



US00D808236S

(12) **United States Design Patent** (10) **Patent No.:** **US D808,236 S**
Schumacher et al. (45) **Date of Patent:** **** Jan. 23, 2018**

(54) **SPRING MEMBER OF AN OPTICAL FIBER POLISHING FIXTURE**

(71) Applicant: **Domaille Engineering, LLC**,
Rochester, MN (US)

(72) Inventors: **Gregory A. Schumacher**, Plainview,
MN (US); **Jill B. Christie**, St. Charles,
MN (US); **Timothy E. Kanne**,
Rochester, MN (US)

(73) Assignee: **Domaille Engineering, LLC**,
Rochester, MN (US)

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

(21) Appl. No.: **29/556,095**

(22) Filed: **Feb. 26, 2016**

(51) **LOC (11) Cl.** **08-05**

(52) **U.S. Cl.**
USPC **D8/70**

(58) **Field of Classification Search**
USPC D8/70; D15/140; 125/15, 25, 13.01;
403/3, 316, 359.3, 163; 451/8, 28, 57,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,142,182 A * 1/1939 Dempsey B24D 9/08
451/511
2,214,351 A * 9/1940 Schlegel B24D 13/145
15/230.13

(Continued)

OTHER PUBLICATIONS

Domaille Engineering, "Technology for Tomorrow," Fixture Prod-
uct Book, 8 pages, 2014.

(Continued)

Primary Examiner — Austin Murphy

(74) *Attorney, Agent, or Firm* — Dicke, Billig & Czaja,
PLLC

(57) **CLAIM**

The ornamental design for a spring member of an optical
fiber polishing fixture, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a spring member of an
optical fiber polishing fixture showing an embodiment of the
new design;

FIG. 2 is a top view of the embodiment shown in FIG. 1;
FIG. 3 is a bottom view of the embodiment shown in FIG.
1;

FIG. 4 is a top view of a portion of the embodiment shown
in FIG. 1;

FIG. 5 is a side perspective view of the portion shown in
FIG. 4;

FIG. 6 is another side perspective view of the portion shown
in FIG. 4;

FIG. 7 is a front perspective view of a spring member of an
optical fiber polishing fixture showing another embodiment
of the new design;

FIG. 8 is a top view of the embodiment shown in FIG. 7;
FIG. 9 is a bottom view of the embodiment shown in FIG.
7;

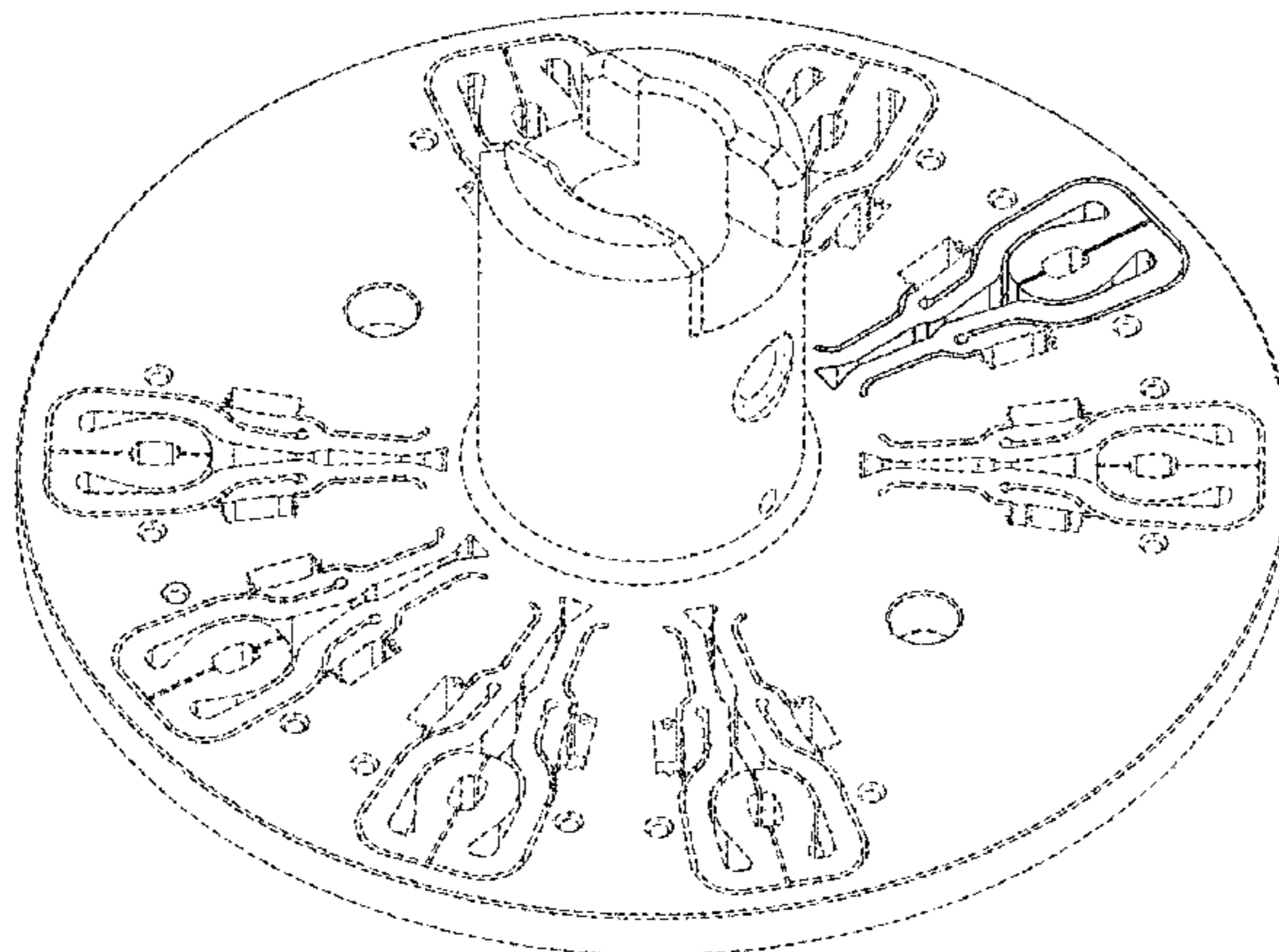
FIG. 10 is a top view of a portion of the embodiment shown
in FIG. 7;

FIG. 11 is a side perspective view of the portion shown in
FIG. 10; and,

FIG. 12 is another side perspective view of the portion
shown in FIG. 10.

Any broken line illustrations of environmental structure in
the drawings are not part of the design sought to be patented.
The broken lines showing an optical fiber polishing fixture
in FIGS. 1-3 and 7-9 illustrate environmental structure only
and do not form part of the claimed design. The broken lines
showing additional spring members in FIGS. 1-3 and 7-9
illustrate environmental structure only and do not form part
of the claimed design. FIGS. 4-6 and 10-12 show a portion
of the optical fiber polishing fixture and include broken lines
illustrating environmental structure only and do not form
part of the claimed design.

(Continued)



The surface shading in FIGS. 4-6 and 10-12 illustrates that the spring member is part of the optical fiber polishing fixture and distinguishes between open areas and solid areas of the spring member.

1 Claim, 12 Drawing Sheets

(58) **Field of Classification Search**

USPC 451/163, 294, 342, 344, 349, 353, 356,
451/357, 359, 360, 41, 490, 494, 508,
451/509, 510, 511, 548, 559; 15/230.12,
15/28, 180

CPC B23D 61/006; B23D 65/00; B26D 7/086;
B26D 7/2614

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,228,308 A * 1/1941 Gluck B24D 9/085
451/490
2,329,222 A * 9/1943 Schlegel, Jr. B24D 13/145
15/230.12
2,366,877 A * 1/1945 Schlegel A46B 3/16
15/225
2,447,102 A * 8/1948 Strand B24D 9/085
132/73.6
2,480,508 A * 8/1949 Pimentel B24D 9/085
451/510
2,556,434 A * 6/1951 Mitchell B24D 9/08
451/488
2,775,854 A * 1/1957 Klingspor B24D 5/02
451/541
4,196,548 A * 4/1980 Hahn B24D 9/00
451/439
4,322,866 A * 4/1982 Brazzale A47L 11/164
15/180
4,599,761 A * 7/1986 Stahl B24D 13/10
15/230.12
4,622,783 A * 11/1986 Konig B24D 9/085
451/508
5,498,159 A * 3/1996 Coss A61C 1/08
433/125
5,547,418 A 8/1996 Takahashi
5,640,475 A 6/1997 Takahashi
5,927,264 A * 7/1999 Worley B24B 45/006
125/36

6,001,008 A * 12/1999 Fujimori B24B 53/017
451/443
6,408,480 B1 * 6/2002 Wiemann B24D 13/145
15/230.12
6,537,141 B1 * 3/2003 Liu B24B 37/30
451/285
D559,649 S * 1/2008 Ahn D8/70
D579,296 S * 10/2008 Popov D8/70
7,892,073 B1 * 2/2011 Smania B24B 11/10
15/21.2
D646,539 S * 10/2011 Maras D8/70
D651,062 S * 12/2011 Wackwitz D8/70
D665,242 S * 8/2012 Wackwitz D15/140
8,708,776 B1 4/2014 Frazer
D708,497 S * 7/2014 Hogleund D8/70
8,904,587 B1 * 12/2014 Patterson A47L 23/06
15/28
D732,917 S * 6/2015 Valentini D8/70
D738,177 S * 9/2015 Finnas D8/70
D738,178 S * 9/2015 Eisinger D8/70
D744,799 S * 12/2015 Rodenhouse D8/70
D744,800 S * 12/2015 Cooksey D8/70
D747,165 S * 1/2016 VanderWoude D8/70
D789,759 S * 6/2017 Fellmann D8/70

OTHER PUBLICATIONS

Domaille Engineering, LLC; Connector; Date: known of prior to Feb. 26, 2016; 8 pages; Domaille Engineering, LLC, Rochester, MN.
Domaille Engineering, LLC; Connector; Date: known of prior to Feb. 26, 2016; 2 pages; Domaille Engineering, LLC, Rochester, MN.
Domaille Engineering, LLC; AbraSave™ High Volume Fixtures; Date: known of prior to Feb. 26, 2016; 2 pages; Domaille Engineering, LLC, Rochester, MN.
Domaille Engineering, LLC; AbraSave® Ferrule Only Connector; Date: known of prior to Feb. 26, 2016; 1 page; Domaille Engineering, LLC, Rochester, MN.
Domaille Engineering, LLC; Ferrule Only Connector; Date: known of prior to Feb. 26, 2016; 1 page; Domaille Engineering, LLC, Rochester, MN.
Domaille Engineering, LLC; Ferrule Only Connector E2000; Date: known of prior to Feb. 26, 2016; 1 page; Domaille Engineering, LLC, Rochester, MN.
Domaille Engineering, LLC; Connector DCW-840-12, S/N 9872; Date: known of prior to Feb. 26, 2016; 1 page; Domaille Engineering, LLC, Rochester, MN.
Domaille Engineering, LLC; Connector SFA-DCD25635124-6, S/N 9430; Date: known of prior to Feb. 26, 2016; 1 page; Domaille Engineering, LLC, Rochester, MN.

* cited by examiner

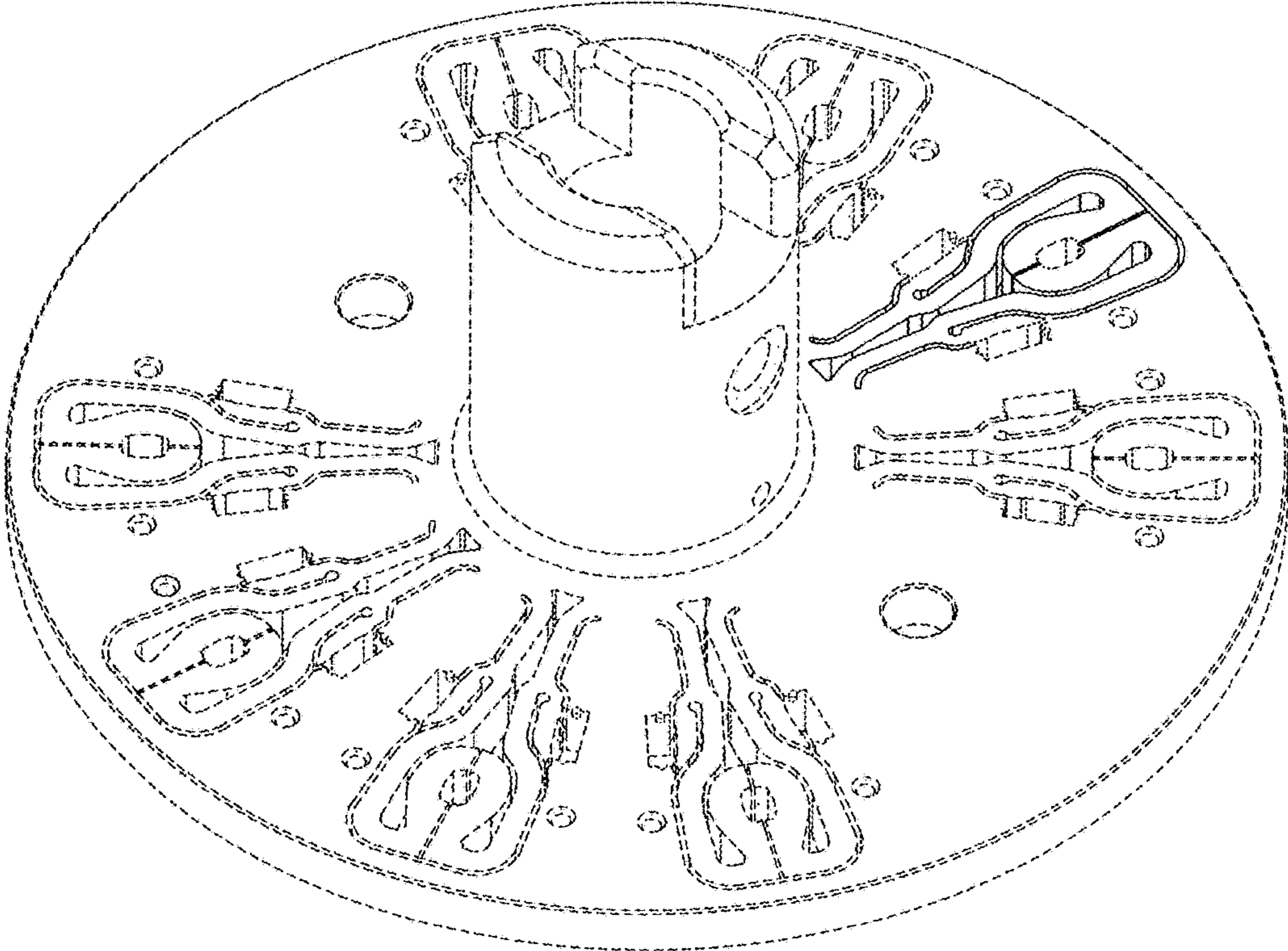


FIG. 1

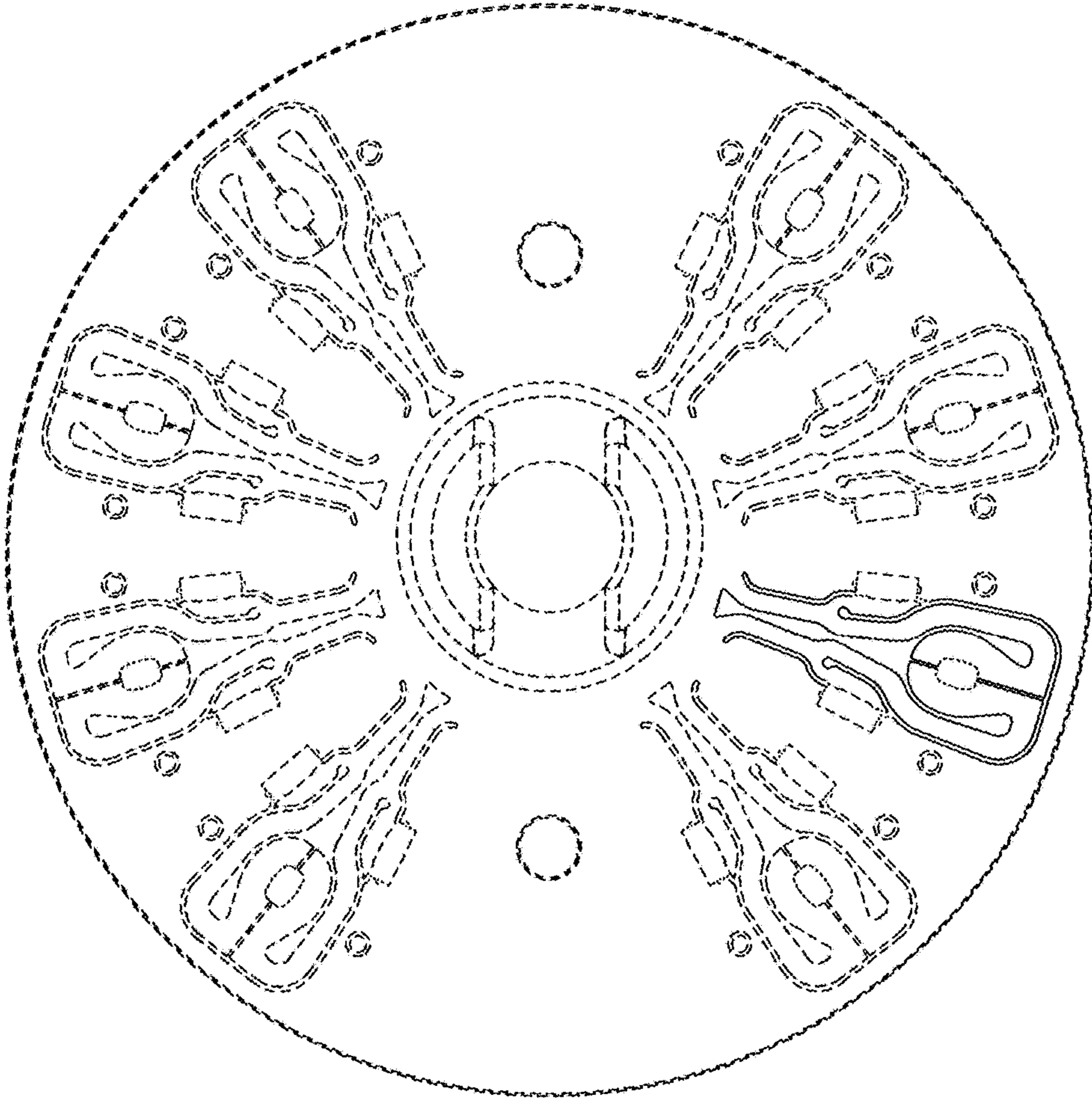


FIG. 2

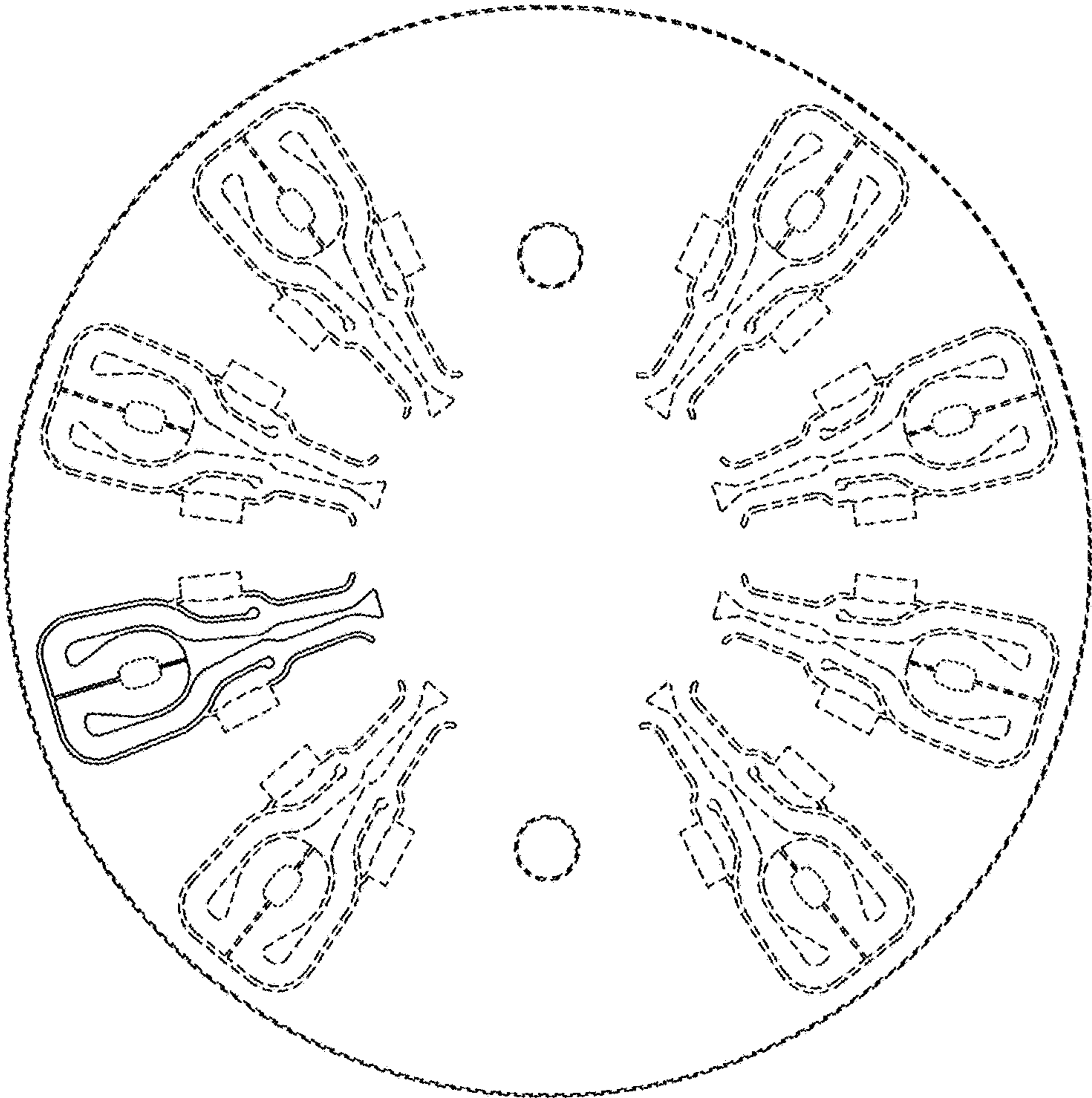


FIG. 3

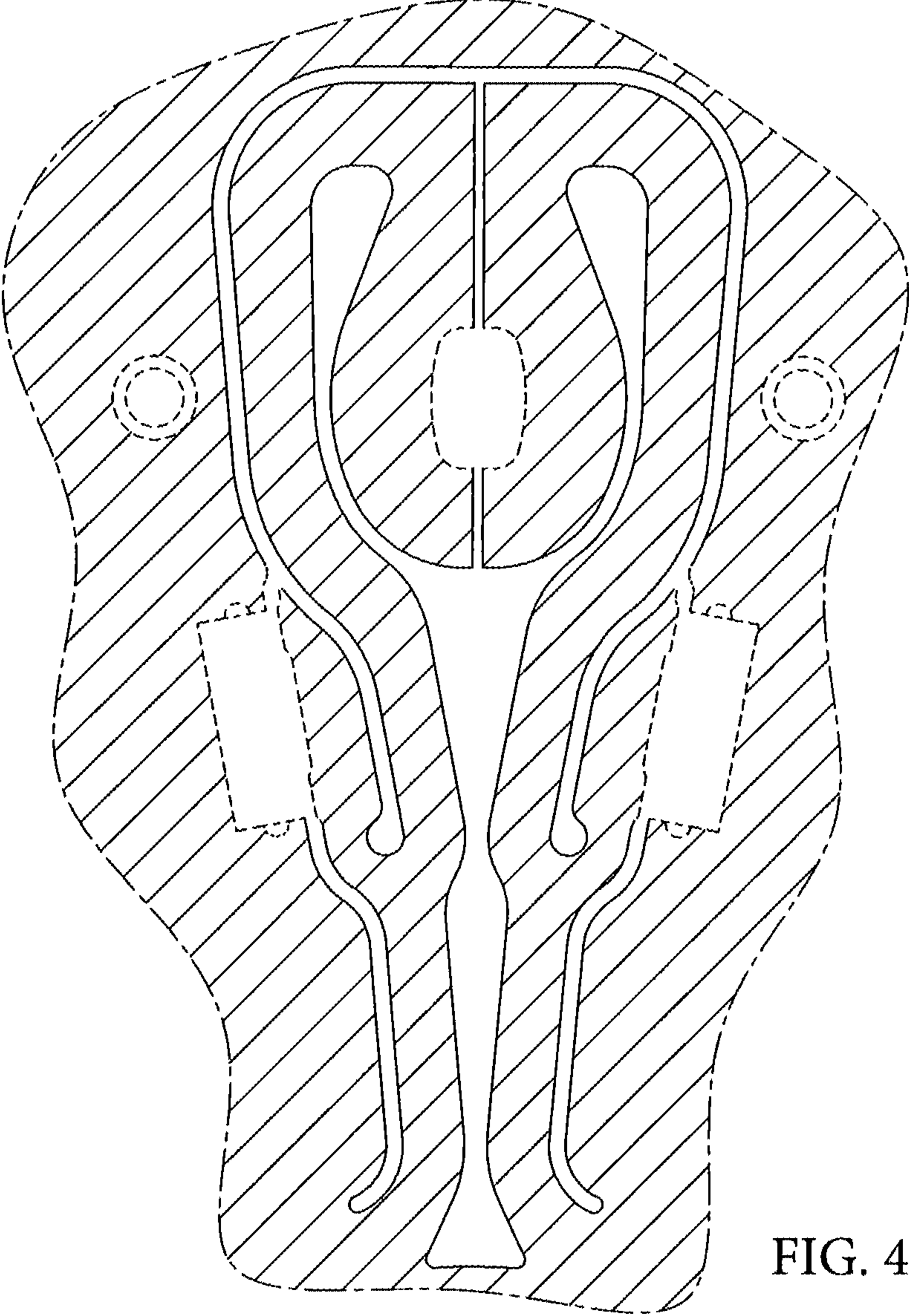


FIG. 4

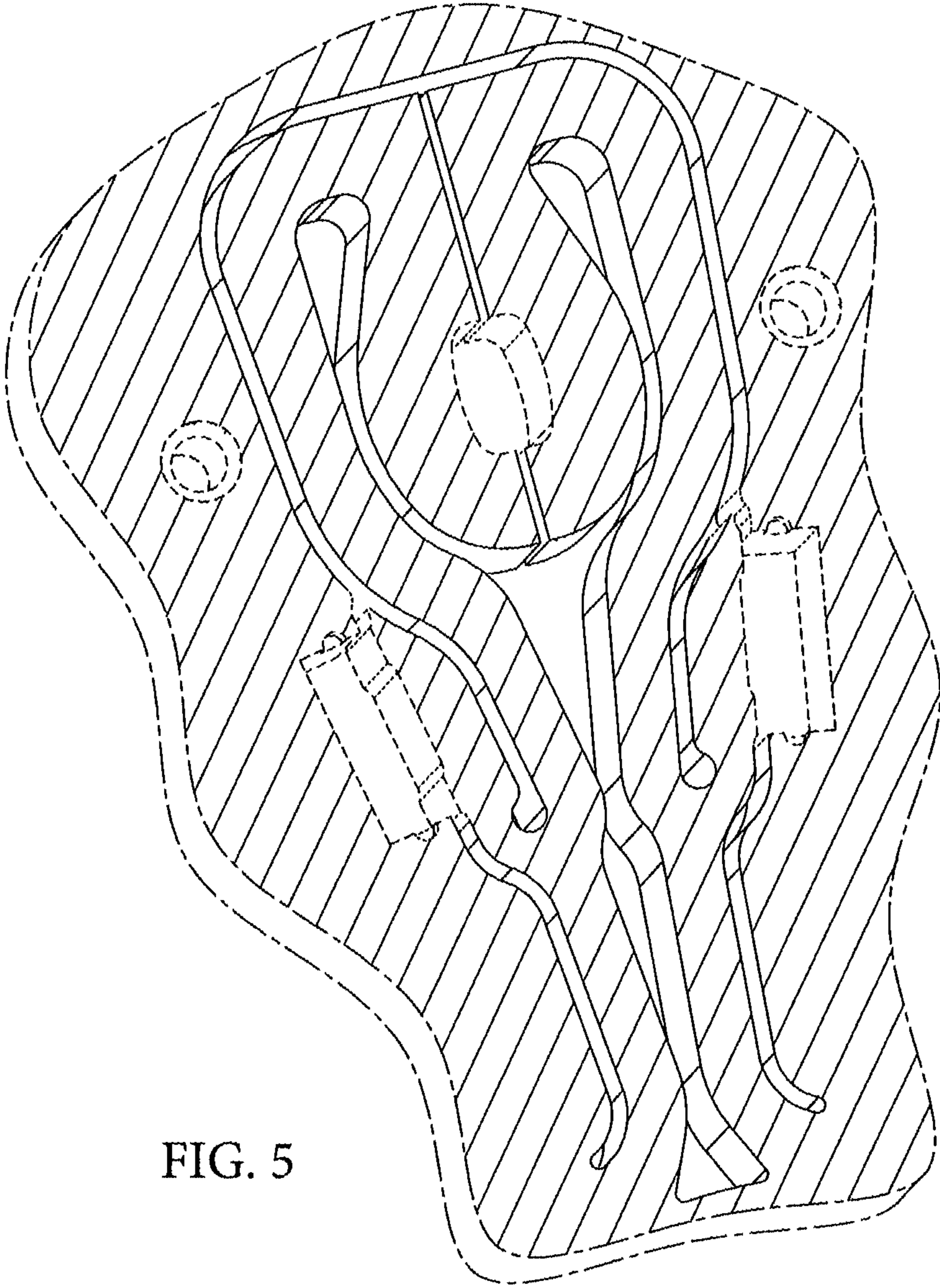


FIG. 5

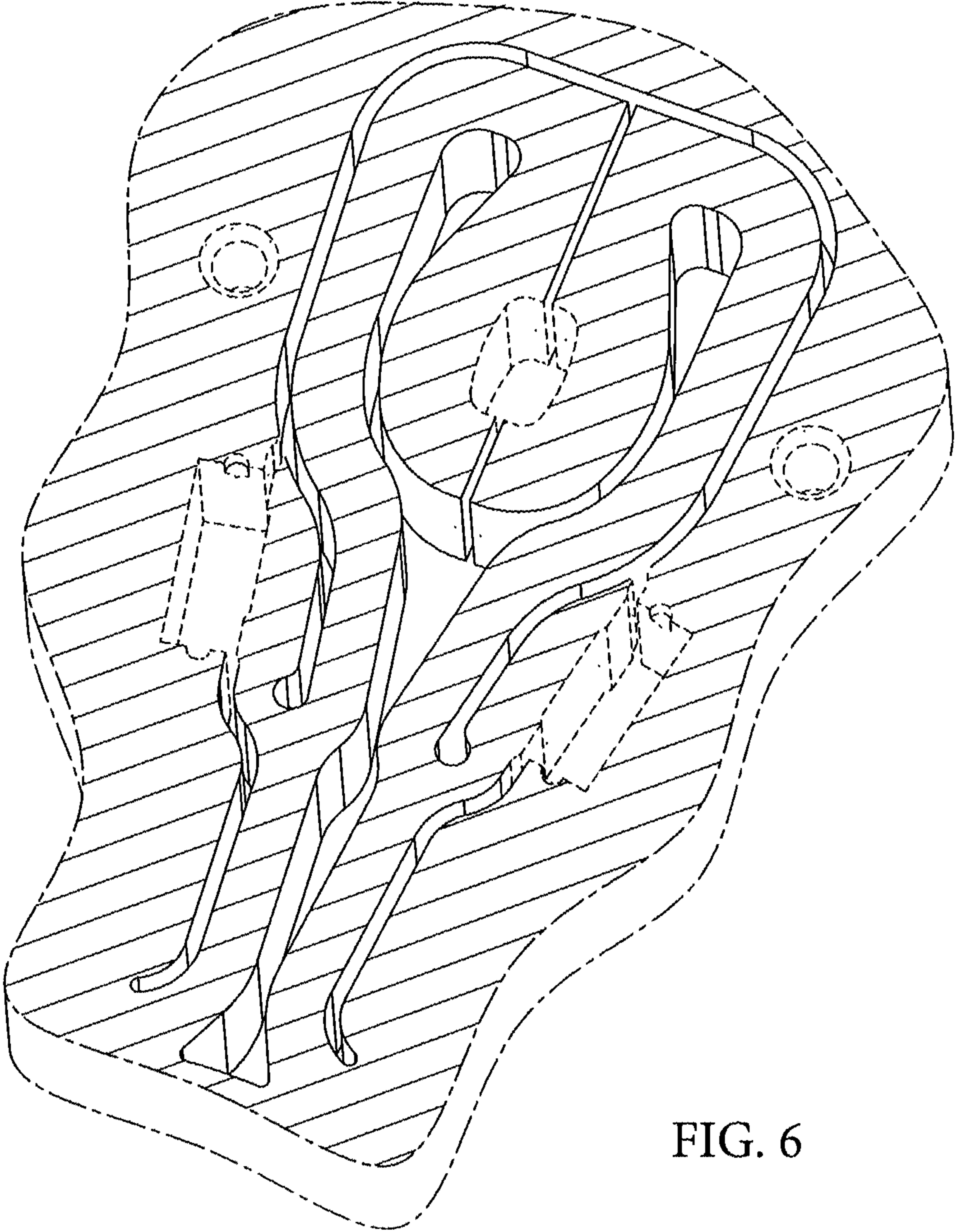


FIG. 6

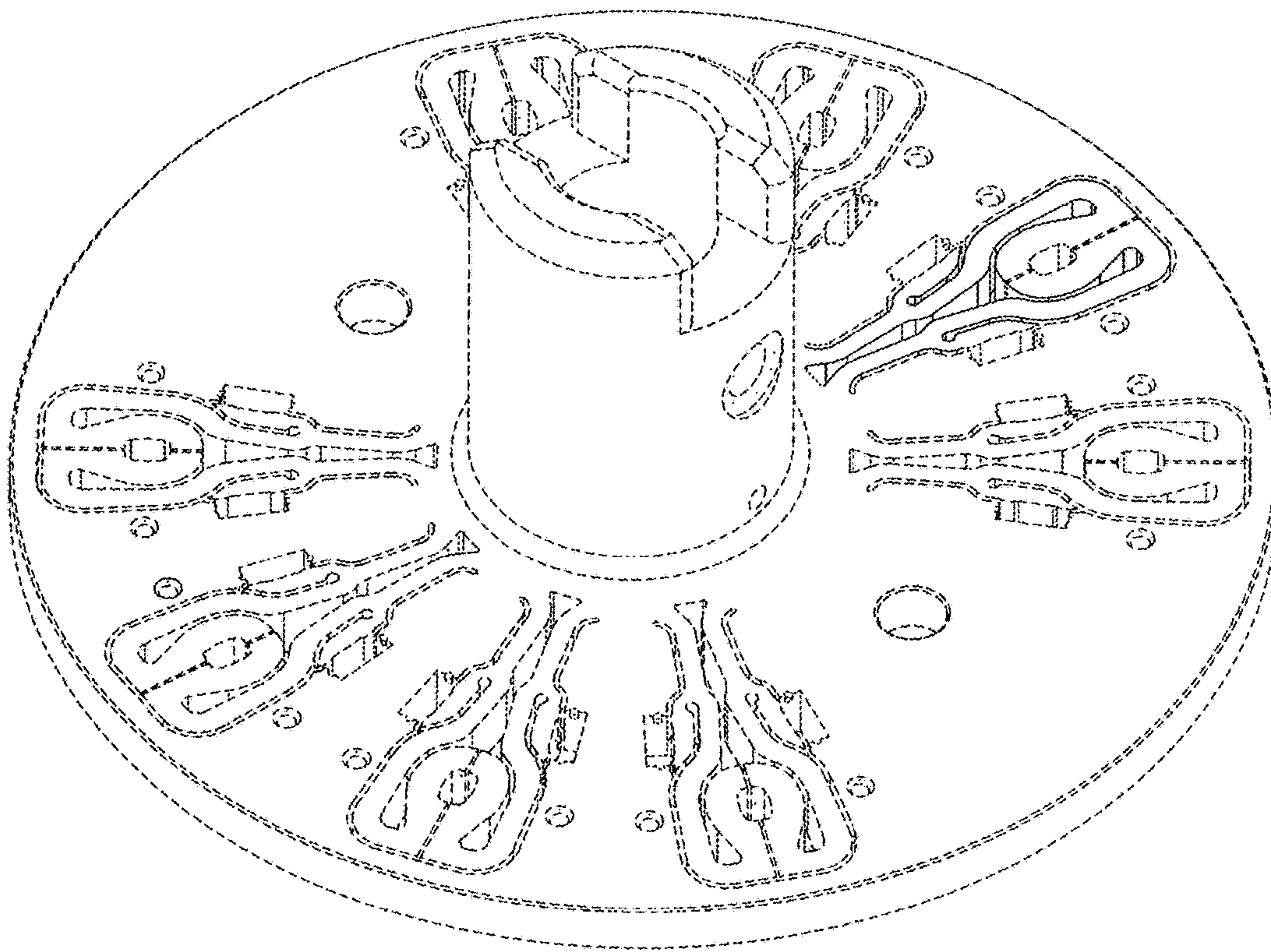


FIG. 7

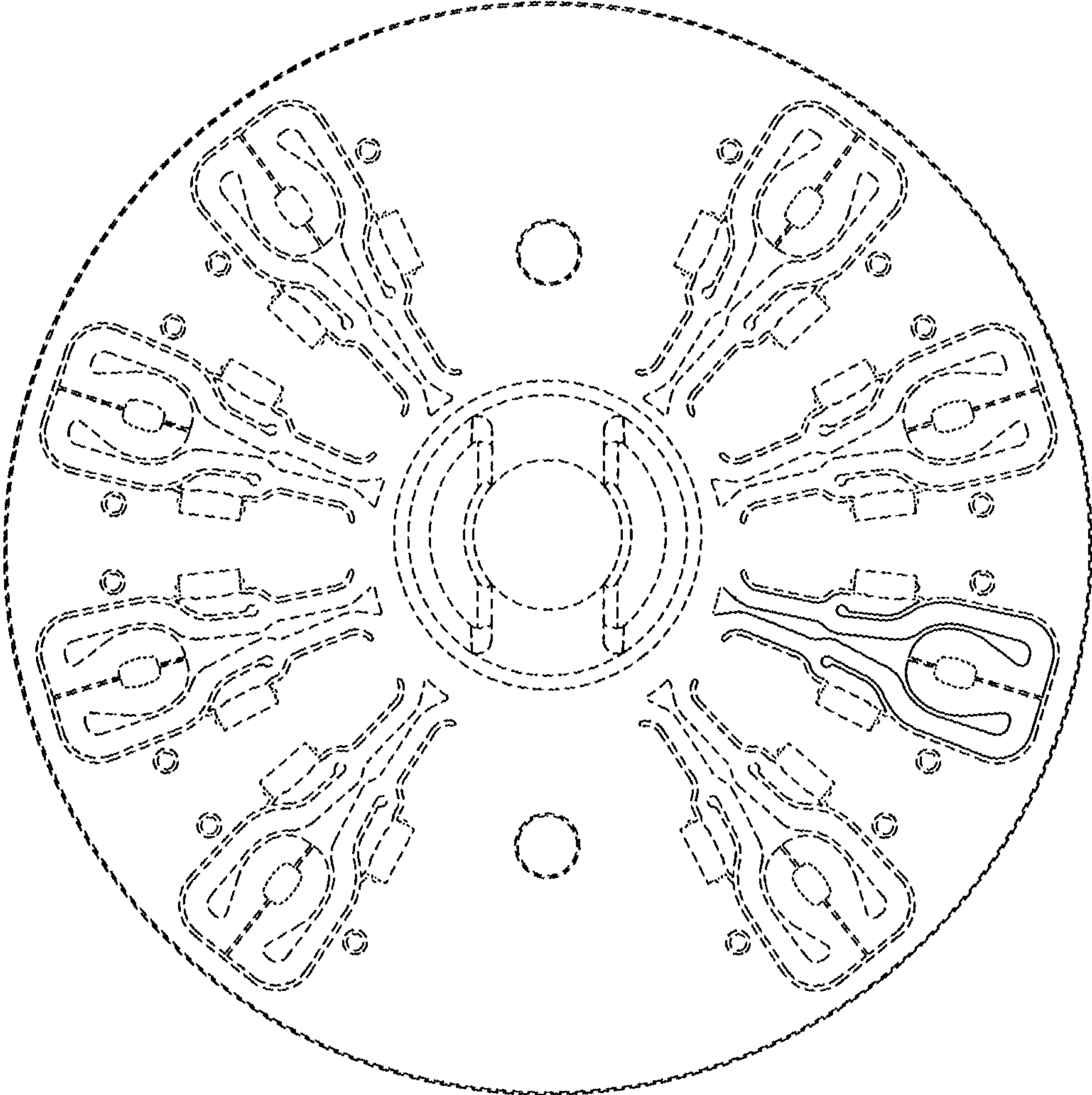


FIG. 8

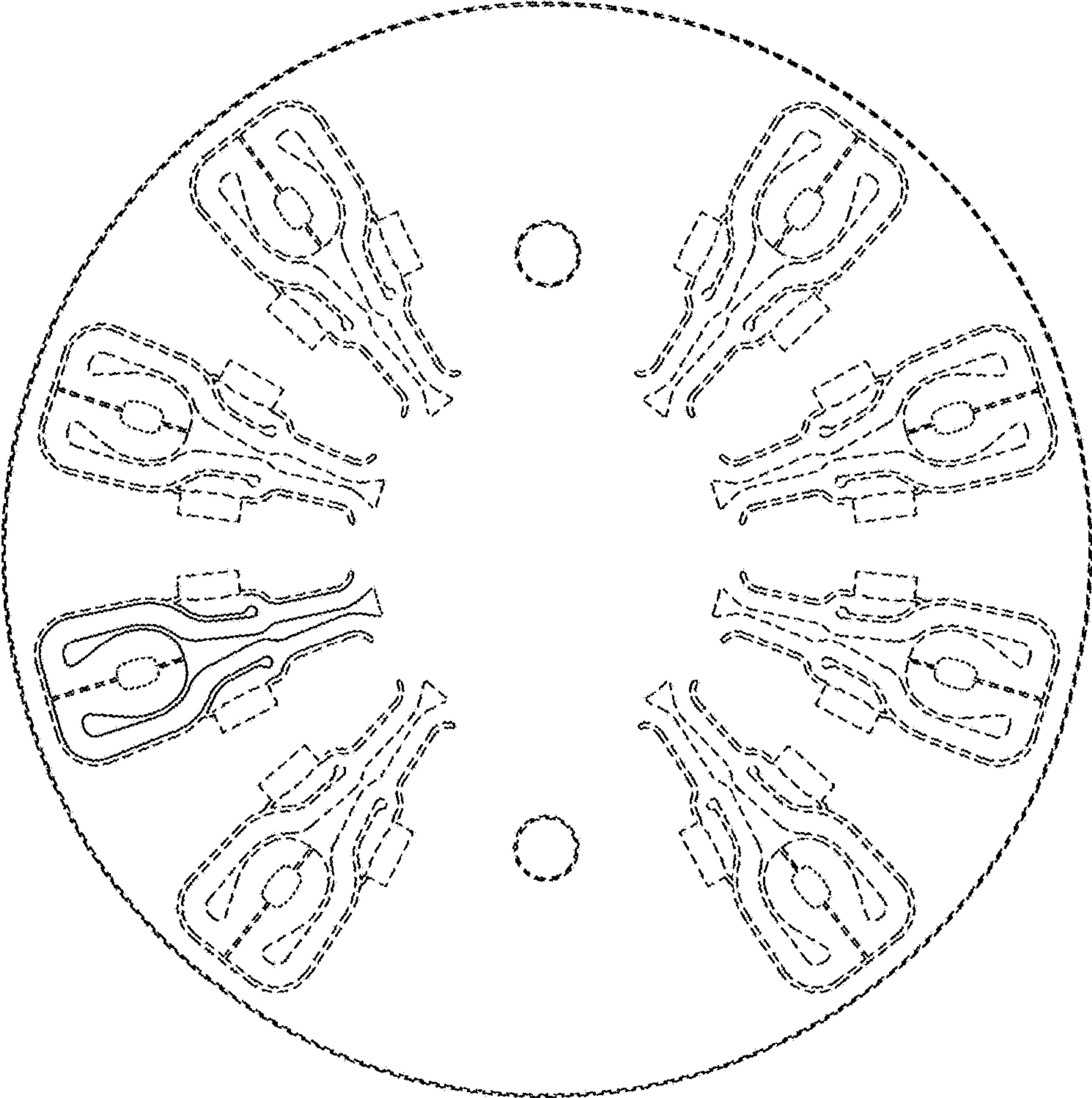


FIG. 9

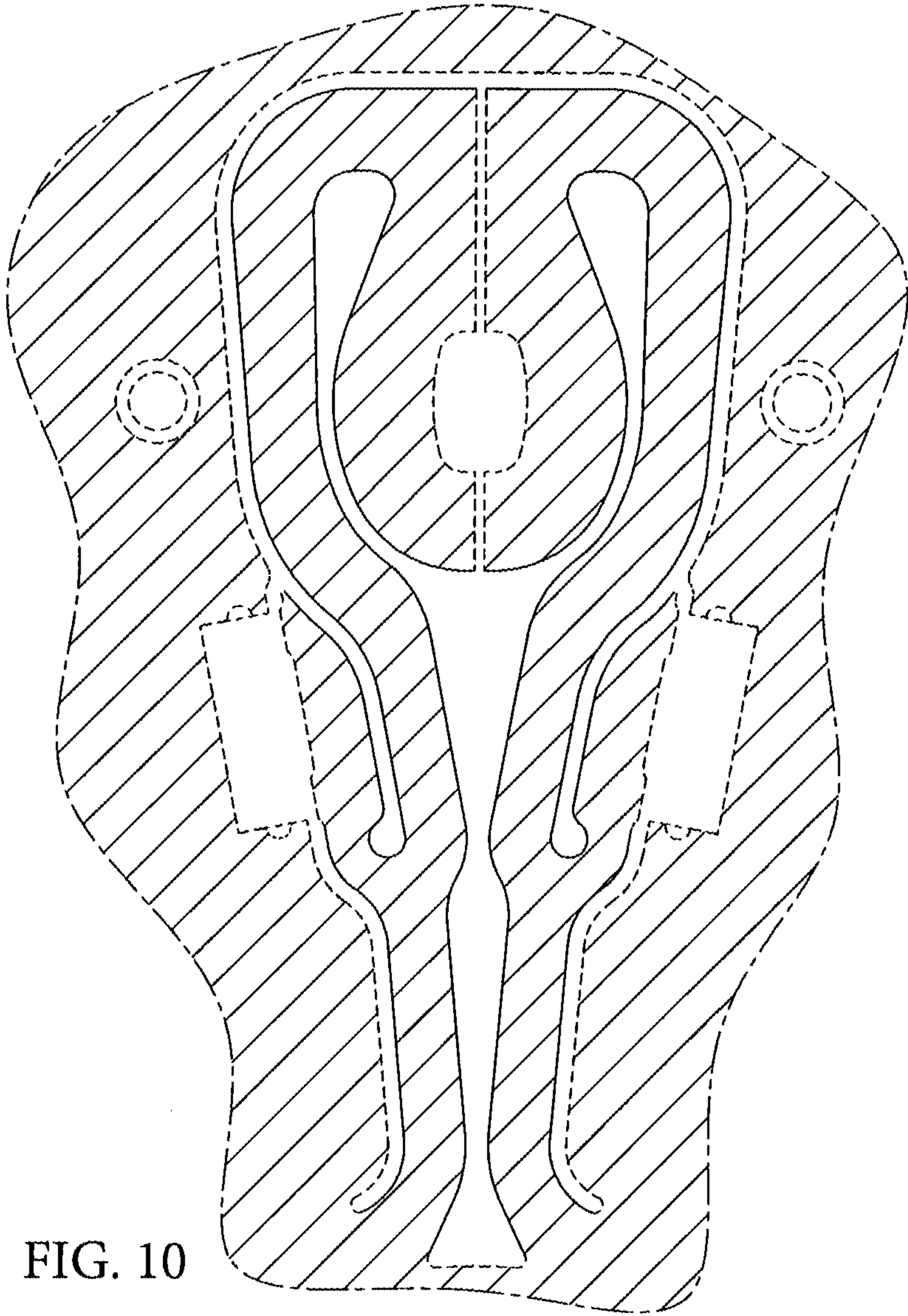


FIG. 10

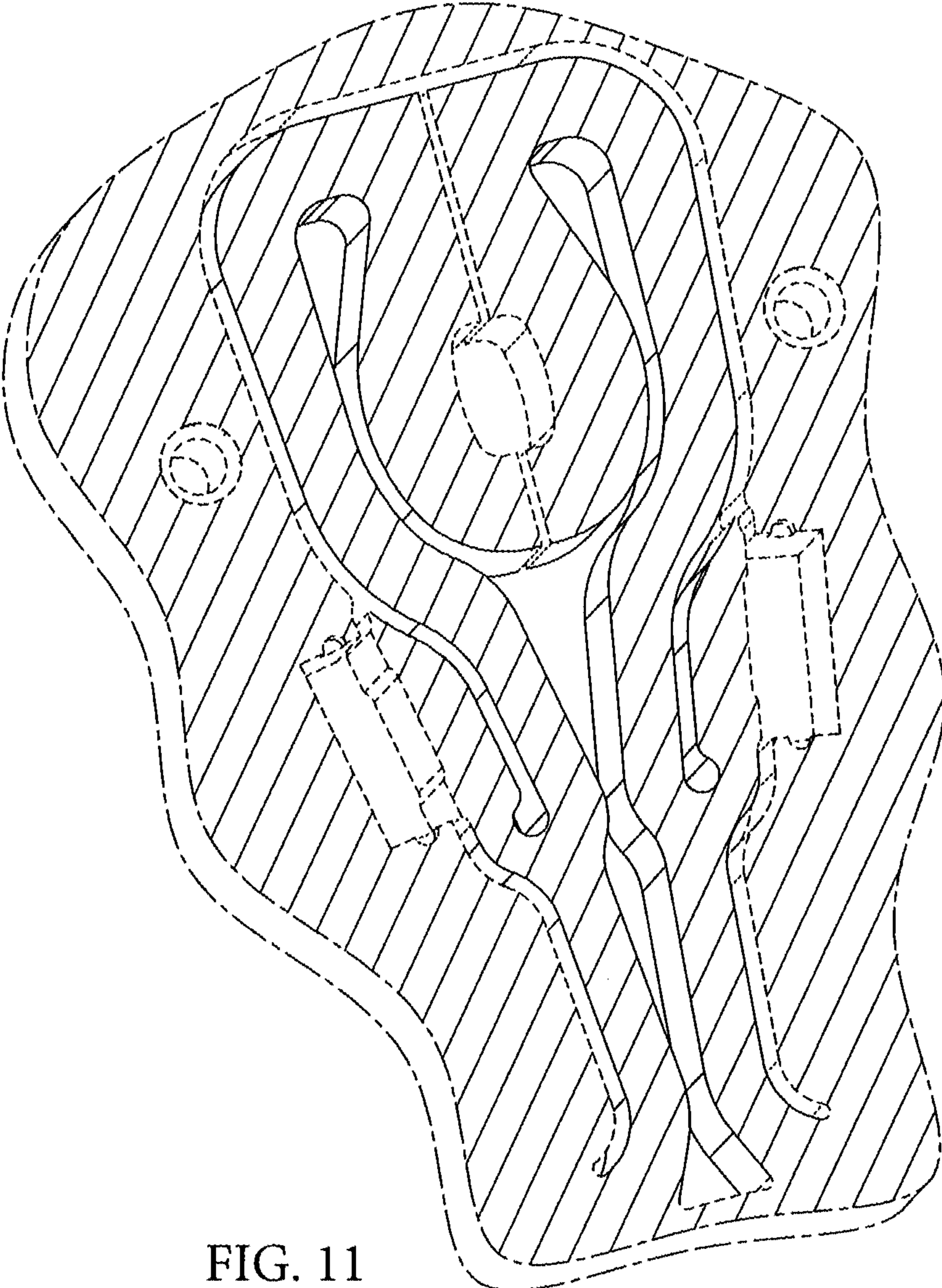


FIG. 11

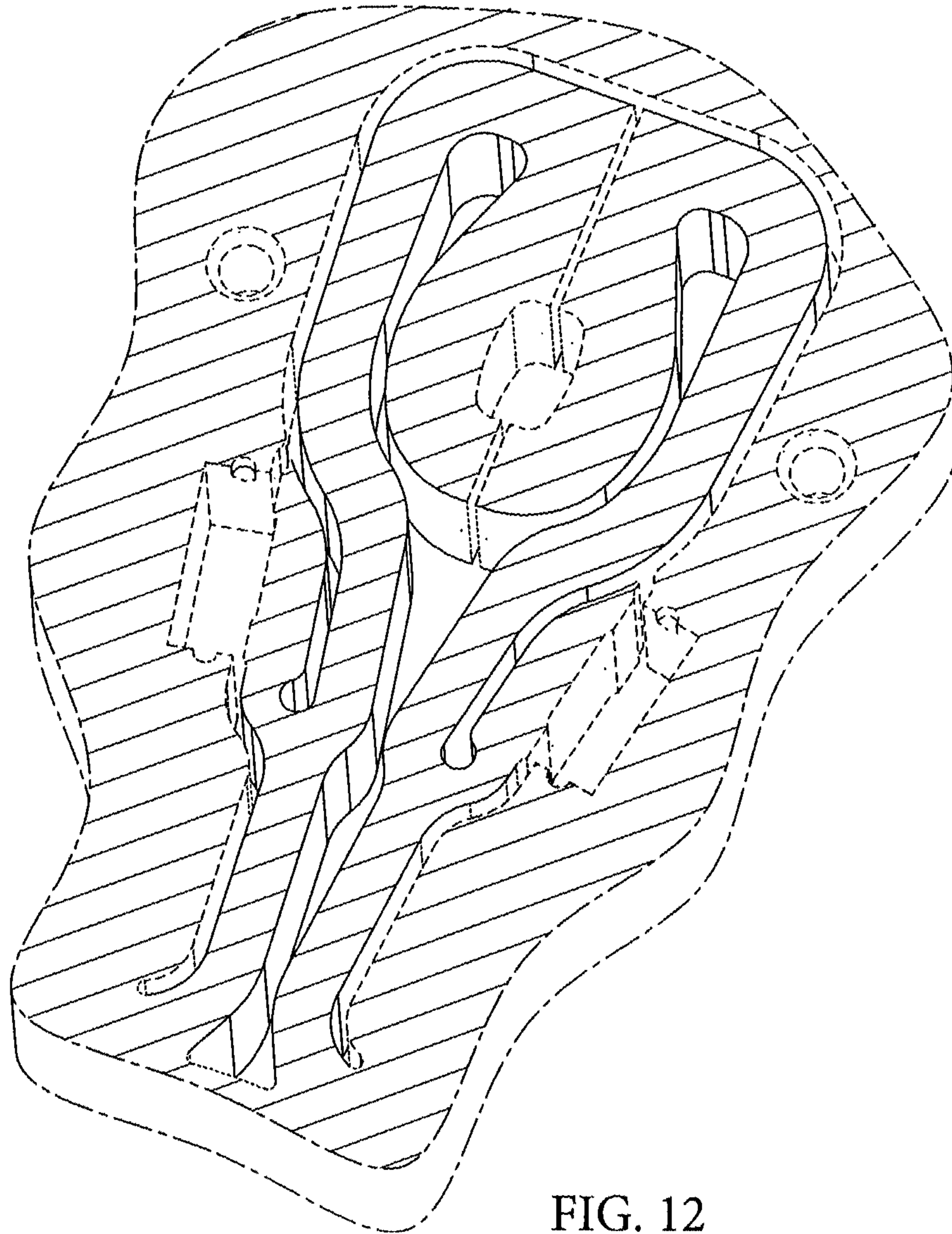


FIG. 12