



US00D461887S

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

(10) **Patent No.:** **US D461,887 S**

(45) **Date of Patent:** **\*\* Aug. 20, 2002**

(54) **COUPLING RING FOR VENTILATION DUCTS**

(75) Inventors: **Lars-Åke Mattsson**, Båstad; **Kenneth Lennartsson**, Torekov; **Sten Högman**, Grevie; **Carl-Gustaf Sondén**, Ängelholm, all of (SE)

(73) Assignee: **Lindab AB**, Bastad (SE)

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

(21) Appl. No.: **29/135,765**

(22) Filed: **Jan. 17, 2001**

(51) **LOC (7) Cl.** ..... **23-04**

(52) **U.S. Cl.** ..... **D23/393**

(58) **Field of Search** ..... D23/393; 29/890.15;  
72/82-84, 86; 285/363

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D231,356 S \* 4/1974 Kurr ..... D23/393  
5,129,690 A \* 7/1992 Meinig et al. .... 285/363  
5,983,496 A 11/1999 Hermanson ..... 29/890.15

**FOREIGN PATENT DOCUMENTS**

GB 2 311 031 B 6/1998

**OTHER PUBLICATIONS**

*AccuFlange: Round & Oval Duct Connection System*, Accu Duct Mfg., product brochure, 1998, pp. 1-32.

*LindabRekt*, Instruction manual, Lindab Nord AB, May 20, 1998, pp. 1-4.

*Rektangulära kanalsystem*, Lindab Rekt, product brochure 2000, pp. 1-8.

*Introduction to the Rectangular Duct Construction Schedules*, HVAC Duct Construction Standards Metal and Flexible—2<sup>nd</sup> ed., SMAGNA Section 1.8ff., pp. 1.12-1.43.

\* cited by examiner

*Primary Examiner*—Mitchell Siegel

(74) *Attorney, Agent, or Firm*—Weingarten, Schurgin, Gagnebin & Lebovici LLP

(57) **CLAIM**

The ornamental design for a coupling ring for ventilation ducts, as shown.

**DESCRIPTION**

FIG. 1 is a front perspective view of an oval coupling ring according to a first embodiment of the new design with a front element and a rear double-lip element.

FIG. 2 is a rear perspective view of the coupling ring of the new design.

FIG. 3 is a rear view of the coupling ring.

FIG. 4 is a side view of the coupling ring.

FIG. 5 is a front view of the coupling ring.

FIG. 6 is an end view of the coupling ring.

FIG. 7 is a cross-section of the coupling ring at the central straight portion of the same, showing said front and rear elements, section line VII—VII in FIG. 5.

FIG. 8 is a front perspective view of an oval coupling ring according to a second embodiment of the new design with a narrow front element and a rear double-lip element.

FIG. 9 is a perspective view of the coupling ring of the new design.

FIG. 10 is a rear view of the coupling ring.

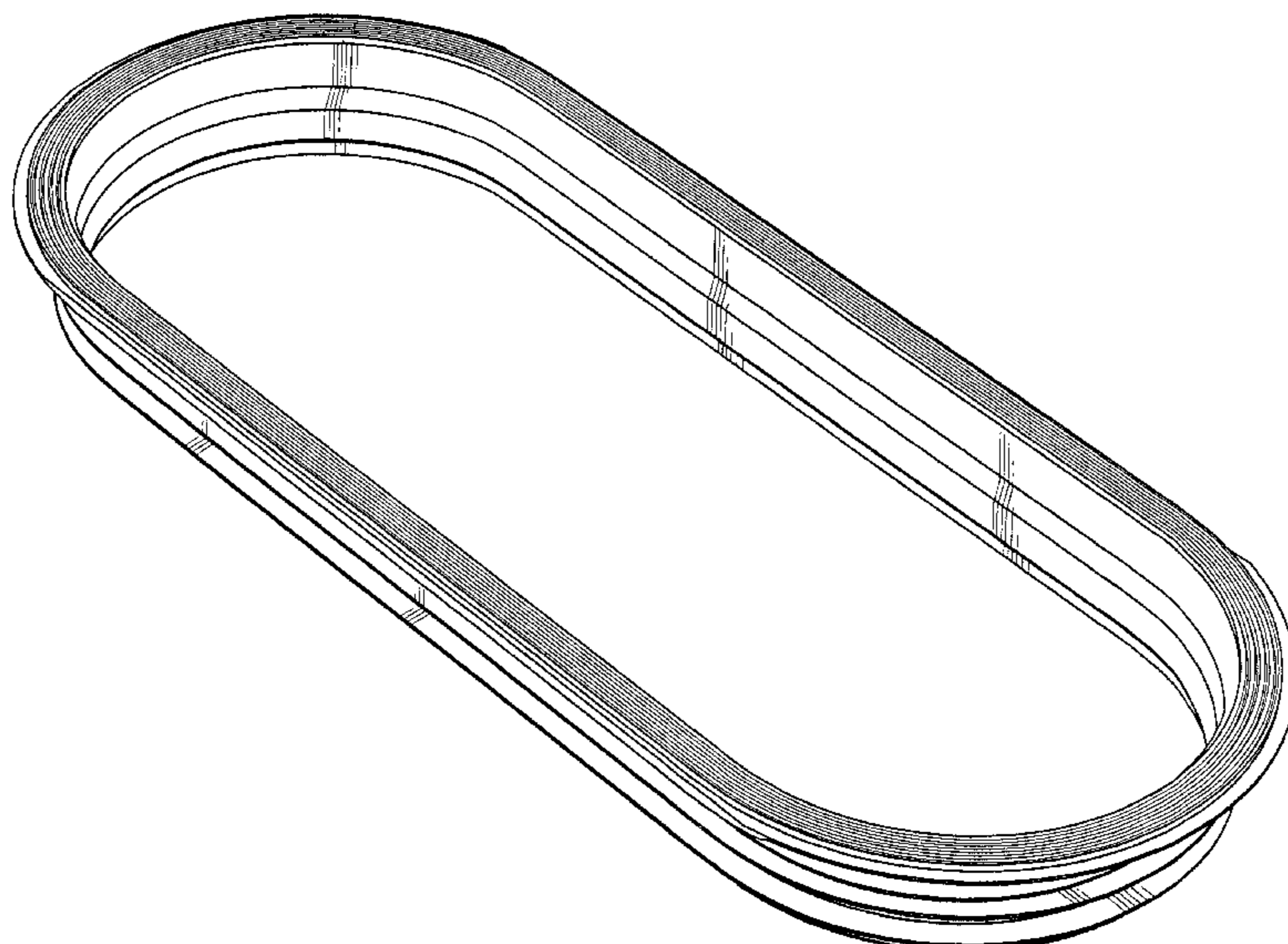
FIG. 11 is a side view of the coupling ring.

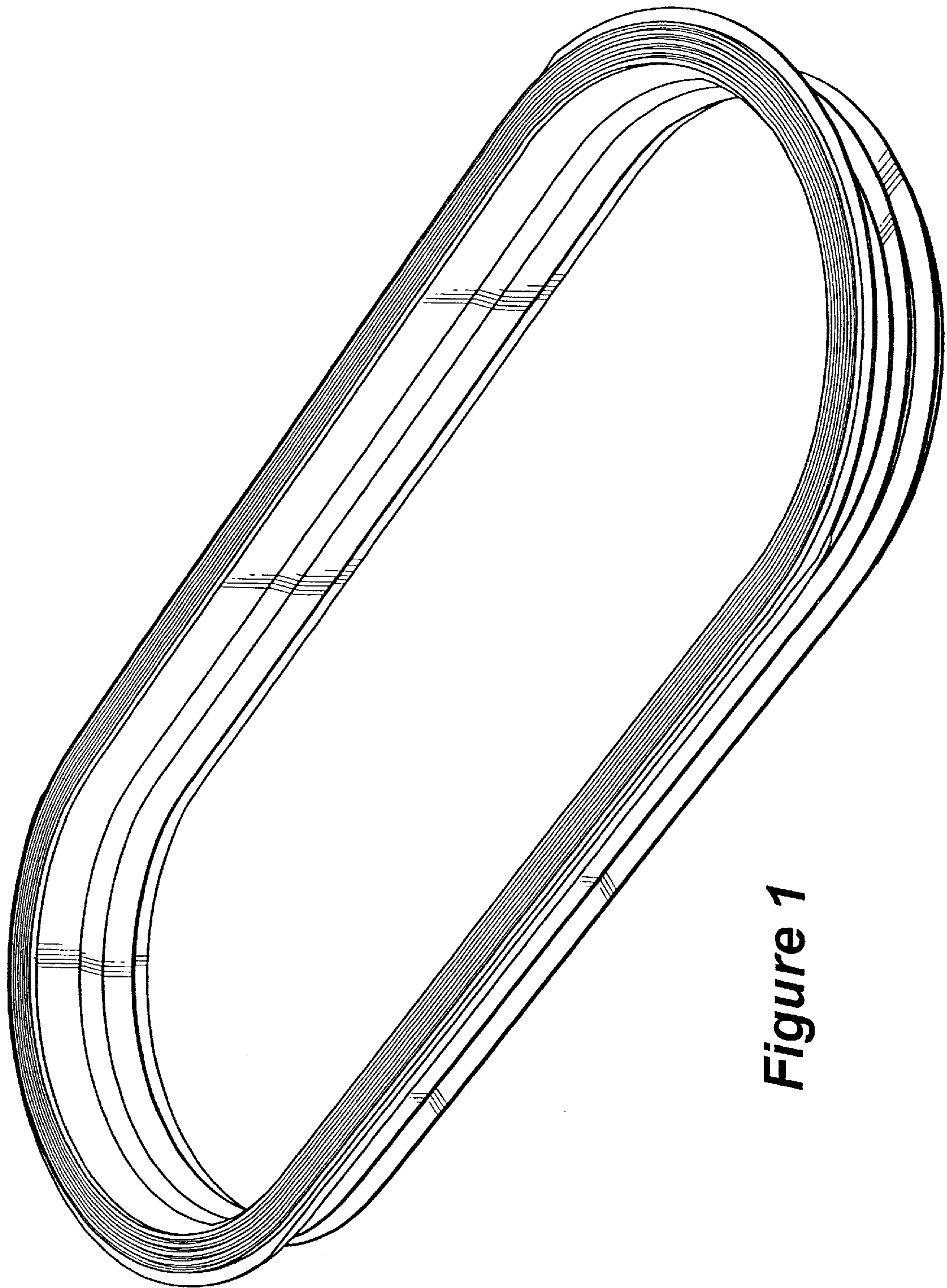
FIG. 12 is a front view of the coupling ring.

FIG. 13 is an end view of the coupling ring; and,

FIG. 14 is a cross-section of the coupling ring at the central straight portion of the same, showing said front and rear elements, section line XIV—XIV in FIG. 12.

**1 Claim, 8 Drawing Sheets**





**Figure 1**

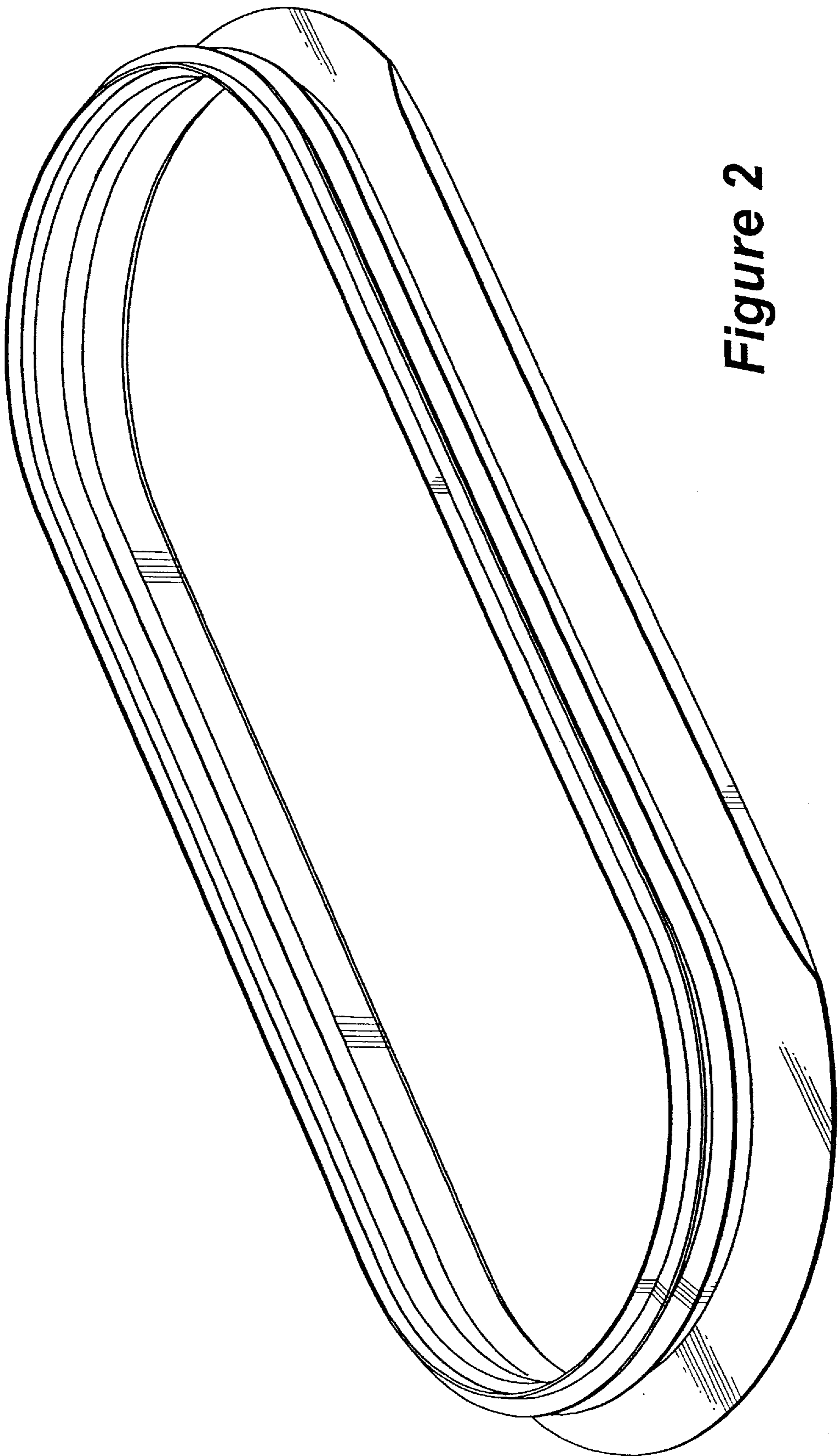


Figure 2

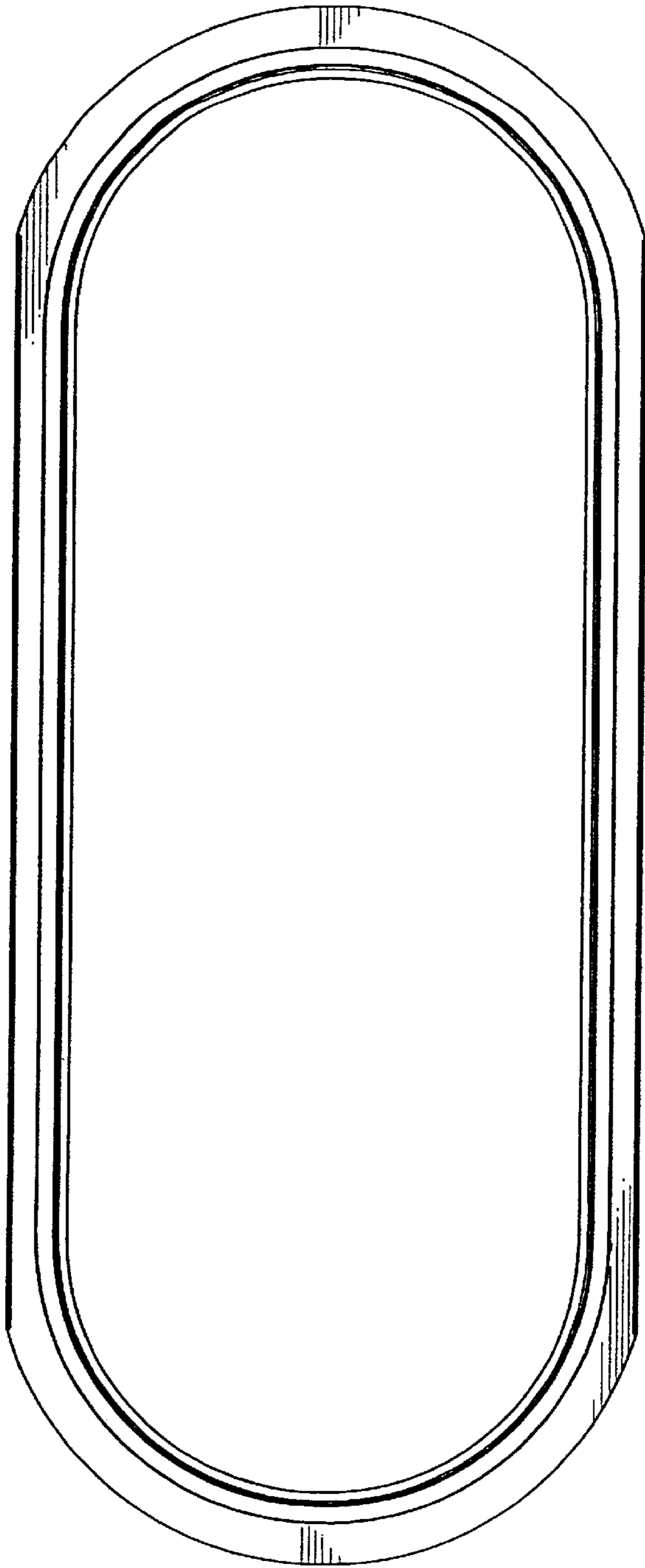


Figure 3

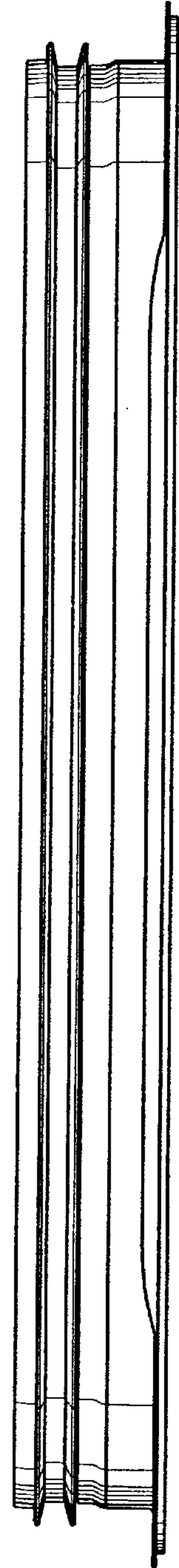


Figure 4

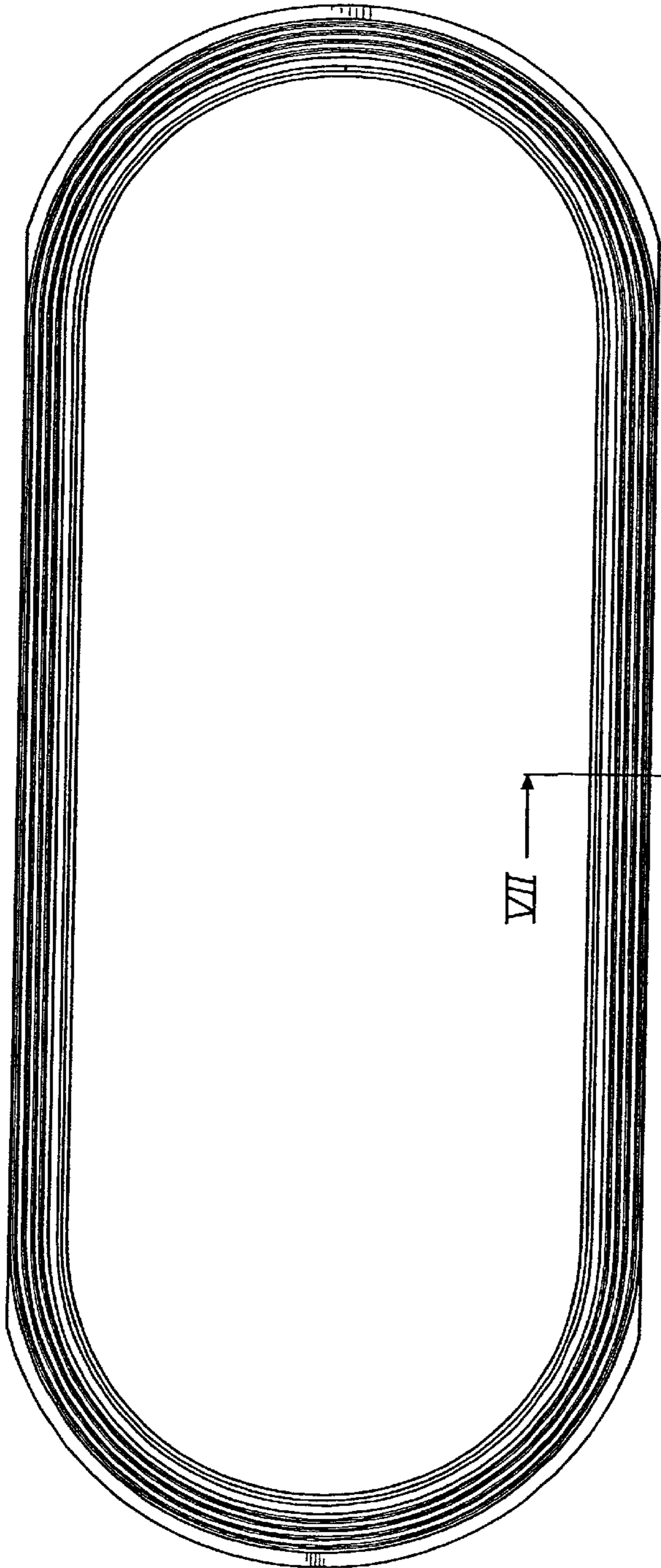


Figure 5

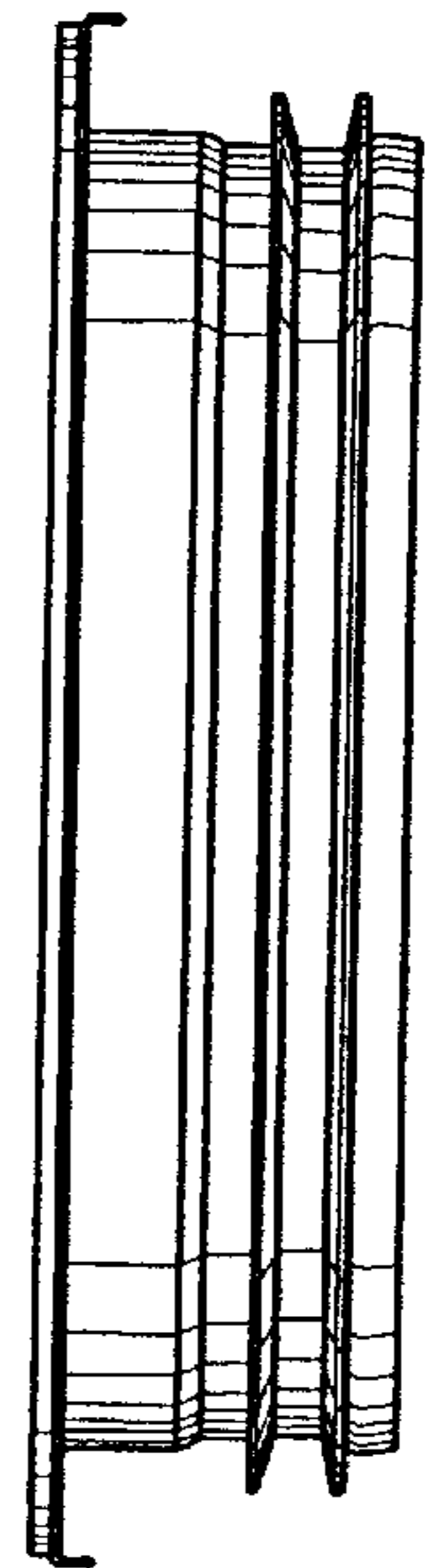


Figure 6

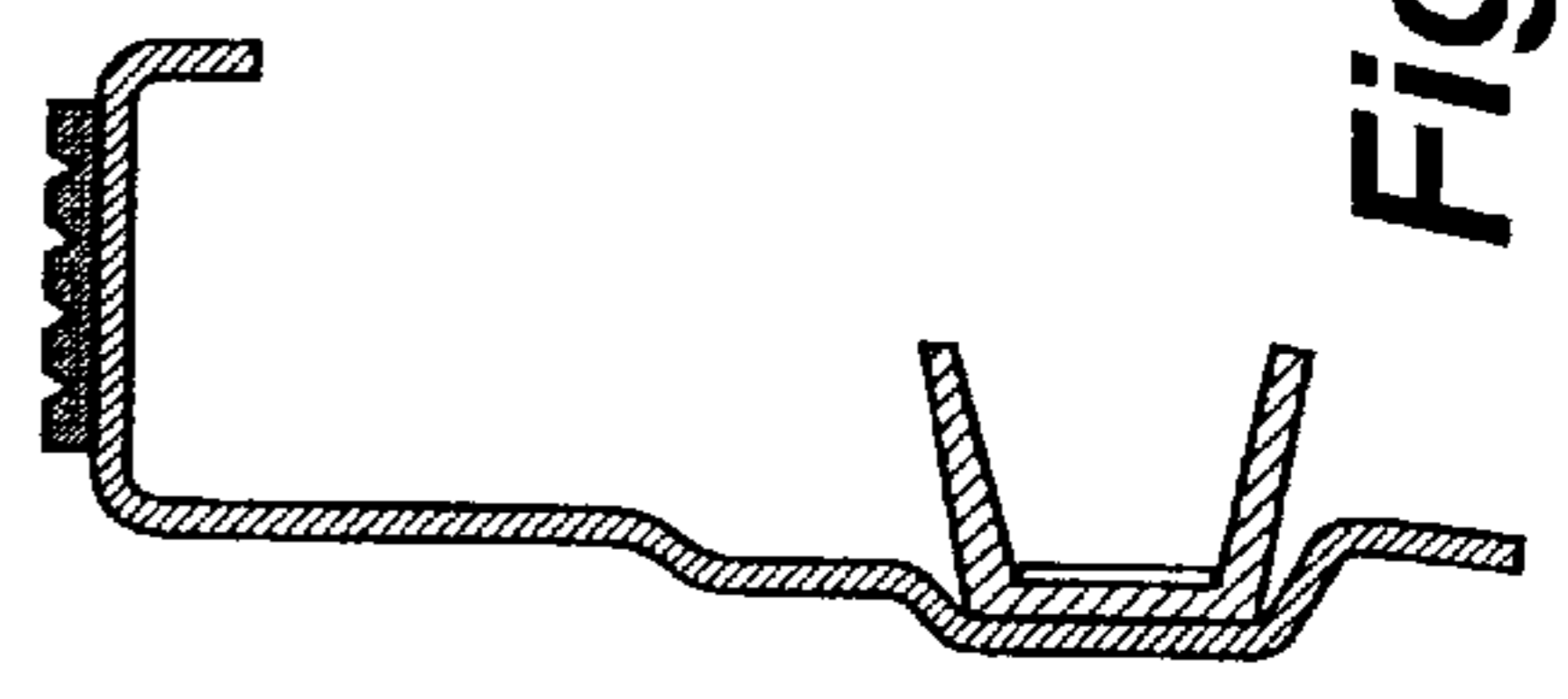
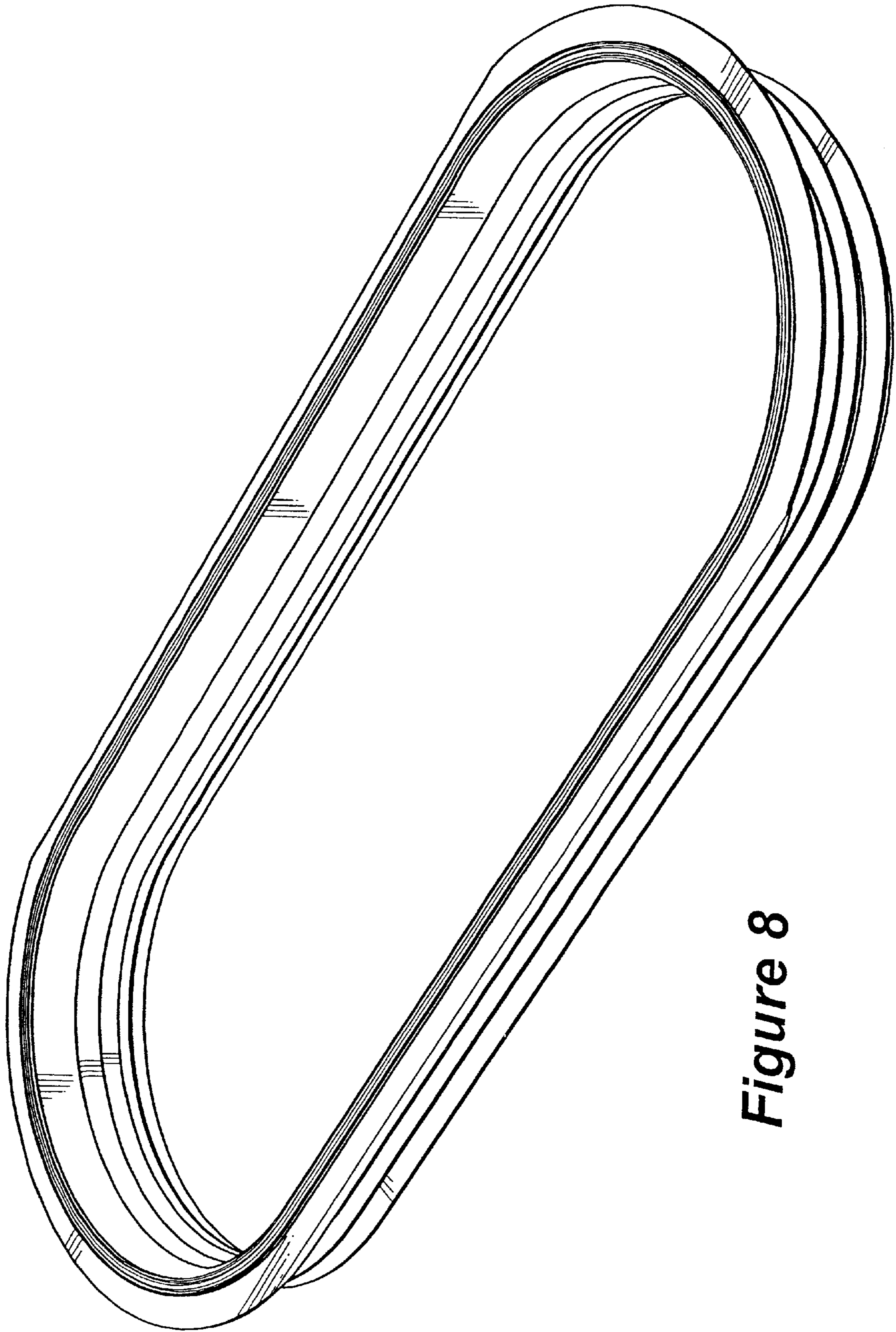
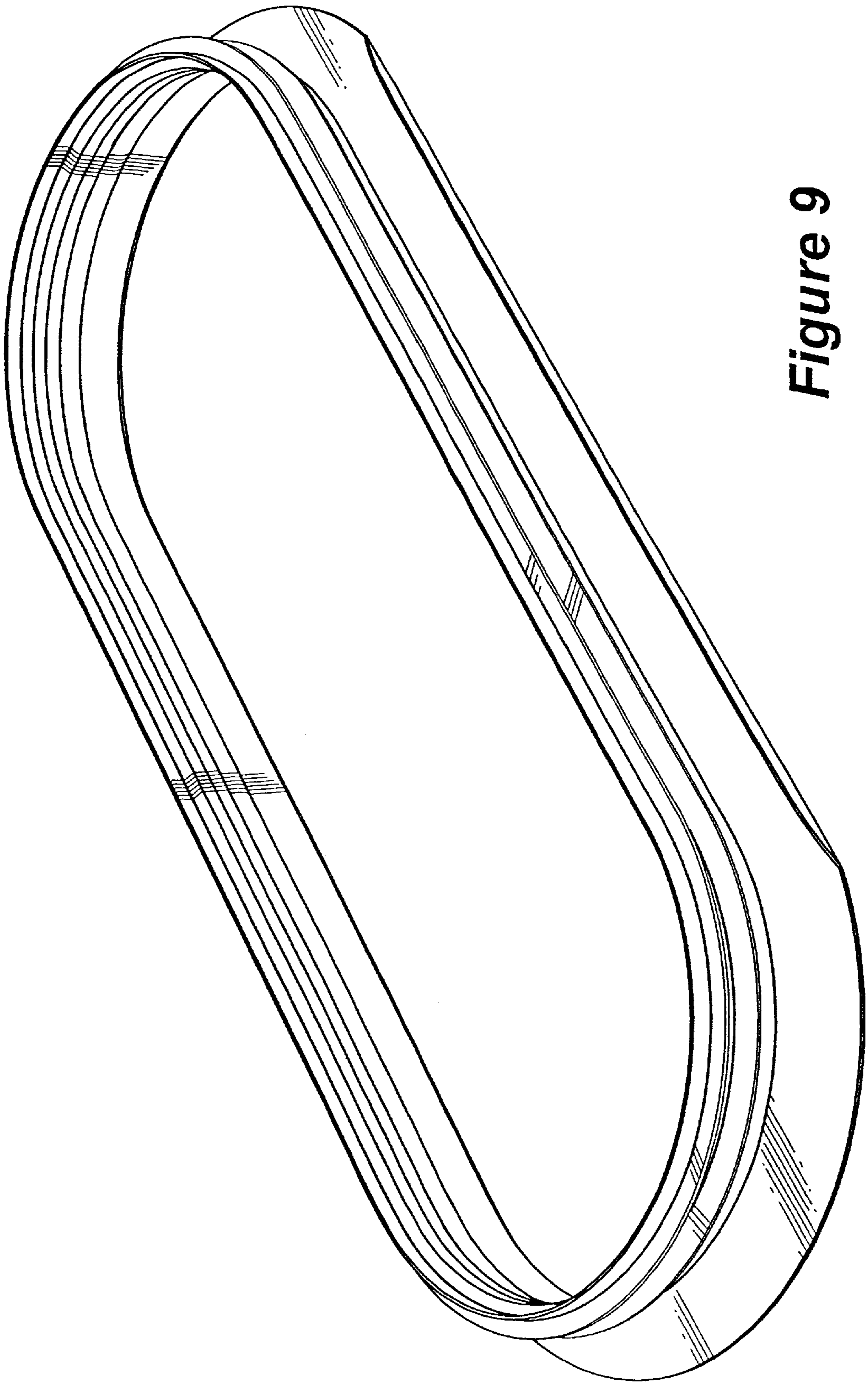


Figure 7



**Figure 8**



**Figure 9**

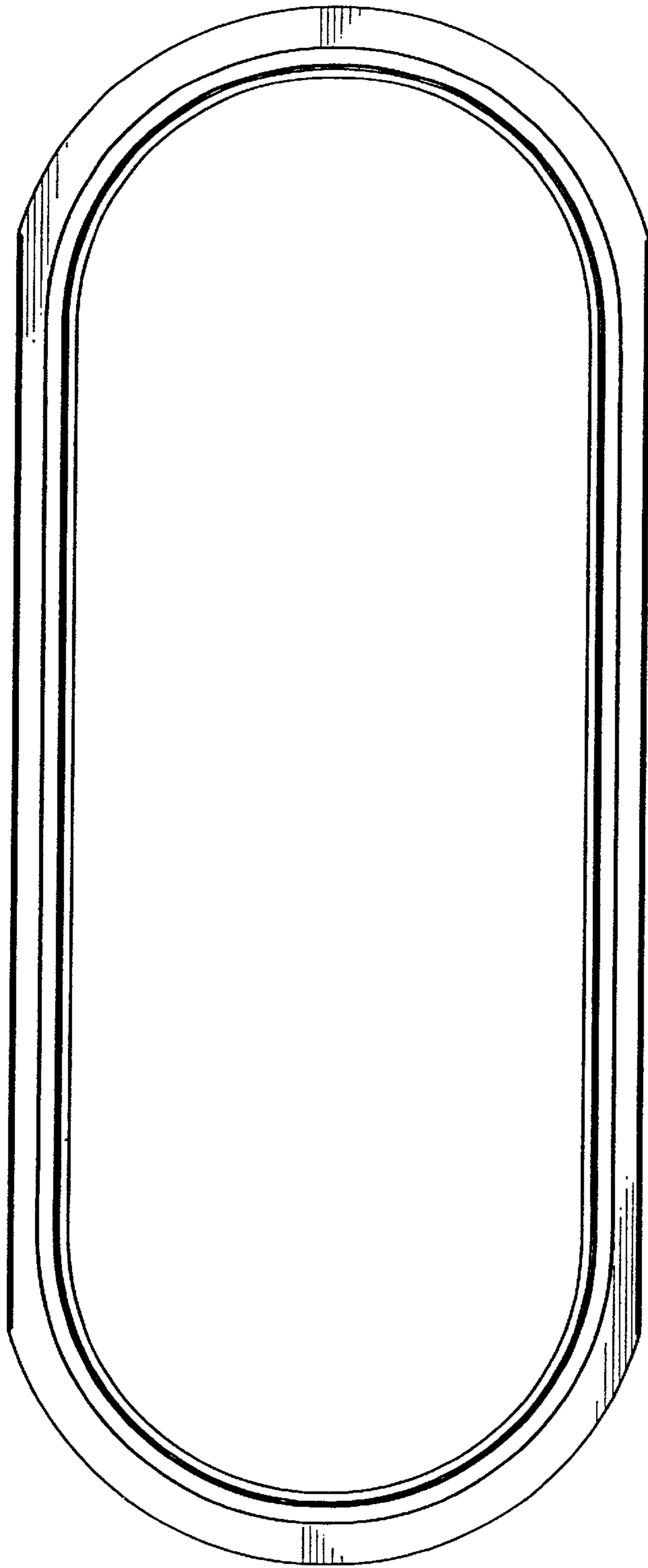


Figure 10

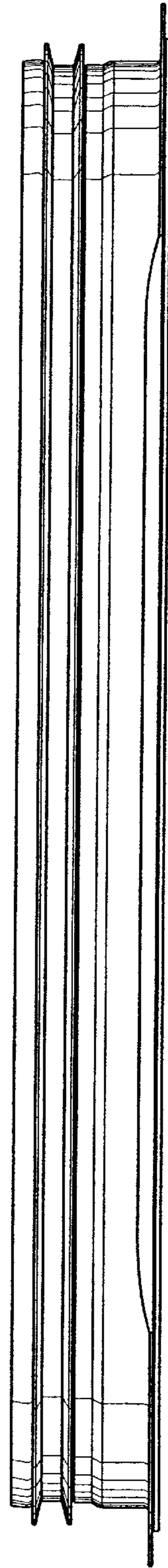


Figure 11



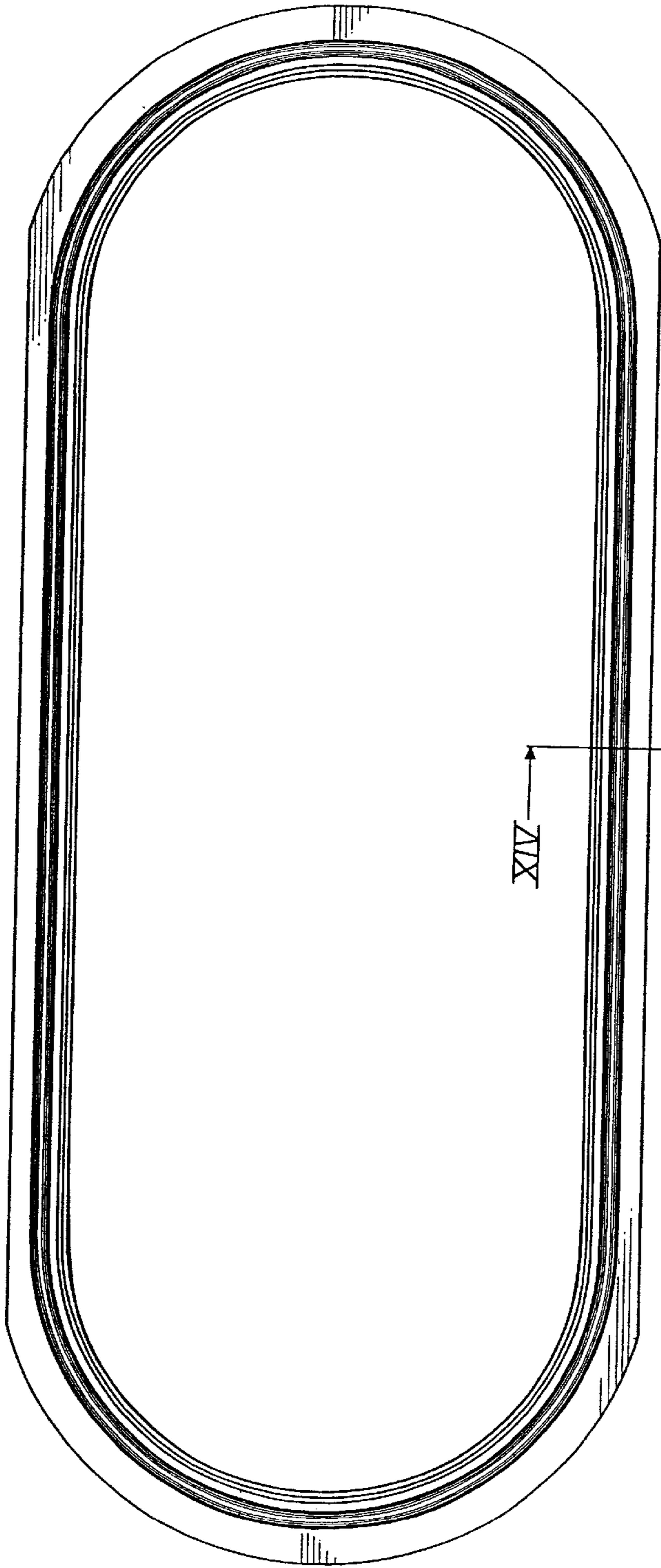


Figure 12

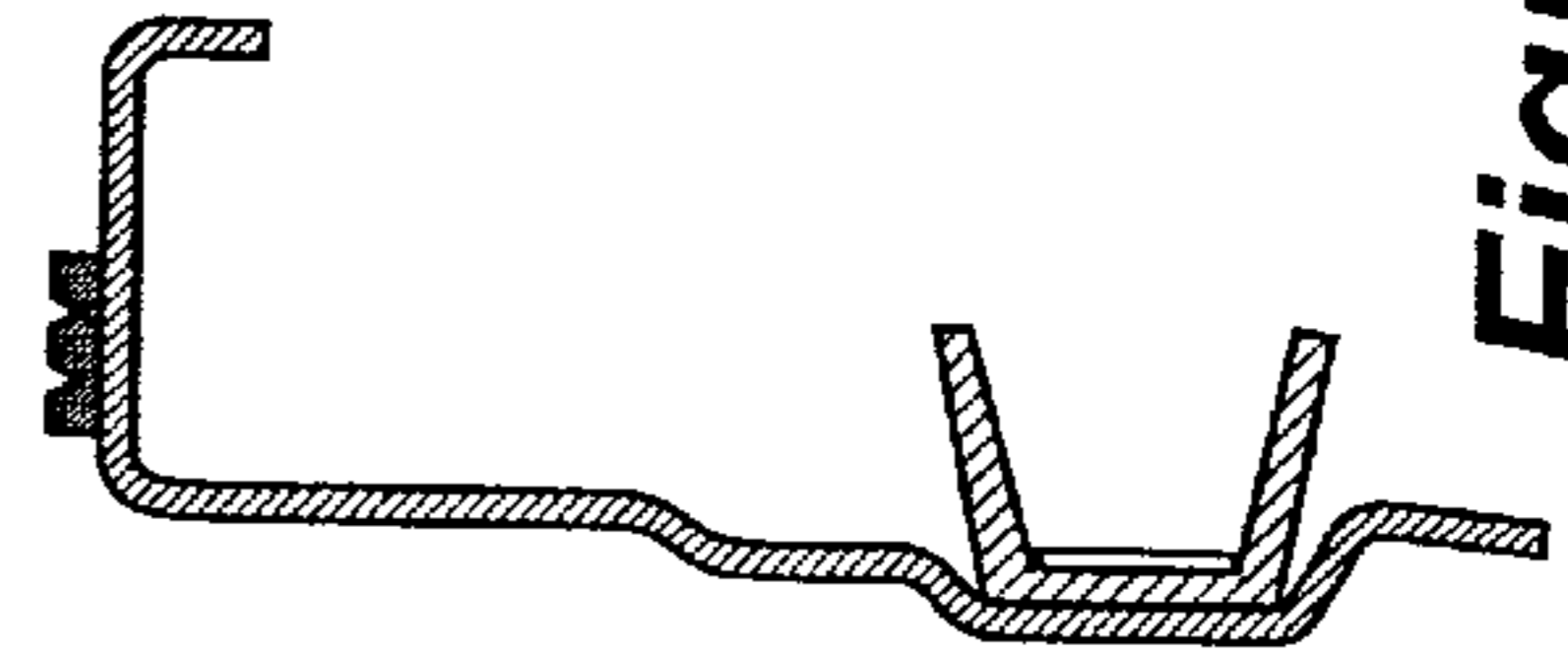


Figure 14

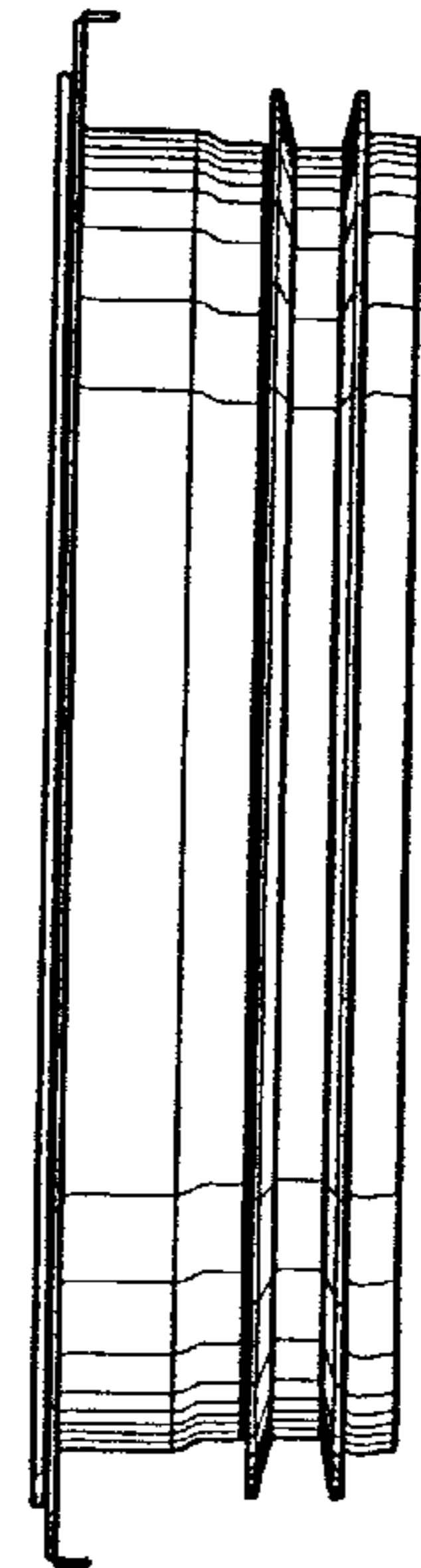


Figure 13