



US00D950567S

(12) **United States Design Patent** (10) **Patent No.:** **US D950,567 S**  
**Natsume et al.** (45) **Date of Patent:** **\*\* May 3, 2022**

(54) **MOBILE COMPUTING SUPPORT SYSTEM HAVING AN ILLUMINATION REGION**

(71) Applicant: **Magic Leap, Inc.**, Plantation, FL (US)

(72) Inventors: **Shigeru Natsume**, Weston, FL (US); **Timothy Michael Stutts**, Oakland Park, FL (US); **James M. Powderly**, Ft. Lauderdale, FL (US); **Bradley Fraser**, Miami Beach, FL (US); **Haney Awad**, Ft. Lauderdale, FL (US); **Savannah Niles**, Ft. Lauderdale, FL (US); **Isioma Osagbemwenorue Azu**, Ft. Lauderdale, FL (US)

(73) Assignee: **Magic Leap, Inc.**, Plantation, FL (US)

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

(21) Appl. No.: **29/663,752**

(22) Filed: **Sep. 18, 2018**

(51) **LOC (13) Cl.** ..... **08-07**

(52) **U.S. Cl.**  
USPC ..... **D14/447**

(58) **Field of Classification Search**  
USPC ..... D14/447, 432, 434, 439, 440, 451, 452, D14/457, 239; D8/363, 373, 380; D6/406.3, 406.4, 406.5, 406.6; D12/415  
CPC ..... A47B 21/04; A47B 2097/006; A47B 2097/005; A47B 2023/049; A45C 2011/002; A45C 2011/003; F16M 2200/00; F16M 13/00

See application file for complete search history.

D520,448 S \* 5/2006 Lodato ..... D13/110  
D563,480 S 3/2008 Blaseflug et al.  
D567,287 S 4/2008 Del Castillo et al.  
D586,215 S \* 2/2009 Gonzalez ..... D9/516  
D607,323 S 1/2010 Bruno et al.  
D612,234 S \* 3/2010 Westemeyer ..... D9/434  
D621,514 S 8/2010 Wightman  
D644,122 S 8/2011 Kight  
D653,205 S 1/2012 Baker et al.  
D666,480 S \* 9/2012 Peacock ..... D8/380  
D671,924 S 12/2012 Choi et al.  
D673,528 S 1/2013 Trotsky  
D675,644 S 2/2013 Frost et al.  
D684,158 S \* 6/2013 Derry ..... D14/452  
D688,252 S \* 8/2013 Paul ..... D14/447  
D692,898 S \* 11/2013 Luijben ..... D14/447  
D693,353 S \* 11/2013 Shu ..... D14/447  
D719,959 S 12/2014 Vogel  
D720,845 S 1/2015 Kang et al.  
D722,603 S 2/2015 Lay et al.  
D724,596 S \* 3/2015 Sirichai ..... D14/440  
D725,660 S 3/2015 Trotsky  
D735,210 S \* 7/2015 Kim ..... D14/447  
9,081,426 B2 7/2015 Armstrong  
D737,264 S \* 8/2015 Shamsadov ..... D14/251  
9,215,293 B2 12/2015 Miller  
D748,639 S 2/2016 Khodapanah et al.  
D749,044 S 2/2016 Huang  
D749,596 S \* 2/2016 Khodapanah ..... D14/447  
D752,054 S 3/2016 Baumann et al.  
D752,529 S 3/2016 Loretan et al.  
D753,095 S 4/2016 Jou et al.  
D754,736 S 4/2016 Moon et al.  
D755,797 S \* 5/2016 Liu ..... D14/452  
D756,366 S 5/2016 Floersch et al.  
9,348,143 B2 5/2016 Gao et al.  
D759,657 S 7/2016 Kujawski et al.  
D765,084 S 8/2016 Akana et al.  
9,417,452 B2 8/2016 Schowengerdt et al.  
D768,635 S 10/2016 Due  
9,470,906 B2 10/2016 Kaji et al.  
D772,739 S \* 11/2016 Browning ..... D10/74  
D773,325 S 12/2016 Browning et al.  
D775,658 S 1/2017 Luo et al.  
D776,667 S 1/2017 Fujioka  
D777,778 S 1/2017 Park et al.  
9,547,174 B2 1/2017 Gao et al.  
9,671,566 B2 6/2017 Abovitz et al.  
D794,288 S 8/2017 Beers et al.  
9,740,006 B2 8/2017 Gao  
D797,749 S \* 9/2017 Awad ..... D14/447  
9,791,700 B2 10/2017 Schowengerdt et al.  
D805,084 S \* 12/2017 Aryeh ..... D14/447

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

D222,388 S 10/1971 Meldrum  
D279,797 S 7/1985 Brunette  
D436,599 S 1/2001 Greene  
D485,820 S 1/2004 Murakami  
6,850,221 B1 2/2005 Tickle  
D514,570 S 2/2006 Ohta  
D519,504 S 4/2006 Tagliabue et al.



D805,734	S	12/2017	Fisher et al.	
9,851,563	B2	12/2017	Gao et al.	
9,857,591	B2	1/2018	Welch et al.	
9,874,749	B2	1/2018	Bradski	
D810,753	S	2/2018	Sakata et al.	
D832,276	S *	10/2018	Miles .....	D14/451
D837,258	S	1/2019	Lee et al.	
D849,752	S *	5/2019	Huebner .....	D14/447
D849,753	S *	5/2019	Divine, Jr. ....	D14/447
10,484,522	B1 *	11/2019	McHatet .....	H04B 1/3888
D873,806	S	1/2020	Lee et al.	
D877,066	S *	3/2020	Zhang .....	D13/108
D888,066	S *	6/2020	Wang .....	D14/451
2006/0028436	A1	2/2006	Armstrong	
2007/0081123	A1	4/2007	Lewis	
2012/0127062	A1	5/2012	Bar-Zeev et al.	
2012/0162549	A1	6/2012	Gao et al.	
2013/0082922	A1	4/2013	Miller	
2013/0117377	A1	5/2013	Miller	
2013/0125027	A1	5/2013	Abovitz	
2013/0208234	A1	8/2013	Lewis	
2013/0242262	A1	9/2013	Lewis	
2014/0071539	A1	3/2014	Gao	
2014/0177023	A1	6/2014	Gao et al.	
2014/0218468	A1	8/2014	Gao et al.	
2014/0267420	A1	9/2014	Schowengerdt	
2014/0306866	A1	10/2014	Miller et al.	
2015/0016777	A1	1/2015	Abovitz et al.	
2015/0103306	A1	4/2015	Kaji et al.	
2015/0178939	A1	6/2015	Bradski et al.	
2015/0205126	A1	7/2015	Schowengerdt	
2015/0222883	A1	8/2015	Welch	
2015/0222884	A1	8/2015	Cheng	
2015/0268415	A1	9/2015	Schowengerdt et al.	
2015/0302652	A1	10/2015	Miller et al.	
2015/0309263	A2	10/2015	Abovitz et al.	
2015/0326570	A1	11/2015	Publicover et al.	
2015/0346490	A1	12/2015	TeKolste et al.	
2015/0346495	A1	12/2015	Welch et al.	
2016/0011419	A1	1/2016	Gao	
2016/0026253	A1	1/2016	Bradski et al.	
2019/0111855	A1 *	4/2019	Aloe .....	H04M 1/04

OTHER PUBLICATIONS

Design U.S. Appl. No. 29/663,748 to Natsume et al., filed Sep. 18, 2018.

Design U.S. Appl. No. 29/663,746 to Natsume et al., filed Sep. 18, 2018.

Design U.S. Appl. No. 29/663,745 to Natsume et al., filed Sep. 18, 2018.

Design U.S. Appl. No. 29/657,667 to Natsume et al., filed Jul. 24, 2018.

Design U.S. Appl. No. 29/657,652 to Natsume et al., filed Jul. 24, 2018.

Design U.S. Appl. No. 29/657,674 to Natsume et al., filed Jul. 24, 2018.

U.S. Appl. No. 15/992,032 to Aguirre et al., filed May 29, 2018.

ARToolKit: <https://web.archive.org/web/20051013062315/http://www.hitl.washington.edu:80/artoolkit/documentation/hardware.htm>, archived Oct. 13, 2005.

Azuma, “A Survey of Augmented Reality,” *Teleoperators and Virtual Environments* 6, 4 (Aug. 1997), pp. 355-385. <https://web.archive.org/web/20010604100006/http://www.cs.unc.edu/~azuma/ARpresence.pdf>.

Azuma, “Predictive Tracking for Augmented Realty,” TR95-007, Department of Computer Science, UNC-Chapel Hill, NC, Feb. 1995.

Bimber, et al., “Spatial Augmented Reality—Merging Real and Virtual Worlds,” 2005 <https://web.media.mit.edu/~raskar/book/BimberRaskarAugmentedRealityBook.pdf>.

Mixed Wallpapers, [wallup.net/minimalism-gradient-pink-orange/](http://wallup.net/minimalism-gradient-pink-orange/), posted on Mar. 19, 2018, accessed on Feb. 5, 2021 (2018).

Orange-Pink Gradient by Halaxega on DeviantArt, [deviantart.com/halaxega/art/Orange-Pink-Gradient-144567726](http://deviantart.com/halaxega/art/Orange-Pink-Gradient-144567726), published Nov. 23, 2009, accessed on Feb. 5, 2021 (2009).

Tanriverdi and Jacob, “Interacting With Eye Movements in Virtual Environments,” Department of Electrical Engineering and Computer Science, Tufts University, Medford, MA—paper/Proc. ACM CHI 2000 Human Factors in Computing Systems Conference, pp. 265-272, Addison-Wesley/ACM Press (2000).

\* cited by examiner

Primary Examiner — Angela J Lee

(74) Attorney, Agent, or Firm — Knobbe, Martens, Olson & Bear, LLP

(57) CLAIM

The ornamental design for a mobile computing support system having an illumination region, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a mobile computing support system having an illumination region showing our design in an illuminated state;

FIG. 2 is a back perspective view thereof;

FIG. 3 is a front view thereof;

FIG. 4 is a back view thereof;

FIG. 5 is a left side view thereof;

FIG. 6 is a right side view thereof;

FIG. 7 is a top view thereof;

FIG. 8 is a bottom view thereof;

FIG. 9 is a front perspective view of the mobile computing support system having an illumination region of FIGS. 1-8 showing the illumination region in an illuminated state in grayscale; and,

FIG. 10 is a front view thereof.

The dash-dash lines in FIGS. 1-10 depicting various optional components of a mobile computing support system are included for illustrating environmental structure and form no part of the claimed design.

The dash-dot radiating lines emanating from the arcuate element in FIGS. 1, 3, and 5-8 and the grayscale shading of the arcuate element in FIGS. 9 and 10 represent illumination. The radiating lines emanating from the arcuate element in FIGS. 1, 3, and 5-8 do not depict any particular illumination contrast or pattern. The grayscale shading of the arcuate element in FIGS. 9 and 10 does not depict any particular illumination contrast or pattern or any particular color, texture, or material.

The dash-dash-dot lines in FIGS. 1-6 and 9-10 are included for illustrating claim boundaries and form no part of the claimed design. Further, shade lines in FIGS. 1-2, 4-6, and 8-9 are included to show claimed subject matter and form no part of the claimed design.

1 Claim, 8 Drawing Sheets

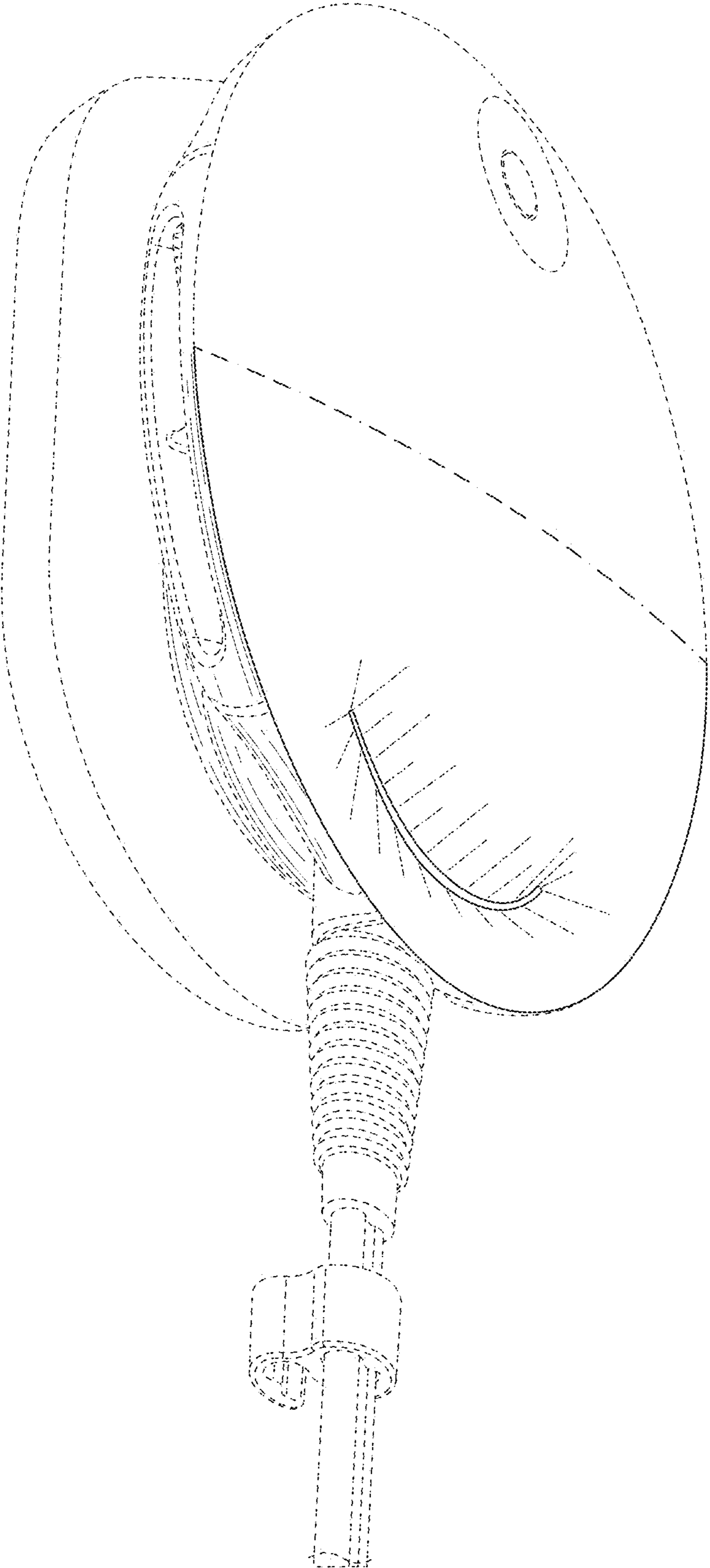


FIG. 1

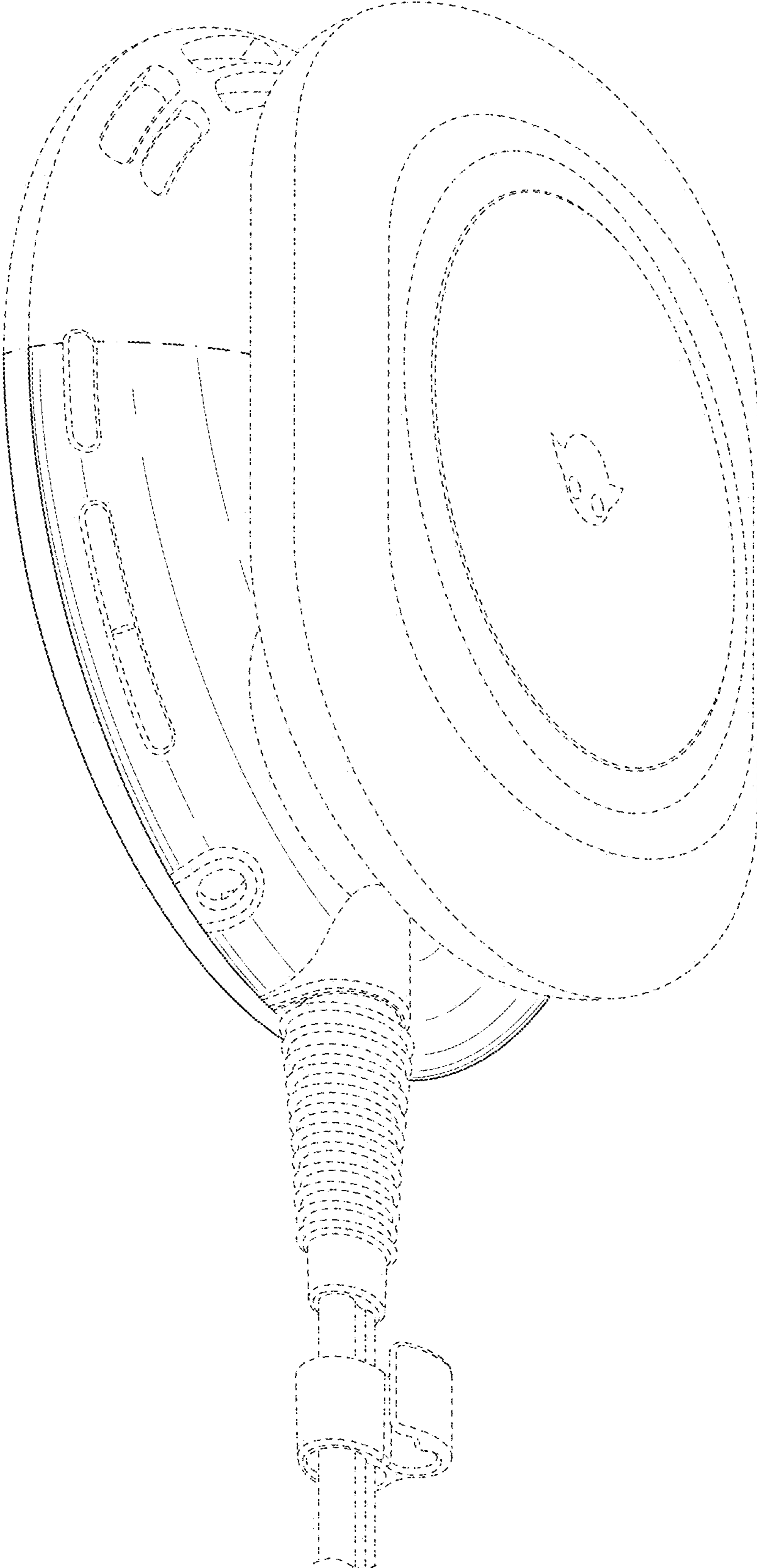


FIG. 2

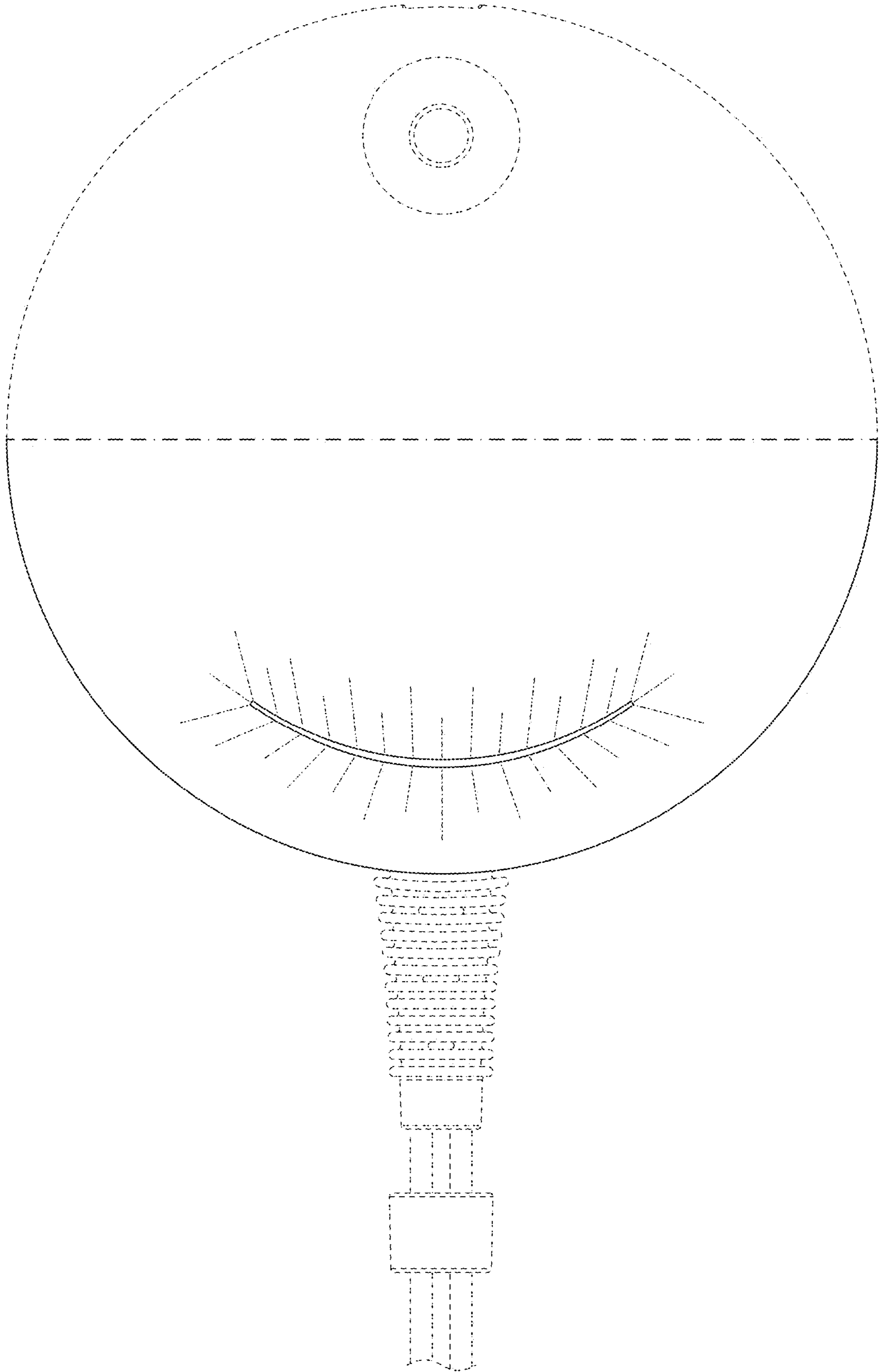


FIG. 3

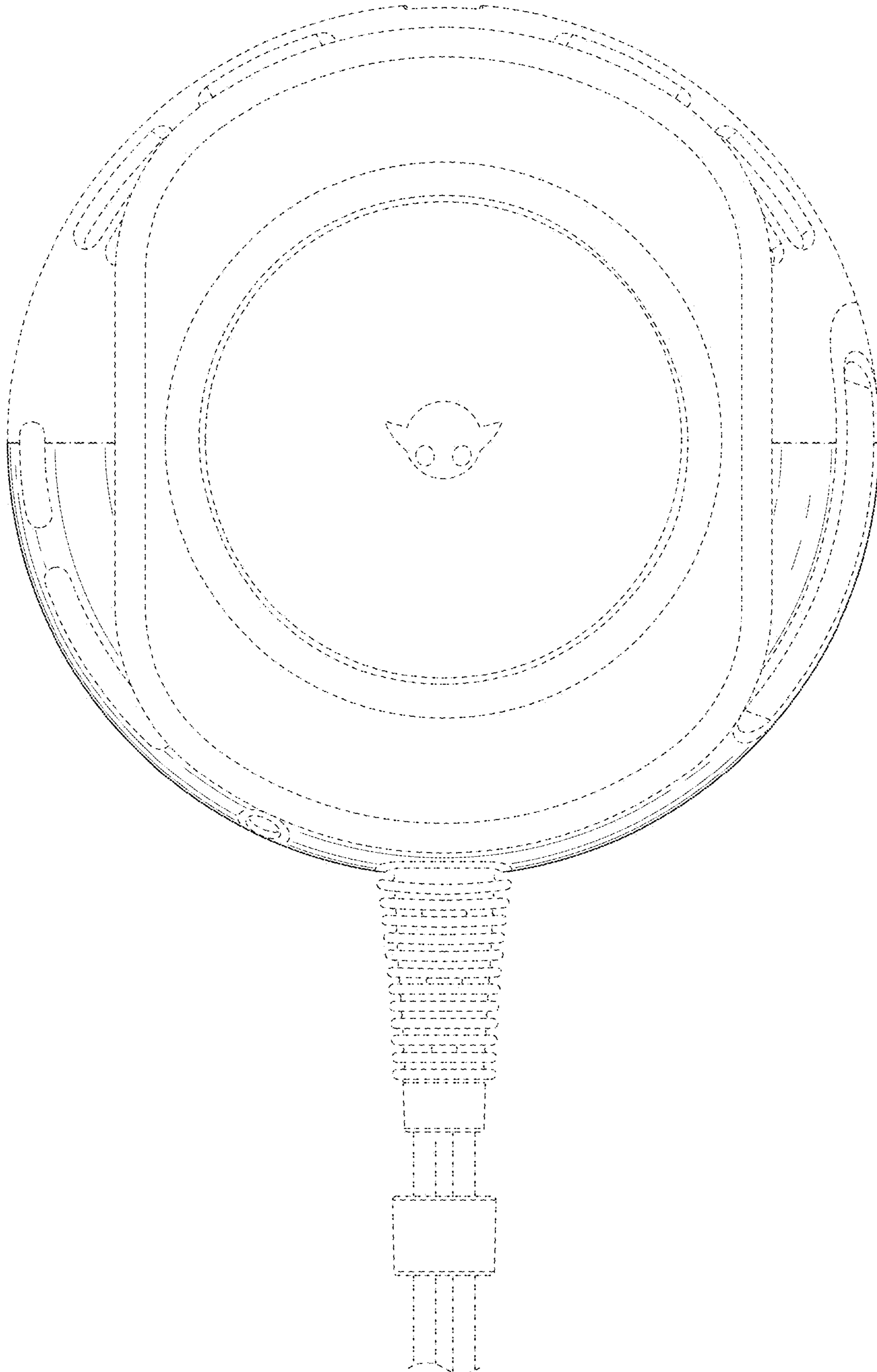


FIG. 4

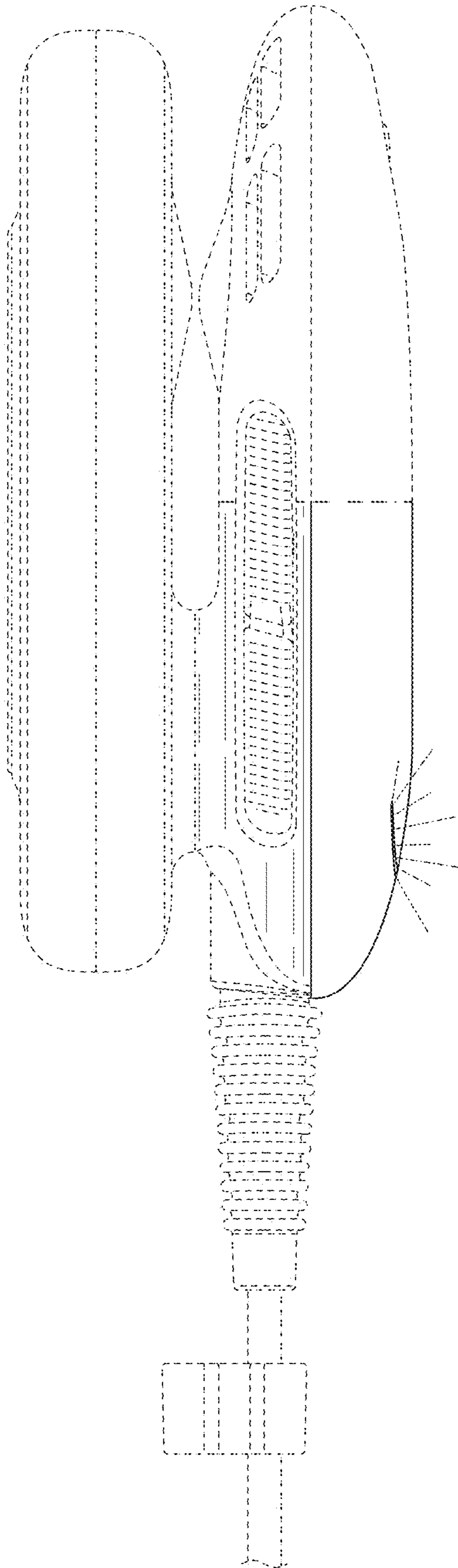


FIG. 5

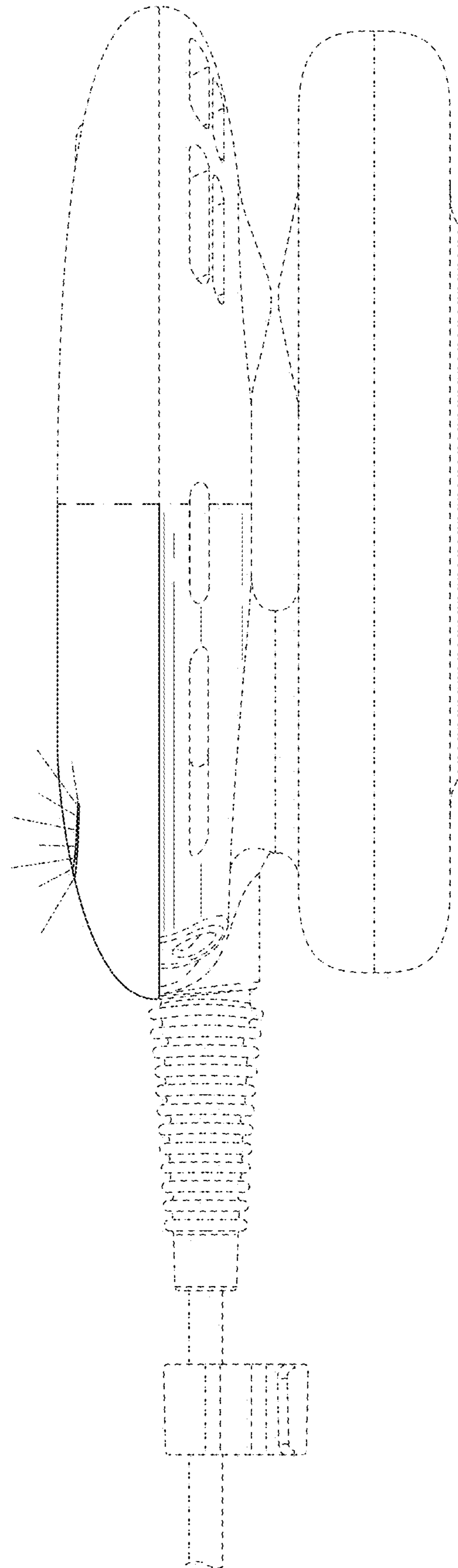


FIG. 6

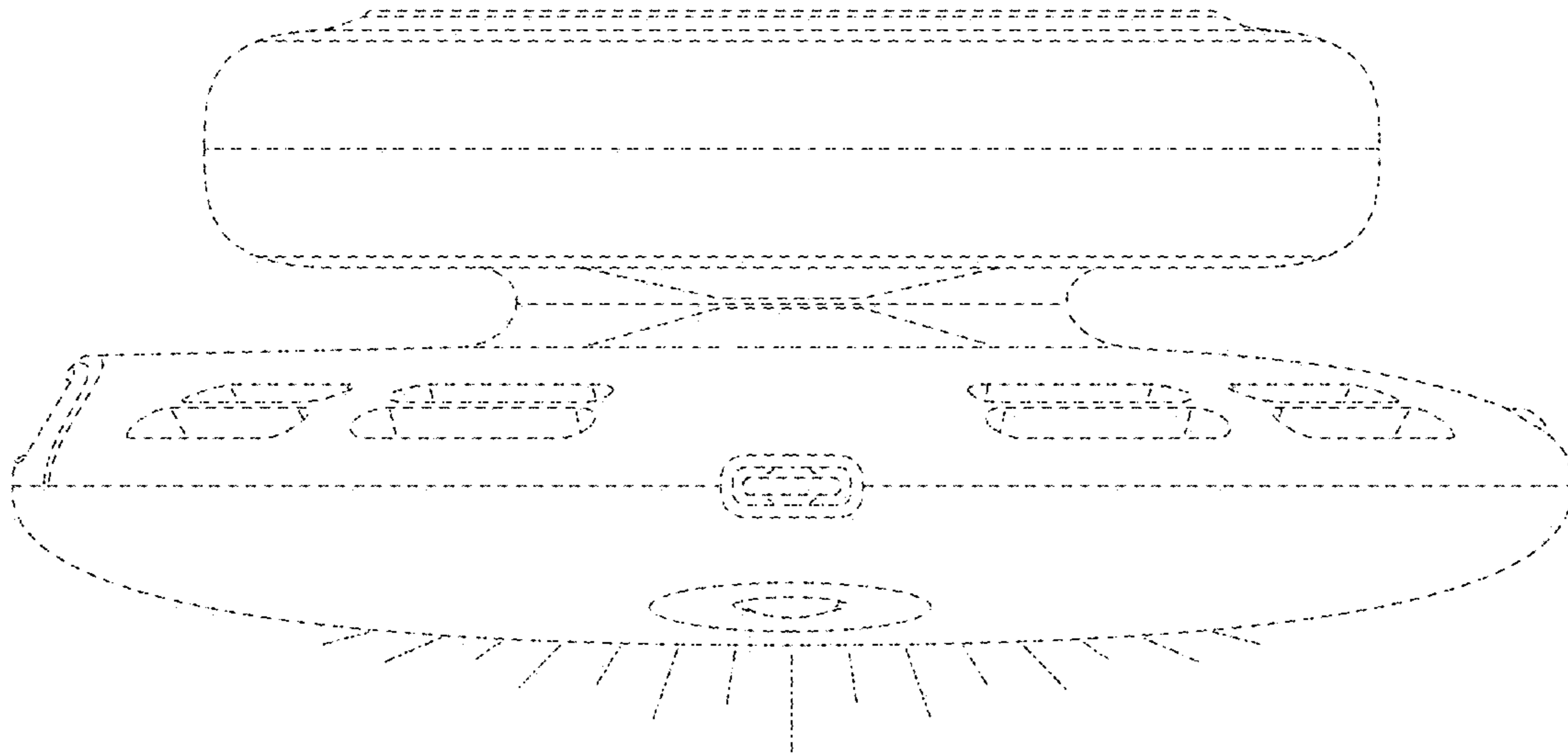


FIG. 7

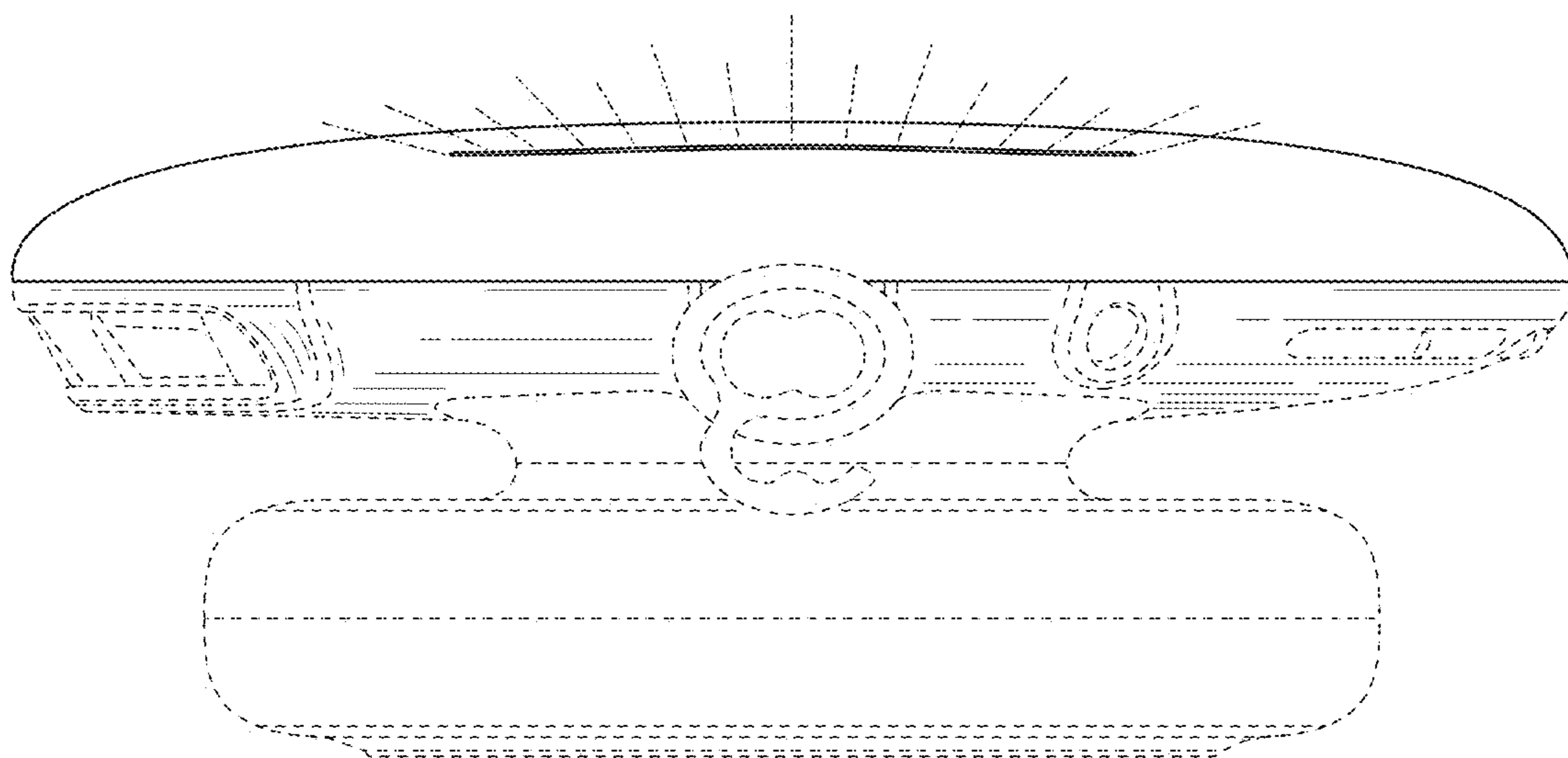


FIG. 8



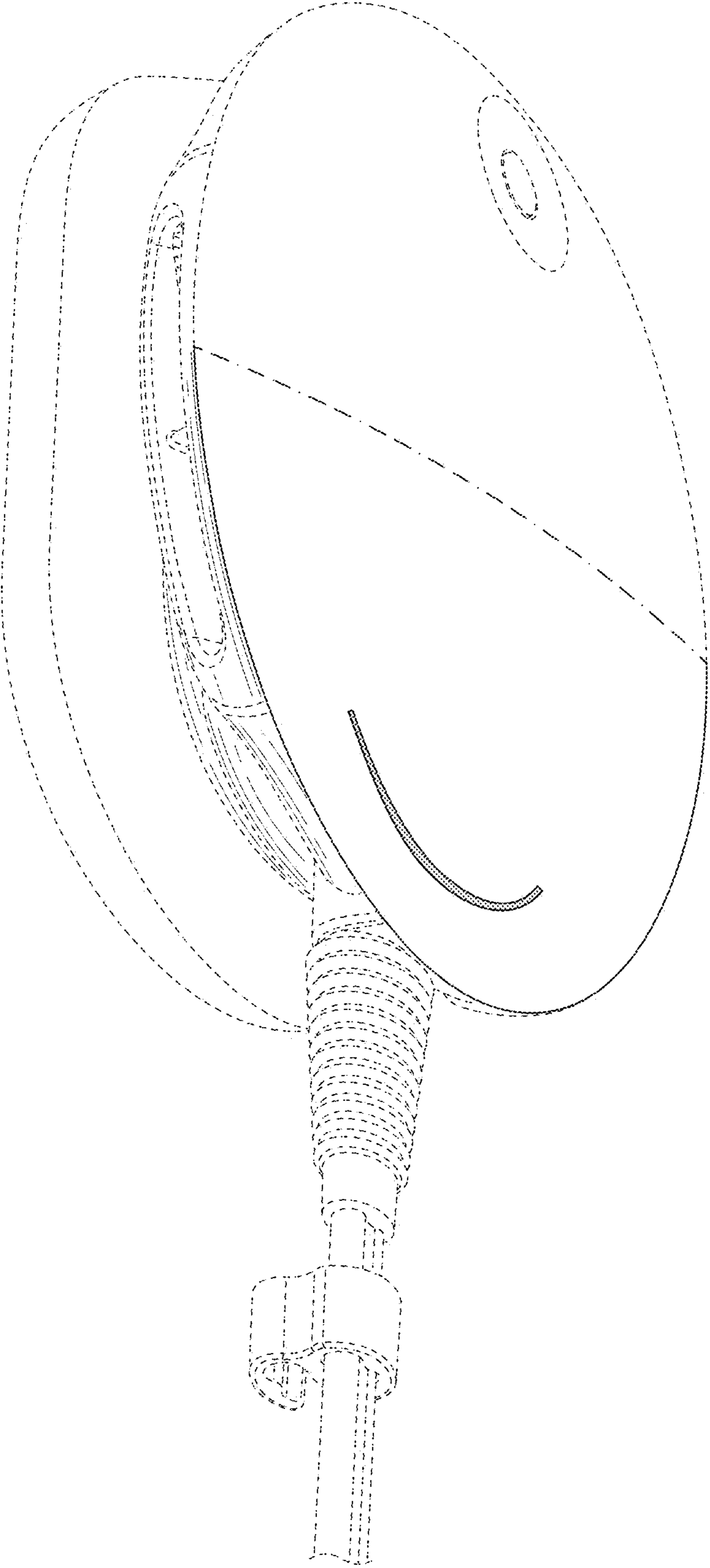


FIG. 9

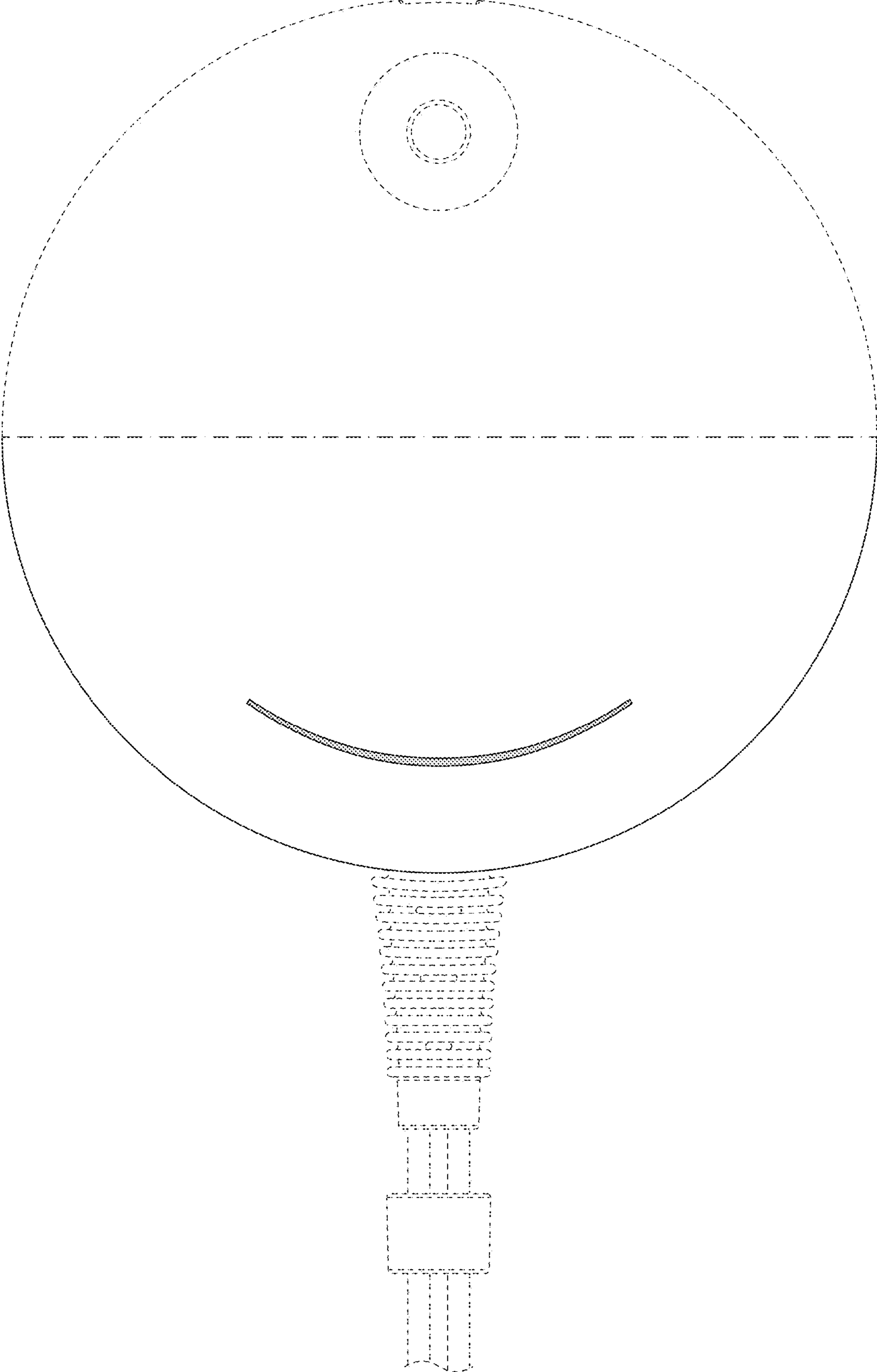


FIG. 10