



US00D775246S

(12) **United States Design Patent** (10) **Patent No.:** **US D775,246 S**  
**Seal et al.** (45) **Date of Patent:** **\*\* Dec. 27, 2016**

(54) **MILLING MACHINE**  
(71) Applicant: **Inventables, Inc.**, Chicago, IL (US)  
(72) Inventors: **David Seal**, Chicago, IL (US); **Dennis Matthew Puhalla**, Oakland, CA (US); **Scott Wilson**, Chicago, IL (US)  
(73) Assignee: **Inventables, Inc.**, Chicago, IL (US)

5,107,730 A 4/1992 Muraki et al.  
D328,467 S \* 8/1992 Maleschew ..... D15/131  
D336,749 S \* 6/1993 Lenard ..... D15/127  
D338,212 S \* 8/1993 Corsi ..... D15/131  
5,246,316 A 9/1993 Smith  
5,309,646 A 5/1994 Randolph, Jr. et al.  
5,438,755 A 8/1995 Giberson  
5,733,079 A 3/1998 Jessee et al.

(Continued)

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

(21) Appl. No.: **29/541,137**

(22) Filed: **Sep. 30, 2015**

(51) **LOC (10) Cl.** ..... **15-09**

(52) **U.S. Cl.**  
USPC ..... **D15/131**

(58) **Field of Classification Search**  
USPC ..... D15/14, 14.1, 29.1, 30; 29/560, 568;  
209/139.1; 241/37, 65.29, 79.1, 80, 117,  
241/119, 121, 130, 159, 224, 227, 230,  
241/232, 234

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,266,502 A \* 8/1966 Copeland ..... C23F 1/08  
134/107  
3,524,063 A 8/1970 Mangan  
4,009,376 A 2/1977 Faraguet  
4,088,886 A 5/1978 Moulton  
4,428,055 A 1/1984 Kelley et al.  
4,443,929 A \* 4/1984 Bayer ..... B23Q 3/15713  
483/32  
4,631,834 A 12/1986 Hayashi et al.  
4,706,373 A 11/1987 Andriussi  
D309,146 S \* 7/1990 Nemetz ..... D15/131  
4,944,643 A 7/1990 Lehmkuhl  
5,025,539 A \* 6/1991 Stark ..... B23Q 1/48  
29/26 A  
D319,834 S \* 9/1991 Rutschle ..... D15/131

**FOREIGN PATENT DOCUMENTS**

CN 201253780 Y 6/2009  
JP 8-316613 A 11/1996

**OTHER PUBLICATIONS**

“Automatic Z Adjustment Unit”, printed from the Internet at <http://vhf.de/en/cnc-milling-machines/measuring-devices/automatic-z-adjustment-unit.html> dated Mar. 12, 2015, 2 pages.

(Continued)

*Primary Examiner* — Patricia Palasik  
(74) *Attorney, Agent, or Firm* — Brinks Gilson & Lione

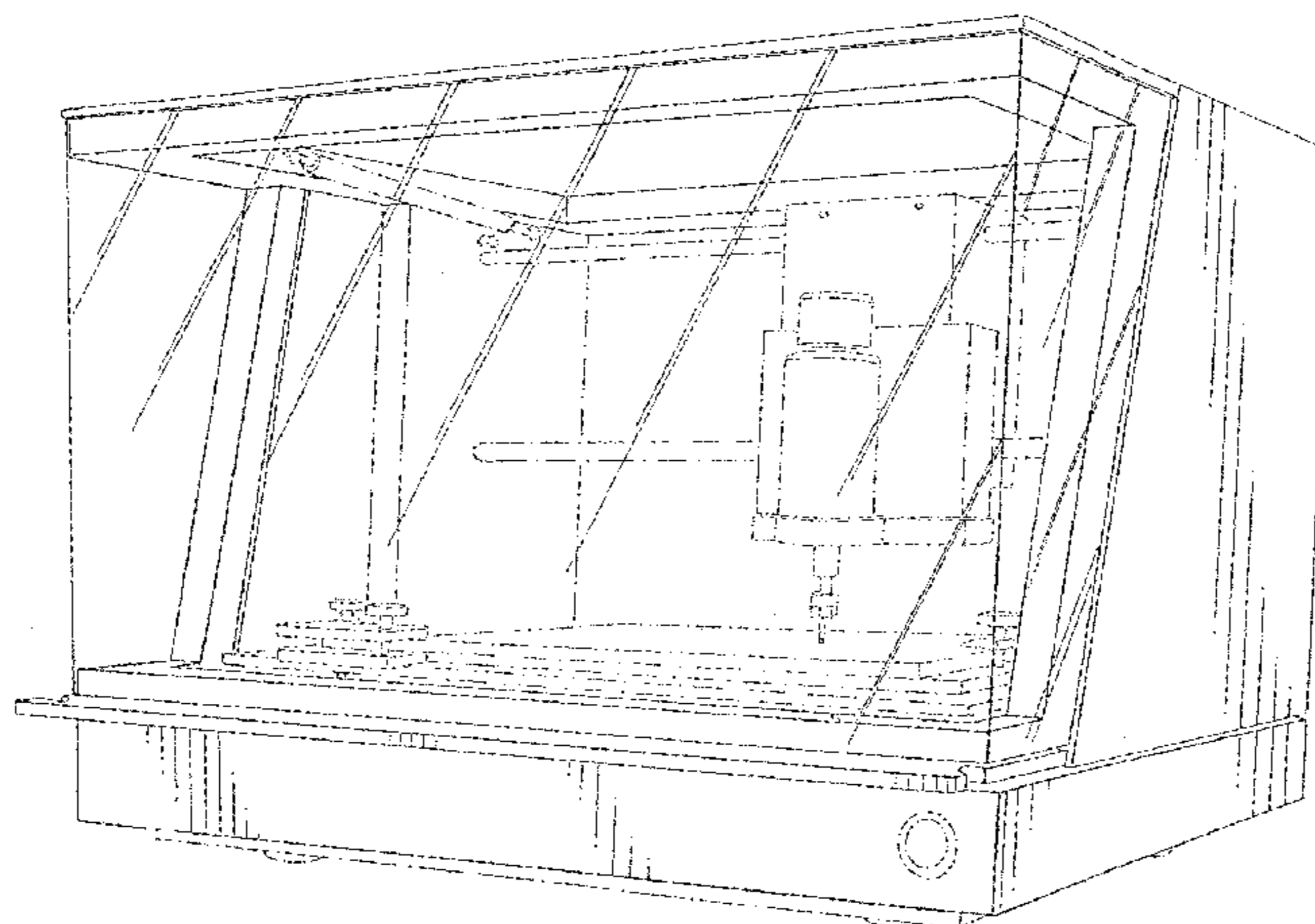
(57) **CLAIM**

The ornamental design for a milling machine, substantially as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a milling machine;  
FIG. 2 is a front view thereof;  
FIG. 3 is a top view thereof;  
FIG. 4 is a right-side view thereof;  
FIG. 5 is a left-side view thereof;  
FIG. 6 is a back view thereof; and,  
FIG. 7 is a bottom view thereof.  
The broken lines in the drawings depict unclaimed environmental subject matter.

**1 Claim, 4 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D401,248 S \* 11/1998 Schrepfer ..... D15/131  
 5,844,191 A 12/1998 Cox  
 6,220,080 B1 4/2001 Fauqué  
 6,480,757 B1 11/2002 Susnjara  
 D495,723 S \* 9/2004 Kawamura ..... D15/127  
 6,865,442 B1 3/2005 Jared  
 7,133,803 B2 11/2006 Kappel  
 D549,747 S \* 8/2007 Nakano ..... D15/131  
 D612,873 S \* 3/2010 Spinelli ..... D15/131  
 7,724,942 B2 5/2010 Bryll  
 7,728,961 B2 6/2010 Watson  
 8,680,745 B2 3/2014 Matthews et al.  
 D706,320 S \* 6/2014 Hynek ..... D15/131  
 D722,468 S 2/2015 Yamamoto  
 8,977,382 B2 3/2015 Sona  
 D734,788 S \* 7/2015 Reches ..... D15/122  
 9,073,162 B2 7/2015 Magnuson  
 D759,736 S \* 6/2016 Huang ..... D15/122  
 D759,738 S \* 6/2016 Schonherr ..... D15/122

D765,155 S \* 8/2016 Rickenbach ..... D15/131  
 2001/0041651 A1 11/2001 Abe et al.  
 2006/0035776 A1\* 2/2006 Duncan ..... B23B 31/103  
 483/30  
 2006/0073771 A1 4/2006 Mandler et al.  
 2014/0157610 A1 6/2014 Garvey et al.  
 2015/0056037 A1 2/2015 Wilson

OTHER PUBLICATIONS

“Carvey: The 3D carving machine for the maker in all of us,”  
<https://www.kickstarter.com/projects/carvey/carvey-the-3d-carving-machine-for-the-maker-in-all>, Oct. 21, 2014-Sep. 18, 2015, 14 pages.

“Carvey: The 3D carving machine for the maker in all of us,”  
<https://www.kickstarter.com/projects/carvey/carvey-the-3d-carving-machine-for-the-maker-in-all/posts/1025511>, Oct. 21, 2014, 5 pages.

Notice of Allowance in U.S. Appl. No. 14/871,326, dated Oct. 27, 2016, 10 pages.

\* cited by examiner

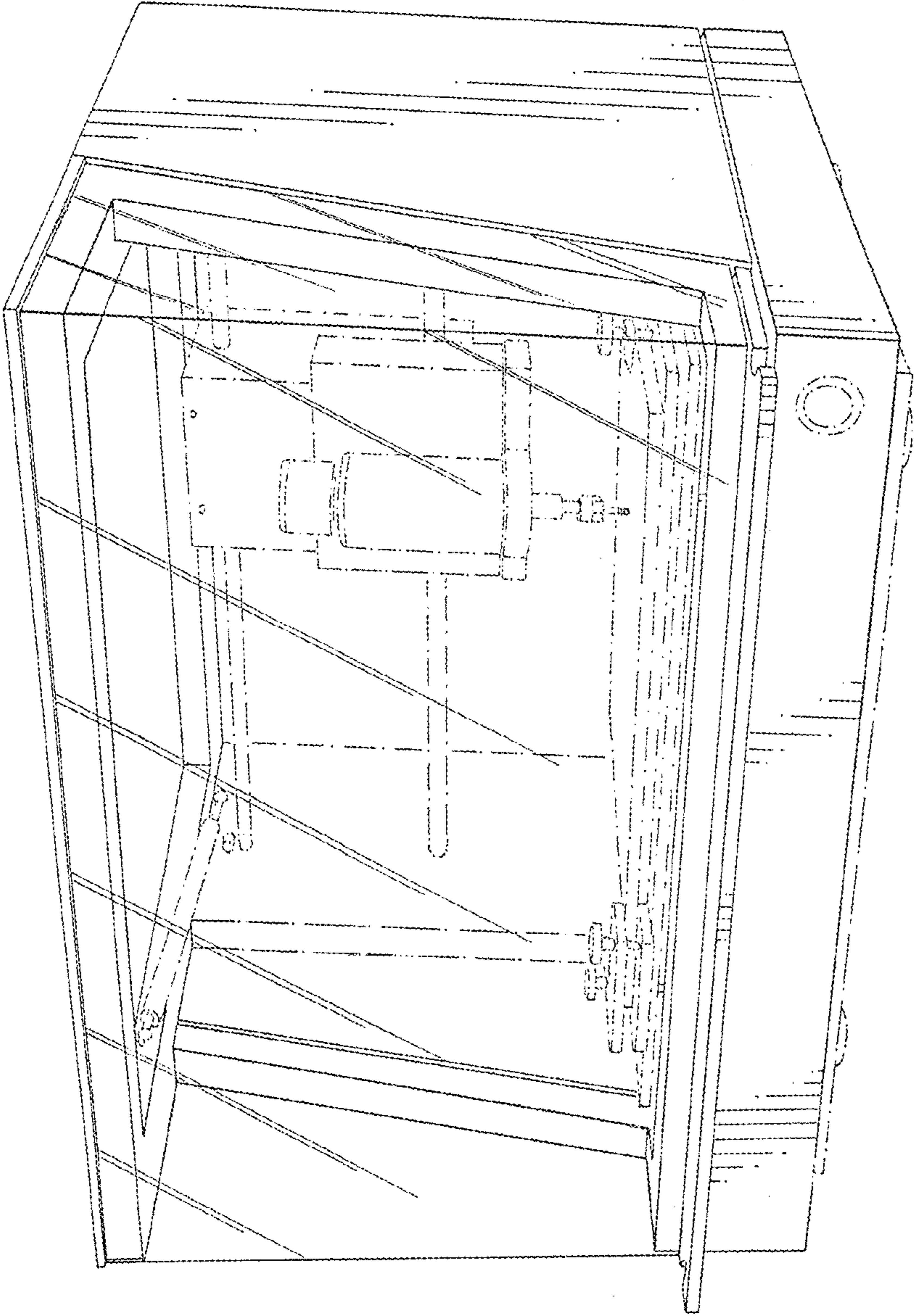


Fig. 1

Fig. 2

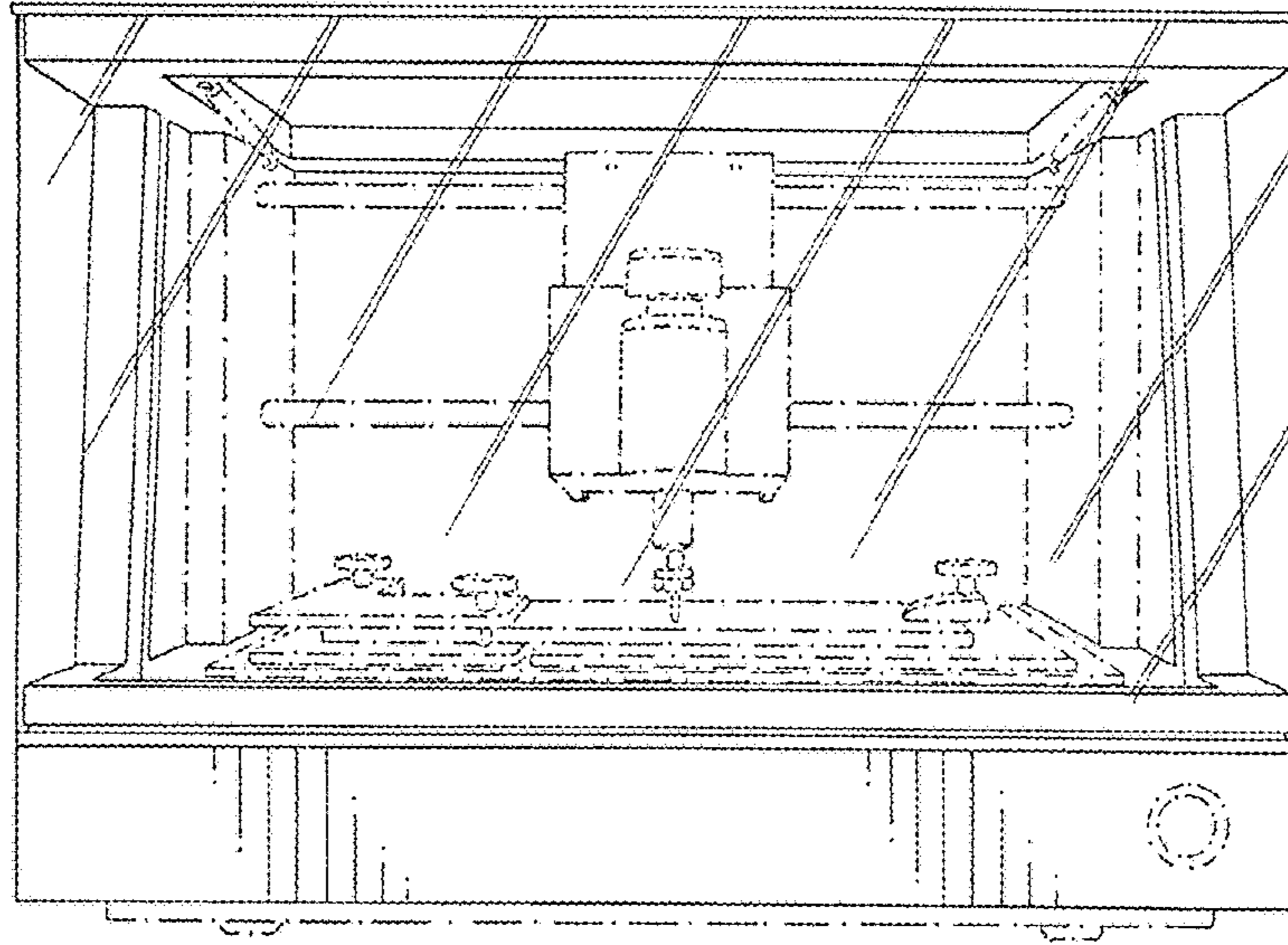


Fig. 3

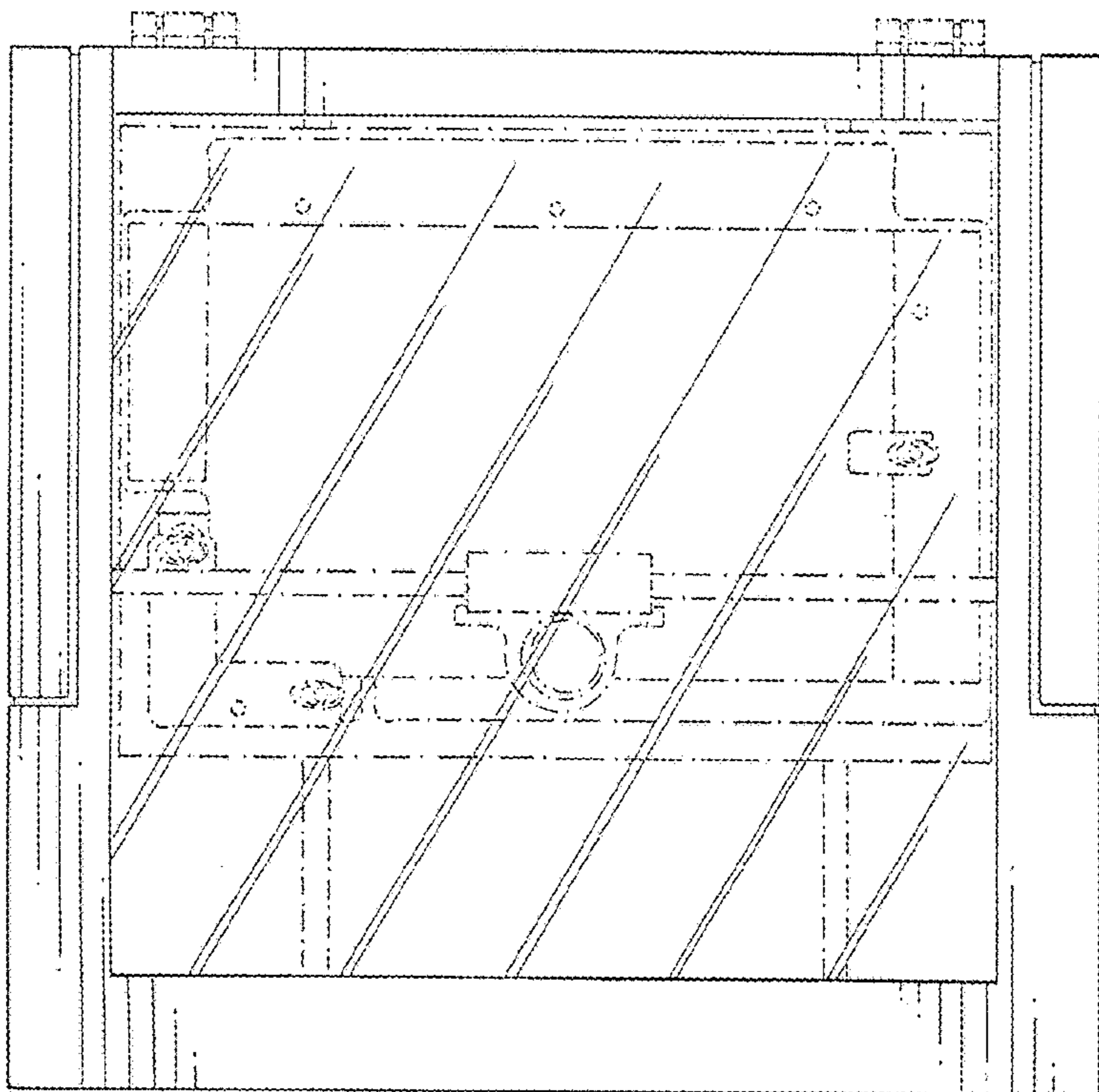


Fig. 4

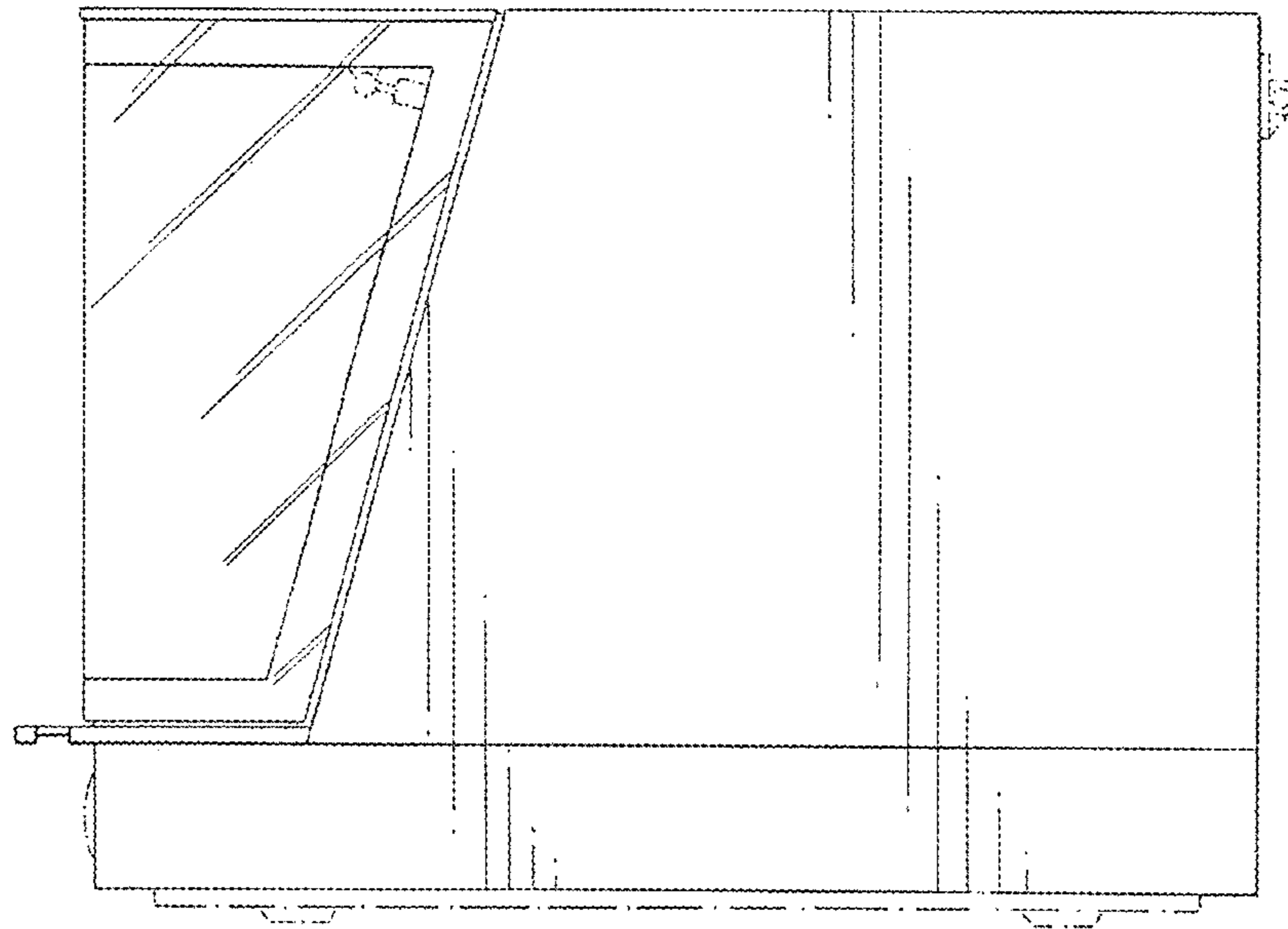


Fig. 5

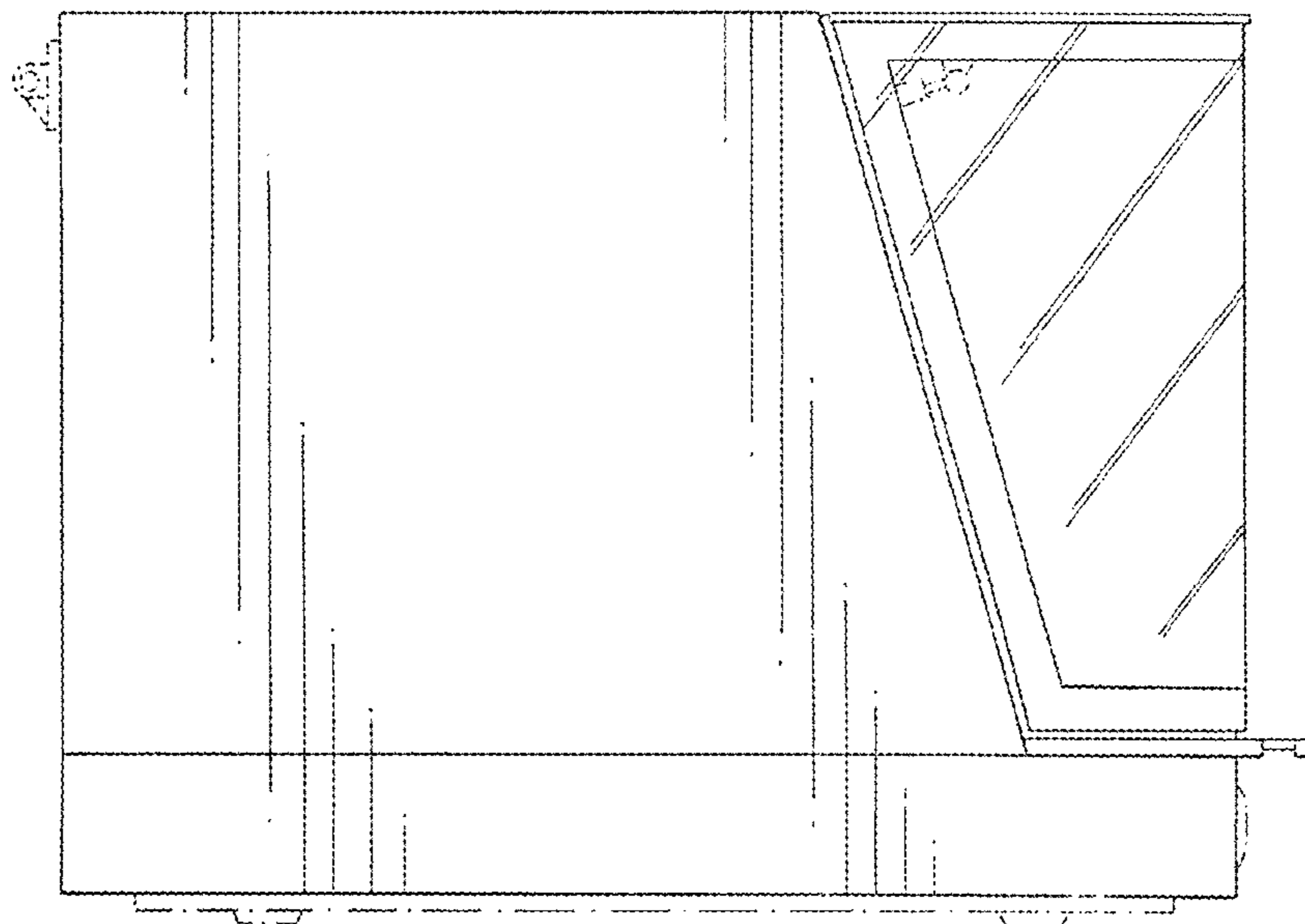


Fig. 6

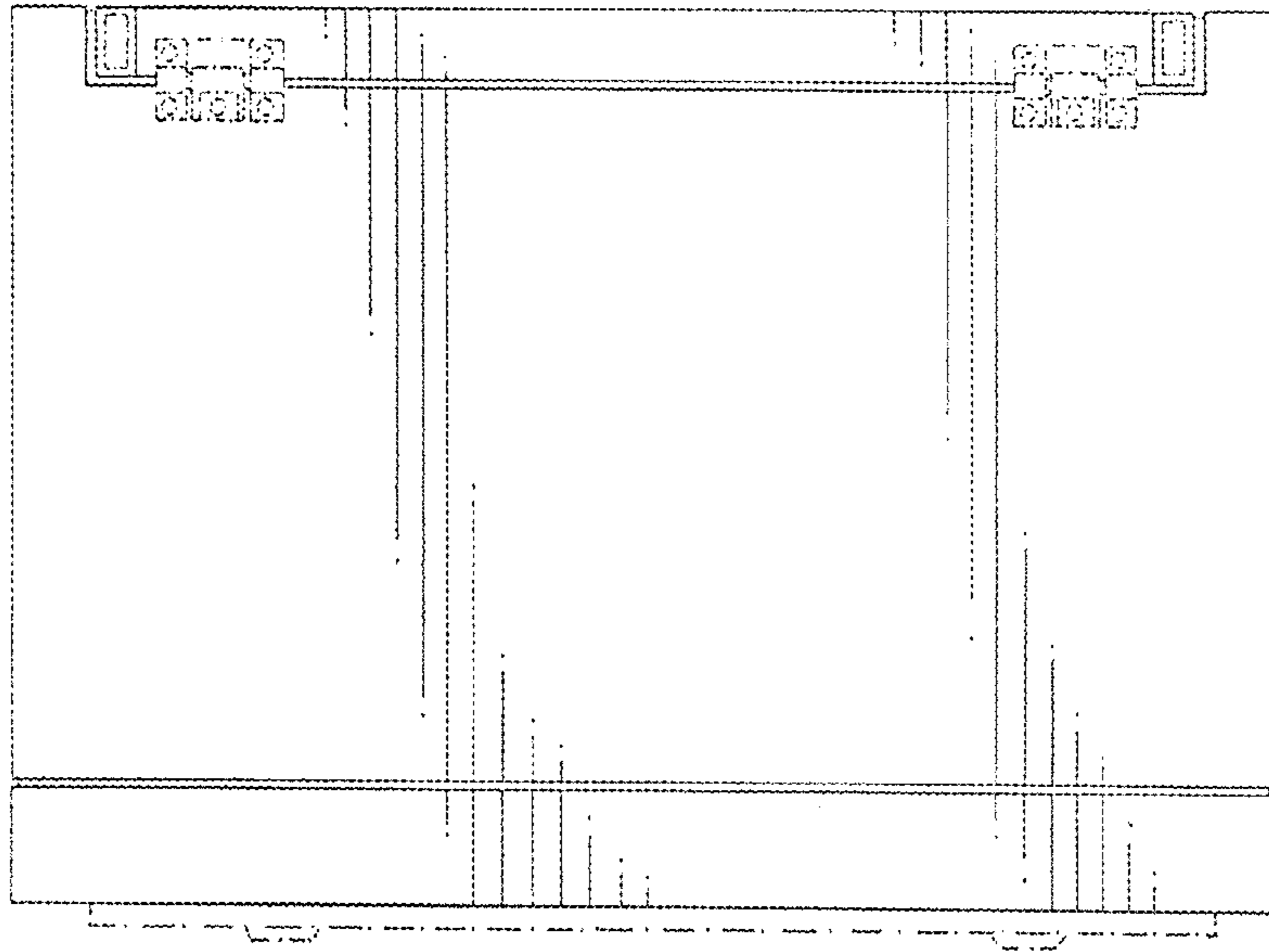


Fig. 7

