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(12) **United States Design Patent** (10) **Patent No.:** **US D918,378 S**
Boyle (45) **Date of Patent:** **** May 4, 2021**

(54) **BREATHING TUBE WITH IN-LINE FILTER
FOR LUNG DIAGNOSTICS**

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

(21) Appl. No.: **29/653,876**

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(51) **LOC (13) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/110; D24/164**

(58) **Field of Classification Search**
USPC D24/107, 108, 127, 129, 110, 110.5,
D24/110.6, 164
CPC A61B 5/08; A61B 5/091; A61B 5/087;
A61B 5/097; A61B 5/0871
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D280,765 S * 9/1985 Alvino D24/110
5,627,324 A * 5/1997 Shene A61B 5/0871
73/861.53
D440,651 S * 4/2001 Foran D24/110
D492,772 S * 7/2004 Austin D24/110
D511,210 S * 11/2005 Cardona Burrull D24/110.5
D542,913 S * 5/2007 Aspinall D24/110
D557,788 S * 12/2007 Eloranta 24/110
D574,951 S * 8/2008 Reusch D24/108
D583,929 S * 12/2008 Reusch D24/108
D659,835 S * 5/2012 Benson D24/164
D692,140 S * 10/2013 Alvino D24/164
D744,655 S * 12/2015 Benson D24/164
D775,347 S * 12/2016 Buess D24/164

D775,348 S * 12/2016 Buess D24/164
D775,349 S * 12/2016 Buess D24/164
D775,350 S * 12/2016 Buess D24/164
D775,733 S * 1/2017 Buess D24/164
D779,071 S * 2/2017 Warner, III D24/164

(Continued)

OTHER PUBLICATIONS

Filtrette. SDI Diagnostics. Date accessed: May 20, 2020. Retrieved
from Internet: <https://www.sdidiagnostics.com/products/82-supplies/filtrette-system> (Year: 2020).*

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(57) **CLAIM**

The ornamental design for a breathing tube with in-line filter
for lung diagnostics, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a breathing tube with
in-line filter for lung diagnostics, according to my new
design.

FIG. 2 is a top view thereof.

FIG. 3 is a bottom view thereof.

FIG. 4 is a cross section view taken in the direction of line
4-4 of FIG. 3.

FIG. 5 is a left view thereof.

FIG. 6 is a front view thereof.

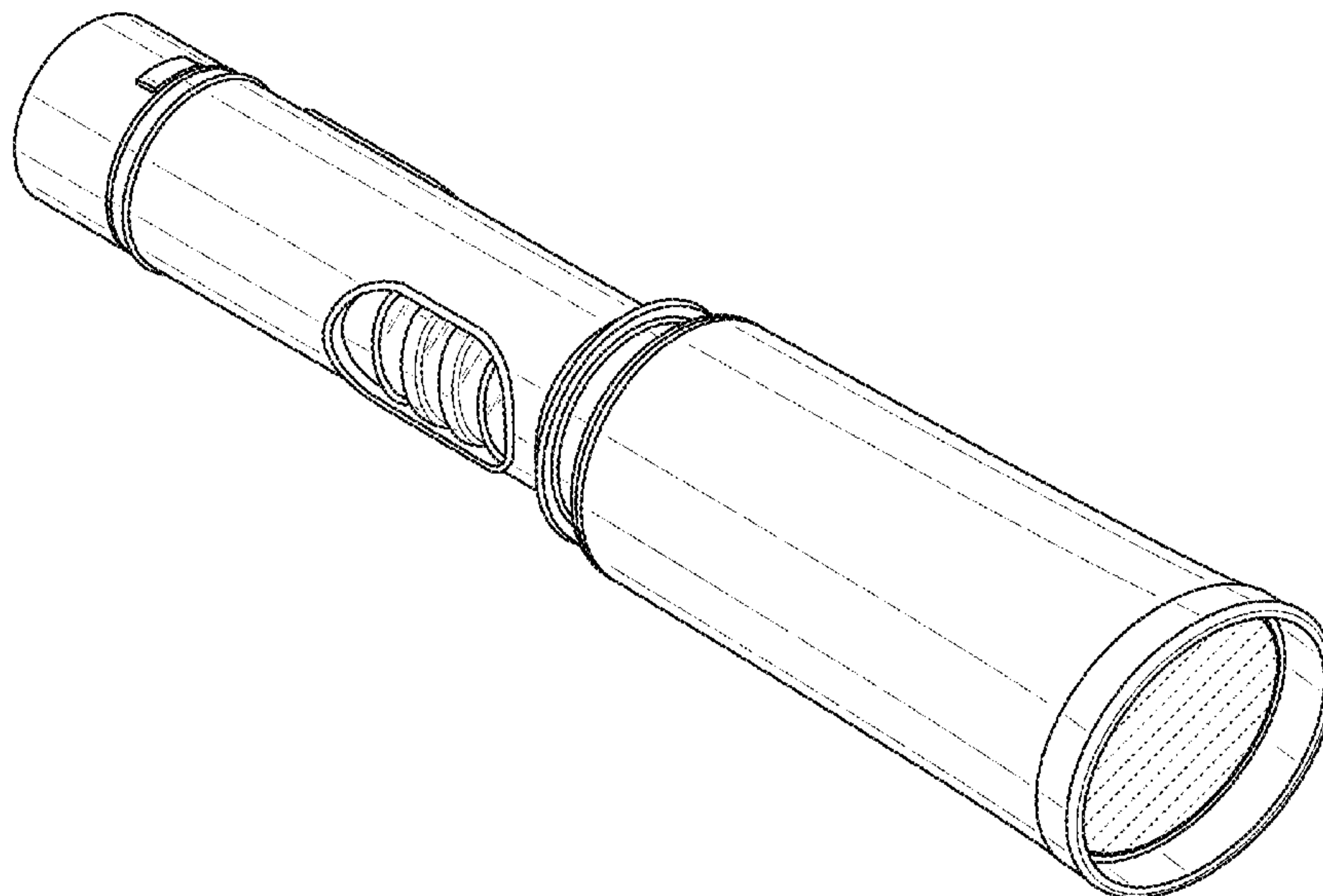
FIG. 7 is a right view thereof; and,

FIG. 8 is a back view thereof.

The elements depicted in broken lines in the various figures
are included for environmental purposes only, and form no
part of the claimed design.

The broken lines in the drawings depict portions of the
breathing tube with in-line filter for lung diagnostics that
form no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D812,736	S	*	3/2018	Parker		D24/110
D833,014	S	*	11/2018	Pilat		D24/164
D852,959	S	*	7/2019	Kim		D24/164
D870,290	S	*	12/2019	Benson		D24/164
2016/0128608	A1	*	5/2016	Buess		G01F 1/662 600/532
2018/0333076	A1	*	11/2018	Kleinhapfl		A61B 5/087
2019/0254534	A1	*	8/2019	Koltowski		A61B 5/087

* cited by examiner

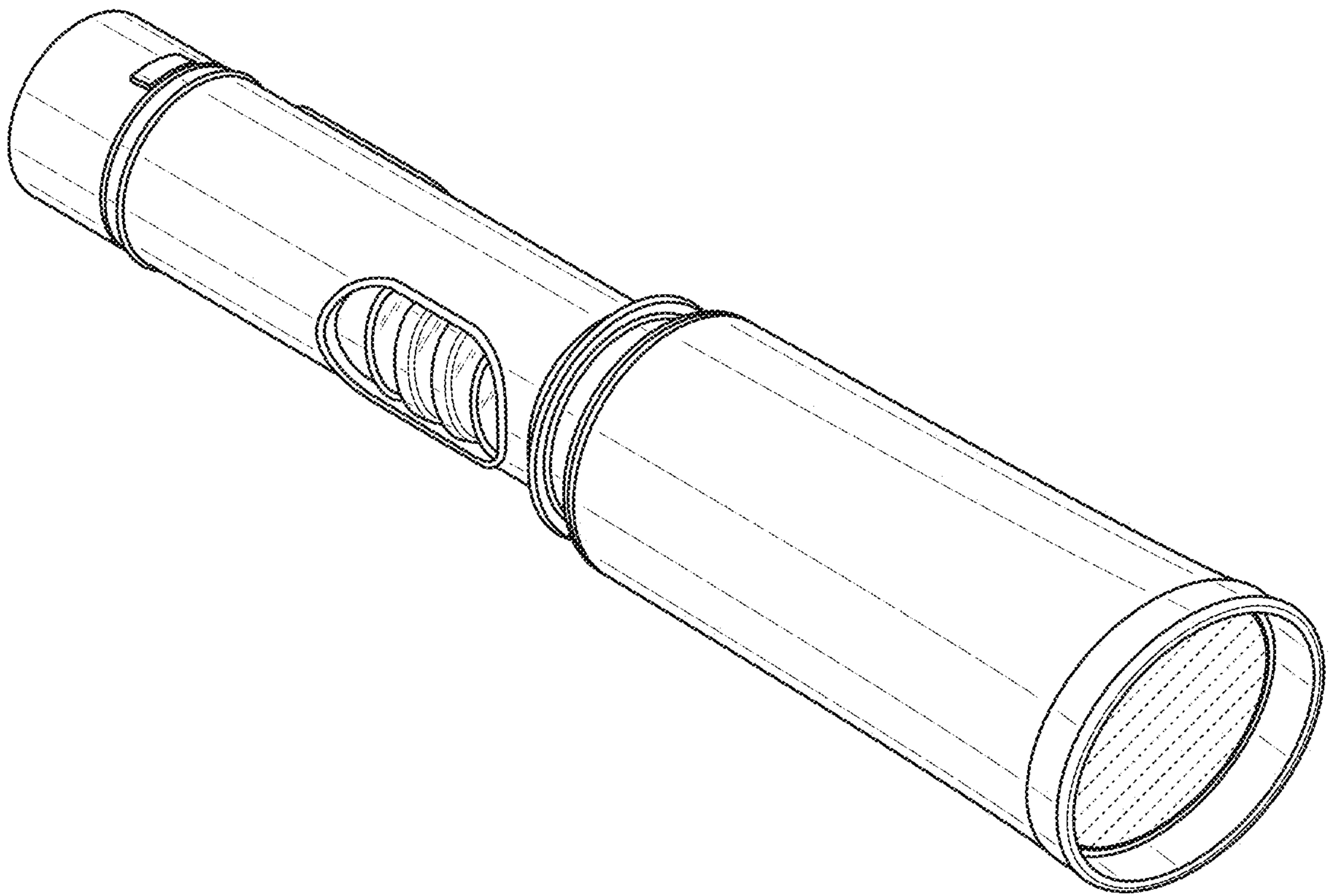


FIG. 1

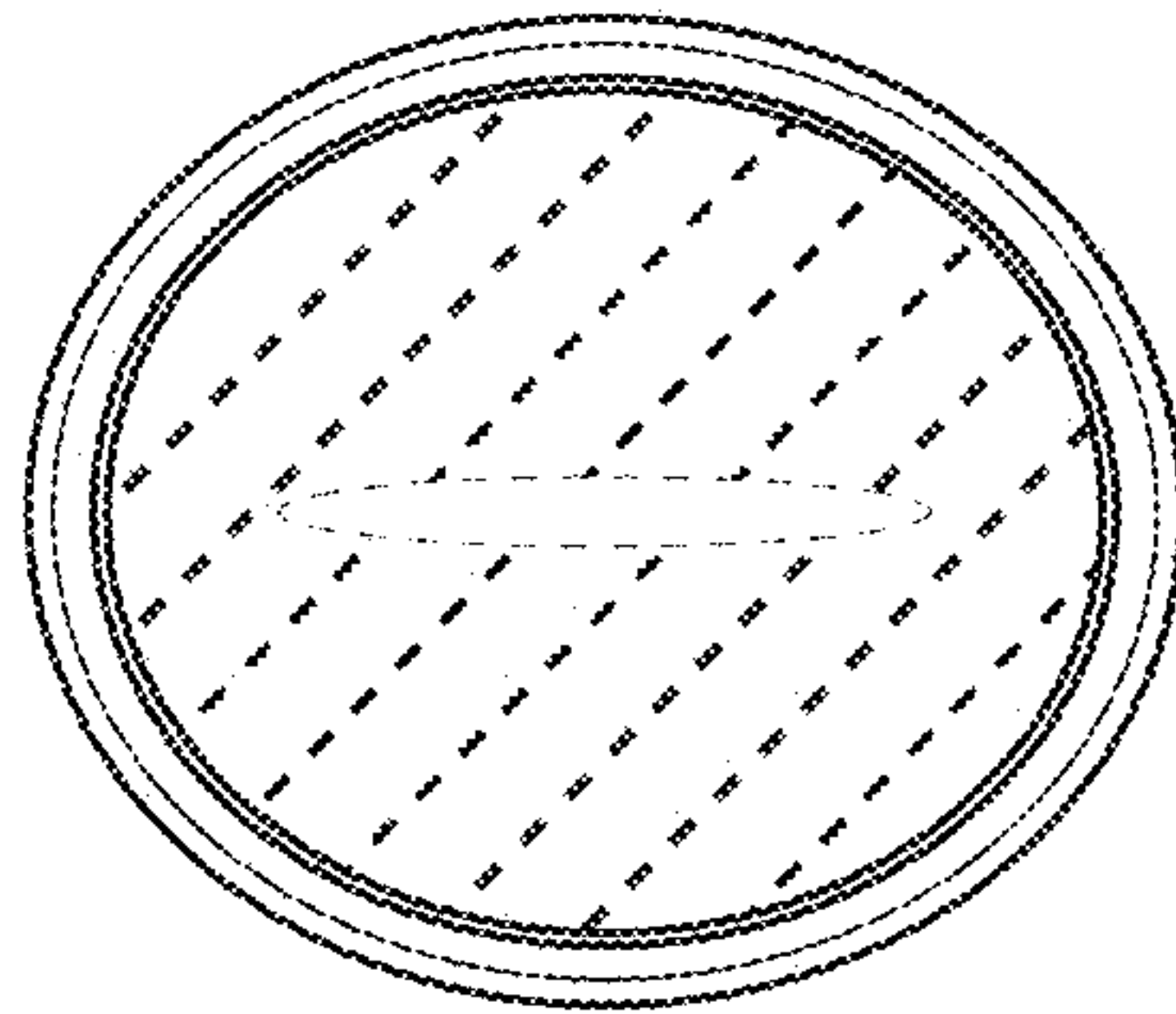


FIG. 2

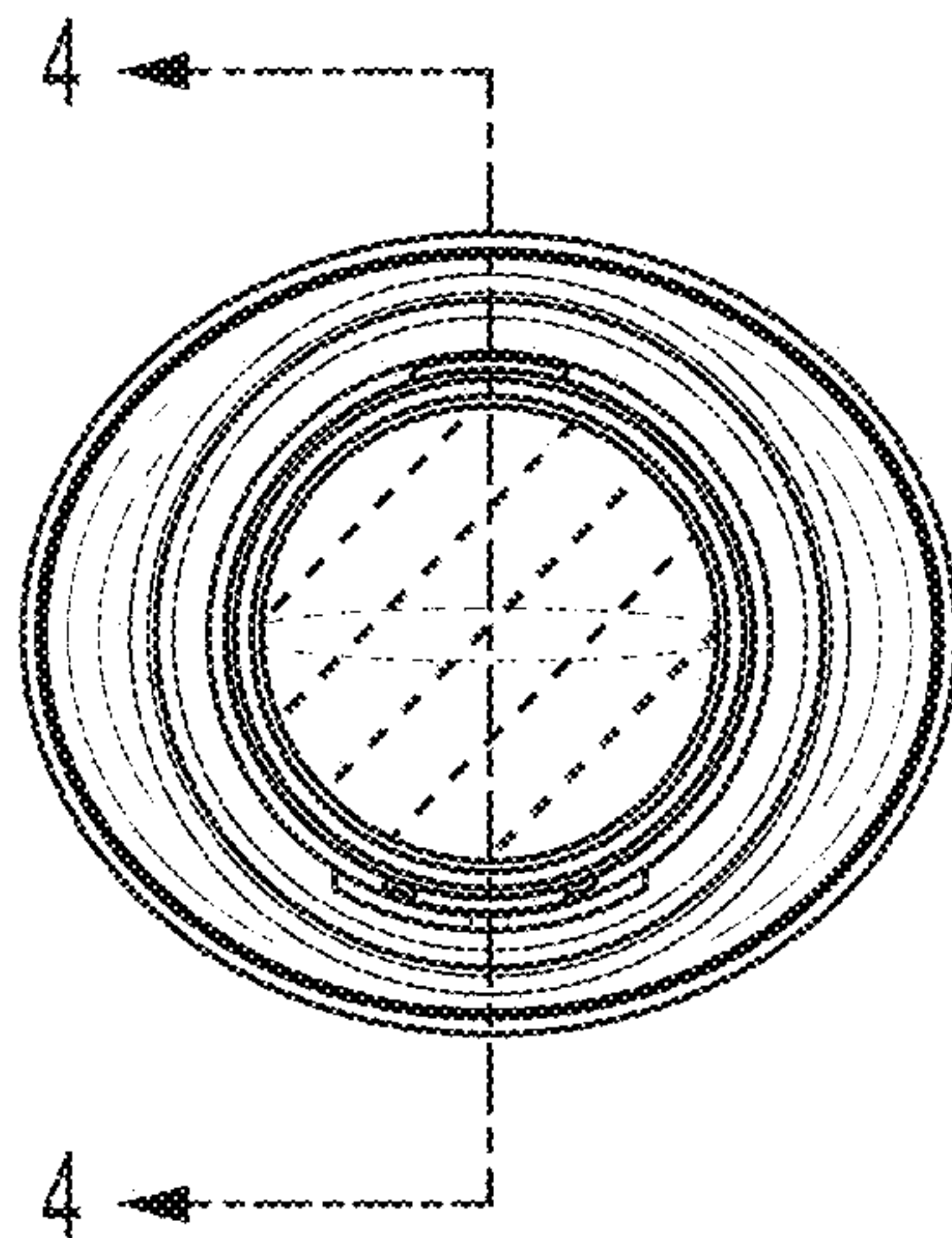


FIG. 3

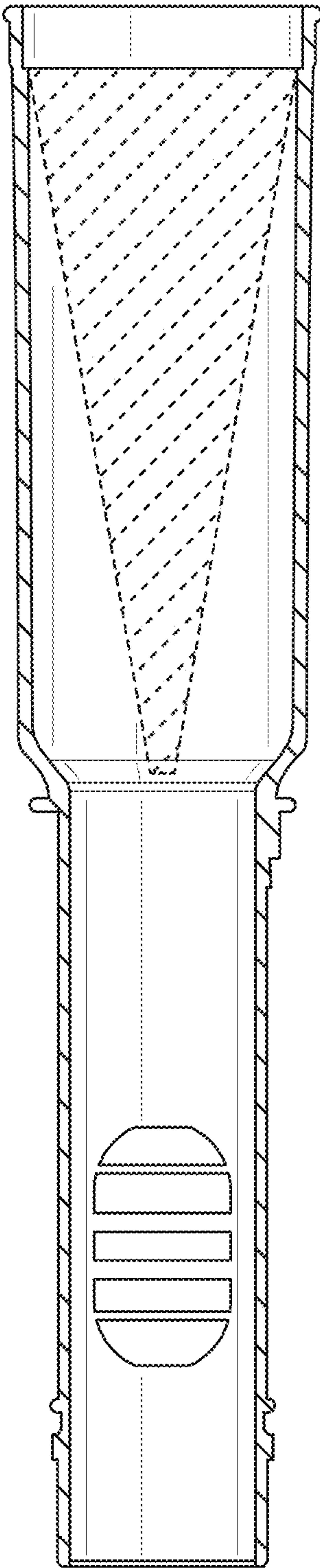


FIG. 4

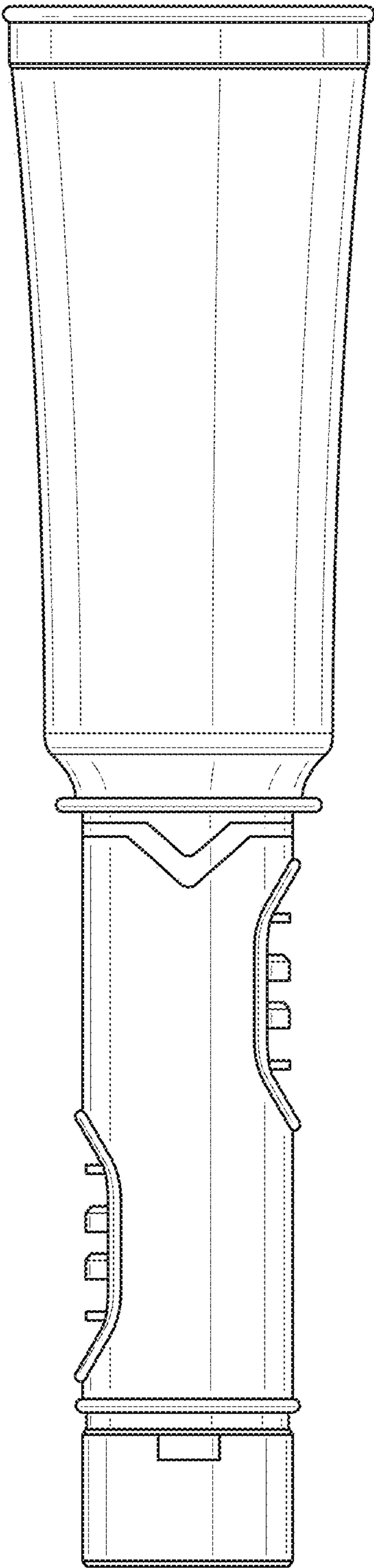


FIG. 5

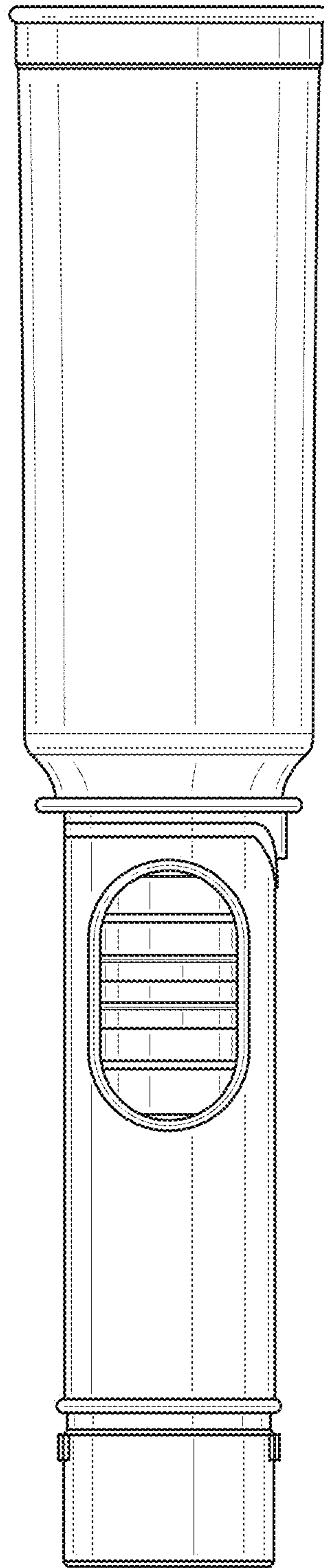


FIG. 6

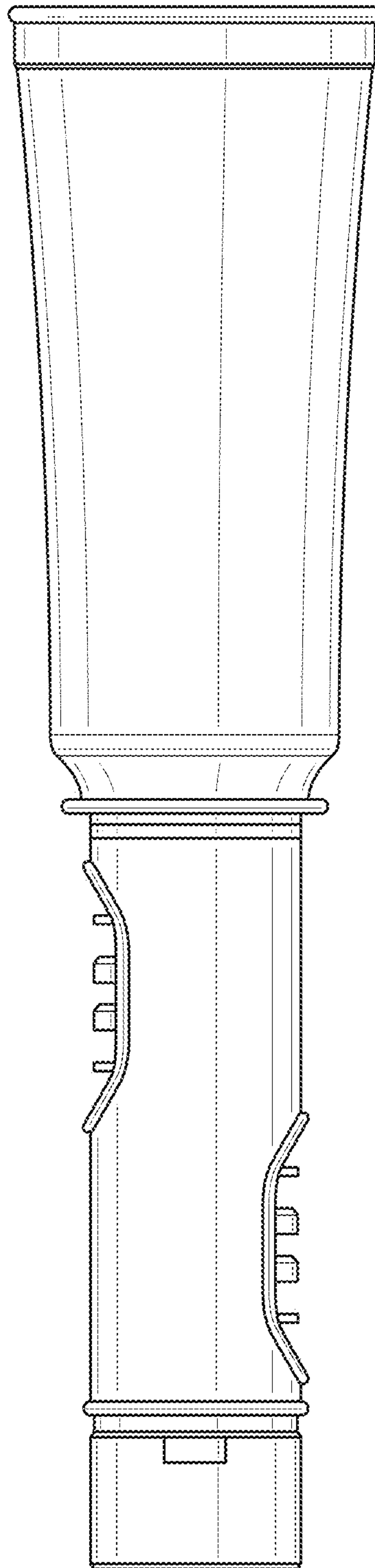


FIG. 7

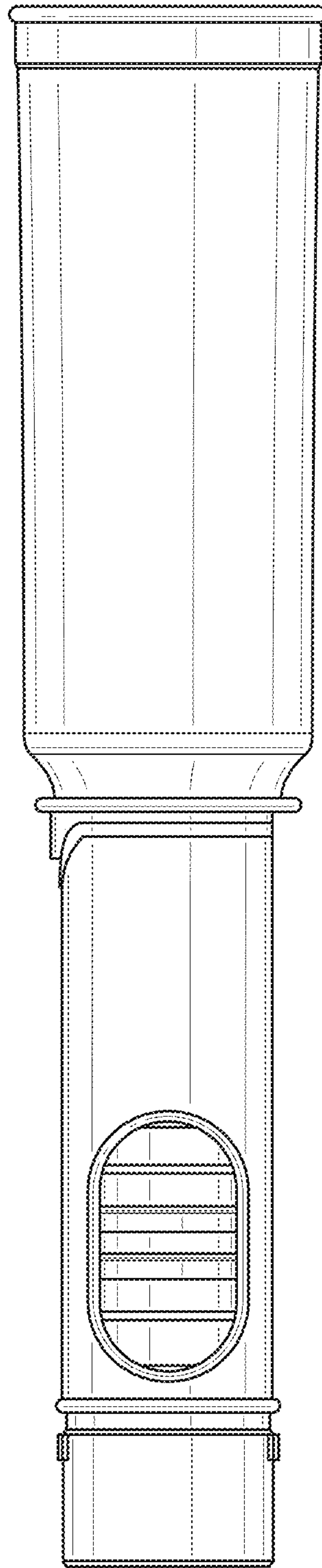


FIG. 8