



US00D611123S

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

(10) **Patent No.:** **US D611,123 S**
(45) **Date of Patent:** **** Mar. 2, 2010**

(54) **EXPANSION VALVE**

D589,118 S * 3/2009 Watanabe D23/233

* cited by examiner

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Assistant Examiner—Maurice Stevens

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

(74) *Attorney, Agent, or Firm*—Westerman, Hattori, Daniels & Adrian, LLP

(21) Appl. No.: **29/300,145**

(57) **CLAIM**

(22) Filed: **Feb. 27, 2008**

The ornamental design for an expansion valve, as shown and described.

(30) **Foreign Application Priority Data**

Aug. 28, 2007 (JP) D2007-023232

DESCRIPTION

(51) **LOC (9) Cl.** **23-01**

An expansion valve for refrigeration cycle that is used in an automotive air conditioning system and is designed to rapidly expand high-temperature and high-pressure liquid refrigerant coming from a condenser into low-temperature and low-pressure vapor refrigerant.

(52) **U.S. Cl.** **D23/233**

(58) **Field of Classification Search** D23/233-237,
D23/244-249; 62/222-225, 197; 137/625.48;
251/14, 64; 236/63-64, 66, 92 B; 285/189,
285/208, 211, 368

See application file for complete search history.

FIG. 1 is a front view of an expansion valve for refrigeration cycle.

FIG. 2 is a rear view of the expansion valve.

FIG. 3 is a left side view of the expansion valve.

FIG. 4 is a right side view of the expansion valve.

FIG. 5 is a plan view of the expansion valve.

FIG. 6 is a bottom plan view of the expansion valve; and,

FIG. 7 is a cross-sectional view taken along lines A—A of FIG. 1.

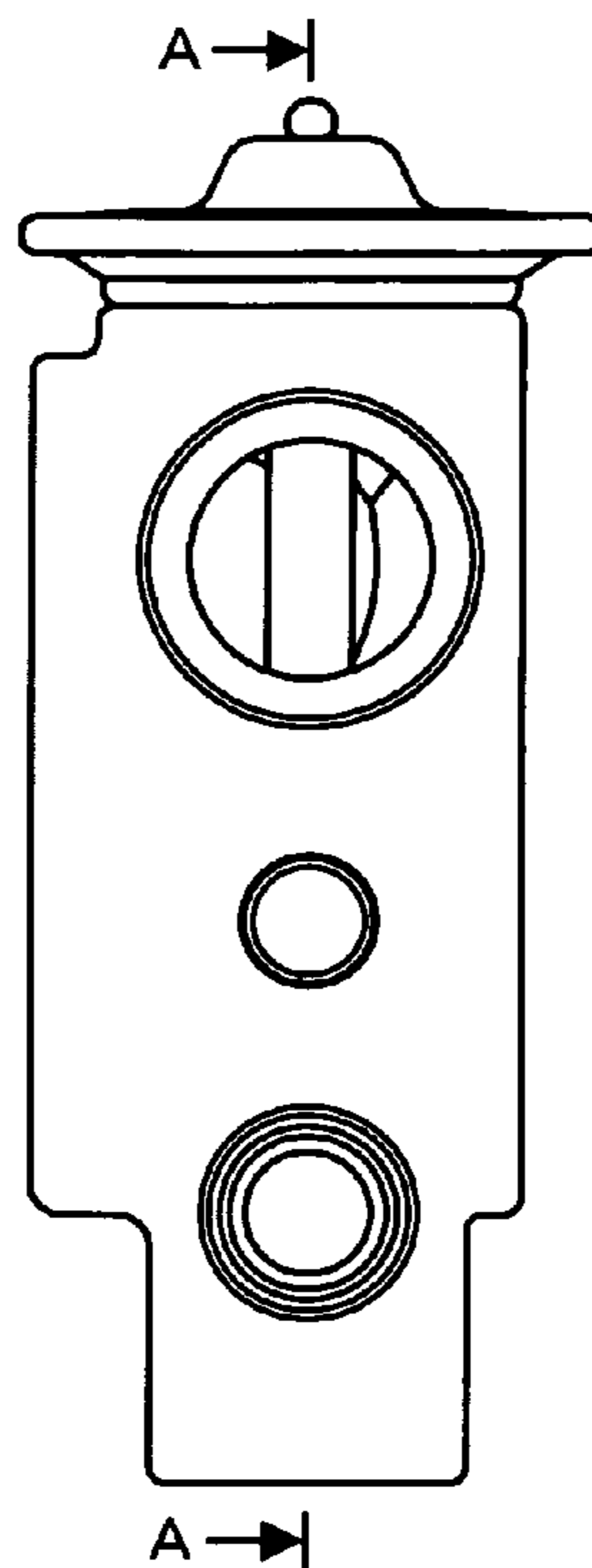
The broken line showing of unclaimed portions of the expansion valve forms no part of the claimed design.

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1 Claim, 7 Drawing Sheets



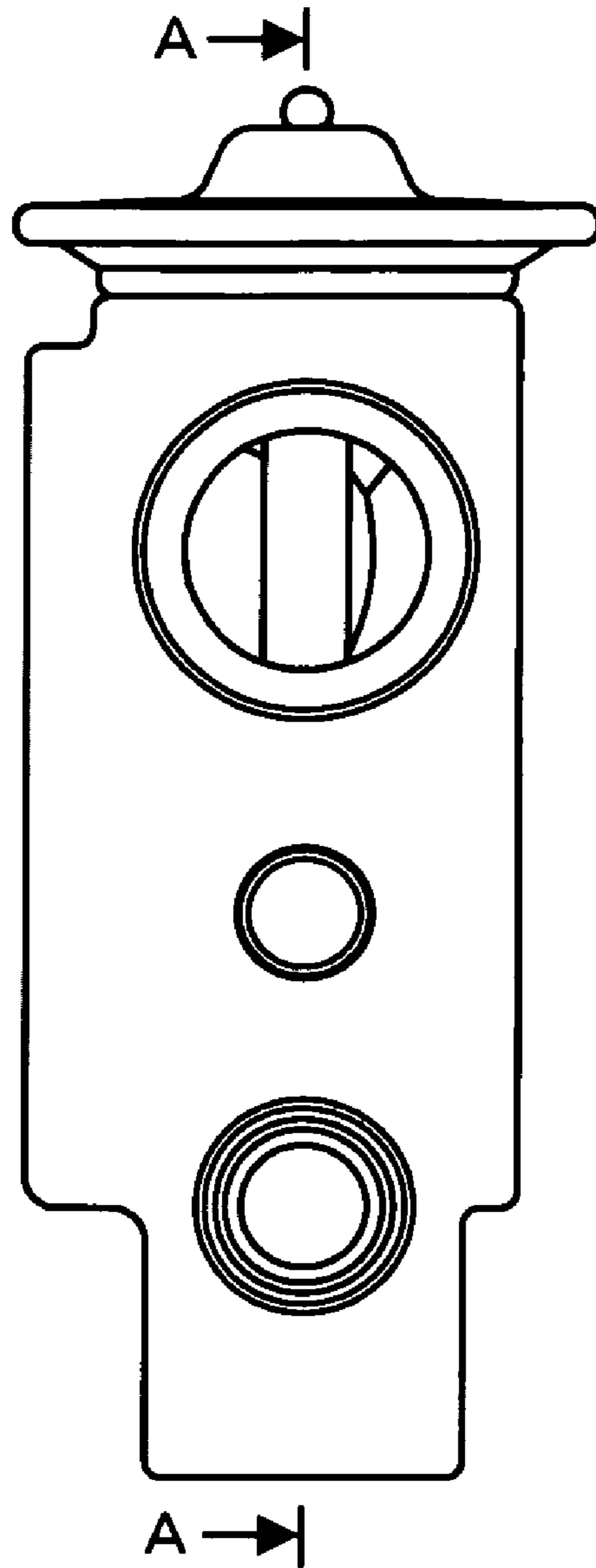


FIG. 1

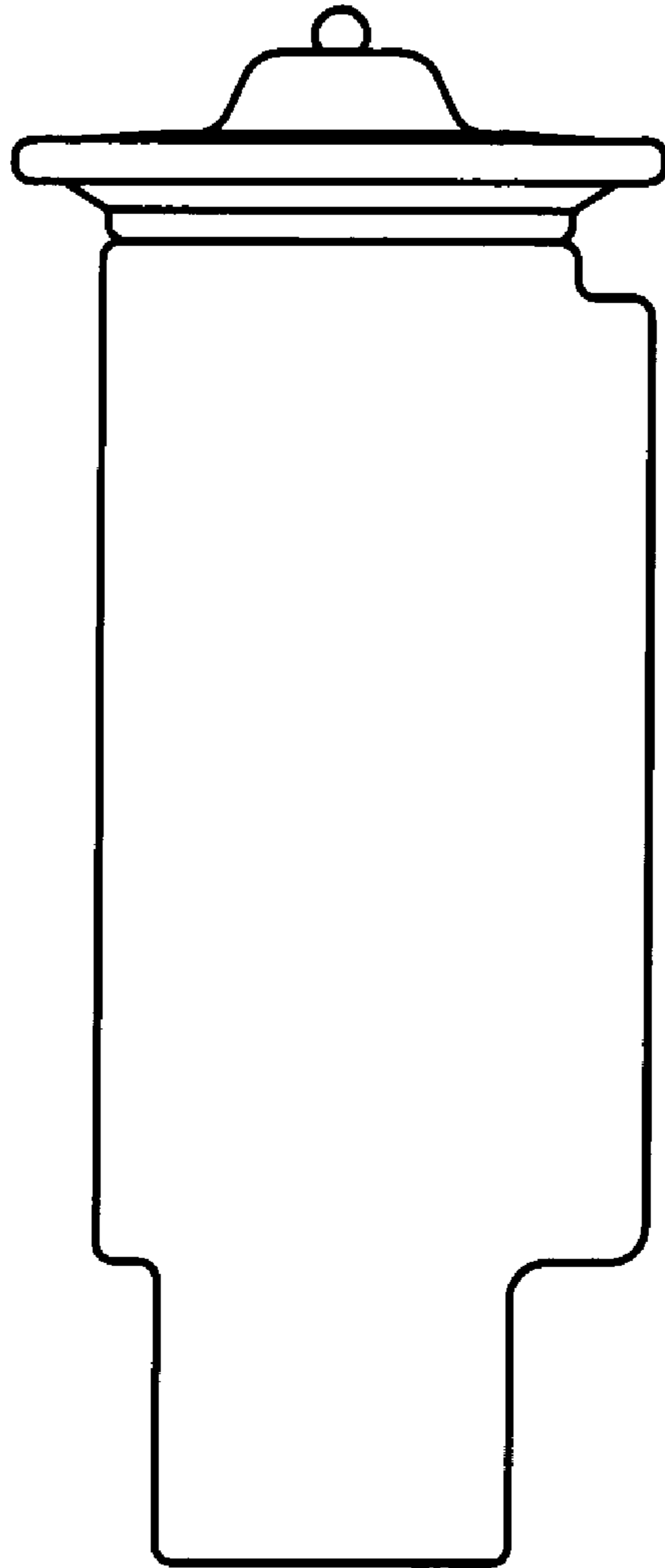


FIG. 2

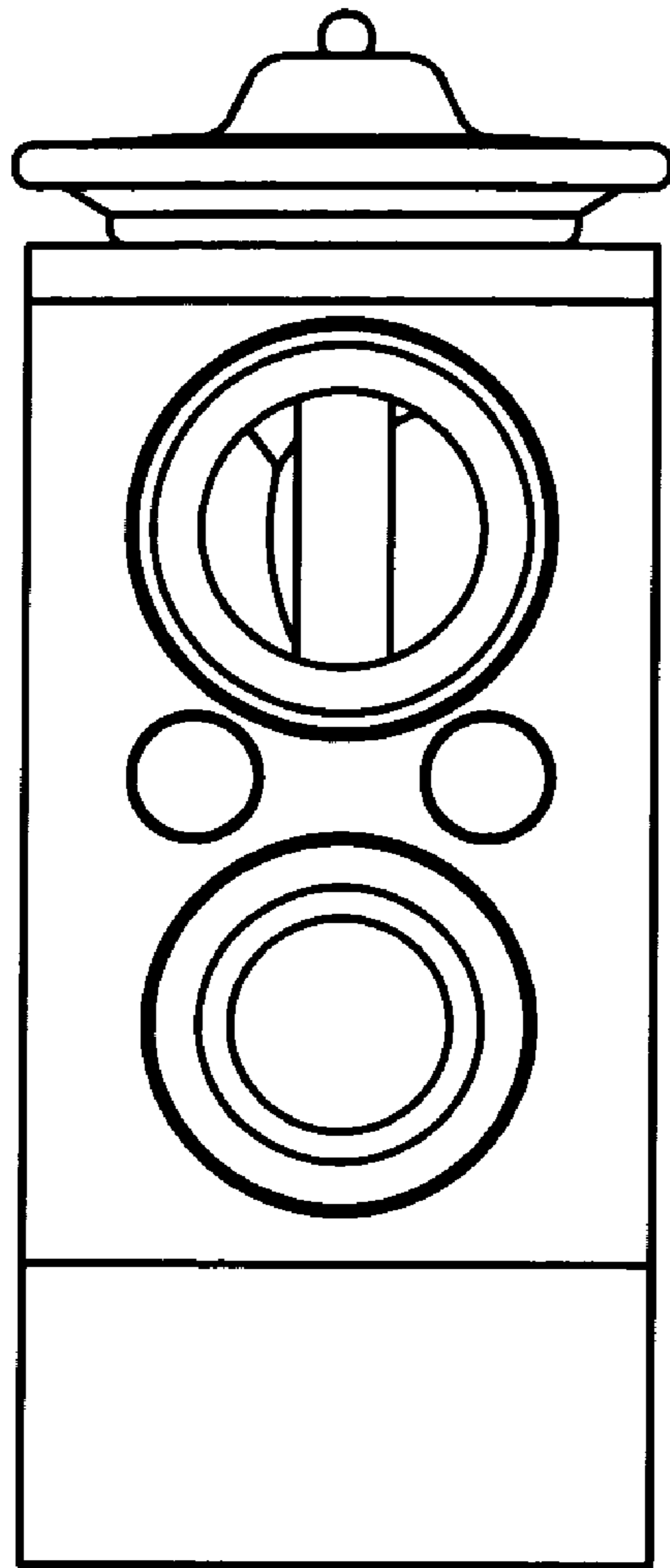


FIG. 3

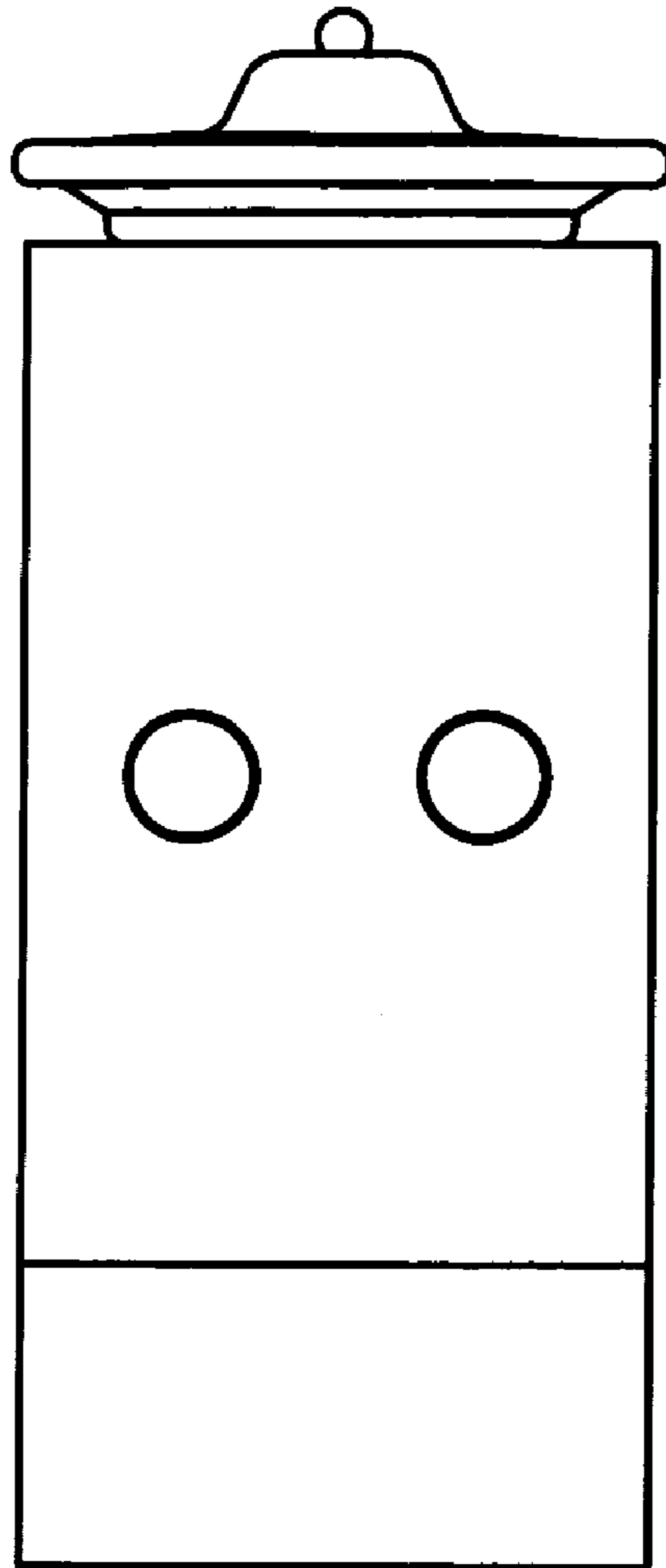


FIG. 4

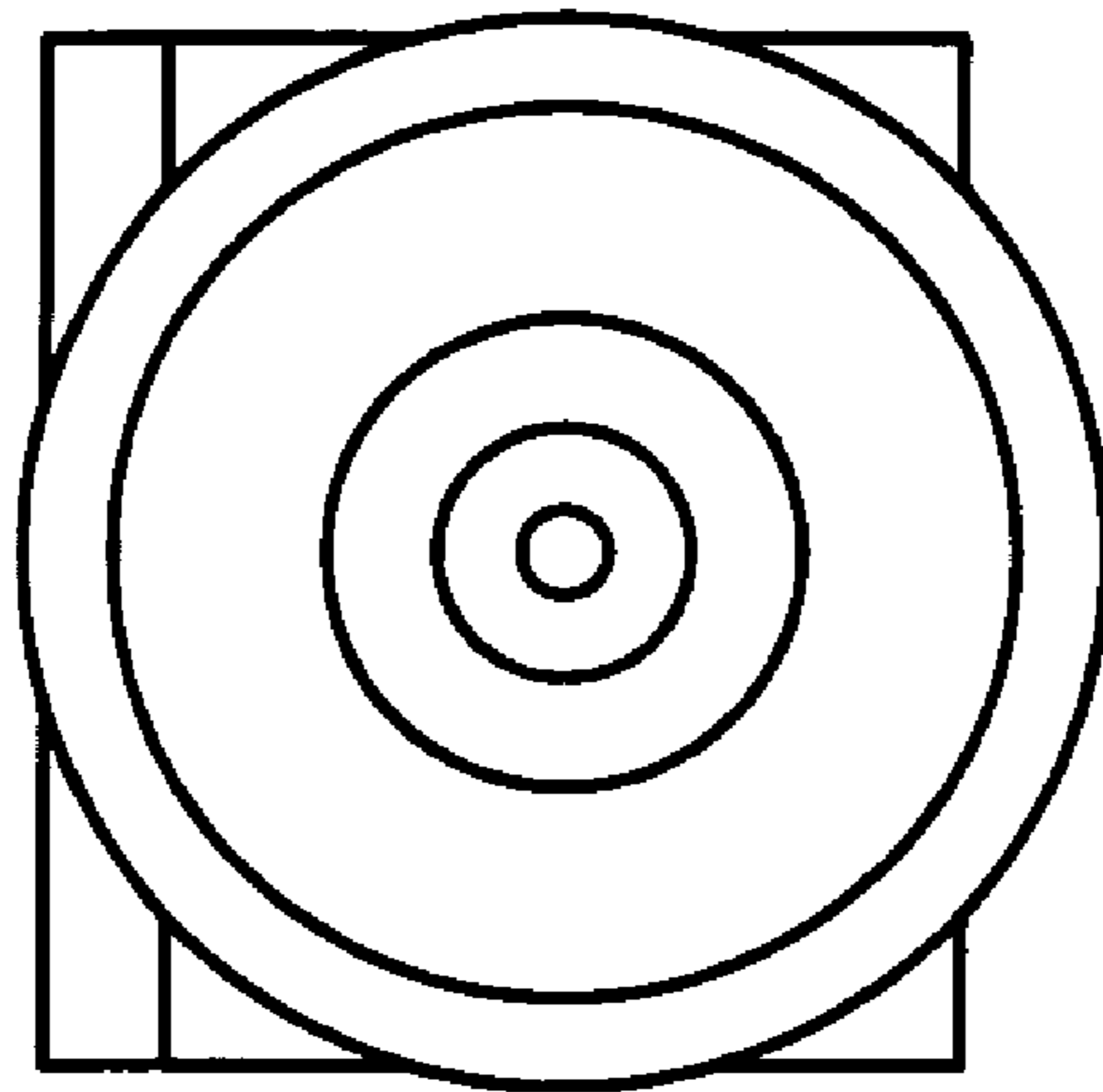


FIG. 5

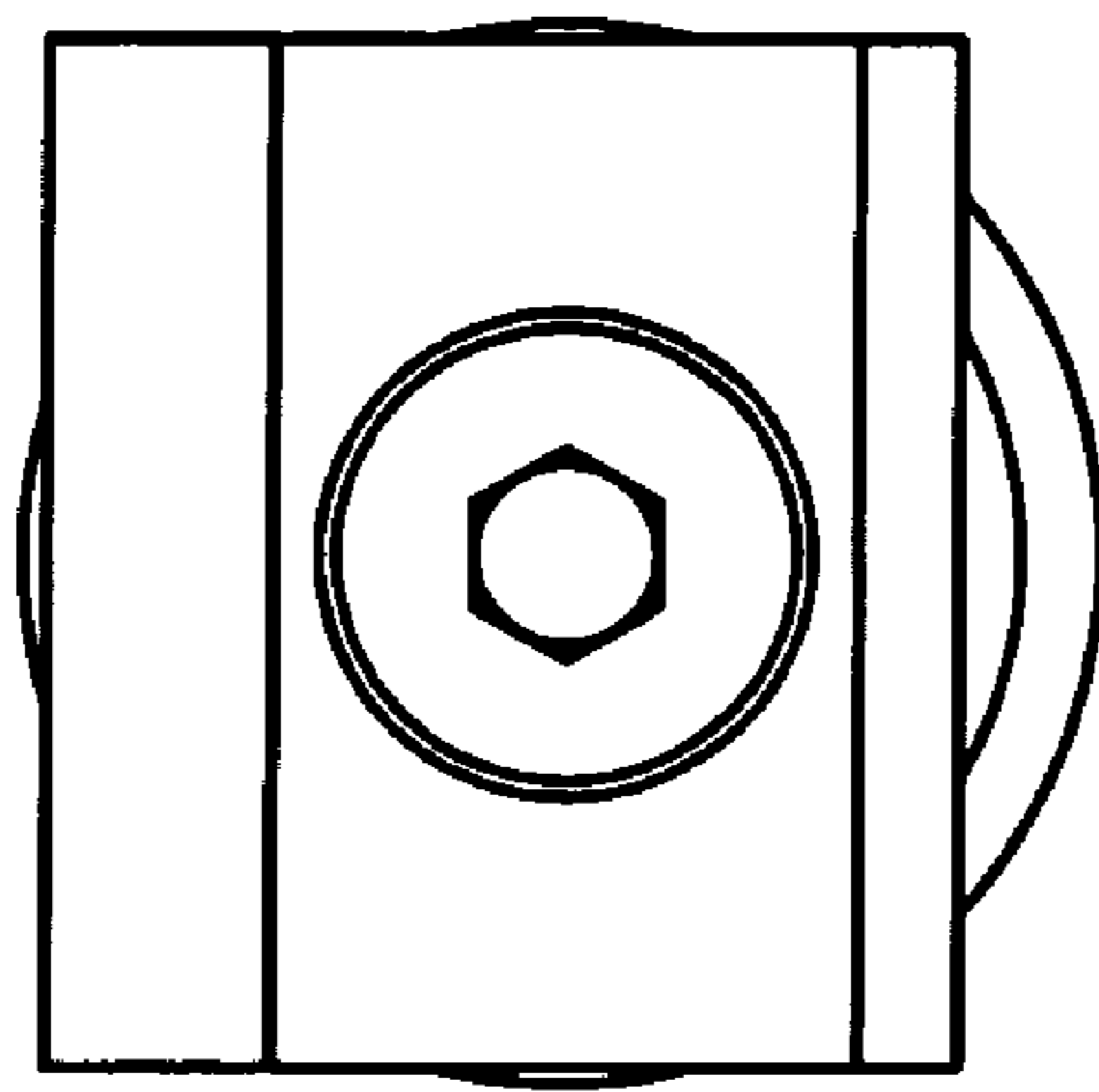


FIG. 6

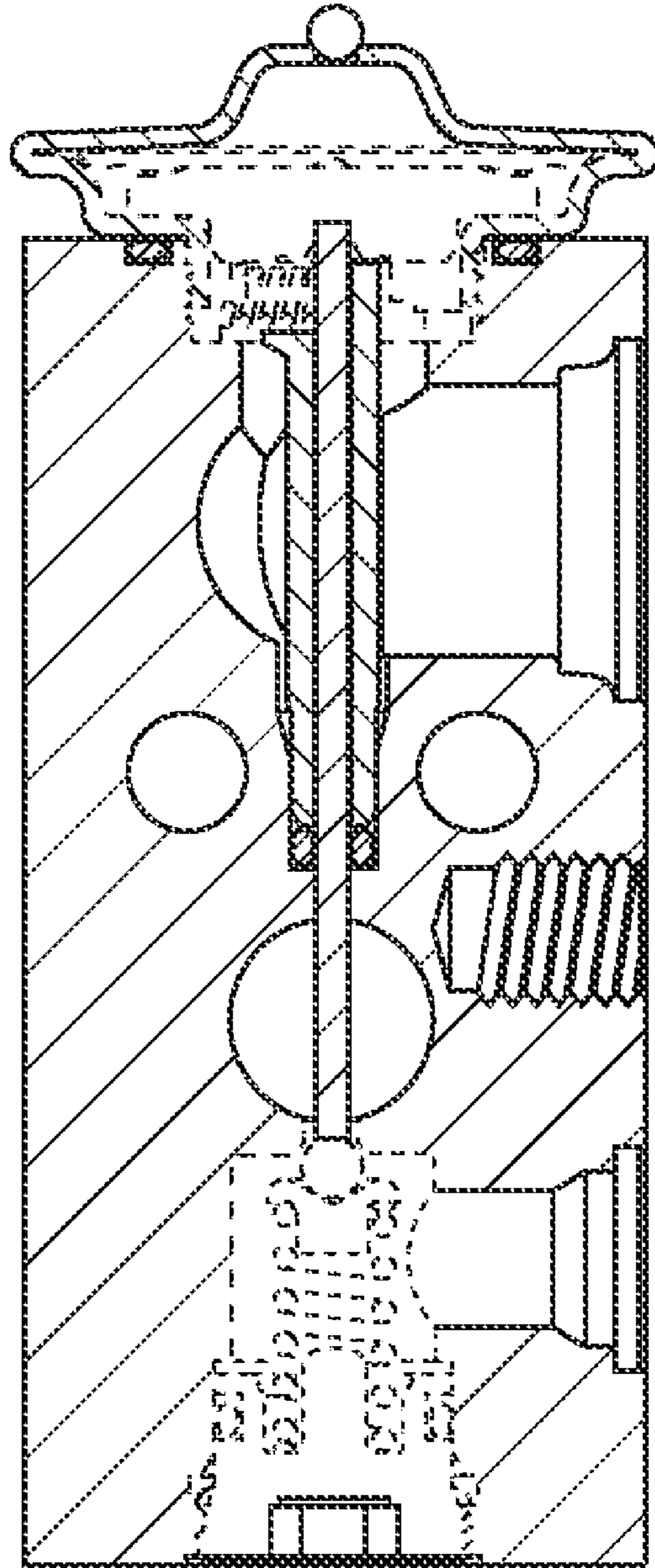


FIG. 7