

US00D646655S

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

(10) **Patent No.:** **US D646,655 S**

(45) **Date of Patent:** **\*\* \*Oct. 11, 2011**

(54) **QUARTZ CRYSTAL**

(75) **Inventor:** **Kazuyoshi Sugama, Chiba (JP)**

(73) **Assignee:** **Seiko Instruments Inc., Chiba (JP)**

(\*) **Notice:** This patent is subject to a terminal disclaimer.

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

(21) **Appl. No.:** **29/368,177**

(22) **Filed:** **Aug. 19, 2010**

(30) **Foreign Application Priority Data**

Jun. 16, 2010 (JP) ..... D2010-014795

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

(52) **U.S. Cl.** ..... **D13/182**

(58) **Field of Classification Search** ..... D13/101,  
D13/182; 310/344, 345, 348, 361, 370  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,596,243	A *	1/1997	Tsuru et al.	310/348
5,889,357	A *	3/1999	Yachi et al.	310/344
6,545,392	B2 *	4/2003	Kawauchi et al.	310/344
7,135,810	B2 *	11/2006	Okajima	310/348
7,279,824	B2 *	10/2007	Tanaya et al.	310/344
2002/0096974	A1 *	7/2002	Moon et al.	310/345
2004/0095044	A1 *	5/2004	Yagishita	310/348
2004/0155561	A1 *	8/2004	Tanaya et al.	310/370
2005/0040737	A1 *	2/2005	Tanaya	310/370
2006/0022557	A1 *	2/2006	Sunaba et al.	310/348
2007/0228892	A1 *	10/2007	Koyama et al.	310/348
2007/0273250	A1 *	11/2007	Naruse	310/348
2008/0231145	A1 *	9/2008	Nagano et al.	310/344
2009/0015106	A1 *	1/2009	Tanaya	310/344
2010/0096955	A1 *	4/2010	Yamada	310/370
2010/0117490	A1 *	5/2010	Takahashi	310/344

**OTHER PUBLICATIONS**

- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,007, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/360,959, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,044, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,054, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,049, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/360,967, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,041, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/360,962, filed May 4, 2010.
- K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,020, filed May 4, 2010.

(Continued)

*Primary Examiner* — Selina Sikder

(74) *Attorney, Agent, or Firm* — Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

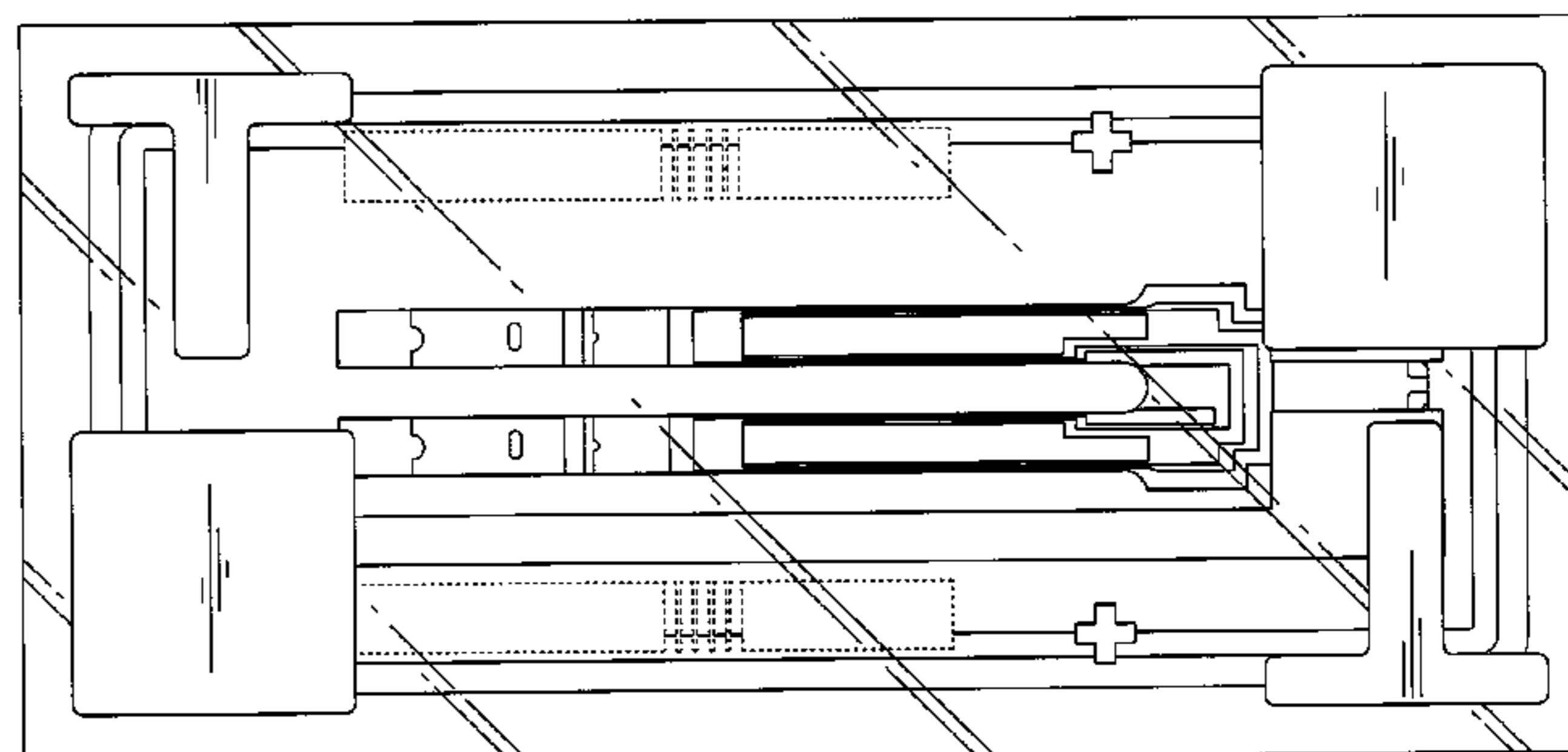
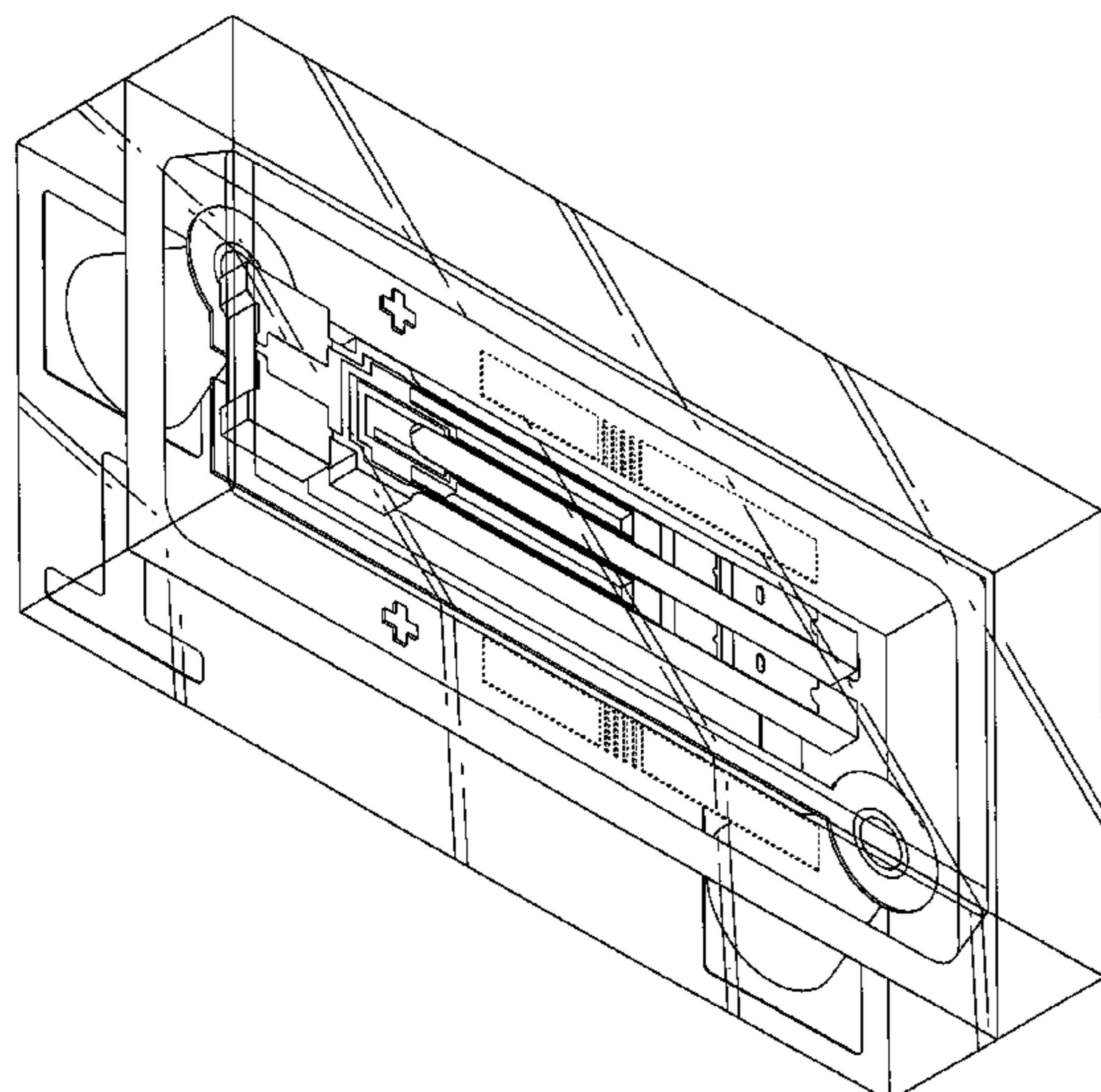
(57) **CLAIM**

The ornamental design for quartz crystal, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of the front, bottom and left side of quartz crystal showing my new design;  
 FIG. 2 is a front view thereof;  
 FIG. 3 is a rear view thereof;  
 FIG. 4 is a top plan view thereof;  
 FIG. 5 is a bottom view thereof;  
 FIG. 6 is a left side view thereof; and,  
 FIG. 7 is a right side view thereof.  
 The elements shown in broken lines are for illustrative purposes only and form no part of the claimed design.

**1 Claim, 5 Drawing Sheets**



OTHER PUBLICATIONS

K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,021, filed May 4, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,050, filed May 4, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/361,055, filed May 4, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/368,182, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/368,163, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/368,164, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/347,955, filed Aug. 19, 2010.

K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/347,956, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/347,953, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/347,954, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/347,951, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/347,952, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/368,172, filed Aug. 19, 2010.  
K. Sugama, "Quartz Crystal," U.S. Appl. No. 29/368,175, filed Aug. 19, 2010.

\* cited by examiner

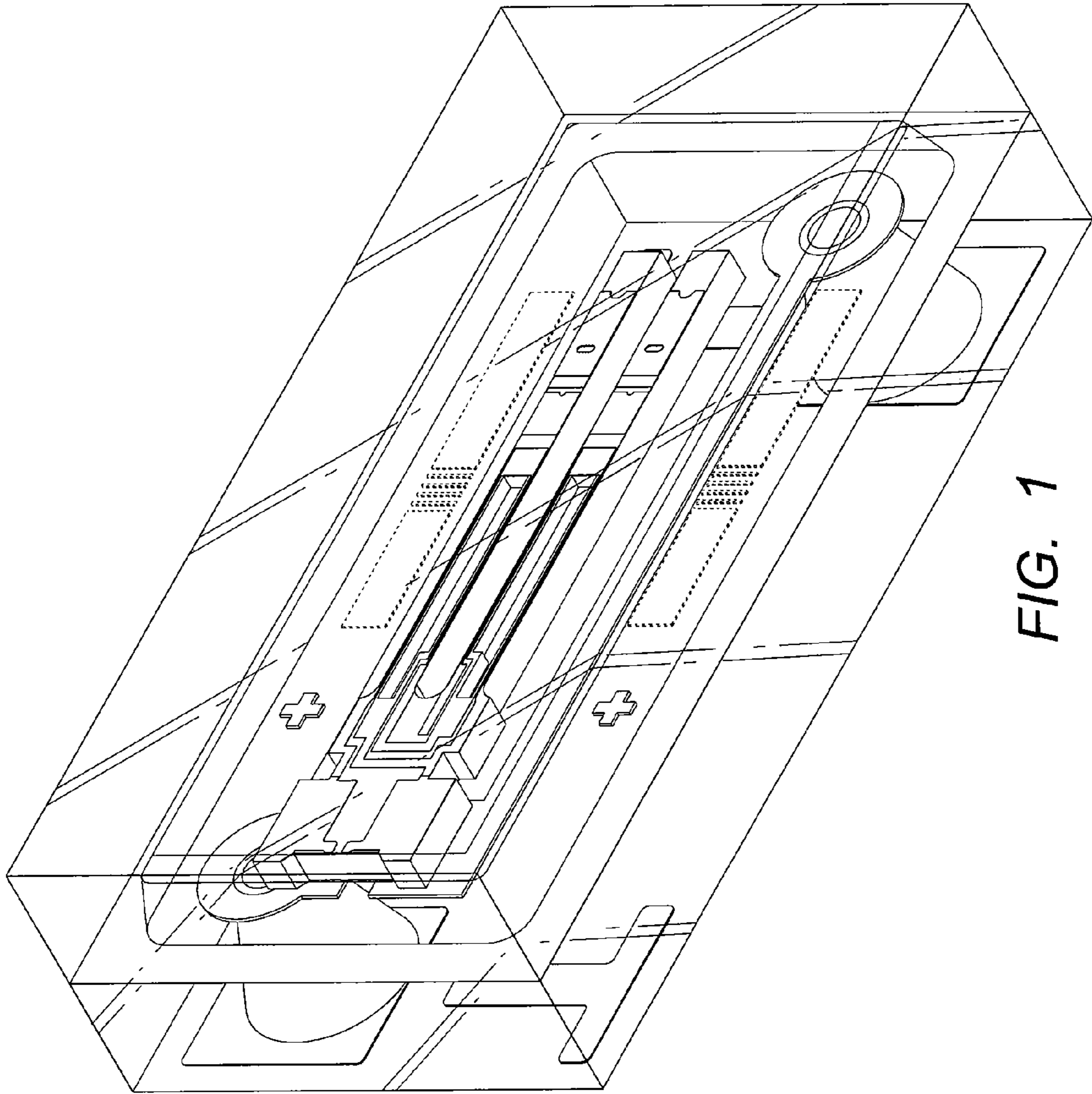


FIG. 1

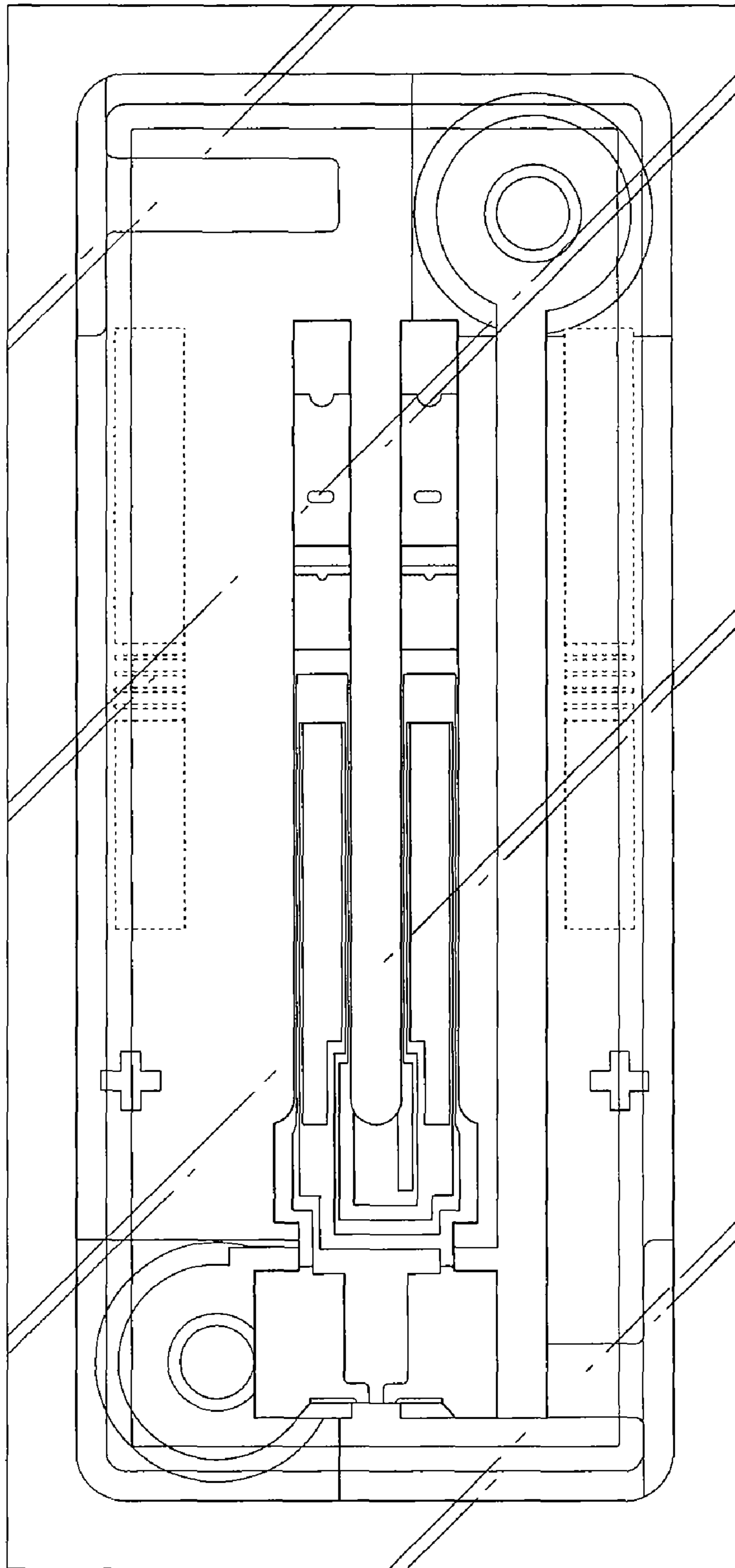


FIG. 2

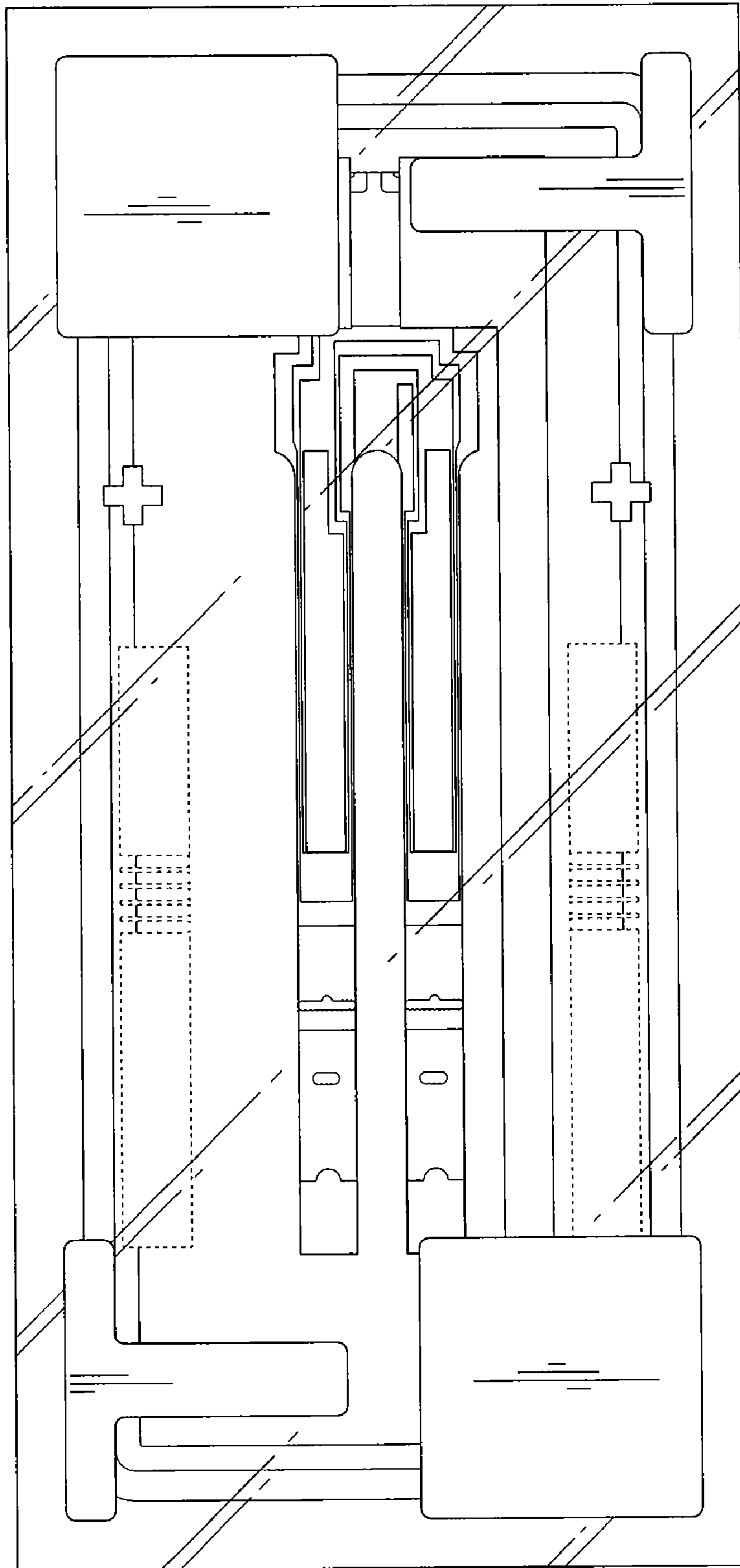


FIG. 3

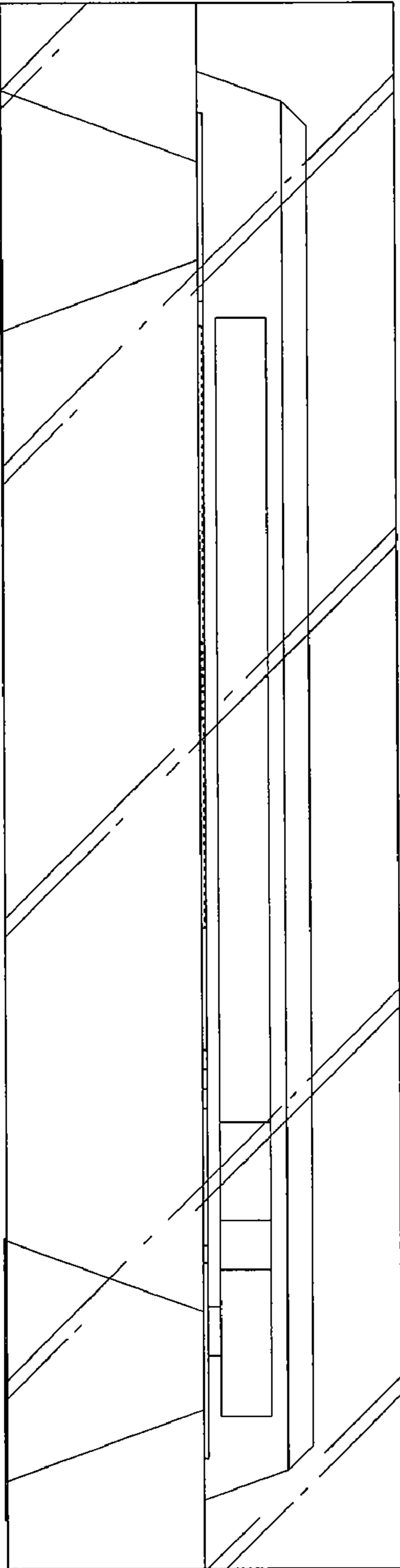


FIG. 4

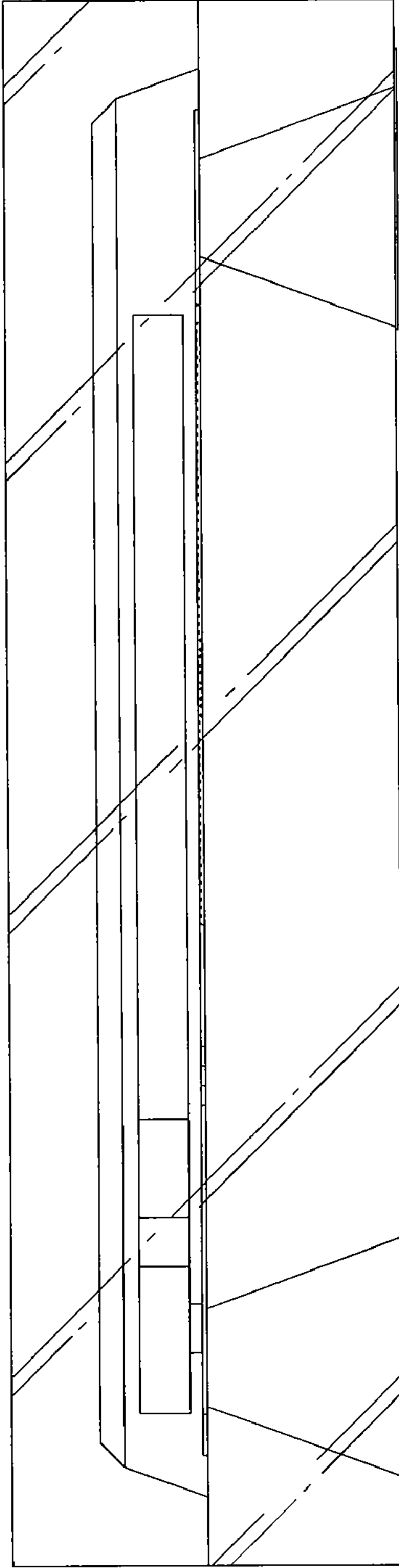


FIG. 5

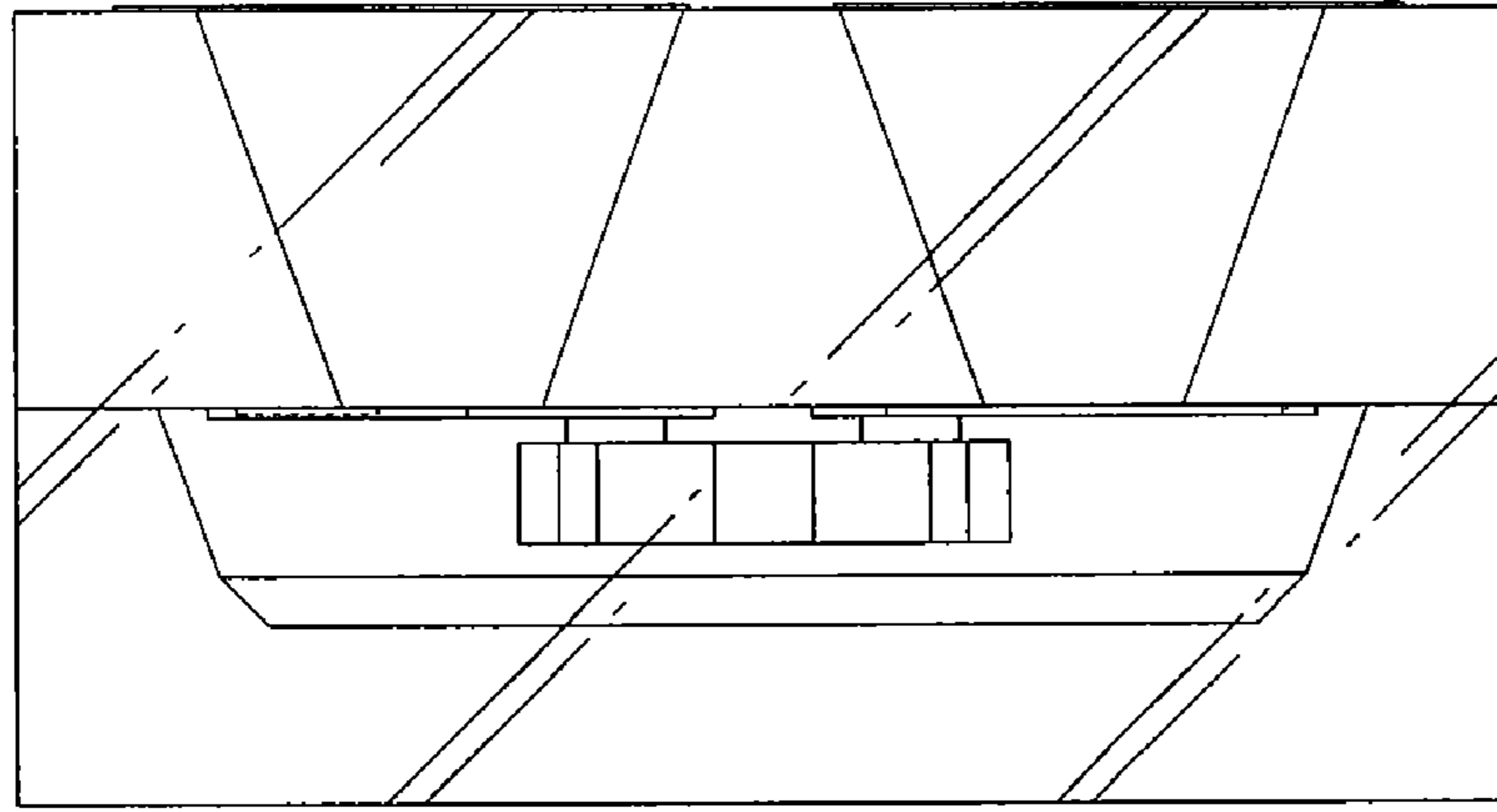


FIG. 7

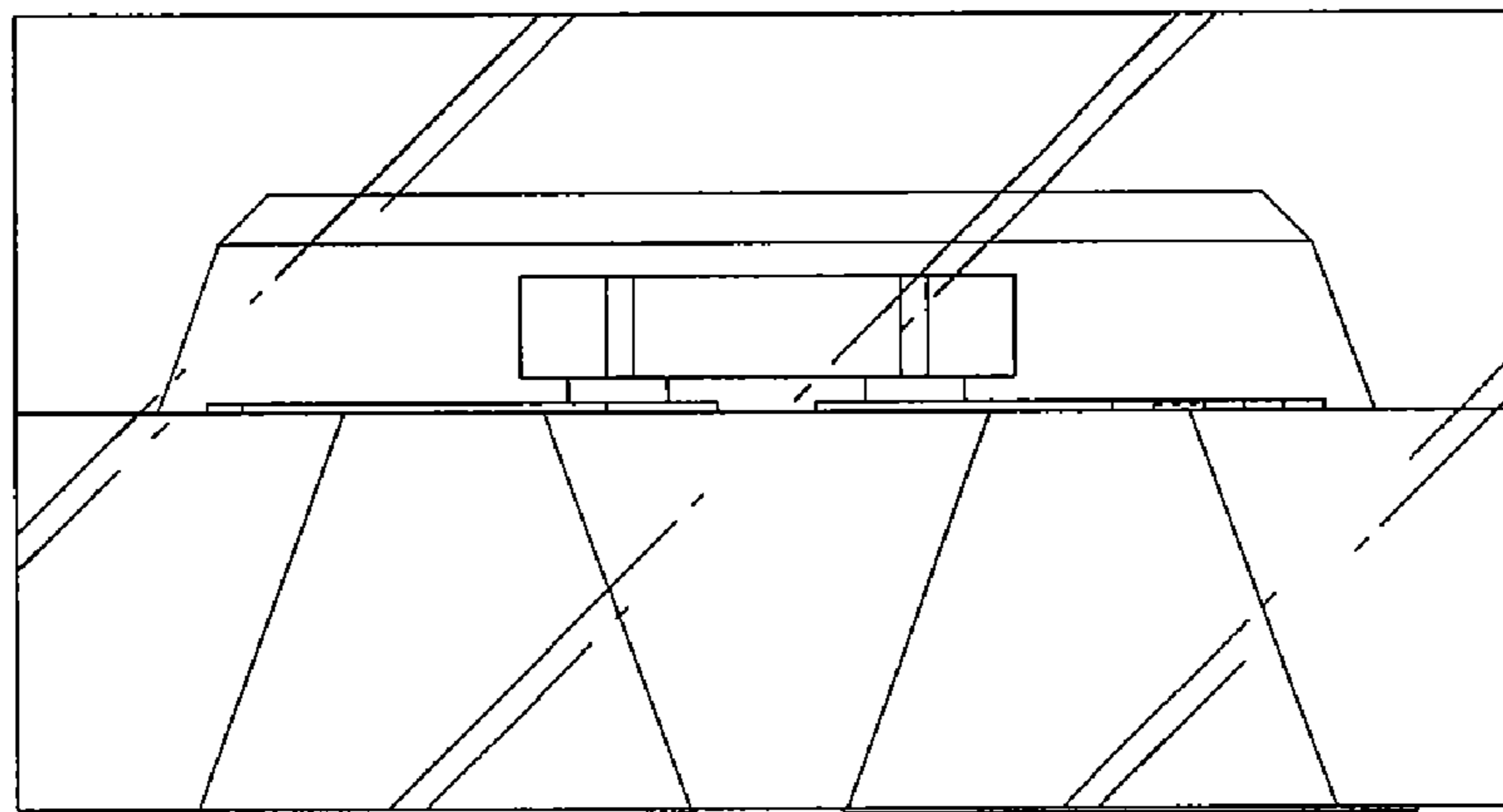


FIG. 6