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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2015-11-17_P7276USC1-Resp-OA-TD-docs.pdf	3667168 896846e01973e7a2979d379b3ca39b10d727fe18	yes	18

Multipart Description/PDF files in .zip description

Document Description	Start	End
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	7
Applicant Arguments/Remarks Made in an Amendment	8	15
Terminal Disclaimer Filed	16	18

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	32456 bd8744a0871ddd056871b5c4c6ae1a5e769f9a8a	no	2

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Information:

Total Files Size (in bytes):	3699624

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENTS
P7276USC1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Gloria Lin et al.
Application No.	:	14/136,658 Confirmation No.: 2657
Filed	:	December 20, 2013
For	:	SEAMLESSLY EMBEDDED HEART RATE MONITOR
Art Unit	:	3762
Examiner	:	Alyssa Margo Alter Morschauser

New York, New York 10013
November 17, 2015

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

REPLY TO NON-FINAL OFFICE ACTION

Sir:

This is in response to the Non-Final Office Action mailed June 19, 2015 (hereinafter "the Office Action"). Applicants hereby respond as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper; and

Remarks begin on page 8 of this paper.

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. - 23. (Cancelled)

24. (Withdrawn) An electronic device comprising:

a bezel, wherein an outer surface of at least a portion of the bezel comprises a first visual characteristic; and

a heart sensor coupled to the at least a portion of the bezel and operative to detect a user's cardiac signal, wherein an outer surface of the heart sensor comprises a second visual characteristic that matches the first visual characteristic.

25. (Withdrawn) The electronic device of claim 24, wherein each of the outer surface of the at least a portion of the bezel and the outer surface of the heart sensor comprises a portion of an outer surface of the electronic device.

26. (Withdrawn) The electronic device of claim 24, wherein:

the outer surface of the at least a portion of the bezel comprises a first finish; and

the outer surface of the heart sensor comprises a second finish that matches the first finish.

27. (Withdrawn) The electronic device of claim 24, wherein the outer surface of the heart sensor comprises a conductive coating that provides the second visual characteristic.

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28. (Withdrawn) The electronic device of claim 24, wherein each of the first visual characteristic and the second visual characteristic comprises at least one of:

a particular color;

a particular tone; and

a particular reflectivity.

29. (Currently Amended) An electronic device for detecting a user's cardiac signal, comprising:

an enclosure;

a heart sensor configured to detect the user's cardiac signal, the heart sensor comprising:

a first lead embedded in a first portion of the enclosure, wherein an exterior surface of the enclosure comprises an exterior surface of the first portion, wherein the first lead is positioned underneath the exterior surface of the first portion, and wherein the first lead is configured to detect a first electrical signal of the user's cardiac signal via the user's contact with ~~at least one of the first lead and~~ the exterior surface of the first portion of the enclosure; and

a second lead embedded in a second portion of the enclosure, wherein the second lead is configured to detect a second electrical signal of the user's cardiac signal via the user's contact with at least one of the second lead and the second portion of the enclosure; and

a processor coupled to the heart sensor and configured to receive and process the detected cardiac signal.

30. (Previously Presented) The electronic device of claim 29, wherein the first portion and the second portion are located on opposite sides of the electronic device.

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31. (Previously Presented) The electronic device of claim 29, wherein the first portion is electrically isolated from the second portion.

32. (Previously Presented) The electronic device of claim 29, wherein:

the first portion is separated from the second portion by a third portion of the enclosure;

at least the third portion is constructed from a material having a first conductivity; and

the first conductivity is insufficient to transmit the first electrical signal from the first lead to the second lead via the third portion.

33. (Previously Presented) The electronic device of claim 32, wherein:

the material having the first conductivity comprises one of aluminum and steel; and

the second lead is constructed from a silver based compound.

34. (Currently Amended) The electronic device of claim 32, wherein:

the exterior surface of the enclosure further comprises an exterior surface of the second portion;

the second lead is configured to detect the second electrical signal of the user's cardiac signal via the user's contact with [[an]] the exterior surface of the second portion;

the second lead is positioned from the exterior surface of the second portion by a thickness of the second portion;

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at least the thickness of the second portion is constructed from [[a]] material having a second conductivity; and

the second conductivity is defined such that the second electrical signal is not able to be transmitted through material having the second conductivity over a distance larger than the thickness of the second portion.

35. (Currently Amended) The electronic device of claim 34, wherein the first lead and the second lead are positioned apart from one another at a distance larger than the thickness of the second portion by material having the second conductivity.

36. (Currently Amended) The electronic device of claim 29, wherein:

the enclosure further comprises at least one pocket underneath ~~an outer~~ the exterior surface of the enclosure; and

at least one of the first lead and the second lead is placed within the at least one pocket.

37. (Cancelled)

38. (Cancelled)

39. (Currently Amended) The electronic device of claim 29, further comprising:

a display, wherein the enclosure supports the display, and wherein at least a portion of the exterior surface of the enclosure forms at least a portion of an exterior surface of the electronic device behind the display; and

a third lead embedded with the display, wherein the third lead is configured to detect a third electrical signal of the

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user's cardiac signal via the user's contact with at least one of the third lead and the display.

40. (Currently Amended) An electronic device for detecting a user's cardiac signal, comprising:

a heart sensor configured to detect the user's cardiac signal, the heart sensor comprising:

a first lead embedded in a first portion of the electronic device, wherein the first lead is configured to detect a first electrical signal of the user's cardiac signal via the user's contact with at least one of the first lead and the first portion of the electronic device; and

a second lead embedded in a second portion of the electronic device, wherein the second lead is configured to detect a second electrical signal of the user's cardiac signal via the user's contact with at least one of the second lead and the second portion of the electronic device; and

a processor coupled to the heart sensor and configured to process the first and second electrical signals of the user's cardiac signal, wherein:

the first portion of the electronic device comprises an enclosure of the electronic device; and

the second portion of the electronic device comprises a display screen exposed to the user through an opening in the enclosure of the electronic device.

41. (Cancelled)

42. (Currently Amended) The electronic device of claim [[41]] 40, wherein:

the first portion of the electronic device comprises a

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bezel of the enclosure;

the electronic device further comprises a non-conductive component positioned between the bezel and the display screen for electrically isolating the first portion of the electronic device from the second portion of the electronic device.

43. (Cancelled)

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REMARKS

Introduction

Claims 1-23, 37, 38, 41, and 43 have been cancelled without prejudice. Applicants hereby reserve the right to pursue the subject matter of one or more of cancelled claims in one or more continuation applications. Claims 24-28 have been withdrawn without prejudice. Claims 29, 34-36, 39, 40, and 42 have been amended. Claims 30-33 are also currently pending in the above-identified patent application. No new subject matter has been introduced and all amendments are fully supported by the application as originally filed.

Claims 29-36 and 39-43 have been rejected on the ground of nonstatutory double patenting.

Claims 34 and 35 have been rejected under 35 U.S.C. § 112 as allegedly being indefinite.

Claims 29-36, and 40 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Ceballos et al. U.S. Patent No. 6,522,915 (hereinafter "Ceballos").

Claims 39 and 42 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ceballos.

A two-month extension of time in which to respond to the Non-Final Office Action mailed June 19, 2015 is respectfully requested. A Terminal Disclaimer is being filed concurrently herewith. The required fees are being paid by credit card, but the Director is authorized to charge any underpayment or to credit any overpayment to Deposit Account No. 50-6007.

Reconsideration and allowance of this application in light of the following remarks is hereby respectfully requested.

The Double Patenting Rejections

Claims 29-36, 39, 40, and 42 have been rejected on the ground of nonstatutory double patenting as allegedly being

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unpatentable over claims 1-20 of U.S. Patent No. 8,615,290 (hereinafter the "'290 patent").

Solely in order to expedite prosecution and without conceding the patentability of the present claims in view of the '290 patent, applicants submit herewith a Terminal Disclaimer in view of the '290 patent. Accordingly, applicants respectfully submit that the double patenting rejections of claims 29-36, 39, 40, and 42 should be withdrawn and that claims 29-36, 39, 40, and 42, and any claims dependent therefrom, are allowable.

The Rejections Under 35 U.S.C. § 112

Claims 34 and 35 have been rejected under 35 U.S.C. § 112 as allegedly being indefinite. Applicants have amended claims 34 and 35 to obviate these rejections (see, e.g., applicants' specification, paragraphs [0011], [0044], and/or [0047]). Therefore, applicants respectfully request that the rejections of claims 34 and 35 under 35 U.S.C. § 112 be withdrawn.

The Rejections Under 35 U.S.C. § 102(b)

Claims 29-36

Claims 29-36 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Ceballos. These rejections are respectfully traversed.

Applicants' amended independent claim 29 defines an electronic device for detecting a user's cardiac signal, including an enclosure, a heart sensor configured to detect the user's cardiac signal, and a processor coupled to the heart sensor. The heart sensor includes a first lead embedded in a first portion of the enclosure, wherein an exterior surface of the enclosure includes an exterior surface of the first portion, wherein the first lead is positioned underneath the exterior surface of the first portion, and

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wherein the first lead is configured to detect a first electrical signal of the user's cardiac signal via the user's contact with the exterior surface of the first portion of the enclosure. The heart sensor also includes a second lead embedded in a second portion of the enclosure, wherein the second lead is configured to detect a second electrical signal of the user's cardiac signal via the user's contact with at least one of the second lead and the second portion of the enclosure. The processor is configured to receive and process the detected cardiac signal.

For example, "[h]eart sensor 112 can include one or more leads connected to the exterior of the electronic device such that the user may contact one or more of the leads to provide an electrical signal associated with the user's heart to heart sensor 112," and "[t]he cardiac signals detected by the heart sensor leads can be coupled to a processor incorporated in heart sensor 112, or instead provided to processor 102," where "[t]he processor may then analyze the received signals and generate, from the received signals, one or more characteristic quantities of the user's heartbeat or heart rate for authentication" (applicants' specification, paragraph [0033]). The "size and location of the leads can be selected to ensure that sufficient contact is made between the user (e.g., the user's hand or finger) and the leads for cardiac signals to be detected," where "each lead can include a pad or extended area placed on the outer or inner surface of an electronic device bezel or housing" or "an entire portion of the electronic device enclosure (e.g., a portion of a bezel or housing) can serve as a lead for the heart sensor," and the "pad or extended area can then be coupled to a wire or other connector for providing cardiac signals to a processor for processing" (applicants' specification, paragraph [0034]). As a specific example, with respect to applicants' FIG. 4B, an enclosure of electronic device 450

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may include a bezel 460, where, "[i]f the electrical conductivity and size of bezel 460, and the strength or characteristics of the cardiac signal provided by the user and detected by the heart sensor are adapted such that the signal can be transmitted along short distances in bezel 460, lead 472 of the heart sensor can be positioned against the back surface of bezel 460," or "lead 472 can be placed within the thickness of bezel 460 (e.g., in a pocket within the bezel wall), but underneath the outer surface of the bezel," where a "short thickness of bezel 460 can allow electrical signals to propagate from the user to the outer surface of bezel 460, through bezel 460, and into lead 472, which may in turn transmit the signals to a processor using connector 474" (applicants' specification, paragraph [0047]).

Nowhere does Ceballos show or suggest an electronic device with an enclosure and a heart sensor with a first lead embedded in a first portion of the enclosure and a second lead embedded in a second portion of the enclosure, where "an exterior surface of the enclosure comprises an exterior surface of the first portion, wherein the first lead is positioned underneath the exterior surface of the first portion, and wherein the first lead is configured to detect a first electrical signal of the user's cardiac signal via the user's contact with the exterior surface of the first portion of the enclosure," as required by applicants' amended independent claim 29. Instead, Ceballos only describes coil electrodes 61 (and not wiring 53) for detecting electrical signals of a user, and Ceballos only shows each electrode 61 positioned within an opening 50 formed in shroud 48 through an exterior surface of shroud 48. Nowhere does Ceballos show or suggest that electrode 61 is positioned underneath the exterior surface of shroud 48 such that electrode 61 detects an electrical signal of a user's cardiac signal via the user's contact with the exterior surface of shroud 48 underneath which electrode 61 is positioned. Instead, quite to the contrary, opening 50 is provided

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through the exterior surface of shroud 48 for holding and exposing electrode 61. Indeed, shroud 48 is insulative and would be unable to enable passage of an electrical signal therethrough for detection by a heart sensor lead.

For at least these reasons, applicants respectfully submit that applicants' amended independent claim 29 and all claims dependent therefrom, including claims 30-36 and 39, are allowable over Ceballos. Therefore, applicants respectfully request that the rejections of claims 29-36 under 35 U.S.C. § 102(b) with respect to Ceballos be withdrawn.

Claim 40

Claim 40 has been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Ceballos. This rejection is respectfully traversed.

Applicants' amended independent claim 40 defines an electronic device for detecting a user's cardiac signal, including a heart sensor configured to detect the user's cardiac signal and a processor coupled to the heart sensor. The heart sensor includes a first lead embedded in a first portion of the electronic device, wherein the first portion of the electronic device comprises an enclosure of the electronic device, wherein the first lead is configured to detect a first electrical signal of the user's cardiac signal via the user's contact with at least one of the first lead and the first portion of the electronic device. The heart sensor also includes a second lead embedded in a second portion of the electronic device, wherein the second portion of the electronic device comprises a display screen exposed to the user through an opening in the enclosure of the electronic device, wherein the second lead is configured to detect a second electrical signal of the user's cardiac signal via the user's contact with at least one of the second lead

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and the second portion of the electronic device. The processor is configured to process the first and second electrical signals of the user's cardiac signal.

For example, as shown in applicants' FIG. 3, "electronic device 300 can include additional lead 326 embedded in or behind display 302," where "[l]ead 326 can be operative to detect a user's heart activity as the user moves a finger across display 302," and, "[u]sing lead 326, the electronic device can detect an electrical signal from a different portion of the user's body (e.g., leads 322 and 324 detect signals through a first hand, and lead 326 detects signals through the second hand), which can provide the processor with additional information for determining characteristics of the user's cardiac activity" (applicants' specification, paragraph [0043]).

Nowhere does Ceballos show or suggest an electronic device with a heart sensor that includes "a second lead embedded in a second portion of the electronic device, wherein the second portion of the electronic device comprises a display screen exposed to the user through an opening in [an] enclosure of the electronic device, wherein the second lead is configured to detect a second electrical signal of the user's cardiac signal via the user's contact with at least one of the second lead and the second portion of the electronic device," as required by applicants' amended independent claim 40. Instead, Ceballos only describes coil electrodes 61 (and not wiring 53) for detecting electrical signals of a user, and Ceballos only shows each electrode 61 positioned within an opening 50 formed in shroud 48 through an exterior surface of shroud 48. Nowhere does Ceballos show or suggest any display screen exposed through an opening in shroud 48. Indeed, shroud 48 is only useful when positioned within a patient's body, thereby teaching away from any need to provide a display screen on shroud 48.

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For at least these reasons, applicants respectfully submit that applicants' amended independent claim 40 and all claims dependent therefrom, including claim 42, are allowable over Ceballos. Therefore, applicants respectfully request that the rejection of claim 40 under 35 U.S.C. § 102(b) with respect to Ceballos be withdrawn.

The Rejections Under 35 U.S.C. § 103(a)

Claim 39

Claim 39 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ceballos. Applicants respectfully submit that claim 39, which depends from applicants' amended independent claim 29, is allowable over Ceballos for at least some of the same reasons as applicants' amended independent claim 39 is allowable over Ceballos. Therefore, applicants respectfully request that the rejection of claim 39 under 35 U.S.C. § 103(a) with respect to Ceballos be withdrawn be withdrawn.

Claim 41

Claim 41 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ceballos. Applicants respectfully submit that claim 41, which depends from applicants' amended independent claim 40, is allowable over Ceballos for at least some of the same reasons as applicants' amended independent claim 40 is allowable over Ceballos. Therefore, applicants respectfully request that the rejection of claim 41 under 35 U.S.C. § 103(a) with respect to Ceballos be withdrawn be withdrawn.

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Conclusion

In view of the foregoing, applicants respectfully submit that claims 29-36 and 39, 40, and 42 are allowable. This application is therefore in condition for allowance. Reconsideration and prompt allowance of this application are respectfully requested.

Respectfully submitted,

Date: November 17, 2015

/Jeffrey C. Aldridge/

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/136,658	12/20/2013	Gloria Lin	P7276USC1	2657

111349 7590 06/19/2015

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EXAMINER
ALTER MORSCHAUSER, ALYSSA MARGO

ART UNIT	PAPER NUMBER
3762	

NOTIFICATION DATE	DELIVERY MODE
06/19/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@vcaiplaw.com
jaldridge@vcaiplaw.com
avancourt@vcaiplaw.com

Office Action Summary	Application No. 14/136,658	Applicant(s) LIN ET AL.	
	Examiner Alyssa M. Alter	Art Unit 3762	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2015*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *24-43* is/are pending in the application.

5a) Of the above claim(s) *24-28* is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *29-43* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *20 December 2013* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

4) ☐ Other: _____.

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DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Election/Restrictions

2. Claims 24-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 17, 2015.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory

double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit http://www.uspto.gov/forms/. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

4. Claims 29-43 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 8615290. Although the claims at issue are not identical, they are not patentably distinct from each other because both recite an enclosure or housing, a heart sensor, a first lead embedded in a first portion of the device enclosure and a second lead embedded in a second portion of the device enclosure and a processor.

Claim Rejections - 35 USC § 112

5. The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 34-35 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

7. As to claim 34, it is unclear how the "second conductivity" is such that the signal cannot is not transmitted over a distance larger than the thickness of the second portion. The examiner requests clarification how the thickness of the second portion impacts the conductivity and how to quantify such conductivity characteristics.

Claim Rejections - 35 USC § 102

8. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

9. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 29-38, 40 and 43 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Ceballos et al. (US 6,522,915 B1).

11. As to claims 29, 40 and 43, Ceballos et al. discloses a subcutaneous electrode array (SEA) around the perimeter of an implantable medical device. The SEA electrodes are positioned in a non-conductive shroud (see figure 6).

12. The examiner considers the surround shroud with the recessed cups (depicted as 49a in figure 6) to be the enclosure. As additionally seen in figure 6, an electrode (coiled electrode depicted as 61) is positioned within the enclosure. An electrode is positioned within the bezel on the housing. The electrode functions as a heart sensor to detect cardiac depolarizations (col. 10, lines 5-13).

13. Additionally Ceballos et al. discloses "there are four recessed openings 50. A cup 49a with a contact plate 49b is fitted into each recessed opening. Into each of recessed openings 50 is placed an electrode such as a helical electrode (see FIG. 9 for details) that, in conjunction with other paired electrodes detect cardiac depolarizations. These electrical signals are passed to contact plate 49b that is electrically connected to hybrid circuitry 42 via insulated wires running on the inner portion of surround shroud 48 (see FIG. 5 for details)" (col. 10, lines 5-13). Thus the electrodes or heart sensor(s) include a lead (tubular wiring depicted as 53 in figure 6) that runs through the channels 62 formed in the inner surface of the housing (surround shroud). The sensors, through the wiring, connect to the hybrid circuitry (depicted as 42 in figure 4) and thus connect to a processor for receiving the signals (col. 10, lines 16-19).

14. Furthermore, since there are a plurality of electrodes and recessed openings (four depicted in figure 4) located in the housing (surround shroud) the examiner considers the housing to have a first section (one of the recessed openings) and a

second section (an additional recessed opening). As seen in figure 6, for example, the portion of the housing with the recessed opening depicted as 60 is considered to the first section (with a first associated lead, i.e. tubular wiring 53) while the second recessed opening depicted as the coil electrode 61 in figure 6 (with a second associated lead, i.e. tubular wiring 53) is considered to be the second section.

15. As to claim 30, as depicted in figure 6, for example, the first portion and second portion are located on opposite sides of the electronic device.

16. As to claim 31, since the housing (surround shroud) is non-conducting the first section with the first recessed opening is electrically isolated from the second section with the second recessed opening.

17. As to claim 32, as additionally depicted in figure 6, there is a third recessed opening depicted between the first and second portions. The examiner considers the third recessed opening to be the third portion. Additionally, since the surround shroud or housing, is constructed from non-conducting material, the third portion of the housing in constructed from a material having a first conductivity that is insufficient to transmit the first electrical signals via the first lead to the second lead.

18. As to claim 34, as best understood in light of the 112 rejections above, the thickness of the second portion of the housing is constructed from a non-conductive material and thus a material having a second conductivity such that a second electrical signal is not transmitted over the distance larger than a thickness of the second portion (i.e. the signal is not transmitted through the second portion since it is non-conductive).

19. As to claim 35, as depicted in figure 6, the first lead and second lead are positioned apart from one another at a distance larger than the thickness of the second portion.

20. As to claim 36, the electrodes or sensors positioned in the housing are associated with leads (tubular wiring). The tubular wiring is retained in the channels formed in the surround shroud. The examiner considers the channels that retain the lead to be the "pockets".

21. As to claims 37-38, as seen in figure 6, for example, the exterior surface of the enclosure comprises an exterior surface of the first portion that disposes the lead underneath the exterior surface.

Claim Rejections - 35 USC § 103

22. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

23. This application currently names joint inventors. In considering patentability of the claims under pre-AIA 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of pre-AIA 35 U.S.C. 103(c) and potential pre-AIA 35 U.S.C. 102(e), (f) or (g) prior art under pre-AIA 35 U.S.C. 103(a).

24. Claims 39 and 41-42 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Ceballos et al. (US 6,522,915 B1). Ceballos et al. discloses a display (depicted as 64 in figure 2) but does not explicitly disclose the display is located on the

electronic device. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the location of the screen or electronic components in order to provide the predictable results to modify treatment to meet specific patient needs and requirements, especially ensuring sufficient communication to the patient and/or clinician.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alyssa M. Alter whose telephone number is (571)272-4939. The examiner can normally be reached on M-F 7am to 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Niketa Patel can be reached on (571) 272-4156. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alyssa M Alter/
Primary Examiner
Art Unit 3762

Notice of References Cited	Application/Control No. 14/136,658	Applicant(s)/Patent Under Reexamination LIN ET AL.	
	Examiner Alyssa M. Alter	Art Unit 3762	Page 1 of 1

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*	A	US-6,522,915	02-2003	Ceballos et al.	600/509
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
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	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

AliveCor Exhibit 1002
AliveCor, Inc. v. Apple Inc.
IPR2024-00169, U.S. Patent No. 10,076,257
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Gloria Lin
Art Unit	
Examiner Name	
Attorney Docket Number	P7276USC1

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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	Application Number	
	Filing Date	
	First Named Inventor	Gloria Lin
	Art Unit	
	Examiner Name	
	Attorney Docket Number	P7276USC1

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EXAMINER SIGNATURE

Examiner Signature	/Alyssa Alter/	Date Considered	06/15/2015

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Gloria Lin
	Art Unit	
	Examiner Name	
	Attorney Docket Number	P7276USC1

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1789	(A61B5/02438).cpc.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/06/15 12:54
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S21	95	(phone) same (cardiac or heart) same electrodes	US-PGPUB; USPAT	AND	OFF	2011/08/31 17:31
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AliveCor Exhibit 1002
AliveCor, Inc. v. Apple Inc.
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			USOCR			
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S48	56	(hand or fingers or finger) with cardiac with (electrodes or electrode) with (lead or leads)	US-PGPUB; USPAT	AND	OFF	2012/07/05 17:07
S49	16	(US-20100113950-$ or US-20060100533-$ or US-20070270909-$ or US-20050239493-$ or US-20040034645-$ or US-20020042634-$ or US-20020091418-$ or US-20060167502-$ or US-20020143576-$ or US-20080221930-$).did. or (US-6485416-$ or US-6546232-$ or US-7433718-$ or US-7065407-$ or US-5871515-$ or US-6522915-$).did.	US-PGPUB; USPAT	AND	ON	2012/07/05 17:12
S50	1	("4592372").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/11/08 18:04
S51	47	("3568660" | "3664347" | "3769984" | "3825015" | "3942536" | "3995623" | "4280511" | "4412531" | "4437474" | "4458695").PN. OR ("4592372").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2012/11/08 18:05
S52	2604	(600/509).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/11/08 18:36
S53	576	S52 and lead and housing and external	US-PGPUB; USPAT; USOCR	AND	ON	2012/11/08 18:36
S54	42	("4108166" | "4120294" | "4635646" | "4791933" | "4809705" | "4825874" | "4889134" | "5003984" | "5300093" | "5304209" | "5336245" | "5343869" | "5383912" | "5417222" | "5577510" | "5620472" | "5623926" | "5682902" | "5738104").PN. OR ("6149602").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2012/11/08 18:39
S55	14	("3989038" | "4130022" | "4606352" | "5022410").PN. OR ("5623926").URPN.	US-PGPUB; USPAT; USOCR	AND	ON	2012/11/08 18:56
S56	4	("20060026521" | "20060026535" | "20080076972" | "20100011388").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2013/01/14 18:34
S57	774	(607/36).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/08/09 15:16
S58	2840	(600/509).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/08/09 15:17
S59	643	(340/5.82).CCLS.	US-PGPUB;	OR	OFF	2013/08/09 15:17

			USPAT; USOCR			
S63	2	(12/358905).APP.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/06/15 10:56

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S60	0	(607/36).CCLS.	UPAD	OR	OFF	2013/08/09 15:16
S61	5	(600/509).CCLS.	UPAD	OR	OFF	2013/08/09 15:17
S62	3	(340/5.82).CCLS.	UPAD	OR	OFF	2013/08/09 15:17

6/15/2015 1:00:24 PM
C:\Users\aalter\Documents\EAST\Workspaces\14136658.wsp