



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**
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- (\*\*) 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 Product Book, 8 pages, 2014.

(Continued)

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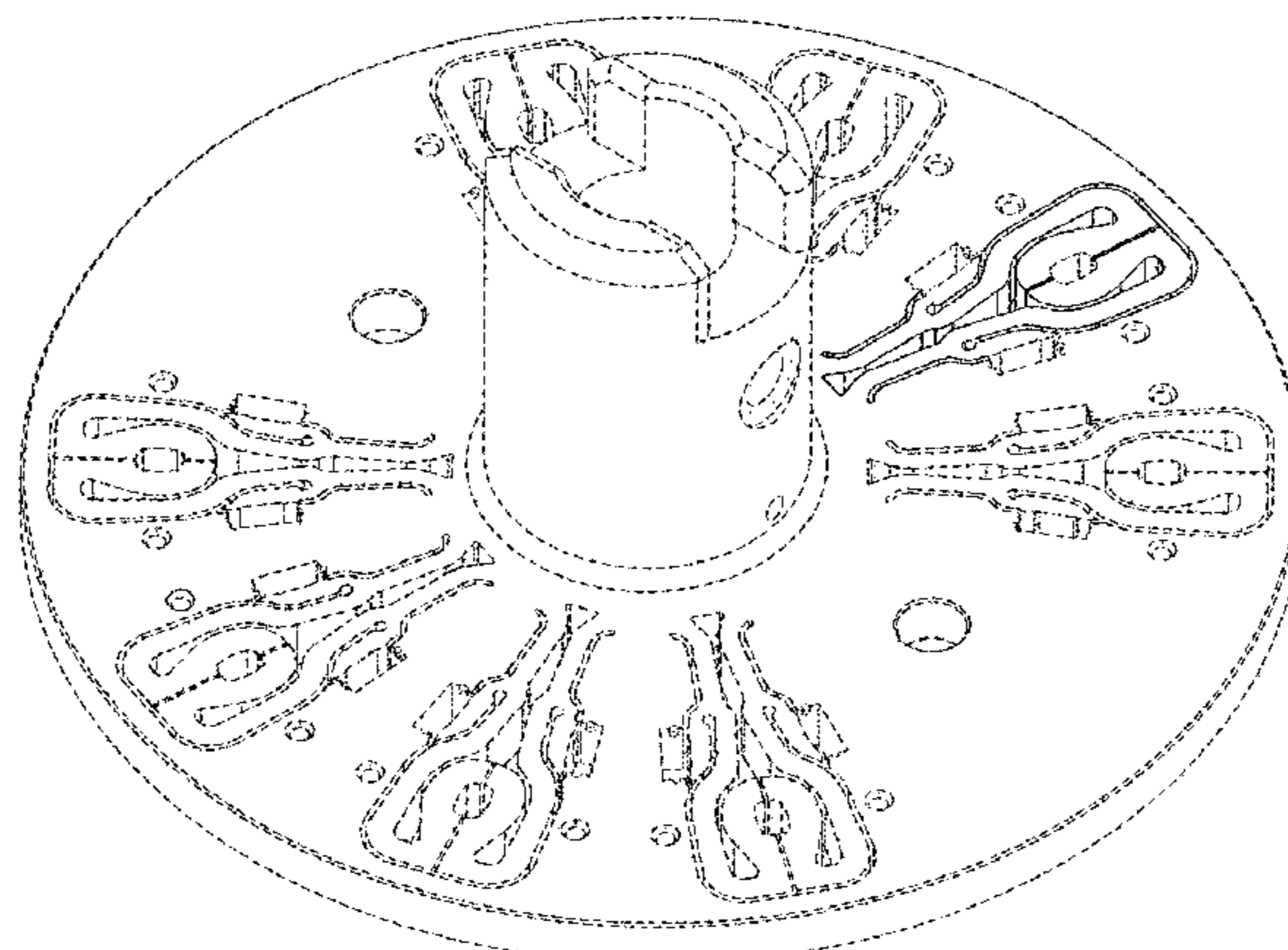
(57) **CLAIM**  
The ornamental design for a spring member of an optical fiber polishing fixture, as shown and described.

**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 Høglund ..... 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

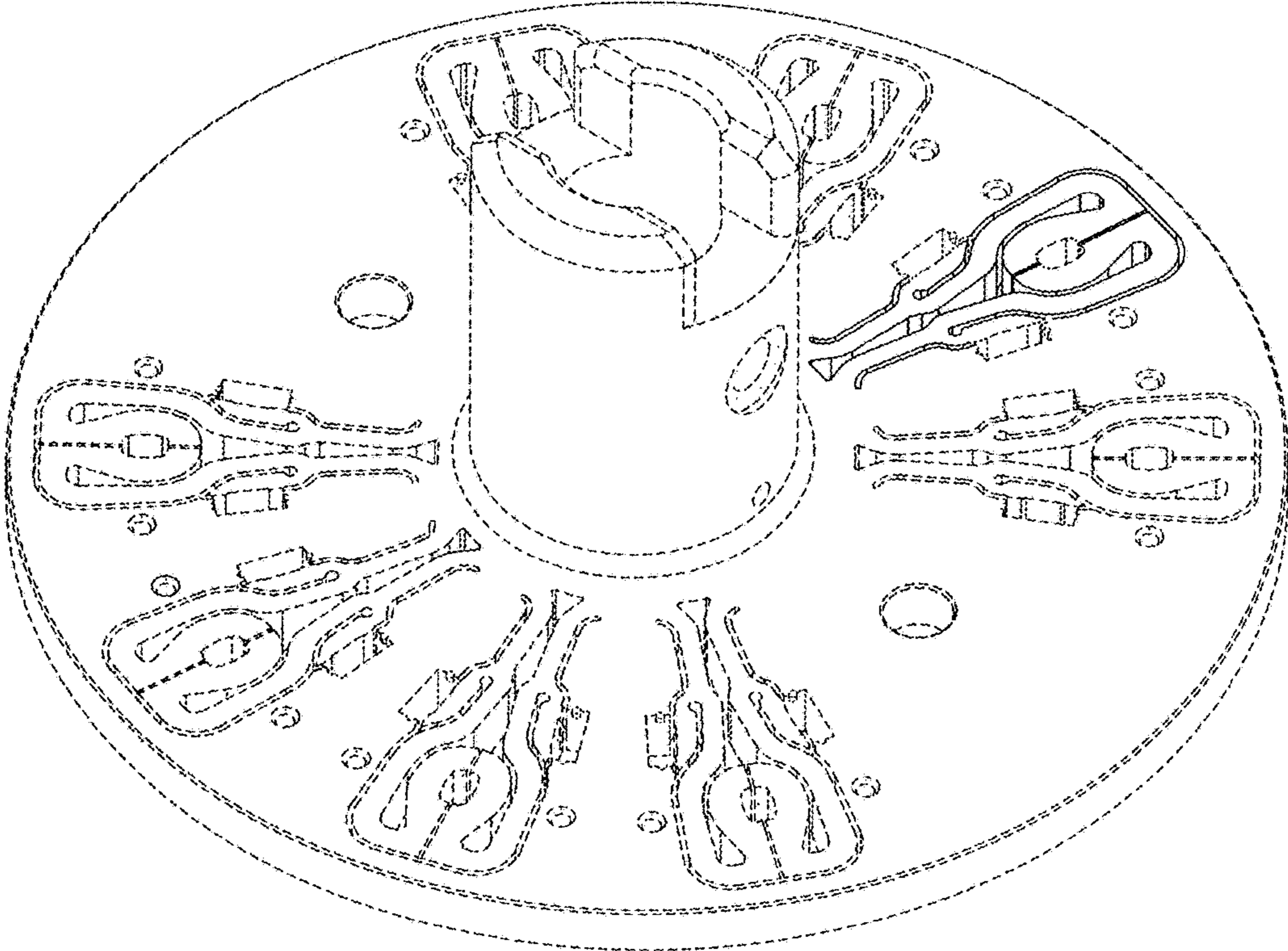


FIG. 1

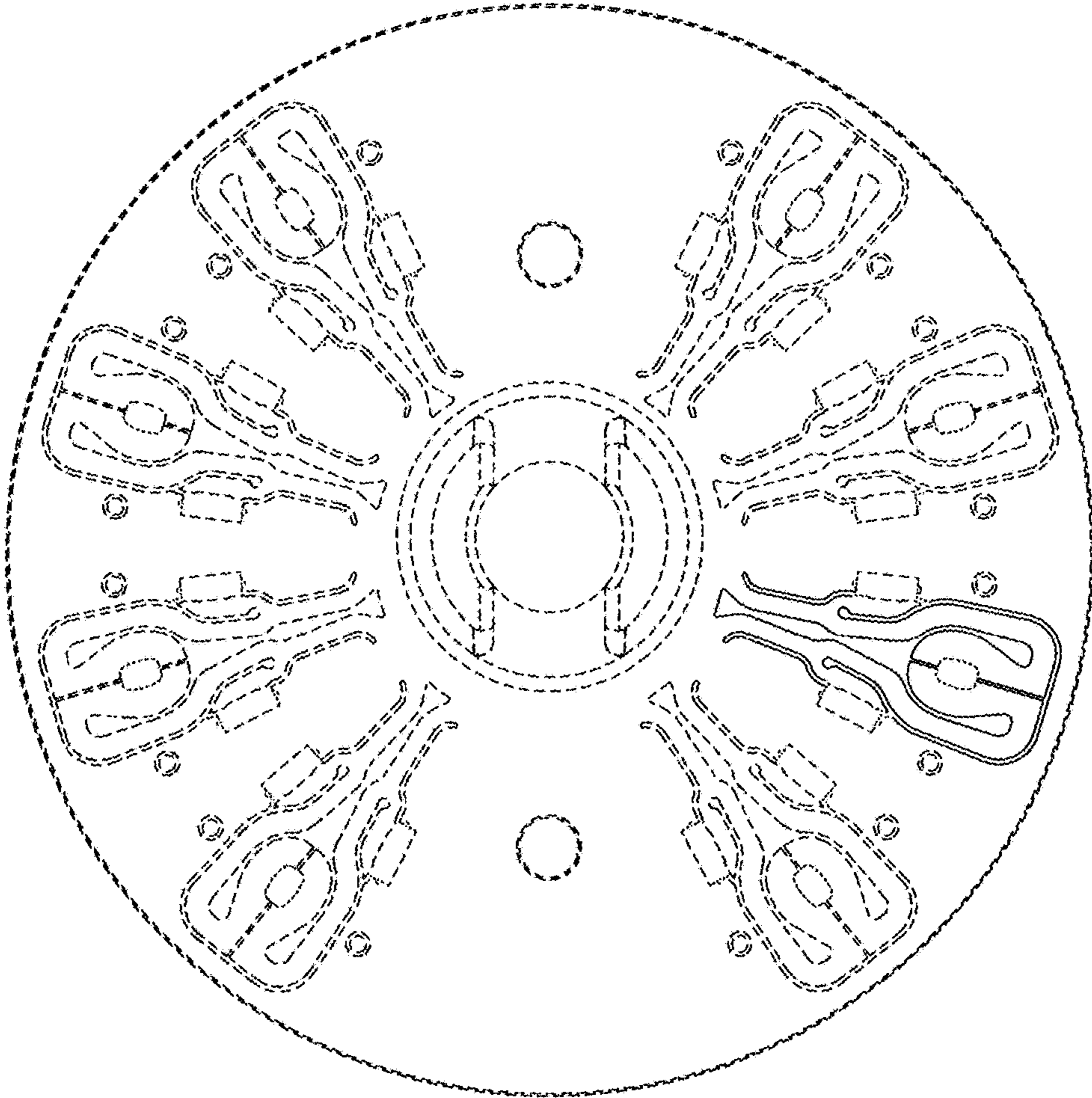


FIG. 2

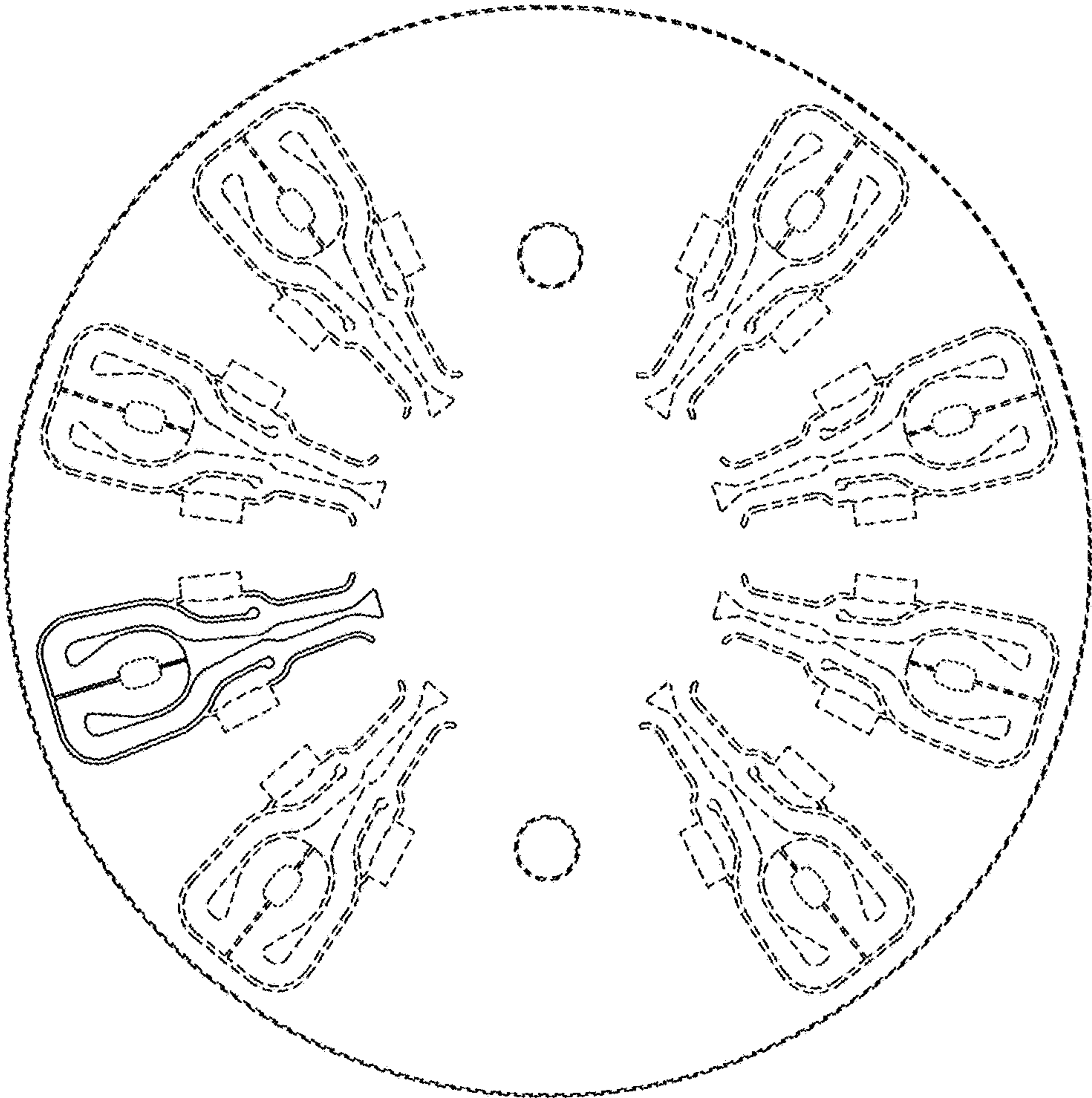


FIG. 3

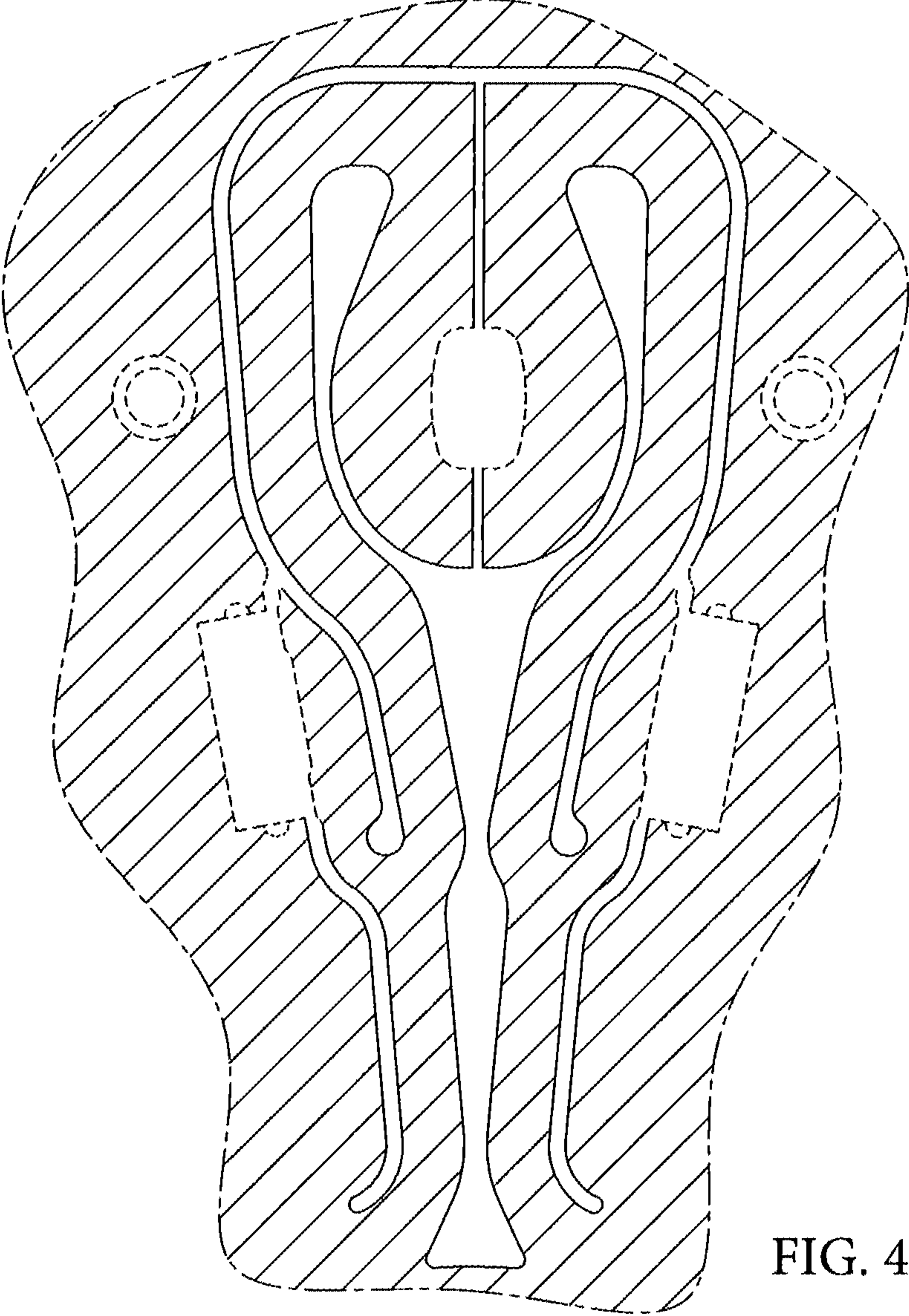


FIG. 4

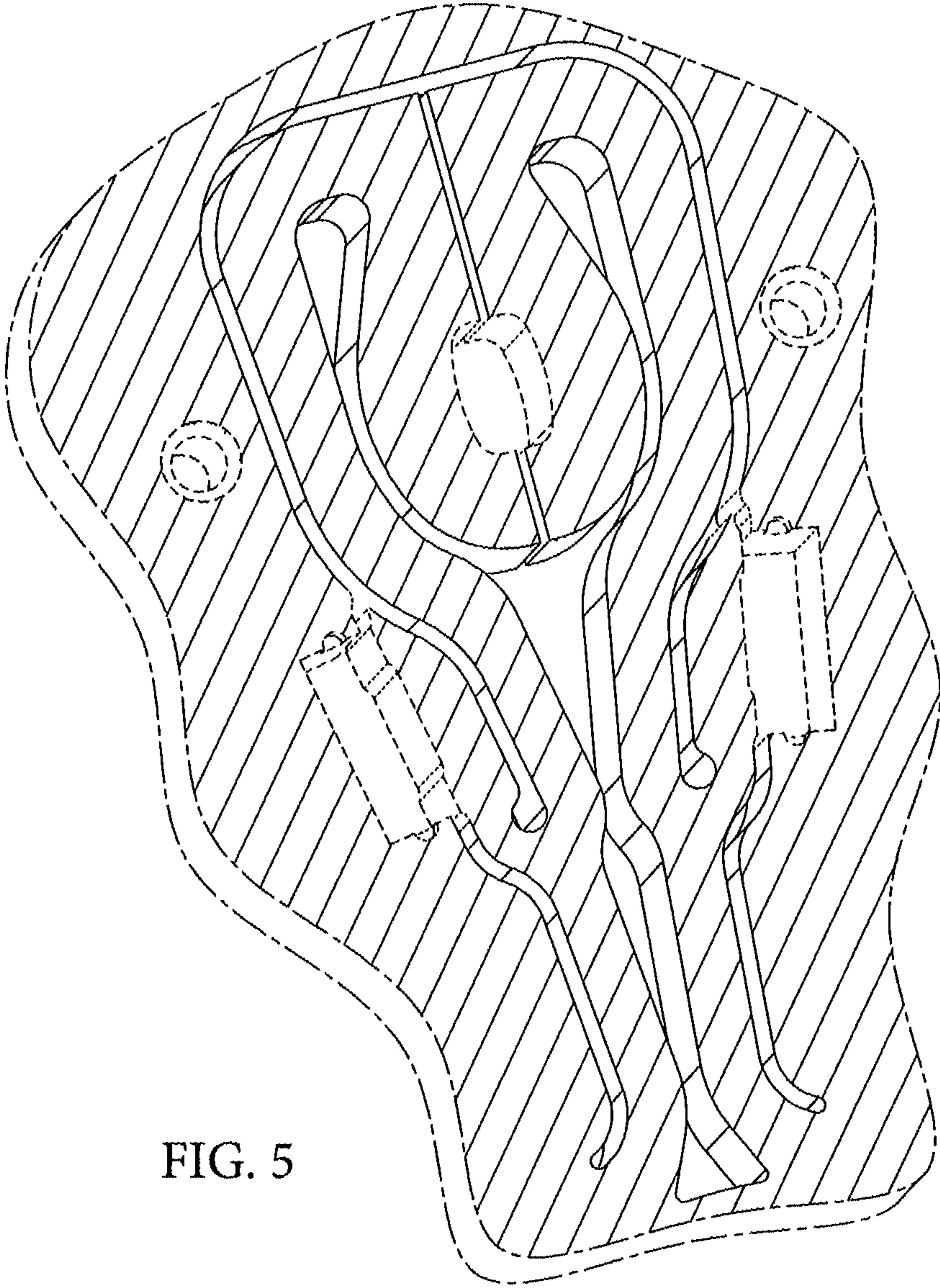


FIG. 5

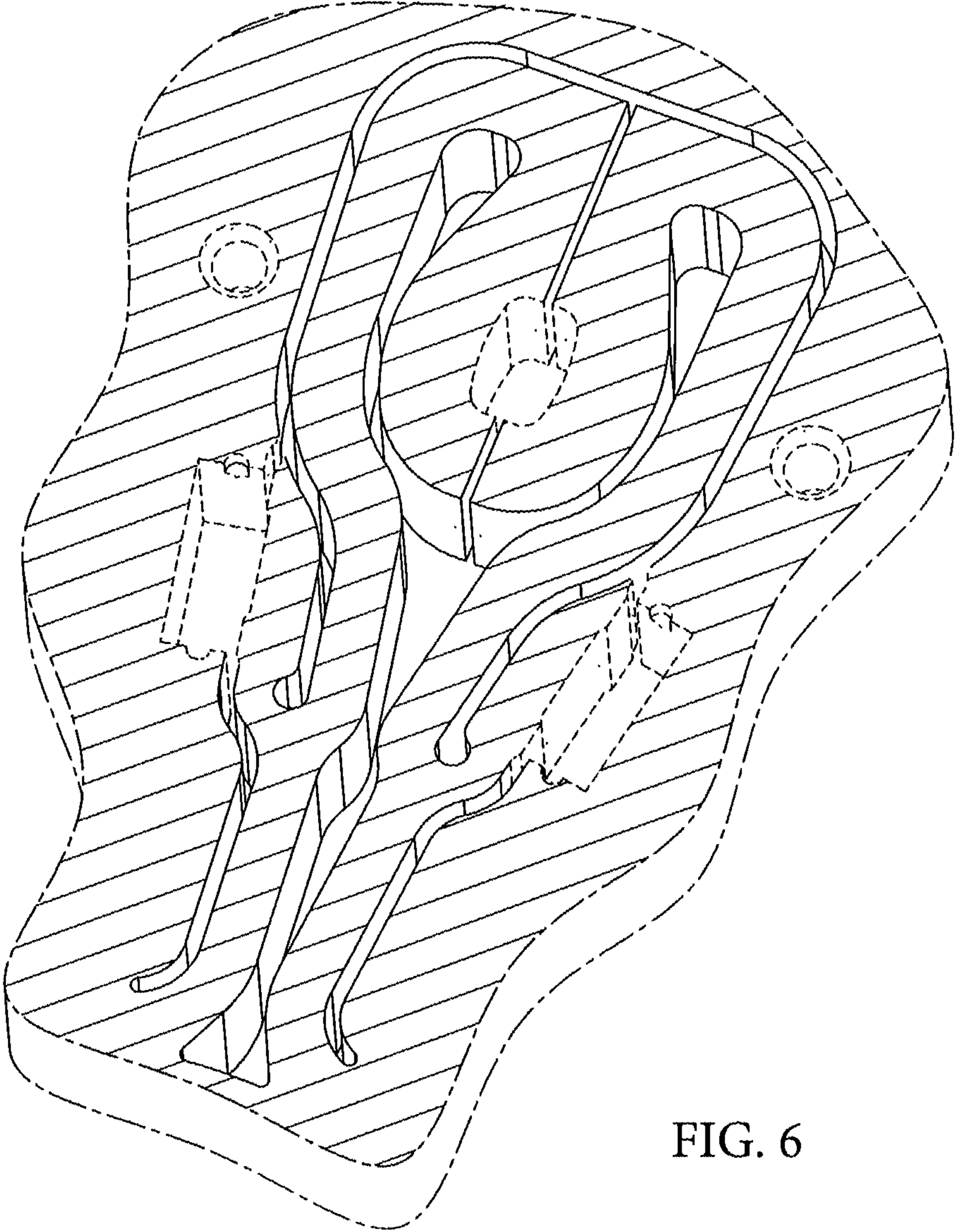


FIG. 6



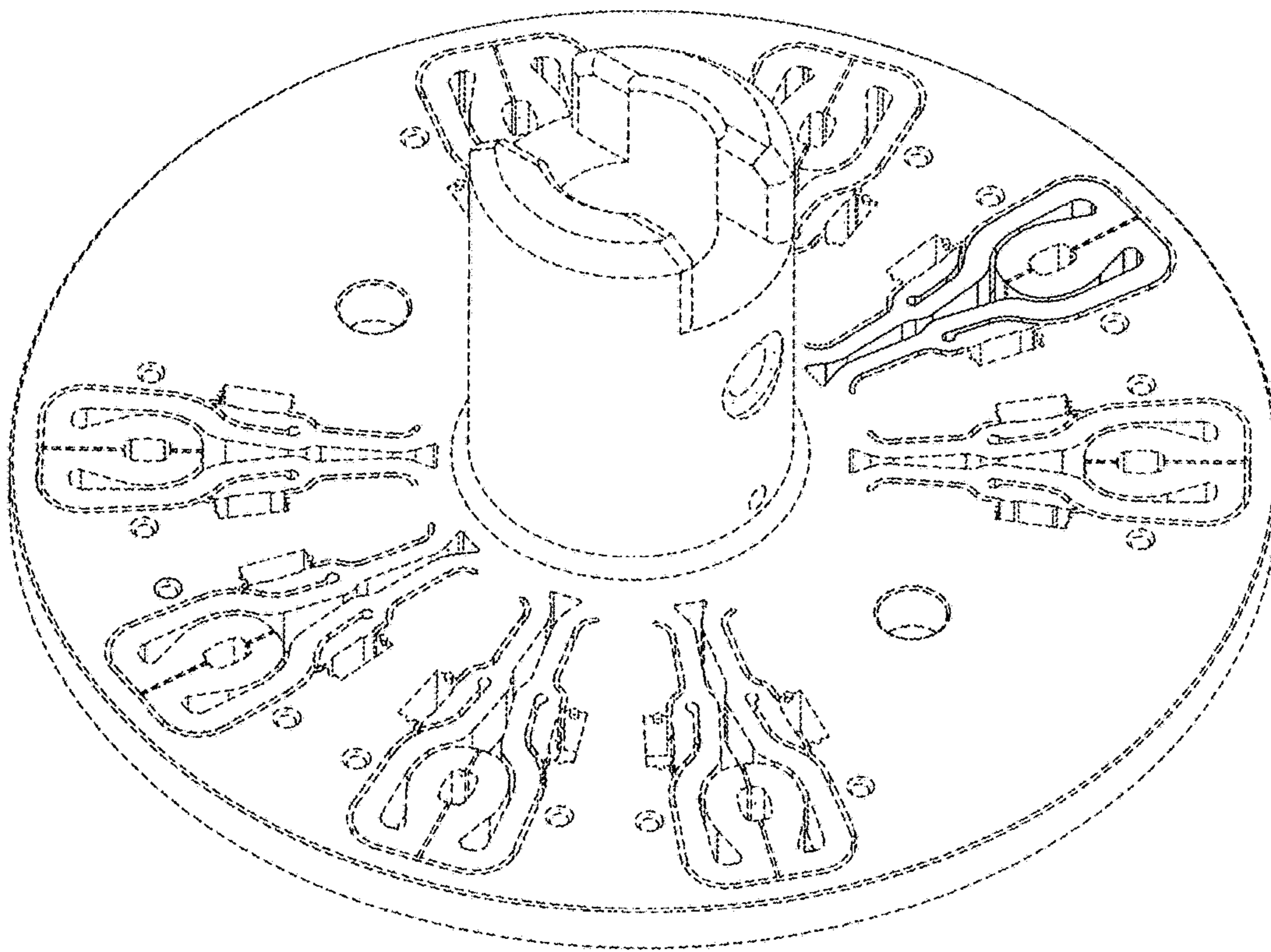


FIG. 7

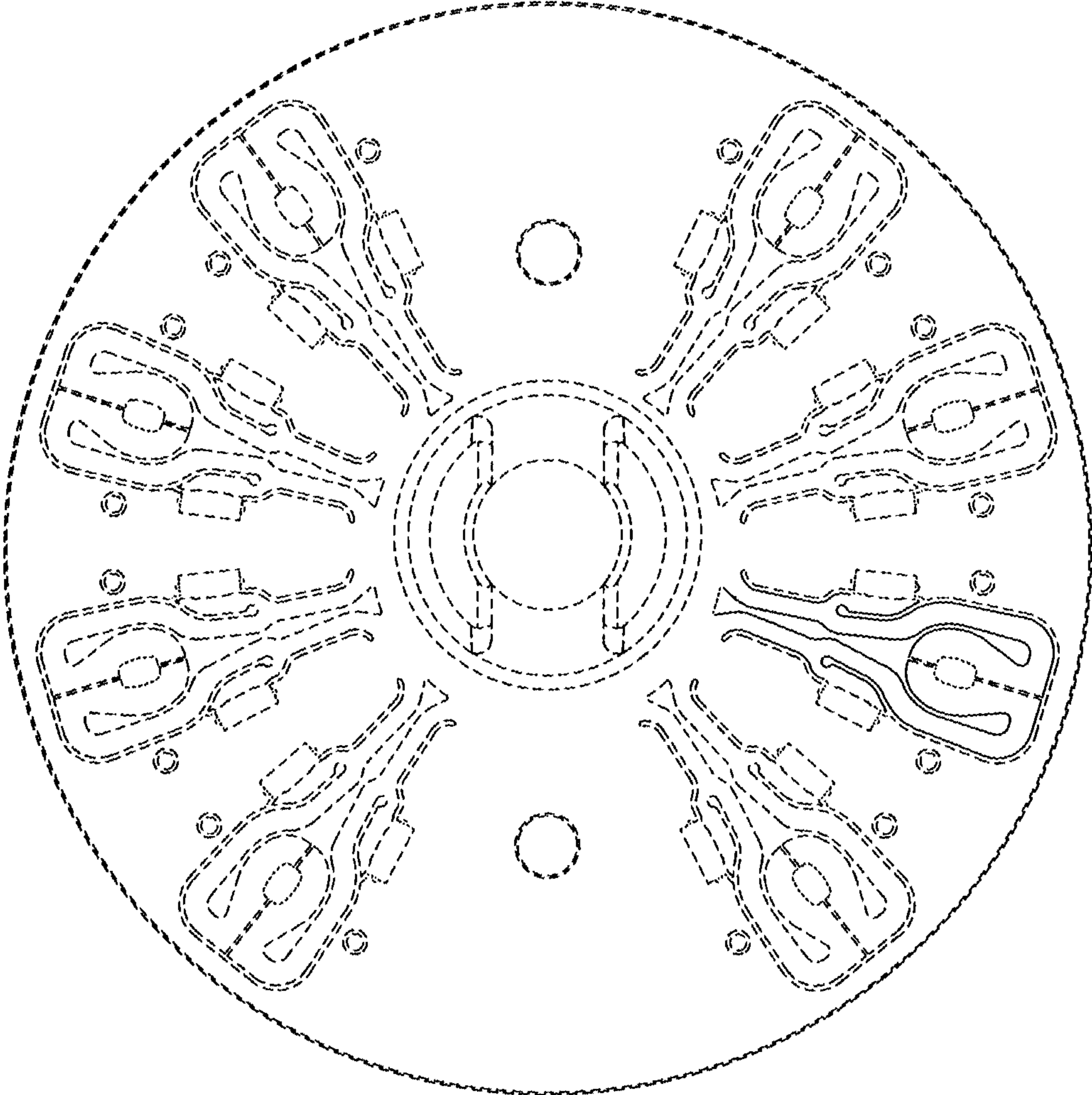


FIG. 8

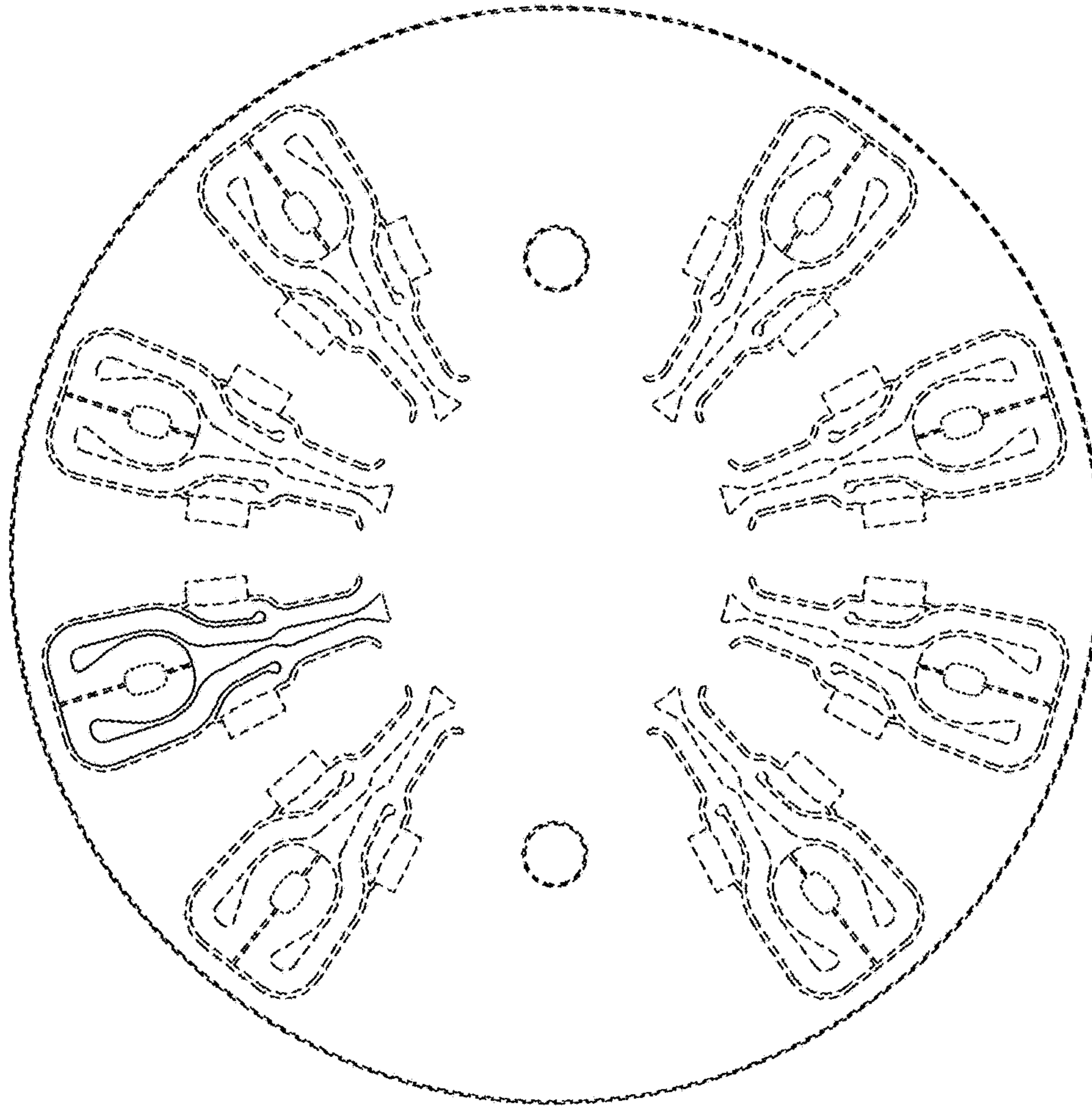


FIG. 9

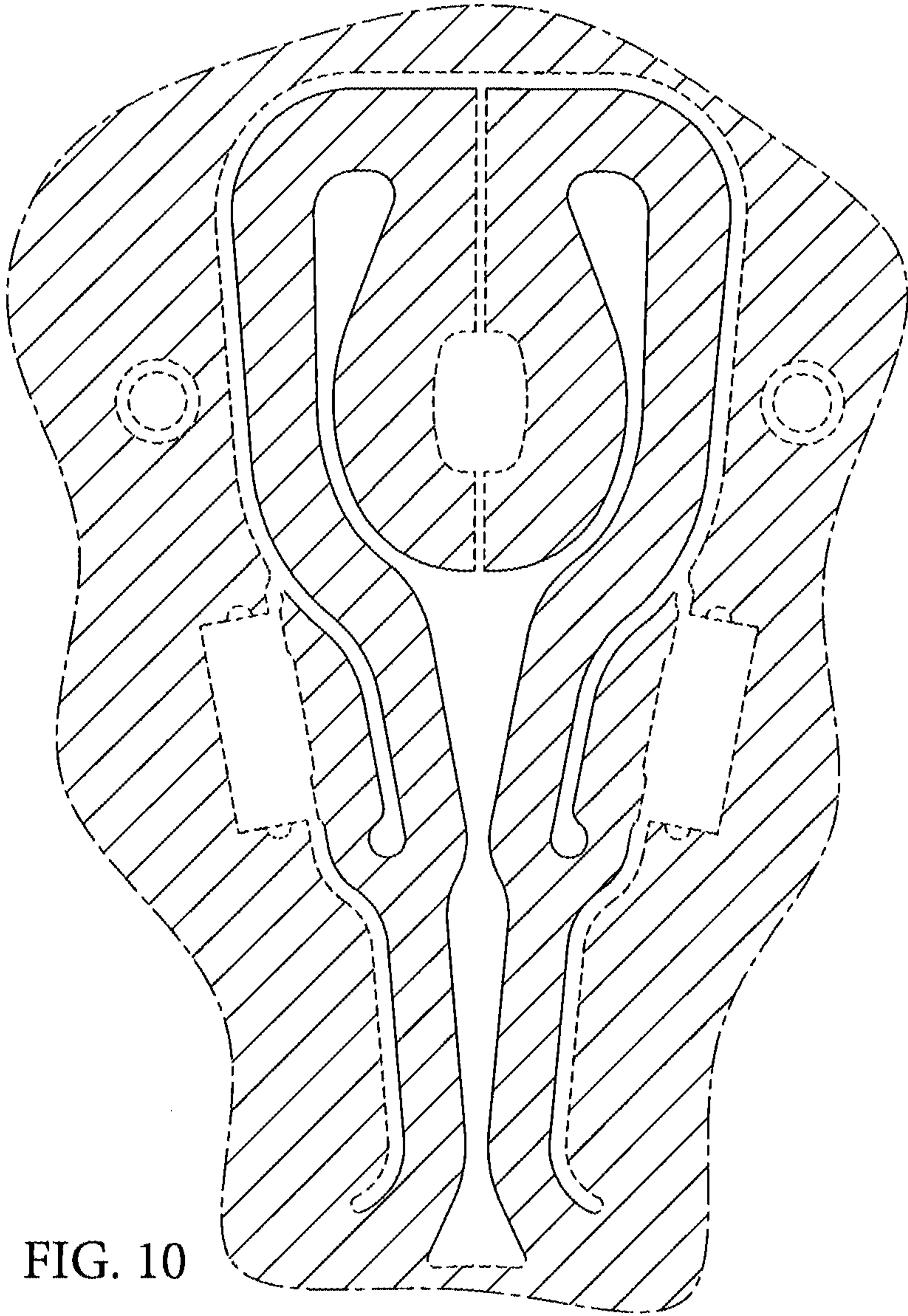


FIG. 10

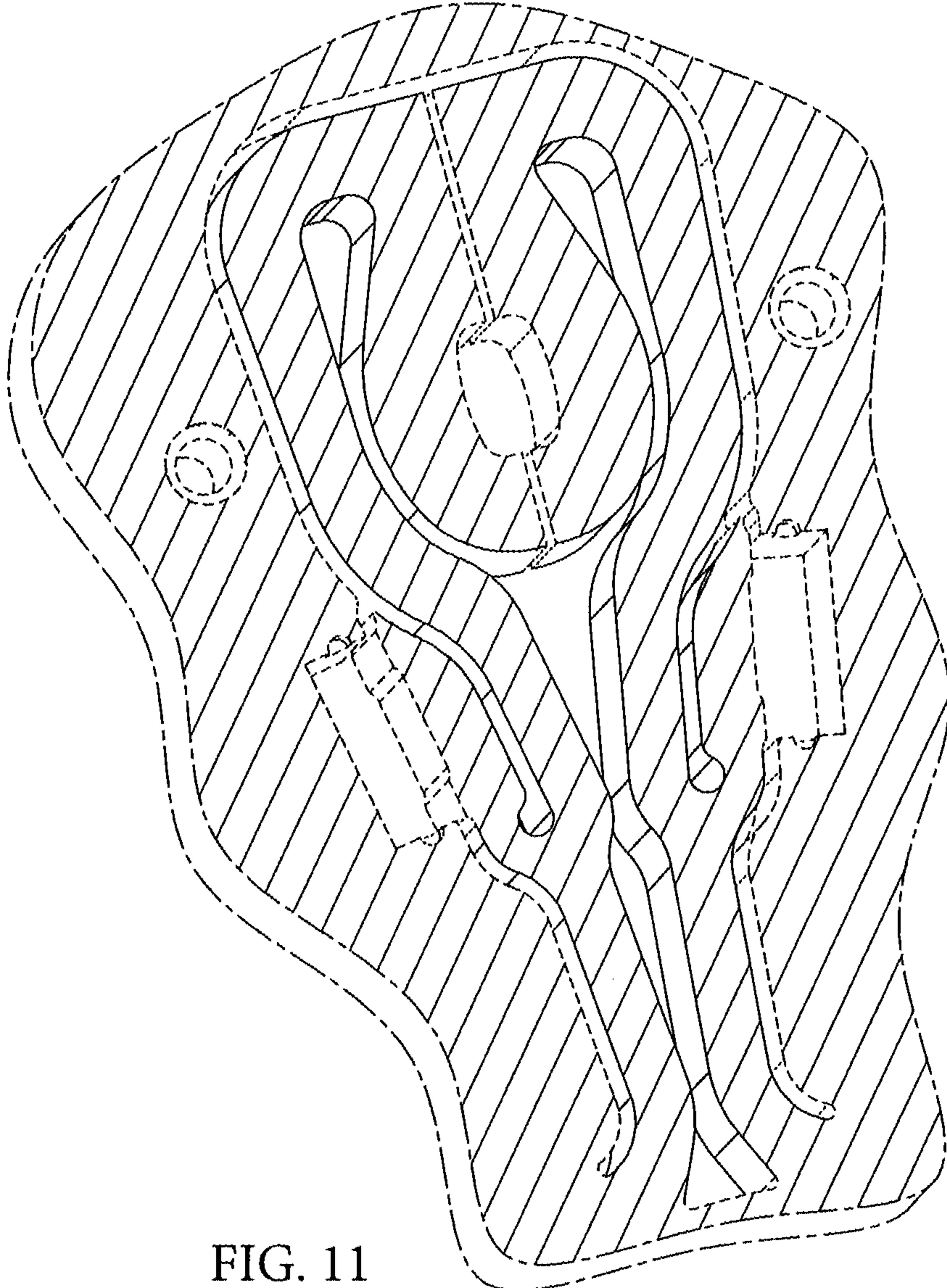


FIG. 11

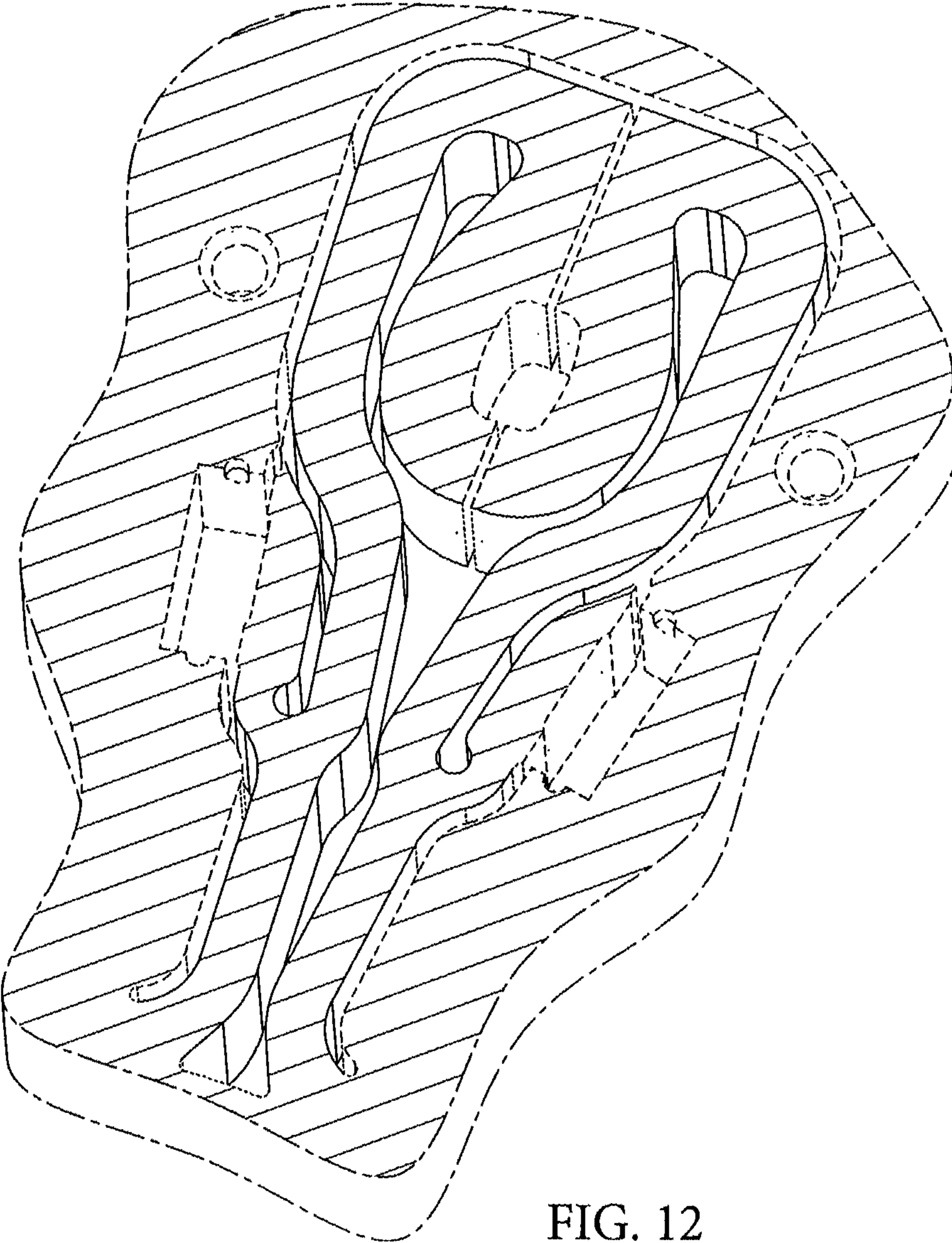


FIG. 12