



US00D880424S

(12) **United States Design Patent**
Fukuyama

(10) **Patent No.:** **US D880,424 S**
(45) **Date of Patent:** **** Apr. 7, 2020**

(54) **TERMINAL METAL FITTING FOR ELECTRICAL CONNECTOR**

(71) Applicant: **SUMITOMO WIRING SYSTEMS, LTD.**, Mie-ken (JP)

(72) Inventor: **Kyoko Fukuyama**, Yokkaichi (JP)

(73) Assignee: **SUMITOMO WIRING SYSTEMS, LTD.**, Mie-Ken (JP)

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

(21) Appl. No.: **29/666,833**

(22) Filed: **Oct. 16, 2018**

(30) **Foreign Application Priority Data**

Apr. 20, 2018 (JP) 2018-008778

(51) **LOC (12) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/133**

(58) **Field of Classification Search**
USPC D13/118–123, 133, 146, 147, 149,
D13/151–156, 173, 184, 199; D24/141;
D21/711; D9/695–697
CPC ... H01R 4/18; H01R 4/48; H01R 9/05; H01R
9/24; H01R 13/00; H01R 13/03; H01R
13/04; H01R 13/11; H01R 13/115; H01R
13/422; H01R 13/428; H01R 13/642;
H01R 43/16; A61F 13/20; A61F 13/26
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,461,531 A 7/1984 Davis et al.
4,596,440 A 6/1986 Quam
4,913,678 A 4/1990 Avellino et al.

(Continued)

FOREIGN PATENT DOCUMENTS

JP D1195974 S 2/2004
JP D1434279 S 2/2012

(Continued)

OTHER PUBLICATIONS

Design HMI Terminals, dated Apr. 14, 2017[online], [site-visited Jul. 29, 2019], Available from Internet, URL: [http://www.designhmi.com/2017/04/14/press-fit-terminals/\(Year: 2017\).](http://www.designhmi.com/2017/04/14/press-fit-terminals/(Year: 2017).)

(Continued)

Primary Examiner — Angela J Lee

Assistant Examiner — Shawn T Gingrich

(74) *Attorney, Agent, or Firm* — Cantor Colburn LLP

(57) **CLAIM**

The ornamental design for a terminal metal fitting for electrical connector, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and right side perspective view of a terminal metal fitting for electrical connector showing my new design;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a top plan view thereof;

FIG. 5 is a bottom plan view thereof;

FIG. 6 is a right side view thereof;

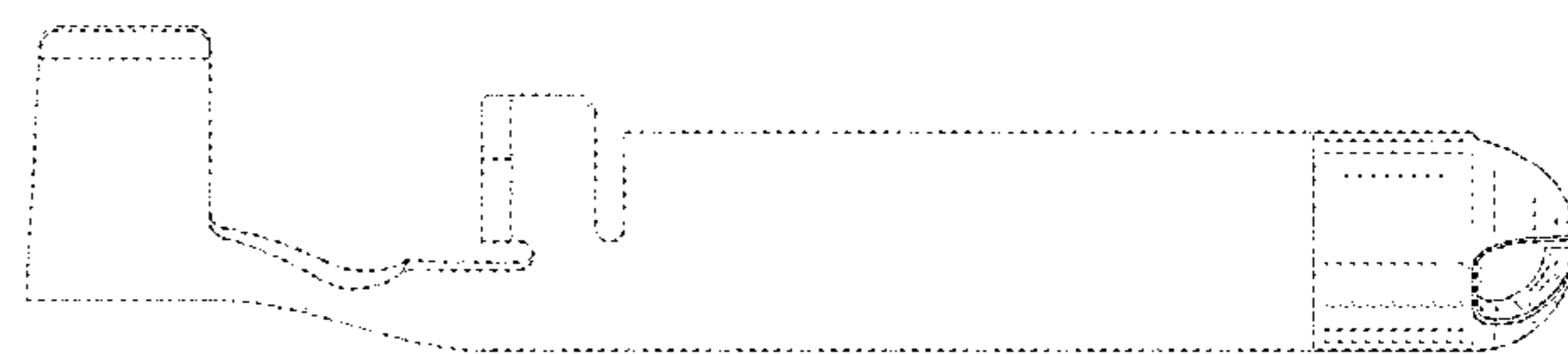
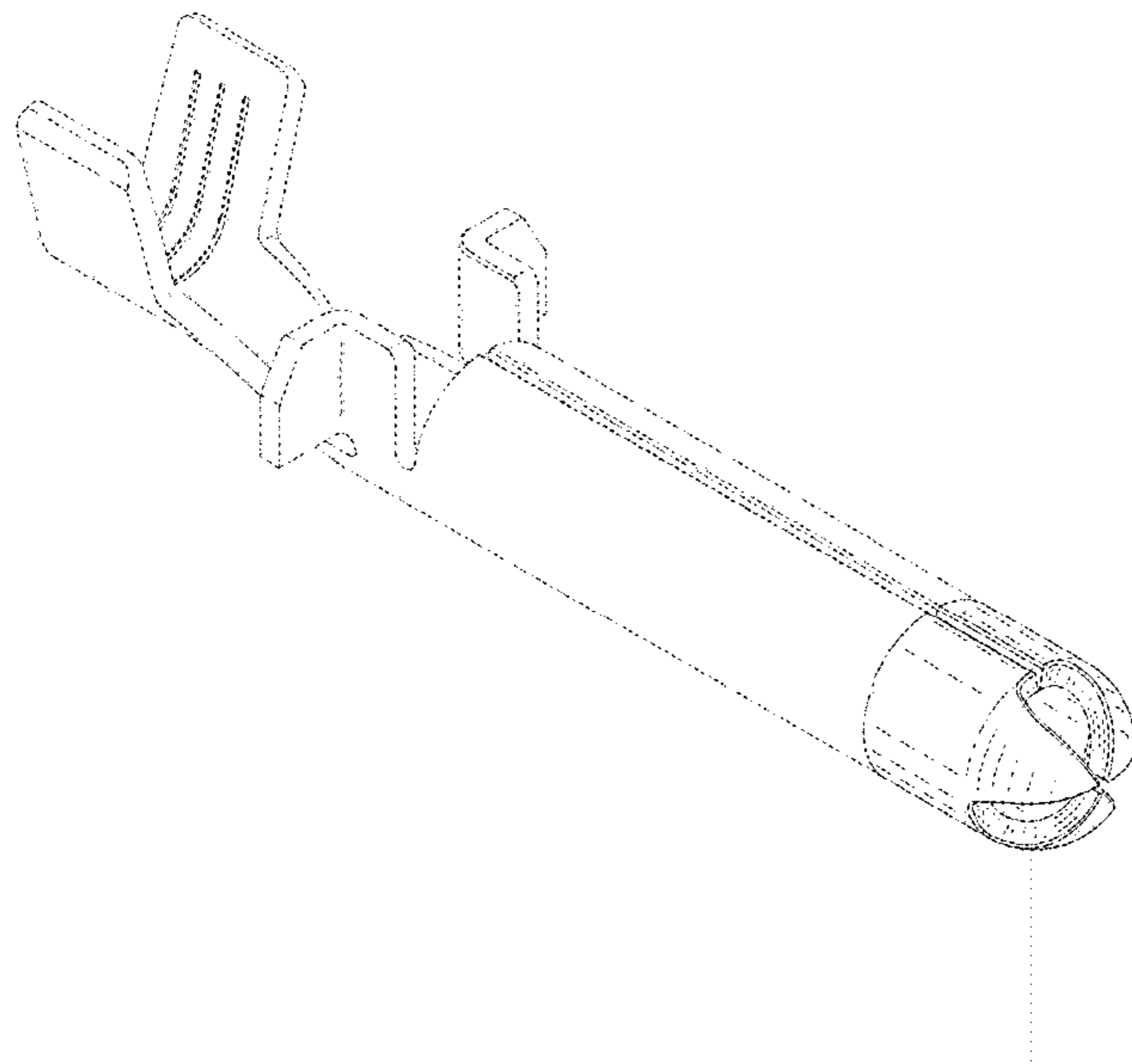
FIG. 7 is a left side view thereof;

FIG. 8 is a cross-sectional view taken along line 8-8 in FIG. 6; and,

FIG. 9 is a cross-sectional view taken along line 9-9 in FIG. 6.

The broken lines illustrate portions of the terminal metal fitting for electrical connector and form no part of the claimed design. The dash-dotted lines denote the boundary of the claim and form no part of the claimed design.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,135,418 A 8/1992 Hatagishi et al.
 5,266,056 A 11/1993 Baderschneider et al.
 5,885,115 A * 3/1999 Stillie H01R 13/04
 439/752.5
 6,165,003 A 12/2000 Bigotto
 D475,022 S 5/2003 Kihira et al.
 D503,385 S 3/2005 Hosokawa
 D521,455 S * 5/2006 Radza D13/154
 D554,063 S * 10/2007 Takizawa D13/133
 D568,245 S 5/2008 Kudo
 D592,150 S 5/2009 Ogata et al.
 D625,985 S * 10/2010 Mori H02G 3/32
 D8/356
 D626,650 S * 11/2010 Edgett D24/141
 D770,978 S 11/2016 Reese et al.
 D772,409 S * 11/2016 Buell D24/141
 D787,444 S * 5/2017 Reese D13/133
 D867,292 S * 11/2019 Fukuyama D13/133
 D867,293 S * 11/2019 Fukuyama D13/133
 2008/0070446 A1 * 3/2008 Lauermann H01R 4/185
 439/626
 2008/0121763 A1 * 5/2008 Mori H02G 3/32
 248/68.1
 2008/0146090 A1 6/2008 Shimizu
 2009/0036002 A1 2/2009 Arai

2009/0047815 A1 2/2009 Nicholson
 2013/0052883 A1 2/2013 Iihoshi
 2013/0065459 A1 3/2013 Hirabayashi et al.
 2015/0148461 A1 * 5/2015 Wang A61F 13/26
 524/43
 2015/0380863 A1 12/2015 Uchida
 2016/0020528 A1 1/2016 Miyakawa
 2017/0170593 A1 1/2017 Uezono
 2017/0033486 A1 2/2017 Saka et al.
 2017/0324180 A1 11/2017 Natsume et al.
 2019/0199008 A1 6/2019 Kanemura et al.

FOREIGN PATENT DOCUMENTS

JP D1434411 S 2/2012
 JP D1434413 S 2/2012
 JP D1504116 S 8/2014
 JP HC2702045900 10/2015

OTHER PUBLICATIONS

Notice of Allowance and Fee(s) Due issued in U.S. Appl. No. 29/666,653 dated Aug. 12, 2019; 19 pages.
 Notification of Reasons for Rejection for Japanese Design Application No. 2018-008778, mailing No. 053989; dated Oct. 12, 2018 (2 pages).

* cited by examiner

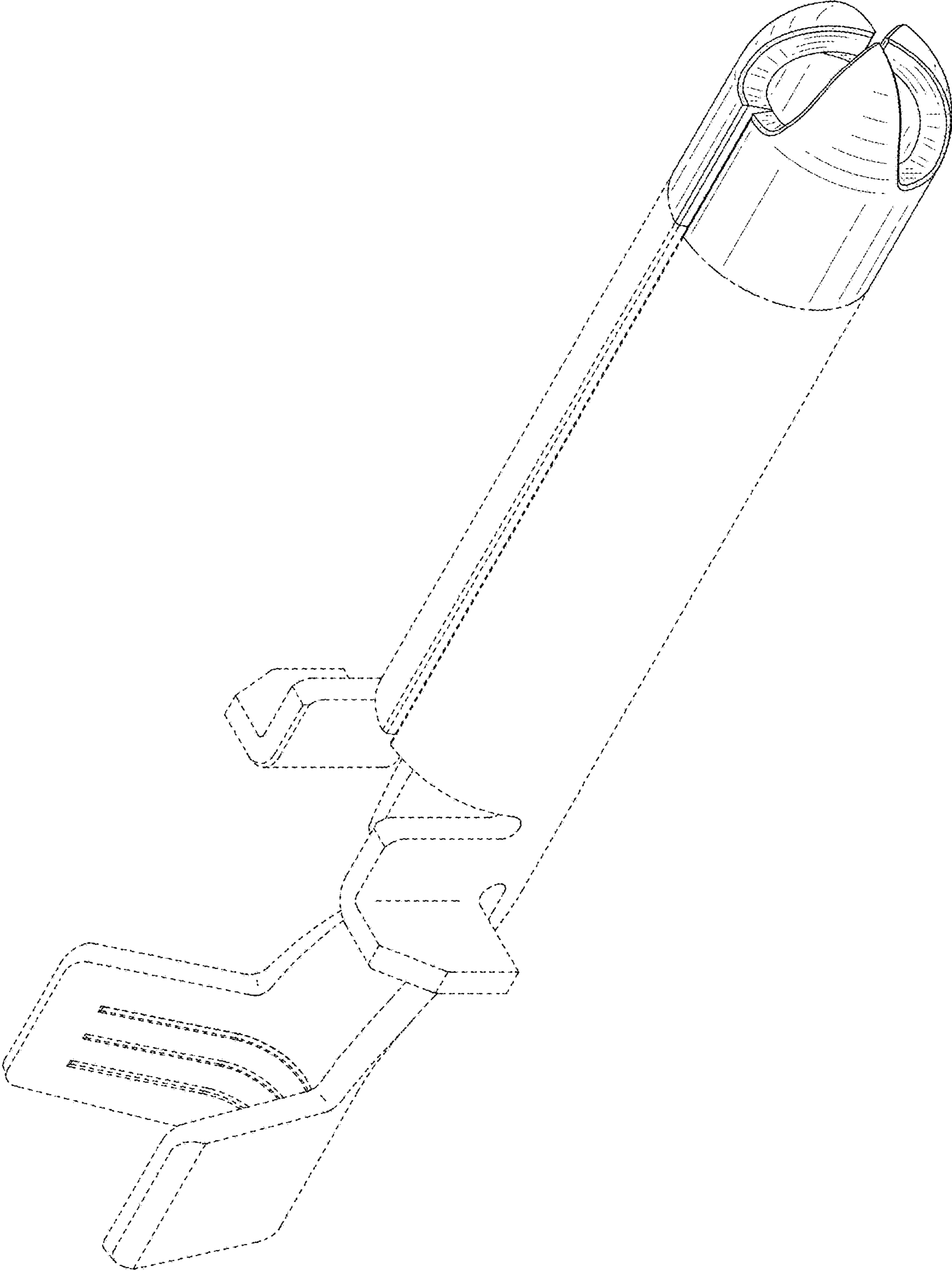


FIG.1

FIG.2

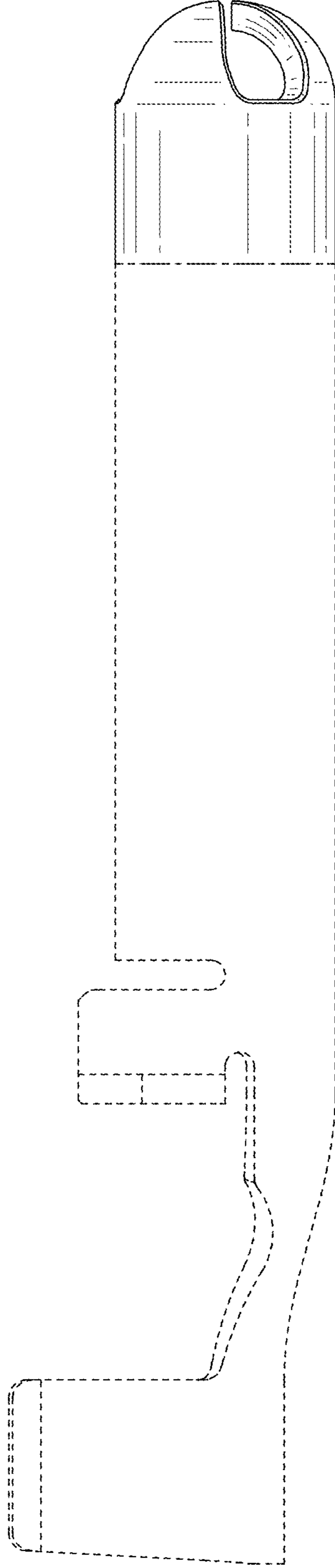
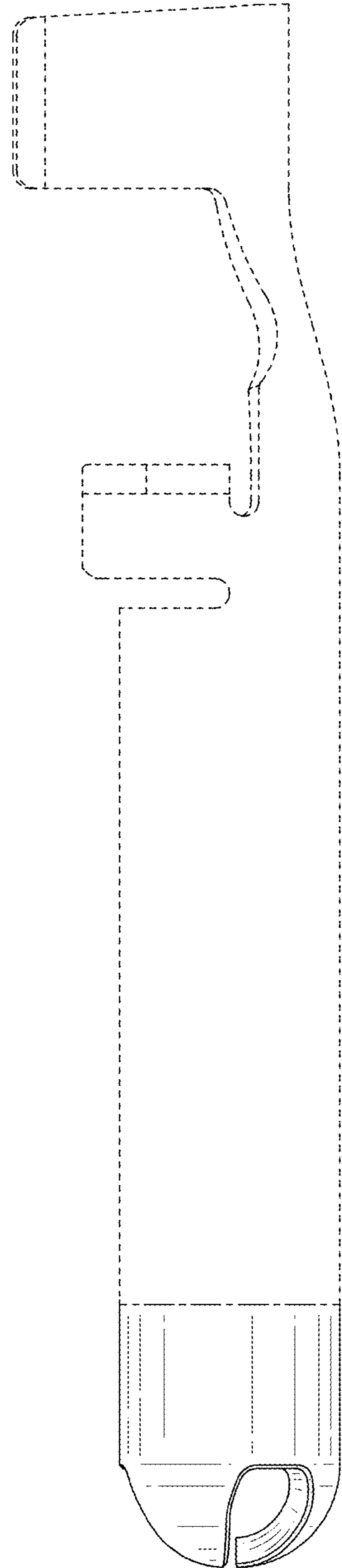


FIG.3



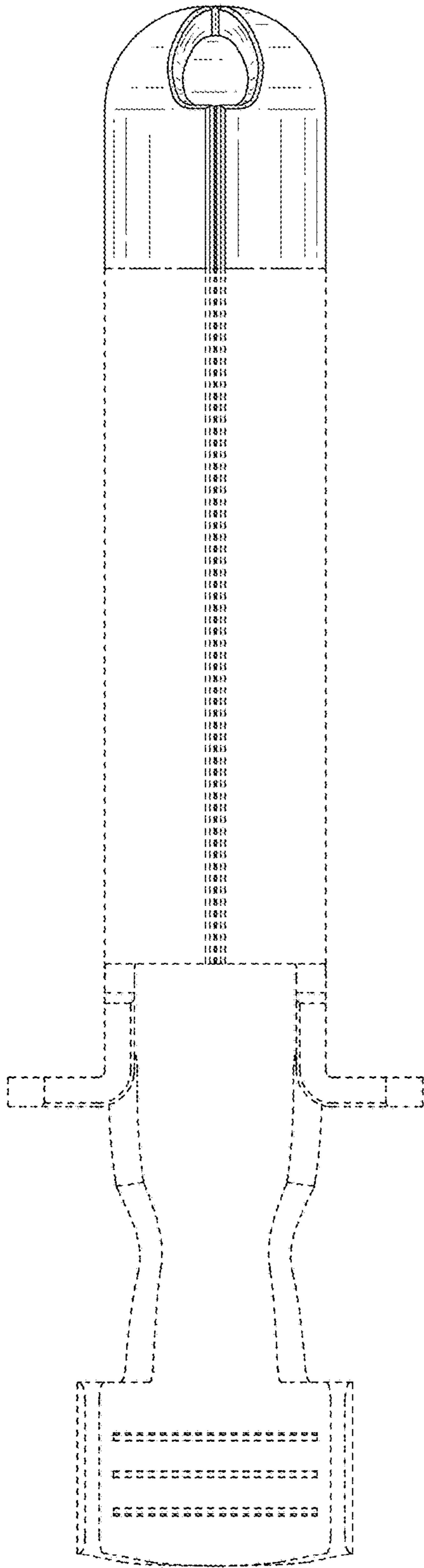


FIG.4

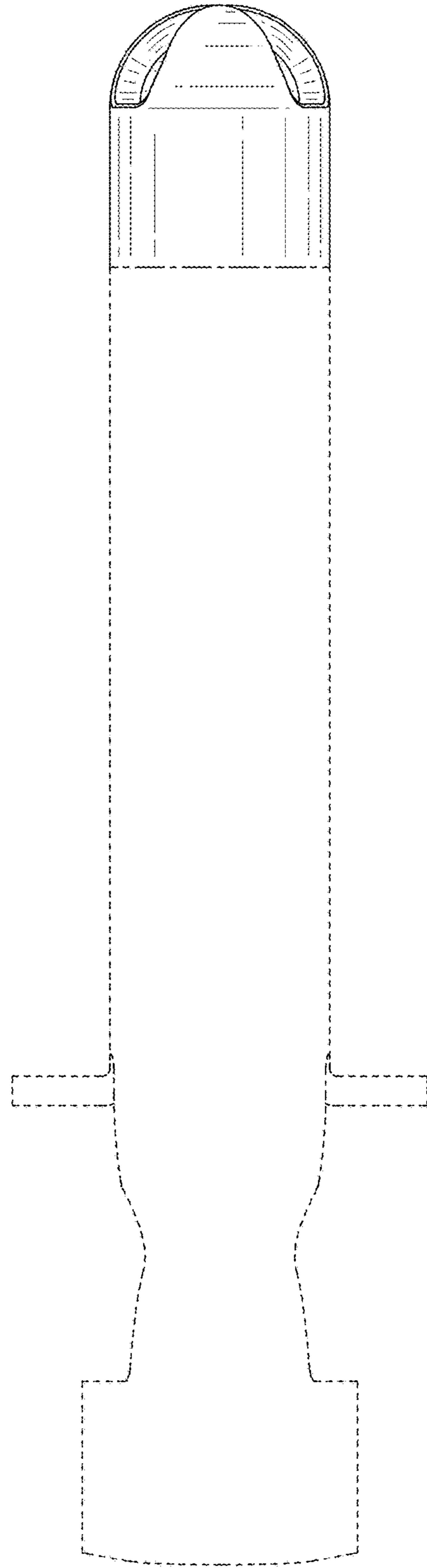


FIG.5

FIG.6

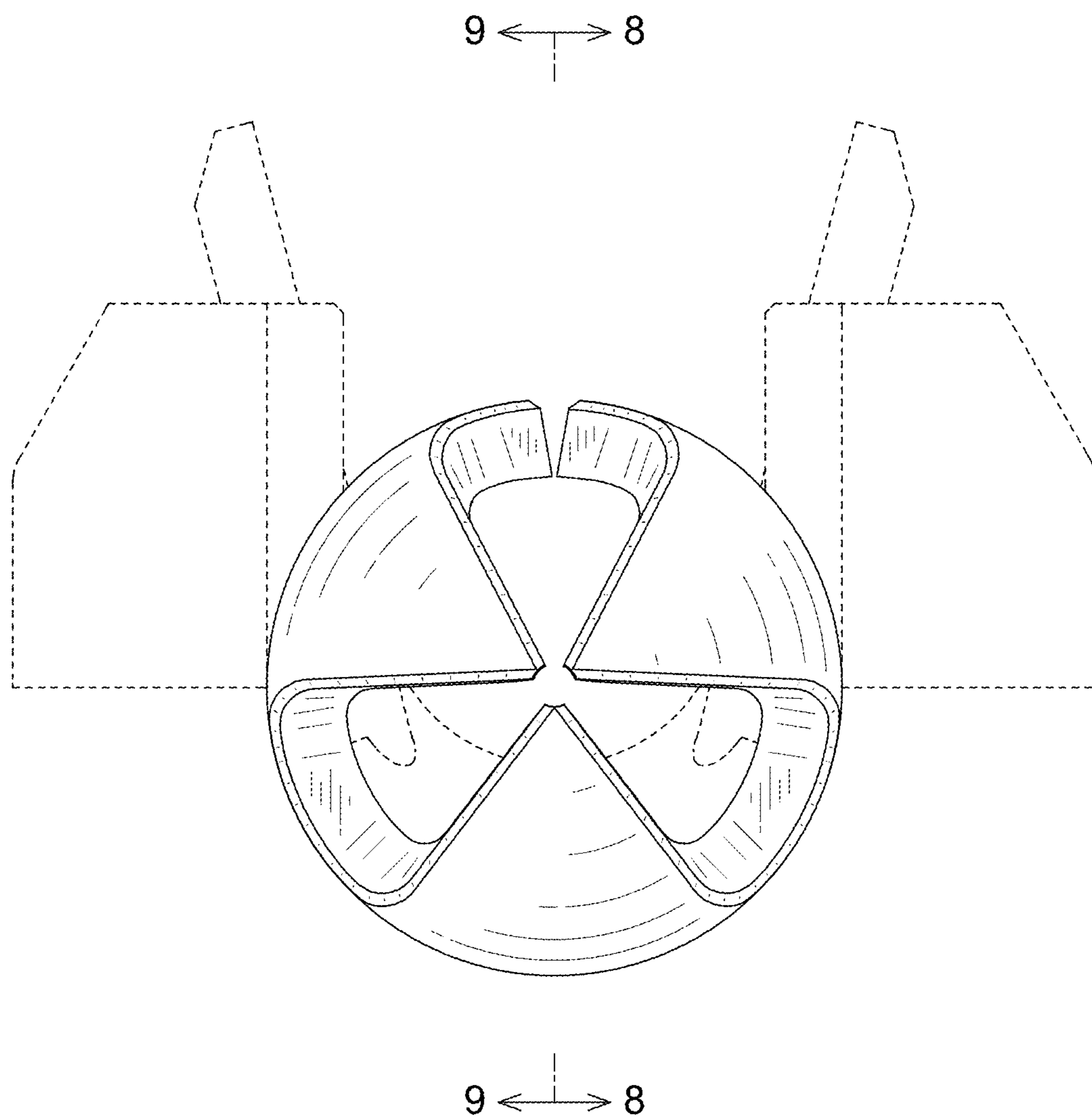


FIG.7

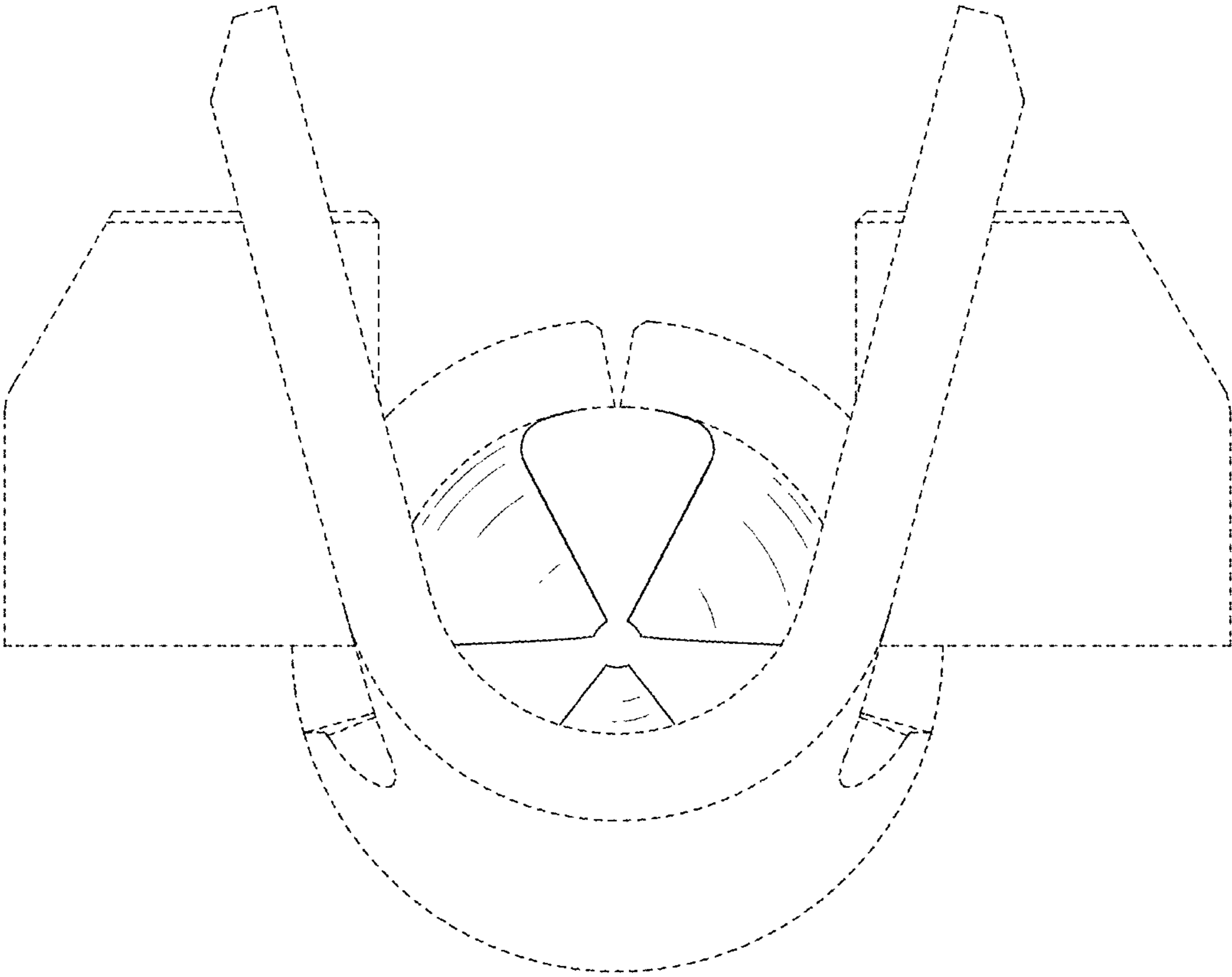


FIG.8

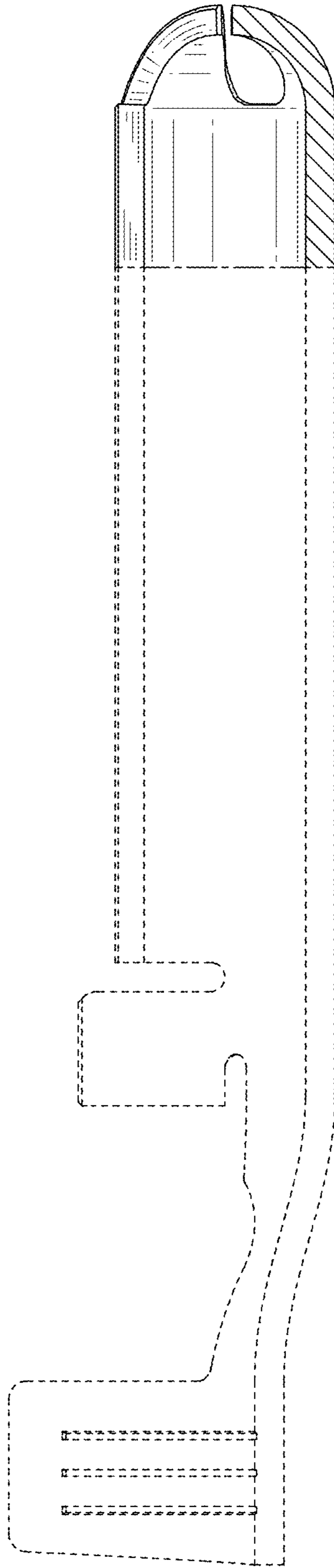


FIG.9

