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(12) **United States Design Patent** (10) **Patent No.:** **US D896,664 S**
Chapman et al. (45) **Date of Patent:** **** Sep. 22, 2020**

(54) **SENSOR HOUSING**
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(**) Term: **15 Years**
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(52) **U.S. Cl.**
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(58) **Field of Classification Search**
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G08G 5/04; G08G 5/0013; G01V 8/20;
G01J 5/02; G01J 5/023; G01J 5/24; G01J
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G01S 1/70; G01S 1/08; G01S 13/74;
G01S 19/42; G01S 13/79; G01S 13/9303;
G01S 13/781; G01S 13/782; Y10S
250/01; H01L 37/00; H01L 37/02; H04N
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15/00-15/18; G01C 21/3664; G01C
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G01C 21/30; G01C 17/00; G01C
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G01C 23/00-23/005; G06F 3/0482; G06F
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3/00-3/027; F21S 8/033; F21V 17/02;
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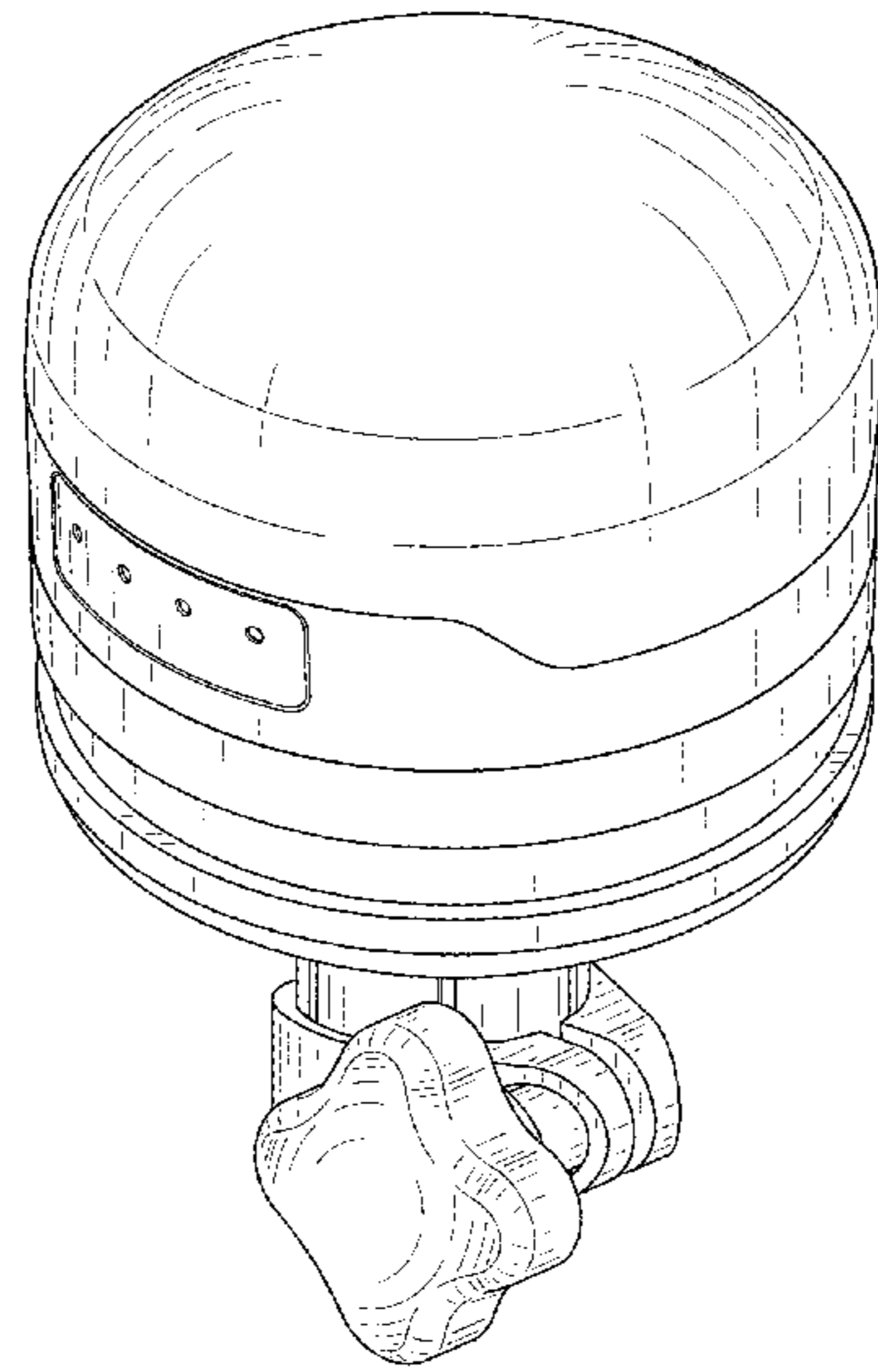
(56) **References Cited**
U.S. PATENT DOCUMENTS
4,315,594 A 2/1982 Niederöst
D316,713 S 5/1991 Sun
(Continued)
FOREIGN PATENT DOCUMENTS
EP 0014251 A1 8/1980
EP 2840559 A1 2/2015
EP 3270117 A1 1/2018
OTHER PUBLICATIONS
Topcon Positioning Systems, Inc., "Z-Stack Vibration Mount Assem-
bly," Technical Data Sheet, Feb. 2020, P/N: 1037639-01 Rev. A, 2
pgs.
(Continued)

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(57) **CLAIM**
The ornamental design for a sensor housing, as shown and
described.

DESCRIPTION
FIG. 1 is a rear perspective view of a sensor housing
according to our design;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a left side view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a top view thereof; and,
FIG. 7 is a bottom view thereof.
The broken lines shown in the drawings depict environment
that forms no part of the claimed design.

1 Claim, 6 Drawing Sheets



(58) **Field of Classification Search**
 CPC . F21V 23/0442; F21V 21/30; F21W 2131/10;
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 13/1645; G08B 17/12; G08B
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 45/00; B64D 25/00; H04L 69/08; H04B
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 See application file for complete search history.

(56) **References Cited**
 U.S. PATENT DOCUMENTS

D363,930 S	11/1995	Bailey et al.	
6,598,835 B2	7/2003	Minnick	
7,114,388 B1	10/2006	French et al.	
D568,183 S *	5/2008	Ishii	D10/65
D594,399 S	6/2009	Johnson	
D598,480 S	8/2009	Kanemitsu	
D623,500 S	9/2010	Langner et al.	
D661,980 S	6/2012	Rocquet	
D673,029 S	12/2012	Apestequia et al.	
D695,591 S	12/2013	Ackerman et al.	
D697,438 S *	1/2014	Rector, III	D10/65
D716,640 S	11/2014	Martinson	
D732,926 S	6/2015	Booth et al.	
D744,316 S	12/2015	Nook et al.	
D745,369 S	12/2015	Tungesvick	
D755,705 S	5/2016	Shin	
D757,520 S	5/2016	Pratt	
9,354,158 B1	5/2016	Van Dijk et al.	
D766,069 S	9/2016	Miller	
D767,218 S	9/2016	Hickling	
D772,737 S *	11/2016	Robinson	D10/65

D779,921 S	2/2017	Del Rossa	
D779,922 S	2/2017	Del Rossa	
D801,834 S *	11/2017	Briheim	D10/65
D803,908 S	11/2017	Yamaguchi et al.	
D822,081 S	7/2018	Yamaguchi et al.	
D831,467 S	10/2018	Crichton et al.	
D834,922 S	12/2018	Russo	
D838,581 S	1/2019	Huang et al.	
D859,968 S	9/2019	West	
D860,765 S	9/2019	Tsay	
D863,936 S	10/2019	Pratt et al.	
D871,894 S	1/2020	Brett	
2003/0056868 A1	3/2003	Gentry	
2003/0137658 A1	7/2003	Ohtomo et al.	
2016/0180999 A1	6/2016	Rattner et al.	
2018/0017414 A1	1/2018	Binder et al.	

OTHER PUBLICATIONS

Topcon Positioning Systems, Inc., “GR-i3 Integrated GNSS Receiver and Antenna,” Technical Data Sheet, Feb. 2020, P/N: 1020457-01 Rev. A, 2 pgs.
 Notice of Allowance (PTOL-85) dated Feb. 5, 2020, in connection with U.S. Appl. No. 29/675,183, filed Dec. 28, 2018, 9 pgs.
 Notice of Allowance (PTOL-85) dated Feb. 6, 2020, in connection with U.S. Appl. No. 29/675,179, filed Dec. 28, 2018, 9 pgs.
 Non-Final Office Action dated Mar. 6, 2020, in connection with U.S. Appl. No. 16/235,622, filed Dec. 28, 2018, 16 pgs.
 International Search Report dated Mar. 16, 2020, in connection with International Patent Application No. PCT/US2019/062319, filed Nov. 20, 2019, 18 pgs.

* cited by examiner

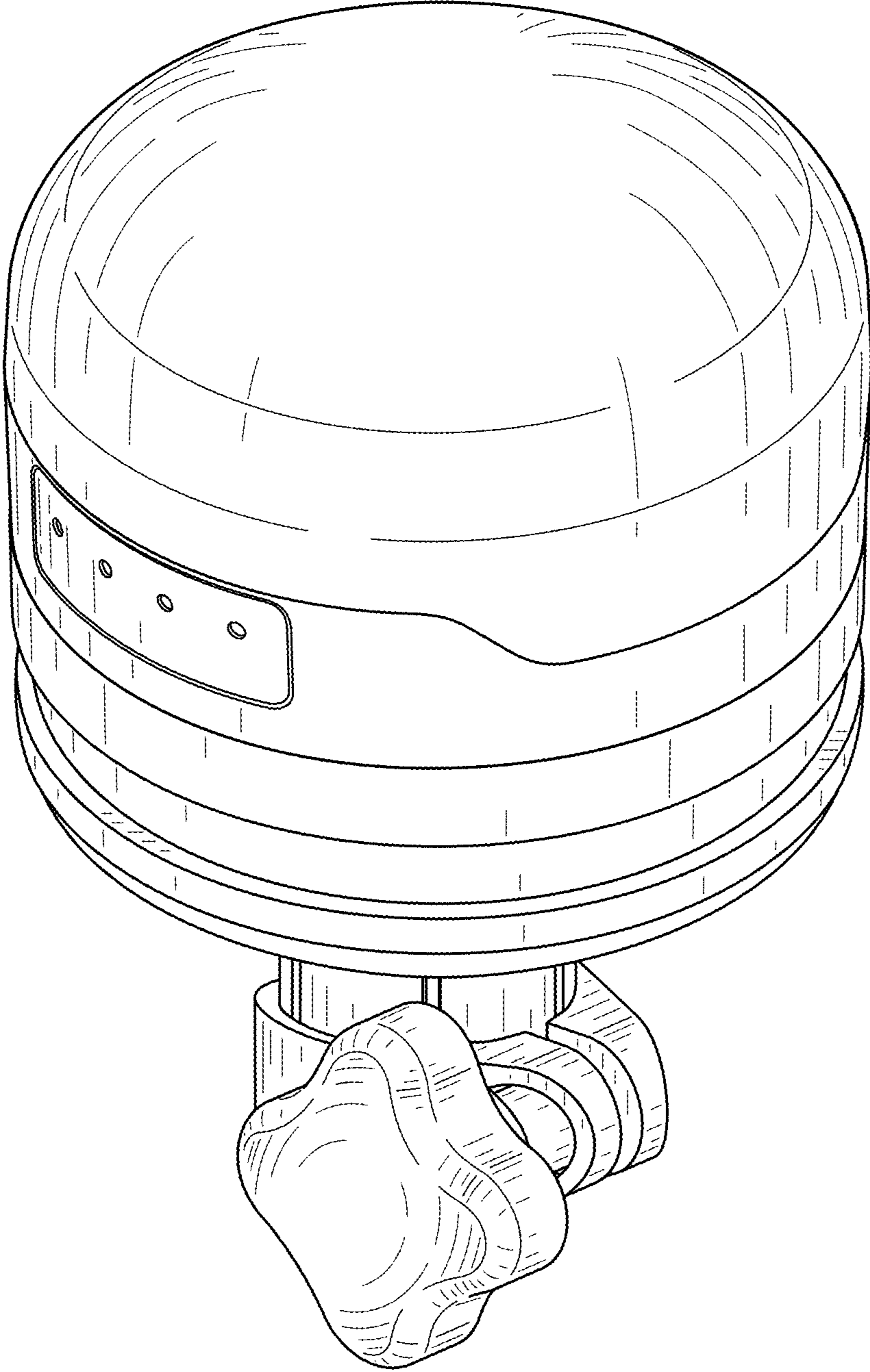


FIG. 1

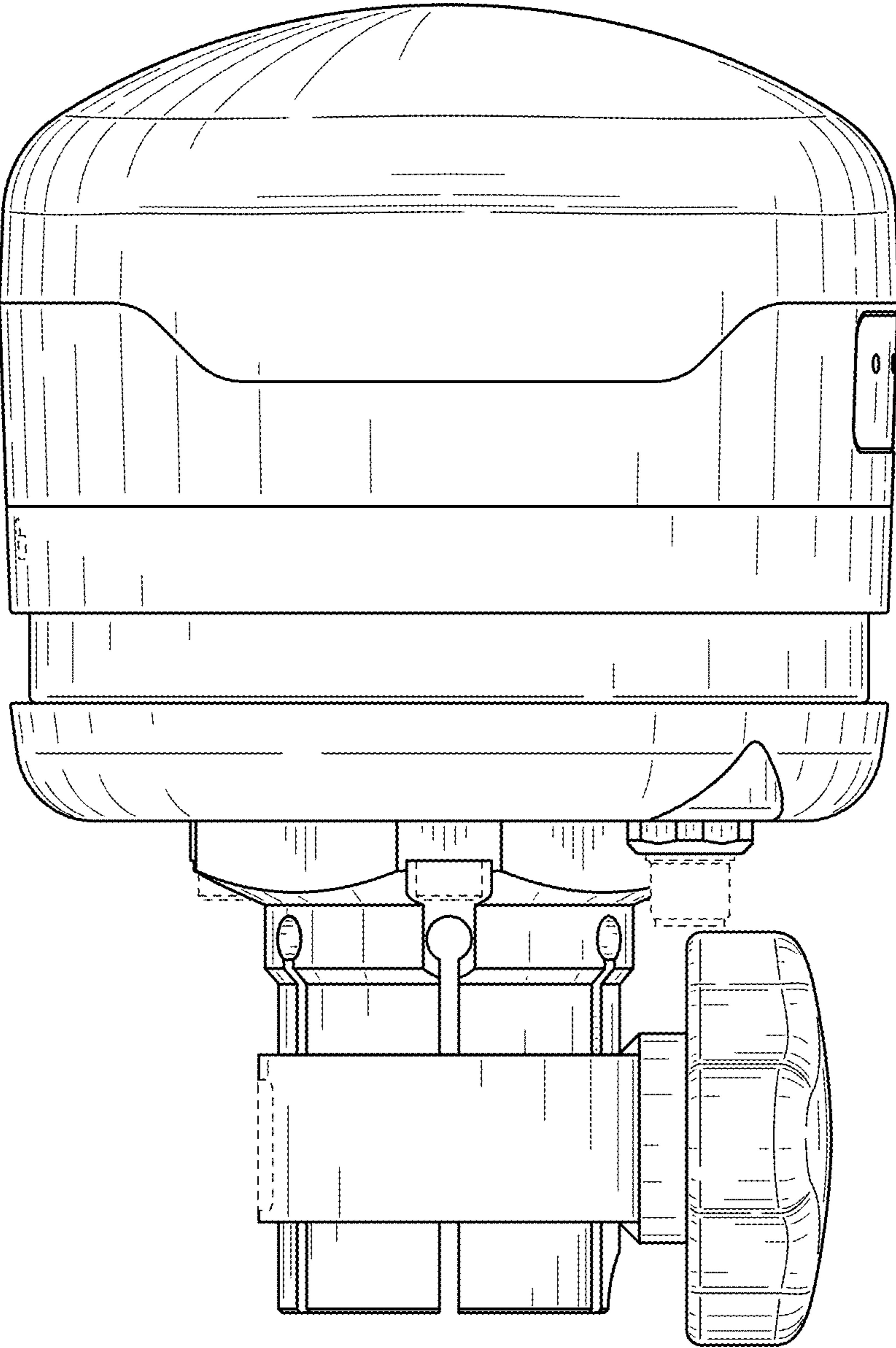


FIG. 2

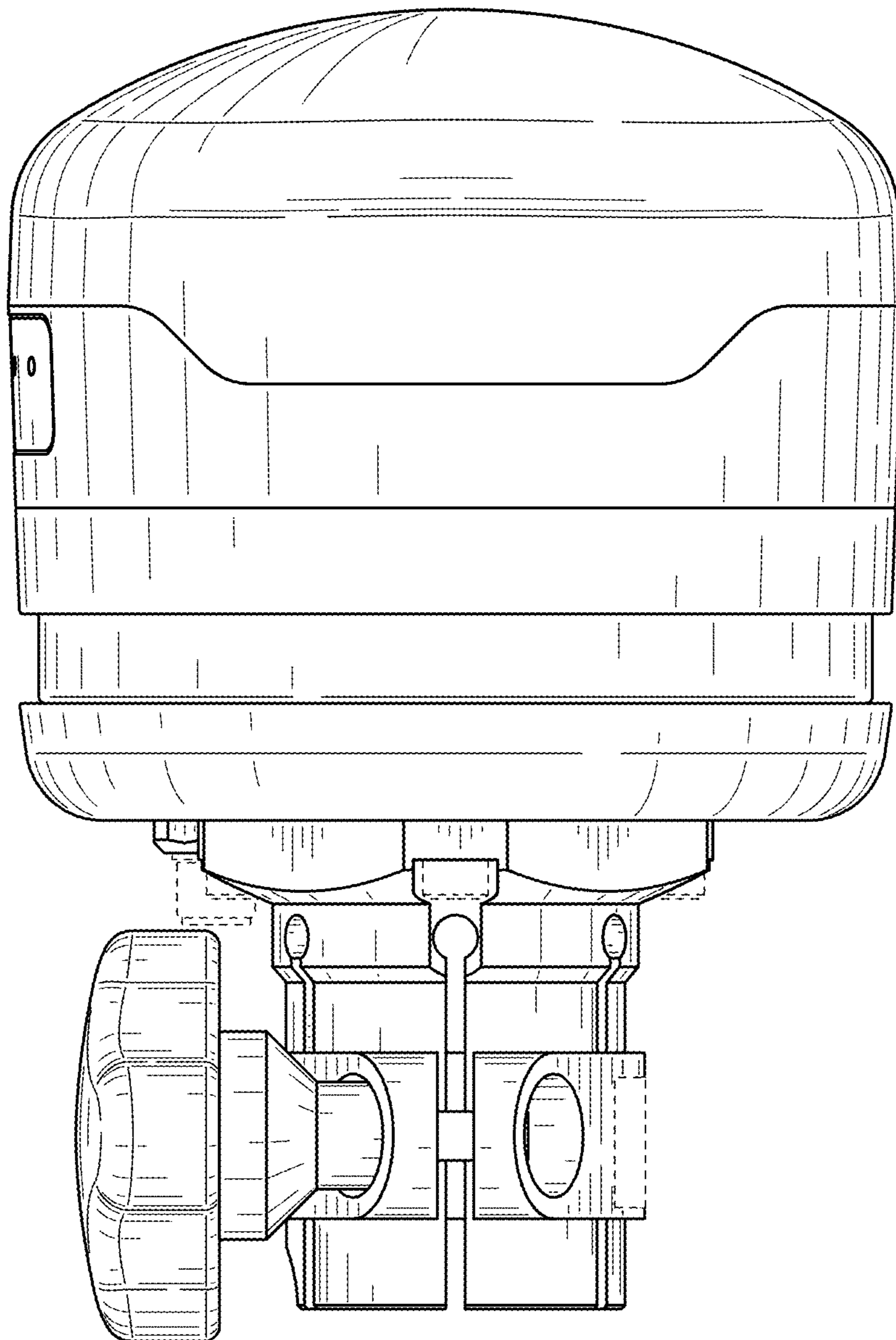


FIG. 3

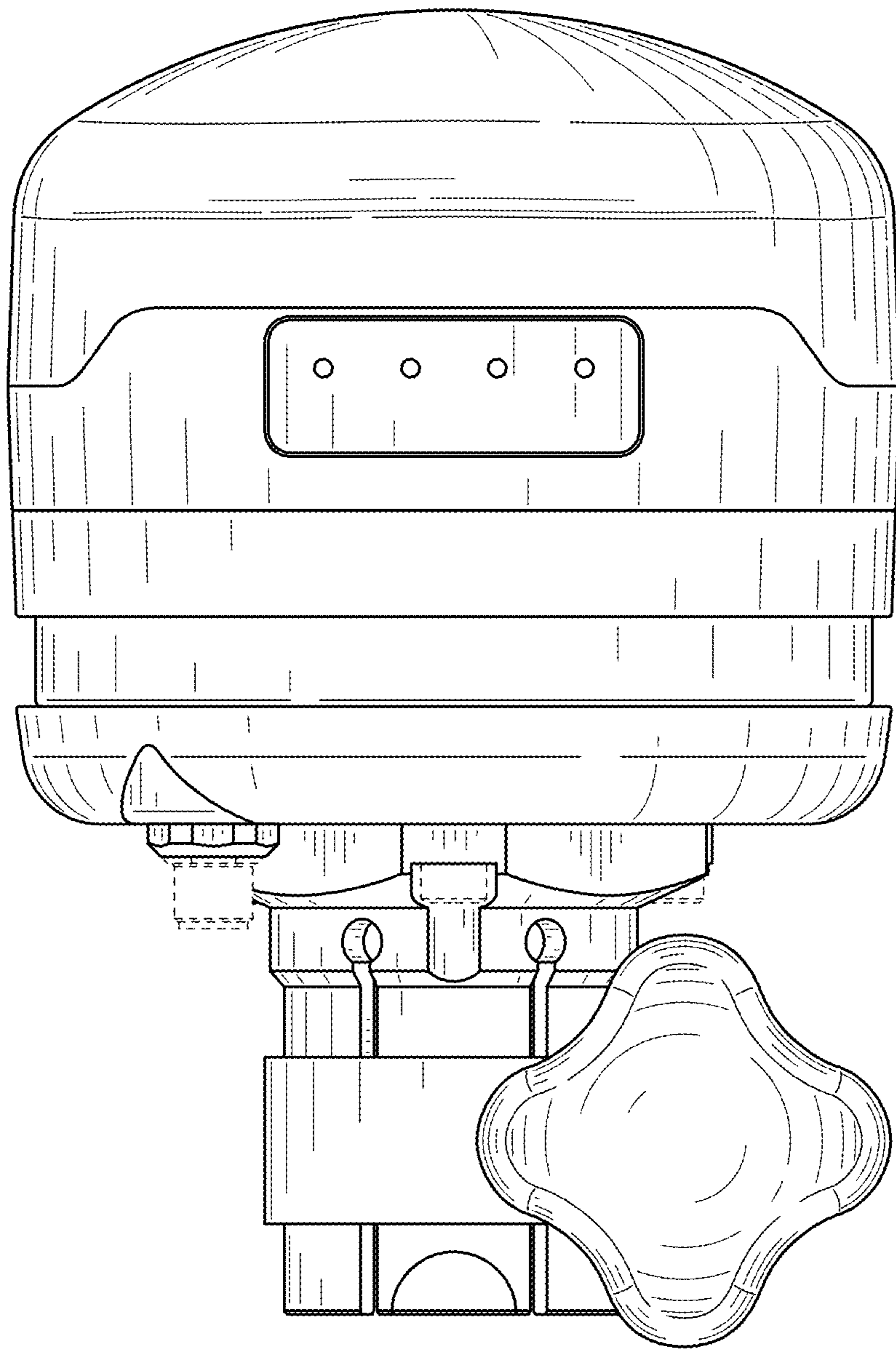


FIG. 4

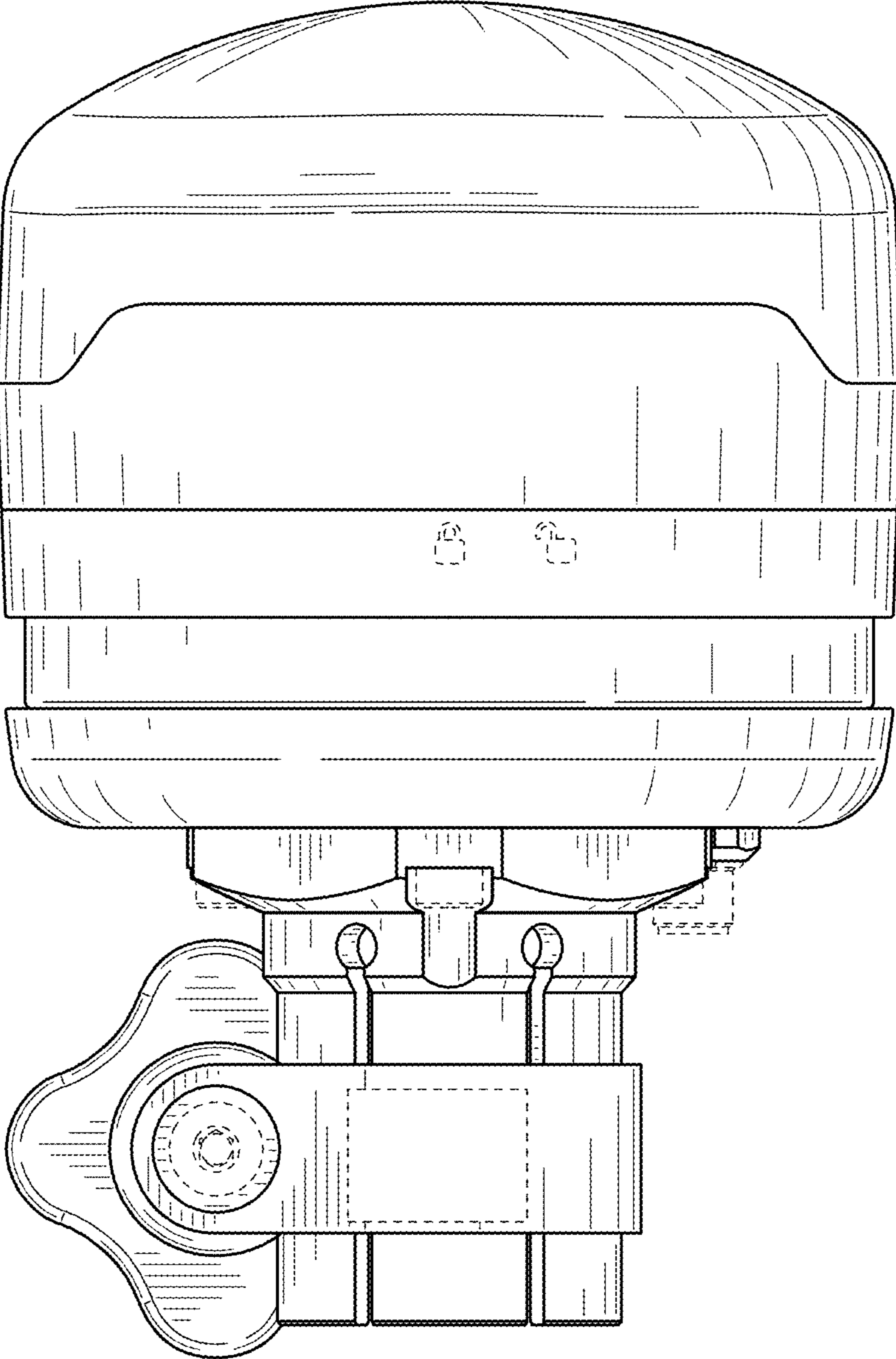


FIG. 5

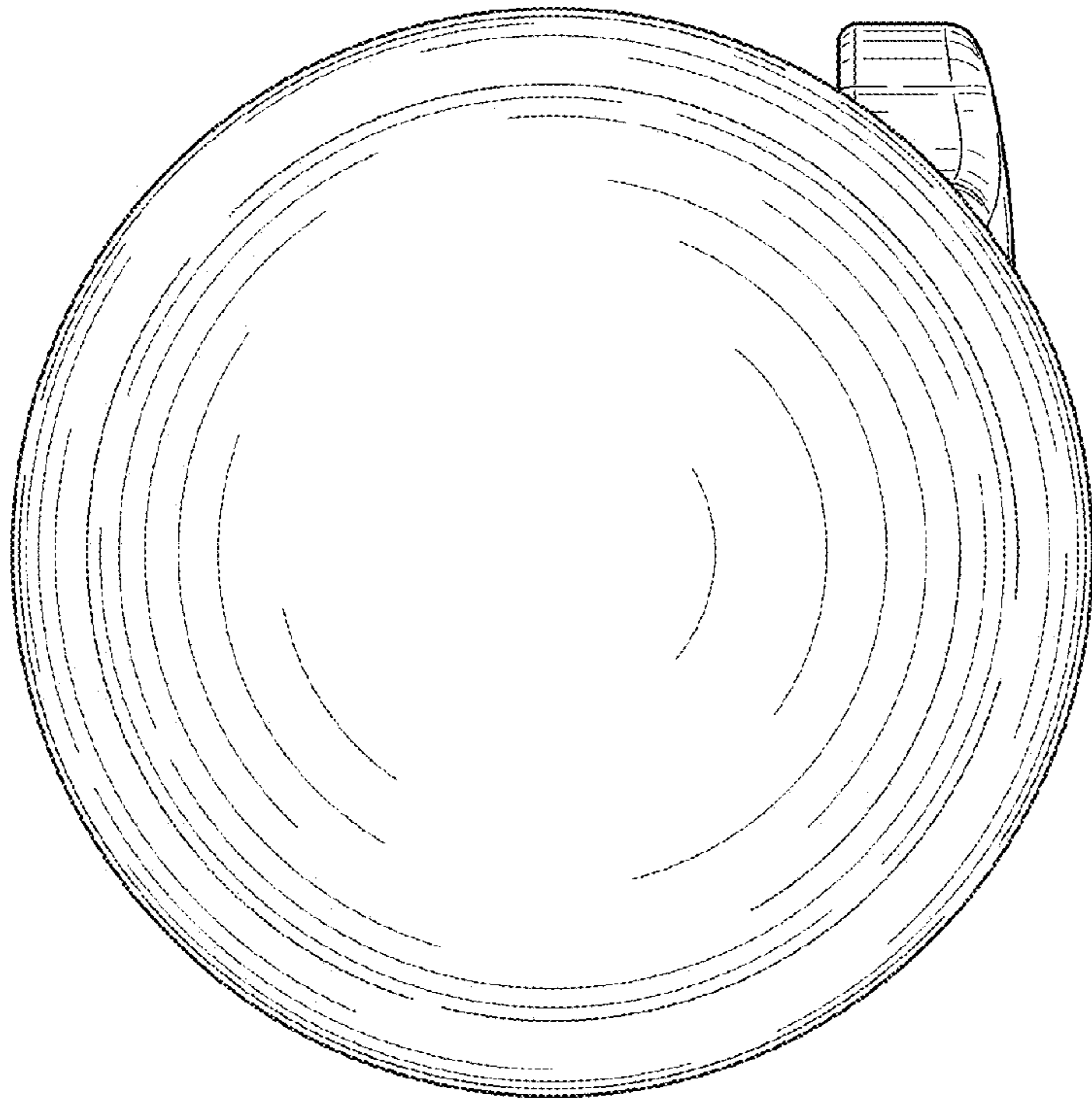


FIG. 6

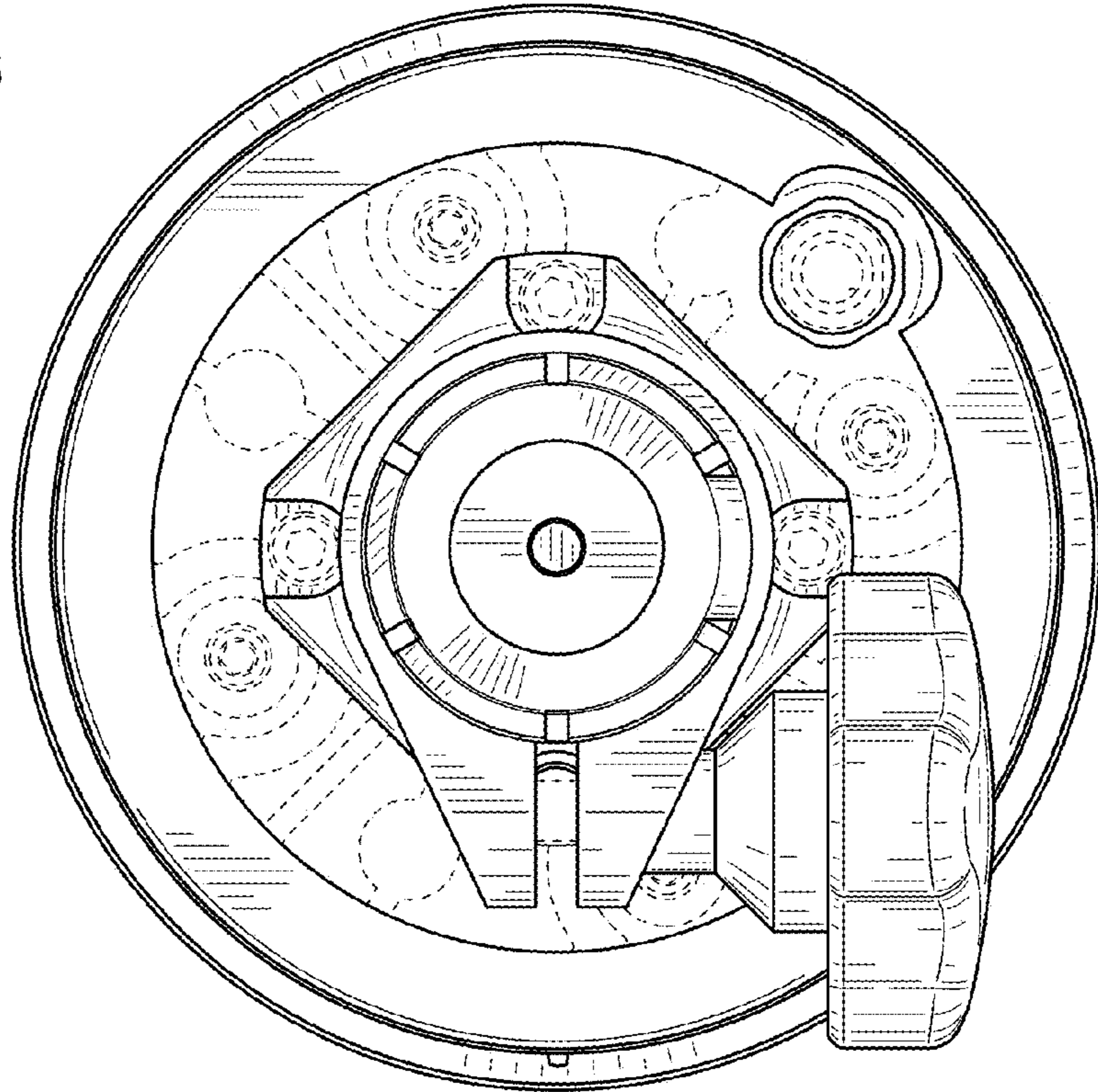


FIG. 7