

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the Application of:

Auris Tranquila ✓

Application No.: 17/000,000

Filed: March 29, 2024

For: METHOD AND SYSTEM FOR  
REAL-TIME HEART RATE  
MONITORING AND DUAL  
CHANNEL COMPOSITE  
AUDIO FILE CREATION

Examiner: Daniel Nile

Group Art Unit: 3667 ✓

Attorney Docket No.: 1025

Confirmation No.: 1234

**AMENDMENT**

(A)

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450 ✓

Dear Examiner Nile:

This Amendment is in response to the Office Action mailed April 19, 2024. This Amendment is timely because it is being submitted within the period for reply which expires July 19, 2024. Please enter and consider the following: ✓

*Non-Compliant - Omitted listing of claims 1-16  
- No good reduction*

*- Mentions Examiner Interview*

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application. Claims 17 and 22 are amended. Claims 23 to 30 are cancelled. No amendments are made to claims 18 to 21.

Usually just put this in the Remarks

**LISTING OF CLAIMS**

Claims 23-30 (Cancelled)

- Non-compliant - did not list status of class 1-16

17. (Currently Amended) A system comprising:

a user interface to receive numeric data;

a heartbeat-sensing electronic device detecting a heartbeat signal and determining digital heartbeat data based on said heartbeat signal;

a data storage unit wherein said data storage unit stores at least one alert file including audio data, and at least one HRV threshold data representing a customizable HRV threshold value wherein said HRV threshold value is a numeric value received from said user interface;

a processing unit in electronic data communication with said user interface, said data storage unit and said heartbeat-sensing electronic device wherein said processing unit receives ~~said current~~ digital heartbeat data from said heartbeat-sensing electronic device, determines current HRV data representing a current HRV value that is based on said current digital heartbeat data, and when said current HRV

Must be in order - put last.

~~data representing said current HRV~~ value is less than said HRV threshold ~~data representing said customizable HRV threshold~~ value, transmits an audio signal based on ~~determined by said audio data present in~~ said at least one alert file ~~including audio data~~ to at least one audio output component; and ~~said~~ at least one audio output component in electronic data communication with said processing unit wherein said at least one audio output component outputs ~~emits~~ said audio signal ~~determined by said audio data present in said at least one alert file including audio data.~~

18. (Previously Presented) The system of claim 17 wherein said processing unit is present in a handheld communication and computing device with telephony features like a smartphone.

19. (Previously Presented) The system of claim 17 wherein said processing unit is present in a portable computing device with a large touchscreen display like an iPad.

20. (Previously Presented) The system of claim 17 wherein said heartbeat sensing electronic device is a wearable device like a headphone.

21. (Previously Presented) The system of claim 17 wherein said heartbeat sensing electronic device is a wearable device with timekeeping capabilities like a smartwatch.

22. (Currently amended) The system of claim 17 wherein said ~~customizable~~ HRV threshold value is based on age.

CLAIMS 23-30 (Cancelled)

Application No. 17/000,000  
Attorney Docket No. 1025

**REMARKS**

The Applicant thanks Examiner Nile for his time and effort in preparing the Final Office Action dated April 19, 2024, and for the telephonic interview of April 19, 2024.

The present application includes claims 17-30. Claims 17-30 were rejected. By this Amendment, claims 23-30 have been cancelled, and claims 17 and 22 have been amended. *and no new claims have been added*

Claims 17-30 were rejected under 35 U.S.C. §112(b) as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor regards as the invention.

Claims 24-30 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Claims 24-30 were rejected under 35 U.S.C. §102(a)(2) as being anticipated by Poltorak, U.S. Pat. App. Pub. No. 2024/0066262.

Claims 17-23 were rejected under 35 U.S.C. §102(a)(1) as being anticipated by Po, U.S. Pat. App. Pub. No. 2020/0324105.

*Yes!  
good job  
maintaining  
Examiner  
Euler*

*However, you could make better use of it by mentioning that the limitations of "a numeric value" was already known to the inventor and prior art. This claim is cancelled.*

Application No. 17/000,000  
Attorney Docket No. 1025

The Applicant now turns to the rejection of claims 17-30 under 35 U.S.C. §112(b) as being indefinite. Claims 23-30 are cancelled. *leaving claim 17 as the only independent claim.*  
Claim 17 was rejected under 35 U.S.C. 112(b) for the following reasons:

- “customizable” was found to be a vague term
- “determined” was found to be a vague term
- “present in” was found to be a vague term
- “emits” was found to be a vague term

Claims 17 and 22 are amended to rectify all these indefinite limitations based on the comments and suggestions obtained during the Examiner interview on April 19, 2024. Claim 17 has been amended to remove all recitations of the words "customizable", "determined", "present in" and "emits". "Customizable" has been replaced with details on how HRV threshold is customizable. Claim 17 now includes a "user interface" where inputs for HRV threshold customization are received. Claim 17 is amended to replace "customizable" and the limitation on how HRV threshold is customizable is added. Claim 17 now reads "an HRV threshold value wherein said HRV threshold value is a numeric value received from said user interface".

Similarly, "determined" is changed to "based on". The amended claim 17 language, "based on said at least one alert file" seemed to be acceptable to the Examiner during the Examiner interview.

Similarly, "emits" is changed to "outputs" and the phrase containing the word "present in" has been removed from claim 17.

Application No. 17/000,000  
Attorney Docket No. 1025

Similarly, claim 22 was rejected under 35 U.S.C. 112(b) because “customizable” was found to be indefinite. Claim 22 is amended to remove the word “customizable”.

Consequently, claim 17 and claim 22 are respectfully submitted to be definite and allowable.

The Applicant now turns to the rejection of claims 24-30 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 24-30 are cancelled. Consequently, the present rejection is respectfully submitted to be moot.

The Applicant now turns to the rejection of claims 24-30 under 35 U.S.C. 102(a)(2) as being anticipated by Poltorak, U.S. Pat. App. Pub. No. 2024/0066262. Claims 24-30 are cancelled. Consequently, the present rejection is respectfully submitted to be moot.

17-23 ?  
The Applicant now turns to the rejection of claims 24-30 under 35 U.S.C. §102(a)(1) as being anticipated by Po, U.S. Pat. App. Pub. No. 2020/0324105. Po teaches methods and systems for addressing disorders and complications related to dysfunction in the autonomic nervous system. The approach involves measuring heart rate signals to assess heart rate variability, identifying autonomic nervous system dysfunction in the subject, and notifying the subject to stimulate the auricular branch of the vagus nerve using an ear device. Specifically in paragraph 9, Po teaches headphones including sensor

Mention internet position language again here

sensing heartbeat data, determining an HRV value and comparing the HRV value to a predetermined stored HRV value. In paragraph 81, Po teaches that when HRV threshold is breached, the system sends an alert to the person-including an audible alert such as an alarm or sound and a visible alert such as a screen notification.

Po provides instruction on HRV threshold calculation, where the threshold is determined by monitoring an individual's HRV over a period ranging from 1 hour to several months until an episode of autonomic nervous system dysfunction occurs, such as atrial fibrillation. Subsequently, a specific HRV value is automatically selected as the threshold based on HRV values just preceding the episode, typically within a timeframe of 10 seconds to 30 minutes. However, Po does not teach a user interface that can be used to change the HRV thresholds. In Po, HRV threshold is selected automatically and does not give the user the power to change the HRV threshold. In contrast, claim 17 recites a user interface which can receive a numeric input, using which the user can change the HRV threshold (Figure 6 and paragraph 00253). Moreover, Po does not teach HRV threshold selected based on user's age. In contrast, claim 22 specifically recites a HRV threshold selected based on user's age (paragraph 00252). Consequently, claim 17 is respectfully submitted to be free of Po and therefore allowable, as are their respective dependent claims 18-22. Claim 23 is cancelled.

Application No. 17/000,000  
Attorney Docket No. 1025

**CONCLUSION**

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below. ✓

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of 1025, Account No. 8888.

Respectfully submitted,

*Better To  
Spell out* ✓  
Date: 4/26/2024

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/1025/

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