



US00D810020S

(12) **United States Design Patent** (10) **Patent No.:** **US D810,020 S**
Hayashizaka et al. (45) **Date of Patent:** **** Feb. 13, 2018**

(54) **MOLDED COIL**

(71) Applicants: **SUMITOMO SEIKA CHEMICALS CO., LTD.**, Kako-gun, Hyogo (JP); **NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY**, Tokyo (JP); **I&P CO., LTD.**, Higashimatsuyama-shi, Saitama (JP)

(72) Inventors: **Noriyuki Hayashizaka**, Hyogo (JP); **Daisuke Mishou**, Hyogo (JP); **Takeo Ebina**, Sendai (JP); **Satomi Hattori**, Fukuroi (JP); **Takahiro Ishida**, Fukuroi (JP); **Tomoyuki Yamaguchi**, Higashimatsuyama (JP)

(73) Assignees: **SUMITOMO SEIKA CHEMICALS CO., LTD.**, Kako-gun, Hyogo (JP); **NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY**, Tokyo (JP); **I & P CO., LTD.**, Higashimatsuyama-shi, Saitama (JP)

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

(21) Appl. No.: **29/533,606**

(22) Filed: **Jul. 20, 2015**

(30) **Foreign Application Priority Data**

Jan. 21, 2015	(JP)	2015-001014
Jan. 21, 2015	(JP)	2015-001015
Jan. 21, 2015	(JP)	2015-001016
Jan. 21, 2015	(JP)	2015-001017
Apr. 16, 2015	(JP)	2015-008668
Jun. 8, 2015	(JP)	2015-012650
Jun. 8, 2015	(JP)	2015-012651

(51) **LOC (11) Cl.** **13-02**

(52) **U.S. Cl.**
USPC **D13/117**

(58) **Field of Classification Search**

USPC D13/113, 117, 122, 118, 182, 183, 199;
242/160.1, 160.4, 360; 335/13, 134, 136,
335/213, 282; 336/15, 69, 70, 139, 174,
336/198

CPC H01F 27/34; H01F 27/362; H01F 38/14;
H01F 17/0006; H01F 5/003; H02J 3/12;
H02J 5/005

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D44,952 S *	12/1913	Buser	D8/374
D97,302 S *	10/1935	Parness et al.	D3/294
3,711,807 A *	1/1973	Yamashita	H01F 27/323 336/205

(Continued)

OTHER PUBLICATIONS

Communication dated Oct. 24, 2016 from the U.S. Patent and Trademark Office in U.S. Appl. No. 29/533,609.

Primary Examiner — Derrick Holland

Assistant Examiner — Jennifer O King

(74) *Attorney, Agent, or Firm* — Sughrue Mion, PLLC

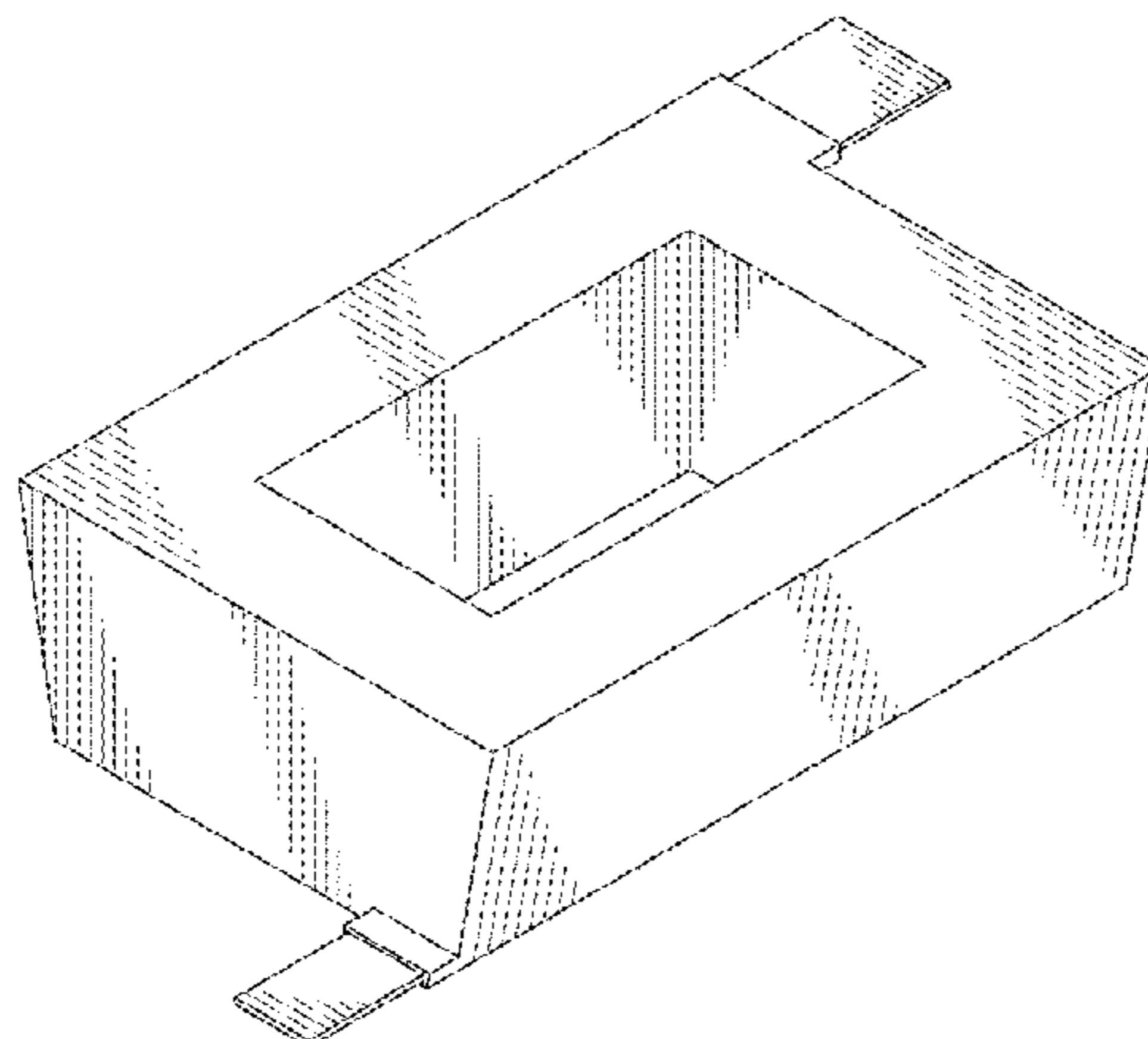
(57) **CLAIM**

The ornamental design for a molded coil, as shown and described.

DESCRIPTION

FIG. 1 is a front view of a molded coil;
FIG. 2 is a rear view thereof;
FIG. 3 is a top plan view thereof;
FIG. 4 is a bottom view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a left side view thereof;
FIG. 7 is a front perspective view thereof; and,
FIG. 8 is a rear perspective view thereof.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,048,606 A * 9/1977 Miller H01F 27/325
 242/118.4
 D295,401 S * 4/1988 Klees D13/182
 D312,073 S * 11/1990 Mitchell D13/183
 D330,541 S * 10/1992 Burrow D13/118
 5,369,511 A 11/1994 Amos
 D400,318 S * 10/1998 Lucas D30/161
 D441,823 S * 5/2001 Blackhurst D21/797
 6,476,689 B1 * 11/2002 Uchida H03H 1/0007
 333/177
 D496,339 S * 9/2004 Stanley D13/182
 D522,307 S * 6/2006 Mariani D7/355
 D607,219 S * 1/2010 Goldman D6/328
 7,868,726 B2 * 1/2011 Asano H01F 41/082
 242/347
 D669,031 S * 10/2012 Wagatsuma D13/117
 D684,544 S * 6/2013 Nagaune D13/179
 D736,726 S * 8/2015 Andersen D13/152
 D742,842 S * 11/2015 Hayashi D13/182
 D766,987 S * 9/2016 Takeda D15/7
 2006/0009000 A1 * 1/2006 Shiu B29C 43/18
 438/300
 2007/0115085 A1 * 5/2007 Clemmons H01F 3/14
 336/181

* cited by examiner

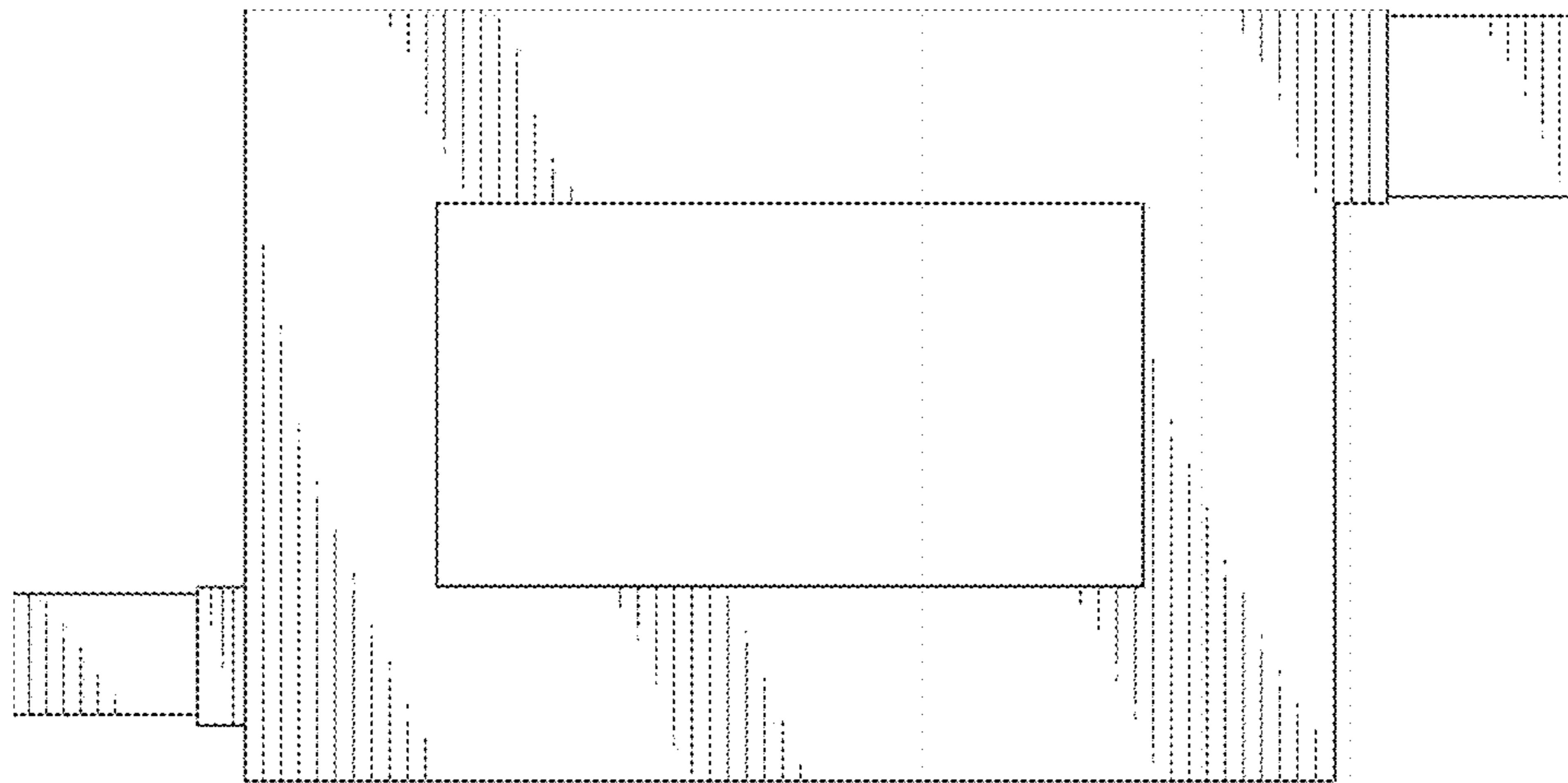


Fig. 1

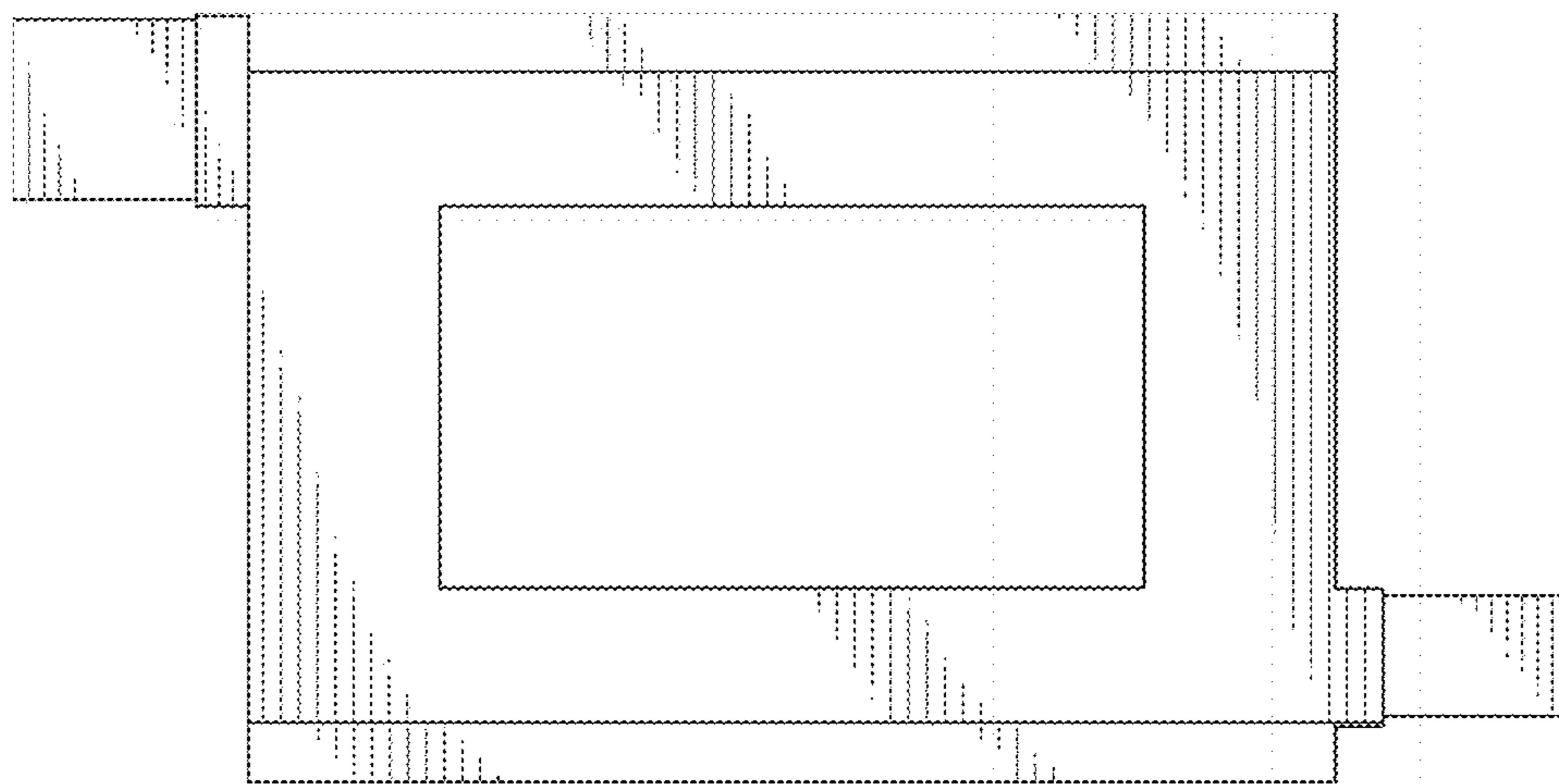


Fig.2

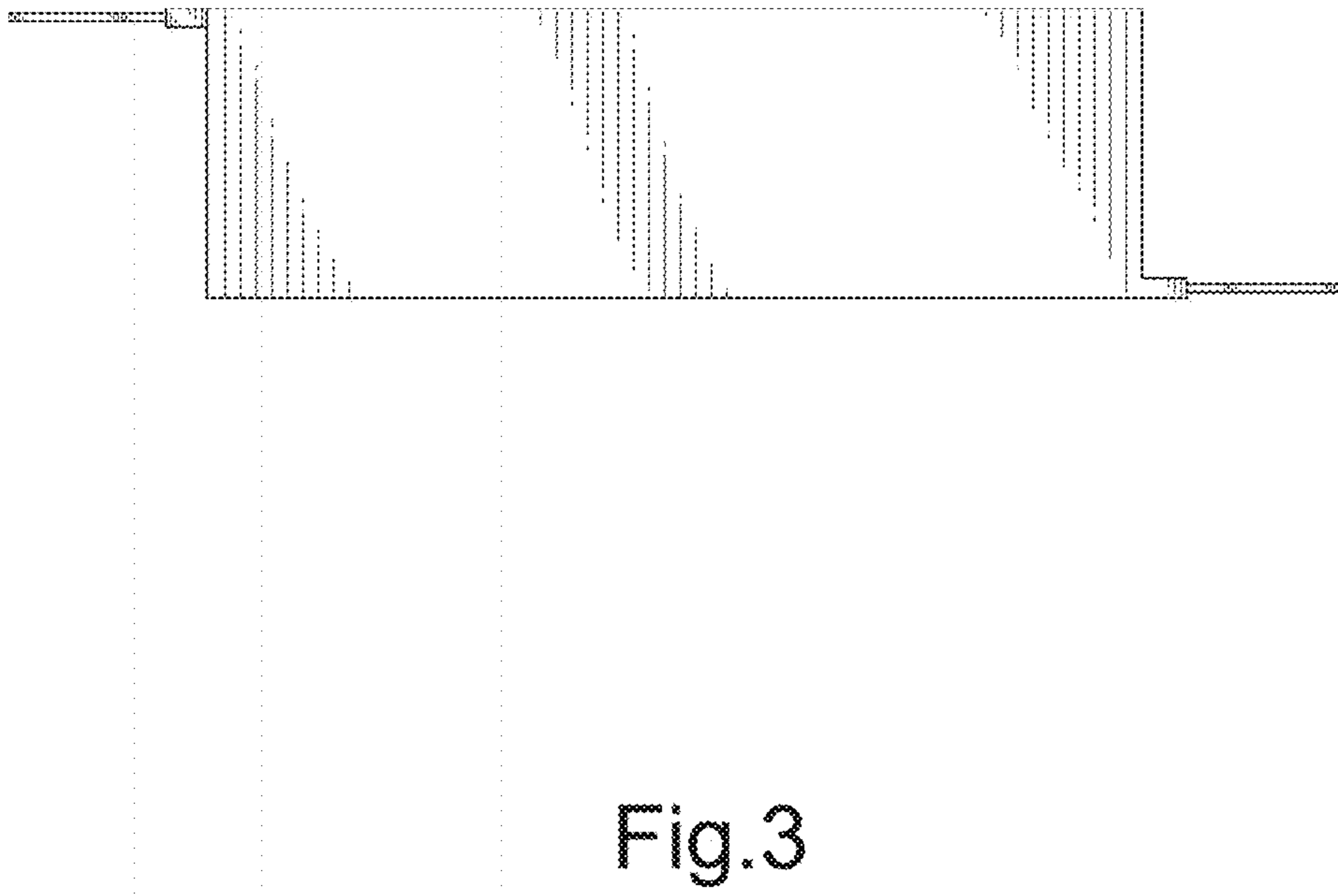


Fig.3

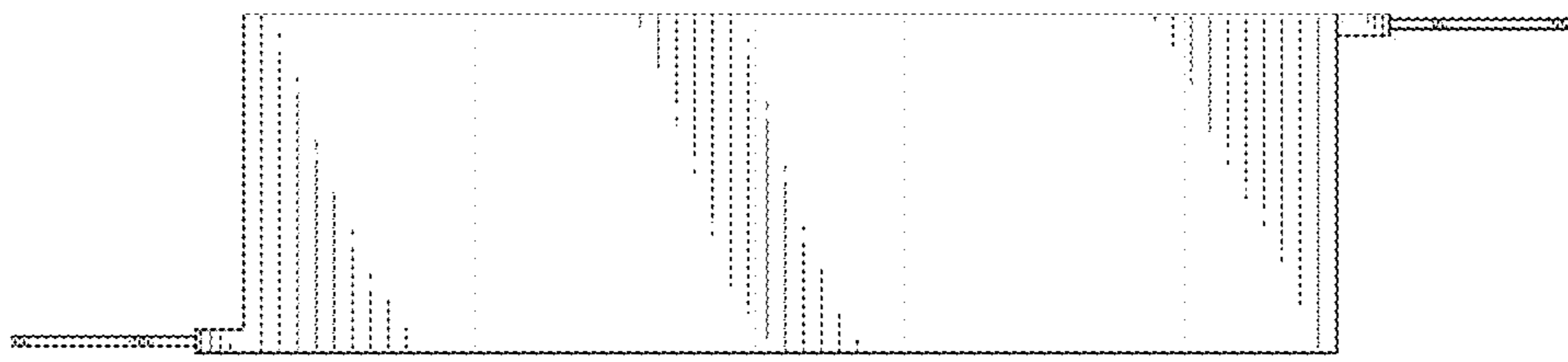


Fig.4

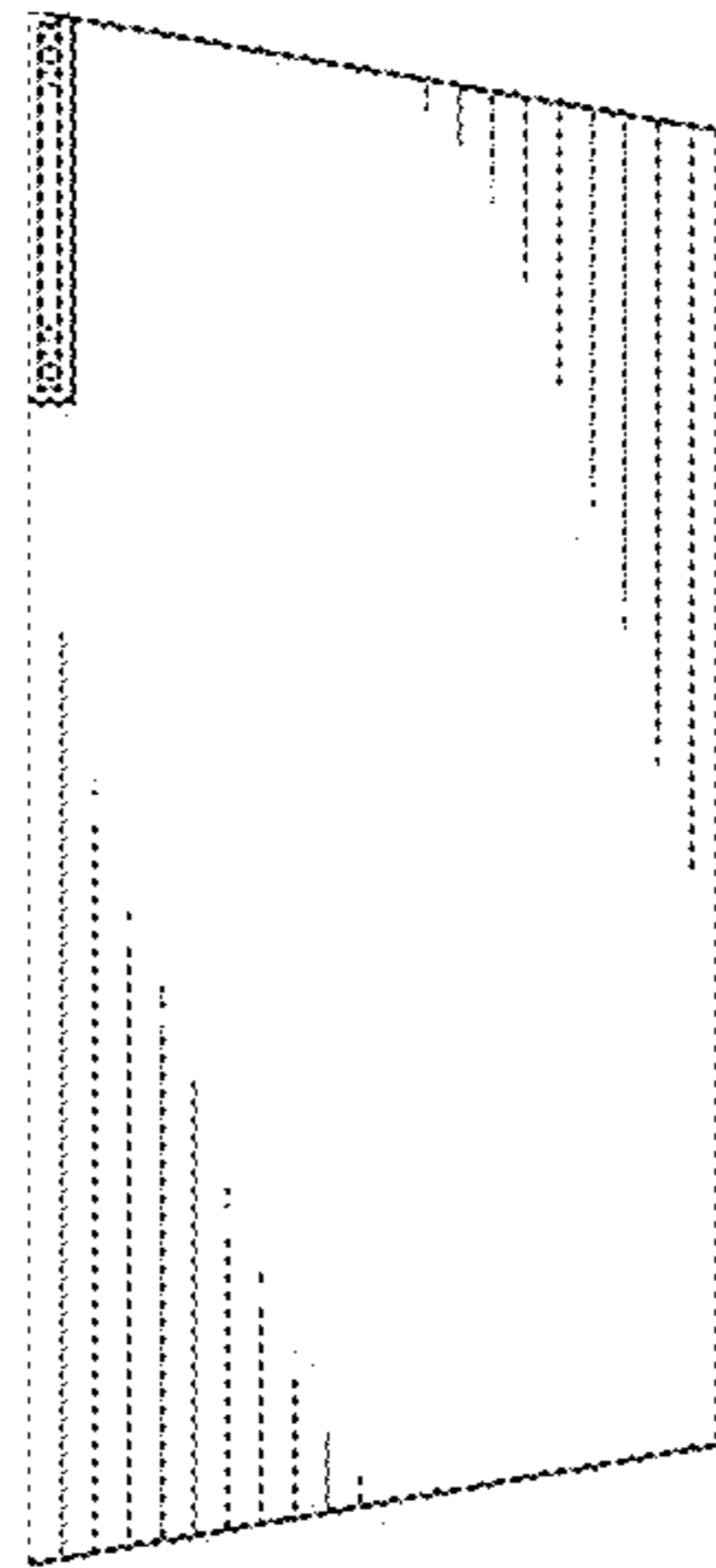


Fig.5

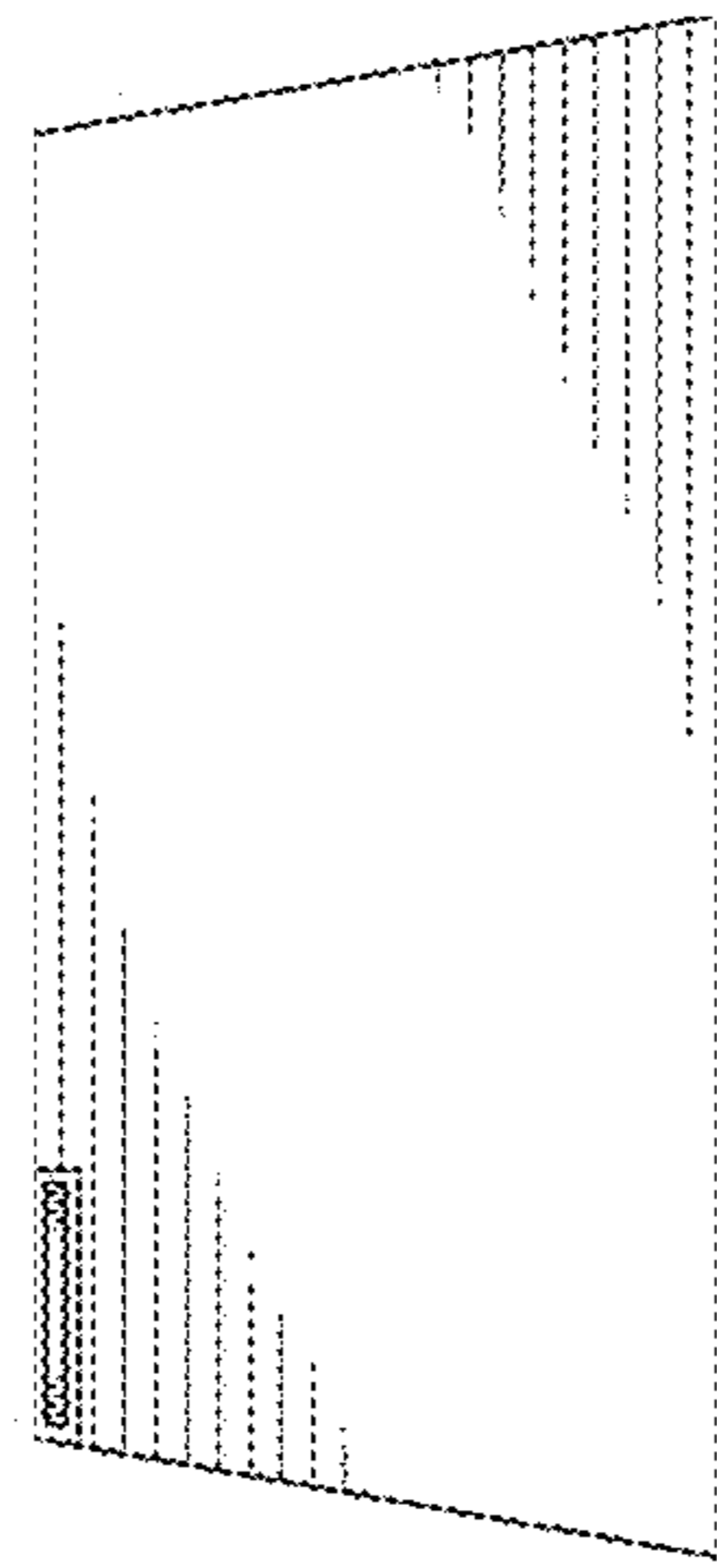


Fig.6

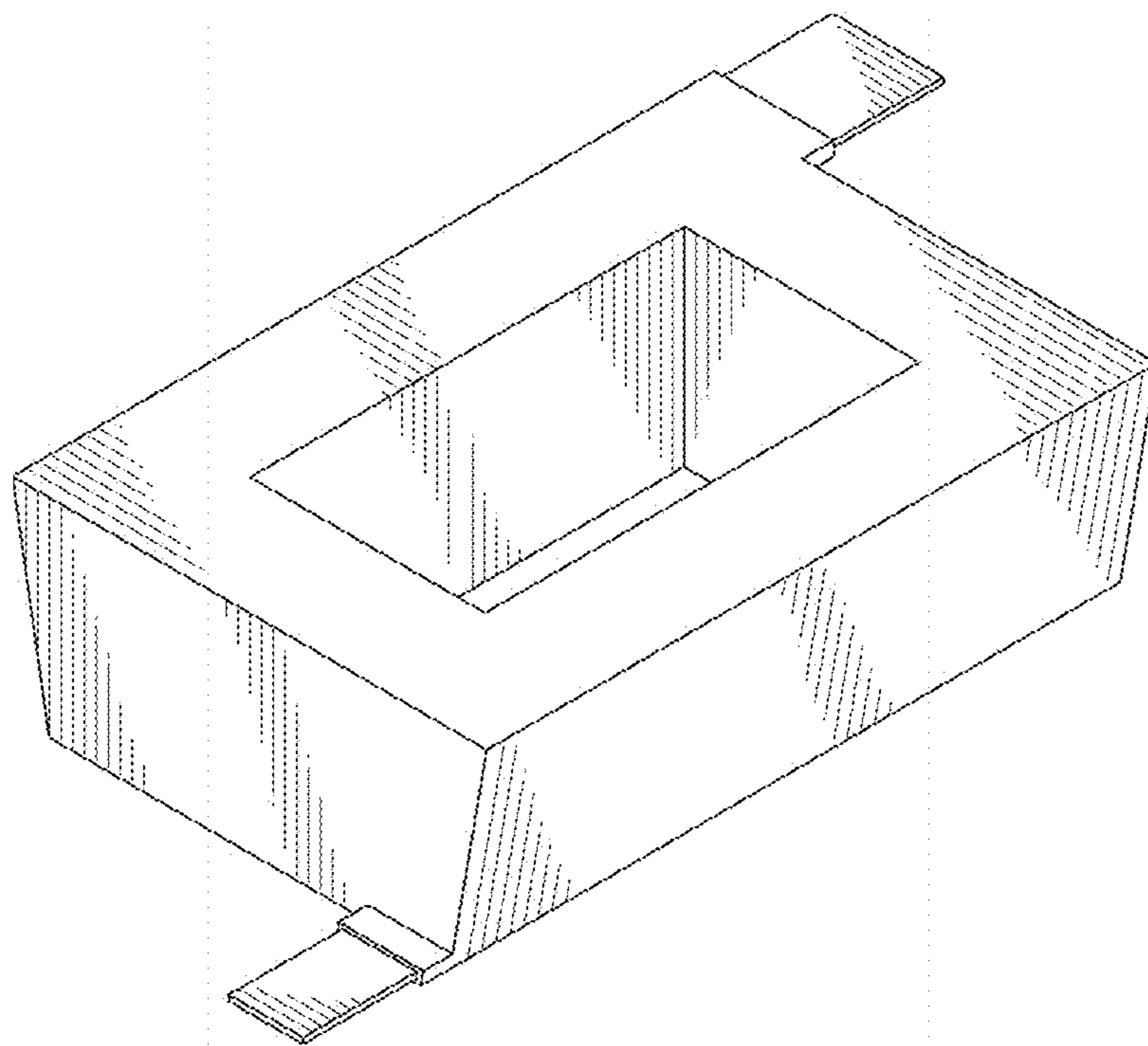


Fig.7

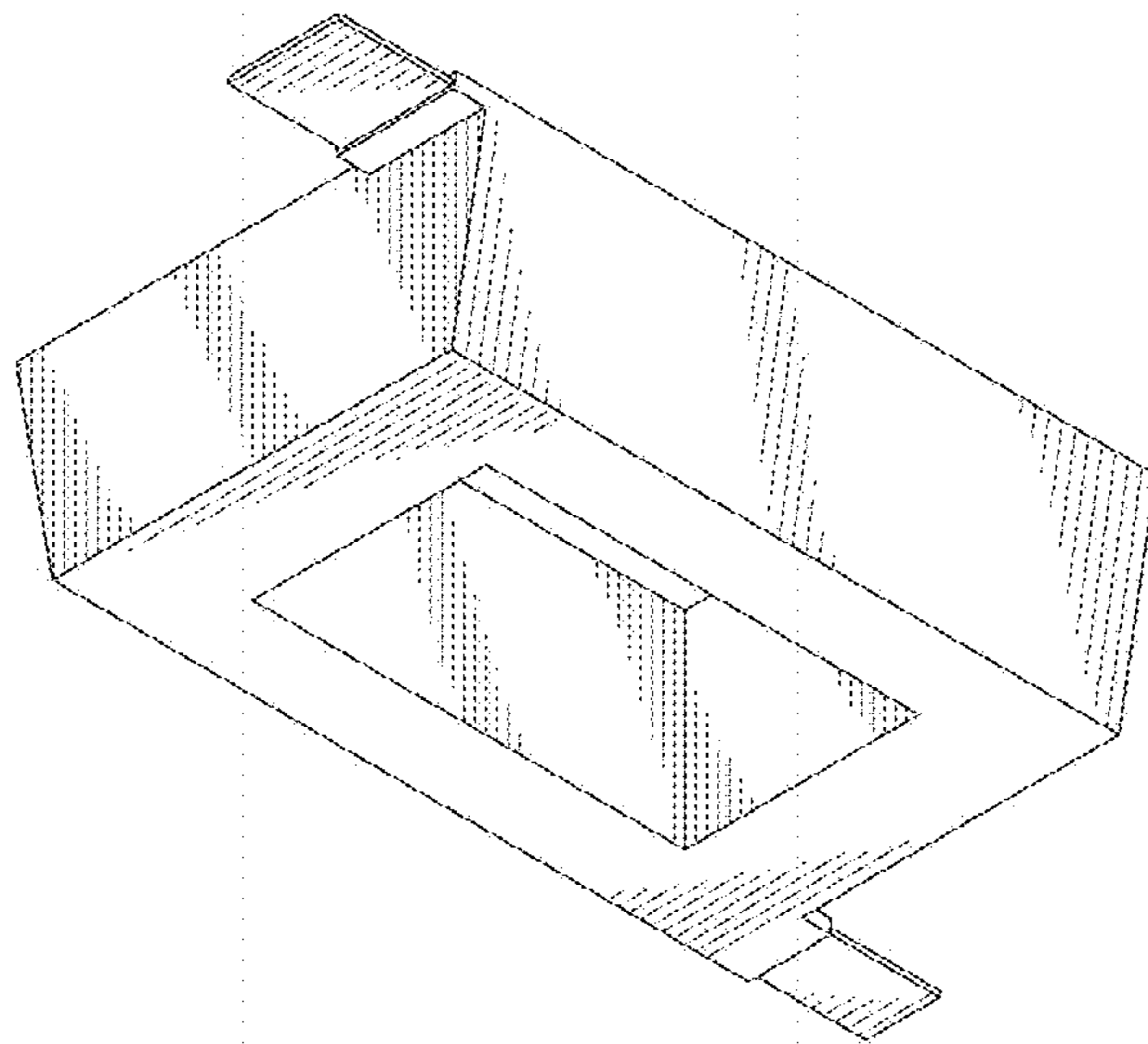


Fig.8