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

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(54) **CUTTING TOOL**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **SUMITOMO ELECTRIC
HARDMETAL CORP.**, Itami (JP)
(72) Inventors: **Yoshiaki Sorai**, Itami (JP); **Takahiro
Okuno**, Itami (JP); **Yuji Tomoda**, Itami
(JP); **Yasuyuki Kanada**, Itami (JP)
(73) Assignee: **Sumitomo Electric Hardmetal Corp.**,
Itami (JP)
(**) Term: **15 Years**

JP 1568747 S 2/2017
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Primary Examiner — Patricia A Palasik
(74) *Attorney, Agent, or Firm* — Baker Botts L.L.P.;
Michael A. Sartori

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(57) **CLAIM**
The ornamental design for a cutting tool, as shown and
described.

(30) **Foreign Application Priority Data**
Feb. 16, 2018 (JP) 2018-003198
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(Continued)

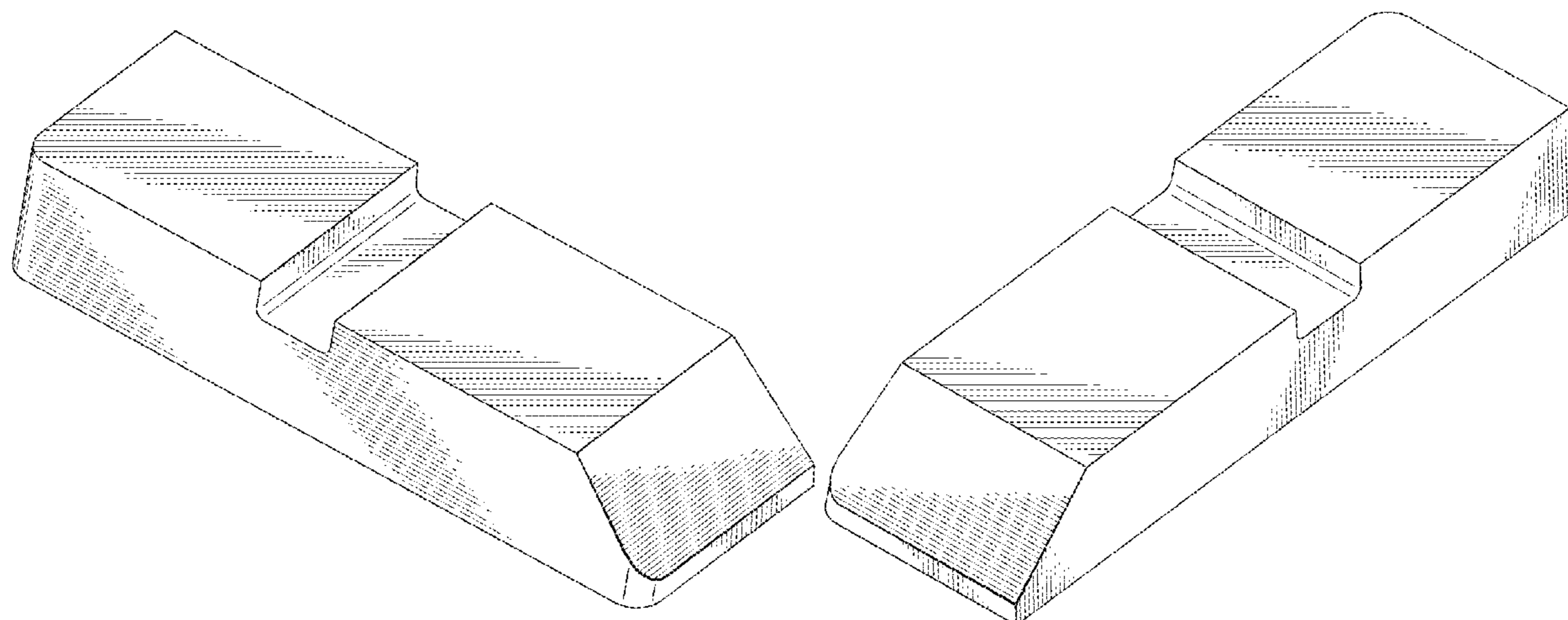
DESCRIPTION

(51) **LOC (13) 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
(Continued)

FIG. 1 is a front view of a cutting tool in accordance with
a first embodiment 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 third perspective view thereof;
FIG. 10 is a referential view showing the state in use of the
cutting tool;
FIG. 11 is a front view of a cutting tool in accordance with
a second embodiment of the present design;
FIG. 12 is a rear view thereof;
FIG. 13 is a top view thereof;
FIG. 14 is a bottom view thereof;
FIG. 15 is a right side view thereof;
FIG. 16 is a left side view thereof;
FIG. 17 is a first perspective view thereof;
FIG. 18 is a second perspective view thereof;
FIG. 19 is a third perspective view thereof;
FIG. 20 is an enlarged view of 20-20 portion of FIG. 19; and,
FIG. 21 is a referential view showing the state in use of the
cutting tool.

(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
(Continued)

1 Claim, 9 Drawing Sheets



(30) Foreign Application Priority Data

Feb. 16, 2018 (JP) 2018-003200
 Feb. 16, 2018 (JP) 2018-003201

(58) Field of Classification Search

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

2,944,323 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
 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
 D848,496 S * 5/2019 Maeta 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

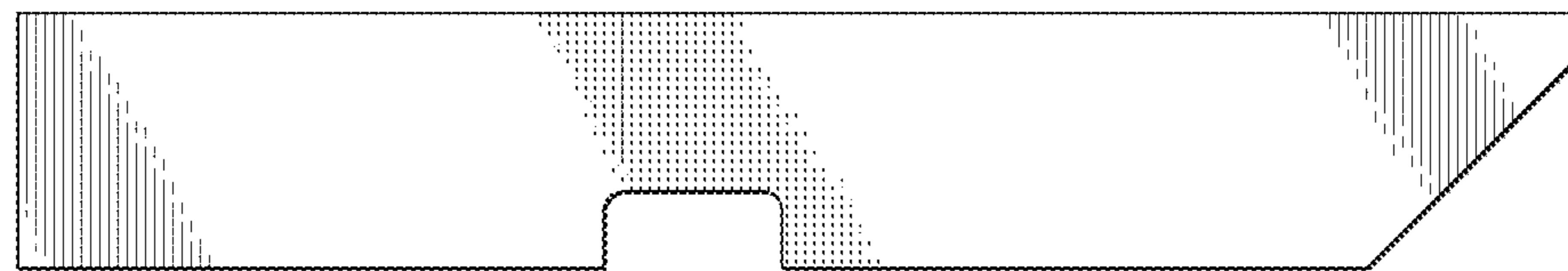


FIG.3



FIG.4

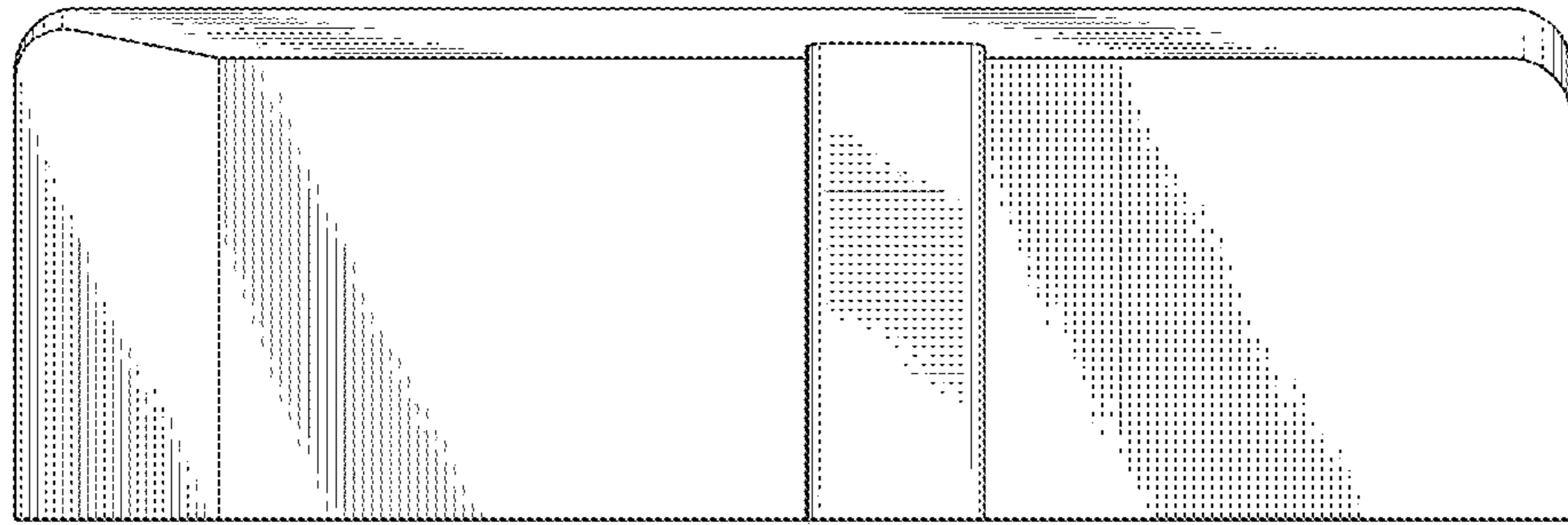


FIG.5

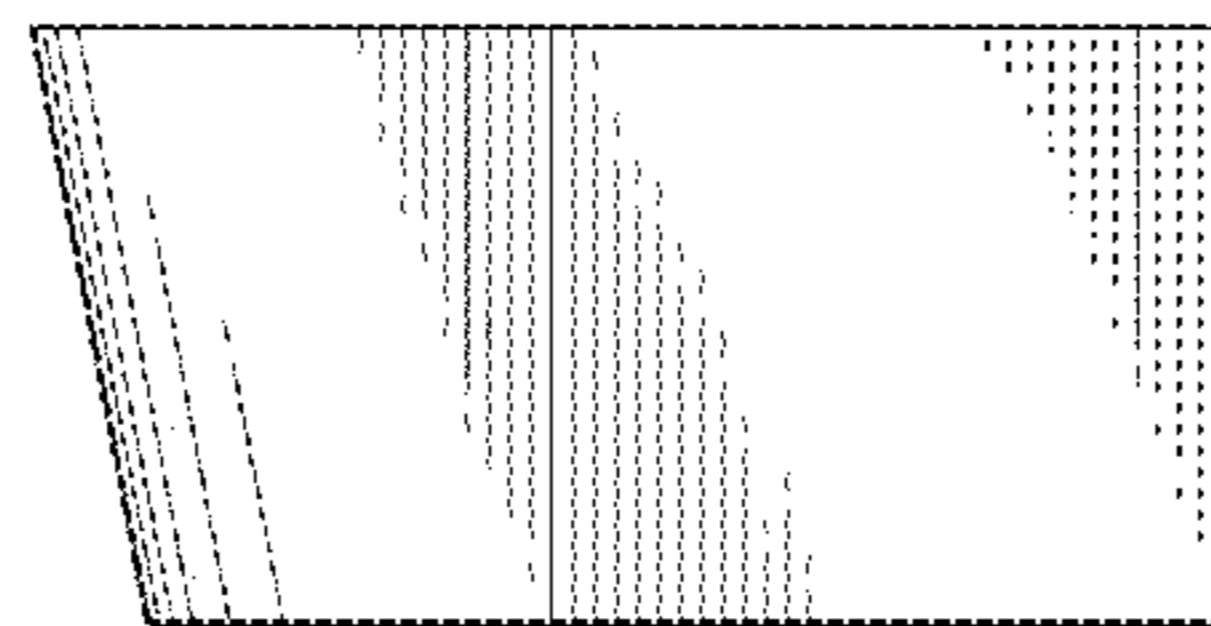


FIG.6

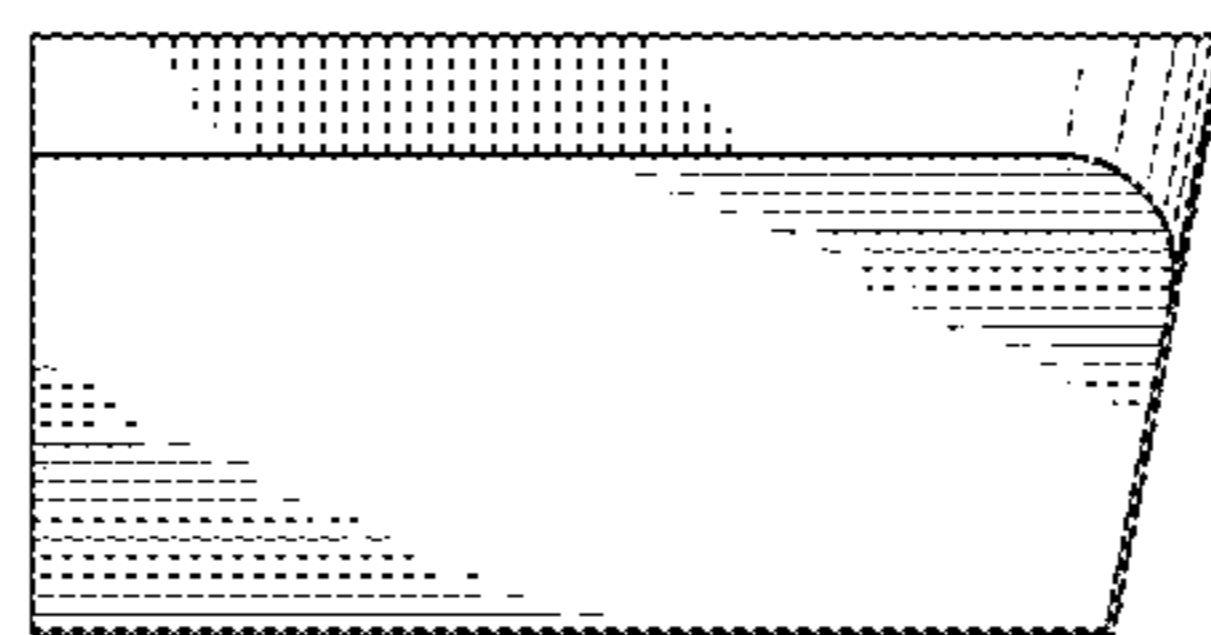


FIG.7

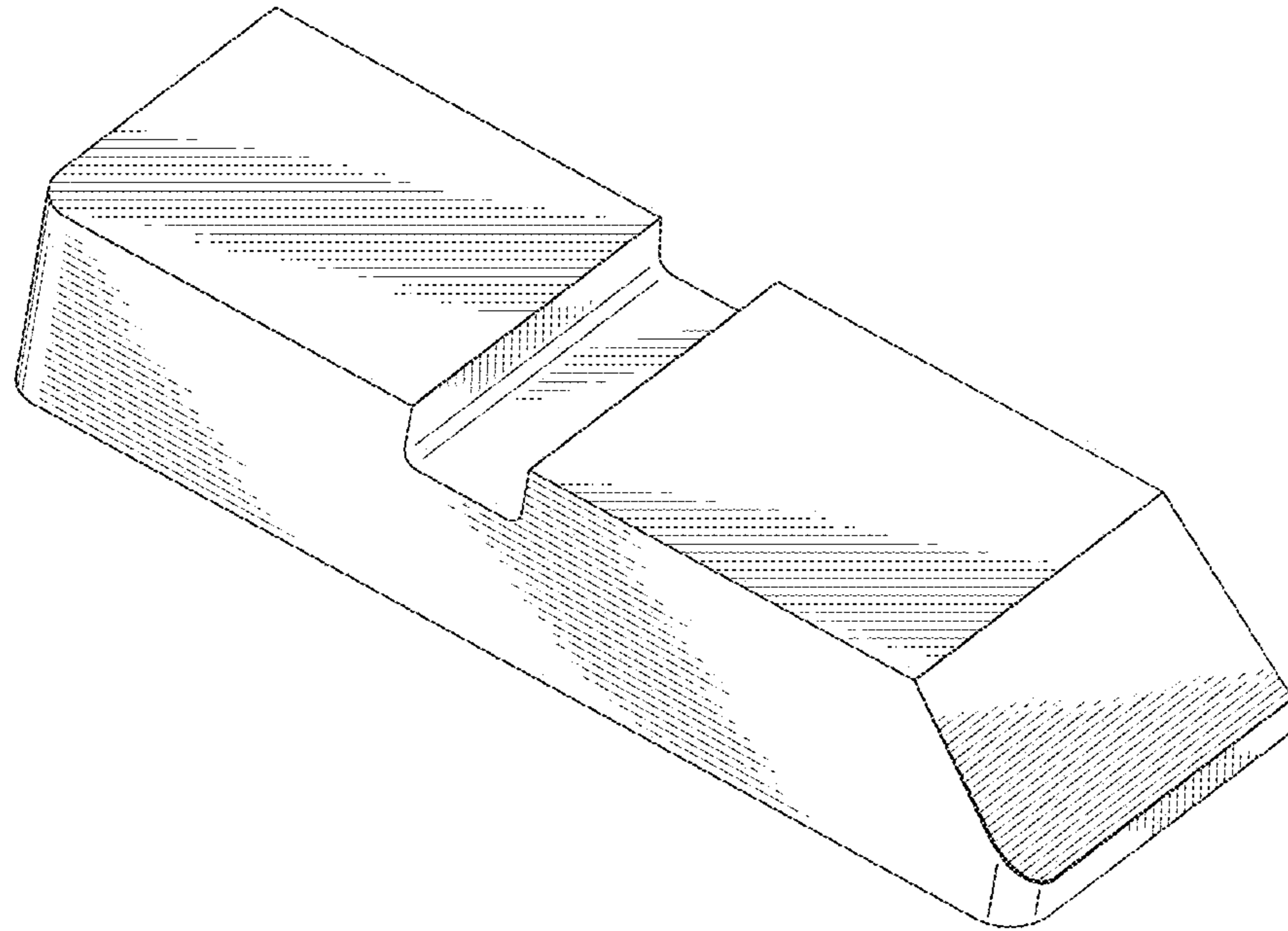


FIG.8

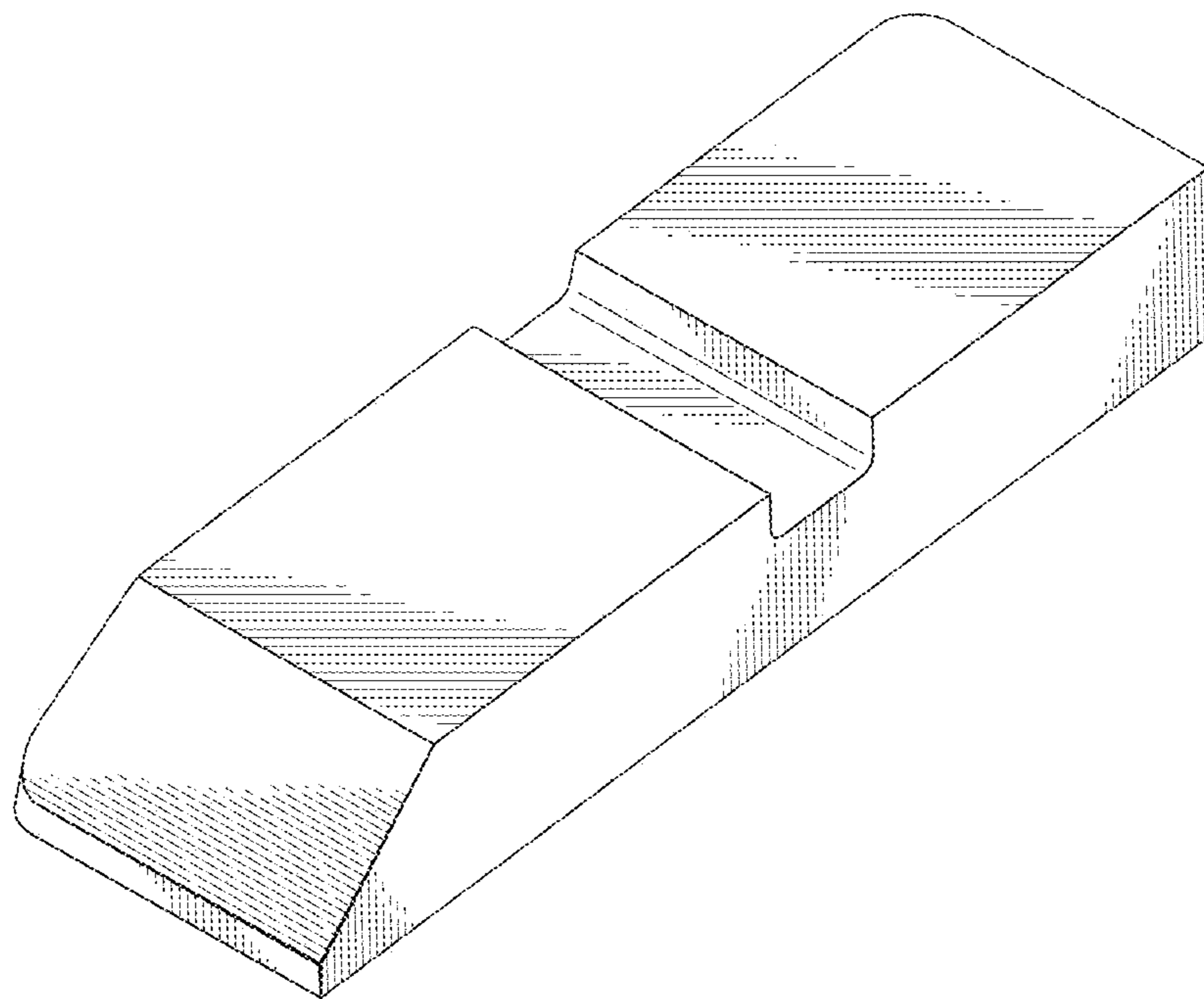


FIG.9

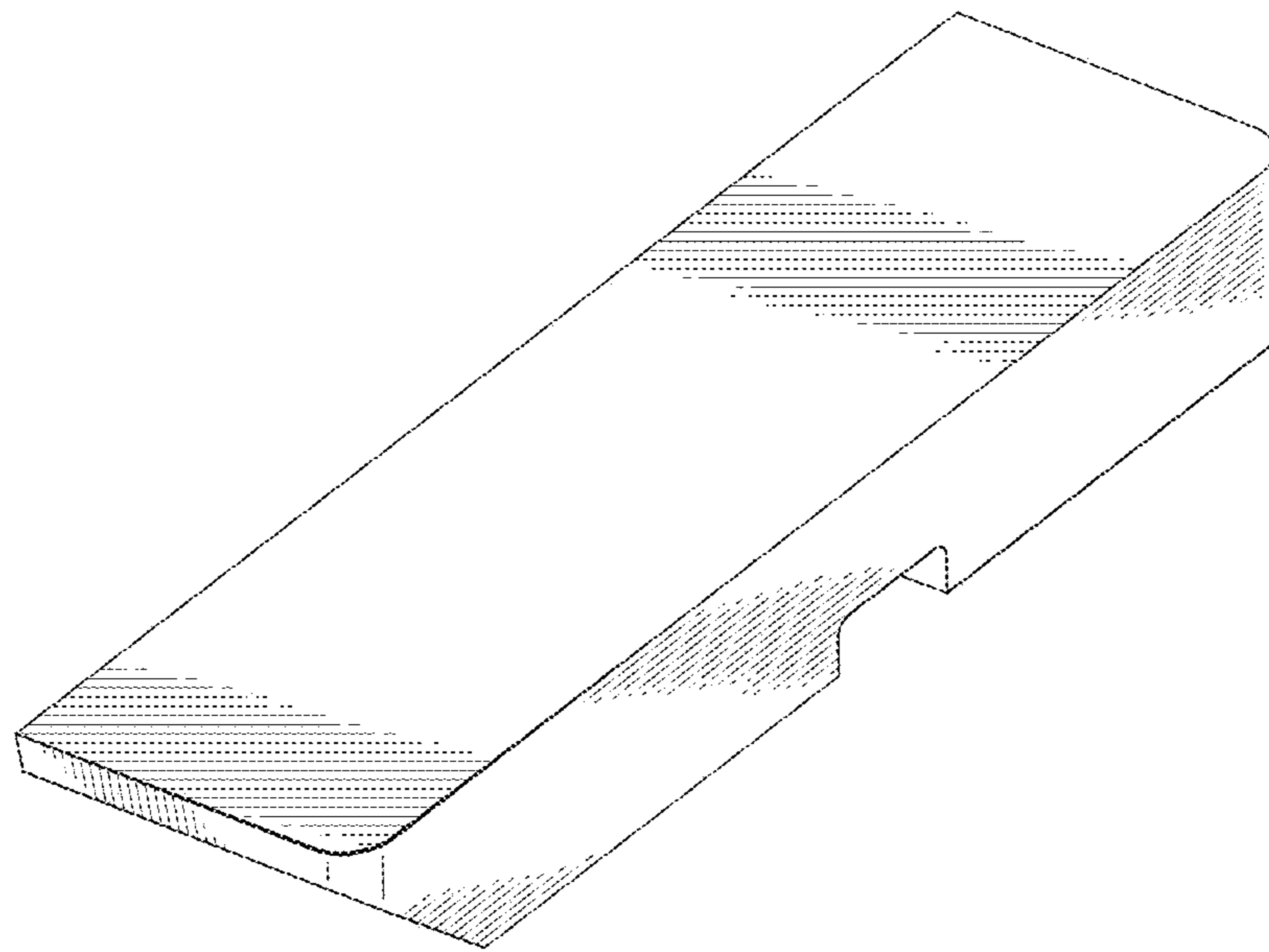


FIG.10

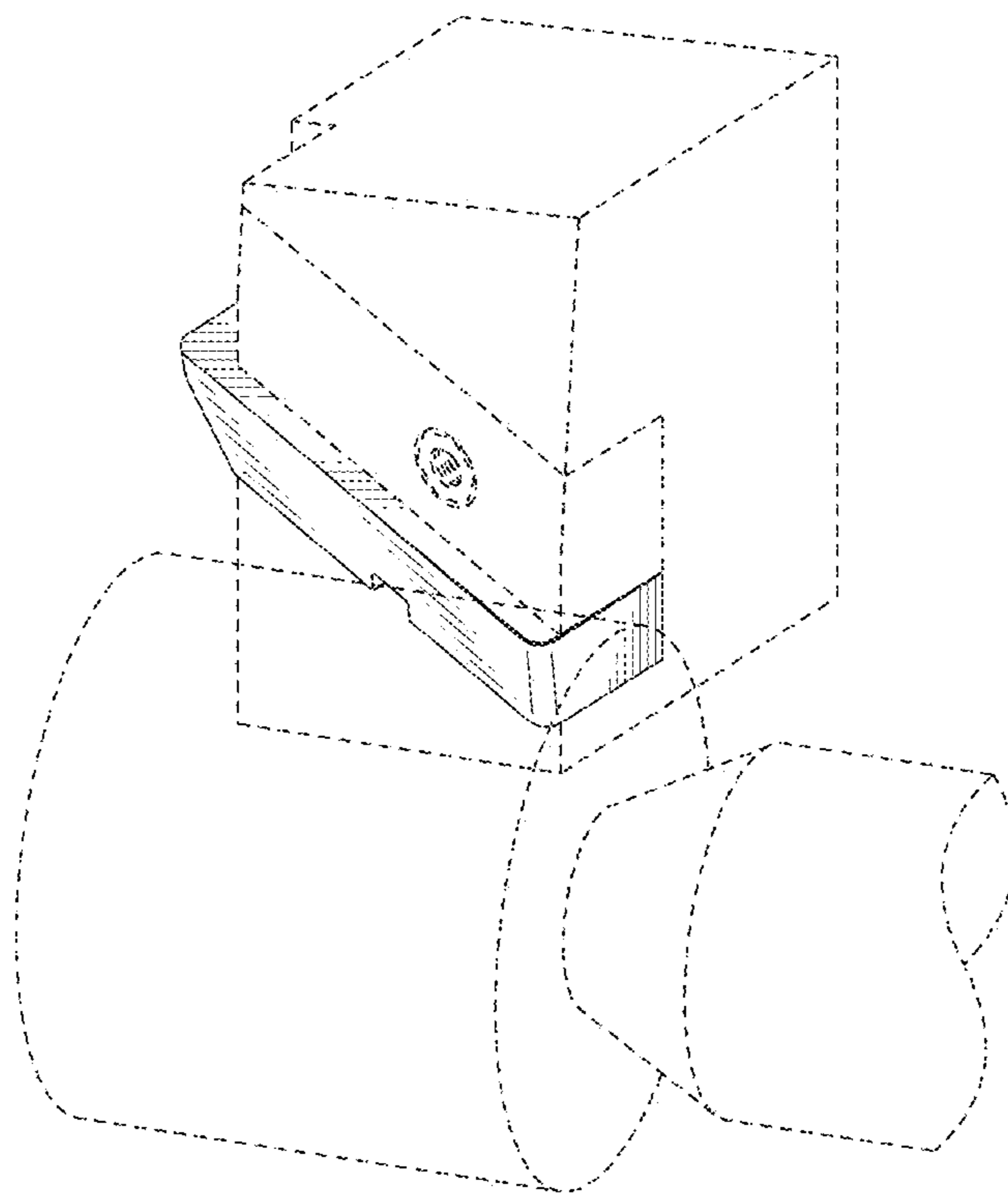


FIG. 11

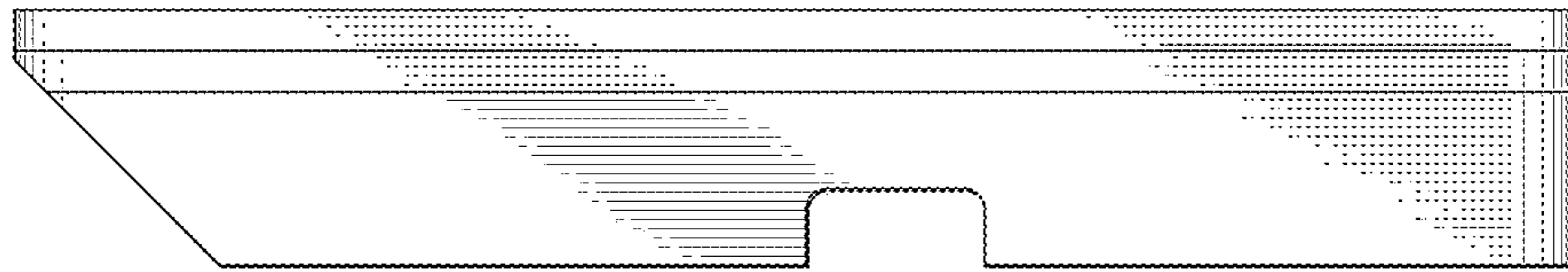


FIG. 12

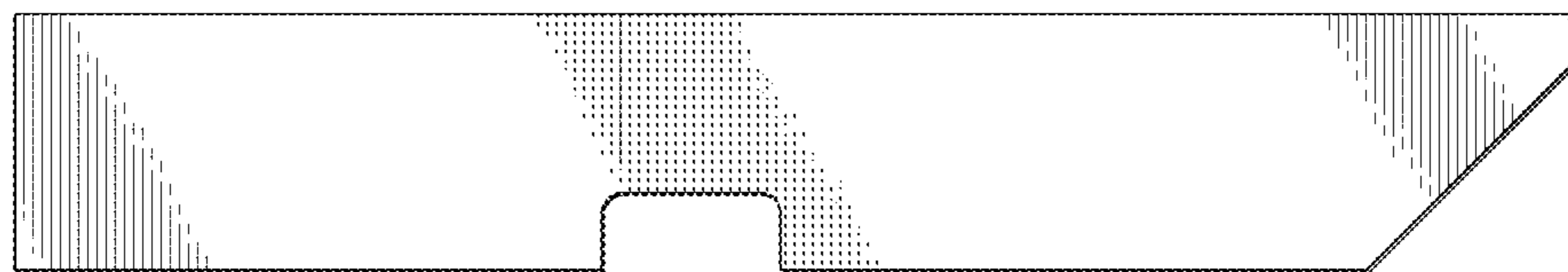


FIG. 13



FIG. 14

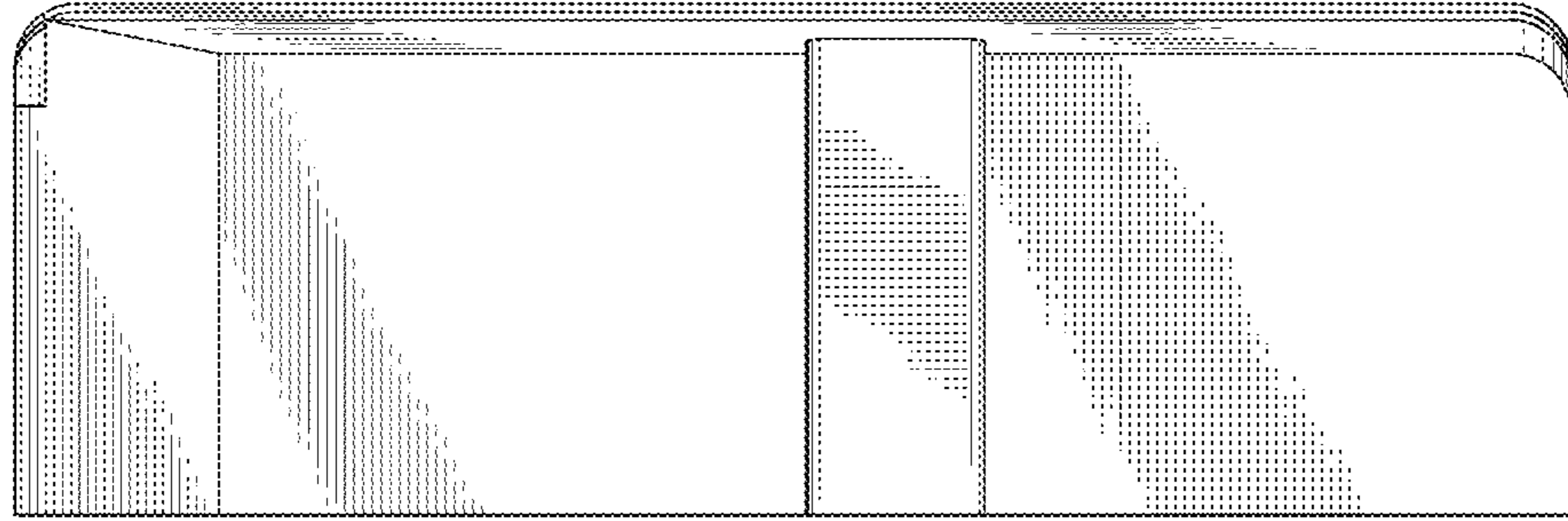


FIG. 15

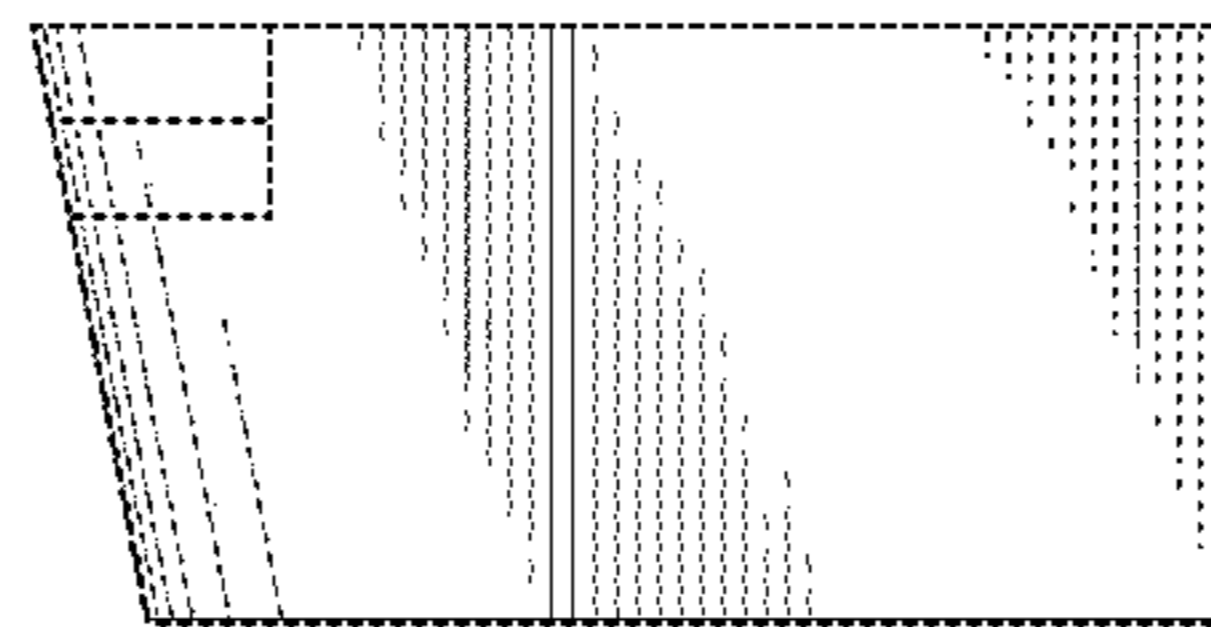


FIG. 16

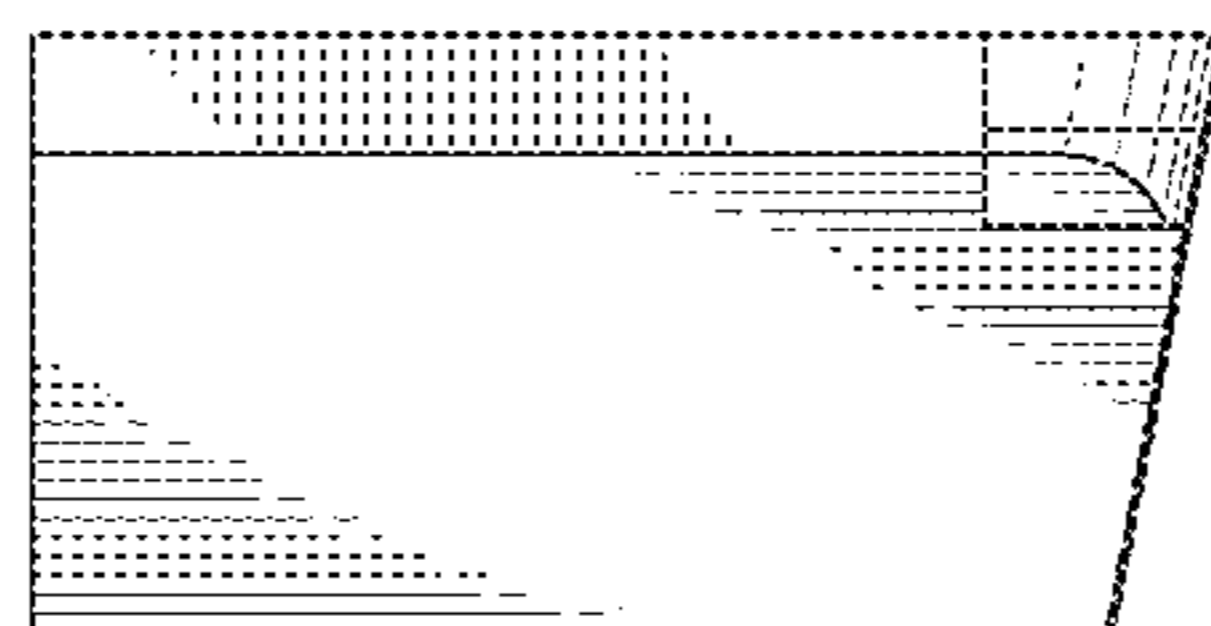


FIG. 17

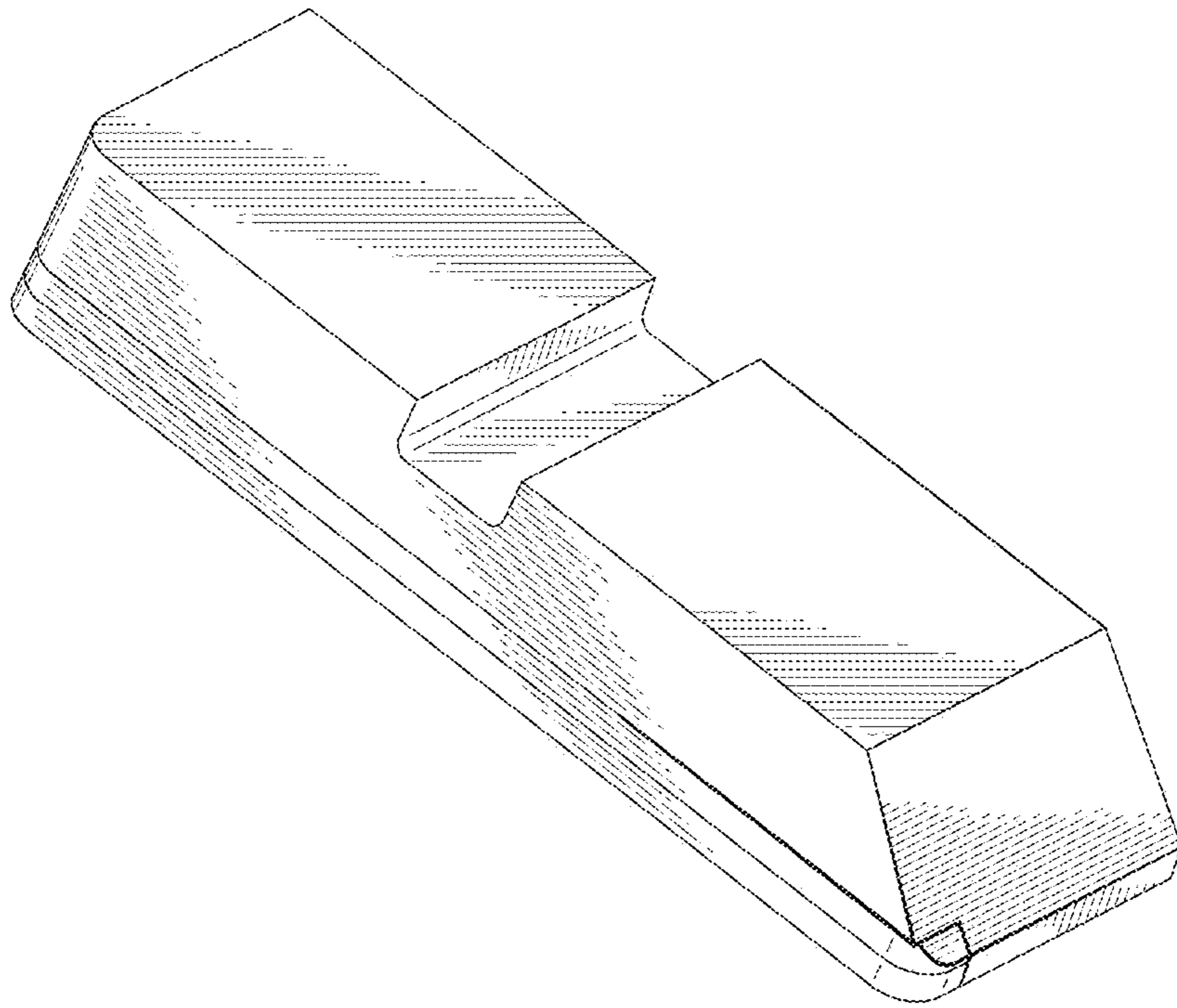


FIG. 18

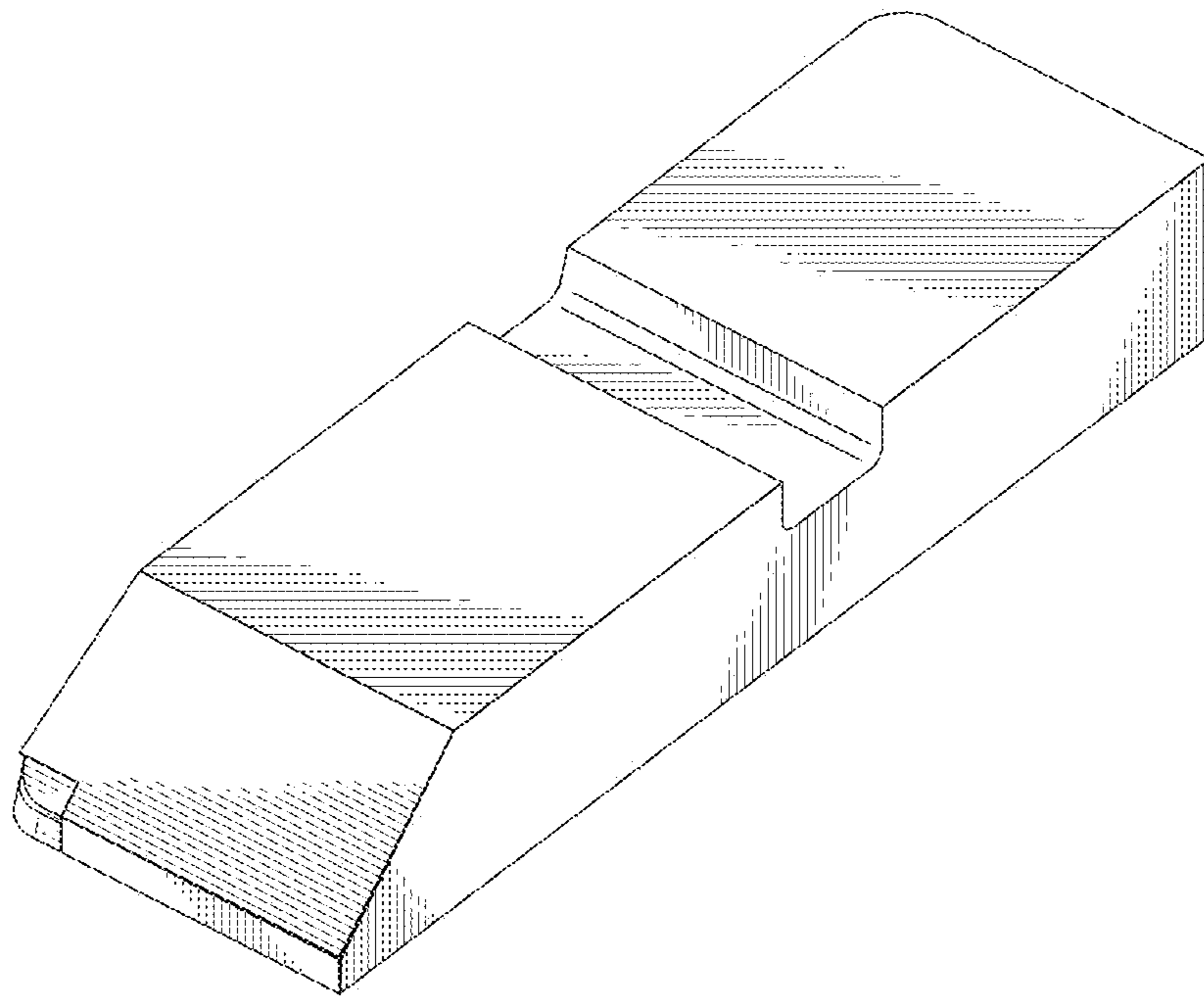


FIG. 19

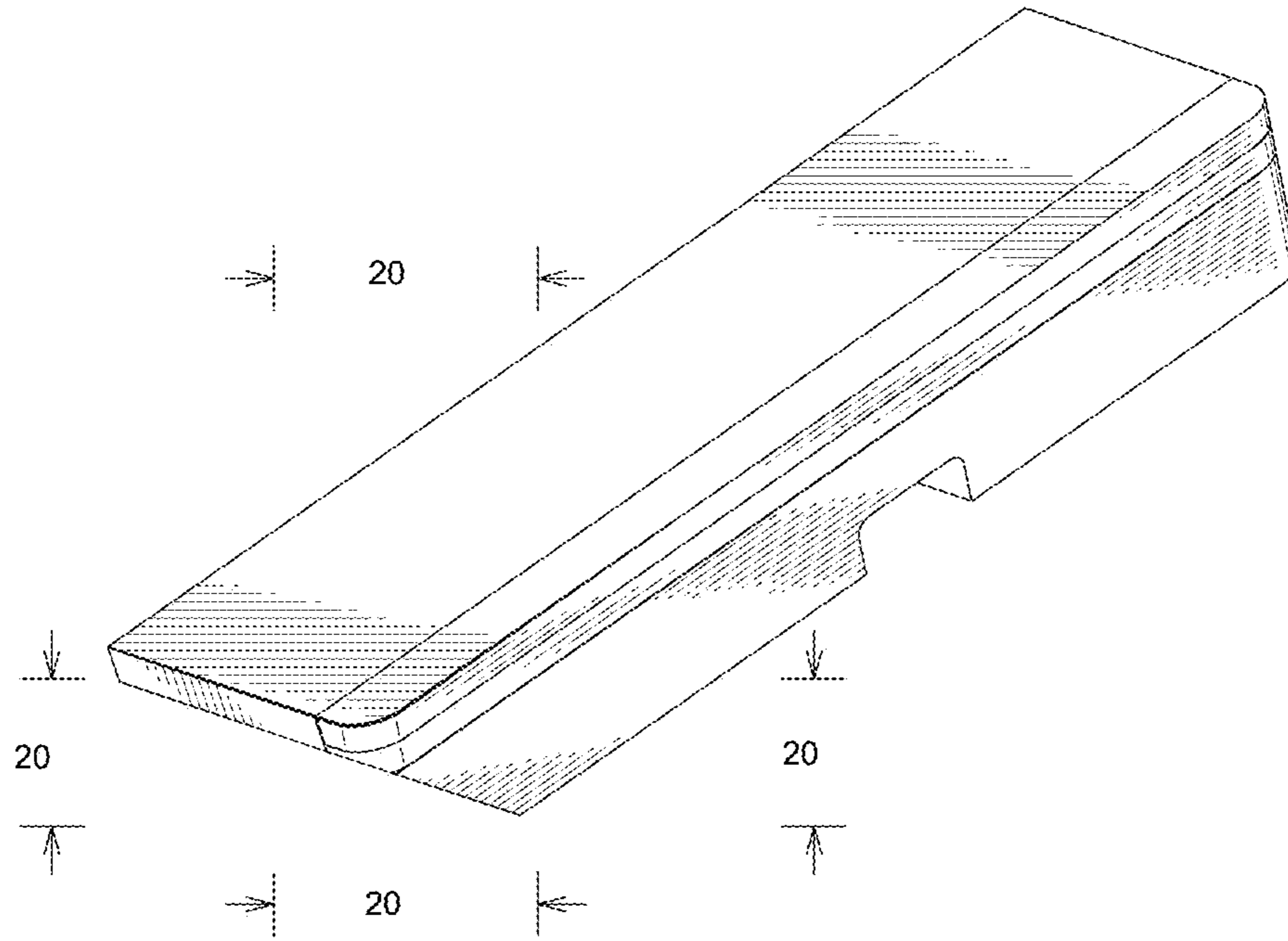


FIG. 20

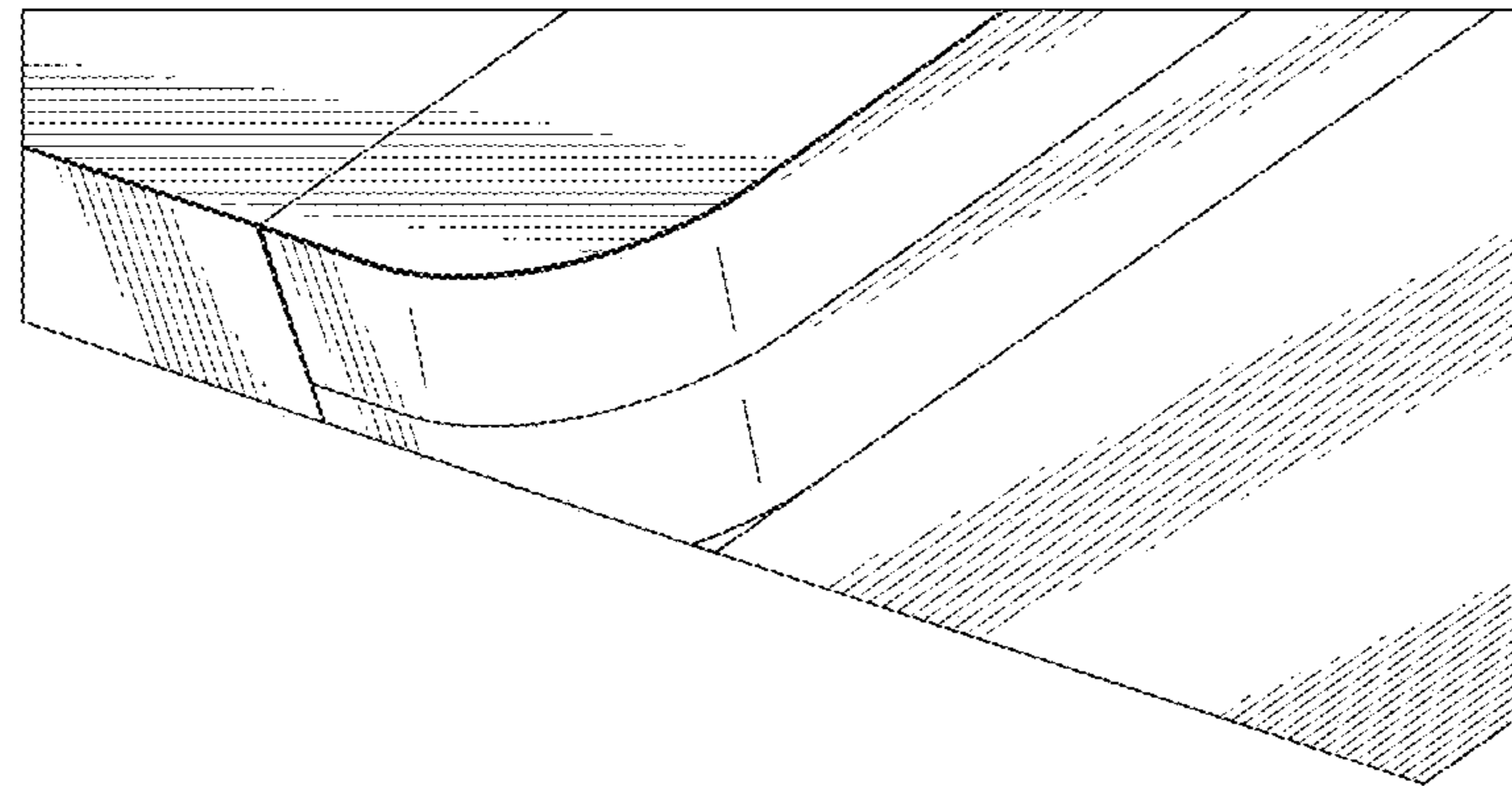


FIG.21

