



US00D866470S

(12) **United States Design Patent**  
**Sprengr**

(10) **Patent No.:** **US D866,470 S**

(45) **Date of Patent:** **\*\* Nov. 12, 2019**

(54) **ELECTRICAL CONNECTOR**

(71) Applicant: **Phoenix Contact GmbH & Co. KG**,  
Blomberg (DE)

(72) Inventor: **Dennis Sprenger**, Horn-Bad Meinberg  
(DE)

(73) Assignee: **PHOENIX CONTACT GMBH & CO.**  
**KG**, Blomberg (DE)

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

(21) Appl. No.: **29/581,413**

(22) Filed: **Oct. 19, 2016**

(30) **Foreign Application Priority Data**

Apr. 22, 2016 (DE) ..... 40 2016 100 525

(51) **LOC (12) Cl.** ..... **13-03**

(52) **U.S. Cl.**  
USPC ..... **D13/133; D13/147**

(58) **Field of Classification Search**  
USPC ..... D13/118, 123, 133, 145-147, 154-156,  
D13/173, 175, 177, 184, 199

CPC ..... H01R 13/04; H01R 13/28; H01R 13/44;  
H01R 13/52; H01R 13/62; H01R 13/627;  
H01R 13/639; H01R 13/658; H01R  
13/6581; H01R 13/66; H01R 43/00;  
H01R 43/18; H01R 43/20; H01R 43/24;  
H01R 4/24; H01R 4/2433; H01R 4/2441;  
H01R 4/2408; H01R 4/48; H01R 4/4818;  
H01R 9/22; H01R 9/24

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

6,222,717 B1 \* 4/2001 Waas ..... H01R 4/2433  
361/119  
7,946,091 B1 \* 5/2011 Wisniewski ..... H02G 3/123  
174/53  
D778,241 S \* 2/2017 Holbrook ..... D13/152  
D803,157 S \* 11/2017 Mugan ..... D13/133

(Continued)

**OTHER PUBLICATIONS**

SDC 2.5 with SKEDD technology, dated Sep. 19, 2016, [online],  
[site visited Oct. 4, 2018]. Available from Internet, <URL: <https://www.youtube.com/watch?v=yXY300wXDM4>> (Year: 2016).\*

(Continued)

*Primary Examiner* — Angela J Lee

*Assistant Examiner* — Shawn T Gingrich

(74) *Attorney, Agent, or Firm* — Leydig, Voit & Mayer,  
Ltd.

(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a bottom left front perspective view of the first  
embodiment of the electrical connector showing my new  
design;

FIG. 2 is a bottom plan view thereof;

FIG. 3 is a rear elevational view thereof;

FIG. 4 is a front elevational view thereof;

FIG. 5 is a right side elevational view thereof;

FIG. 6 is a left side elevational view thereof;

FIG. 7 is a top plan view thereof;

FIG. 8 is a bottom left front perspective view of a second  
embodiment of the electrical connector showing my new  
design;

FIG. 9 is a bottom plan view thereof;

FIG. 10 is a rear elevational view thereof;

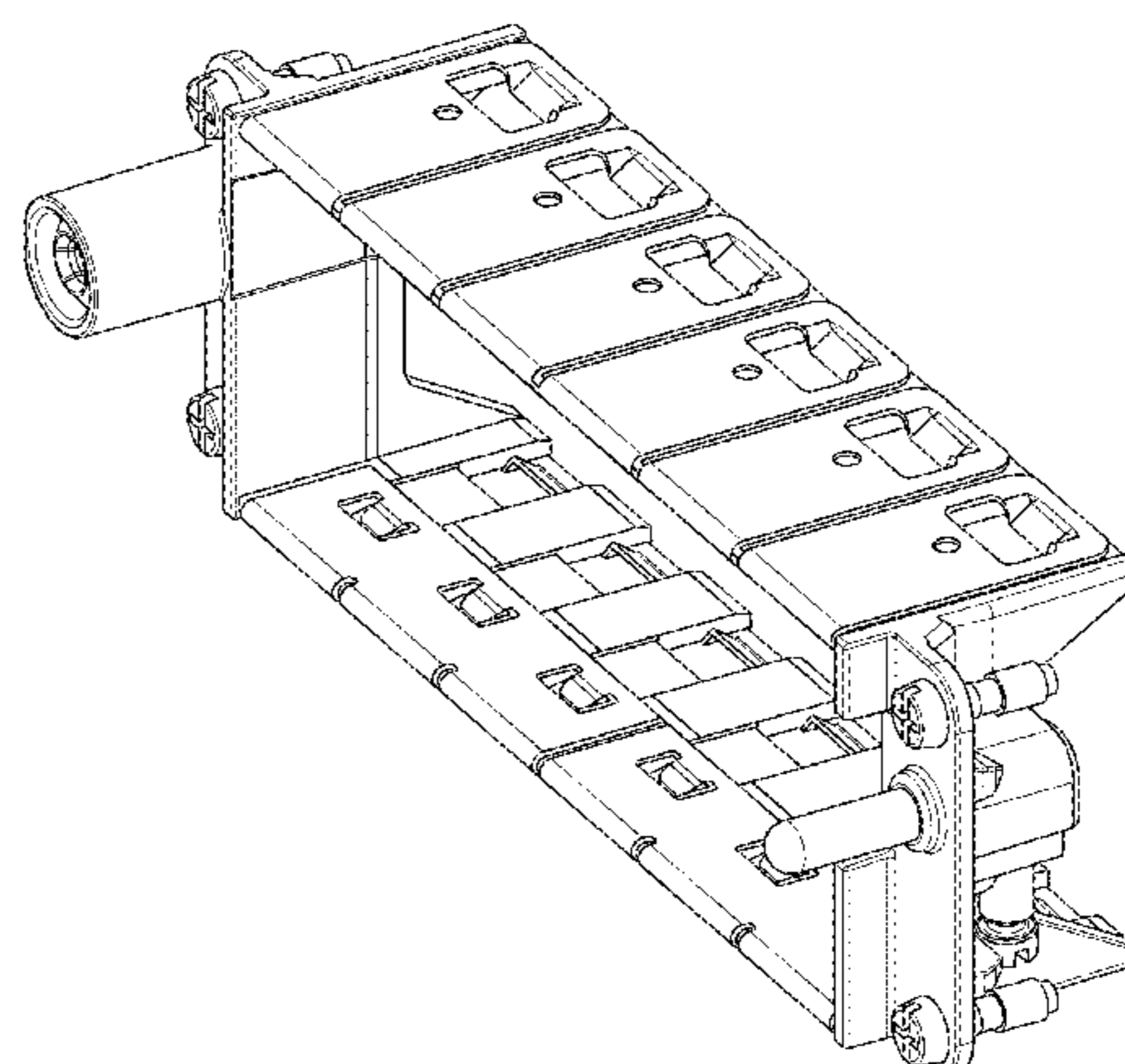
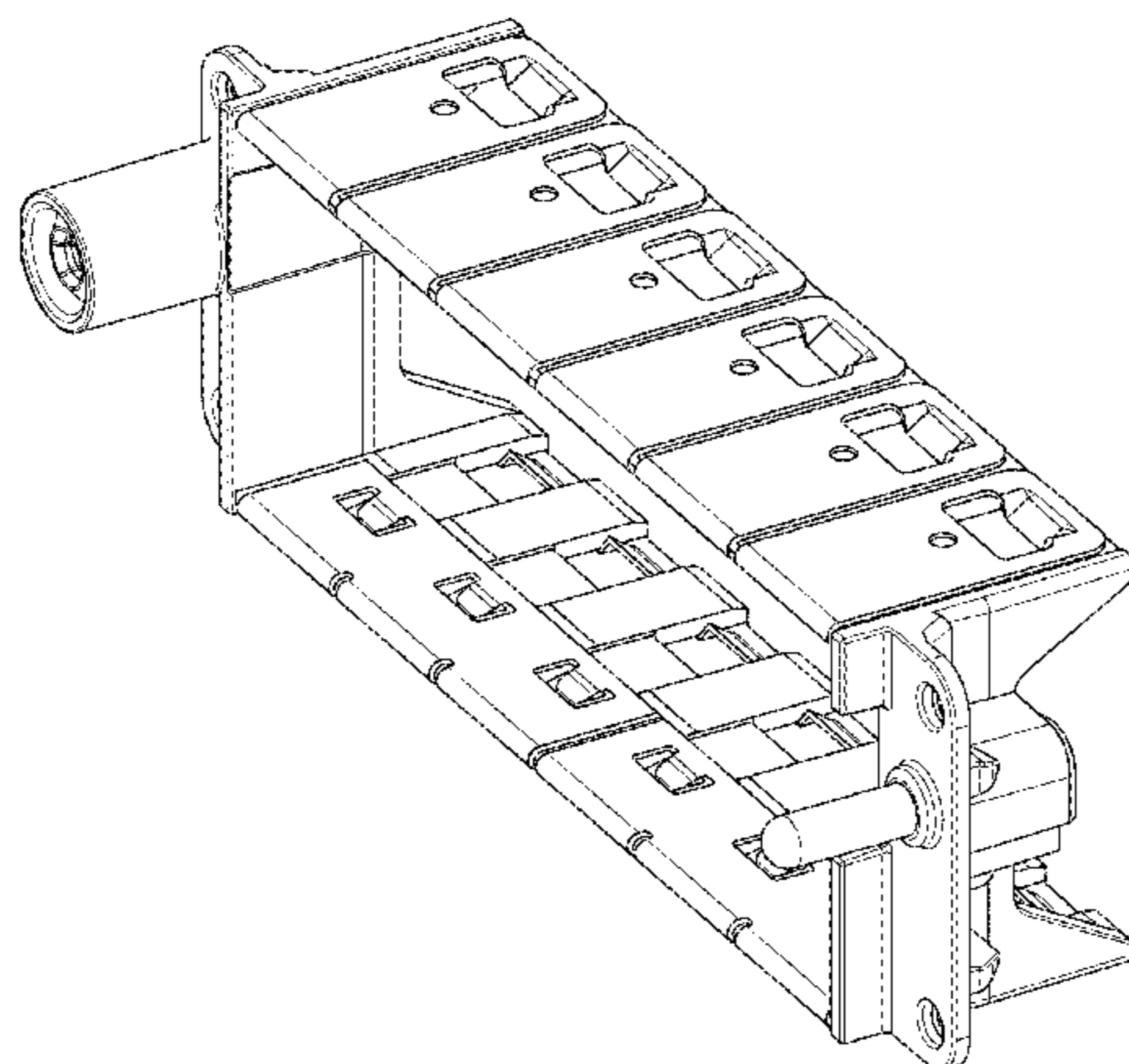
FIG. 11 is a front elevational view thereof;

FIG. 12 is a right side elevational view thereof;

FIG. 13 is a left side elevational view thereof; and,

FIG. 14 is a top plan view thereof.

**1 Claim, 14 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2006/0274996 A1\* 12/2006 Mine ..... G02B 6/4204  
385/88  
2008/0032566 A1\* 2/2008 Walter ..... H01R 4/4836  
439/721  
2015/0044897 A1\* 2/2015 Wu ..... H01R 4/48  
439/352  
2015/0093943 A1\* 4/2015 Nagasaki ..... H01R 13/193  
439/817  
2015/0200060 A1\* 7/2015 Legendre ..... H01H 1/06  
218/4  
2017/0207551 A1\* 7/2017 Ray ..... H02G 3/081

OTHER PUBLICATIONS

Power connectors with Click-n-Lock, dated Apr. 20, 2009, [online],  
[site visited Oct. 4, 2018]. Available from Internet, <URL: <https://www.youtube.com/watch?v=OfFqXfTBKmk>> (Year: 2009).\*

\* cited by examiner

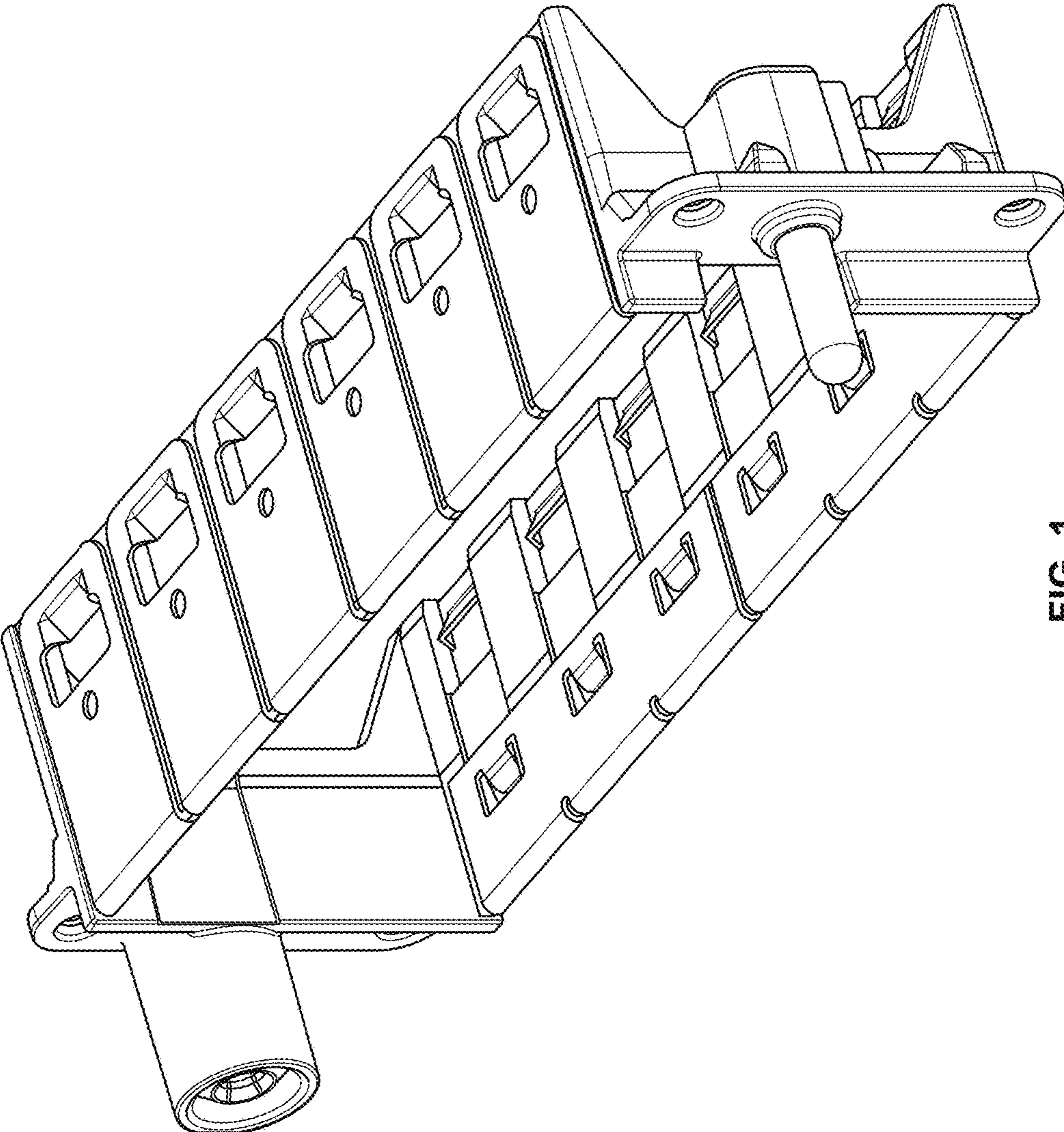


FIG. 1

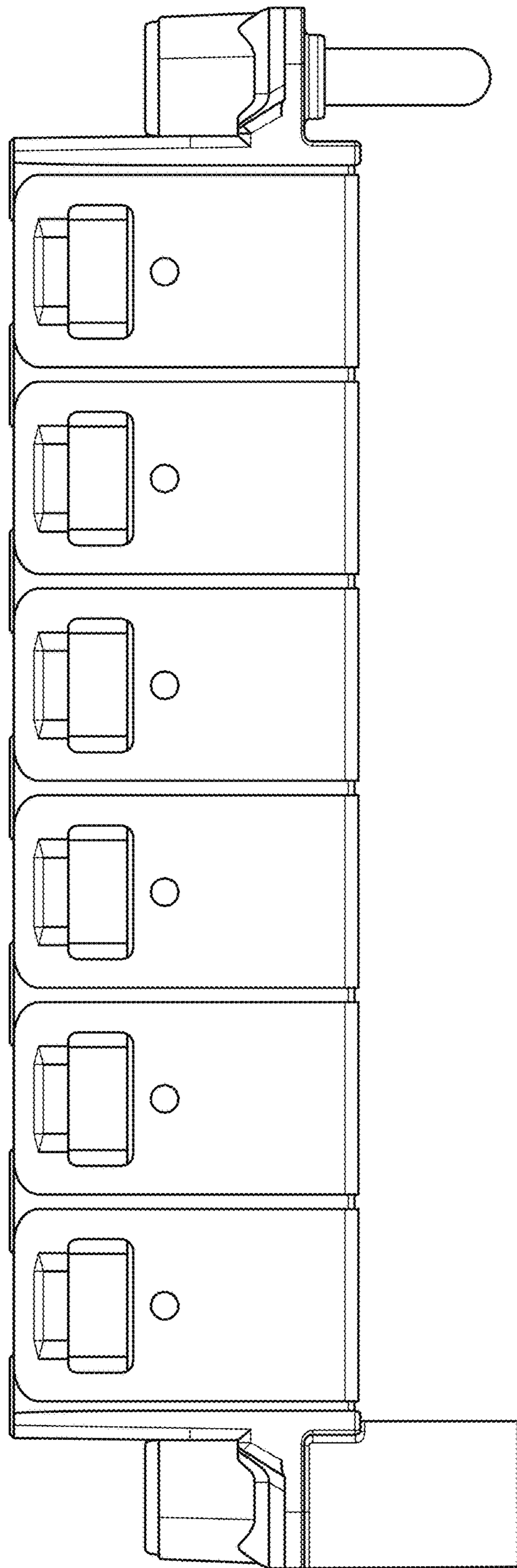


FIG. 2



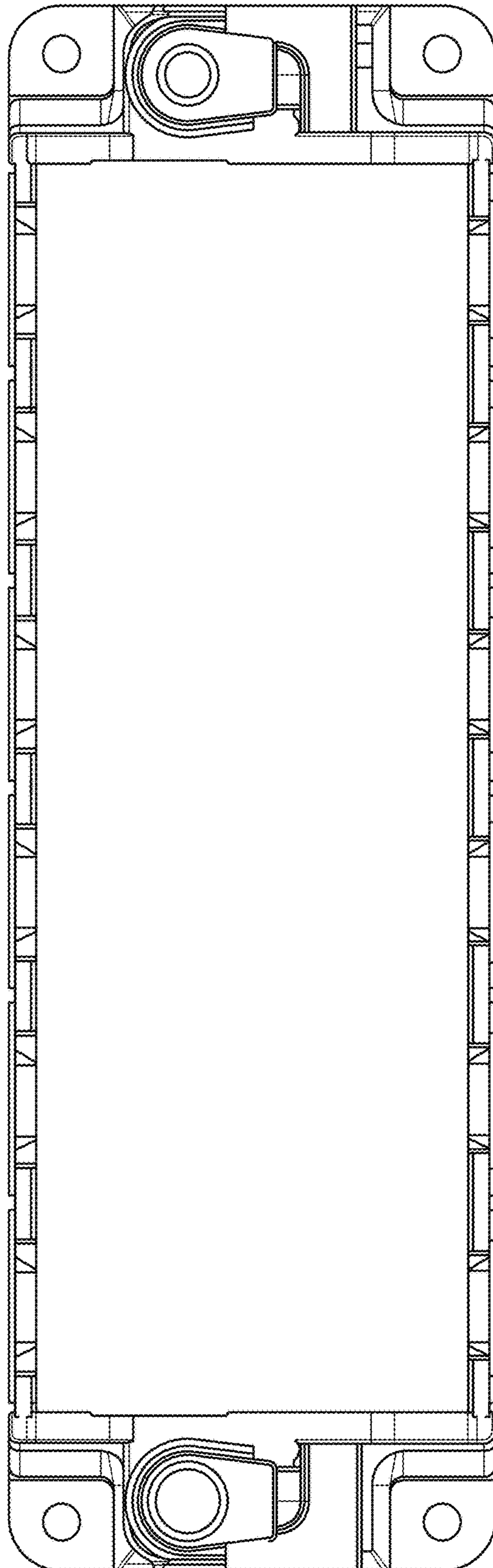


FIG. 3

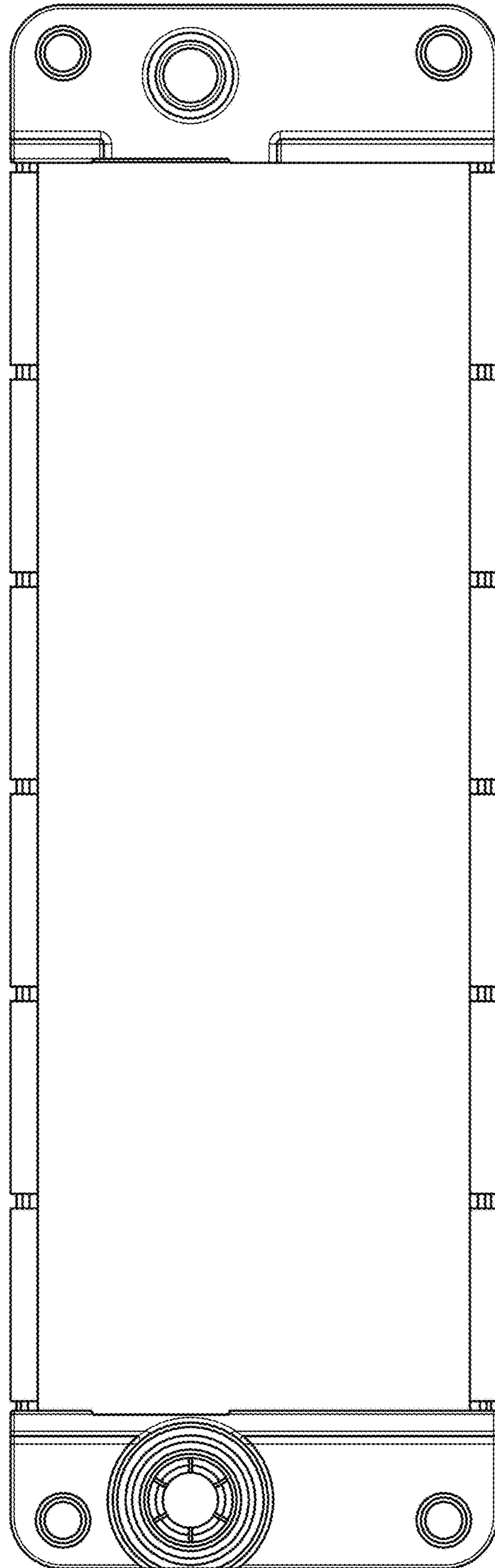


FIG. 4

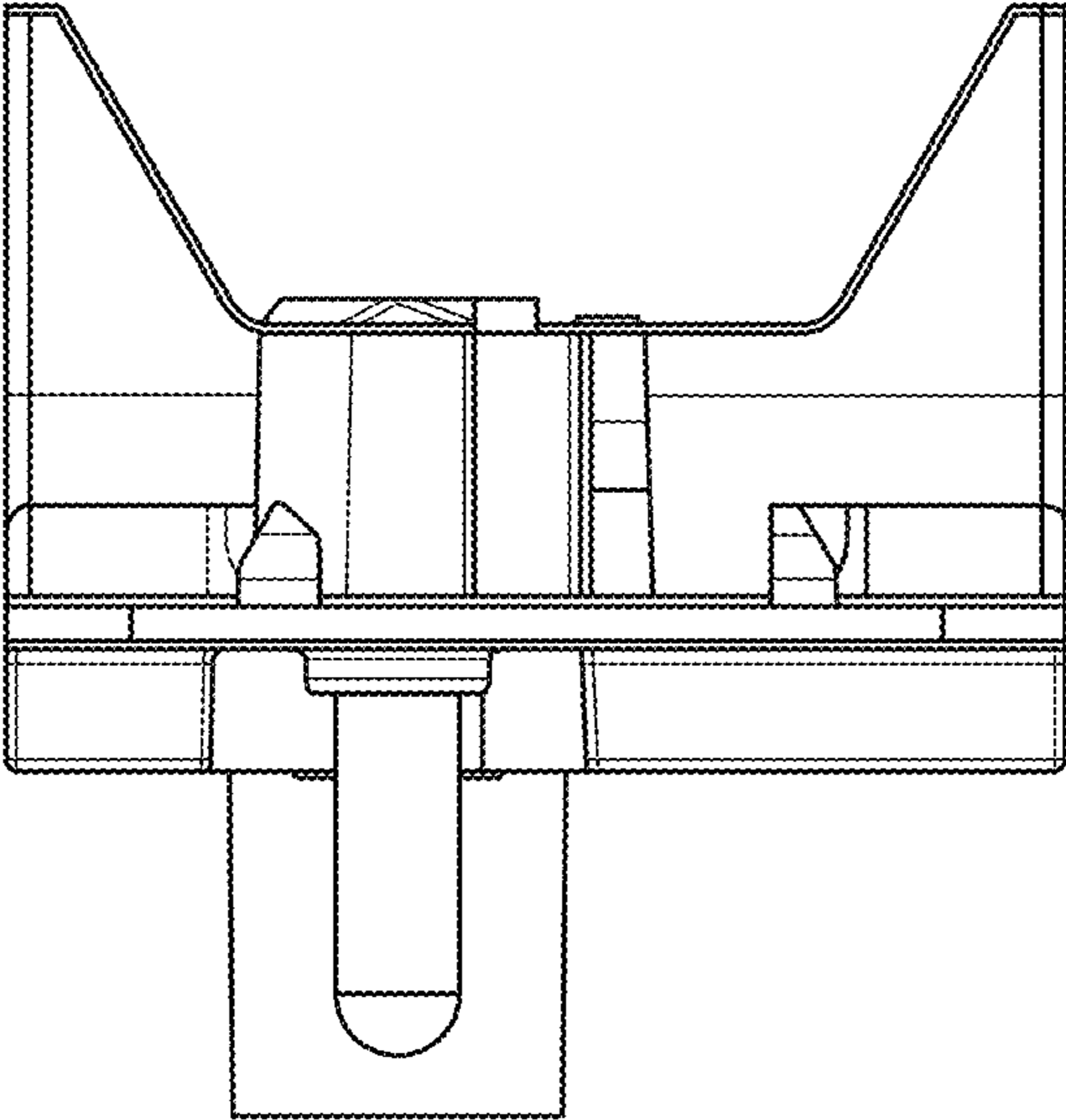


FIG. 5

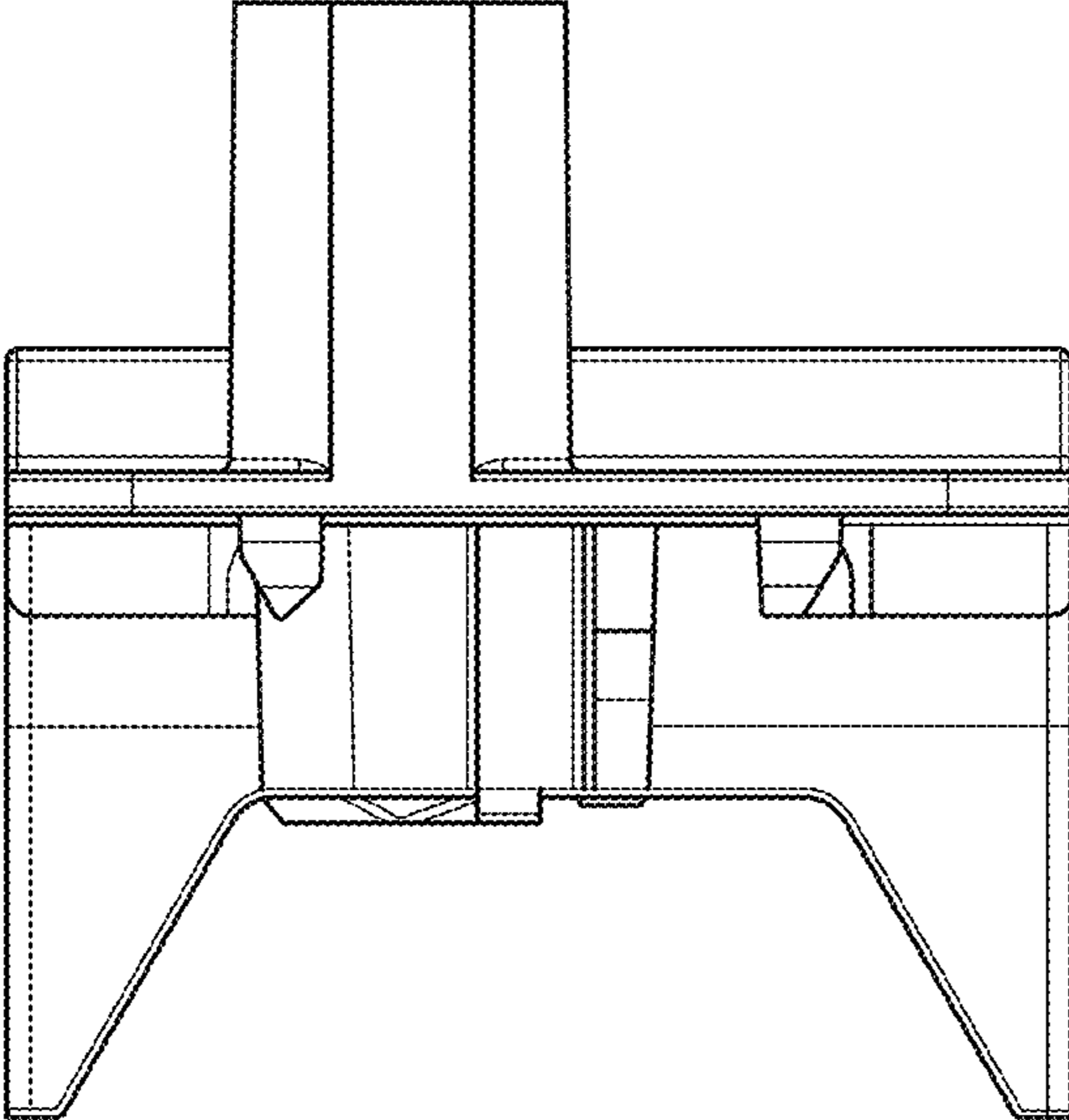


FIG. 6



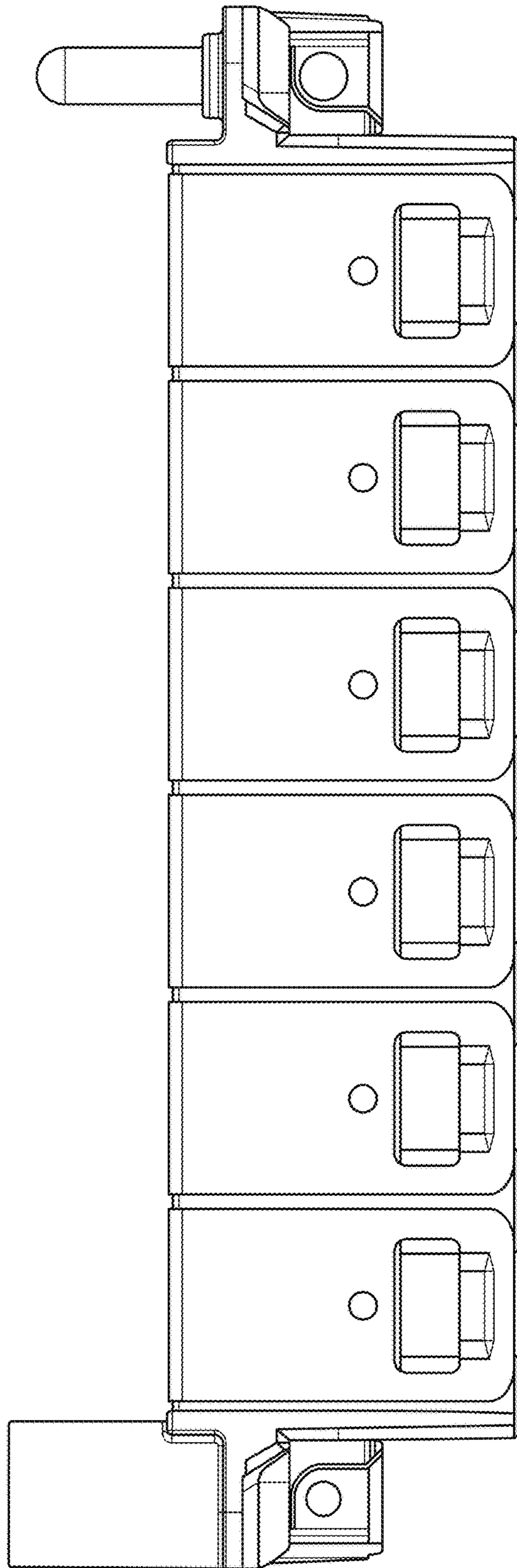


FIG. 7

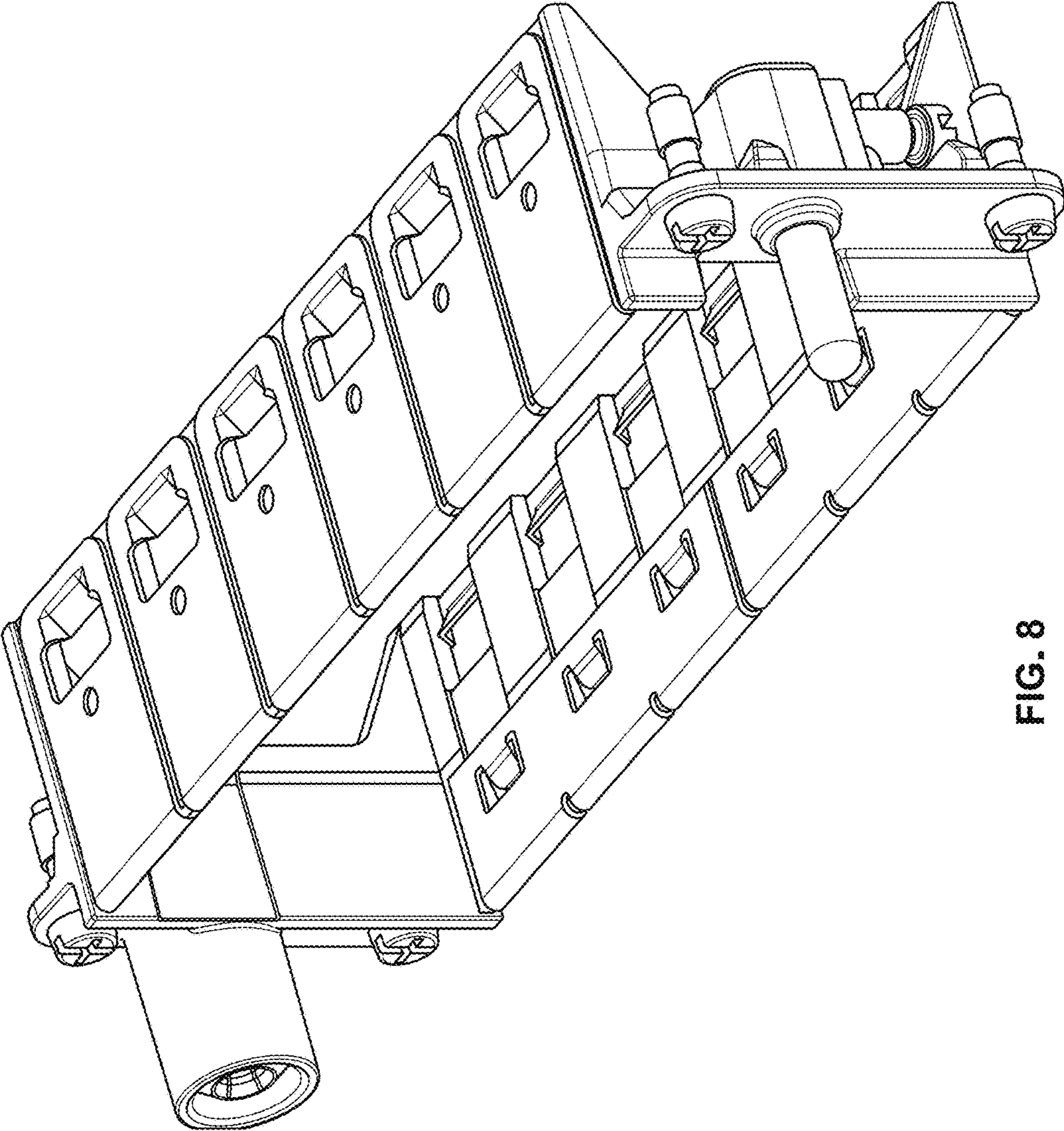


FIG. 8

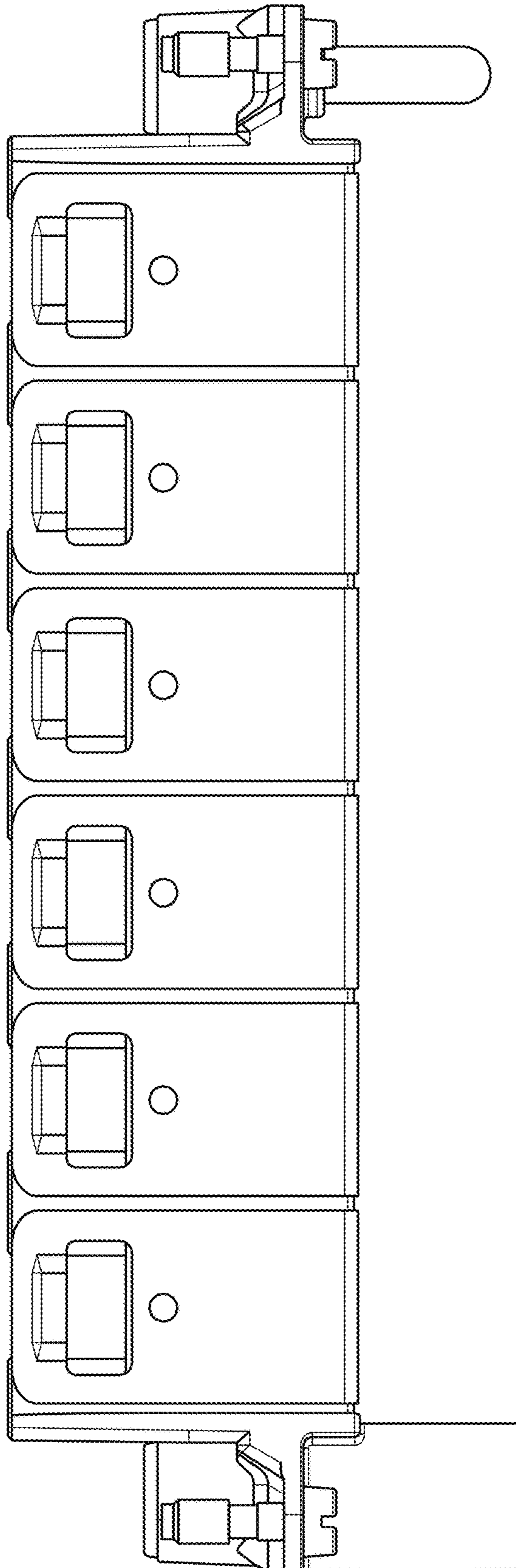


FIG. 9

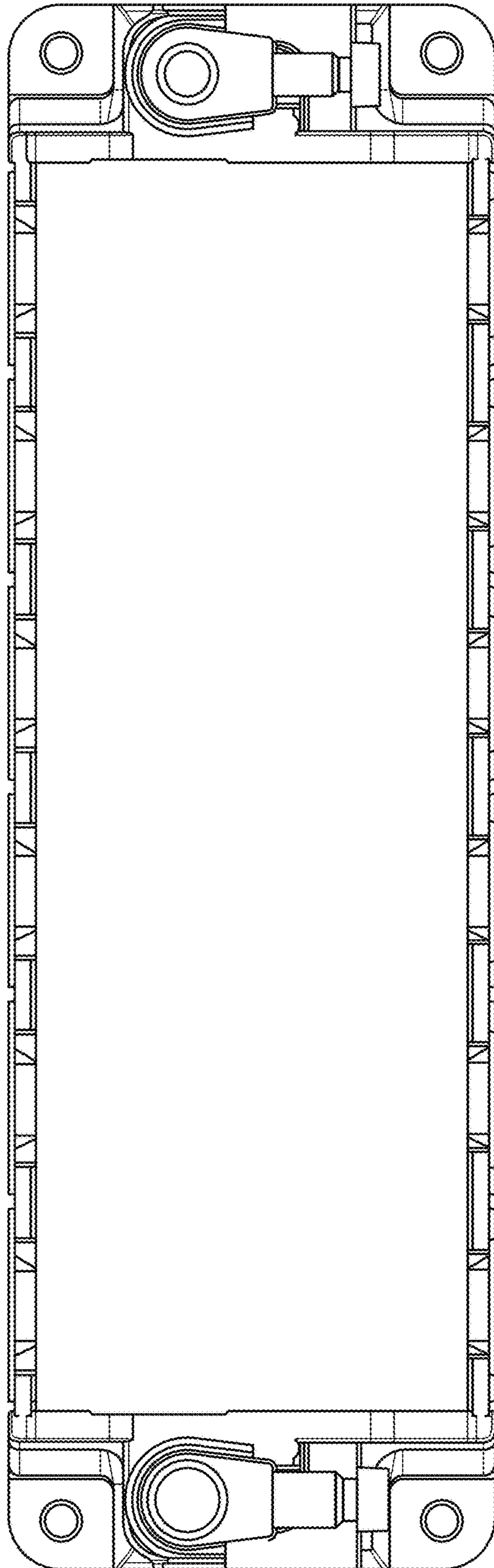


FIG. 10



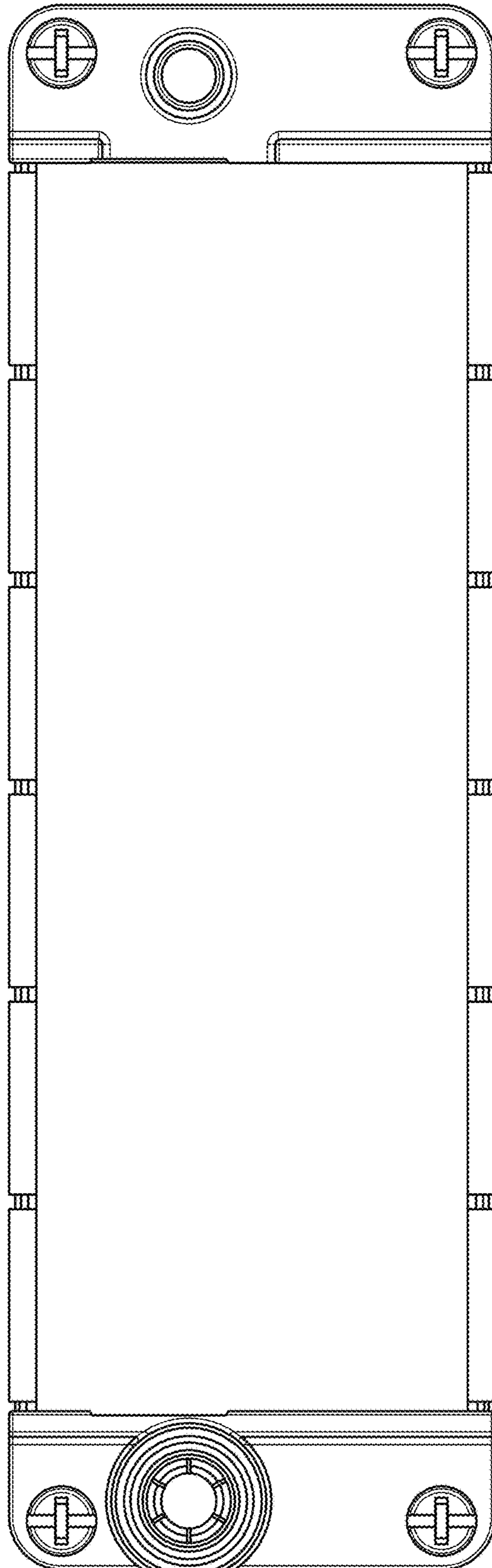


FIG. 11



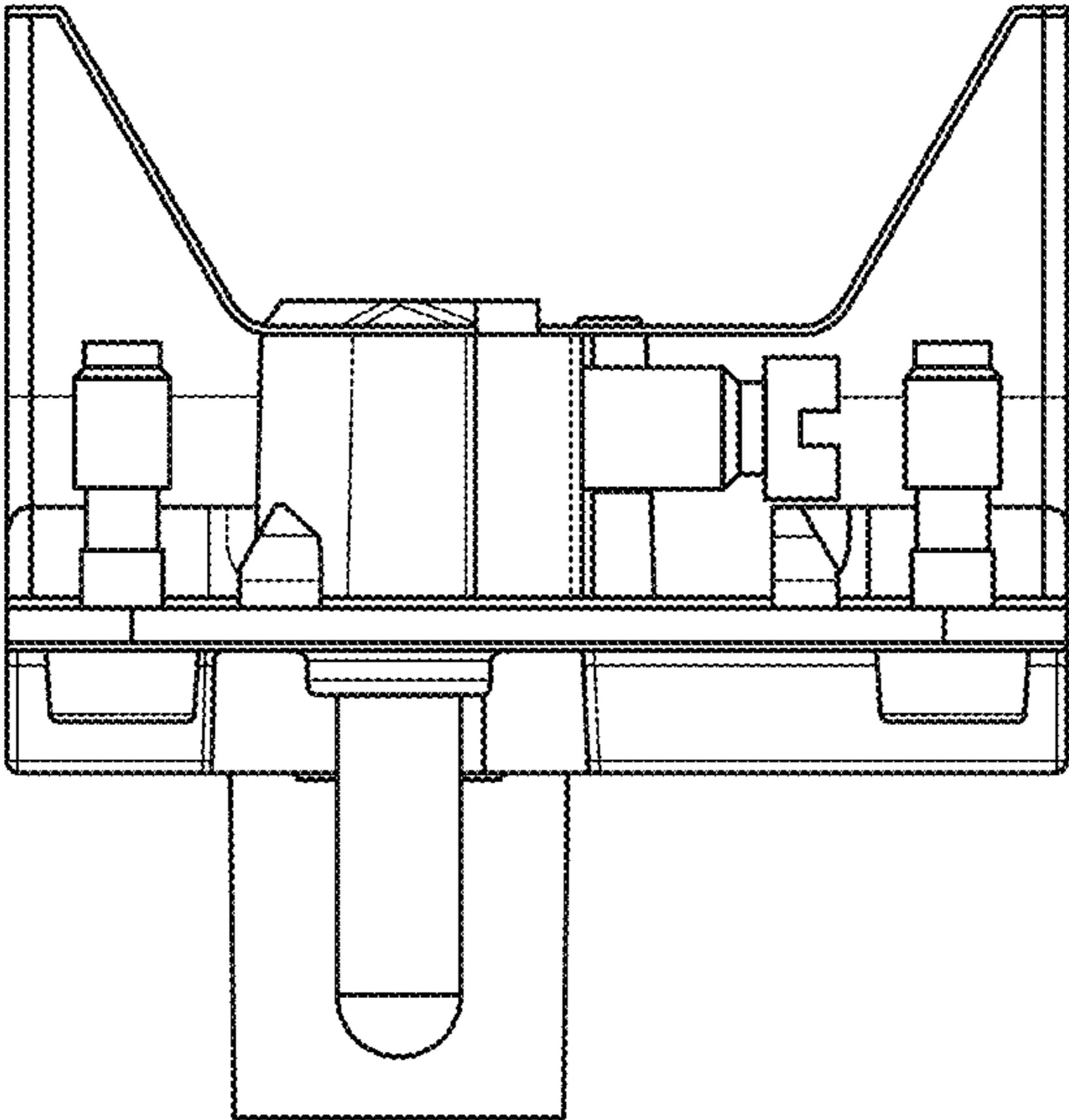


FIG. 12

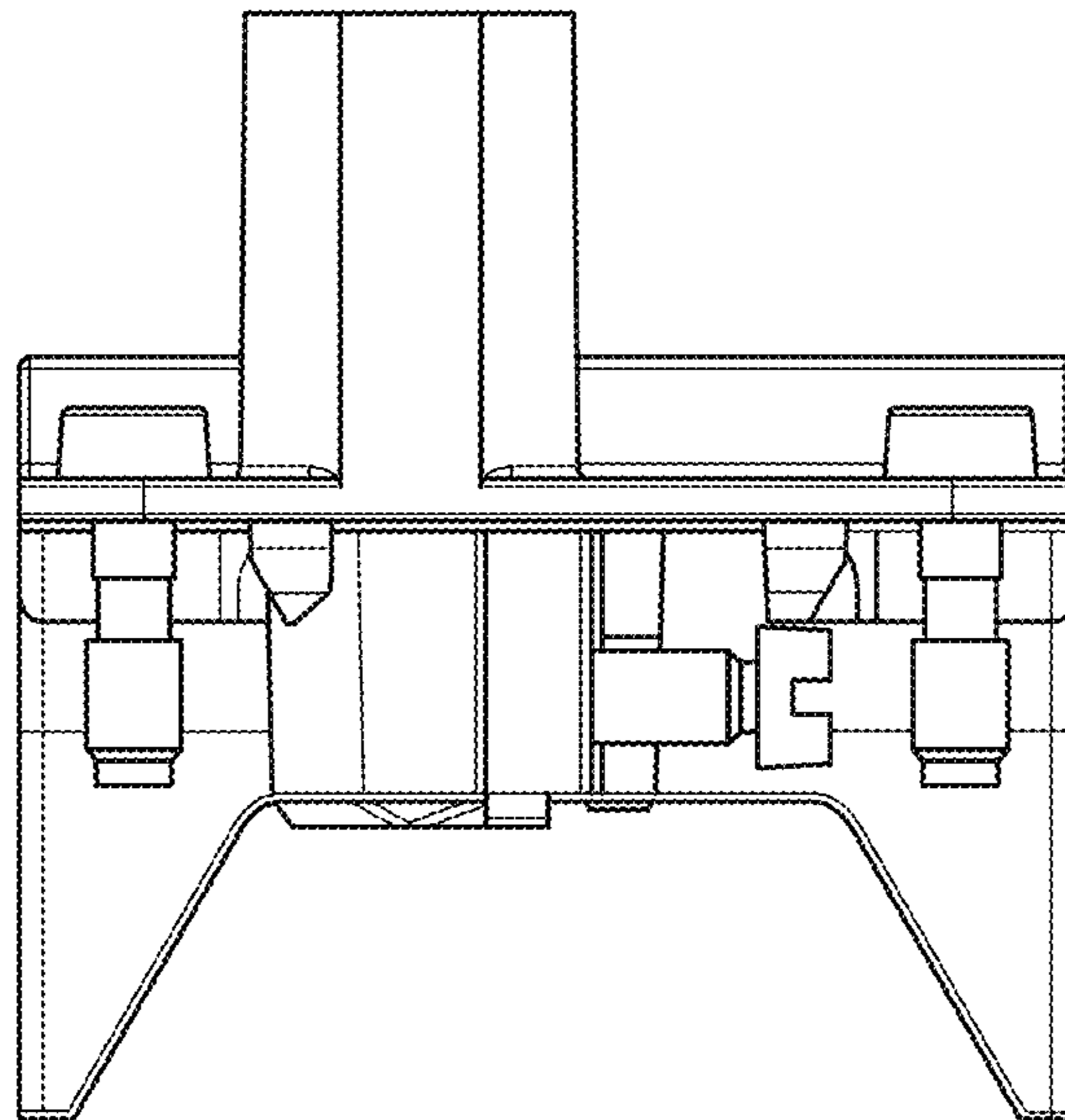


FIG. 13

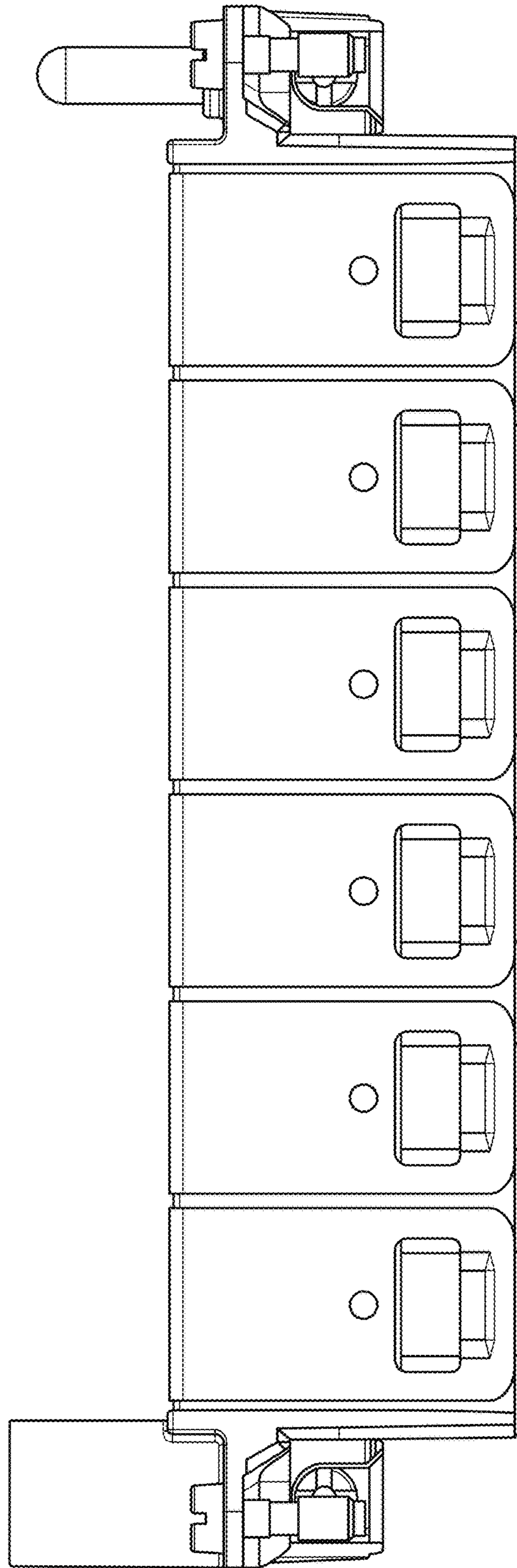


FIG. 14