



US00D683706S

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

(10) **Patent No.:** **US D683,706 S**
(45) **Date of Patent:** **** Jun. 4, 2013**

(54) **PROTECTIVE RELAY**

(56) **References Cited**

(75) Inventor: **Simo Kangas**, Vaasa (FI)

(73) Assignee: **ABB Oy**, Helsinki (FI)

(**) Term: **14 Years**

(21) Appl. No.: **29/387,955**

(22) Filed: **Mar. 22, 2011**

(30) **Foreign Application Priority Data**

Sep. 23, 2010 (EM) 001236103
Mar. 3, 2011 (EM) 001829730

(51) **LOC (9) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/159**

(58) **Field of Classification Search**
USPC D13/110, 119, 123, 133, 146, 147,
D13/152, 159-164, 171, 173, 174, 177, 178,
D13/184, 199; 455/89, 90, 346-349; 361/601,
361/622, 627-628, 679-681, 690; 340/825.22,
340/825.24

See application file for complete search history.

U.S. PATENT DOCUMENTS

D556,698	S	*	12/2007	Walser	.....	D13/164
D584,251	S	*	1/2009	Lewis et al.	.....	D13/184
D611,007	S	*	3/2010	Kangas	.....	D13/164
D633,059	S	*	2/2011	Delakowitz	.....	D13/184
D643,376	S	*	8/2011	Naumann et al.	.....	D13/160
D661,252	S	*	6/2012	Grunwald et al.	.....	D13/123
2009/0308863	A1	*	12/2009	Naumann et al.	.....	220/3.7

* cited by examiner

Primary Examiner — Thomas Johannes

(74) *Attorney, Agent, or Firm* — Buchanan Ingersoll & Rooney PC

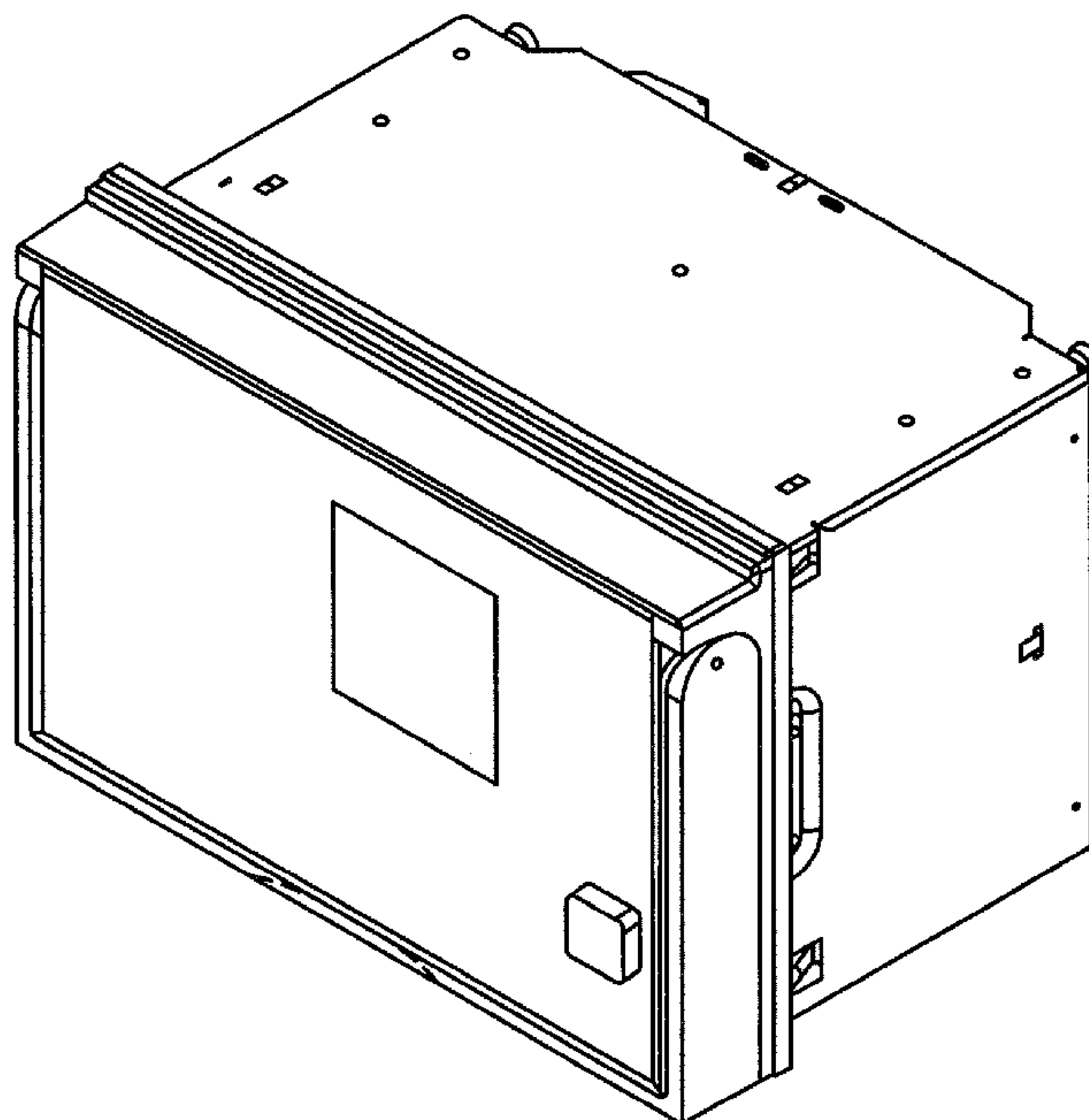
(57) **CLAIM**

The ornamental design for a protective relay, as shown and described.

DESCRIPTION

FIG. 1 is a front, top and left side perspective view of a protective relay showing my new design. FIG. 2 is a front elevational view thereof. FIG. 3 is a rear elevational view thereof. FIG. 4 is a top plan view thereof. FIG. 5 is a bottom plan view thereof. FIG. 6 is a right side elevational view thereof; and, FIG. 7 is a left side elevational view thereof. The broken line portion of the drawing figures is included to show unclaimed subject matter only and forms no part of the claimed design.

1 Claim, 7 Drawing Sheets



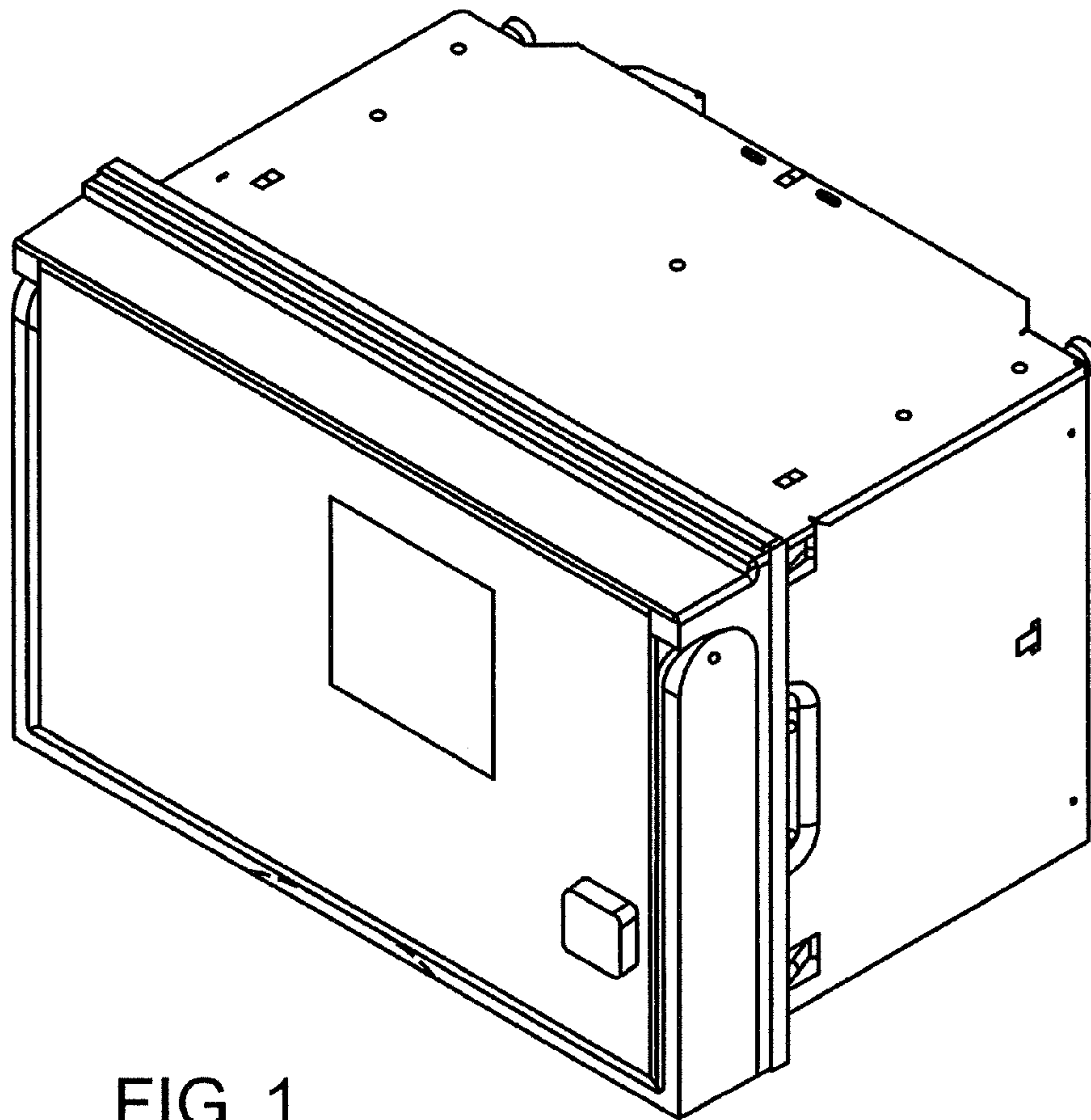


FIG. 1

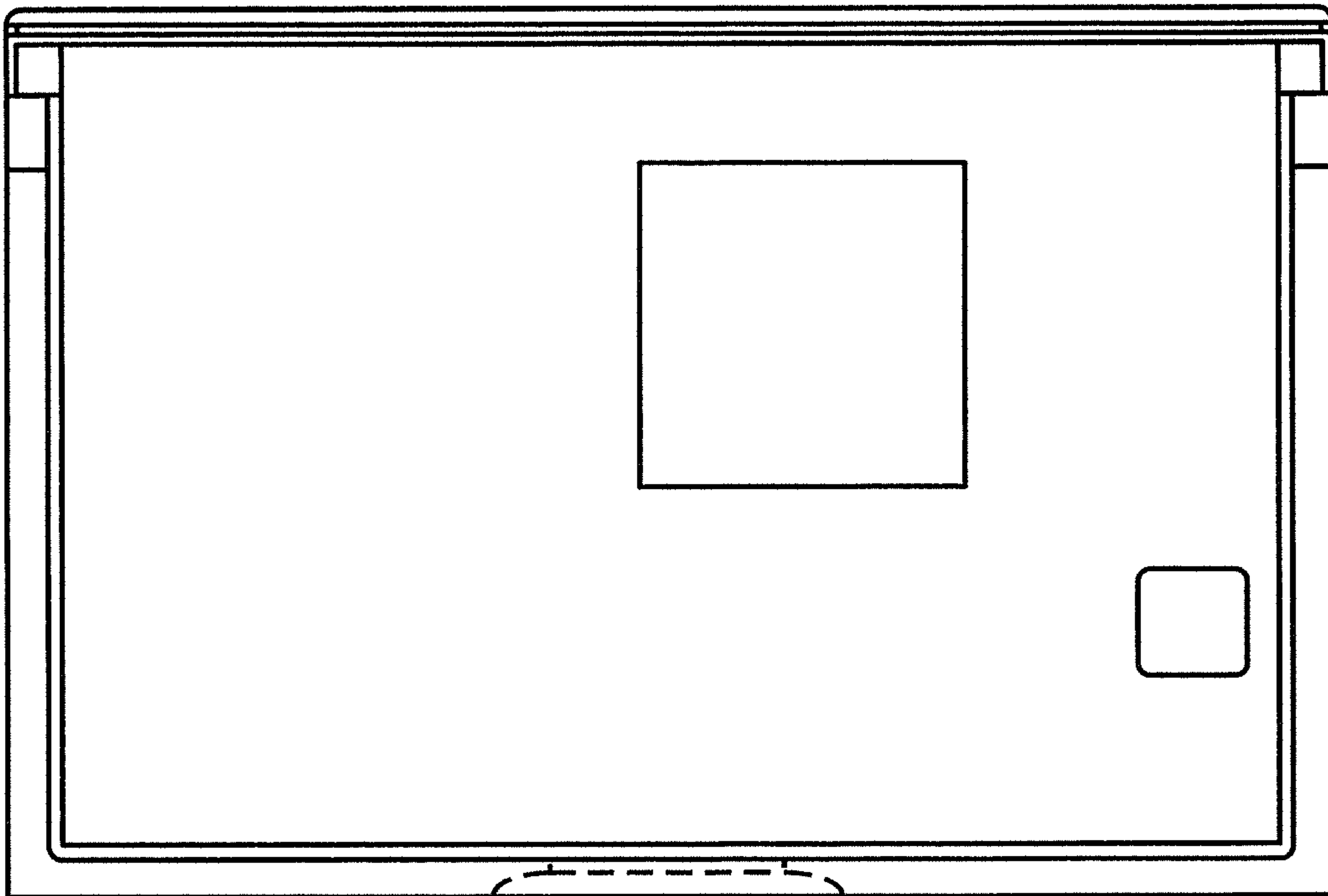


FIG. 2

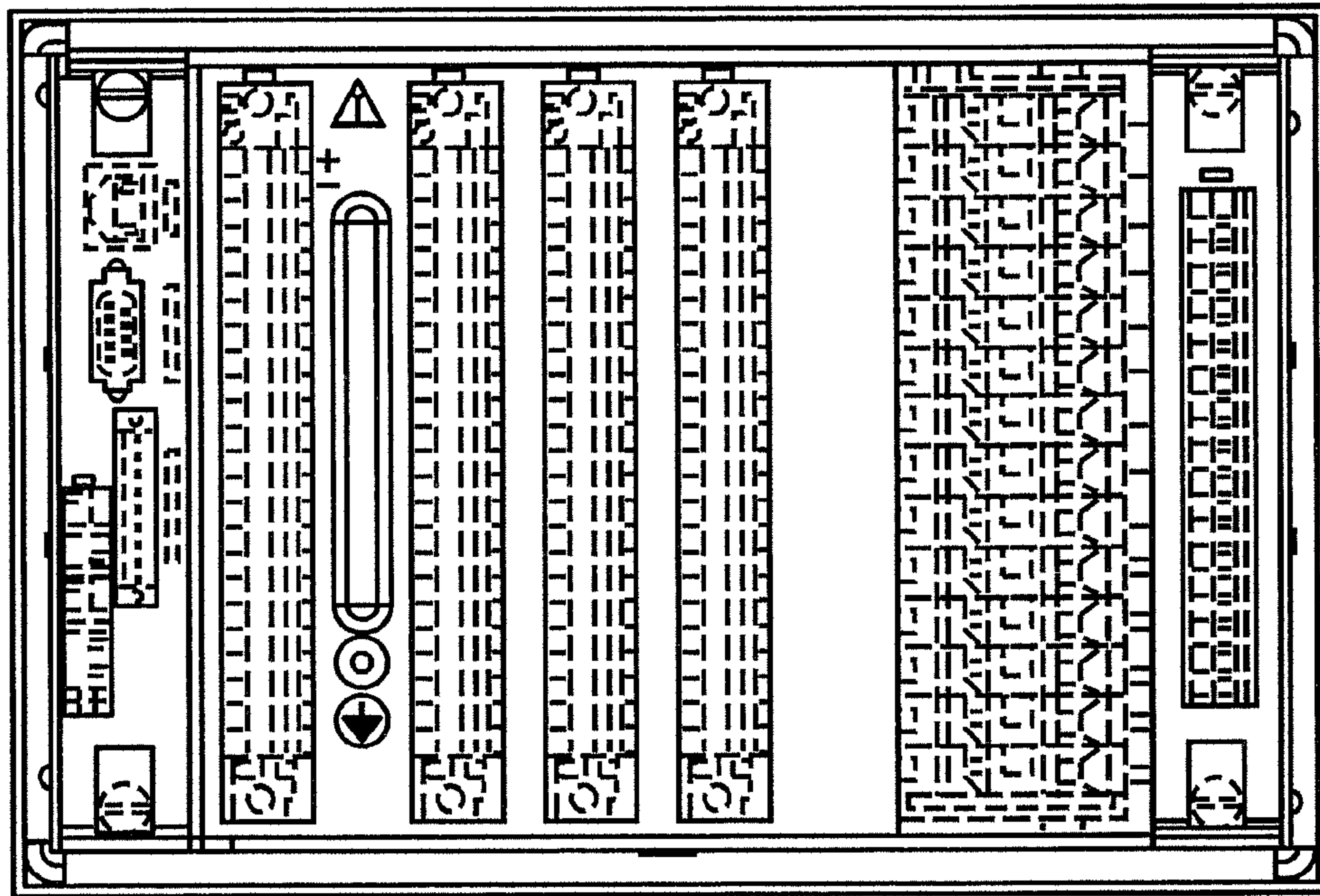


FIG. 3

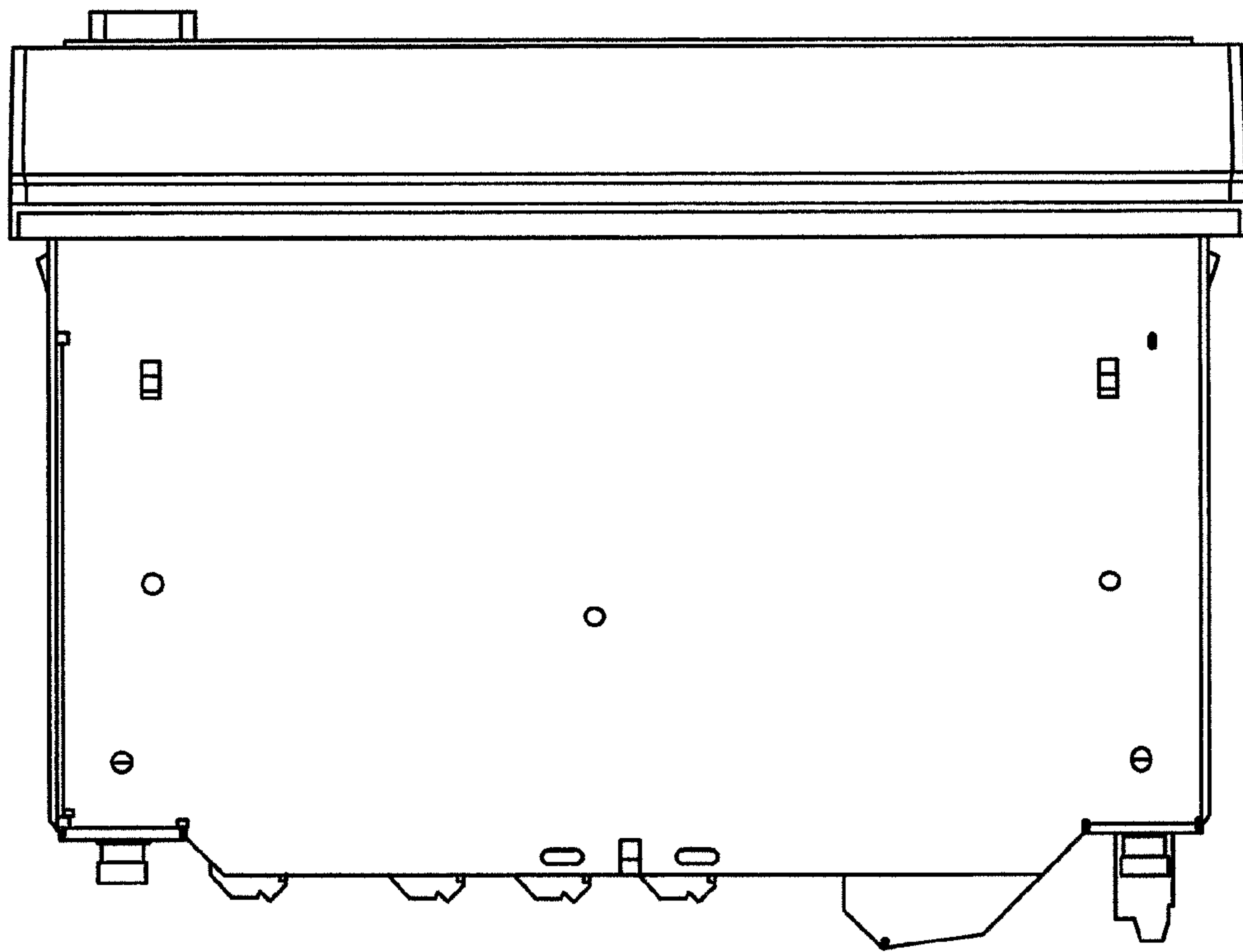


FIG. 4

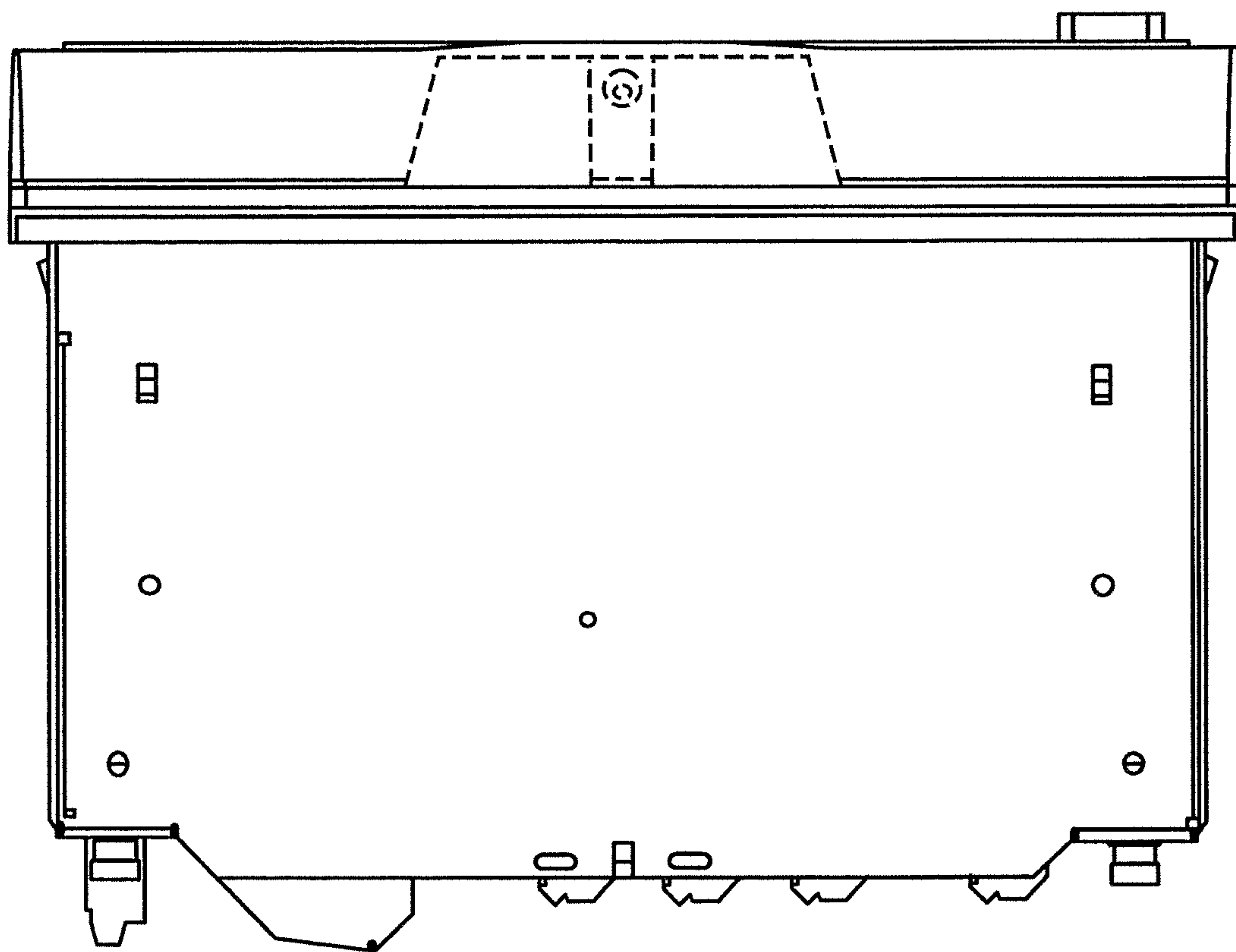


FIG. 5

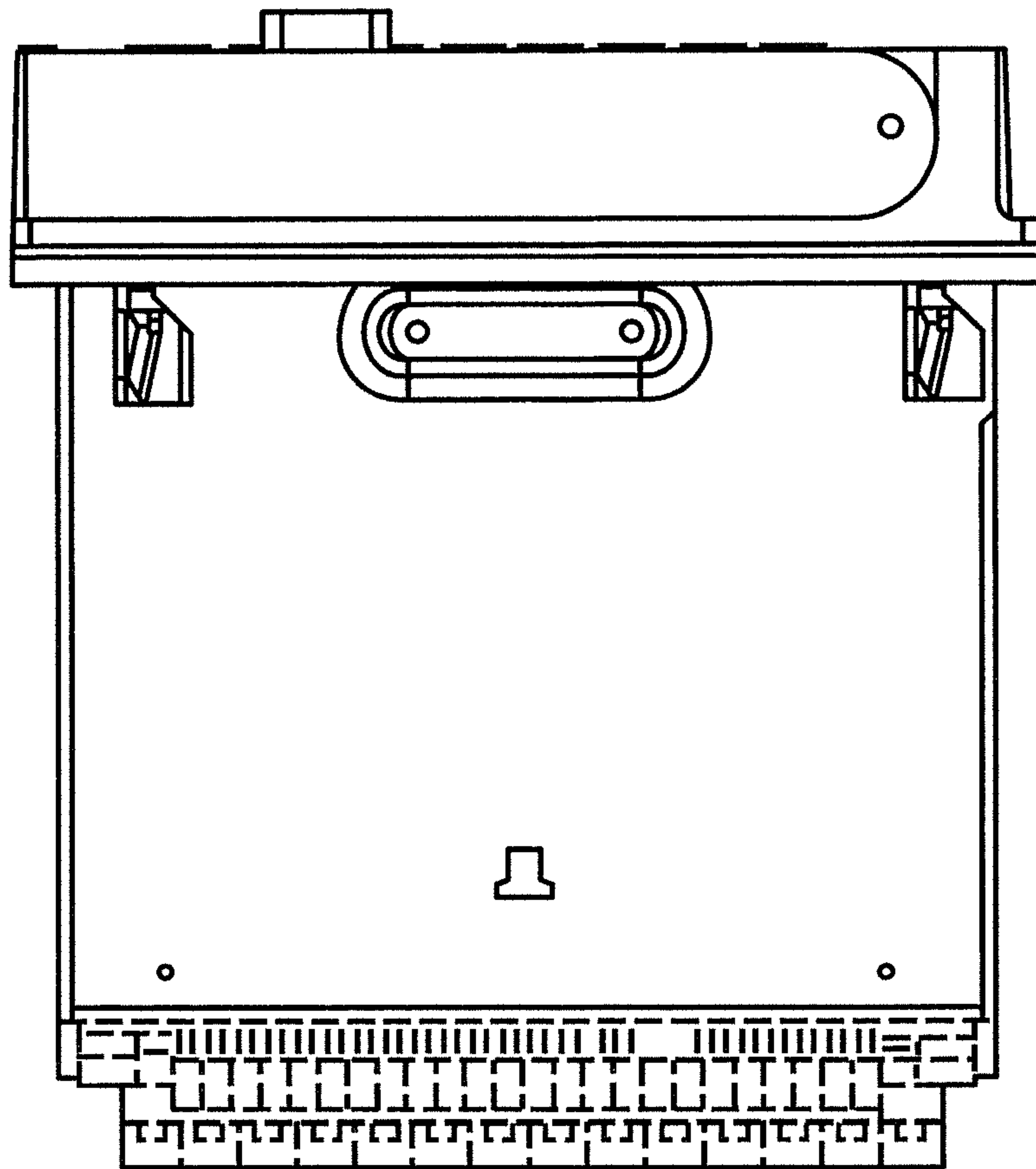


FIG. 6

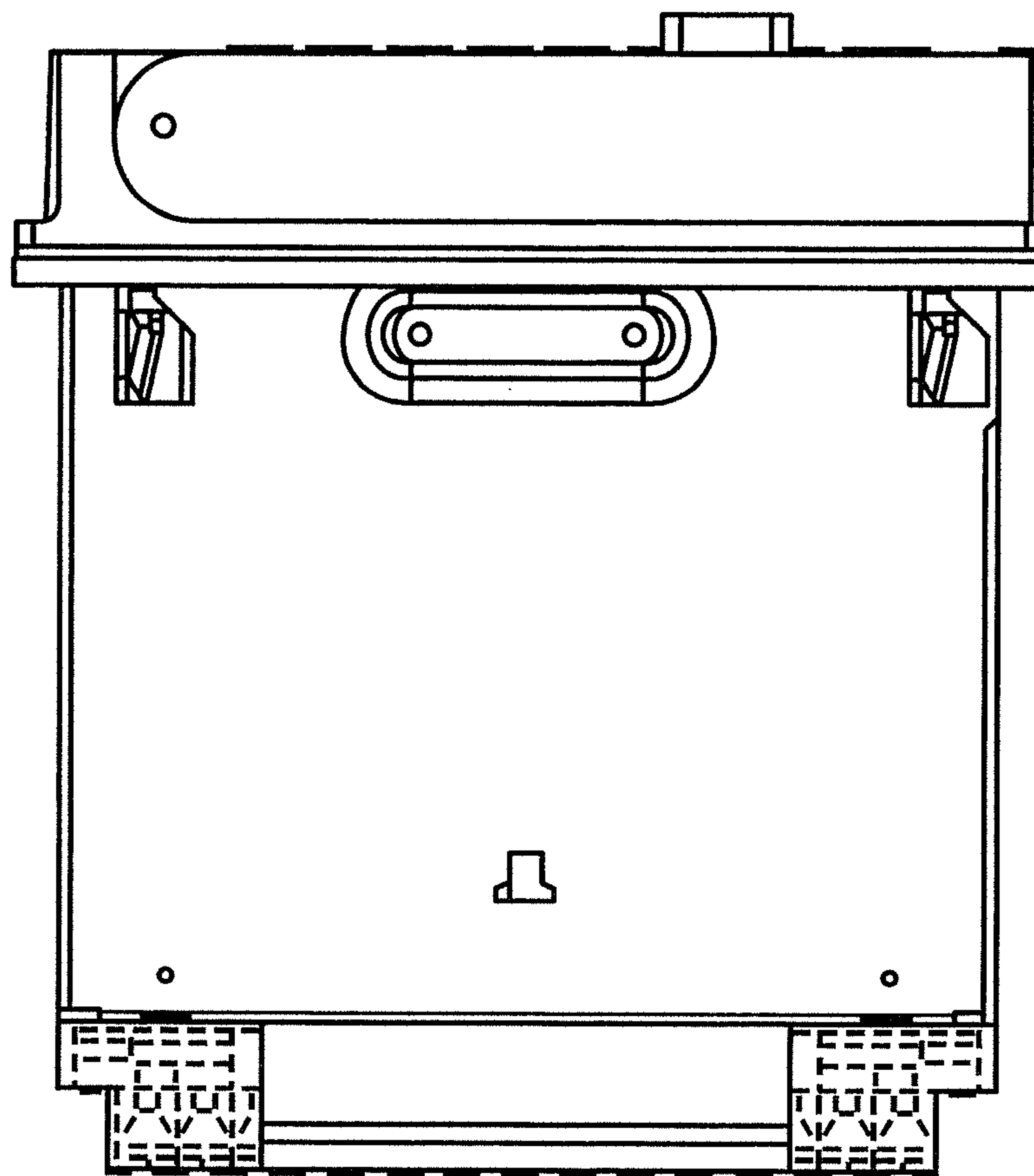


FIG. 7