



US00D925628S

(12) **United States Design Patent** (10) **Patent No.:** **US D925,628 S**
Sewell et al. (45) **Date of Patent:** **** Jul. 20, 2021**

(54) **MICROTRENCHER BLADE**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **The Charles Machine Works, Inc.**,
Perry, OK (US)

KR 301017001.0000 * 7/2019

(72) Inventors: **Cody L. Sewell**, Perry, OK (US);
Michael C. Walgren, Lake Havasu
City, AZ (US)

OTHER PUBLICATIONS

Ditch Witch Catalog, Earliest available date Dec. 31, 2016 [Online],
[Site visited Jul. 1, 2020] Available From Internet, URL:<<https://www.ditchwitch.com/catalog/diggingsystems/html5/index.html?page=68&noflash>> (Year: 2016).*

(73) Assignee: **The Charles Machine Works, Inc.**,
Perry, OK (US)

Primary Examiner — Sheryl Lane

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

Assistant Examiner — Mark T. Philipps

(21) Appl. No.: **29/681,545**

(74) *Attorney, Agent, or Firm* — Tomlinson McKinstry,
P.C.

(22) Filed: **Feb. 26, 2019**

(57) **CLAIM**

(51) **LOC (13) Cl.** **15-09**

The ornamental design for a microtrencher blade, as shown
and described.

(52) **U.S. Cl.**

DESCRIPTION

USPC **D15/139**

(58) **Field of Classification Search**

USPC D15/77, 133, 138, 139; D8/66, 5, 8, 9,
D8/20; 144/176, 218, 231, 235, 241,
144/294; 83/840; 241/194, 294

CPC A01G 23/067; B02C 4/305; B02C 7/12;
B02C 18/18; B02C 13/28; B02C 13/2804;
B27G 13/00; B27G 13/10; B27L 11/00;
B26D 2001/0046; B26D 2001/006; B26D
2001/0066; B27B 3/30; B27B 3/28;
B23D 45/00; B23D 45/12; B23D 45/16;
B23D 45/003; B23D 61/02; B23D
61/003; B23D

FIG. 1 is a front view of a microtrencher blade showing our
new design, with the rear view being identical thereto;
FIG. 2 is a front, top and left perspective view thereof;
FIG. 3 is a rear top and right perspective view thereof;
FIG. 4 is a rear, top and left perspective view thereof;
FIG. 5 is a side view thereof;
FIG. 6 is an enlarged fragmentary view thereof, taken from
FIG. 5;
FIG. 7 is an enlarged front fragmentary view of the tooth
portion of the microtrencher blade taken from FIG. 1;
FIG. 8 is an enlarged rear fragmentary view thereof; and,
FIG. 9 is an enlarged fragmentary view thereof, taken from
FIG. 2.

(Continued)

(56) **References Cited**

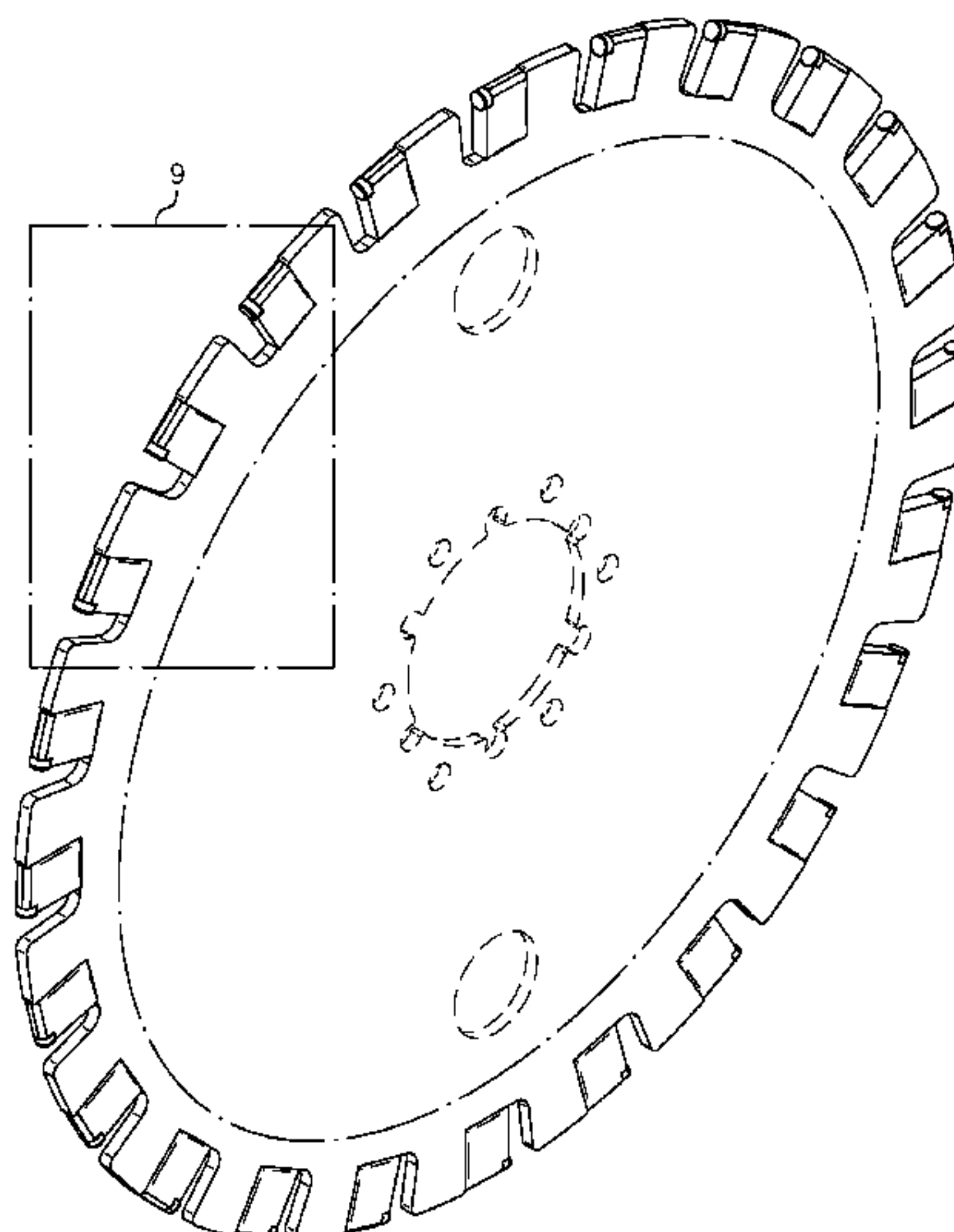
U.S. PATENT DOCUMENTS

2,675,603 A * 4/1954 Goehle B23D 61/04
407/33
3,287,793 A * 11/1966 Battersby B23D 61/02
407/61

The broken line elements are included for the purposes of
illustrating portions of the microtrencher blade and form no
part of the claimed design. Broken lines in alternating
dot-dash format represent an unclaimed border of the
claimed design. The broken lines in alternating Long Dash-
Short Dash format in FIGS. 1, 2, and 5 represent callout
locations for the expanded fragmentary views thereof.

(Continued)

1 Claim, 7 Drawing Sheets



(58) **Field of Classification Search**
 CPC .. 61/021; B23D 61/023; B23D 61/025; B23D
 61/04
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,818,561 A * 6/1974 Montana B23D 61/06
 407/46
 4,011,783 A * 3/1977 Mobley B23D 61/021
 83/846
 4,114,494 A * 9/1978 Budke B23D 61/021
 83/835
 4,222,298 A * 9/1980 James B23D 61/021
 144/218
 4,563,929 A * 1/1986 Ringlee A01G 23/091
 144/241
 4,604,933 A * 8/1986 Leshner B23D 61/021
 83/839
 D293,074 S * 12/1987 Inoue D15/133
 5,129,296 A * 7/1992 Wayne B23D 45/00
 144/218
 5,211,212 A * 5/1993 Carlson A01G 23/091
 144/241
 5,647,264 A * 7/1997 Proulx B23D 61/021
 83/840
 5,758,561 A * 6/1998 Curtsinger B23D 61/025
 83/676
 6,364,227 B1 * 4/2002 Dorscht B02C 13/2804
 241/197
 6,386,469 B1 * 5/2002 Meister B26D 7/2614
 241/294
 D459,171 S * 6/2002 Hong D8/20
 D492,170 S * 6/2004 Auger D8/20
 D559,638 S * 1/2008 Park D15/139
 7,815,136 B2 * 10/2010 Arnston B02C 18/146
 241/294
 8,898,913 B1 * 12/2014 Lones B28D 1/04
 30/375
 D796,291 S * 9/2017 Sewell D15/133
 D796,292 S * 9/2017 Sewell D15/133
 10,704,227 B2 * 7/2020 Sewell E02F 5/08
 10,751,817 B1 * 8/2020 Smith B23D 63/12

2002/0000150 A1 * 1/2002 Kurelek B23D 61/04
 83/835
 2002/0002892 A1 * 1/2002 DiSabatino A01G 23/091
 83/835
 2003/0029297 A1 * 2/2003 Haughton B27B 33/08
 83/853
 2007/0095190 A1 * 5/2007 Asada B23D 61/04
 83/848
 2008/0017009 A1 * 1/2008 Setliff B23D 61/04
 83/848
 2008/0142118 A1 * 6/2008 Corfe A01G 23/091
 144/34.1
 2010/0170379 A1 * 7/2010 MacLennan B23D 65/00
 83/840
 2011/0100510 A1 * 5/2011 Hinchliff B27G 13/10
 144/230
 2012/0132052 A1 * 5/2012 Chen B23D 61/023
 83/838
 2013/0125724 A1 * 5/2013 MacLennan B23D 61/021
 83/469
 2013/0161428 A1 * 6/2013 Hongo B02C 13/2804
 241/73
 2014/0196818 A1 * 7/2014 Weinberg A01G 23/067
 144/235
 2014/0260878 A1 * 9/2014 Bird B23D 61/025
 83/835
 2015/0083275 A1 * 3/2015 Paumier B27B 33/20
 144/24.12
 2016/0044876 A1 * 2/2016 Green B23D 61/06
 144/235
 2016/0135388 A1 * 5/2016 Leonardi A01G 23/067
 144/235
 2017/0012572 A1 * 1/2017 Takano B23D 45/12
 2017/0120355 A1 * 5/2017 Brutscher B23D 61/025
 2017/0350093 A1 * 12/2017 Sewell E02F 5/08
 2018/0215031 A1 * 8/2018 Sundberg F16B 43/00
 2018/0272447 A1 * 9/2018 Ando B23D 61/04
 2018/0290149 A1 * 10/2018 Ver Steeg B02C 18/18
 2019/0001424 A1 * 1/2019 Baratta B23D 61/023
 2019/0240861 A1 * 8/2019 Daining A01G 23/067
 2020/0047267 A1 * 2/2020 Nakano B23D 61/025
 2020/0139463 A1 * 5/2020 Bird B23D 61/021
 2020/0222998 A1 * 7/2020 Hall B23D 61/021
 2020/0316700 A1 * 10/2020 Elliston B23D 61/021

* cited by examiner

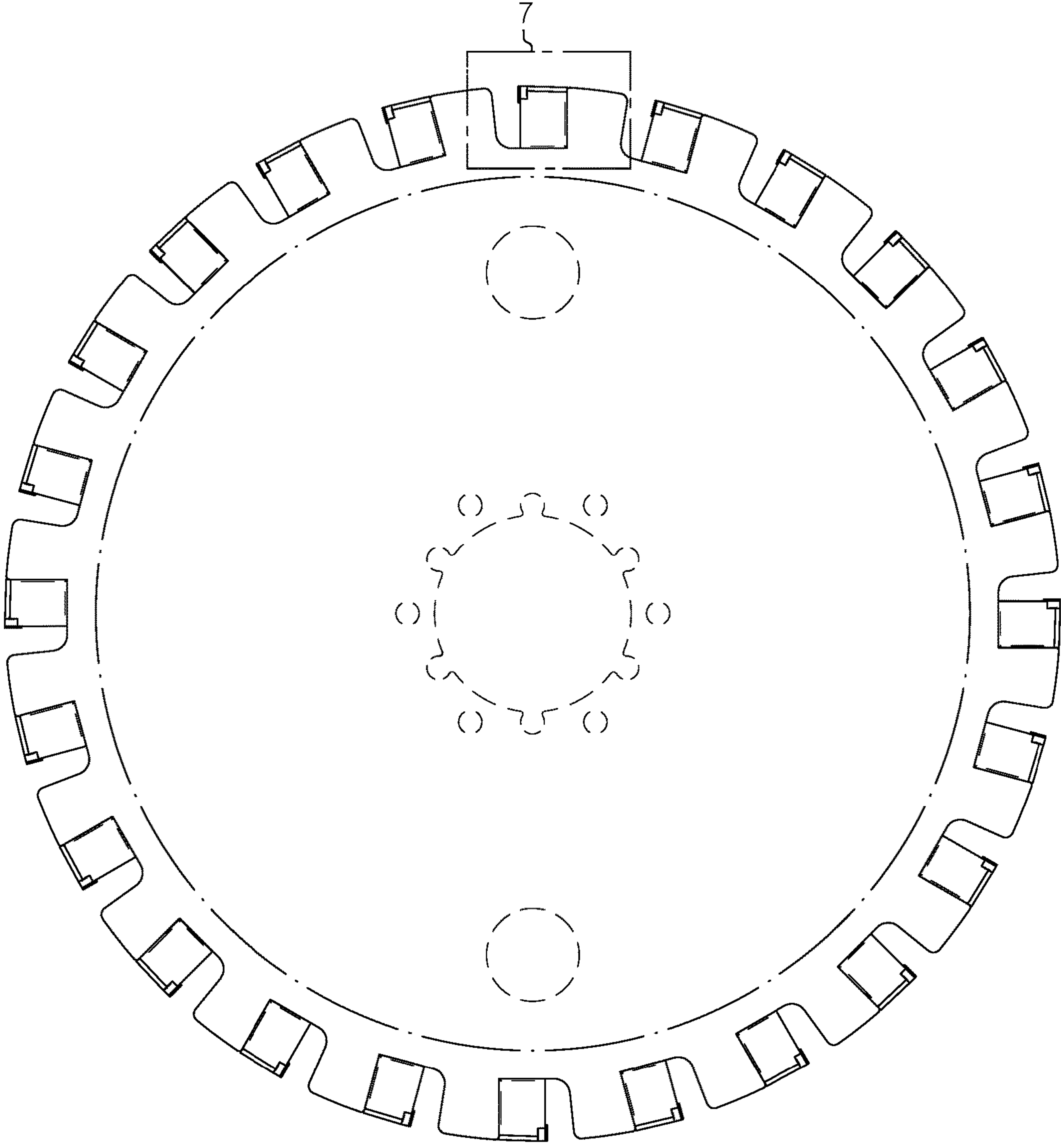


FIG. 1

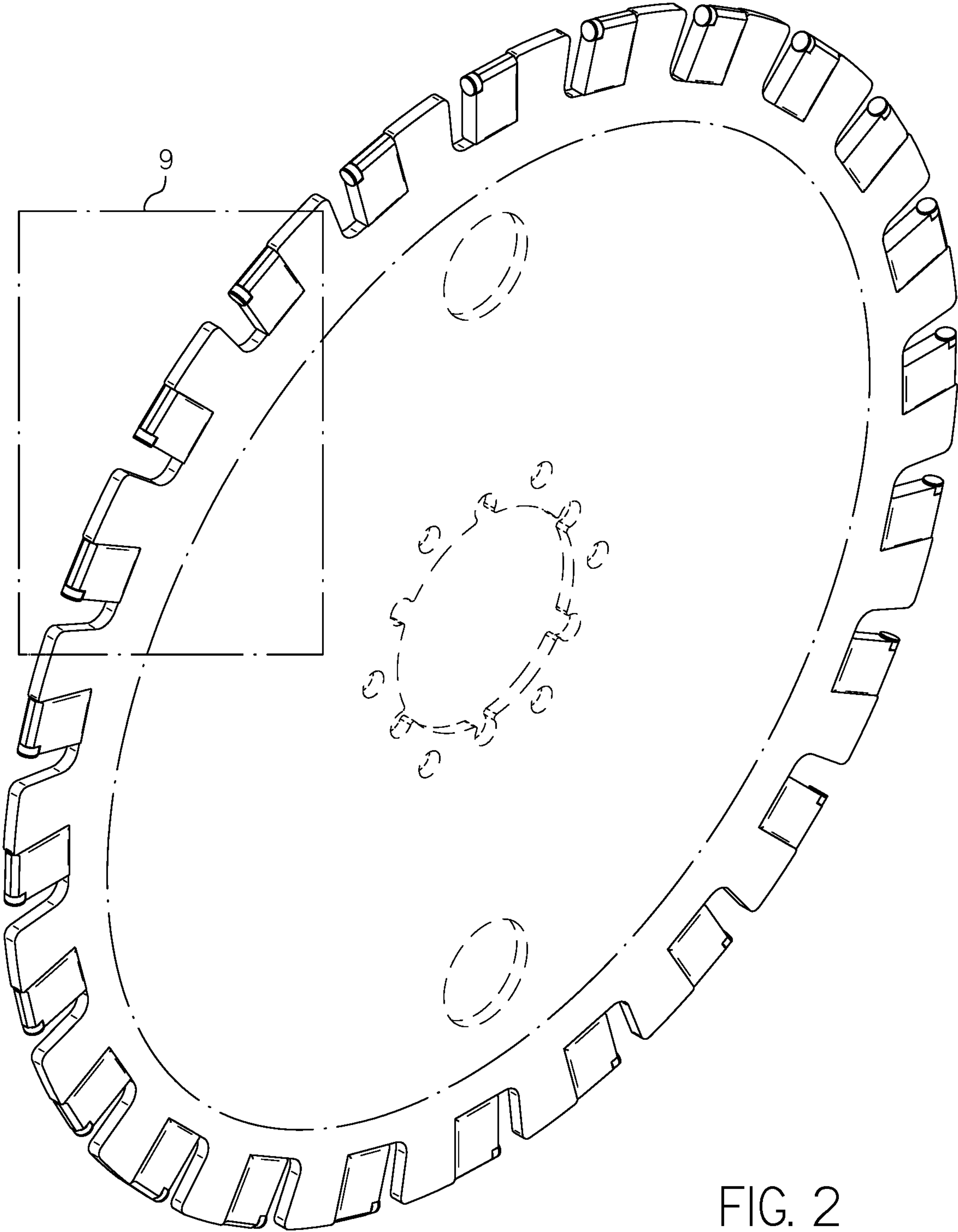


FIG. 2

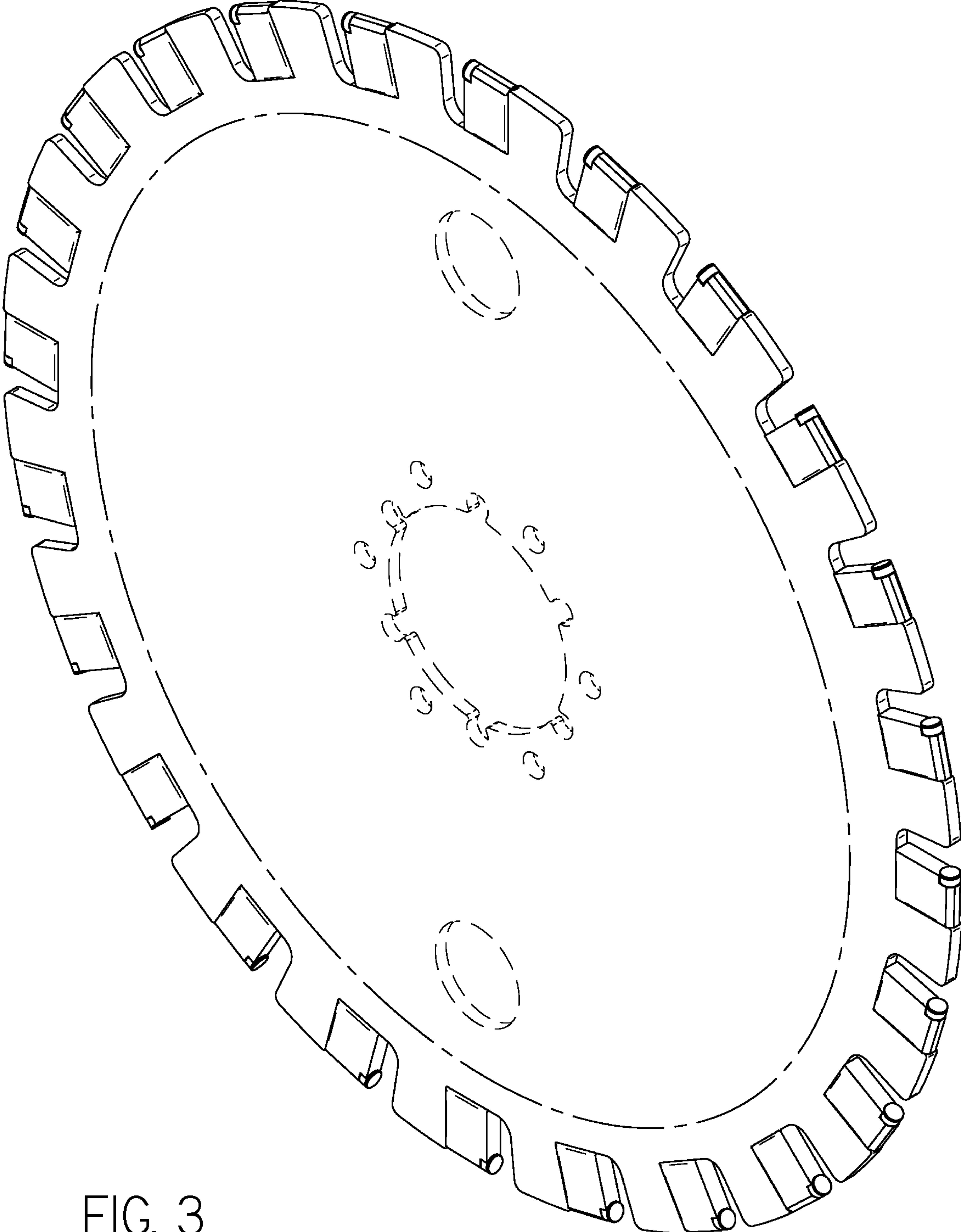


FIG. 3

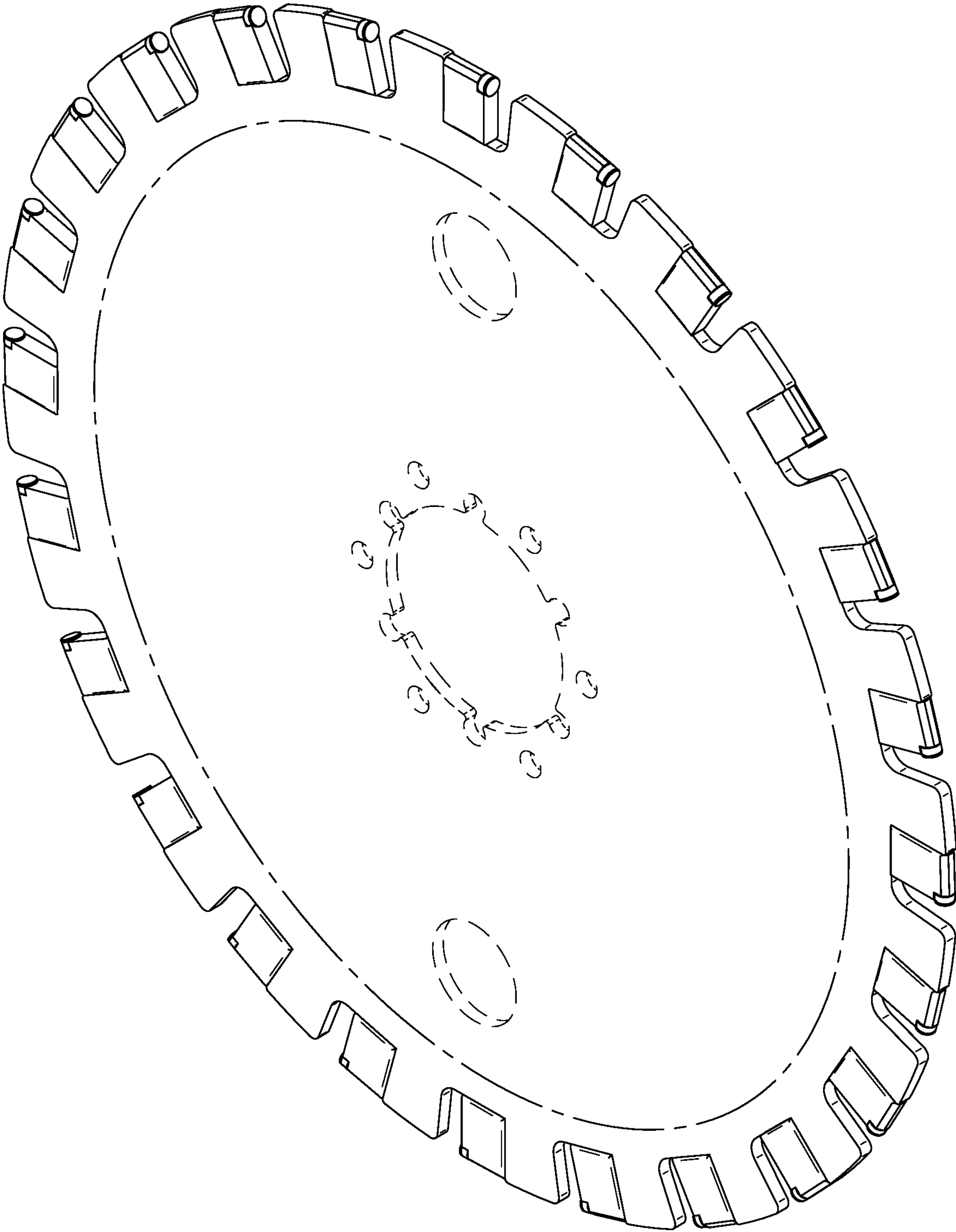


FIG. 4

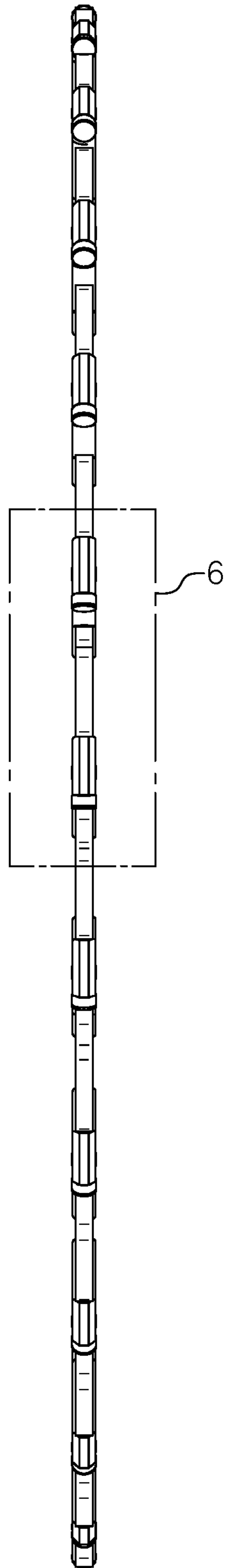


FIG. 5

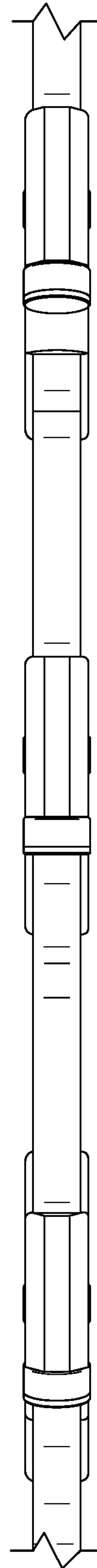


FIG. 6

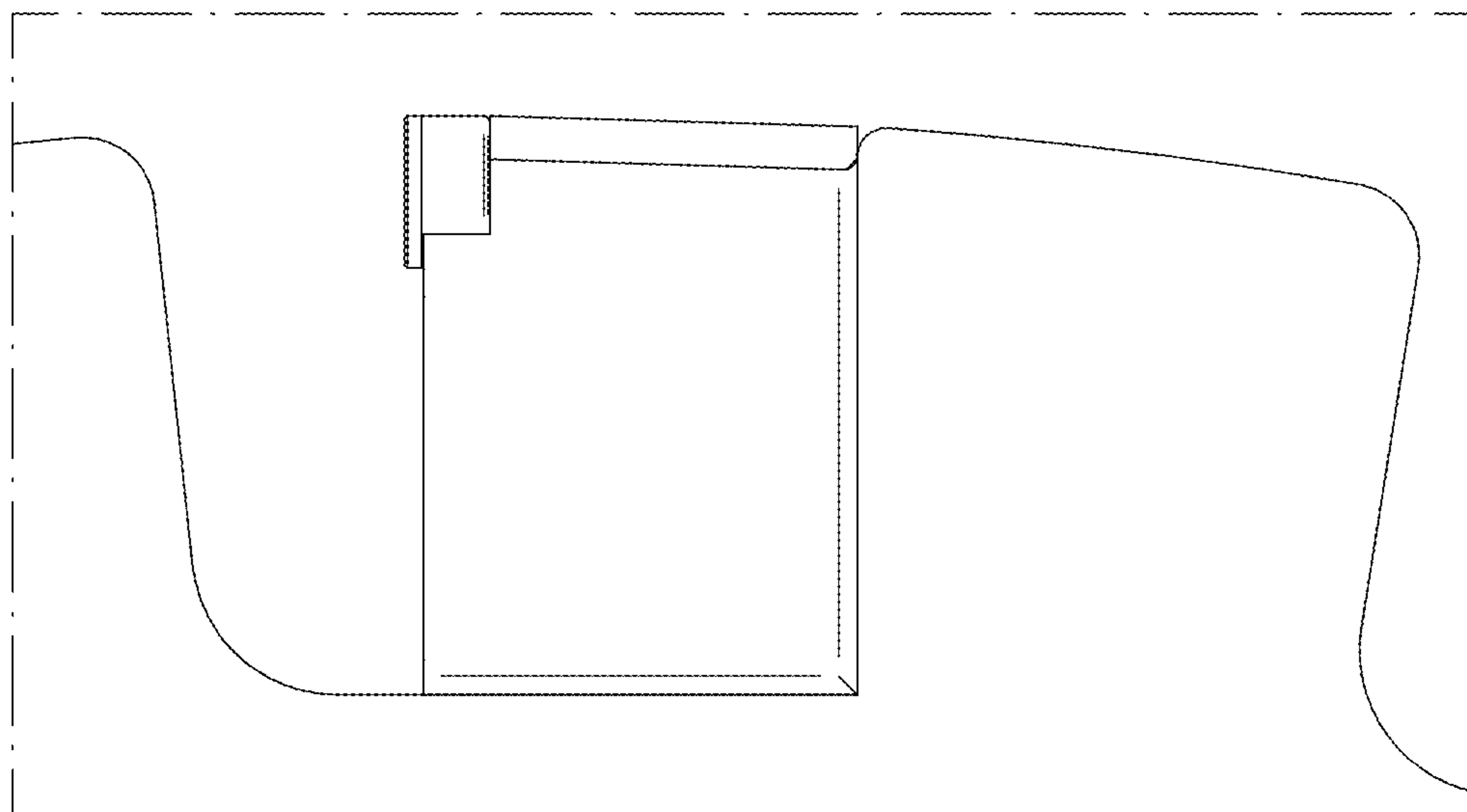


FIG. 7

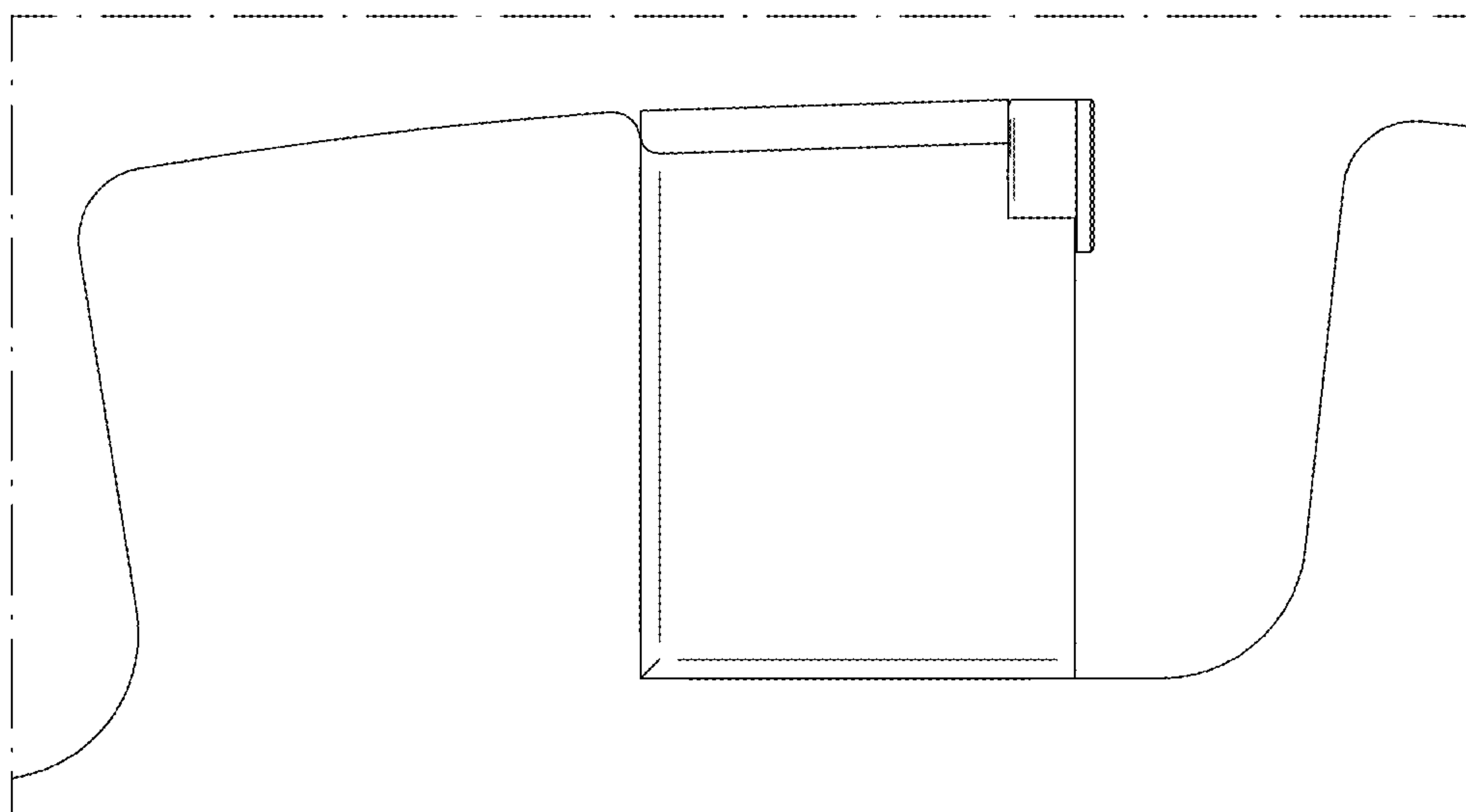


FIG. 8

FIG. 9

