



US00D926308S

(12) **United States Design Patent** (10) **Patent No.:** **US D926,308 S**
Lee et al. (45) **Date of Patent:** **** Jul. 27, 2021**

(54) **BREATHING TUBE FOR A RESPIRATORY
GAS EXCHANGE MONITOR**

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

(21) Appl. No.: **29/649,516**

(22) Filed: **May 30, 2018**

(51) **LOC (13) Cl.** **24-04**

(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

2,470,296 A * 5/1949 Fields A61K 9/0075
128/203.15
D156,719 S * 1/1950 Fields D24/110
D188,881 S * 9/1960 Smilg D24/110
D214,605 S * 7/1969 Best, Jr. D24/110
D236,655 S * 9/1975 Murphy D24/110.5
D236,656 S * 9/1975 Murphy D24/110.5
3,903,884 A * 9/1975 Huston A61M 11/06
128/200.18
4,114,608 A * 9/1978 Russo A61B 5/0875
128/200.24

4,221,381 A * 9/1980 Ericson A63B 23/18
482/13
4,232,683 A * 11/1980 Bartholomew A61B 5/0875
482/13
D266,695 S * 10/1982 Trammll D21/411
4,391,283 A * 7/1983 Sharpless A61B 5/0875
482/13
4,425,923 A * 1/1984 Gordon A61B 5/0875
482/13

(Continued)

OTHER PUBLICATIONS

Medipines Advanced Single Patient Breathing Circuit. MediPines.
Date accessed: May 20, 2020. Retrieved from Internet: <https://www.medipines.com/patient-breathing-circuit/> (Year: 2020).*

(Continued)

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(57) **CLAIM**

The ornamental design for a breathing tube for a respiratory
gas exchange monitor, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a breathing tube for a
respiratory gas exchange monitor.

FIG. 2 is a top view of the breathing tube of FIG. 1.

FIG. 3 is a left side view of the breathing tube of FIG. 1.

FIG. 4 is a rear view of the breathing tube of FIG. 1.

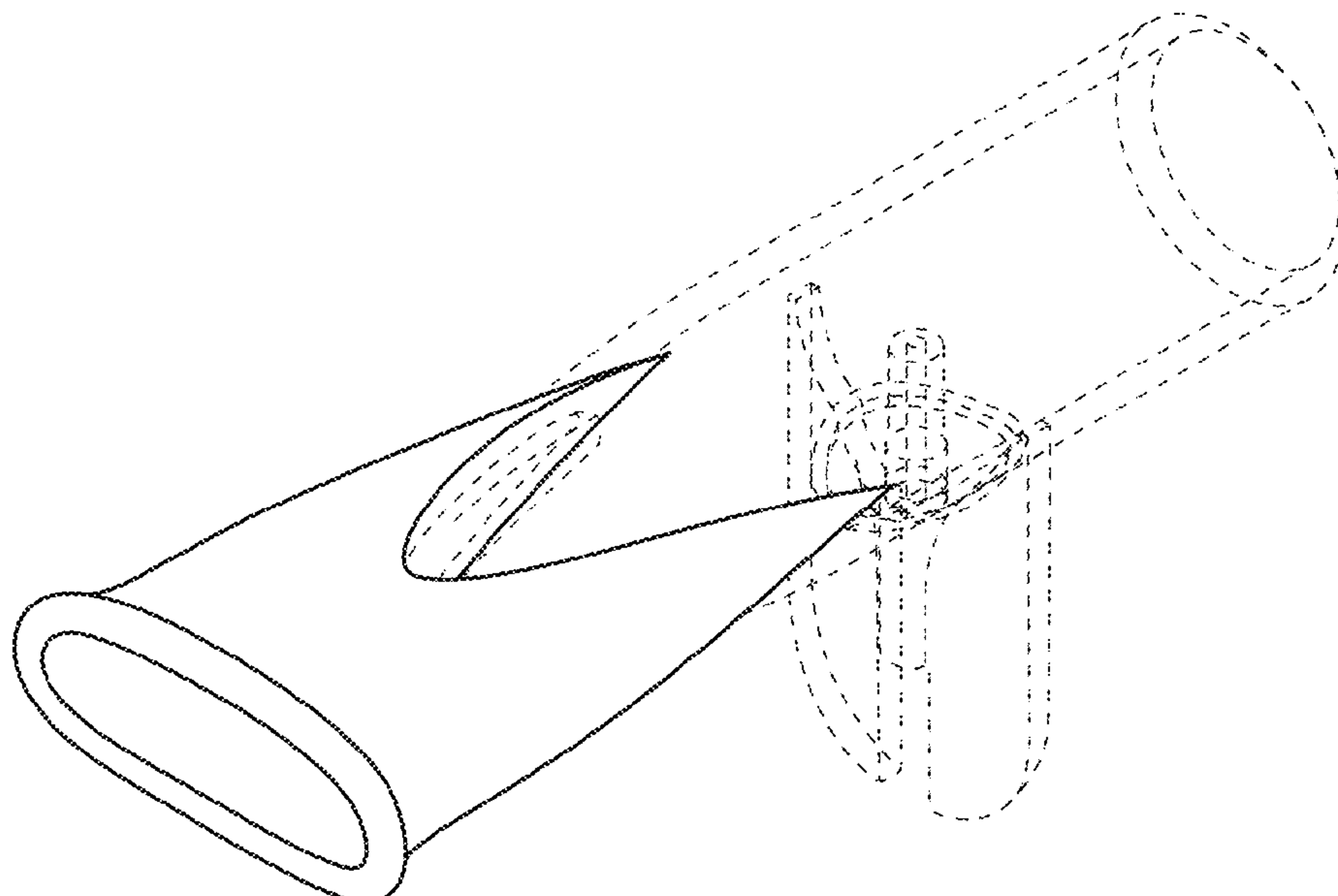
FIG. 5 is a right side view of the breathing tube of FIG. 1.

FIG. 6 is a front view of the breathing tube of FIG. 1; and,

FIG. 7 is a bottom view of the breathing tube of FIG. 1.

The broken lines in the drawings depict portions of the
breathing tube for a respiratory gas exchange monitor that
forms no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,499,905 A * 2/1985 Greenberg A61B 5/091
482/13
D280,765 S * 9/1985 Alvino D24/110
4,581,984 A * 4/1986 Greenberg A61B 5/091
92/240
4,635,647 A * 1/1987 Choksi A61B 5/0875
482/13
D295,333 S * 4/1988 Hartley D24/110
4,770,413 A * 9/1988 Green A63B 23/18
137/269.5
D318,124 S * 7/1991 Siemens D24/110
D319,880 S * 9/1991 Tapolcai D24/164
D331,281 S * 11/1992 Levine D24/110
5,522,380 A * 6/1996 Dwork A61M 15/0086
128/200.23
5,598,839 A * 2/1997 Niles A61M 16/08
128/205.23
D441,070 S * 4/2001 Niles D24/110
6,539,939 B2 * 4/2003 Rubin A61M 15/0086
128/200.23
D476,413 S * 6/2003 Pearce, Jr. D24/110
6,656,129 B2 * 12/2003 Niles A61B 5/0875
600/532
6,718,969 B1 * 4/2004 Rubin A61M 15/0086
128/200.14
D511,210 S * 11/2005 Cardona Burrull D24/110.5

D556,902 S * 12/2007 Allen D24/110.5
7,699,054 B2 * 4/2010 Pelerosi A61M 16/08
128/200.24
D659,835 S * 5/2012 Benson D24/164
D744,655 S * 12/2015 Benson D24/164
D754,329 S * 4/2016 Fleischer D24/110.5
D768,285 S * 10/2016 Reed D24/110
D812,140 S 3/2018 Lee et al.
D870,290 S * 12/2019 Benson D24/164
2002/0151813 A1 * 10/2002 Niles A63B 23/18
600/532
2012/0186585 A1 * 7/2012 Richards A61M 16/209
128/203.12
2017/0290526 A1 * 10/2017 Bozorgchami G08B 21/18
2019/0046079 A1 * 2/2019 Reed A61B 5/0876

OTHER PUBLICATIONS

“Universal Disposable Mouthpieces by BD” Medline Industries, Inc., <https://www.medline.com/product/Universal-Disposable-Mouthpieces-by-Carefusion/Accessories/Z05-PF46936>, downloaded May 16, 2018, 1 page.

“Mouthpiece, for Non-Electric Spirometer, Disposable, Double One-Way Valves, Case of 25| Tri-anim Health Services” <https://www.tri-anim.com/non-electric-spirometer-mouthpieces-group-28696-3829.aspx>, downloaded May 16, 2018; 1 page.

* cited by examiner

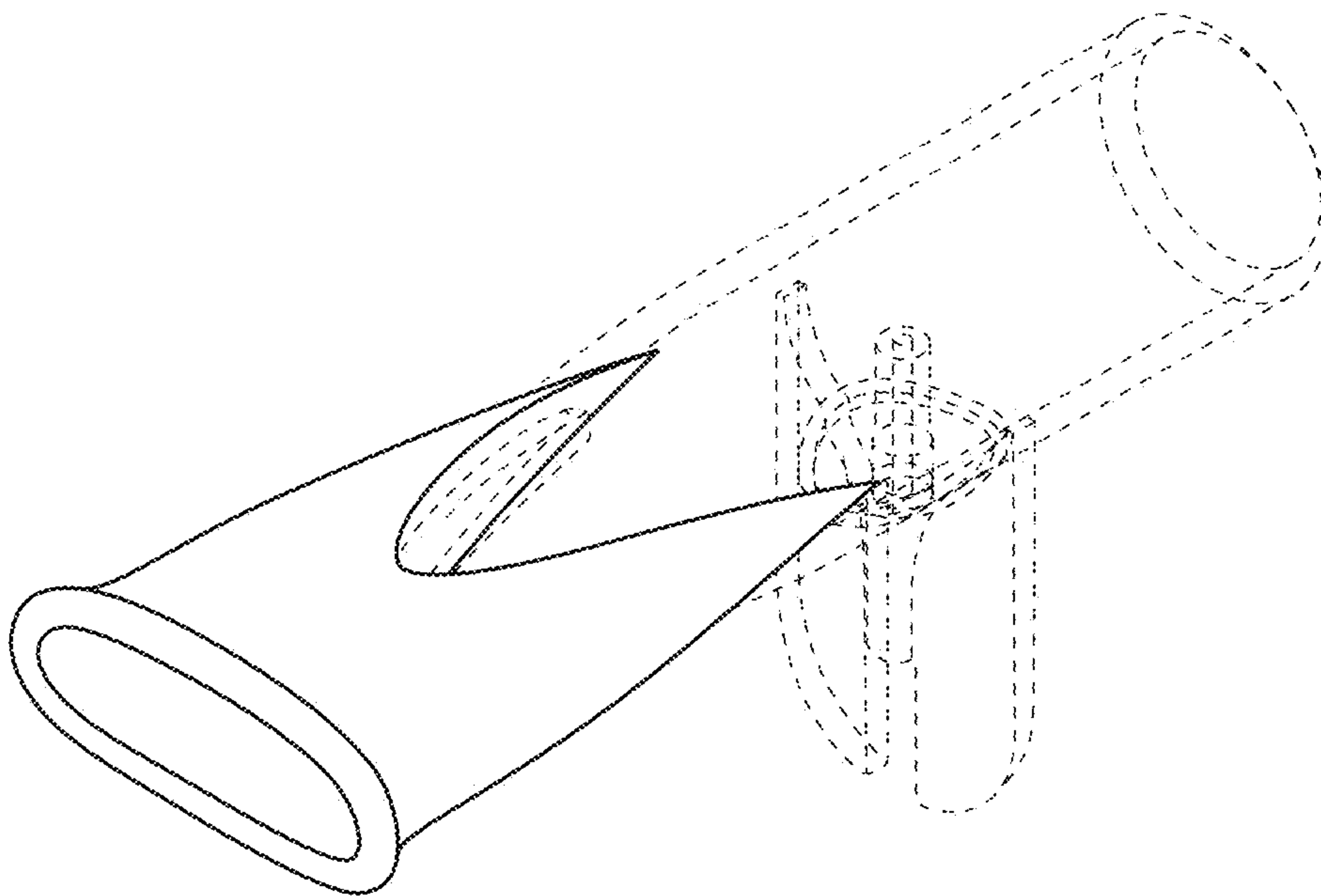


FIG. 1

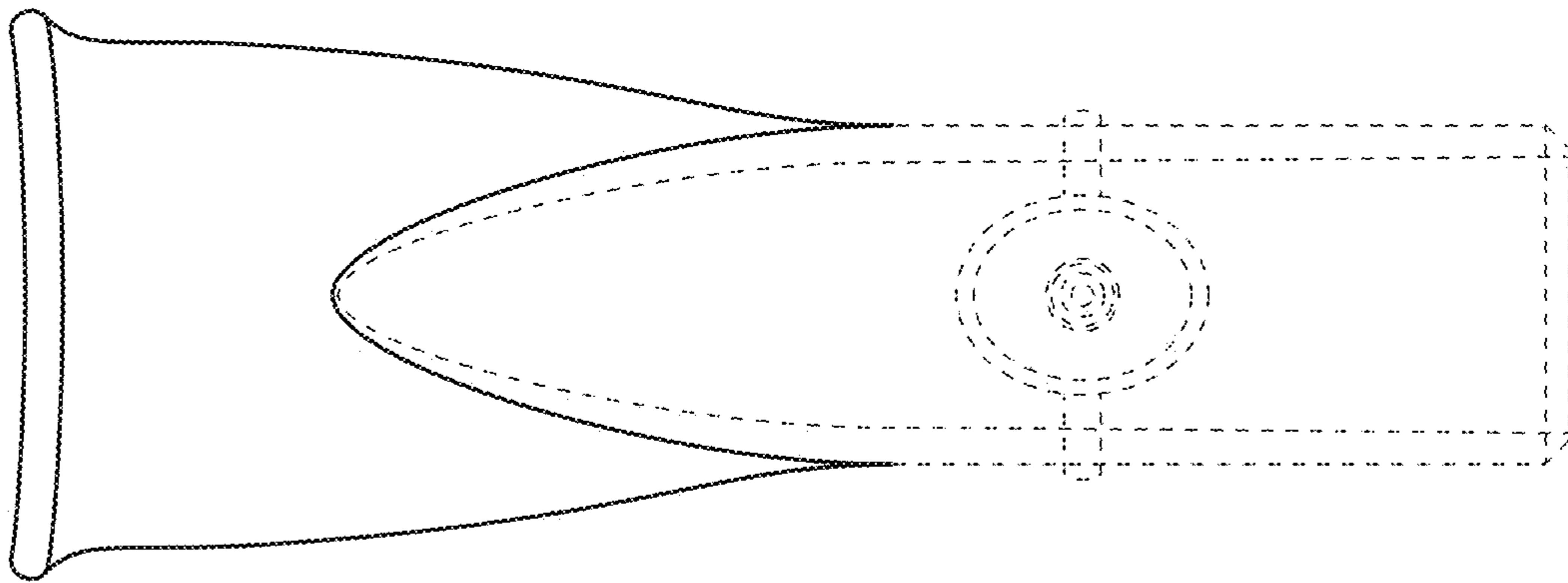


FIG. 2

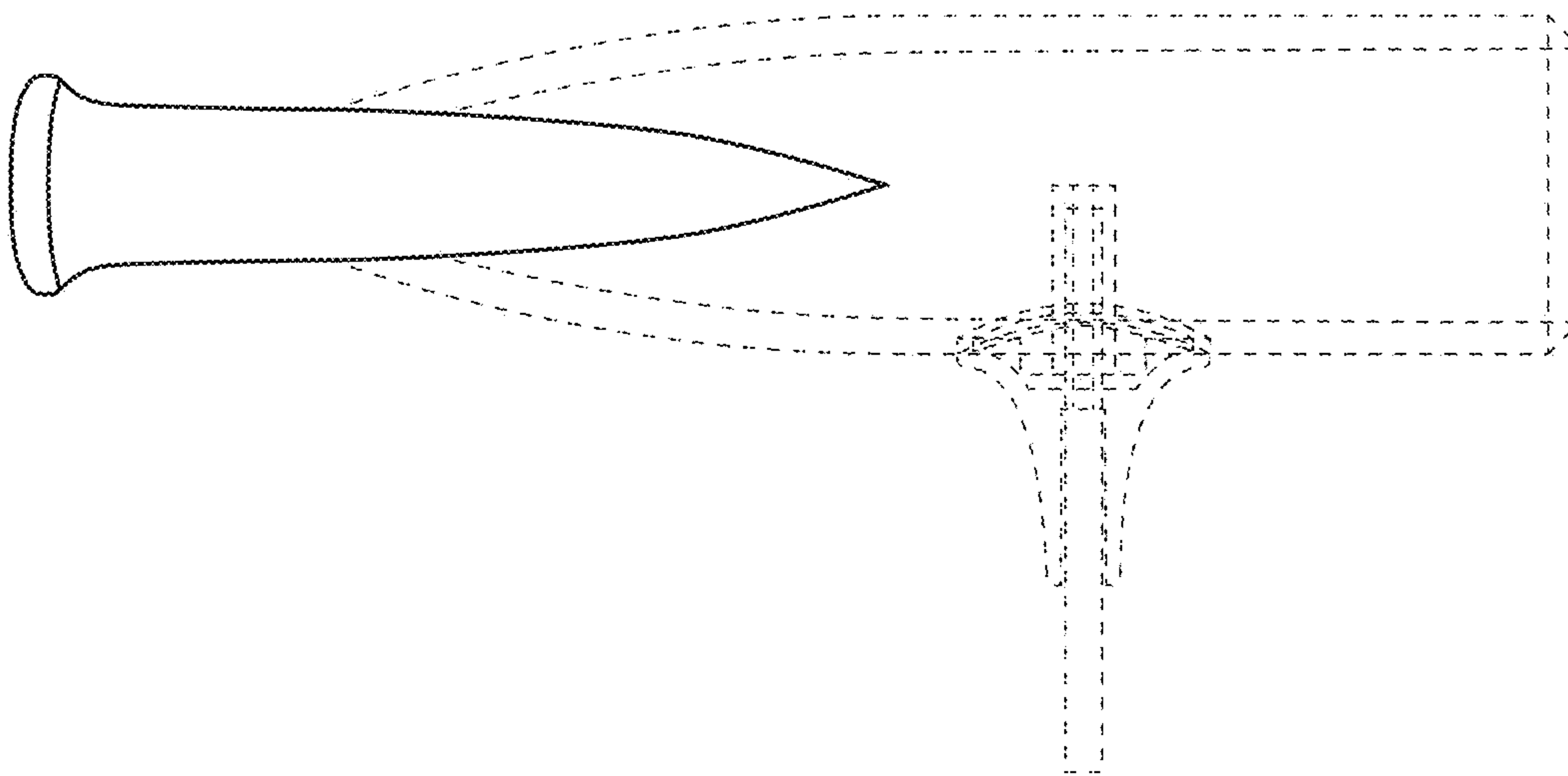


FIG. 3

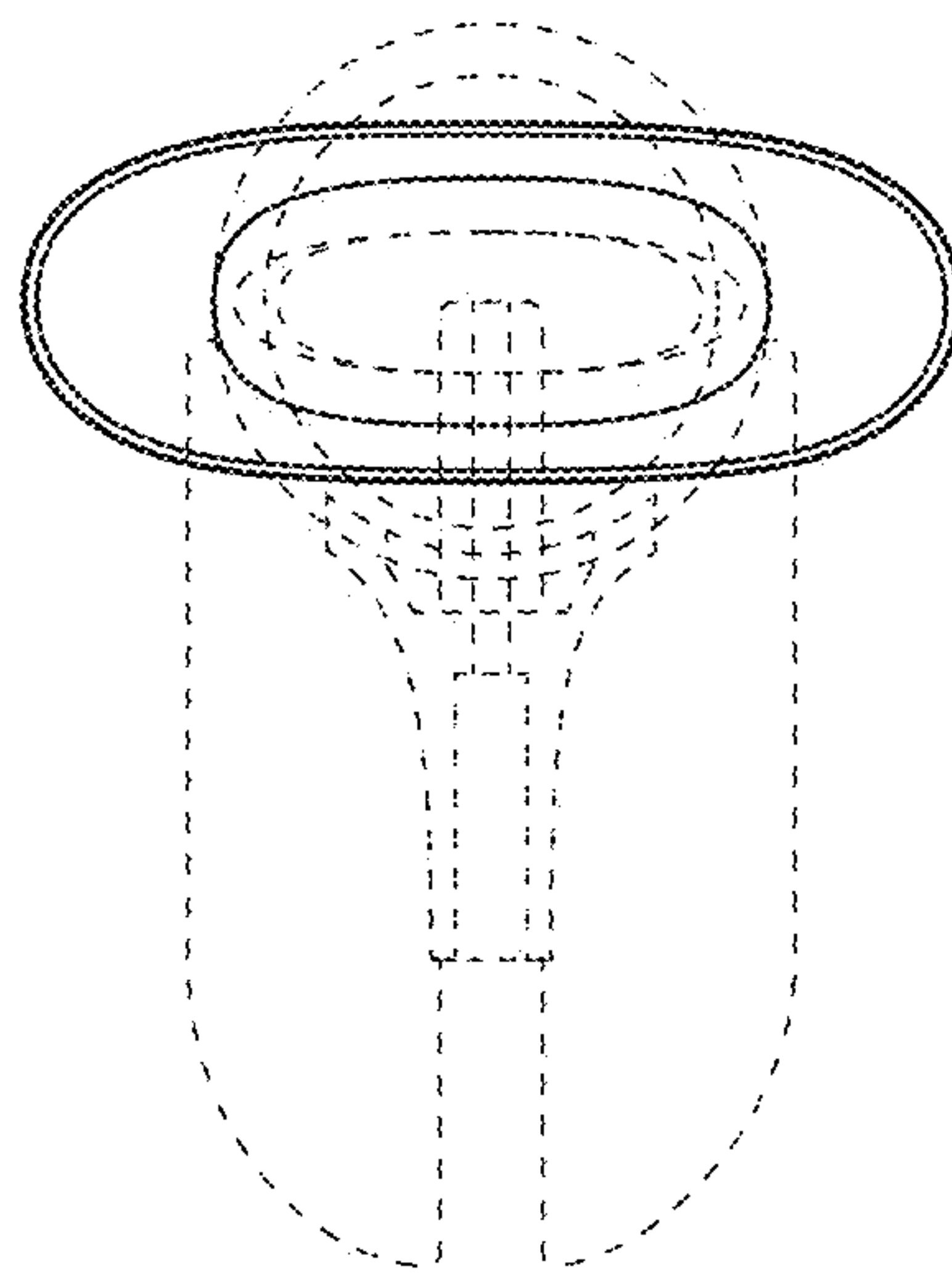


FIG. 4

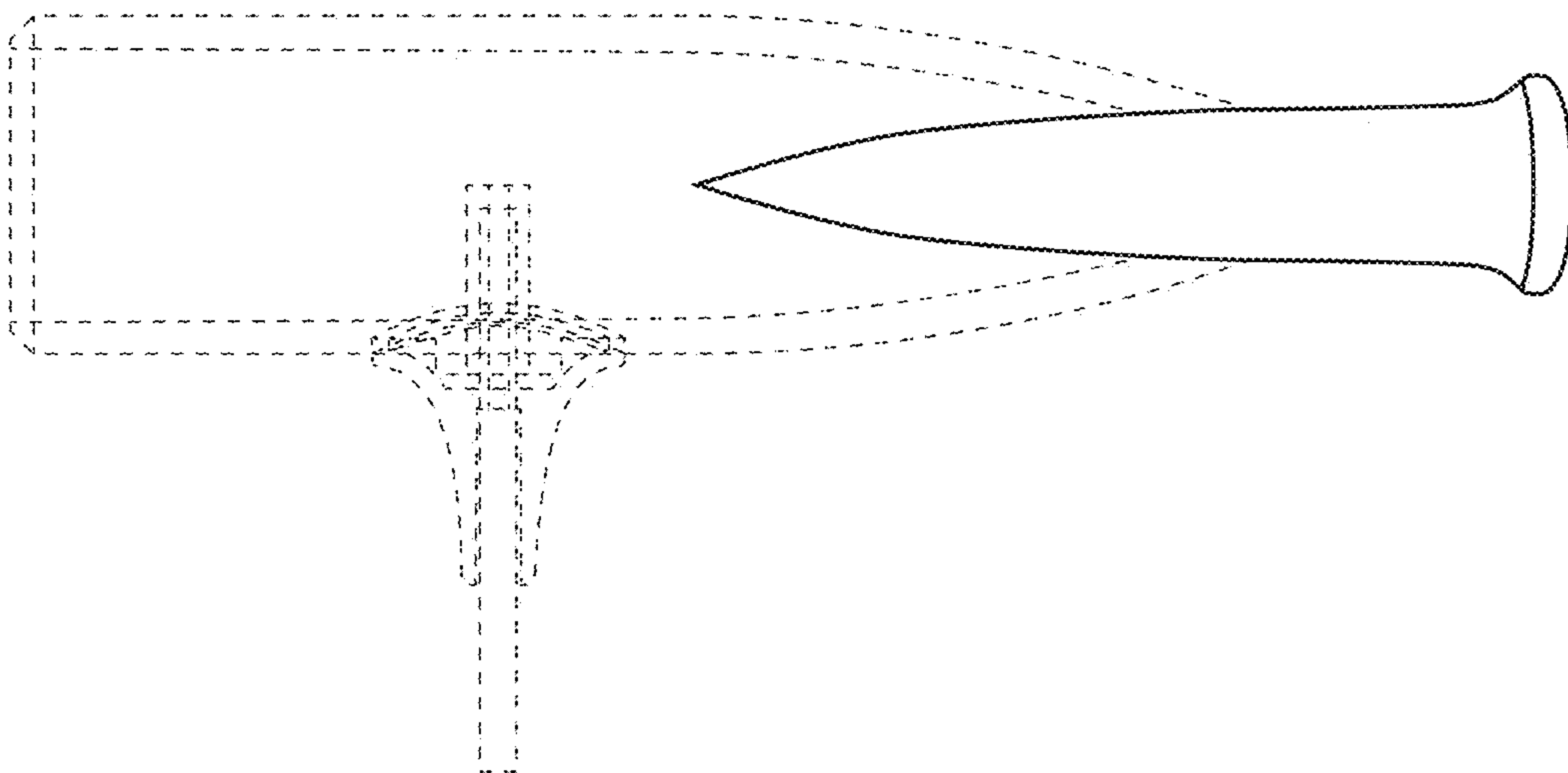


FIG. 5

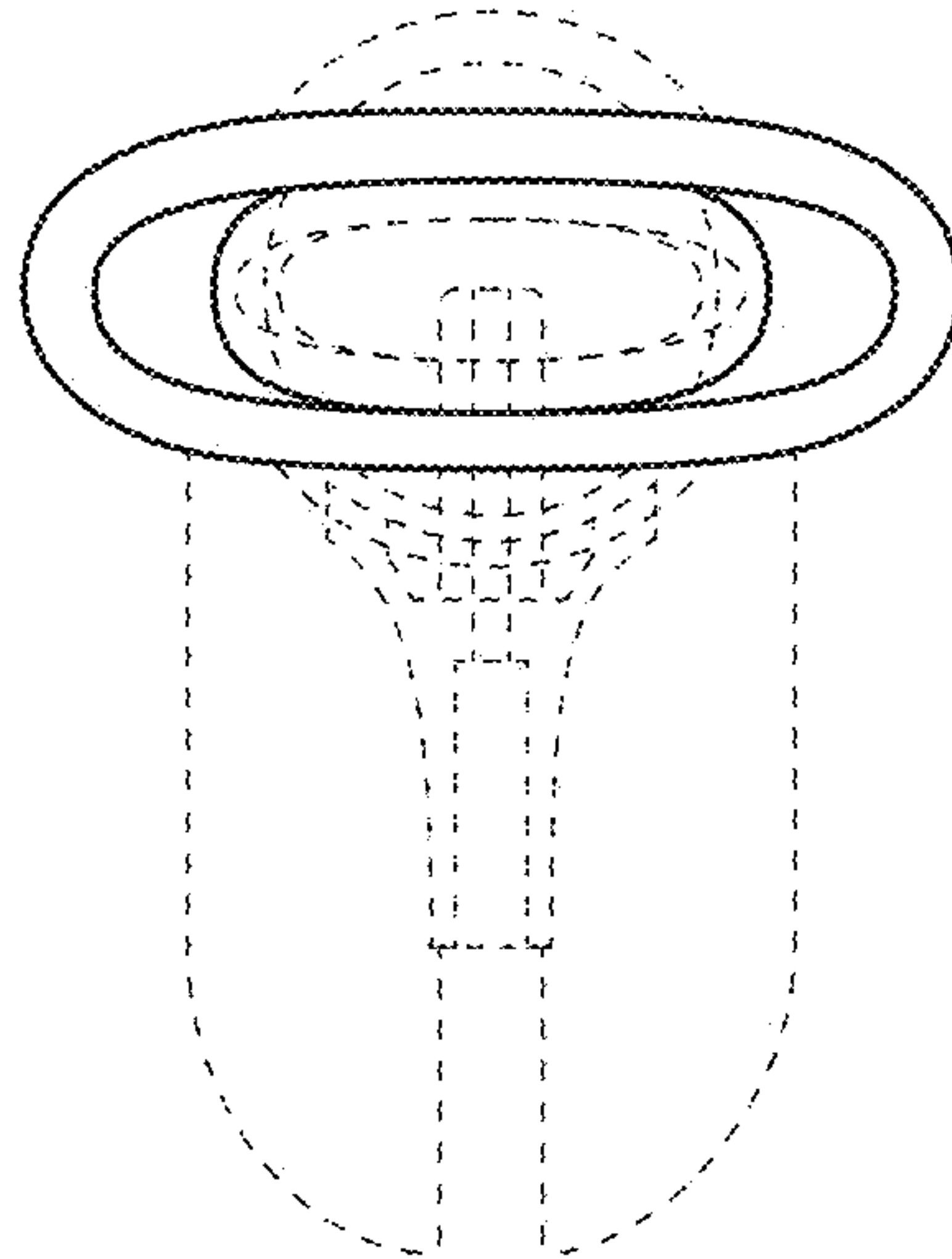


FIG. 6

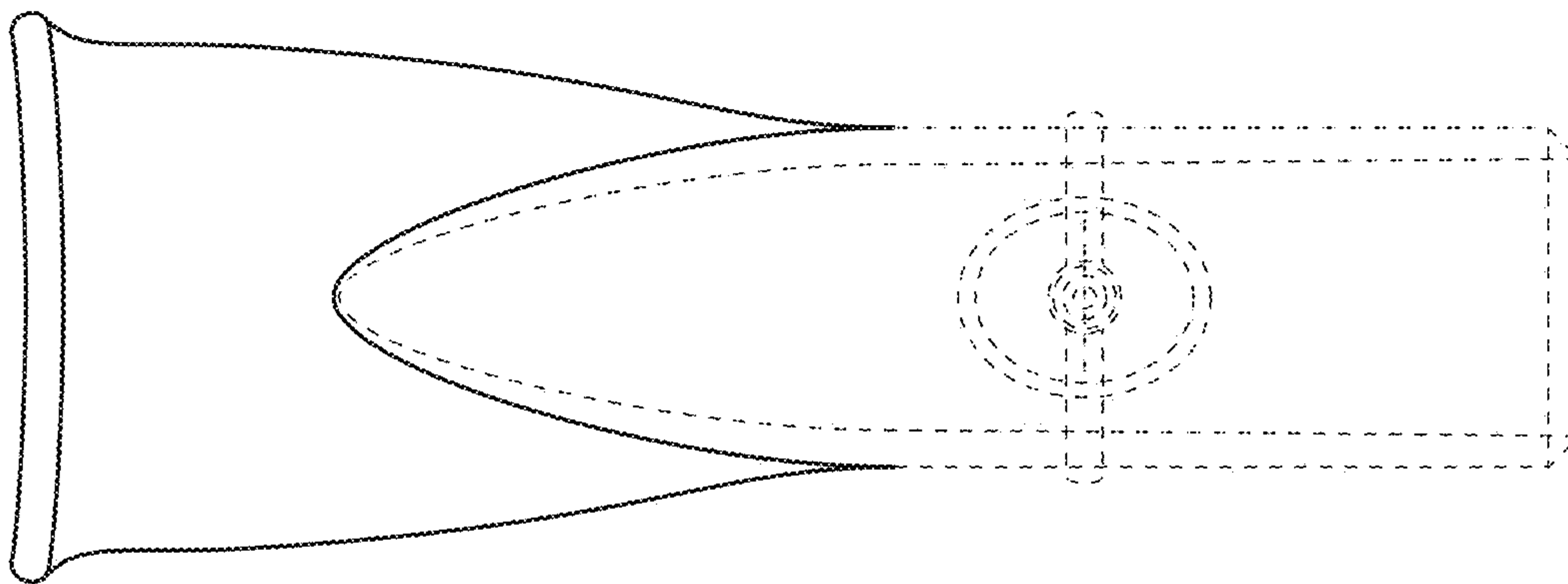


FIG. 7