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(12) **United States Design Patent** (10) **Patent No.:** **US D875,932 S**  
**Hulford et al.** (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
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D433,753 S 11/2000 Weiss  
D589,147 S 3/2009 Colleran et al.

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- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/680,608**
- (22) Filed: **Feb. 18, 2019**

**Related U.S. Application Data**

- (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**
- (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.

(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.

**OTHER PUBLICATIONS**

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.

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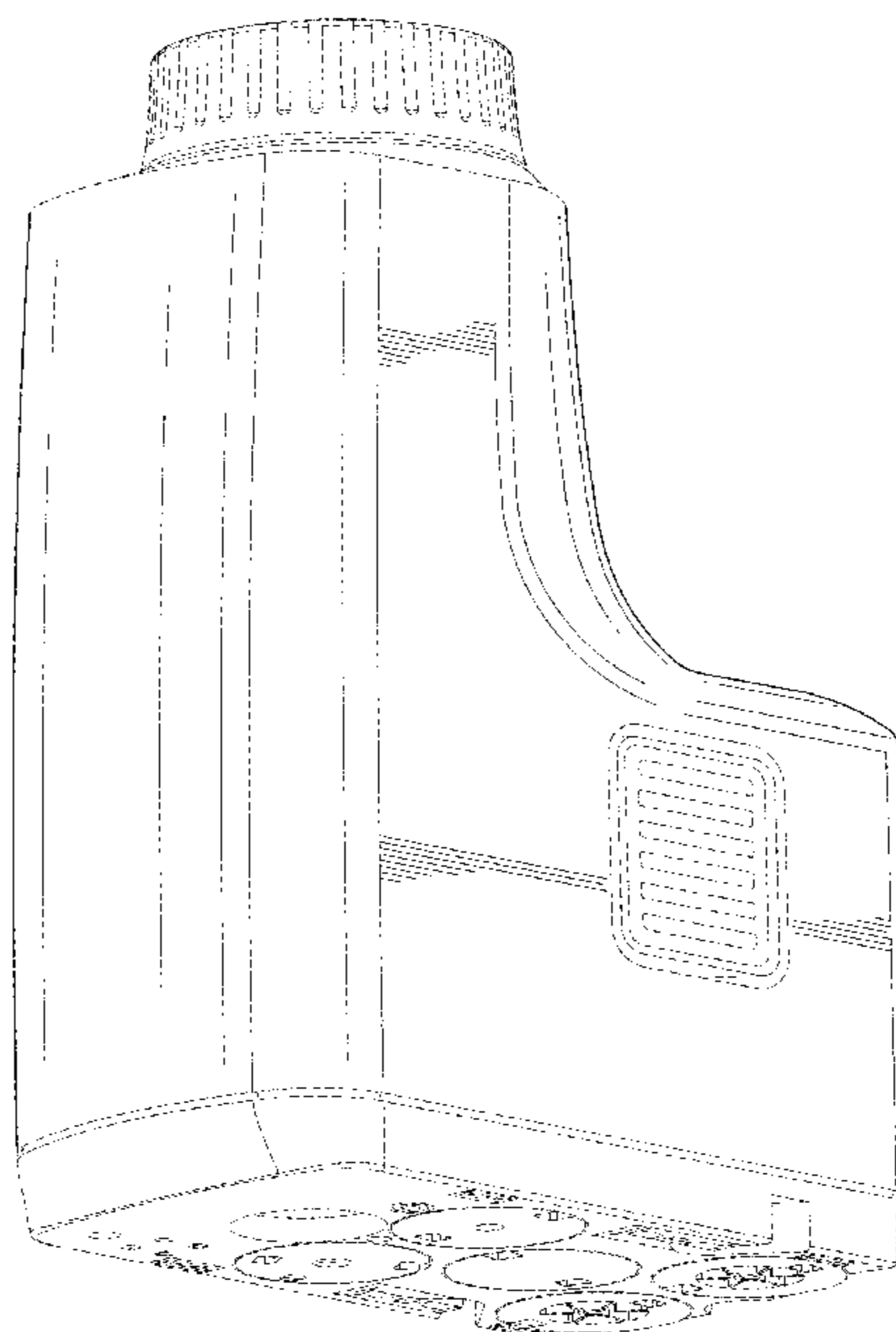
(57) **CLAIM**

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

**DESCRIPTION**

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. 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**



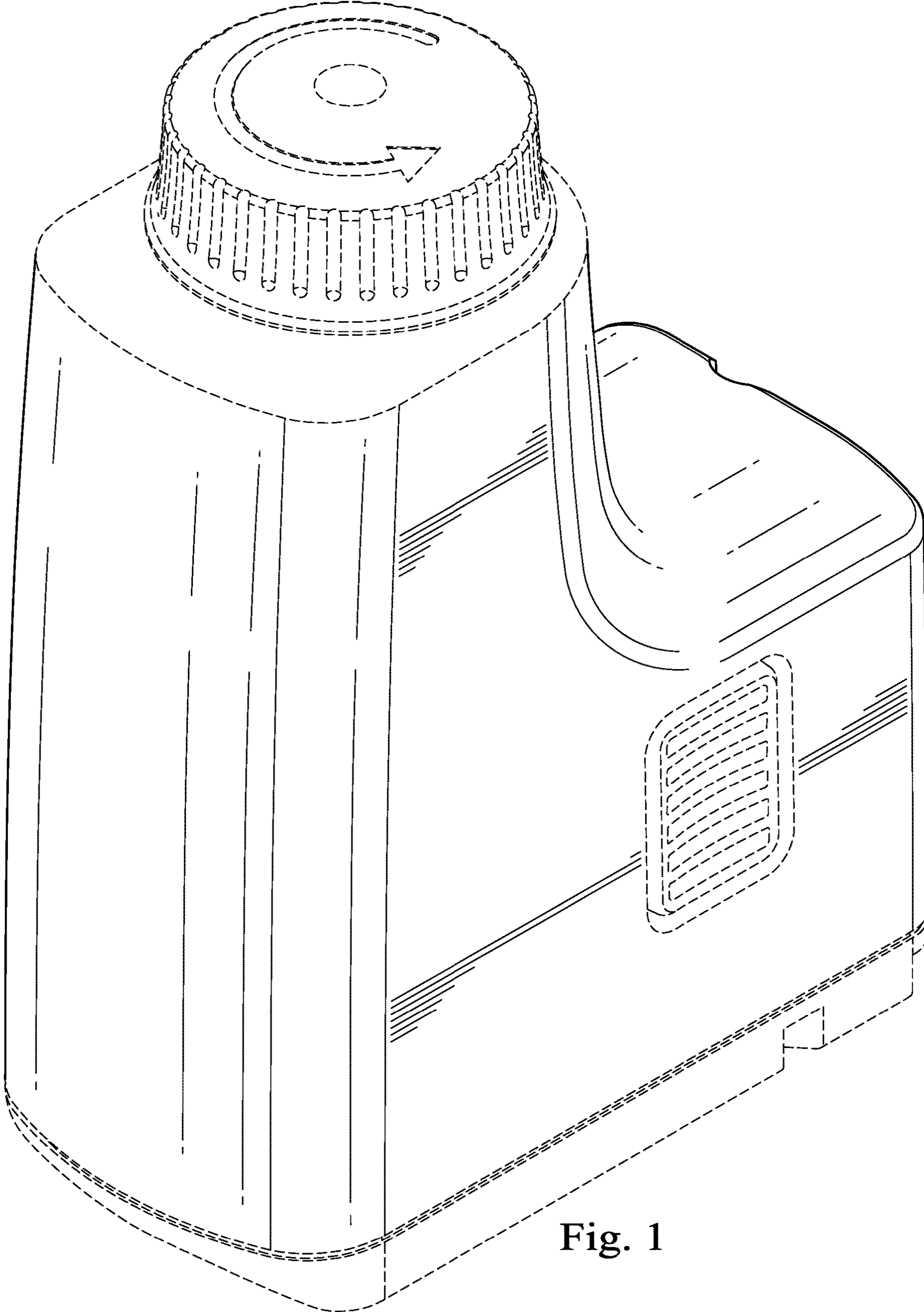


Fig. 1

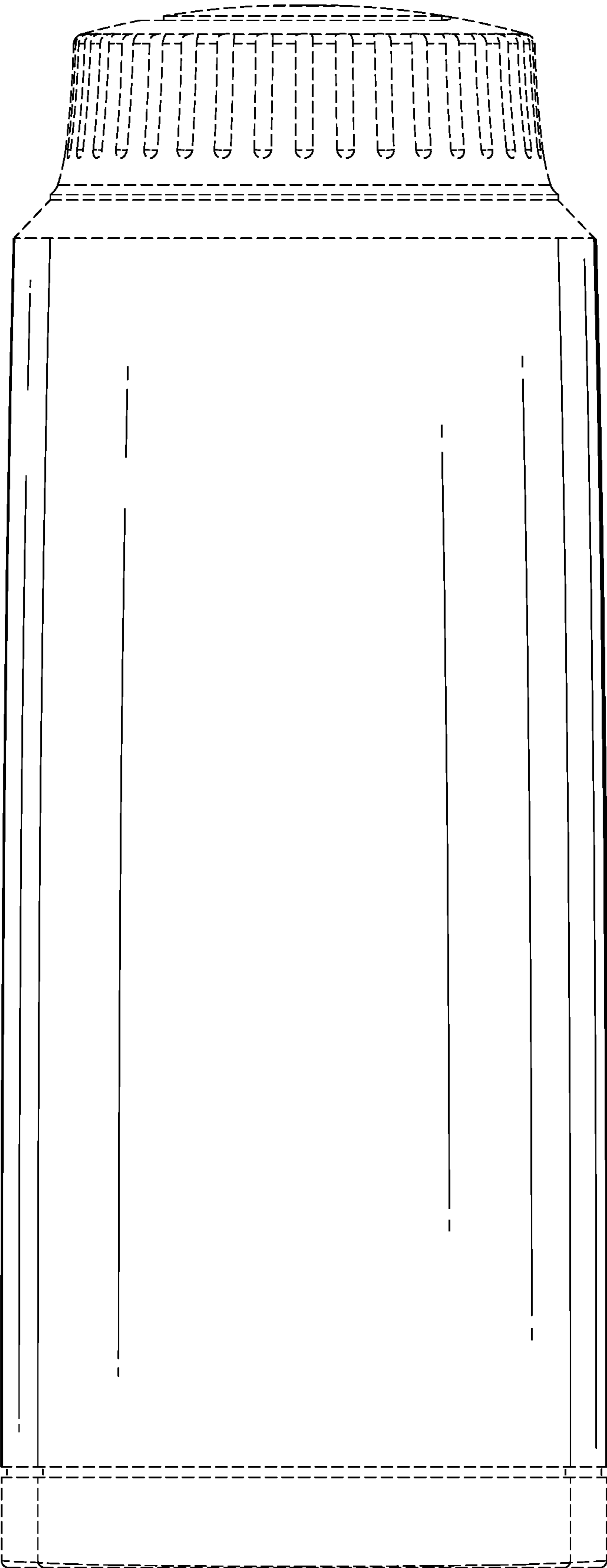
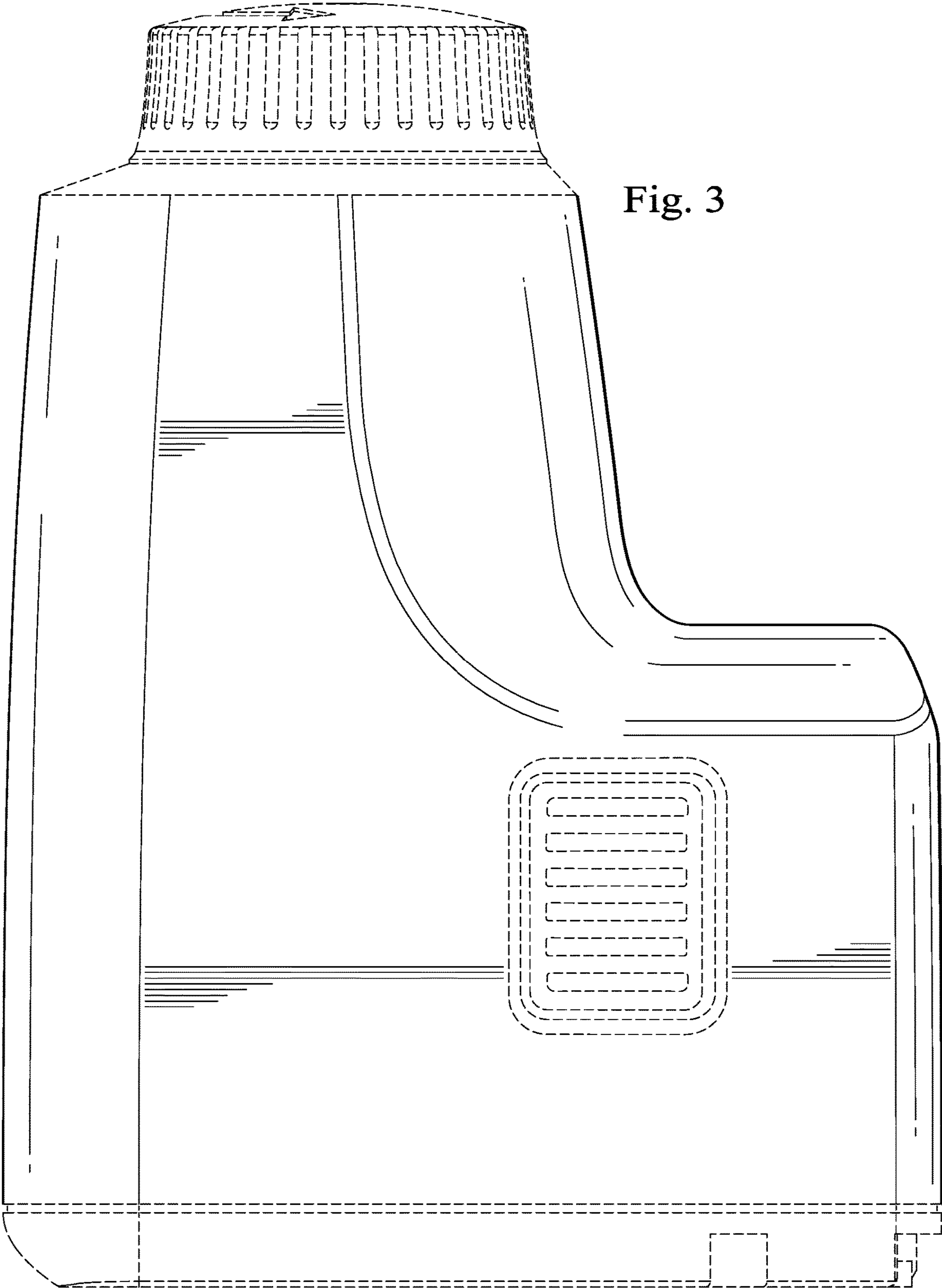


Fig. 2



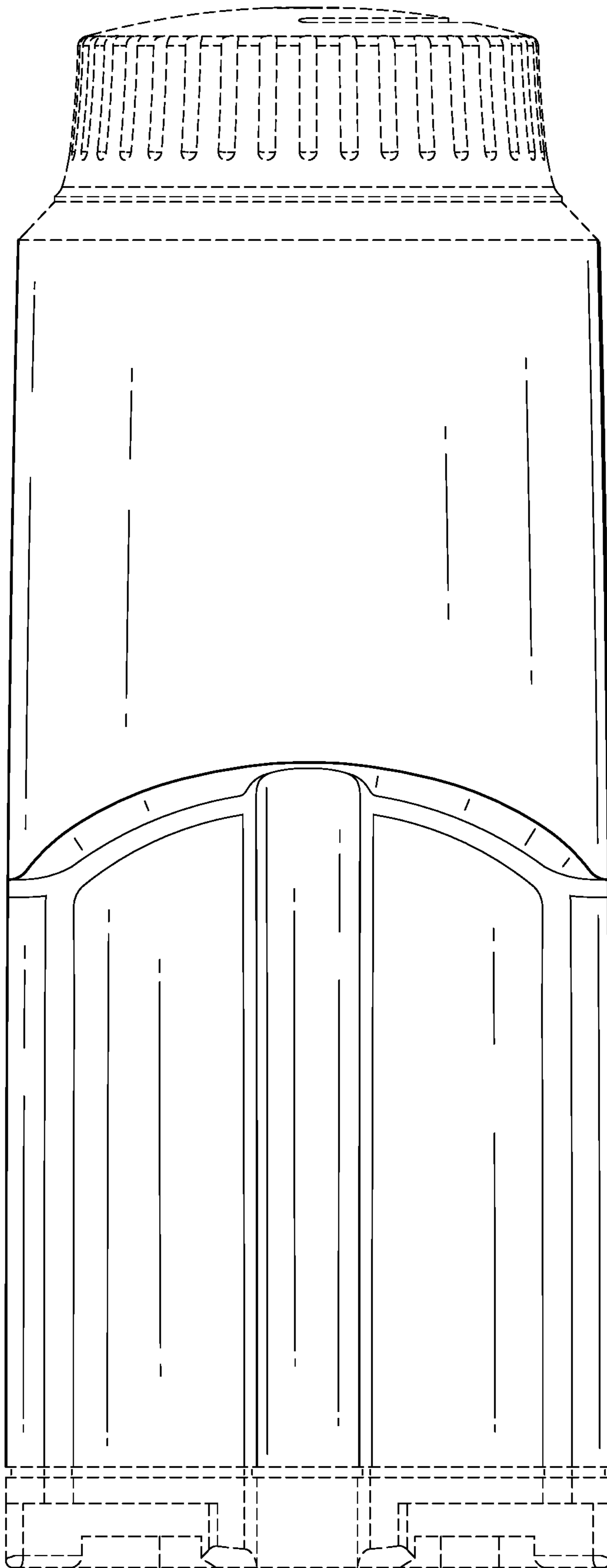
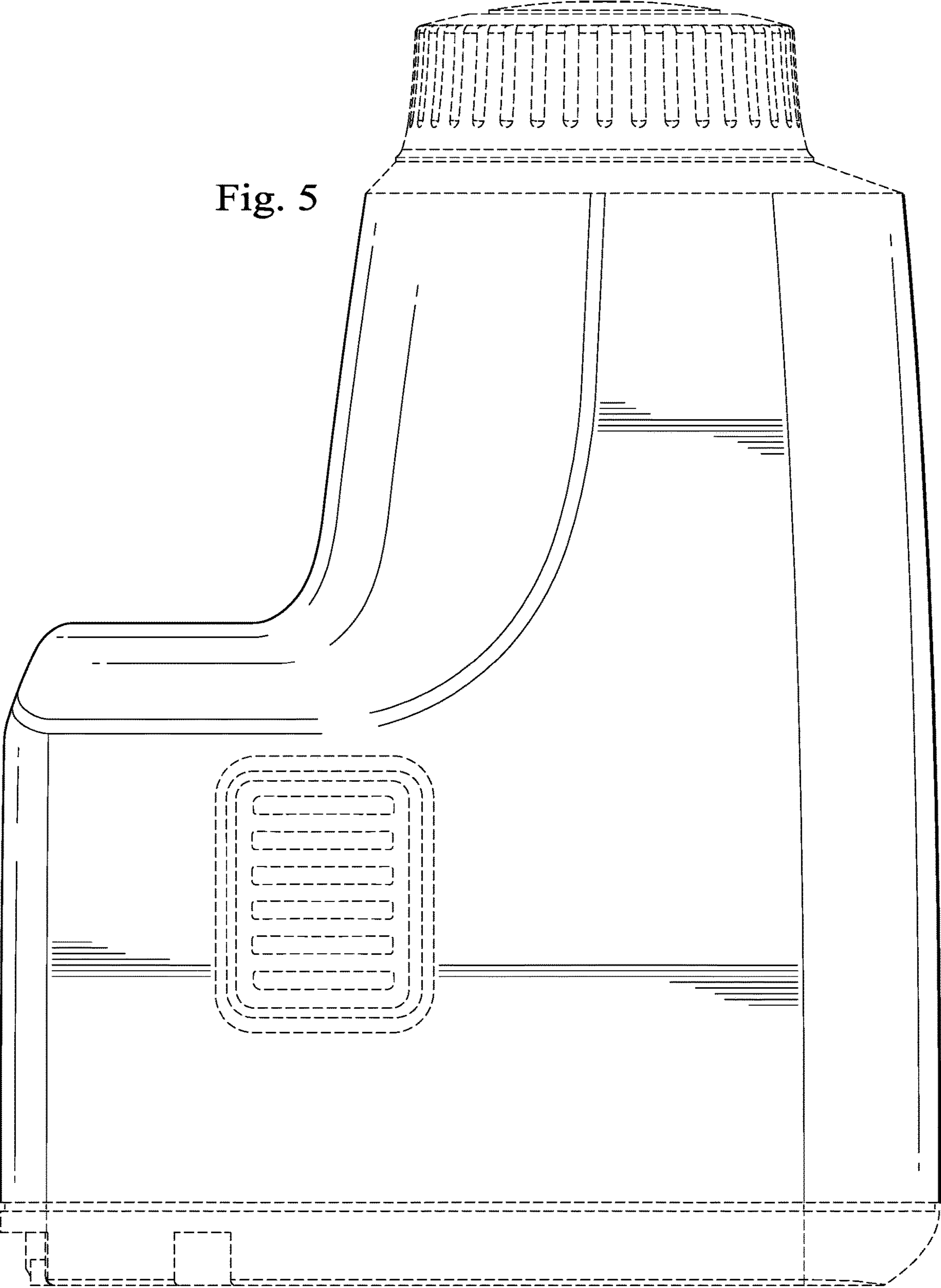


Fig. 4



Fig. 5



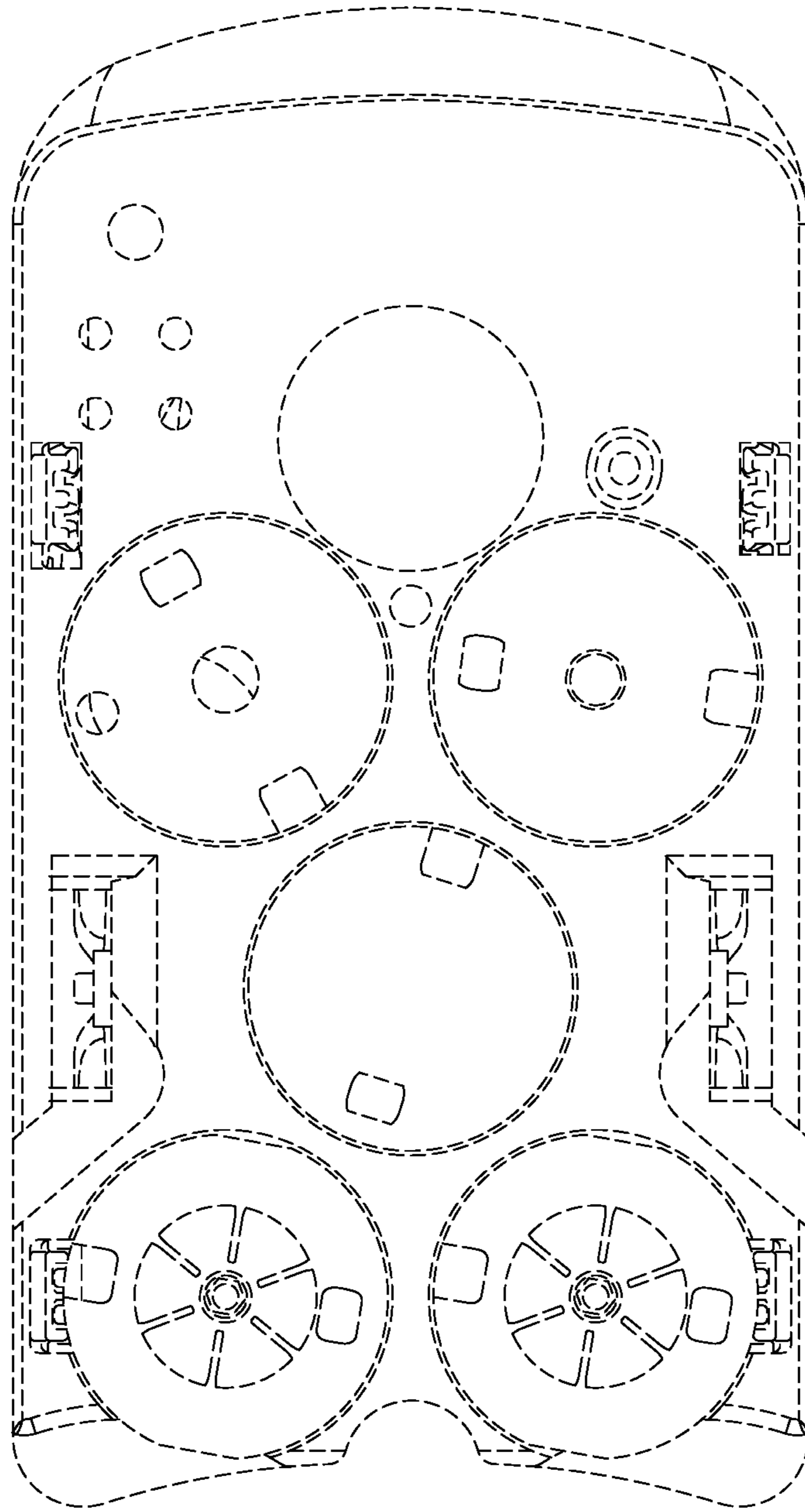


Fig. 6

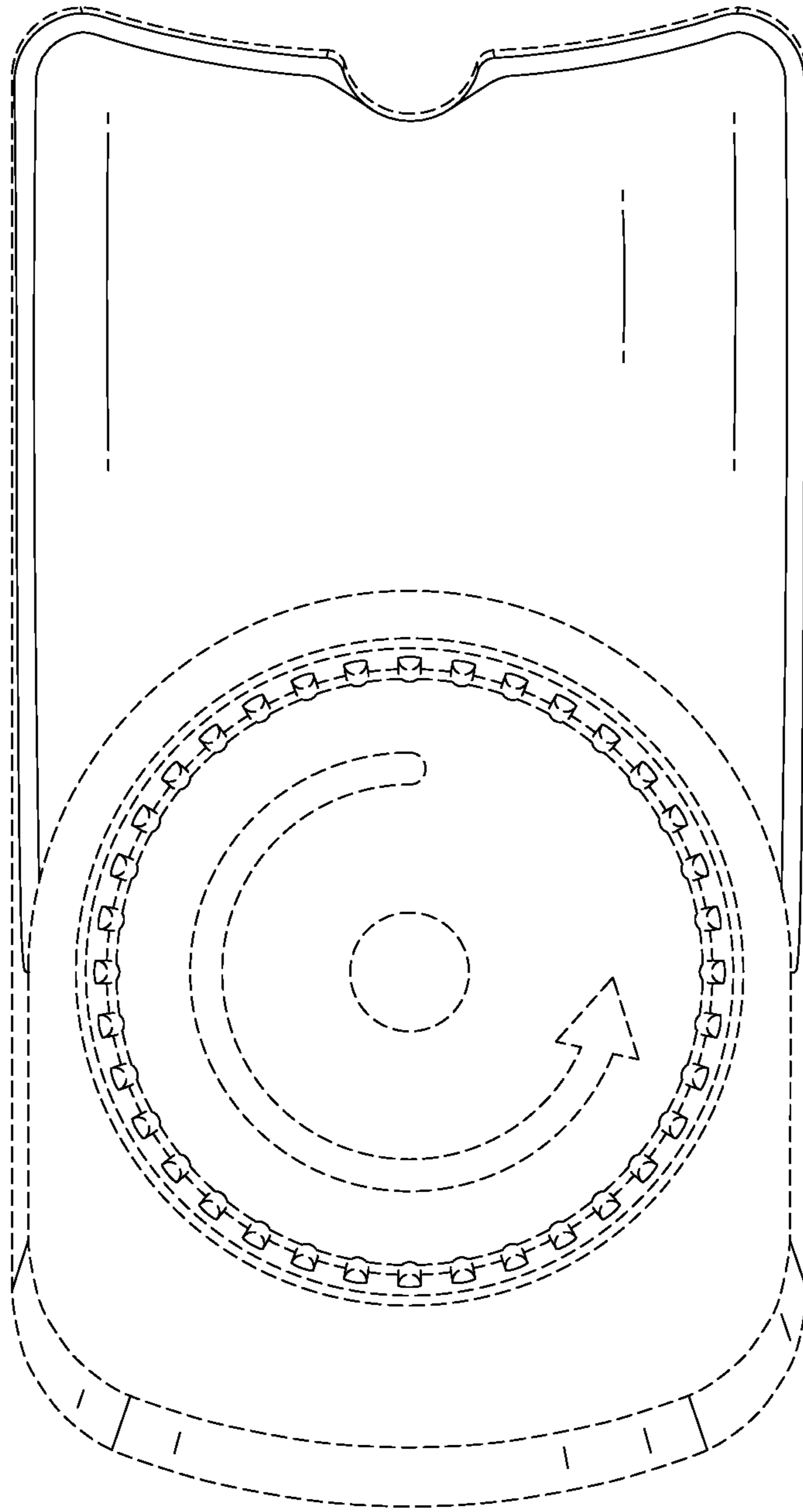


Fig. 7



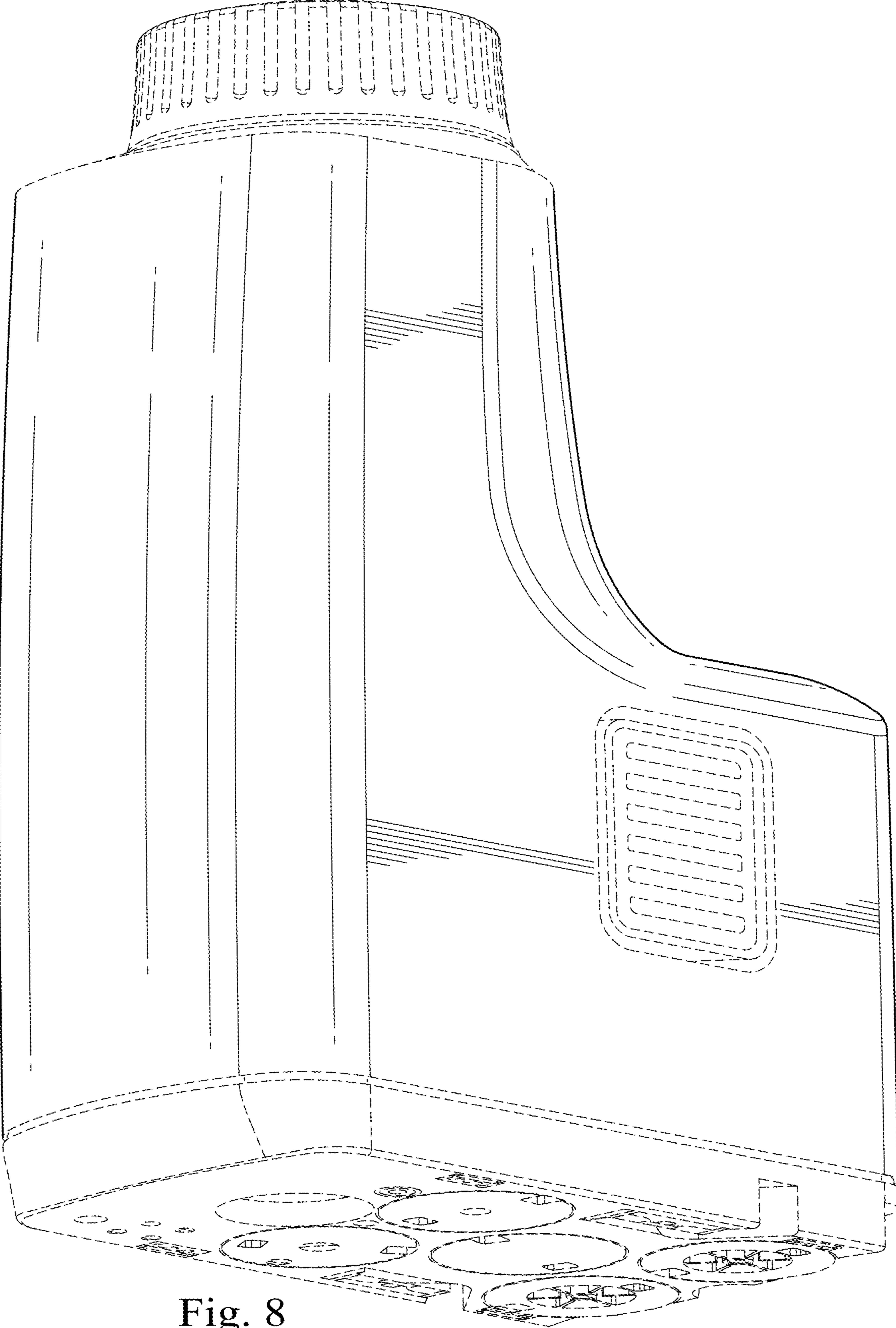


Fig. 8