



US00D798927S

(12) **United States Design Patent** (10) **Patent No.:** **US D798,927 S**
Yamada (45) **Date of Patent:** **** Oct. 3, 2017**

(54) **ROTARY DAMPER**

(71) Applicant: **Kabushiki Kaisha Somic Ishikawa,**
Tokyo (JP)

(72) Inventor: **Daisuke Yamada,** Shizuoka (JP)

(73) Assignee: **Kabushiki Kaisha Somic Ishikawa,**
Tokyo (JP)

(**) Term: **15 Years**

(21) Appl. No.: **29/544,649**

(22) Filed: **Nov. 5, 2015**

(30) **Foreign Application Priority Data**

May 20, 2015 (CN) 2015 3 0152877

(51) **LOC (10) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/148**

(58) **Field of Classification Search**

USPC D15/138, 148, 149
CPC B60G 13/005; B60G 2202/22; B60G
2204/1226; E05F 3/14; E05F 3/20; E05Y
2201/21; E05Y 2201/254; E05Y
2201/256; E05Y 2201/266; F16F 9/14;
F16F 9/20; F16F 9/28; F16F 9/34; F16F
9/145; F16F 9/512; F16F 9/516; Y10T
16/625

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,571,773 A * 2/1986 Yuda E05F 3/00
16/85
4,576,252 A * 3/1986 Omata E05F 3/14
16/82
4,691,811 A * 9/1987 Arakawa F16F 9/12
188/290

4,768,630 A * 9/1988 Aubry F16F 9/145
188/276
4,893,522 A * 1/1990 Arakawa E05F 3/14
16/82
5,211,267 A * 5/1993 Clark F16D 57/00
16/82
5,269,397 A * 12/1993 Kawamoto B29C 65/08
16/82
5,277,282 A * 1/1994 Umemura F16F 7/06
16/85
5,355,979 A * 10/1994 Stephan E05F 3/14
188/290
5,392,884 A * 2/1995 Ojima F16F 9/145
188/290
5,697,122 A * 12/1997 Okabe E05F 3/14
16/82

(Continued)

Primary Examiner — Patricia Palasik

(74) *Attorney, Agent, or Firm* — Cozen O'Connor

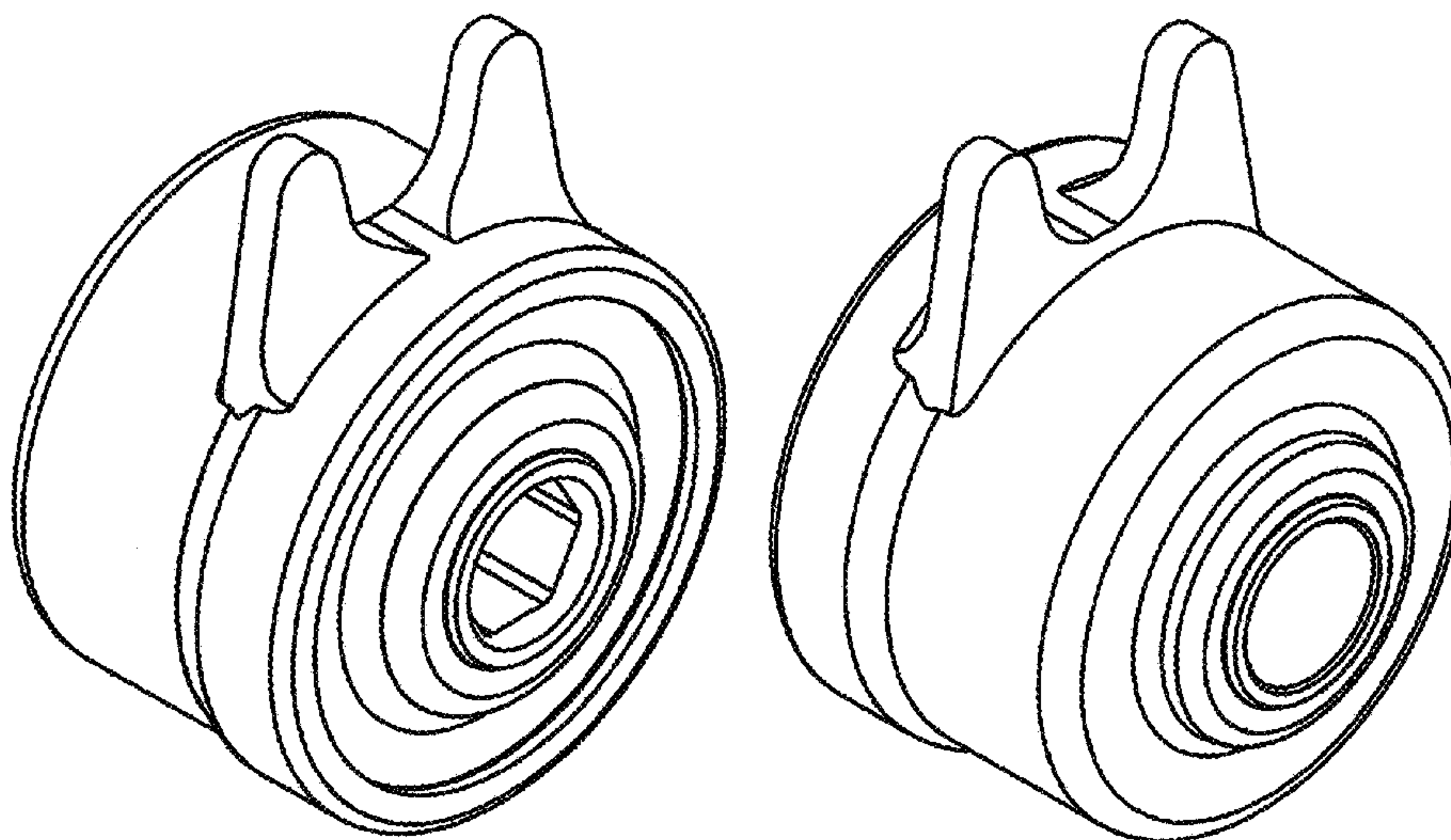
(57) **CLAIM**

I claim the ornamental design for a rotary damper, as shown and described.

DESCRIPTION

FIG. 1 is a front view of a rotary damper showing the new design;
FIG. 2 is a rear view of a rotary damper of FIG. 1;
FIG. 3 is a bottom view of a rotary damper of FIG. 1;
FIG. 4 is a left side view of a rotary damper of FIG. 1;
FIG. 5 is a right side view of a rotary damper of FIG. 1;
FIG. 6 is a plan view of a rotary damper of FIG. 1;
FIG. 7 is a cross-sectional view of a rotary damper taken along 7-7 of FIG. 1;
FIG. 8 is a cross-sectional view of a rotary damper taken along 8-8 of FIG. 1.
FIG. 9 is a perspective view 1 of a rotary damper of FIG. 1; and,
FIG. 10 is a perspective view 2 of a rotary damper of FIG. 1.

1 Claim, 10 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

6,121,526 A *

9/2000

Kobori

.....

F16F 9/145

188/291

6,604,614 B2 *

8/2003

Kurihara

.....

B60N 3/023

188/290

D486,833 S *

2/2004

Koizumi

.....

D14/483

6,725,984 B2 *

4/2004

Orita

.....

E05F 5/10

188/290

D539,296 S *

3/2007

Hayashi

.....

D14/483

7,204,353 B2 *

4/2007

Kanno

.....

F16F 9/20

188/290

D584,315 S *

1/2009

Yamaguchi

.....

D14/483

7,938,238 B2 *

5/2011

Koizumi

.....

F16F 9/12

188/290

D670,301 S *

11/2012

Suzuki

.....

D14/483

9,163,692 B2 *

10/2015

Kojima

.....

F16F 9/145

2005/0006189 A1 *

1/2005

Kanno

.....

F16F 9/20

188/290

2005/0115784 A1 *

6/2005

Muller

.....

F16F 9/12

188/290

2005/0252740 A1 *

11/2005

Fukukawa

.....

F16F 9/145

188/290

2006/0011428 A1 *

1/2006

Hayashi

.....

F16F 9/12

188/290

2014/0035310 A1 *

2/2014

Ozaki

.....

E05F 5/025

296/50

* cited by examiner

FIG. 1

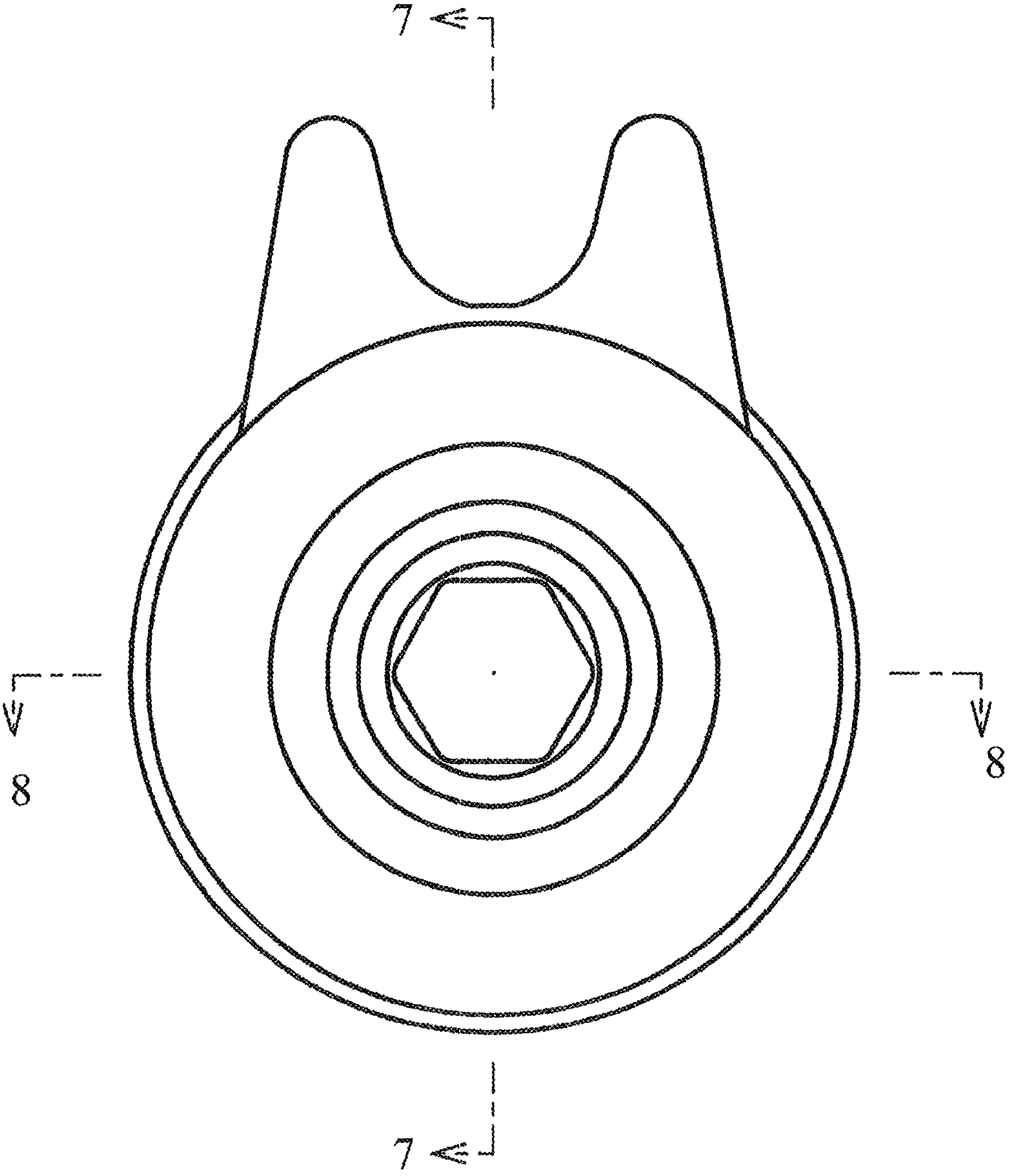


FIG. 2

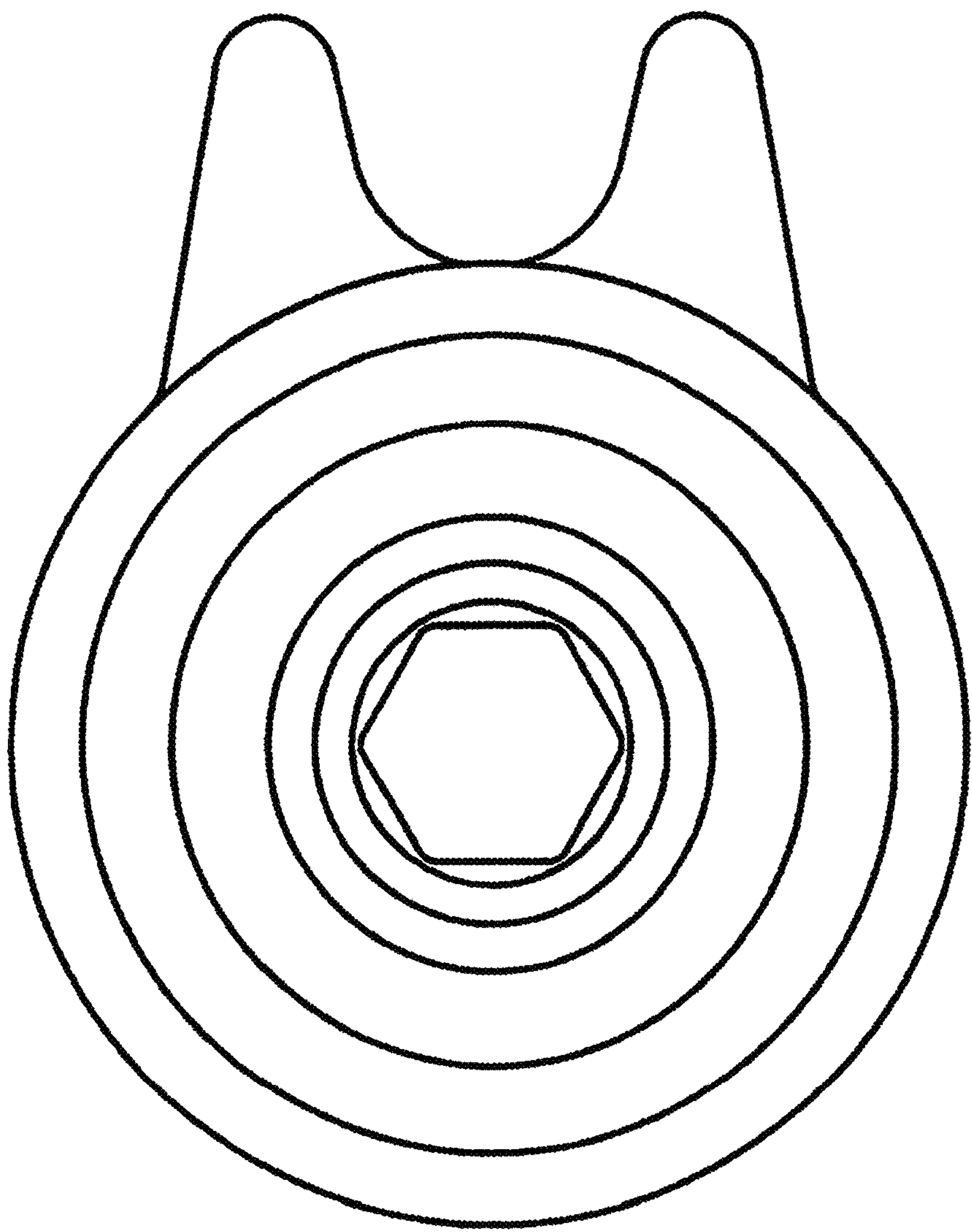


FIG. 3

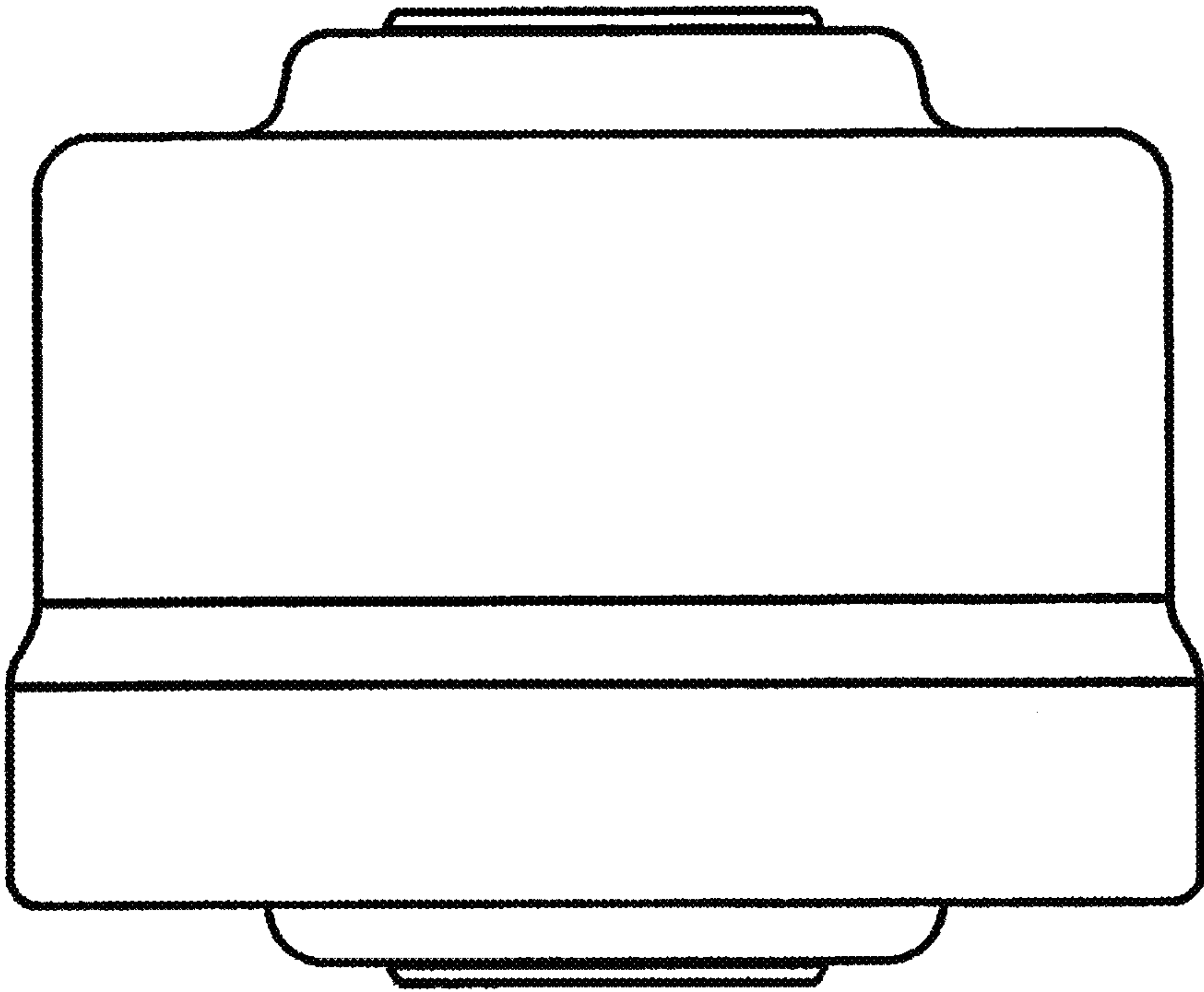


FIG. 4

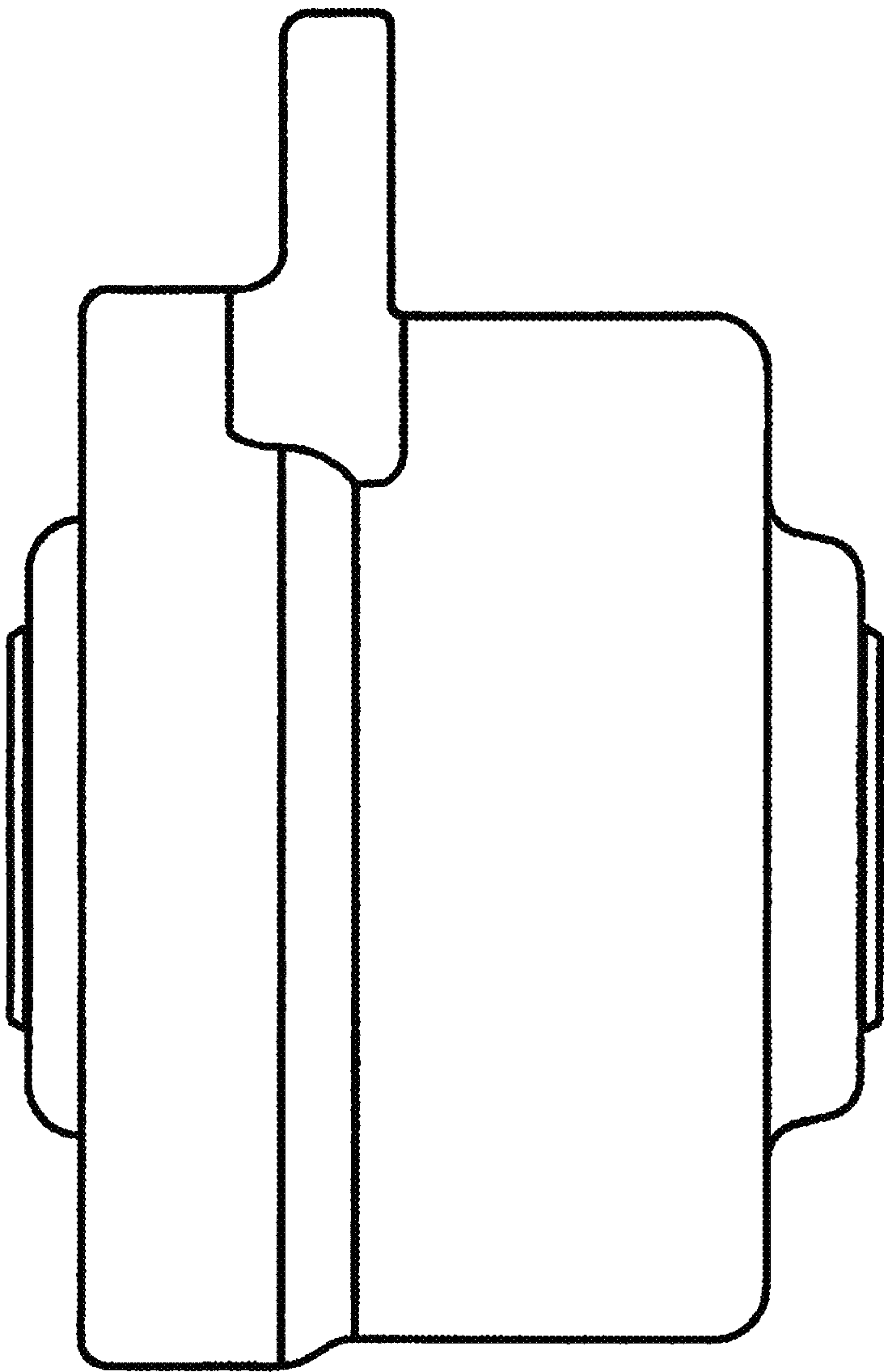


FIG. 5

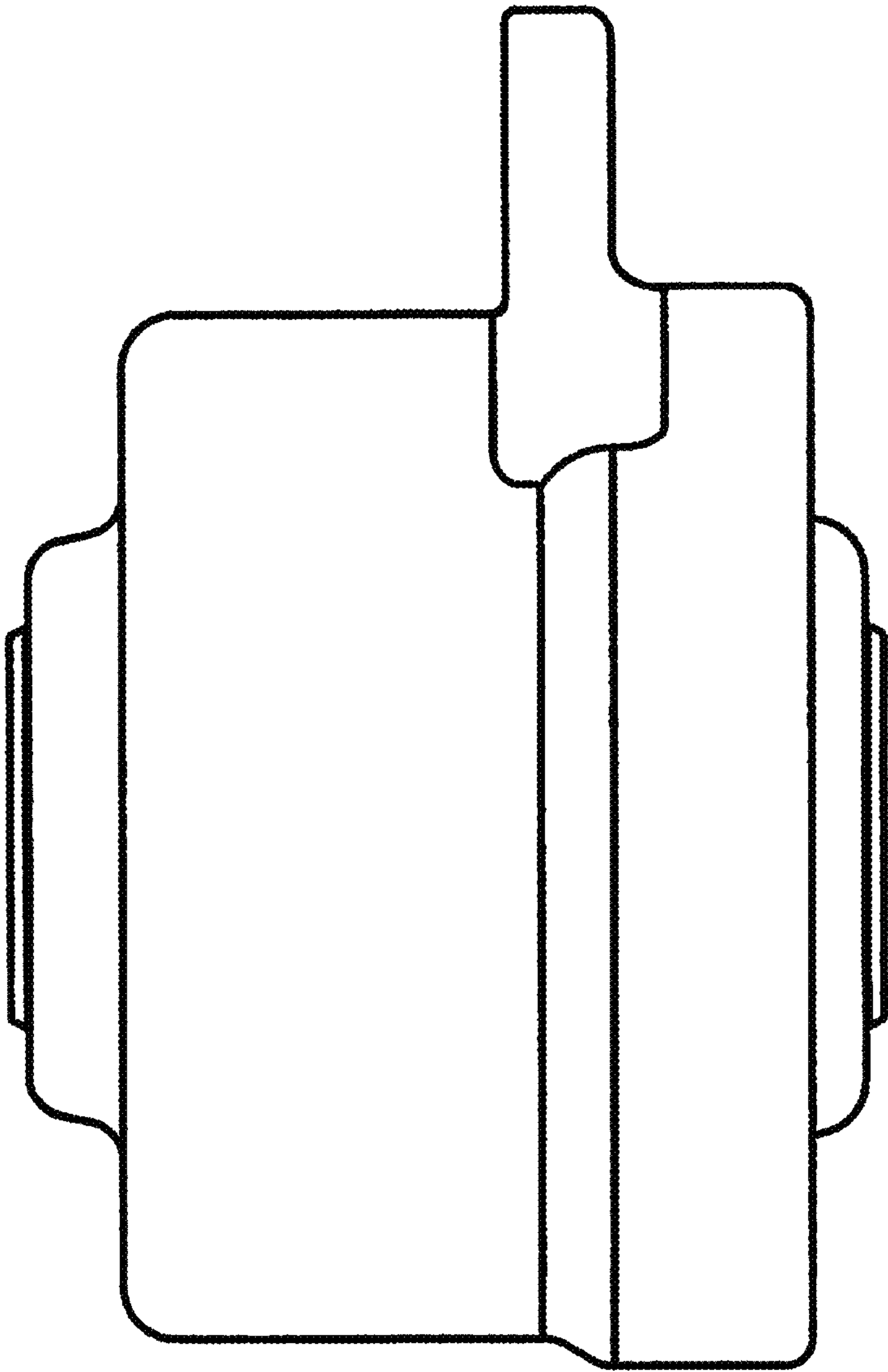


FIG. 6

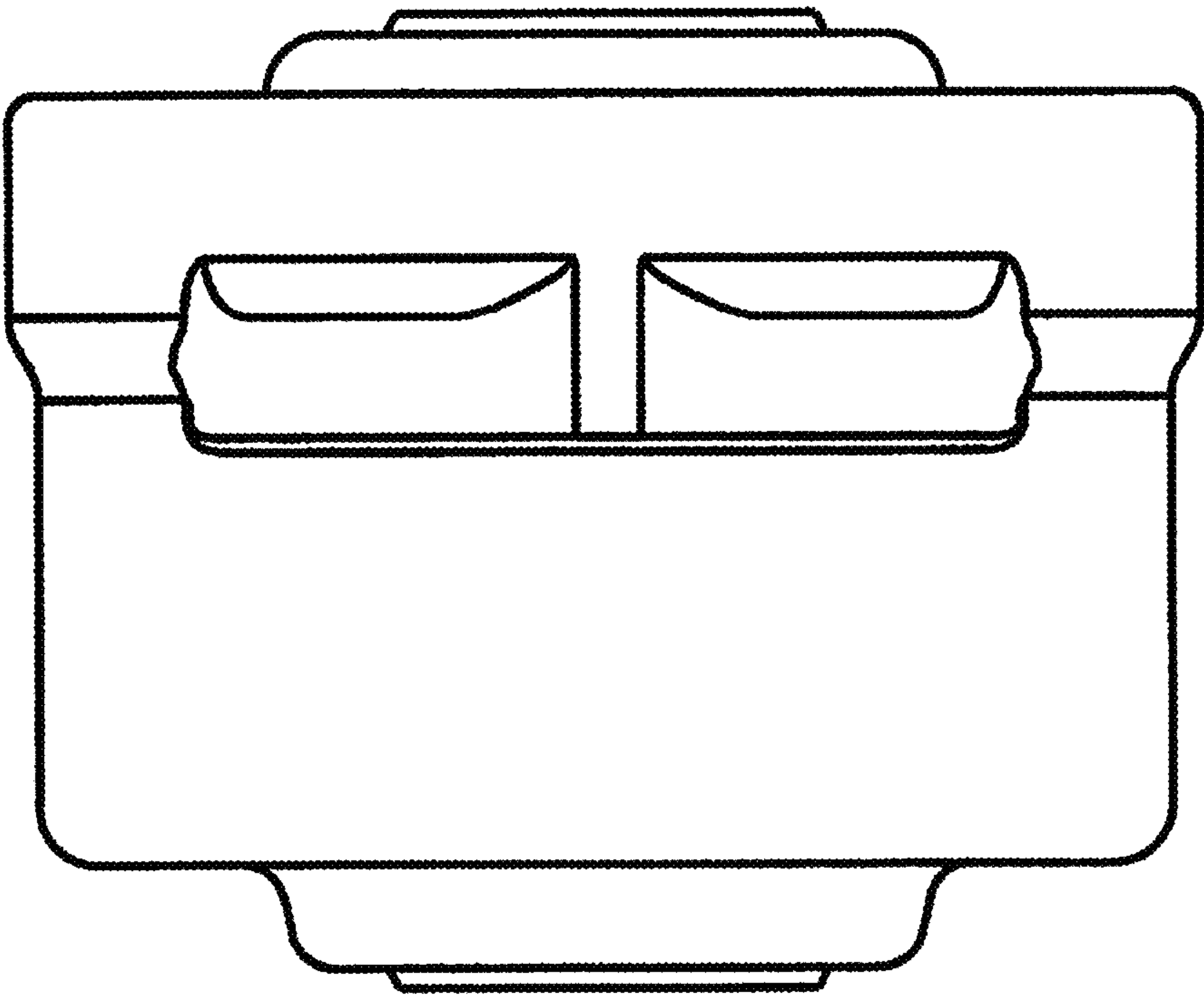


FIG. 7

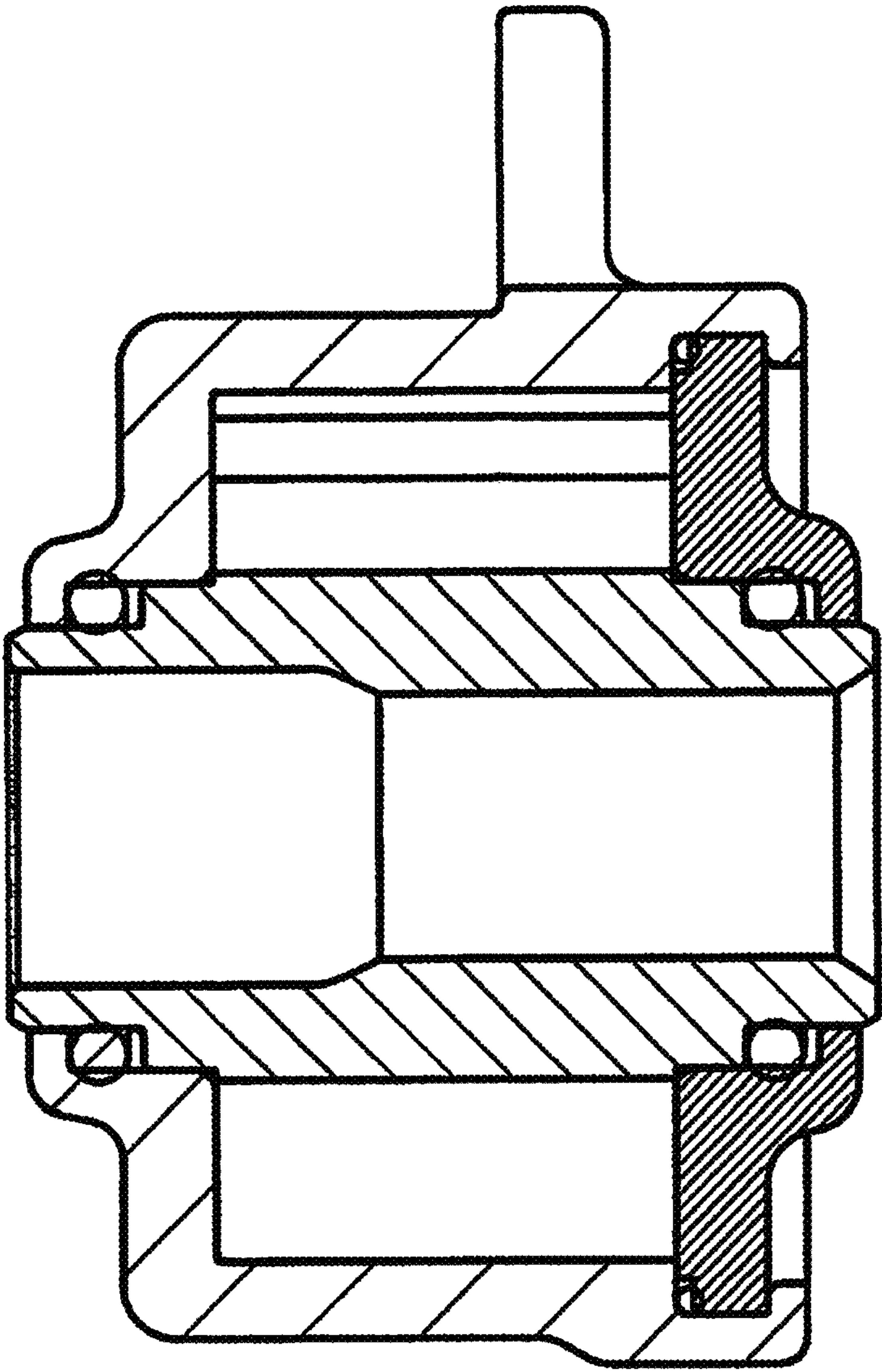


FIG. 8

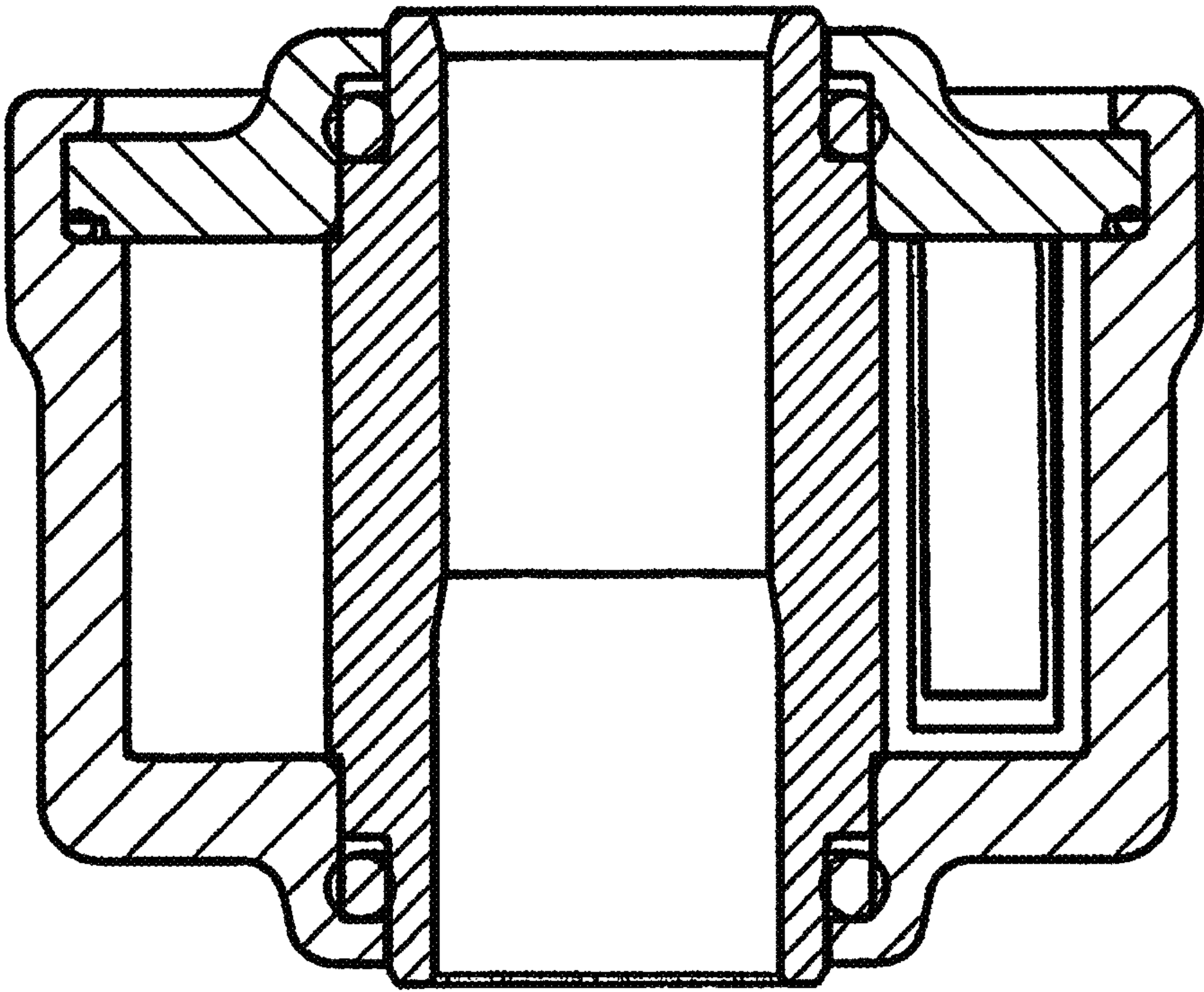


FIG. 9

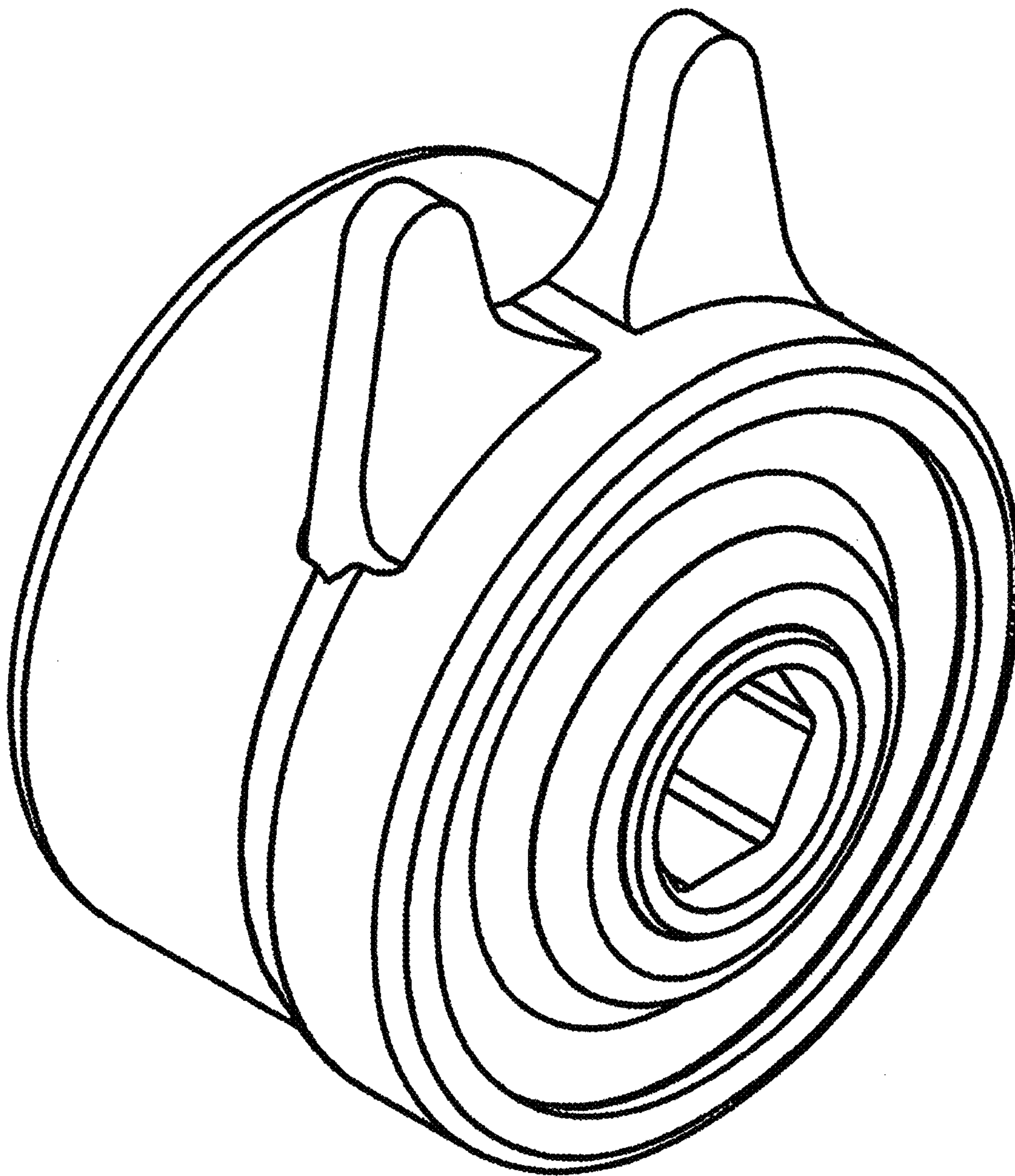


FIG. 10

