

US00D409632S

United States Patent [19]

Hartlohner et al.

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[45] Date of Patent: ** May 11, 1999

[54] CUTTING TOOL INSERTS

[75] Inventors: **Rudi Hartlohner**, Tuchenbach; **Franz Havrda**, Grossenseebach, both of Germany[73] Assignee: **Kennametal Inc.**, Latrobe, Pa.[**] Term: **14 Years**[21] Appl. No.: **29/083,969**[22] Filed: **Feb. 20, 1998**[51] LOC (6) Cl. **15-09**[52] U.S. Cl. **D15/139**

[58] Field of Search D15/139; 407/107-119

[56] References Cited

U.S. PATENT DOCUMENTS

D. 305,239 12/1989 Niebauer D15/139
D. 357,693 4/1995 Niebauer D15/139

Primary Examiner—Antoine Duval Davis*Attorney, Agent, or Firm*—John J. Prizzi

[57] CLAIM

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

DESCRIPTION

FIG. 1 is an isometric view of a cutting tool insert in accordance with a first embodiment of the subject invention; FIG. 2 is a top plan view of FIG. 1, wherein the bottom plan view is identical;

FIG. 3 is a side elevation view from any side of the cutting tool insert in FIG. 2;

FIG. 4 is a cross-sectional view taken along lines “4—4” in FIG. 1;

FIG. 5 is an isometric view of a cutting tool insert in accordance with the second embodiment of the subject invention;

FIG. 6 is a top plan view of FIG. 5, wherein the bottom plan view is identical;

FIG. 7 is a side elevation view from any side of the cutting tool insert in FIG. 5;

FIG. 8 is a cross-section view taken along lines “8—8” in FIG. 5;

FIG. 9 is an isometric view of a cutting tool insert in accordance with a third embodiment of the subject invention;

FIG. 10 is a top plan view of FIG. 9, wherein the bottom plan view is identical;

FIG. 11 is a side elevation view looking at the right side of the cutting tool insert in FIG. 10;

FIG. 12 is a side elevation view looking at the cutting tool insert in FIG. 10 from the bottom of the page;

FIG. 13 is a cross-section view taken along lines “13—13” of FIG. 10;

FIG. 14 is a cross-section view taken along lines “14—14” of FIG. 10;

FIG. 15 is a cross-section view taken along lines “15—15” of FIG. 10;

FIG. 16 is an isometric view of a cutting tool insert in certain accordance with a fourth embodiment of the subject invention;

FIG. 17 is a top plan view of FIG. 16, wherein the bottom plan view is identical;

FIG. 18 is a side elevation view looking at the right side of the cutting tool insert in FIG. 17;

FIG. 19 is a side elevation view looking at the cutting tool insert in FIG. 17 from the bottom of the page;

FIG. 20 is a cross-section view taken along lines “20—20” of FIG. 17;

FIG. 21 is a cross-section view taken along lines “21—21” of FIG. 17;

FIG. 22 is a cross-section view taken along lines “22—22” of FIG. 17;

FIG. 23 is an isometric view of a cutting tool insert in accordance with a fifth embodiment of the subject invention;

FIG. 24 is a top plan view of FIG. 23, wherein the bottom plan view is identical;

FIG. 25 is a side elevation view looking at the right side of the cutting tool insert in FIG. 24;

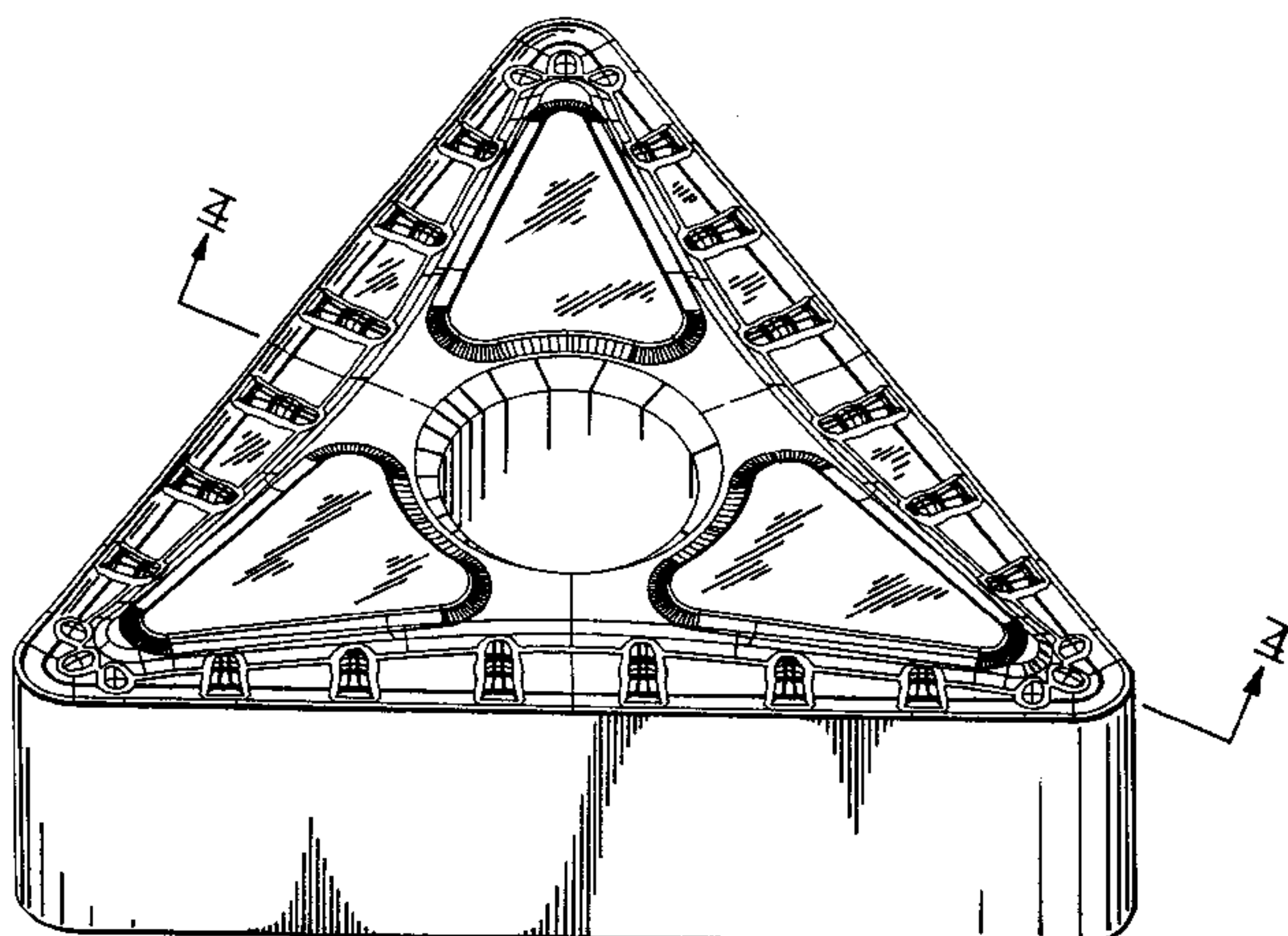
FIG. 26 is a side elevation view looking at the cutting tool insert in FIG. 24 from the bottom of the page;

FIG. 27 is a cross-section view taken along lines “27—27” of FIG. 24;

FIG. 28 is a cross-section view taken along lines “28—28” of FIG. 24; and,

FIG. 29 is cross-section view taken along lines “29—29” of FIG. 24.

1 Claim, 27 Drawing Sheets



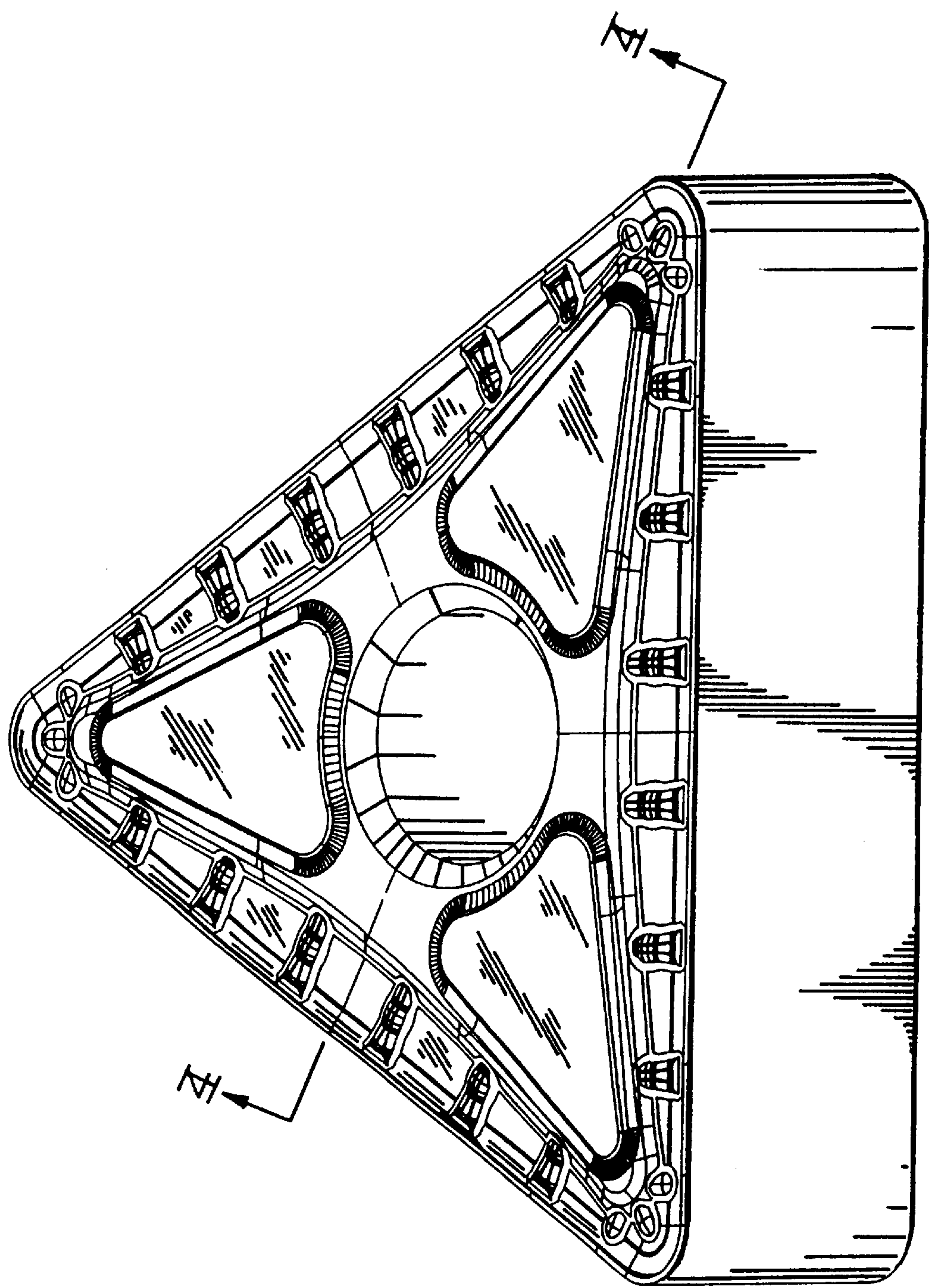


FIG. 1

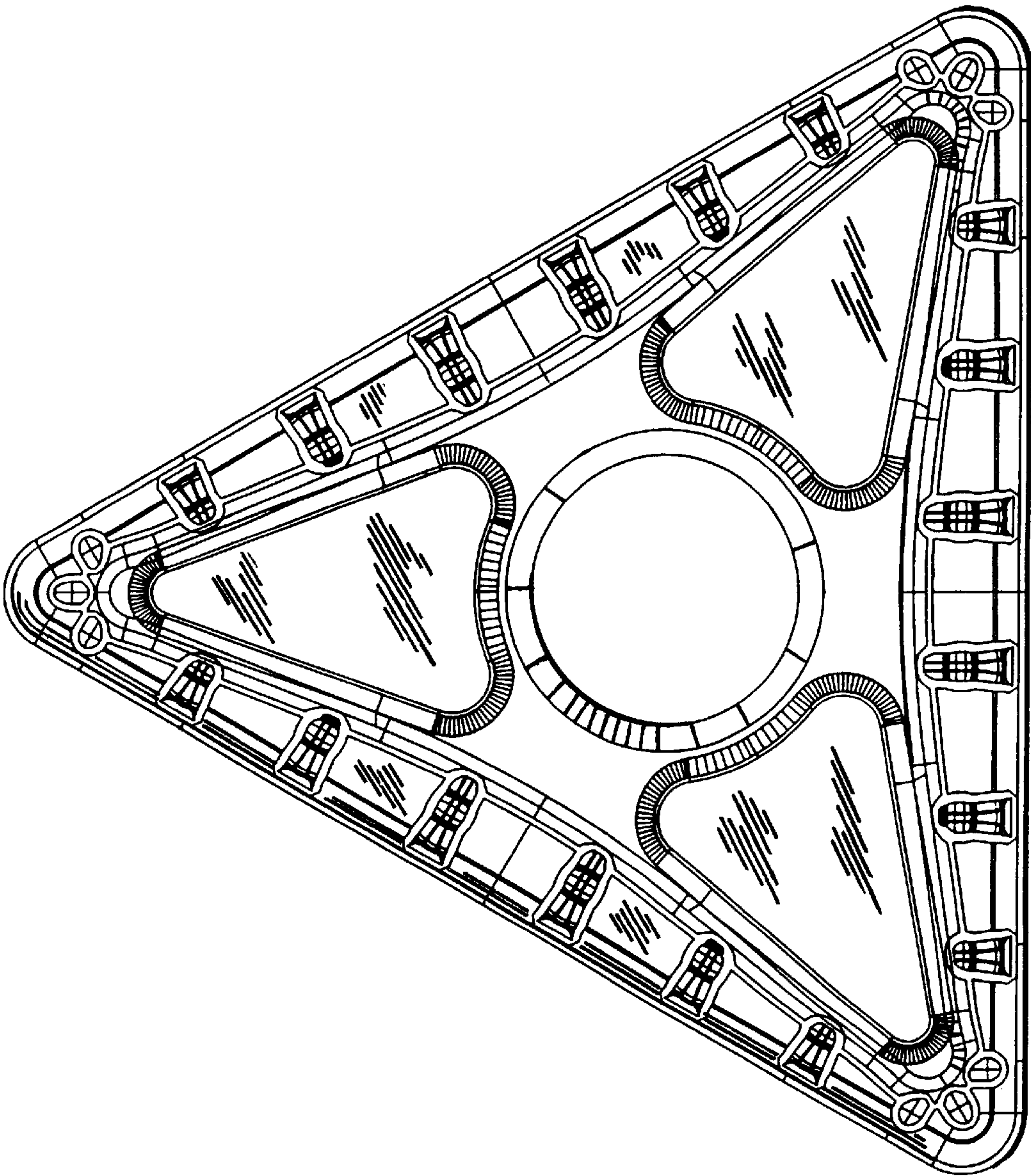


FIG. 2

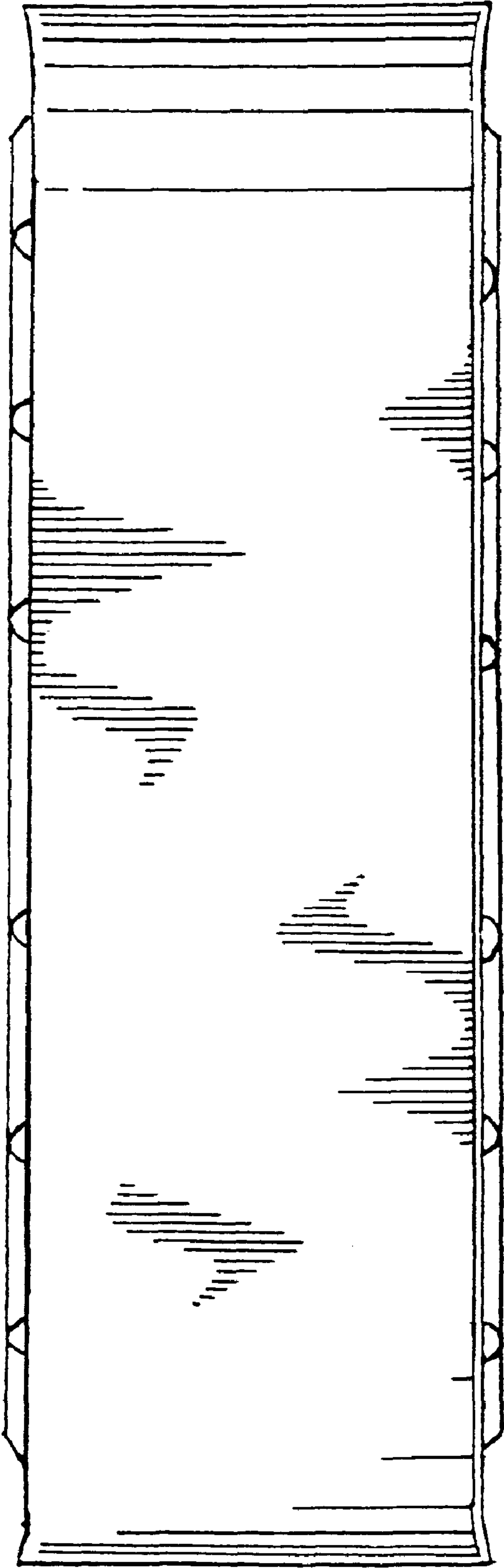


FIG. 3

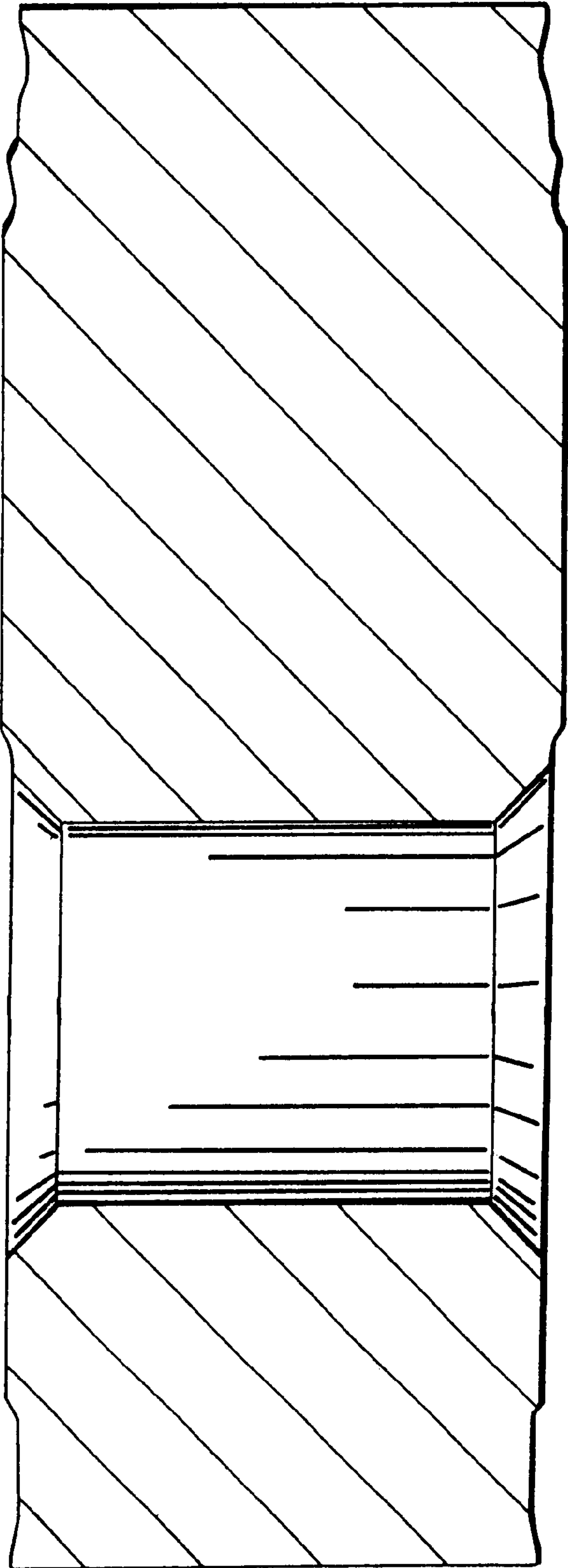


FIG. 4

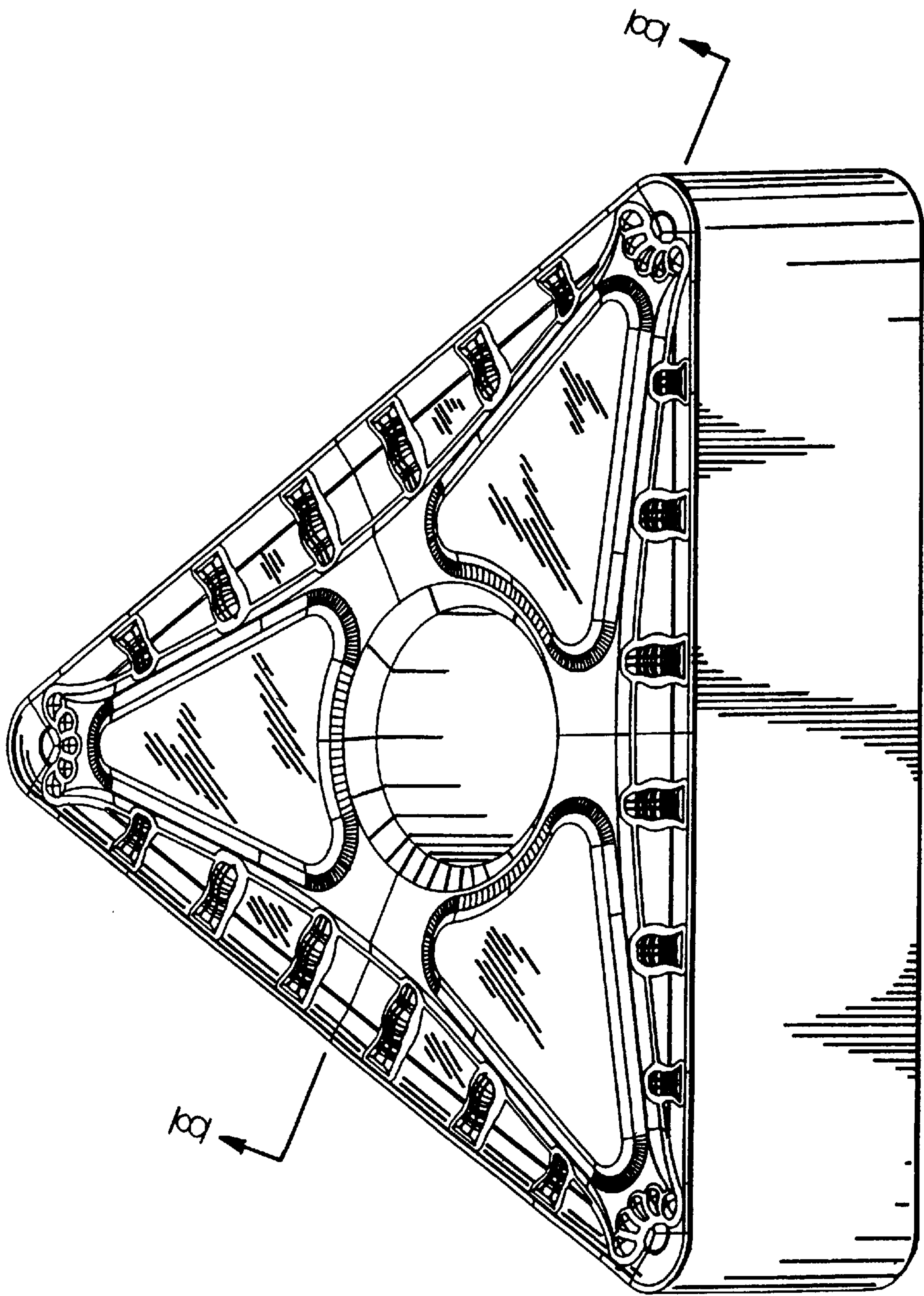


FIG. 5

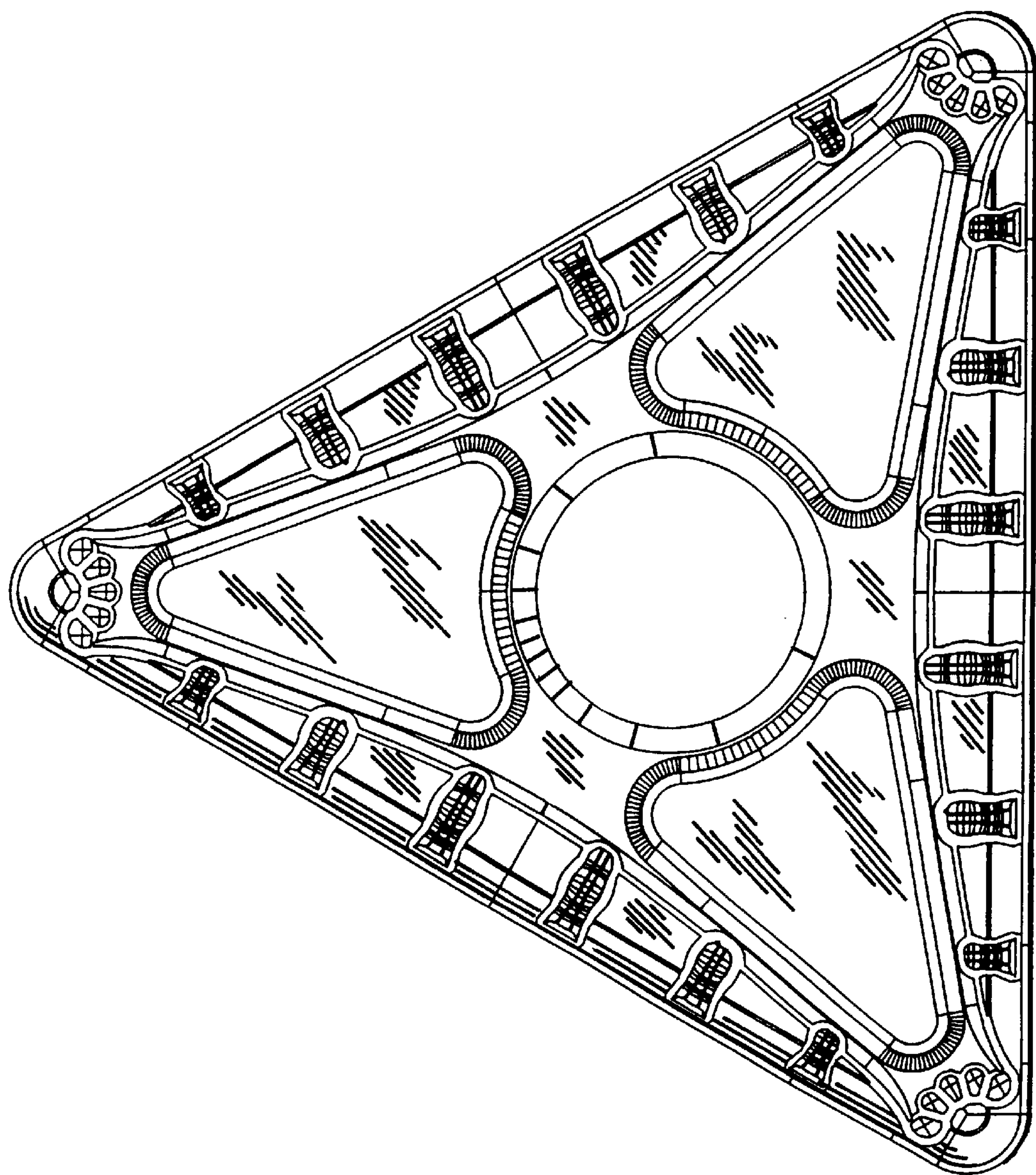


FIG. 6

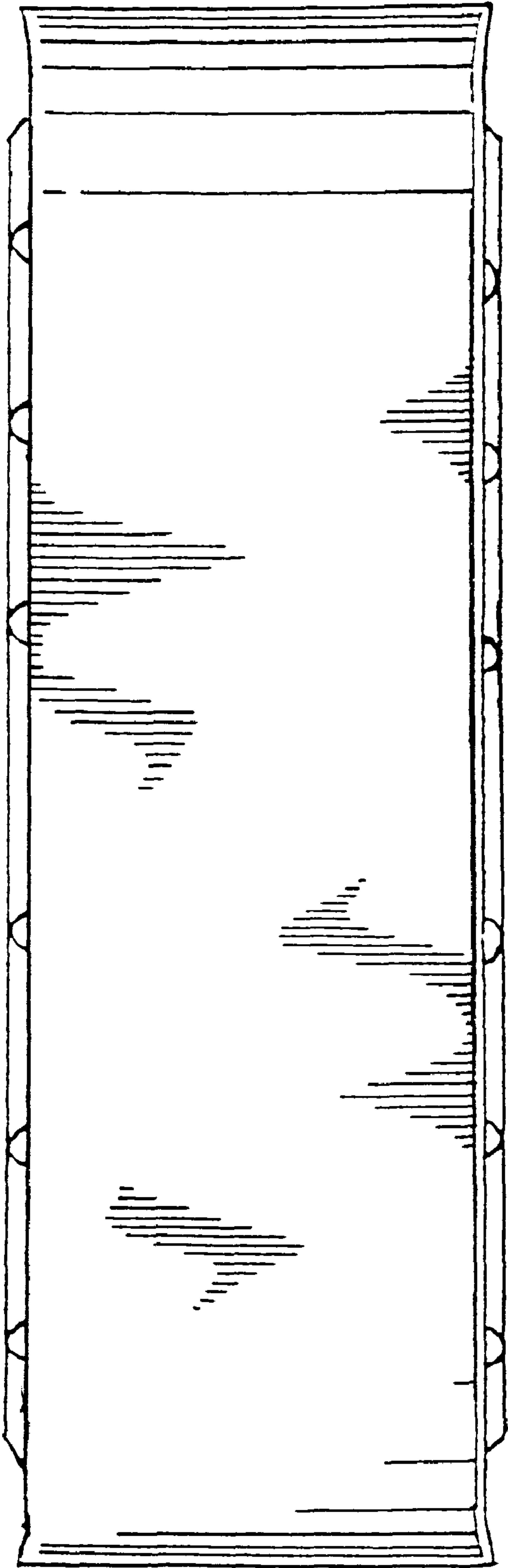


FIG. 7

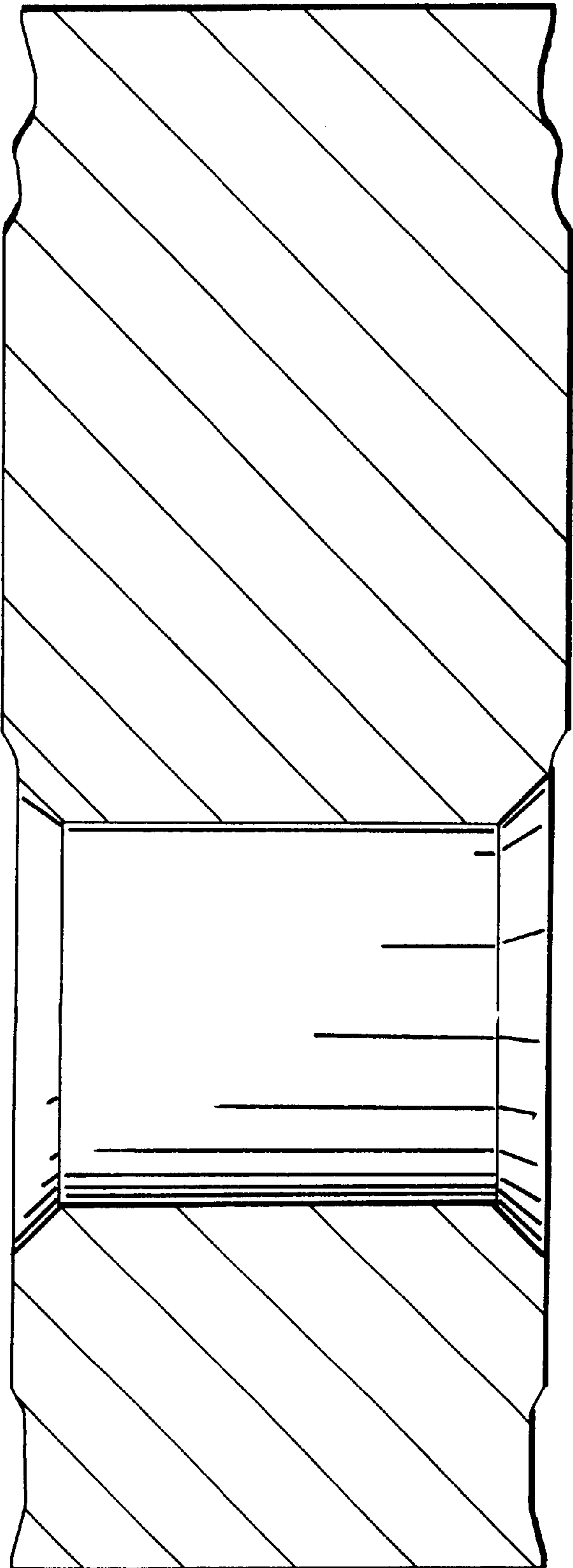


FIG. 8

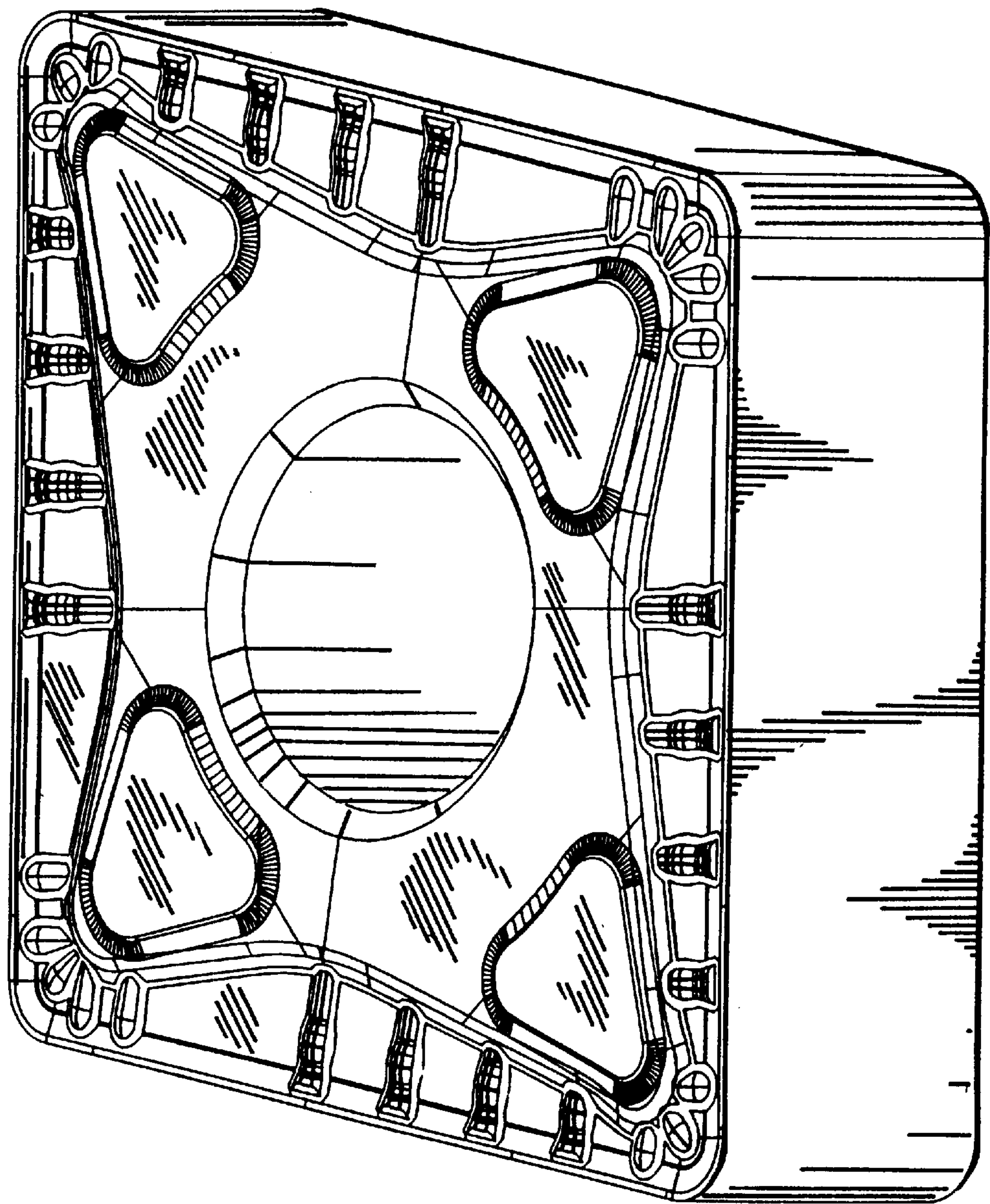


FIG. 9

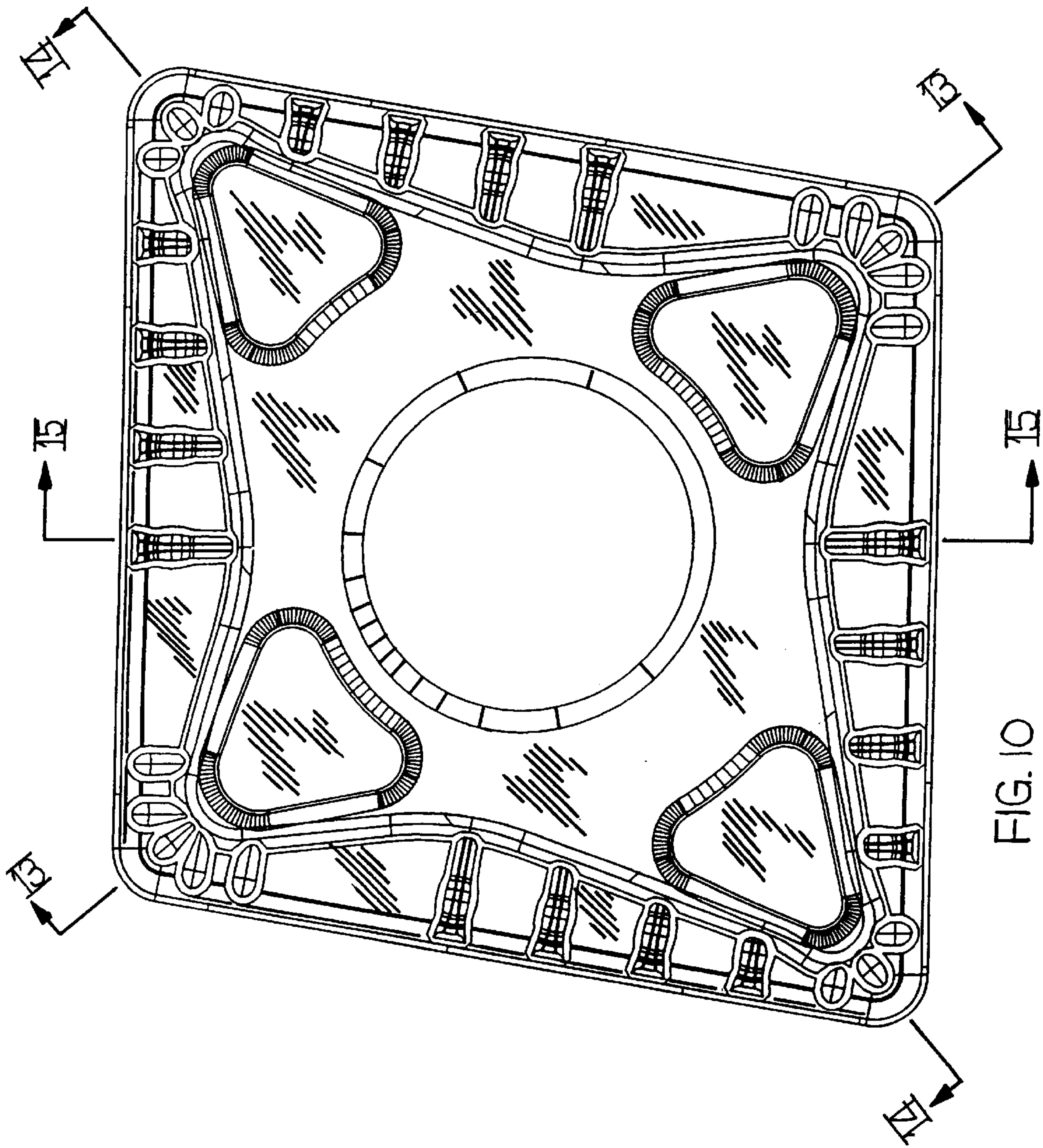


FIG. 10

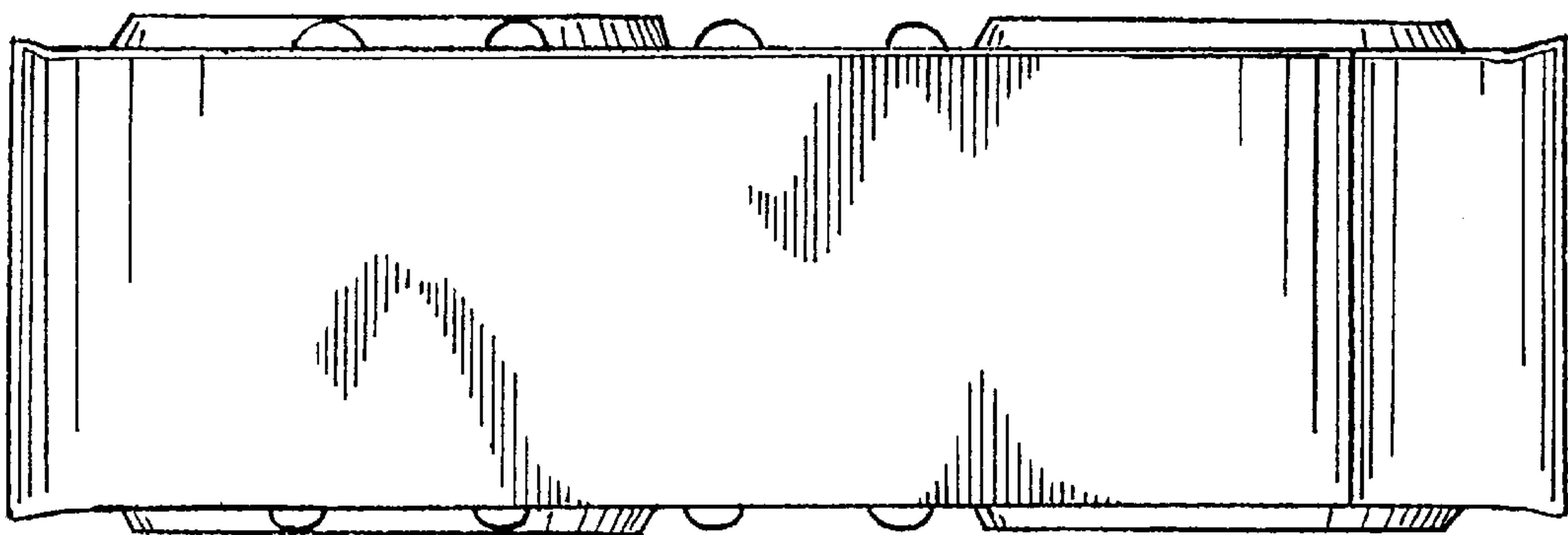


FIG. 11

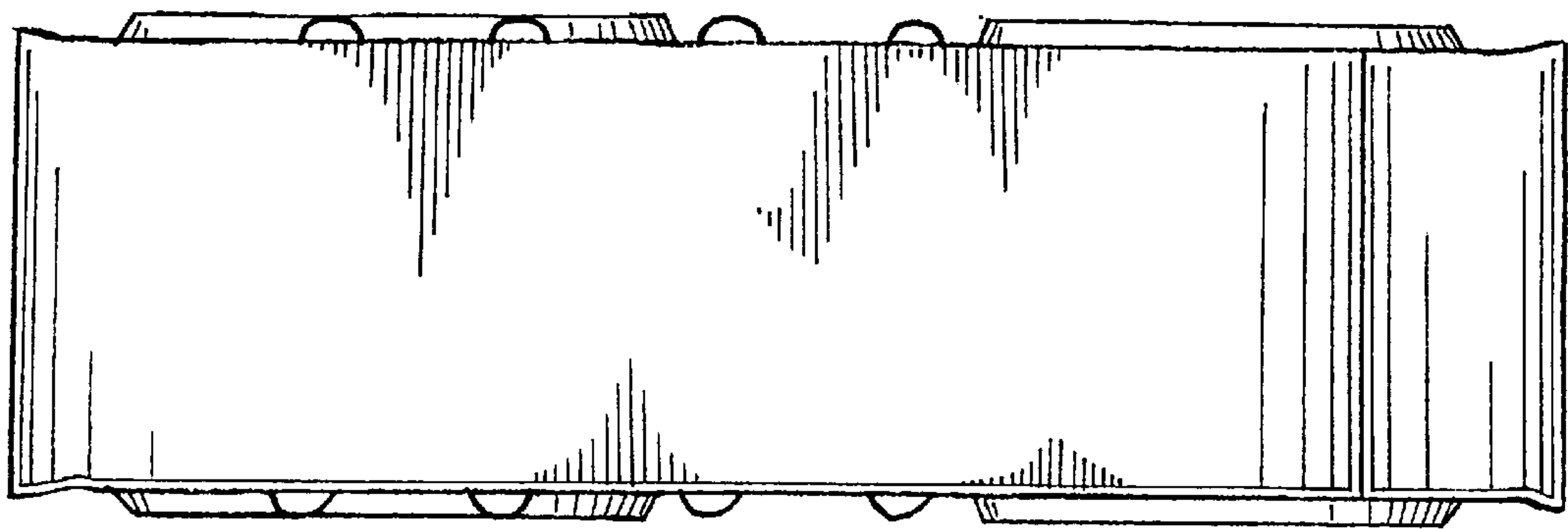


FIG. 12

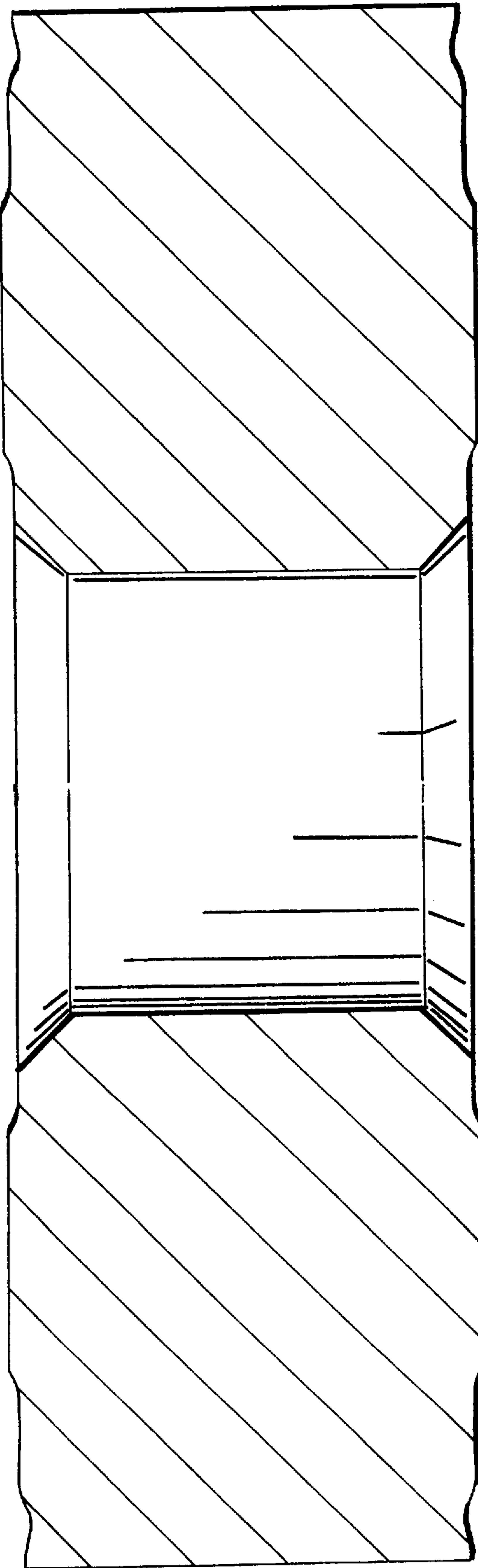


FIG. 13

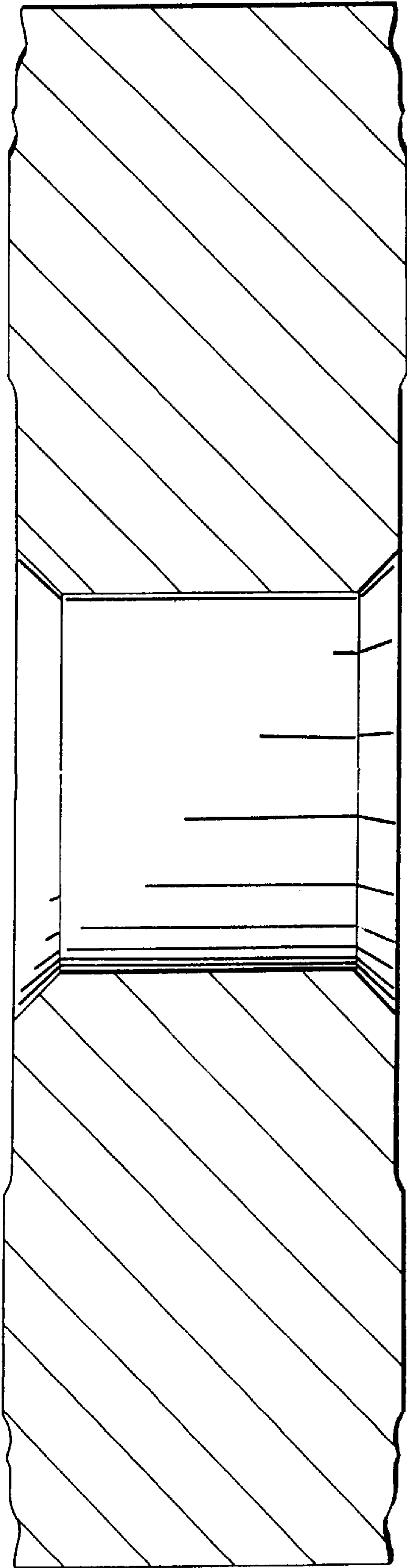


FIG. 14

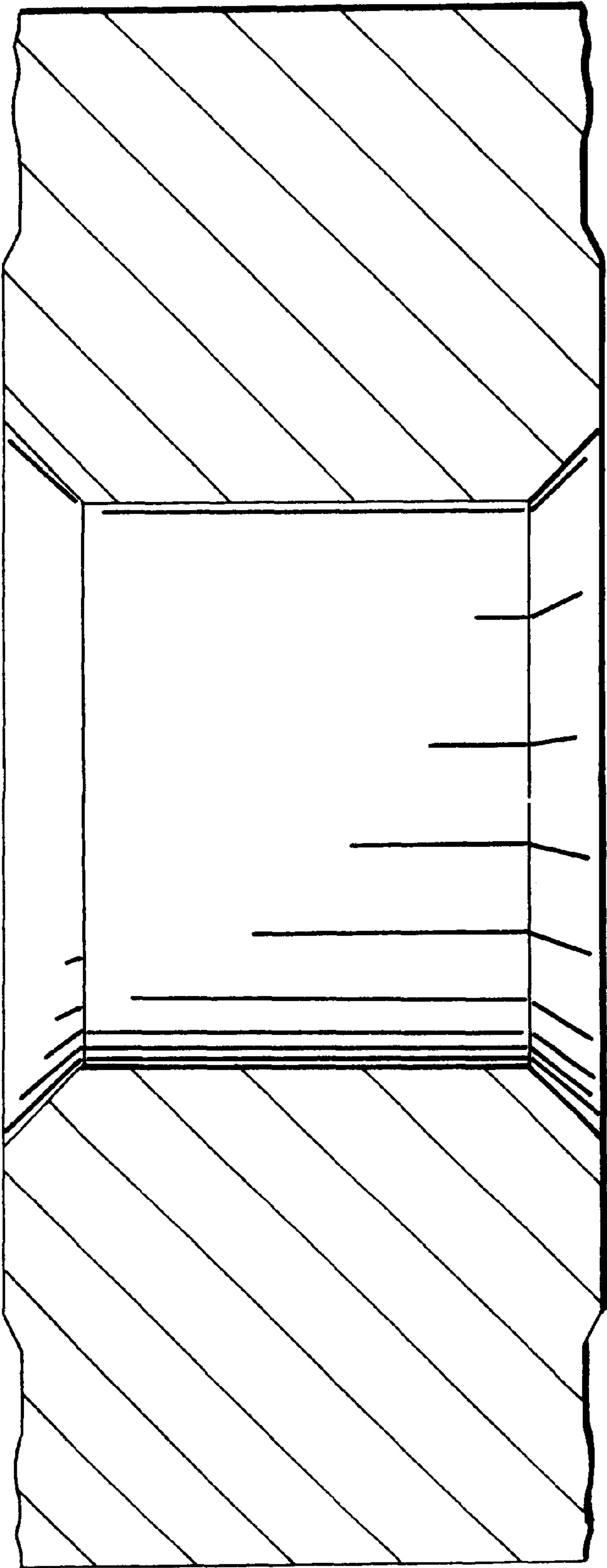


FIG. 15

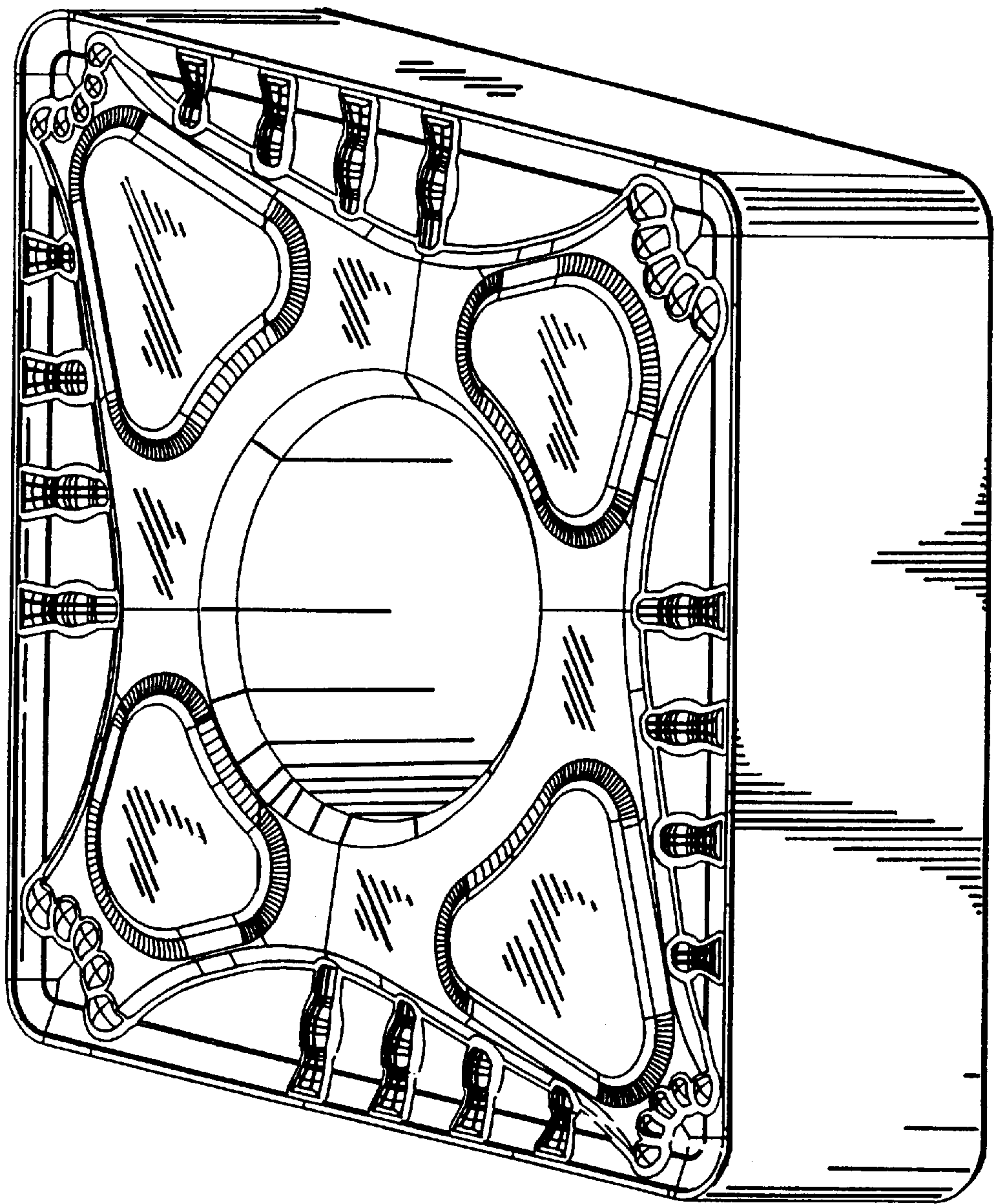


FIG. 16

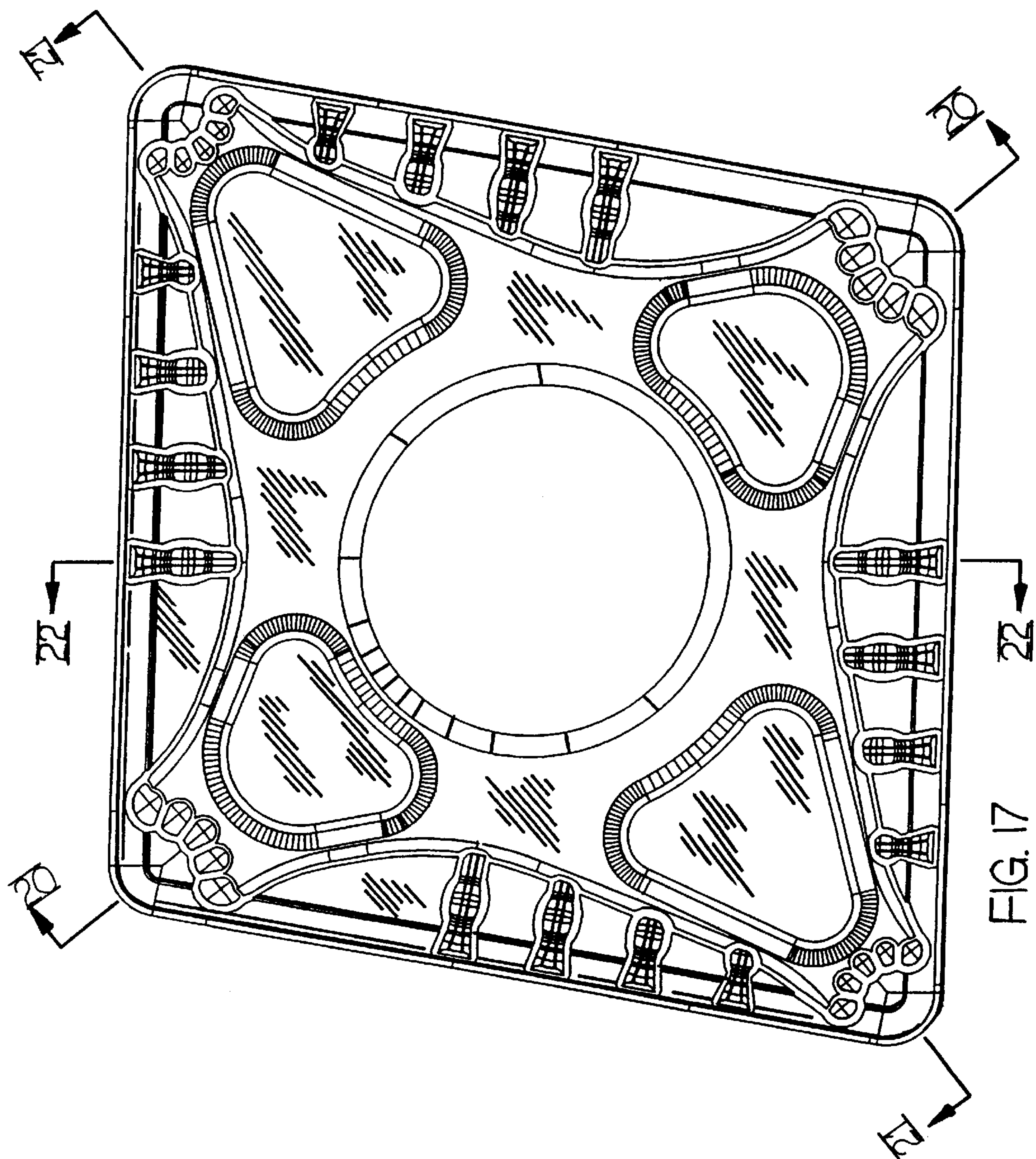


FIG. 17

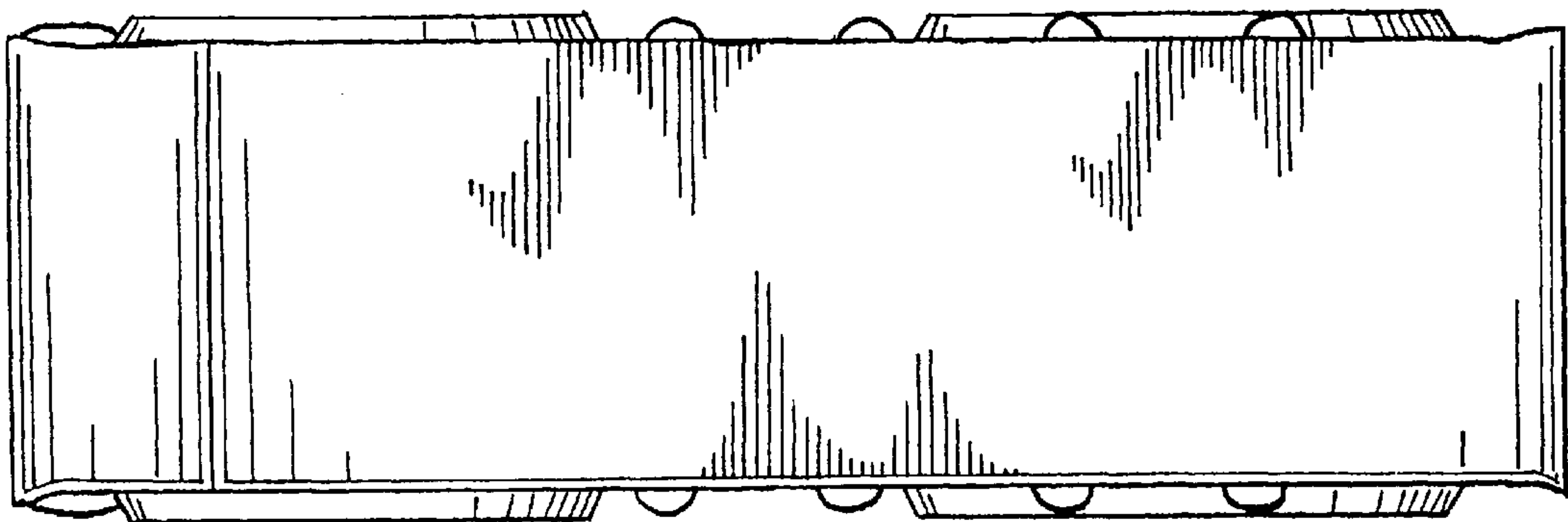


FIG. 18

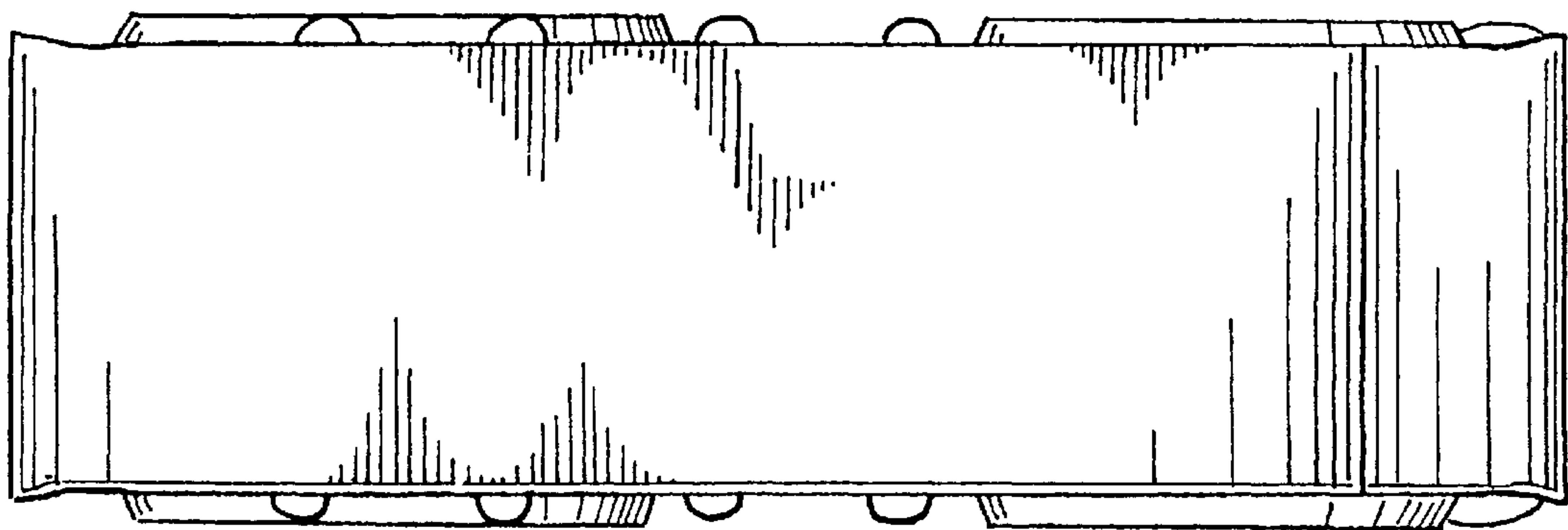


FIG. 19

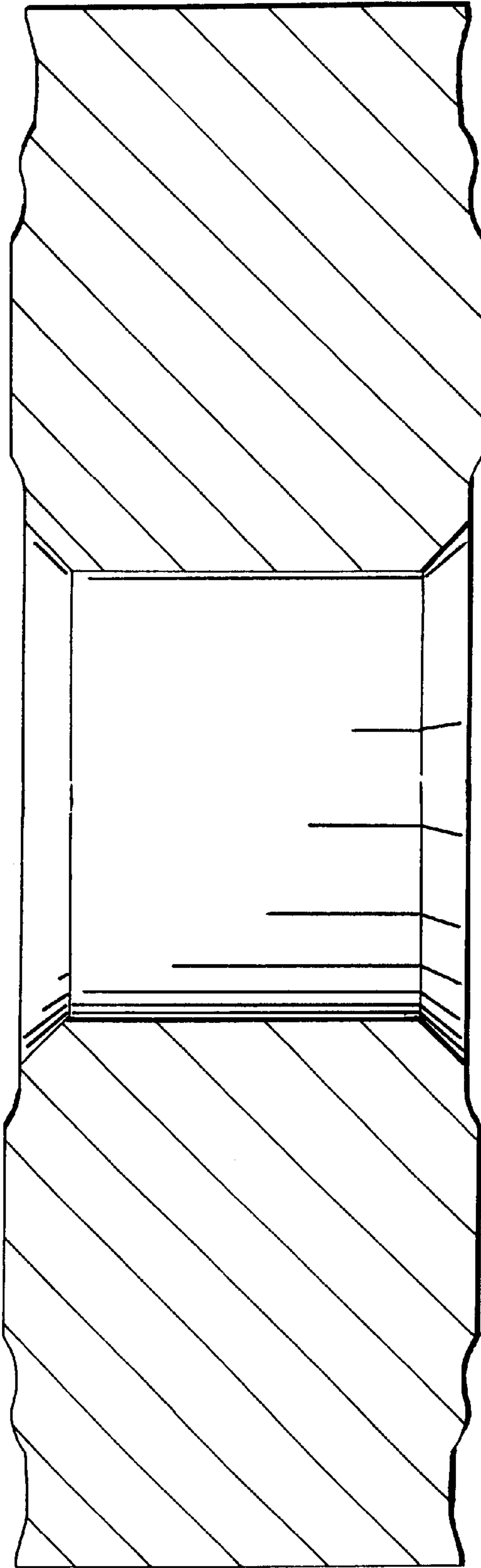


FIG. 20

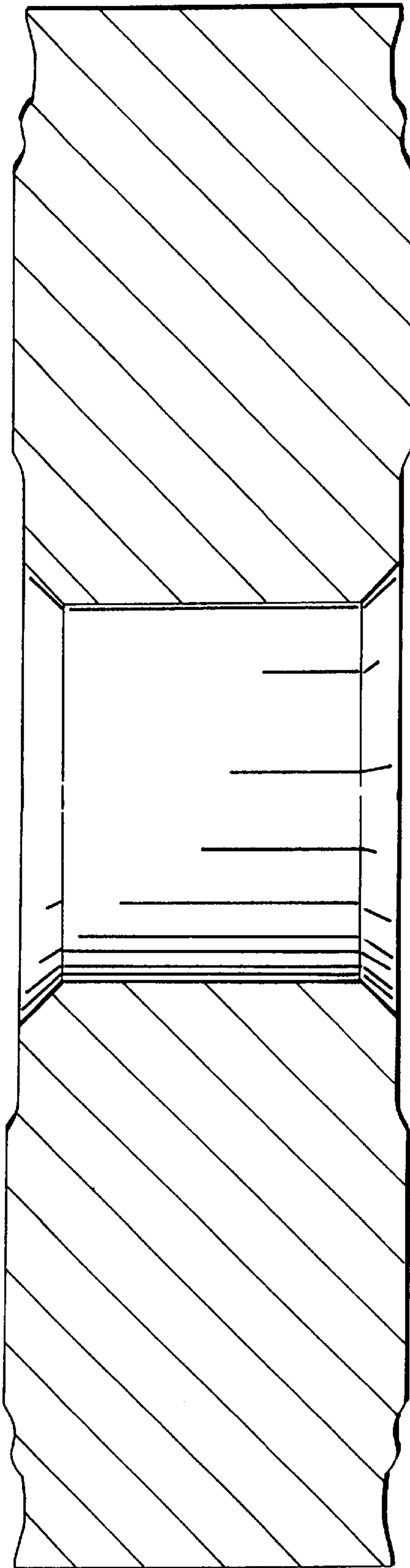


FIG. 2I

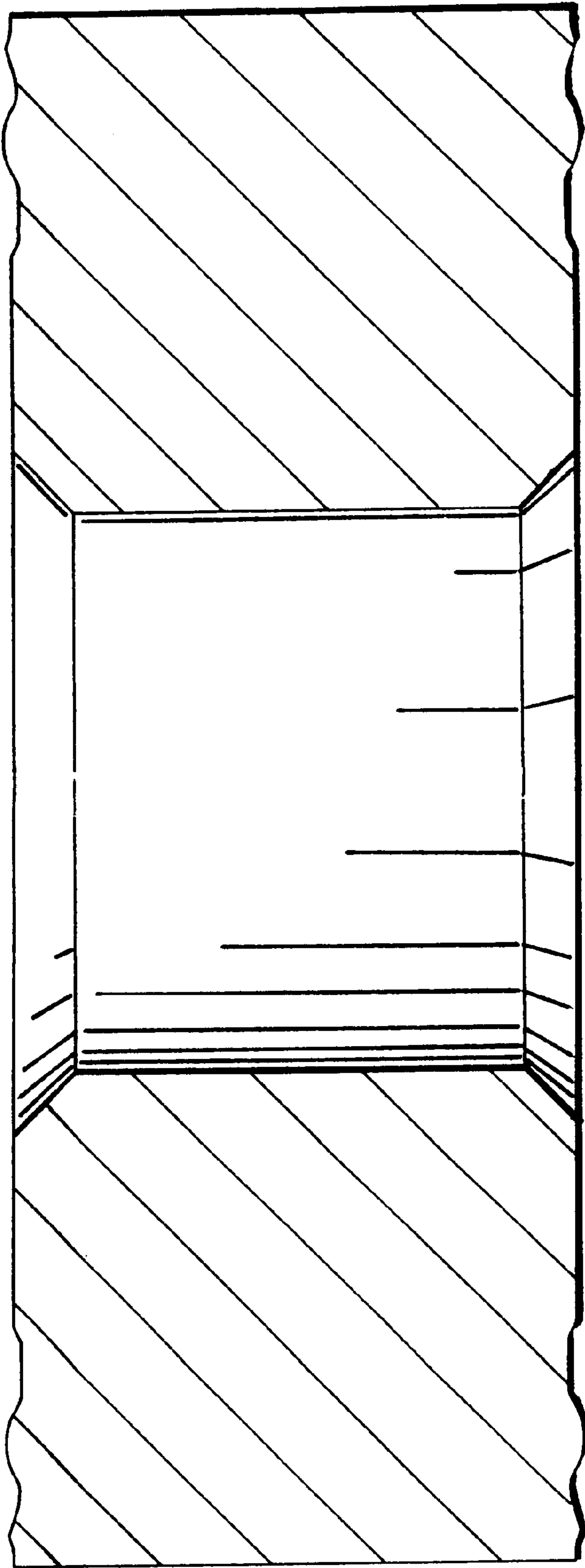


FIG. 22

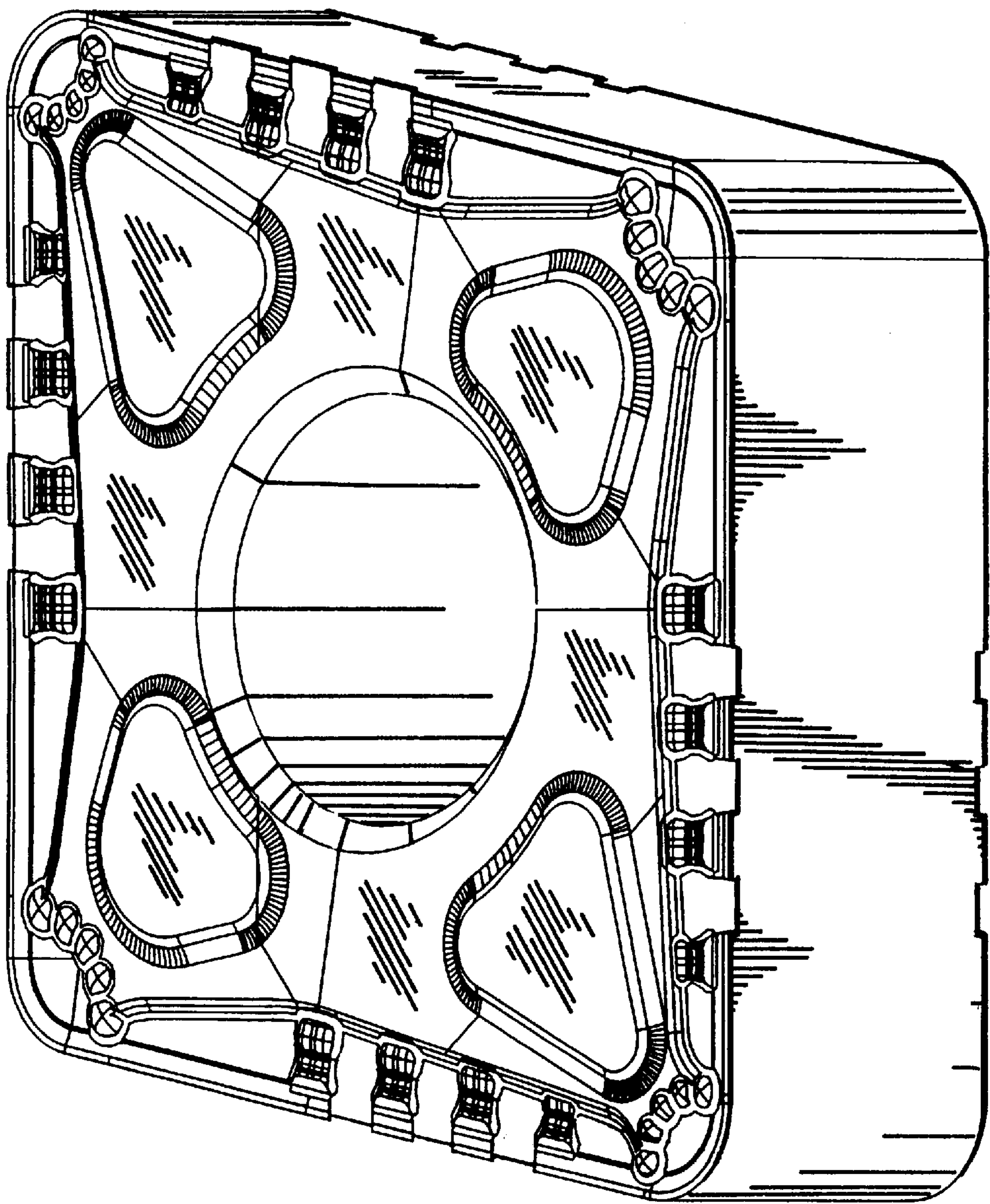


FIG. 23

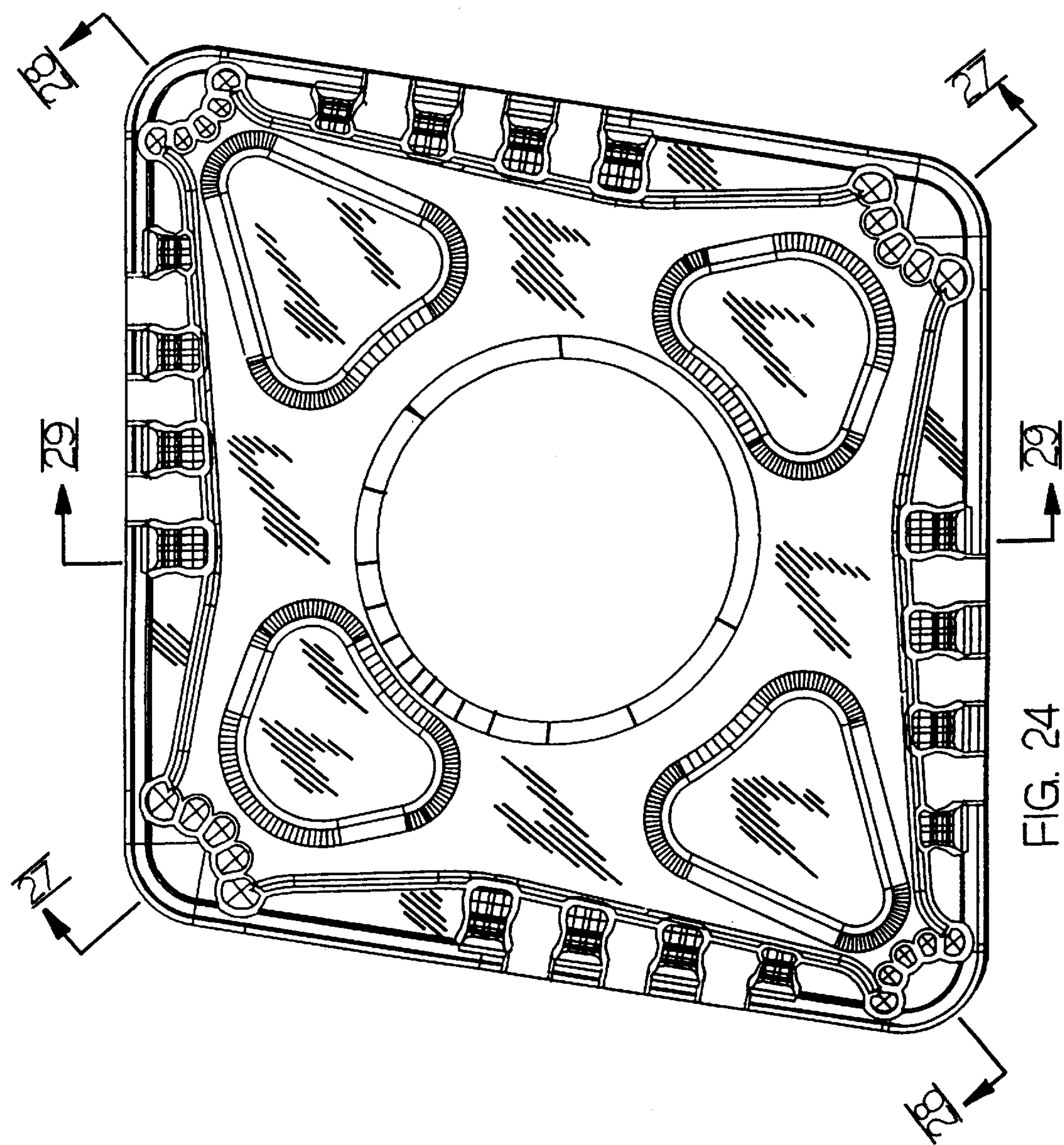


FIG. 24

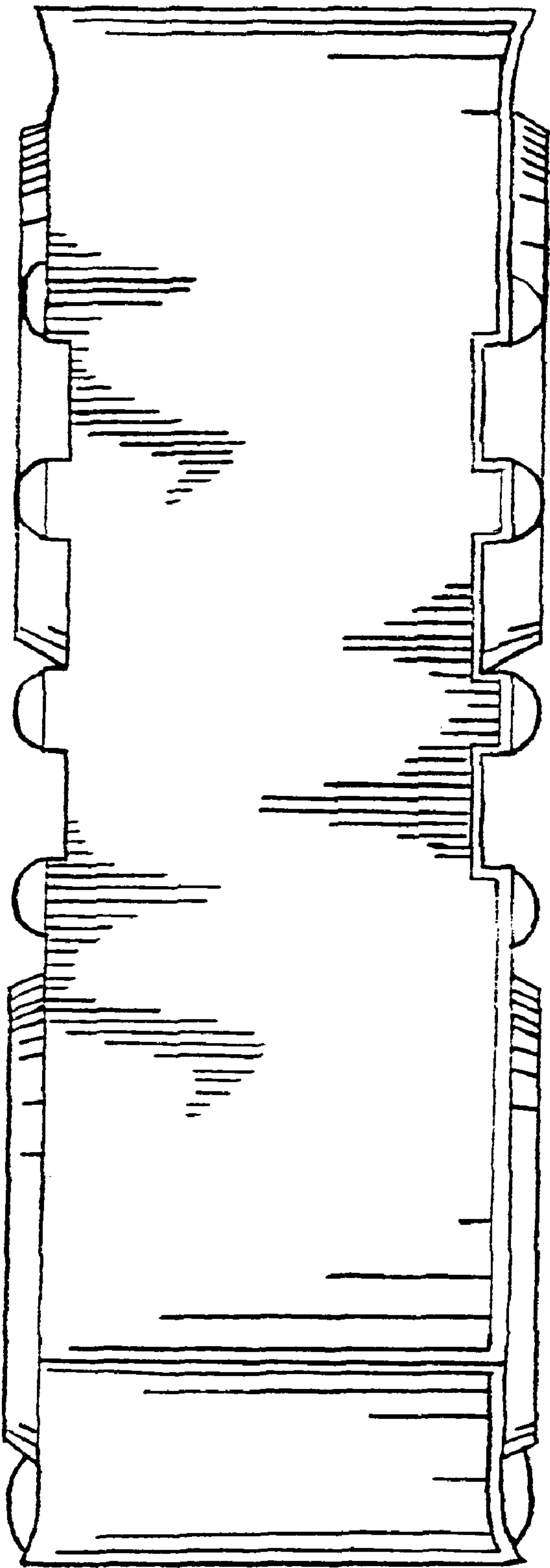


FIG. 25

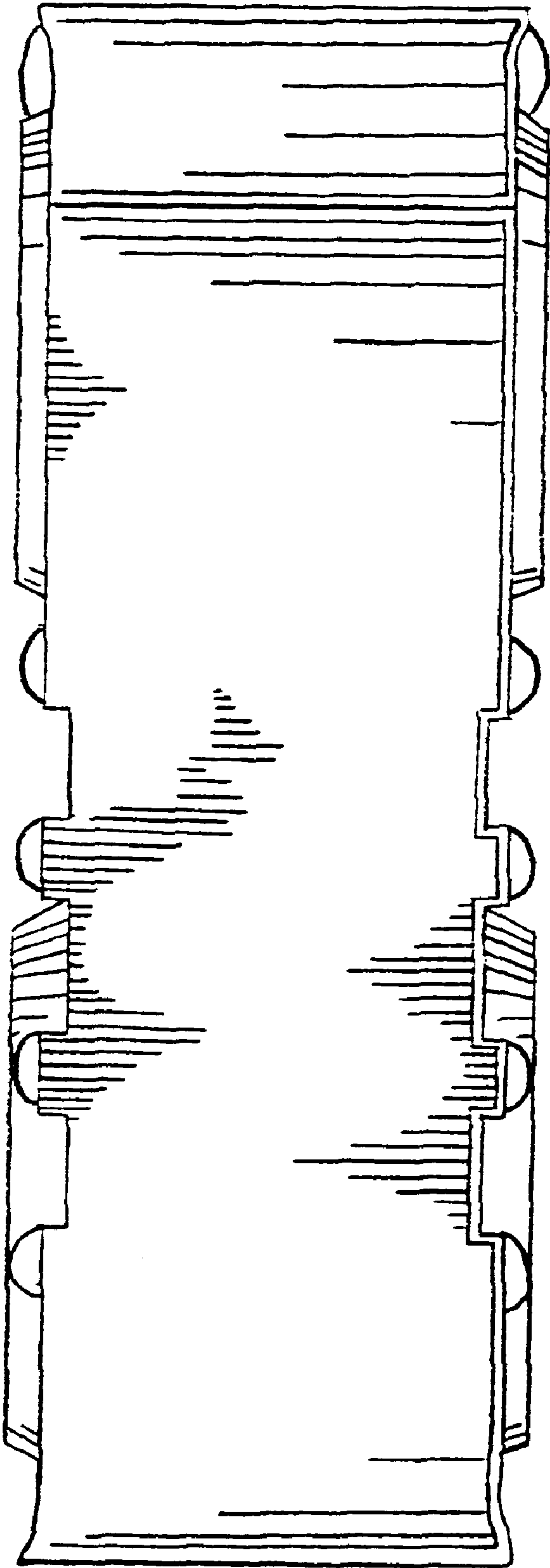


FIG. 26

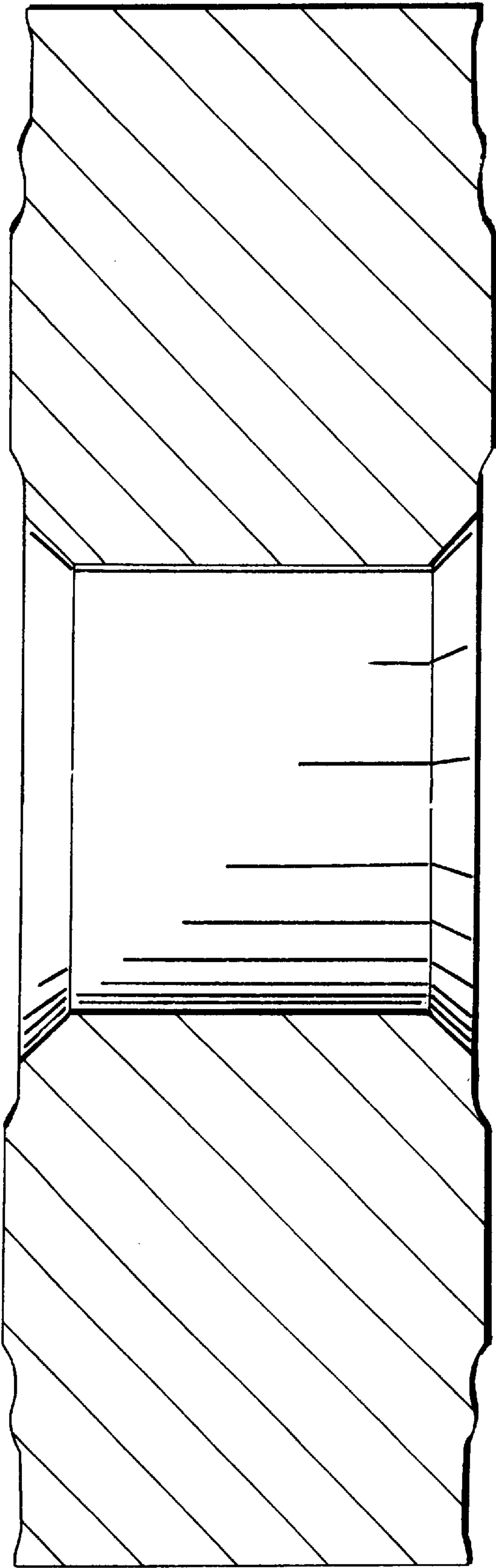


FIG. 27

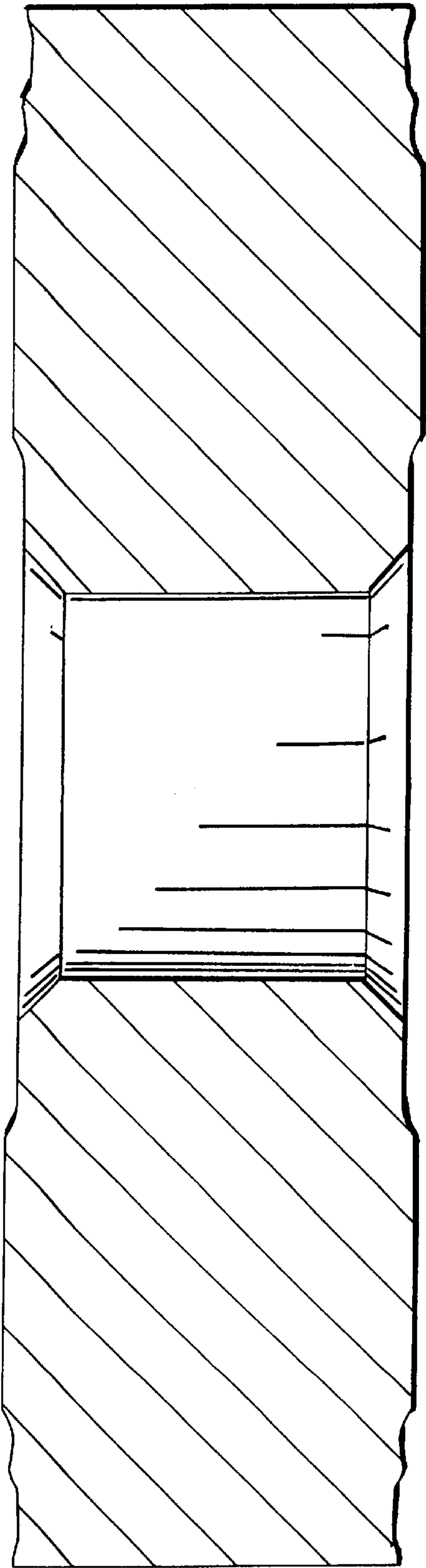


FIG. 28

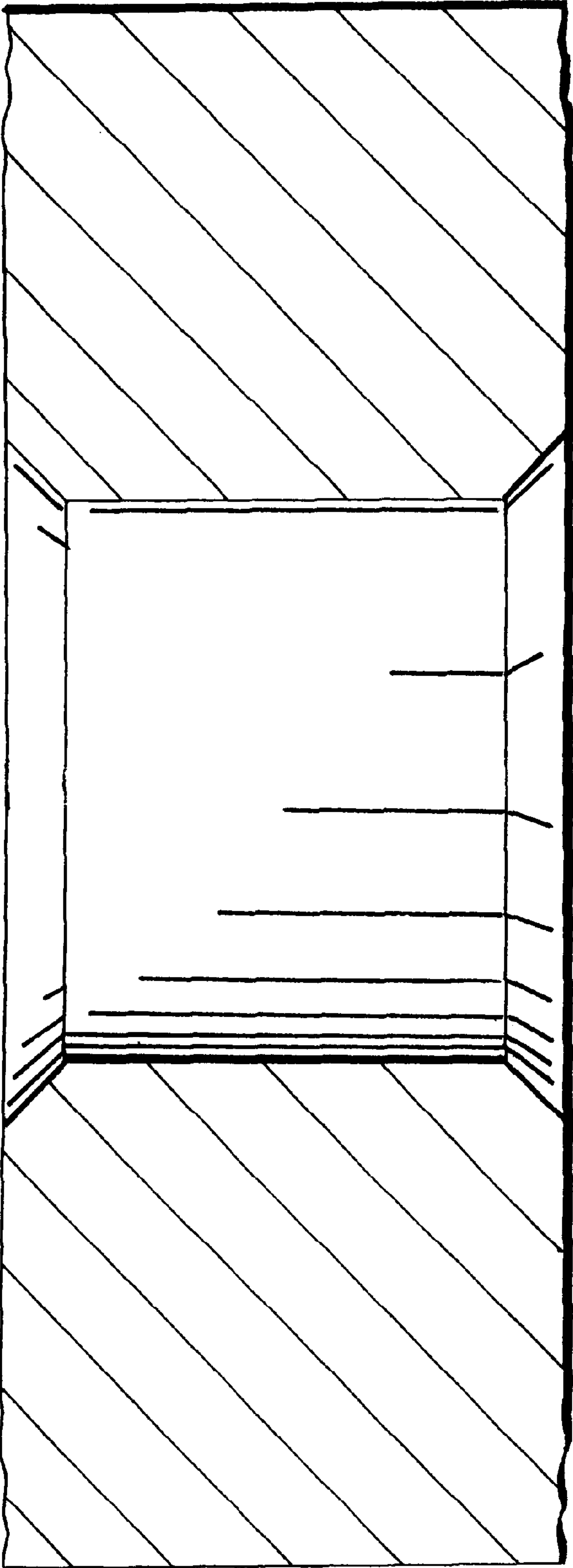


FIG. 29