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(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**

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

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

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

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(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.

(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)

FOREIGN PATENT DOCUMENTS

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

(Continued)

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(57) **CLAIM**

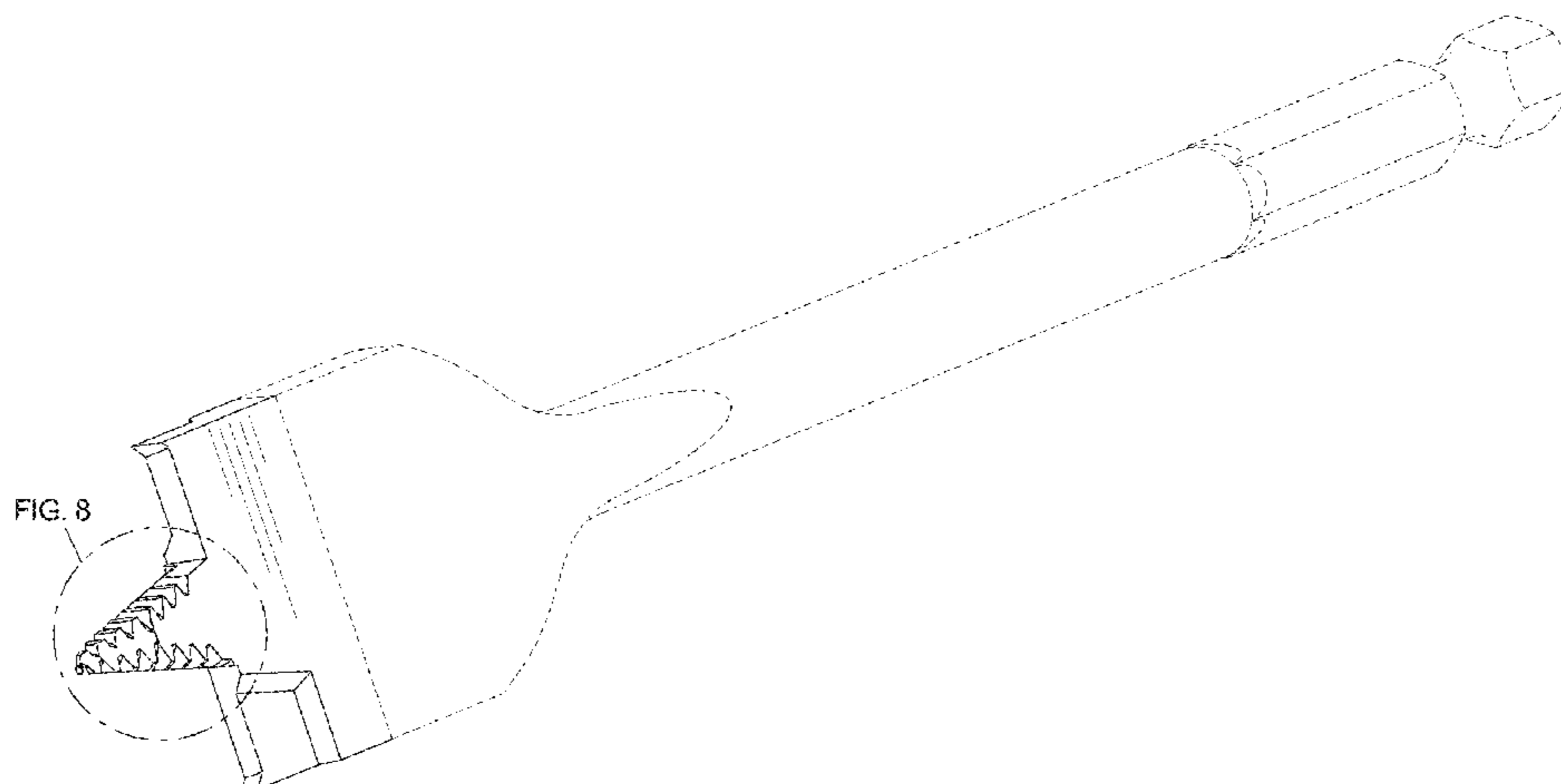
We claim the ornamental design for the spade drill bit, as illustrated and described.

**DESCRIPTION**

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.

**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

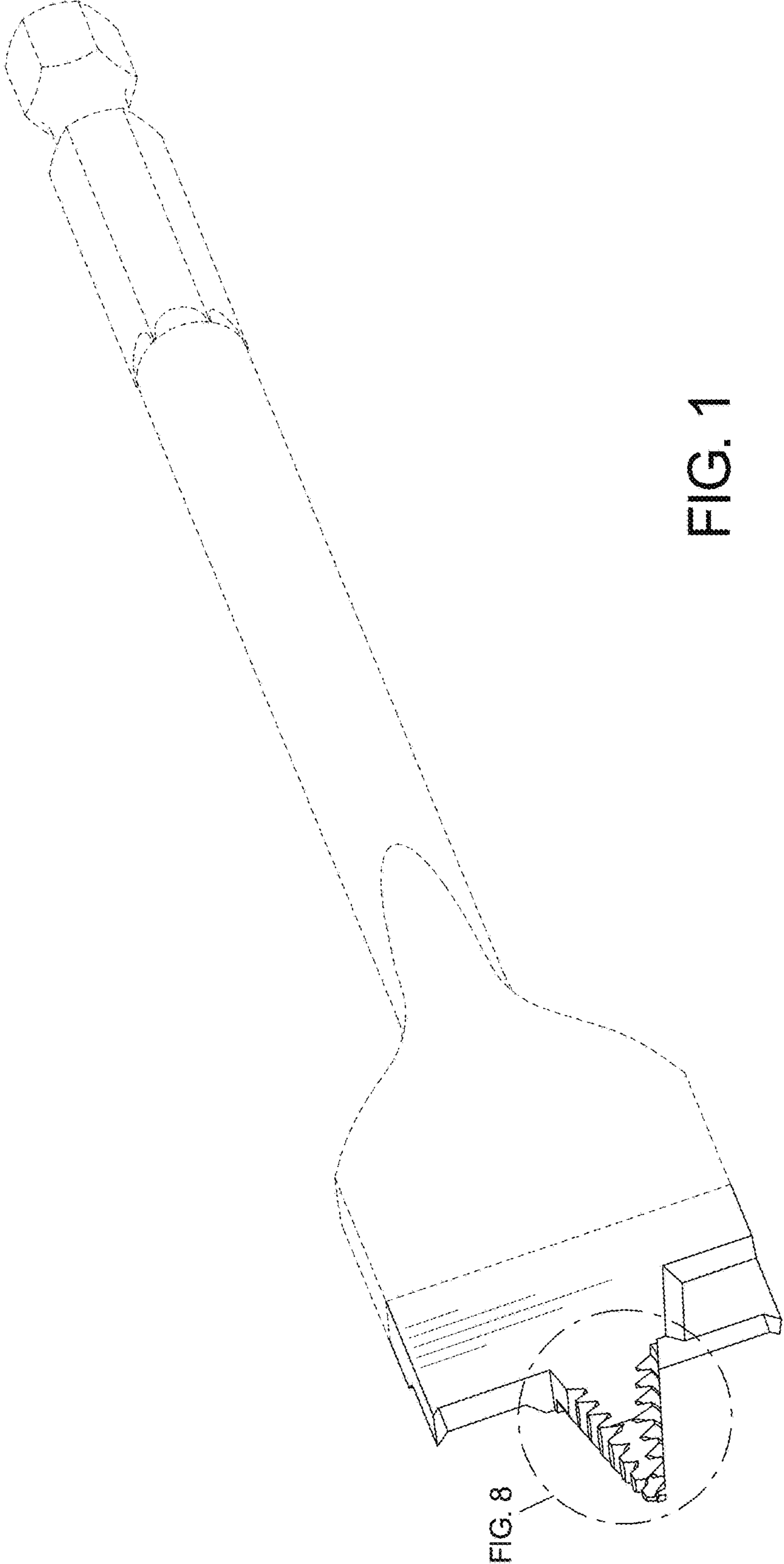


FIG. 1

FIG. 8

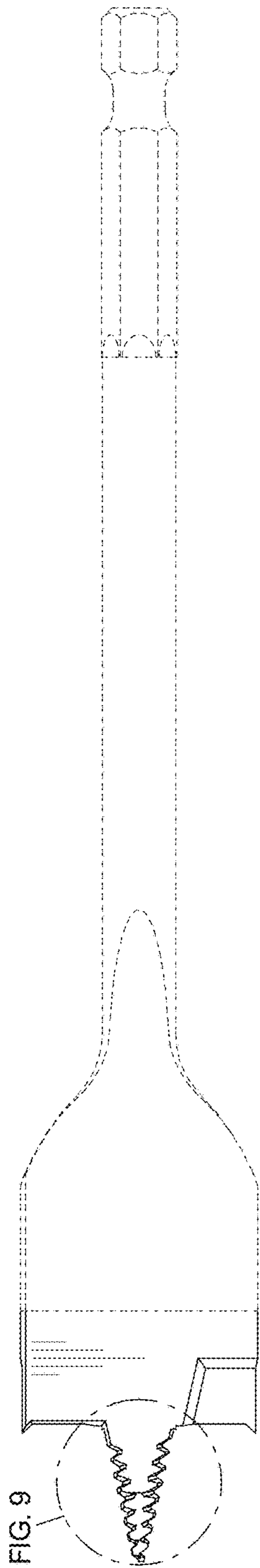


FIG. 2

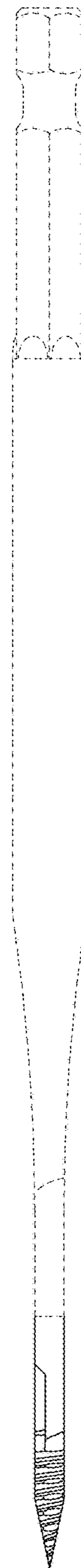


FIG. 3

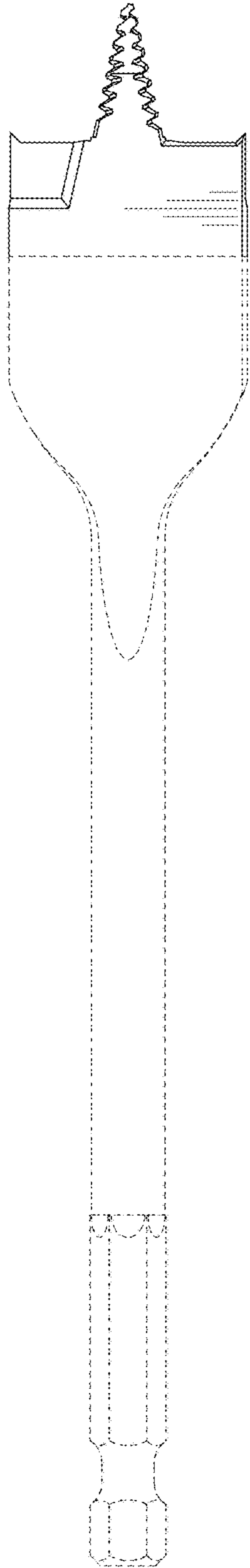


FIG. 4

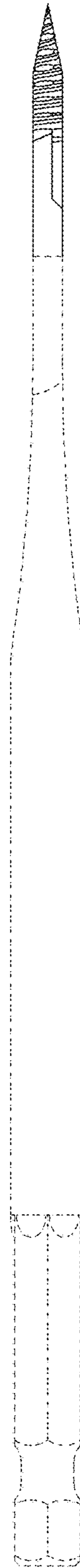


FIG. 5

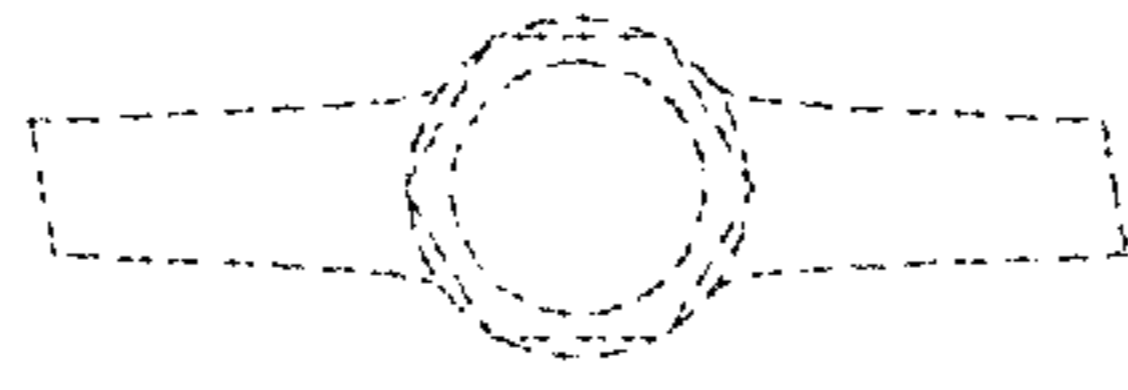


FIG. 7

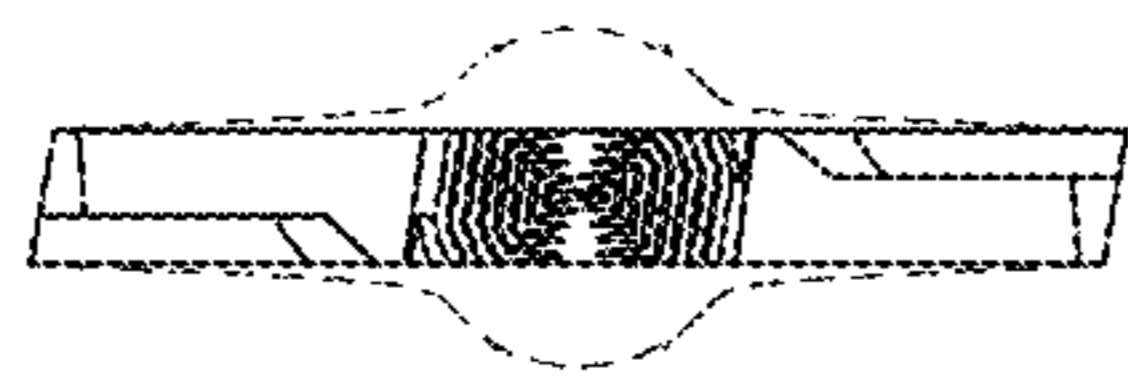


FIG. 6

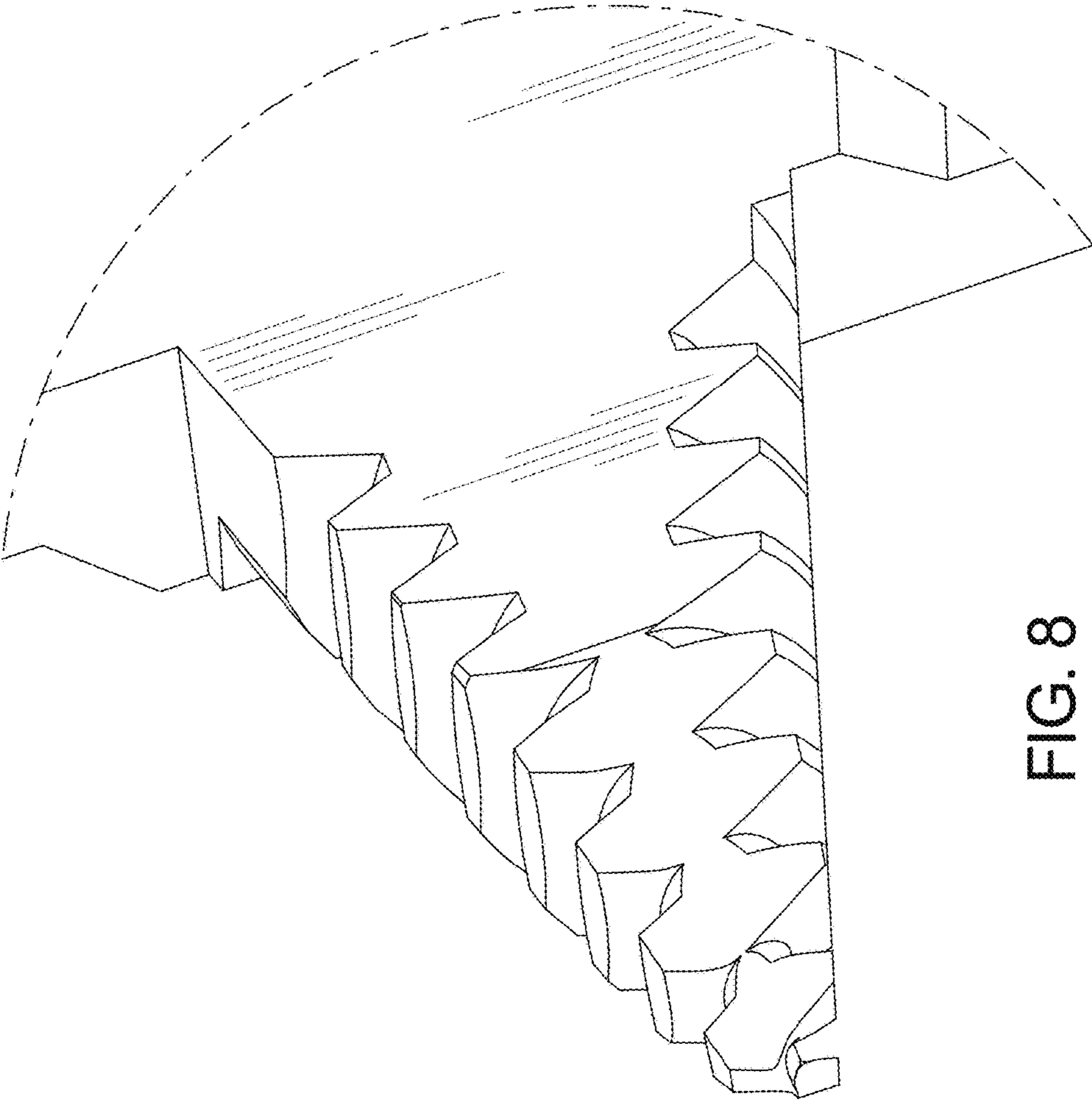


FIG. 8

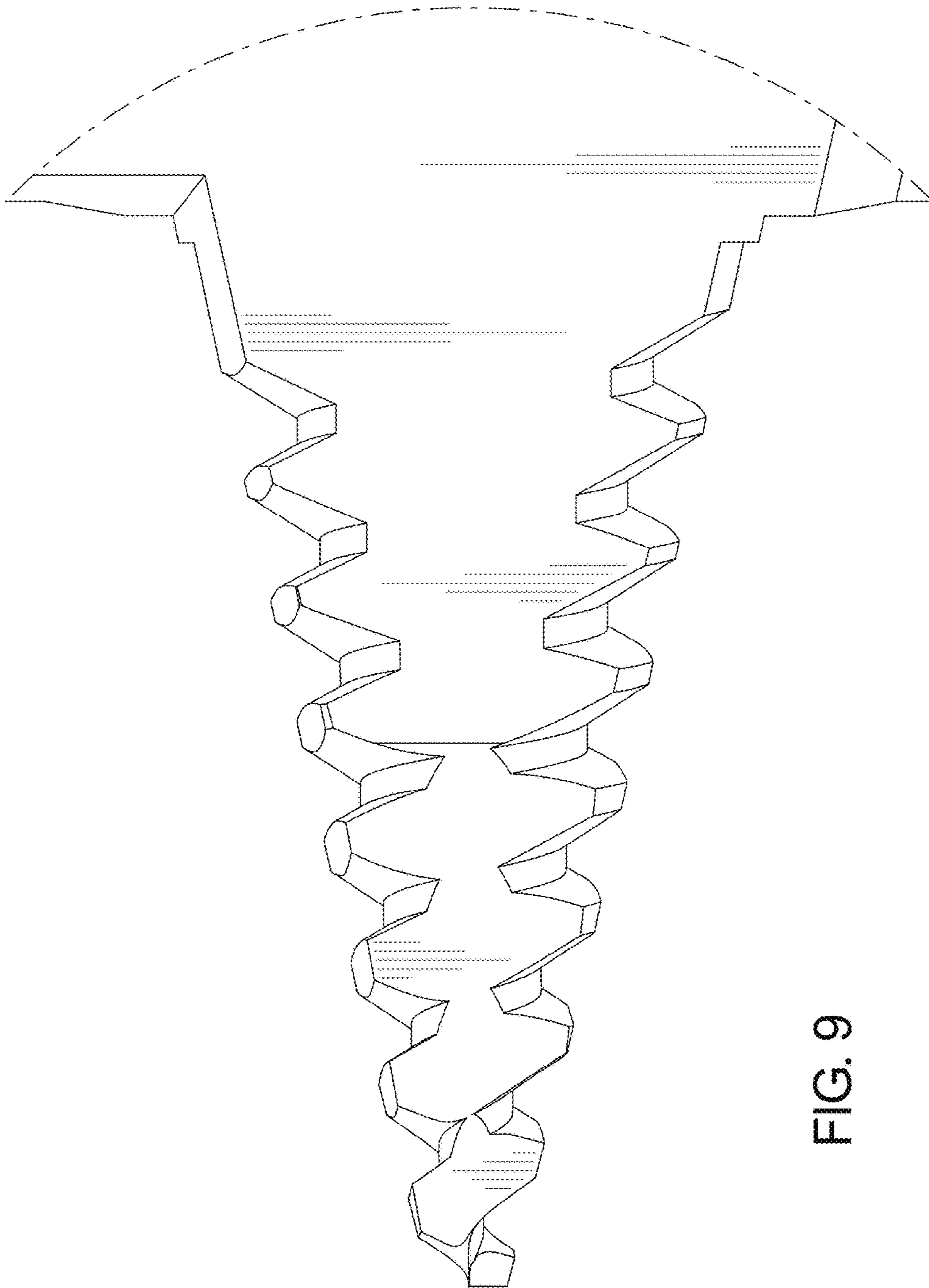


FIG. 9



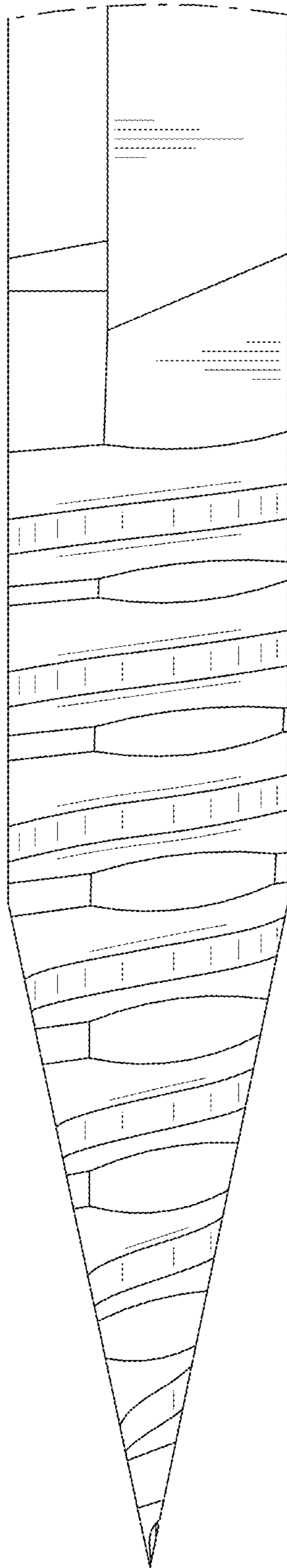


FIG. 10

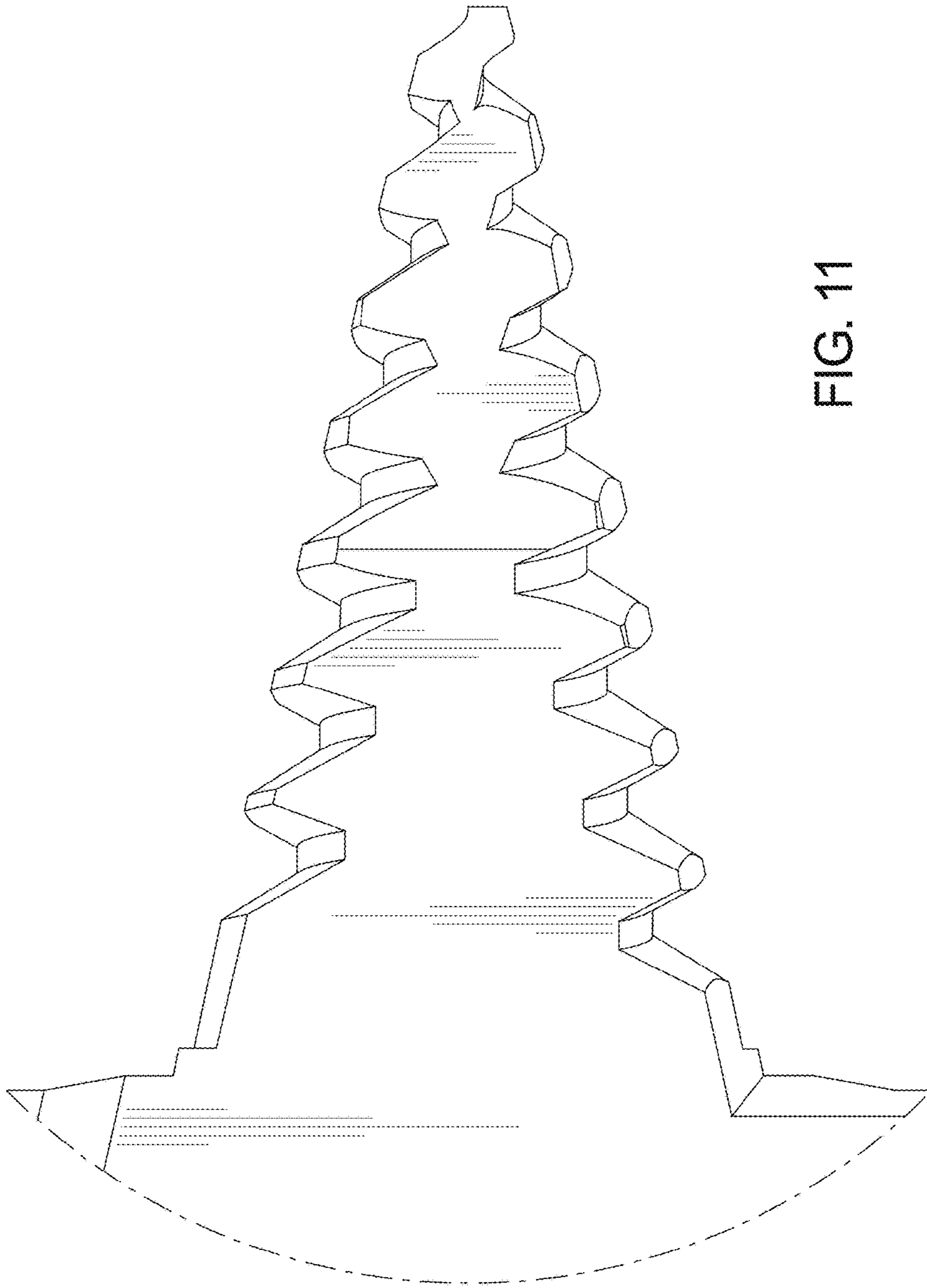


FIG. 11

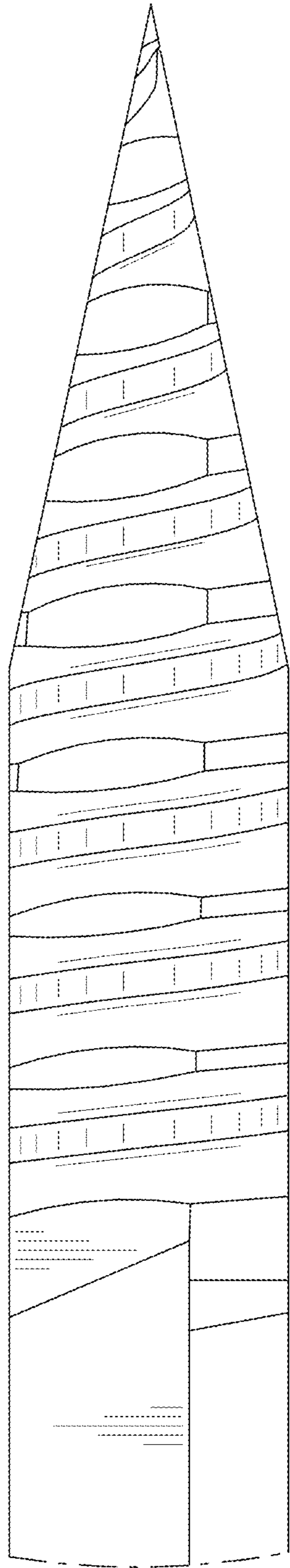


FIG. 12

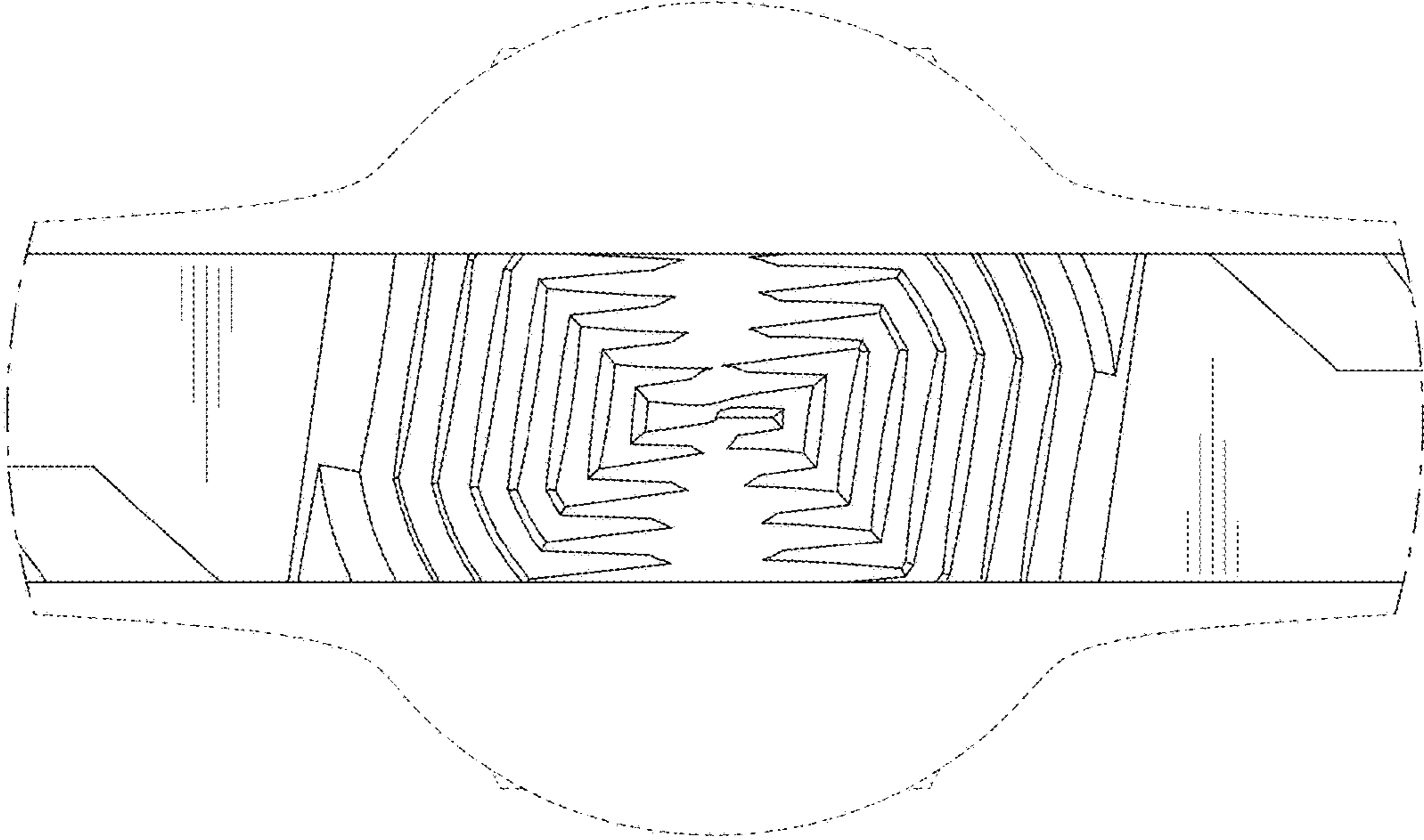


FIG. 13

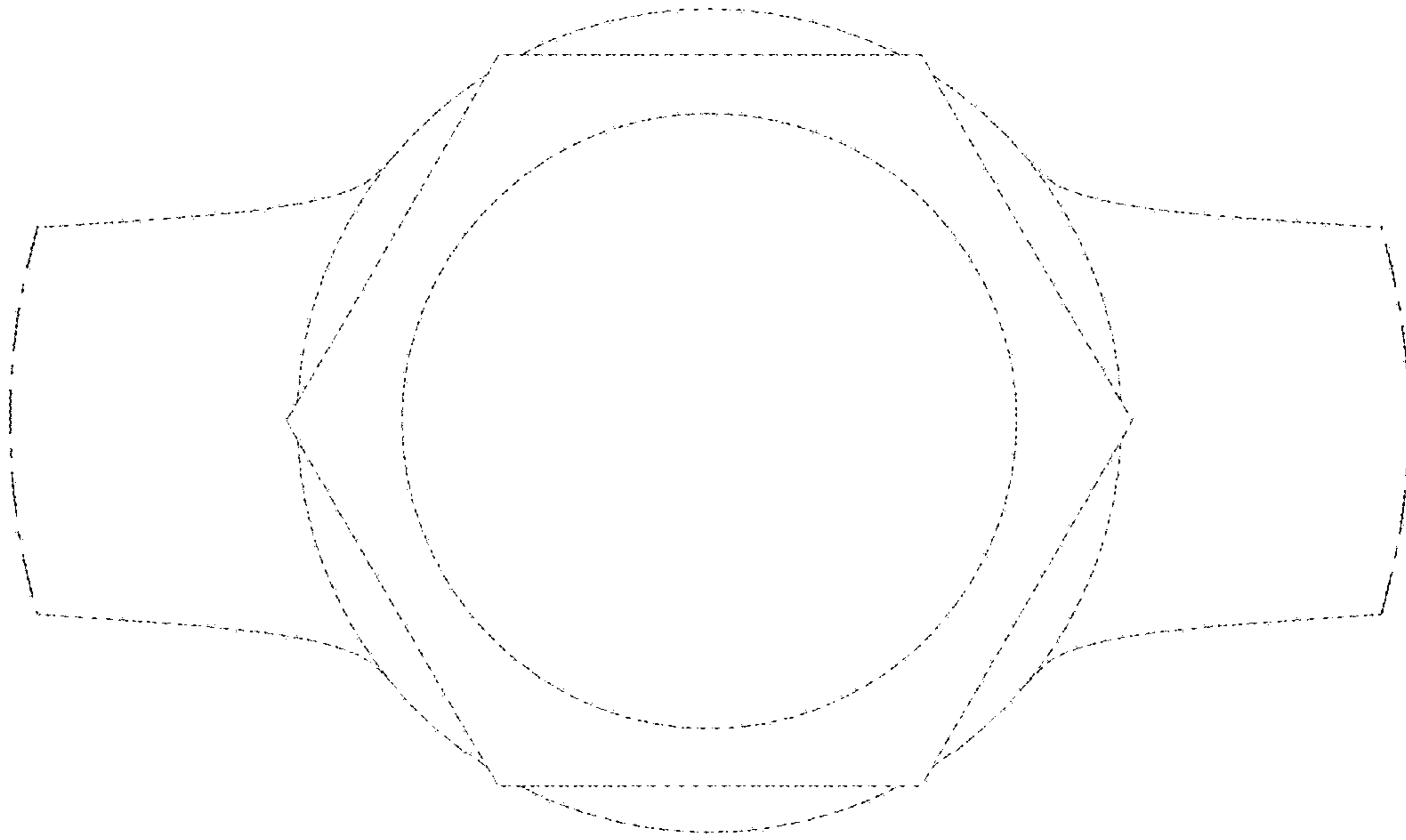


FIG. 14