



US00D794806S

(12) **United States Design Patent** (10) **Patent No.:** **US D794,806 S**
Kranz et al. (45) **Date of Patent:** **** Aug. 15, 2017**

(54) **HEALTH MONITORING DEVICE**

FOREIGN PATENT DOCUMENTS

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EP 0 959 607 A2 11/1999
WO WO 01/93756 A2 12/2001

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(Continued)

OTHER PUBLICATIONS

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International Search Authority, International Search Report and the Written Opinion for International Application No. PCT/US2012/033554 dated Aug. 28, 2012 (15 pages).

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

(Continued)

(21) Appl. No.: **29/562,929**

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(22) Filed: **Apr. 29, 2016**

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(51) **LOC (10) Cl.** **24-02**

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

USPC **D24/186**

(58) **Field of Classification Search**

USPC D24/186, 165, 169, 107, 133, 158, 187,
D24/232; D10/46, 78, 104.1; D14/402,
D14/408, 409

CPC ... A61B 5/0064; A61B 5/0091; A61B 5/4312;
A61B 2560/0431; A61B 2560/0456;
A61B 2562/0247; A61B 8/4455; A61B
8/4472; A61B 5/14532; A61B 5/0002;
A61B 5/1118; A61B 5/157; A61B 5/002;
A61B 5/01; A61B 5/411; A61B 5/742;
A61B 5/7465; G06F 3/03543; G06F
3/038

See application file for complete search history.

(57) **CLAIM**

We claim the ornamental design for a health monitoring device, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the health monitoring device of the claimed design;

FIG. 2 is a front elevation view of the health monitoring device shown in FIG. 1;

FIG. 3 is a rear elevation view of the health monitoring device shown in FIG. 1;

FIG. 4 is a bottom plan view of the health monitoring device shown in FIG. 1;

FIG. 5 is a top plan view of the health monitoring device shown in FIG. 1;

FIG. 6 is a left side elevation view of the health monitoring device shown in FIG. 1; and,

FIG. 7 is a right side elevation view of the health monitoring device shown in FIG. 1.

The broken lines shown in the figures represent portions of the health monitoring device that form no part of the claimed design.

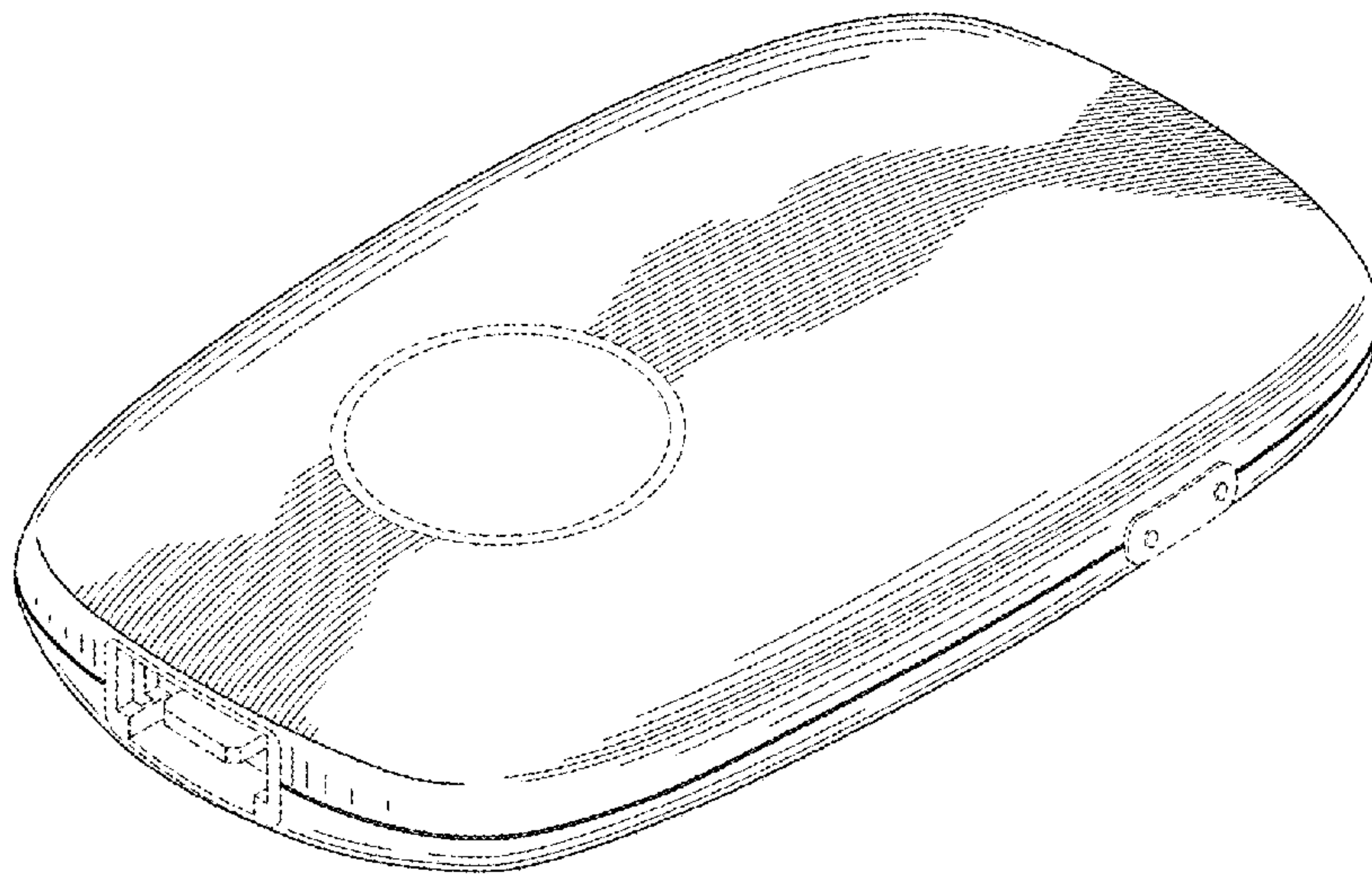
(56) **References Cited**

U.S. PATENT DOCUMENTS

3,832,994 A 9/1974 Bicher et al.
4,173,971 A 11/1979 Karz
4,364,397 A 12/1982 Citron et al.
4,635,646 A 1/1987 Gilles et al.

(Continued)

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,721,114 A	1/1988	DuFault et al.	7,082,334 B2	7/2006	Boute et al.
4,791,933 A	12/1988	Asai et al.	7,092,751 B2	8/2006	Erkkila
4,883,064 A	11/1989	Olson et al.	7,099,715 B2	8/2006	Korzinov et al.
4,905,205 A	2/1990	Rialan	7,117,037 B2	10/2006	Hiebert et al.
4,920,489 A	4/1990	Hubelbank et al.	7,120,485 B2	10/2006	Glass et al.
5,025,795 A	6/1991	Kunig	7,130,396 B2	10/2006	Rogers et al.
5,058,597 A	10/1991	Onoda et al.	7,156,809 B2	1/2007	Quy
5,080,105 A	1/1992	Thornton	7,171,166 B2	1/2007	Ng et al.
5,090,418 A	2/1992	Squires et al.	7,194,300 B2	3/2007	Korzinov
5,226,431 A	7/1993	Bible et al.	7,197,357 B2	3/2007	Istvan et al.
5,238,001 A	8/1993	Gallant et al.	7,212,850 B2	5/2007	Prystowsky et al.
5,309,920 A	5/1994	Gallant et al.	7,222,054 B2	5/2007	Geva
5,365,935 A	11/1994	Righter et al.	D546,456 S *	7/2007	May D24/186
5,417,222 A	5/1995	Dempsey et al.	7,248,916 B2	7/2007	Bardy
5,501,229 A	3/1996	Selker et al.	7,257,438 B2	8/2007	Kinast
5,502,688 A	3/1996	Recchione et al.	7,343,197 B2	3/2008	Shusterman
5,544,661 A	8/1996	Davis et al.	7,382,247 B2	6/2008	Welch et al.
5,564,429 A	10/1996	Bornn et al.	7,403,808 B2	7/2008	Istvan et al.
5,678,562 A	10/1997	Sellers	7,412,281 B2	8/2008	Shen et al.
5,718,233 A	2/1998	Selker et al.	7,433,731 B2	10/2008	Matsumura et al.
5,748,103 A	5/1998	Flach et al.	7,477,933 B2	1/2009	Ueyama
5,782,773 A	7/1998	Kuo et al.	7,509,160 B2	3/2009	Bischoff et al.
5,871,451 A	2/1999	Unger et al.	7,539,533 B2	5/2009	Tran
5,876,351 A	3/1999	Rohde	7,542,878 B2	6/2009	Nanikashvili
5,944,659 A	8/1999	Flach et al.	7,552,035 B2	6/2009	Cataltepe et al.
6,049,730 A	4/2000	Kristbjarnarson	7,558,623 B2	7/2009	Fischell et al.
6,168,563 B1	1/2001	Brown	7,580,755 B1	8/2009	Schwartz et al.
6,213,942 B1	4/2001	Flach et al.	7,587,237 B2	9/2009	Korzinov et al.
6,225,901 B1	5/2001	Kail, IV	7,593,764 B2	9/2009	Kohls et al.
6,238,338 B1	5/2001	DeLuca et al.	7,596,405 B2	9/2009	Kurzweil et al.
6,272,377 B1	8/2001	Sweeney et al.	7,630,756 B2	12/2009	Linker
6,280,380 B1	8/2001	Bardy	7,654,965 B2	2/2010	Morganroth
6,366,871 B1	4/2002	Geva	7,689,439 B2	3/2010	Parker
6,389,308 B1	5/2002	Shusterman	7,702,382 B2	4/2010	Xue et al.
6,411,840 B1	6/2002	Bardy	7,706,883 B1	4/2010	Sing
6,416,471 B1	7/2002	Kumar et al.	7,715,905 B2	5/2010	Kurzweil et al.
6,418,340 B1	7/2002	Conley et al.	7,729,753 B2	6/2010	Kremlivsky et al.
6,441,747 B1	8/2002	Khair et al.	7,734,335 B2	6/2010	Kontothanassis et al.
6,466,806 B1	10/2002	Geva et al.	7,761,143 B2	7/2010	Matsumura et al.
6,471,087 B1	10/2002	Shusterman	D621,048 S	8/2010	Severe et al.
6,485,418 B2	11/2002	Yasushi et al.	7,783,342 B2	8/2010	Syeda-Mahmood et al.
6,494,829 B1	12/2002	New, Jr. et al.	7,801,591 B1	9/2010	Shusterman
6,496,705 B1	12/2002	Ng et al.	7,803,118 B2	9/2010	Reisfeld et al.
6,496,731 B1	12/2002	Lovett	7,803,119 B2	9/2010	Reisfeld
6,553,262 B1	4/2003	Lang et al.	7,837,629 B2	11/2010	Bardy
6,569,095 B2	5/2003	Eggers	7,844,323 B2	11/2010	Fischell et al.
6,589,170 B1	7/2003	Flach et al.	7,860,557 B2	12/2010	Istvan et al.
6,602,191 B2	8/2003	Quy	7,907,996 B2	3/2011	Prystowsky et al.
6,611,705 B2	8/2003	Hopman et al.	7,912,537 B2	3/2011	Lee et al.
6,648,820 B1	11/2003	Sarel	7,933,642 B2	4/2011	Istvan et al.
6,654,631 B1	11/2003	Sahai	7,941,207 B2	5/2011	Korzinov
6,664,893 B1	12/2003	Eveland et al.	7,979,111 B2	7/2011	Acquista
6,665,385 B2	12/2003	Rogers et al.	7,996,187 B2	8/2011	Nanikashvili et al.
6,694,177 B2	2/2004	Eggers et al.	8,005,531 B2	8/2011	Xue et al.
6,694,186 B2	2/2004	Bardy	8,046,060 B2	10/2011	Simms, Jr.
6,704,595 B2	3/2004	Bardy	RE42,934 E	11/2011	Thompson
6,708,057 B2	3/2004	Morganroth	8,055,332 B2	11/2011	McCabe et al.
6,773,396 B2	8/2004	Flach et al.	8,064,990 B2	11/2011	Diem et al.
6,801,137 B2	10/2004	Eggers	8,073,536 B2	12/2011	Gunderson et al.
6,804,558 B2	10/2004	Haller et al.	8,121,673 B2	2/2012	Tran
6,826,425 B2	11/2004	Bardy	8,126,728 B2	2/2012	Dicks et al.
6,840,904 B2	1/2005	Goldberg	8,126,729 B2	2/2012	Dicks et al.
6,856,832 B1	2/2005	Matsumura et al.	8,126,730 B2	2/2012	Dicks et al.
6,871,089 B2	3/2005	Korzinov et al.	8,126,732 B2	2/2012	Dicks et al.
6,897,788 B2	5/2005	Khair et al.	8,126,733 B2	2/2012	Dicks et al.
6,913,577 B2	7/2005	Bardy	8,126,734 B2	2/2012	Dicks et al.
6,925,324 B2	8/2005	Shusterman	8,126,735 B2	2/2012	Dicks et al.
6,940,403 B2	9/2005	Kail, IV	8,150,502 B2	4/2012	Kumar et al.
6,945,934 B2	9/2005	Bardy	8,160,682 B2	4/2012	Kumar et al.
6,957,107 B2	10/2005	Rogers et al.	8,190,246 B2	5/2012	Belalcazar et al.
6,980,112 B2	12/2005	Nee	8,204,580 B2	6/2012	Kurzweil et al.
6,987,965 B2	1/2006	Ng et al.	8,224,430 B2	7/2012	Fischell et al.
7,002,468 B2	2/2006	Eveland et al.	8,244,335 B2	8/2012	Kumar et al.
7,016,721 B2	3/2006	Lee et al.	8,255,041 B2	8/2012	Istvan et al.
7,058,444 B2	6/2006	Logan et al.	8,255,238 B2	8/2012	Powell et al.
			8,260,408 B2	9/2012	Ostrow
			8,290,129 B2	10/2012	Rogers et al.
			8,301,236 B2	10/2012	Baumann et al.
			8,301,252 B2	10/2012	Hatlestad et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

8,308,650	B2	11/2012	Bardy	2008/0097908	A1	4/2008	Dicks et al.
8,323,188	B2	12/2012	Tran	2008/0097909	A1	4/2008	Dicks et al.
8,326,407	B2	12/2012	Linker	2008/0097910	A1	4/2008	Dicks et al.
8,328,718	B2	12/2012	Tran	2008/0097911	A1	4/2008	Dicks et al.
8,352,018	B2	1/2013	Xue et al.	2008/0097912	A1	4/2008	Dicks et al.
8,391,962	B2	3/2013	Watanabe	2008/0097913	A1	4/2008	Dicks et al.
8,391,989	B2	3/2013	Hatlestad et al.	2008/0097914	A1	4/2008	Dicks et al.
8,396,542	B2	3/2013	Johnson et al.	2008/0097917	A1	4/2008	Dicks et al.
8,406,862	B2	3/2013	Hopenfeld	2008/0103370	A1	5/2008	Dicks et al.
8,425,414	B2	4/2013	Eveland	2008/0103554	A1	5/2008	Dicks et al.
8,425,415	B2	4/2013	Tran	2008/0103555	A1	5/2008	Dicks et al.
8,428,703	B2	4/2013	Hopenfeld	2008/0108907	A1	5/2008	Dicks et al.
8,428,705	B2	4/2013	Kurzweil et al.	2008/0139894	A1	5/2008	Stahmann et al.
8,449,471	B2	5/2013	Tran	2008/0183502	A1	6/2008	Szydlo-Moore et al.
8,478,389	B1	7/2013	Brockway et al.	2008/0215120	A1	7/2008	Dicks et al.
8,478,418	B2	7/2013	Fahey	2008/0215360	A1	9/2008	Dicks et al.
8,483,807	B2	7/2013	Kurzweil et al.	2008/0218376	A1	9/2008	Dicks et al.
8,509,882	B2	8/2013	Albert et al.	2008/0224852	A1	9/2008	Dicks et al.
D689,494	S *	9/2013	Widiaman D14/408	2008/0281215	A1	11/2008	Alhussiny
8,535,223	B2	9/2013	Corroy et al.	2009/0076344	A1	3/2009	Libbus et al.
8,606,351	B2	12/2013	Wheeler	2009/0076345	A1	3/2009	Manicka et al.
8,620,418	B1	12/2013	Kuppuraj et al.	2009/0076350	A1	3/2009	Bly et al.
8,652,038	B2	2/2014	Tran et al.	2009/0076405	A1	3/2009	Amurthur et al.
8,655,441	B2	2/2014	Fletcher et al.	2009/0099469	A1	4/2009	Flores
8,657,742	B2	2/2014	Neumann	2009/0112769	A1	4/2009	Dicks et al.
D721,177	S *	1/2015	Ahlstrom D24/169	2009/0115628	A1	5/2009	Dicks et al.
D767,770	S *	9/2016	Purfey D24/186	2009/0124869	A1	5/2009	Hu et al.
2001/0023360	A1	9/2001	Nelson et al.	2009/0149718	A1	6/2009	Kim et al.
2001/0047127	A1	11/2001	New et al.	2009/0171227	A1	7/2009	Dziubinski et al.
2002/0082665	A1	6/2002	Haller et al.	2009/0234672	A1	9/2009	Dicks et al.
2002/0143576	A1	10/2002	Nolvak et al.	2009/0261968	A1	10/2009	El-Hamamsy et al.
2002/0156384	A1	10/2002	Eggers et al.	2009/0264783	A1	10/2009	Xi et al.
2003/0028442	A1	2/2003	Wagstaff et al.	2009/0275854	A1	11/2009	Zielinski et al.
2003/0122677	A1	7/2003	Kail, IV	2009/0299207	A1	12/2009	Barr
2003/0172940	A1	9/2003	Rogers et al.	2009/0326981	A1	12/2009	Karkanias et al.
2004/0006278	A1	1/2004	Webb et al.	2010/0049006	A1	2/2010	Magar et al.
2004/0100376	A1	5/2004	Lye et al.	2010/0056881	A1	3/2010	Libbus et al.
2004/0127802	A1	7/2004	Istvan et al.	2010/0069735	A1	3/2010	Berkner
2004/0172290	A1	9/2004	Leven	2010/0076325	A1	3/2010	Cho et al.
2004/0260189	A1	12/2004	Eggers et al.	2010/0113895	A1	5/2010	Cho et al.
2005/0004486	A1	1/2005	Glass et al.	2010/0160742	A1	6/2010	Seidl et al.
2005/0049515	A1	3/2005	Miszczynski et al.	2010/0198089	A1	8/2010	Litovchick et al.
2005/0101875	A1	5/2005	Semler et al.	2010/0204586	A1	8/2010	Pu et al.
2005/0131308	A1	6/2005	Chio et al.	2010/0249541	A1	9/2010	Geva et al.
2005/0154325	A1	7/2005	Lauter et al.	2010/0249625	A1	9/2010	Lin
2005/0165318	A1	7/2005	Brodnick et al.	2010/0250271	A1	9/2010	Pearce et al.
2005/0182308	A1	8/2005	Bardy	2010/0268103	A1	10/2010	McNamara et al.
2005/0182334	A1	8/2005	Korzinov et al.	2010/0286545	A1	11/2010	Wolfe et al.
2005/0203349	A1	9/2005	Nanikashvili	2010/0298664	A1	11/2010	Baumann et al.
2005/0234307	A1	10/2005	Heinonen et al.	2010/0331649	A1	12/2010	Chou
2006/0079797	A1	4/2006	Bischoff et al.	2011/0004072	A1	1/2011	Fletcher et al.
2006/0079798	A1	4/2006	Bischoff et al.	2011/0009711	A1	1/2011	Nanikashvili
2006/0149156	A1	7/2006	Cochran et al.	2011/0066042	A1	3/2011	Pandia et al.
2006/0206066	A1	9/2006	Ferek-Petric	2011/0066555	A1	3/2011	Dicks et al.
2006/0229522	A1	10/2006	Barr	2011/0071364	A1	3/2011	Kuo et al.
2007/0010748	A1	1/2007	Rauch et al.	2011/0078441	A1	3/2011	Dicks et al.
2007/0027388	A1	2/2007	Chou	2011/0090086	A1	4/2011	Dicks et al.
2007/0073266	A1	3/2007	Chmiel et al.	2011/0092835	A1	4/2011	Istvan et al.
2007/0093719	A1	4/2007	Nichols et al.	2011/0093283	A1	4/2011	Dicks et al.
2007/0130657	A1	6/2007	Rogers et al.	2011/0093284	A1	4/2011	Dicks et al.
2007/0179357	A1	8/2007	Bardy	2011/0093285	A1	4/2011	Dicks et al.
2007/0179376	A1	8/2007	Gerder	2011/0093286	A1	4/2011	Dicks et al.
2007/0191723	A1	8/2007	Prystowsky	2011/0093287	A1	4/2011	Dicks et al.
2007/0197878	A1	8/2007	Shklarski	2011/0093297	A1	4/2011	Dicks et al.
2007/0208233	A1	9/2007	Kovacs	2011/0097710	A1	4/2011	Macrae et al.
2007/0270665	A1	11/2007	Yang et al.	2011/0098583	A1	4/2011	Pandia et al.
2007/0276270	A1	11/2007	Tran	2011/0105928	A1	5/2011	Bojovic et al.
2007/0279217	A1	12/2007	Venkatraman et al.	2011/0137133	A1	6/2011	Espina
2007/0279239	A1	12/2007	Lachenit et al.	2011/0144470	A1	6/2011	Mazar et al.
2007/0293776	A1	12/2007	Korzinov et al.	2011/0158430	A1	6/2011	Dicks et al.
2008/0004904	A1	1/2008	Tran	2011/0161111	A1	6/2011	Dicks et al.
2008/0097550	A1	4/2008	Dicks et al.	2011/0166466	A1	7/2011	Chon et al.
2008/0097551	A1	4/2008	Dicks et al.	2011/0166468	A1	7/2011	Prystowsky et al.
2008/0097552	A1	4/2008	Dicks et al.	2011/0167250	A1	7/2011	Dicks et al.
2008/0097793	A1	4/2008	Dicks et al.	2011/0179405	A1	7/2011	Dicks et al.
				2011/0245633	A1	10/2011	Goldberg et al.
				2011/0270049	A1	11/2011	Katra et al.
				2011/0270112	A1	11/2011	Manera et al.
				2011/0288379	A1	11/2011	Wu

(56)

References Cited

U.S. PATENT DOCUMENTS

2011/0301435	A1	12/2011	Albert et al.
2011/0301439	A1	12/2011	Albert et al.
2012/0022387	A1	1/2012	Balda
2012/0101396	A1	4/2012	Solosko et al.
2012/0165616	A1	6/2012	Geva et al.
2012/0179055	A1	7/2012	Tamil et al.
2012/0203124	A1	8/2012	Lim
2012/0215123	A1	8/2012	Kumar et al.
2013/0085364	A1	4/2013	Lu et al.
2013/0109927	A1	5/2013	Menzel
2013/0197322	A1	8/2013	Tran
2013/0204100	A1	8/2013	Acquista
2013/0225967	A1	8/2013	Esposito
2013/0237861	A1	9/2013	Margarida et al.
2013/0237874	A1	9/2013	Zoicas
2013/0245387	A1	9/2013	Patel
2013/0245472	A1	9/2013	Eveland
2013/0253354	A1	9/2013	Fahey
2013/0253355	A1	9/2013	Fahey
2013/0289424	A1	10/2013	Brockway et al.
2013/0303926	A1	11/2013	Kurzweil et al.
2013/0331663	A1	12/2013	Albert et al.
2013/0338516	A1	12/2013	Manera et al.
2013/0338518	A1	12/2013	Zoica

FOREIGN PATENT DOCUMENTS

WO	WO 01/93756	A3	12/2001
WO	WO 02/082799	A2	10/2002
WO	WO 02/082799	A3	10/2002

OTHER PUBLICATIONS

International Search Authority, International Search Report and the Written Opinion for International Application No. PCT/US2012/033592 dated Aug. 31, 2012 (14 pages).

Jovanov et al., "Patient Monitoring Using Personal Area Networks of Wireless Intelligent Sensors," Electrical and Computer Engineering Department, University of Alabama in Huntsville, Biomedical Sciences Instrumentation, 37:378-8, 6 pages, 2001.

Hopley et al., "The Magnificent ROC (Receiver Operating Characteristic Curve)," <http://www.anaestheist.com/stats/roc/index.htm>, 26 pages, Sep. 21, 2001.

Chazal et al., "Automatic Classification of Heartbeats Using ECG Morphology and Heartbeat Interval Features," IEEE Transactions on Biomedical Engineering, vol. 51, No. 7, pp. 1196-1206, 11 pages, Jul. 2004.

Philips, "Philips Remote Patient Monitoring," Philips Medical Systems, 4 pages, 2007.

Archive.org, "Clinical Policy Bulletin: Cardiac Event Monitors," No. 0073, Aetna, Inc., [web.archive.org_web_20090514063858_http_www.aetna.com_cpb_medical_data_1_99_0073.html](http://web.archive.org/web/20090514063858/http://www.aetna.com_cpb_medical_data_1_99_0073.html), 10 pages, May 14, 2009.

Center for Technology and Aging, "Technologies for Remote Patient Monitoring in Older Adults," Center for Technology and Aging, Position Paper, Discussion Draft, 30 pages, Dec. 2009.

Edevice, "M2M Solutions for Home Health Monitoring," edevice, http://www.edevice.com/medical/?gclid=CPCdMR_KcCFUpN4AcdZEyzqO, 2 pages, 2010.

MedApps, Inc., "MedApps Mobile Wireless Remote Patient Monitoring," <http://www.medapps.com/>, 3 pages, 2010.

Archive.org, "The Area Under an ROC Curve," <http://web.archive.org/web/20100527211847/http://gim.unmc.edu/dxtests/roc3.htm>, 2 pages, May 27, 2010.

Medical Biostatistics.com, "Sensitivity-Specificity, Bayes' Rule, and Predictives," MedicalBiostatistics.com, <http://www.medicalbiostatistics.com/ROCCurve.pdf>, 4 pages, Sep. 5, 2010.

Medical Biostatistics.com, "ROC Curve," MedicalBiostatistics.com, 9 pages, Sep. 25, 2010.

IEEE, "Remote Patient Monitoring Service Using Heterogeneous Wireless Access Networks: Architecture and Optimization" Niyato et al. paper abstract, IEEE Xplore Digital Library http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=4909280, 1 page, 2011.

TriMed Media Group, Inc., "FDA Green Lights AirStrip Smartphone Patient Monitoring Tool," TriMed Media Group, Inc., http://cardiovascularbusiness.com/index.php?option=com_articles&article=23414&publication=137&view=portals&form=article23414&limitstart=30, 1 page, 2011.

Google Patents, Google Patent Search: "Healthcare Monitoring "web server" smartphone OR mobile," www.google.com/patents, Mar. 9, 2011, 2 pages.

Wikipedia.org, "Holter Monitor," Wikipedia.org, http://en.wikipedia.org/w/index.php?title=Holter_monitor&oldid=417997699, Mar. 9, 2011, 4 pages.

Aetna, Inc., "Clinical Policy Bulletin: Cardiac Event Monitors," No. 0073, Aetna, Inc., www.aetna.com_cpb_medical_data_1_99_0073.html, 10 pages, Mar. 11, 2011.

Wikipedia.org, "Receiver Operating Characteristics," Wikipedia.org, http://en.wikipedia.org/wiki/Receiver_operating_characteristic, 6 pages, Apr. 14, 2011.

Medical Biostatistics.com, "Predictives Based ROC Curve," MedicalBiostatistics.com <http://www.medicalbiostatistics.com/PredictivityBasedROC.pdf>, 3 pages, Sep. 5, 2012.

International Preliminary Report on Patentability, PCT/US2012/033554; mailed Oct. 15, 2013.

International Preliminary Report on Patentability; PCT/US2012/033592; mailed Oct. 15, 2013.

* cited by examiner

FIG. 1

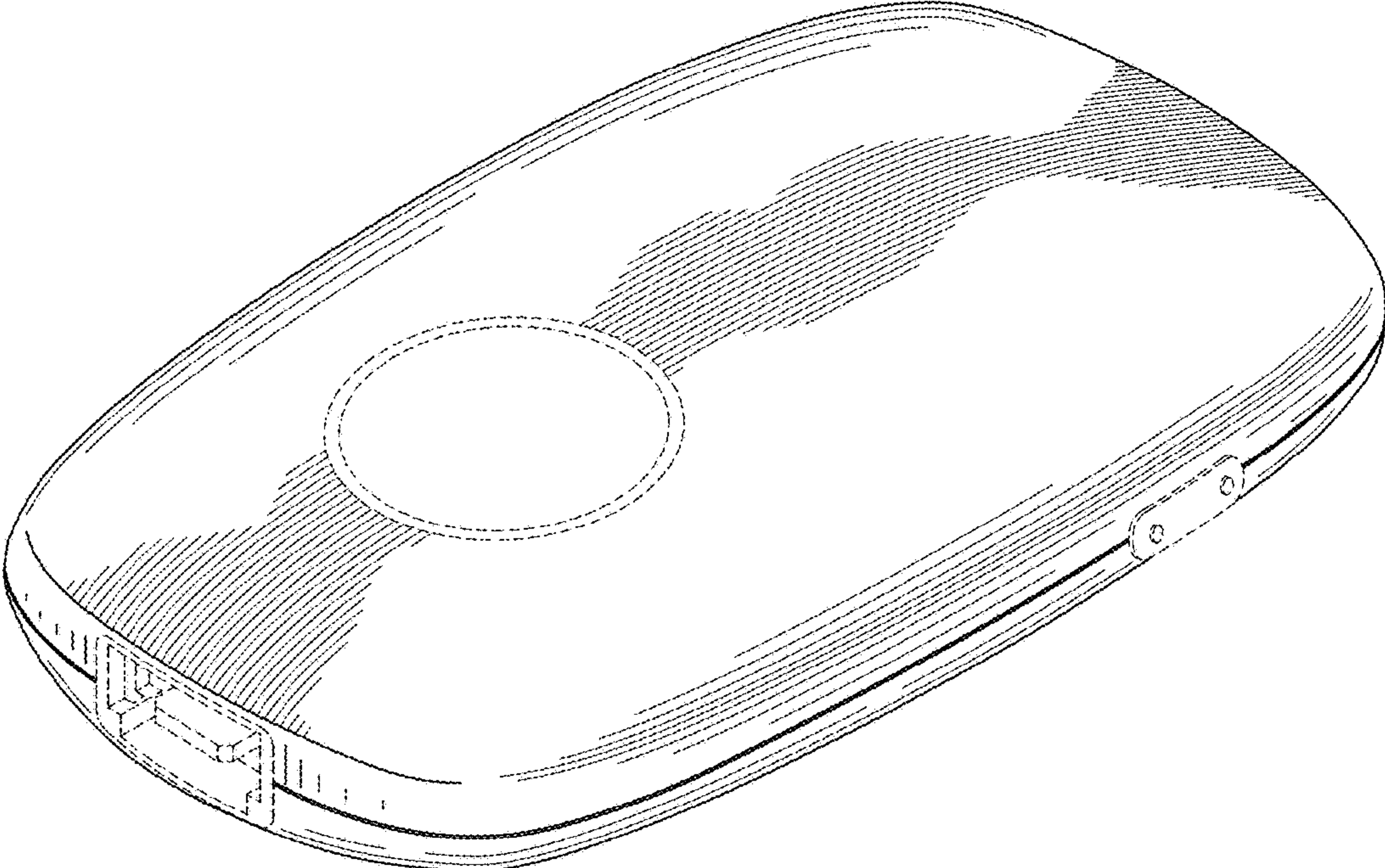


FIG. 2

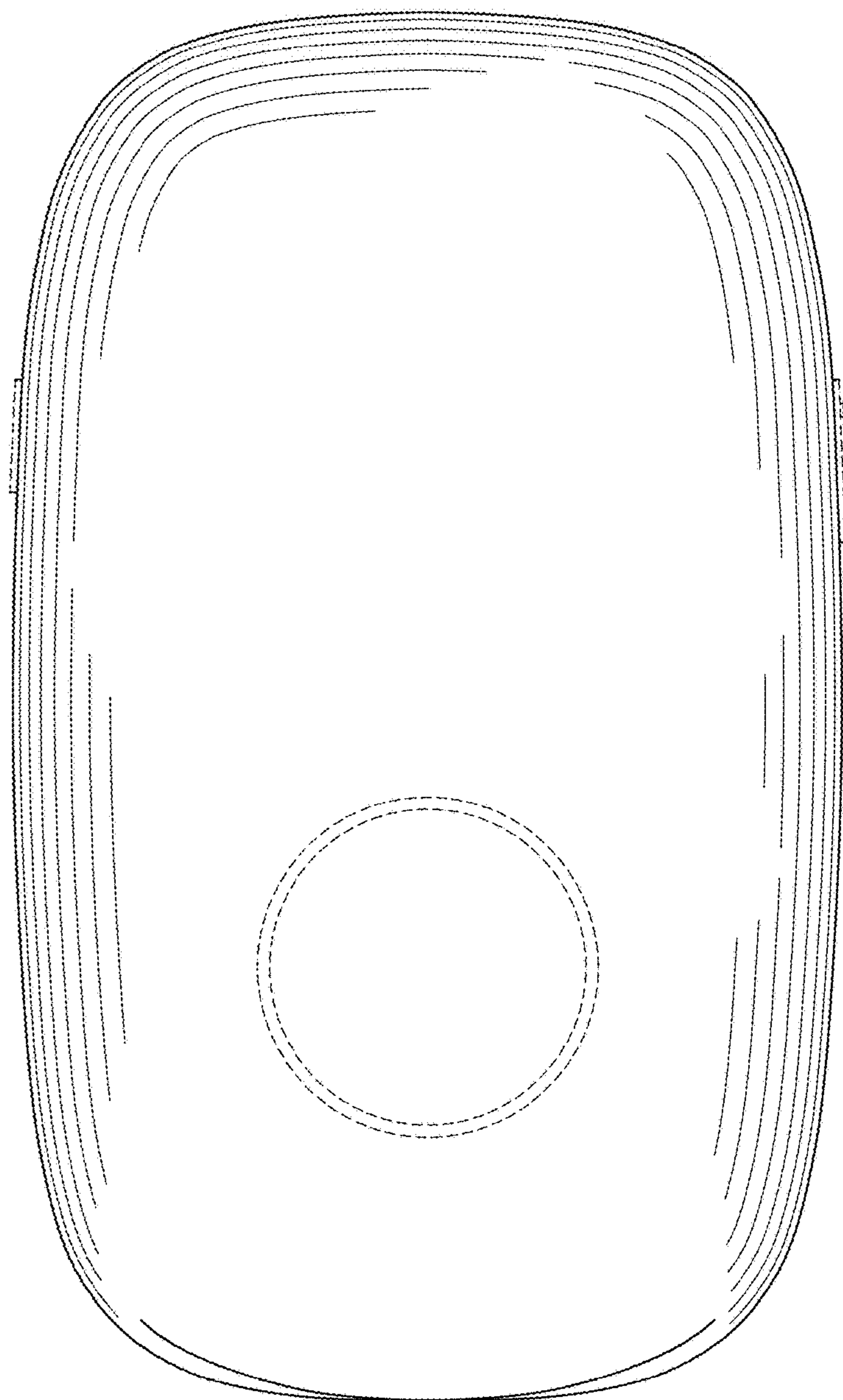


FIG. 3

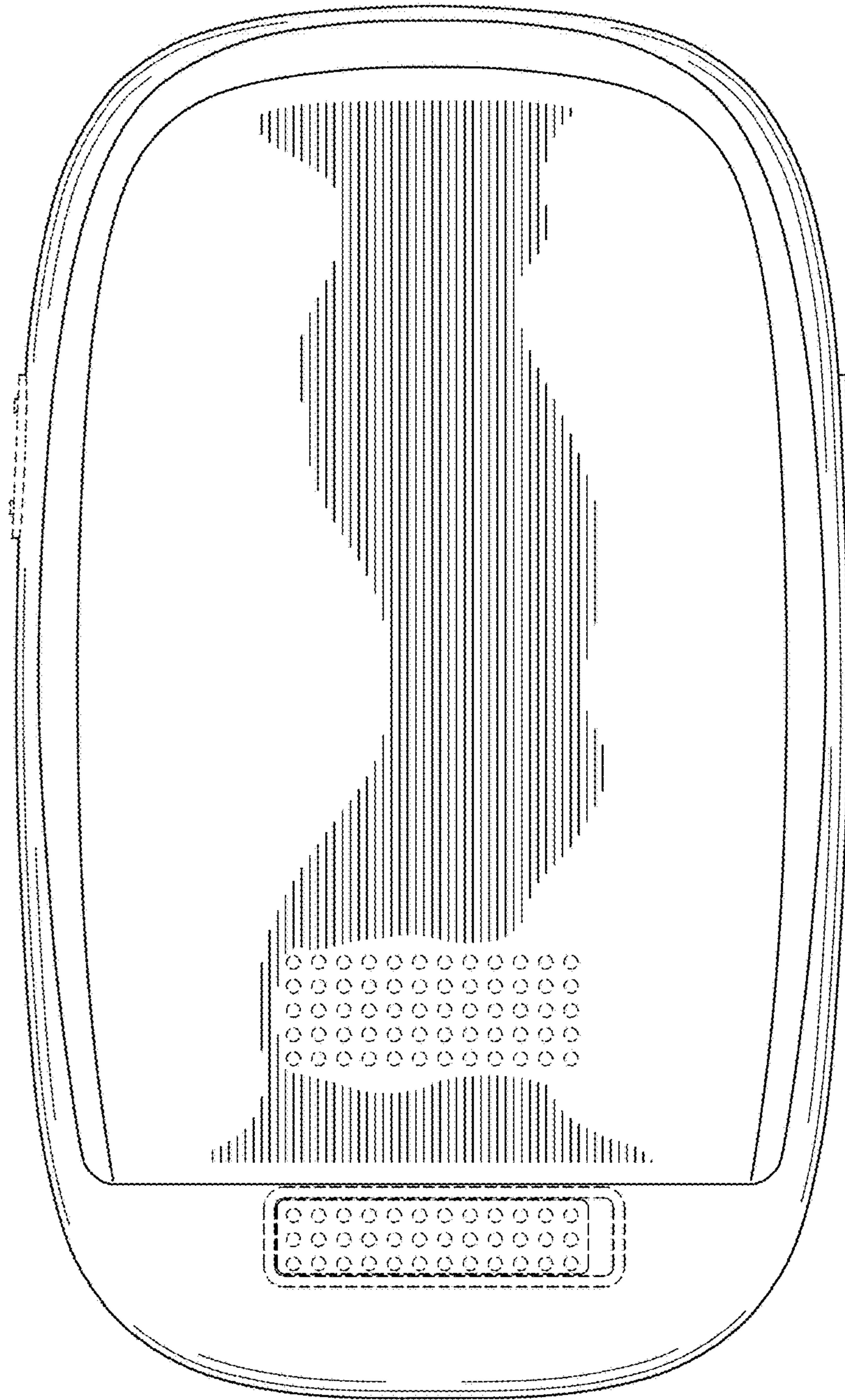


FIG. 4

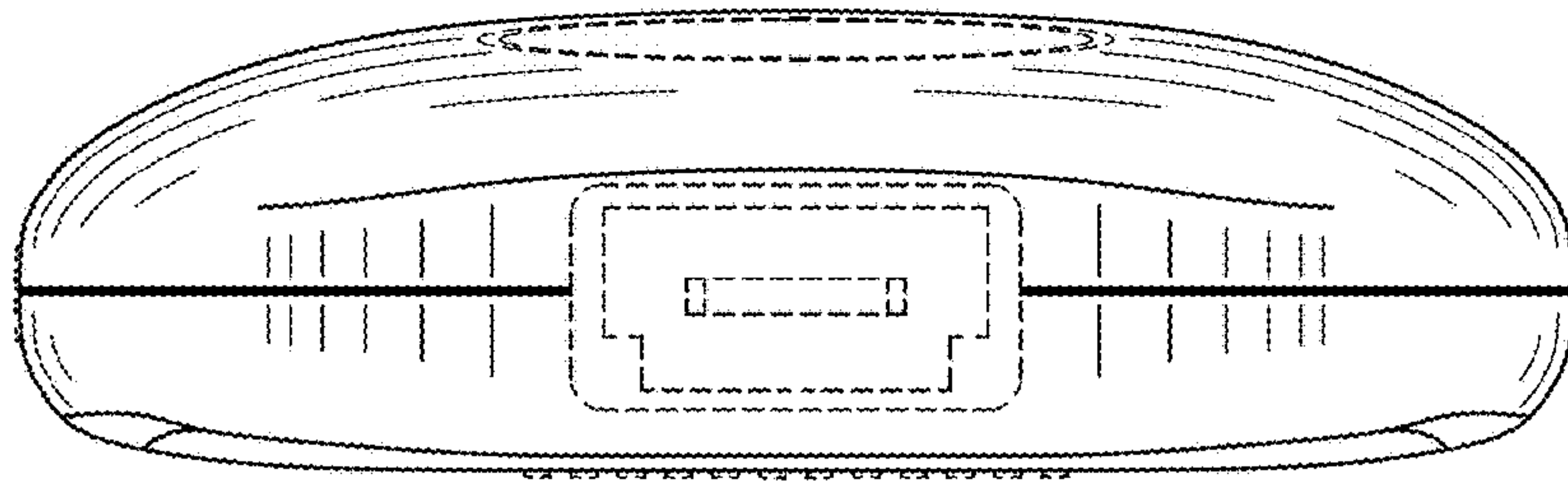


FIG. 5

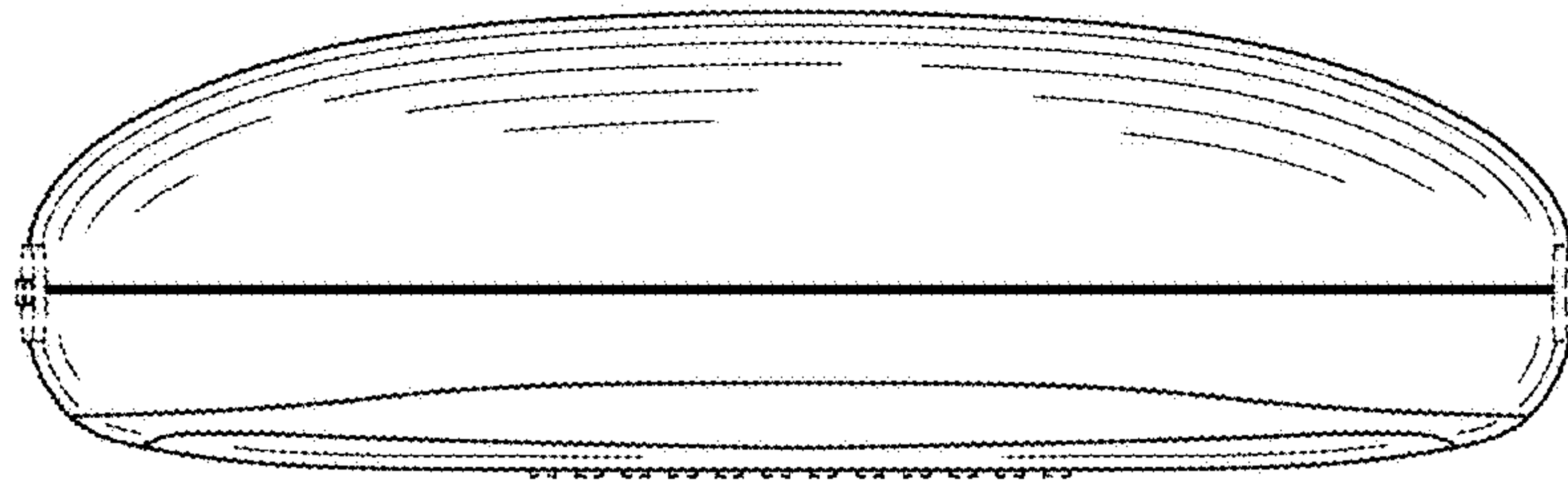


FIG. 6

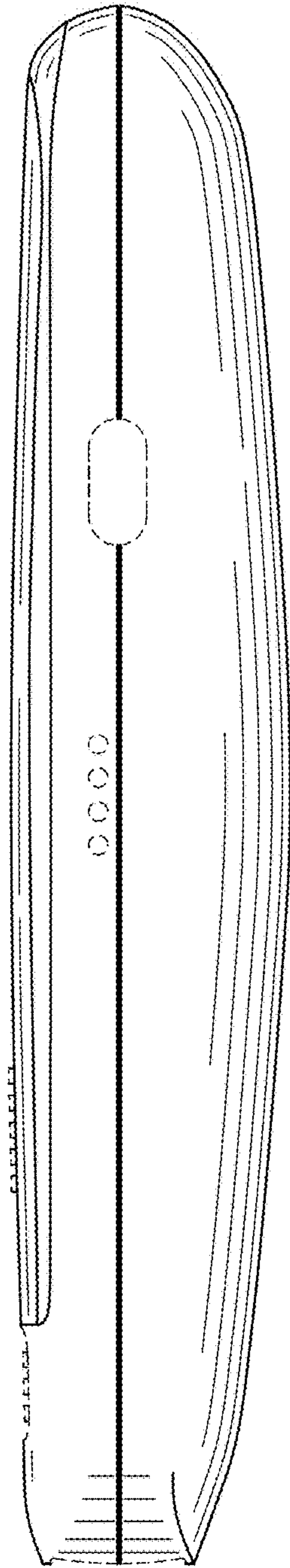


FIG. 7

