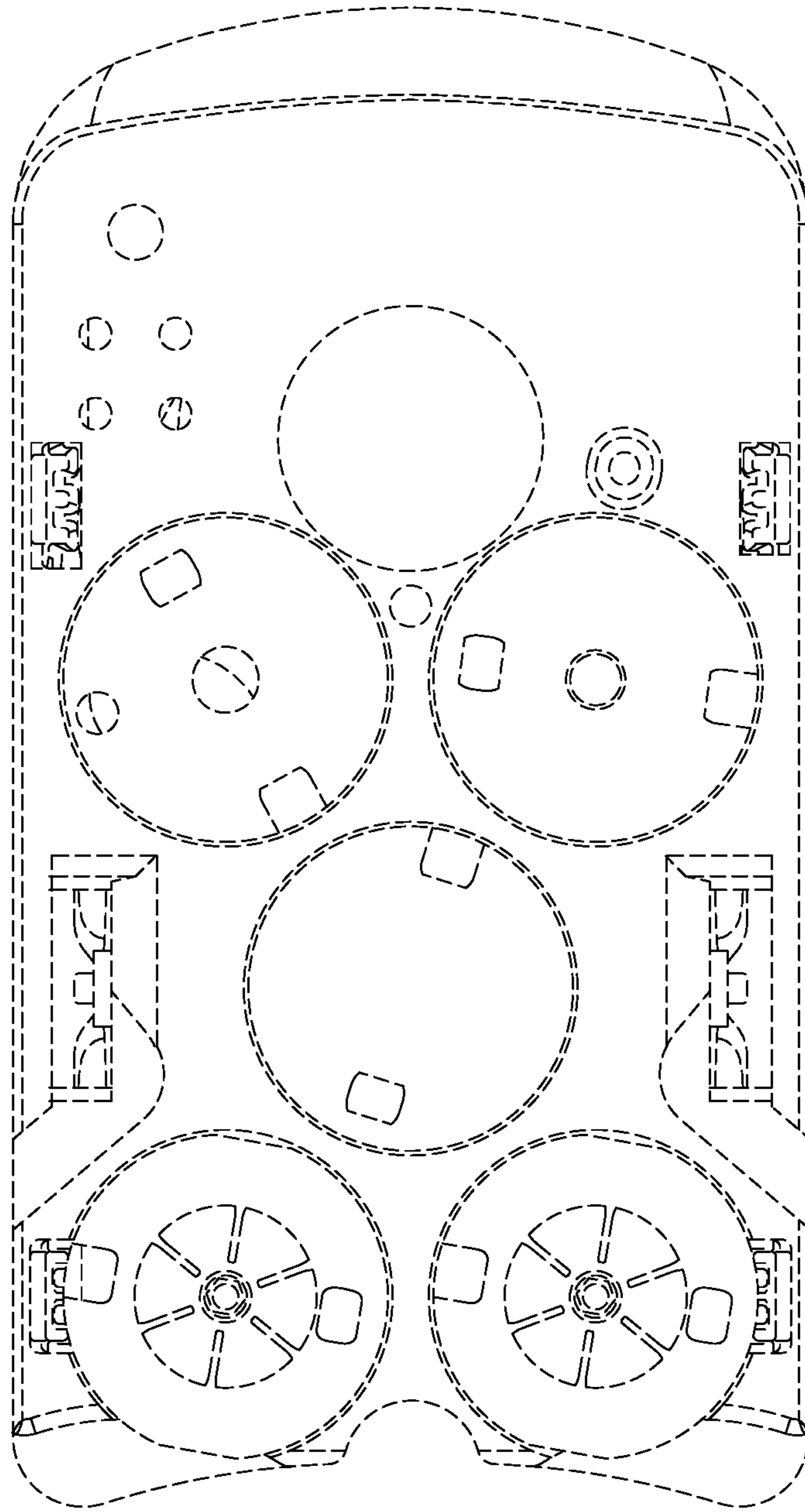


Fig. 6

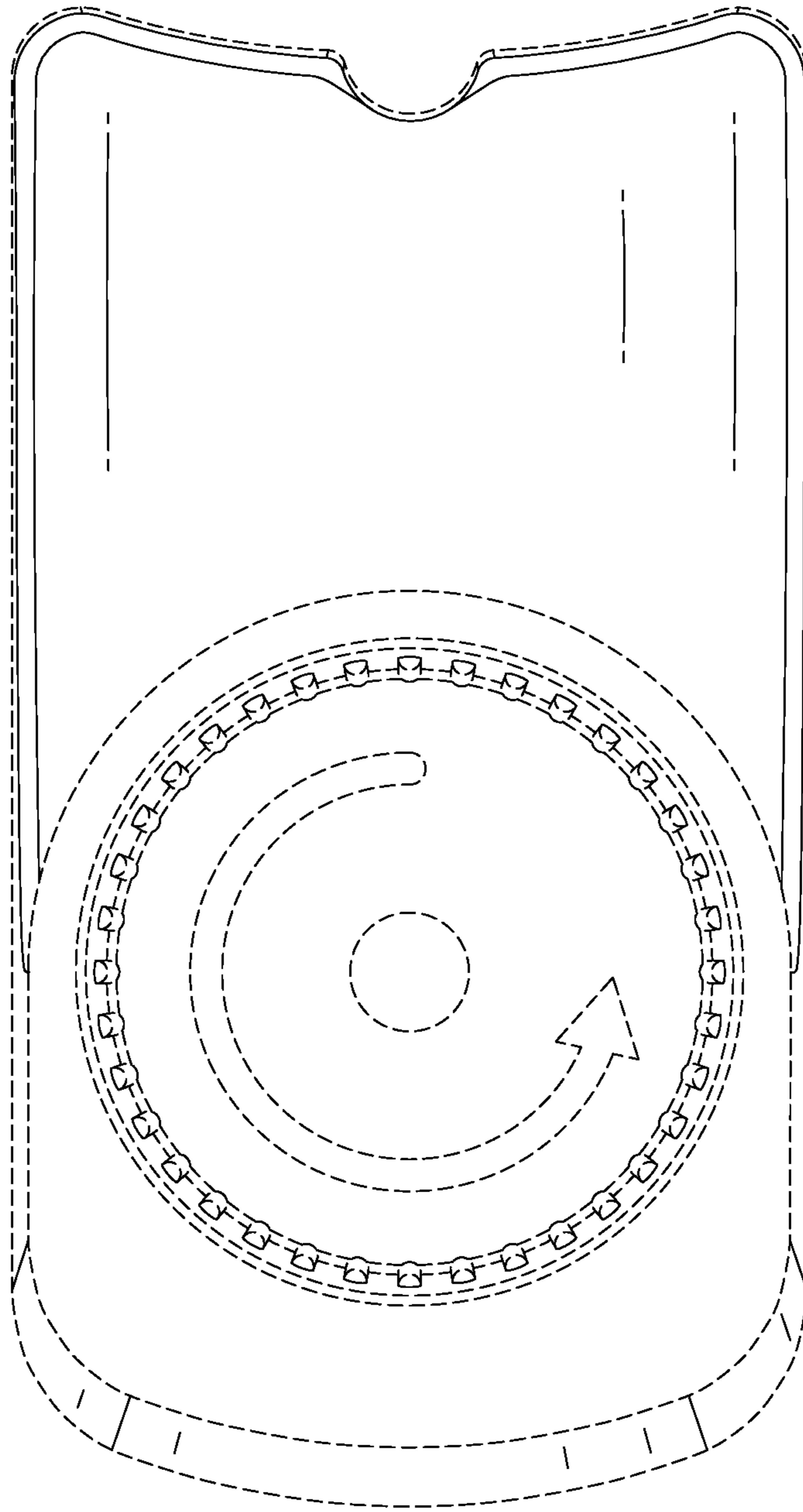


Fig. 7



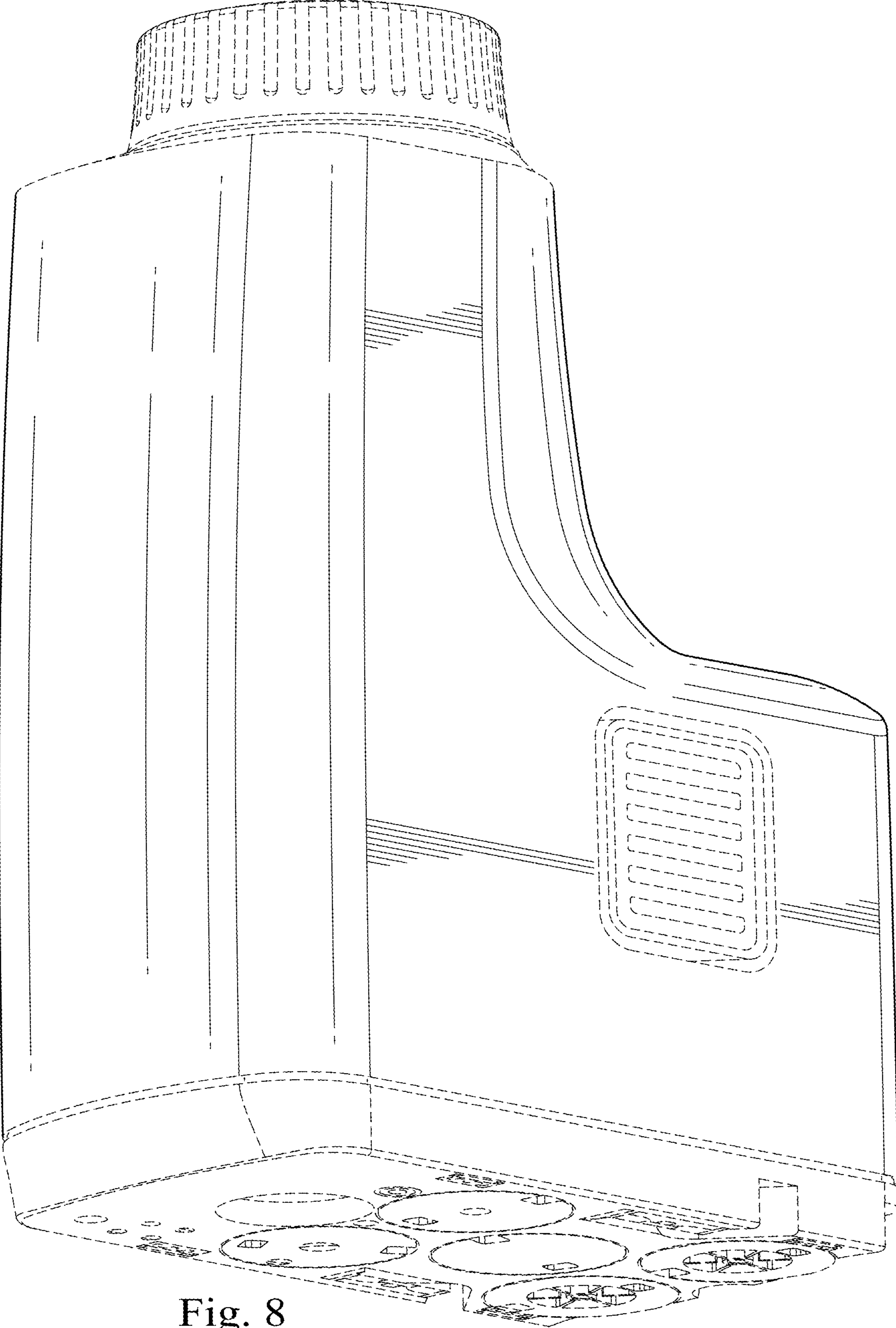


Fig. 8