



US00D885515S

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

(10) **Patent No.:** **US D885,515 S**

(45) **Date of Patent:** **** May 26, 2020**

- (54) **ARROW VANE**
- (71) Applicant: **Bohning Company, Ltd.**, Lake City, MI (US)
- (72) Inventors: **Robert L. Potter**, McBain, MI (US);
Larry R. Griffith, Lake City, MI (US)
- (73) Assignee: **BOHNING COMPANY, LTD.**, Lake City, MI (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/680,713**
- (22) Filed: **Feb. 19, 2019**
- (51) **LOC (12) Cl.** **22-03**
- (52) **U.S. Cl.**
USPC **D22/115**; D22/107
- (58) **Field of Classification Search**
USPC D22/107, 115
CPC F42B 6/04; F42B 6/08; F42B 6/003; F42B 6/02; F42B 12/362
See application file for complete search history.

- 4,392,654 A 7/1983 Carella
- 4,477,084 A 10/1984 Austin
- 4,488,728 A 12/1984 Humphrey
- 4,502,692 A 3/1985 Humphrey
- 4,534,568 A * 8/1985 Tone F42B 6/04
403/164
- 4,615,552 A 10/1986 Bengtson
(Continued)

OTHER PUBLICATIONS

“Arrow Fletching and F.O.C. Balance” [online], Jon Henry, [Published on Mar. 20, 2011], retrieved from the Internet: <<https://www.longrangehunting.com/articles/arrow-fletching-and-f-o-c-balance.482/>>.

(Continued)

Primary Examiner — Khawaja Anwar
Assistant Examiner — Mojtaba Tehrani

(74) *Attorney, Agent, or Firm* — Warner Norcross + Judd, LLP

(57) **CLAIM**

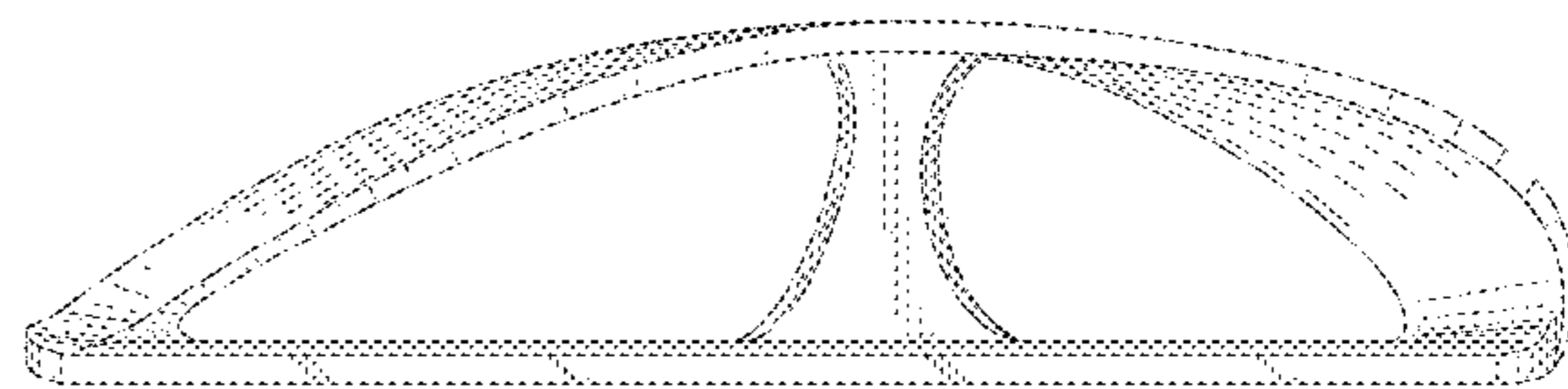
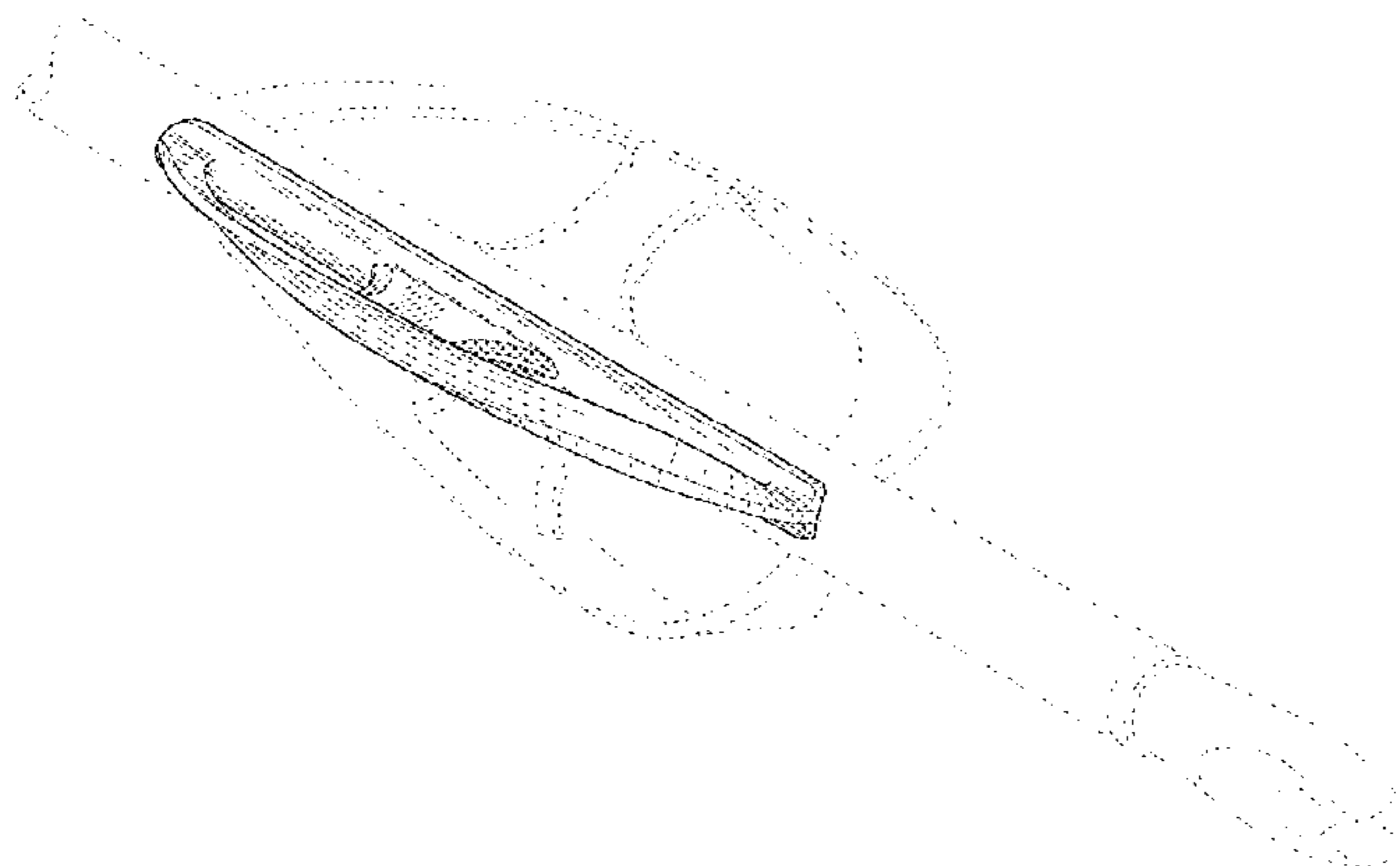
The ornamental design for an arrow vane, as shown and described.

DESCRIPTION

FIG. 1 is a rear perspective view of the arrow vane; FIG. 2 is a right side view thereof; FIG. 3 is a left side view thereof; FIG. 4 is a front view thereof; FIG. 5 is a rear view thereof; and FIG. 6 is a top view thereof; and, FIG. 7 is a bottom view thereof. FIGS. 1-7 show features in broken lines. These features are shown for environmental purposes and do not form any part of the claimed design. Further, any broken lines immediately adjacent the solid-line portions of the design form the boundary of the design, with the broken lines forming no part of the claimed design.

1 Claim, 4 Drawing Sheets

- (56) **References Cited**
- U.S. PATENT DOCUMENTS
- 1,842,540 A * 1/1932 Cowdery F42B 6/04
473/586
- 2,443,395 A 6/1948 Lutins
- 2,887,319 A * 5/1959 Lay F42B 6/06
473/586
- 3,002,314 A 10/1961 Brottman
- 3,595,579 A 7/1971 Benolt
- 3,604,708 A * 9/1971 Brozina F42B 6/08
473/584
- 3,749,623 A 7/1973 Benoit
- 3,815,916 A * 6/1974 Meszaros F42B 6/06
473/586
- 3,897,062 A * 7/1975 Christensen F42B 6/08
473/583
- 4,003,576 A 1/1977 Carella
- D243,527 S * 3/1977 Schnipke D22/115



(56)

References Cited

U.S. PATENT DOCUMENTS

5,024,448 A 6/1991 Barrie
 5,039,110 A 8/1991 Honda
 5,112,062 A * 5/1992 Pratt F42B 6/003
 473/585
 5,427,385 A * 6/1995 Conrad F42B 6/003
 473/586
 5,443,273 A 8/1995 Lovorn
 5,613,688 A 3/1997 Carella
 5,669,836 A * 9/1997 Hill F42B 6/08
 473/574
 6,142,896 A 11/2000 Simo et al.
 D449,090 S 10/2001 DelMonte
 D465,541 S * 11/2002 Surrusco D22/115
 6,695,727 B1 * 2/2004 Kuhn F42B 6/06
 473/586
 6,966,856 B1 * 11/2005 Hajek F42B 6/08
 473/583
 7,037,223 B2 * 5/2006 Kuhn F42B 6/08
 473/583
 7,074,143 B2 * 7/2006 Czemske F42B 6/06
 473/586
 D599,874 S 9/2009 Klein
 D606,615 S 12/2009 Andrews
 D612,444 S 3/2010 Klein
 7,914,406 B2 3/2011 Andrews
 8,025,596 B2 9/2011 Klein
 8,038,552 B2 10/2011 Song
 8,105,189 B1 1/2012 Huang
 8,286,953 B2 10/2012 Barnes et al.
 8,388,473 B2 * 3/2013 Smith F42B 6/04
 473/578
 8,388,474 B1 3/2013 Griffith et al.
 8,485,923 B2 7/2013 Kozlik et al.
 8,523,718 B1 9/2013 Kuhn

8,602,926 B2 12/2013 Griffith et al.
 D713,919 S * 9/2014 Rager D22/107
 D716,901 S * 11/2014 Billsby D22/107
 8,920,269 B2 * 12/2014 Rager C21D 9/0068
 473/583
 8,920,270 B2 12/2014 DeLap et al.
 D729,336 S * 5/2015 Rager D22/107
 9,028,348 B2 * 5/2015 Lazenby F42B 6/04
 473/581
 9,039,550 B1 5/2015 Broberg
 9,121,678 B1 * 9/2015 Kendall F42B 6/04
 9,250,047 B2 2/2016 Song
 D750,723 S * 3/2016 Rager D22/107
 D788,249 S 5/2017 Kim
 D788,250 S 5/2017 Kim
 D833,559 S 11/2018 Kim
 10,408,585 B1 * 9/2019 Potter F42B 6/06
 2005/0159256 A1 7/2005 Simo et al.
 2007/0173359 A1 7/2007 Mowery et al.
 2009/0186723 A1 7/2009 Andrews
 2013/0072331 A1 * 3/2013 Goodwin F42B 6/08
 473/570
 2013/0274041 A1 10/2013 Griffith et al.
 2014/0004983 A1 1/2014 DeLap et al.
 2016/0377393 A1 12/2016 Potter

OTHER PUBLICATIONS

“Fletching With Feathers vs Vanes” [online], advancecompoundbow.com [Published on Sep. 25, 2017], retrieved from the Internet: <<http://advancecompoundbow.com/fletching-with-feathers-vs-vanes/>>.
 European Search Report, dated Dec. 17, 2019, for EP patent application EP 19185586, a foreign counterpart.

* cited by examiner

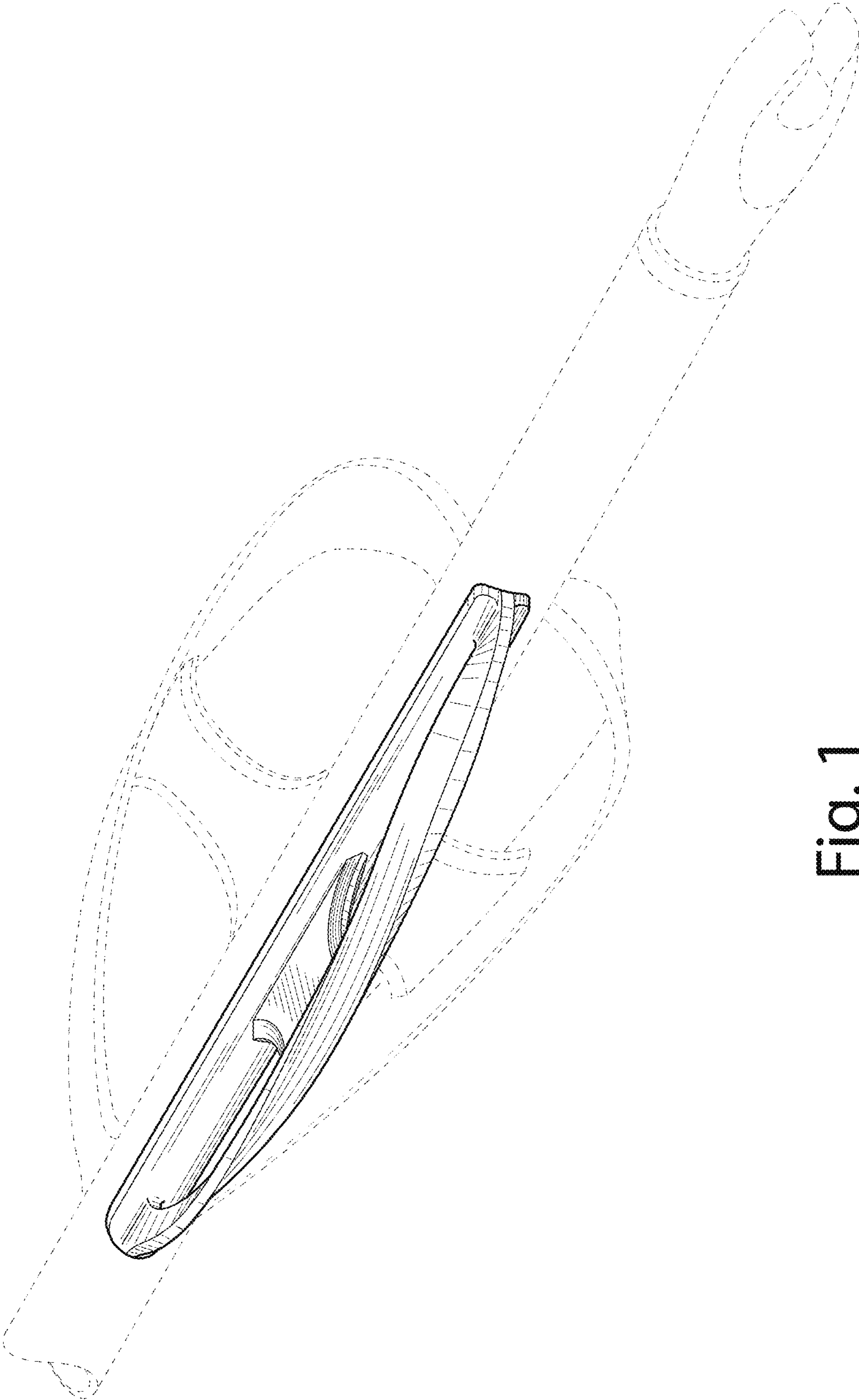


Fig. 1

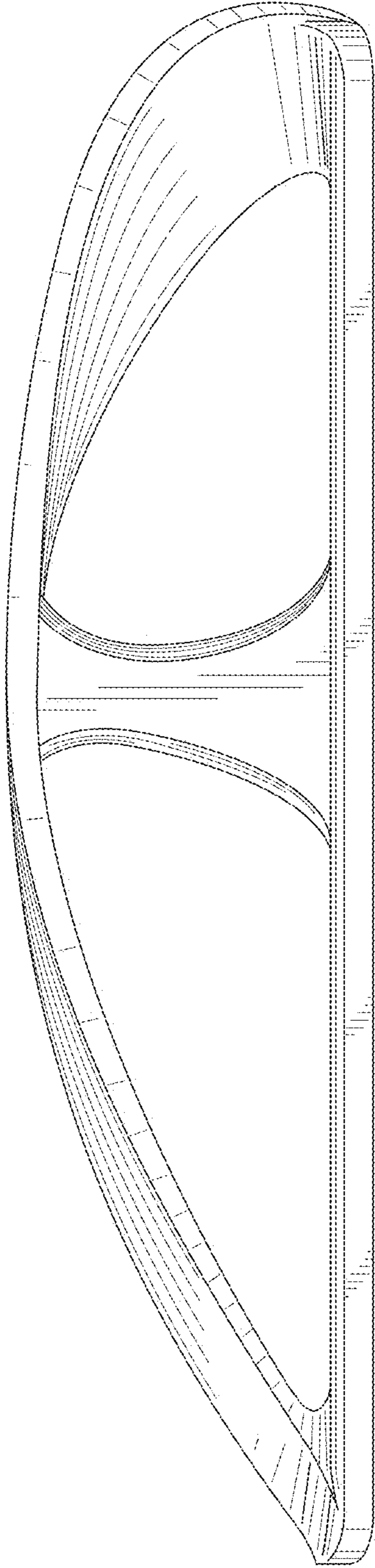


Fig. 2

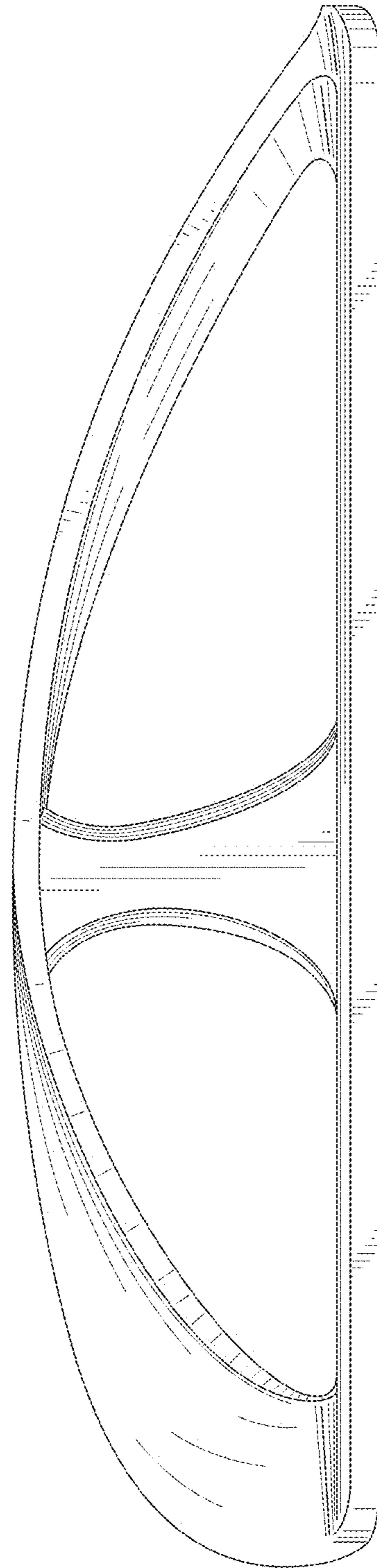


Fig. 3

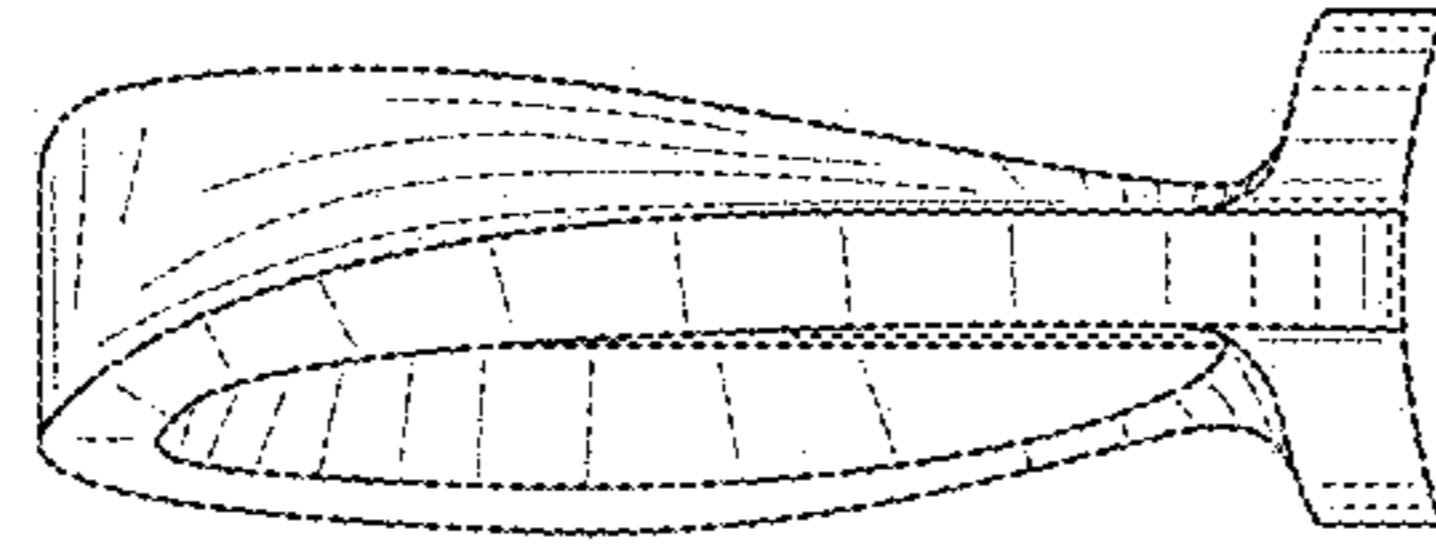


Fig. 5

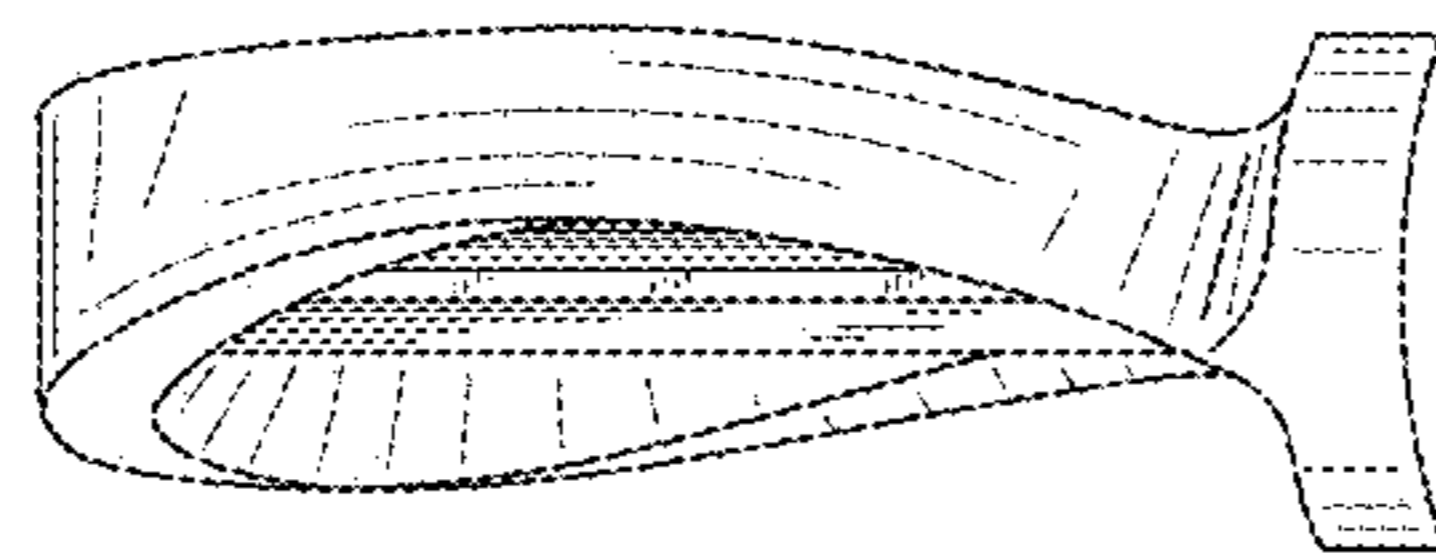


Fig. 4

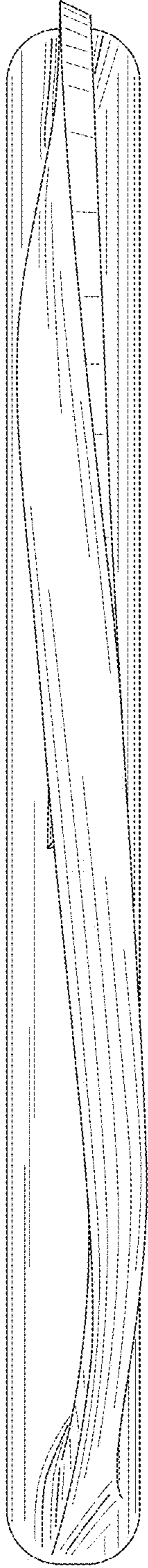


Fig. 6

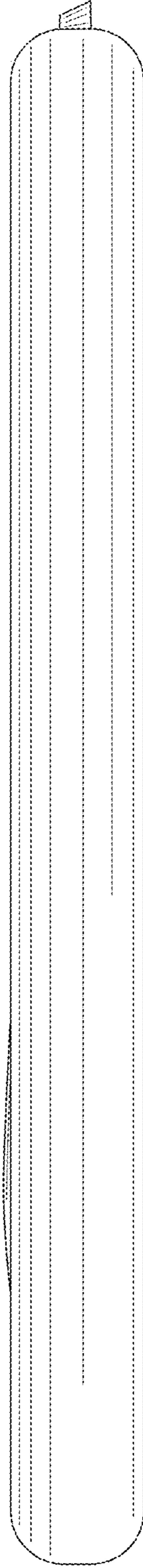


Fig. 7