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(12) **United States Design Patent**
Ogura

(10) **Patent No.:** **US D520,940 S**

(45) **Date of Patent:** **** May 16, 2006**

(54) **PIEZO ELECTRIC RESONATOR**

(75) Inventor: **Seiichiro Ogura**, Minowa-machi (JP)

(73) Assignee: **Seiko Epson Corporation** (JP)

(**) Term: **14 Years**

(21) Appl. No.: **29/197,366**

(22) Filed: **Jan. 14, 2004**

(30) **Foreign Application Priority Data**

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Jul. 31, 2003	(JP)	2003-022255
Jul. 31, 2003	(JP)	2003-022256

(51) **LOC (8) Cl.** **13-02**

(52) **U.S. Cl.** **D13/101**

(58) **Field of Classification Search** D13/101,
D13/118, 184, 199; 310/367, 368, 370; 333/187-192
See application file for complete search history.

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(57) **CLAIM**

The ornamental design for a piezo electric resonator, as shown and described.

DESCRIPTION

FIG. 1 is a top, left and front perspective view of the piezo electric resonator embodying my new design;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a left side view thereof;

FIG. 5 is a right side view thereof;

FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof;

FIG. 8 is a top, left and front perspective view of a second embodiment of the piezo electric resonator embodying my new design;

FIG. 9 is a front view thereof;

FIG. 10 is a rear view thereof;

FIG. 11 is a left side view thereof;

FIG. 12 is a right side view thereof;

FIG. 13 is a top plan view thereof;

FIG. 14 is a bottom plan view thereof;

FIG. 15 is a top, left and front perspective view of a third embodiment of the piezo electric resonator embodying my new design;

FIG. 16 is a front view thereof;

FIG. 17 is a rear view thereof;

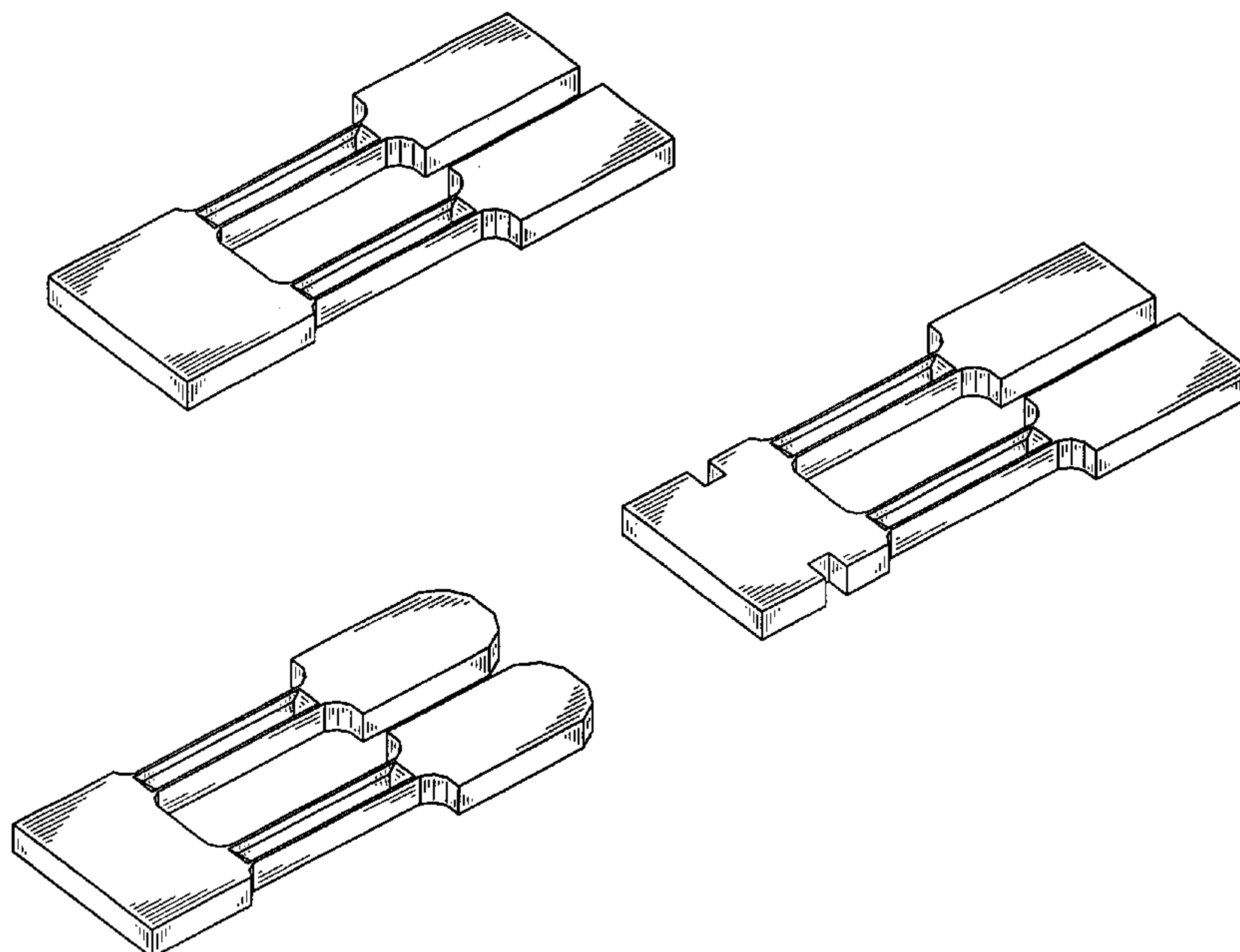
FIG. 18 is a left side view thereof;

FIG. 19 is a right side view thereof;

FIG. 20 is a top plan view thereof; and,

FIG. 21 is a bottom plan view thereof.

1 Claim, 9 Drawing Sheets



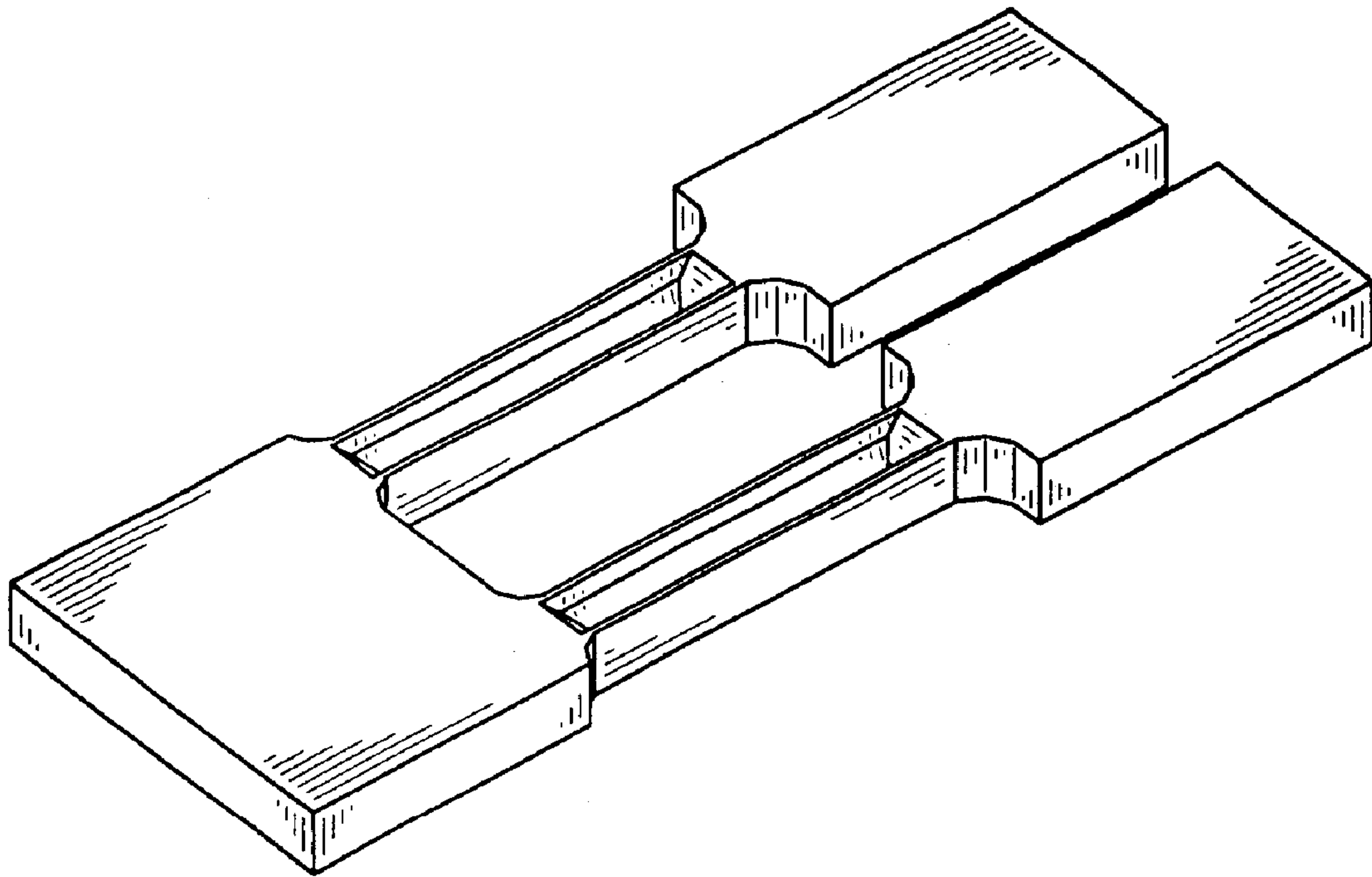


FIG. 1

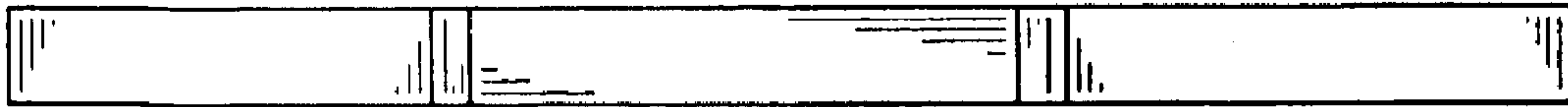


FIG. 2



FIG. 3



FIG. 4

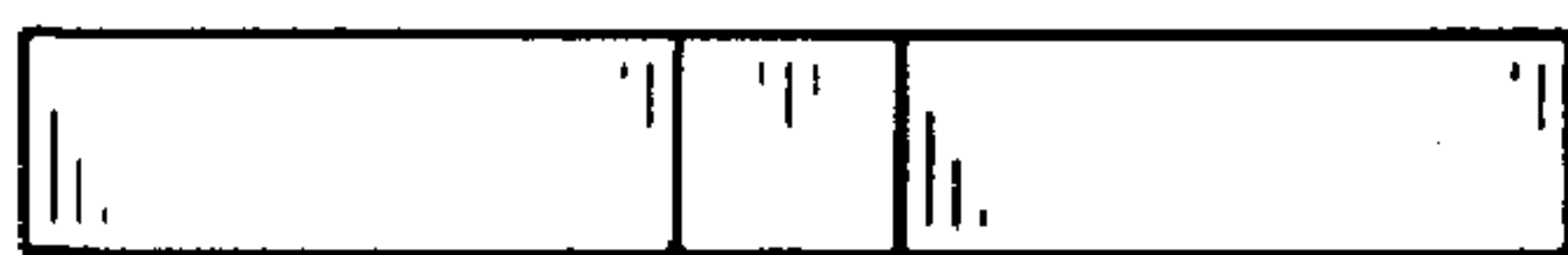


FIG. 5

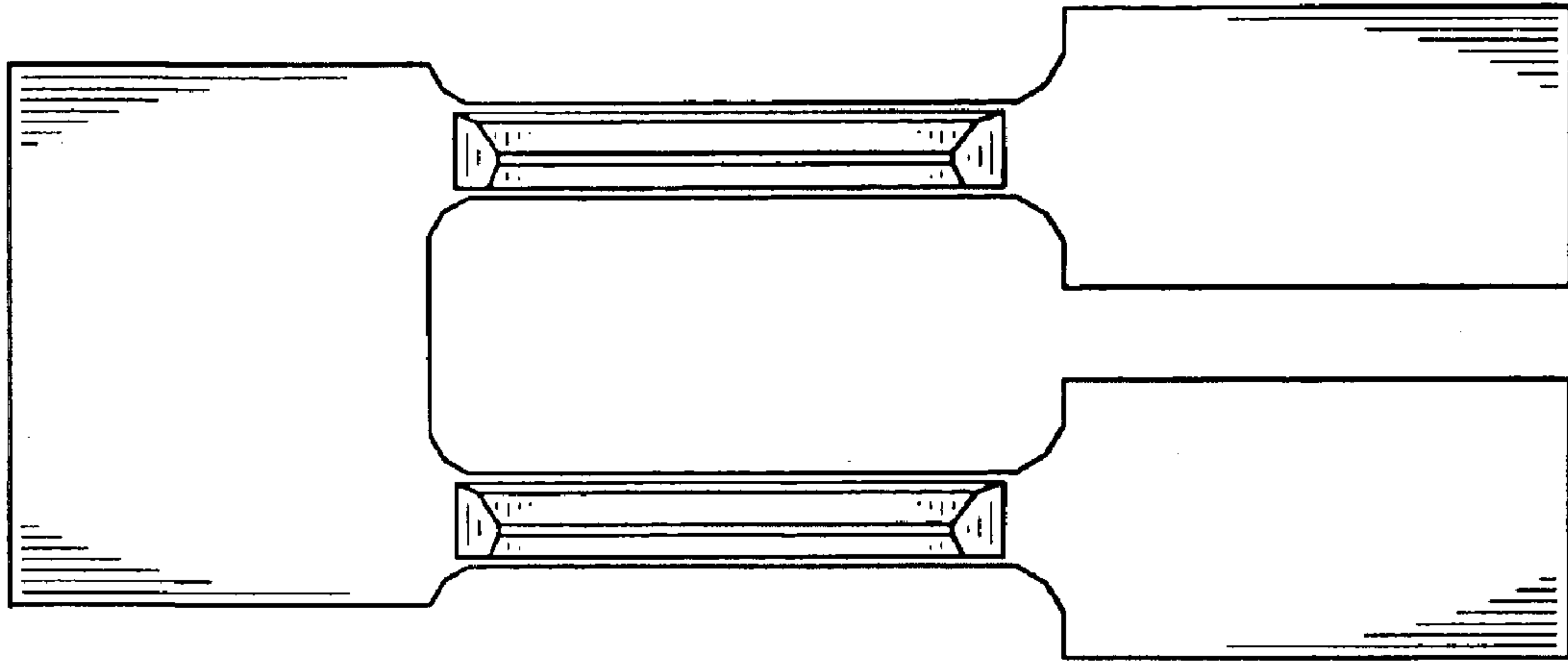


FIG. 6

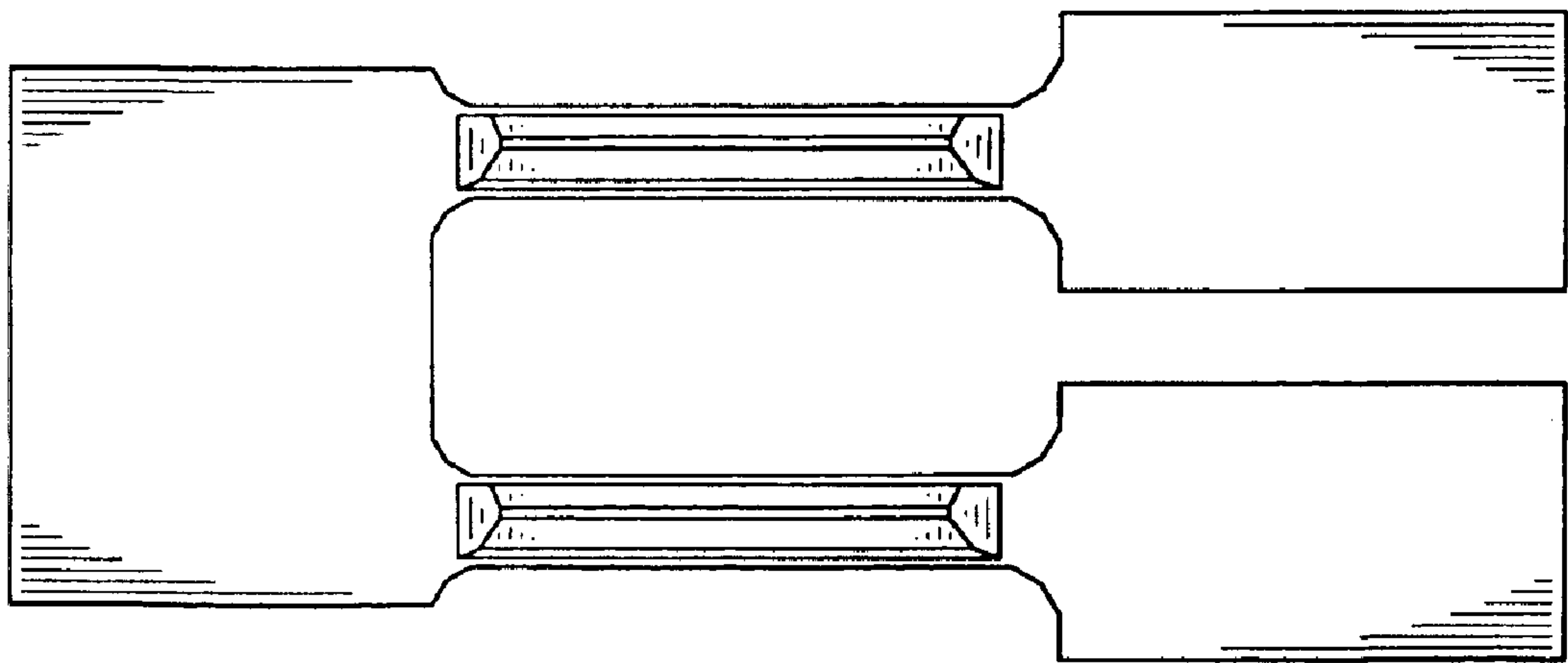


FIG. 7

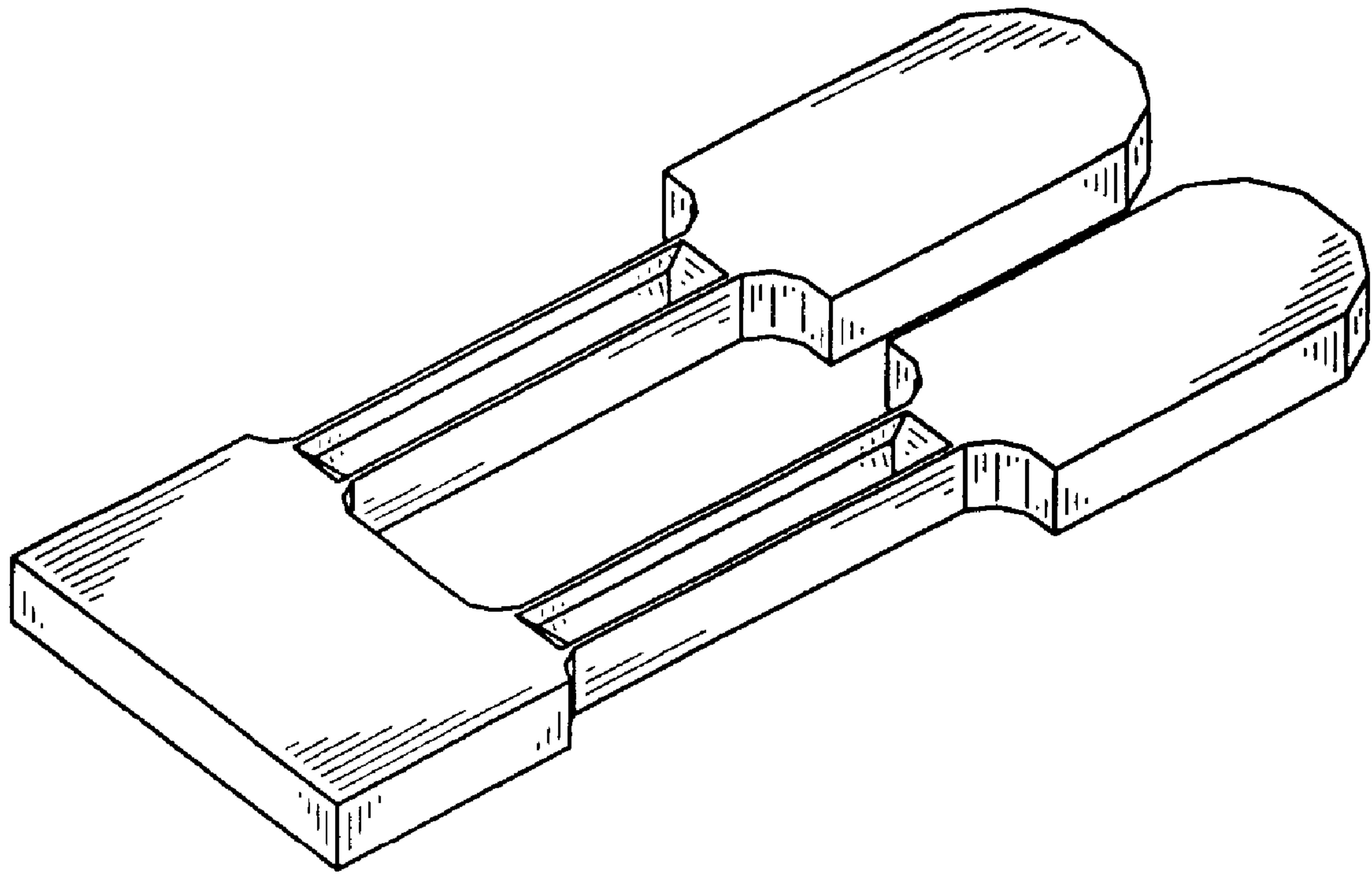


FIG. 8

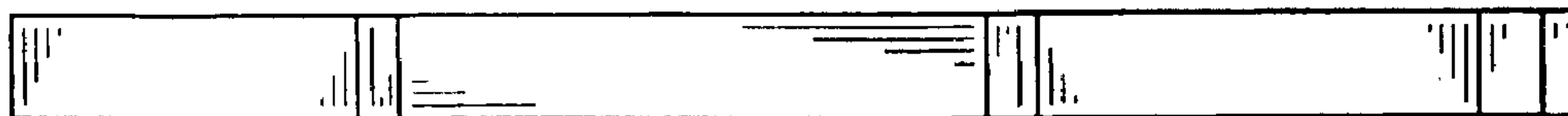


FIG. 9

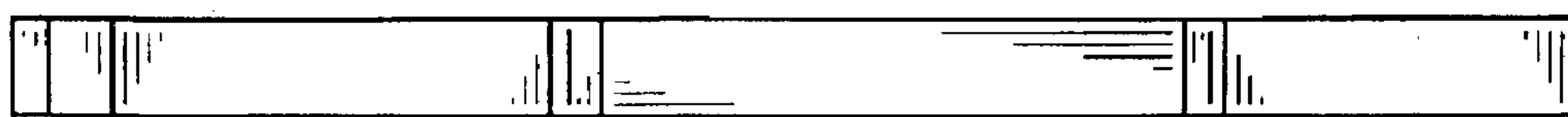


FIG. 10

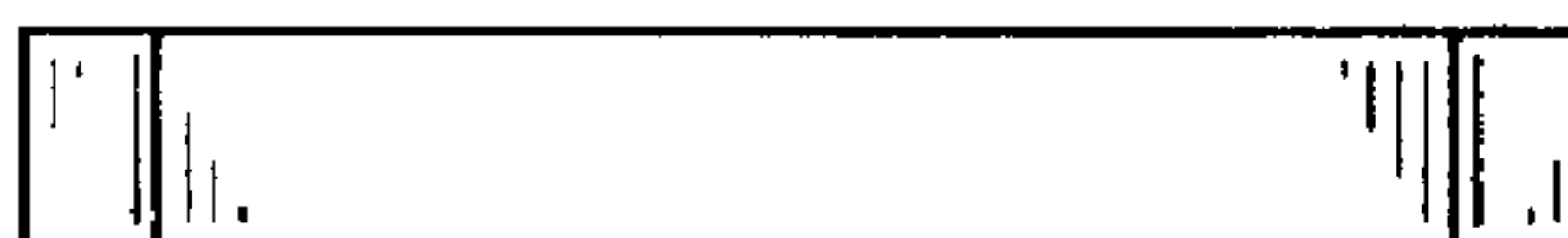


FIG. 11



FIG. 12

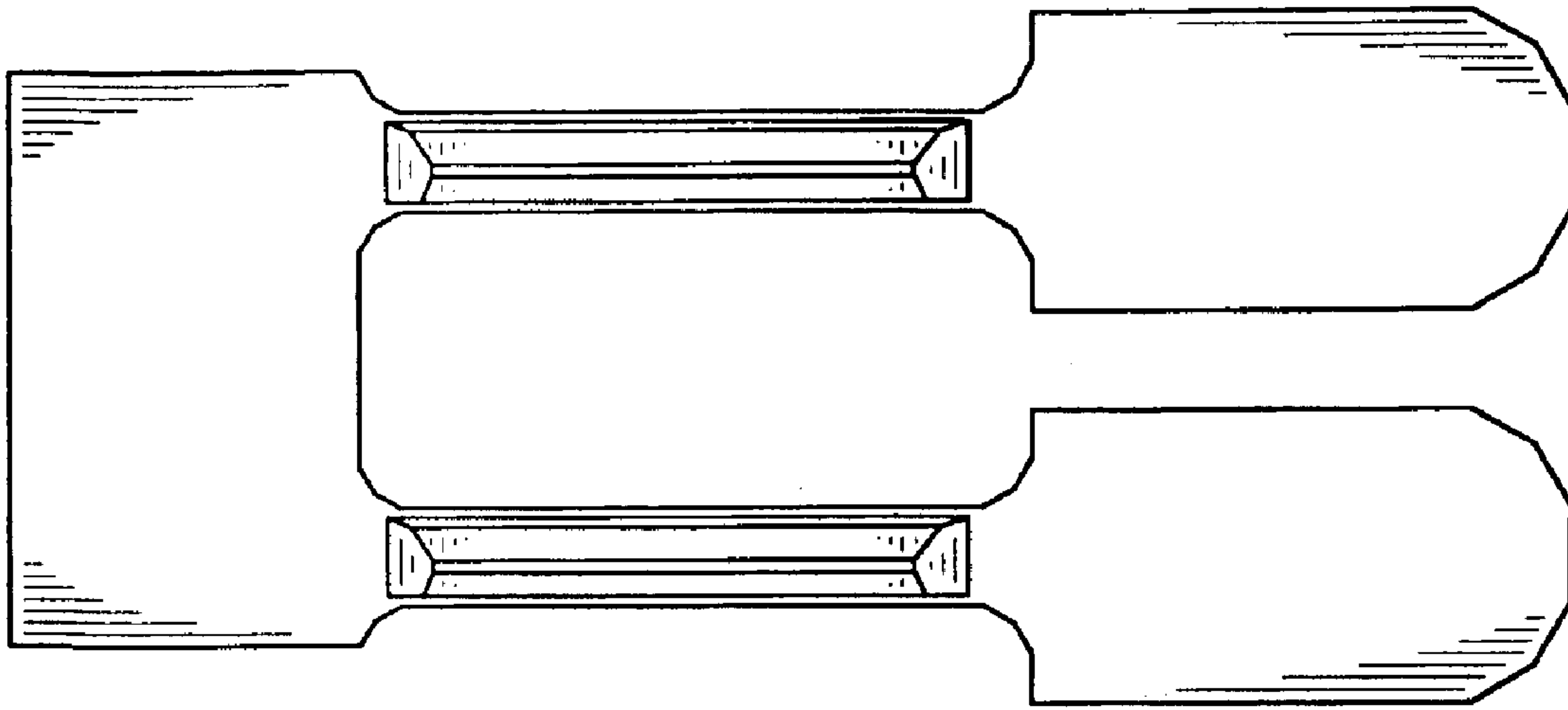


FIG. 13

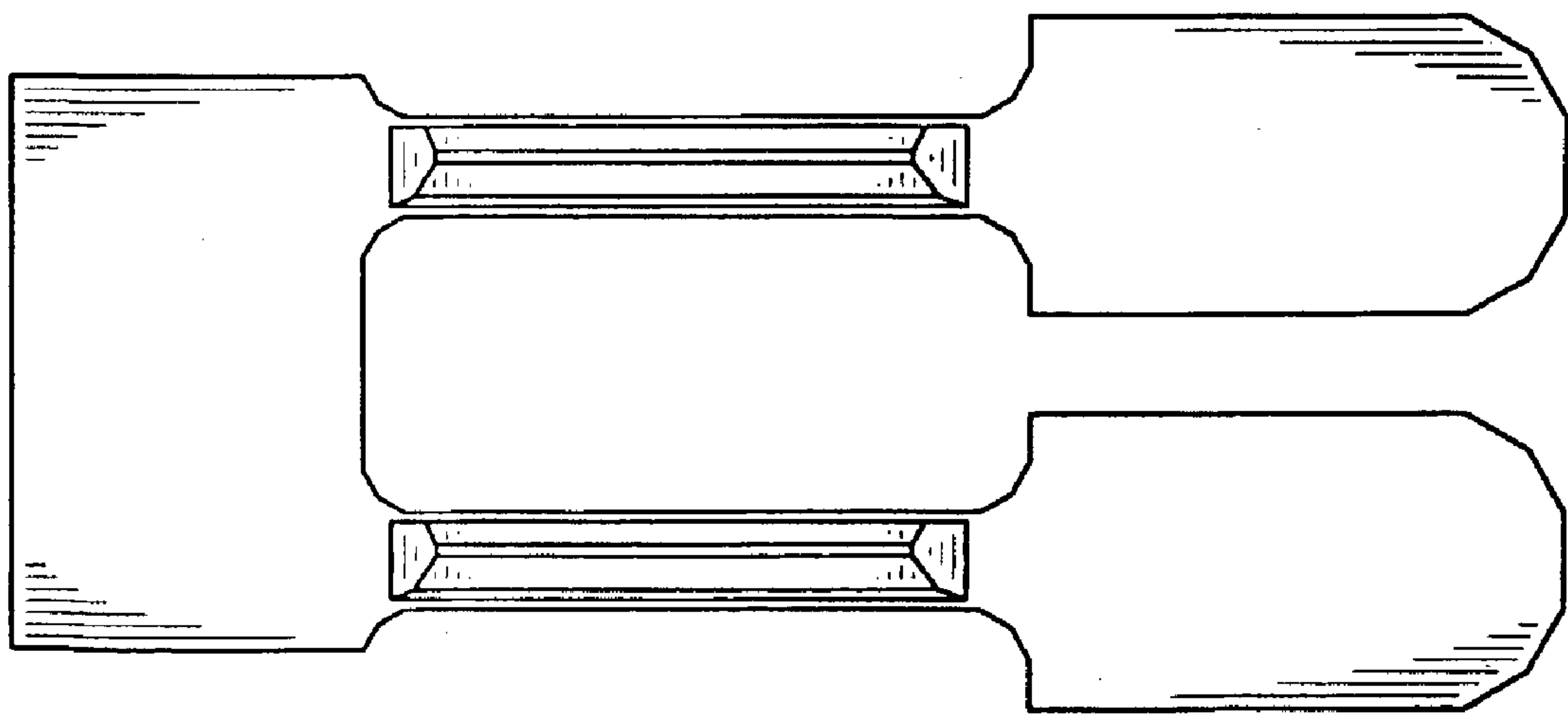


FIG. 14

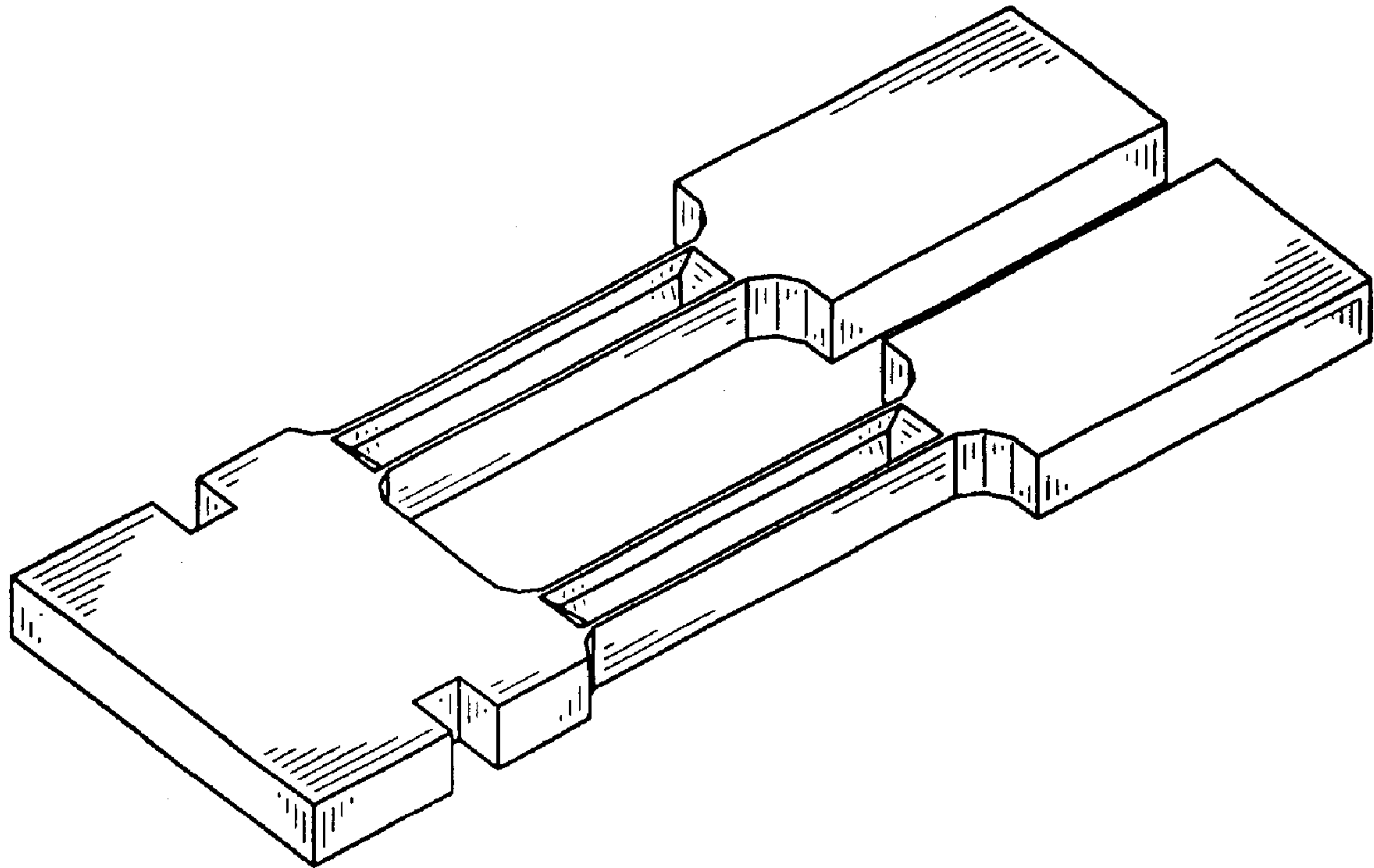


FIG. 15

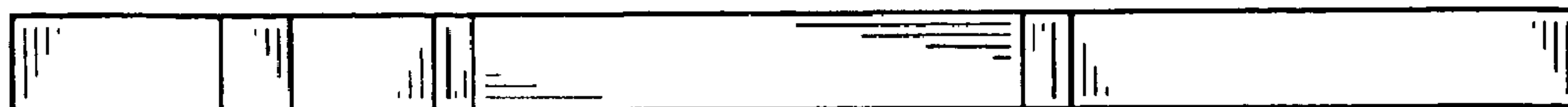


FIG. 16

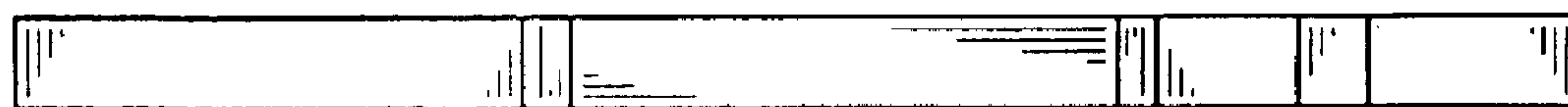


FIG. 17



FIG. 18



FIG. 19

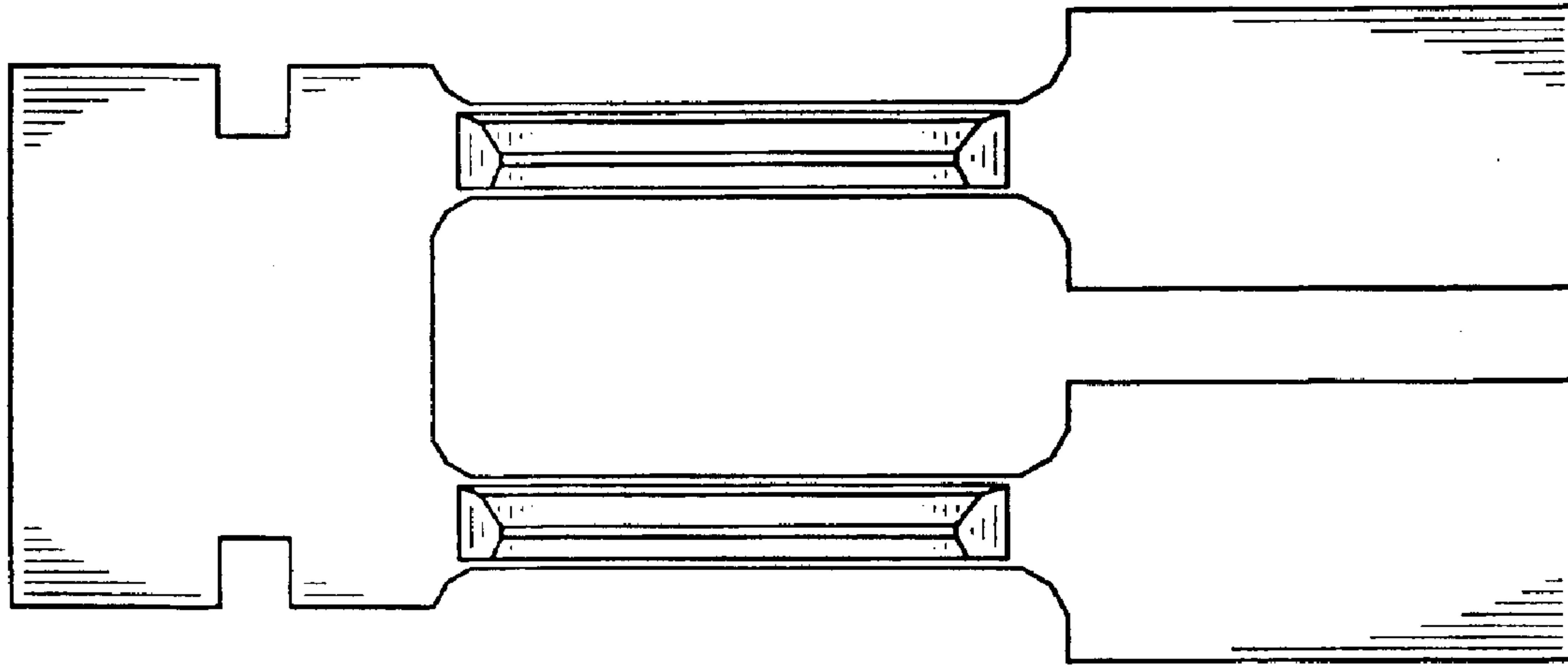


FIG. 20

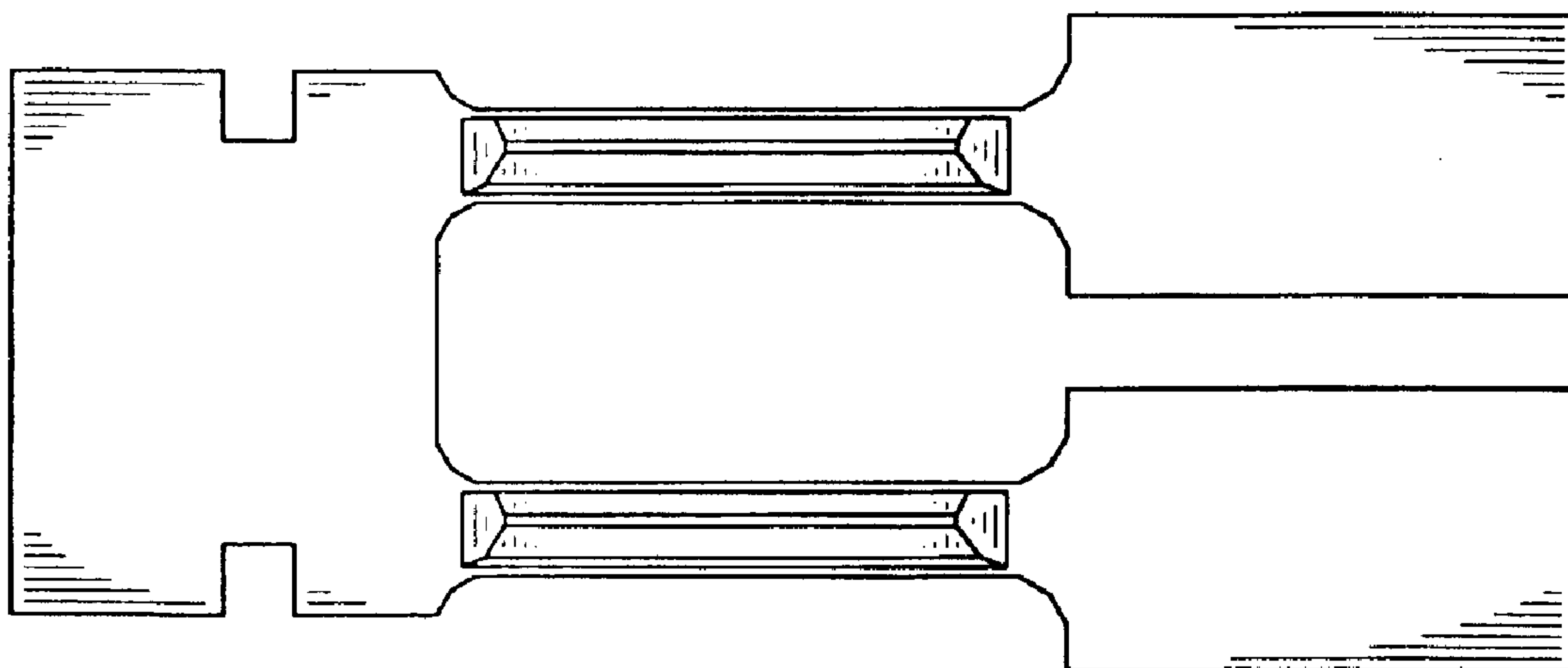


FIG. 21