



US00D886155S

(12) **United States Design Patent** (10) **Patent No.:** **US D886,155 S**
Menotti et al. (45) **Date of Patent:** **** Jun. 2, 2020**

(54) **PISTON FOR AN INTERNAL COMBUSTION ENGINE**

(71) Applicant: **MAHLE International GmbH**,
Stuttgart (DE)

(72) Inventors: **Fabio Menotti**, Canton, MI (US); **Ioan Stefan**, Farmington Hills, MI (US);
Dieter Gabriel, Highland, MI (US);
Ralph Klein, Plymouth, MI (US); **Luiz Perrone**, Ann Arbor, MI (US); **Michael Lapp**, Farmington Hills, MI (US);
Joachim Wagenblast, Bloomfield Hills, MI (US)

(73) Assignee: **MAHLE International GmbH**,
Stuttgart (DE)

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

(21) Appl. No.: **29/549,122**

(22) Filed: **Dec. 18, 2015**

(51) **LOC (12) Cl.** **15-01**

(52) **U.S. Cl.**
USPC **D15/5**

(58) **Field of Classification Search**
USPC D15/1-5, 7
CPC F02F 3/00; F02F 2003/0007; F02F 3/225;
F16J 1/00

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,883,637 A * 10/1932 Edwards F16J 1/08
92/160
1,961,886 A * 6/1934 Larger F16J 1/02
92/237
2,046,789 A * 7/1936 Norton F02F 3/025
92/233

D286,780 S * 11/1986 Collyear D15/5
D287,599 S * 1/1987 Murray D15/5
D377,493 S * 1/1997 Oda 123/193.6
5,730,090 A 3/1998 Kling et al.
D399,212 S * 10/1998 Roderweiss D15/5
6,701,875 B2 3/2004 Weng et al.
6,722,263 B2 4/2004 Keller et al.
7,051,684 B2 5/2006 Bauer
7,748,361 B2 7/2010 Linz et al.
D713,422 S * 9/2014 Muscas D15/5
D737,861 S 9/2015 He et al.
D768,207 S * 10/2016 Riffe D15/5
2007/0039460 A1 2/2007 Scharp
2011/0185992 A1 8/2011 Gniesmer

(Continued)

FOREIGN PATENT DOCUMENTS

EP 1 063 409 A2 12/2000
EP 1 231 374 A2 8/2002
WO 97/48896 A1 12/1997

Primary Examiner — Ania Aman

(74) Attorney, Agent, or Firm — Collard & Roe, P.C.

(57) **CLAIM**

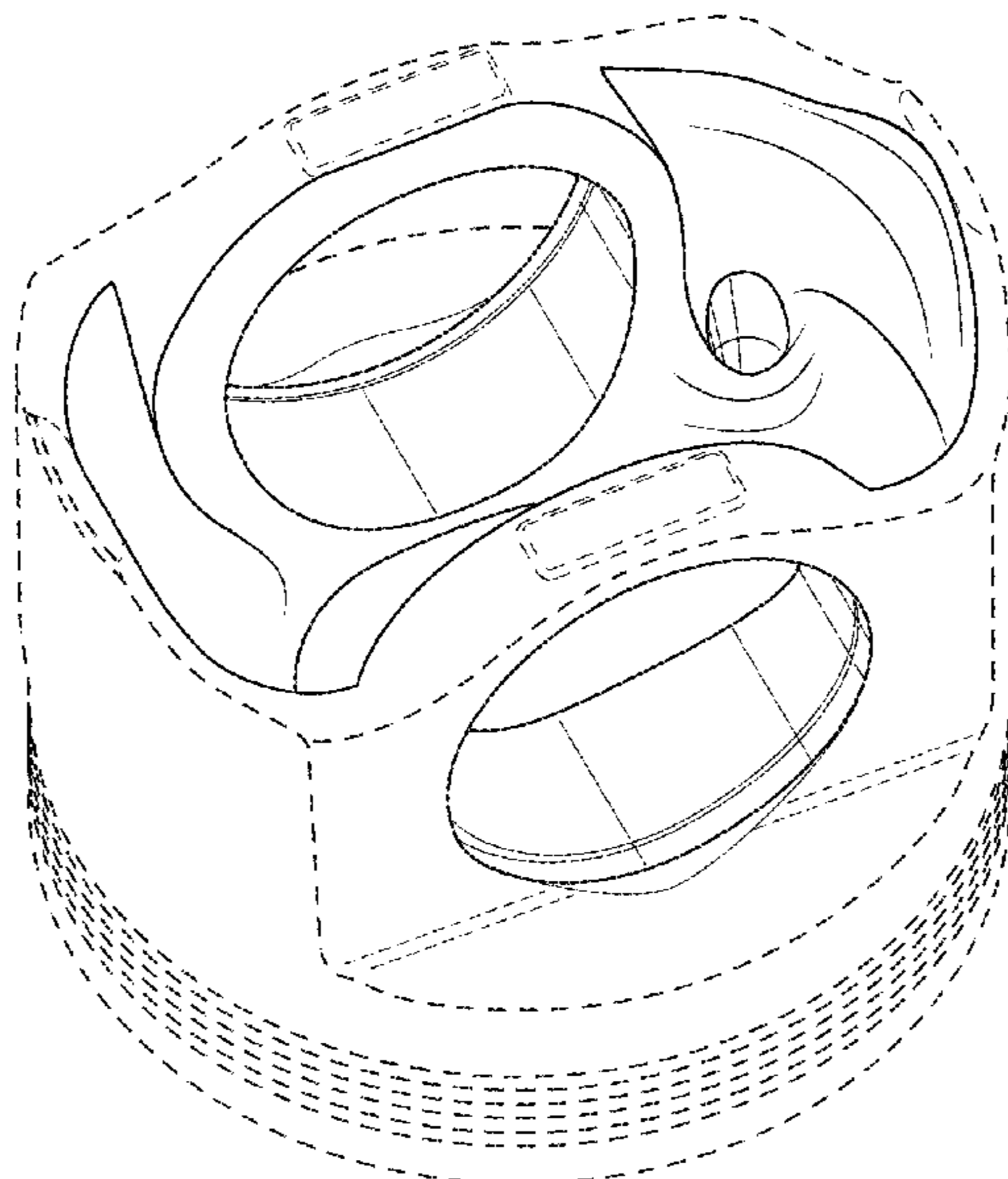
The ornamental design for a piston for an internal combustion engine, as shown and described.

DESCRIPTION

FIG. 1 shows a first side and bottom perspective view of a piston for an internal combustion engine, showing our new design, with the view rotated 180 degrees being identical; FIG. 2 shows a second side and bottom perspective view thereof, rotated 45 degrees from FIG. 1, with the view rotated 180 degrees being identical; FIG. 3 shows a bottom view thereof; and, FIG. 4 shows a cross-sectional view thereof, along lines IV-IV of FIG. 3.

The areas shown in broken lines depict environmental structure only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2014/0130767 A1 5/2014 Leidl
2015/0128892 A1* 5/2015 Bischofberger F02F 3/18
123/193.6
2016/0169153 A1* 6/2016 Burger F02F 3/00
123/193.6
2016/0281635 A1* 9/2016 Weinenger B33Y 10/00
2017/0051703 A1* 2/2017 Lormes F02F 3/22
2017/0175671 A1* 6/2017 Menotti F02F 3/003
2017/0241371 A1* 8/2017 Schneider C23C 4/11
2017/0268457 A1* 9/2017 Azevedo F02B 23/0603
2018/0266557 A1* 9/2018 Braig F02F 3/02

* cited by examiner

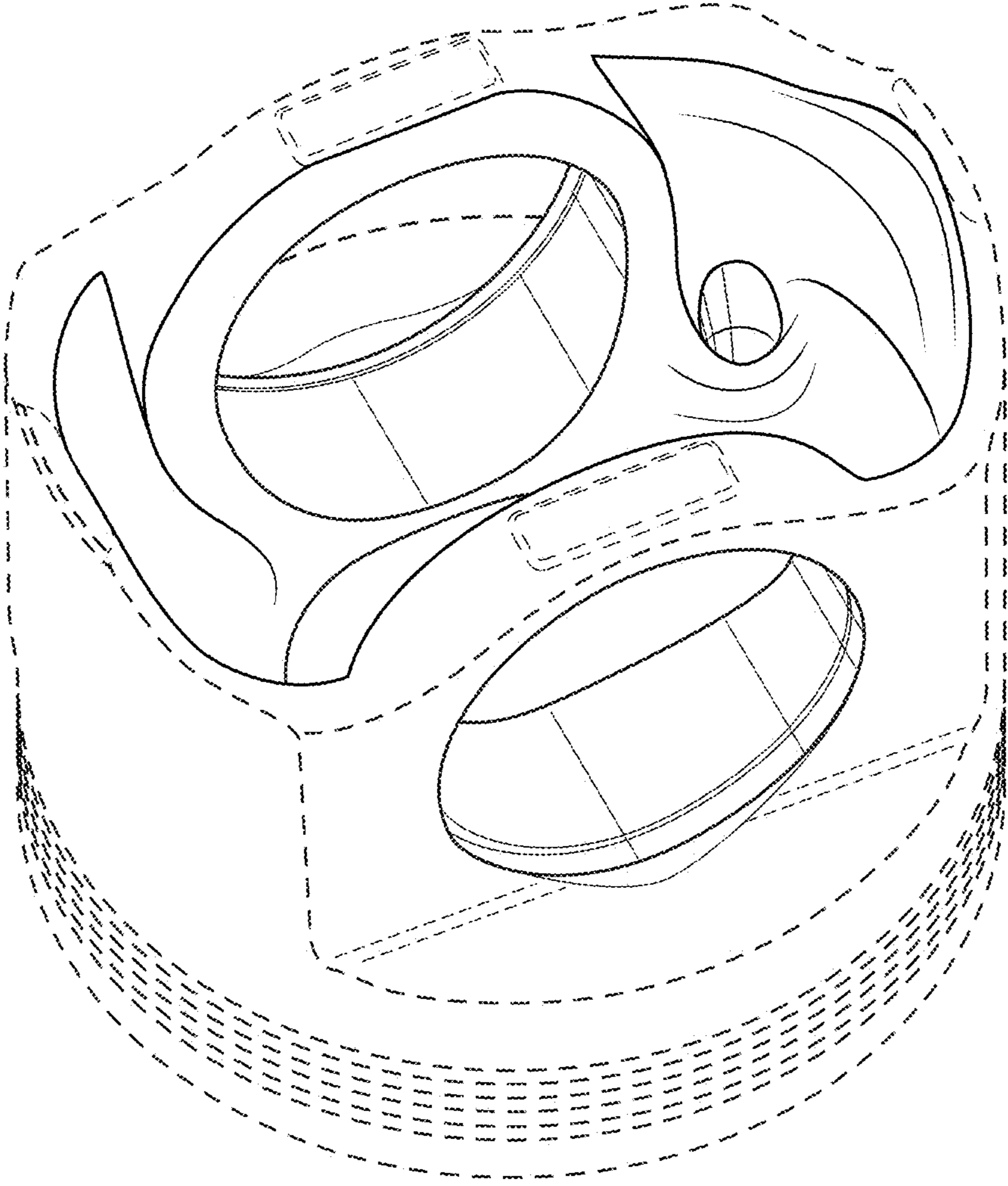


FIG. 1

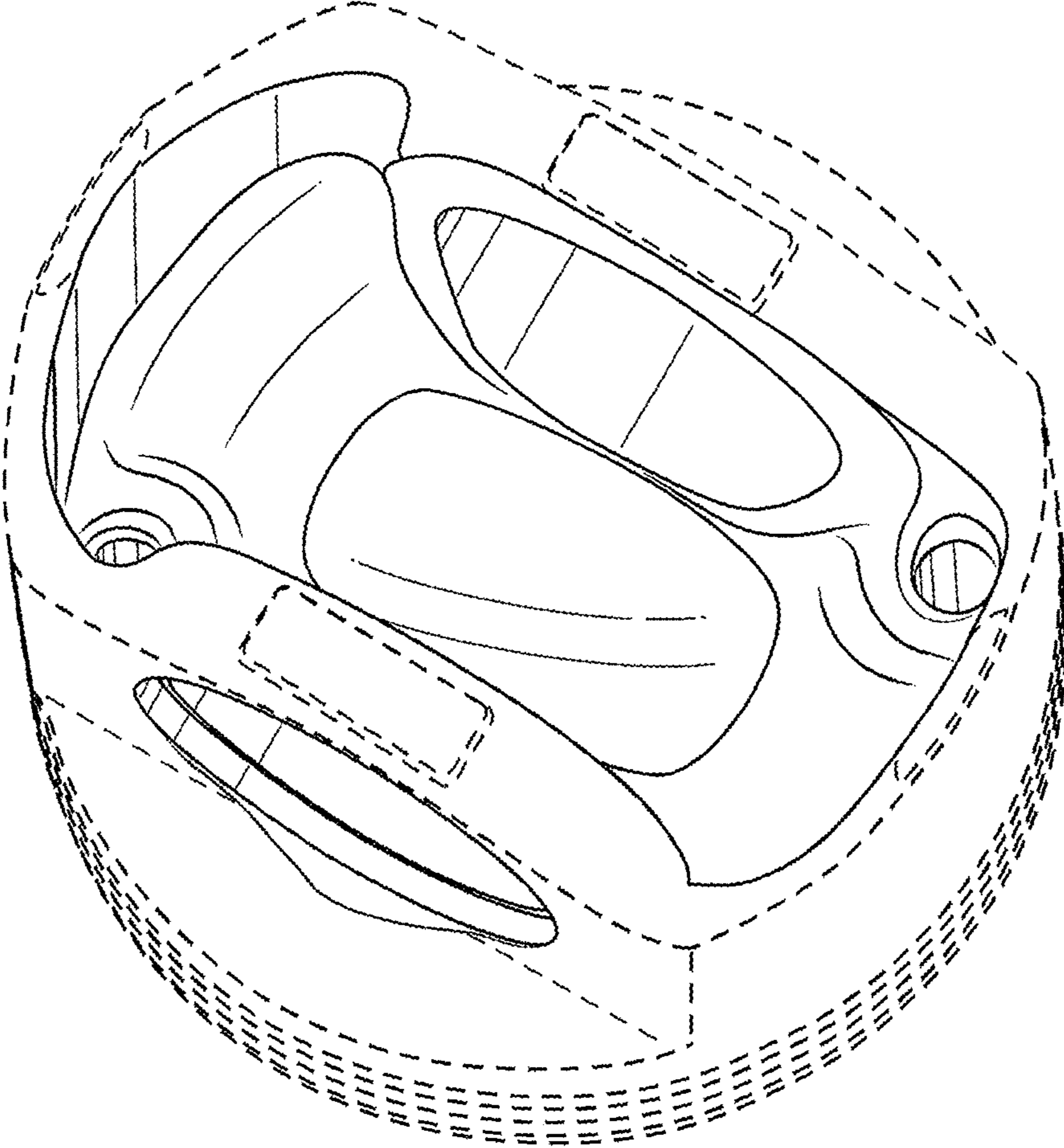


FIG. 2

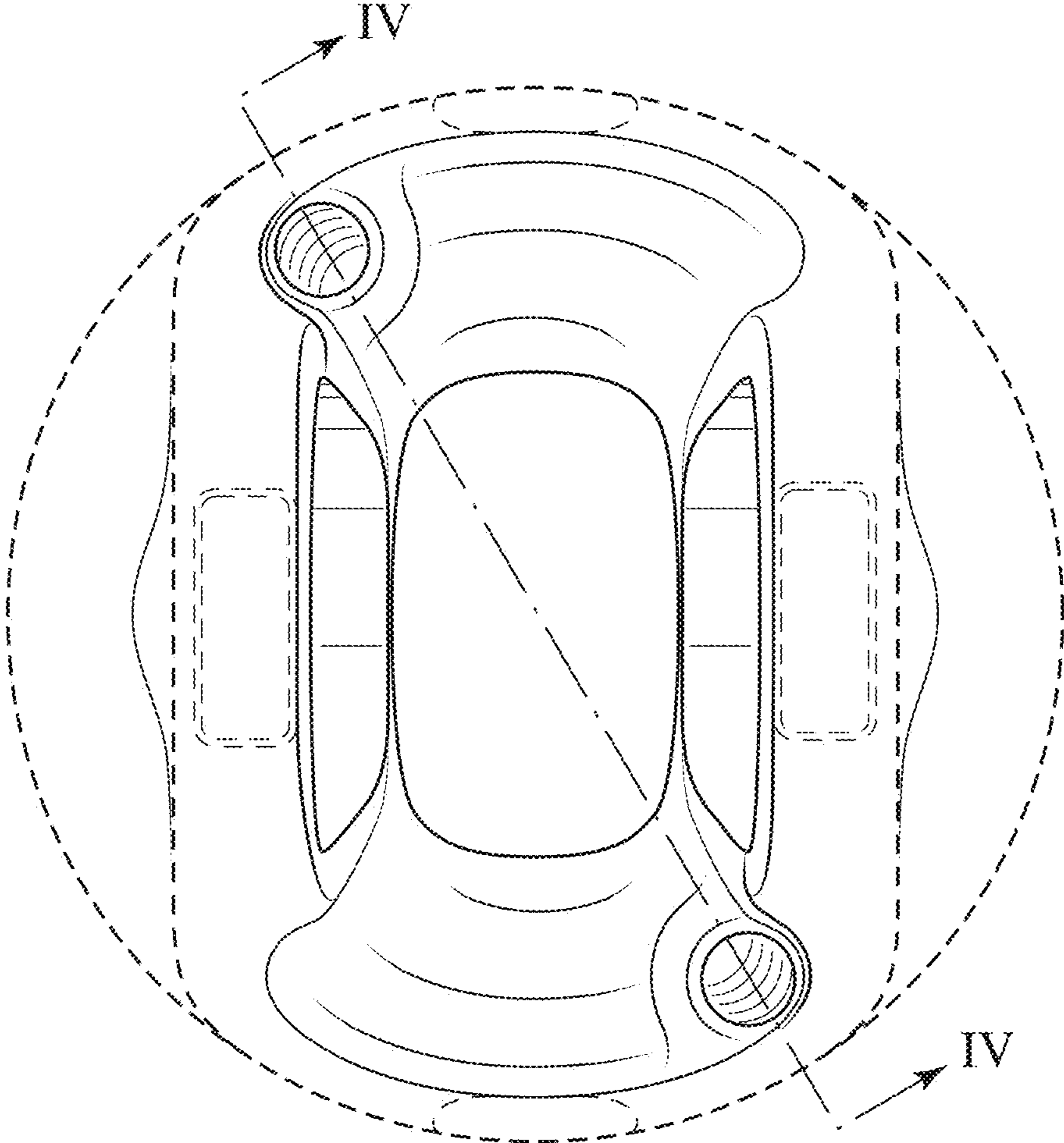


FIG. 3

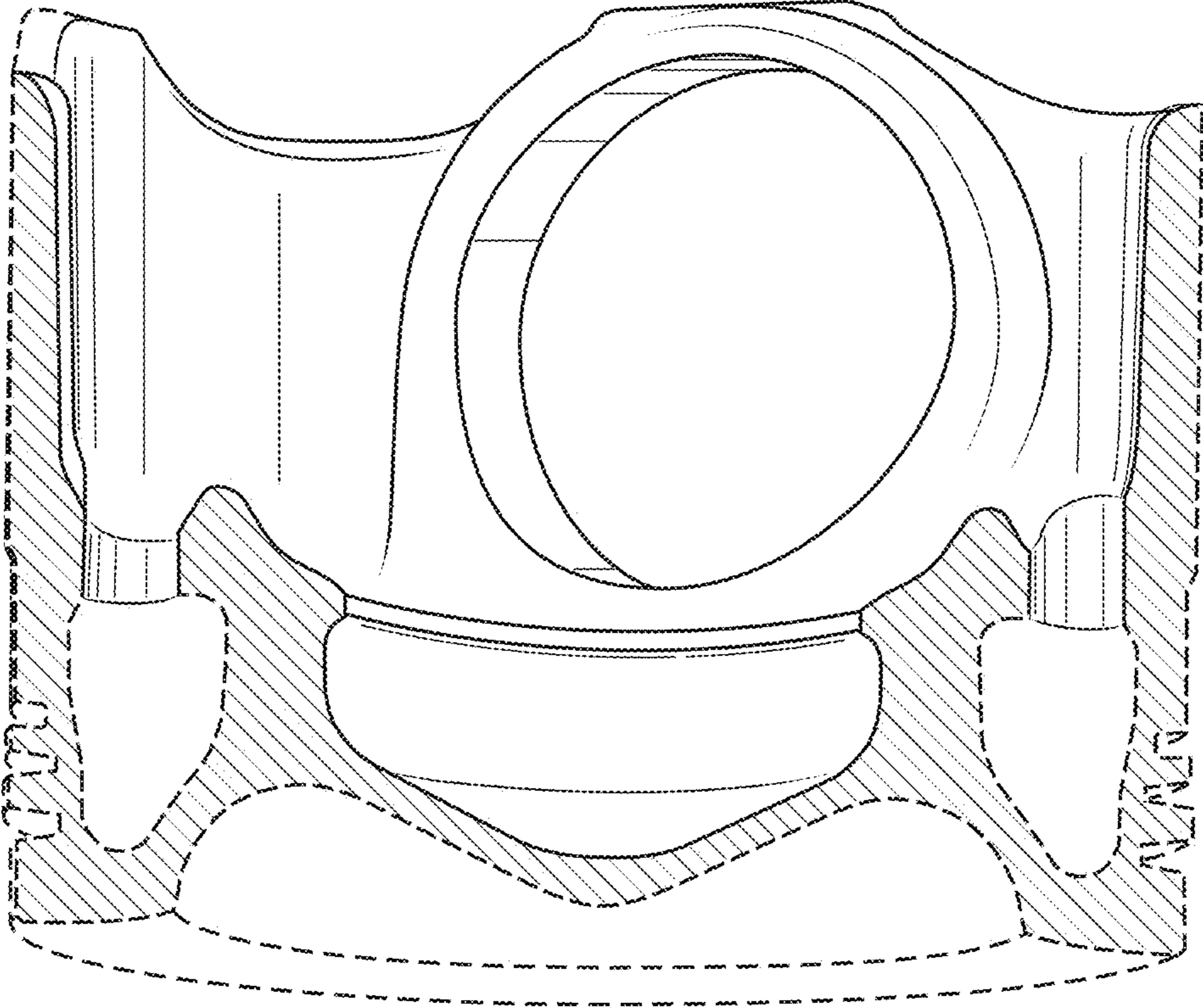


FIG. 4