



US00D816036S

(12) **United States Design Patent**
Takeda et al.

(10) **Patent No.:** **US D816,036 S**
(45) **Date of Patent:** **** Apr. 24, 2018**

(54) **ELECTRICAL CONNECTOR**

(71) Applicant: **SMK Corporation**, Tokyo (JP)
(72) Inventors: **Toshimitsu Takeda**, Toyama (JP);
Katsuhiko Kinoshita, Toyama (JP)

(73) Assignee: **SMK Corporation**, Tokyo (JP)

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

(21) Appl. No.: **29/549,649**

(22) Filed: **Dec. 28, 2015**

(30) **Foreign Application Priority Data**

Oct. 7, 2015 (JP) 2015-22083

(51) **LOC (11) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/133**

(58) **Field of Classification Search**
USPC D13/101, 110, 118, 120, 123, 133, 134,
D13/146-149, 152-154, 173, 175, 177,
D13/178, 184, 199

CPC H01R 12/00; H01R 13/717; F21K 9/00;
F21K 9/30; F21K 99/00; F21V 19/00;
F21V 21/00; F21V 21/08; F21V 29/00

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D744,425 S * 12/2015 Takeda D13/146
D749,518 S * 2/2016 Takeda D13/146
D753,592 S * 4/2016 Takeda D13/133
D764,414 S * 8/2016 Takeda D13/146

(Continued)

FOREIGN PATENT DOCUMENTS

JP 1492838 S 3/2014
JP 1492839 S 3/2014

OTHER PUBLICATIONS

SMK Corporation, "Development of LT-12/LT-13 Series of LED Lighting Connector (COB Type) with Improved Assembly Workability and Reliability to Add to Our Existing Product Lineup", Jan. 10, 2014, SMK Corporation Website <www.smk.co.jp/page.jsp?id=6513&version=en>.

Primary Examiner — Thomas Johannes
Assistant Examiner — Shawn T Gingrich

(74) *Attorney, Agent, or Firm* — Mark Malek; Widerman Malek, PL

(57) **CLAIM**

The ornamental design for an electrical connector, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an electrical connector according to the present invention.

FIG. 2 is a rear perspective view of the electrical connector illustrated in FIG. 1.

FIG. 3 is a front elevation view of the electrical connector illustrated in FIG. 1.

FIG. 4 is a rear elevation view of the electrical connector illustrated in FIG. 1.

FIG. 5 is a top plan view of the electrical connector illustrated in FIG. 1.

FIG. 6 is a bottom plan view of the electrical connector illustrated in FIG. 1.

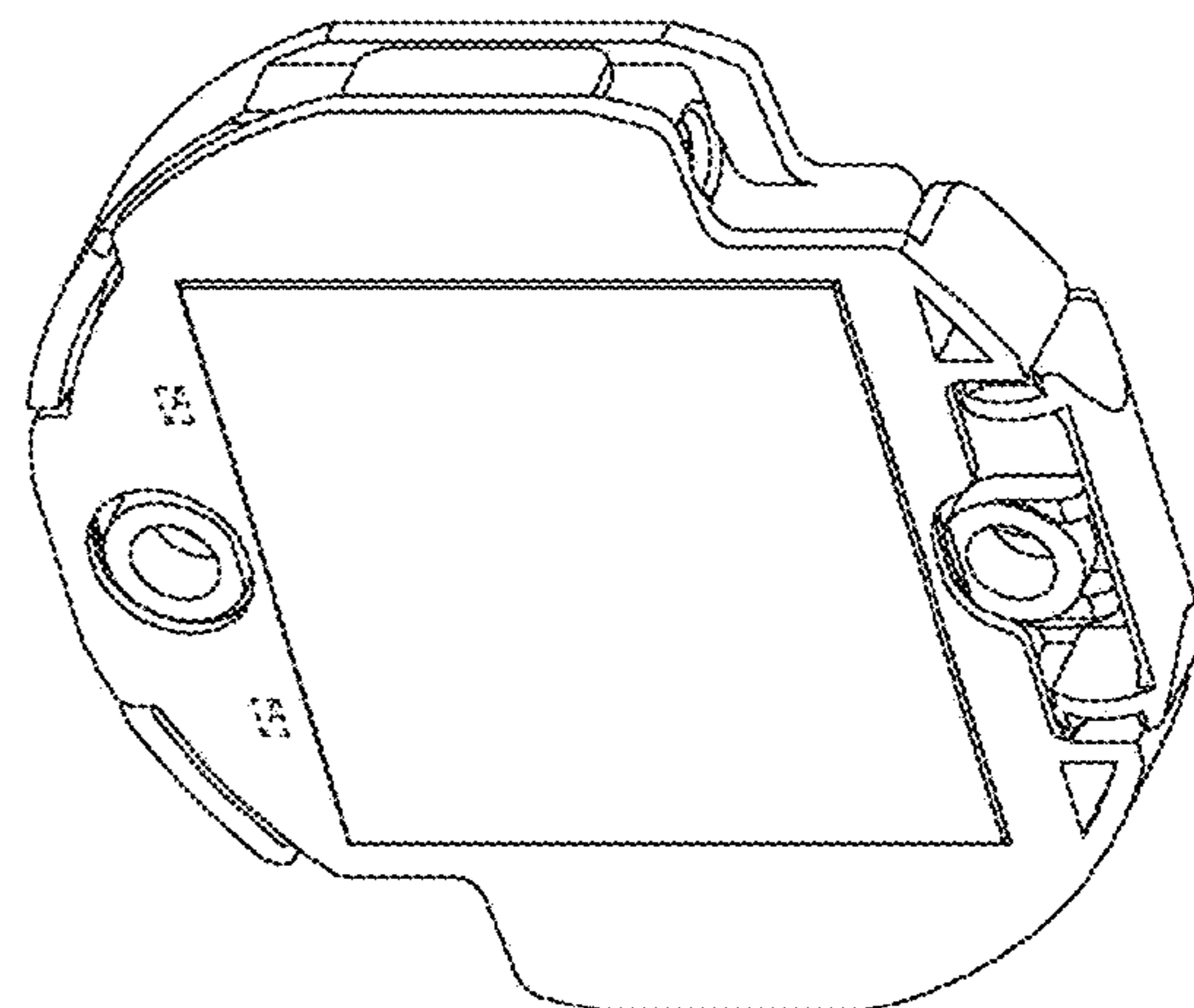
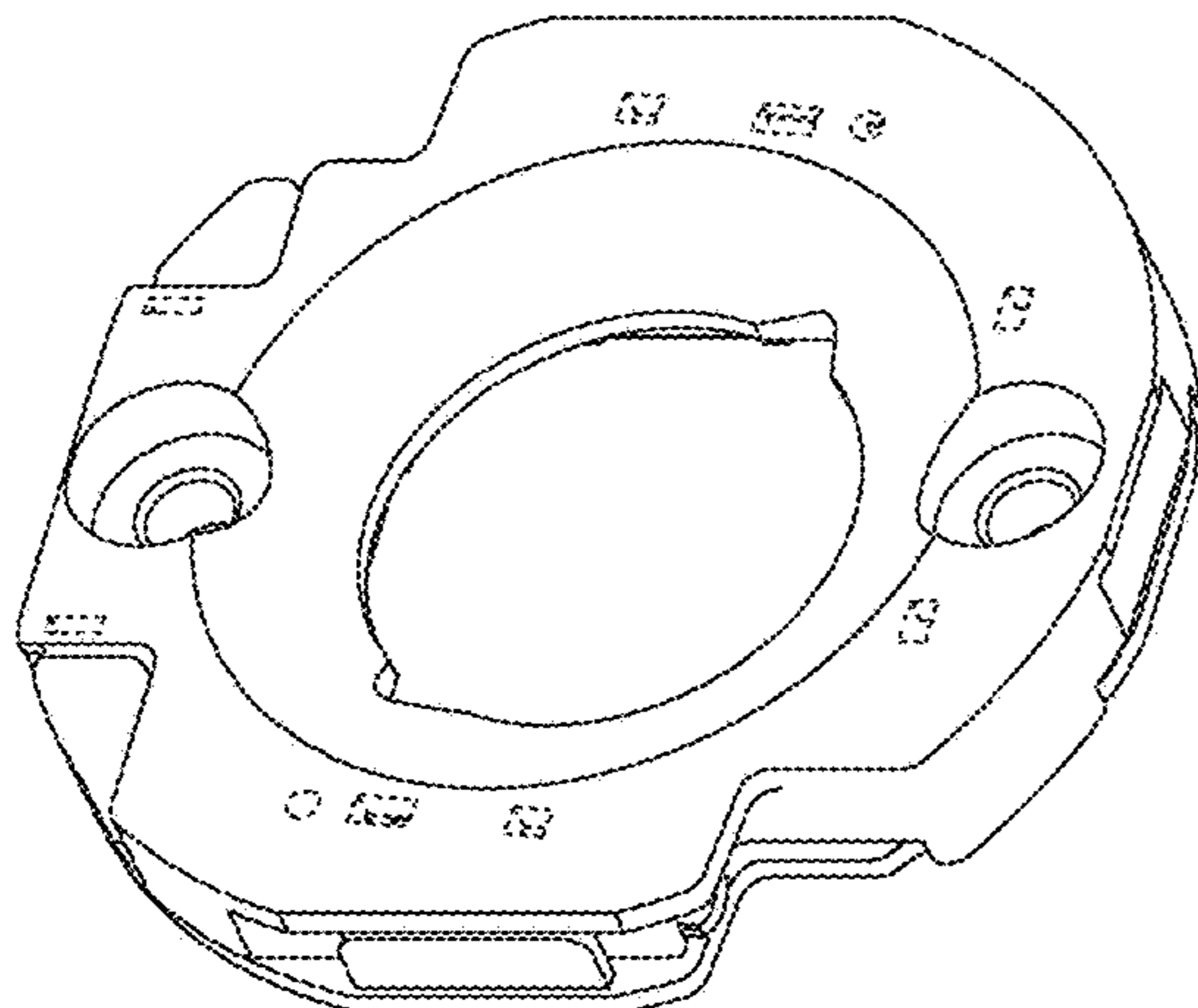
FIG. 7 is a right side elevation view of the electrical connector illustrated in FIG. 1.

FIG. 8 is a left side elevation view of the electrical connector illustrated in FIG. 1; and,

FIG. 9 is another perspective view of the electrical connector illustrated in FIG. 1 shown in an opened position.

The broken line portion of the drawings is included to show portions of the article that forms no part of the claimed design.

1 Claim, 9 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2013/0077326 A1* 3/2013 Zantout F21V 21/088
362/396
2014/0179139 A1* 6/2014 Tanaka F21V 19/003
439/226
2014/0268832 A1* 9/2014 Goto F21K 9/20
362/382
2015/0070918 A1* 3/2015 Stucchi F21K 9/00
362/457
2015/0078017 A1* 3/2015 Frost F21V 15/00
362/382
2015/0131301 A1* 5/2015 Ho F21V 19/004
362/382
2015/0316244 A1* 11/2015 Kreuzbichler F21K 9/00
362/311.02
2017/0102115 A1* 4/2017 Takeda F21K 9/30
2017/0118810 A1* 4/2017 Wimmer H05B 33/0845

* cited by examiner

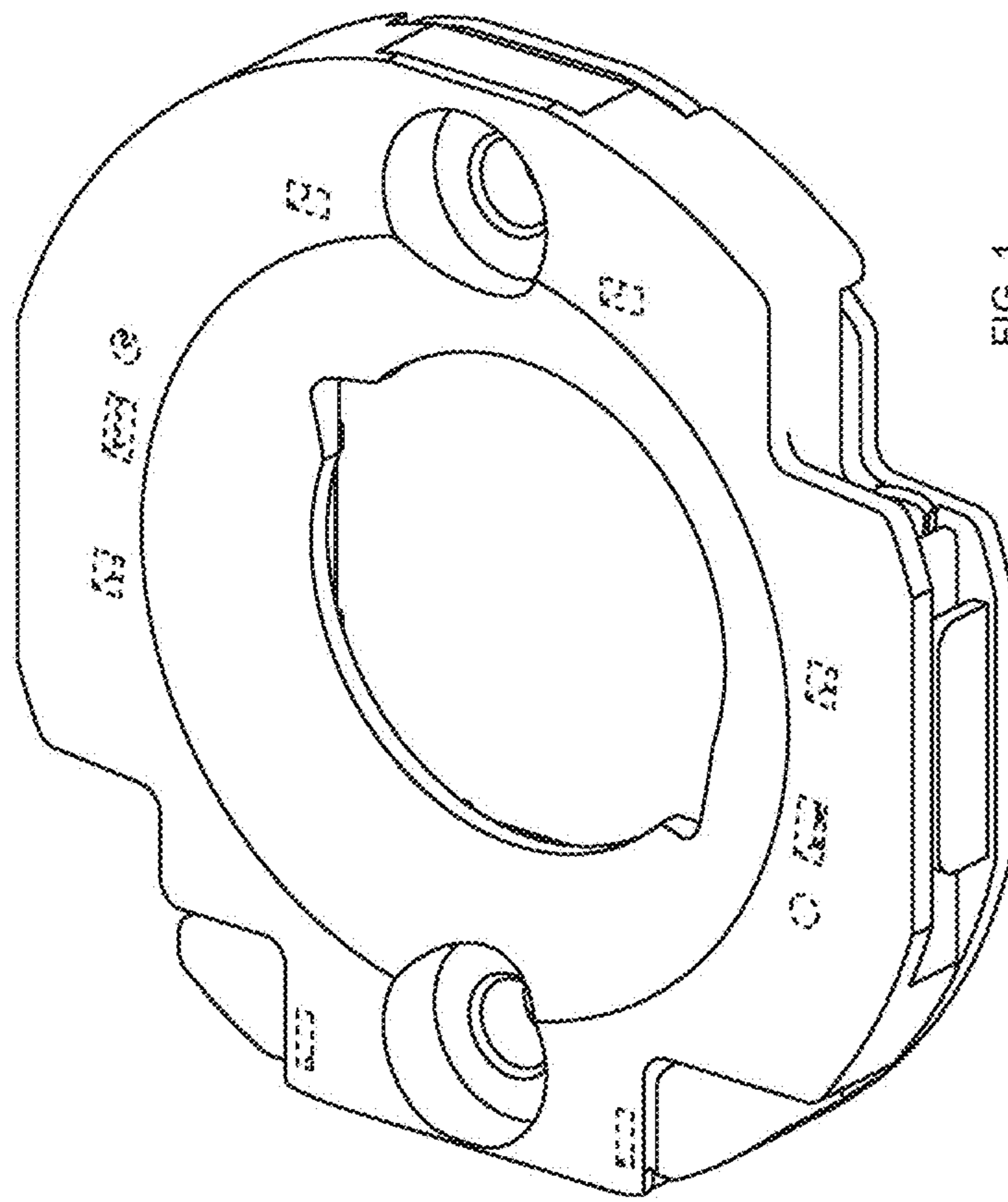


FIG. 1

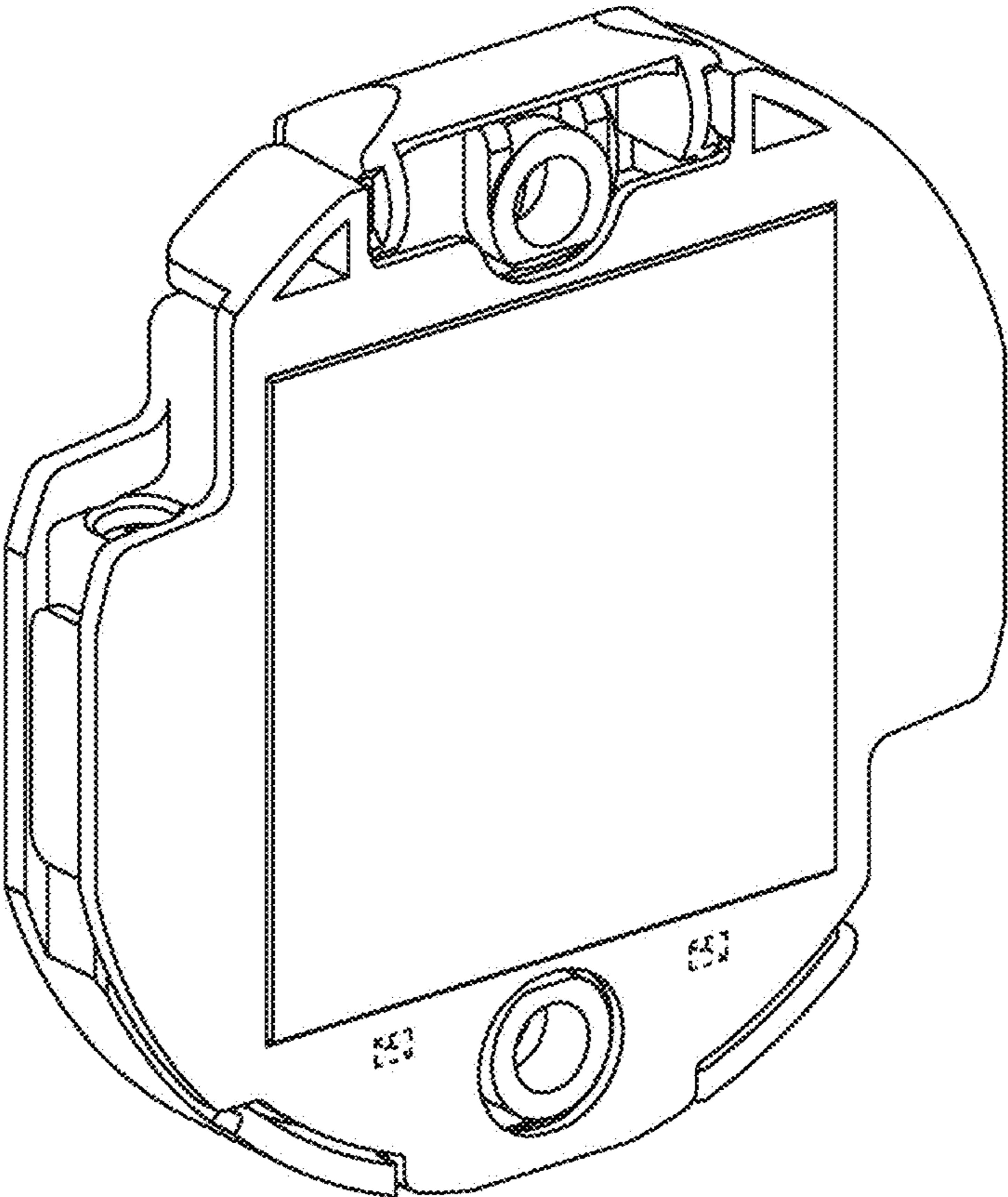
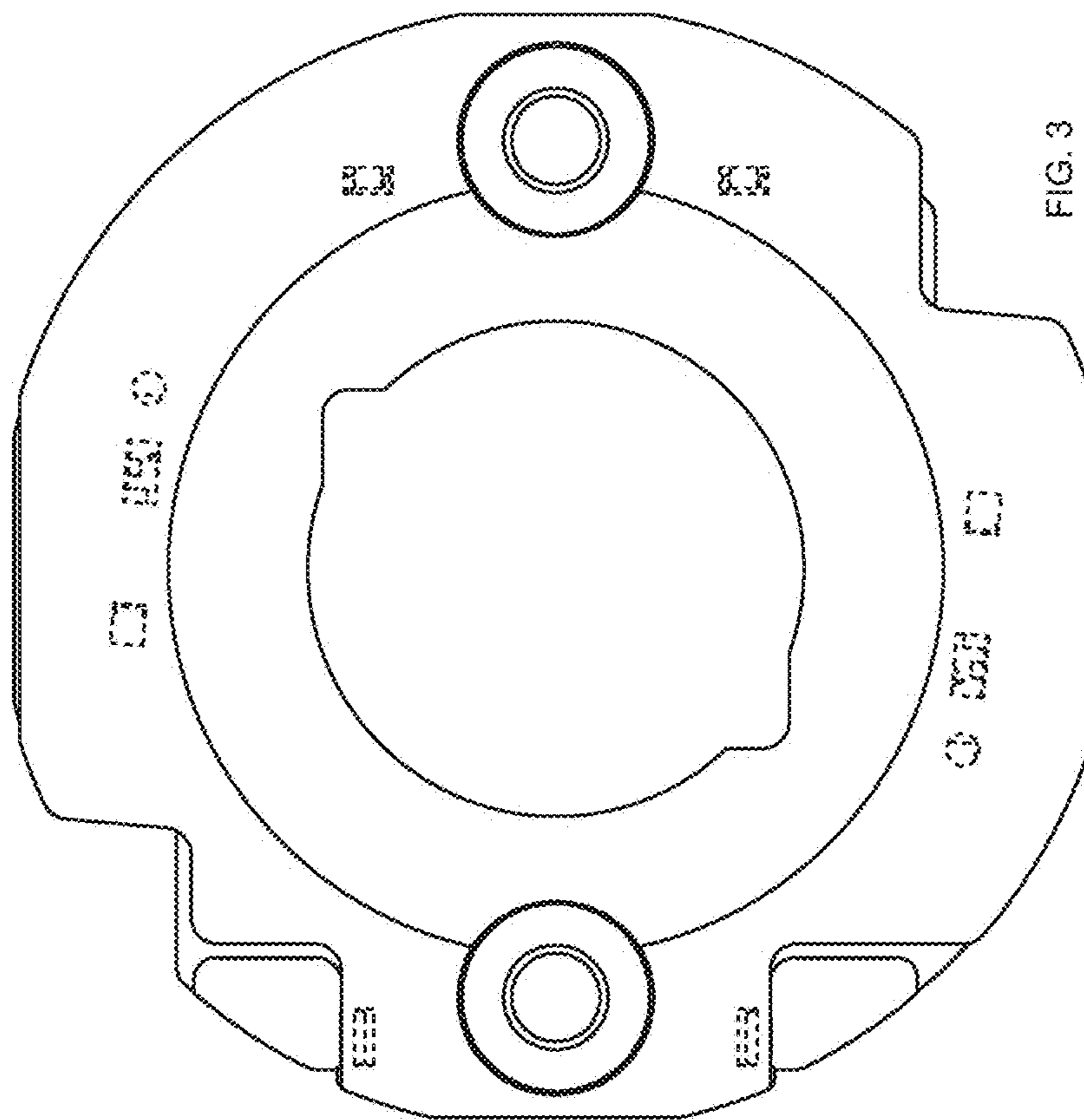


FIG. 2



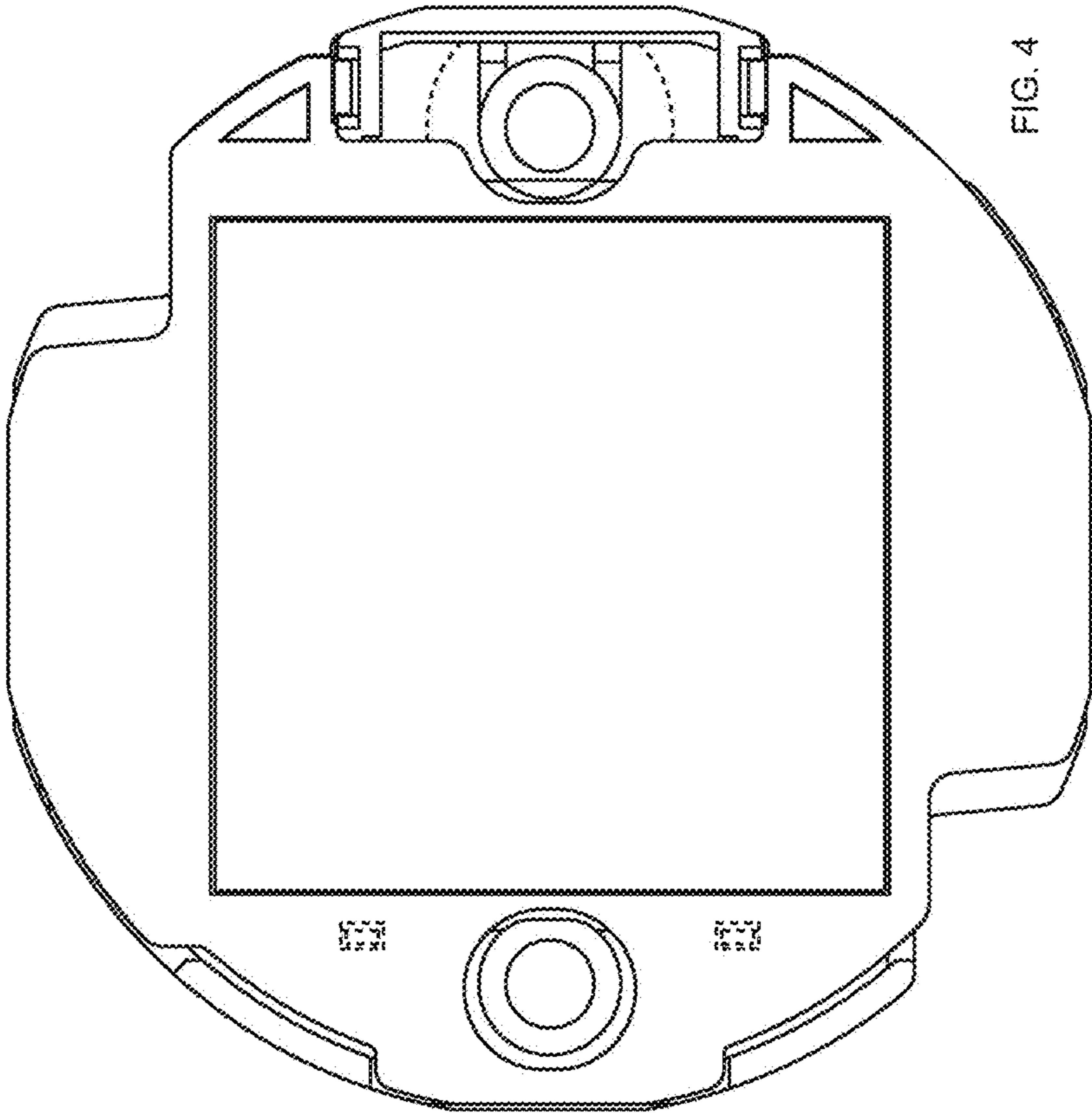


FIG. 4

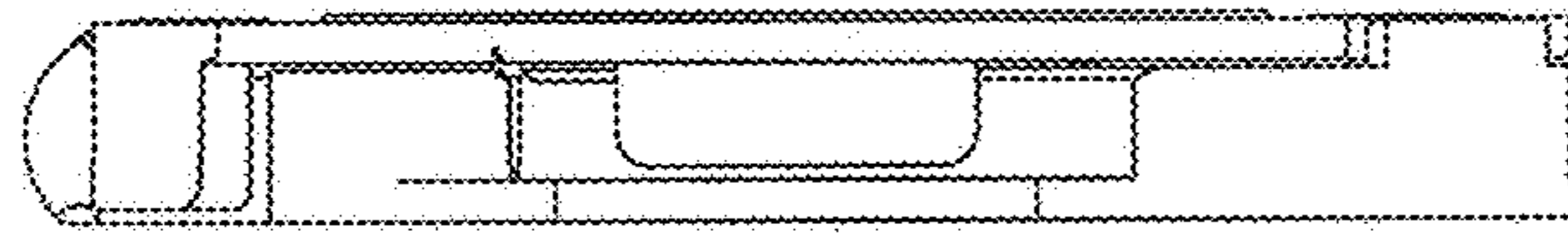


FIG. 5



FIG. 6

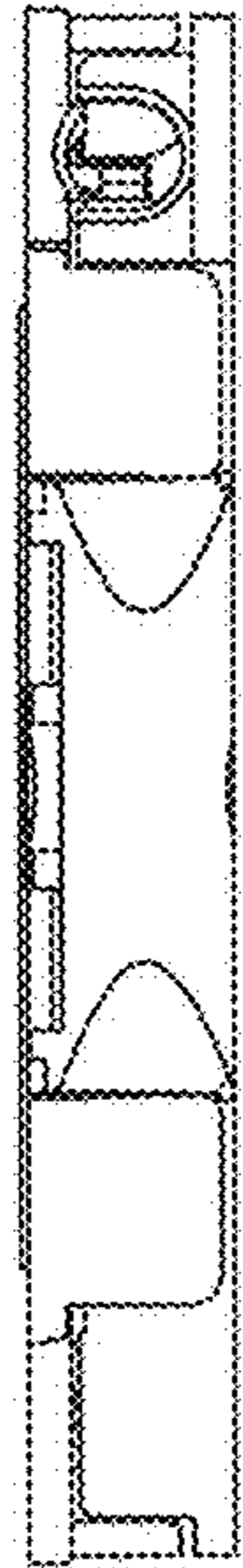


FIG. 7

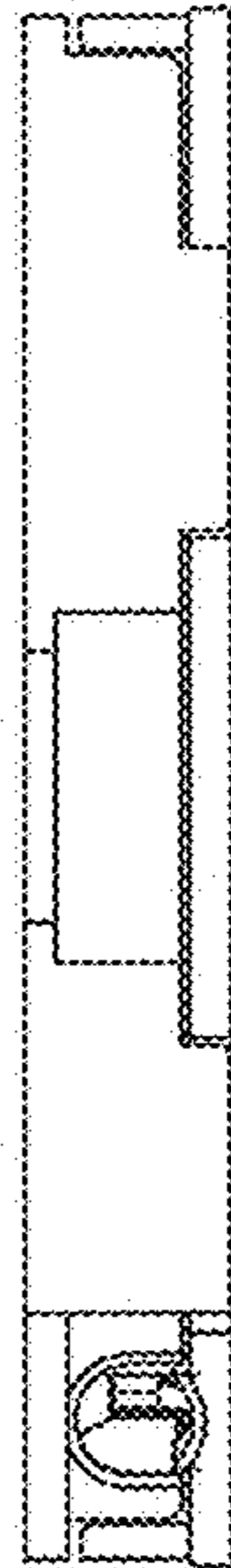


FIG. 8

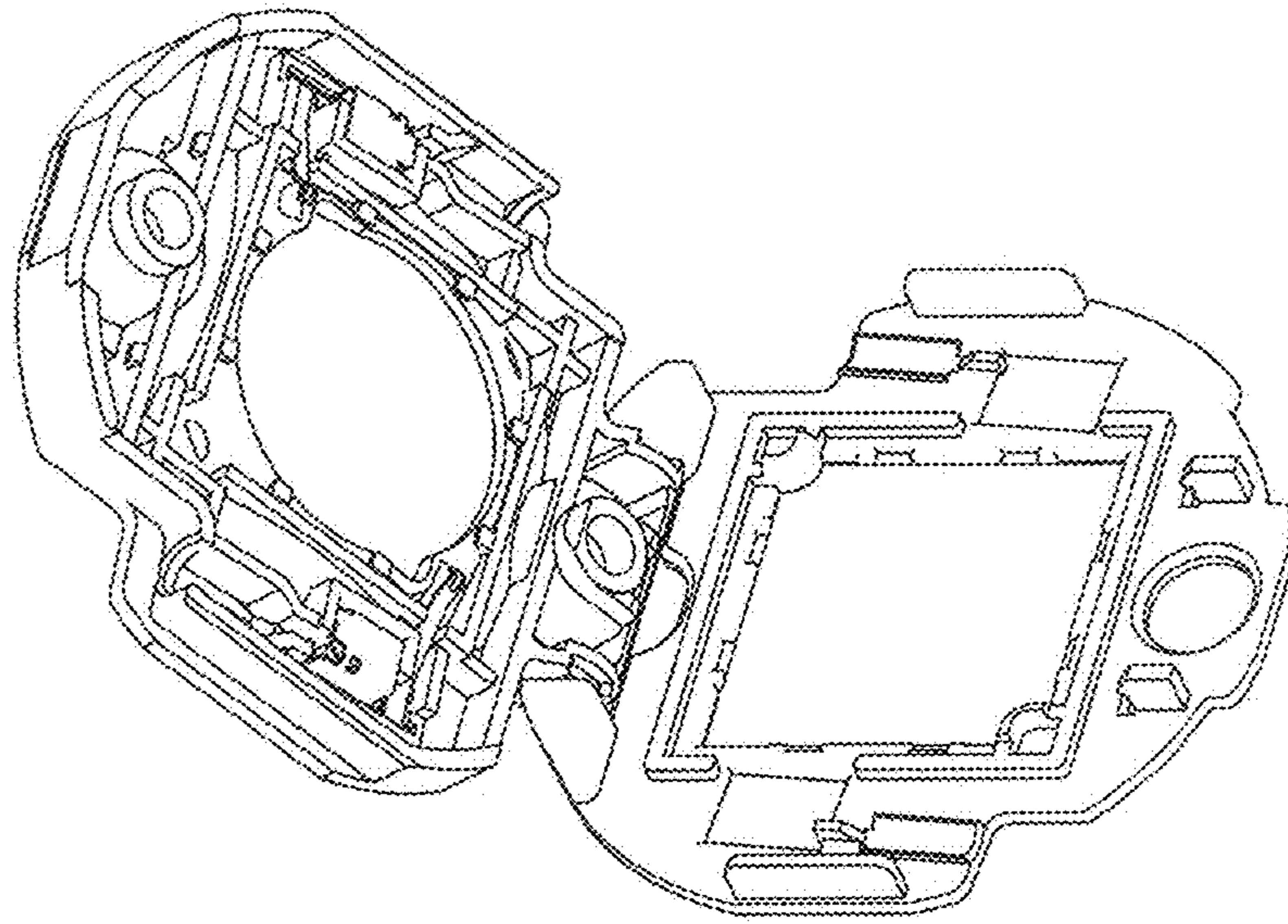


FIG. 9