



US00D970992S

(12) **United States Design Patent** (10) **Patent No.:** **US D970,992 S**
Su (45) **Date of Patent:** **** Nov. 29, 2022**

(54) **PORTABLE RATCHET HAND TOOL**

FOREIGN PATENT DOCUMENTS

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Taichung (TW)

CN 301911768 S 5/2012
CN 302131702 S 10/2012

(Continued)

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OTHER PUBLICATIONS

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

“Gearwrench ¼ Inch Drive Gimbal Ratchet, 72 Tooth-81027”;
Amazon.com; Jul. 28, 2017; Accessed Jun. 2, 2022; URL:<https://
www.amazon.com/GearWrench-81027-Drive-Gimbal-Ratchet/dp/
B00EYTBVWO/ref=asc_df_B00EYTBVWO?th=1> (Year: 2017).*

(Continued)

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(22) Filed: **Oct. 23, 2020**

(51) **LOC (13) Cl.** **08-05**

(52) **U.S. Cl.**
USPC **D8/25**

(58) **Field of Classification Search**
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D8/107, 307; D10/70, 125, 126;
D24/133, 147; 81/57.13, 57.39; 74/543,
74/553, 557; 16/DIG. 30, 414, 417, 441,
16/433; 126/42

CPC B25B 21/004; B25B 13/46; B25B 13/463
See application file for complete search history.

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(57) **CLAIM**

The ornamental design for a portable ratchet hand tool, as
shown and described.

DESCRIPTION

(56) **References Cited**

U.S. PATENT DOCUMENTS

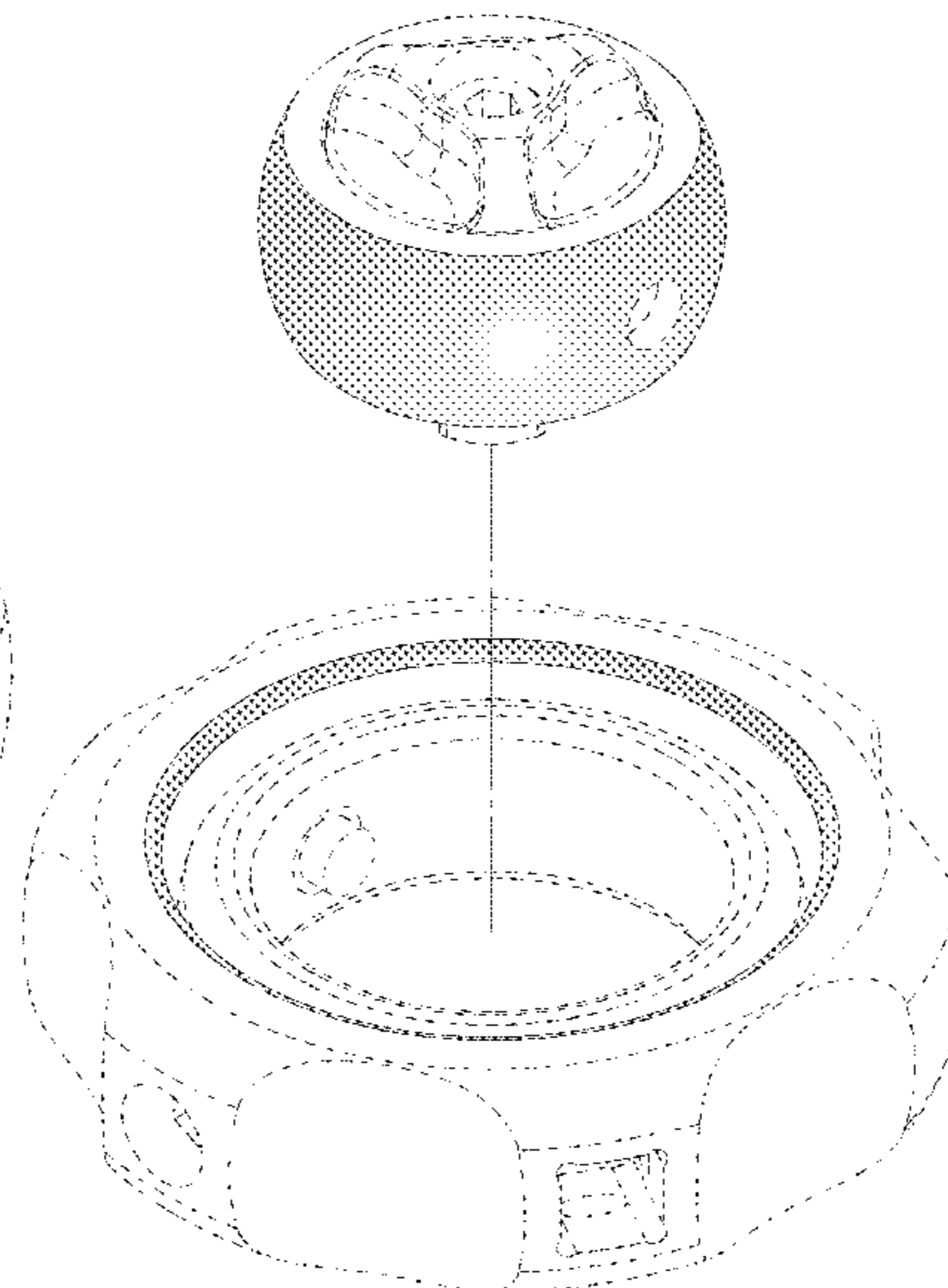
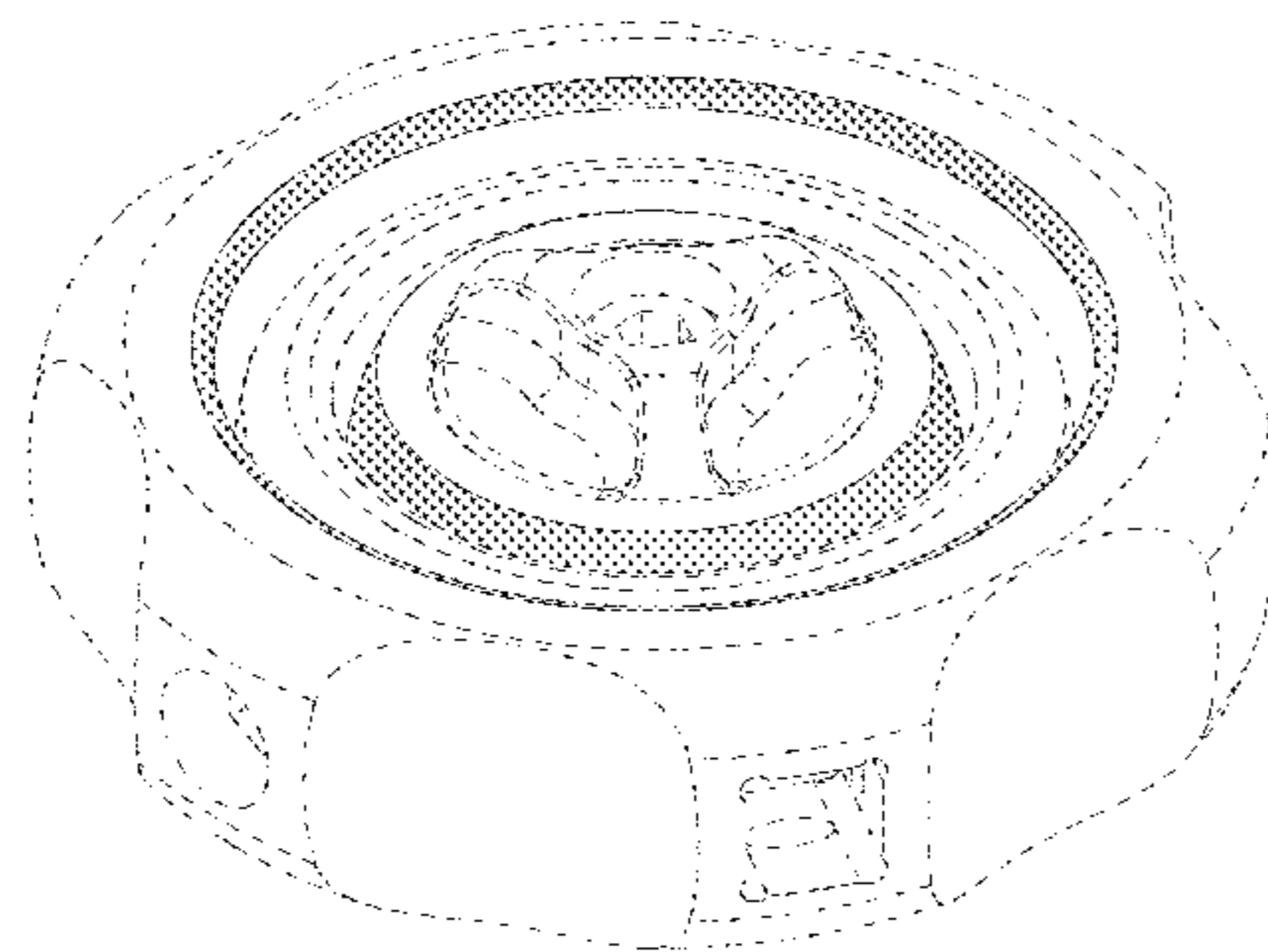
6,817 A * 10/1831 Richards B25G 1/085
16/441
D140,256 S * 2/1945 Shaeffer D12/175
D140,257 S * 2/1945 Shaeffer D12/175
2,496,714 A * 2/1950 Haines G05G 1/10
403/365
3,249,990 A * 5/1966 Schlage E05B 1/0007
29/896.5
3,401,964 A * 9/1968 Johnson F16C 23/045
384/903
3,614,182 A * 10/1971 Rozentals F16C 23/045
384/207

(Continued)

FIG. 1 is a perspective view of a portable ratchet hand tool
showing my new design;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a left view thereof;
FIG. 5 is a right view thereof;
FIG. 6 is a top view thereof;
FIG. 7 is a bottom view thereof; and,
FIG. 8 is an exploded, perspective view of the hand tool of
FIG. 1.

The broken lines depict portions of the portable ratchet hand
tool that form no part of the claimed design.
The shaded surfaces and the solid lines represent the claimed
portions of the design.

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,076,343 A * 2/1978 McCloskey F16C 23/045
384/210
4,094,210 A * 6/1978 Wirtz B60N 2/2252
74/553
D274,086 S * 5/1984 Yanagi G05G 1/10
16/DIG. 30
D289,135 S * 4/1987 Doman D8/25
5,584,098 A * 12/1996 Koyama B60H 1/0065
16/DIG. 30
5,713,252 A * 2/1998 Iwinski B25G 1/105
81/439
5,870,800 A * 2/1999 Chao B62D 1/043
16/422
D419,837 S * 2/2000 Knox D8/25
D437,642 S * 2/2001 Caballero D24/135
6,286,395 B1 * 9/2001 Frazier B25G 1/105
81/177.2
D554,529 S * 11/2007 Green D9/726
7,305,907 B2 * 12/2007 Burwell B25G 1/085
81/177.5
D580,721 S * 11/2008 Chen D8/25
D633,763 S * 3/2011 Pengra D8/28
D644,085 S * 8/2011 Jungen D8/307
8,075,190 B1 * 12/2011 Wadehn F16C 32/0685
384/100
D776,504 S 1/2017 Lee et al.

D792,178 S 7/2017 Lee et al.
D801,769 S 11/2017 Chou
D826,014 S 8/2018 Stalter et al.
D832,068 S 10/2018 Liu
D841,780 S * 2/2019 Howard F16C 43/06
D23/253
D841,781 S * 2/2019 Howard F16C 23/045
D23/253
10,836,022 B2 * 11/2020 Winefordner B25F 1/02
2005/0036722 A1 * 2/2005 Sato F16C 23/045
384/192
2016/0158925 A1 * 6/2016 Robb, Jr. F16C 17/10
29/257
2016/0290407 A1 * 10/2016 Hervieux F16C 43/06
2019/0126450 A1 * 5/2019 Gauthier B25B 13/462

FOREIGN PATENT DOCUMENTS

CN 304216171 S 7/2017
TW D120551 12/2007

OTHER PUBLICATIONS

“Powerbuilt ¼-Inch Drive 2 in 1 Thumb Ratchet & Bits Driver, Finger Ratchet,Red,941248”; Amazon.com; Jul. 12, 2017; Accessed Jun. 2, 2022; URL:< <https://www.amazon.com/Powerbuilt-941248-Thumb-Ratchet-Bits/dp/B073WH46Q7/> > (Year: 2017).*

* cited by examiner

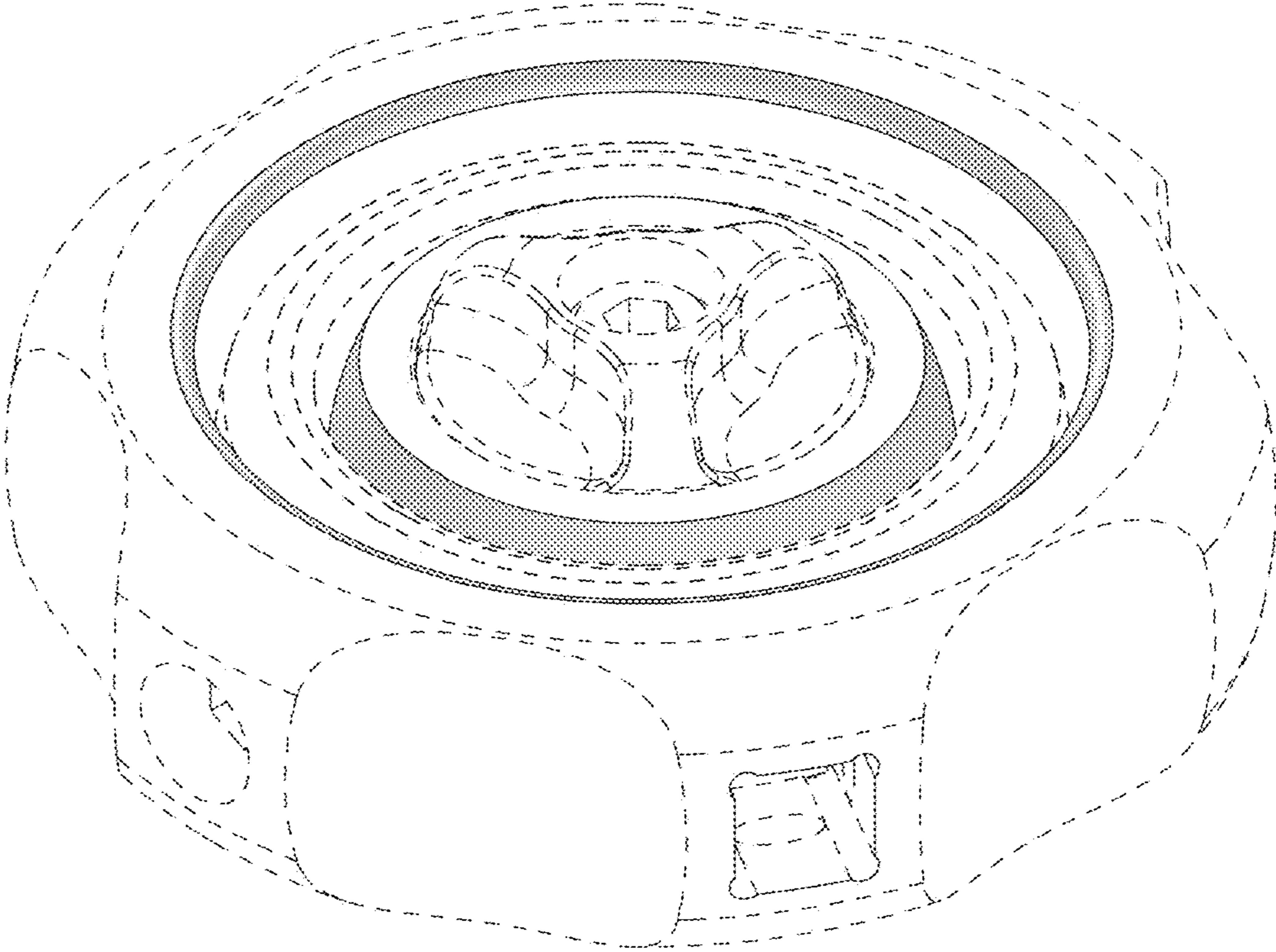


FIG. 1

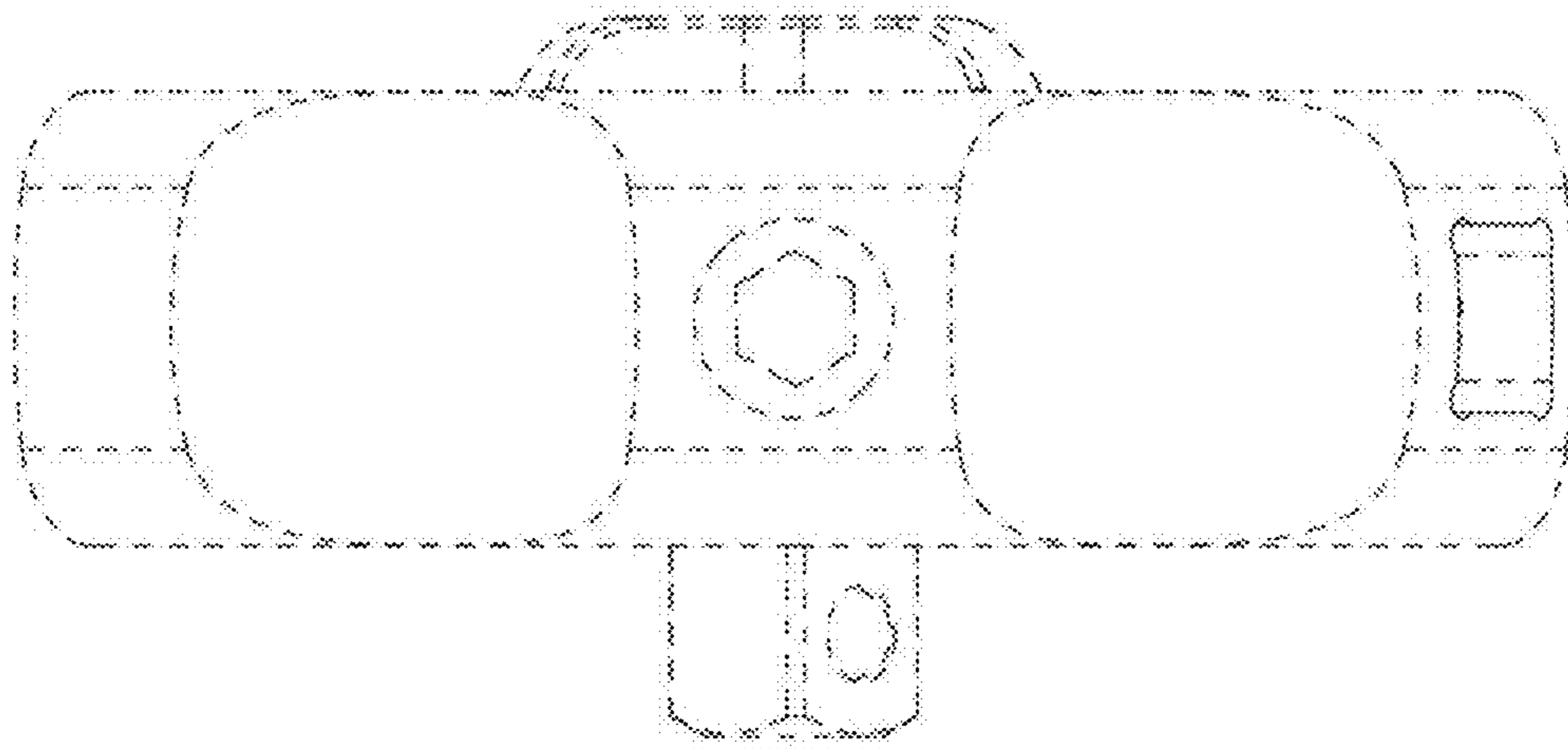


FIG. 2

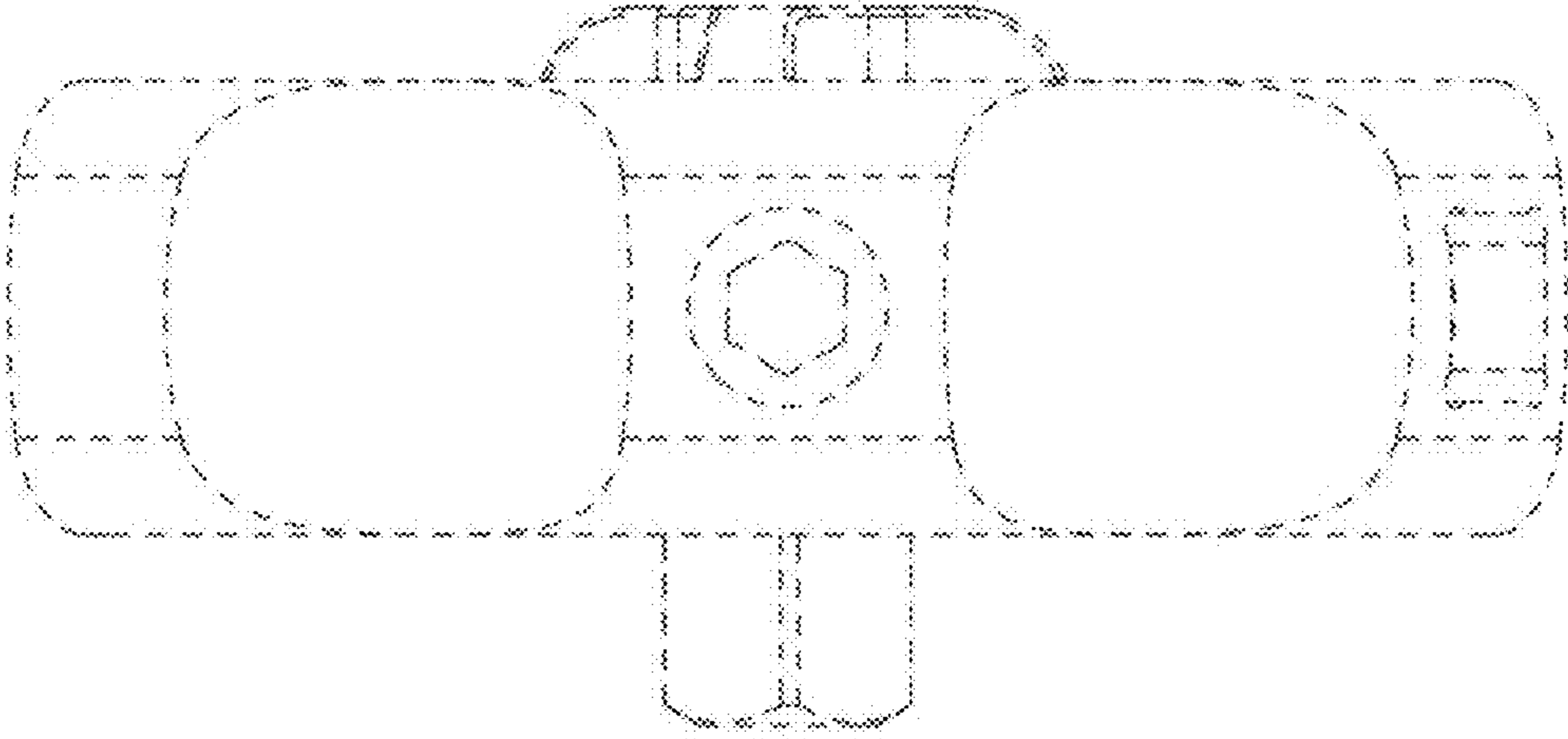


FIG. 3

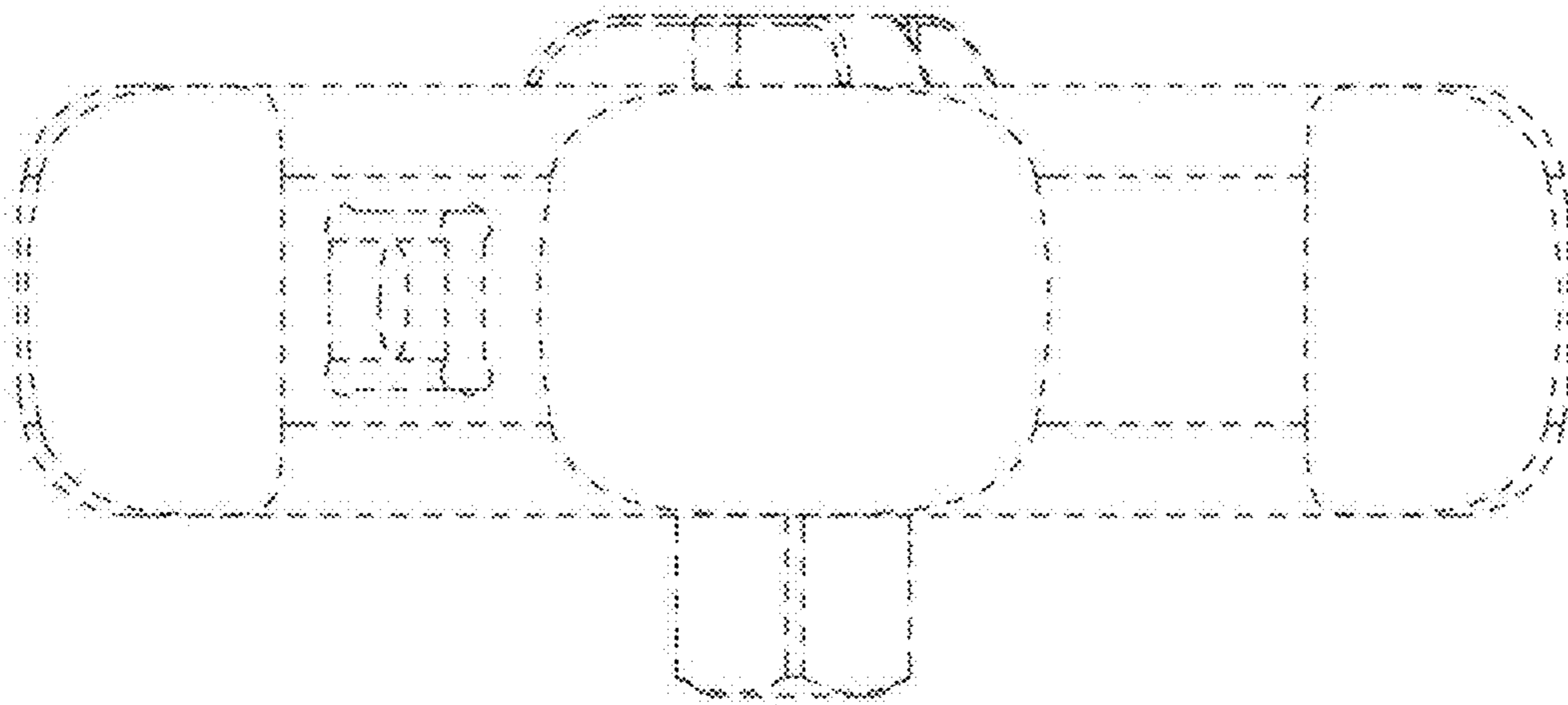


FIG. 4

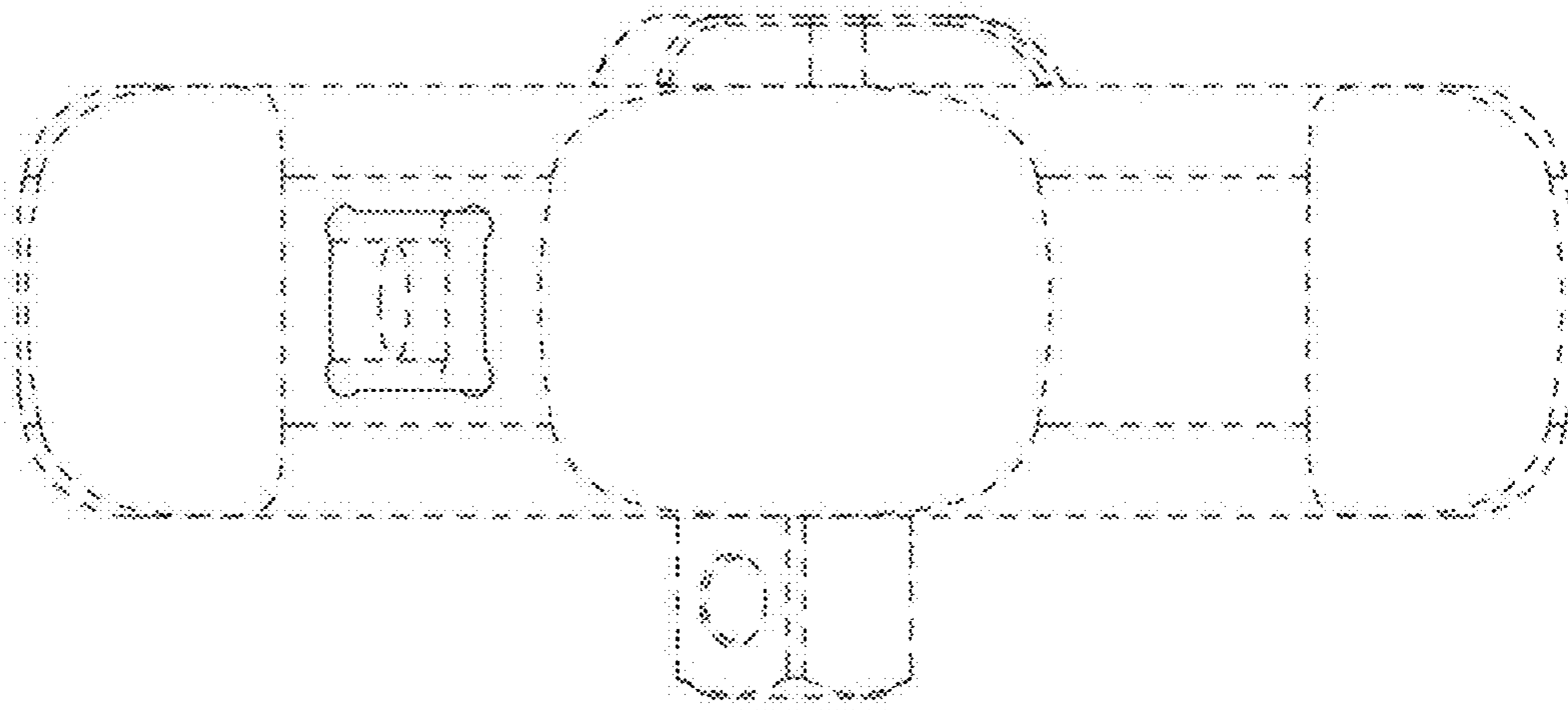


FIG. 5

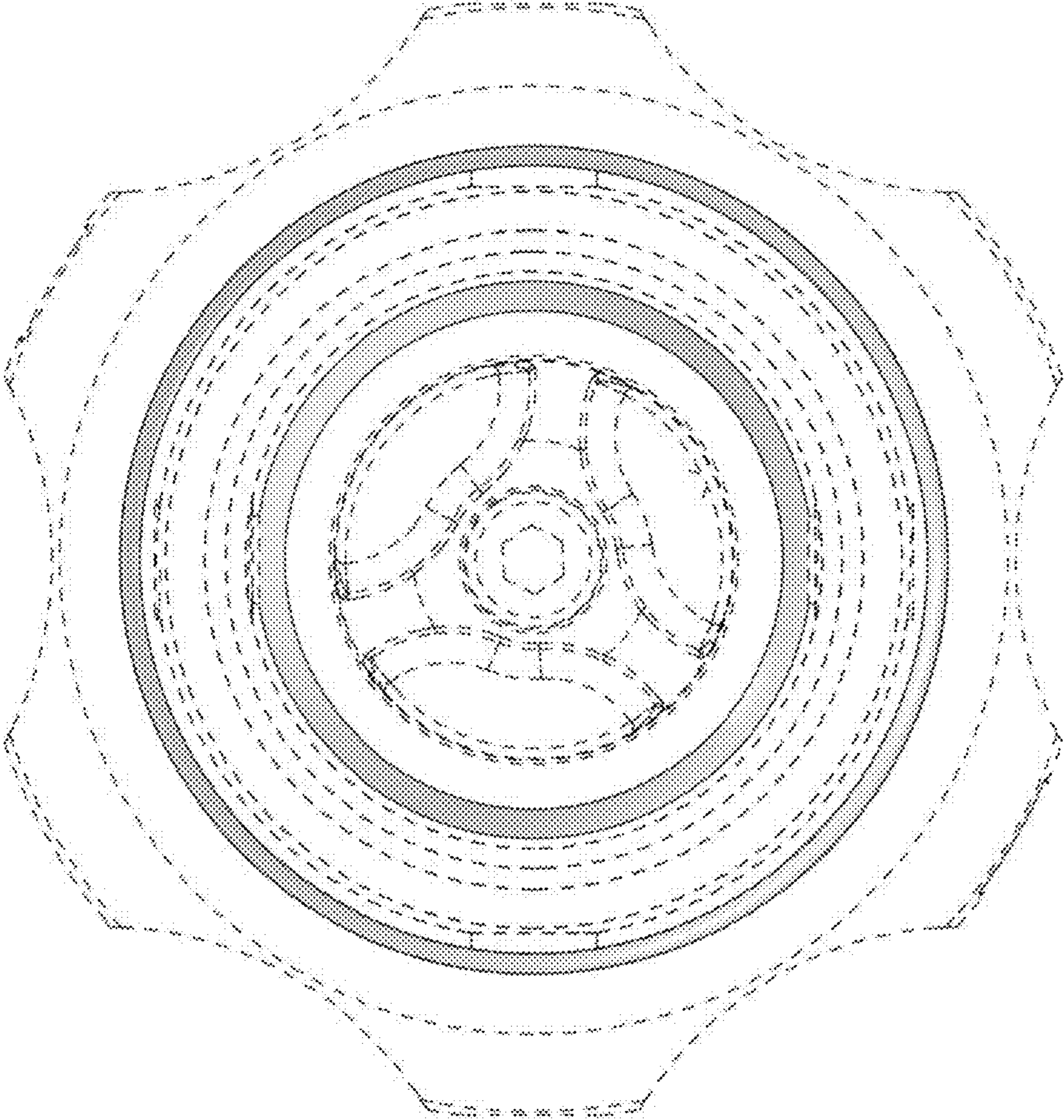


FIG. 6

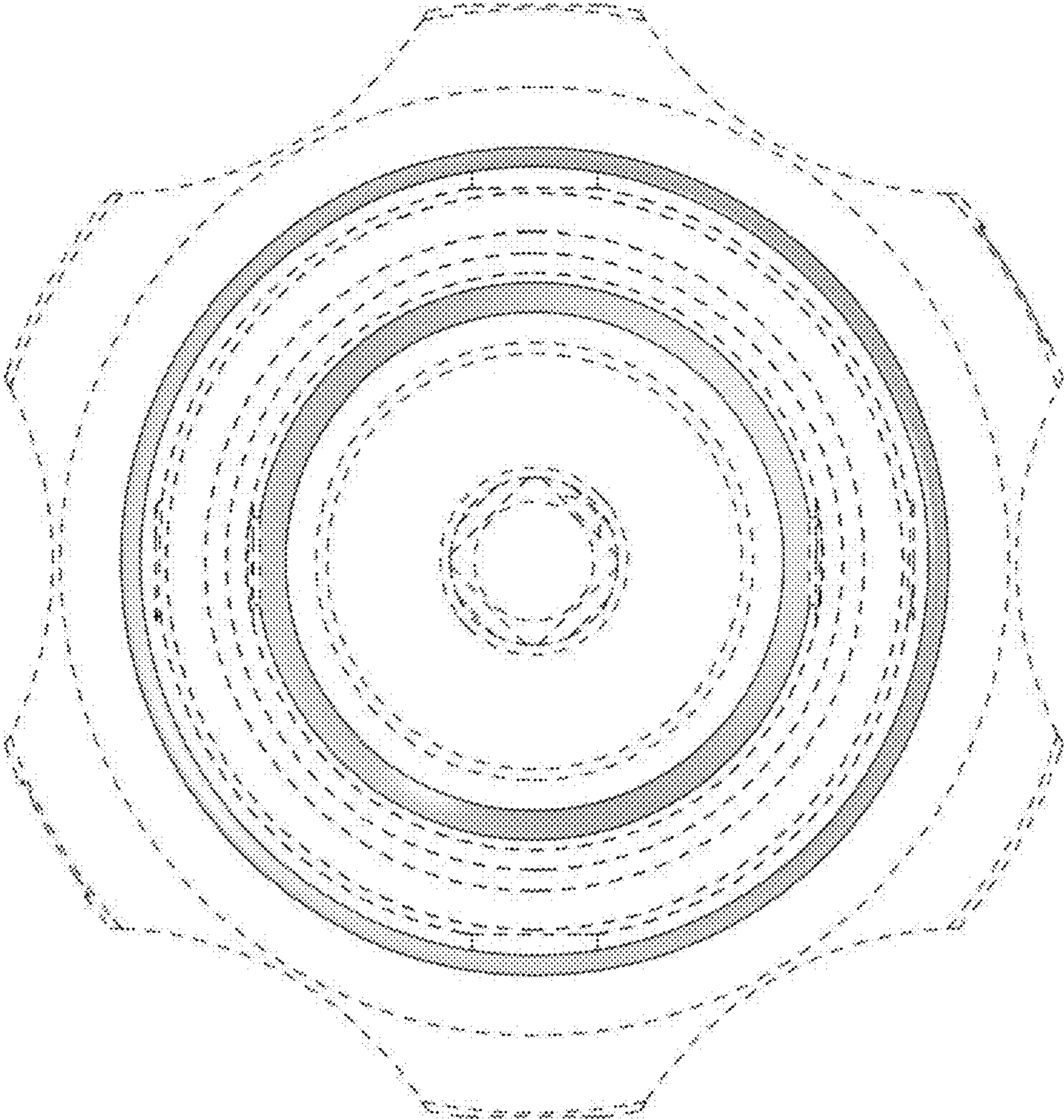


FIG. 7

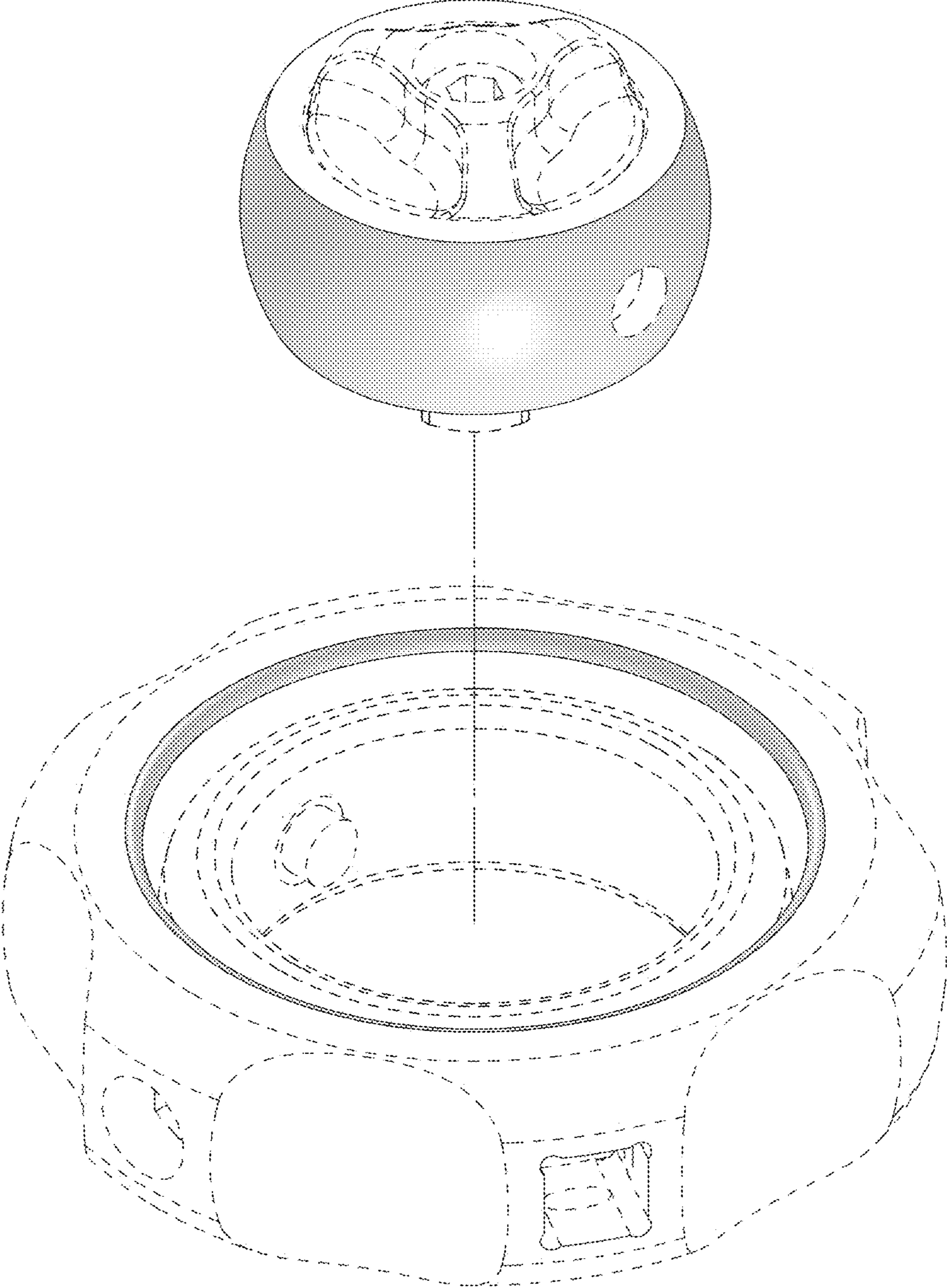


FIG. 8