



US00D717955S

(12) **United States Design Patent**
Bishay et al.

(10) **Patent No.:** **US D717,955 S**
(45) **Date of Patent:** **** Nov. 18, 2014**

(54) **ELECTROCARDIOGRAPHY MONITOR**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Bardy Diagnostics, Inc.**, Vashon, WA
(US)

DE 19955211 5/2001
WO 03032192 4/2003

(Continued)

(72) Inventors: **Jon Mikalson Bishay**, Seattle, WA (US);
Gust H. Bardy, Carnation, WA (US)

OTHER PUBLICATIONS

US 6,527,714, Mar. 4, 2003, Bardy, (withdrawn).

(73) Assignee: **Bardy Diagnostics, Inc.**, Vashon, WA
(US)

(Continued)

(**) Term: **14 Years**

Primary Examiner — Anhdao Doan

(74) *Attorney, Agent, or Firm* — Patrick J. S. Inouye;
Makiko Coffland

(21) Appl. No.: **29/472,046**

(57) **CLAIM**

The ornamental design for an electrocardiography monitor,
as shown and described.

(22) Filed: **Nov. 7, 2013**

(51) **LOC (10) Cl.** **24-01**

(52) **U.S. Cl.**

USPC **D24/167**

(58) **Field of Classification Search**

USPC D24/165–168, 186, 187; D10/46;
600/301, 382, 390, 483, 500–503, 508,
600/509, 513

See application file for complete search history.

DESCRIPTION

FIG. 1 is a perspective view showing an electrocardiography
monitor.

FIG. 2 is a top plan view of the electrocardiography monitor.
FIG. 3 is a bottom plan view of the electrocardiography
monitor.

FIG. 4 is a front elevational view of the electrocardiography
monitor.

FIG. 5 is a rear elevational view of the electrocardiography
monitor.

FIG. 6 is a right elevational view of the electrocardiography
monitor.

FIG. 7 is a left elevational view of the electrocardiography
monitor; and,

FIG. 8 is another perspective view thereof, in which the
electrocardiography monitor is shown in an example environ-
ment shown in broken lines.

The broken lines in FIG. 8 represent an environmental subject
matter, and all other broken lines in the drawing views illus-
trate unclaimed portions of the electrocardiography monitor.
None of the broken lines form part of the claimed design.

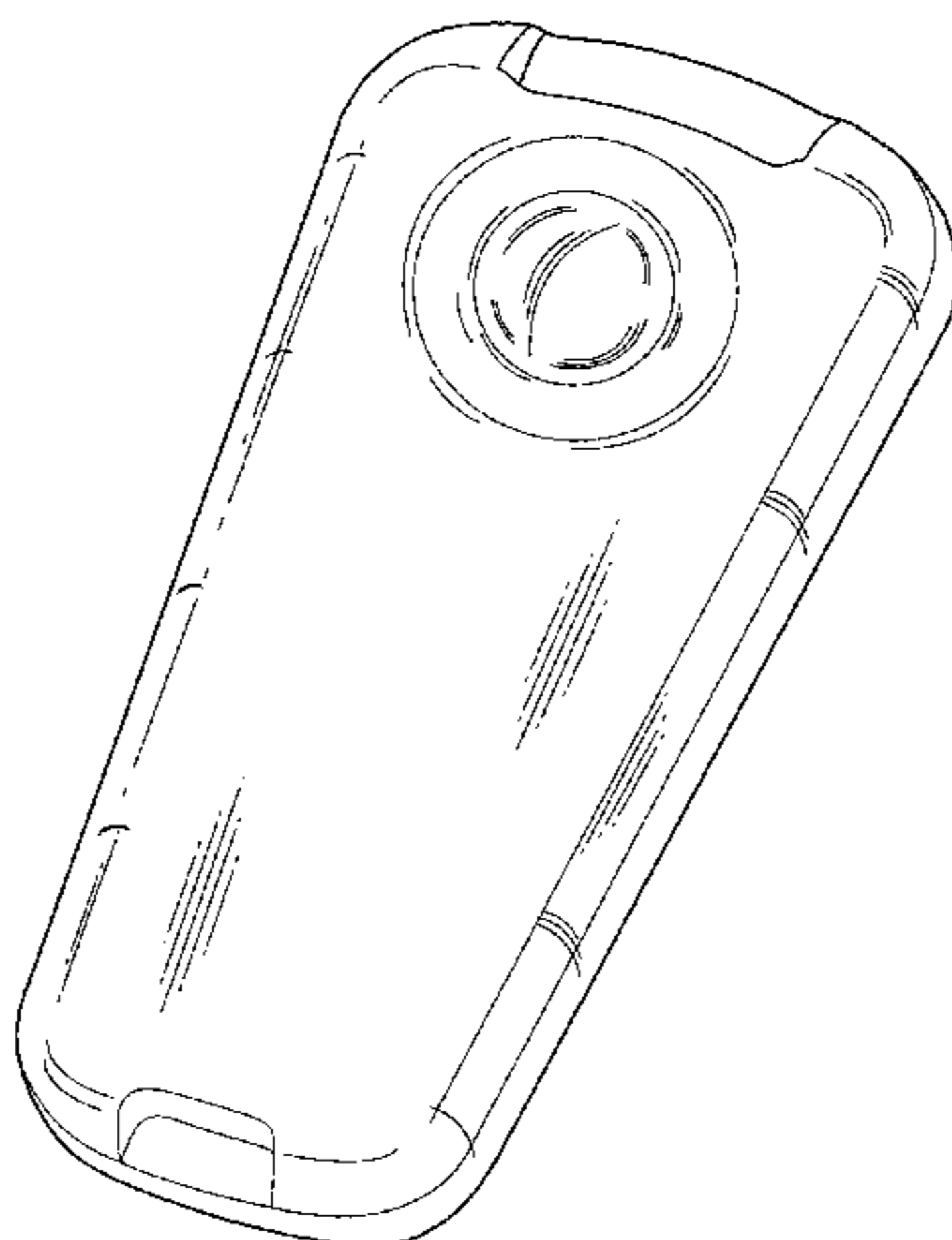
(56) **References Cited**

U.S. PATENT DOCUMENTS

3,215,136	A	11/1965	Holter et al.
4,123,785	A	10/1978	Cherry et al.
4,532,934	A	8/1985	Kelen
4,550,502	A	11/1985	Grayzel
4,716,903	A	1/1988	Hansen et al.
4,809,705	A	3/1989	Ascher
4,915,656	A	4/1990	Alferness
5,168,876	A	12/1992	Quedens et al.
5,215,098	A	6/1993	Steinhaus
D341,423	S	11/1993	Bible
5,392,784	A	2/1995	Gudaitis
D357,069	S	4/1995	Plahn et al.

(Continued)

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,402,780 A	4/1995	Faasse, Jr.		D643,929 S *	8/2011	DelloStritto et al.	D24/165
5,402,884 A	4/1995	Gilman et al.		8,116,841 B2	2/2012	Bly et al.	
5,458,141 A	10/1995	Neil		8,231,539 B2	7/2012	Bardy	
5,473,537 A	12/1995	Glazer et al.		8,231,540 B2	7/2012	Bardy	
5,579,919 A	12/1996	Gilman et al.		8,239,012 B2	8/2012	Felix et al.	
5,582,181 A	12/1996	Ruess		8,249,686 B2	8/2012	Libbus et al.	
D377,983 S	2/1997	Sabri et al.		8,260,414 B2	9/2012	Nassif et al.	
5,623,935 A	4/1997	Faisandier		8,266,008 B1	9/2012	Siegal et al.	
5,697,955 A	12/1997	Stolte		8,277,378 B2	10/2012	Bardy	
5,749,902 A	5/1998	Olsen et al.		8,285,356 B2	10/2012	Bly et al.	
5,817,151 A	10/1998	Olsen et al.		8,285,370 B2	10/2012	Felix et al.	
5,850,920 A	12/1998	Gilman et al.		8,308,650 B2	11/2012	Bardy	
D407,159 S	3/1999	Roberg		8,366,629 B2	2/2013	Bardy	
5,906,583 A	5/1999	Rogel		8,374,688 B2	2/2013	Libbus et al.	
5,951,598 A	9/1999	Bishay et al.		8,412,317 B2	4/2013	Mazar	
5,984,102 A	11/1999	Tay		8,460,189 B2	6/2013	Libbus et al.	
6,101,413 A	8/2000	Olsen et al.		8,473,047 B2	6/2013	Chakravarthy et al.	
6,115,638 A	9/2000	Groenke		8,478,418 B2	7/2013	Fahey	
6,117,077 A	9/2000	Del Mar et al.		8,591,430 B2	11/2013	Amurthur et al.	
6,134,479 A	10/2000	Brewer et al.		8,613,708 B2	12/2013	Bishay et al.	
6,148,233 A	11/2000	Owen et al.		8,613,709 B2	12/2013	Bishay et al.	
6,269,267 B1	7/2001	Bardy et al.		8,620,402 B2 *	12/2013	Parker et al.	600/391
6,272,385 B1	8/2001	Bishay et al.		8,620,418 B1	12/2013	Kuppuraj et al.	
6,301,502 B1	10/2001	Owen et al.		8,626,277 B2	1/2014	Felix et al.	
6,304,773 B1	10/2001	Taylor et al.		D701,964 S *	4/2014	Yoneta et al.	D24/187
6,304,780 B1	10/2001	Owen et al.		8,684,925 B2	4/2014	Manicka et al.	
6,304,783 B1	10/2001	Lyster et al.		8,688,190 B2	4/2014	Libbus et al.	
6,374,138 B1	4/2002	Owen et al.		8,718,752 B2	5/2014	Libbus et al.	
6,418,342 B1	7/2002	Owen et al.		8,744,561 B2	6/2014	Fahey	
6,427,083 B1	7/2002	Owen et al.		8,774,932 B2	7/2014	Fahey	
6,456,872 B1	9/2002	Faisandier		8,790,257 B2	7/2014	Libbus et al.	
6,546,285 B1	4/2003	Owen et al.		8,790,259 B2	7/2014	Katra et al.	
D477,085 S *	7/2003	Sanfilippo	D24/187	8,795,174 B2	8/2014	Manicka et al.	
6,605,046 B1	8/2003	Del Mar		8,798,734 B2	8/2014	Kuppuraj et al.	
6,607,485 B2	8/2003	Bardy		8,818,481 B2	8/2014	Bly et al.	
6,671,545 B2	12/2003	Fincke		8,823,490 B2	9/2014	Libbus et al.	
6,671,547 B2	12/2003	Lyster et al.		2002/0120310 A1	8/2002	Linden et al.	
6,694,186 B2	2/2004	Bardy		2002/0193668 A1	12/2002	Munneke	
6,704,595 B2	3/2004	Bardy		2003/0004547 A1	1/2003	Owen et al.	
6,705,991 B2	3/2004	Bardy		2003/0073916 A1	4/2003	Yonce	
6,754,523 B2	6/2004	Toole		2003/0083559 A1	5/2003	Thompson	
6,782,293 B2	8/2004	Dupelle et al.		2003/0139785 A1	7/2003	Riff et al.	
6,860,897 B2	3/2005	Bardy		2004/0008123 A1	1/2004	Carrender	
6,866,629 B2	3/2005	Bardy		2004/0019288 A1	1/2004	Kinast	
6,887,201 B2	5/2005	Bardy		2004/0034284 A1	2/2004	Aversano et al.	
6,893,397 B2	5/2005	Bardy		2004/0049132 A1	3/2004	Barron et al.	
6,904,312 B2	6/2005	Bardy		2004/0087836 A1	5/2004	Green et al.	
6,908,431 B2	6/2005	Bardy		2004/0148194 A1	7/2004	Wellons et al.	
6,913,577 B2	7/2005	Bardy		2004/0243435 A1	12/2004	Williams	
6,944,498 B2	9/2005	Owen et al.		2004/0256453 A1	12/2004	Lammle	
6,960,167 B2	11/2005	Bardy		2004/0260188 A1	12/2004	Syed et al.	
6,978,169 B1	12/2005	Guerra		2005/0096717 A1	5/2005	Bishay et al.	
6,993,377 B2	1/2006	Flick et al.		2005/0108055 A1	5/2005	Ott et al.	
7,020,508 B2	3/2006	Stivoric et al.		2005/0154267 A1	7/2005	Bardy	
D519,636 S *	4/2006	Okuda et al.	D24/168	2005/0182308 A1	8/2005	Bardy	
7,027,864 B2	4/2006	Snyder et al.		2005/0182309 A1	8/2005	Bardy	
7,065,401 B2	6/2006	Worden		2005/0228243 A1	10/2005	Bardy	
7,085,601 B1	8/2006	Bardy et al.		2005/0245839 A1	11/2005	Stivoric et al.	
7,104,955 B2	9/2006	Bardy		2006/0025824 A1	2/2006	Freeman et al.	
7,134,996 B2	11/2006	Bardy		2006/0041201 A1	2/2006	Behbehani et al.	
7,147,600 B2	12/2006	Bardy		2006/0122469 A1	6/2006	Martel	
7,215,991 B2	5/2007	Besson et al.		2006/0224072 A1	10/2006	Shennib	
7,248,916 B2	7/2007	Bardy		2006/0235320 A1	10/2006	Tan et al.	
7,257,438 B2	8/2007	Kinast		2006/0253006 A1	11/2006	Bardy	
D557,423 S *	12/2007	Chen	D24/187	2007/0003115 A1	1/2007	Patton et al.	
D558,882 S	1/2008	Brady		2007/0050209 A1	3/2007	Yered	
7,328,061 B2	2/2008	Rowlandson et al.		2007/0078324 A1	4/2007	Wijisiriwardana	
7,412,395 B2	8/2008	Rowlandson et al.		2007/0093719 A1	4/2007	Nichols, Jr. et al.	
D606,656 S	12/2009	Kobayashi et al.		2007/0100667 A1	5/2007	Bardy	
7,756,721 B1	7/2010	Falchuk et al.		2007/0123801 A1	5/2007	Goldberger et al.	
7,787,943 B2 *	8/2010	McDonough	600/519	2007/0136091 A1	6/2007	McTaggart	
7,874,993 B2	1/2011	Bardy		2007/0179357 A1	8/2007	Bardy	
7,881,785 B2	2/2011	Nassif et al.		2007/0203415 A1	8/2007	Bardy	
D639,437 S *	6/2011	Bishay et al.	D24/167	2007/0203423 A1	8/2007	Bardy	
7,959,574 B2	6/2011	Bardy		2007/0225611 A1	9/2007	Kumar et al.	
				2007/0244405 A1	10/2007	Xue et al.	
				2007/0249946 A1	10/2007	Kumar et al.	
				2007/0255153 A1	11/2007	Kumar et al.	
				2007/0265510 A1	11/2007	Bardy	

(56)

References Cited

U.S. PATENT DOCUMENTS

2007/0276270 A1 11/2007 Tran
 2007/0293738 A1 12/2007 Bardy
 2007/0293739 A1 12/2007 Bardy
 2007/0293740 A1 12/2007 Bardy
 2007/0293741 A1 12/2007 Bardy
 2007/0293772 A1 12/2007 Bardy
 2008/0051668 A1 2/2008 Bardy
 2008/0058661 A1 3/2008 Bardy
 2008/0139953 A1 6/2008 Baker et al.
 2008/0194927 A1 8/2008 KenKnight et al.
 2008/0208014 A1 8/2008 KenKnight et al.
 2008/0284599 A1 11/2008 Zdeblick et al.
 2008/0288026 A1 11/2008 Cross et al.
 2008/0306359 A1 12/2008 Zdeblick et al.
 2009/0069867 A1 3/2009 KenKnight et al.
 2009/0073991 A1 3/2009 Landrum et al.
 2009/0076336 A1 3/2009 Mazar et al.
 2009/0076341 A1 3/2009 James et al.
 2009/0076342 A1 3/2009 Amurthur et al.
 2009/0076343 A1 3/2009 James et al.
 2009/0076346 A1 3/2009 James et al.
 2009/0076349 A1 3/2009 Libbus et al.
 2009/0076397 A1 3/2009 Libbus et al.
 2009/0076401 A1 3/2009 Mazar et al.
 2009/0076559 A1 3/2009 Libbus et al.
 2009/0216132 A1 8/2009 Orbach
 2009/0270747 A1 10/2009 Van Dam et al.
 2009/0292194 A1 11/2009 Libbus et al.
 2010/0022897 A1 1/2010 Parker et al.
 2010/0056881 A1 3/2010 Libbus et al.
 2010/0081913 A1 4/2010 Cross et al.
 2010/0185063 A1 7/2010 Bardy
 2010/0191154 A1 7/2010 Berger et al.
 2010/0191310 A1 7/2010 Bly
 2010/0234716 A1 9/2010 Engel
 2011/0144470 A1 6/2011 Mazar et al.
 2011/0245711 A1 10/2011 Katra et al.
 2012/0035432 A1 2/2012 Katra et al.
 2012/0088998 A1 4/2012 Bardy et al.
 2012/0088999 A1 4/2012 Bishay et al.
 2012/0089000 A1 4/2012 Bishay et al.
 2012/0089001 A1 4/2012 Bishay et al.
 2012/0089412 A1 4/2012 Bardy et al.
 2012/0089417 A1 4/2012 Bardy et al.
 2012/0101396 A1 4/2012 Solosko et al.
 2012/0302906 A1 11/2012 Felix et al.
 2013/0096395 A1 4/2013 Katra et al.
 2013/0123651 A1 5/2013 Bardy
 2013/0158361 A1 6/2013 Bardy
 2013/0274584 A1 10/2013 Finlay et al.
 2013/0275158 A1 10/2013 Fahey
 2013/0331665 A1 12/2013 Libbus et al.
 2013/0338448 A1 12/2013 Libbus et al.
 2014/0012154 A1 1/2014 Mazar et al.

FOREIGN PATENT DOCUMENTS

WO 2006014806 2/2006
 WO 2007092543 8/2007
 WO 2008010216 1/2008
 WO 2009112976 9/2009

WO 2009112978 9/2009
 WO 2009112979 9/2009
 WO 2010066507 6/2010

OTHER PUBLICATIONS

15 of the Hottest Wearable Gadgets, URL <<http://thehottestgadgets.com/2008/09/the-15-hottest-wearable-gadgets-001253>> (Web page cached on Sep. 27, 2008).
 AliveCor's Heart Monitor for iPhone Receives FDA Clearance, URL <<http://www.businesswire.com/news/home/20121203005545/en/AliveCor%E2%80%99s-Heart-Monitor-iPhone-Receives-FDA-Clearance#.U7rtq7FVtyF>> (Dec. 3, 2012).
 Bharadwaj et al., Techniques for Accurate ECG signal processing, EE Times, URL <www.eetimes.com/document.asp?doc_id=1278571> (Feb. 14, 2011).
 Chen et al., "Monitoring Body Temperature of Newborn Infants At Neonatal Intensive Care Units Using Wearable Sensors," BodyNets 2010, Corfu Island, Greece. (Sep. 10, 2010).
 Epstein, Andrew E. et al.; ACC/AHA/HRS 2008 Guidelines for Device-Based Therapy of Cardiac Rhythm Abnormalities. J. Am. Coll. Cardiol. 2008; 51; e1-e62, 66 Pgs.
 Fitbit automatically tracks your fitness and sleep, URL <<http://www.fitbit.com/>> (Web page cached on Sep. 10, 2008).
 Smith, Kevin, "Jawbone Up VS. Fitbit Flex: Which Is the Best Fitness Band?" URL <<http://www.businessinsider.com/fitbit-flex-vs-jawbone-up-2013-5?op=1>> (Jun. 1, 2013).
 Kligfield, Paul et al., Recommendations for the Standardization and Interpretation of the Electrocardiogram: Part I. J. Am. Coll. Cardiol.; 2007; 49; 1109-27, 75 Pgs.
 Lauren Gravitz, "When Your Diet Needs a Band-Aid," Technology Review, MIT. (May 1, 2009).
 Lieberman, Jonathan, "How Telemedicine Is Aiding Prompt ECG Diagnosis In Primary Care," British Journal of Community Nursing, vol. 13, No. 3, Mar. 1, 2008, pp. 123-126, XP009155082, ISSN: 1462-4753.
 McManus et al., "A Novel Application for the Detection of an Irregular Pulse using an iPhone 4S in Patients with Atrial Fibrillation," vol. 10(3), pp. 315-319 (Mar. 2013).
 Nike+ Fuel Band, URL <http://www.nike.com/us/en_us/c/nikeplus-fuelband> (Web page cached on Jan. 11, 2013).
 P. Libby et al., "Braunwald's Heart Disease—A Textbook of Cardiovascular Medicine," Chs. 11, pp. 125-148 and 12, pp. 149-193 (8th ed. 2008), American Heart Association.
 Initial hands-on with Polar Loop activity tracker, URL <<http://www.dcrainmaker.com/2013/10/polar-loop-firstlook.html>> (Sep. 17, 2013).
 Sittig et al., "A Computer-Based Outpatient Clinical Referral System," International Journal of Medical Informatics, Shannon, IR, vol. 55, No. 2, Aug. 1, 1999, pp. 149-158, XO004262434, ISSN: 1386-5056(99)00027-1.
 Sleepview, URL <<http://www.clevemed.com/sleepview/overview.shtml>> (Web pages cached on Feb. 23, 2010, Dec. 29, 2012 and Sep. 4, 2013).
 Actigraphy/ Circadian Rhythm SOMNOwatch, URL <<http://www.somnomedics.eu/news-events/publications/somnowatchtm.html>> (Web cached on Jan. 23, 2010).
 Zio Event Card, URL <<http://www.irhythmtech.com/zio-solution/zio-event/>> (Web page cached on Mar. 11, 2013).
 Zio Patch System, URL <<http://www.irhythmtech.com/zio-solution/zio-system/index.html>> (Web page cached on Sep. 8, 2013).

* cited by examiner

Fig. 1.

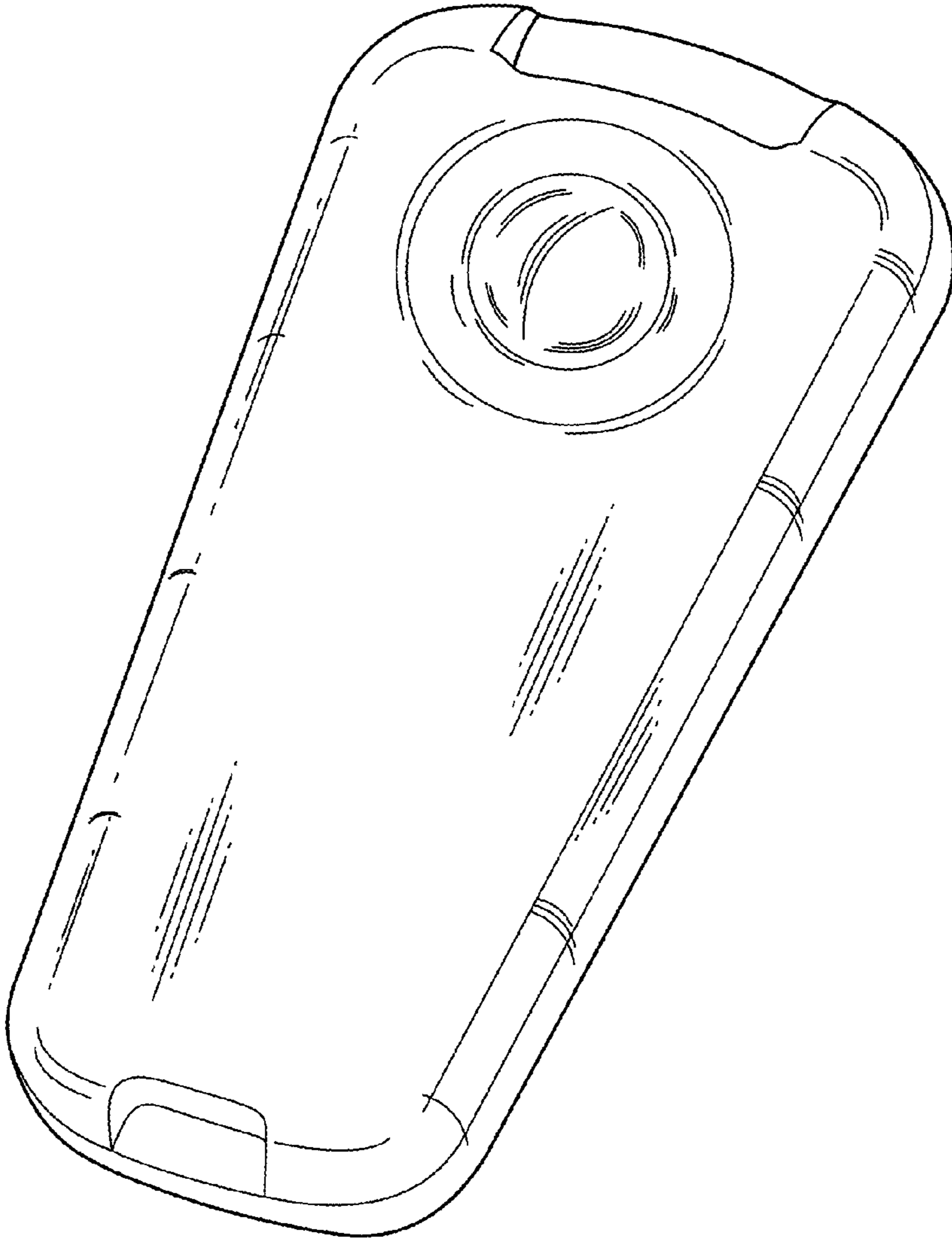


Fig. 2.

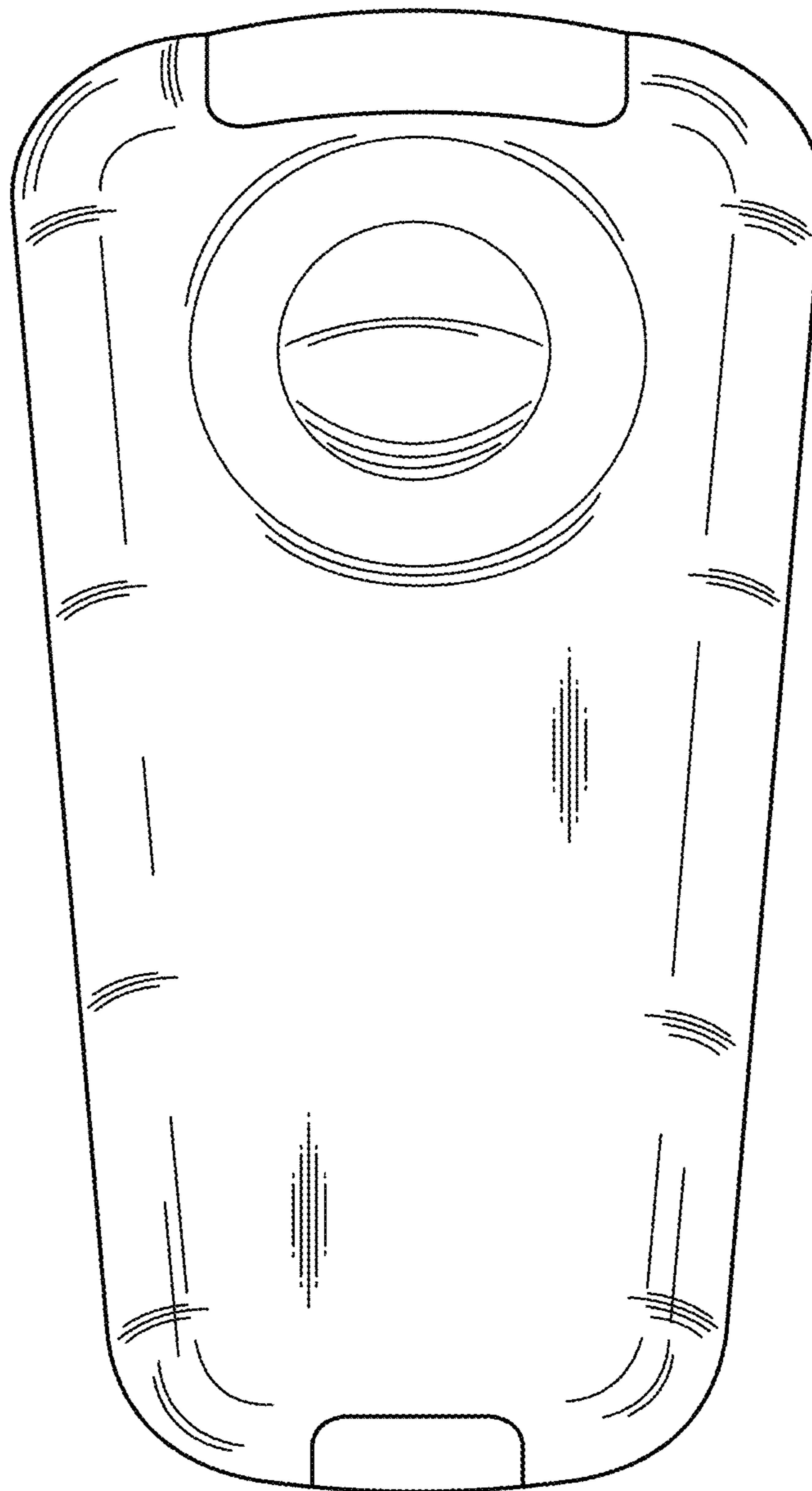


Fig. 3.

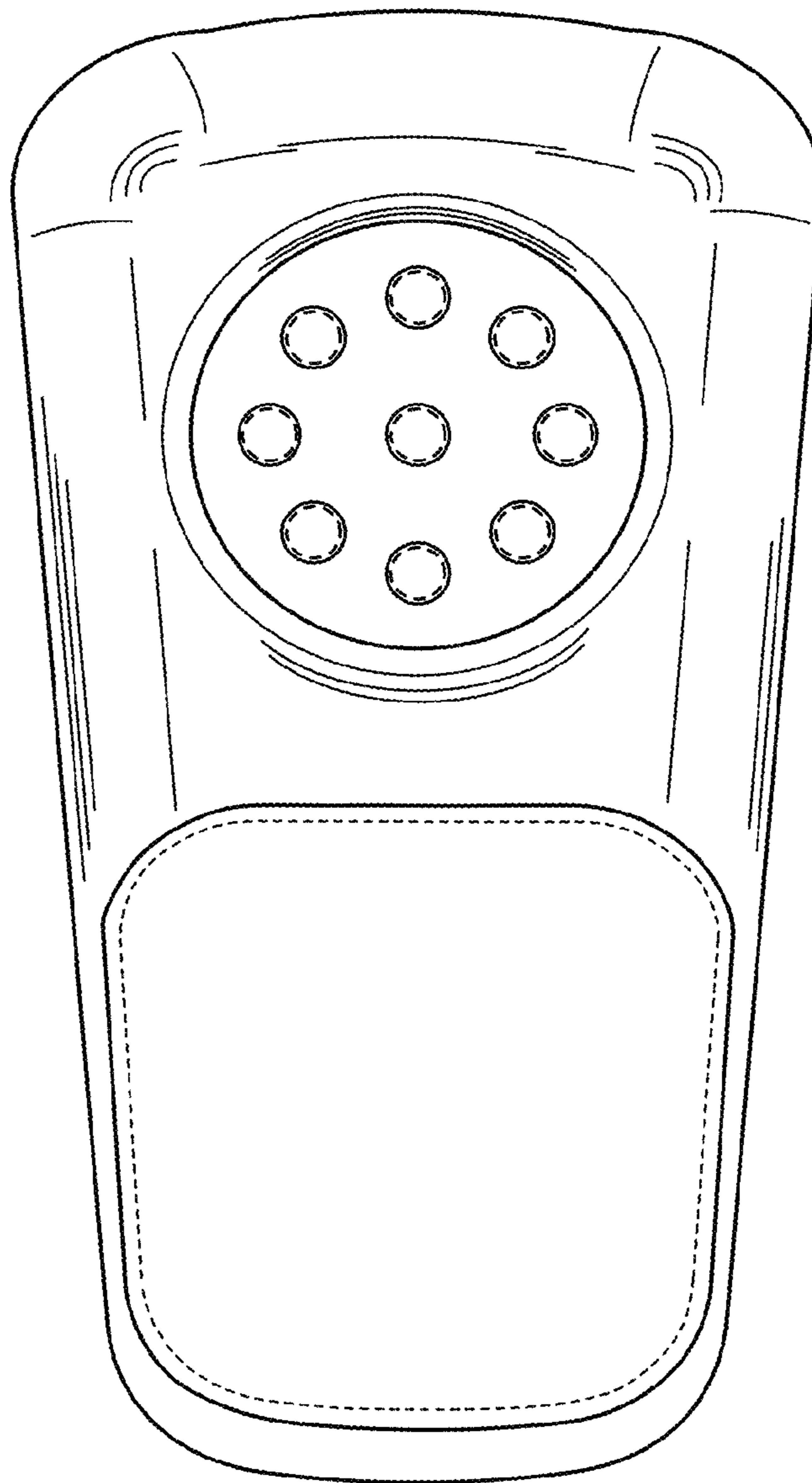


Fig. 4.

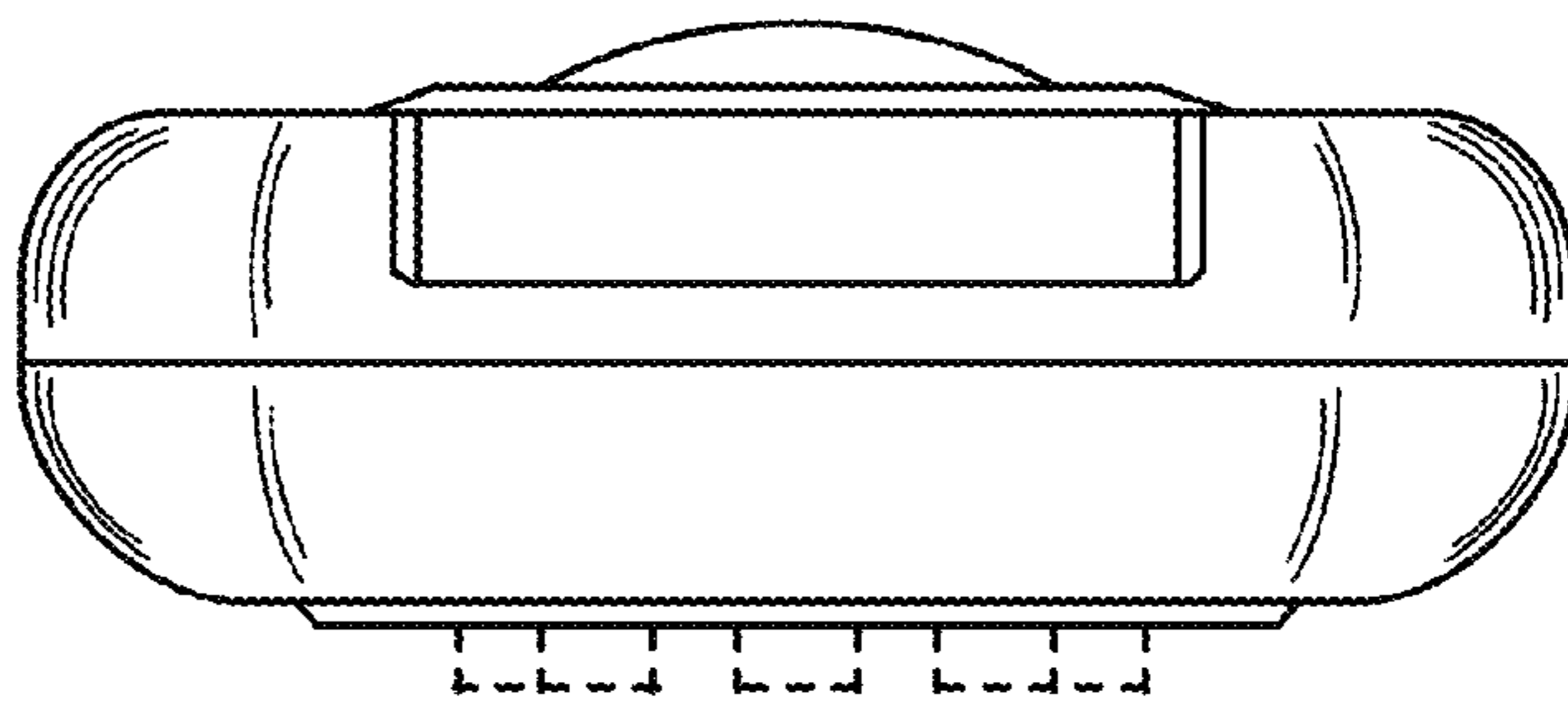


Fig. 5.

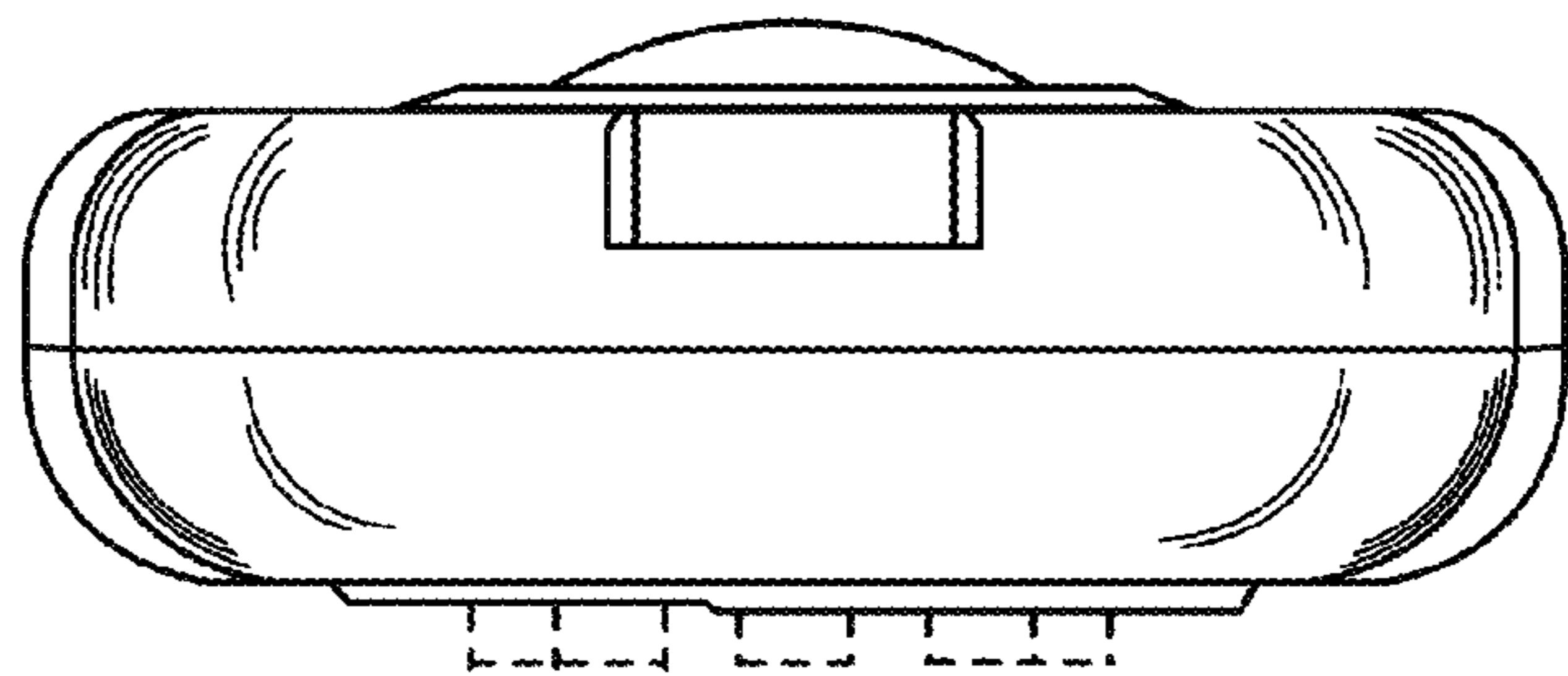


Fig. 6.

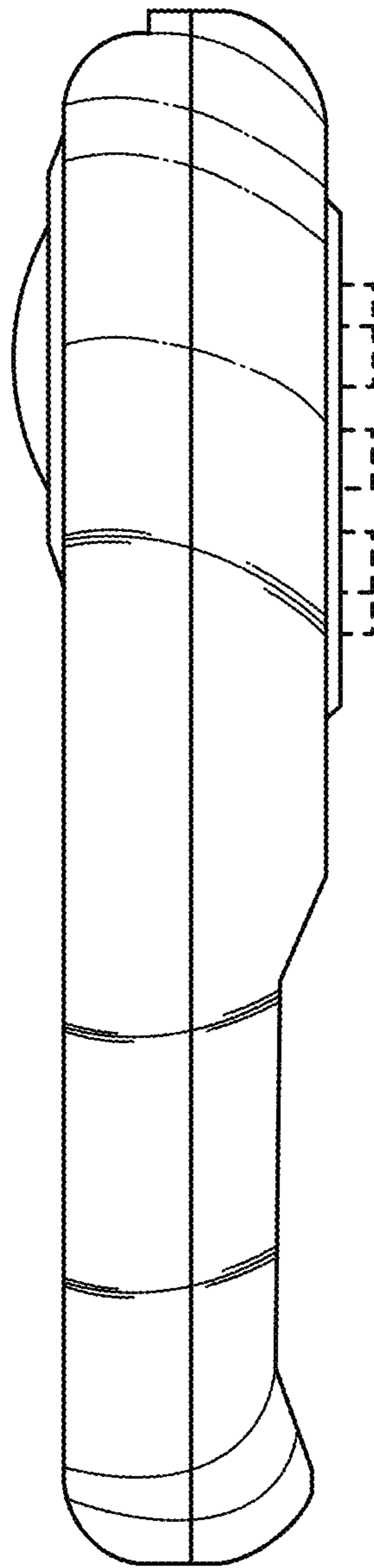


Fig. 7.

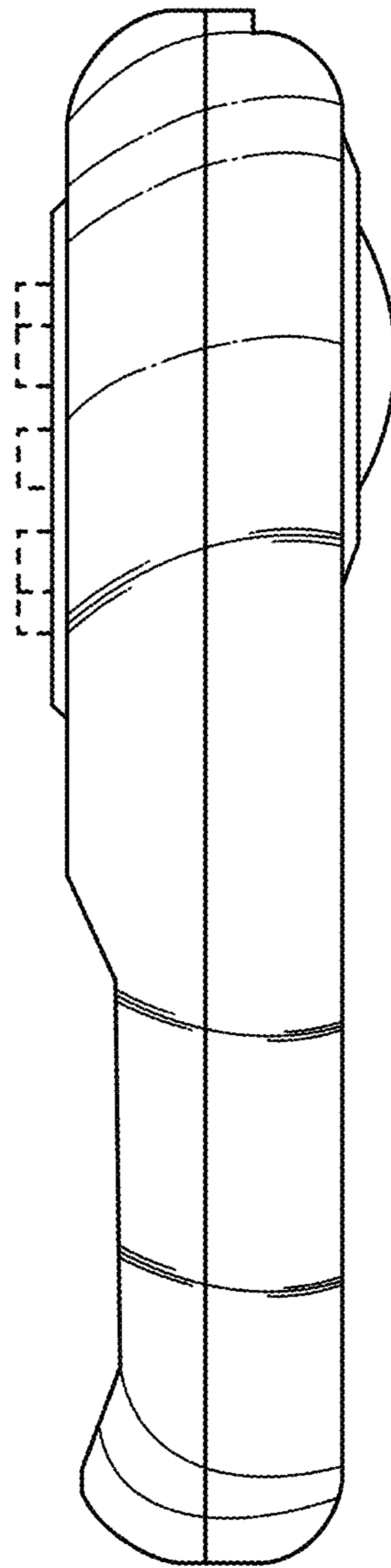


Fig. 8.

