



US00D476977S

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

(10) **Patent No.:** **US D476,977 S**

(45) **Date of Patent:** **\*\* Jul. 8, 2003**

(54) **OPTICAL AMPLIFIER**

OTHER PUBLICATIONS

(75) Inventors: **Renfeng Gao**, Phoenixville, PA (US);  
**Joseph Chang**, North Wales, PA (US)

(73) Assignee: **Photon-X, Inc.**, Malvern, PA (US)

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

(21) Appl. No.: **29/148,903**

(22) Filed: **Sep. 28, 2001**

(51) **LOC (7) Cl.** ..... **14-03**

(52) **U.S. Cl.** ..... **D14/240; D13/182**

(58) **Field of Search** ..... D14/137, 240,  
D14/242, 356, 357, 358, 441, 144, 370,  
341-347, 125, 432, 433, 155, 299, 257,  
439, 140, 188, 230, 241, 243, 245; 379/433.01-433.13,  
419, 434, 428.01-428.04, 420.01-420.04,  
440, 441, 442; 455/550-575, 90; D13/184,  
123, 152, 182, 147, 110, 164; 359/109,  
117, 118

www.photon-x.net, Photon-X 3521 Amplifier Module. site visited Jun. 11, 2002.\*

Keopsys website, www.keopsys.com, downloaded approx. Mar. 30, 2001.\*

SDL website, www.sdli.com, downloaded approx. Mar. 30, 2001.\*

JDS Uniphase website, www.jdsuniphase.com, downloaded approx. Mar. 30, 2001.\*

\* cited by examiner

*Primary Examiner*—Jeffrey Asch

(74) *Attorney, Agent, or Firm*—Joseph E. Maenner; Monte & McGraw, P.C.

(57) **CLAIM**

The ornamental design for an optical amplifier, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of an optical amplifier in accordance with my new design.

FIG. 2 is a top view of the optical amplifier shown in FIG. 1.

FIG. 3 is a bottom view of the optical amplifier shown in FIG. 1.

FIG. 4 is a first end view of the optical amplifier shown in FIG. 1, a second end view being identical.

FIG. 5 is a side view of the optical amplifier shown in FIG. 1; and,

FIG. 6 is a right side view of the optical amplifier shown in FIG. 1.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D310,998 S	*	10/1990	Lee et al.	.....	D14/107
D331,573 S	*	12/1992	Iino	.....	D14/107
D338,674 S	*	8/1993	Fogarty, Sr.	.....	D14/218
D394,656 S	*	5/1998	Kato et al.	.....	D14/159
5,769,643 A	*	6/1998	Stevens, III	.....	434/350
5,778,132 A	*	7/1998	Csipkes et al.	.....	359/341.1 X
D421,968 S	*	3/2000	Matsumura	.....	D13/182
D426,522 S	*	6/2000	Matsumura	.....	D13/182
D432,504 S	*	10/2000	Matsumura	.....	D13/182
D433,642 S	*	11/2000	Bauman	.....	D10/104
D463,414 S	*	9/2002	Gao	.....	D14/240

**1 Claim, 3 Drawing Sheets**

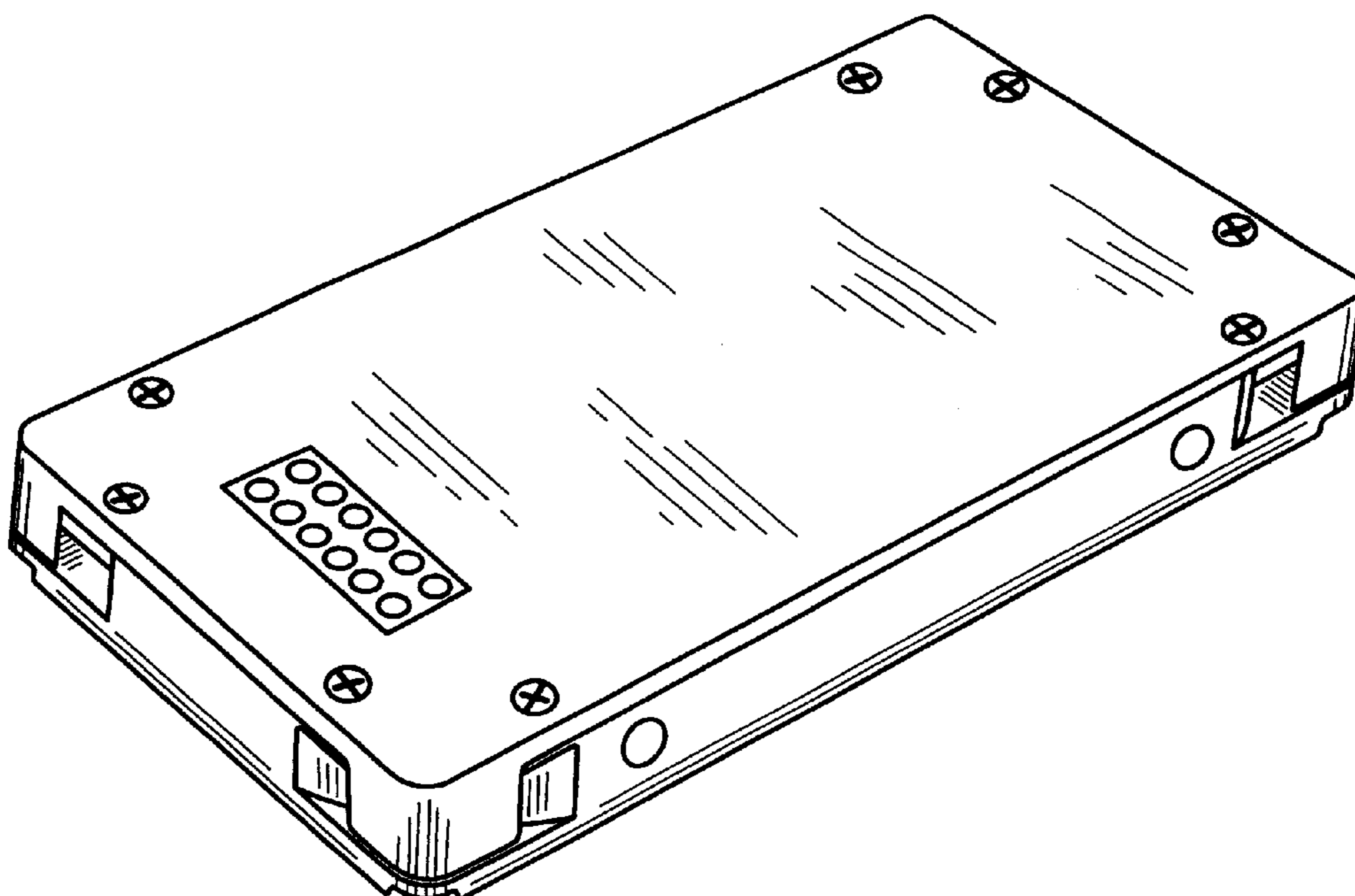
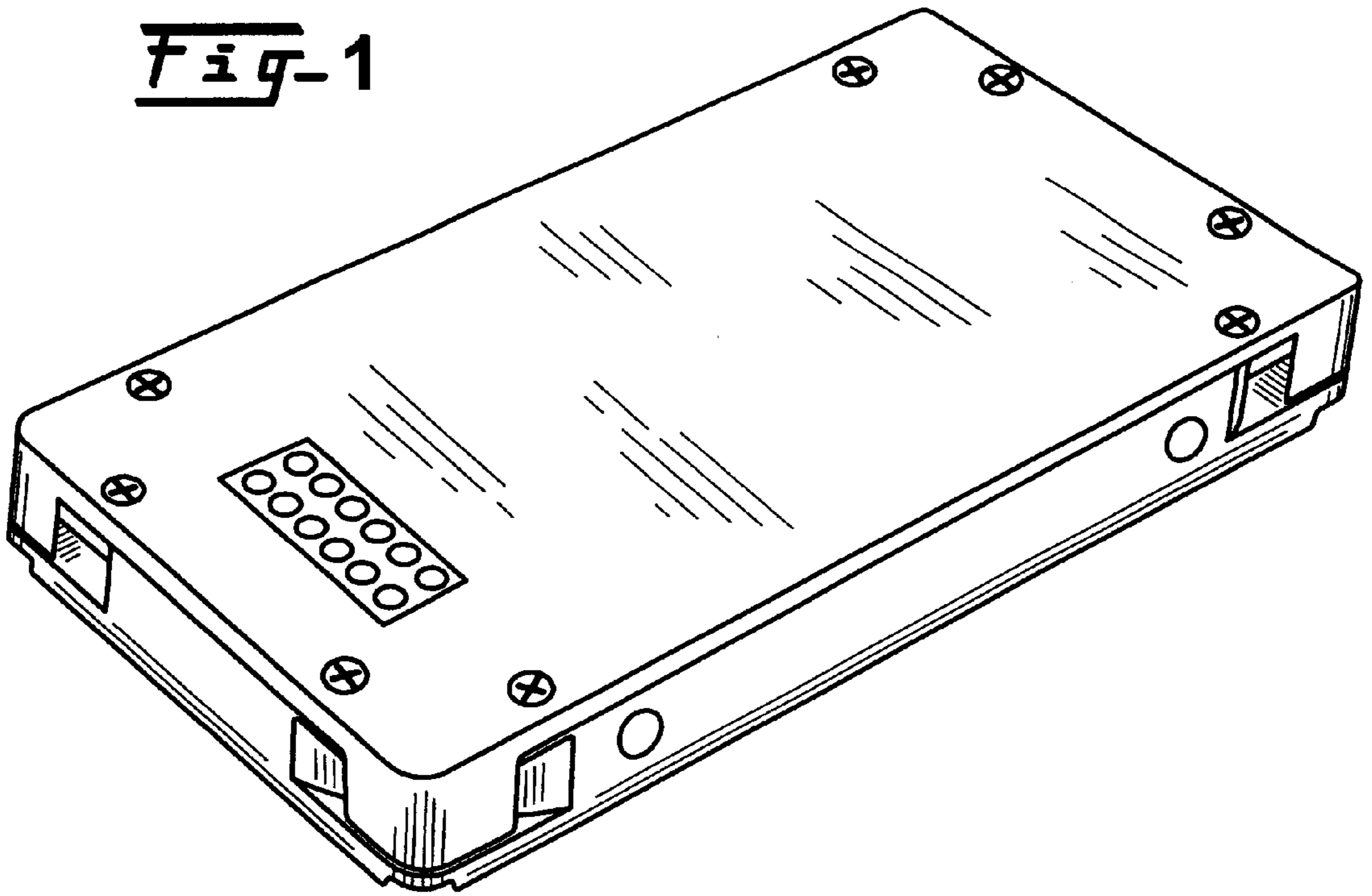


Fig-1



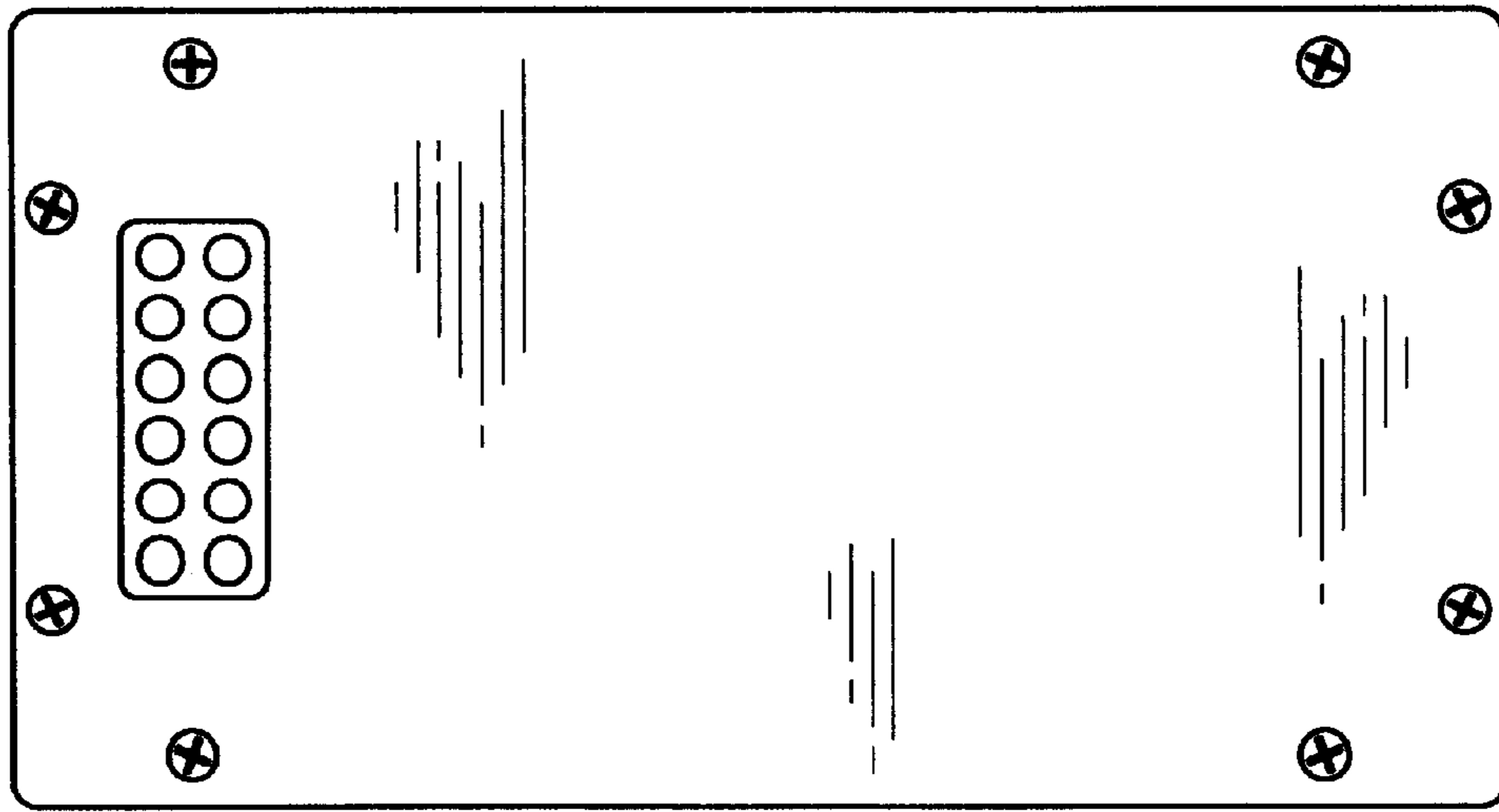


Fig-2

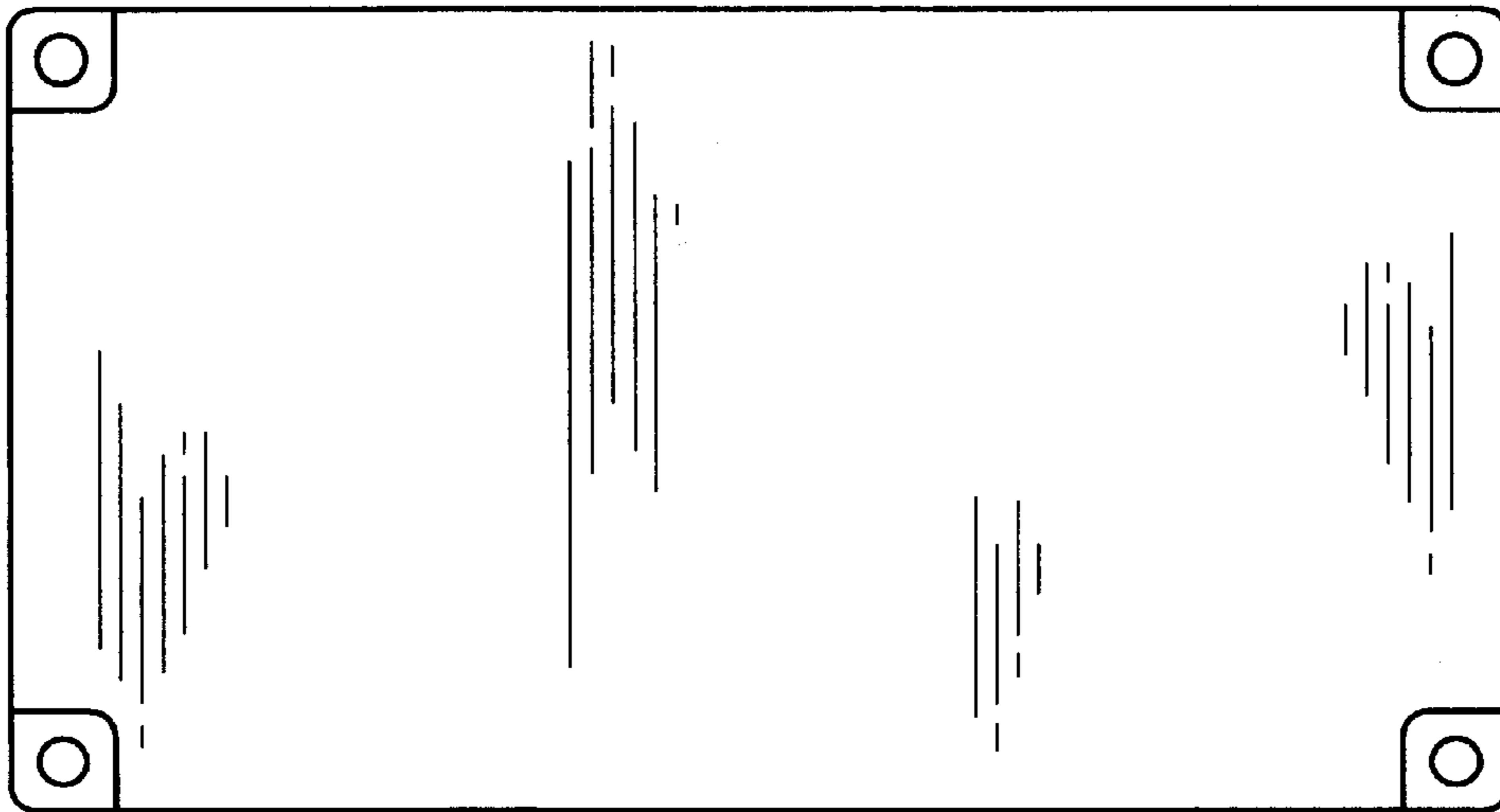


Fig-3

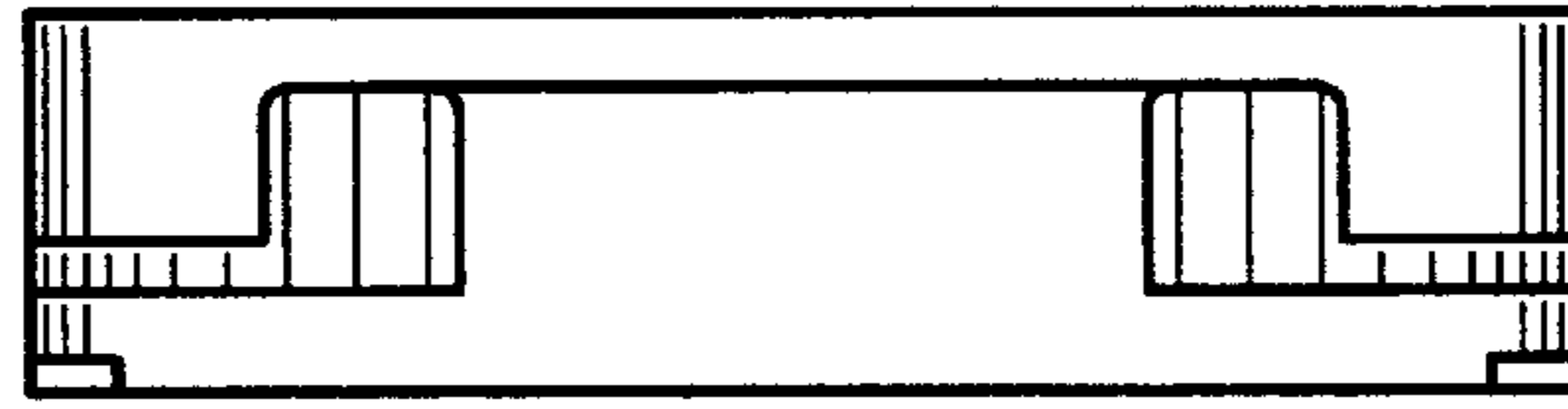


Fig-4

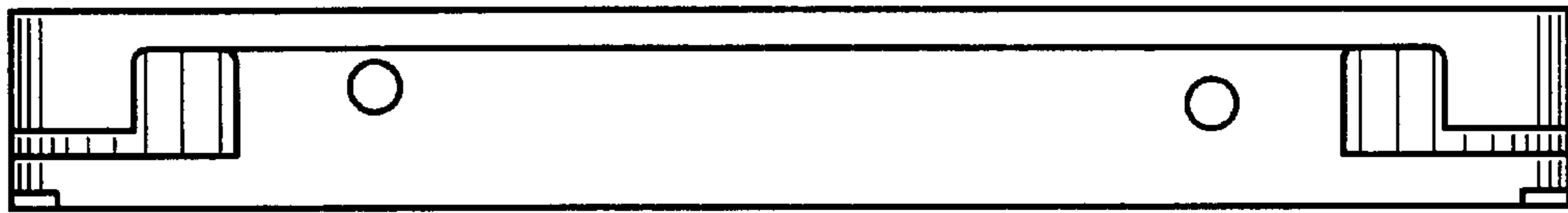


Fig-5

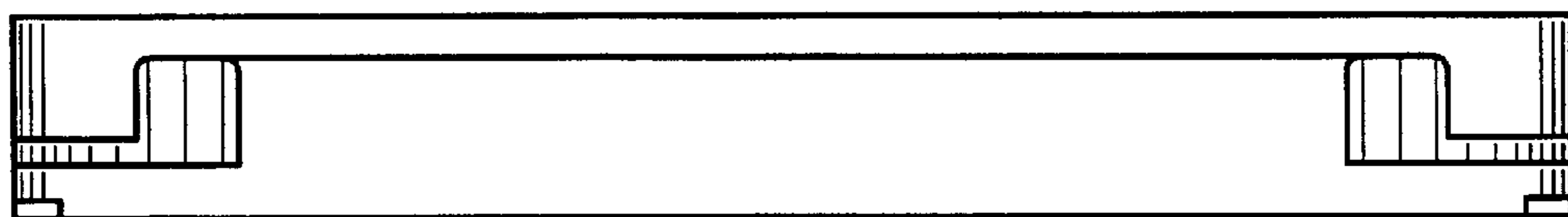


Fig-6