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(12) **United States Design Patent** (10) **Patent No.:** **US D546,849 S**  
**Yotabun et al.** (45) **Date of Patent:** **\*\* Jul. 17, 2007**

(54) **SLIDING NOZZLE PLATE**

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

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(30) **Foreign Application Priority Data**

May 10, 2005 (JP) ..... 2005-013352  
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(51) **LOC (8) Cl.** ..... **15-09**

(52) **U.S. Cl.** ..... **D15/138**

(58) **Field of Classification Search** ..... D15/135-138,  
D15/144, 144.1, 144.2, 199; 222/590, 591,  
222/594, 597, 600; 266/236; 501/97, 105  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,257,542 A \* 3/1981 Aller et al. .... 222/600

(Continued)

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*Assistant Examiner*—Patricia Palasik

(74) *Attorney, Agent, or Firm*—Knoble Yoshida & Dunleavy, LLC

(57) **CLAIM**

The ornamental design for a “sliding nozzle plate,” as shown and described.

**DESCRIPTION**

FIG. 1 is a front elevational view for a first preferred embodiment.

FIG. 2 is a rear elevational view for a first preferred embodiment.

FIG. 3 is a plane view for a first preferred embodiment.

FIG. 4 is a bottom plan view for a first preferred embodiment.

FIG. 5 is a left side elevational view for a first preferred embodiment.

FIG. 6 is a right side view for a first preferred embodiment; and

FIG. 7 is a cross-section view for a first preferred embodiment taken at a line 7-7 of FIG. 3.

FIG. 8 is a second cross-section view for a first preferred embodiment taken at a line 8-8 of FIG. 3.

FIG. 9 is a perspective view showing my new design for the first preferred embodiment.

FIG. 10 is a front elevational view for the second preferred embodiment.

FIG. 11 is a rear elevational view for the second preferred embodiment.

FIG. 12 is a plane view for the second preferred embodiment.

FIG. 13 is a bottom plan view for the second preferred embodiment.

FIG. 14 is a left side view for the second preferred embodiment.

FIG. 15 is a right side view for the second preferred embodiment.

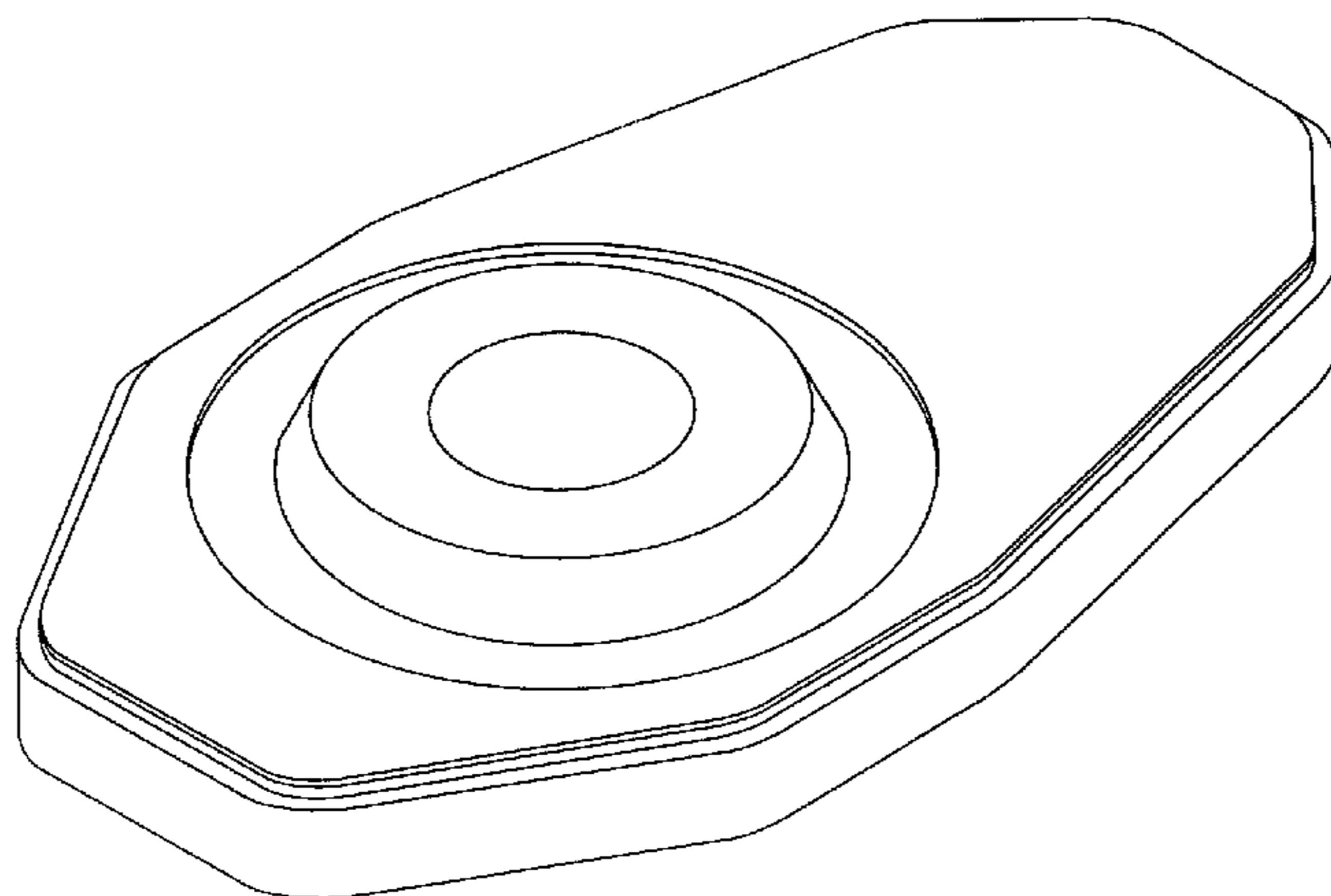
FIG. 16 is a cross-section view for the second preferred embodiment taken at a line 16-16 of FIG. 12.

FIG. 17 is a cross-section view for the second preferred embodiment taken at a line 17-17 of FIG. 12; and,

FIG. 18 is a perspective view showing my new design for the second preferred embodiment.

Any broken lines in the drawings depict probable environment only and form no part of the claimed design.

**1 Claim, 10 Drawing Sheets**



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## U.S. PATENT DOCUMENTS

4,842,172	A *	6/1989	Kleinevoss et al. ....	222/600	5,958,279	A *	9/1999	Kawamura et al. ....	222/600
5,100,034	A *	3/1992	Russo .....	222/600	6,092,701	A *	7/2000	Waltenspuhl et al. ....	222/600
5,470,048	A *	11/1995	Taira et al. ....	266/236	6,814,268	B2 *	11/2004	Rothfuss et al. ....	222/600
5,529,227	A *	6/1996	Yoshikawa et al. ....	222/590	2005/0230886	A1 *	10/2005	Yotabun et al. ....	266/236

\* cited by examiner

FIG. 1

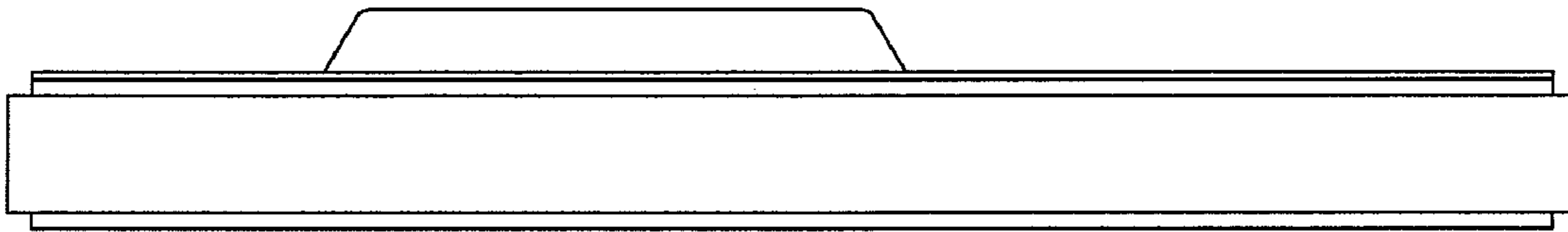


FIG. 2

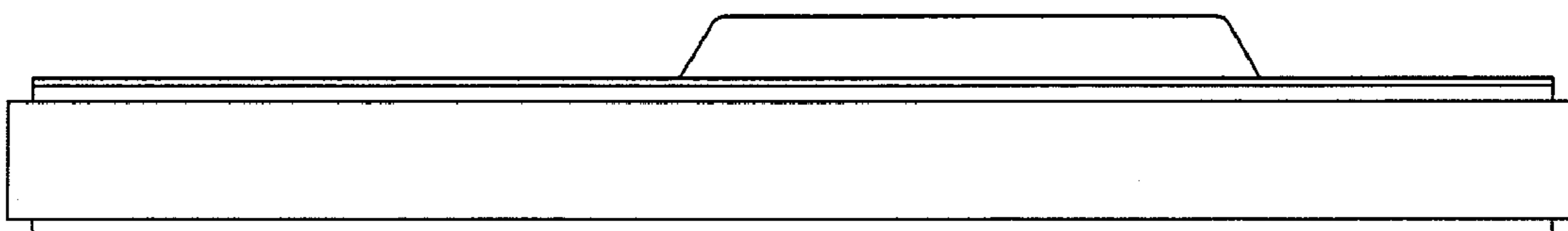


FIG. 3

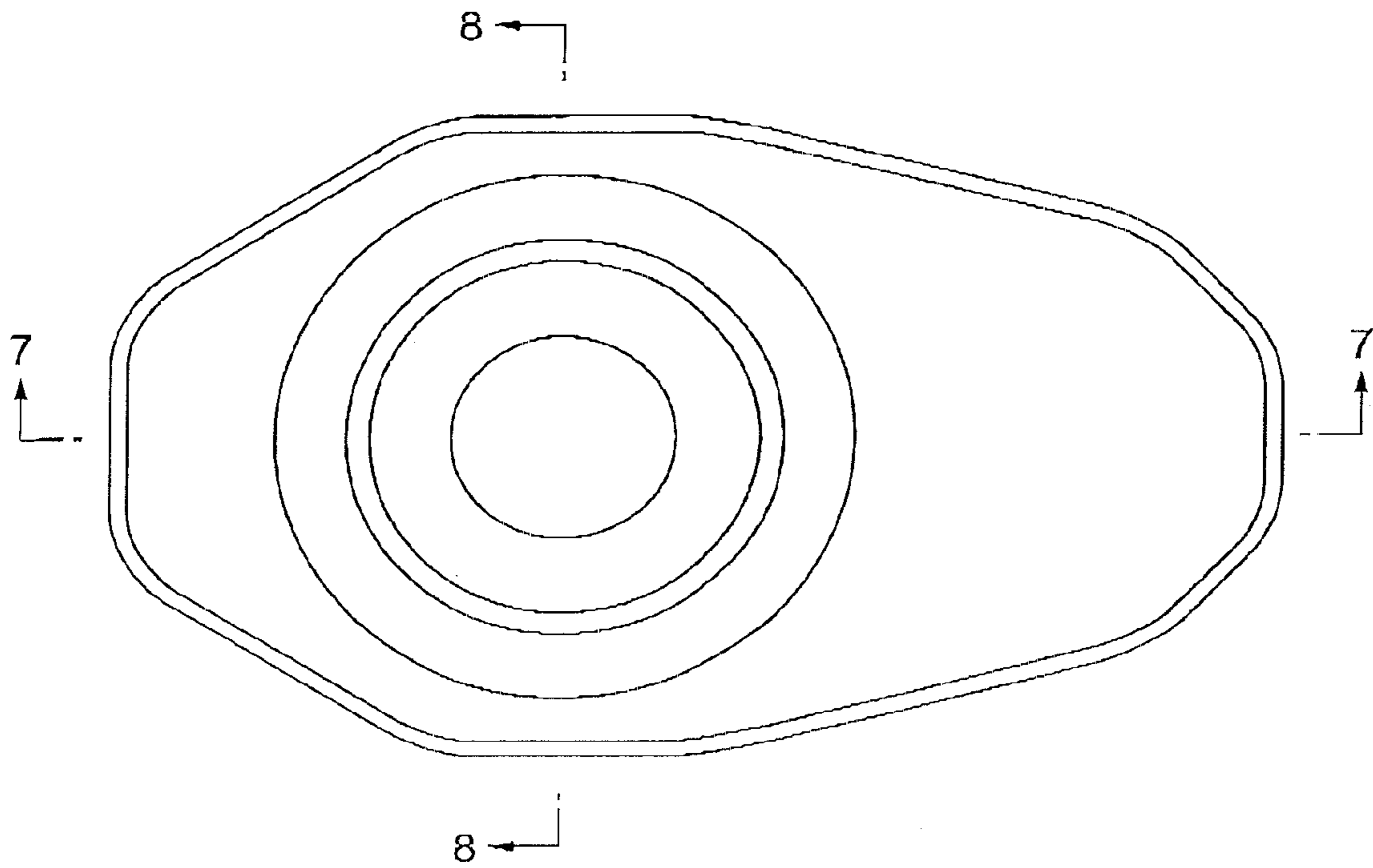


FIG. 4

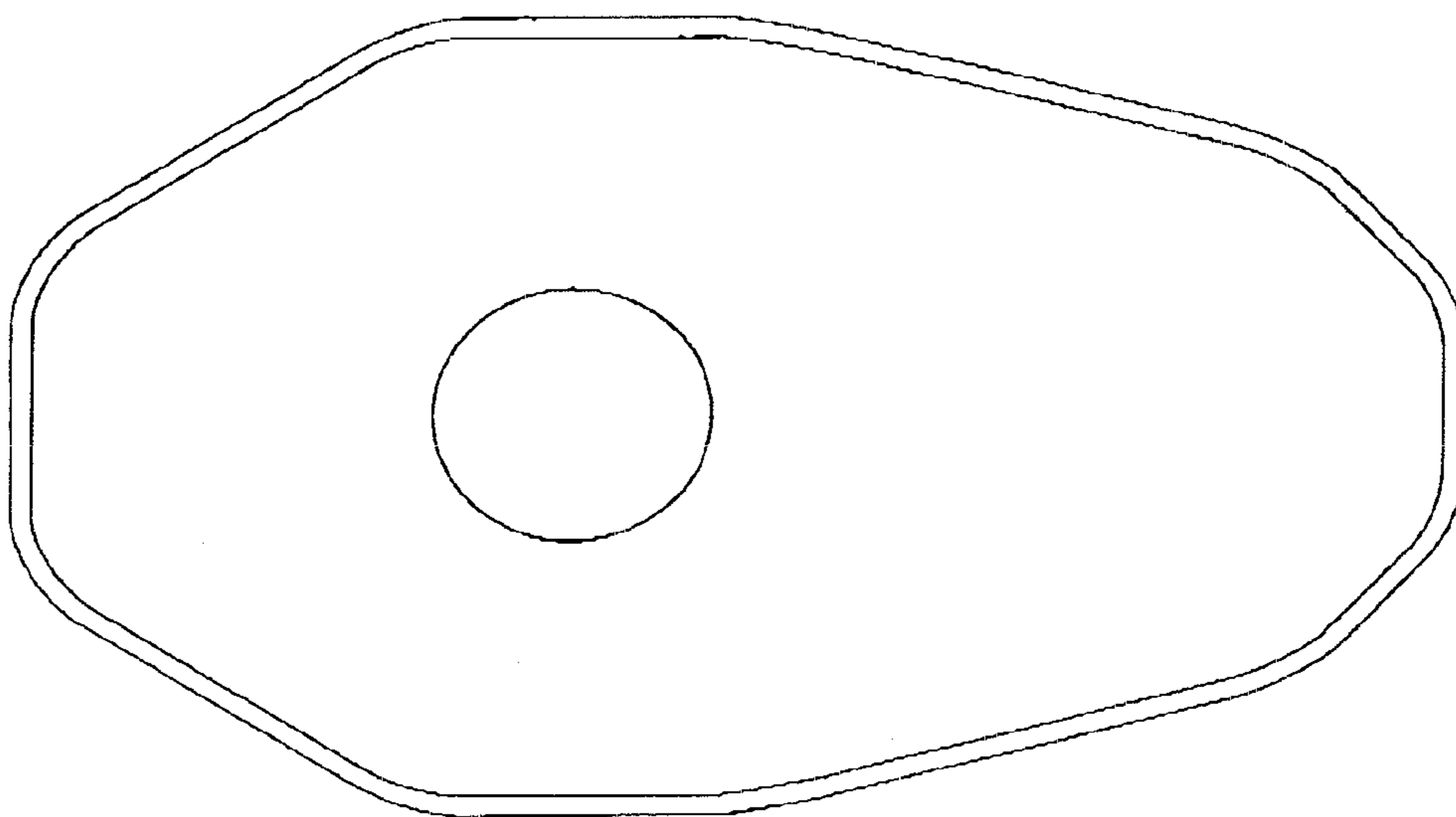


FIG. 5

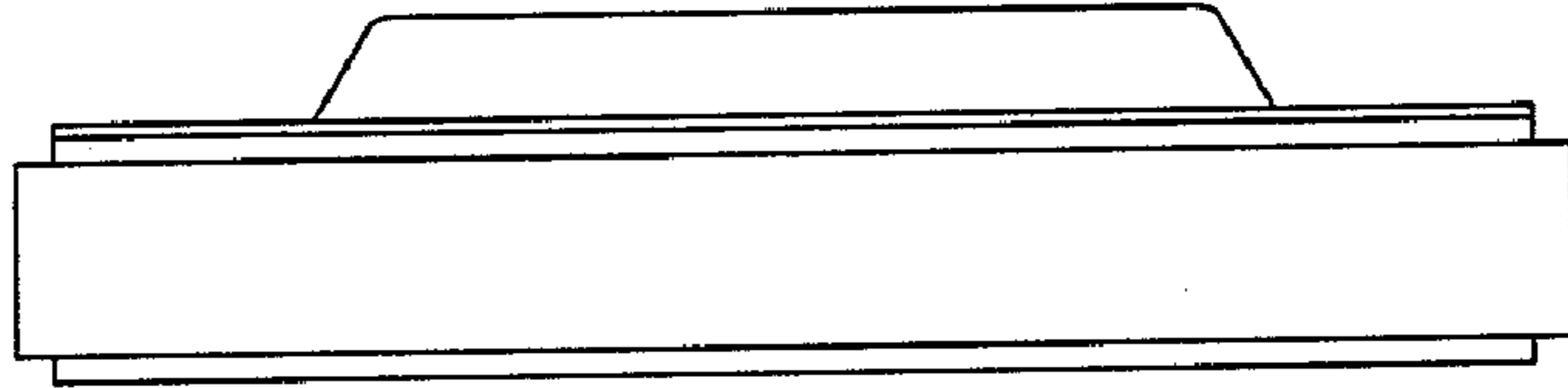


FIG. 6

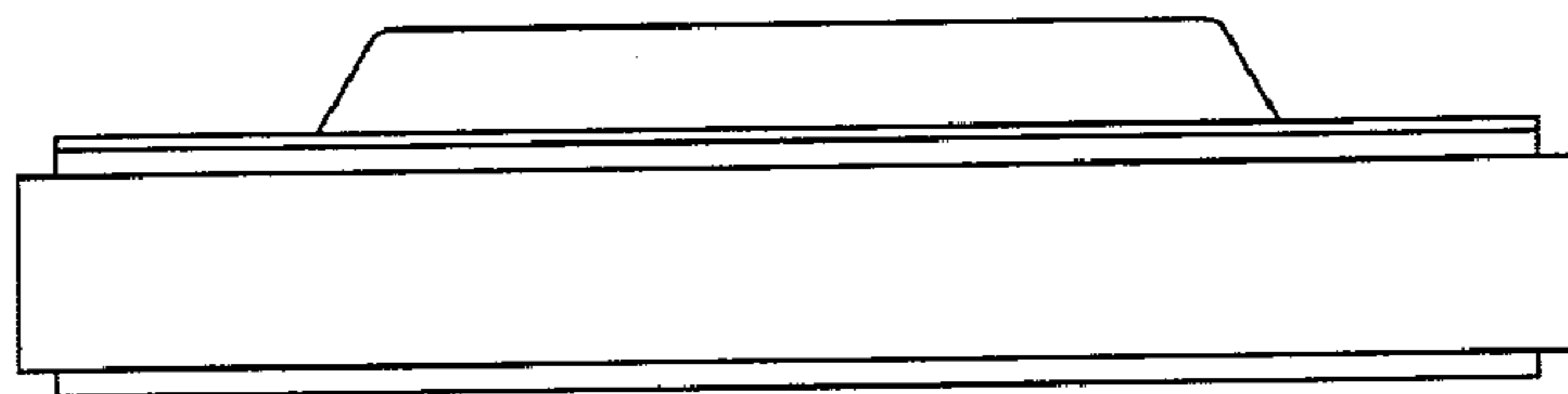


FIG. 7

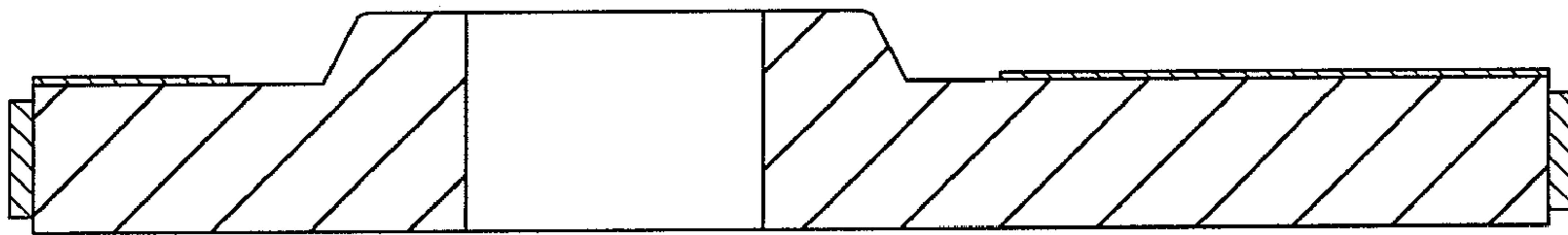


FIG. 8

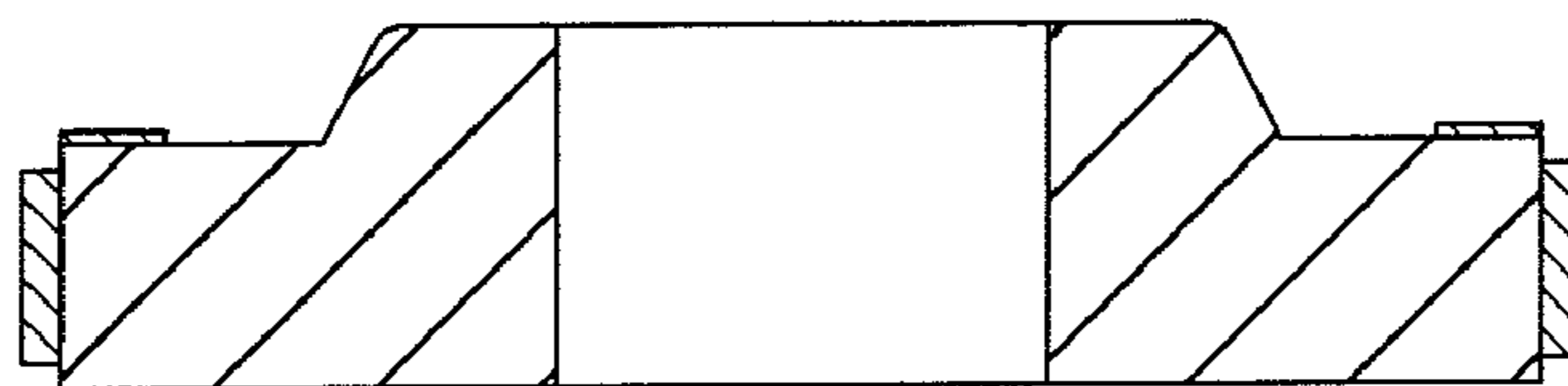


FIG. 9

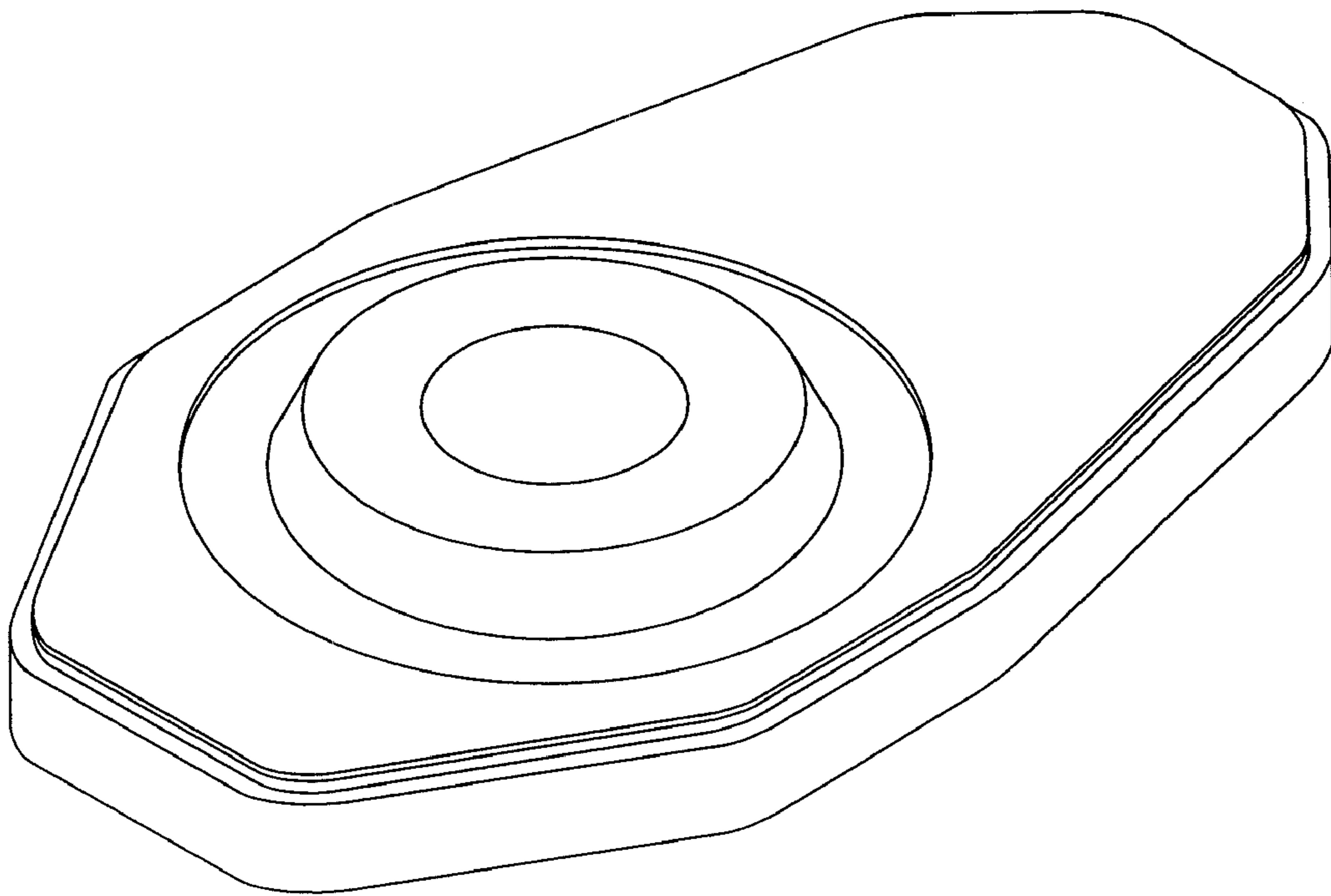


FIG. 10

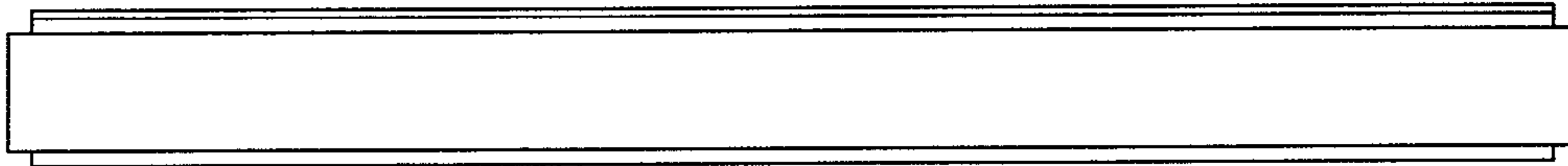


FIG. 11

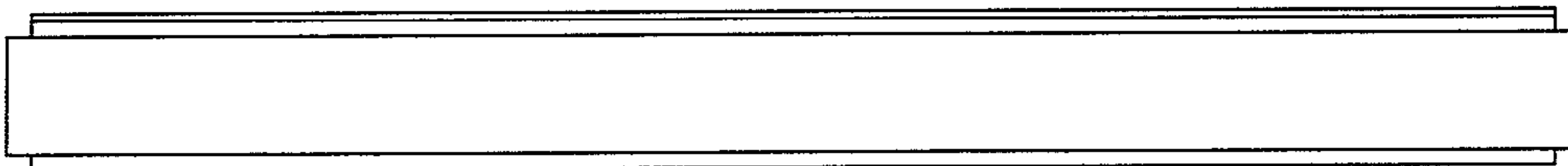




FIG. 12

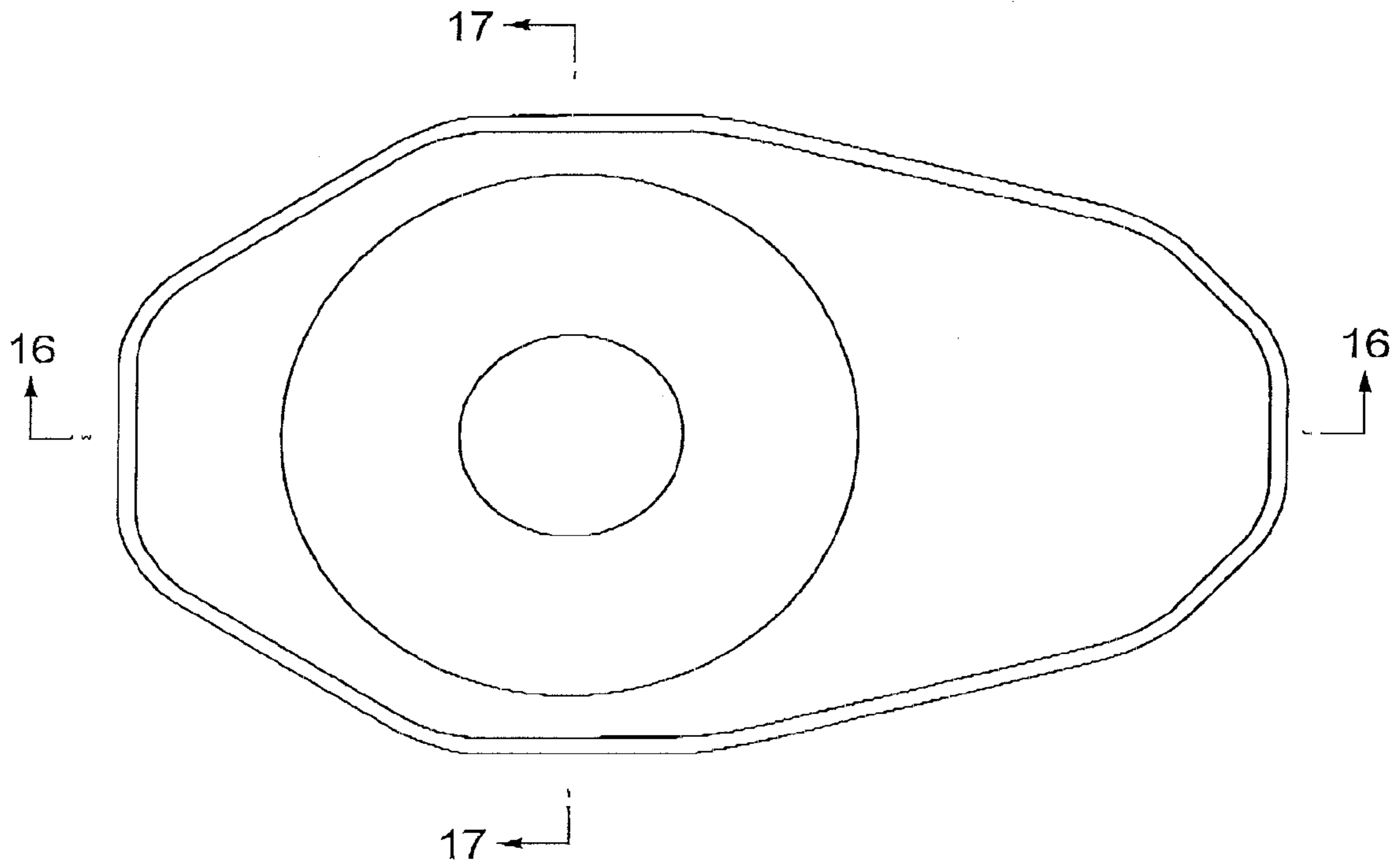


FIG. 13

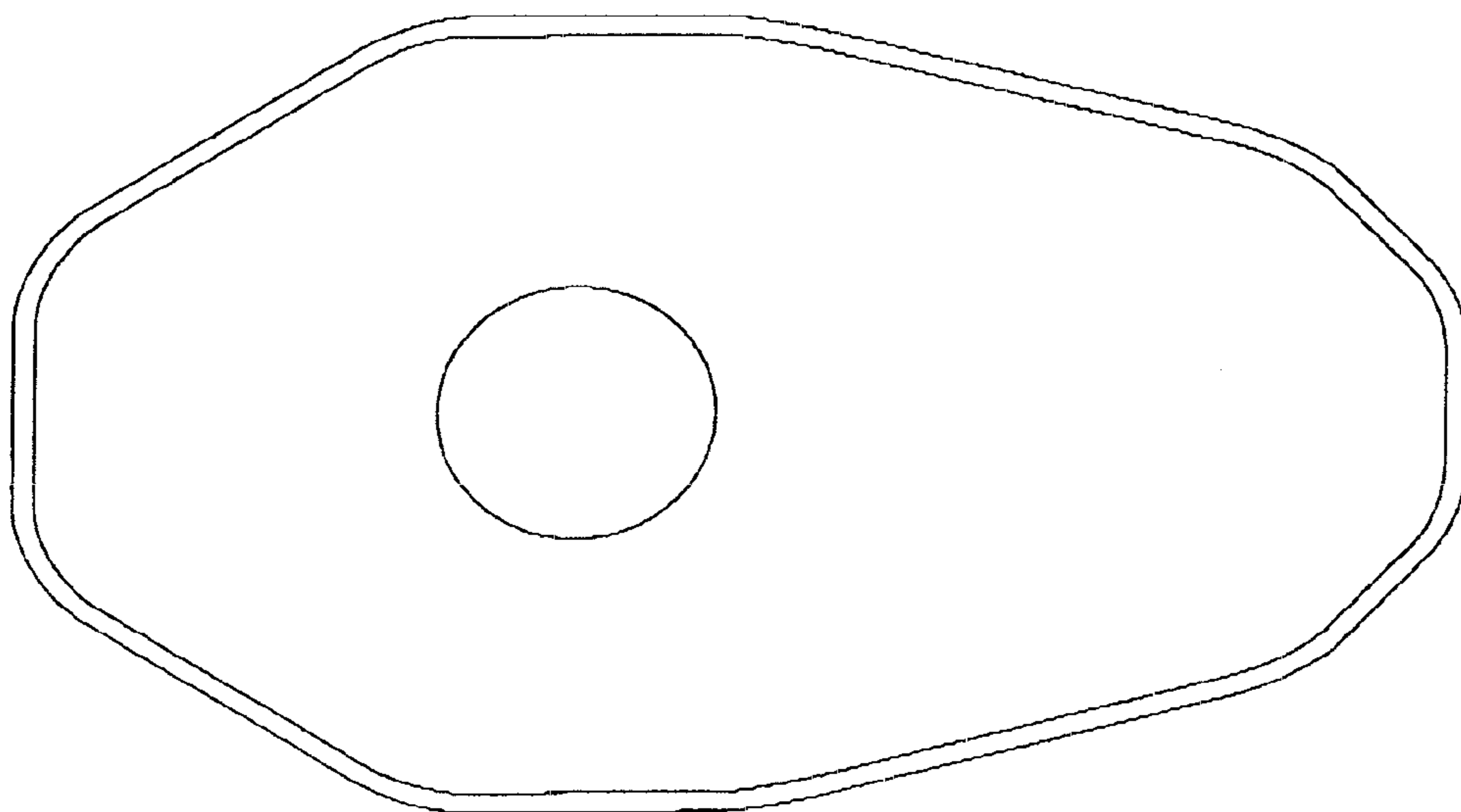


FIG. 14

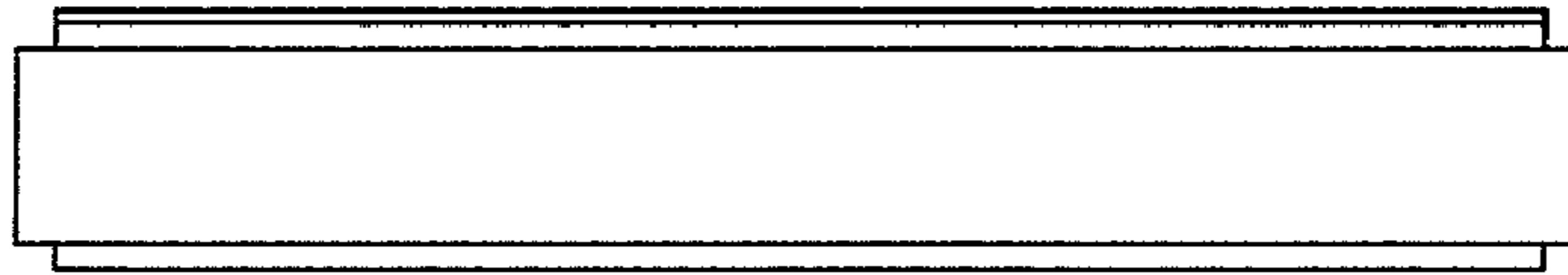


FIG. 15

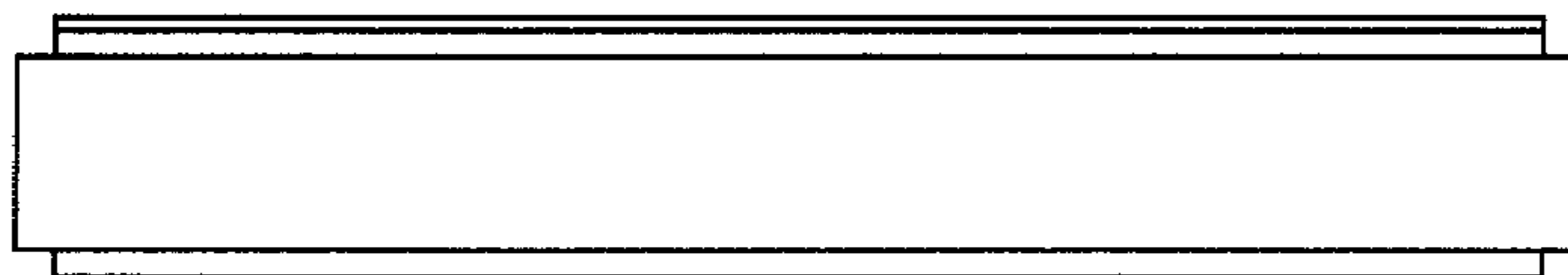


FIG. 16

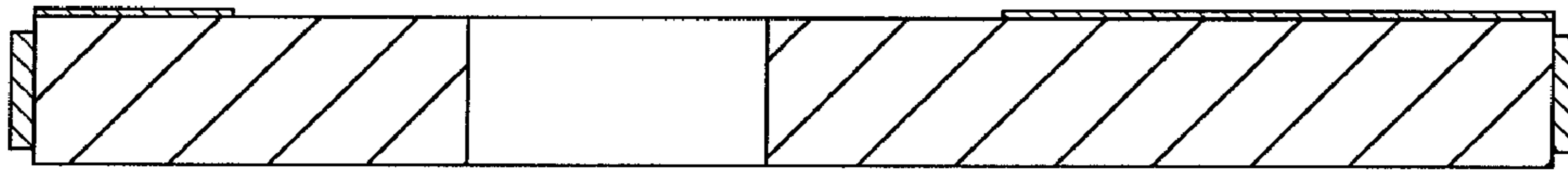


FIG. 17

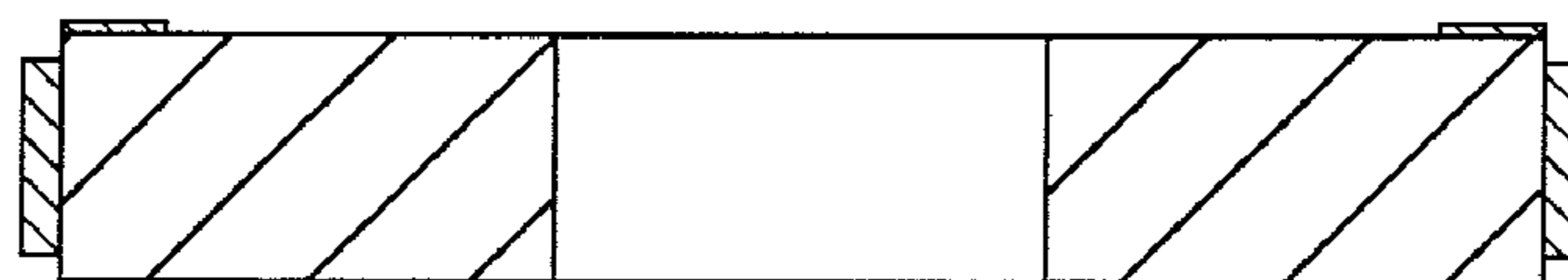


FIG. 18

