

US00D974193S

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

(10) **Patent No.:** **US D974,193 S**
(45) **Date of Patent:** **** Jan. 3, 2023**

(54) **WEARABLE TEMPERATURE MEASUREMENT DEVICE**

(71) Applicant: **Masimo Corporation**, Irvine, CA (US)

(72) Inventors: **Kevin Forrest**, Rancho Santa Margarita, CA (US); **Ammar Al-Ali**, San Juan Capistrano, CA (US); **Valery G. Telfort**, Irvine, CA (US)

(73) Assignee: **Masimo Corporation**, Irvine, CA (US)

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

(21) Appl. No.: **29/744,127**

(22) Filed: **Jul. 27, 2020**

(51) **LOC (14) Cl.** **10-04**

(52) **U.S. Cl.**
USPC **D10/57**

(58) **Field of Classification Search**
USPC D10/57
CPC A61B 2562/0271; A61B 5/0008; A61B 5/6801; A61B 5/01; A61B 5/0006; A61B 5/14532; A61B 5/14551; A61B 5/332; A61B 5/6833

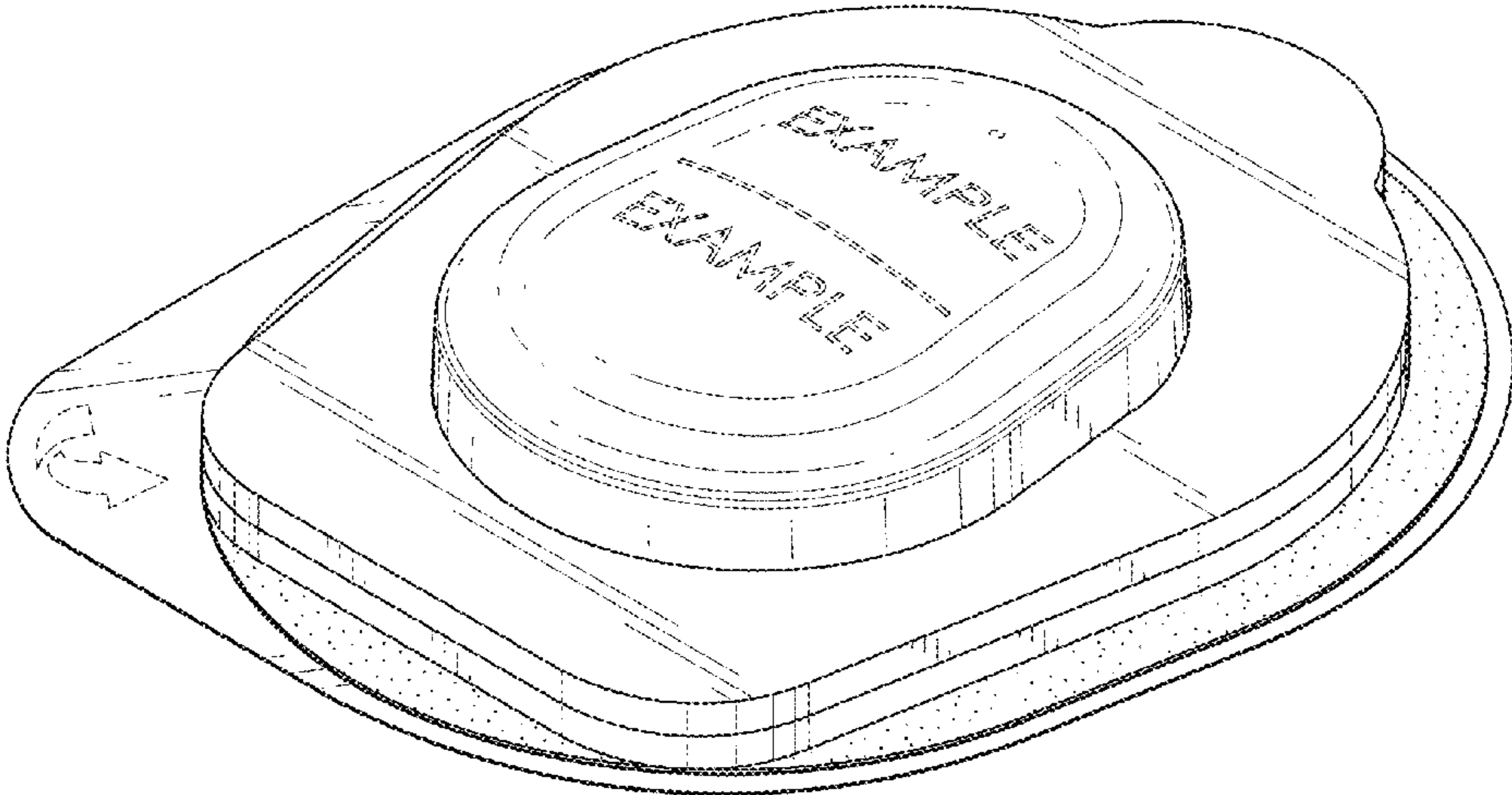
See application file for complete search history.

5,092,340 A	3/1992	Yamaguchi et al.
5,140,519 A	8/1992	Friesdorf et al.
5,159,932 A	11/1992	Zanetti et al.
5,161,539 A	11/1992	Evans et al.
5,262,944 A	11/1993	Weisner et al.
5,277,189 A	1/1994	Jacobs
5,278,627 A	1/1994	Aoyagi et al.
5,282,474 A	2/1994	Valdes Sosa et al.
5,296,688 A	3/1994	Hamilton et al.
5,318,037 A	6/1994	Evans et al.
5,319,355 A	6/1994	Russek
5,331,549 A	7/1994	Crawford, Jr.
5,333,106 A	7/1994	Lanpher et al.
5,337,744 A	8/1994	Branigan
5,341,805 A	8/1994	Stavridi et al.
5,348,008 A	9/1994	Bornn et al.
5,358,519 A	10/1994	Grandjean
D353,195 S	12/1994	Savage et al.
D353,196 S	12/1994	Savage et al.
5,375,599 A	12/1994	Shimizu
5,377,676 A	1/1995	Vari et al.
5,400,794 A	3/1995	Gorman
5,416,695 A	5/1995	Stutman et al.
D359,546 S	6/1995	Savage et al.
D360,596 S	7/1995	Moritz et al.
5,431,170 A	7/1995	Mathews
5,434,611 A	7/1995	Tamura
5,436,499 A	7/1995	Namavar et al.
D361,840 S	8/1995	Savage et al.
D362,063 S	9/1995	Savage et al.
D363,120 S	10/1995	Savage et al.
5,456,252 A	10/1995	Vari et al.
5,479,934 A	1/1996	Imran
5,482,036 A	1/1996	Diab et al.
5,483,968 A	1/1996	Adam et al.
5,494,041 A	2/1996	Wilk
5,494,043 A	2/1996	O'Sullivan et al.
5,503,149 A	4/1996	Beavin
5,505,202 A	4/1996	Mogi et al.
5,523,534 A	6/1996	Meister et al.
5,533,511 A	7/1996	Kaspari et al.
D372,787 S	8/1996	Dozier et al.
5,544,649 A	8/1996	David et al.
5,553,609 A	9/1996	Chen et al.
5,558,638 A	9/1996	Evers et al.
5,561,275 A	10/1996	Savage et al.
5,562,002 A	10/1996	Lalin
5,566,676 A	10/1996	Rosenfeldt et al.
5,576,952 A	11/1996	Stutman et al.
5,579,001 A	11/1996	Dempsey et al.
5,590,649 A	1/1997	Caro et al.
5,602,924 A	2/1997	Durand et al.
5,619,991 A	4/1997	Sloane

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,646,606 A	2/1972	Buxton et al.
3,690,313 A	9/1972	Weppner et al.
3,978,849 A	9/1976	Geneen
4,108,166 A	8/1978	Schmid
4,129,125 A	12/1978	Lester et al.
4,231,354 A	11/1980	Kurtz et al.
D278,363 S	4/1985	Schenkel et al.
4,589,415 A	5/1986	Haag
4,662,378 A	5/1987	Thomis
D297,460 S	8/1988	Inoue et al.
4,838,275 A	6/1989	Lee
4,852,570 A	8/1989	Levine
4,960,128 A	10/1990	Gordon et al.
4,964,408 A	10/1990	Hink et al.
4,966,154 A	10/1990	Cooper et al.



US D974,193 S

Page 2

5,638,816 A	6/1997	Kiani-Azarbayjany et al.	6,255,708 B1	7/2001	Sudharsanan et al.
5,638,818 A	6/1997	Diab et al.	6,267,723 B1	7/2001	Matsumura et al.
5,640,967 A	6/1997	Fine et al.	6,269,262 B1	7/2001	Kandori et al.
5,645,440 A	7/1997	Tobler et al.	6,280,381 B1	8/2001	Malin et al.
5,671,914 A	9/1997	Kalkhoran et al.	6,285,896 B1	9/2001	Tobler et al.
5,685,314 A	11/1997	Geheb et al.	6,304,767 B1	10/2001	Soller et al.
5,687,717 A	11/1997	Halpern et al.	6,308,089 B1	10/2001	von der Ruhr et al.
5,694,020 A	12/1997	Lang et al.	6,312,378 B1	11/2001	Bardy
5,724,580 A	3/1998	Levin et al.	6,317,627 B1	11/2001	Ennen et al.
5,724,983 A	3/1998	Selker et al.	6,321,100 B1	11/2001	Parker
5,725,308 A	3/1998	Smith et al.	6,322,502 B1	11/2001	Schoenberg et al.
5,726,440 A	3/1998	Kalkhoran et al.	6,329,139 B1	12/2001	Nova et al.
5,732,146 A	3/1998	Yamada et al.	6,334,065 B1	12/2001	Al-Ali et al.
5,734,739 A	3/1998	Sheehan et al.	6,338,039 B1	1/2002	Lonski et al.
D393,830 S	4/1998	Tobler et al.	6,354,235 B1	3/2002	Davies
5,743,262 A	4/1998	Lepper, Jr. et al.	6,360,114 B1	3/2002	Diab et al.
5,747,806 A	5/1998	Khalil et al.	6,364,834 B1	4/2002	Reuss et al.
5,750,994 A	5/1998	Schlager	6,368,283 B1	4/2002	Xu et al.
5,758,079 A	5/1998	Ludwig et al.	6,385,476 B1	5/2002	Osadchy et al.
5,758,644 A	6/1998	Diab et al.	6,385,589 B1	5/2002	Trusheim et al.
5,760,910 A	6/1998	Lepper, Jr. et al.	6,411,373 B1	6/2002	Garside et al.
5,772,585 A	6/1998	Lavin et al.	6,415,167 B1	7/2002	Blank et al.
5,782,805 A	7/1998	Meinzer	6,430,437 B1	8/2002	Marro
5,801,637 A	9/1998	Lomholt	6,430,525 B1	8/2002	Weber et al.
5,813,403 A	9/1998	Soller et al.	6,463,311 B1	10/2002	Diab
5,822,544 A	10/1998	Chaco et al.	6,470,199 B1	10/2002	Kopotic et al.
5,822,546 A	10/1998	George	6,470,893 B1	10/2002	Boesen
5,855,550 A	1/1999	Lai et al.	6,487,429 B2	11/2002	Hockersmith et al.
5,890,929 A	4/1999	Mills et al.	6,505,059 B1	1/2003	Kollias et al.
5,910,139 A	6/1999	Cochran et al.	6,524,240 B1	2/2003	Thede
5,919,134 A	7/1999	Diab	6,525,386 B1	2/2003	Mills et al.
5,921,920 A	7/1999	Marshall et al.	6,526,300 B1	2/2003	Kiani et al.
5,924,074 A	7/1999	Evans	6,534,012 B1	3/2003	Hazen et al.
5,931,160 A	8/1999	Gilmore et al.	6,542,764 B1	4/2003	Al-Ali et al.
5,941,836 A	8/1999	Friedman	6,544,173 B2	4/2003	West et al.
5,942,986 A	8/1999	Shabot et al.	6,544,174 B2	4/2003	West et al.
5,950,189 A	9/1999	Cohen et al.	6,551,243 B2	4/2003	Bocionek et al.
5,987,343 A	11/1999	Kinast	6,578,428 B1	6/2003	Dromms et al.
5,987,519 A	11/1999	Peifer et al.	6,580,086 B1	6/2003	Schulz et al.
5,997,343 A	12/1999	Mills et al.	6,582,393 B2	6/2003	Sage, Jr.
6,002,952 A	12/1999	Diab et al.	6,584,336 B1	6/2003	Ali et al.
6,006,119 A	12/1999	Soller et al.	6,587,196 B1	7/2003	Stippick et al.
6,010,937 A	1/2000	Karam et al.	6,587,199 B1	7/2003	Luu
6,014,346 A	1/2000	Malone	6,595,316 B2	7/2003	Cybulski et al.
6,018,673 A	1/2000	Chin et al.	6,597,932 B2	7/2003	Tian et al.
6,024,699 A	2/2000	Surwit et al.	6,606,511 B1	8/2003	Ali et al.
6,027,452 A	2/2000	Flaherty et al.	6,616,606 B1	9/2003	Peterson et al.
6,032,063 A	2/2000	Hoar et al.	6,635,559 B2	10/2003	Greenwald et al.
6,032,678 A	3/2000	Rottem	6,639,668 B1	10/2003	Trepagnier
6,035,230 A	3/2000	Kang et al.	6,640,116 B2	10/2003	Diab
6,036,718 A	3/2000	Ledford et al.	6,640,117 B2	10/2003	Makarewicz et al.
6,040,578 A	3/2000	Malin et al.	6,641,533 B2	11/2003	Causey et al.
6,066,204 A	5/2000	Haven	6,646,556 B1	11/2003	Smith et al.
6,093,146 A	7/2000	Filangeri	6,650,939 B2	11/2003	Takpke, II et al.
6,101,478 A	8/2000	Brown	D483,872 S	12/2003	Cruz et al.
6,106,463 A	8/2000	Wilk	6,658,276 B2	12/2003	Kianl et al.
6,115,673 A	9/2000	Malin et al.	6,661,161 B1	12/2003	Lanzo et al.
6,124,597 A	9/2000	Shehada	6,694,180 B1	2/2004	Boesen
6,128,521 A	10/2000	Marro et al.	6,697,656 B1	2/2004	Al-Ali
6,129,675 A	10/2000	Jay	6,697,658 B2	2/2004	Al-Ali
6,129,686 A	10/2000	Friedman	RE38,476 E	3/2004	Diab et al.
6,132,218 A	10/2000	Benja-Athon	RE38,492 E	4/2004	Diab et al.
6,139,494 A	10/2000	Cairnes	6,719,694 B2	4/2004	Weng et al.
6,144,868 A	11/2000	Parker	6,735,379 B2	5/2004	Salmon et al.
6,152,754 A	11/2000	Gerhardt et al.	6,738,652 B2	5/2004	Mattu et al.
6,167,258 A	12/2000	Schmidt et al.	6,746,406 B2	6/2004	Lia et al.
D437,058 S	1/2001	Gozani	6,751,492 B2	6/2004	Ben-haim
6,168,563 B1	1/2001	Brown	6,760,607 B2	7/2004	Al-Ali
6,171,237 B1	1/2001	Avitall et al.	6,766,188 B2	7/2004	Soller
6,183,417 B1	2/2001	Gehab et al.	6,783,492 B2	8/2004	Dominguez
6,184,521 B1	2/2001	Coffin, IV et al.	6,788,965 B2	9/2004	Ruchti et al.
6,185,448 B1	2/2001	Borovsky	6,790,178 B1	9/2004	Mault et al.
6,195,576 B1	2/2001	John	6,795,724 B2	9/2004	Hogan
6,221,012 B1	4/2001	Maschke et al.	6,796,186 B2	9/2004	Lia et al.
6,224,553 B1	5/2001	Nevo	6,804,656 B1	10/2004	Rosenfeld
6,230,142 B1	5/2001	Benigno et al.	6,807,050 B1	10/2004	Whitehorn et al.
6,232,609 B1	5/2001	Snyder et al.	6,816,241 B2	11/2004	Grubisic
6,241,683 B1	6/2001	Macklem et al.	6,817,979 B2	11/2004	Nihtila et al.
6,253,097 B1	6/2001	Aronow et al.	6,822,564 B2	11/2004	Al-Ali

US D974,193 S

Page 3

6,837,848 B2	1/2005	Bonner et al.	D566,282 S	4/2008	Al-Ali et al.
6,841,535 B2	1/2005	Divita et al.	7,356,178 B2	4/2008	Ziel et al.
6,850,787 B2	2/2005	Weber et al.	7,356,365 B2	4/2008	Schurman
6,850,788 B2	2/2005	Al-Ali	7,361,155 B2	4/2008	Sage, Jr. et al.
6,855,112 B2	2/2005	Kao et al.	D569,280 S	5/2008	Chen
6,860,266 B2	3/2005	Blike	7,371,981 B2	5/2008	Abdul-Hafiz
6,876,931 B2	4/2005	Lorenz et al.	7,373,193 B2	5/2008	Al-Ali et al.
6,897,788 B2	5/2005	Khair et al.	7,377,794 B2	5/2008	Al Ali et al.
6,907,237 B1	6/2005	Dorenbosch et al.	7,378,975 B1	5/2008	Smith et al.
6,915,149 B2	7/2005	Ben-haim	7,382,247 B2	6/2008	Welch et al.
6,920,345 B2	7/2005	Al-Ali et al.	7,390,299 B2	6/2008	Weiner et al.
6,934,570 B2	8/2005	Kiani et al.	7,395,158 B2	7/2008	Monfre et al.
6,943,348 B1	9/2005	Coffin IV	7,395,216 B2	7/2008	Rosenfeld
D511,004 S	10/2005	Masuda	7,396,330 B2	7/2008	Banet et al.
6,952,340 B2	10/2005	Son et al.	7,411,509 B2	8/2008	Rosenfeld
6,956,649 B2	10/2005	Acosta et al.	7,413,546 B2	8/2008	Agutter et al.
D511,384 S	11/2005	Masuda	7,415,297 B2	8/2008	Al-Ali et al.
6,961,598 B2	11/2005	Diab	7,419,483 B2	9/2008	Shehada
6,970,792 B1	11/2005	Diab	7,433,827 B2	10/2008	Rosenfeld
6,980,419 B2	12/2005	Smith et al.	7,438,683 B2	10/2008	Al-Ali et al.
6,983,179 B2	1/2006	Ben-haim	7,439,856 B2	10/2008	Weiner et al.
6,985,764 B2	1/2006	Mason et al.	7,454,359 B2	11/2008	Rosenfeld
6,988,989 B2	1/2006	Weiner et al.	7,454,360 B2	11/2008	Rosenfeld
6,990,087 B2	1/2006	Rao et al.	7,462,151 B2	12/2008	Childre et al.
6,990,364 B2	1/2006	Ruchti et al.	7,467,094 B2	12/2008	Rosenfeld
6,997,884 B2	2/2006	Ulmsten	7,475,019 B2	1/2009	Rosenfeld
6,998,247 B2	2/2006	Monfre et al.	7,481,772 B2	1/2009	Banet
7,003,338 B2	2/2006	Weber et al.	7,483,729 B2	1/2009	Al-Ali et al.
7,004,907 B2	2/2006	Banet et al.	7,489,250 B2	2/2009	Bock et al.
7,015,451 B2	3/2006	Dalke et al.	D587,657 S	3/2009	Al-Ali et al.
7,024,233 B2	4/2006	Ali et al.	7,497,828 B1	3/2009	Wilk et al.
7,025,729 B2	4/2006	De Chazal et al.	7,500,950 B2	3/2009	Al-Ali et al.
7,027,849 B2	4/2006	Al-Ali	7,509,494 B2	3/2009	Al-Ali
7,033,761 B2	4/2006	Shafer	7,510,849 B2	3/2009	Schurman et al.
7,035,686 B2	4/2006	Hogan	7,514,725 B2	4/2009	Wojtczuk et al.
7,063,666 B2	6/2006	Weng et al.	7,515,043 B2	4/2009	Welch et al.
7,079,035 B2	7/2006	Bock et al.	7,515,044 B2	4/2009	Welch et al.
D526,719 S	8/2006	Richie, Jr. et al.	7,519,406 B2	4/2009	Blank et al.
7,096,052 B2	8/2006	Mason et al.	D592,507 S	5/2009	Wachman et al.
7,096,054 B2	8/2006	Abdul-Hafiz et al.	7,530,942 B1	5/2009	Diab
D529,616 S	10/2006	Deros et al.	7,532,919 B2	5/2009	Soyemi et al.
7,133,710 B2	11/2006	Acosta et al.	7,549,961 B1	6/2009	Hwang
7,142,901 B2	11/2006	Kiani et al.	7,551,717 B2	6/2009	Tome et al.
7,179,228 B2	2/2007	Banet	7,559,520 B2	7/2009	Quijano et al.
7,188,621 B2	3/2007	DeVries et al.	7,577,475 B2	8/2009	Consentino et al.
7,208,119 B1	4/2007	Kurtock et al.	7,588,558 B2	9/2009	Sage, Jr. et al.
7,225,006 B2	5/2007	Al-Ali et al.	7,590,950 B2	9/2009	Collins et al.
RE39,672 E	6/2007	Shehada et al.	7,593,230 B2	9/2009	Abul-Haj et al.
7,229,415 B2	6/2007	Schwartz	7,596,398 B2	9/2009	Al-Ali et al.
7,238,159 B2	7/2007	Banet et al.	7,597,665 B2	10/2009	Wilk et al.
7,241,287 B2	7/2007	Shehada et al.	7,606,608 B2	10/2009	Blank et al.
7,244,251 B2	7/2007	Shehada et al.	7,612,999 B2	11/2009	Clark et al.
7,245,373 B2	7/2007	Soller et al.	7,616,303 B2	11/2009	Yang et al.
7,248,172 B2	7/2007	Clifford et al.	7,620,674 B2	11/2009	Ruchti et al.
7,252,659 B2	8/2007	Shehada et al.	D606,659 S	12/2009	Kiani et al.
7,254,429 B2	8/2007	Schurman et al.	7,629,039 B2	12/2009	Eckerbom et al.
7,254,431 B2	8/2007	Al-Ali	7,639,145 B2	12/2009	Lawson et al.
7,254,434 B2	8/2007	Schulz et al.	7,640,140 B2	12/2009	Ruchti et al.
7,256,708 B2	8/2007	Rosenfeld	7,647,083 B2	1/2010	Al-Ali et al.
7,261,697 B2	8/2007	Berstein	7,650,291 B2	1/2010	Rosenfeld
7,264,616 B2	9/2007	Shehada et al.	D609,193 S	2/2010	Al-Ali et al.
7,267,671 B2	9/2007	Shehada et al.	D610,690 S	2/2010	Tokumoto et al.
7,268,859 B2	9/2007	Sage, Jr. et al.	7,654,966 B2	2/2010	Westinskow et al.
7,274,955 B2	9/2007	Kiani et al.	7,658,716 B2	2/2010	Banet et al.
D554,263 S	10/2007	Al-Ali	7,684,845 B2	3/2010	Juan
7,280,858 B2	10/2007	Al-Ali et al.	7,689,437 B1	3/2010	Teller et al.
7,285,090 B2	10/2007	Stivoric et al.	RE41,236 E	4/2010	Seely
7,289,835 B2	10/2007	Mansfield et al.	D614,305 S	4/2010	Al-Ali et al.
7,292,883 B2	11/2007	De Felice et al.	7,693,697 B2	4/2010	Westinskow et al.
7,307,543 B2	12/2007	Rosenfeld	7,697,966 B2	4/2010	Monfre et al.
7,313,423 B2	12/2007	Griffin et al.	7,698,105 B2	4/2010	Ruchti et al.
D558,882 S	1/2008	Brady	RE41,317 E	5/2010	Parker
7,314,446 B2	1/2008	Byrd et al.	RE41,333 E	5/2010	Blank et al.
7,315,825 B2	1/2008	Rosenfeld	7,722,542 B2	5/2010	Lia et al.
7,321,862 B2	1/2008	Rosenfeld	D617,463 S	6/2010	Tokumoto et al.
7,322,971 B2	1/2008	Shehada et al.	7,729,733 B2	6/2010	Al-Ali et al.
7,336,187 B2	2/2008	Hubbard, Jr. et al.	7,736,318 B2	6/2010	Consentino et al.
7,341,559 B2	3/2008	Schulz et al.	7,740,590 B2	6/2010	Bernstein
7,343,186 B2	3/2008	Lamego et al.	7,761,127 B2	7/2010	Al-Ali et al.

US D974,193 S

Page 4

7,763,420 B2	7/2010	Strizker et al.	8,265,723 B1	9/2012	McHale et al.
7,764,982 B2	7/2010	Dalke et al.	8,274,360 B2	9/2012	Sampath et al.
D621,515 S	8/2010	Chua et al.	8,280,473 B2	10/2012	Al-Ali
D621,516 S	8/2010	Kiani et al.	8,294,588 B2	10/2012	Fisher et al.
7,766,818 B2	8/2010	Iketani et al.	8,294,716 B2	10/2012	Lord et al.
7,774,060 B2	8/2010	Westenskow et al.	8,311,747 B2	11/2012	Taylor
7,778,851 B2	8/2010	Schoenberg et al.	8,311,748 B2	11/2012	Taylor et al.
7,783,879 B2	8/2010	Krummel et al.	8,315,683 B2	11/2012	Al-Ali et al.
7,791,155 B2	9/2010	Diab	8,315,812 B2	11/2012	Taylor
7,794,407 B2	9/2010	Rothenberg	8,315,813 B2	11/2012	Taylor et al.
7,803,120 B2	9/2010	Banet et al.	8,315,814 B2	11/2012	Taylor et al.
7,806,830 B2	10/2010	Bernstein	8,321,004 B2	11/2012	Moon et al.
7,820,184 B2	10/2010	Strizker et al.	8,321,150 B2	11/2012	Taylor
RE41,912 E	11/2010	Parker	RE43,860 E	12/2012	Parker
7,831,450 B2	11/2010	Schoenberg	8,326,649 B2	12/2012	Rosenfeld
7,841,986 B2	11/2010	He et al.	8,346,330 B2	1/2013	Lamego
D629,524 S	12/2010	Zeller et al.	8,348,840 B2	1/2013	Heit et al.
7,848,935 B2	12/2010	Gotlib	8,353,842 B2	1/2013	Al-Ali et al.
7,858,322 B2	12/2010	Tymianski et al.	8,355,766 B2	1/2013	MacNeish, III et al.
7,865,232 B1	1/2011	Krishnaswamy et al.	8,360,936 B2	1/2013	Dibenedetto et al.
7,880,626 B2	2/2011	Al-Ali et al.	8,364,250 B2	1/2013	Moon et al.
7,881,892 B2	2/2011	Soyemi et al.	8,374,665 B2	2/2013	Lamego
7,890,156 B2	2/2011	Ooi et al.	D679,018 S	3/2013	Fullerton et al.
D634,017 S	3/2011	Tokumoto et al.	8,388,353 B2	3/2013	Kiani
7,899,518 B2	3/2011	Trepagnier et al.	8,401,602 B2	3/2013	Kiani
7,909,772 B2	3/2011	Popov et al.	8,401,874 B2	3/2013	Rosenfeld
7,914,514 B2	3/2011	Calderon	8,414,499 B2	4/2013	Al-Ali et al.
7,919,713 B2	4/2011	Al-Ali et al.	8,418,524 B2	4/2013	Al-Ali
7,937,128 B2	5/2011	Al-Ali	8,419,649 B2	4/2013	Banet et al.
7,937,129 B2	5/2011	Mason et al.	8,428,967 B2	4/2013	Olsen et al.
7,941,199 B2	5/2011	Kiani	8,430,817 B1	4/2013	Al-Ali et al.
7,957,780 B2	6/2011	Lamego et al.	8,437,824 B2	5/2013	Moon et al.
7,962,188 B2	6/2011	Kiani et al.	8,437,825 B2	5/2013	Dalvi et al.
7,963,927 B2	6/2011	Kelleher et al.	8,442,607 B2	5/2013	Banet et al.
7,967,749 B2	6/2011	Hutchinson et al.	8,449,469 B2	5/2013	Banet et al.
7,976,472 B2	7/2011	Kiani	8,455,290 B2	6/2013	Siskavich
7,987,069 B2	7/2011	Rodgers et al.	8,457,707 B2	6/2013	Kiani
7,988,639 B2	8/2011	Starks	8,471,713 B2	6/2013	Poeze et al.
7,990,382 B2	8/2011	Kiani	8,473,020 B2	6/2013	Kiani et al.
7,991,463 B2	8/2011	Kelleher et al.	8,475,370 B2	7/2013	McCombie et al.
7,991,625 B2	8/2011	Rosenfeld	8,506,480 B2	8/2013	Banet et al.
7,993,275 B2	8/2011	Banet et al.	8,509,867 B2	8/2013	Workman et al.
8,008,088 B2	8/2011	Bellott et al.	8,515,509 B2	8/2013	Bruinsma et al.
RE42,753 E	9/2011	Kiani-Azarbayjany et al.	8,523,781 B2	9/2013	Al-Ali
8,027,846 B2	9/2011	Schoenberg	8,527,038 B2	9/2013	Moon et al.
8,028,701 B2	10/2011	Al-Ali et al.	D692,145 S	10/2013	Al-Ali et al.
8,033,996 B2	10/2011	Behar	8,545,417 B2	10/2013	Banet et al.
8,036,736 B2	10/2011	Snyder et al.	8,554,297 B2	10/2013	Moon et al.
8,038,625 B2	10/2011	Afonso et al.	8,571,617 B2	10/2013	Reichgott et al.
8,048,040 B2	11/2011	Kiani	8,571,618 B1	10/2013	Lamego et al.
8,050,728 B2	11/2011	Al-Ali et al.	8,571,619 B2	10/2013	Al-Ali et al.
8,068,104 B2	11/2011	Rampersad	8,574,161 B2	11/2013	Banet et al.
8,073,707 B2	12/2011	Teller et al.	8,577,431 B2	11/2013	Lamego et al.
8,094,013 B1	1/2012	Lee et al.	8,579,813 B2	11/2013	Causey, III et al.
RE43,169 E	2/2012	Parker	8,584,345 B2	11/2013	Al-Ali et al.
8,118,620 B2	2/2012	Al-Ali et al.	8,588,880 B2	11/2013	Abdul-Hafiz et al.
8,130,105 B2	3/2012	Al-Ali et al.	8,588,924 B2	11/2013	Dion
D659,836 S	5/2012	Bensch et al.	8,591,411 B2	11/2013	Banet et al.
8,170,887 B2	5/2012	Rosenfeld	8,594,776 B2	11/2013	McCombie et al.
8,175,895 B2	5/2012	Rosenfeld	8,600,777 B2	12/2013	Schoenberg
8,180,440 B2	5/2012	McCombie et al.	8,602,997 B2	12/2013	Banet et al.
8,182,443 B1	5/2012	Kiani	8,614,630 B2	12/2013	Narasimhan et al.
8,190,223 B2	5/2012	Al-Ali et al.	8,620,678 B2	12/2013	Gotlib
8,200,321 B2	6/2012	McCombie et al.	8,622,922 B2	1/2014	Banet et al.
8,203,438 B2	6/2012	Kiani et al.	8,630,691 B2	1/2014	Lamego et al.
8,203,704 B2	6/2012	Merritt et al.	8,641,631 B2	2/2014	Sierra et al.
8,206,312 B2	6/2012	Farquhar	8,652,060 B2	2/2014	Al-Ali
8,214,007 B2	7/2012	Baker et al.	8,663,106 B2	3/2014	Stivoric et al.
8,219,172 B2	7/2012	Schurman et al.	8,666,468 B1	3/2014	Al-Ali
8,224,411 B2	7/2012	Al-Ali et al.	8,670,811 B2	3/2014	O'Reilly
8,229,532 B2	7/2012	Davis	8,672,854 B2	3/2014	McCombie et al.
8,233,955 B2	7/2012	Al-Ali et al.	RE44,823 E	4/2014	Parker
D665,085 S	8/2012	Strother et al.	RE44,875 E	4/2014	Kiani et al.
8,235,907 B2	8/2012	Wilk et al.	D701,964 S	4/2014	Yoneta et al.
8,239,010 B2	8/2012	Banet et al.	8,688,183 B2	4/2014	Bruinsma et al.
8,239,780 B2	8/2012	Manetta et al.	8,690,799 B2	4/2014	Telfort et al.
8,241,213 B2	8/2012	Lynn et al.	8,702,627 B2	4/2014	Telfort et al.
8,249,815 B2	8/2012	Taylor	8,712,494 B1	4/2014	MacNeish, III et al.
8,255,026 B1	8/2012	Al-Ali	8,715,206 B2	5/2014	Telfort et al.

US D974,193 S

Page 5

8,723,677 B1	5/2014	Kiani	9,339,209 B2	5/2016	Banet et al.
8,727,977 B2	5/2014	Banet et al.	9,339,211 B2	5/2016	Banet et al.
8,738,118 B2	5/2014	Moon et al.	D759,828 S	6/2016	Riedle
8,740,792 B1	6/2014	Kiani et al.	9,364,158 B2	6/2016	Banet et al.
8,740,802 B2	6/2014	Banet et al.	9,378,450 B1	6/2016	Mei et al.
8,740,807 B2	6/2014	Banet et al.	9,380,952 B2	7/2016	Banet et al.
8,747,330 B2	6/2014	Banet et al.	9,392,945 B2	7/2016	Al-Ali et al.
8,755,535 B2	6/2014	Telfort et al.	9,408,542 B1	8/2016	Kinast et al.
8,755,872 B1	6/2014	Marinow	9,408,573 B2	8/2016	Welch et al.
D709,846 S	7/2014	Oswaks	D766,113 S	9/2016	Dohi et al.
8,764,671 B2	7/2014	Kiani	9,436,645 B2	9/2016	Al-Ali et al.
8,768,423 B2	7/2014	Shakespeare et al.	9,439,574 B2	9/2016	McCombie et al.
8,771,204 B2	7/2014	Telfort et al.	9,445,759 B1	9/2016	Lamego et al.
8,781,544 B2	7/2014	Al-Ali et al.	9,471,541 B1	10/2016	Chan et al.
8,790,268 B2	7/2014	Al-Ali	9,474,474 B2	10/2016	Lamego et al.
8,801,613 B2	8/2014	Al-Ali et al.	9,480,435 B2	11/2016	Olsen
8,808,188 B2	8/2014	Banet et al.	9,483,726 B2	11/2016	Mei et al.
8,818,477 B2	8/2014	Soller	9,486,138 B2 *	11/2016	Simpson G01N 33/48785
8,821,397 B2	9/2014	Al-Ali et al.	9,492,092 B2	11/2016	McCombie et al.
8,821,415 B2	9/2014	Al-Ali et al.	9,510,779 B2	12/2016	Poeze et al.
8,830,449 B1	9/2014	Lamego et al.	9,517,024 B2	12/2016	Kiani et al.
8,840,549 B2	9/2014	Al-Ali et al.	9,532,722 B2	1/2017	Lamego et al.
8,852,094 B2	10/2014	Al-Ali et al.	9,545,227 B2	1/2017	Selvaraj et al.
8,852,994 B2	10/2014	Wojtczuk et al.	9,560,996 B2	2/2017	Kiani
8,866,620 B2	10/2014	Amir	9,563,836 B2	2/2017	Mei et al.
8,873,035 B2	10/2014	Yang et al.	9,566,007 B2	2/2017	McCombie et al.
8,878,888 B2	11/2014	Rosenfeld	9,579,039 B2	2/2017	Jansen et al.
8,888,700 B2	11/2014	Banet et al.	9,588,135 B1	3/2017	Narasimhan et al.
8,897,847 B2	11/2014	Al-Ali	9,593,985 B2	3/2017	Segal et al.
8,898,369 B1	11/2014	Yang	9,622,692 B2	4/2017	Lamego et al.
D719,267 S	12/2014	Vaccarella et al.	9,632,533 B2	4/2017	Li et al.
8,907,287 B2	12/2014	Vanderpohl	9,632,981 B2	4/2017	Chan et al.
8,909,330 B2	12/2014	McCombie et al.	D788,312 S	5/2017	Al-Ali et al.
8,911,377 B2	12/2014	Al-Ali	9,636,029 B1	5/2017	Narasimhan et al.
8,956,293 B2	2/2015	McCombie et al.	9,649,054 B2	5/2017	Lamego et al.
8,956,294 B2	2/2015	McCombie et al.	9,655,546 B2	5/2017	Shen et al.
8,974,115 B2	3/2015	Segal et al.	9,655,559 B2	5/2017	Chan et al.
8,979,765 B2	3/2015	Banet et al.	D789,809 S	6/2017	Kang
8,989,831 B2	3/2015	Al-Ali et al.	9,681,205 B1	6/2017	Yang
8,998,809 B2	4/2015	Kiani	9,697,928 B2	7/2017	Al-Ali et al.
9,035,794 B2	5/2015	Narasimhan et al.	D795,100 S	8/2017	Alla
9,055,928 B2	6/2015	McCombie et al.	D795,252 S	8/2017	Chung et al.
9,057,689 B2	6/2015	Soller	D795,713 S	8/2017	Griffin et al.
9,066,666 B2	6/2015	Kiani	D795,714 S	8/2017	Pugmire et al.
9,066,680 B1	6/2015	Al-Ali et al.	9,717,458 B2	8/2017	Lamego et al.
9,095,291 B2	8/2015	Soller	9,724,016 B1	8/2017	Al-Ali et al.
9,095,316 B2	8/2015	Welch et al.	9,724,024 B2	8/2017	Al-Ali
9,106,038 B2	8/2015	Telfort et al.	9,724,025 B1	8/2017	Kiani et al.
9,107,625 B2	8/2015	Telfort et al.	9,728,061 B2	8/2017	Shen et al.
9,131,881 B2	9/2015	Diab et al.	9,749,232 B2	8/2017	Sampath et al.
9,138,180 B1	9/2015	Coverston et al.	D796,350 S	9/2017	Bone
9,149,192 B2	10/2015	Banet et al.	9,750,442 B2	9/2017	Olsen
9,153,112 B1	10/2015	Kiani et al.	9,750,461 B1	9/2017	Telfort
9,161,700 B2	10/2015	Banet et al.	9,762,673 B2	9/2017	Azimi
D743,817 S	11/2015	Singh et al.	9,775,545 B2	10/2017	Al-Ali et al.
9,173,593 B2	11/2015	Banet et al.	9,778,079 B1	10/2017	Al-Ali et al.
9,173,594 B2	11/2015	Banet et al.	9,782,077 B2	10/2017	Lamego et al.
9,183,738 B1 *	11/2015	Allen, Sr G01K 13/20	9,787,568 B2	10/2017	Lamego et al.
9,192,329 B2	11/2015	Al-Ali	9,788,778 B2	10/2017	Chan et al.
9,192,351 B1	11/2015	Telfort et al.	9,808,188 B1	11/2017	Perea et al.
9,195,385 B2	11/2015	Al-Ali et al.	9,814,405 B2	11/2017	Yang et al.
D745,167 S	12/2015	Canas et al.	9,818,281 B2	11/2017	Narasimhan
D746,161 S	12/2015	Vardi	D805,926 S	12/2017	Im et al.
9,204,816 B2	12/2015	Aga et al.	9,839,379 B2	12/2017	Al-Ali et al.
9,211,095 B1	12/2015	Al-Ali	9,839,381 B1	12/2017	Weber et al.
9,214,196 B2	12/2015	Aga et al.	9,847,749 B2	12/2017	Kiani et al.
9,215,986 B2	12/2015	Banet et al.	9,848,800 B1	12/2017	Lee et al.
9,218,454 B2	12/2015	Kiani et al.	9,855,003 B2	1/2018	Chan et al.
9,245,668 B1	1/2016	Vo et al.	9,861,289 B2	1/2018	Li et al.
9,247,004 B2	1/2016	Azimi	9,861,298 B2	1/2018	Eckerbom et al.
9,267,572 B2	2/2016	Barker et al.	9,861,305 B1	1/2018	Weber et al.
9,277,864 B2 *	3/2016	Yang A61B 5/05	9,872,619 B2 *	1/2018	Lee A61B 5/0006
9,277,880 B2	3/2016	Poeze et al.	9,872,634 B2	1/2018	Chan et al.
9,307,908 B2	4/2016	Chan et al.	9,877,650 B2	1/2018	Muhsin et al.
9,307,915 B2	4/2016	McCombie et al.	9,891,079 B2	2/2018	Dalvi
9,307,928 B1	4/2016	Al-Ali et al.	9,924,897 B1	3/2018	Abdul-Hafiz
9,323,894 B2	4/2016	Kiani	9,936,382 B2	4/2018	Yang et al.
D755,392 S	5/2016	Hwang et al.	9,936,917 B2	4/2018	Poeze et al.
9,326,712 B1	5/2016	Kiani	9,955,937 B2	5/2018	Telfort

US D974,193 S

Page 6

9,965,946 B2	5/2018	Al-Ali et al.	10,542,903 B2	1/2020	Al-Ali et al.
9,980,678 B2	5/2018	Chan et al.	10,554,756 B2	2/2020	Azimi
D820,865 S	6/2018	Muhsin et al.	10,555,678 B2	2/2020	Dalvi et al.
9,986,951 B1	6/2018	Ferdosi et al.	10,568,553 B2	2/2020	O'Neil et al.
9,986,952 B2	6/2018	Dalvi et al.	RE47,882 E	3/2020	Al-Ali
9,993,203 B2	6/2018	Mei et al.	10,582,854 B2	3/2020	Liou et al.
9,999,376 B2	6/2018	Chan et al.	10,582,862 B1	3/2020	Selvaraj et al.
D822,215 S	7/2018	Al-Ali et al.	10,588,565 B2	3/2020	Larson et al.
D822,216 S	7/2018	Barker et al.	10,595,776 B1	3/2020	Selvaraj et al.
10,010,276 B2	7/2018	Al-Ali et al.	10,608,817 B2	3/2020	Haider et al.
10,020,075 B2	7/2018	Perlman et al.	D880,477 S	4/2020	Forrest et al.
10,039,463 B1	8/2018	Selvaraj et al.	10,617,302 B2	4/2020	Al-Ali et al.
10,080,524 B1	9/2018	Xi	10,617,325 B2	4/2020	Chan et al.
10,086,138 B1	10/2018	Novak, Jr.	10,617,335 B2	4/2020	Al-Ali et al.
10,111,591 B2	10/2018	Dyell et al.	10,631,732 B2	4/2020	Larson et al.
D833,305 S	11/2018	Jang et al.	10,637,181 B2	4/2020	Al-Ali et al.
D833,624 S	11/2018	DeJong et al.	D883,819 S	5/2020	Singh et al.
10,123,716 B2	11/2018	Narasimhan et al.	D886,303 S	6/2020	Huang et al.
10,123,729 B2	11/2018	Dyell et al.	D887,548 S	6/2020	Abdul-Hafiz et al.
10,140,837 B2	11/2018	Shen et al.	D887,549 S	6/2020	Abdul-Hafiz et al.
D835,282 S	12/2018	Barker et al.	10,667,764 B2	6/2020	Ahmed et al.
D835,283 S	12/2018	Barker et al.	D890,708 S	7/2020	Forrest et al.
D835,284 S	12/2018	Barker et al.	10,721,785 B2	7/2020	Al-Ali
D835,285 S	12/2018	Barker et al.	10,736,518 B2	8/2020	Al-Ali et al.
10,143,383 B2	12/2018	Tseng et al.	10,739,205 B2	8/2020	Jang et al.
10,149,616 B2	12/2018	Al-Ali et al.	10,750,984 B2	8/2020	Pauley et al.
10,154,815 B2	12/2018	Al-Ali et al.	D897,098 S	9/2020	Al-Ali
10,159,412 B2	12/2018	Lamego et al.	10,772,522 B2	9/2020	Zadig
D838,372 S	1/2019	Goering et al.	10,779,098 B2	9/2020	Iswanto et al.
10,182,750 B1 *	1/2019	Philippine A61B 5/14865	D898,924 S	10/2020	Hinds et al.
10,188,348 B2	1/2019	Kiani et al.	10,827,958 B2 *	11/2020	Biederman A61B 5/1473
RE47,218 E	2/2019	Ali-Ali	10,827,961 B1	11/2020	Iyengar et al.
RE47,244 E	2/2019	Kiani et al.	10,828,007 B1	11/2020	Telfort et al.
RE47,249 E	2/2019	Kiani et al.	10,832,818 B2	11/2020	Muhsin et al.
10,194,834 B2	2/2019	Selvaraj et al.	10,849,554 B2	12/2020	Shreim et al.
10,205,291 B2	2/2019	Scruggs et al.	10,856,741 B2 *	12/2020	Damania G01K 1/165
10,212,165 B1	2/2019	Petersen et al.	10,856,750 B2	12/2020	Indorf et al.
10,213,146 B2	2/2019	Aga et al.	D906,970 S	1/2021	Forrest et al.
10,213,163 B2	2/2019	Ferdosi et al.	D907,219 S	1/2021	Neri
D842,136 S	3/2019	Jang et al.	10,918,281 B2	2/2021	Al-Ali et al.
10,226,187 B2	3/2019	Al-Ali et al.	10,932,705 B2	3/2021	Muhsin et al.
10,231,657 B2	3/2019	Al-Ali et al.	10,932,729 B2	3/2021	Kiani et al.
10,231,670 B2	3/2019	Blank et al.	10,939,878 B2	3/2021	Kiani et al.
RE47,353 E	4/2019	Kiani et al.	D916,135 S	4/2021	Indorf et al.
D846,746 S	4/2019	Lee	D917,550 S	4/2021	Indorf et al.
10,262,506 B2	4/2019	Aga et al.	D917,564 S	4/2021	Indorf et al.
10,279,247 B2	5/2019	Kiani	D917,704 S	4/2021	Al-Ali et al.
10,292,664 B2	5/2019	Al-Ali	10,987,066 B2	4/2021	Chandran et al.
10,299,720 B2	5/2019	Brown et al.	10,991,135 B2	4/2021	Al-Ali et al.
10,317,427 B2	6/2019	Chan et al.	D919,094 S	5/2021	Al-Ali et al.
10,321,872 B2	6/2019	Li	D919,100 S	5/2021	Al-Ali et al.
10,324,109 B2	6/2019	Chan et al.	D920,138 S	5/2021	Kuwashiro et al.
10,327,337 B2	6/2019	Triman et al.	11,006,867 B2	5/2021	Al-Ali
10,327,713 B2	6/2019	Barker et al.	D921,202 S	6/2021	Al-Ali et al.
10,332,630 B2	6/2019	Al-Ali	11,024,064 B2	6/2021	Muhsin et al.
10,357,163 B1	7/2019	Selvaraj et al.	11,026,604 B2	6/2021	Chen et al.
10,373,714 B1	8/2019	Selvaraj et al.	D925,597 S	7/2021	Chandran et al.
10,383,520 B2	8/2019	Wojteczuk et al.	11,064,948 B2 *	7/2021	Peabody A61B 5/318
10,383,527 B2	8/2019	Al-Ali	D927,699 S	8/2021	Al-Ali et al.
10,383,562 B2	8/2019	Chan et al.	11,076,777 B2	8/2021	Lee et al.
10,388,120 B2	8/2019	Muhsin et al.	11,083,371 B1 *	8/2021	Szabados A61B 5/6833
10,420,473 B2	9/2019	Shi	11,114,188 B2	9/2021	Poeze et al.
10,422,814 B2	9/2019	Chan et al.	D933,232 S	10/2021	Al-Ali et al.
D861,508 S	10/2019	Ejiri et al.	11,147,518 B1	10/2021	Al-Ali et al.
D864,120 S	10/2019	Forrest et al.	11,234,623 B2 *	2/2022	Frick A61B 5/6848
10,433,781 B2	10/2019	Chan et al.	11,253,190 B2	2/2022	Ortiz et al.
10,441,181 B1	10/2019	Telfort et al.	D946,425 S *	3/2022	Chang A61B 5/6848
10,441,196 B2	10/2019	Eckerbom et al.			D10/57
10,448,844 B2	10/2019	Al-Ali et al.	D946,596 S	3/2022	Ahmed
10,448,849 B2	10/2019	Ferdosi et al.	D946,597 S	3/2022	Ahmed
10,448,871 B2	10/2019	Al-Ali	D946,598 S	3/2022	Ahmed
10,456,038 B2	10/2019	Lamego et al.	D946,617 S	3/2022	Ahmed
D867,906 S	11/2019	Chang	D950,580 S	5/2022	Ahmed
10,463,340 B2	11/2019	Telfort et al.	D950,599 S	5/2022	Ahmed
10,471,159 B1	11/2019	Lapotko et al.	D950,738 S	5/2022	Al-Ali et al.
10,505,311 B2	12/2019	Al-Ali et al.	D957,648 S	7/2022	Al-Ali
10,524,738 B2	1/2020	Olsen	11,389,093 B2	7/2022	Triman et al.
10,532,174 B2	1/2020	Al-Ali	11,406,286 B2	8/2022	Al-Ali et al.
10,537,285 B2	1/2020	Sherim et al.	11,417,426 B2	8/2022	Muhsin et al.

US D974,193 S

Page 7

11,439,329	B2	9/2022	Lamego	2006/0253042	A1	11/2006	Stahmann et al.
11,445,948	B2	9/2022	Scruggs et al.	2006/0279426	A1	12/2006	Bonnet et al.
2001/0011355	A1	8/2001	Kawai	2006/0282021	A1	12/2006	DeVaul et al.
2001/0034477	A1	10/2001	Mansfield et al.	2006/0286861	A1	12/2006	Avevor et al.
2001/0039483	A1	11/2001	Brand et al.	2007/0000490	A1	1/2007	DeVries et al.
2001/0046366	A1	11/2001	Susskind	2007/0021675	A1	1/2007	Childre et al.
2002/0010401	A1	1/2002	Bushmakini et al.	2007/0027368	A1	2/2007	Collins et al.
2002/0045836	A1	4/2002	Alkawwas	2007/0032733	A1	2/2007	Burton et al.
2002/0052311	A1	5/2002	Solomon et al.	2007/0032748	A1	2/2007	McNeil et al.
2002/0058864	A1	5/2002	Mansfield et al.	2007/0055116	A1	3/2007	Clark et al.
2002/0063690	A1	5/2002	Chung et al.	2007/0055544	A1	3/2007	Jung et al.
2002/0133080	A1	9/2002	Apruzzese et al.	2007/0060798	A1	3/2007	Krupnik et al.
2002/0177758	A1	11/2002	Schoenberg	2007/0073116	A1	3/2007	Kiani et al.
2003/0013975	A1	1/2003	Kiani	2007/0088406	A1	4/2007	Bennett et al.
2003/0018243	A1	1/2003	Gerhardt et al.	2007/0096897	A1	5/2007	Weiner
2003/0027326	A1	2/2003	Ulmsten et al.	2007/0100222	A1	5/2007	Mastrototaro et al.
2003/0052787	A1	3/2003	Zerhusen et al.	2007/0118399	A1	5/2007	Avinash et al.
2003/0058838	A1	3/2003	Wengrovitz	2007/0132597	A1	6/2007	Rodgers
2003/0144582	A1	7/2003	Cohen et al.	2007/0140475	A1	6/2007	Kurtock et al.
2003/0156288	A1	8/2003	Barnum et al.	2007/0142715	A1	6/2007	Banet et al.
2003/0158466	A1	8/2003	Lynn et al.	2007/0156033	A1	7/2007	Causey et al.
2003/0212312	A1	11/2003	Coffin, IV et al.	2007/0157285	A1	7/2007	Frank et al.
2003/0216670	A1	11/2003	Beggs	2007/0159332	A1	7/2007	Koblasz
2004/0013647	A1	1/2004	Solomon et al.	2007/0163589	A1	7/2007	DeVries et al.
2004/0015103	A1	1/2004	Aminian et al.	2007/0180140	A1	8/2007	Welch et al.
2004/0090742	A1	5/2004	Son et al.	2007/0185390	A1	8/2007	Perkins et al.
2004/0106163	A1	6/2004	Workman, Jr. et al.	2007/0185393	A1	8/2007	Zhou et al.
2004/0122787	A1	6/2004	Avinash et al.	2007/0232941	A1	10/2007	Rabinovich
2004/0126007	A1	7/2004	Ziel et al.	2007/0244377	A1	10/2007	Cozad et al.
2004/0147818	A1	7/2004	Levy et al.	2007/0244724	A1	10/2007	Pendergast et al.
2004/0179332	A1	9/2004	Smith et al.	2007/0250286	A1	10/2007	Duncan et al.
2004/0186357	A1	9/2004	Soderberg et al.	2007/0254593	A1	11/2007	Jollota et al.
2004/0230179	A1	11/2004	Shehada et al.	2007/0255114	A1	11/2007	Ackermann et al.
2004/0243017	A1	12/2004	Causevic	2007/0255116	A1	11/2007	Mehta et al.
2004/0254431	A1	12/2004	Shehada et al.	2007/0255250	A1	11/2007	Moberg et al.
2004/0254432	A1	12/2004	Shehada et al.	2007/0276261	A1	11/2007	Banet et al.
2005/0005710	A1	1/2005	Sage, Jr.	2007/0276262	A1	11/2007	Banet et al.
2005/0009926	A1	1/2005	Kreye et al.	2007/0276632	A1	11/2007	Banet et al.
2005/0020918	A1	1/2005	Wilk et al.	2007/0288263	A1	12/2007	Rodgers
2005/0038332	A1	2/2005	Saidara et al.	2008/0000479	A1	1/2008	Elaz et al.
2005/0038680	A1	2/2005	McMahon	2008/0003200	A1	1/2008	Arap et al.
2005/0055276	A1	3/2005	Kiani et al.	2008/0021731	A1	1/2008	Rodgers
2005/0080336	A1	4/2005	Byrd et al.	2008/0021854	A1	1/2008	Jung et al.
2005/0096542	A1	5/2005	Weng et al.	2008/0033661	A1	2/2008	Syroid et al.
2005/0113653	A1	5/2005	Fox et al.	2008/0051670	A1	2/2008	Banet et al.
2005/0124864	A1	6/2005	Mack et al.	2008/0053438	A1	3/2008	DeVries et al.
2005/0125256	A1	6/2005	Schoenberg	2008/0058614	A1	3/2008	Banet et al.
2005/0148882	A1	7/2005	Banet et al.	2008/0058657	A1	3/2008	Schwartz et al.
2005/0164933	A1	7/2005	Tymianski et al.	2008/0064965	A1	3/2008	Jay et al.
2005/0191294	A1	9/2005	Arap et al.	2008/0077026	A1	3/2008	Banet et al.
2005/0208648	A1	9/2005	Sage, Jr. et al.	2008/0082004	A1	4/2008	Banet et al.
2005/0209518	A1	9/2005	Sage, Jr. et al.	2008/0090626	A1	4/2008	Griffin et al.
2005/0228244	A1	10/2005	Banet	2008/0091089	A1	4/2008	Guillory et al.
2005/0228299	A1	10/2005	Banet	2008/0091090	A1	4/2008	Guillory et al.
2005/0234317	A1	10/2005	Kiani	2008/0091471	A1	4/2008	Michon et al.
2005/0242946	A1	11/2005	Hubbard, Jr. et al.	2008/0094228	A1	4/2008	Welch et al.
2005/0245831	A1	11/2005	Banet	2008/0097167	A1	4/2008	Yudkovitch et al.
2005/0245839	A1	11/2005	Stivoric et al.	2008/0099366	A1	5/2008	Niemiec et al.
2005/0261594	A1	11/2005	Banet	2008/0114220	A1	5/2008	Banet et al.
2005/0261598	A1	11/2005	Banet et al.	2008/0119412	A1	5/2008	Tymianski et al.
2005/0268401	A1	12/2005	Dixon et al.	2008/0129518	A1	6/2008	Carlton-Foss
2005/0277872	A1	12/2005	Colby, Jr. et al.	2008/0138278	A1	6/2008	Scherz et al.
2006/0009697	A1	1/2006	Banet et al.	2008/0169922	A1	7/2008	Issokson
2006/0009698	A1	1/2006	Banet et al.	2008/0171919	A1	7/2008	Stivoric et al.
2006/0049936	A1	3/2006	Collins, Jr. et al.	2008/0188795	A1	8/2008	Katz et al.
2006/0058647	A1	3/2006	Strommer et al.	2008/0194918	A1	8/2008	Kulik et al.
2006/0064037	A1	3/2006	Shalon et al.	2008/0208912	A1	8/2008	Garibaldi
2006/0073719	A1	4/2006	Kiani	2008/0214949	A1	9/2008	Stivoric et al.
2006/0084878	A1	4/2006	Banet et al.	2008/0221396	A1	9/2008	Garces et al.
2006/0089543	A1	4/2006	Kim et al.	2008/0221399	A1	9/2008	Zhou et al.
2006/0094936	A1	5/2006	Russ	2008/0221418	A1	9/2008	Al-Ali et al.
2006/0149393	A1	7/2006	Calderon	2008/0221461	A1	9/2008	Zhou et al.
2006/0155175	A1	7/2006	Ogino et al.	2008/0228077	A1	9/2008	Wilk et al.
2006/0189871	A1	8/2006	Al-Ali et al.	2008/0275309	A1	11/2008	Stivoric et al.
2006/0200009	A1	9/2006	Wekell et al.	2008/0281167	A1	11/2008	Soderberg et al.
2006/0217684	A1	9/2006	Shehada et al.	2008/0281168	A1	11/2008	Gibson et al.
2006/0217685	A1	9/2006	Shehada et al.	2008/0281181	A1	11/2008	Manzione et al.
2006/0224413	A1	10/2006	Kim et al.	2008/0287751	A1	11/2008	Stivoric et al.
2006/0235300	A1	10/2006	Weng et al.	2008/0292172	A1	11/2008	Assmann et al.

US D974,193 S

Page 8

2008/0300020	A1	12/2008	Nishizawa et al.	2010/0312103	A1	12/2010	Gorek et al.
2008/0312542	A1	12/2008	Banet et al.	2010/0317951	A1	12/2010	Rutkowski et al.
2008/0319275	A1	12/2008	Chiu et al.	2010/0324384	A1	12/2010	Moon et al.
2008/0319282	A1	12/2008	Tran	2010/0324385	A1	12/2010	Moon et al.
2008/0319327	A1	12/2008	Banet et al.	2010/0324386	A1	12/2010	Moon et al.
2008/0319354	A1	12/2008	Bell et al.	2010/0324387	A1	12/2010	Moon et al.
2009/0005651	A1	1/2009	Ward et al.	2010/0324388	A1	12/2010	Moon et al.
2009/0018409	A1	1/2009	Banet et al.	2010/0324389	A1	12/2010	Moon et al.
2009/0018422	A1	1/2009	Banet et al.	2011/0021930	A1	1/2011	Mazzeo et al.
2009/0018453	A1	1/2009	Banet et al.	2011/0023130	A1	1/2011	Gudgel et al.
2009/0018808	A1	1/2009	Bronstein et al.	2011/0028806	A1	2/2011	Merritt et al.
2009/0024008	A1	1/2009	Brunner et al.	2011/0028809	A1	2/2011	Goodman
2009/0036759	A1	2/2009	Ault et al.	2011/0040197	A1	2/2011	Welch et al.
2009/0044334	A1	2/2009	Parsell et al.	2011/0046495	A1	2/2011	Osypka
2009/0052623	A1	2/2009	Tome et al.	2011/0046498	A1	2/2011	Klap et al.
2009/0054735	A1	2/2009	Higgins et al.	2011/0066051	A1	3/2011	Moon et al.
2009/0054743	A1	2/2009	Wekell et al.	2011/0077473	A1	3/2011	Lisogurski
2009/0062682	A1	3/2009	Bland et al.	2011/0077488	A1	3/2011	Buxton et al.
2009/0069642	A1	3/2009	Gao et al.	2011/0078596	A1	3/2011	Rawlins et al.
2009/0069868	A1	3/2009	Bengtsson et al.	2011/0080294	A1	4/2011	Tanishima et al.
2009/0093687	A1	4/2009	Telfort et al.	2011/0082711	A1	4/2011	Poeze et al.
2009/0095926	A1	4/2009	MacNeish, III	2011/0087081	A1	4/2011	Kiani et al.
2009/0099480	A1	4/2009	Saigo et al.	2011/0087084	A1	4/2011	Jeong et al.
2009/0112072	A1	4/2009	Banet et al.	2011/0087117	A1	4/2011	Tremper et al.
2009/0118628	A1	5/2009	Zhou et al.	2011/0087756	A1	4/2011	Biondi
2009/0119843	A1	5/2009	Rodgers et al.	2011/0098583	A1	4/2011	Pandia et al.
2009/0124867	A1	5/2009	Hirsch et al.	2011/0105956	A1	5/2011	Hirth
2009/0131759	A1	5/2009	Sims et al.	2011/0110560	A1	5/2011	Adhikari
2009/0143832	A1	6/2009	Saba	2011/0118561	A1	5/2011	Tari et al.
2009/0157058	A1	6/2009	Ferren et al.	2011/0118573	A1	5/2011	Mckenna
2009/0171170	A1	7/2009	Li et al.	2011/0137297	A1	6/2011	Kiani et al.
2009/0171225	A1	7/2009	Gadodia et al.	2011/0152629	A1	6/2011	Eaton et al.
2009/0177090	A1	7/2009	Grunwald et al.	2011/0172498	A1	7/2011	Olsen et al.
2009/0182287	A1	7/2009	Kassab	2011/0172967	A1	7/2011	Al-Ali et al.
2009/0226372	A1	9/2009	Ruoslahti et al.	2011/0184252	A1	7/2011	Archer et al.
2009/0247984	A1	10/2009	Lamego et al.	2011/0184253	A1	7/2011	Archer et al.
2009/0264778	A1	10/2009	Markowitz et al.	2011/0201972	A1	8/2011	Ten Kate
2009/0275813	A1	11/2009	Davis	2011/0208073	A1	8/2011	Matsukawa et al.
2009/0281462	A1	11/2009	Heliot et al.	2011/0212090	A1	9/2011	Pedersen et al.
2009/0309755	A1	12/2009	Williamson et al.	2011/0224498	A1	9/2011	Banet et al.
2009/0322540	A1	12/2009	Richardson et al.	2011/0224499	A1	9/2011	Banet et al.
2010/0004518	A1	1/2010	Vo et al.	2011/0224500	A1	9/2011	Banet et al.
2010/0010385	A1	1/2010	Skelton et al.	2011/0224506	A1	9/2011	Moon et al.
2010/0030040	A1	2/2010	Poeze et al.	2011/0224507	A1	9/2011	Banet et al.
2010/0030094	A1	2/2010	Lundback	2011/0224508	A1	9/2011	Moon et al.
2010/0036209	A1	2/2010	Ferren et al.	2011/0224556	A1	9/2011	Moon et al.
2010/0063365	A1	3/2010	Pisani et al.	2011/0224557	A1	9/2011	Banet et al.
2010/0099964	A1	4/2010	O'Reilly et al.	2011/0224564	A1	9/2011	Moon et al.
2010/0121226	A1	5/2010	Ten Kate et al.	2011/0227739	A1	9/2011	Gilham et al.
2010/0125217	A1	5/2010	Kuo et al.	2011/0230733	A1	9/2011	Al-Ali
2010/0130875	A1	5/2010	Banet et al.	2011/0257489	A1	10/2011	Banet et al.
2010/0144627	A1	6/2010	Vitek et al.	2011/0257544	A1	10/2011	Kaasinen et al.
2010/0160794	A1	6/2010	Banet et al.	2011/0257551	A1	10/2011	Banet et al.
2010/0160795	A1	6/2010	Banet et al.	2011/0257552	A1	10/2011	Banet et al.
2010/0160796	A1	6/2010	Banet et al.	2011/0257553	A1	10/2011	Banet et al.
2010/0160797	A1	6/2010	Banet et al.	2011/0257554	A1	10/2011	Banet et al.
2010/0160798	A1	6/2010	Banet et al.	2011/0257555	A1	10/2011	Banet et al.
2010/0168536	A1	7/2010	Banet et al.	2011/0263950	A1	10/2011	Larson et al.
2010/0168589	A1	7/2010	Banet et al.	2011/0264035	A1	10/2011	Yodfat et al.
2010/0185101	A1	7/2010	Sakai et al.	2011/0288421	A1	11/2011	Banet et al.
2010/0198622	A1	8/2010	Gajic et al.	2011/0295094	A1	12/2011	Doyle et al.
2010/0210958	A1	8/2010	Manwaring et al.	2012/0001751	A1	1/2012	Baker et al.
2010/0234718	A1	9/2010	Sampath et al.	2012/0004579	A1	1/2012	Luo et al.
2010/0261982	A1	10/2010	Noury et al.	2012/0029300	A1	2/2012	Paquet
2010/0270257	A1	10/2010	Wachman et al.	2012/0029304	A1	2/2012	Medina et al.
2010/0298650	A1	11/2010	Moon et al.	2012/0029879	A1	2/2012	Sing et al.
2010/0298651	A1	11/2010	Moon et al.	2012/0059230	A1	3/2012	Teller et al.
2010/0298652	A1	11/2010	McCombie et al.	2012/0059283	A1	3/2012	Gravem et al.
2010/0298653	A1	11/2010	McCombie et al.	2012/0071771	A1	3/2012	Behar
2010/0298654	A1	11/2010	McCombie et al.	2012/0075464	A1	3/2012	Derenne et al.
2010/0298655	A1	11/2010	McCombie et al.	2012/0088999	A1	4/2012	Bishay et al.
2010/0298656	A1	11/2010	McCombie et al.	2012/0095352	A1	4/2012	Tran
2010/0298657	A1	11/2010	McCombie et al.	2012/0095778	A1	4/2012	Gross et al.
2010/0298658	A1	11/2010	McCombie et al.	2012/0101353	A1	4/2012	Reggiardo et al.
2010/0298659	A1	11/2010	McCombie et al.	2012/0101411	A1	4/2012	Hausdorff et al.
2010/0298660	A1	11/2010	McCombie et al.	2012/0101770	A1	4/2012	Grabiner et al.
2010/0298661	A1	11/2010	McCombie et al.	2012/0108983	A1	5/2012	Banet et al.
2010/0298742	A1	11/2010	Perlman et al.	2012/0117209	A1	5/2012	Sinha
2010/0305412	A1	12/2010	Darrah et al.	2012/0123231	A1	5/2012	O'Reilly

US D974,193 S

Page 9

2012/0123799	A1	5/2012	Nolen et al.	2014/0257850	A1	9/2014	Walker et al.
2012/0136221	A1	5/2012	Killen et al.	2014/0266787	A1	9/2014	Tran
2012/0165629	A1	6/2012	Merritt et al.	2014/0275871	A1	9/2014	Lamego et al.
2012/0179011	A1	7/2012	Moon et al.	2014/0275872	A1	9/2014	Merritt et al.
2012/0184120	A1	7/2012	Basta et al.	2014/0275888	A1	9/2014	Wegerich et al.
2012/0190949	A1	7/2012	McCombie et al.	2014/0275932	A1	9/2014	Zadig
2012/0197619	A1	8/2012	Namer Yelin et al.	2014/0276127	A1	9/2014	Ferdosi et al.
2012/0203078	A1	8/2012	Sze et al.	2014/0276145	A1	9/2014	Banet et al.
2012/0209084	A1	8/2012	Olsen et al.	2014/0276175	A1	9/2014	Banet et al.
2012/0226117	A1	9/2012	Lamego et al.	2014/0276238	A1	9/2014	Osorio
2012/0226160	A1	9/2012	Kudoh	2014/0301893	A1	10/2014	Stroup et al.
2012/0239434	A1	9/2012	Breslow et al.	2014/0316217	A1	10/2014	Purdon et al.
2012/0242501	A1	9/2012	Tran et al.	2014/0316218	A1	10/2014	Purdon et al.
2012/0282583	A1	11/2012	Thaler et al.	2014/0323897	A1	10/2014	Brown et al.
2012/0283524	A1	11/2012	Kiani et al.	2014/0323898	A1	10/2014	Purdon et al.
2012/0284053	A1	11/2012	Rosenfeld	2014/0343889	A1	11/2014	Ben Shalom et al.
2012/0294801	A1	11/2012	Scherz et al.	2014/0375428	A1	12/2014	Park
2013/0006131	A1	1/2013	Narayan et al.	2015/0005600	A1	1/2015	Blank et al.
2013/0006151	A1	1/2013	Main et al.	2015/0011907	A1	1/2015	Purdon et al.
2013/0023775	A1	1/2013	Lamego et al.	2015/0020571	A1	1/2015	Chan et al.
2013/0035603	A1	2/2013	Jarausach et al.	2015/0045628	A1	2/2015	Moghadam et al.
2013/0041591	A1	2/2013	Lamego	2015/0057562	A1	2/2015	Linders et al.
2013/0046197	A1	2/2013	Dlugos, Jr. et al.	2015/0073241	A1	3/2015	Lamego
2013/0054180	A1	2/2013	Barfield	2015/0080754	A1	3/2015	Purdon et al.
2013/0060147	A1	3/2013	Welch et al.	2015/0087923	A1	3/2015	Bardy et al.
2013/0096405	A1	4/2013	Garfio	2015/0094618	A1	4/2015	Russell et al.
2013/0099936	A1	4/2013	Azimi	2015/0099950	A1	4/2015	Al-Ali et al.
2013/0099937	A1	4/2013	Azimi	2015/0106121	A1	4/2015	Muhsin et al.
2013/0109929	A1	5/2013	Menzel	2015/0112264	A1	4/2015	Kamen et al.
2013/0109937	A1	5/2013	Banet et al.	2015/0126882	A1	5/2015	Chavan et al.
2013/0116515	A1	5/2013	Banet et al.	2015/0164410	A1	6/2015	Selvaraj et al.
2013/0120147	A1	5/2013	Narasimhan et al.	2015/0164411	A1	6/2015	Selvaraj et al.
2013/0120152	A1	5/2013	Narasimhan et al.	2015/0164417	A1	6/2015	Tupin, Jr.
2013/0130622	A1	5/2013	Yang et al.	2015/0164437	A1	6/2015	McCombie et al.
2013/0138395	A1	5/2013	Baggen et al.	2015/0173654	A1	6/2015	Bélanger et al.
2013/0155889	A1	6/2013	Brownworth et al.	2015/0190086	A1	7/2015	Chan et al.
2013/0214850	A1	8/2013	Aga et al.	2015/0219542	A1	8/2015	Kent
2013/0245487	A1	9/2013	Aga et al.	2015/0221202	A1	8/2015	Russell et al.
2013/0261494	A1	10/2013	Bloom et al.	2015/0254956	A1	9/2015	Shen et al.
2013/0281875	A1	10/2013	Narasimhan et al.	2015/0272481	A1	10/2015	Glaser et al.
2013/0296672	A1	11/2013	O'Neil et al.	2015/0282717	A1	10/2015	McCombie et al.
2013/0317333	A1	11/2013	Yun et al.	2015/0320339	A1	11/2015	Larson et al.
2013/0317393	A1	11/2013	Weiss et al.	2016/0004952	A1	1/2016	Mei
2013/0340176	A1	12/2013	Stevens et al.	2016/0022224	A1	1/2016	Banet et al.
2013/0342691	A1	12/2013	Lewis et al.	2016/0045163	A1	2/2016	Weisner et al.
2013/0345921	A1	12/2013	Al-Ali et al.	2016/0095549	A1	4/2016	Chang
2014/0005502	A1	1/2014	Klap et al.	2016/0143546	A1	5/2016	McCombie et al.
2014/0015687	A1	1/2014	Narasimhan et al.	2016/0183794	A1	6/2016	Gannon et al.
2014/0019080	A1	1/2014	Chan et al.	2016/0183875	A1	6/2016	Yang et al.
2014/0022081	A1	1/2014	Ribble et al.	2016/0196388	A1	7/2016	Lamego
2014/0025010	A1	1/2014	Stroup et al.	2016/0206277	A1	7/2016	Bidichandani et al.
2014/0046674	A1	2/2014	Rosenfeld	2016/0228050	A1	8/2016	Sugla et al.
2014/0066795	A1	3/2014	Ferdosi et al.	2016/0242681	A1	8/2016	Shen et al.
2014/0073982	A1	3/2014	Yang et al.	2016/0256080	A1	9/2016	Shen et al.
2014/0081099	A1	3/2014	Banet et al.	2016/0275776	A1	9/2016	Shen et al.
2014/0088385	A1	3/2014	Moon et al.	2016/0278652	A1	9/2016	Kaib et al.
2014/0121543	A1	5/2014	Chan et al.	2016/0278691	A1	9/2016	Larson et al.
2014/0128778	A1	5/2014	Chan et al.	2016/0278692	A1	9/2016	Larson et al.
2014/0129178	A1	5/2014	Meduna et al.	2016/0283665	A1	9/2016	Sampath et al.
2014/0142445	A1	5/2014	Banet et al.	2016/0296159	A1	10/2016	Larson et al.
2014/0152673	A1	6/2014	Lynn et al.	2016/0296160	A1	10/2016	Larson et al.
2014/0163393	A1	6/2014	McCombie et al.	2016/0302698	A1	10/2016	Perlman
2014/0166076	A1	6/2014	Kiani et al.	2016/0302715	A1	10/2016	Larson et al.
2014/0180160	A1	6/2014	Brown et al.	2016/0338640	A1	11/2016	Chan et al.
2014/0187973	A1	7/2014	Brown et al.	2016/0338641	A1	11/2016	Chan et al.
2014/0200415	A1	7/2014	McCombie et al.	2016/0367170	A1	12/2016	Larson et al.
2014/0200474	A1	7/2014	Selvaraj et al.	2016/0367173	A1	12/2016	Dalvi et al.
2014/0228692	A1	8/2014	Chan et al.	2017/0000410	A1	1/2017	Chan et al.
2014/0235964	A1	8/2014	Banet et al.	2017/0020429	A1	1/2017	Chan et al.
2014/0249431	A1	9/2014	Banet et al.	2017/0024748	A1	1/2017	Haider
2014/0249432	A1	9/2014	Banet et al.	2017/0027498	A1	2/2017	Larson et al.
2014/0249433	A1	9/2014	Banet et al.	2017/0042488	A1	2/2017	Muhsin
2014/0249434	A1	9/2014	Banet et al.	2017/0049365	A1	2/2017	Perlman et al.
2014/0249435	A1	9/2014	Banet et al.	2017/0053083	A1	2/2017	Perlman
2014/0249440	A1	9/2014	Banet et al.	2017/0150893	A1	6/2017	McCombie et al.
2014/0249441	A1	9/2014	Banet et al.	2017/0156618	A1	6/2017	Narasimhan et al.
2014/0249442	A1	9/2014	Banet et al.	2017/0173632	A1	6/2017	Al-Ali
2014/0257056	A1	9/2014	Moon et al.	2017/0184630	A1	6/2017	Chan et al.
2014/0257057	A1	9/2014	Reis Cunha et al.	2017/0202473	A1	7/2017	Narasimhan et al.

US D974,193 S

Page 10

2017/0238812 A1	8/2017	Atlas	2020/0253544 A1	8/2020	Belur Nagaraj et al.
2017/0251974 A1	9/2017	Shreim et al.	2020/0275841 A1	9/2020	Telfort et al.
2017/0311116 A1	10/2017	Aga et al.	2020/0288983 A1	9/2020	Telfort et al.
2017/0311862 A1	11/2017	Aga et al.	2020/0321793 A1	10/2020	Al-Ali et al.
2017/0311891 A1	11/2017	Kiani et al.	2020/0329983 A1	10/2020	Al-Ali et al.
2017/0366615 A1	12/2017	Azimi	2020/0329984 A1	10/2020	Al-Ali et al.
2018/0035889 A1	2/2018	Liou et al.	2020/0329993 A1	10/2020	Al-Ali et al.
2018/0035909 A1 *	2/2018	Hadley A61B 5/6833	2020/0330037 A1	10/2020	Al-Ali et al.
2018/0064361 A1	3/2018	Yang et al.	2021/0022628 A1	1/2021	Telfort et al.
2018/0064595 A1	3/2018	Srinivasan	2021/0104173 A1	4/2021	Pauley et al.
2018/0078174 A1	3/2018	Chan et al.	2021/0113121 A1	4/2021	Diab et al.
2018/0078189 A1	3/2018	Chan et al.	2021/0117525 A1	4/2021	Kiani et al.
2018/0078190 A1	3/2018	Chan et al.	2021/0118581 A1	4/2021	Kiani et al.
2018/0078219 A1	3/2018	Selvaraj	2021/0121582 A1	4/2021	Krishnamani et al.
2018/0103874 A1	4/2018	Lee et al.	2021/0161465 A1	6/2021	Barker et al.
2018/0146862 A1	5/2018	Moon et al.	2021/0236729 A1	8/2021	Kiani et al.
2018/0160909 A1	6/2018	Damania et al.	2021/0256267 A1	8/2021	Ranasinghe et al.
2018/0189235 A1	7/2018	Chan et al.	2021/0256835 A1	8/2021	Ranasinghe et al.
2018/0199871 A1	7/2018	Pauley et al.	2021/0275095 A1 *	9/2021	Sarussi A61B 5/263
2018/0213583 A1	7/2018	Al-Ali	2021/0275101 A1	9/2021	Vo et al.
2018/0216370 A1	8/2018	Ishiguro et al.	2021/0290060 A1	9/2021	Ahmed
2018/0242926 A1	8/2018	Muhsin et al.	2021/0290072 A1	9/2021	Forrest
2018/0247353 A1	8/2018	Al-Ali et al.	2021/0290080 A1	9/2021	Ahmed
2018/0247712 A1	8/2018	Muhsin et al.	2021/0290120 A1	9/2021	Al-Ali
2018/0249961 A1	9/2018	Ferdosi et al.	2021/0290177 A1	9/2021	Novak, Jr.
2018/0256087 A1	9/2018	Al-Ali et al.	2021/0290184 A1	9/2021	Ahmed
2018/0289289 A1	10/2018	Chan et al.	2021/0296008 A1	9/2021	Novak, Jr.
2018/0296161 A1	10/2018	Shreim et al.	2021/0321917 A1 *	10/2021	Choi C08L 75/04
2018/0300919 A1	10/2018	Muhsin et al.	2021/0330228 A1	10/2021	Olsen et al.
2018/0303365 A1	10/2018	Selvaraj et al.	2021/0386368 A1 *	12/2021	Carlsson C08L 75/04
2018/0303434 A1	10/2018	Selvaraj et al.	2021/0386382 A1	12/2021	Olsen et al.
2018/0310822 A1	11/2018	Indorf et al.	2021/0402110 A1	12/2021	Pauley et al.
2018/0310823 A1	11/2018	Al-Ali et al.	2022/0026355 A1	1/2022	Normand et al.
2018/0310879 A1	11/2018	Chan et al.	2022/0026946 A1 *	1/2022	Wen G06F 1/1671
2018/0317826 A1	11/2018	Muhsin	2022/0031171 A1 *	2/2022	Van Der Linden .. A61B 5/7264
2018/0338708 A1	11/2018	Chan et al.	2022/0039707 A1	2/2022	Sharma et al.
2019/0015023 A1	1/2019	Monfre	2022/0053892 A1	2/2022	Al-All et al.
2019/0038455 A1	2/2019	Heitz et al.	2022/0071562 A1	3/2022	Kiani
2019/0042614 A1	2/2019	Wickenhauser	2022/0095930 A1	3/2022	Li et al.
2019/0059777 A1	2/2019	Aga et al.	2022/0096603 A1	3/2022	Kiani et al.
2019/0082968 A1	3/2019	Karnik et al.	2022/0151521 A1	5/2022	Krishnamani et al.
2019/0090760 A1	3/2019	Kinast et al.	2022/0218244 A1	7/2022	Kiani et al.
2019/0090781 A1	3/2019	Selvaraj et al.	2022/0287574 A1	9/2022	Telfort et al.
2019/0117070 A1	4/2019	Muhsin et al.			
2019/0150788 A1	5/2019	Selvaraj et al.			
2019/0183425 A1	6/2019	Ferdosi et al.			
2019/0200941 A1	7/2019	Chandran et al.			
2019/0221803 A1	7/2019	Moore et al.			
2019/0223722 A1	7/2019	Xi			
2019/0238546 A1	8/2019	Petersen et al.			
2019/0239787 A1	8/2019	Pauley et al.			
2019/0272916 A1	9/2019	Selvaraj et al.			
2019/0320906 A1	10/2019	Olsen			
2019/0336010 A1	11/2019	Selvaraj et al.			
2019/0374139 A1	12/2019	Kiani et al.			
2019/0374173 A1	12/2019	Kiani et al.			
2019/0374713 A1	12/2019	Kiani et al.			
2019/0388030 A1	12/2019	Colliou et al.			
2020/0011746 A1 *	1/2020	Allen, Sr H04W 4/80			
2020/0021930 A1	1/2020	Iswanto et al.			
2020/0046231 A1	2/2020	Ferdosi et al.			
2020/0054218 A1	2/2020	Xi			
2020/0060869 A1	2/2020	Telfort et al.			
2020/0069252 A1	3/2020	Upadhya et al.			
2020/0077951 A1	3/2020	Nallathambi et al.			
2020/0085310 A1	3/2020	Zahner et al.			
2020/0111552 A1	4/2020	Ahmed			
2020/0113435 A1	4/2020	Muhsin			
2020/0113488 A1	4/2020	Al-Ali et al.			
2020/0113496 A1	4/2020	Scruggs et al.			
2020/0113497 A1	4/2020	Triman et al.			
2020/0113520 A1	4/2020	Abdul-Hafiz et al.			
2020/0138288 A1	5/2020	Al-Ali et al.			
2020/0138314 A1	5/2020	Doctor et al.			
2020/0138368 A1	5/2020	Kiani et al.			
2020/0138399 A1	5/2020	Li et al.			
2020/0163597 A1	5/2020	Dalvi et al.			
2020/0196877 A1	6/2020	Vo et al.			
2020/0253474 A1	8/2020	Muhsin et al.			

FOREIGN PATENT DOCUMENTS

CN	101401313	4/2009
CN	104127181	11/2014
CN	104586398	5/2015
CN	103308069	6/2015
CN	106934444	7/2017
EP	0 735 499	10/1996
JP	10-336064	12/1998
JP	2002-513602	5/2002
JP	2002-542493	12/2002
JP	2003-521985	7/2003
JP	2003-322569	11/2003
JP	2005-218036	8/2005
JP	2005-295375	10/2005
JP	2007-095365	4/2007
JP	2007-174051	7/2007
JP	2007-296266	11/2007
JP	2008-027030	2/2008
JP	2008-519635	6/2008
JP	2009-017959	1/2009
JP	2009-529930	8/2009
JP	2010-000286	1/2010
JP	2010-524510	7/2010
JP	2011-510363	3/2011
JP	2012-502671	2/2012
JP	2012-237670	12/2012
JP	2013-526900	6/2013
JP	2013-544616	12/2013
JP	D1531996	7/2015
WO	WO 98/029790	7/1998
WO	WO 99/013766	3/1999
WO	WO 00/063713	10/2000
WO	WO 2004/056266	7/2004
WO	WO 2004/059551	7/2004

WO	WO 2009/036313	3/2009
WO	WO 2010/125096	11/2010
WO	WO 2010/135518	11/2010
WO	WO 2011/002904	1/2011
WO	WO 2013/056160	4/2013
WO	WO 2013/119982	8/2013
WO	WO 2013/120014	8/2013
WO	WO 2014/047205	3/2014
WO	WO 2015/054665	4/2015
WO	WO 2015/074007	5/2015
WO	WO 2015/123157	8/2015
WO	WO 2016/185905	11/2016
WO	WO 2017/040700	3/2017
WO	WO 2018/071715	4/2018
WO	WO 2019/161277	8/2019
WO	WO 2021/189002	9/2021

OTHER PUBLICATIONS

US 8,845,543 B2, 09/2014, Diab et al. (withdrawn)
 US 9,167,986 B2, 10/2015, Aga et al. (withdrawn)
 US 9,241,629 B2, 01/2016, Yang et al. (withdrawn)
 US 2022/0192529 A1, 06/2022, Al-All et al. (withdrawn)
 Aminian et al., "Spatio-Temporal Parameters of Gait Measured by an Ambulatory System Using Miniature Gyroscopes", *Journal of Biomechanics*, 2002, vol. 35, pp. 689-699.
 Anliker et al., "AMON: A Wearable Multiparameter Medical Monitoring and Alert System", *IEEE Transactions on Information Technology in Biomedicine*, vol. 8, No. 4, Dec. 2004, pp. 415-427.
 Asada et al., "Mobile Monitoring with Wearable Photoplethysmographic Biosensors", *IEEE Engineering in Medicine and Biology Magazine*, May/Jun. 2003, pp. 28-40.
 Ayello et al., "How and Why to Do Pressure Ulcer Risk Assessment", *Advances in Skin & Wound Care*, May/Jun. 2002, vol. 15, No. 3, pp. 125-133.
 Bergstrom et al., "A Prospective Study of Pressure Sore Risk Among Institutionalized Elderly", *Journal of the American Geriatrics Society*, Aug. 1992, vol. 40, No. 8, pp. 747-758.
 Bourke et al., "Evaluation of a Threshold-Based Tri-Axial Accelerometer Fall Detection Algorithm", *Gait & Posture*, vol. 26, 2007, pp. 194-199.
 Campo et al., "Wireless Fall Sensor with GPS Location for Monitoring the Elderly", 30th Annual International IEEE EMBS Conference Vancouver, British Columbia, Canada, Aug. 20-24, 2008, pp. 498-501.
 Caporusso et al., "A Pervasive Solution for Risk Awareness in the Context of Fall Prevention", *Pervasive Health*, 2009, pp. 8.
 Chen et al., "In-Bed Fibre Optic Breathing and Movement Sensor for Non-Intrusive Monitoring", *Proceedings of SPIE* vol. 7173, 2009, pp. 6.
 Chen et al., "Wearable Sensors for Reliable Fall Detection", *Proceedings of the 2005 IEEE Engineering in Medicine and Biology 27th Annual Conference*, Shanghai, China, Sep. 1-4, 2005, pp. 3551-3554.
 Degen et al., "Speedy: A Fall Detector in a Wrist Watch", *Proceedings of the Seventh IEEE International Symposium on Wearable Computers (ISWC'03)*, 2003, pp. 184-187.
 Dhillon et al., "Towards the Prevention of Pressure Ulcers with a Wearable Patient Posture Monitor Based on Adaptive Accelerometer Alignment", 34th Annual International Conference of the IEEE EMBS, San Diego, CA, Aug. 28-Sep. 1, 2012, pp. 4513-4516.
 Di Rienzo et al., "MagIC System: a New Textile-Based Wearable Device for Biological Signal Monitoring. Applicability in Daily Life and Clinical Setting", *Proceedings of the 2005 IEEE Engineering in Medicine and Biology 27th Annual Conference Shanghai*, China, Sep. 1-4, 2005, pp. 7167-7169.
 Dinh et al., "A Fall and Near-Fall Assessment and Evaluation System", *The Open Biomedical Engineering Journal*, 2009, vol. 3, pp. 1-7.
 Giansanti et al., "Assessment of Fall-Risk by Means of a Neural Network Based on Parameters Assessed by a Wearable Device During Posturography", *Medical Engineering & Physics*, vol. 30, 2008, pp. 367-372.

Giansanti, Daniele, "Investigation of Fall-Risk Using a Wearable Device with Accelerometers and Rate Gyroscopes", *Institute of Physics Publishing, Physiological Measurement*, vol. 27, 2006, pp. 1081-1090.
 Gunningberg et al., "Accuracy in the Recording of Pressure Ulcers and Prevention after Implementing an Electronic Health Record in Hospital Care", *Quality Safe Health Care*, 2008, vol. 17, pp. 281-285.
 Gunningberg et al., "Improved Quality and Comprehensiveness in Nursing Documentation of Pressure Ulcers after Implementing an Electronic Health Record in Hospital Care", *Journal of Clinical Nursing*, 2009, vol. 18, pp. 1557-1564.
 Harada et al., "Portable Orientation Estimation Device Based on Accelerometers, Magnetometers and Gyroscope Sensors for Sensor Network", *IEEE Conference on Multisensor Fusion and Integration for Intelligent Systems 2003*, 2003, pp. 191-196.
 Hwang et al., "Development of Novel Algorithm and Real-time Monitoring Ambulatory System Using Bluetooth Module for Fall Detection in the Elderly", *Proceedings of the 26th Annual International Conference of the IEEE EMBS*, Sep. 1-5, 2004, pp. 2204-2207.
 Kang et al., "A Wrist-Worn Integrated Health Monitoring Instrument with a Tele-Reporting Device for Telemedicine and Telecare", *IEEE Transaction on Instrumentation and Measurement*, vol. 55, No. 5, Oct. 2006, pp. 1655-1661.
 Kärki et al., "Pressure Mapping System for Physiological Measurements", XVIII IMEKO World Congress, Metrology for a Sustainable Development, Sep. 17-22, 2006, Rio de Janeiro, Brazil, pp. 5.
 Li et al., "Accurate, Fast Fall Detection Using Gyroscopes and Accelerometer-Derived Posture Information", *Conference Paper, Sixth International Workshop on Wearable and Implantable Body Sensor Networks*, BSN 2009, Berkeley, CA, USA, Jun. 3-5, 2009, pp. 6.
 Lindemann et al., "Evaluation of a Fall Detector Based on Accelerometers: A Pilot Study", *Medical & Biological Engineering & Computing*, vol. 43, 2005, pp. 548-551.
 Linder-Ganz et al., "Real-Time Continuous Monitoring of Sub-Dermal Tissue Stresses Under the Ischial Tuberosities in Individuals with Spinal Cord Injury", *Proceedings of the ASME 2008 Summer Bioengineering Conference (SBC2008)*, Jun. 25-29, 2008, Marriott Resort, Marco Island, Florida, pp. 2.
 Luo et al., "A Dynamic Motion Pattern Analysis Approach to Fall Detection", 2004 IEEE International Workshop on Biomedical Circuits & Systems, Dec. 1-3, 2004, pp. S2.1-5-S2.1-8.
 "Masimo Announces FDA Clearance of Centroid™", *Business Wire*, Jun. 25, 2020, pp. 3.
 Mathie et al., "A System for Monitoring Posture and Physical Activity Using Accelerometers", *Engineering in Medicine and Biology Society*, 2001. *Proceedings of the 23rd Annual International Conference of the IEEE*, Oct. 25-28, 2001, pp. 3654-3657.
 McInerney, Joan A., "Reducing Hospital-Acquired Pressure Ulcer Prevalence Through a Focused Prevention Program", *Advances in Skin & Wound Care*, vol. 21, No. 2, Feb. 2008, pp. 75-78.
 Merbitz et al., "Wheelchair Push-ups: Measuring Pressure Relief Frequency", *Archives of Physical Medicine and Rehabilitation*, vol. 66, No. 7, Jul. 1985, pp. 433-438.
 Narayanan et al., "Falls Management: Detection and Prevention, Using a Waist-Mounted Triaxial Accelerometer", *Proceedings of the 29th Annual International Conference of the IEEE EMBS Cité Internationale*, Lyon, France, Aug. 23-26, 2007, pp. 4037-4040.
 Noury, Norbert, "A Smart Sensor for the Remote Follow Up of Activity and Fall Detection of the Elderly", 2nd Annual International IEEE-EMBS Special Topic Conference on Microtechnologies in Medicine & Biology, May 2-4, 2002, pp. 314-317.
 Nyan et al., "A Wearable System for Pre-Impact Fall Detection", *Journal of Biomechanics*, vol. 41, 2008, pp. 3475-3481.
 Nyan et al., "Garment-Based Detection of Falls and Activities of Daily Living Using 3-Axis MEMS Accelerometer", *Institute of Physics Publishing, International MEMS Conference 2006*, *Journal of Physics: Conference Series* 34, 2006, pp. 1059-1067.
 O'Donovan et al., "A Context Aware Wireless Body Area Network", *Pervasive Health*, 2009, pp. 8.

Pannurat et al., “Automatic Fall Monitoring: A Review”, *Sensors*, 2014, vol. 14, p. 12900-12936.

Pérolle et al., “Automatic Fall Detection and Activity Monitoring for Elderly”, Jan. 2007, pp. 5.

Po et al., “Overview of MEMSWear II—Incorporating MEMS Technology Into Smart Shirt for Geriatric Care”, Institute of Physics Publishing, International MEMS Conference 2006, *Journal of Physics: Conference Series* 34, 2006, pp. 1079-1085.

Prado et al., “Distributed Intelligent Architecture for Falling Detection and Physical Activity Analysis in the Elderly”, *Proceedings of the Second Joint EMBS/BMES Conference*, Oct. 23-26, 2002, pp. 1910-1911.

Rithalia et al., “Quantification of Pressure Relief Using Interface Pressure and Tissue Perfusion in Alternating Pressure Air Mattresses”, *Archives of Physical Medicine and Rehabilitation*, vol. 81, Oct. 2000, pp. 1364-1369.

Sakai et al., “Continuous Monitoring of Interface Pressure Distribution in Intensive Care Patients for Pressure Ulcer Prevention”, *Journal of Advanced Nursing*, vol. 65, No. 4, 2009, pp. 809-817.

Spillman Jr., et al., “A ‘Smart’ Bed for Non-Intrusive Monitoring of Patient Physiological Factors”, *Measurement Science and Technology*, Aug. 2004, vol. 15, No. 8, pp. 1614-1620.

Webster, John G., “A Pressure Mat for Preventing Pressure Sores”, *IEEE Engineering in Medicine & Biology Society 11th Annual International Conference*, 1989, pp. 2.

Williams et al., “A Remote Electronic Monitoring System for the Prevention of Pressure Sores”, *Proceedings of the 19th International Conference, IEEE/EMBS* Oct. 30-Nov. 2, 1997, Chicago, IL, pp. 1076-1079.

Wu et al., “Portable Preimpact Fall Detector With Inertial Sensors”, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, vol. 16, No. 2, Apr. 2008, pp. 178-183.

International Search Report & Written Opinion in PCT Application No. PCT/US2013/025384, dated Aug. 6, 2013.

International Preliminary Report on Patentability & Written Opinion in PCT Application No. PCT/US2013/025384, dated Aug. 21, 2014.

International Search Report & Written Opinion in PCT Application No. PCT/US2016/049751, dated Mar. 13, 2017.

International Preliminary Report on Patentability & Written Opinion in PCT Application No. PCT/US2016/049751, dated Mar. 6, 2018.

International Search Report & Written Opinion in PCT Application No. PCT/US2017/056405, dated Jan. 26, 2018.

International Preliminary Report on Patentability & Written Opinion in PCT Application No. PCT/US2017/056405, dated Apr. 25, 2019.

Capuano et al., “Remote Telemetry—New Twists for Old Technology”, *Nursing Management*, Jul. 1995, vol. 26, No. 7, pp. 26-32.

Elmer-Dewitt, Philip, “Apple’s iWatch: The killer apps may be in hospitals, not health clubs”, *Fortune.com*, Feb. 3, 2014, <http://fortune.com/2014/02/03/apples-iwatch-the-killer-apps-may-be-in-hospitals-not-health-clubs/>, 4 pages.

Grundy et al., “Telemedicine in Critical Care: An Experiment in Health Care Delivery”, *JACEP*, Oct. 1977, vol. 6, No. 10, pp. 439-444.

Grundy et al., “Telemedicine in Critical Care: Problems in Design, Implementation and Assessment”, Jul. 1982, vol. 10, No. 7, pp. 471-475.

International Search Report & Written Opinion in PCT Application No. PCT/US2021/023331, dated Jun. 22, 2021.

Rysavy, Peter, “Making the Call with Two-Way Paging”, *Network Computing*, Published Jan. 15, 1997, www.rysavy.com/Articles/twoway.htm, pp. 5.

Wachter et al., “The Employment of an Iterative Design Process to Develop a Pulmonary Graphical Display”, *Journal of the American Medical Informatics Association*, vol. 10, No. 4, Jul./Aug. 2003, pp. 363-372.

Wearable Temperature Measurement Device, U.S. Appl. No. 29/744,128. Virtual Expo Group, Home Page. (HJ30049031) in 1 page.

Letter from Payal Patel to Masimo Corporation re 510(k) No. K203215, U.S. Food & Drug Administration, dated Jun. 11, 2021.

* cited by examiner

Primary Examiner — Antoine Duval Davis

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

(57)

CLAIM

The ornamental design for a wearable temperature measurement device, as shown and described.

DESCRIPTION

Additional embodiments may be shown and described in U.S. design patent application Ser. No. 29/744,128, entitled “Wearable Temperature Measurement Device,” filed herewith, which is hereby incorporated by reference in its entirety.

FIG. 1 is a perspective view of a wearable temperature measurement device embodying our new design;

FIG. 2 is top view thereof;

FIG. 3 is bottom view thereof;

FIG. 4 is a front view thereof;

FIG. 5 is a back view thereof;

FIG. 6 is a side view thereof; and,

FIG. 7 is another side view thereof.

Broken lines, where shown, are used to illustrate portions of the wearable temperature measurement device or environmental subject matter that form no part of the claimed design.

In some embodiments, the wearable temperature measurement device can include a transparent release liner on a bottom of the wearable temperature measurement device. for example, with reference to any of FIGS. 1-7, some embodiments include the transparent release liner on the bottom of the wearable temperature measurement device that can include at least a portion of a body and/or other graphics shown in broken line in at least FIG. 3. In some embodiments, the wearable temperature measurement device can include a fabric layer illustrated by the dotted pattern area shown in FIGS. 1-7.

In some embodiments, the wearable temperature measurement device can include text on a top portion thereof. For example, in some embodiments, the wearable temperature measurement device can include the “Example” text in broken line in the locations shown in FIGS. 1-2 and 4-7. In some embodiments, the wearable temperature measurement device can include a line on a top portion thereof. For example, in some embodiments, the wearable temperature measurement device can include the line shown in broken line on the top portion of the wearable temperature measurement device shown in FIGS. 1-2 and 6-7.

1 Claim, 5 Drawing Sheets

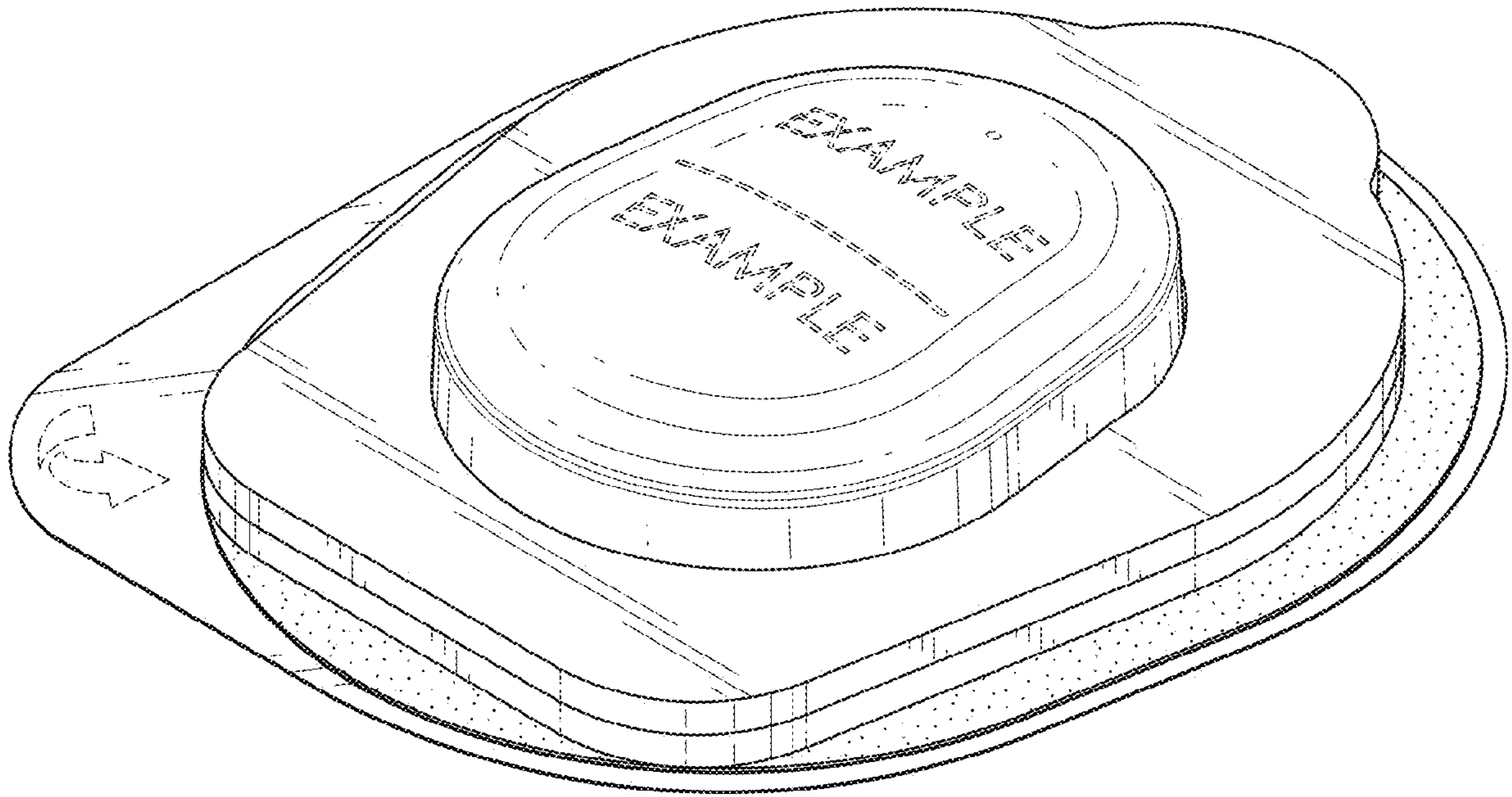


FIG. 1

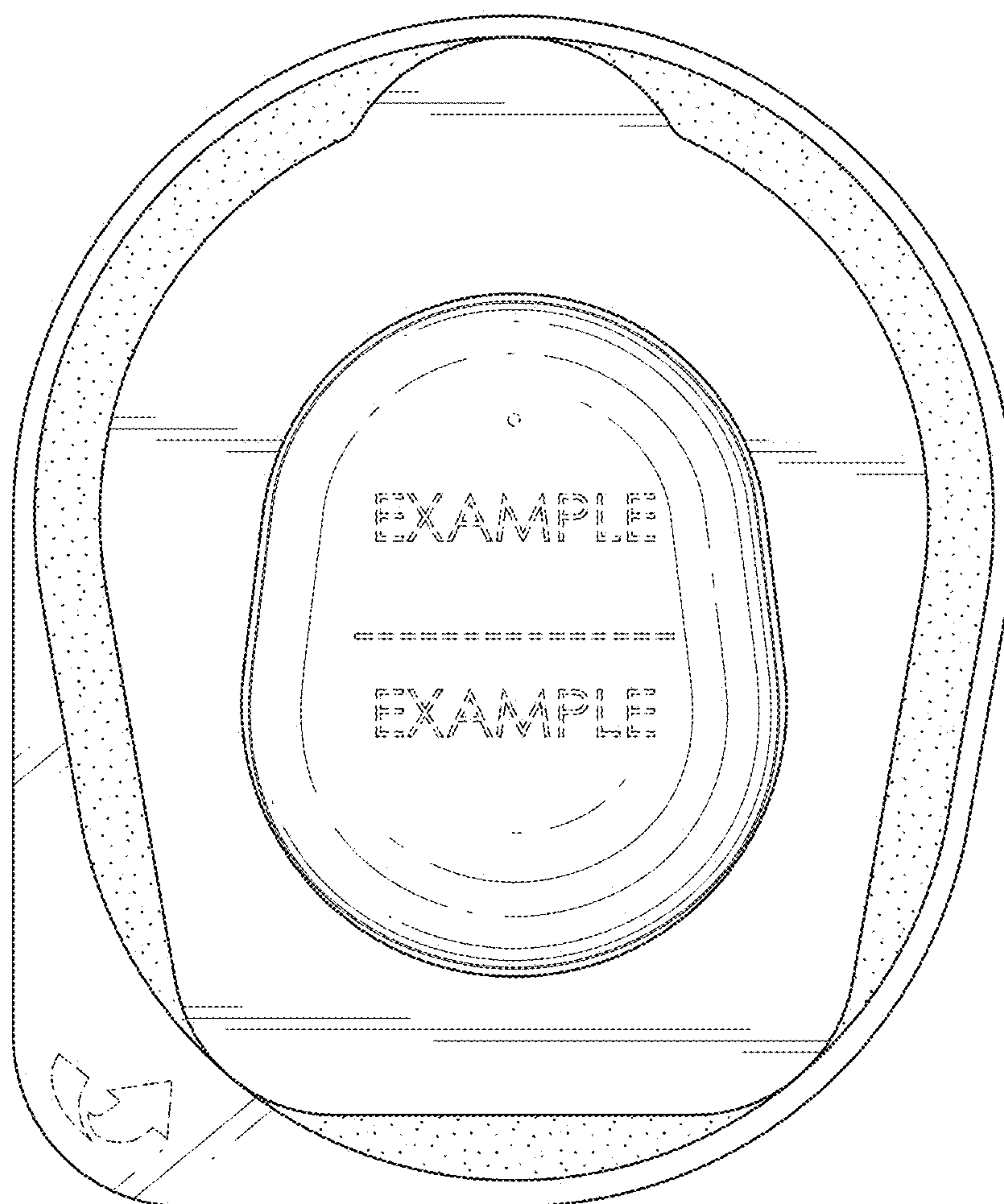


FIG. 2

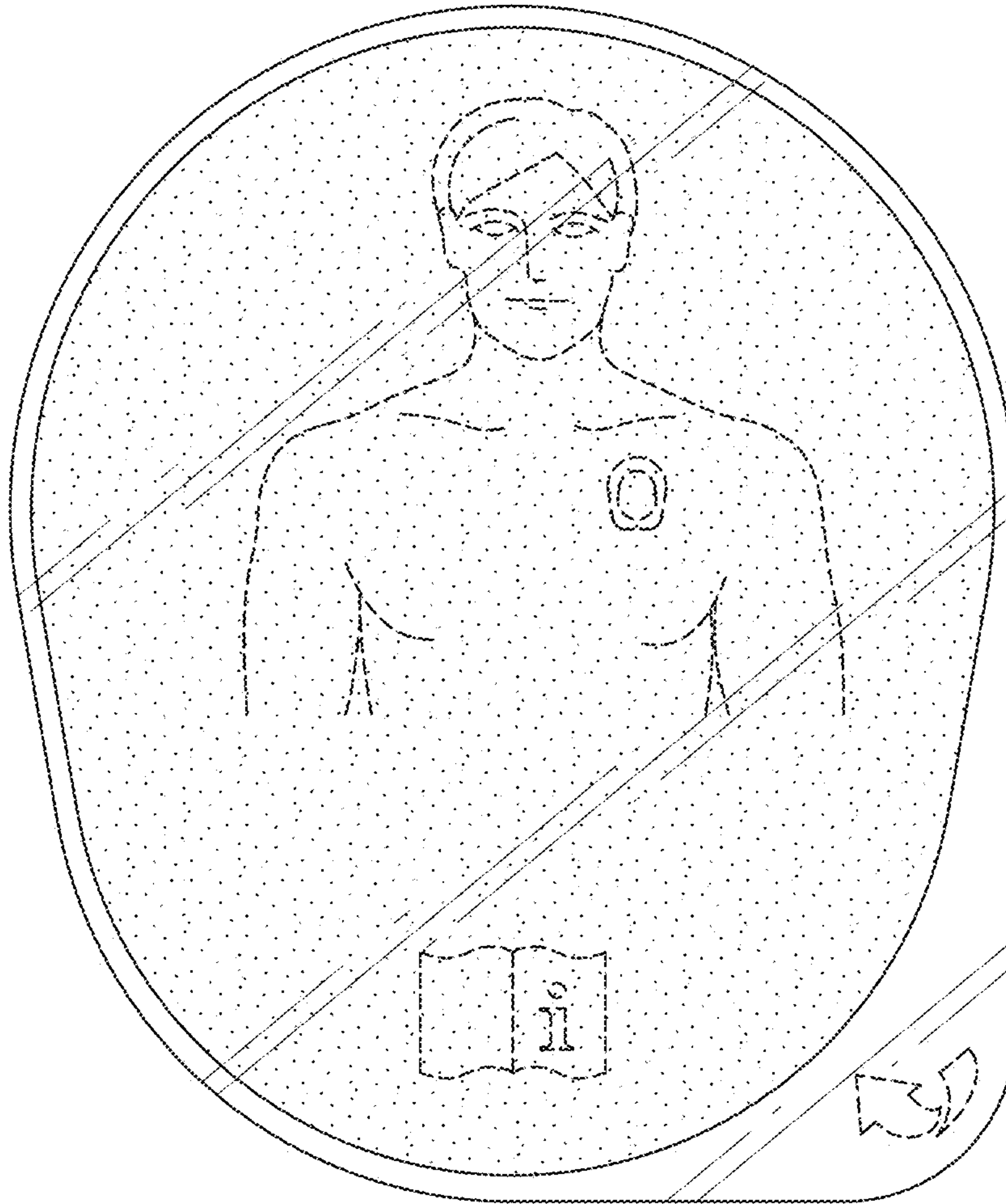


FIG. 3

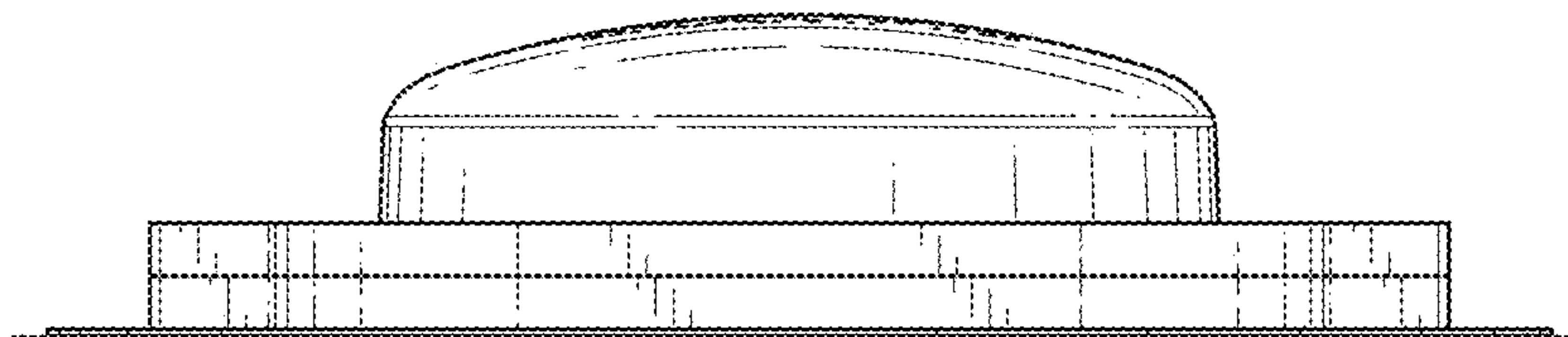


FIG. 4

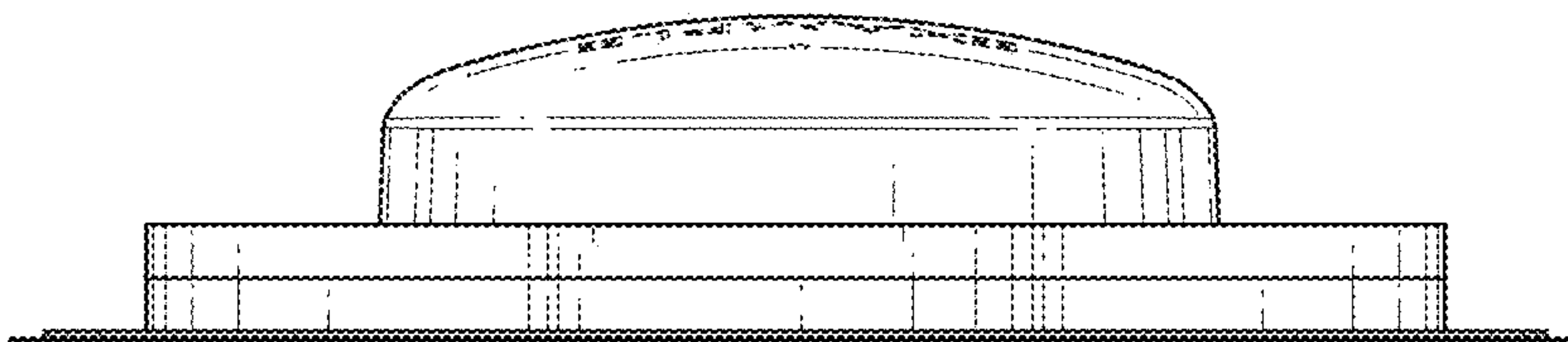


FIG. 5

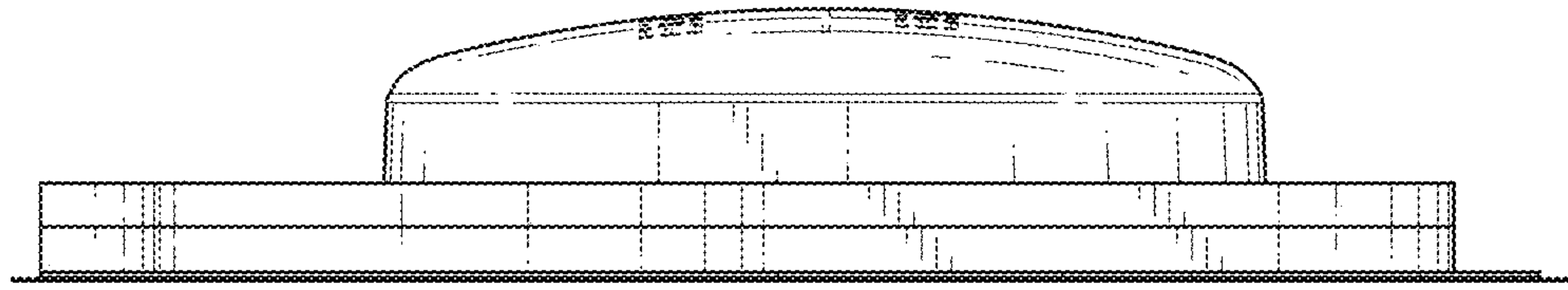


FIG. 6

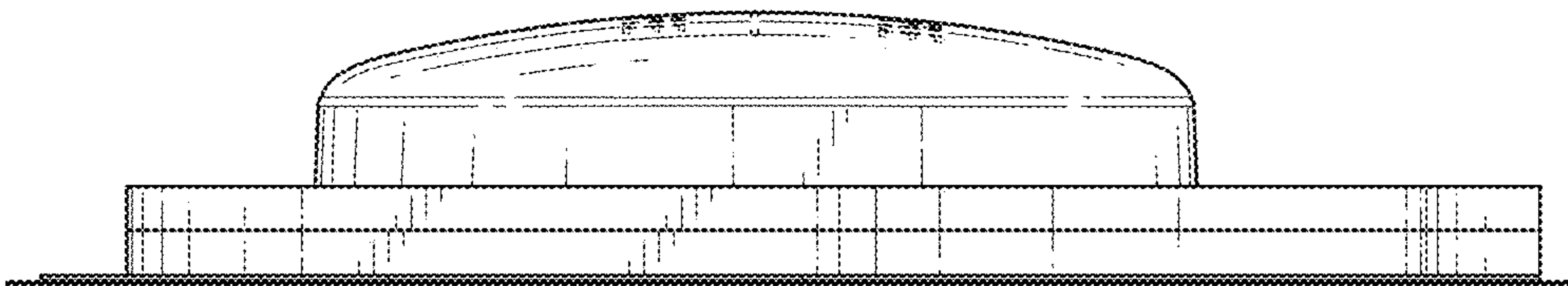


FIG. 7