US0D1026010S

# (12) United States Design Patent

Oberkircher et al.

(10) Patent No.: US D1,026,010 S
(45) Date of Patent: ** May 7, 2024

(54) **ENERGY MODULE WITH ALERT SCREEN WITH GRAPHICAL USER INTERFACE**

(71) Applicant: **Cilag GmbH International**, Zug (CH)

(72) Inventors: **Brendan J. Oberkircher**, Cincinnati, OH (US); **Cory G. Kimball**, Hamilton, OH (US); **Matthew C. Miller**, Cincinnati, OH (US); **Jacob S. Childs**, Huntington Beach, CA (US); **Leonardo N. Rossoni**, Rahway, NJ (US)

(73) Assignee: **Cilag GmbH International**, Zug (CH)

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

(21) Appl. No.: **29/816,425**

(22) Filed: **Nov. 22, 2021**

**Related U.S. Application Data**

(63) Continuation of application No. 29/704,617, filed on Sep. 5, 2019, now Pat. No. Des. 939,545.

(51) **LOC (14) Cl.** ..... **13-03**

(52) **U.S. Cl.**
USPC ..... **D13/162**; D14/486

(58) **Field of Classification Search**
USPC ..... D14/485–495; D20/11; D21/324, 325; D13/162
CPC .. G06F 3/0481; G06F 3/04817; G06F 3/0482; G06F 3/0483; G06F 3/04842; G06F 3/04845; G06F 3/0485; G06F 3/04855; G06F 3/0486; G06F 3/0488; G06F 3/04886; G06F 9/451; G06F 40/103; G06F 40/106; G06F 40/189; G06F 40/191; G16H 15/00; G16H 30/40; A61B 5/0205; A61B 34/25; A61B 90/90; G05B 15/02; E05B 73/0082; A61L 2/04; H04N 1/2376
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
|---|---|---|---|
| 4,171,700 | A | 10/1979 | Farin |
| 4,640,279 | A | 2/1987 | Beard |
| 4,849,752 | A | 7/1989 | Bryant |
| D303,787 | S | 10/1989 | Messenger et al. |
| 5,041,110 | A | 8/1991 | Fleenor |
| D327,061 | S | 6/1992 | Soren et al. |
| 5,189,277 | A | 2/1993 | Boisvert et al. |
| 5,204,669 | A | 4/1993 | Dorfe et al. |
| 5,318,563 | A | 6/1994 | Malis et al. |

(Continued)

FOREIGN PATENT DOCUMENTS

| | | |
|---|---|---|
| EP | 0408160 A1 | 1/1991 |
| EP | 0473987 A1 | 3/1992 |

(Continued)

OTHER PUBLICATIONS

"Bowa ARC 400" Oct. 30, 2018, posted at bowa-medical.com, [site visited Aug. 6, 2021]. https://www.bowa-medical.com/tradepro/shopru/artikel/allgemein/BOWA_BRO_11181_ARC400_V2.1_2018_10_30_EN.pdf (Year: 2018).*

(Continued)

*Primary Examiner* — John M Otte

(57) **CLAIM**

The ornamental design for an energy module with alert screen with graphical user interface, as shown and described.

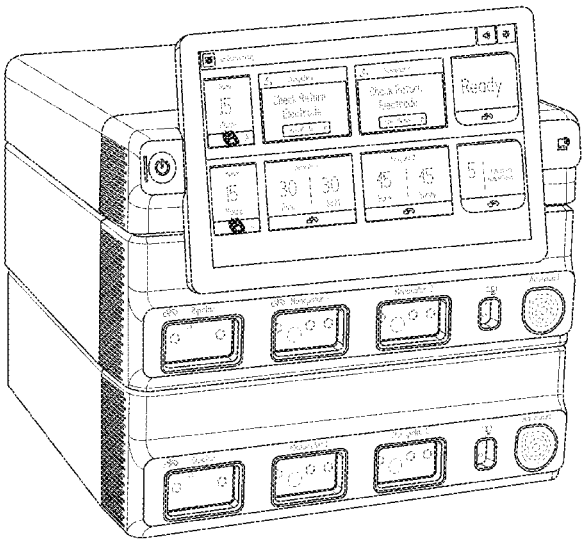
**DESCRIPTION**

FIG. **1** is a front view of an energy module and display screen; and,

FIG. **2** is a perspective view of the energy module and display screen of FIG. **1**.

In the figures, the broken lines illustrate environment and form no part of the claimed design.

**1 Claim, 2 Drawing Sheets**



(56) **References Cited**

U.S. PATENT DOCUMENTS

5,325,270 A 6/1994 Wenger et al.
5,425,375 A 6/1995 Chin et al.
D379,346 S 5/1997 Mieki
5,690,504 A 11/1997 Scanlan et al.
5,693,042 A 12/1997 Boiarski et al.
5,724,468 A 3/1998 Leone et al.
5,788,688 A 8/1998 Bauer et al.
6,049,467 A 4/2000 Tamarkin et al.
6,055,458 A 4/2000 Cochran et al.
D431,811 S 10/2000 Nishio et al.
6,179,136 B1 1/2001 Kluge et al.
6,269,411 B1 7/2001 Reasoner
6,273,750 B1 8/2001 Malkowski, Jr.
6,288,606 B1 9/2001 Ekman et al.
6,416,471 B1 7/2002 Kumar et al.
6,546,270 B1 4/2003 Goldin et al.
6,584,358 B2 6/2003 Carter et al.
6,611,793 B1 8/2003 Burnside et al.
6,731,514 B2 5/2004 Evans
6,760,218 B2 7/2004 Fan
6,839,238 B2 1/2005 Derr et al.
6,843,657 B2 1/2005 Driscoll et al.
6,913,471 B2 7/2005 Smith
7,009,511 B2 3/2006 Mazar et al.
7,044,949 B2 5/2006 Orszulak et al.
7,074,205 B1 7/2006 Duffy et al.
7,134,994 B2 11/2006 Alpert et al.
7,171,784 B2 2/2007 Eenigenburg
7,217,269 B2 5/2007 El-Galley et al.
7,252,664 B2 8/2007 Nasab et al.
7,331,699 B2 2/2008 Gawalkiewicz et al.
7,344,532 B2 3/2008 Goble et al.
7,353,068 B2 4/2008 Tanaka et al.
D575,792 S * 8/2008 Benson ..... D14/486
7,408,439 B2 8/2008 Wang et al.
D579,876 S 11/2008 Novotney et al.
D583,328 S 12/2008 Chiang
7,496,418 B2 2/2009 Kim et al.
D589,447 S 3/2009 Sasada et al.
7,500,747 B2 3/2009 Howell et al.
7,518,502 B2 4/2009 Austin et al.
7,563,259 B2 7/2009 Takahashi
7,601,149 B2 10/2009 DiCarlo et al.
7,637,907 B2 12/2009 Blaha
7,656,671 B2 2/2010 Liu et al.
7,757,028 B2 7/2010 Druke et al.
D631,252 S 1/2011 Leslie
7,932,826 B2 4/2011 Fritchie et al.
7,945,065 B2 5/2011 Menzi et al.
7,945,342 B2 5/2011 Tsai et al.
7,982,776 B2 7/2011 Dunki-Jacobs et al.
7,995,045 B2 8/2011 Dunki-Jacobs
8,019,094 B2 9/2011 Hsieh et al.
D655,678 S 3/2012 Kobayashi et al.
D657,368 S 4/2012 Magee et al.
8,218,279 B2 7/2012 Liao et al.
8,239,066 B2 8/2012 Jennings et al.
D667,838 S 9/2012 Magee et al.
D675,164 S 1/2013 Kobayashi et al.
D676,392 S 2/2013 Gassauer
D678,196 S 3/2013 Miyauchi et al.
D678,304 S 3/2013 Yakoub et al.
8,423,182 B2 4/2013 Robinson et al.
D687,146 S 7/2013 Juzkiw et al.
8,504,136 B1 8/2013 Sun et al.
8,540,709 B2 9/2013 Allen
8,567,393 B2 10/2013 Hickle et al.
D704,839 S 5/2014 Juzkiw et al.
8,795,001 B1 8/2014 Lam et al.
8,819,581 B2 8/2014 Nakamura et al.
8,840,609 B2 9/2014 Stuebe
D716,333 S 10/2014 Chotin et al.
8,911,437 B2 12/2014 Horlle et al.
8,917,513 B1 12/2014 Hazzard
8,920,186 B2 12/2014 Shishikura
8,923,012 B2 12/2014 Kaufman et al.
8,968,296 B2 3/2015 McPherson
8,986,288 B2 3/2015 Konishi
9,017,326 B2 4/2015 DiNardo et al.
D729,267 S 5/2015 Yoo et al.
9,055,870 B2 6/2015 Meador et al.
9,065,394 B2 6/2015 Lim et al.
9,129,054 B2 9/2015 Nawana et al.
9,160,853 B1 10/2015 Daddi et al.
9,168,054 B2 10/2015 Turner et al.
9,168,091 B2 10/2015 Janssen et al.
9,198,711 B2 12/2015 Joseph
9,226,766 B2 1/2016 Aldridge et al.
9,226,791 B2 1/2016 McCarthy et al.
9,237,921 B2 1/2016 Messerly et al.
9,265,429 B2 2/2016 St. Pierre et al.
9,277,961 B2 3/2016 Panescu et al.
9,277,969 B2 3/2016 Brannan et al.
9,281,615 B1 3/2016 Plaza et al.
9,320,646 B2 4/2016 Todd et al.
9,345,481 B2 5/2016 Hall et al.
9,345,900 B2 5/2016 Wu et al.
9,351,653 B1 5/2016 Harrison
9,427,255 B2 8/2016 Griffith et al.
9,430,438 B2 8/2016 Biskup
9,463,646 B2 10/2016 Payne et al.
9,474,565 B2 10/2016 Shikhman et al.
D772,252 S 11/2016 Myers et al.
9,486,271 B2 11/2016 Dunning
9,491,895 B2 11/2016 Steeves et al.
9,532,827 B2 1/2017 Morgan et al.
9,589,720 B2 3/2017 Akahane
9,600,031 B2 3/2017 Kaneko et al.
9,603,277 B2 3/2017 Morgan et al.
D783,675 S 4/2017 Yagisawa et al.
D784,270 S 4/2017 Bhattacharya
9,666,974 B2 5/2017 Bopp
9,713,503 B2 7/2017 Goldschmidt
9,715,271 B2 7/2017 Kaestner
9,750,563 B2 9/2017 Shikhman et al.
9,770,103 B2 9/2017 Cochran et al.
9,773,093 B2 9/2017 Bernini et al.
9,782,214 B2 10/2017 Houser et al.
9,788,907 B1 10/2017 Alvi et al.
9,804,977 B2 10/2017 Ghosh et al.
D806,721 S * 1/2018 Fischer ..... D14/485
9,867,670 B2 1/2018 Brannan et al.
9,892,564 B1 2/2018 Cvetko et al.
9,907,196 B2 2/2018 Susini et al.
9,971,395 B2 4/2018 Chenault et al.
9,974,595 B2 5/2018 Anderson et al.
9,987,068 B2 6/2018 Anderson et al.
9,987,072 B2 6/2018 McPherson
10,028,402 B1 7/2018 Walker
10,039,589 B2 8/2018 Virshek et al.
D832,211 S 10/2018 Ladd et al.
10,098,527 B2 10/2018 Weisenburgh, II et al.
10,105,470 B2 10/2018 Reasoner et al.
10,109,835 B2 10/2018 Yang
D834,541 S 11/2018 You et al.
10,117,702 B2 11/2018 Danziger et al.
10,128,612 B1 11/2018 Casto
10,136,954 B2 11/2018 Johnson et al.
10,137,245 B2 11/2018 Melker et al.
10,147,148 B2 12/2018 Wu et al.
10,166,061 B2 1/2019 Berry et al.
10,170,205 B2 1/2019 Curd et al.
10,201,365 B2 2/2019 Boudreaux et al.
10,339,496 B2 7/2019 Matson et al.
10,357,184 B2 7/2019 Crawford et al.
10,386,990 B2 8/2019 Shikhman et al.
10,441,345 B2 10/2019 Aldridge et al.
10,449,004 B2 10/2019 Ferro et al.
10,475,244 B2 11/2019 Cvetko et al.
10,493,287 B2 12/2019 Yoder et al.
10,499,847 B2 12/2019 Latimer et al.
10,499,996 B2 12/2019 de Almeida Barreto
10,523,122 B2 12/2019 Han et al.
10,531,579 B2 1/2020 Hsiao et al.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D876,466 S 2/2020 Kobayashi et al.
10,561,753 B2 2/2020 Thompson et al.
10,602,007 B2 3/2020 Takano
10,624,667 B2 4/2020 Faller et al.
10,624,691 B2 4/2020 Wiener et al.
10,675,100 B2 6/2020 Frushour
10,687,884 B2 6/2020 Wiener et al.
10,729,502 B1 8/2020 Wolf et al.
10,743,872 B2 8/2020 Leimbach et al.
10,758,309 B1 9/2020 Chow et al.
10,758,310 B2 9/2020 Shelton, IV et al.
10,772,673 B2 9/2020 Allen, IV et al.
10,878,966 B2 12/2020 Wolf et al.
10,881,399 B2 1/2021 Shelton, IV et al.
10,898,256 B2 1/2021 Yates et al.
10,925,598 B2 2/2021 Scheib et al.
10,932,705 B2 3/2021 Muhsin et al.
10,932,772 B2 3/2021 Shelton, IV et al.
10,950,982 B2 3/2021 Regnier et al.
10,987,176 B2 4/2021 Poltaretskyi et al.
10,989,724 B1 4/2021 Holmes et al.
11,000,270 B2 5/2021 Scheib et al.
D924,139 S 7/2021 Jayme
11,056,244 B2 7/2021 Shelton, IV et al.
11,065,079 B2 7/2021 Wolf et al.
11,071,595 B2 7/2021 Johnson et al.
D928,725 S 8/2021 Oberkircher et al.
D928,726 S 8/2021 Asher et al.
11,083,489 B2 8/2021 Fujii et al.
11,116,587 B2 9/2021 Wolf et al.
D939,545 S 12/2021 Oberkircher et al.
11,218,822 B2 1/2022 Morgan et al.
11,259,793 B2 3/2022 Scheib et al.
11,259,875 B2 3/2022 Boutin et al.
11,272,839 B2 3/2022 Al-Ali et al.
11,284,963 B2 3/2022 Shelton, IV et al.
11,296,540 B2 4/2022 Kirleis et al.
11,304,763 B2 4/2022 Shelton, IV et al.
11,314,846 B1 4/2022 Colin et al.
11,369,366 B2 6/2022 Scheib et al.
11,382,699 B2 7/2022 Wassall et al.
11,382,700 B2 7/2022 Calloway et al.
11,419,604 B2 8/2022 Scheib et al.
11,424,027 B2 8/2022 Shelton, IV
11,432,877 B2 9/2022 Nash et al.
11,464,581 B2 10/2022 Calloway
11,478,820 B2 10/2022 Bales, Jr. et al.
11,504,192 B2 11/2022 Shelton, IV et al.
11,510,750 B2 11/2022 Dulin et al.
11,559,307 B2 1/2023 Shelton, IV et al.
11,564,678 B2 1/2023 Scheib et al.
11,571,205 B2 2/2023 Scheib et al.
11,576,677 B2 2/2023 Shelton, IV et al.
11,589,888 B2 2/2023 Shelton, IV et al.
11,659,023 B2 5/2023 Shelton, IV et al.
2001/0029315 A1 10/2001 Sakurai et al.
2003/0007321 A1 1/2003 Dayley
2003/0078631 A1 4/2003 Nelson et al.
2003/0199794 A1 10/2003 Sakurai et al.
2003/0199864 A1 10/2003 Eick
2004/0030328 A1 2/2004 Eggers et al.
2004/0059323 A1 3/2004 Sturm et al.
2004/0111045 A1 6/2004 Sullivan et al.
2004/0164983 A1 8/2004 Khozai
2005/0010209 A1 1/2005 Lee et al.
2005/0013459 A1 1/2005 Maekawa
2005/0113823 A1 5/2005 Reschke et al.
2005/0165390 A1 7/2005 Mauti et al.
2005/0229110 A1 10/2005 Gegner et al.
2005/0251233 A1 11/2005 Kanzius
2006/0085049 A1 4/2006 Cory et al.
2006/0136622 A1 6/2006 Rouvelin et al.
2006/0149418 A1 7/2006 Anvari
2006/0256516 A1 11/2006 Cho
2007/0061393 A1 3/2007 Moore
2007/0076363 A1 4/2007 Liang et al.
2007/0282321 A1 12/2007 Shah et al.
2008/0072896 A1 3/2008 Setzer et al.
2008/0129465 A1 6/2008 Rao
2008/0249377 A1 10/2008 Molducci et al.
2008/0316304 A1 12/2008 Claus et al.
2009/0036884 A1 2/2009 Gregg et al.
2009/0131929 A1 5/2009 Shimizu
2009/0216091 A1 8/2009 Arndt
2009/0234352 A1 9/2009 Behnke et al.
2010/0036405 A1 2/2010 Giordano et al.
2010/0069939 A1 3/2010 Konishi
2010/0076453 A1 3/2010 Morris et al.
2010/0092006 A1 4/2010 Rosen
2010/0120266 A1 5/2010 Rimborg
2010/0198200 A1 8/2010 Horvath
2010/0312239 A1 12/2010 Sclig
2011/0071420 A1* 3/2011 St. Pierre ..... G16H 15/00 600/300
2011/0092972 A1 4/2011 Allen
2011/0093796 A1 4/2011 Plummer et al.
2011/0106567 A1 5/2011 Asher
2011/0125149 A1 5/2011 El-Galley et al.
2011/0130689 A1 6/2011 Cohen et al.
2011/0238063 A1 9/2011 Gregg
2011/0245630 A1 10/2011 St. Pierre et al.
2011/0273465 A1 11/2011 Konishi et al.
2011/0288451 A1 11/2011 Sanai et al.
2011/0306840 A1 12/2011 Allen et al.
2012/0029304 A1 2/2012 Medina et al.
2012/0116380 A1 5/2012 Madan et al.
2012/0132661 A1 5/2012 Gu et al.
2012/0319890 A1 12/2012 McCormack et al.
2013/0031201 A1 1/2013 Kagan et al.
2013/0088451 A1* 4/2013 Payne ..... G06F 3/04845 345/173
2013/0176220 A1 7/2013 Merschon et al.
2013/0197503 A1 8/2013 Orszulak
2013/0267793 A1* 10/2013 Meador ..... A61B 5/0205 600/300
2013/0267975 A1 10/2013 Timm et al.
2013/0268283 A1 10/2013 Vann et al.
2014/0009894 A1 1/2014 Yu
2014/0058714 A1 2/2014 Boyer
2014/0087573 A1 3/2014 Kroeckel
2014/0108048 A1 4/2014 Cohn
2014/0155721 A1 6/2014 Hauck et al.
2014/0194683 A1 7/2014 Nakaguchi
2014/0226572 A1 8/2014 Thota et al.
2014/0262598 A1 9/2014 Miki et al.
2014/0263552 A1 9/2014 Hall et al.
2015/0190189 A1 7/2015 Yates et al.
2015/0257814 A1* 9/2015 Berry ..... G06F 3/04817 606/34
2015/0272575 A1 10/2015 Leimbach et al.
2015/0289929 A1 10/2015 Toth et al.
2015/0300923 A1 10/2015 Halbert
2015/0334879 A1 11/2015 Fricker
2016/0045247 A1 2/2016 Heim et al.
2016/0058286 A1 3/2016 Joshua et al.
2016/0062954 A1 3/2016 Ruff et al.
2016/0074096 A1 3/2016 Lieu
2016/0120591 A1 5/2016 Smith et al.
2016/0199240 A1* 7/2016 Newkirk ..... G05B 15/02 715/771
2016/0225192 A1 8/2016 Jones et al.
2016/0231779 A1* 8/2016 Kaneko ..... E05B 73/0082
2016/0249945 A1 9/2016 Shelton, IV et al.
2016/0287312 A1 10/2016 Tegg et al.
2016/0287337 A1 10/2016 Aram et al.
2017/0000553 A1 1/2017 Wiener et al.
2017/0024978 A1 1/2017 Gulrez et al.
2017/0078455 A1 3/2017 Fisher et al.
2017/0080346 A1 3/2017 Abbas
2017/0090507 A1 3/2017 Wiener et al.
2017/0151011 A1 6/2017 Brustad et al.
2017/0189096 A1 7/2017 Danziger et al.
2017/0202595 A1 7/2017 Shelton, IV
2017/0209718 A1 7/2017 Tanis

(56) **References Cited**

U.S. PATENT DOCUMENTS

2017/0251305 A1 8/2017 Fathollahi
2017/0252091 A1 9/2017 Honda
2017/0252474 A1* 9/2017 Thompson ..... A61L 2/04
2017/0296213 A1 10/2017 Swensgard et al.
2017/0319259 A1 11/2017 Dunning
2017/0360466 A1 12/2017 Brown et al.
2018/0014872 A1 1/2018 Dickerson
2018/0042659 A1 2/2018 Rupp et al.
2018/0049795 A1 2/2018 Swayze et al.
2018/0065248 A1 3/2018 Barral et al.
2018/0078216 A1 3/2018 Baker et al.
2018/0082480 A1 3/2018 White et al.
2018/0099161 A1 4/2018 Honda
2018/0166809 A1 6/2018 Brogan et al.
2018/0206909 A1 7/2018 Brustad et al.
2018/0221005 A1 8/2018 Hamel et al.
2018/0228528 A1 8/2018 Fraasch et al.
2018/0262916 A1 9/2018 Polley et al.
2018/0263557 A1 9/2018 Kahlman
2018/0296283 A1 10/2018 Crawford et al.
2018/0333207 A1 11/2018 Moctezuma De La Barrera
2019/0000478 A1 1/2019 Messerly et al.
2019/0028598 A1* 1/2019 Takano ..... H04N 1/2376
2019/0069957 A1 3/2019 Barral et al.
2019/0125455 A1 5/2019 Shelton, IV et al.
2019/0200844 A1 7/2019 Shelton, IV et al.
2019/0200906 A1 7/2019 Shelton, IV et al.
2019/0200981 A1 7/2019 Harris et al.
2019/0201102 A1 7/2019 Shelton, IV et al.
2019/0201140 A1 7/2019 Yates et al.
2019/0201158 A1 7/2019 Shelton, IV et al.
2019/0206563 A1 7/2019 Shelton, IV et al.
2019/0224434 A1 7/2019 Silver et al.
2019/0236840 A1 8/2019 Zuckerman et al.
2019/0247141 A1 8/2019 Batchelor et al.
2019/0278262 A1 9/2019 Taylor et al.
2019/0279524 A1 9/2019 Stoyanov et al.
2019/0348169 A1 11/2019 Gibby et al.
2019/0371012 A1 12/2019 Flexman et al.
2020/0004487 A1 1/2020 Hanajima et al.
2020/0015899 A1 1/2020 Scheib et al.
2020/0015900 A1 1/2020 Scheib et al.
2020/0015907 A1 1/2020 Scheib
2020/0015924 A1 1/2020 Scheib et al.
2020/0030044 A1 1/2020 Wang et al.
2020/0038120 A1 2/2020 Ziraknejad et al.
2020/0078070 A1 3/2020 Henderson et al.
2020/0078071 A1 3/2020 Asher
2020/0078076 A1 3/2020 Henderson et al.
2020/0078077 A1 3/2020 Henderson et al.
2020/0078078 A1 3/2020 Henderson et al.
2020/0078079 A1 3/2020 Morgan et al.
2020/0078080 A1 3/2020 Henderson et al.
2020/0078081 A1 3/2020 Jayme et al.
2020/0078082 A1 3/2020 Henderson et al.
2020/0078083 A1 3/2020 Sprinkle et al.
2020/0078089 A1 3/2020 Henderson et al.
2020/0078106 A1 3/2020 Henderson et al.
2020/0078110 A1 3/2020 Henderson et al.
2020/0078111 A1 3/2020 Oberkircher et al.
2020/0078112 A1 3/2020 Henderson et al.
2020/0078113 A1 3/2020 Sawhney et al.
2020/0078114 A1 3/2020 Asher et al.
2020/0078115 A1 3/2020 Asher et al.
2020/0078116 A1 3/2020 Oberkircher et al.
2020/0078117 A1 3/2020 Henderson et al.
2020/0078118 A1 3/2020 Henderson et al.
2020/0078119 A1 3/2020 Henderson et al.
2020/0078120 A1 3/2020 Aldridge et al.
2020/0081585 A1 3/2020 Petre et al.
2020/0090808 A1 3/2020 Carroll et al.
2020/0100825 A1 4/2020 Henderson et al.
2020/0100830 A1 4/2020 Henderson et al.
2020/0106220 A1 4/2020 Henderson et al.
2020/0159313 A1 5/2020 Gibby et al.
2020/0237422 A1* 7/2020 Canady ..... A61B 34/25
2020/0265398 A1 8/2020 Lembo
2020/0268472 A1 8/2020 Wolf et al.
2020/0305924 A1 10/2020 Carroll
2020/0305945 A1 10/2020 Morgan et al.
2020/0314569 A1* 10/2020 Morgan ..... A61B 90/90
2020/0342228 A1 10/2020 Prevrhal et al.
2021/0121246 A1 4/2021 Gudalo
2021/0169578 A1 6/2021 Calloway et al.
2021/0196383 A1 7/2021 Shelton, IV et al.
2021/0203889 A1 7/2021 Fung et al.
2021/0212717 A1 7/2021 Yates et al.
2021/0236755 A1 8/2021 King et al.
2021/0264680 A1 8/2021 Cvetko et al.
2021/0385889 A1 12/2021 Patel
2022/0032442 A1 2/2022 Sheffield et al.
2022/0104896 A1 4/2022 Shelton, IV et al.
2022/0104897 A1 4/2022 Shelton, IV et al.
2022/0104911 A1 4/2022 Shelton, IV et al.
2022/0151704 A1 5/2022 Nikou
2022/0155910 A1 5/2022 Jeong
2022/0261056 A1 8/2022 Motoi et al.
2022/0313338 A1 10/2022 Carroll et al.
2022/0313341 A1* 10/2022 Wiener ..... G16H 30/40
2022/0313342 A1 10/2022 Leuck et al.
2022/0313357 A1 10/2022 Geresy et al.
2022/0313369 A1 10/2022 Oberkircher et al.
2022/0313370 A1 10/2022 Morgan et al.
2022/0313371 A1 10/2022 Morgan et al.
2022/0313372 A1 10/2022 Herman et al.
2022/0313373 A1 10/2022 Morgan et al.
2022/0317750 A1 10/2022 Jayme et al.
2022/0317751 A1 10/2022 Samuel et al.
2022/0318179 A1 10/2022 Morgan et al.
2022/0319685 A1 10/2022 Vachon et al.
2022/0319693 A1 10/2022 Oberkircher et al.
2022/0321059 A1 10/2022 Samuel et al.
2022/0322523 A1 10/2022 Jayme et al.
2022/0331013 A1 10/2022 Shelton, IV et al.
2022/0331047 A1 10/2022 Shelton, IV et al.
2022/0331048 A1 10/2022 Shelton, IV et al.
2022/0331049 A1 10/2022 Shelton, IV et al.
2022/0331050 A1 10/2022 Shelton, IV et al.
2022/0331051 A1 10/2022 Shelton, IV et al.
2022/0331052 A1 10/2022 Shelton, IV et al.
2022/0331053 A1 10/2022 Kimball et al.
2022/0331054 A1 10/2022 Kimball et al.
2022/0331056 A1 10/2022 Shelton, IV et al.
2022/0334787 A1 10/2022 Jogan et al.
2022/0335604 A1 10/2022 Vanosdoll et al.
2022/0335660 A1 10/2022 Shelton, IV et al.
2022/0335696 A1 10/2022 Shelton, IV et al.
2022/0336078 A1 10/2022 Wise et al.
2022/0336097 A1 10/2022 Shelton, IV et al.
2022/0337891 A1 10/2022 Burnley et al.
2022/0338049 A1 10/2022 Ross et al.
2023/0038130 A1 2/2023 Cvetko et al.
2023/0039037 A1 2/2023 Henderson et al.
2023/0069787 A1 3/2023 Henderson et al.
2023/0072423 A1 3/2023 Osborn et al.

FOREIGN PATENT DOCUMENTS

EP 0929263 B1 7/1999
EP 1006892 B1 6/2009
EP 2942023 A2 11/2015
JP 2000089850 A 3/2000
JP 2001029353 A 2/2001
WO WO-0112089 A1 2/2001
WO WO-2008053485 A1 5/2008
WO WO-2014031800 A1 2/2014
WO WO-2014071184 A1 5/2014
WO WO-2015047693 A1 4/2015
WO WO-2017058617 4/2017
WO WO-2018116247 A1 6/2018

(56) **References Cited**

FOREIGN PATENT DOCUMENTS

| | | |
|---|---|---|
| WO | WO-2019215354 A1 | 11/2019 |
| WO | WO-2021044136 A1 | 3/2021 |

OTHER PUBLICATIONS

"Electrosurgical Generator ECONT-0201.3" Mar. 18, 2018, posted at contact-endoscopy.com, [site visited Aug. 6, 2021]. https://contact-endoscopy.com/electrosurgical-system (Year: 2018).*

"ATM-MPLS Network Interworking Version 2.0, af-aic-0178.001" ATM Standard, The ATM Forum Technical Committee, published Aug. 2003.

IEEE Std 802.3-2012 (Revision of IEEE Std 802.3-2008, published Dec. 28, 2012.

Sorrells, P., "Application Note AN680. Passive RFID Basics," retrieved from http://ww1.microchip.com/downloads/en/AppNotes/00680b.pdf on Feb. 26, 2020, Dec. 31, 1998, pp. 1-7.

Zhu et al. "Haptic-feedback smart glove as a creative human-machine interface (HMI) for virtual/augmented reality applications," SCI. ADV, vol. 6, No. 19, May 8, 2020.

Qian, et al., "A Review of Augmented Reality in Robotic-Assisted Surgery", IEEE Transactions on Medical Robotics and Bionics, IEEE, vol. 2, No. 1, pp. 1-16, Feb. 2020.

Yu et al., "Skin-Integrated Wireless Haptic Interfaces for Virtual and Augmented Reality," Nature, vol. 575, pp. 473-479, Nov. 21, 2019.

Li et al., "Wearable Energy Harvesters Generating Electricity From Low-Frequency Human Limb Movement," Microsystems & Nanoengineering (2018), vol. 4(24), 13 pages.

* cited by examiner

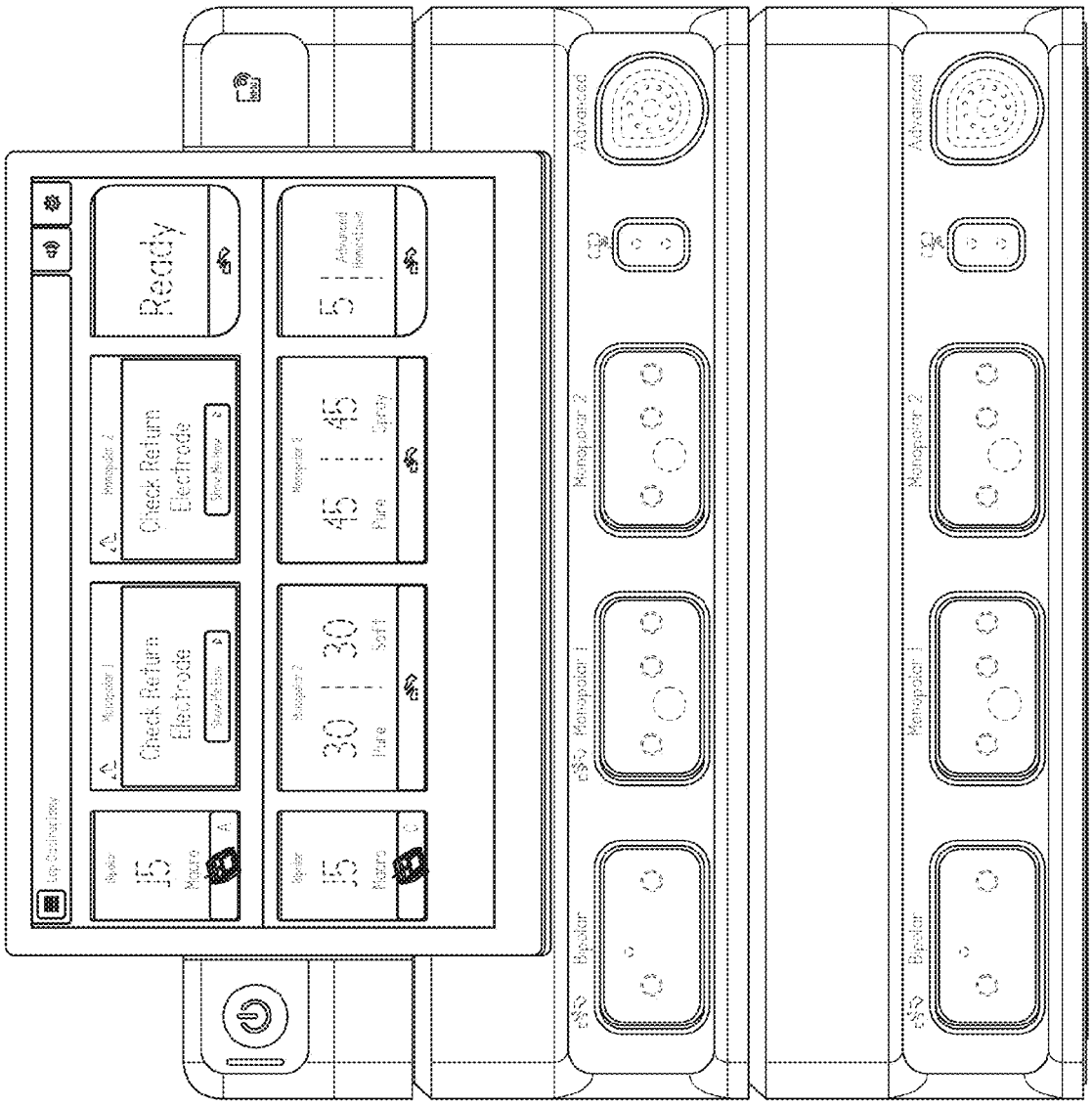

Ready
Check Return Electrode
Check Return Electrode
Advanced
Monopolar 2
Monopolar 1
Bipolar

FIG. 1

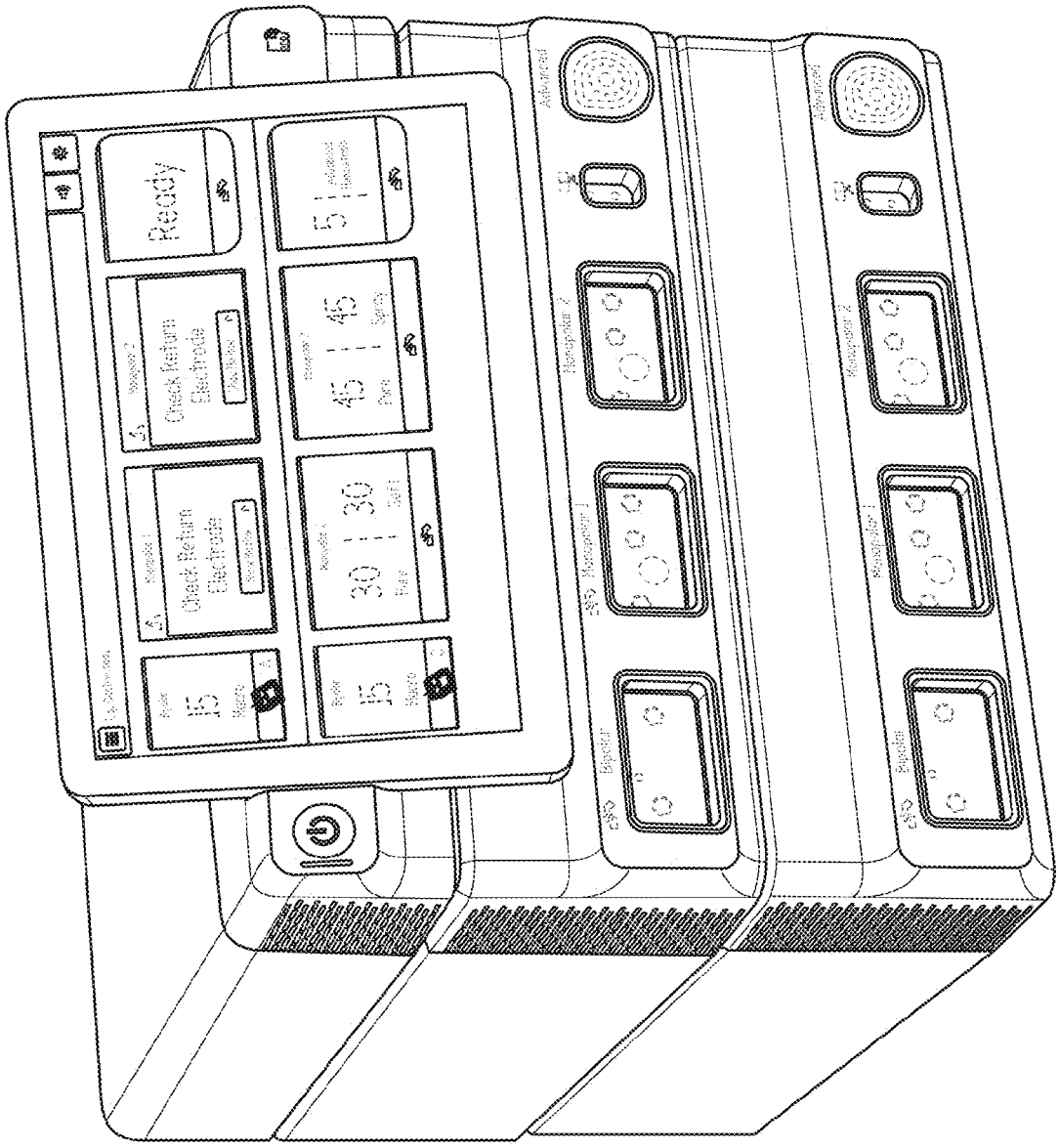

Ready
Check Return Electrode
Check Return Electrode
45
30
15
15

FIG. 2