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

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(54) **CUTTING TOOL**

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

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(30) **Foreign Application Priority Data**

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Sep. 28, 2016 (JP) 2016-020862

(51) **LOC (11) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/139**

(58) **Field of Classification Search**
USPC D8/20, 70; D15/123, 124, 126, 131, 138,
D15/139

CPC B23B 27/14; B23B 27/22; B23B 27/045;
B23B 27/141; B23B 27/143; B23B
2200/321; B29B 9/06; B29C 47/0066

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,252,893 A * 8/1941 Macklin B23B 27/148
407/118
2,645,471 A * 7/1953 King E21C 35/183
175/435

2,944,323 A * 7/1960 Stadler B23B 27/16
407/110
3,254,392 A * 6/1966 Novkov B23B 27/04
407/113
3,289,273 A * 12/1966 Artaud B23B 29/03
235/133 R

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Michael A. Satori

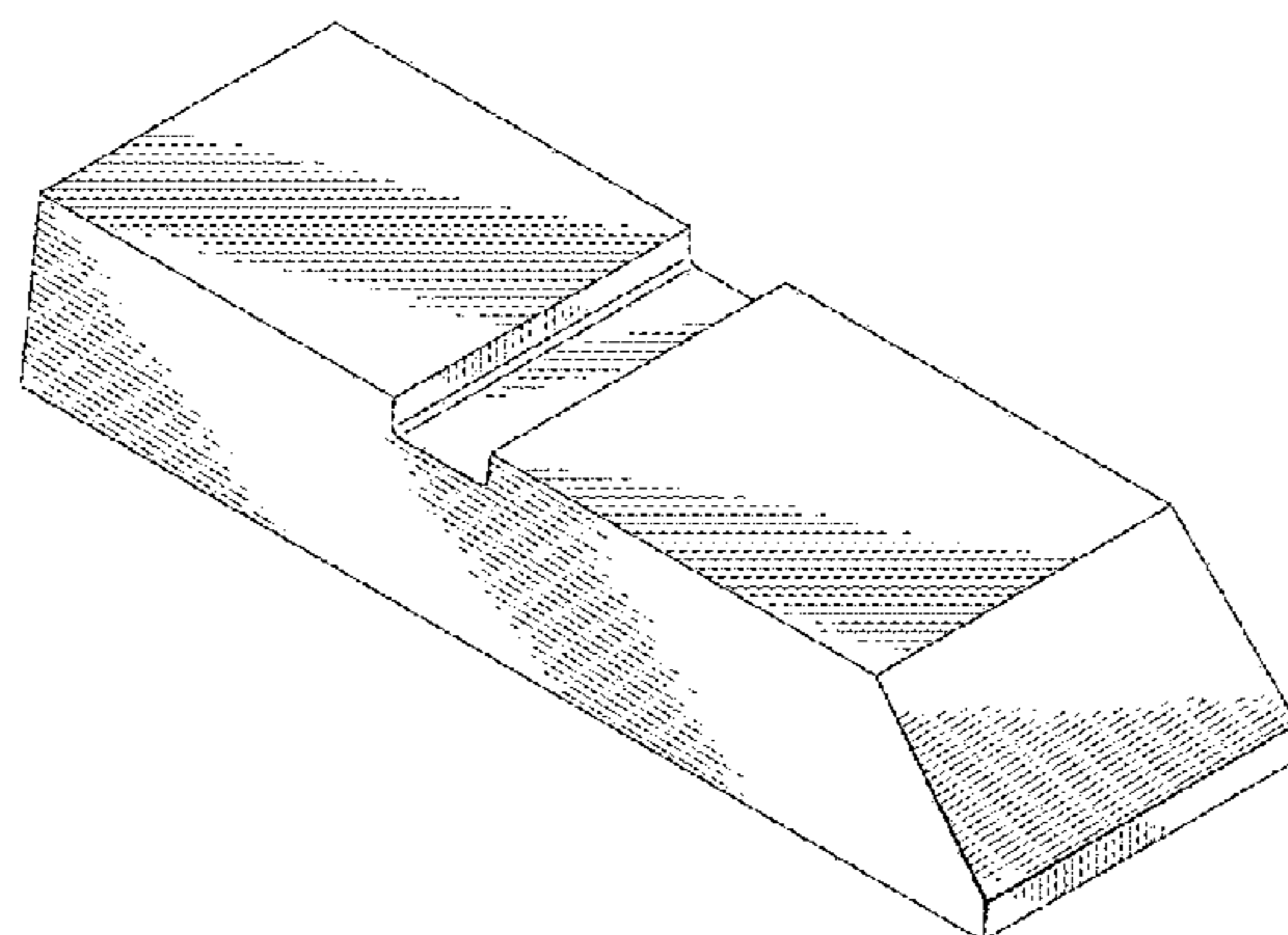
(57) **CLAIM**

The ornamental design for a cutting tool, as shown and
described.

DESCRIPTION

FIG. 1 is a front view of a cutting tool in accordance with
Embodiment 1 of the present design;
FIG. 2 is a rear view thereof;
FIG. 3 is a top 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 first perspective view thereof;
FIG. 8 is a second perspective view thereof;
FIG. 9 is a referential perspective view showing the state in
use of the cutting tool attached to the holder by a fixing
block, for cutting a rotating workpiece;
FIG. 10 is a front view of a cutting tool in accordance with
Embodiment 2 of the present design;
FIG. 11 is a rear view thereof;
FIG. 12 is a top view thereof;
FIG. 13 is a bottom view thereof;
FIG. 14 is a right side view thereof;
FIG. 15 is a left side view thereof;
FIG. 16 is a first perspective view thereof;
FIG. 17 is a second perspective view thereof; and,
FIG. 18 is a referential perspective view showing the state
in use of the cutting tool attached to the holder by a fixing
block, for cutting a rotating workpiece.

(Continued)



The broken lines in the referential views depict unclaimed environmental subject matter.

1 Claim, 8 Drawing Sheets

(56)

References Cited

U.S. PATENT DOCUMENTS

3,559,705 A * 2/1971 Salzmann, Jr. B27L 11/005
144/162.1
3,686,729 A * 8/1972 Cochran B23B 27/04
407/101
4,086,016 A * 4/1978 Goeke B23B 27/141
407/114
4,636,117 A * 1/1987 Shikata B23B 27/1622
407/104
5,688,080 A * 11/1997 Hedlund B23B 27/04
407/101
6,249,950 B1 * 6/2001 Brask B23B 27/04
29/434
6,334,740 B1 * 1/2002 Qvarth B23C 5/207
407/36

6,857,831 B2 * 2/2005 Davis B23B 51/0433
408/204
D536,354 S * 2/2007 Kufner D15/144
D539,316 S * 3/2007 Tempel D15/139
7,798,434 B2 * 9/2010 Bondeson B05B 7/0861
239/296
D712,942 S * 9/2014 Zeiner D15/139
8,840,344 B2 * 9/2014 Stenman B23B 51/05
408/186
9,457,410 B2 * 10/2016 Tornstrom B23B 5/14
D772,316 S * 11/2016 Johnson D15/139
D772,317 S * 11/2016 Johnson D15/139
D794,102 S * 8/2017 Ryu D15/139
2002/0146292 A1 * 10/2002 Shimizu B23B 27/145
407/113
2008/0029309 A1 * 2/2008 Rosnell A01K 97/01
175/351
2011/0204171 A1 * 8/2011 Craven B02C 13/28
241/197
2013/0039708 A1 * 2/2013 Stenman B23B 51/05
408/16
2015/0352646 A1 * 12/2015 Bhagath B23C 5/08
407/51

* cited by examiner

FIG.1

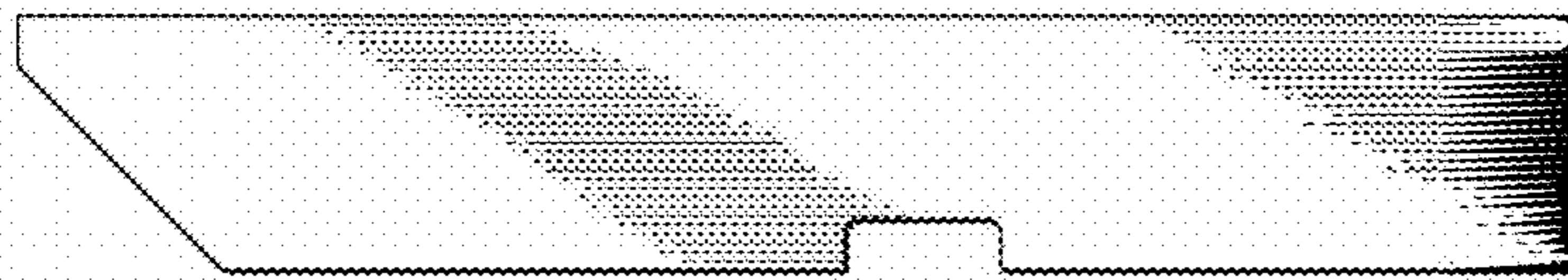


FIG.2

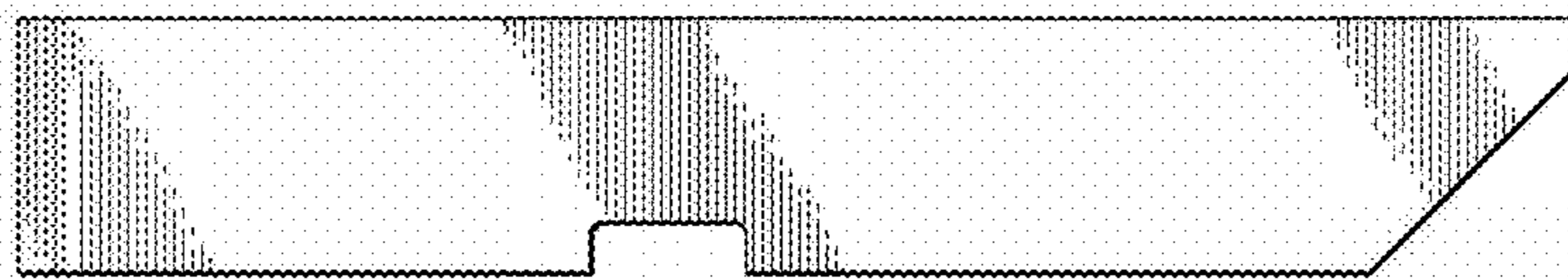


FIG.3

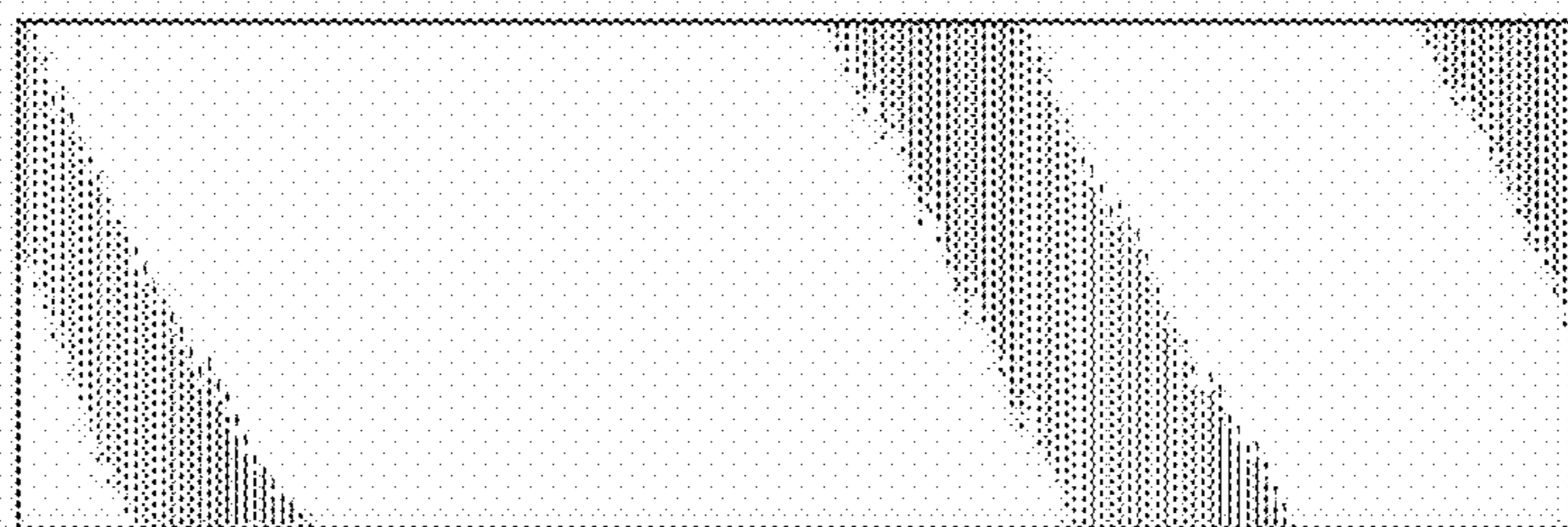


FIG.4

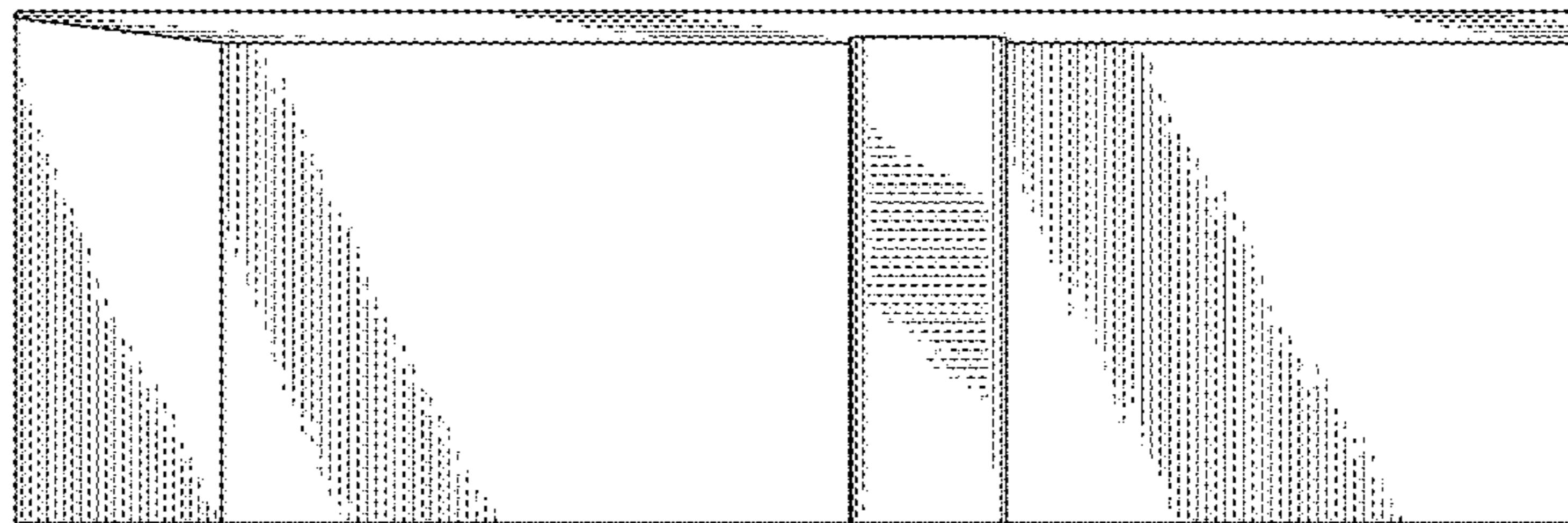


FIG.5

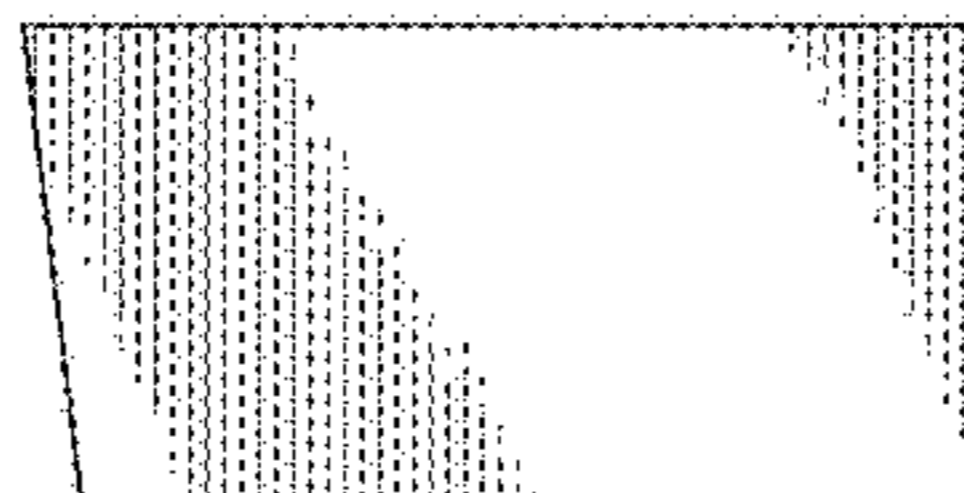


FIG.6

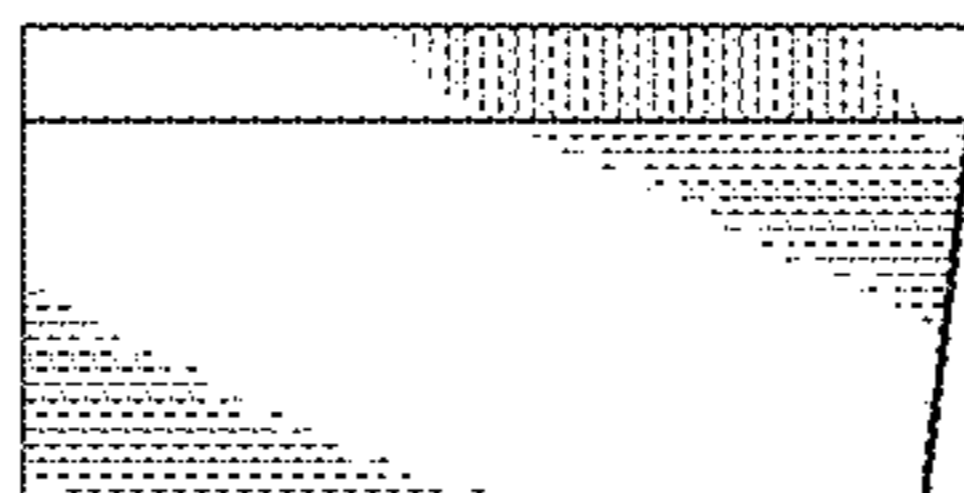


FIG.7

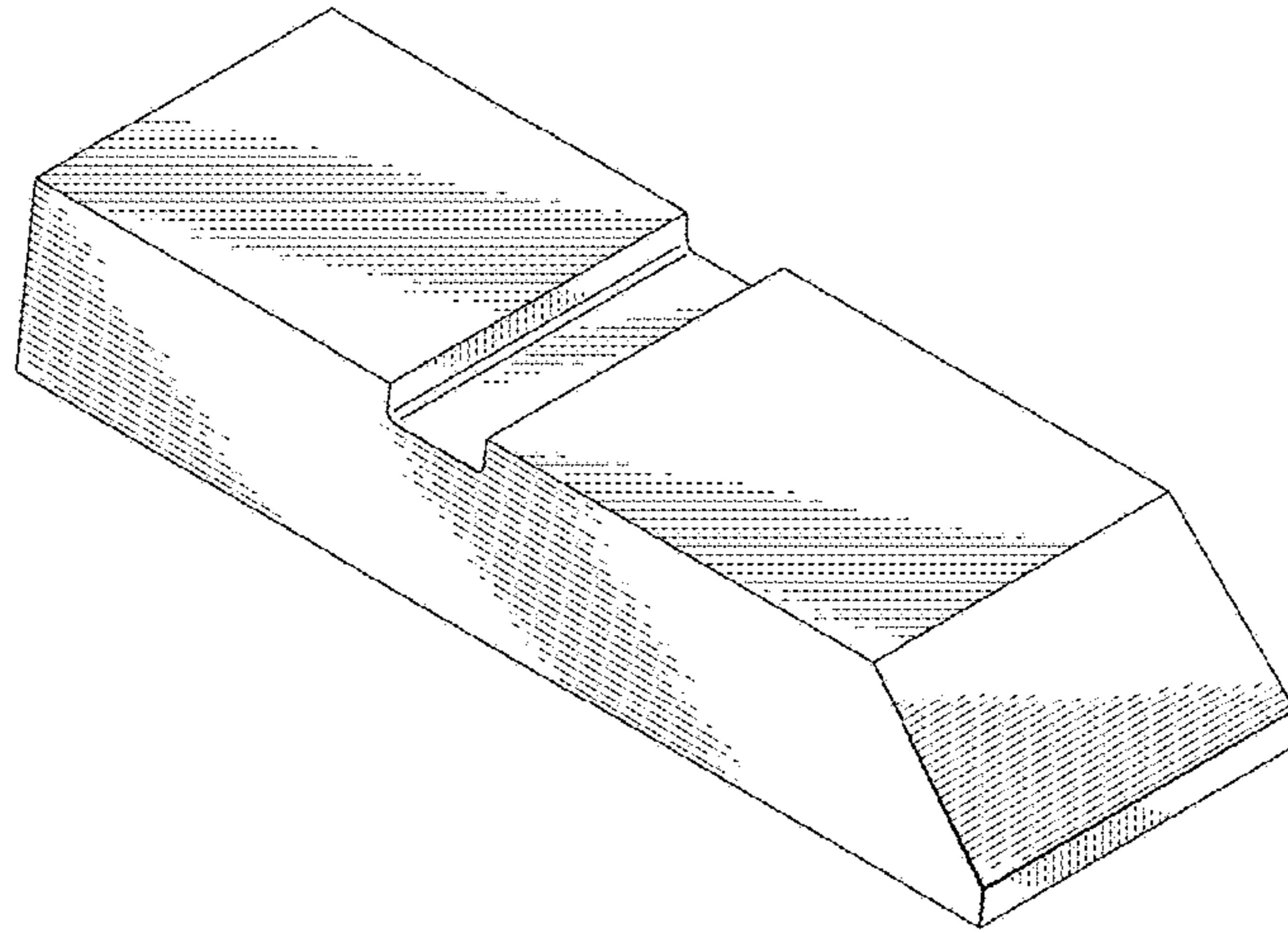


FIG.8

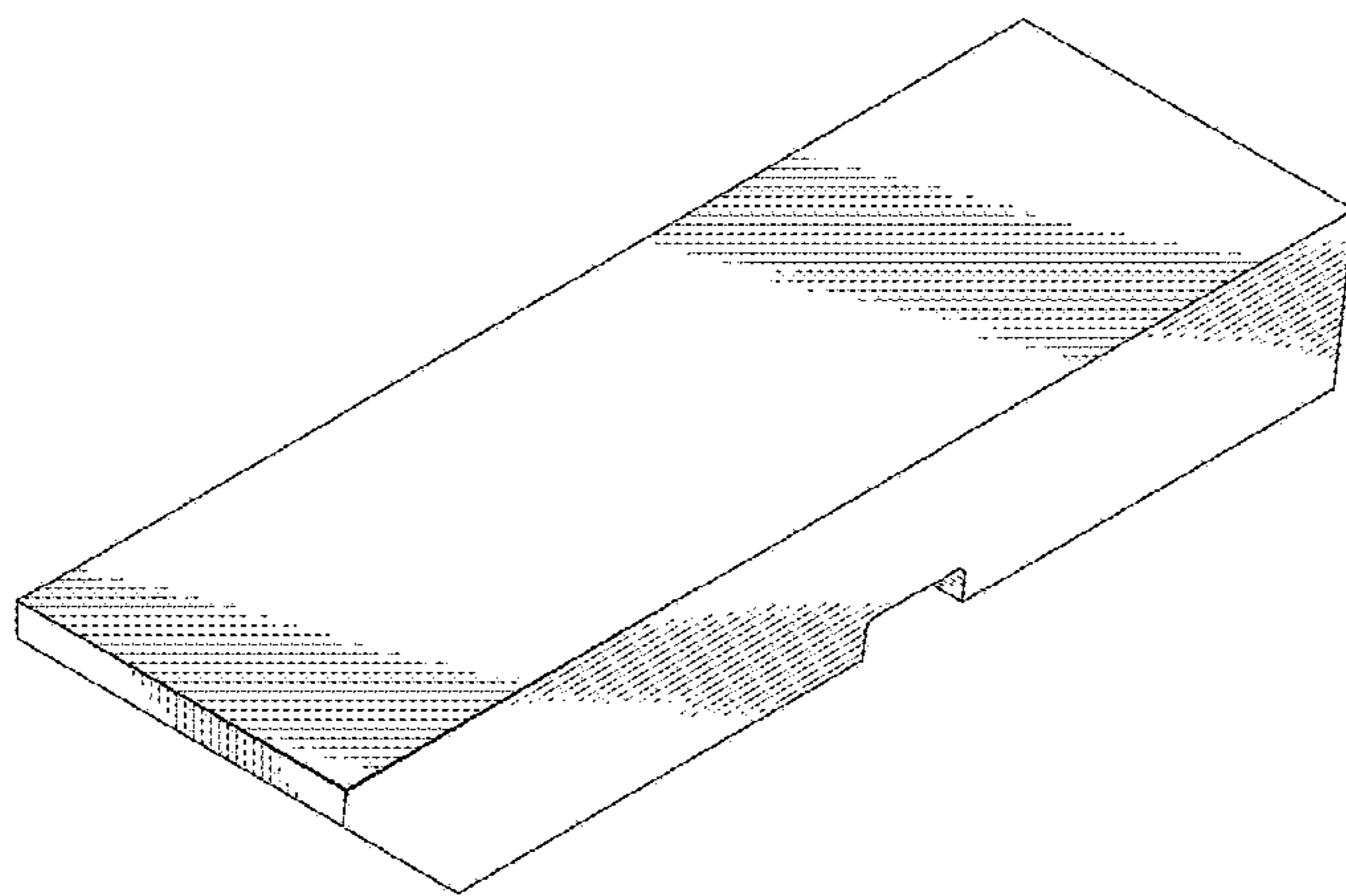


FIG.9

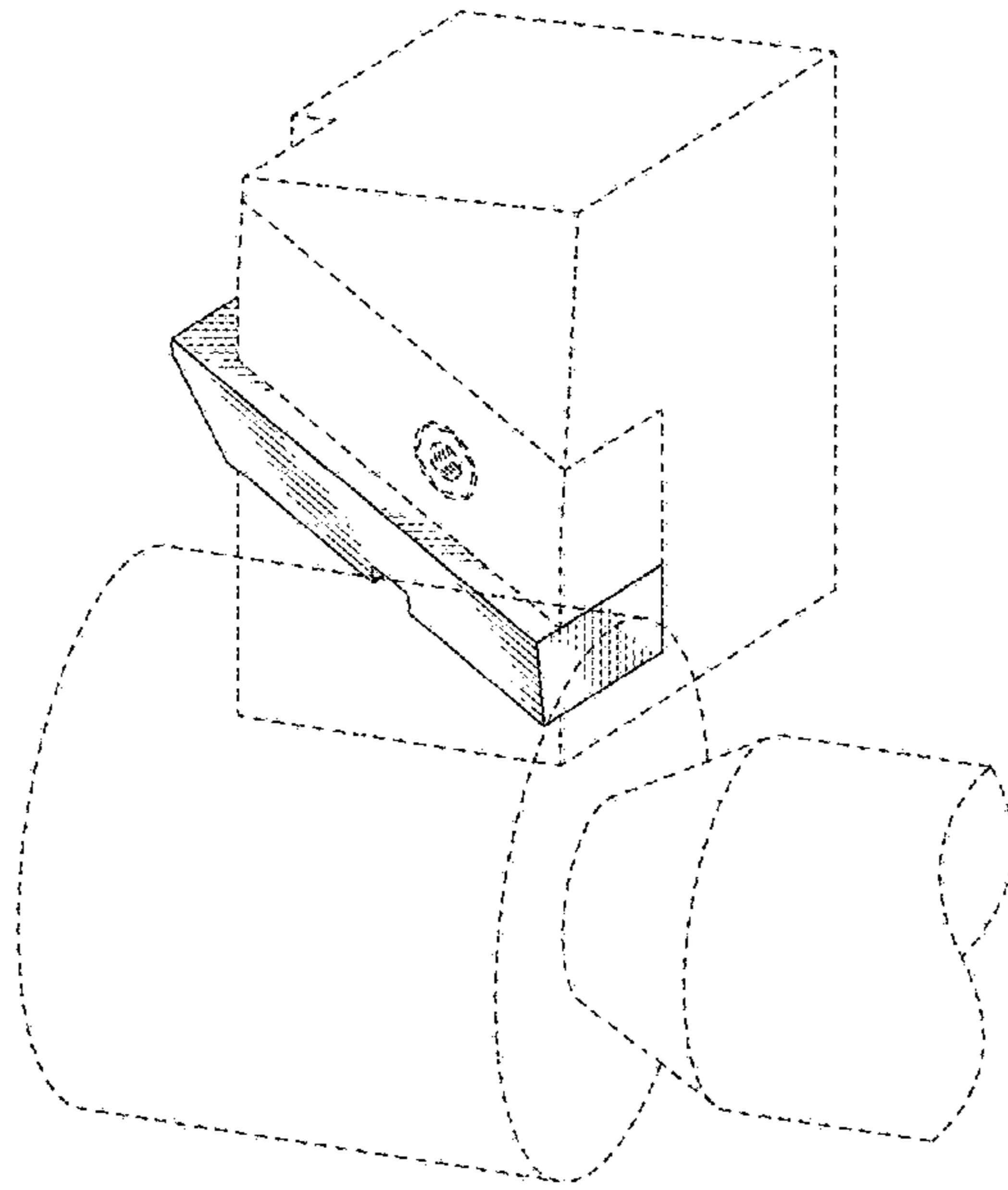


FIG.10



FIG.11

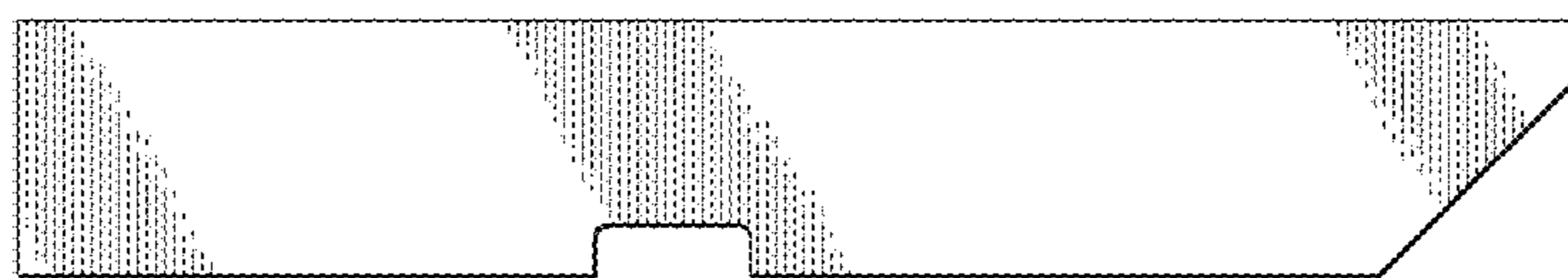


FIG.12

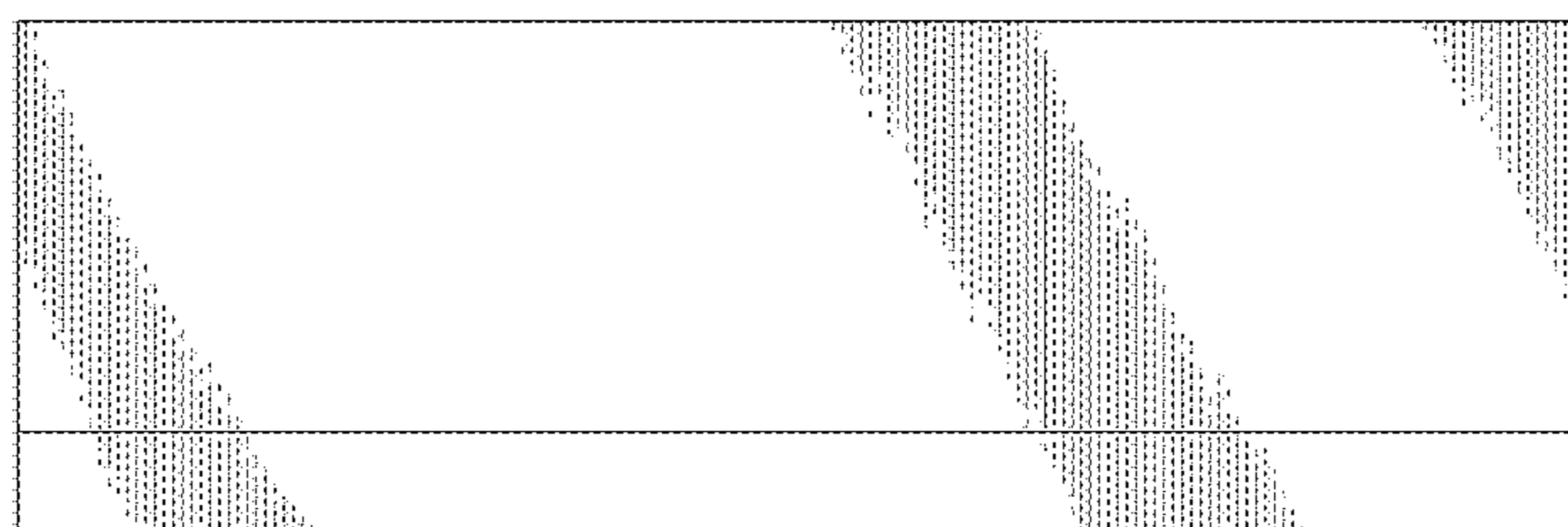


FIG.13

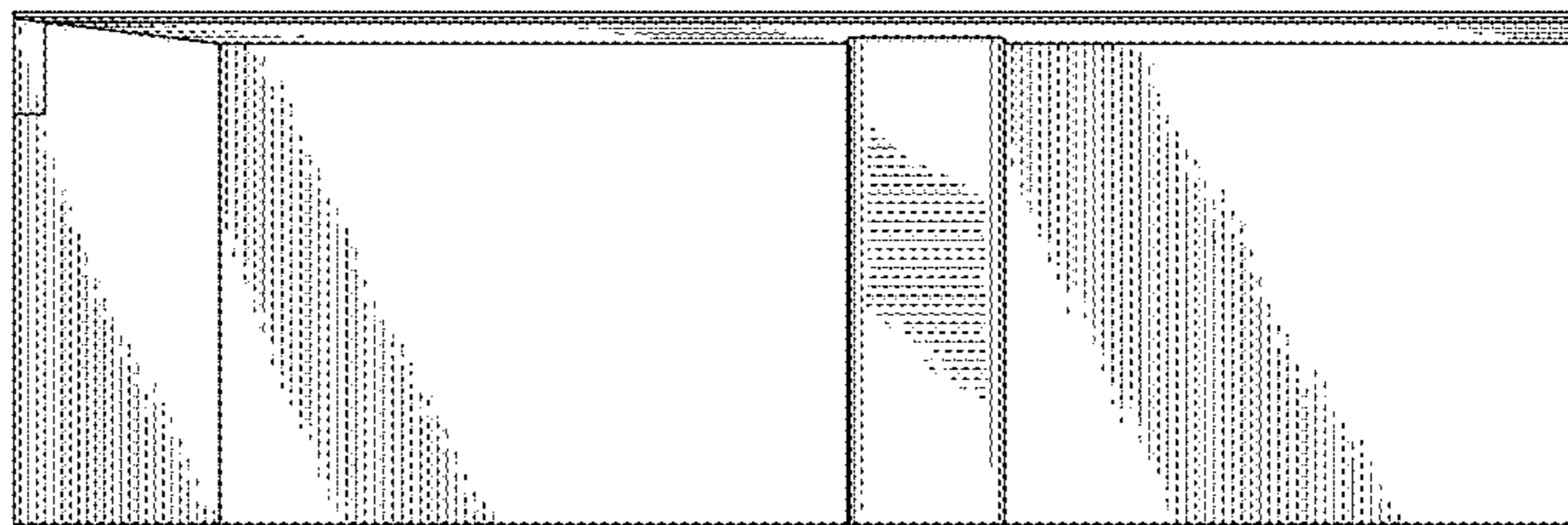


FIG.14

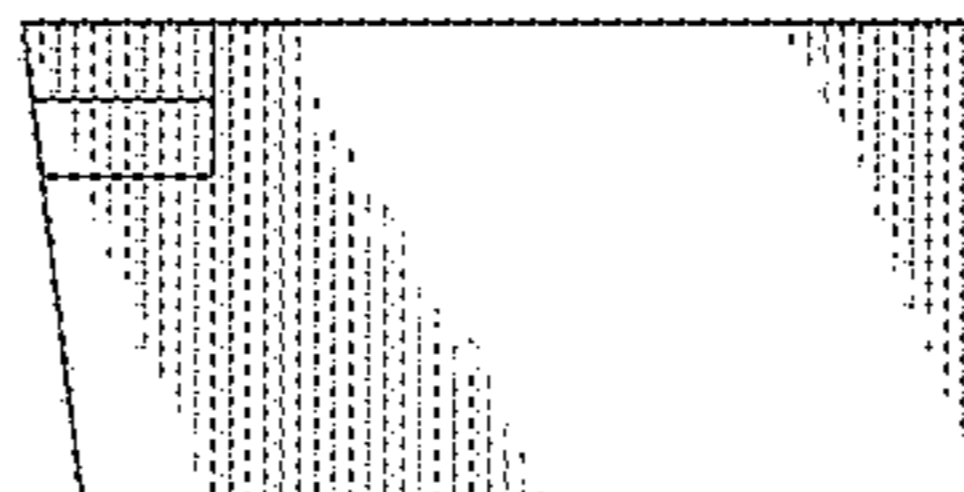


FIG.15

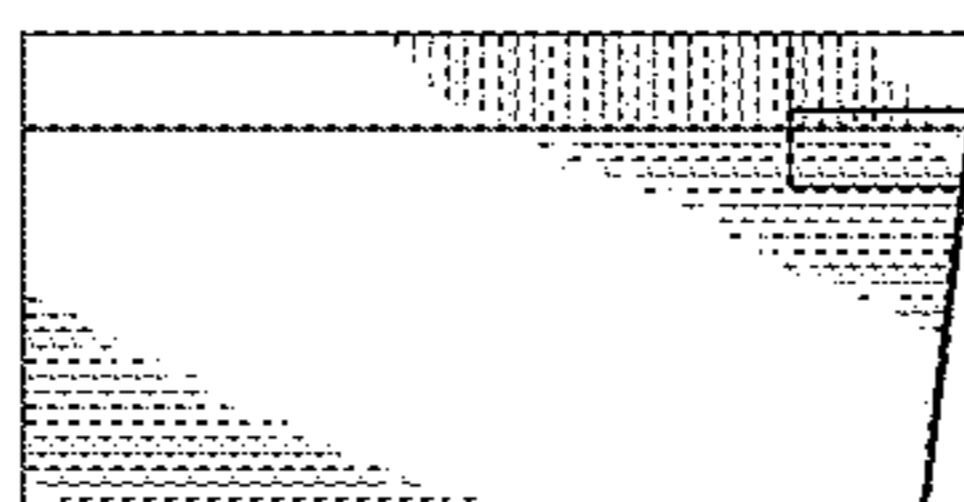


FIG.16

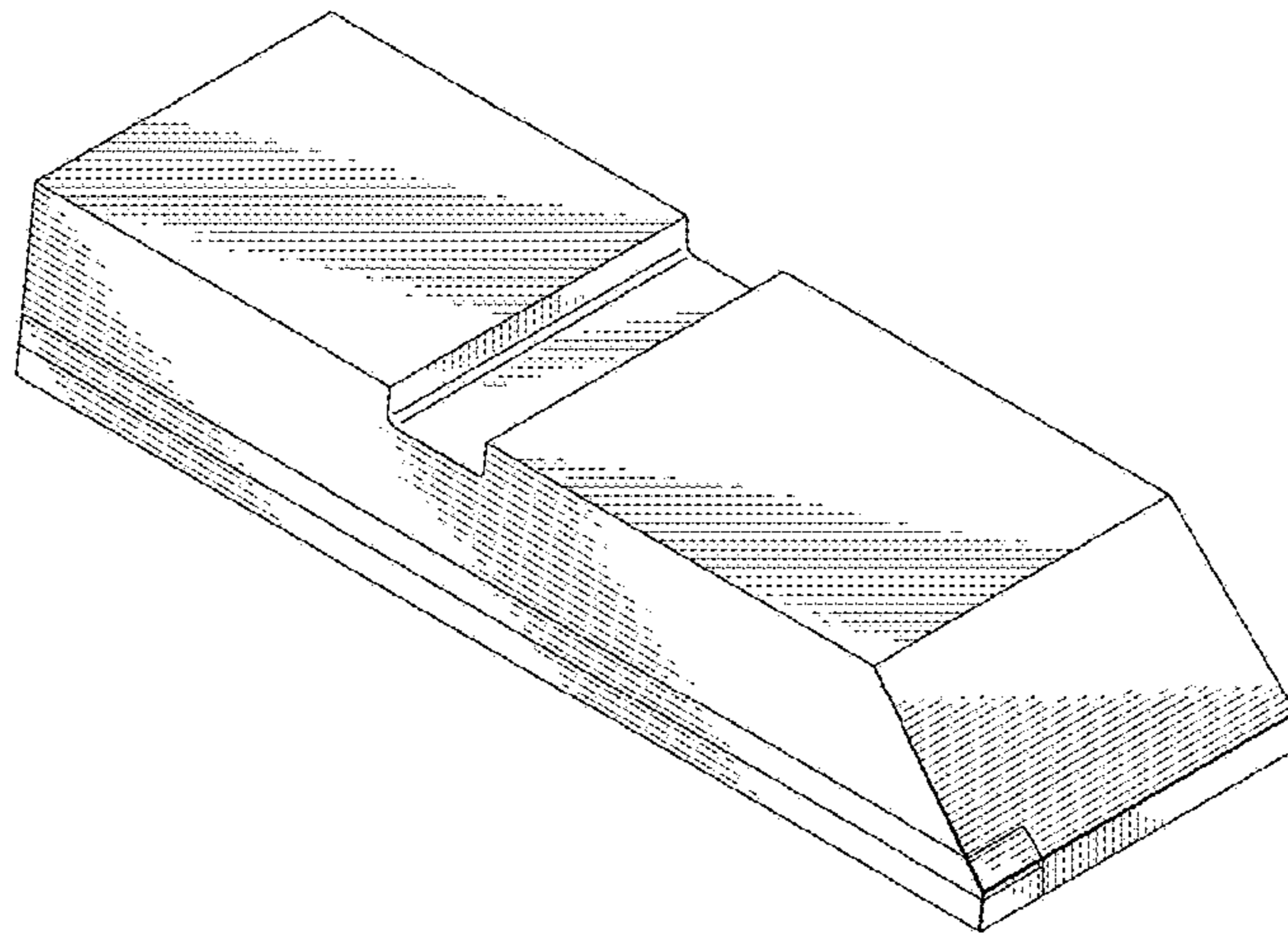


FIG.17

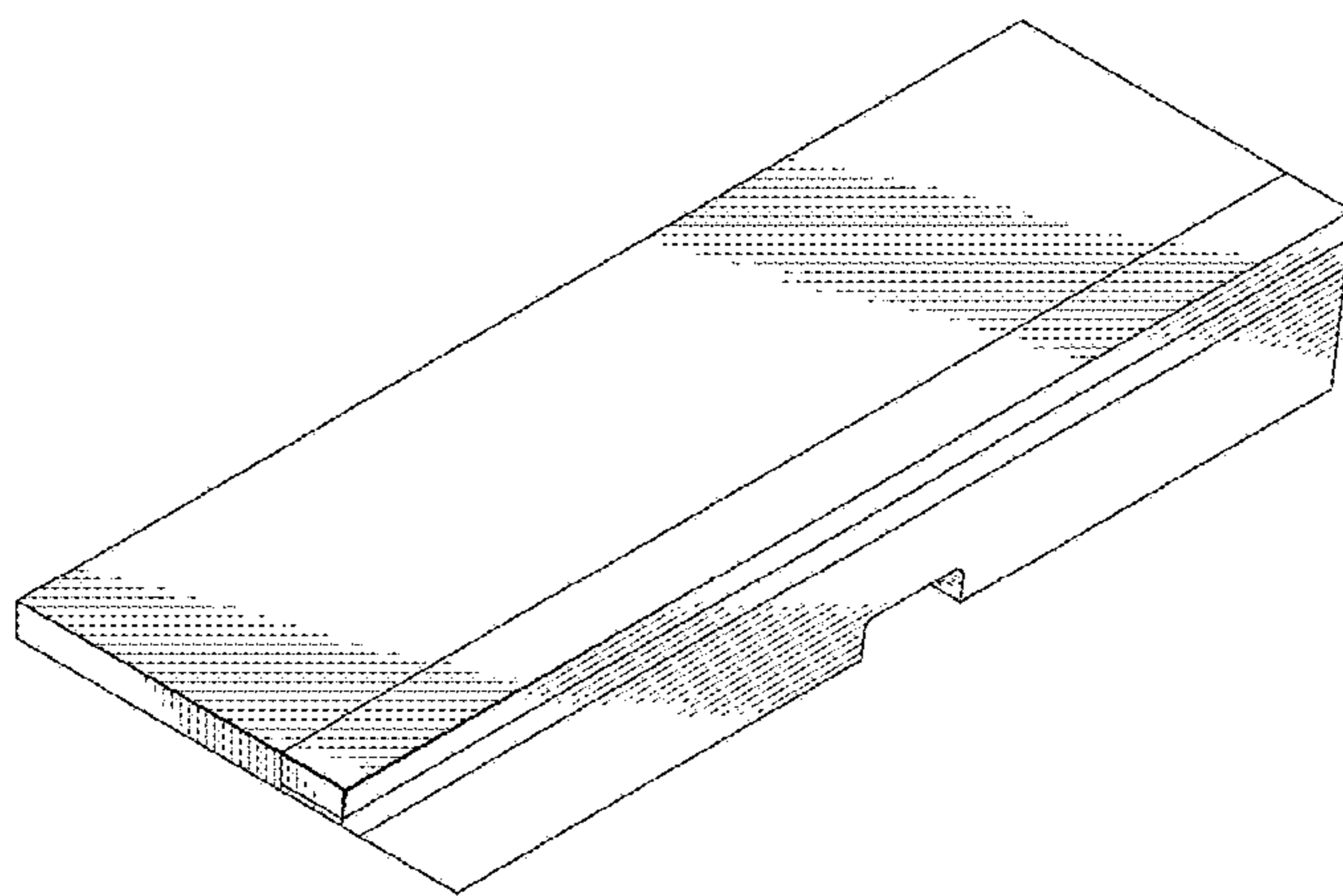


FIG.18

