

US00D921898S

(12) **United States Design Patent** (10) **Patent No.:** **US D921,898 S**
Schifano et al. (45) **Date of Patent:** **** Jun. 8, 2021**

(54) **HELICAL IMPLANT**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Orthocision Inc.**, Folsom, CA (US)

EP 0374088 A1 4/1989
EP 0663184 A1 7/1995

(72) Inventors: **Troy Schifano**, Morgantown, WV (US);
Steve Anderson, Folsom, CA (US)

(Continued)

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

OTHER PUBLICATIONS

(21) Appl. No.: **29/630,686**

Globus Medical Inc., Description of SI-LOK® Sacroiliac Fixation System, available online at www.globusmedical.com.

(22) Filed: **Dec. 22, 2017**

(Continued)

(51) **LOC (13) Cl.** **24-03**

Primary Examiner — Charles D Hanson

(52) **U.S. Cl.**
USPC **D24/155**

(74) *Attorney, Agent, or Firm* — Sierra IP Law, PC;
William K. Nelson

(58) **Field of Classification Search**
USPC D24/155–157
CPC A61B 17/7037; A61B 17/7032; A61B 17/7291; A61B 17/8605; A61B 17/864; A61B 17/8685; A61B 17/70; A61B 17/7011; A61B 17/7035; A61B 17/7082
See application file for complete search history.

(57) **CLAIM**

We claim the ornamental designs for a helical implant, as shown and described.

DESCRIPTION

FIG. 1 is a perspective front view of the helical implant; FIG. 2 is a perspective top view of the helical implant of FIG. 1; FIG. 3 is a perspective bottom view of the helical implant of FIG. 1; FIG. 4 is a side view of a first side of the helical implant of FIG. 1; FIG. 5 is a side view of a second side of the helical implant of FIG. 1; FIG. 6 is a side view of a third side of the helical implant of FIG. 1; FIG. 7 is a side view of a fourth side of the helical implant of FIG. 1; FIG. 8 is a top view of the helical implant of FIG. 1; and, FIG. 9 is a bottom view of the helical implant of FIG. 1. The broken lines in the drawings illustrate portions of the helical implant which form no part of the claimed design.

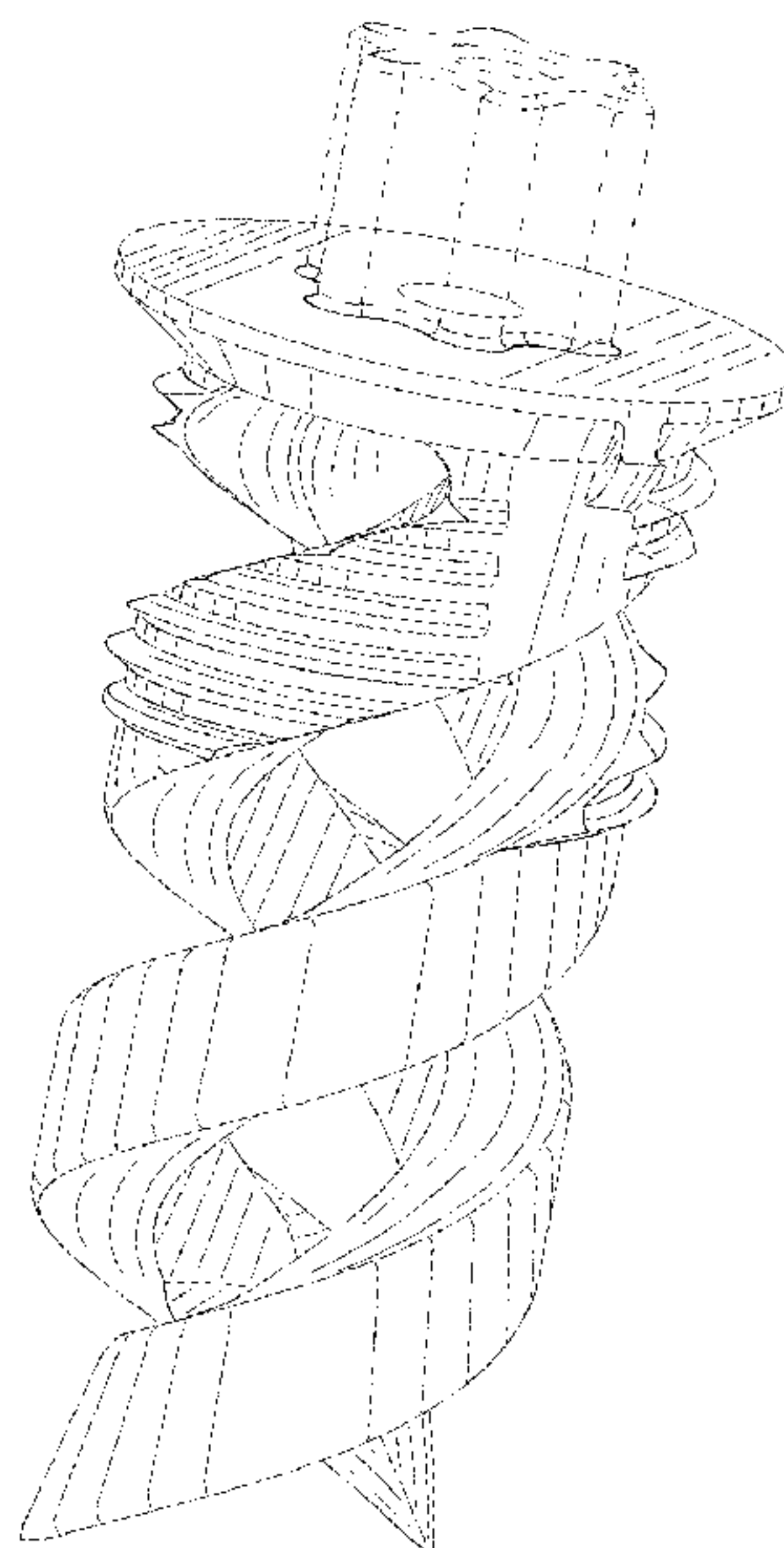
(56) **References Cited**

U.S. PATENT DOCUMENTS

3,579,830 A * 5/1971 Morel A61C 8/0022
433/174
4,481,020 A * 11/1984 Lee B01D 19/0052
166/105.5
4,759,769 A * 7/1988 Hedman A61F 2/4425
623/17.13
5,582,616 A 12/1996 Bolduc et al.
5,662,683 A 9/1997 Kay
5,728,116 A 3/1998 Rosenman
5,741,256 A 4/1998 Bresina
5,810,882 A 9/1998 Bolduc et al.
5,888,228 A 3/1999 Knothe et al.
5,897,319 A 4/1999 Wagner et al.
5,904,696 A 5/1999 Rosenman
6,053,916 A 4/2000 Moore
6,193,721 B1 2/2001 Michelson

(Continued)

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

6,296,656 B1 10/2001 Bolduc et al.
 6,468,309 B1 10/2002 Lieberman
 6,488,683 B2 12/2002 Lieberman
 6,527,774 B2 3/2003 Lieberman
 6,544,265 B2 4/2003 Lieberman
 6,551,319 B2 4/2003 Lieberman
 6,551,320 B2 4/2003 Lieberman
 6,551,322 B1 4/2003 Lieberman
 6,635,059 B2 10/2003 Randall et al.
 6,689,168 B2 2/2004 Lieberman
 6,695,844 B2 2/2004 Bramlet
 6,953,462 B2 10/2005 Lieberman
 7,189,251 B2 3/2007 Kay
 7,601,167 B2 10/2009 Lieberman
 7,648,509 B2 1/2010 Stark
 D620,111 S 7/2010 Coutney et al.
 D627,466 S 11/2010 Coutney et al.
 7,955,362 B2 6/2011 Erickson et al.
 8,092,528 B2 1/2012 Pellegrino et al.
 D653,756 S 2/2012 Courtney et al.
 8,202,305 B2 6/2012 Reiley
 8,221,428 B2 7/2012 Trieu
 8,343,189 B2 1/2013 Assell et al.
 8,579,919 B2 11/2013 Bolduc et al.
 8,591,579 B2 11/2013 Pellegrino et al.
 8,740,912 B2 6/2014 Stark
 D708,747 S 7/2014 Curran et al.
 8,808,305 B2 8/2014 Kleiner
 8,808,377 B2 8/2014 Donner
 8,979,928 B2 3/2015 Donner
 9,017,407 B2 4/2015 Donner
 9,113,972 B2 8/2015 Trudeau
 9,119,732 B2 9/2015 Schifano et al.
 9,451,986 B2 9/2016 Stoffman et al.
 9,498,263 B2 11/2016 Pellegrino et al.
 D847,994 S * 5/2019 Asfora D24/155
 D857,897 S * 8/2019 Loftus D24/155
 2003/0229350 A1 12/2003 Kay
 2004/0073216 A1 4/2004 Lieberman
 2004/0243129 A1 12/2004 Monumene et al.
 2005/0015092 A1 1/2005 Rathburn
 2005/0011975 A1 6/2005 Trieu
 2006/0054171 A1 3/2006 Dall
 2006/0089646 A1 4/2006 Bonutti
 2006/0189997 A1 8/2006 Guenther
 2008/0009861 A1 1/2008 Stark
 2008/0058938 A1 3/2008 Mujwid
 2008/0097523 A1 4/2008 Bolduc et al.
 2008/0195096 A1 8/2008 Frei

2009/0076551 A1 3/2009 Peterson
 2009/0088604 A1 4/2009 Lowry et al.
 2009/0099610 A1 4/2009 Johnson
 2010/0106200 A1 4/2010 Stark
 2010/0268228 A1 10/2010 Petersen
 2011/0060375 A1 3/2011 Bonutti
 2011/0184519 A1 7/2011 Trieu
 2011/0238181 A1 9/2011 Trieu
 2012/0071978 A1 3/2012 Suedkamp et al.
 2012/0095560 A1 4/2012 Donner
 2012/0191191 A1 7/2012 Trieu
 2012/0253398 A1 10/2012 Metcalf et al.
 2012/0296428 A1 11/2012 Donner
 2013/0018427 A1 1/2013 Pham et al.
 2013/0211453 A1 8/2013 Lenke et al.
 2014/0031935 A1 1/2014 Donner et al.
 2014/0088707 A1 3/2014 Donner et al.
 2014/0114423 A1 4/2014 Suedkamp et al.
 2014/0142700 A1 5/2014 Donner et al.
 2014/0200618 A1 7/2014 Donner
 2014/0336763 A1 11/2014 Donner
 2015/0150683 A1 6/2015 Donner et al.
 2015/0173805 A1 6/2015 Donner et al.
 2015/0209087 A1 7/2015 Donner

FOREIGN PATENT DOCUMENTS

WO 2011087912 A1 7/2011
 WO 2013043584 A2 3/2013
 WO 2014146018 A1 9/2014

OTHER PUBLICATIONS

Medtronic Inc., Description of Infuse Bone Graft/LT-Cage Lumbar Tapered Fusion Device, available online at www.medtronic.com.
 Orthopedic Designs North America, Inc., Description of Talon® DistalFix® Femoral Nail System, available online at www.odi-na.com.
 Zyga Technology, Inc., Description of the SImmetry® sacroiliac joint fusion system, available online at www.zygatech.com.
 Donner, E.J., Sacroiliac joint fusion system, U.S. Appl. No. 61/335,947, filed Jan. 13, 2010.
 Muller et al., Bone screw, English Abstract of European Patent Publication EP0374088, Jun. 20, 1990, European Patent Organization, <http://www.epo.org/searching/free/espacenet.html>.
 Rosenman, D., Spiral Surgical tack, English Abstract of European Patent Publication EP0663184, Jul. 19, 1995, European Patent Organization, <http://www.epo.org/searching/free/espacenet.html>.
 Signus Medizintechnik GMBH, Description of the DIANA system, available online at www.si-joint.net.

* cited by examiner

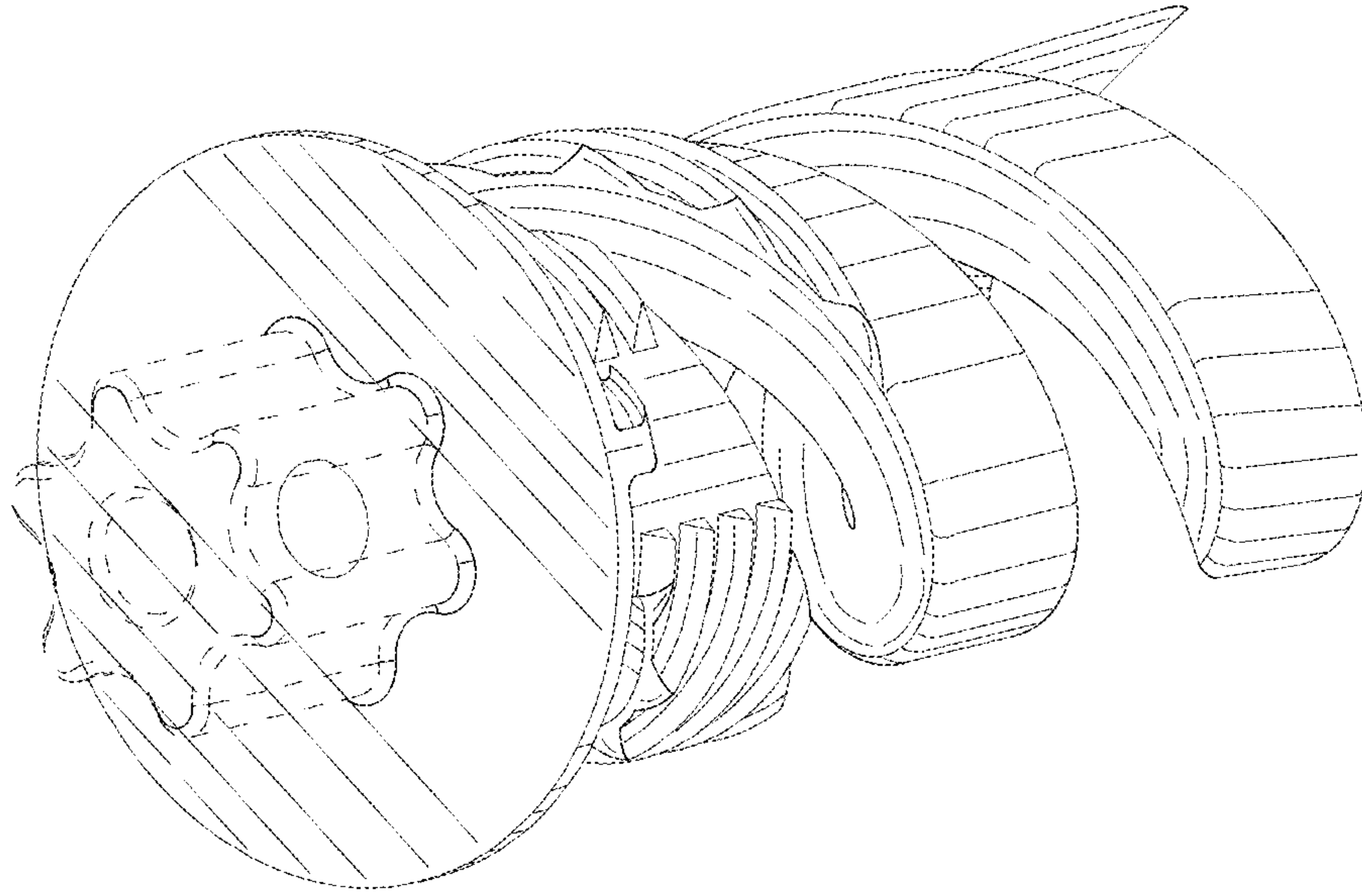


FIG. 2

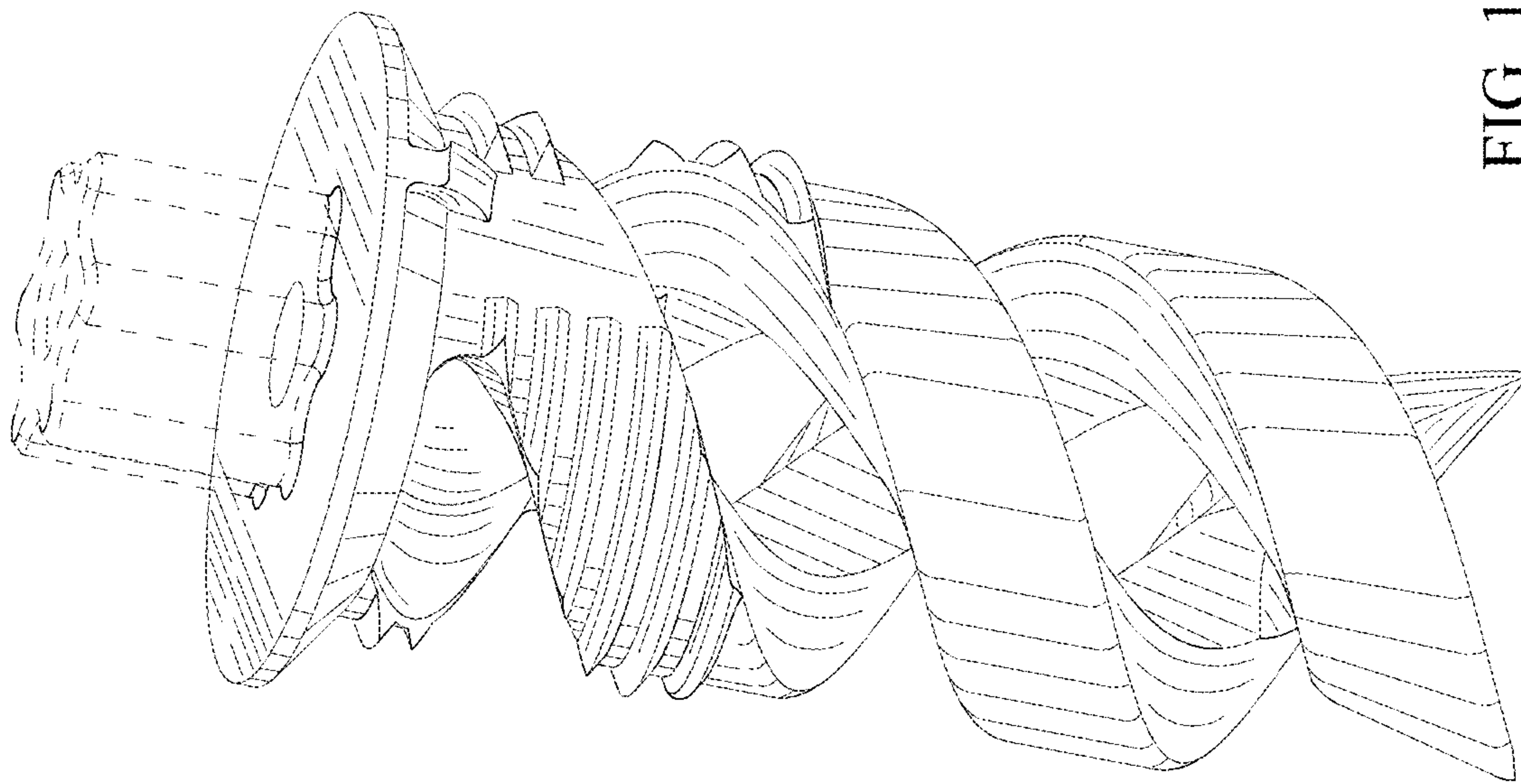


FIG. 1

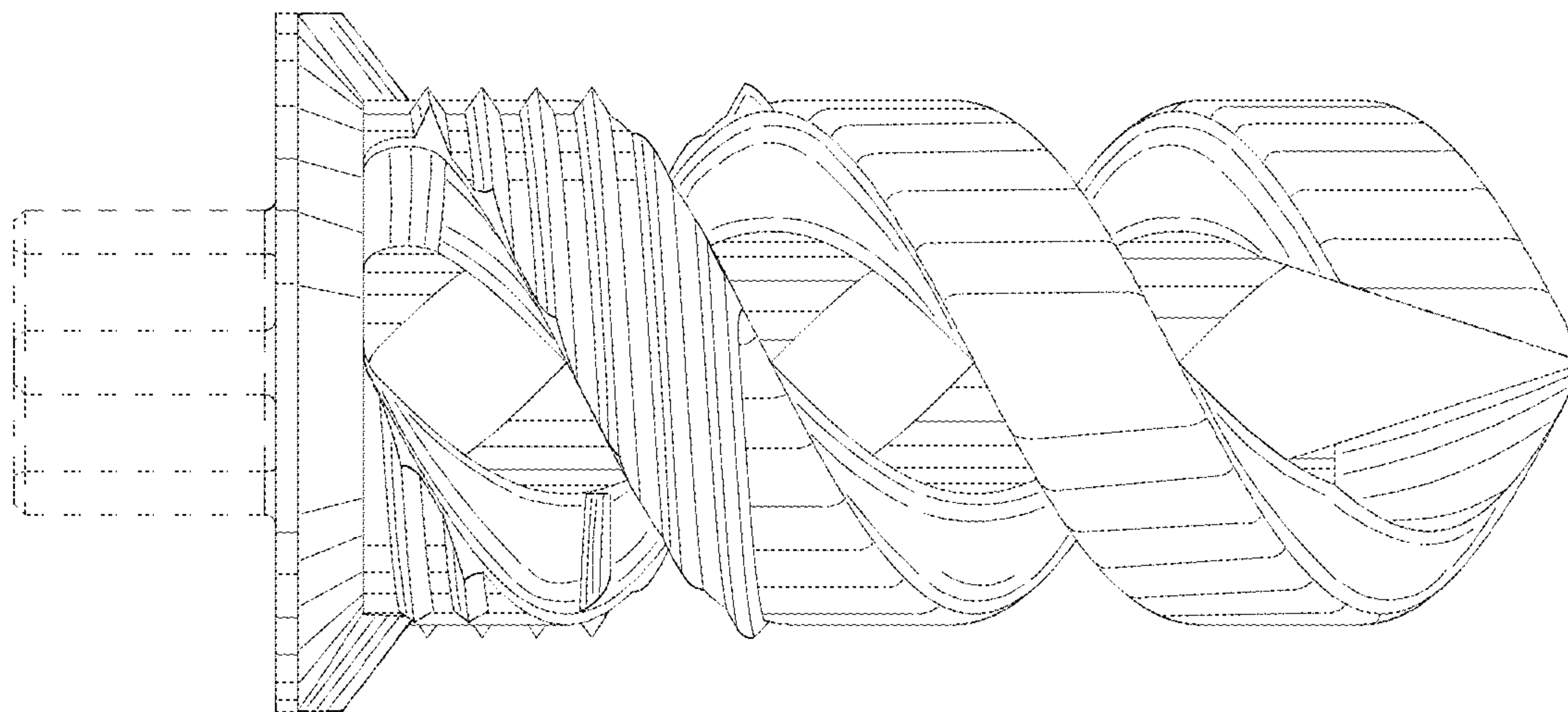


FIG. 4

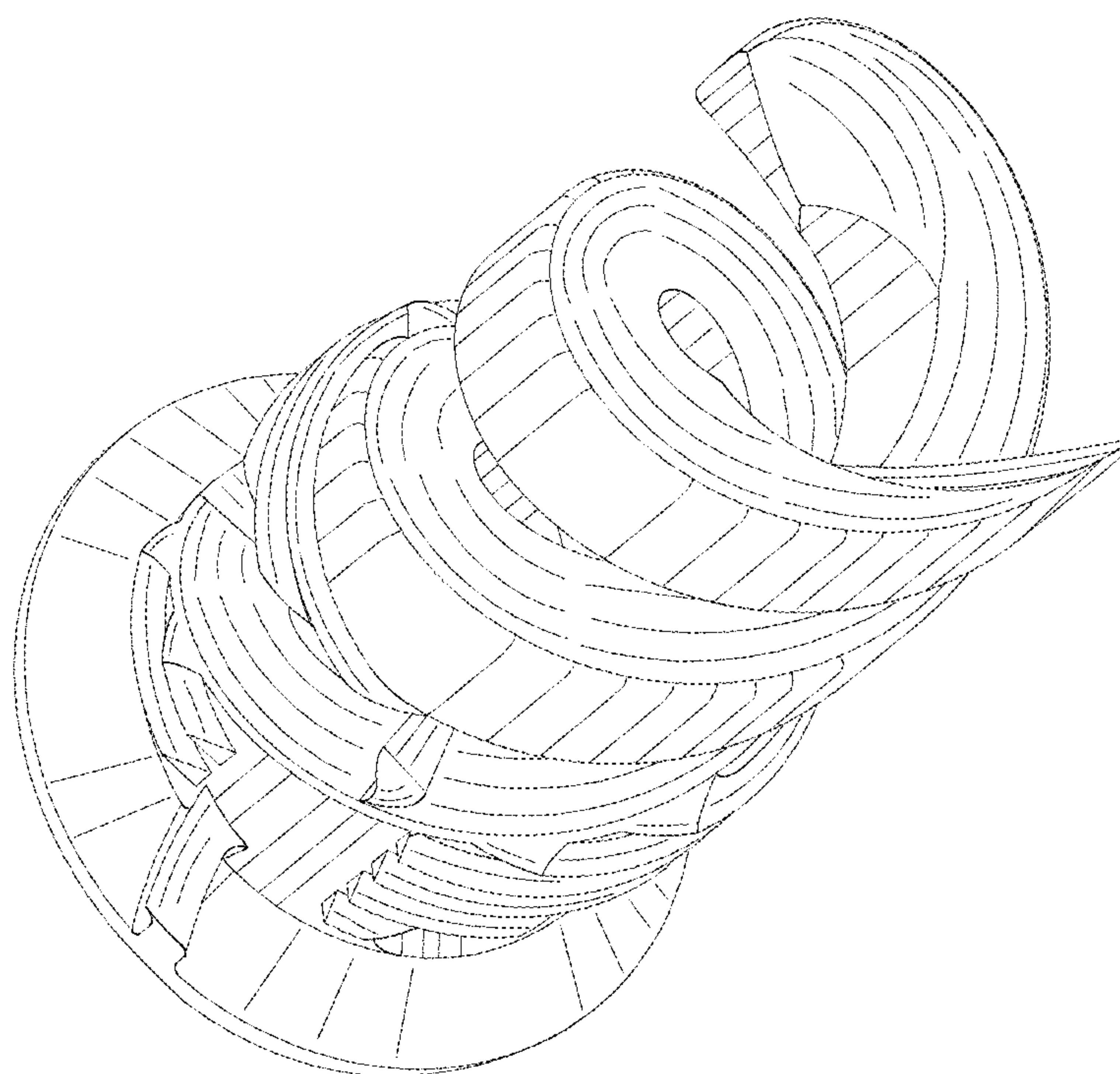


FIG. 3

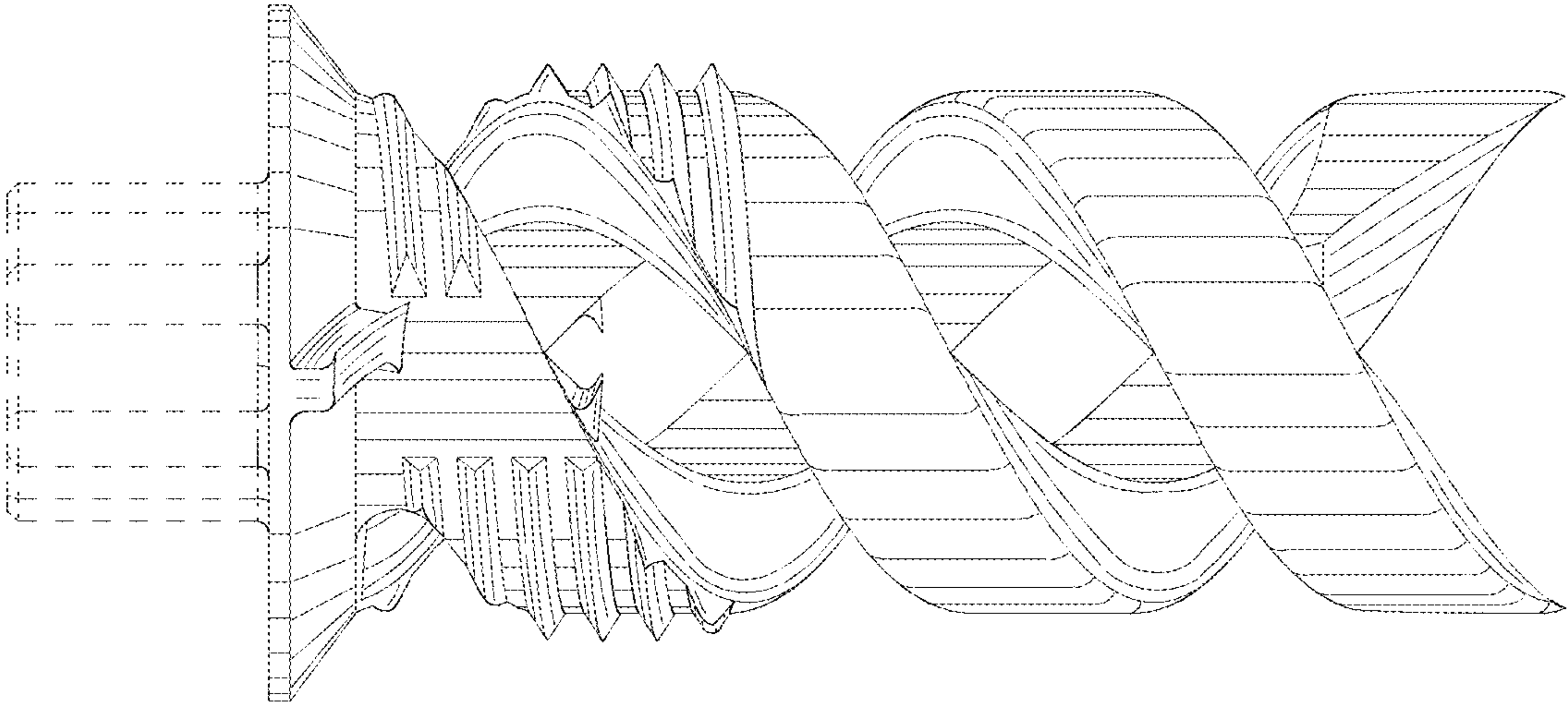


FIG. 5

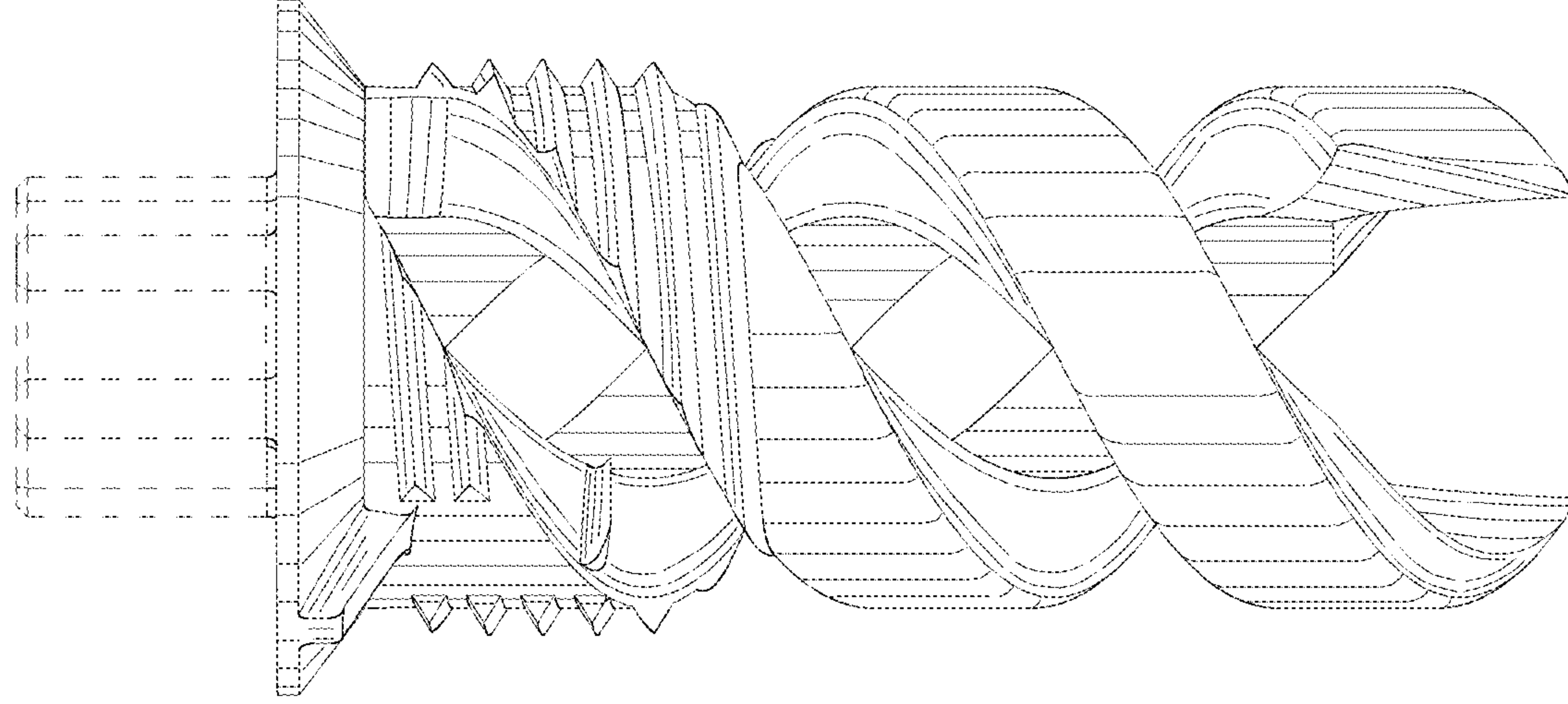


FIG. 6

FIG. 8

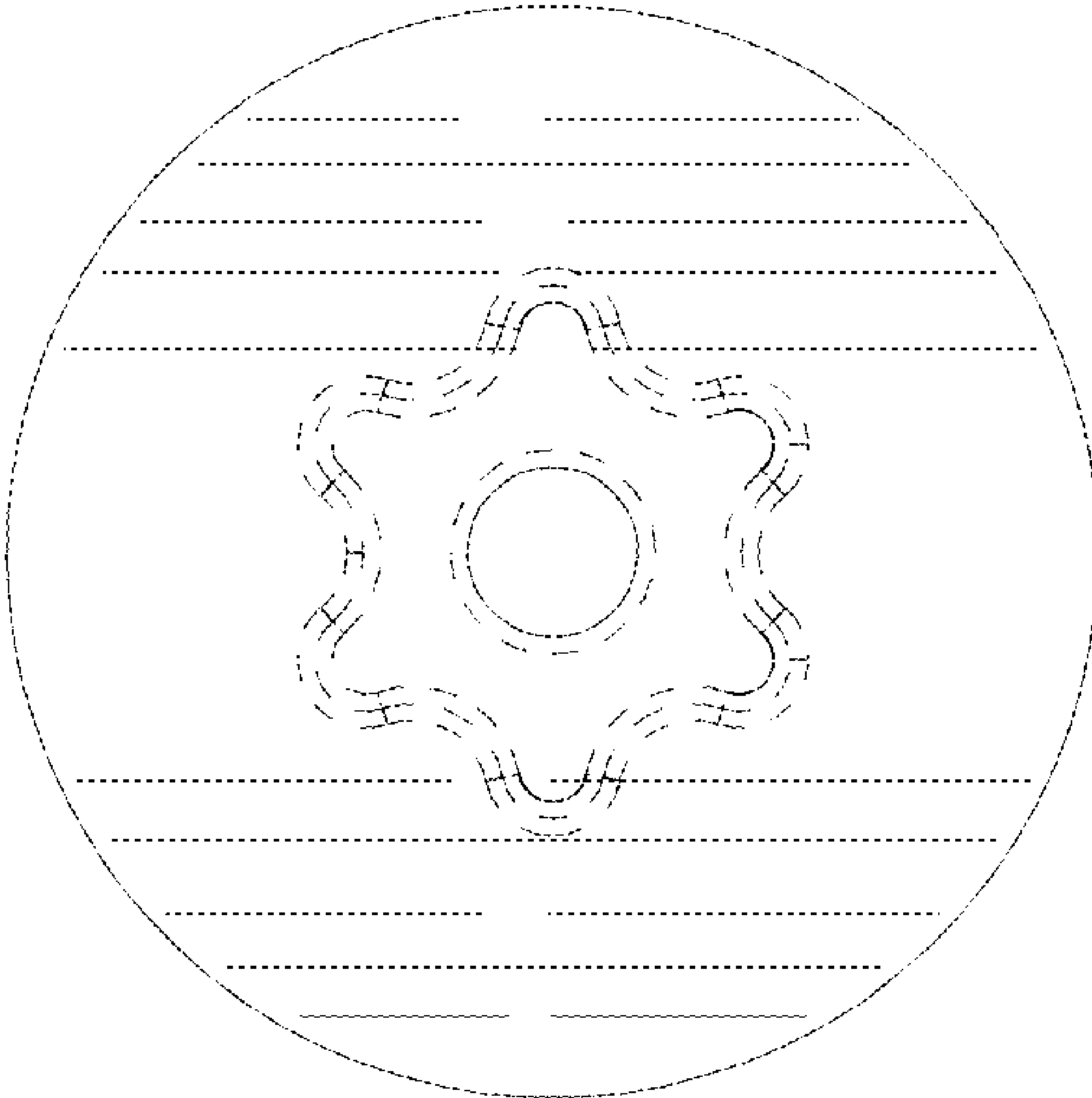


FIG. 9

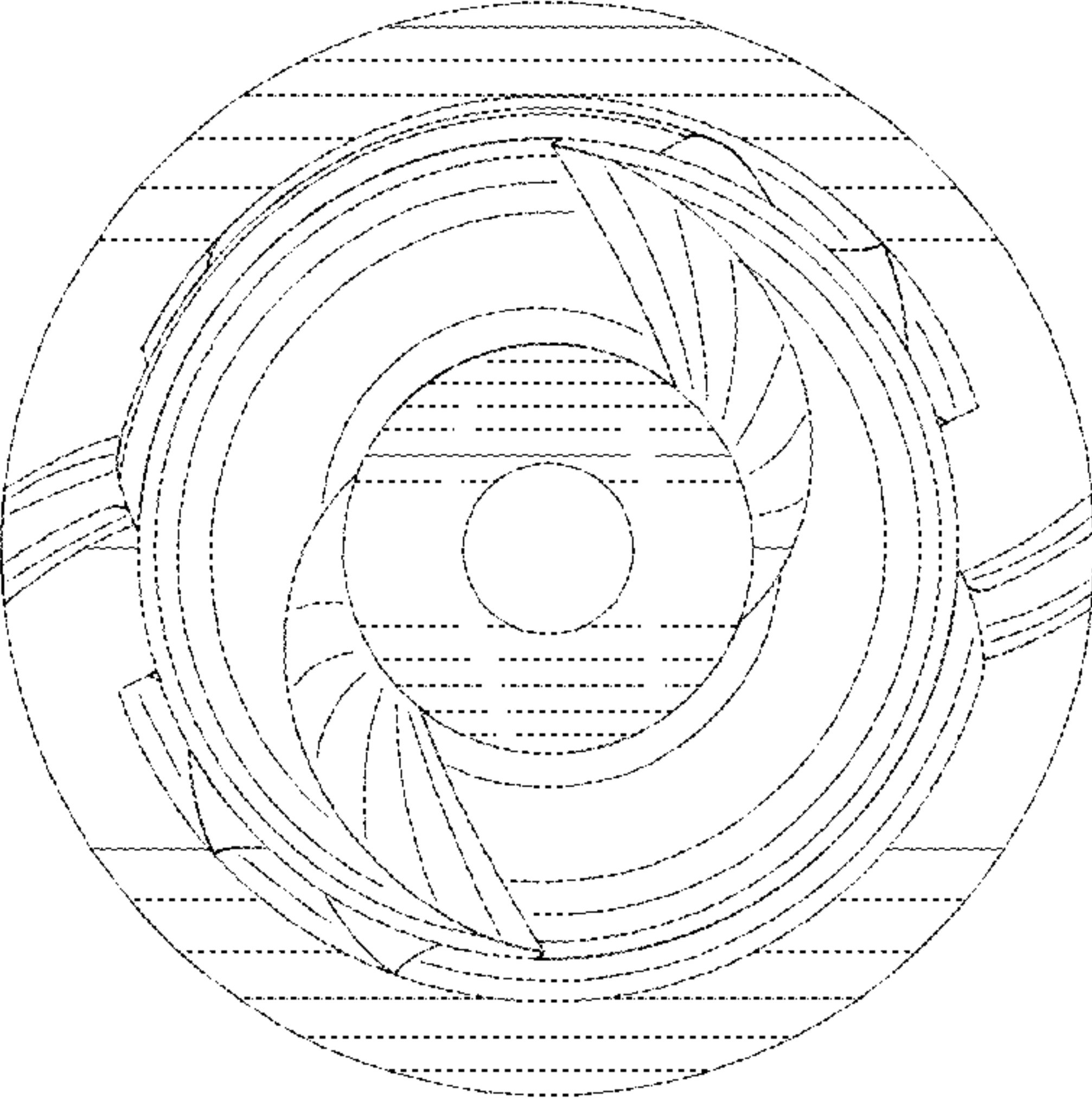


FIG. 7

