US010270898B2

(12) **United States Patent**
Soli et al.

(10) **Patent No.: US 10,270,898 B2**
(45) **Date of Patent: Apr. 23, 2019**

(54) **WELLNESS AGGREGATOR**

(71) Applicant: **Apple Inc.**, Cupertino, CA (US)

(72) Inventors: **Christopher D. Soli**, Mountain View, CA (US); **Lawrence Y. Yang**, San Francisco, CA (US); **Dennis S. Park**, San Francisco, CA (US); **Stephen O. Lemay**, Palo Alto, CA (US); **Daniel S. Keen**, San Jose, CA (US); **James H. Foster**, Palo Alto, CA (US); **Zachery Kennedy**, San Jose, CA (US); **Michael O'Reilly**, San Jose, CA (US); **Guy L. Tribble**, Hillsborough, CA (US); **Todd K. Whitehurst**, Cupertino, CA (US)

(73) Assignee: **Apple Inc.**, Cupertino, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1037 days.

(21) Appl. No.: **14/599,424**

(22) Filed: **Jan. 16, 2015**

(65) **Prior Publication Data**

US 2015/0347711 A1 Dec. 3, 2015

Related U.S. Application Data

(60) Provisional application No. 62/006,032, filed on May 30, 2014.

(51) **Int. Cl.**
H04M 1/725 (2006.01)
G06F 19/00 (2018.01)
(Continued)

(52) **U.S. Cl.**
CPC ***H04M 1/72541*** (2013.01); ***G06F 19/00*** (2013.01); ***G06F 19/3418*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC G06Q 50/22; G06Q 50/24; G06F 19/3418; G06F 19/00; G06F 19/3481; G16H 40/20;
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,788,655 A 8/1998 Yoshimura et al.
6,266,098 B1 7/2001 Cove et al.
(Continued)

FOREIGN PATENT DOCUMENTS

CN 1443427 A 9/2003
CN 1997050 A 7/2007
(Continued)

OTHER PUBLICATIONS

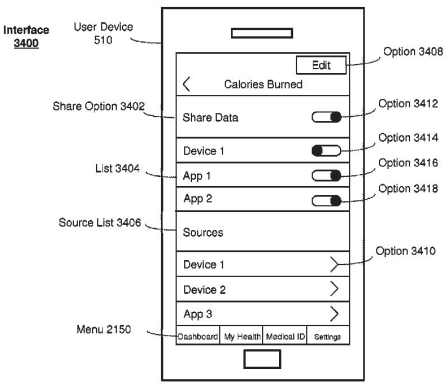
Office Action received for Japanese Patent Application No. 2016-569945, dated Nov. 10, 2017, 8 pages (4 pages of English Translation).
(Continued)

Primary Examiner — Eliza A Lam
(74) *Attorney, Agent, or Firm* — Dentons US LLP

(57) **ABSTRACT**

The present disclosure relates to aggregating and sharing wellness data. The wellness data can be received by a user device from any number of sensors external or internal to the user device, from a user manually entering the wellness data, or from other users or entities. The user device can securely store the wellness data on the user device and transmit the wellness data to be stored on a remote database. A user of the device can share some or all of the wellness data with friends, relatives, caregivers, healthcare providers, or the like. The user device can further display a user's wellness data in an aggregated view of different types of wellness data. Wellness data of other users can also be viewed if authorizations from those users have been received.

66 Claims, 51 Drawing Sheets



(51) **Int. Cl.**

H04W 4/90	(2018.01)
G16H 40/63	(2018.01)
H04W 4/14	(2009.01)
H04W 88/02	(2009.01)
G16H 10/60	(2018.01)

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

CPC ***G06F 19/3481*** (2013.01); ***G16H 40/63*** (2018.01); ***H04M 1/72538*** (2013.01); ***H04W 4/14*** (2013.01); ***H04W 4/90*** (2018.02); *G16H 10/60* (2018.01); *H04W 88/02* (2013.01)

(58) **Field of Classification Search**

CPC ... G16H 10/60; G16H 40/63; H04M 1/72541; H04M 1/72538; H04W 4/90; H04W 4/14; H04W 88/02

USPC 705/2

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,323,846	B1	11/2001	Westerman et al.	
6,570,557	B1	5/2003	Westerman et al.	
6,603,477	B1	8/2003	Tittle	
6,661,438	B1	12/2003	Shiraishi et al.	
6,662,023	B1	12/2003	Helle	
6,677,932	B1	1/2004	Westerman	
6,809,724	B1	10/2004	Shiraishi et al.	
7,081,905	B1	7/2006	Raghunath	
7,130,664	B1	10/2006	Williams	
7,614,008	B2	11/2009	Ording	
7,633,076	B2	12/2009	Huppi et al.	
7,653,883	B2	1/2010	Hotelling et al.	
7,657,849	B2	2/2010	Chaudhri et al.	
7,663,607	B2	2/2010	Hotelling et al.	
7,844,914	B2	11/2010	Andre et al.	
7,957,762	B2	6/2011	Herz et al.	
7,970,827	B1	6/2011	Cumberbatch et al.	
8,006,002	B2	8/2011	Kalayjian et al.	
8,050,997	B1	11/2011	Nosek et al.	
8,239,784	B2	8/2012	Hotelling et al.	
8,279,180	B2	10/2012	Hotelling et al.	
8,381,135	B2	2/2013	Hotelling et al.	
8,479,122	B2	7/2013	Hotelling et al.	
8,543,081	B2	9/2013	Scott et al.	
8,595,798	B2 *	11/2013	Anand	G06F 21/604 713/167
8,666,361	B2	3/2014	Chu et al.	
8,700,158	B2 *	4/2014	Mass	H04L 65/1069 607/32
8,910,299	B2	12/2014	Michalske	
9,020,538	B1	4/2015	White et al.	
9,557,881	B1	1/2017	Jain et al.	
2002/0015024	A1	2/2002	Westerman et al.	
2002/0118121	A1	8/2002	Lehrman et al.	
2005/0187873	A1	8/2005	Labrou et al.	
2005/0190059	A1	9/2005	Wehrenberg	
2005/0191159	A1	9/2005	Benko	
2006/0017692	A1	1/2006	Wehrenberg et al.	
2006/0026536	A1	2/2006	Hotelling et al.	
2006/0033724	A1	2/2006	Chaudhri et al.	
2006/0052727	A1	3/2006	Palestrant	
2006/0155578	A1	7/2006	Eisenberger et al.	
2006/0197753	A1	9/2006	Hotelling	
2006/0294025	A1	12/2006	Mengerink	
2007/0135043	A1	6/2007	Hayes et al.	
2008/0150731	A1	6/2008	Laukkanen et al.	
2008/0320391	A1	12/2008	Lemay et al.	
2009/0036165	A1	2/2009	Brede	
2009/0199130	A1	8/2009	Tsern et al.	
2009/0205041	A1	8/2009	Michalske	
2009/0276463	A1 *	11/2009	Miller	G06F 19/322
2010/0079291	A1	4/2010	Kroll et al.	
2010/0202368	A1	8/2010	Hans	
2010/0223145	A1	9/2010	Dragt	
2010/0305965	A1	12/2010	Benjamin et al.	
2010/0331145	A1	12/2010	Lakovic et al.	
2011/0003665	A1	1/2011	Burton et al.	
2011/0010195	A1	1/2011	Cohn	
2011/0088086	A1	4/2011	Swink et al.	
2011/0098928	A1	4/2011	Hoffman et al.	
2011/0137678	A1	6/2011	Williams	
2011/0137836	A1	6/2011	Kuriyama et al.	
2011/0230986	A1	9/2011	Lafortune et al.	
2011/0246509	A1	10/2011	Migita et al.	
2011/0251892	A1	10/2011	Laracey et al.	
2011/0261079	A1	10/2011	Ingrassia et al.	
2012/0016678	A1	1/2012	Gruber et al.	
2012/0089507	A1	4/2012	Zhang et al.	
2012/0116550	A1 *	5/2012	Hoffman	A63B 24/0084 700/91
2012/0159380	A1	6/2012	Kocienda et al.	
2012/0209829	A1	8/2012	Thomas et al.	
2012/0253485	A1	10/2012	Weast et al.	
2012/0258684	A1	10/2012	Franz et al.	
2012/0290449	A1	11/2012	Mullen et al.	
2012/0310674	A1 *	12/2012	Faulkner	G06Q 50/22 705/3
2012/0310760	A1	12/2012	Phillips et al.	
2012/0322370	A1	12/2012	Lee	
2012/0322371	A1	12/2012	Lee	
2012/0326873	A1	12/2012	Utter, II	
2013/0054150	A1	2/2013	Sacks et al.	
2013/0097566	A1	4/2013	Berglund	
2013/0103519	A1	4/2013	Kountotsis et al.	
2013/0106603	A1	5/2013	Weast et al.	
2013/0106684	A1	5/2013	Weast et al.	
2013/0110719	A1	5/2013	Carter et al.	
2013/0132028	A1	5/2013	Crankson et al.	
2013/0143512	A1	6/2013	Hernandez et al.	
2013/0184613	A1	7/2013	Homsi et al.	
2013/0188322	A1	7/2013	Lowe	
2013/0197679	A1	8/2013	Balakrishnan et al.	
2013/0203475	A1	8/2013	Kil et al.	
2013/0217979	A1	8/2013	Blackadar et al.	
2013/0225118	A1	8/2013	Jang et al.	
2013/0262155	A1	10/2013	Hinkamp	
2013/0290013	A1	10/2013	Forrester	
2013/0295872	A1	11/2013	Guday et al.	
2013/0304651	A1	11/2013	Smith et al.	
2013/0325394	A1	12/2013	Yuen et al.	
2013/0325396	A1	12/2013	Yuen et al.	
2013/0332364	A1	12/2013	Templeton et al.	
2014/0074716	A1	3/2014	Ni	
2014/0081666	A1	3/2014	Teller et al.	
2014/0101056	A1	4/2014	Wendling	
2014/0129441	A1	5/2014	Blanco et al.	
2014/0139637	A1	5/2014	Mistry et al.	
2014/0199966	A1	7/2014	Schushan	
2014/0218369	A1	8/2014	Yuen et al.	
2014/0239065	A1	8/2014	Zhou et al.	
2014/0240122	A1	8/2014	Roberts et al.	
2014/0244009	A1	8/2014	Mestas	
2014/0245161	A1	8/2014	Yuen et al.	
2014/0257537	A1	9/2014	Stroupe et al.	
2014/0279442	A1	9/2014	Luoma et al.	
2014/0279556	A1	9/2014	Priebatsch et al.	
2014/0282153	A1	9/2014	Christiansen et al.	
2014/0337451	A1	11/2014	Choudhary et al.	
2014/0344723	A1	11/2014	Malik et al.	
2015/0052618	A1	2/2015	Michalske	
2015/0057943	A1	2/2015	Self et al.	
2015/0106025	A1	4/2015	Keller et al.	
2015/0130830	A1	5/2015	Nagasaki et al.	
2015/0205930	A1	7/2015	Shaanan et al.	
2015/0334546	A1	11/2015	Diamond	
2015/0350861	A1	12/2015	Soli et al.	
2015/0374310	A1	12/2015	Lee	
2016/0019360	A1	1/2016	Pahwa et al.	
2016/0058336	A1	3/2016	Blahnik et al.	
2016/0058337	A1	3/2016	Blahnik et al.	
2016/0089569	A1	3/2016	Blahnik	

(56) **References Cited**

U.S. PATENT DOCUMENTS

2016/0256741	A1	9/2016	Holma et al.
2017/0053542	A1	2/2017	Wilson et al.
2017/0281057	A1	10/2017	Blahnik et al.

FOREIGN PATENT DOCUMENTS

CN	101061484	A	10/2007
CN	103154954	A	6/2013
CN	103297610	A	9/2013
CN	103581456	A	2/2014
EP	1052566	A1	11/2000
EP	1935339	A1	6/2008
EP	2025368	A2	2/2009
EP	2551784	A1	1/2013
JP	6-187118	A	7/1994
JP	2001-76078	A	3/2001
JP	2003-337863	A	11/2003
JP	2004-102609	A	4/2004
JP	2006-230679	A	9/2006
JP	2008-183339	A	8/2008
JP	2008-272301	A	11/2008
JP	2010-122901	A	6/2010
JP	2011-125633	A	6/2011
JP	2011-192126	A	9/2011
JP	2011-198184	A	10/2011
JP	2012-230503	A	11/2012
JP	2012-533117	A	12/2012
JP	2015-531916	A	11/2015
KR	10-2013-0135282	A	12/2013
TW	201210368	A	3/2012
TW	201240499	A	10/2012
WO	99/41682	A2	8/1999
WO	2005/070289	A1	8/2005
WO	2006/037545	A2	4/2006
WO	2012/078079	A2	6/2012
WO	2013/109762	A1	7/2013
WO	2013/109777	A1	7/2013
WO	2013/169849	A2	11/2013
WO	2014/022711	A1	2/2014
WO	2014/105276	A1	7/2014
WO	2014/207294	A1	12/2014

OTHER PUBLICATIONS

Office Action received for Danish Patent Application No. PA201670656, dated May 30, 2018, 5 pages.
Office Action received for Japanese Patent Application No. 2016-557650, dated Apr. 13, 2018, 9 pages (5 pages of English Translation).
Summons to Attend Oral Proceedings received for European Patent Application No. 15771747.1, dated May 25, 2018, 17 pages.
Office Action received for Chinese Patent Application No. 201580028677.9, dated May 25, 2018, 14 pages (4 pages of English Translation).
Office Action received for Japanese Patent Application No. 2016-569945, dated Sep. 10, 2018, 11 pages (6 pages of English Translation).
Office Action received for Australian Patent Application No. 2015267240, dated Mar. 21, 2018, 5 pages.
Office Action received for Chinese Patent Application No. 201510284850.3, dated Nov. 28, 2017, 15 pages (5 pages of English Translation).
Advisory Action received for U.S. Appl. No. 14/839,922, dated Mar. 24, 2017, 4 pages.
Intention to Grant received for Danish Patent Application No. PA201570668, dated Mar. 27, 2017, 2 pages.
International Preliminary Report on Patentability received for PCT Patent Application No. PCT/US2015/047282, dated Mar. 16, 2017, 26 pages.
International Search Report and Written Opinion received for PCT Patent Application No. PCT/US2016/037686, dated Sep. 9, 2016, 19 pages.
Office Action received for Danish Patent Application No. PA201570666, dated Jun. 27, 2016, 4 pages.
International Preliminary Report on Patentability received for PCT Patent Application No. PCT/US2013/073195, dated Jun. 7, 2016, 9 pages.
Office Action received for Danish Patent Application No. PA201570668, dated Apr. 8, 2016, 8 pages.
International Search Report and Written Opinion received for PCT Patent Application No. PCT/US2015/047282, dated May 9, 2016, 33 pages.
Office Action received for Chinese Patent Application No. 201510284850.3, dated Jul. 9, 2018, 11 pages (2 pages of English Translation).
Summons to Attend Oral Proceedings received for European Patent Application No. 15730890.9, dated Sep. 10, 2018, 11 pages.
Notice of Allowance received for U.S. Appl. No. 14/839,922, dated Jan. 26, 2018, 2 pages.
Office Action received for Danish Patent Application No. PA201770191, dated Jan. 25, 2018, 3 pages.
Summons to attend oral proceedings received for European Patent Application No. 13811085.3, dated Jan. 26, 2018, 14 pages.
Office Action received for European Patent Application No. 15730890.9, dated Aug. 3, 2017, 4 pages.
Office Action received for Japanese Patent Application No. 2016-557650, dated Aug. 10, 2017, 10 pages (5 pages of English Translation).
Notice of Allowance received for U.S. Appl. No. 14/839,922, dated Jul. 6, 2017, 8 pages.
Non-Final Office Action received for U.S. Appl. No. 14/599,425, dated Jan. 11, 2018, 42 pages.
Non-Final Office Action received for U.S. Appl. No. 14/732,773, dated Jan. 19, 2018, 45 pages.
Notice of Allowance received for U.S. Appl. No. 14/839,916, dated Jan. 10, 2018, 19 pages.
Office Action received for Korean Patent Application No. 10-2016-7014577, dated Dec. 26, 2017, 14 pages (6 pages of English Translation).
"Utilization of Galaxy S4—S Health, ChatOn and Samsung Hub", Available at: http://seeit.kr/1263, Jun. 12, 2013, 25 pages (see attached 37 CFR § 1.98(a) (3)).
Jenbsjourney, "Wondering About a Fitbit?"Available at: https://jenbsjourney.blogspot.kr/2013/08/wondering-about-fitbit.html, Aug. 6, 2013, 12 pages.
Final Office Action received for U.S. Appl. No. 14/599,425, dated May 19, 2017, 24 pages.
Notice of Allowance received for Korean Patent Application No. 10-2016-7033638, dated May 31, 2017, 5 pages (2 pages of English Translation).
Notice of Allowance received for Taiwanese Patent Application No. 104128685, dated May 3, 2017, 3 pages (see attached 37 CFR § 1.98(a) (3)).
Office Action received for Japanese Patent Application No. 2016535045, dated May 12, 2017, 10 pages (5 pages of English Translation).
Office Action received for Danish Patent Application No. PA201670656, dated Jun. 14, 2017, 3 pages.
Search Report and Opinion received for Danish Patent Application No, PA201770191, dated Jun. 30, 2017, 9 pages.
Extended European Search Report received for European Patent Application No. 18154145.9, dated Mar. 2, 2018, 8 pages.
International Preliminary Report on Patentability received for PCT Application No. PCT/US2016/037686, dated Mar. 1, 2018, 12 pages.
Notice of Allowance received for Japanese Patent Application No. 2016-535045, dated Mar. 2, 2018, 5 pages (2 pages of English Translation).
Office Action received for Australian Patent Application No. 2018200428, dated Mar. 7, 2018, 4 pages.
Non Final Office Action received for U.S. Appl. No. 14/839,916, dated Feb. 4, 2016, 19 pages.
Non Final Office Action received for U.S. Appl. No. 14/839,922, dated Feb. 25, 2016, 20 pages.

(56) **References Cited**

OTHER PUBLICATIONS

Notice of Allowance received for Chinese Patent Application No. 201520358505.5, dated Jan. 13, 2016, 3 pages (2 pages of English Translation).
Office Action received for Danish Patent Application No. PA201570666, dated Feb. 2, 2016, 9 pages.
International Search Report received for PCT Patent Application No. PCT/US2013/073195, dated Jun. 23, 2014, 3 pages.
Invitation to Pay Additional Fees received for PCT Patent Application No. PCT/US2015047282, dated Dec. 22, 2015, 7 pages.
"i Phone User Guide for iOS 7.1 Software", available online at <https://manuals.info.apple.com/Manuals/1000/MA1681/en_US/iphone_ios7_user_guide.pdf> retrieved on Aug. 10, 2015, 162 pages.
Office Action received for Australian Patent Application No. 2015100734, dated Jul. 29, 2015, 5 pages.
International Search Report and Written Opinion received for PCT Application No. PCT/US2015/032474, dated Aug. 19, 2015, 8 pages.
Final Office Action received for U.S. Appl. No. 14/599,425, dated Oct. 8, 2015, 20 pages.
Non Final Office Action received for U.S. Appl. No. 14/503,072, dated Jan. 26, 2015, 12 pages.
Non Final Office Action received for U.S. Patent Application No. 14/503,296, dated Jan. 30, 2015, 16 pages.
Non-Final Office Action received for U.S. Appl. No. 14/503,372, dated Dec. 5, 2014, 11 pages.
Non-Final Office Action received for U.S. Appl. No. 14/503,381, dated May 13, 2015, 13 pages.
Non-Final Office Action received for U.S. Appl. No. 14/599,425, dated Mar. 17, 2015, 16 pages.
Kamijo, Noboru, "Next Generation Mobile System—WatchPad1.5", Available at "http://researcher.ibm.com/researcher/view_group_subpage.php?id=5617", retrieved on Jul. 4, 2015, 2 pages.
Lemay et al., U.S. Appl. No. 60/936,562, filed Jun. 20, 2007, titled "Portable Multifunction Device, Method, and Graphical User Interface for Playing Online Videos", 61 pages.
NDTV, "Sony SmartWatch 2 Launched in India for Rs. 14,990", available at "http://gadgets.ndtv.com/others/news/sony-smartwatch-2-launched-in-india-for-rs-14990-420319", Sep. 18, 2013, 4 pages.
International Search Report and Written Opinion received for PCT Patent Application No. PCT/US2014/053951, dated Dec. 8, 2014, 11 pages.
International Search Report and Written Opinion received for PCT Patent Application No. PCT/US2014/053957, dated Feb. 19, 2015, 11 pages.
International Search Report and Written Opinion received for PCT Patent Application No. PCT/US2014/053958, dated Feb. 19, 2015, 10 pages.
Yang et al., U.S. Appl. No. 62/004,886, filed May 29, 2014, titled "User Interface for Payments", 198 pages.
International Search Report and Written Opinion received for PCT Patent Application No. PCT/US2015/019321, dated Jun. 3, 2015, 11 pages.
Apple, "iPhone User's Guide", 2007, 137 pages.
Final Office Action received for U.S. Appl. No. 14/839,922, dated Dec. 14, 2016, 22 pages.
International Preliminary Report on Patentability Received for PCT Patent Application No. PCT/US2015/032474, dated Dec. 15, 2016, 7 pages.
Non-Final Office Action received for U.S. Appl. No. 14/599,425, dated Oct. 26, 2016, 22 pages.
Non-Final Office Action received for U.S. Appl. No. 14/839,922, dated Aug. 17, 2016, 25 pages.
Notice of Allowance received for Danish Patent Application No. PA201570666, dated Sep. 15, 2016, 1 page.
Notice of Allowance received for U.S. Appl. No. 14/839,916, dated Aug. 31, 2016, 11 pages.
Office Action received for Australian Patent Application No. 2015312215, dated Oct. 13, 2016, 3 pages.
Office Action Received for Danish Patent Application No. PA201670656, dated Nov. 3, 2016, 8 pages.
Office Action received for Danish Patent Application No. PA201570668, dated Sep. 9, 2016, 3 pages.
Office Action received for Korean Patent Application No. 10-2016-7033638, dated Jan. 31, 2017, 6 pages (2 pages of English Translation).
Office Action received for Taiwanese Patent Application No. 104117509, dated Aug. 22, 2016, 6 pages (3 pages of English Translation).
Office Action received for Taiwanese Patent Application No. 104128685, dated Jan. 4, 2017, 40 pages (15 pages of English Translation).
Written Opinion received for PCT Patent Application No. PCT/US2013/073195, dated Jun. 23, 2014, 8 pages.
Notice of Acceptance received for Australian Patent Application No. 2015267240, dated Apr. 10, 2018, 3 pages.
Office Action received for European Patent Application No. 13811085.3, dated Apr. 20, 2018, 15 pages.
Office Action received for European Patent Application No. 18154145.9, dated Apr. 3, 2018, 6 pages.
Notice of Acceptance received for Australian Patent Application No. 2015312215, dated Oct. 9, 2017, 3 pages.
Notice of Allowance received for U.S. Appl. No. 14/839,922, dated Nov. 2, 2017, 8 pages.
Office Action received for European Patent Application No. 15771747,1, dated Oct. 31, 2017, 7 pages.
Non-Final Office Action received for U.S. Appl. No. 14/839,916, dated May 1, 2017, 18 pages.
Notice of Allowance received for Taiwanese Patent Application No. 104117509, dated Mar. 31, 2017, 3 pages (see attached 37 CFR § 1.98(a) (3)).
Office Action received for Australian Patent Application No. 2015267240, dated Apr. 10, 2017, 5 pages.
Notice of Allowance received for Danish Patent Application No. PA201570668, dated Oct. 30, 2017, 2 pages.

* cited by examiner

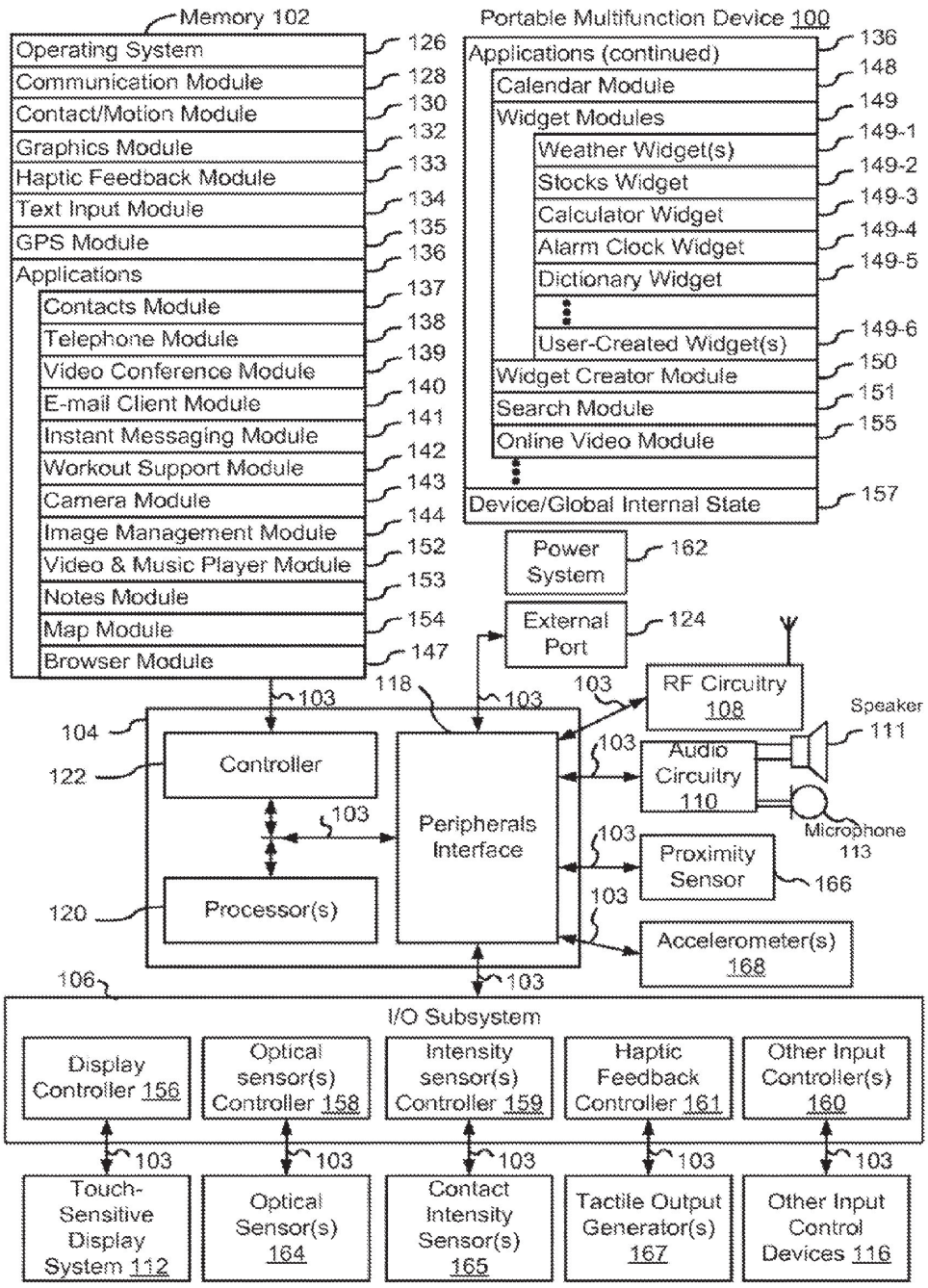

Memory 102
Operating System
Communication Module
Contact/Motion Module
Graphics Module
Haptic Feedback Module
Text Input Module
GPS Module
Applications
Contacts Module
Telephone Module
Video Conference Module
E-mail Client Module
Instant Messaging Module
Workout Support Module
Camera Module
Image Management Module
Video & Music Player Module
Notes Module
Map Module
Browser Module
126
128
130
132
133
134
135
136
137
138
139
140
141
142
143
144
152
153
154
147
Portable Multifunction Device 100
Applications (continued)
Calendar Module
Widget Modules
Weather Widget(s)
Stocks Widget
Calculator Widget
Alarm Clock Widget
Dictionary Widget
User-Created Widget(s)
Widget Creator Module
Search Module
Online Video Module
Device/Global Internal State
136
148
149
149-1
149-2
149-3
149-4
149-5
149-6
150
151
155
157
Power System
162
External Port
124
RF Circuitry 108
Speaker 111
Audio Circuitry 110
Microphone 113
Proximity Sensor
166
Accelerometer(s) 168
Peripherals Interface
Controller
Processor(s)
104
122
120
103
118
106
I/O Subsystem
Display Controller 156
Optical sensor(s) Controller 158
Intensity sensor(s) Controller 159
Haptic Feedback Controller 161
Other Input Controller(s) 160
Touch-Sensitive Display System 112
Optical Sensor(s) 164
Contact Intensity Sensor(s) 165
Tactile Output Generator(s) 167
Other Input Control Devices 116

FIG. 1A

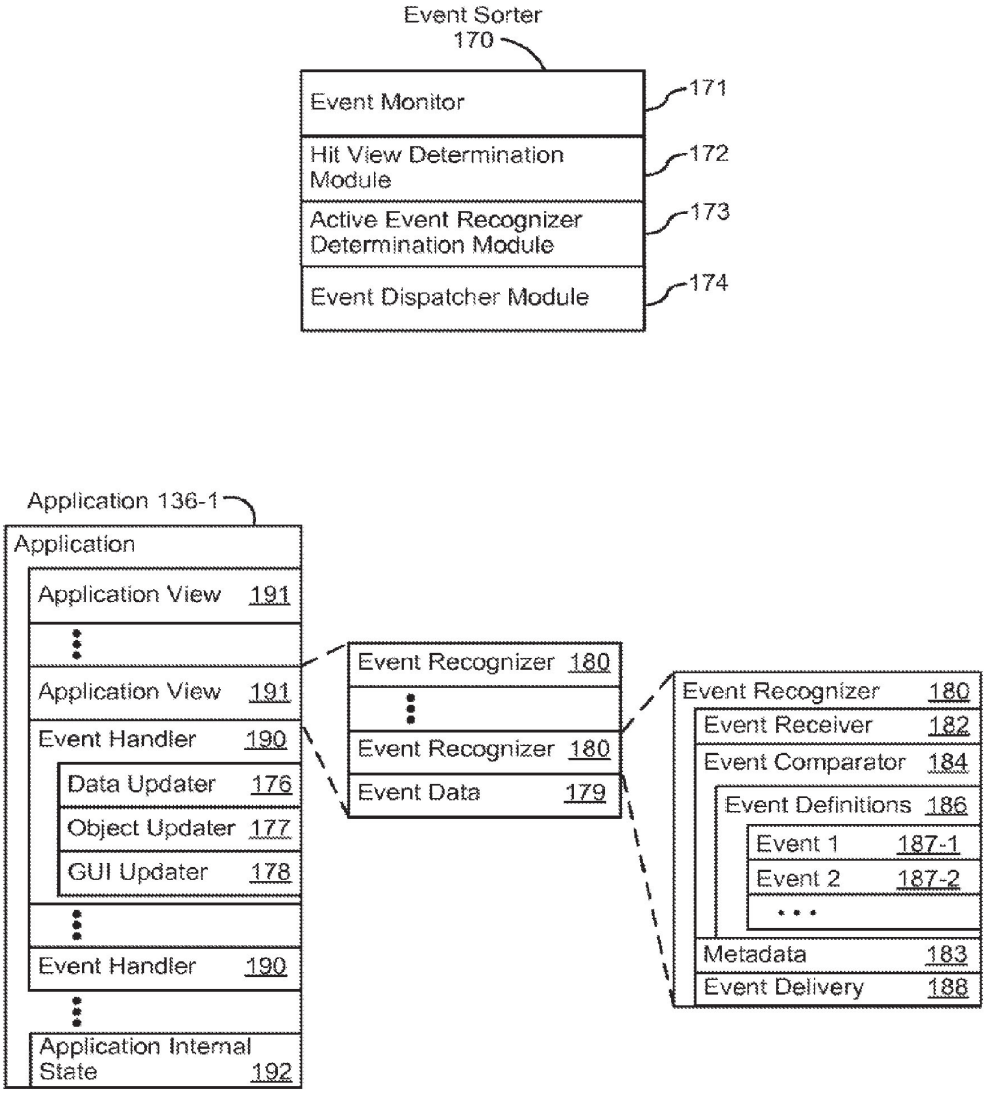

Event Sorter
170
Event Monitor
171
Hit View Determination Module
172
Active Event Recognizer Determination Module
173
Event Dispatcher Module
174
Application 136-1
Application
Application View 191
Application View 191
Event Handler 190
Data Updater 176
Object Updater 177
GUI Updater 178
Event Handler 190
Application Internal State 192
Event Recognizer 180
Event Recognizer 180
Event Data 179
Event Recognizer 180
Event Receiver 182
Event Comparator 184
Event Definitions 186
Event 1 187-1
Event 2 187-2
Metadata 183
Event Delivery 188

FIG. 1B

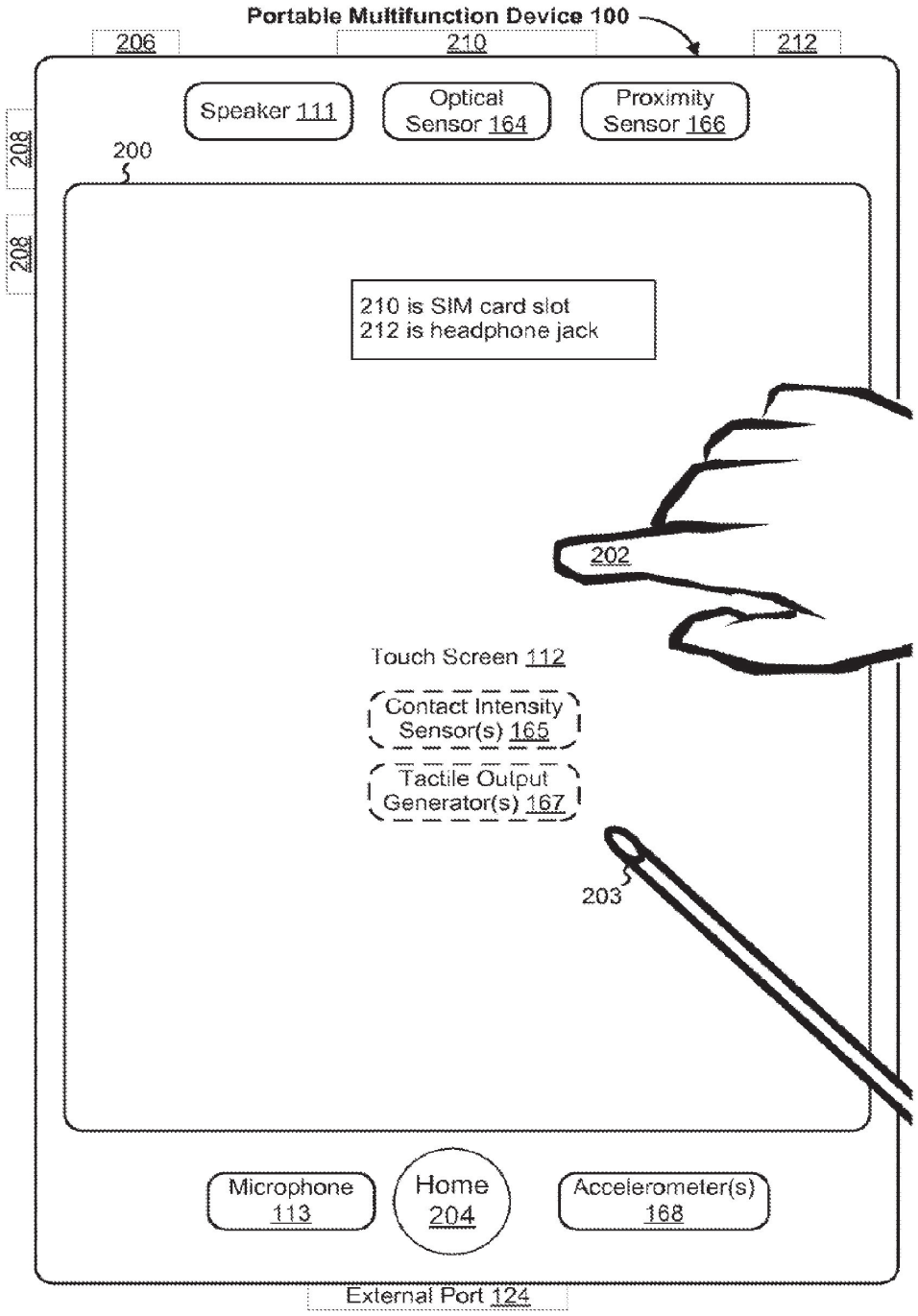

Portable Multifunction Device 100
206
210
212
Speaker 111
Optical Sensor 164
Proximity Sensor 166
208
208
200
210 is SIM card slot
212 is headphone jack
202
Touch Screen 112
Contact Intensity Sensor(s) 165
Tactile Output Generator(s) 167
203
Microphone 113
Home 204
Accelerometer(s) 168
External Port 124

FIG. 2

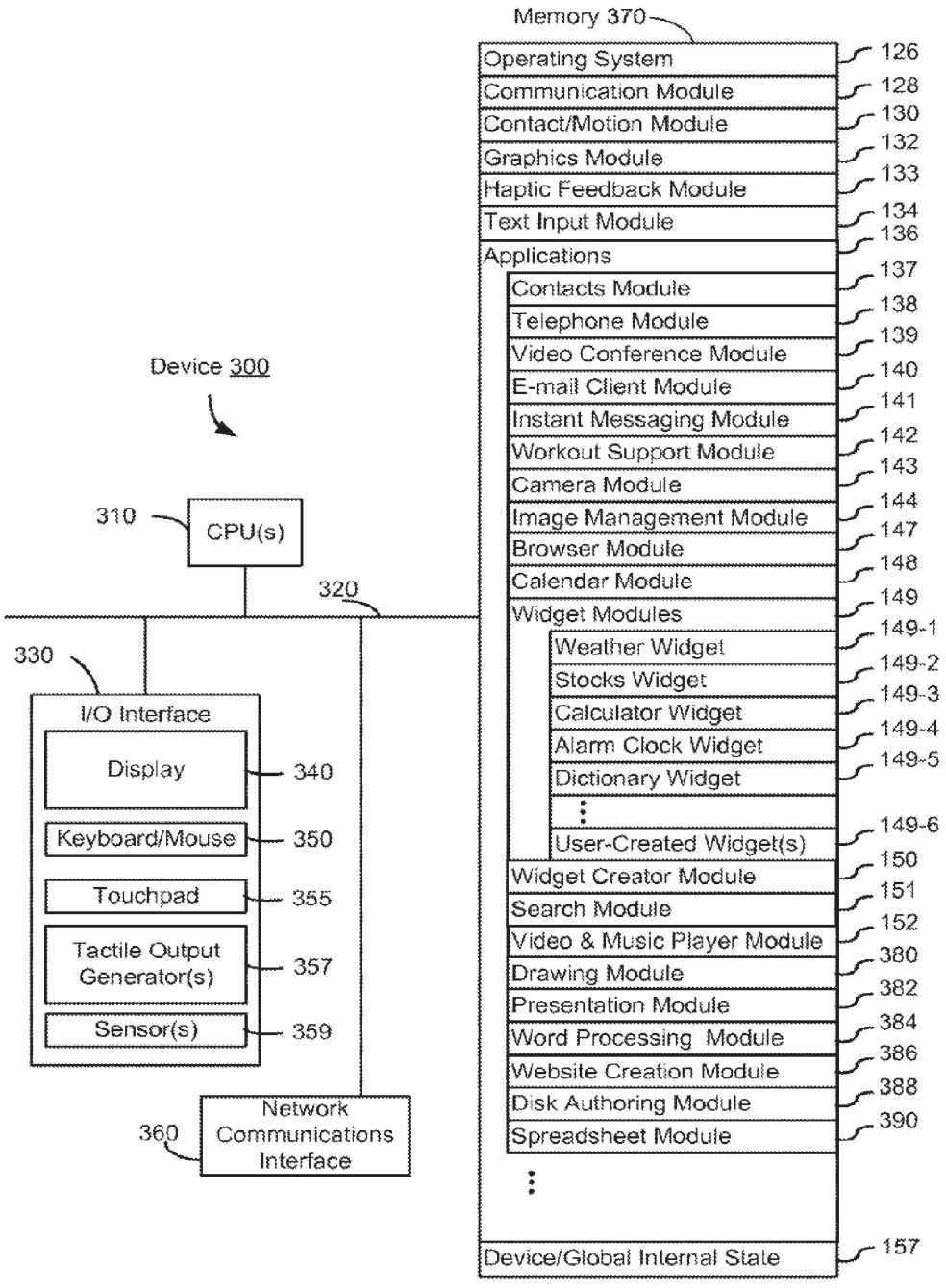

Memory 370
Operating System
126
Communication Module
128
Contact/Motion Module
130
Graphics Module
132
Haptic Feedback Module
133
Text Input Module
134
Applications
136
Contacts Module
137
Telephone Module
138
Video Conference Module
139
E-mail Client Module
140
Instant Messaging Module
141
Workout Support Module
142
Camera Module
143
Image Management Module
144
Browser Module
147
Calendar Module
148
Widget Modules
149
Weather Widget
149-1
Stocks Widget
149-2
Calculator Widget
149-3
Alarm Clock Widget
149-4
Dictionary Widget
149-5
User-Created Widget(s)
149-6
Widget Creator Module
150
Search Module
151
Video & Music Player Module
152
Drawing Module
380
Presentation Module
382
Word Processing Module
384
Website Creation Module
386
Disk Authoring Module
388
Spreadsheet Module
390
Device/Global Internal State
157
Device 300
310
CPU(s)
320
330
I/O Interface
Display
340
Keyboard/Mouse
350
Touchpad
355
Tactile Output Generator(s)
357
Sensor(s)
359
360
Network Communications Interface

FIG. 3

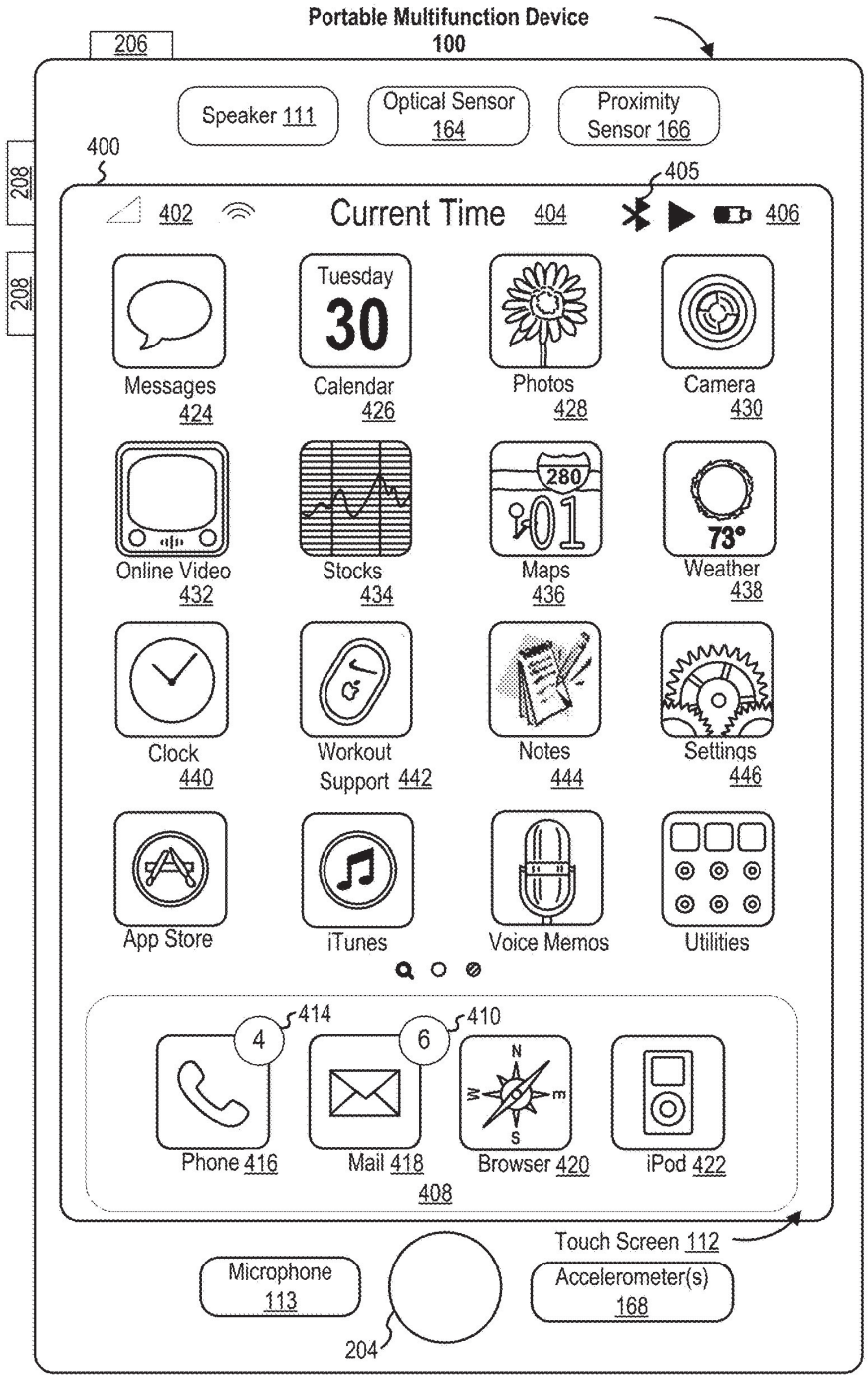

Portable Multifunction Device
100
206
Speaker 111
Optical Sensor 164
Proximity Sensor 166
400
208
208
405
402
Current Time 404
406
Messages 424
Tuesday 30
Calendar 426
Photos 428
Camera 430
Online Video 432
Stocks 434
280
Maps 436
73°
Weather 438
Clock 440
Workout Support 442
Notes 444
Settings 446
App Store
iTunes
Voice Memos
Utilities
414
410
4
6
Phone 416
Mail 418
Browser 420
iPod 422
408
Touch Screen 112
Microphone 113
Accelerometer(s) 168
204

FIG. 4A

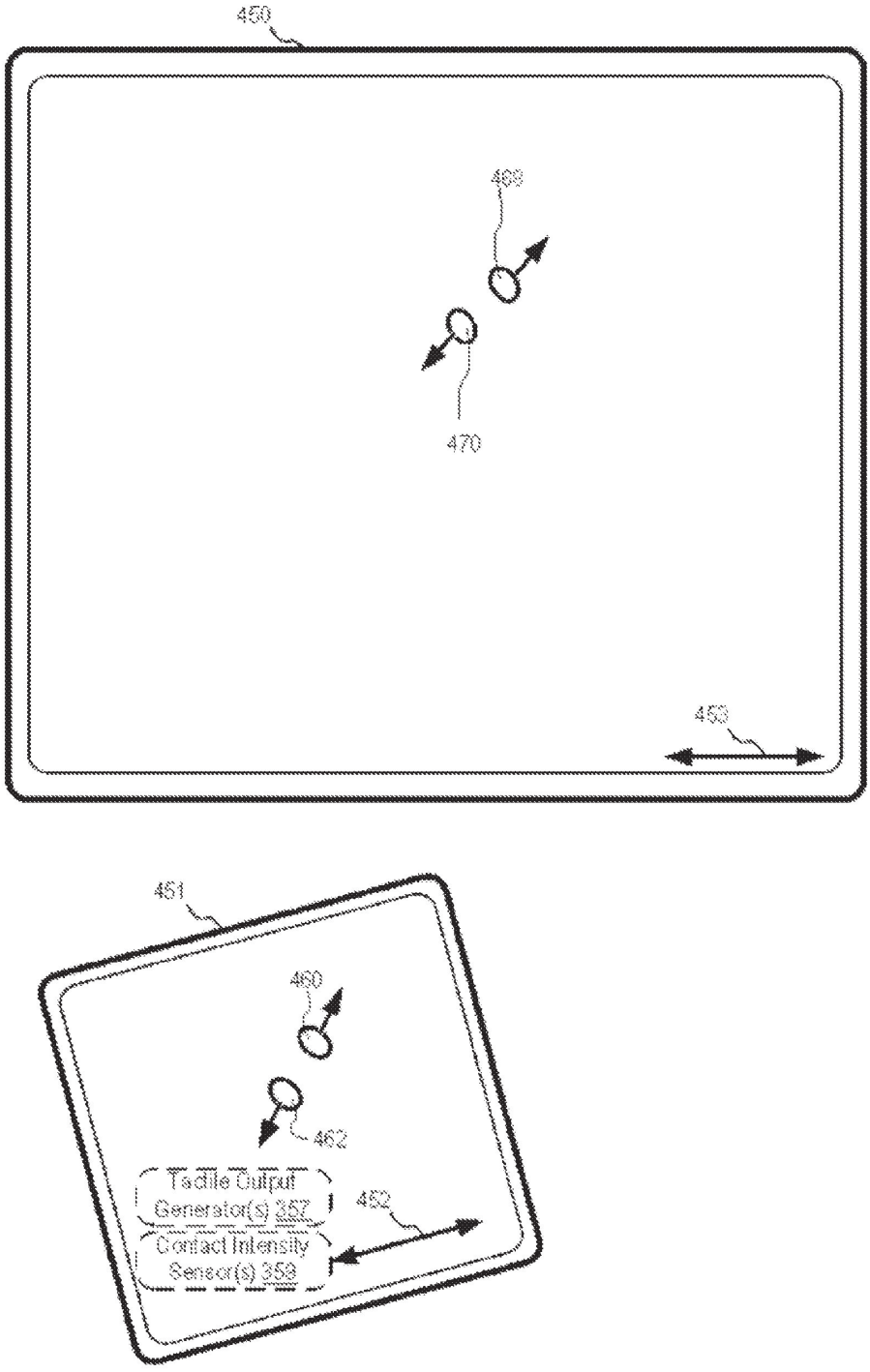

450
468
470
453
451
460
462
Tactile Output Generator(s) 357
452
Contact Intensity Sensor(s) 359

FIG. 4B

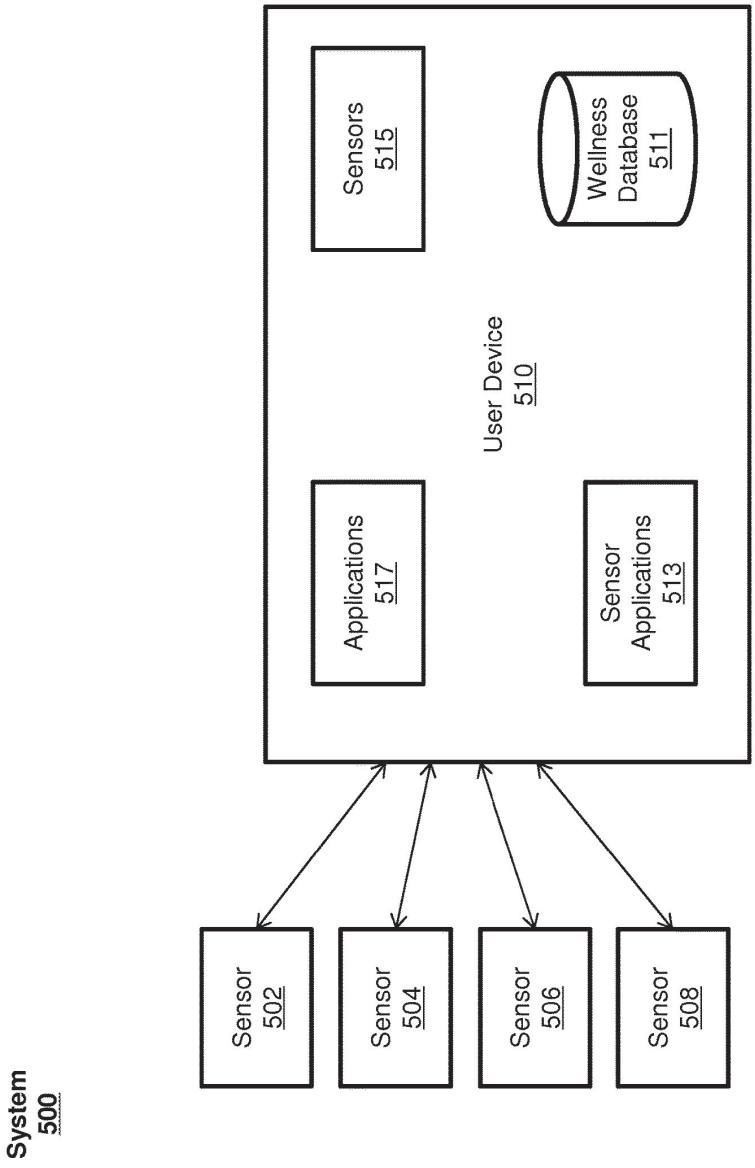

System
500
Sensor
502
Sensor
504
Sensor
506
Sensor
508
User Device
510
Sensors
515
Wellness
Database
511
Applications
517
Sensor
Applications
513

FIG. 5

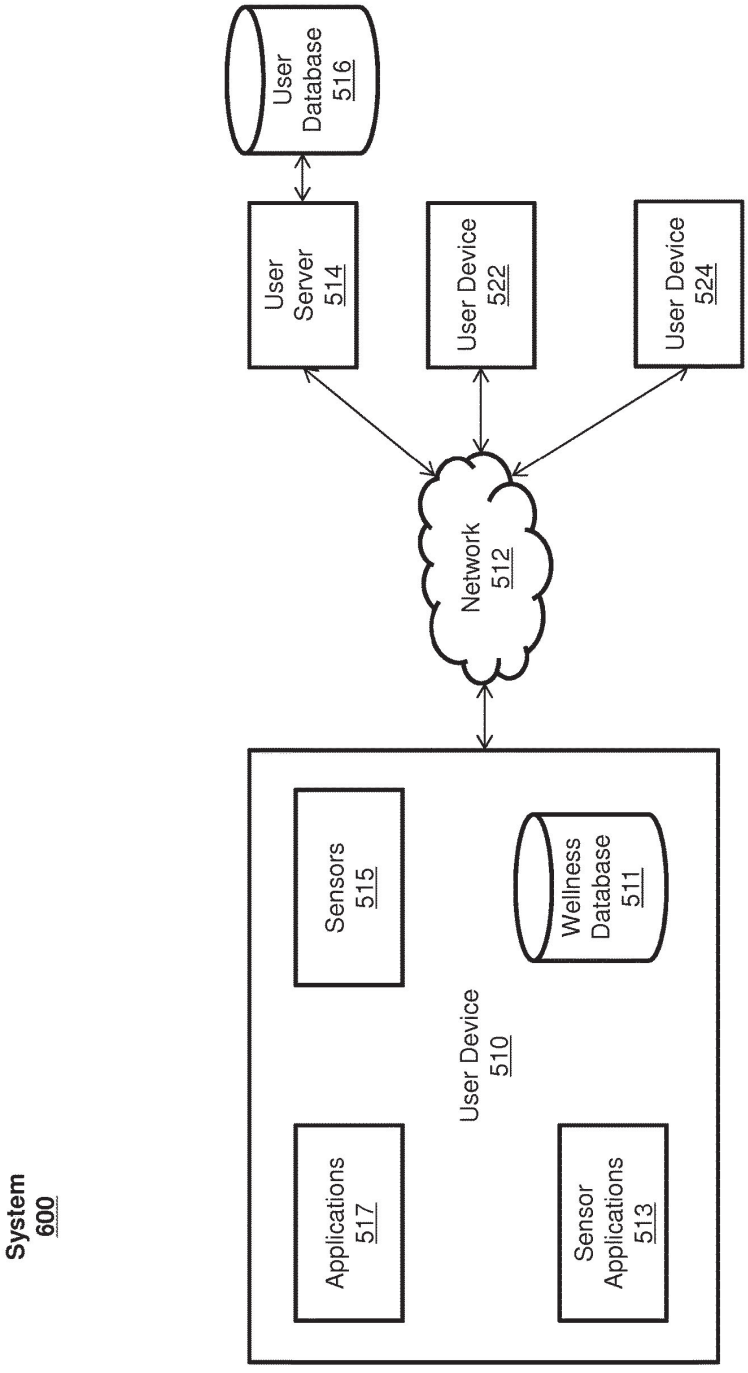

System
600
User Database
516
User Server
514
User Device
522
User Device
524
Network
512
Sensors
515
Wellness Database
511
User Device
510
Applications
517
Sensor Applications
513

FIG. 6

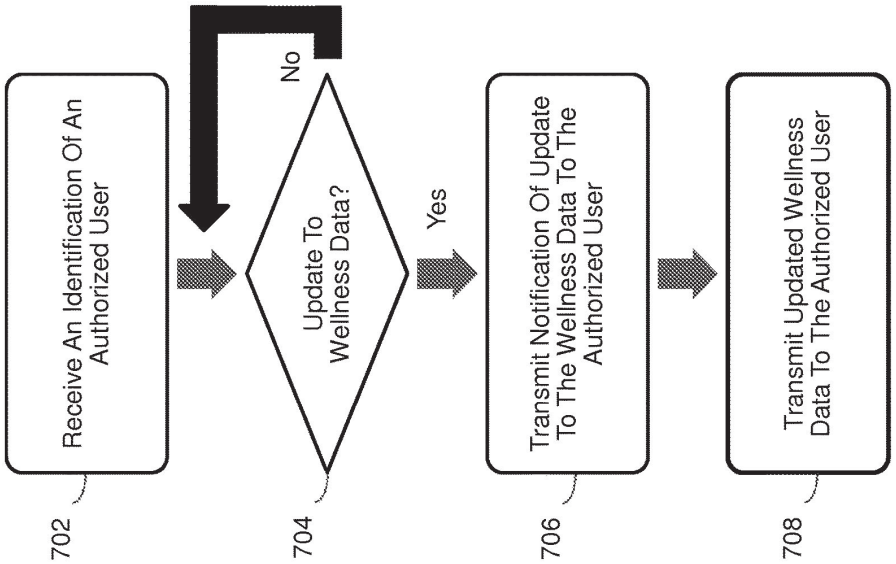

Process
700
Receive An Identification Of An Authorized User
702
Update To Wellness Data?
704
No
Yes
Transmit Notification Of Update To The Wellness Data To The Authorized User
706
Transmit Updated Wellness Data To The Authorized User
708

FIG. 7

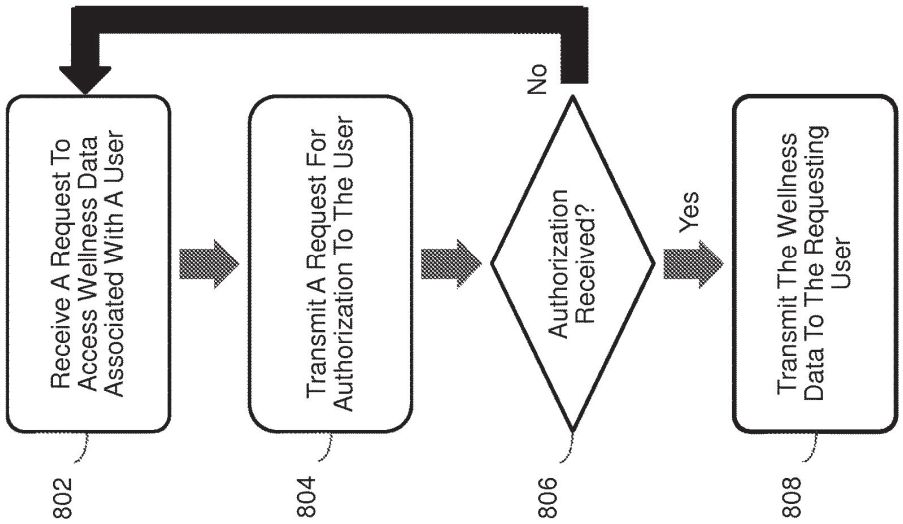

Process
800
Receive A Request To Access Wellness Data Associated With A User
802
Transmit A Request For Authorization To The User
804
Authorization Received?
806
No
Yes
Transmit The Wellness Data To The Requesting User
808

FIG. 8

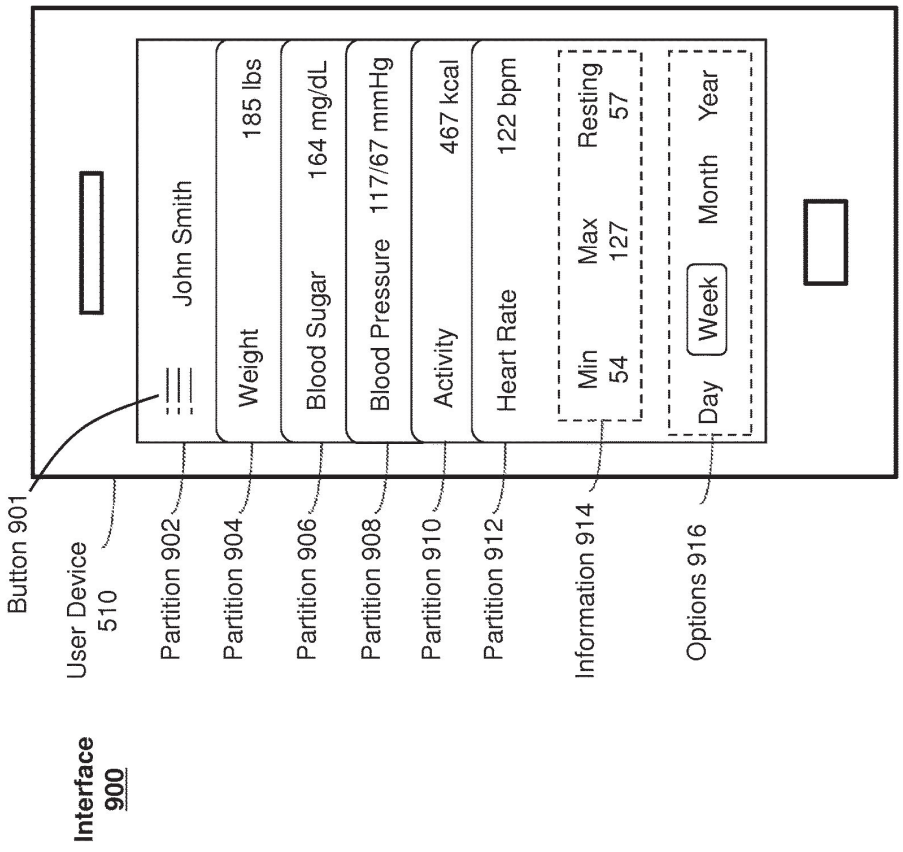

Interface 900
Button 901
User Device 510
Partition 902
Partition 904
Partition 906
Partition 908
Partition 910
Partition 912
Information 914
Options 916
John Smith
Weight 185 lbs
Blood Sugar 164 mg/dL
Blood Pressure 117/67 mmHg
Activity 467 kcal
Heart Rate 122 bpm
Min 54
Max 127
Resting 57
Day
Week
Month
Year

FIG. 9

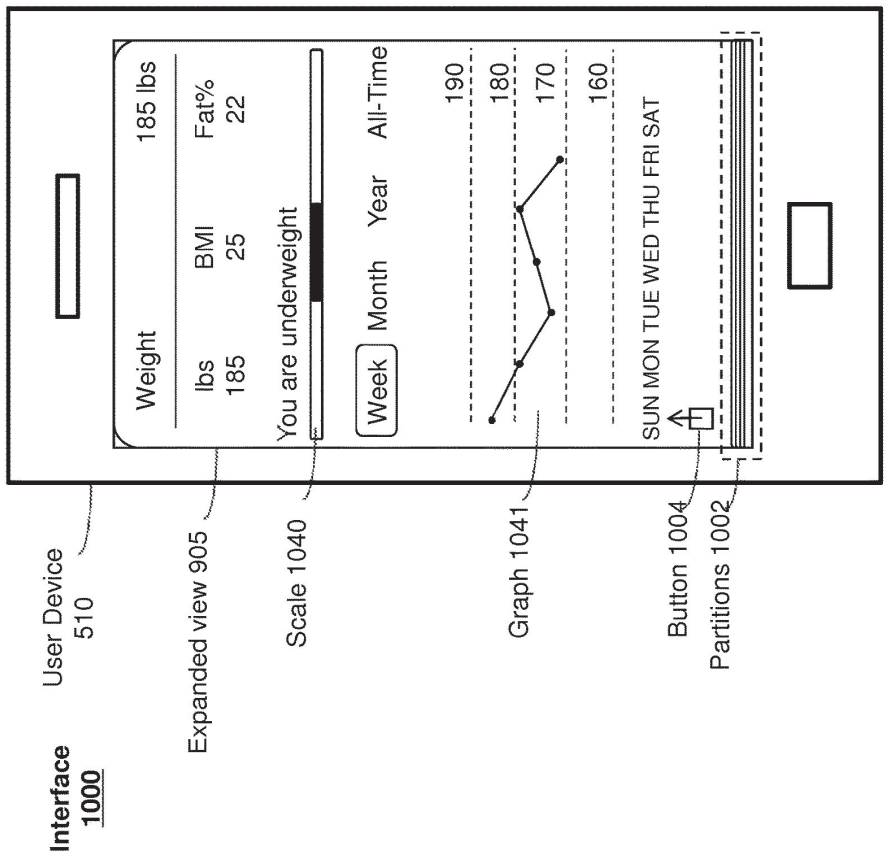

Interface 1000
User Device 510
Expanded view 905
Scale 1040
Graph 1041
Button 1004
Partitions 1002
Weight
185 lbs
lbs
185
BMI
25
Fat%
22
You are underweight
Week
Month
Year
All-Time
190
180
170
160
SUN MON TUE WED THU FRI SAT

FIG. 10

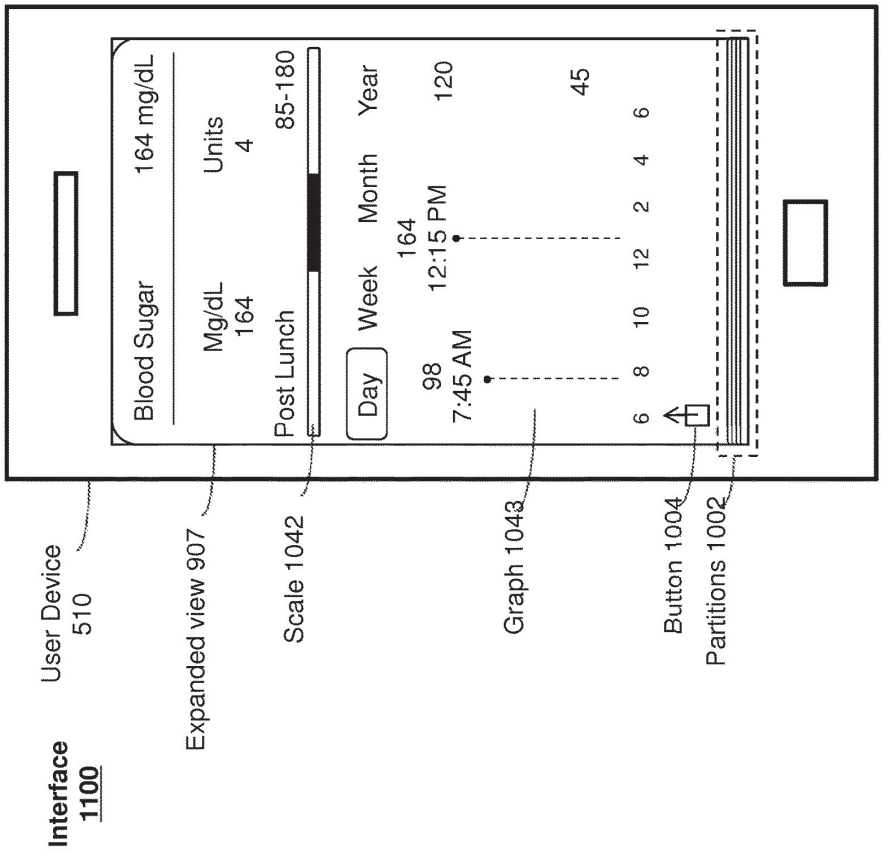

Interface
1100
User Device
510
Expanded view 907
Scale 1042
Graph 1043
Button 1004
Partitions 1002
Blood Sugar
164 mg/dL
Mg/dL
164
Units
4
Post Lunch
85-180
Day
Week
Month
Year
98
7:45 AM
164
12:15 PM
120
45
6 8 10 12 2 4 6

FIG. 11

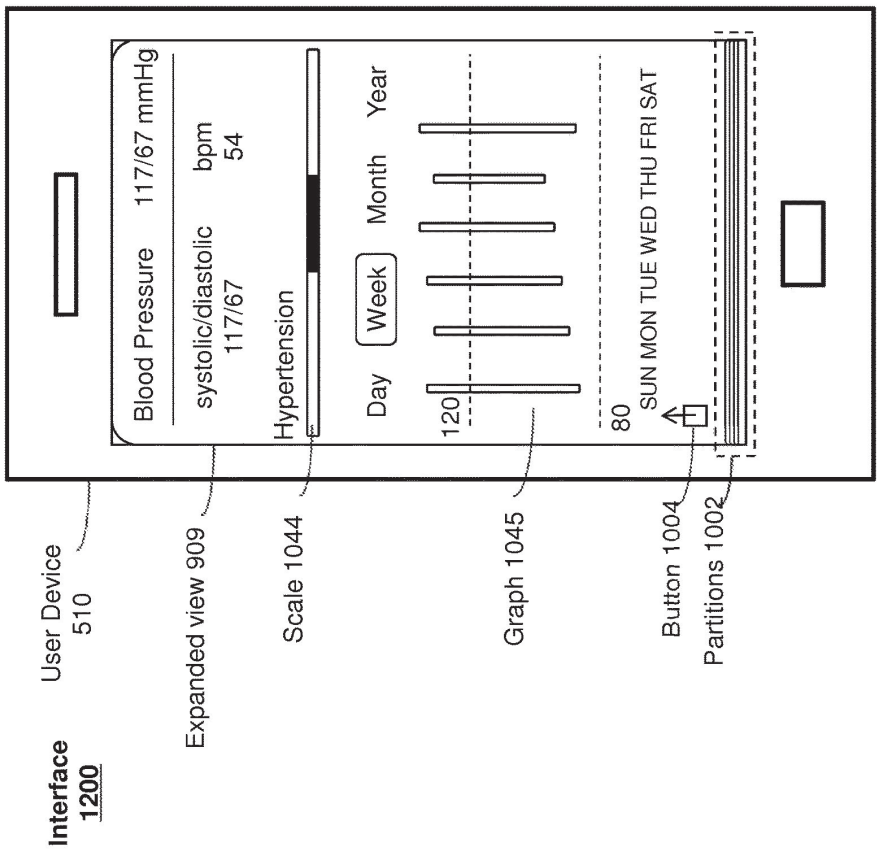

Interface
1200
User Device
510
Expanded view 909
Scale 1044
Graph 1045
Button 1004
Partitions 1002
Blood Pressure 117/67 mmHg
systolic/diastolic 117/67
bpm 54
Hypertension
Day
Week
Month
Year
120
80
SUN MON TUE WED THU FRI SAT

FIG. 12

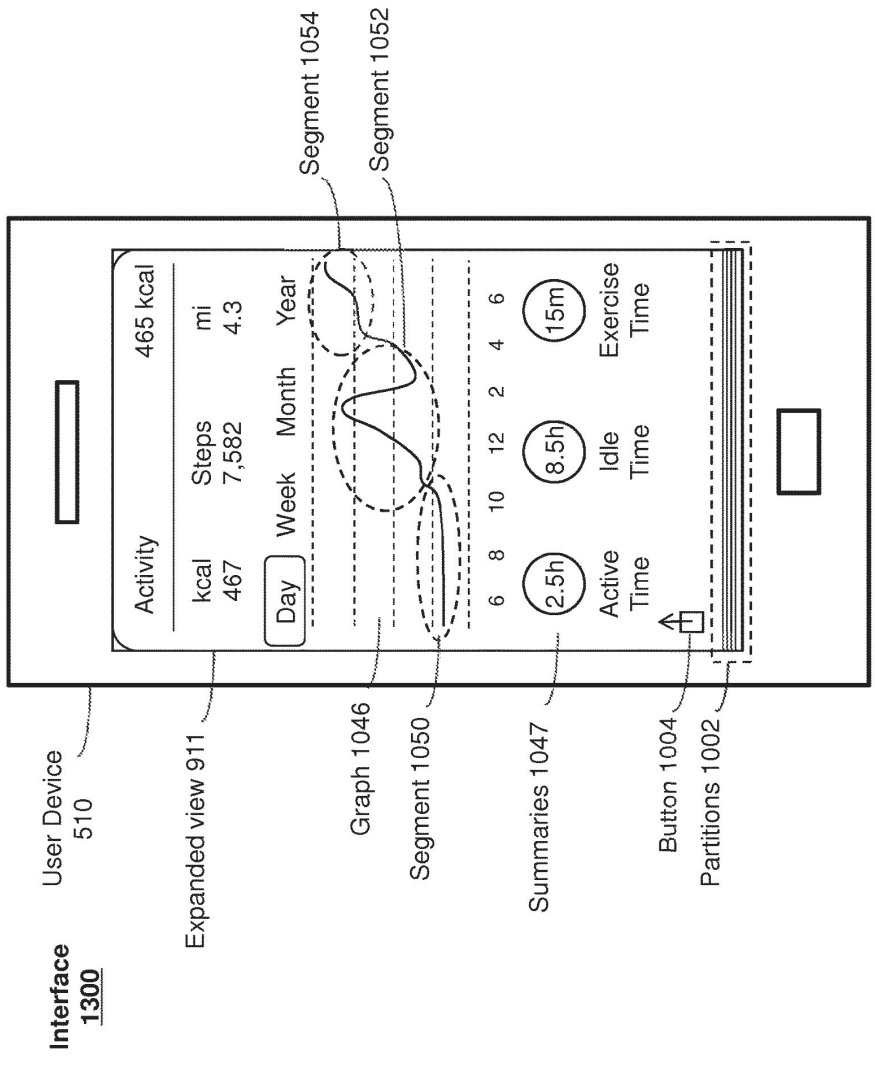

Interface 1300
User Device 510
Expanded view 911
Graph 1046
Segment 1050
Summaries 1047
Button 1004
Partitions 1002
Segment 1054
Segment 1052
Activity
465 kcal
kcal 467
Steps 7,582
mi 4.3
Day
Week
Month
Year
6 8 10 12 2 4 6
2.5h
Active Time
8.5h
Idle Time
15m
Exercise Time

FIG. 13

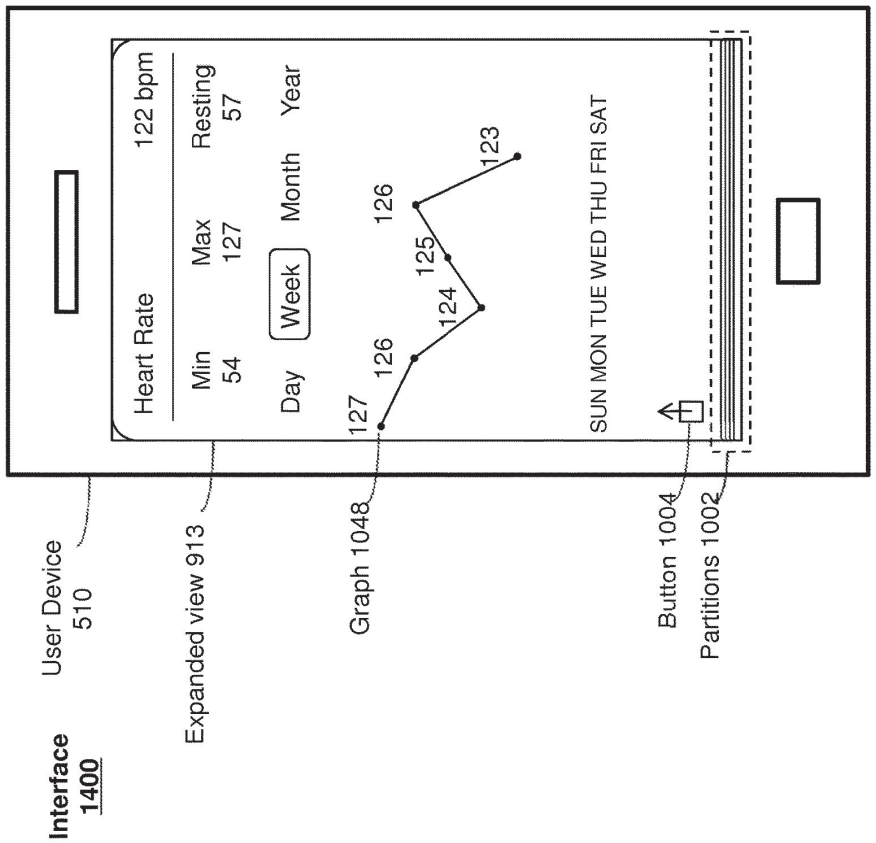

Interface
1400
User Device
510
Expanded view 913
Graph 1048
Button 1004
Partitions 1002
Heart Rate
122 bpm
Min
54
Max
127
Resting
57
Day
Week
Month
Year
127
126
124
125
126
123
SUN MON TUE WED THU FRI SAT

FIG. 14

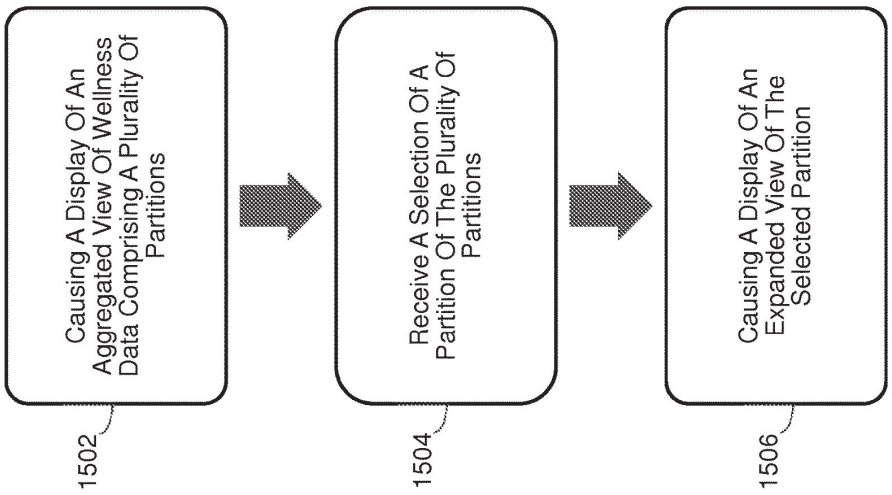

Process
1500
Causing A Display Of An Aggregated View Of Wellness Data Comprising A Plurality Of Partitions
1502
Receive A Selection Of A Partition Of The Plurality Of Partitions
1504
Causing A Display Of An Expanded View Of The Selected Partition
1506

FIG. 15

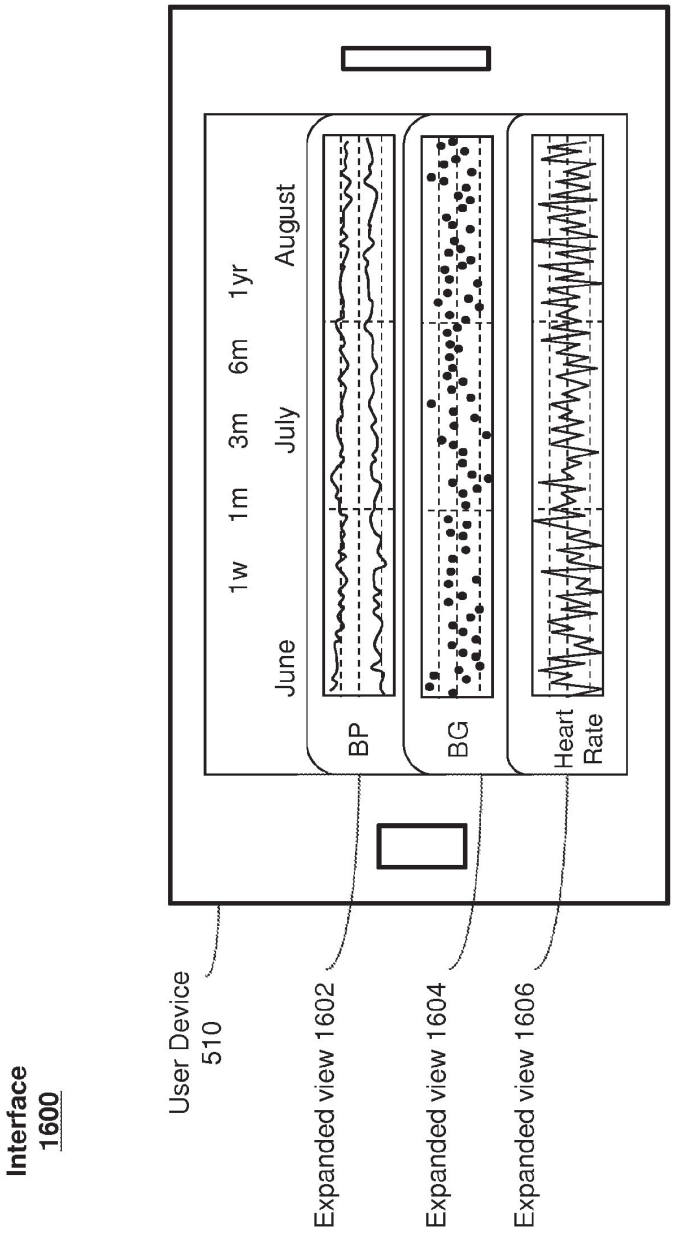

Interface
1600
User Device
510
Expanded view 1602
Expanded view 1604
Expanded view 1606
June
July
August
1w
1m
3m
6m
1yr
BP
BG
Heart
Rate

FIG. 16

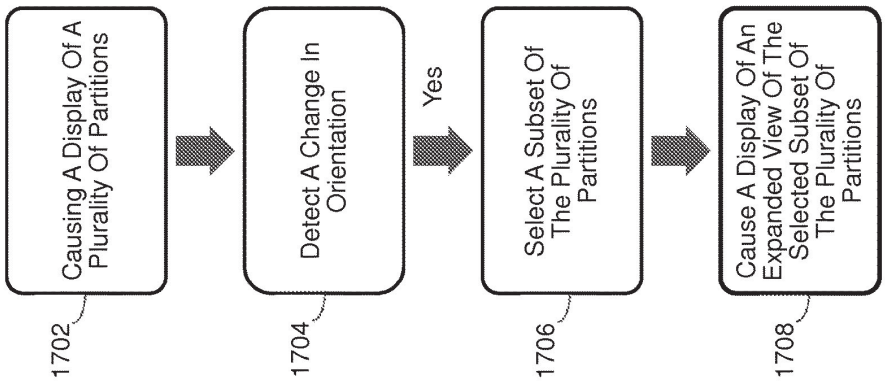


FIG. 17

Process 1700

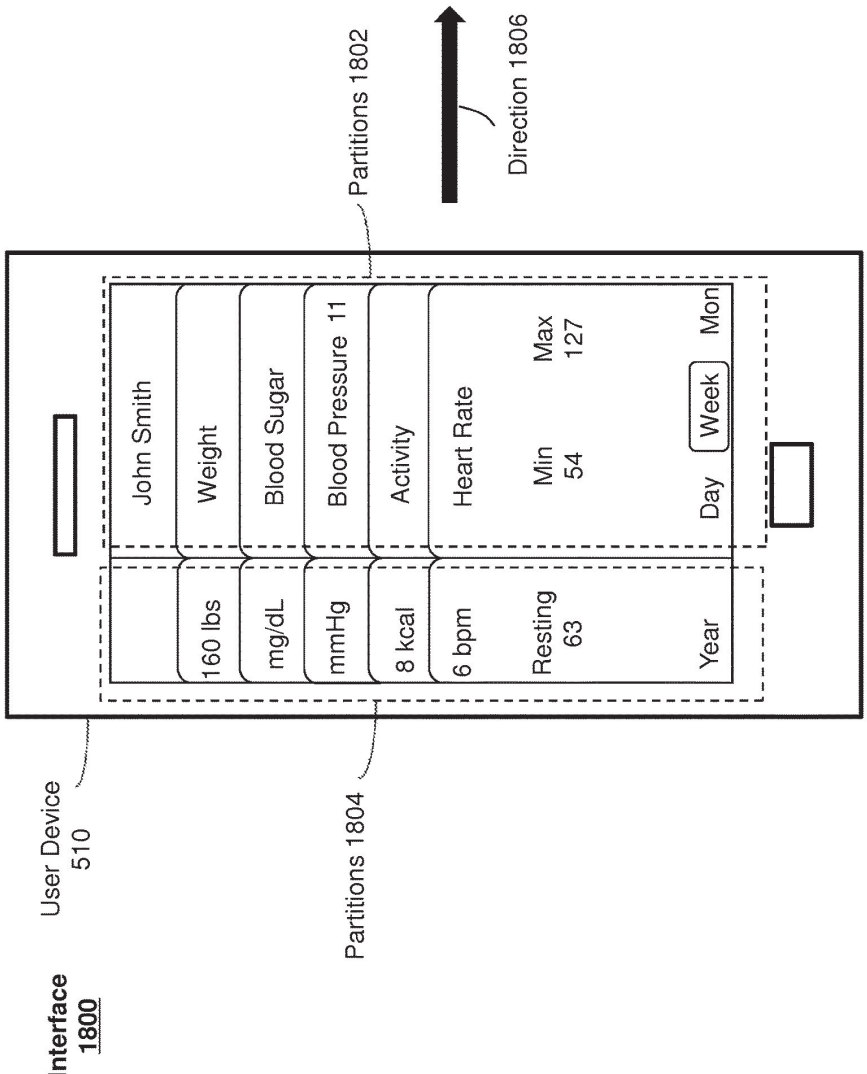

Interface
1800
User Device
510
Partitions 1804
Partitions 1802
Direction 1806
John Smith
Weight
Blood Sugar
Blood Pressure 11
Activity
Heart Rate
160 lbs
mg/dL
mmHg
8 kcal
6 bpm
Resting
63
Min
54
Max
127
Year
Day
Week
Mon

FIG. 18

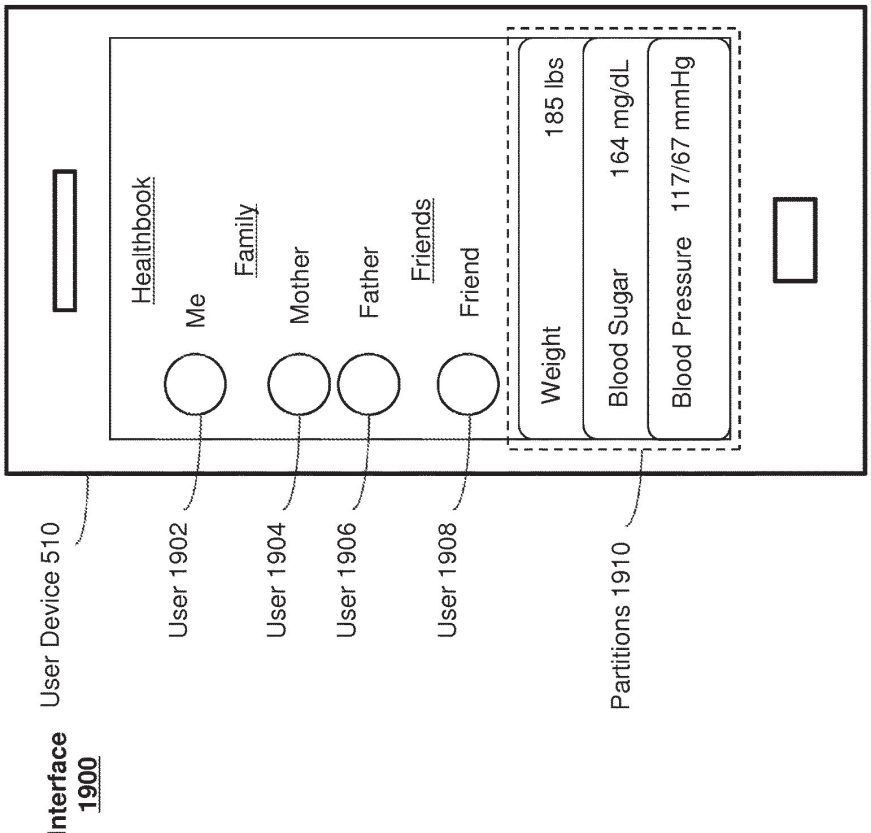

Interface 1900
User Device 510
Healthbook
Me
Family
Mother
Father
Friends
Friend
Weight 185 lbs
Blood Sugar 164 mg/dL
Blood Pressure 117/67 mmHg
User 1902
User 1904
User 1906
User 1908
Partitions 1910

FIG. 19

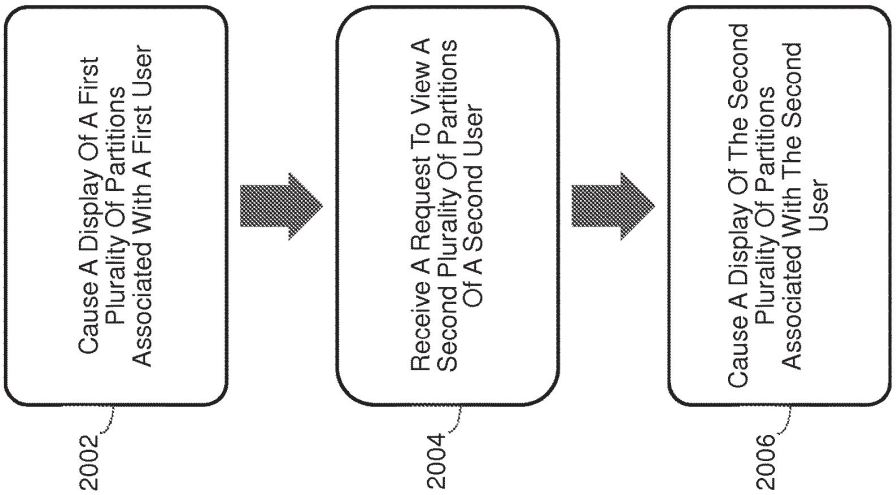

Process
2000
Cause A Display Of A First Plurality Of Partitions Associated With A First User
2002
Receive A Request To View A Second Plurality Of Partitions Of A Second User
2004
Cause A Display Of The Second Plurality Of Partitions Associated With The Second User
2006

FIG. 20

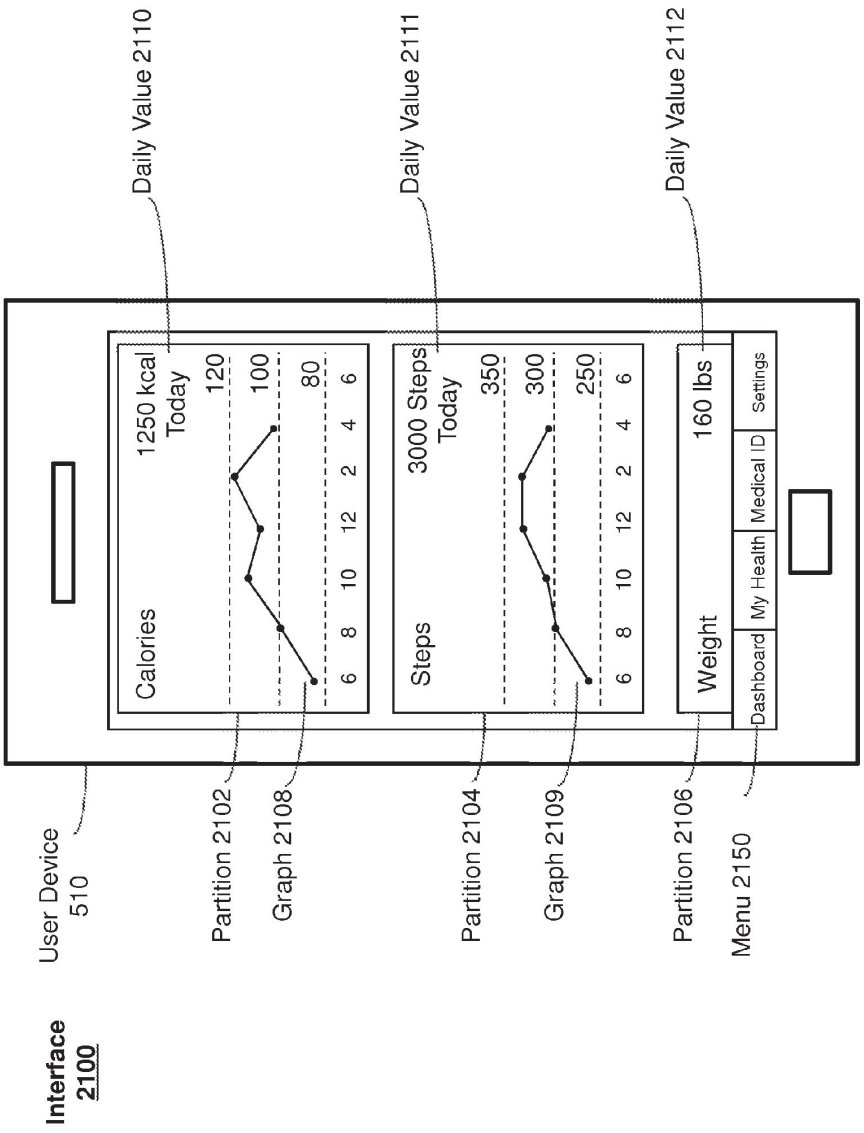

Interface 2100
User Device 510
Partition 2102
Graph 2108
Partition 2104
Graph 2109
Partition 2106
Menu 2150
Daily Value 2110
Daily Value 2111
Daily Value 2112
Calories
1250 kcal
Today
120
100
80
6 8 10 12 2 4 6
Steps
3000 Steps
Today
350
300
250
6 8 10 12 2 4 6
Weight
160 lbs
Dashboard
My Health
Medical ID
Settings

FIG. 21

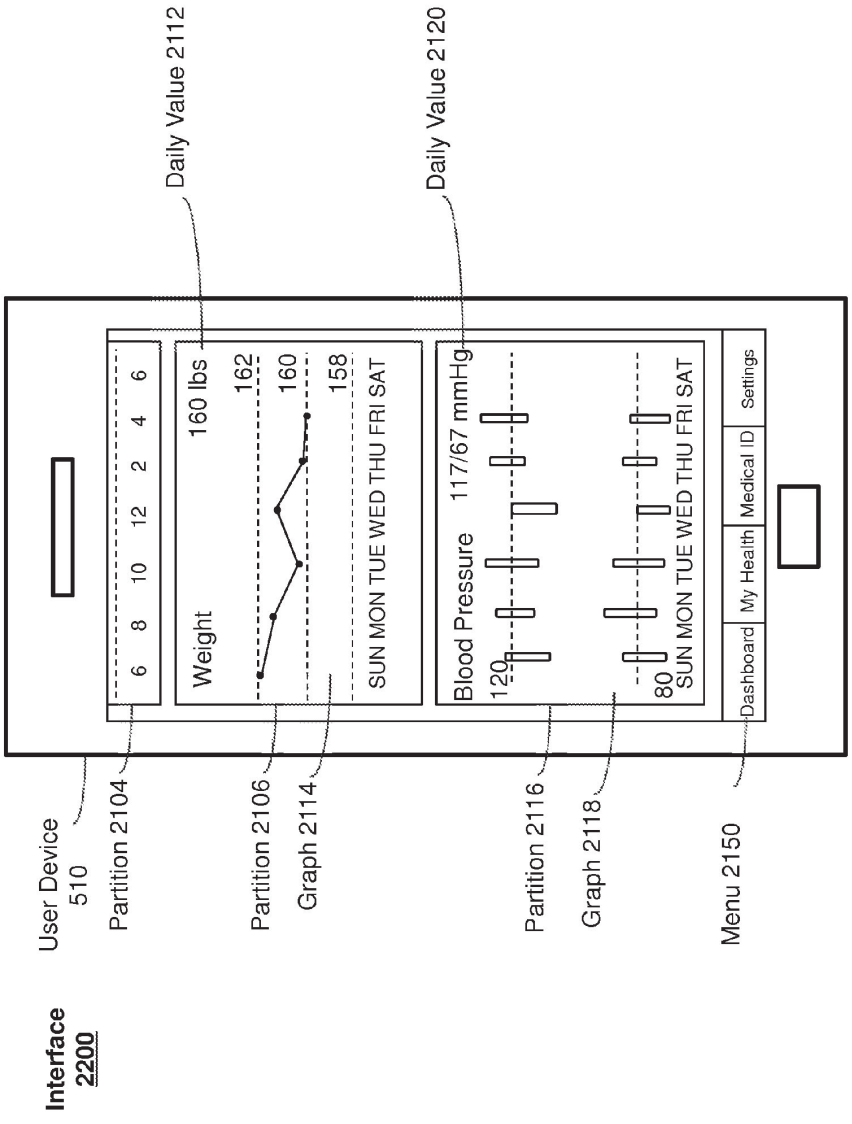

Interface 2200
User Device 510
Partition 2104
Partition 2106
Graph 2114
Partition 2116
Graph 2118
Menu 2150
Daily Value 2112
Daily Value 2120
6 8 10 12 2 4 6
Weight
160 lbs
162
160
158
SUN MON TUE WED THU FRI SAT
Blood Pressure
117/67 mmHg
120
80
SUN MON TUE WED THU FRI SAT
Dashboard
My Health
Medical ID
Settings

FIG. 22

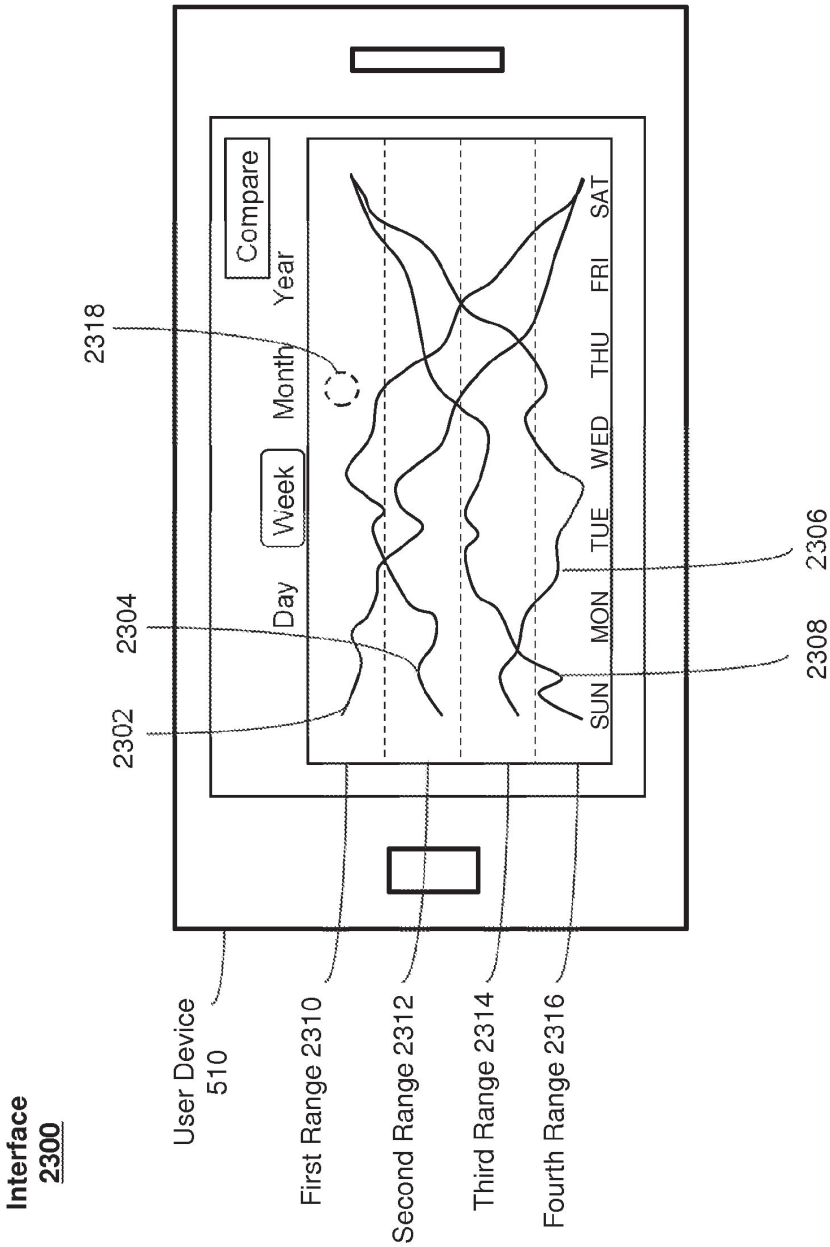

Interface
2300
User Device
510
First Range 2310
Second Range 2312
Third Range 2314
Fourth Range 2316
2318
2304
2302
2306
2308
Compare
Year
Month
Week
Day
SUN
MON
TUE
WED
THU
FRI
SAT

FIG. 23

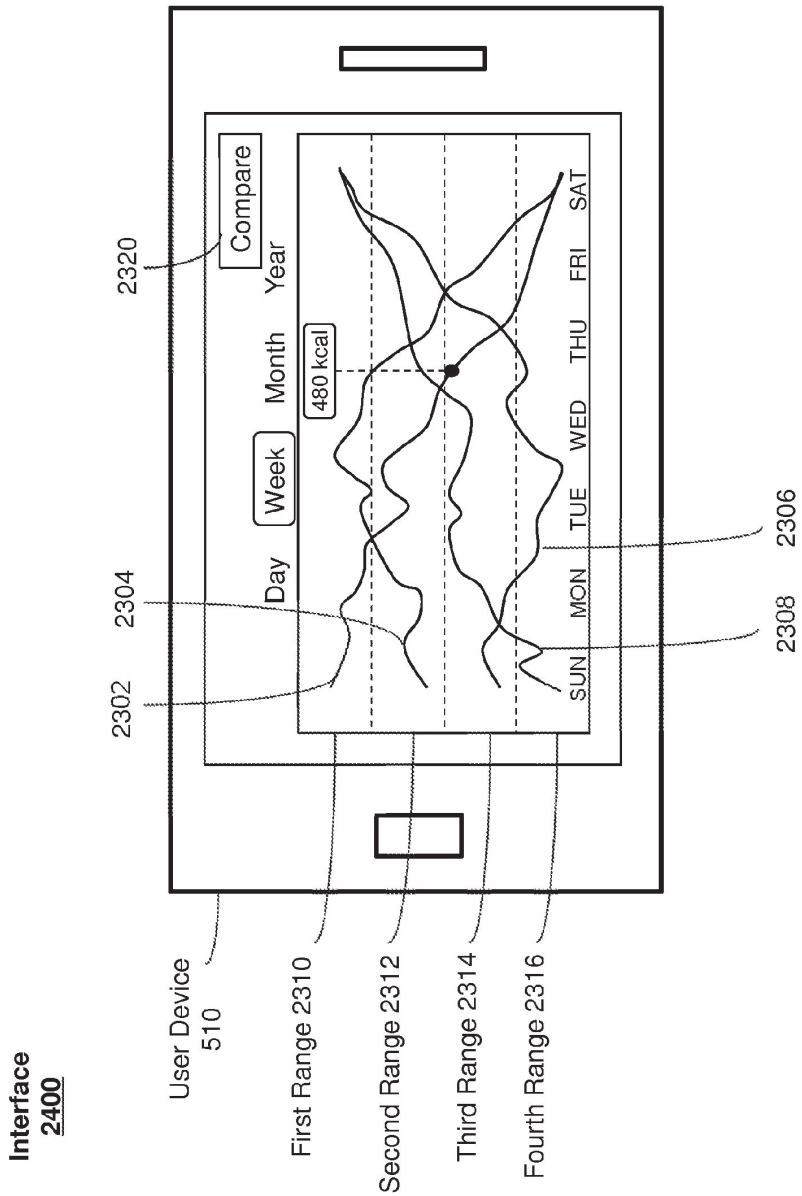

Interface
2400
User Device
510
First Range 2310
Second Range 2312
Third Range 2314
Fourth Range 2316
2320
Compare
Year
Month
Week
Day
480 kcal
SUN
MON
TUE
WED
THU
FRI
SAT
2302
2304
2306
2308

FIG. 24

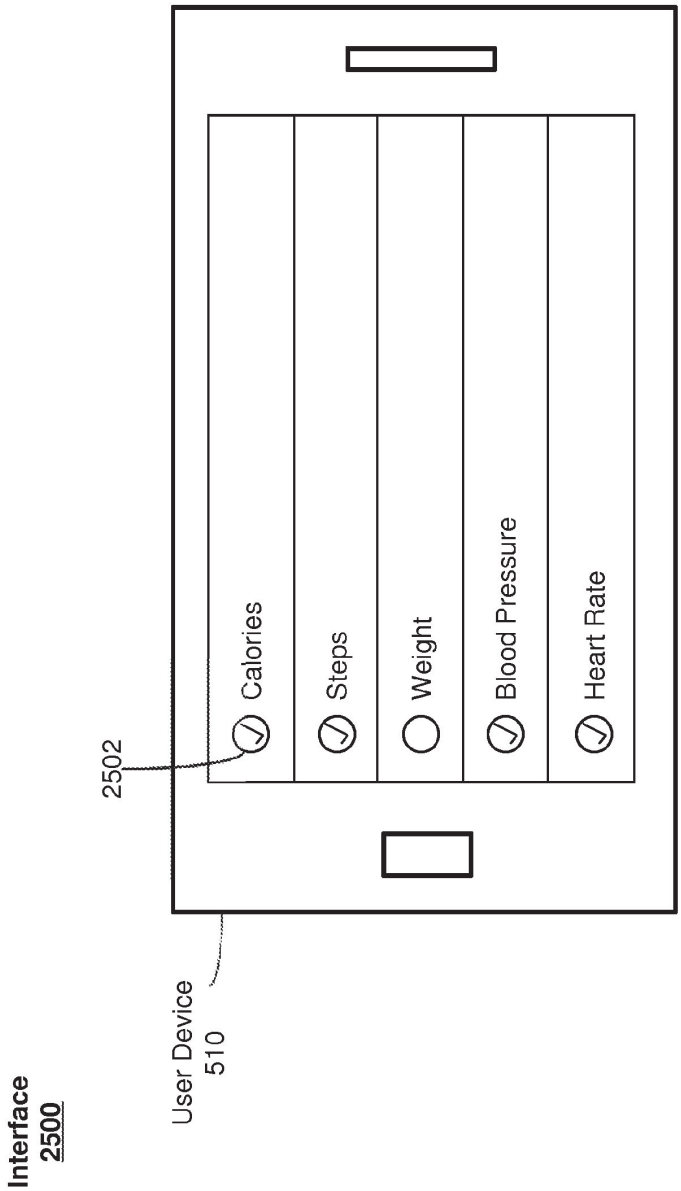

Interface
2500
User Device
510
2502
Calories
Steps
Weight
Blood Pressure
Heart Rate

FIG. 25

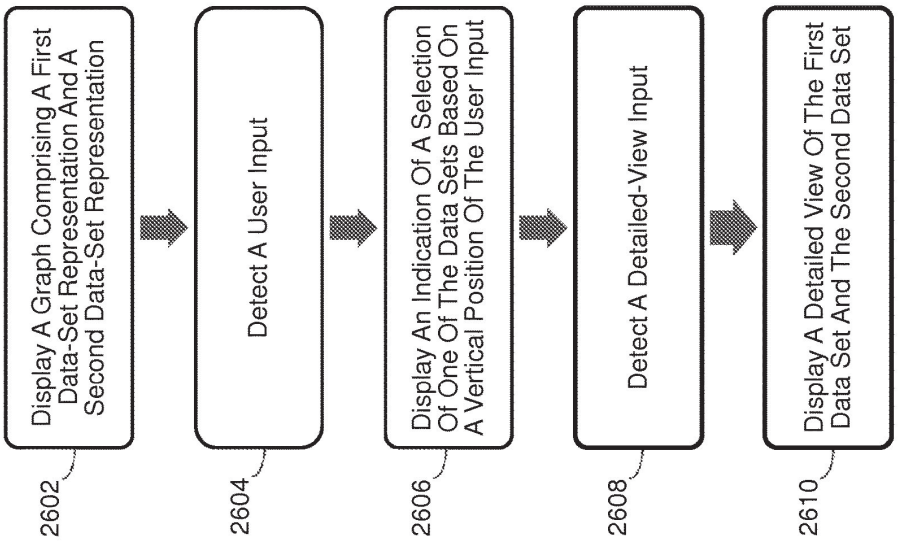

Process 2600
Display A Graph Comprising A First Data-Set Representation And A Second Data-Set Representation
2602
Detect A User Input
2604
Display An Indication Of A Selection Of One Of The Data Sets Based On A Vertical Position Of The User Input
2606
Detect A Detailed-View Input
2608
Display A Detailed View Of The First Data Set And The Second Data Set
2610

FIG. 26

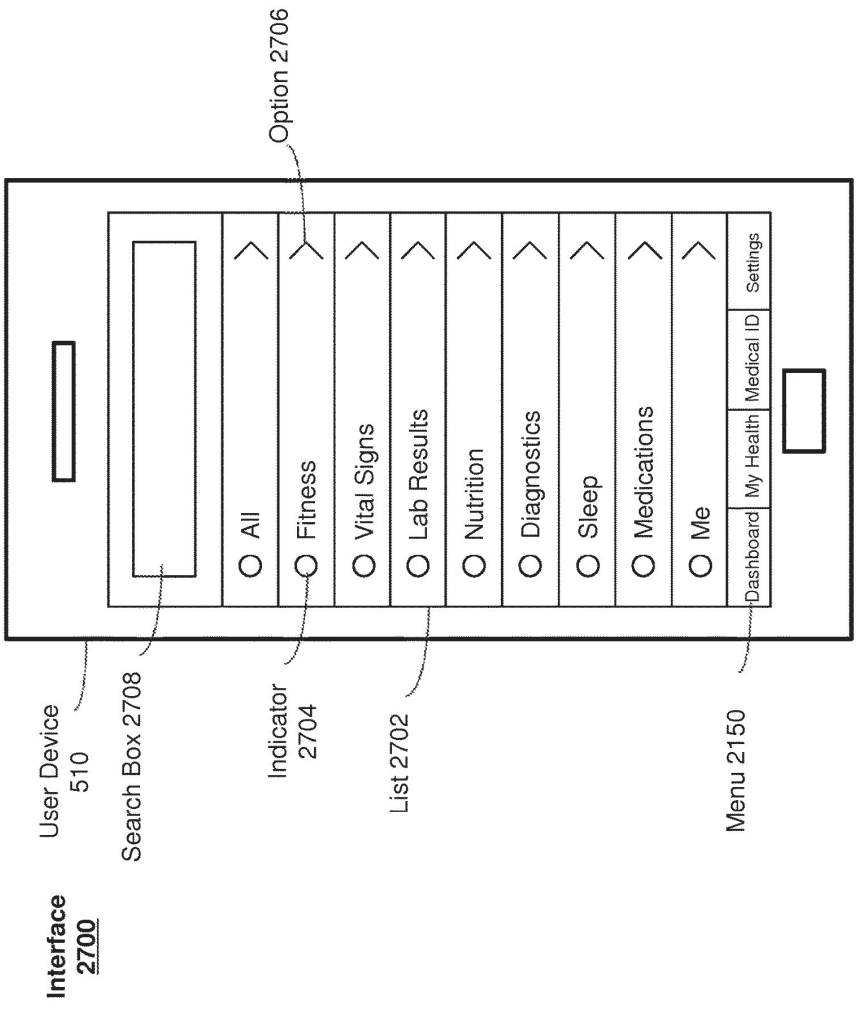

Option 2706
All
Fitness
Vital Signs
Lab Results
Nutrition
Diagnostics
Sleep
Medications
Me
Dashboard
My Health
Medical ID
Settings
User Device 510
Search Box 2708
Indicator 2704
List 2702
Menu 2150
Interface 2700

FIG. 27

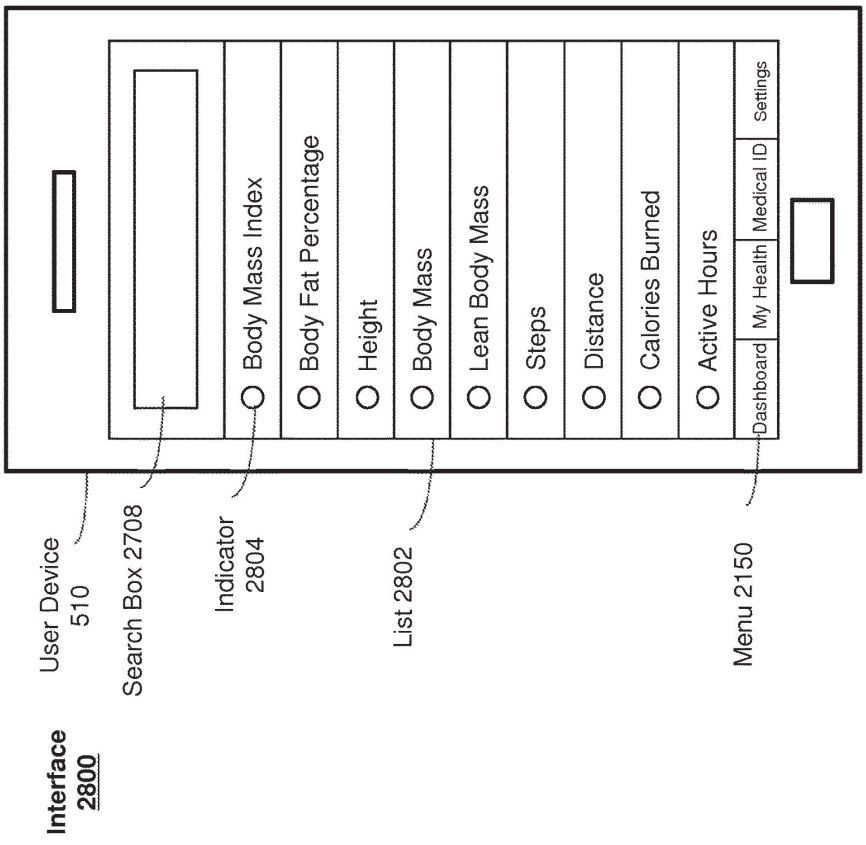

Interface 2800
User Device 510
Search Box 2708
Indicator 2804
List 2802
Menu 2150
Body Mass Index
Body Fat Percentage
Height
Body Mass
Lean Body Mass
Steps
Distance
Calories Burned
Active Hours
Dashboard
My Health
Medical ID
Settings

FIG. 28

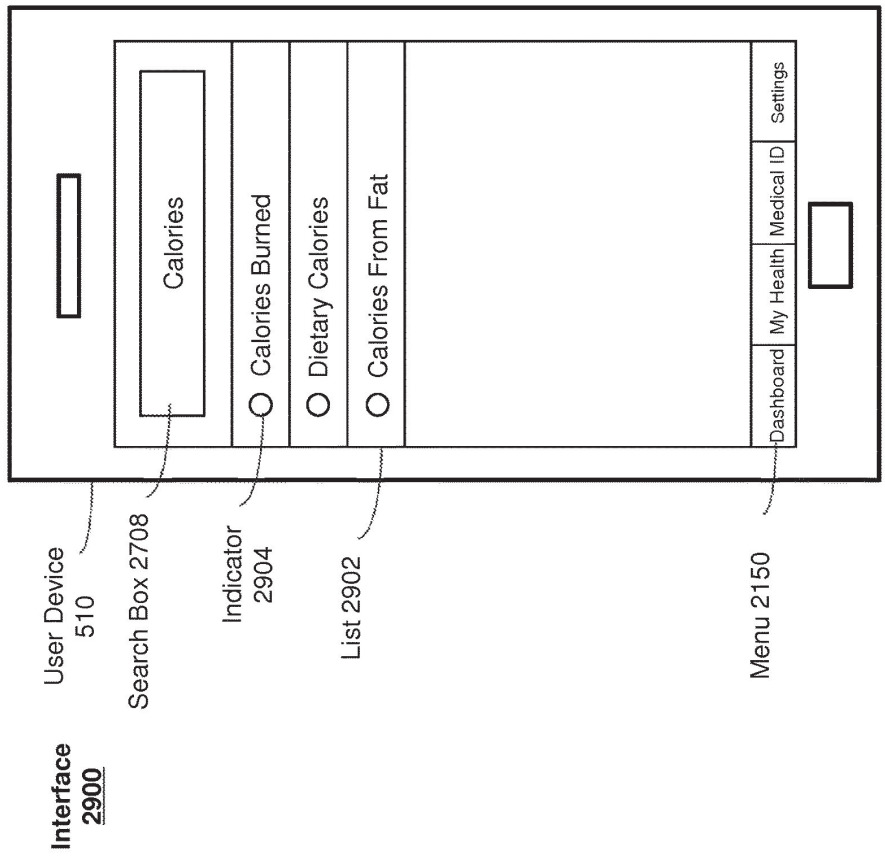

Interface 2900
User Device 510
Search Box 2708
Indicator 2904
List 2902
Menu 2150
Calories
Calories Burned
Dietary Calories
Calories From Fat
Dashboard
My Health
Medical ID
Settings

FIG. 29

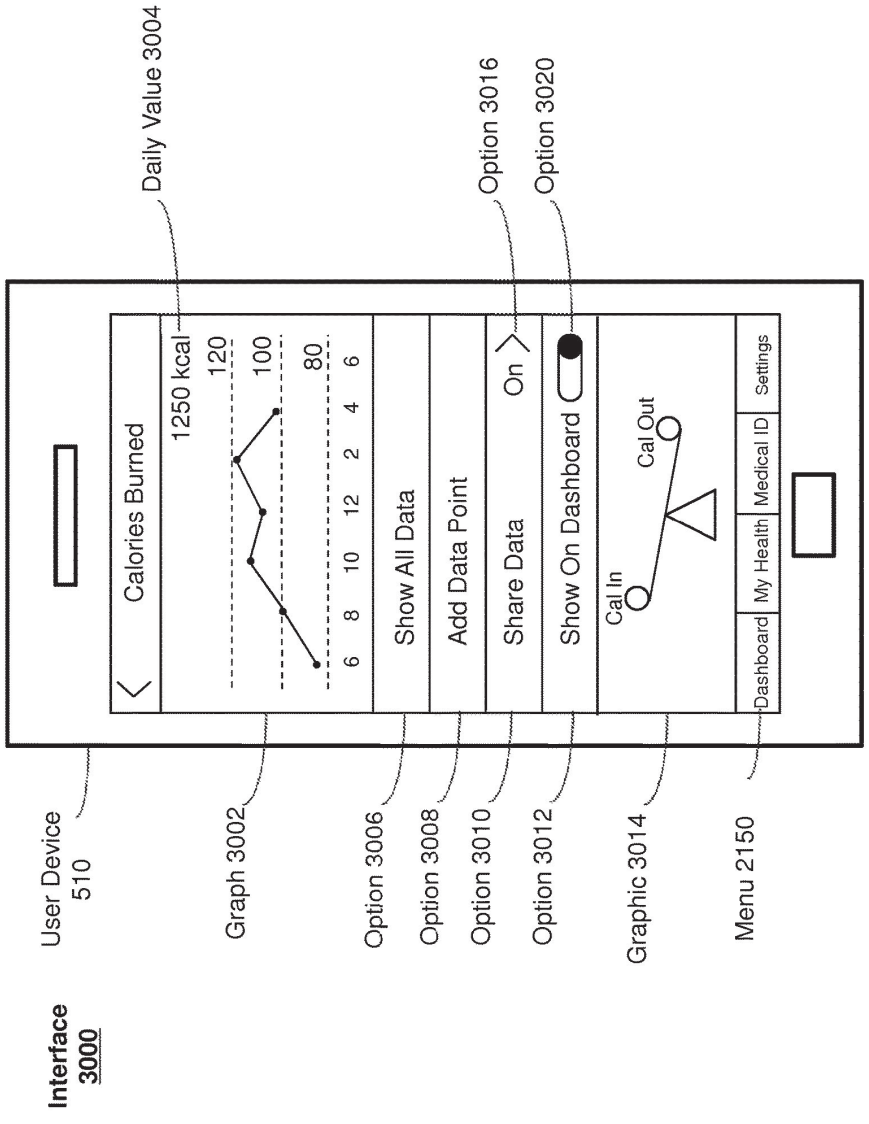

Interface 3000
User Device 510
Graph 3002
Option 3006
Option 3008
Option 3010
Option 3012
Graphic 3014
Menu 2150
Daily Value 3004
Option 3016
Option 3020
Calories Burned
1250 kcal
120
100
80
Show All Data
Add Data Point
Share Data
On
Show On Dashboard
Cal In
Cal Out
Dashboard
My Health
Medical ID
Settings

FIG. 30

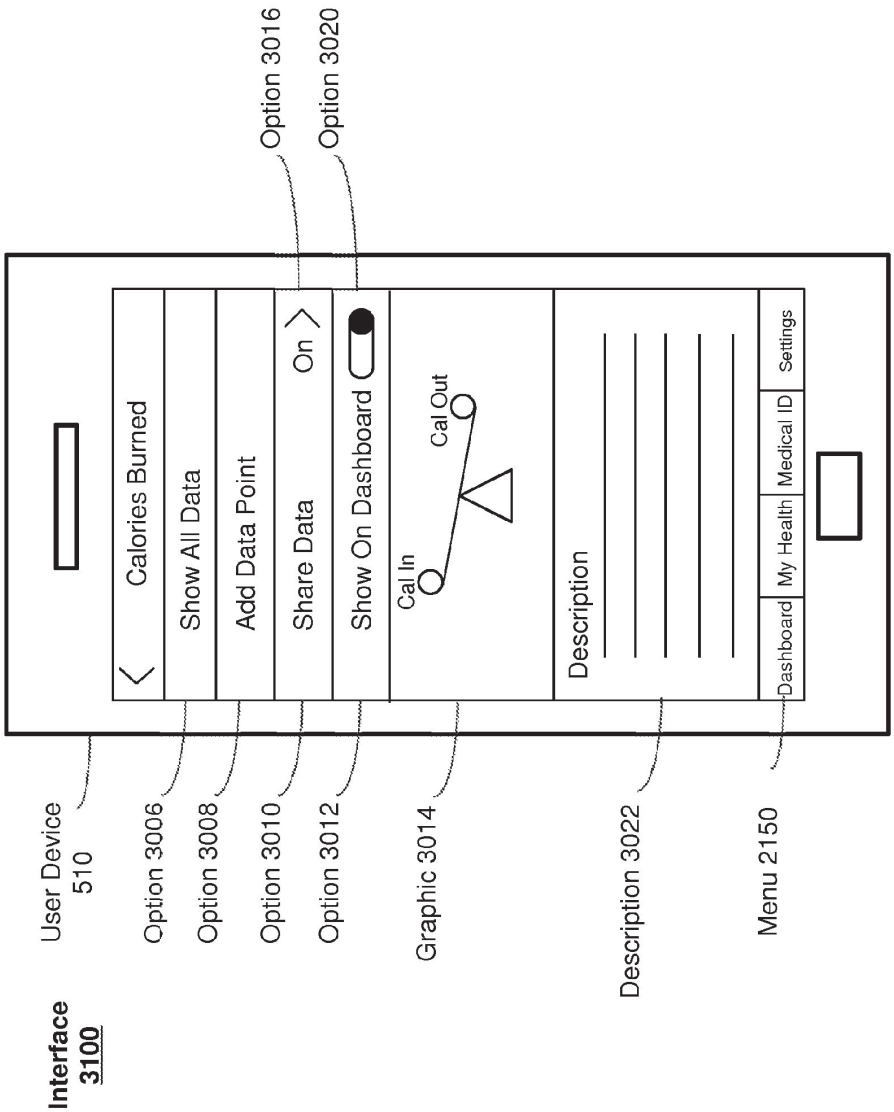

Option 3016
Option 3020
Calories Burned
Show All Data
Add Data Point
Share Data
On
Show On Dashboard
Cal In
Cal Out
Description
Dashboard
My Health
Medical ID
Settings
User Device 510
Option 3006
Option 3008
Option 3010
Option 3012
Graphic 3014
Description 3022
Menu 2150
Interface 3100

FIG. 31

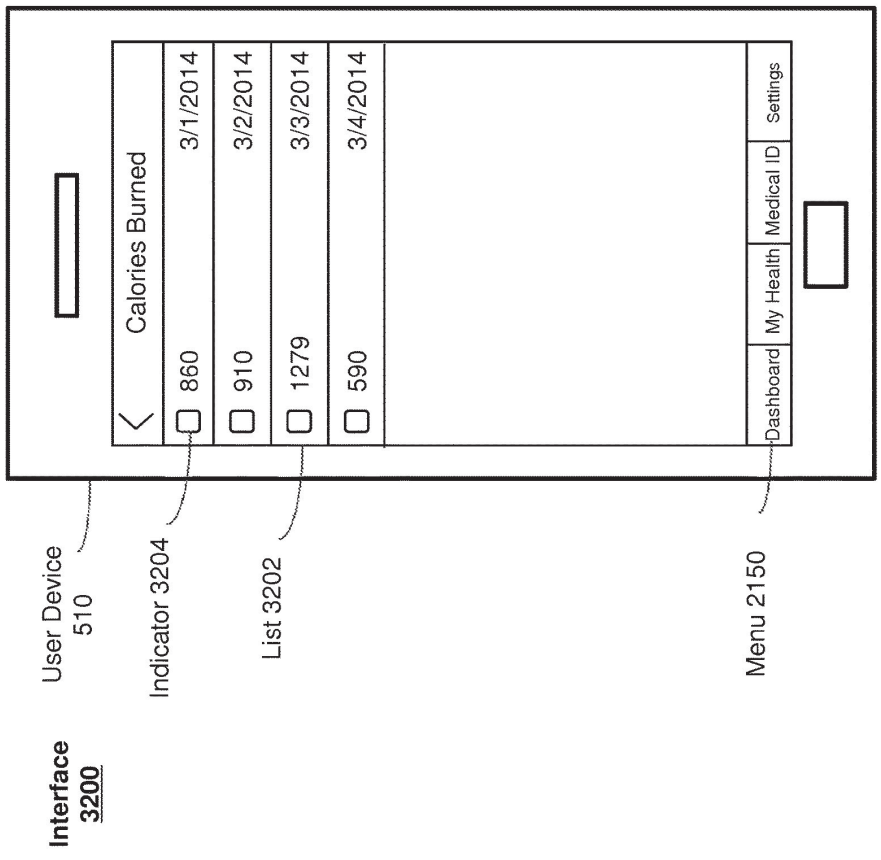

Interface 3200
User Device 510
Indicator 3204
List 3202
Menu 2150
Calories Burned
860
3/1/2014
910
3/2/2014
1279
3/3/2014
590
3/4/2014
Dashboard
My Health
Medical ID
Settings

FIG. 32

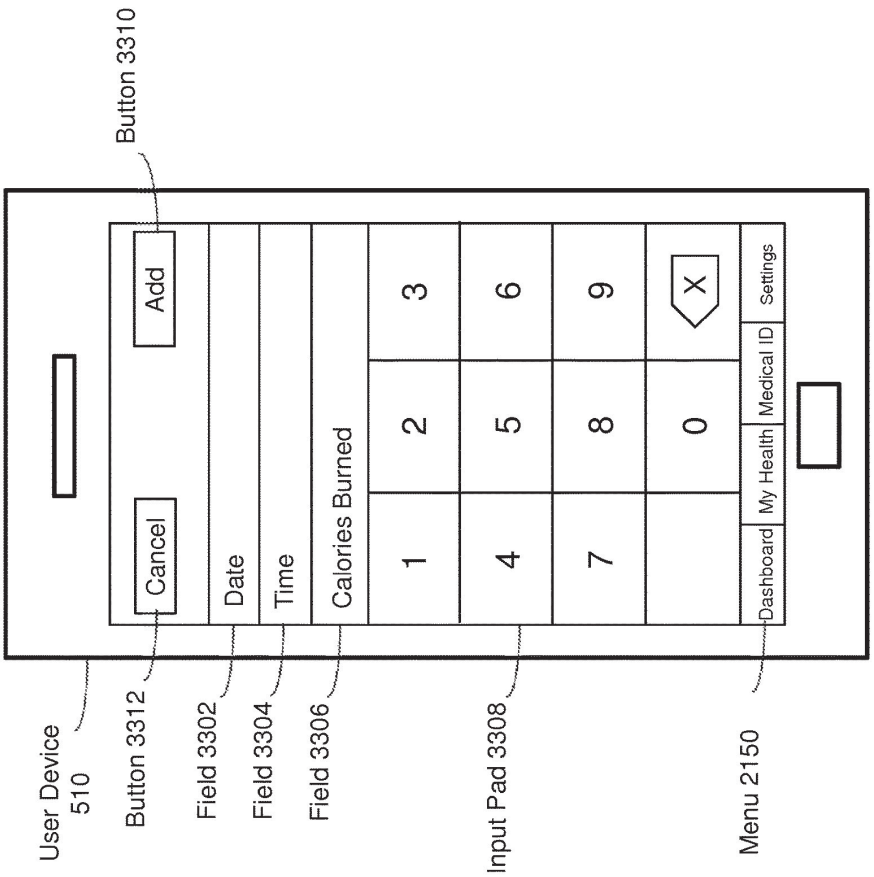

Interface 3300
User Device 510
Button 3312
Field 3302
Field 3304
Field 3306
Input Pad 3308
Menu 2150
Button 3310
Cancel
Add
Date
Time
Calories Burned
1
2
3
4
5
6
7
8
9
0
X
Dashboard
My Health
Medical ID
Settings

FIG. 33

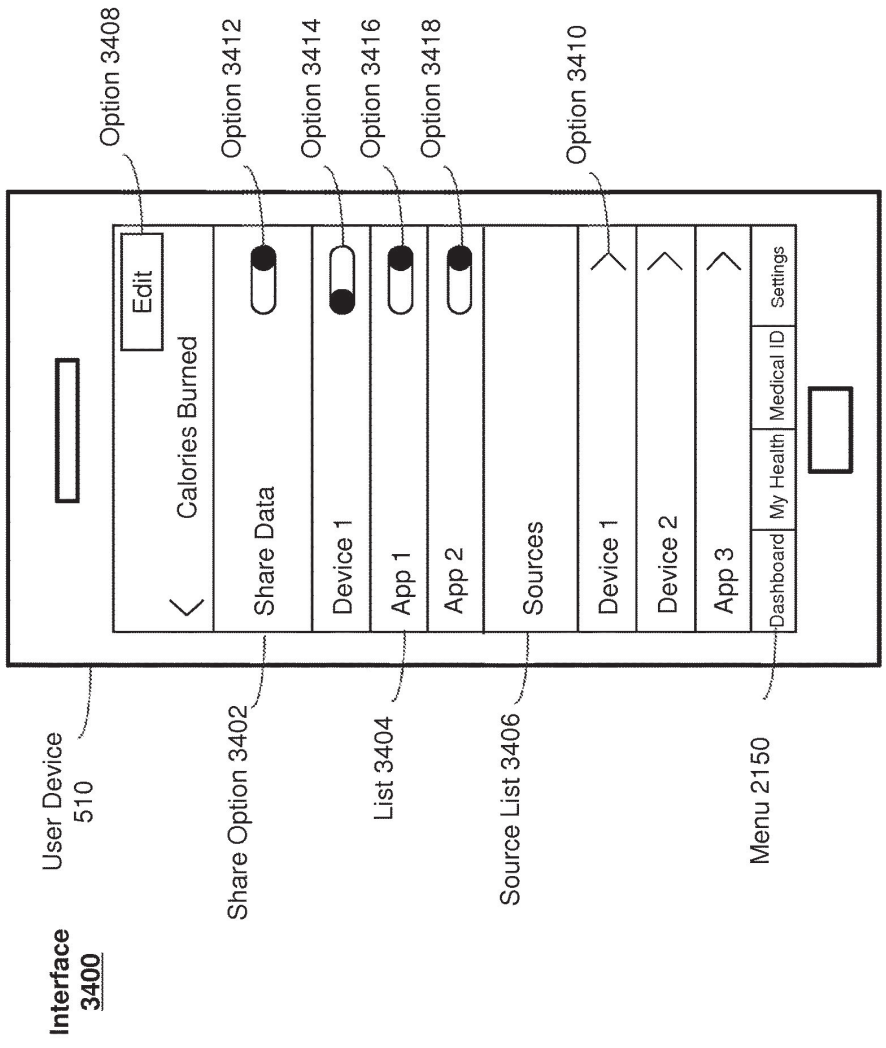

Option 3408
Option 3412
Option 3414
Option 3416
Option 3418
Option 3410
Edit
Calories Burned
Share Data
Device 1
App 1
App 2
Sources
Device 1
Device 2
App 3
Dashboard
My Health
Medical ID
Settings
Interface 3400
User Device 510
Share Option 3402
List 3404
Source List 3406
Menu 2150

FIG. 34

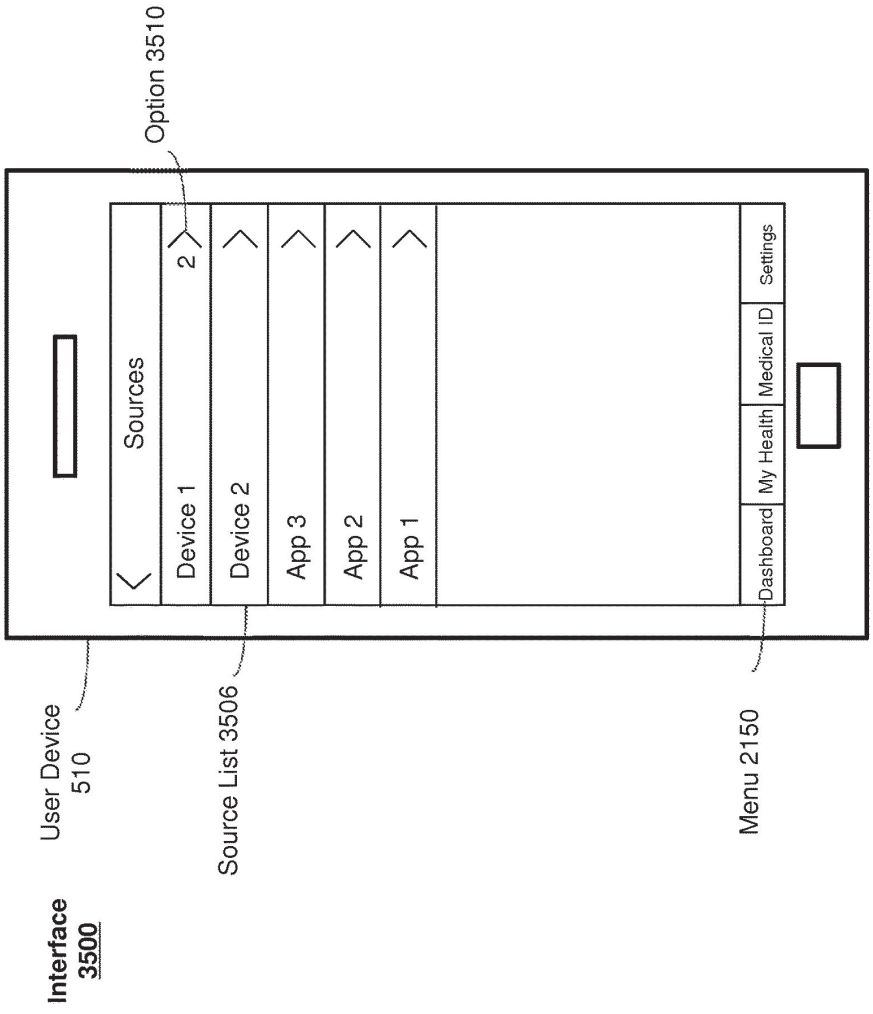

Option 3510
Sources
Device 1
Device 2
App 3
App 2
App 1
2
Dashboard
My Health
Medical ID
Settings
User Device 510
Source List 3506
Menu 2150
Interface 3500

FIG. 35

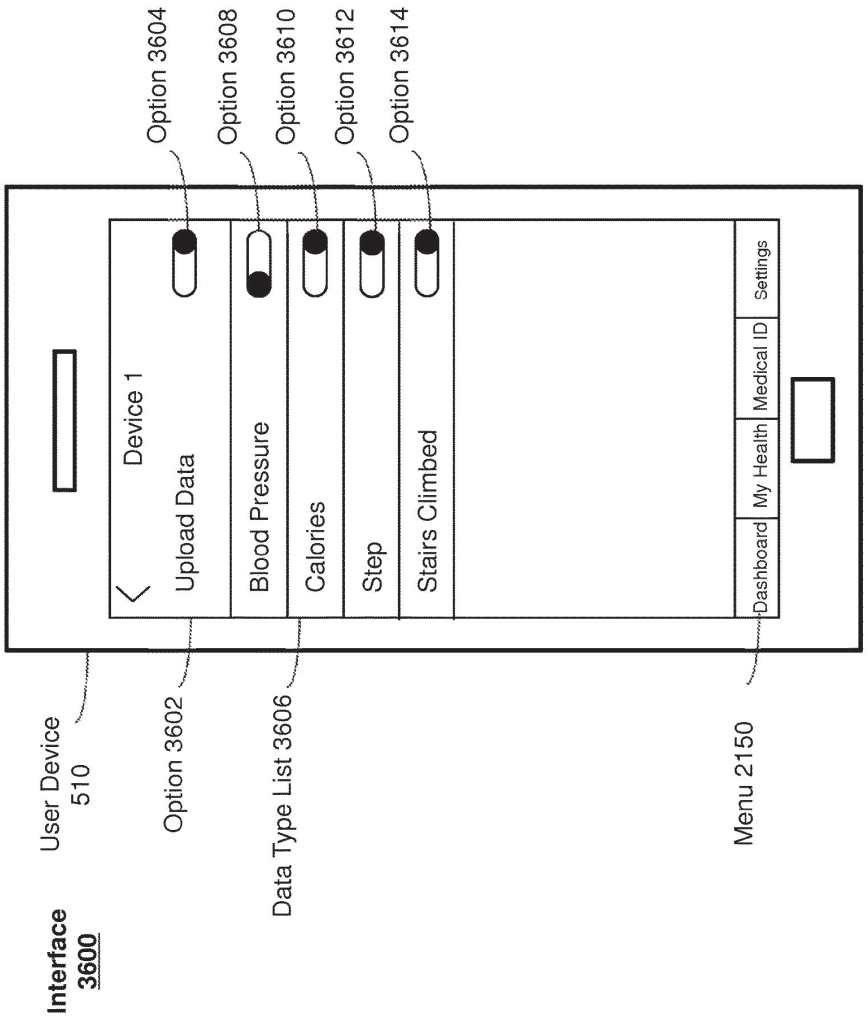

Option 3604
Option 3608
Option 3610
Option 3612
Option 3614
Device 1
Upload Data
Blood Pressure
Calories
Step
Stairs Climbed
Dashboard
My Health
Medical ID
Settings
User Device 510
Option 3602
Data Type List 3606
Menu 2150
Interface 3600

FIG. 36

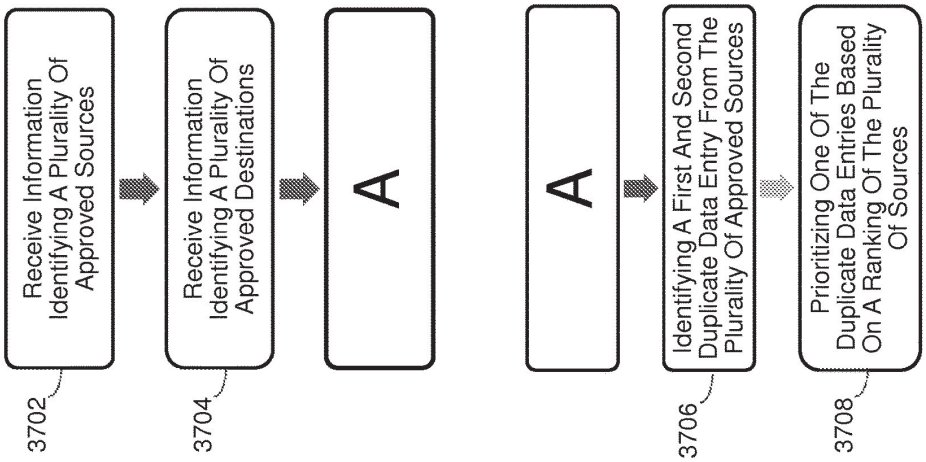

Process
3700
Receive Information Identifying A Plurality Of Approved Sources
3702
Receive Information Identifying A Plurality Of Approved Destinations
3704
A
A
Identifying A First And Second Duplicate Data Entry From The Plurality Of Approved Sources
3706
Prioritizing One Of The Duplicate Data Entries Based On A Ranking Of The Plurality Of Sources
3708

FIG. 37A

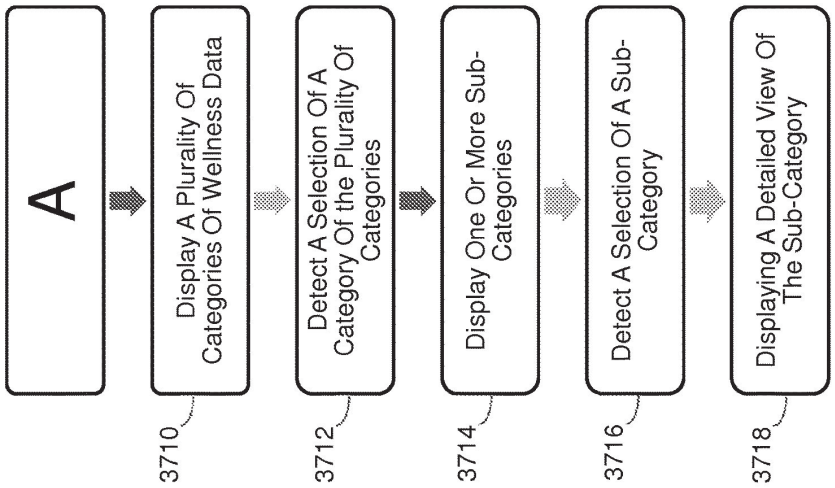

Process
3700
A
Display A Plurality Of Categories Of Wellness Data
3710
Detect A Selection Of A Category Of the Plurality Of Categories
3712
Display One Or More Sub-Categories
3714
Detect A Selection Of A Sub-Category
3716
Displaying A Detailed View Of The Sub-Category
3718

FIG. 37B

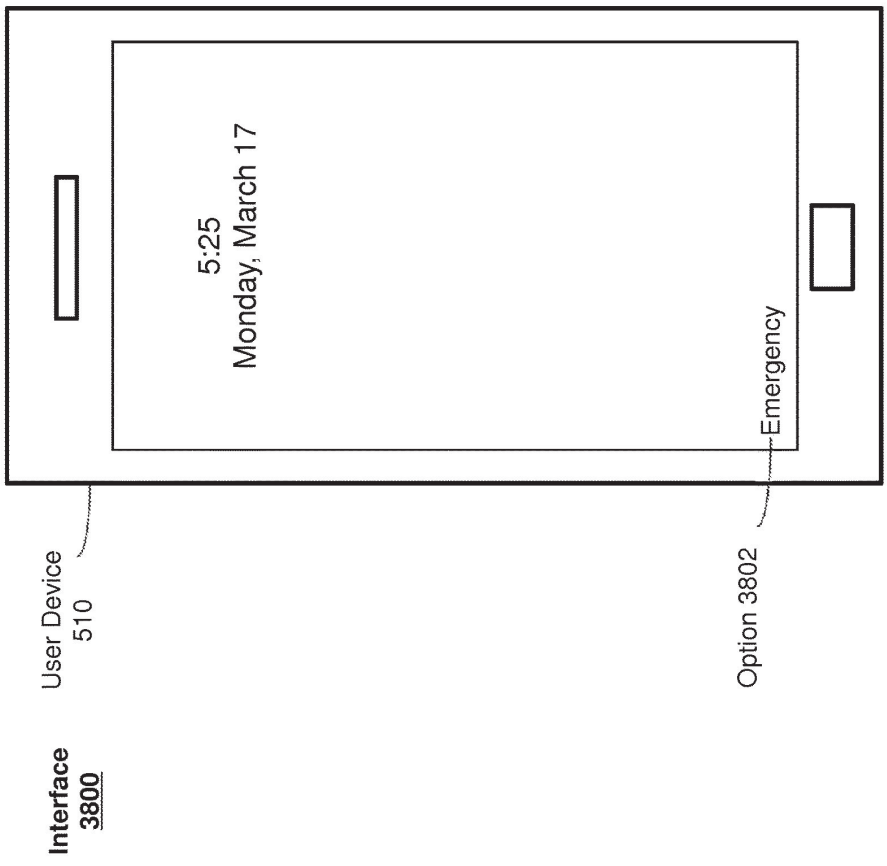

5:25
Monday, March 17
Emergency
Interface
3800
User Device
510
Option 3802

FIG. 38

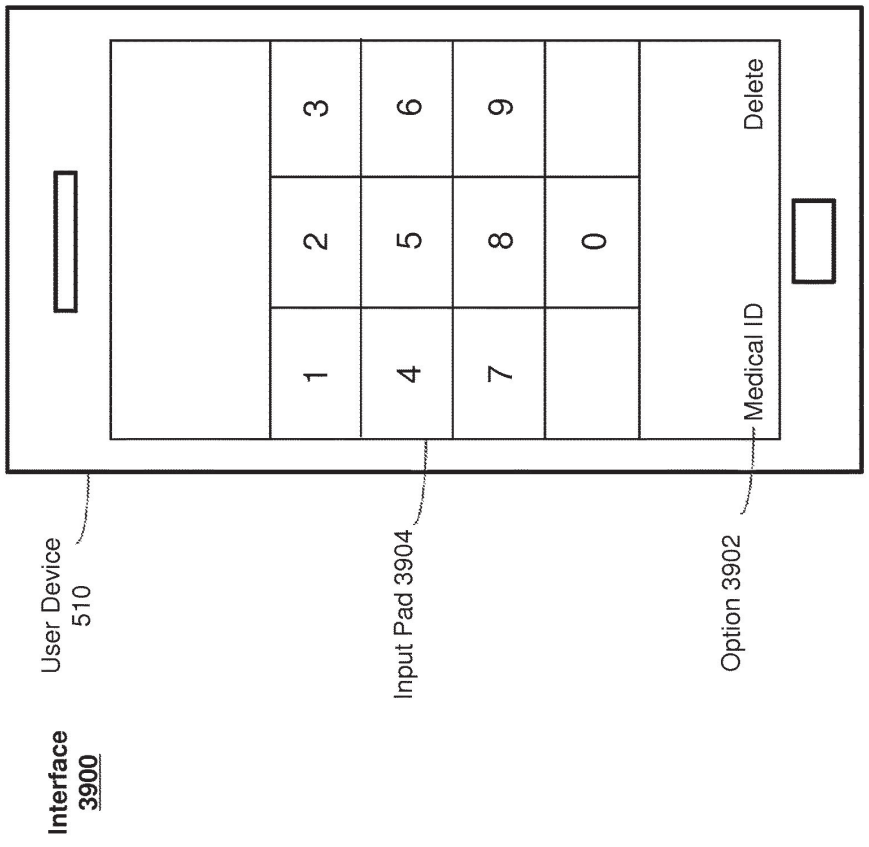

Interface 3900
User Device 510
Input Pad 3904
Option 3902
1
2
3
4
5
6
7
8
9
0
Medical ID
Delete

FIG. 39

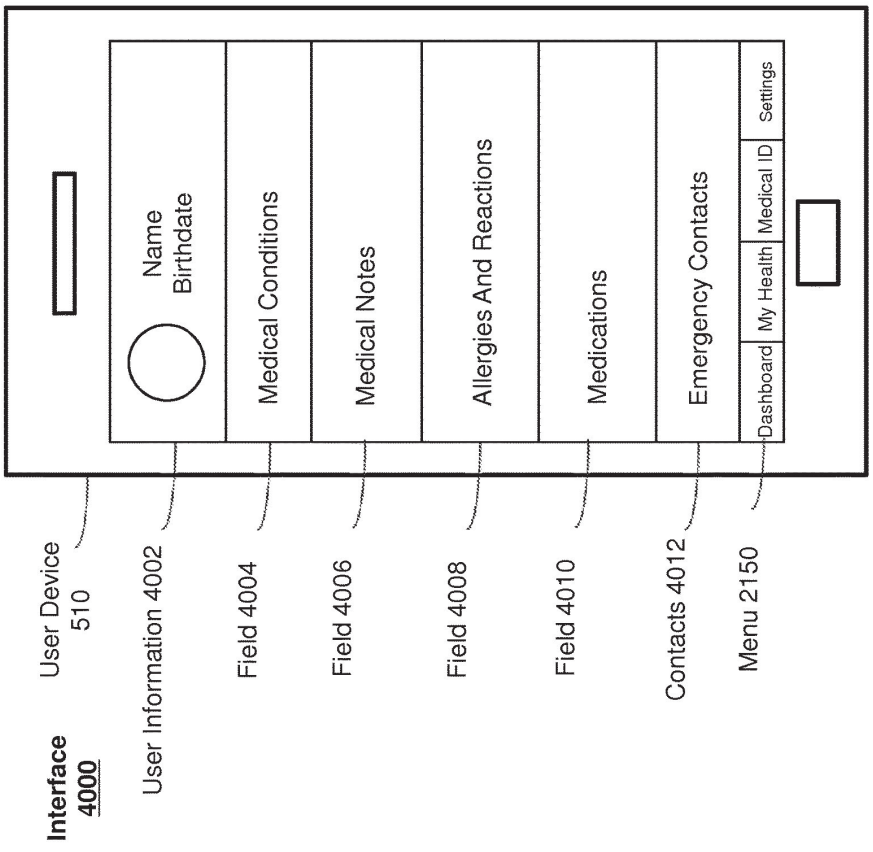

Interface 4000
User Device 510
User Information 4002
Field 4004
Field 4006
Field 4008
Field 4010
Contacts 4012
Menu 2150
Name
Birthdate
Medical Conditions
Medical Notes
Allergies And Reactions
Medications
Emergency Contacts
Dashboard
My Health
Medical ID
Settings

FIG. 40

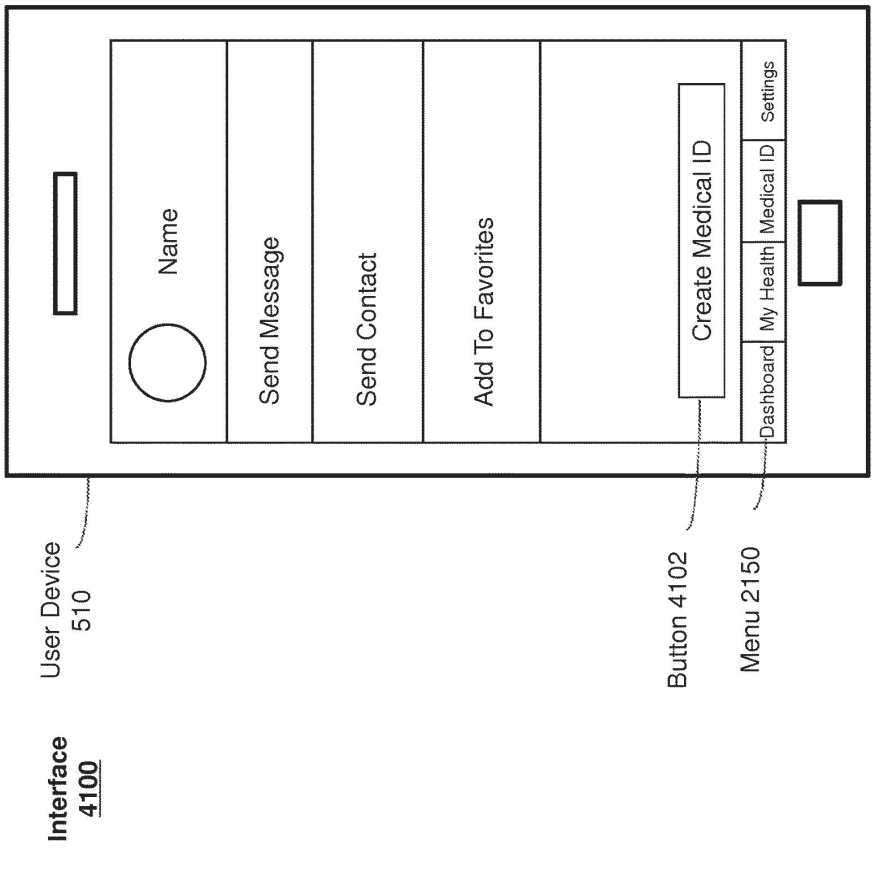

Interface
4100
User Device
510
Name
Send Message
Send Contact
Add To Favorites
Create Medical ID
Button 4102
Dashboard
My Health
Medical ID
Settings
Menu 2150

FIG. 41

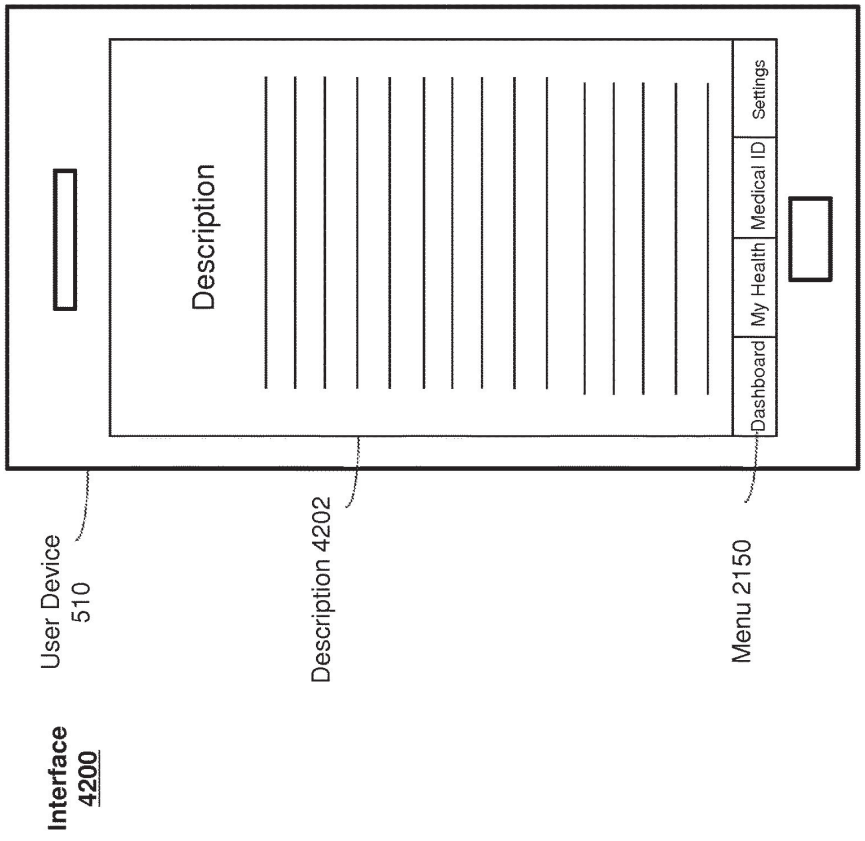

Interface
4200
User Device
510
Description 4202
Menu 2150
Description
Dashboard
My Health
Medical ID
Settings

FIG. 42

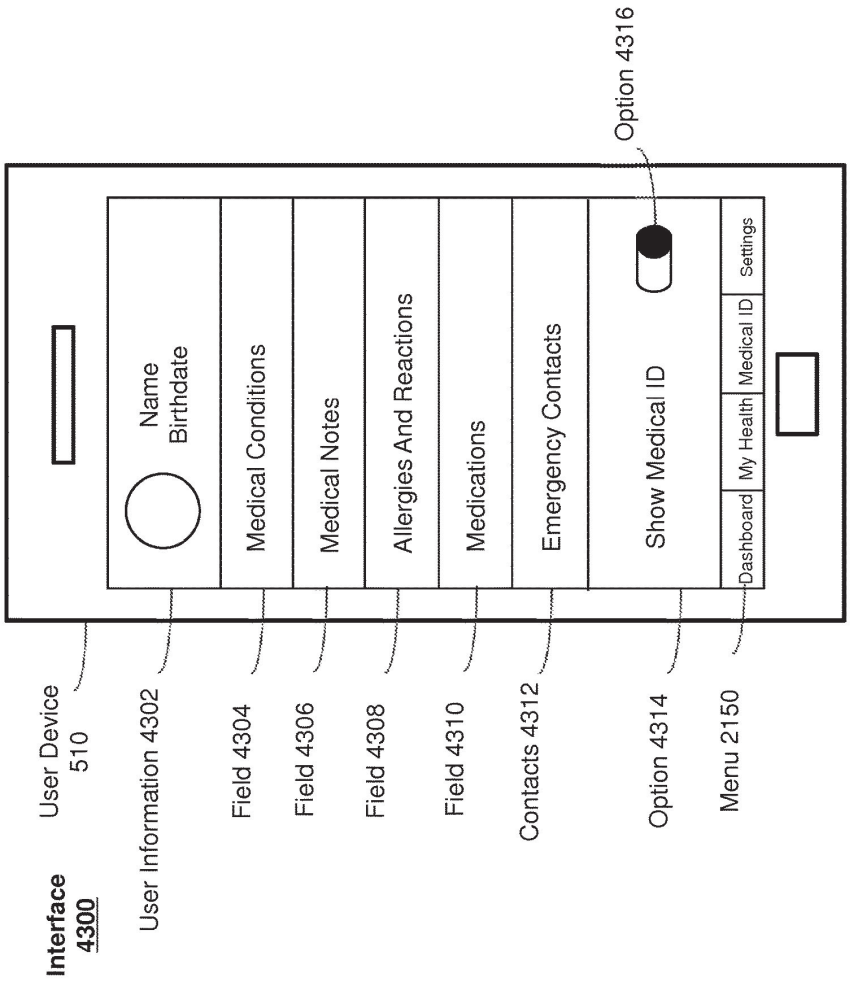

Interface 4300
User Device 510
User Information 4302
Field 4304
Field 4306
Field 4308
Field 4310
Contacts 4312
Option 4314
Menu 2150
Option 4316
Name
Birthdate
Medical Conditions
Medical Notes
Allergies And Reactions
Medications
Emergency Contacts
Show Medical ID
Dashboard
My Health
Medical ID
Settings

FIG. 43

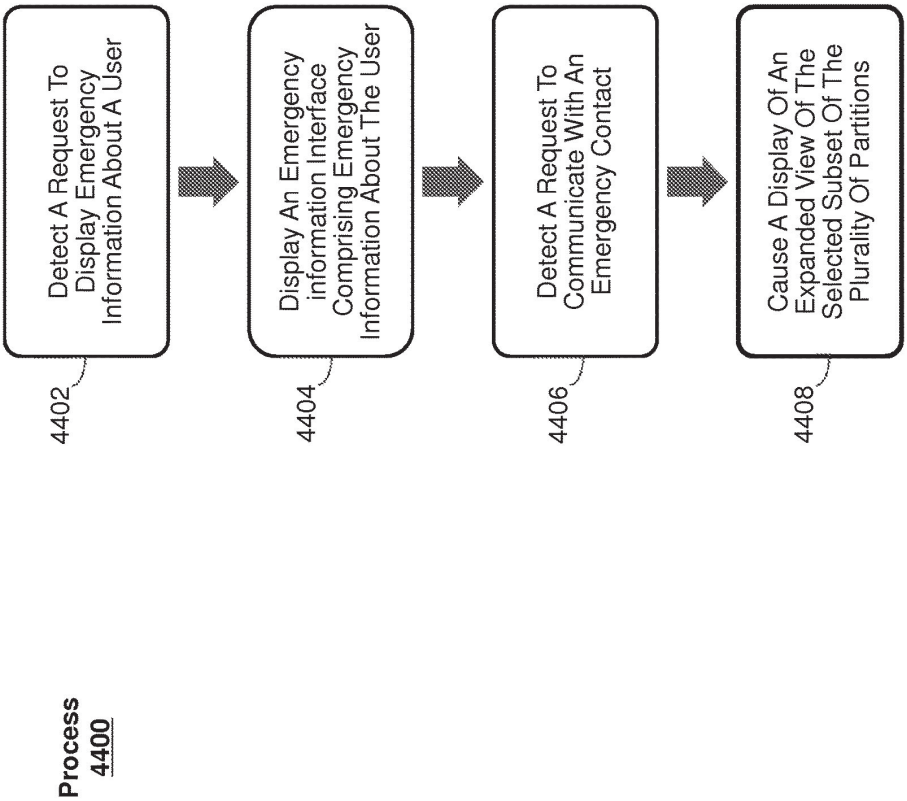

Process
4400
Detect A Request To Display Emergency Information About A User
4402
Display An Emergency information Interface Comprising Emergency Information About The User
4404
Detect A Request To Communicate With An Emergency Contact
4406
Cause A Display Of An Expanded View Of The Selected Subset Of The Plurality Of Partitions
4408

FIG. 44

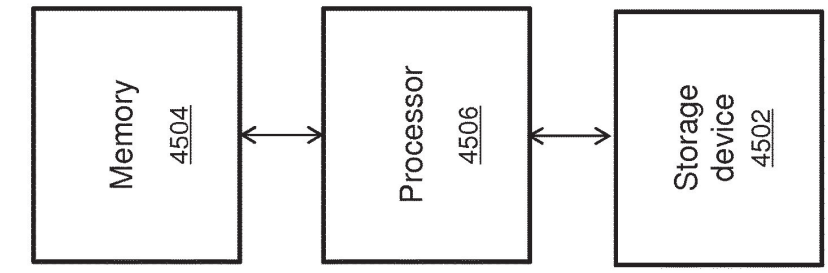


FIG. 45

System
4500

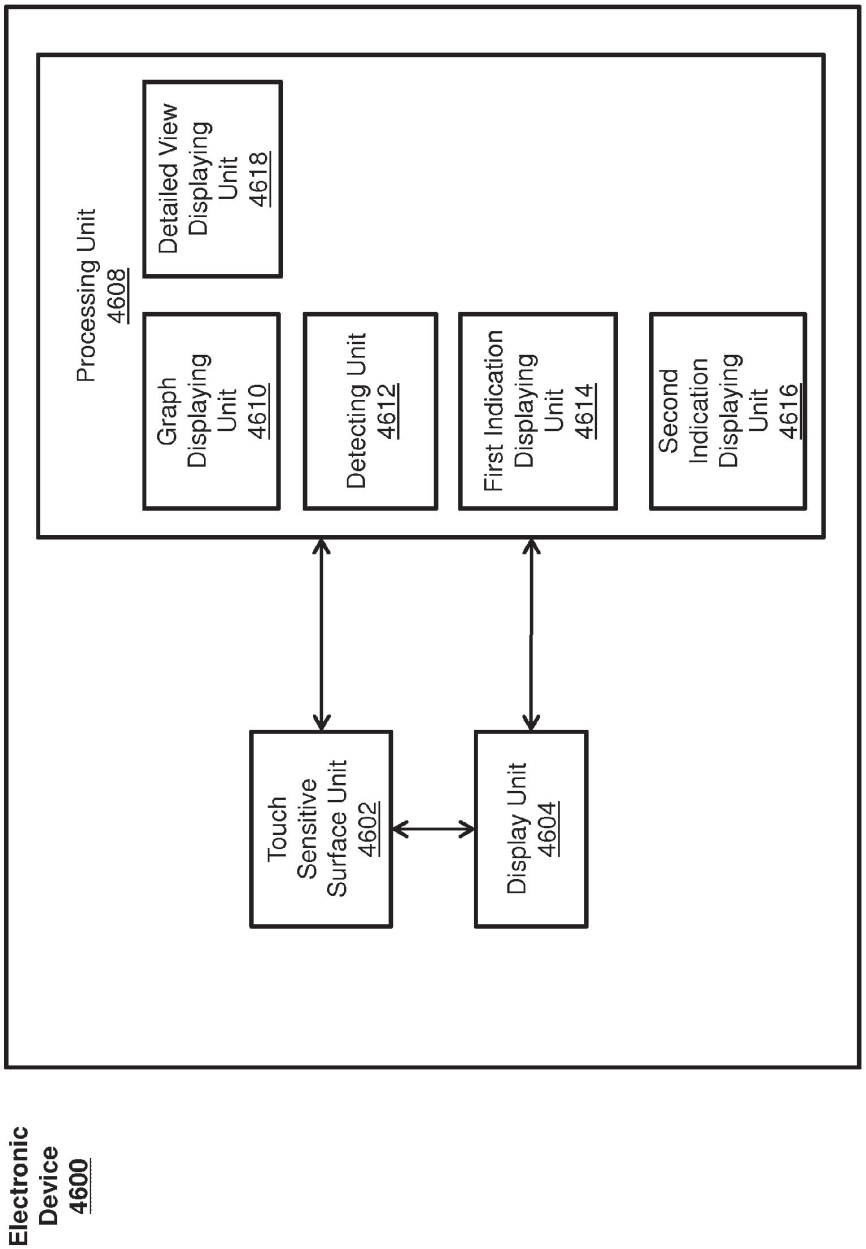

Electronic Device 4600
Processing Unit 4608
Detailed View Displaying Unit 4618
Graph Displaying Unit 4610
Detecting Unit 4612
First Indication Displaying Unit 4614
Second Indication Displaying Unit 4616
Touch Sensitive Surface Unit 4602
Display Unit 4604

FIG. 46

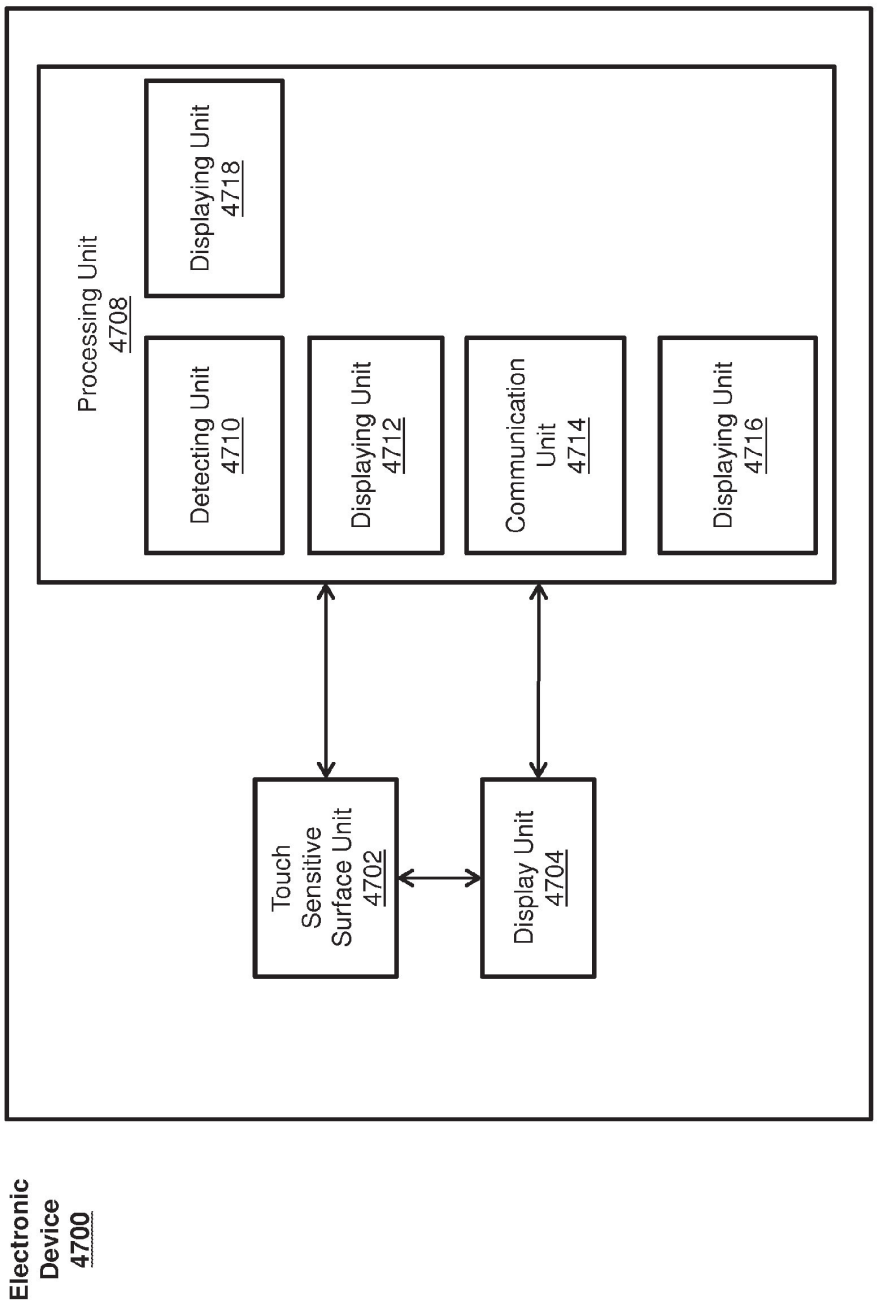

Electronic Device 4700
Processing Unit 4708
Displaying Unit 4718
Detecting Unit 4710
Displaying Unit 4712
Communication Unit 4714
Displaying Unit 4716
Touch Sensitive Surface Unit 4702
Display Unit 4704

FIG. 47

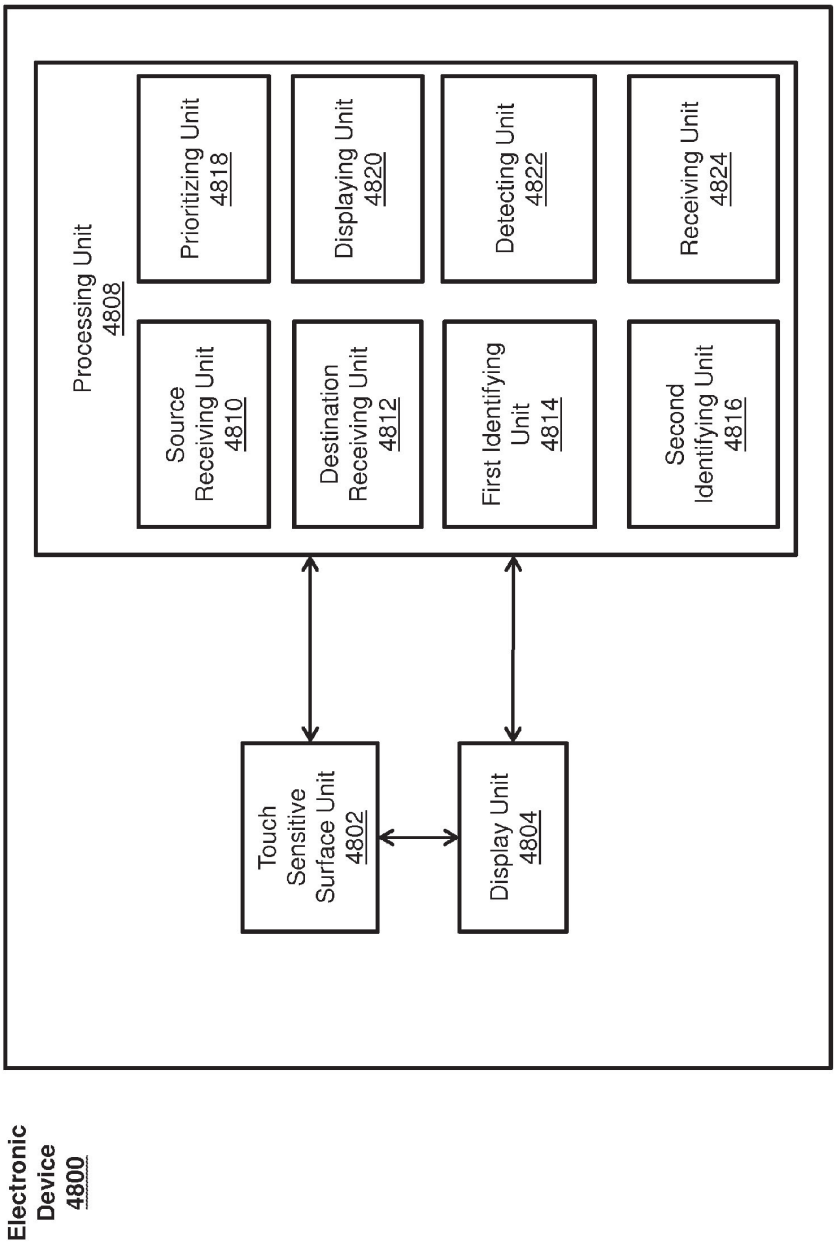

Electronic Device 4800
Processing Unit 4808
Source Receiving Unit 4810
Destination Receiving Unit 4812
First Identifying Unit 4814
Second Identifying Unit 4816
Prioritizing Unit 4818
Displaying Unit 4820
Detecting Unit 4822
Receiving Unit 4824
Touch Sensitive Surface Unit 4802
Display Unit 4804

FIG. 48

WELLNESS AGGREGATOR

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority to U.S. Provisional Ser. No. 62/006,032, filed on May 30, 2014, entitled "WELLNESS AGGREGATOR," which is hereby incorporated by reference in its entirety for all purposes. This application relates to the following provisional application: U.S. Patent Application Ser. No. 62/006,031, entitled "MANAGING USER INFORMATION," filed May 30, 2014, which is hereby incorporated by reference in its entirety. This application also relates to the following co-pending non-provisional application: U.S. patent application Ser. No. 14/599,425, entitled "WELLNESS AGGREGATOR," filed Jan. 16, 2015, which is hereby incorporated by reference in its entirety

FIELD

The following disclosure relates generally to data management and, more specifically, to aggregating and sharing wellness data.

BACKGROUND

Approximately 133 million Americans currently suffer from at least one chronic condition. This number is expected to rise to approximately 165 million by the year 2020. As a result, the cost of healthcare in the United States is expected to increase dramatically. Attempts have been made to improve the health of individuals by providing them with tools to monitor and track their wellness data. Wellness data can generally include any type of data associated with a person's health, such as their weight, heart rate, blood pressure, blood glucose level, medication compliance, activity level, or the like. Users can monitor their wellness using devices, such as blood pressure cuffs, blood glucose monitors, electrocardiograms, step counters, and the like. Software applications (e.g., Apps) associated with each of these devices have also been developed to allow users to track their wellness data over time. While each application can be used to view useful information about a user's health, current applications are limited in their ability to allow users to store, view, and share wellness data collected by different devices.

SUMMARY

The present disclosure relates to processes for aggregating and sharing wellness data. One example process can include causing a display of an aggregated view of a plurality of types of wellness data, wherein the aggregated view comprises a plurality of partitions, each partition of the plurality of partitions associated with a type of the plurality of types of wellness data; receiving a selection of a partition of the plurality of partitions; and causing a display of an expanded view of the selected partition of the plurality of partitions.

Another example process can include causing, on a device, a display of a plurality of partitions, wherein each partition of the plurality of partitions is associated with a type of wellness data of a plurality of types of wellness data; in response to detecting a change in an orientation of the device, selecting a subset of the plurality of partitions; and causing a display of the selected subset of the plurality of partitions.

Another example process can include causing a display of a first plurality of partitions associated with a first user, wherein each partition of the first plurality of partitions is associated with a type of wellness data of the first user; and in response to receiving a request to view a second plurality of partitions associated with a second user, causing a display of a second plurality of partitions associated with a second user, wherein each partition of the second plurality of partitions is associated with a type of wellness data of the second user.

Another example process can include receiving an identification of a user authorized to access a set of wellness data; in response to detecting an update to the set of wellness data, transmitting a notification to the user authorized to access the set of wellness data notifying the user authorized to access the set of wellness data that the update to the set of wellness data has been detected; and transmitting at least a portion of the set of wellness data to the user authorized to access the set of wellness data.

Another example process can include receiving, from a first user, a request to access wellness data associated with a second user; transmitting, to the second user, a request to authorize the first user to access the wellness data associated with the second user; and in response to receiving an authorization from the second user, transmitting the wellness data associated with the second user to the first user.

Another example process can include, at an electronic device comprising a display: displaying, on the display, a graph comprising a first data-set representation of a first data set in which a first dependent variable varies as an independent variable changes and a second data-set representation of a second data set in which a second dependent variable varies as the independent variable changes, wherein the first data-set representation is associated with a first range of vertical positions within the graph and the second data-set representation is associated with a second range of vertical positions within the graph. The process can further include detecting, at a respective location on the display, a user input; in response to detecting the user input: in accordance with a determination that the respective location is within the first range of vertical positions associated with the first data-set representation, displaying, on the display, an indication that the first data-set representation has been selected; and in accordance with a determination that the respective location is within the second range of vertical positions associated with the second data-set representation, displaying, on the display, an indication that the second data-set representation has been selected.

Another example process can include, at an electronic device comprising a display: while the electronic device is in a locked state: detecting a request to display emergency information about a user of the device; and in response to detecting the request, displaying, on the display, an emergency information interface comprising emergency information about the user of the device without unlocking the device.

Another example process can include, at an electronic device: receiving, from a user, information identifying a plurality of approved sources of wellness data, wherein the information identifying the plurality of approved sources identifies one or more types of wellness data that are approved to be received from the plurality of approved sources and stored in a wellness database; and receiving, from the user, information identifying a plurality of approved destinations of wellness data, wherein the information identifying the plurality of approved destinations identifies one or more types of wellness data that are