



US00D797170S

(12) **United States Design Patent** (10) **Patent No.:** **US D797,170 S**
Sharivker et al. (45) **Date of Patent:** **** Sep. 12, 2017**

(54) **CUTTING TOOL WITH W-SHAPED FLUTE GULLY**

(71) Applicant: **Kennametal Inc.**, Latrobe, PA (US)

(72) Inventors: **Leonid Boris Sharivker**, Nahariya (IL); **Sergei Vladimir Boulakhov**, Nahariya (IL)

(73) Assignee: **KENNAMETAL INC.**, Latrobe, PA (US)

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

(21) Appl. No.: **29/583,538**

(22) Filed: **Nov. 7, 2016**

Related U.S. Application Data

(62) Division of application No. 29/490,832, filed on May 14, 2014, now Pat. No. Des. 774,573.

(30) **Foreign Application Priority Data**

Apr. 10, 2014 (IL) 232079

(51) **LOC (10) Cl.** **15-09**

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

(58) **Field of Classification Search**
USPC D15/131, 132, 138, 139, 140
CPC . B23B 51/02; B23B 2251/14; B23B 2251/50;
B23B 2251/204; B23B 2226/75; B28D
1/146
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,003,224 A 10/1961 Ribich
4,244,318 A 1/1981 Chen
4,895,102 A 1/1990 Kachel

5,049,009 A 9/1991 Beck
5,176,476 A 1/1993 Duffy
6,105,467 A 8/2000 Baker
6,164,876 A 12/2000 Cordovano
6,991,409 B2 1/2006 Noland
7,186,063 B2 3/2007 Volokh
D621,426 S * 8/2010 Fusejima D15/122
8,091,504 B2 1/2012 Hsieh
D654,935 S * 2/2012 Kishimura D15/122
D655,323 S * 3/2012 Brockhage D15/145
8,211,234 B2 7/2012 Rosenblatt

(Continued)

FOREIGN PATENT DOCUMENTS

DE 10015492 A1 10/2000
DE 10016844 B4 10/2009

(Continued)

OTHER PUBLICATIONS

Oct. 13, 2015 First office action.

(Continued)

Primary Examiner — Patricia Palasik

(74) *Attorney, Agent, or Firm* — Ian K. Samways

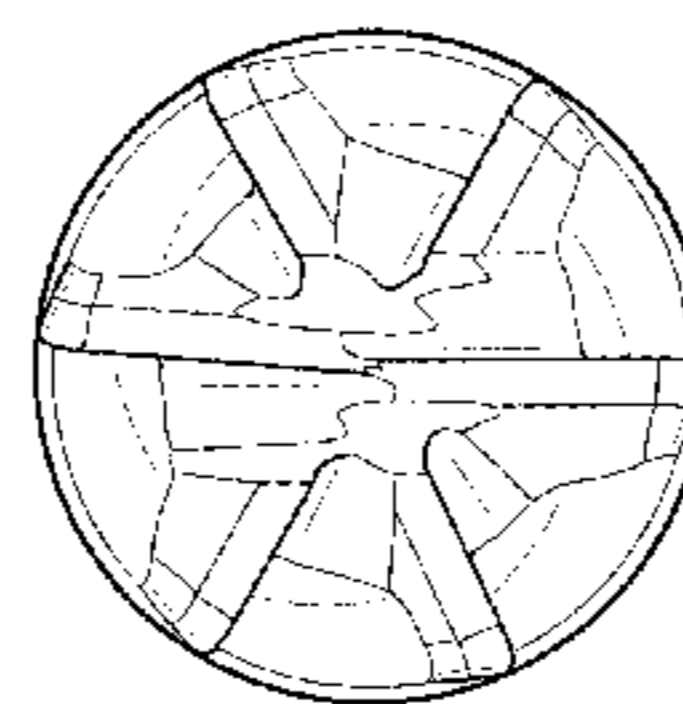
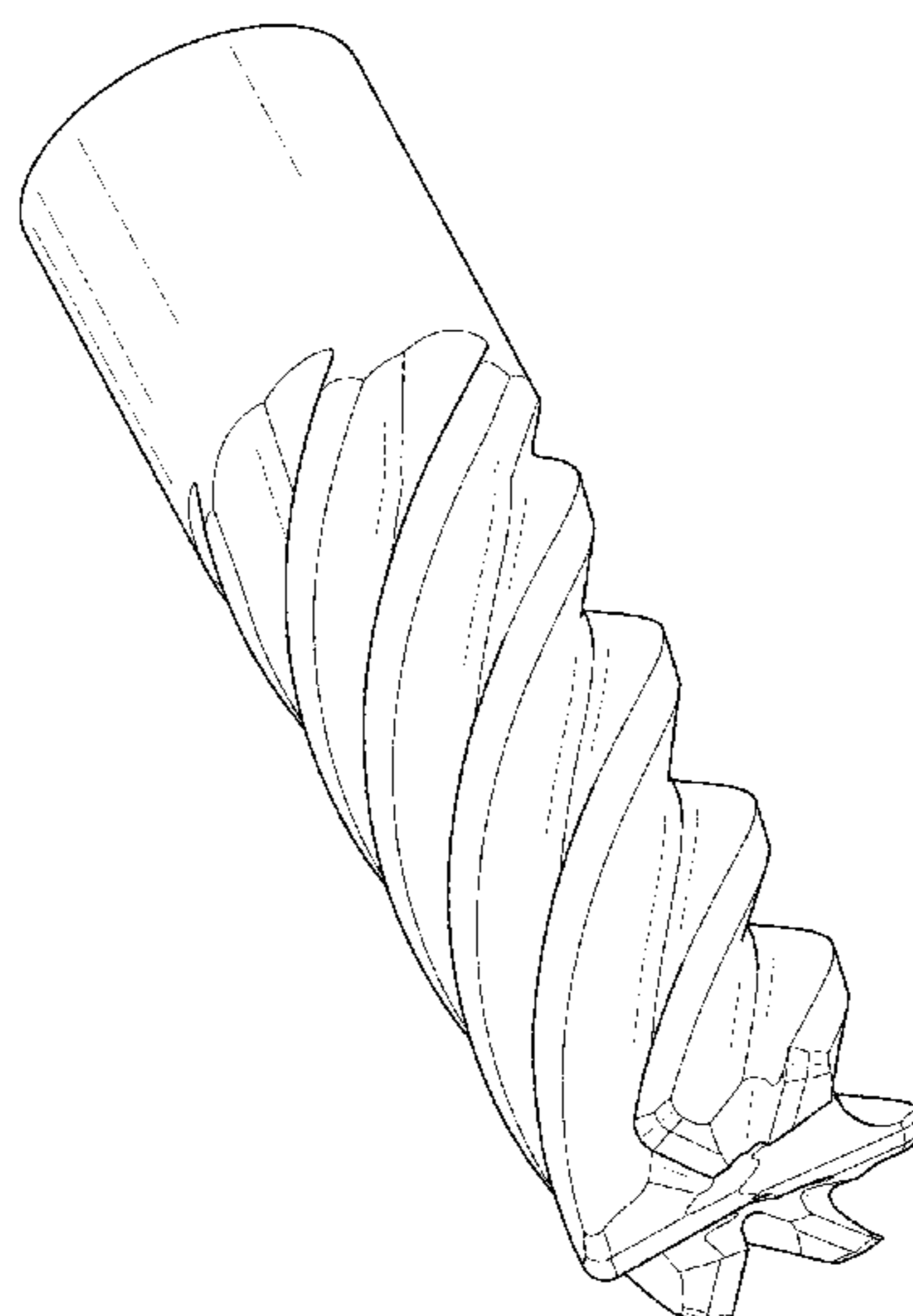
(57) **CLAIM**

We claim the ornamental design for a cutting tool with W-shaped flute gully, as shown and described.

DESCRIPTION

FIG. 1 is an isometric top view of a cutting tool showing our new design with six W-shaped flutes;
FIG. 2 is a side view of the cutting tool of FIG. 1;
FIG. 3 is a front view of the cutting tool of FIG. 1;
FIG. 4 is a rear view of the cutting tool of FIG. 1; and,
FIG. 5 is a cross sectional view of the cutting tool showing our new design with six W-shaped flutes, taken along line 5-5 in FIG. 2.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D685,825 S * 7/2013 Hoelbl D15/122
D694,298 S * 11/2013 Hoelbl D15/122
8,578,877 B2 11/2013 Tajima
8,640,755 B2 2/2014 Canale
8,671,872 B2 3/2014 Pilipauskas
8,714,890 B2 5/2014 Davancens
8,991,681 B2 3/2015 Maki
D774,573 S * 12/2016 Sharivker D15/139
2002/0031409 A1 3/2002 Sato
2006/0045637 A1 3/2006 Flynn
2006/0045638 A1 3/2006 Flynn
2006/0067797 A1 3/2006 Calamia
2007/0098506 A1 5/2007 Flynn
2007/0154272 A1 7/2007 Wells
2007/0160429 A1 7/2007 Volokh
2008/0219782 A1 9/2008 Flynn
2009/0185878 A1 7/2009 Turrini
2010/0209201 A1 8/2010 Davis
2010/0215447 A1 8/2010 Davis
2011/0085862 A1 4/2011 Shaffer
2011/0217132 A1 9/2011 Wells

2011/0268513 A1 11/2011 Takagi
2012/0183363 A1 7/2012 Davis
2012/0282044 A1 11/2012 Volokh

FOREIGN PATENT DOCUMENTS

EP 329624 A2 8/1989
GB 2446036 A 7/2008
GB 2495200 4/2013
JP 62138616 8/1987
JP 62138616 A2 8/1987
JP 07237018 A 9/1995
JP 8168915 7/1996
JP 2006110683 4/2006

OTHER PUBLICATIONS

Mar. 28, 2016 Office action (3 months).
Apr. 26, 2016 Office action (3 months).
May 17, 2016 First office action.
Aug. 18, 2016 Final Office Action.

* cited by examiner



FIG. 1

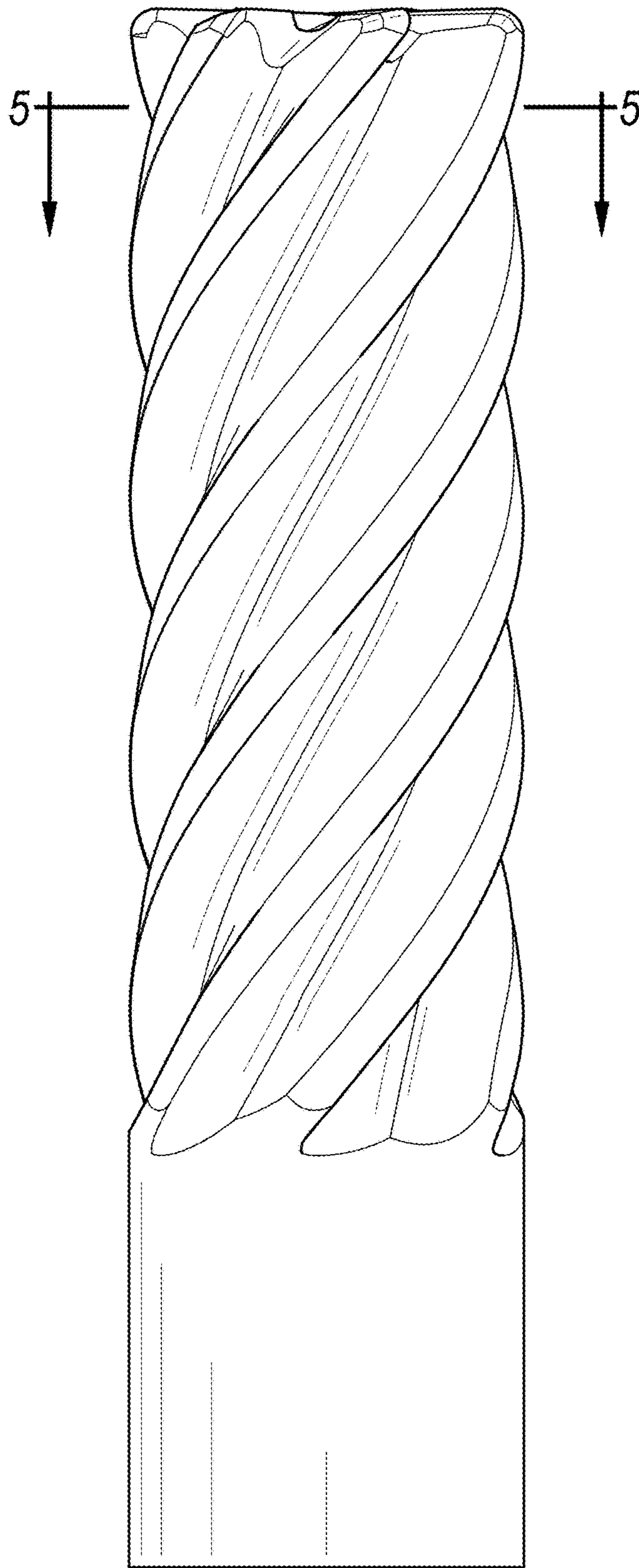


FIG. 2

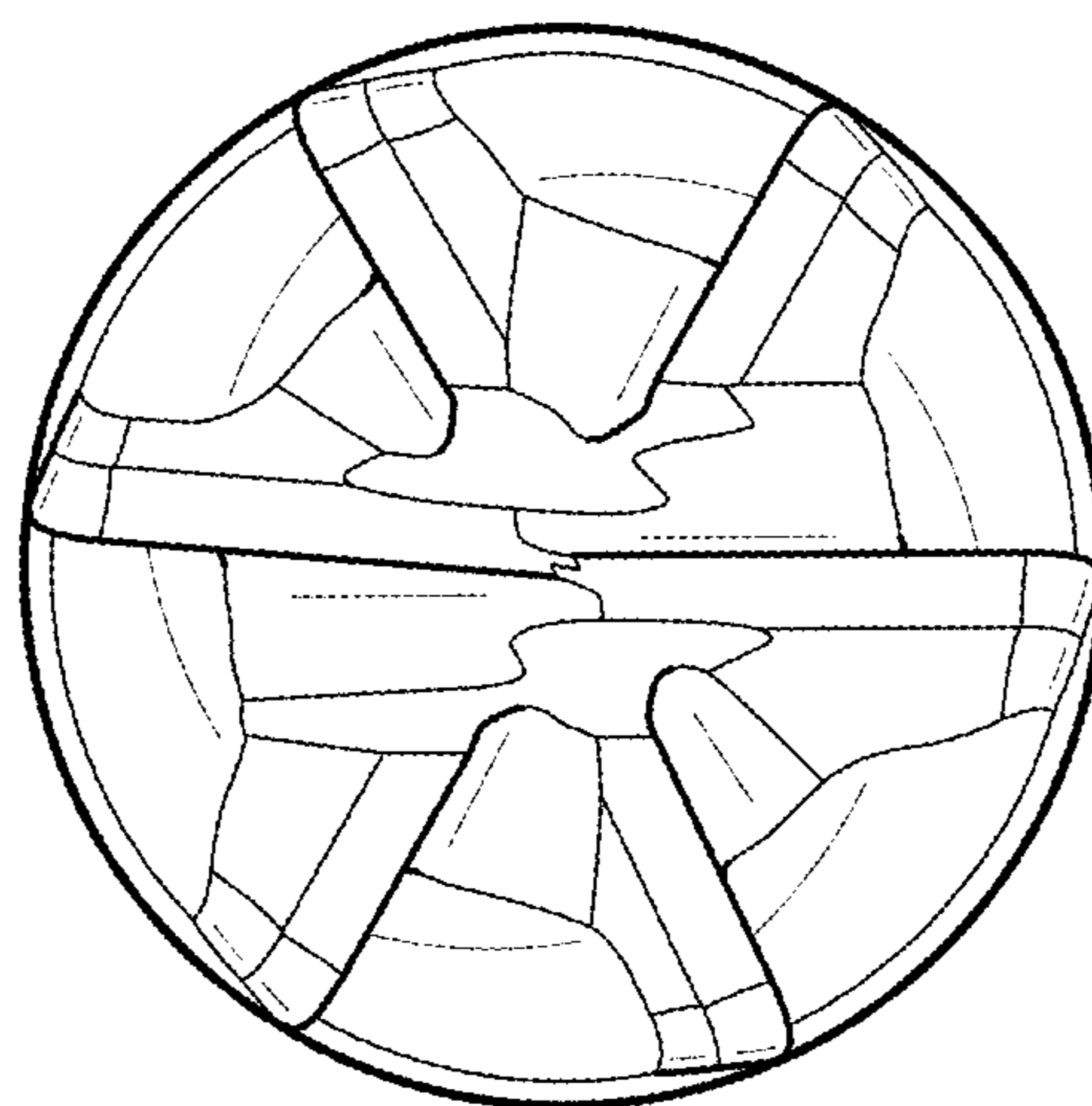


FIG. 3

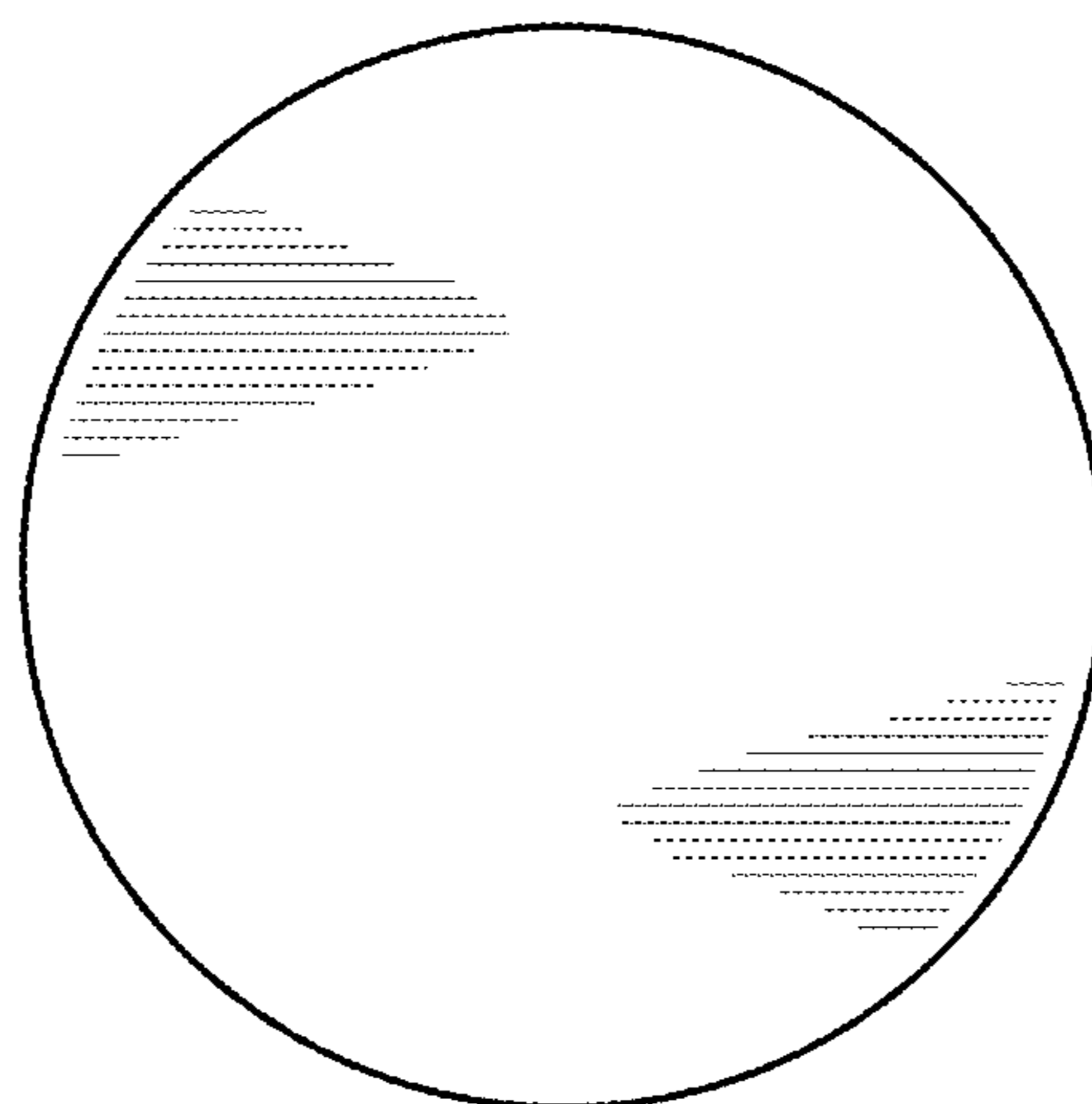


FIG. 4

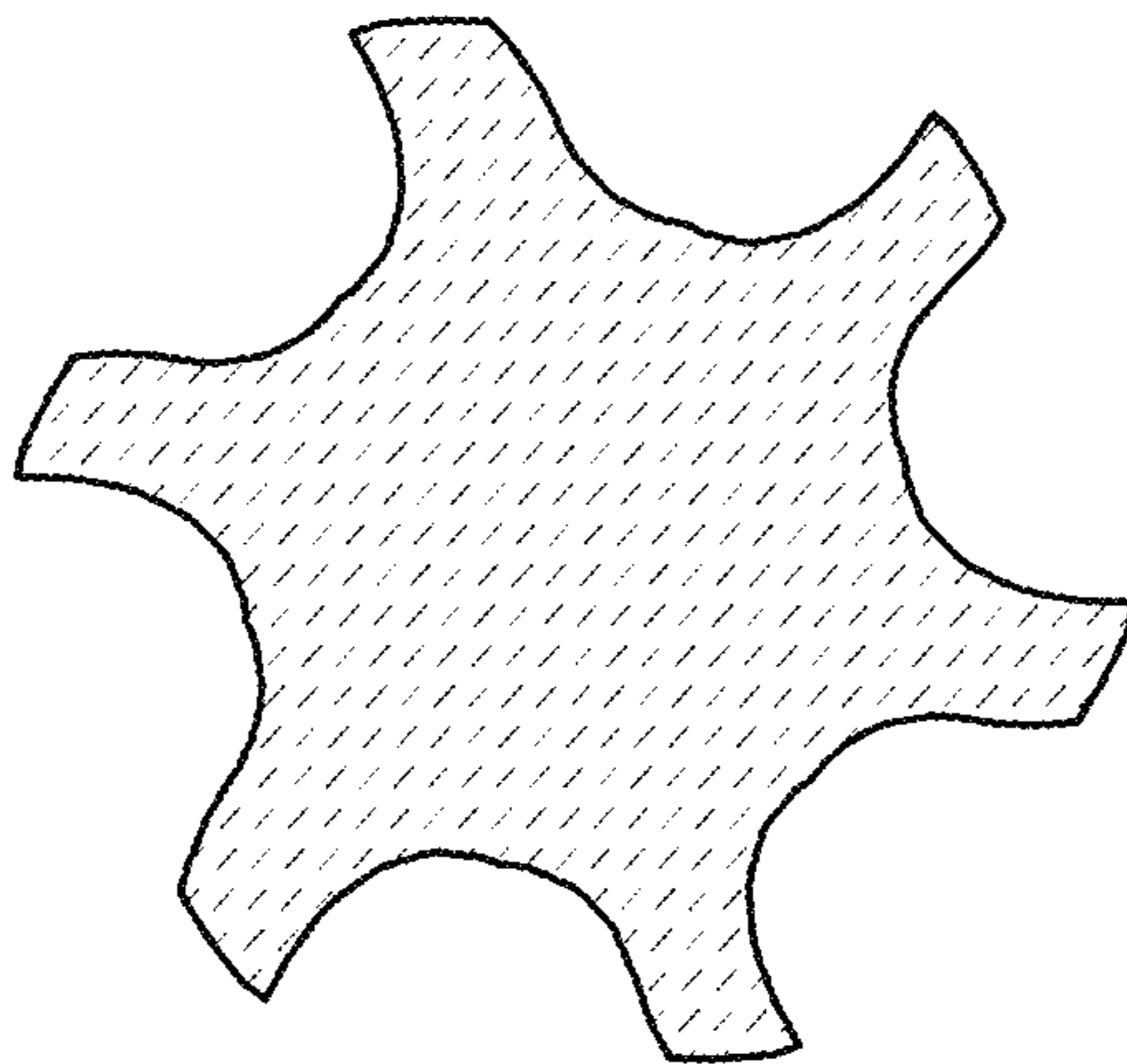


FIG. 5