



US00D861160S

(12) **United States Design Patent** (10) **Patent No.:** **US D861,160 S**
Broyles et al. (45) **Date of Patent:** **** Sep. 24, 2019**

(54) **DENTAL SYRINGE CAP**
(71) Applicant: **3M INNOVATIVE PROPERTIES COMPANY**, St. Paul, MN (US)
(72) Inventors: **Bruce R. Broyles**, Oakdale, MN (US); **Fusu Thao**, Cottage Grove, MN (US); **Travis L. Schwalbach**, Minneapolis, MN (US)
(73) Assignee: **3M INNOVATIVE PROPERTIES COMPANY**, St. Paul, MN (US)

5,624,400 A 4/1997 Firth
D383,205 S 9/1997 Pagay
D401,324 S 11/1998 Hjertman
D401,325 S 11/1998 Hjertman
D419,236 S 1/2000 Carlson
D421,121 S 2/2000 Prasad
D429,812 S 8/2000 Hjertman
D436,661 S 1/2001 Berry
D472,323 S 3/2003 Sand
6,743,216 B2 6/2004 Odell
(Continued)

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

(21) Appl. No.: **29/653,699**

(22) Filed: **Jun. 18, 2018**

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

(52) **U.S. Cl.**
USPC **D24/127**

(58) **Field of Classification Search**
USPC D24/112-114, 108, 133, 130, 127, 186, D24/152; 606/181, 185; 604/264, 272, 604/187, 181, 184, 227
CPC A61M 5/178; A61M 3/00; A61M 5/20; A61M 5/31; A61M 5/3146; A61M 5/3129; A61M 5/3148; A61M 5/315
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,739,947 A 6/1973 Baumann
D285,835 S * 9/1986 Hanses D24/147
D287,877 S 1/1987 Holewinski
D304,231 S 10/1989 Stream
4,941,752 A 7/1990 Yant
5,324,273 A 6/1994 Discko, Jr.
5,392,904 A 2/1995 Frick
D359,119 S 6/1995 Dragan
D362,067 S * 9/1995 Chang D24/133
5,542,934 A 8/1996 Silver

OTHER PUBLICATIONS

Ivoclar Vivadent, Tetric EvoCeram® Bulk Fill, Nano-Hybrid Composite with Ivocerin™, Clinical Dentistry Courtesy of Marcos Vargas, DDS, MS, University of Iowa, 641278 Rev. 3, Feb. 2013, 6 pages.

(Continued)

Primary Examiner — David G Muller

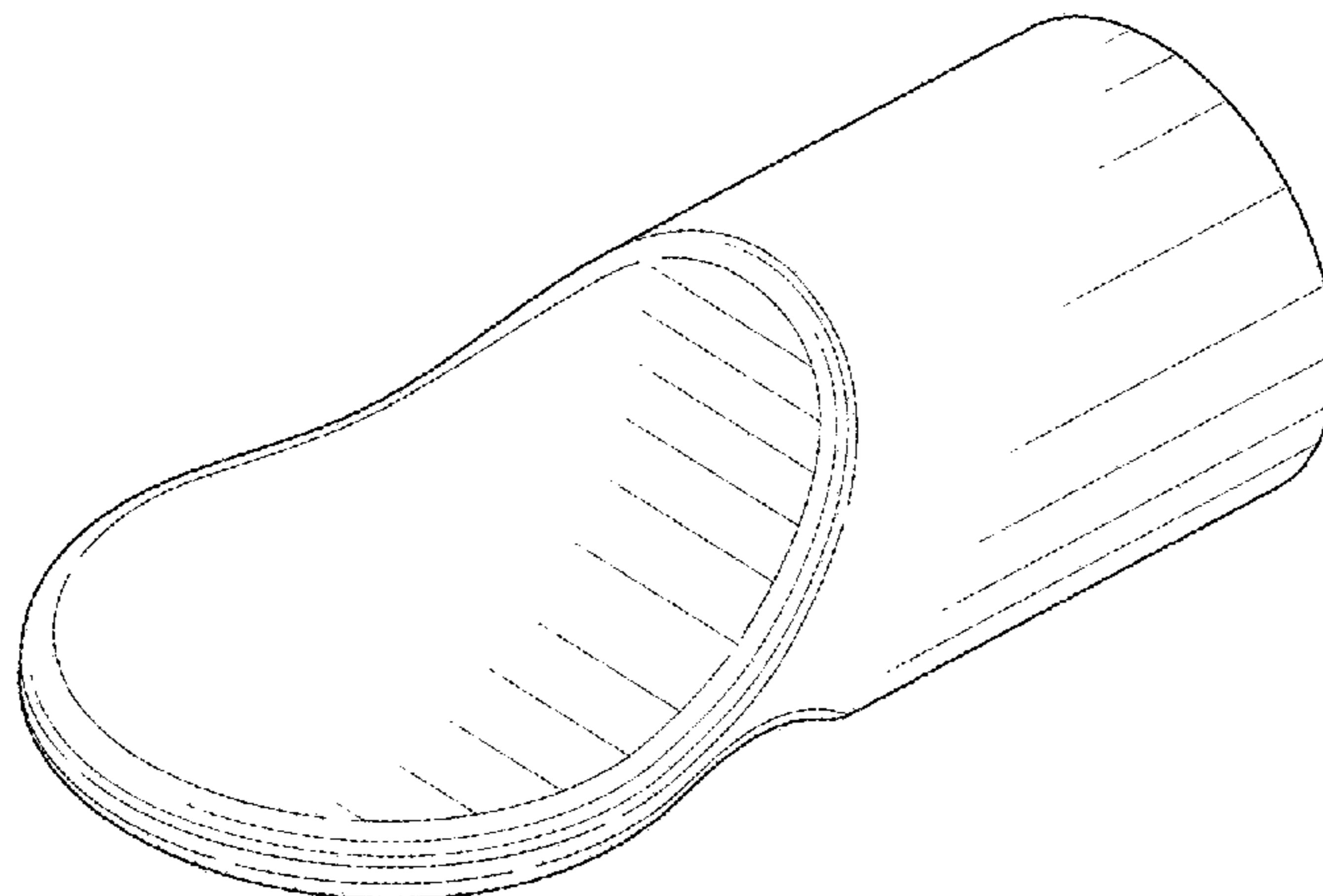
(57) **CLAIM**

The ornamental design for a dental syringe cap, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a dental syringe cap showing the new design;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a left side view thereof, the right side view being a mirror image thereof;
FIG. 5 is a top view thereof, the bottom plan view being a mirror image thereof; and,
FIG. 6 is a perspective view of the dental syringe cap in use with a dental syringe.
The portions of the “dental syringe cap” in FIGS. 1-6 shown in broken lines are included to show features that form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

6,884,071 B2 4/2005 Martin
 D545,429 S 6/2007 Hays
 D557,337 S 12/2007 Isaacs
 7,513,901 B2 4/2009 Seifert
 7,562,792 B2 7/2009 Nisbet
 D598,103 S * 8/2009 Wagner D24/152
 D603,046 S * 10/2009 Frey D24/133
 D645,958 S 9/2011 Assmann
 D657,867 S 4/2012 Effenberger
 D663,833 S 7/2012 Ahn
 D672,873 S 12/2012 An
 D681,808 S 5/2013 Holaschke
 D690,417 S 9/2013 Solomon
 D690,813 S 10/2013 Bizzell
 D693,940 S 11/2013 Walter
 D696,787 S 12/2013 Walter
 D698,918 S 2/2014 Leiner
 D708,738 S * 7/2014 Berman D24/112
 D710,497 S * 8/2014 Pham D24/130
 D721,803 S 1/2015 Dubach
 D730,515 S 5/2015 Shahidi Bonjar
 D733,870 S 7/2015 Broyles
 D733,908 S 7/2015 Eckstein
 D734,490 S 7/2015 Eckstein
 D735,350 S 7/2015 Eckstein

D735,858 S * 8/2015 Hirsch D24/152
 D739,524 S 9/2015 Zemel
 D739,550 S 9/2015 Eckstein
 D739,934 S 9/2015 Broyles
 D742,007 S * 10/2015 Schuetz D24/152
 D744,643 S 12/2015 Eckstein
 D753,293 S 4/2016 Eckstein
 D754,539 S 4/2016 Eckstein
 D761,954 S 7/2016 Eckstein
 D774,908 S 12/2016 Eckstein
 D789,790 S 6/2017 Eckstein
 D797,279 S 9/2017 Eckstein
 D817,492 S * 5/2018 Ritter D24/152
 D822,207 S * 7/2018 Botzer D24/152
 D825,757 S * 8/2018 Pirtle D24/152
 D836,777 S * 12/2018 Kohler D24/152
 D844,143 S * 3/2019 Muller D24/152
 2002/0119417 A1 8/2002 Ashman
 2010/0240004 A1 9/2010 Zalsman
 2011/0114668 A1 5/2011 Bublewitz
 2013/0101955 A1 4/2013 Broyles
 2013/0260335 A1 10/2013 Peuker

OTHER PUBLICATIONS

Tetric EvoCeram® & Tetric EvoFlow®, Ivoclar Vivodent, Oct. 29, 2013, 10 pages.

* cited by examiner

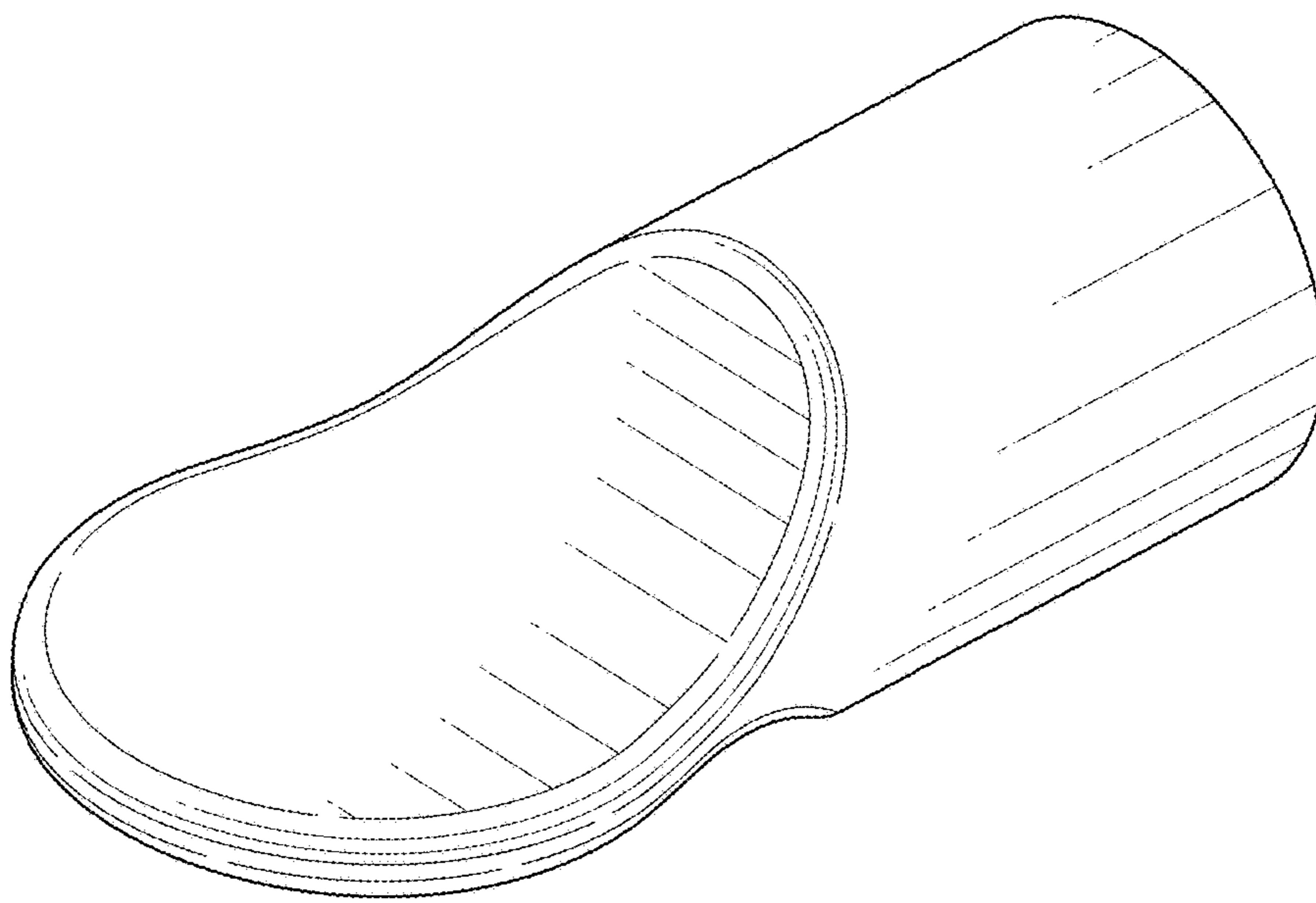


FIG. 1

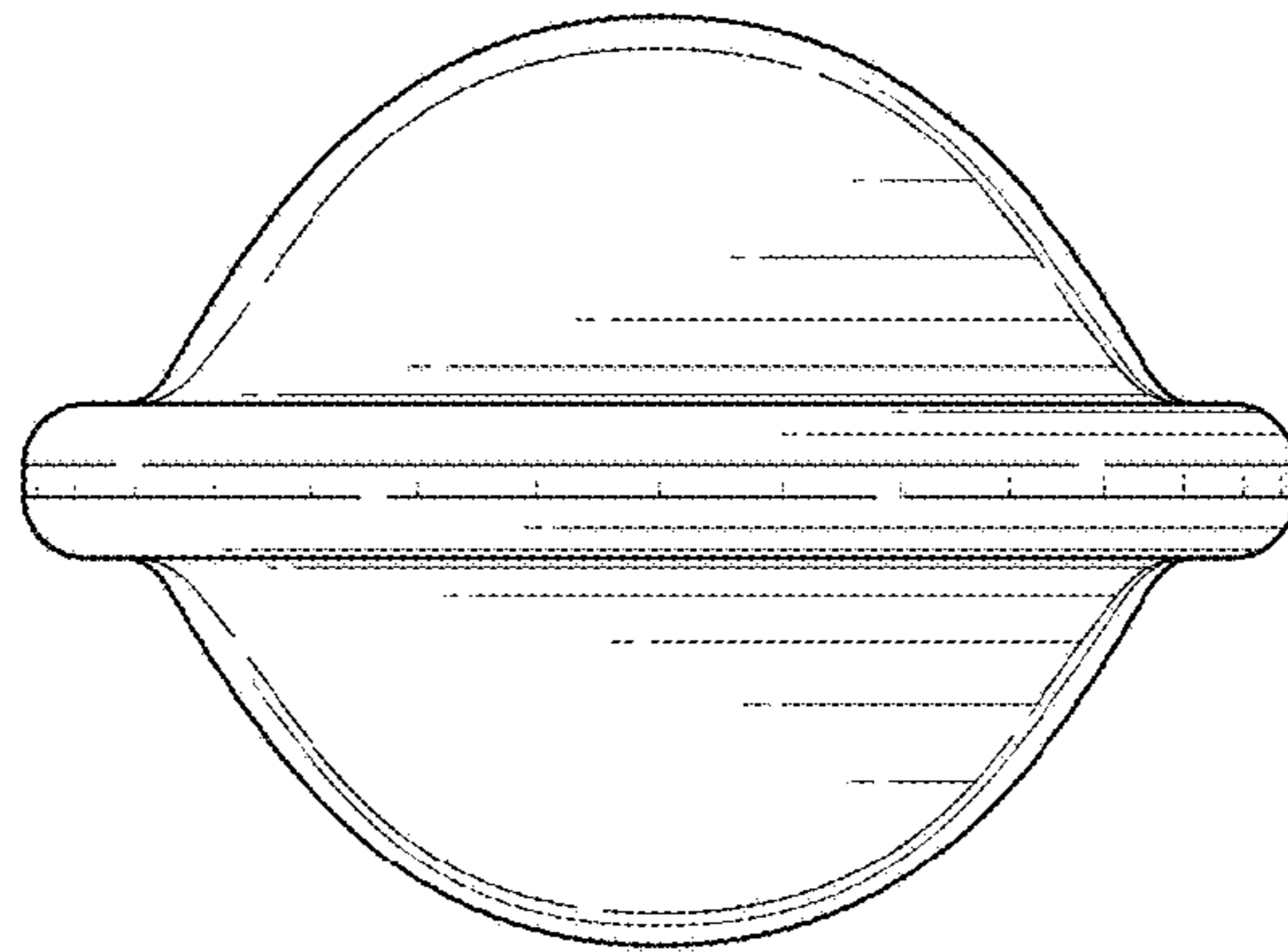


FIG. 2

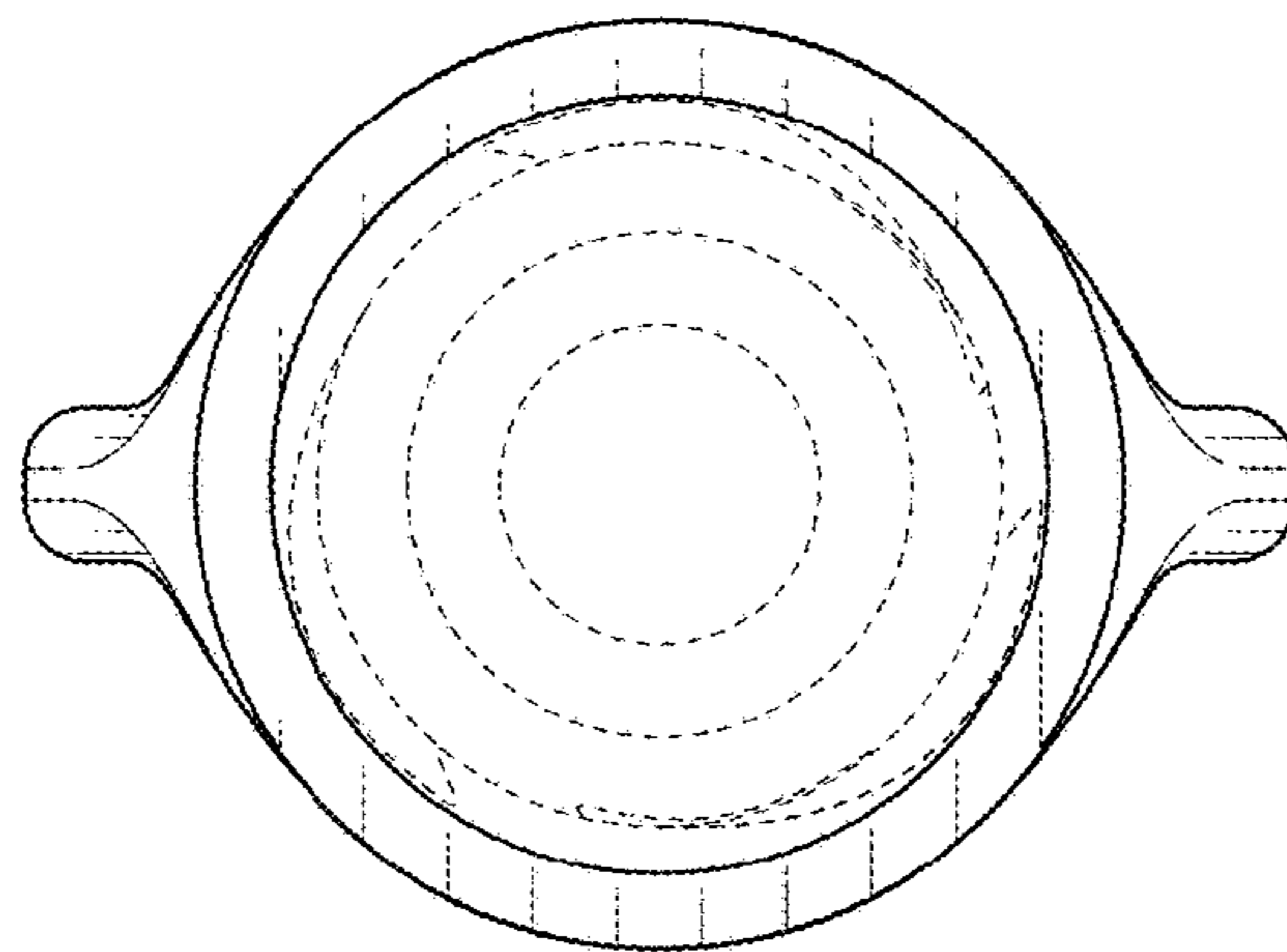


FIG. 3

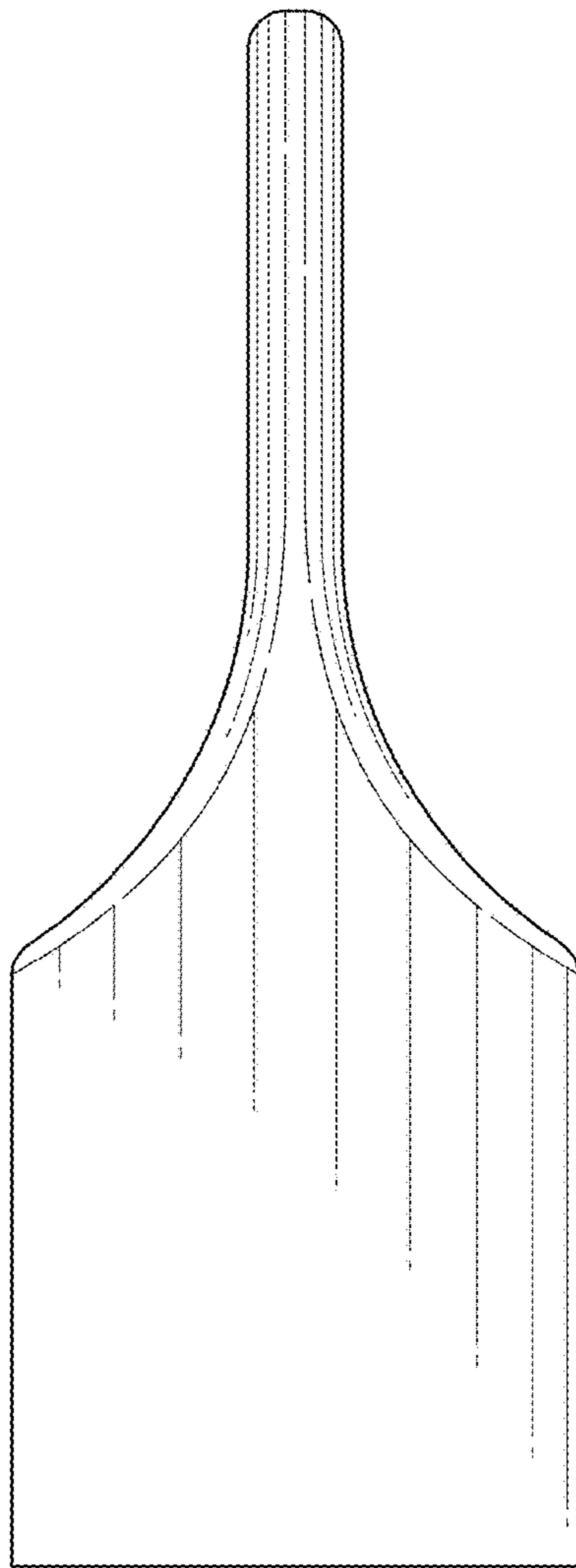


FIG. 4

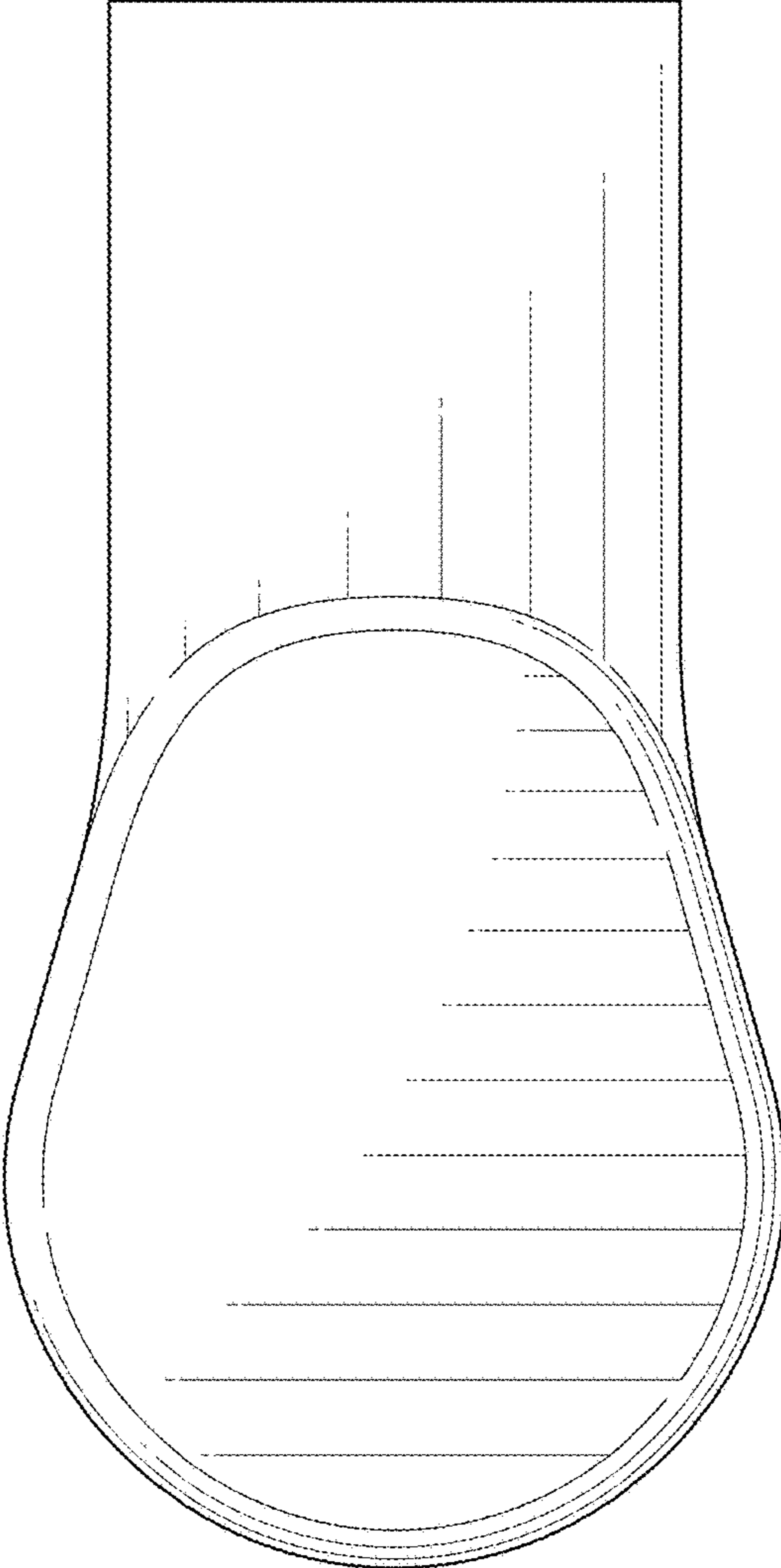


FIG. 5

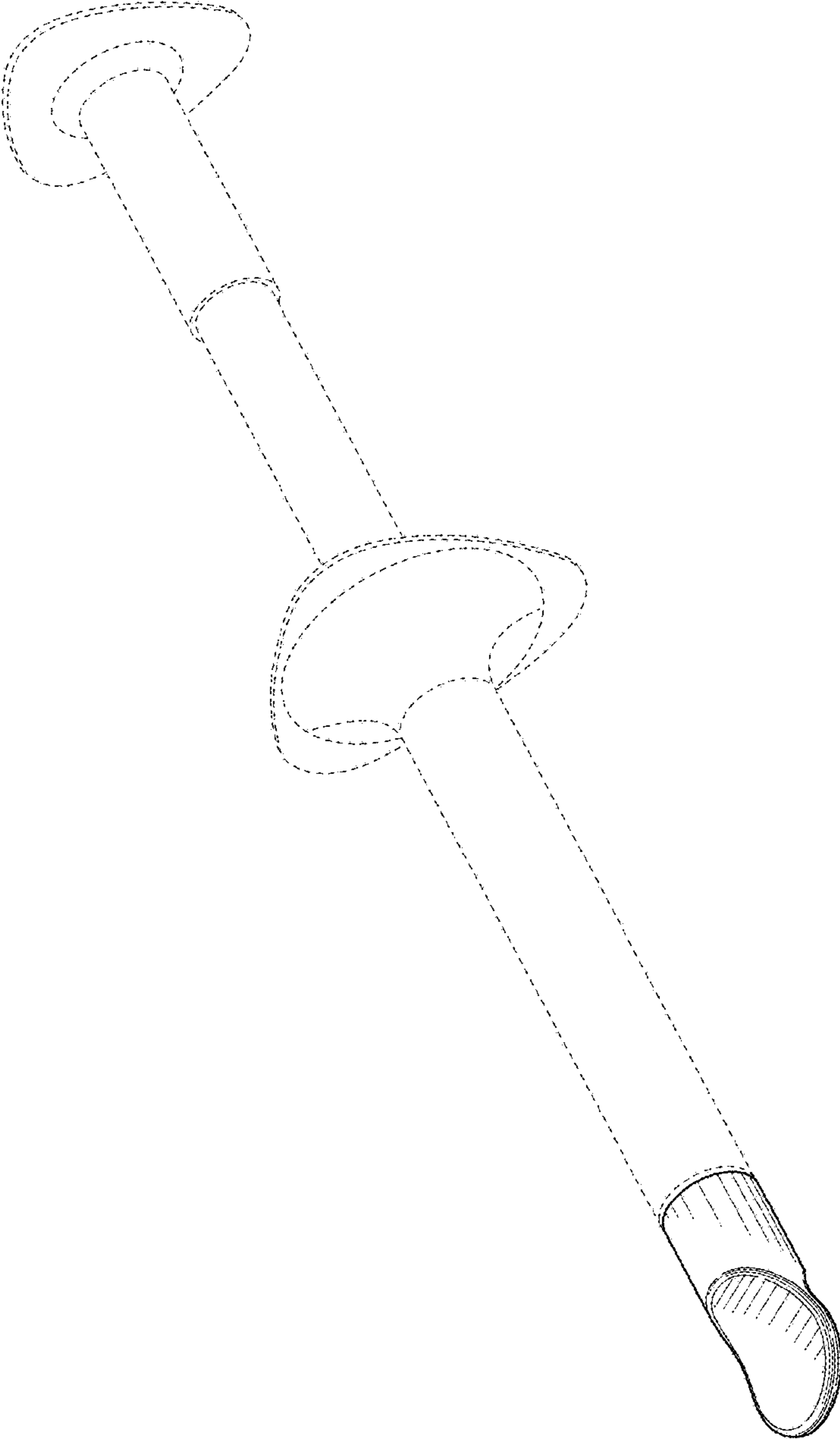


FIG. 6