



US00D863384S

(12) **United States Design Patent** (10) **Patent No.:** **US D863,384 S**
Weber et al. (45) **Date of Patent:** **** Oct. 15, 2019**

(54) **SPADE DRILL BIT**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Disston Company**, Chicopee, MA (US)

CA 2370483 A1 * 1/2001 B27G 15/00
GB 2431368 A * 4/2007 B23B 51/0009

(72) Inventors: **Jeffrey Tuttle Weber**, Chicopee, MA (US); **Xuan Li**, Guangzhou (CN)

(Continued)

(73) Assignee: **Disston Company**, Chicopee, MA (US)

Primary Examiner — Garth Rademaker

Assistant Examiner — Fritzgerald L Butac

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

(74) *Attorney, Agent, or Firm* — K&L Gates LLP

(21) Appl. No.: **29/645,929**

(57) **CLAIM**

We claim the ornamental design for the spade drill bit, as illustrated and described.

(22) Filed: **Apr. 30, 2018**

DESCRIPTION

(51) **LOC (12) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/139**

(58) **Field of Classification Search**
USPC D8/70; D15/1, 2, 5, 21, 22, 131, 132, D15/137-140, 147; D23/233, 235, 248; D7/376, 379, 387, 412, 426
CPC B27G 15/00; B21J 5/12; B21J 9/06; B21K 5/02; B21K 27/02; Y10T 408/9065; Y10T 408/9093
See application file for complete search history.

FIG. 1 is a top, front, left side perspective view of a spade drill bit;

FIG. 2 is a left side view thereof;

FIG. 3 is a top view thereof;

FIG. 4 is a right side view thereof;

FIG. 5 is a bottom view thereof;

FIG. 6 is a front view thereof;

FIG. 7 is a rear view thereof;

FIG. 8 is an enlarged view of section 8, noted in FIG. 1;

FIG. 9 is an enlarged view section 9, noted in FIG. 2;

FIG. 10 is a top view of the portion of a spade drill bit shown in FIG. 9;

FIG. 11 is a right side view of the portion of a spade drill bit shown in FIG. 9;

FIG. 12 is a bottom view of the portion of a spade drill bit shown in FIG. 9;

FIG. 13 is a front view of the portion of a spade drill bit shown in FIG. 9; and,

FIG. 14 is a rear view of the portion of a spade drill bit shown in FIG. 9.

The evenly-spaced broken lines in the drawings depict portions of the spade drill bit that form no part of the claimed design. The “dash-dot” broken lines seen in FIGS. 8 thru 14 show the bounds of the figures and form no part of the claimed design.

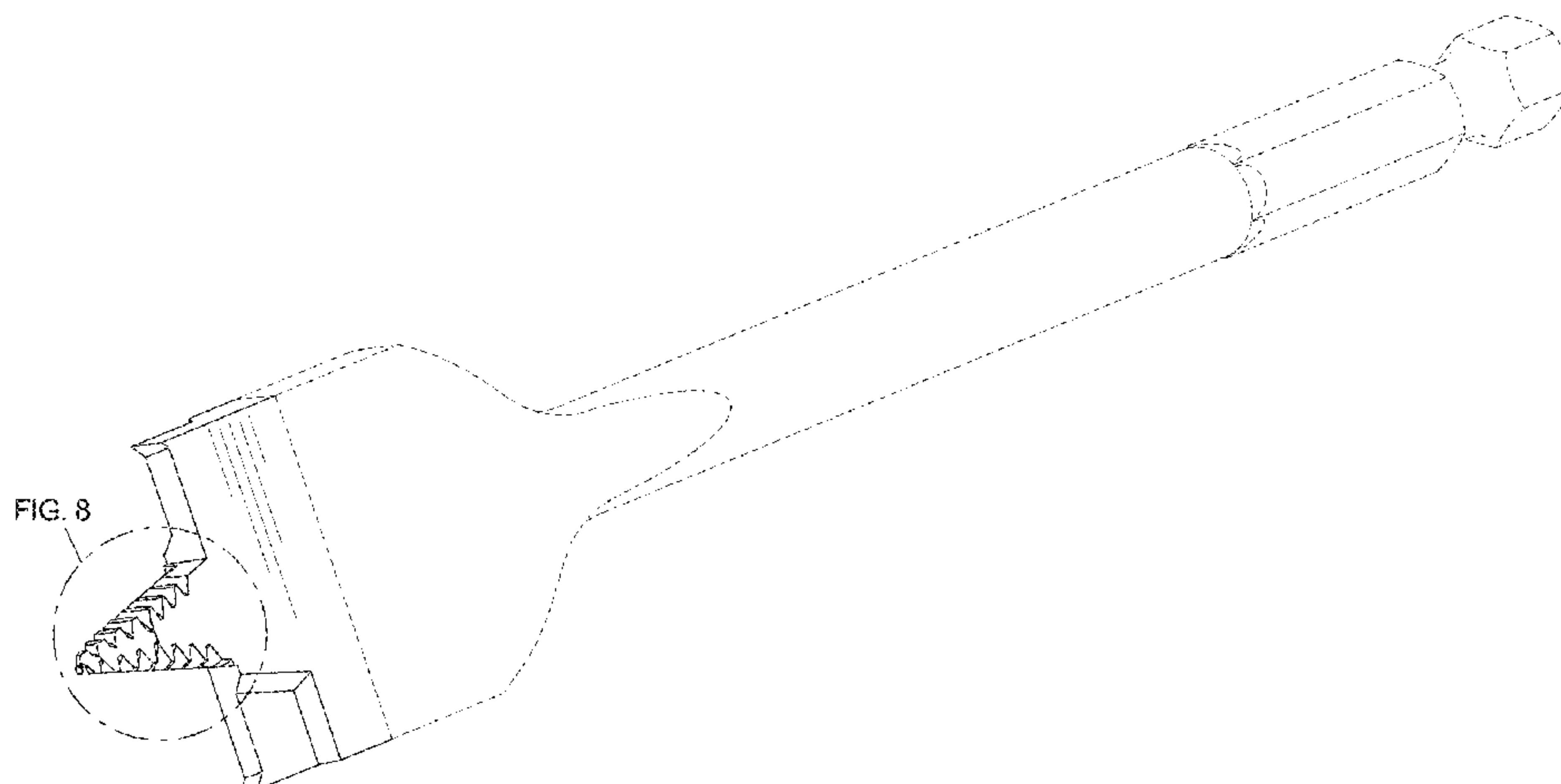
(56) **References Cited**

U.S. PATENT DOCUMENTS

- 3,748,052 A * 7/1973 Jensen B23B 51/00 408/188
- 3,997,279 A * 12/1976 Porter B27G 15/00 408/211
- D442,192 S * 5/2001 Strong D15/139
- D507,585 S * 7/2005 Held D15/139
- 7,473,056 B2 * 1/2009 Durfee B23B 51/0009 408/211
- D604,751 S * 11/2009 Dost D15/139
- D607,024 S * 12/2009 Dost D15/139
- D608,801 S * 1/2010 Evatt D15/139
- D624,097 S * 9/2010 Kenny D15/139

(Continued)

1 Claim, 11 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D627,805 S * 11/2010 Dost D15/139
7,887,269 B2 * 2/2011 Dost B27G 15/00
408/211
D688,715 S * 8/2013 Lampe D15/139
D688,716 S * 8/2013 Lampe D15/139
D690,335 S * 9/2013 Li D15/139
9,381,582 B2 * 7/2016 van den Boogaard ... B23C 5/10
2001/0031178 A1 * 10/2001 Remke B27G 15/00
408/1 R
2003/0133765 A1 * 7/2003 Capriotti B23B 51/10
408/224
2006/0083595 A1 * 4/2006 Wiker B27G 15/00
408/225
2009/0097931 A1 * 4/2009 Dost B27G 15/00
408/213
2015/0202792 A1 * 7/2015 Li B27G 15/00
408/211

FOREIGN PATENT DOCUMENTS

WO WO-2004080632 A1 * 9/2004 B27G 15/00
WO WO-2009049069 A1 * 4/2009 B27G 15/00

* cited by examiner

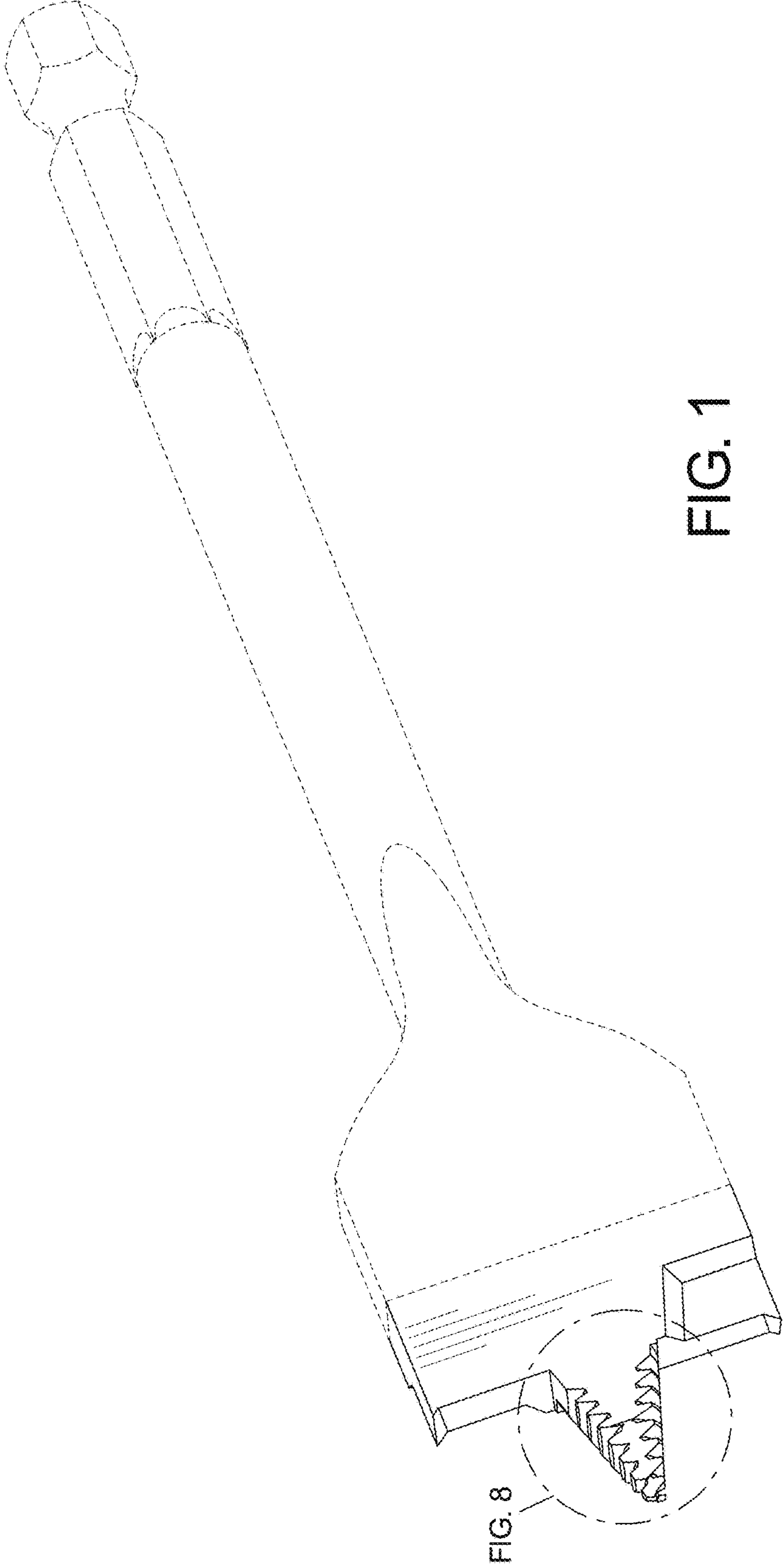


FIG. 1

FIG. 8

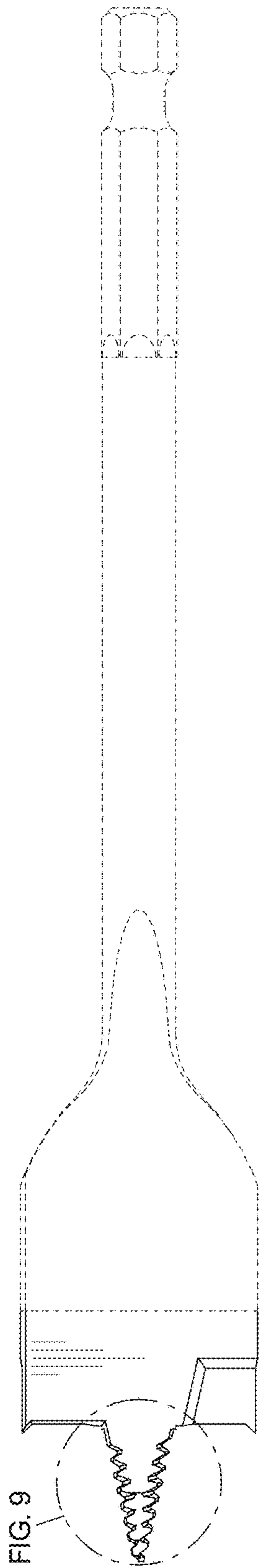


FIG. 2

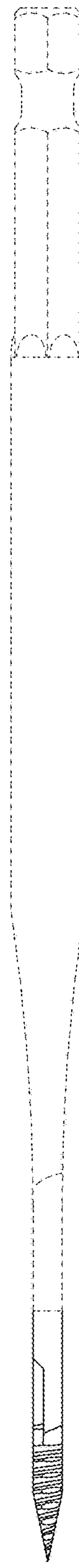


FIG. 3

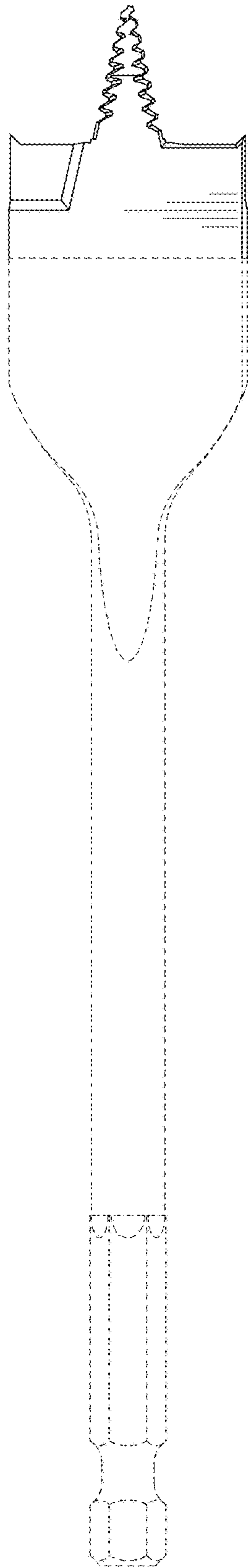


FIG. 4

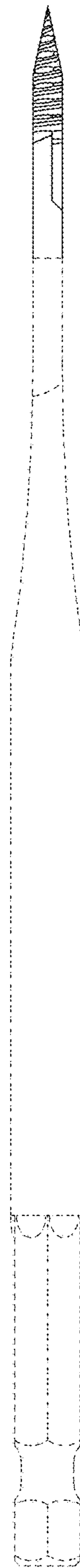


FIG. 5

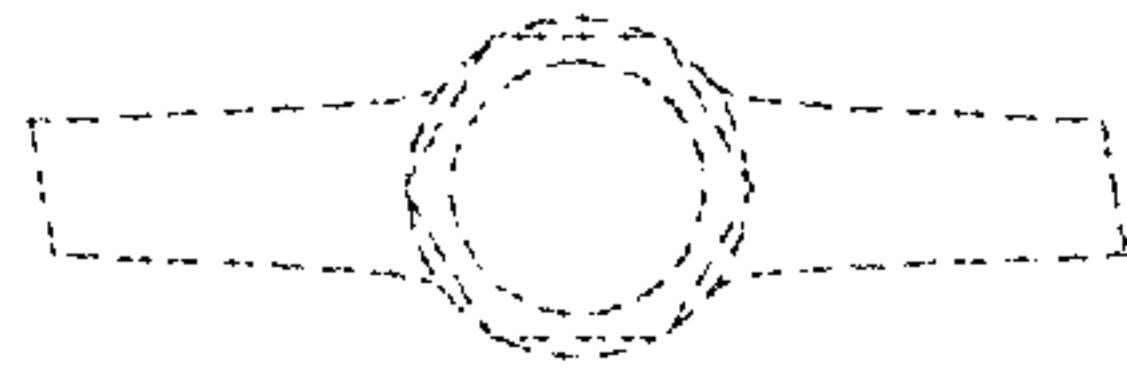


FIG. 7

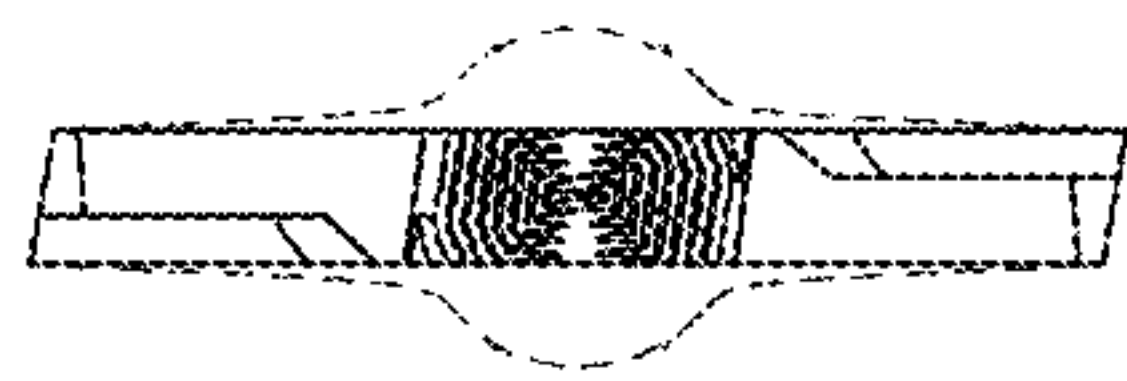


FIG. 6

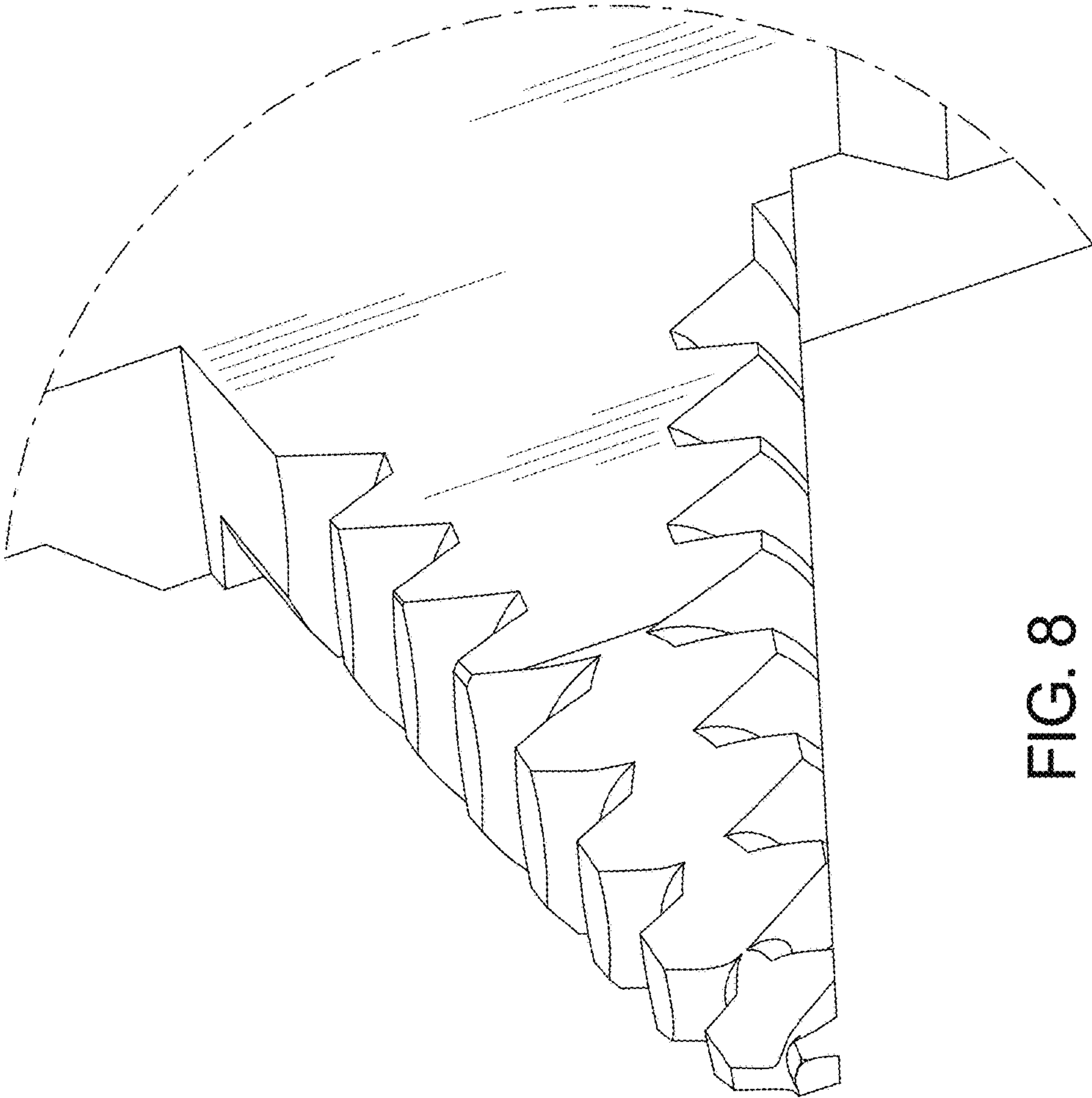


FIG. 8

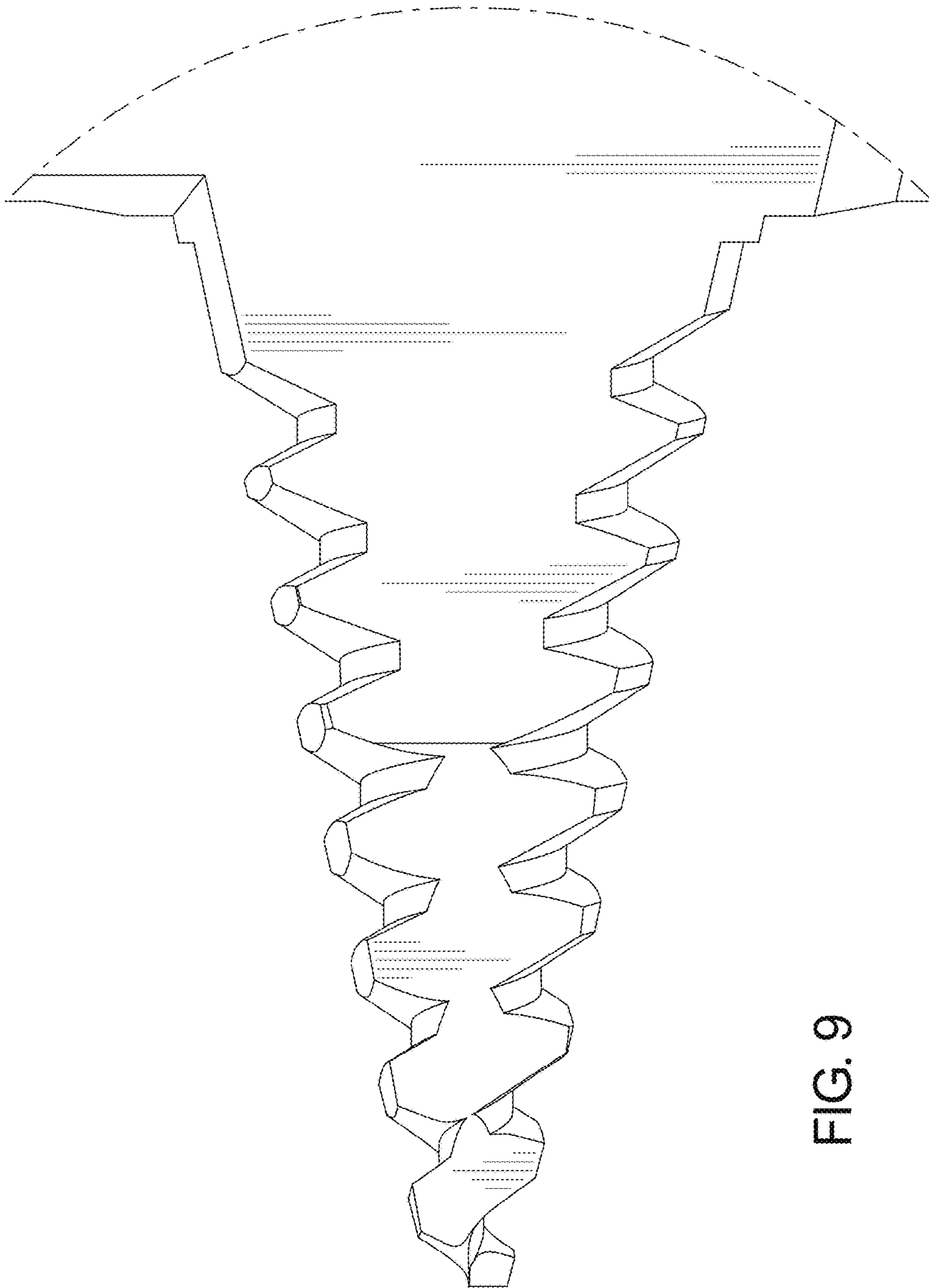


FIG. 9

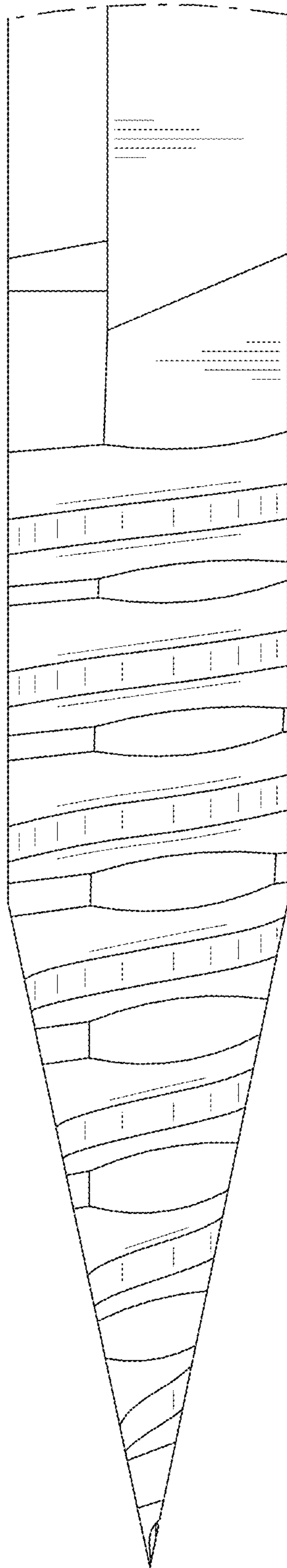


FIG. 10

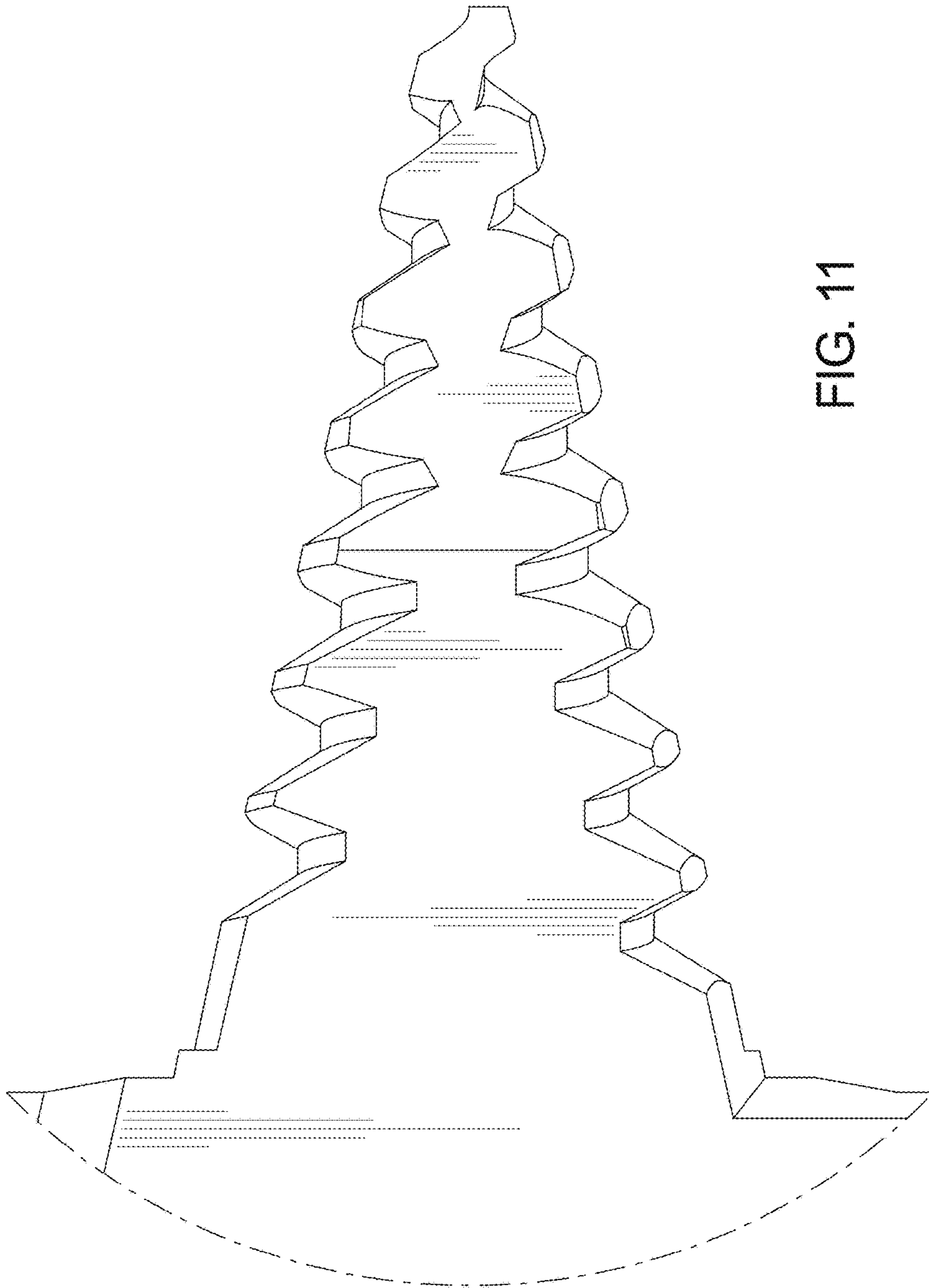


FIG. 11

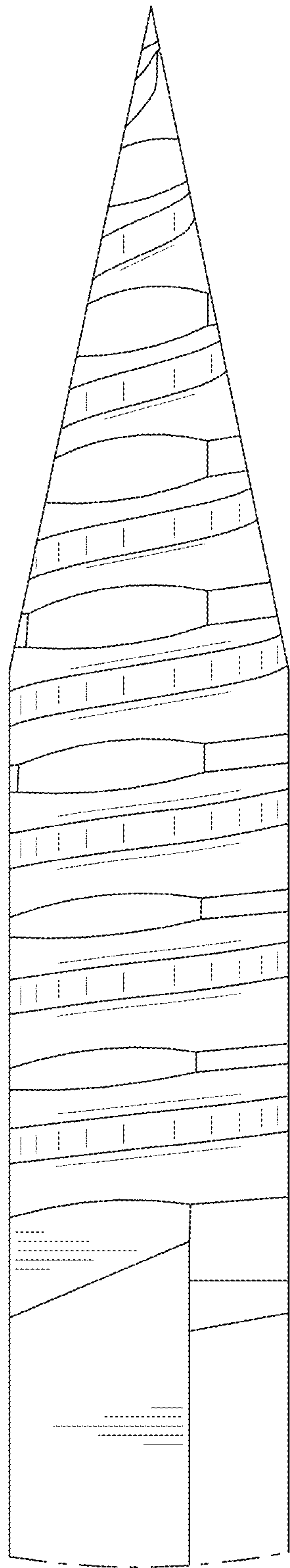


FIG. 12

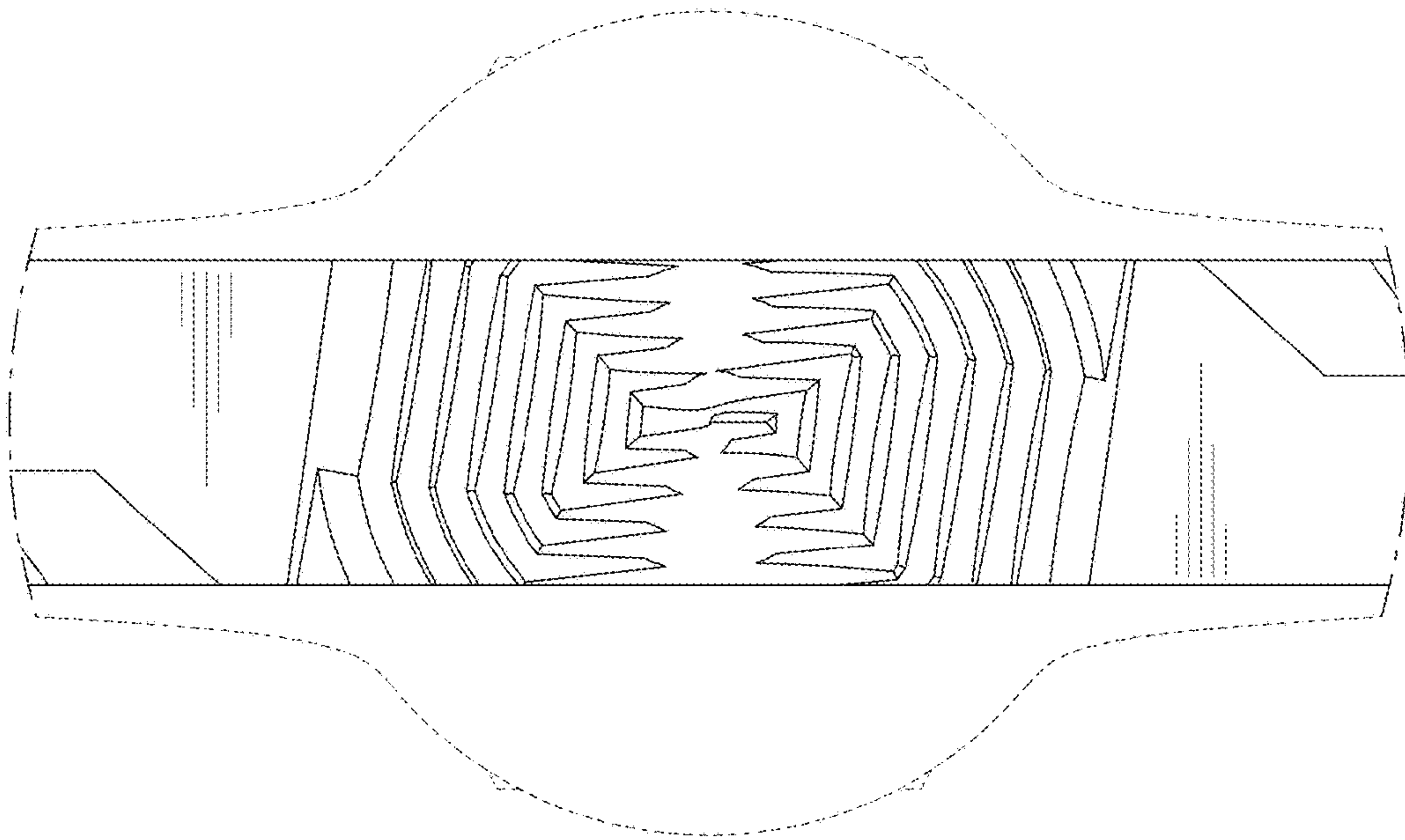


FIG. 13

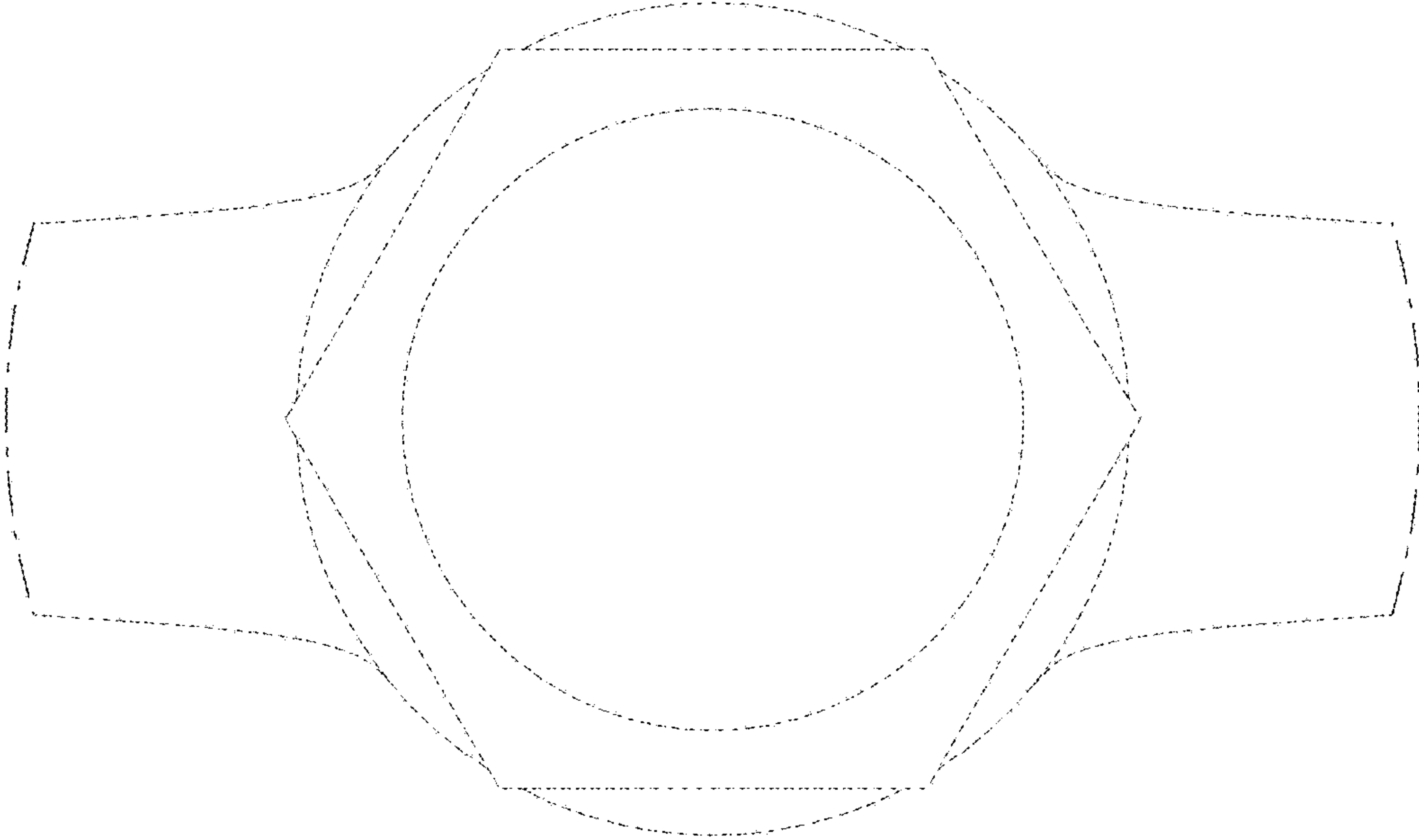


FIG. 14