

CLAIMS

What is claimed is,

1. An acoustic device, comprising:
an Ambient Sound Microphone (ASM) configured to capture ambient sound;
at least one Ear Canal Receiver (ECR) configured to deliver audio to an ear canal;
and
a processor operatively coupled to the ASM, where the processor monitors the ambient sound for a target sound.
2. The acoustic device of claim 1, where the acoustic device is earpiece, wherein the processor detects sound signatures in the ambient sound and adjusts the audio delivered to the ear canal based on detected sound signatures.
3. The acoustic device of claim 1, where the acoustic device is an earpiece, wherein the target sound is at least one among an alarm, a horn, and a noise.
4. The acoustic device of claim 1, where the acoustic device is an earpiece, wherein the processor monitors the ambient sound for spoken words associated with verbal warnings.
5. The acoustic device of claim 1, where the acoustic device is an earpiece, further comprising a memory to store, responsive to a directive by a user of the device, at least one target sound captured by the ASM for learning.
6. The acoustic device of claim 1, where the acoustic device is an earpiece, further comprising an audio interface operatively coupled to the processor configured to receive audio content from a media player or cell phone,
wherein the processor selectively adjusts a volume of the audio content delivered to the ear canal when the target sound is detected.

7. A method for personalized listening, the method comprising:
 - capturing ambient sound with an Ambient Sound Microphone (ASM) ;
 - monitoring the ambient sound for a target sound; and
 - adjusting by way of an Ear Canal Receiver (ECR) in the earpiece a delivery of audio to an ear canal based on a detected target sound.
8. The method of claim 7, further comprising: passing the target sound to the ECR for delivery to the ear canal.
9. The method of claim 7, further comprising: amplifying the target sound for delivery to the ear canal.
10. The method of claim 7, further comprising: attenuating the target sound for delivery to the ear canal.
11. The method of claim 7, further comprising: generating an audible message for delivery to the ear canal.
12. A method for personalized listening, the method comprising:
 - capturing ambient sound with an Ambient Sound Microphone (ASM);
 - detecting a sound signature within the ambient sound that is associated with a target sound; and
 - mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound.
13. The method of claim 12, further comprising: detecting and reporting from the sound signature a direction or a speed of a sound source generating the target sound.

14. The method of claim 12, further comprising: detecting and reporting from the sound signature a spoken utterance in the ambient sound associated with verbal warnings.
15. The method of claim 12, further comprising: identifying the target sound from the sound signatures and transmitting a warning notification to other devices.
16. The method of claim 12, wherein the target sound is at least one among an alarm, a horn, a voice, and a noise.
17. A method for sound signature detection, the method comprising:
capturing ambient sound with an Ambient Sound Microphone (ASM); and
receiving a directive to learn a sound signature within the ambient sound.
18. The method of claim 17, further comprising: saving the sound signature locally on the earpiece or remotely to a server.
19. The method of claim 17, further comprising: receiving a voice command or user interaction to initiate the step of capturing and learning.
20. A method for personalized listening, the method comprising:
capturing ambient sound via an earpiece that is at least partially occluded in an ear canal;
detecting a sound signature within the ambient sound that is associated with a target sound; and
mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound and a personalized hearing level (PHL).
21. The method of claim 20, further comprising: retrieving learned models from a database, comparing the sound signature to the learned models, and identifying the target sound from the learned models in view of the comparison.

22. The method of claim 20, further comprising: enhancing auditory queues in the target sound relative to the audio content based on a spectrum of the ambient sound captured at the ASM.

23. A sound detection device comprising:

an ambient sound microphone configured to measure an ambient sound; and
a processor configured to compare the ambient sound to at least one target sound signature, and where the processor identifies an onset of an identified target sound signature in the ambient sound.

24. The sound detection device according to claim 23, further comprising:

an ear canal microphone, where the ear canal microphone is configured to emit an auditory warning when the processor identifies the onset.

25. The sound detection device according to claim 24, where the ear canal microphone is operatively connected to an earpiece.

ABSTRACT

At least one exemplary embodiment is directed to a method for personalized listening which can be used with an earpiece is provided that can include capturing ambient sound from an Ambient Sound Microphone (ASM) of an earpiece partially or fully occluded in an ear canal, monitoring the ambient sound for a target sound, and adjusting by way of an Ear Canal Receiver (ECR) in the earpiece a delivery of audio to an ear canal based on a detected target sound. A volume of audio content can be adjusted upon the detection of a target sound, and an audible notification can be presented to provide a warning.

FIG. 1

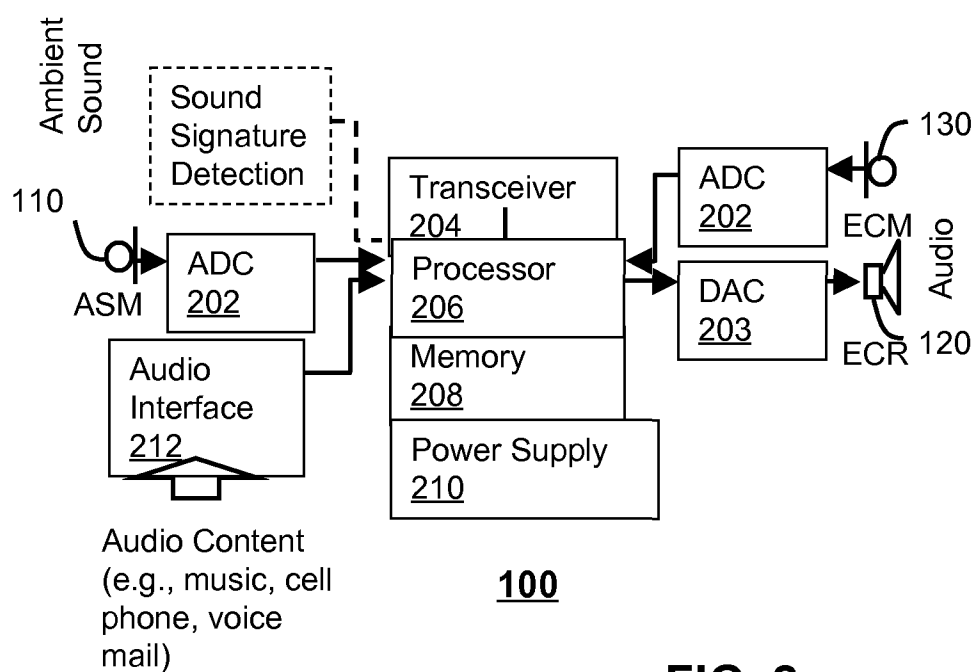
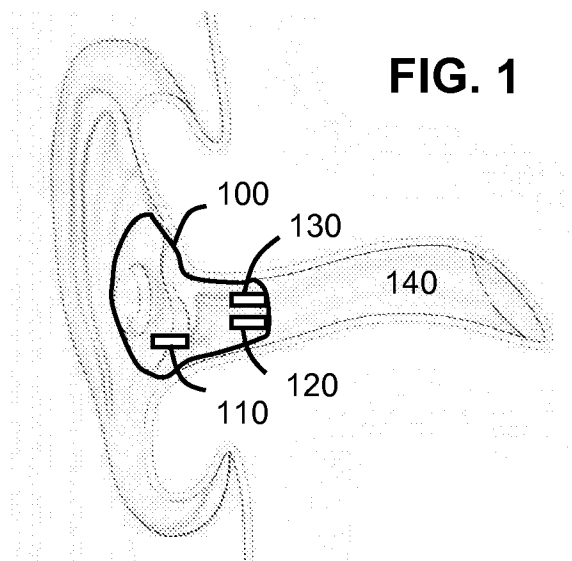
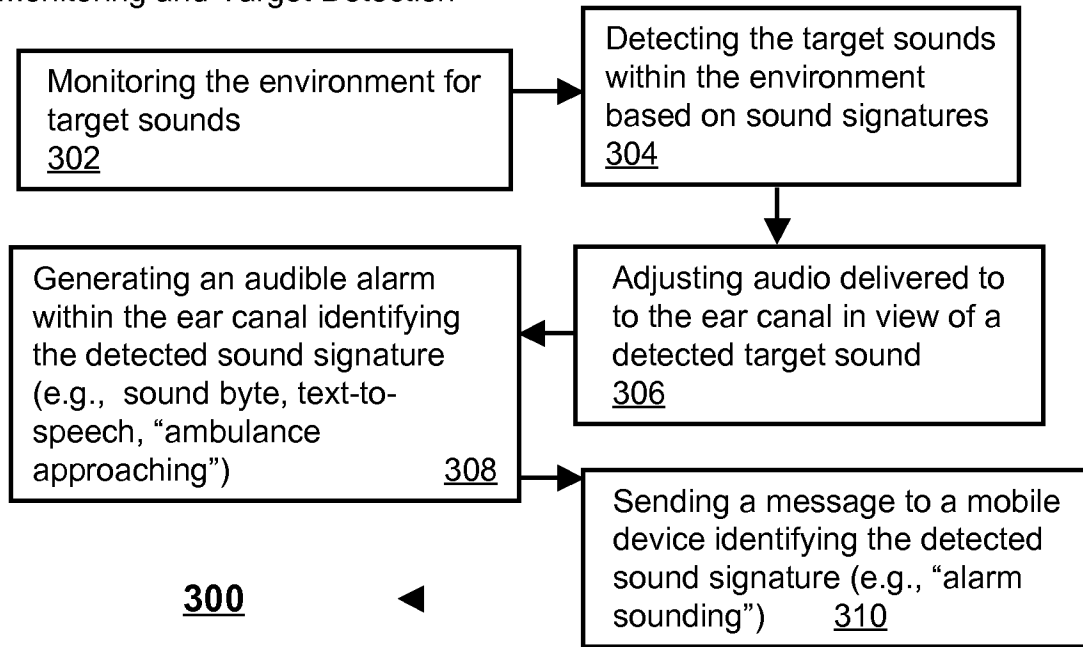
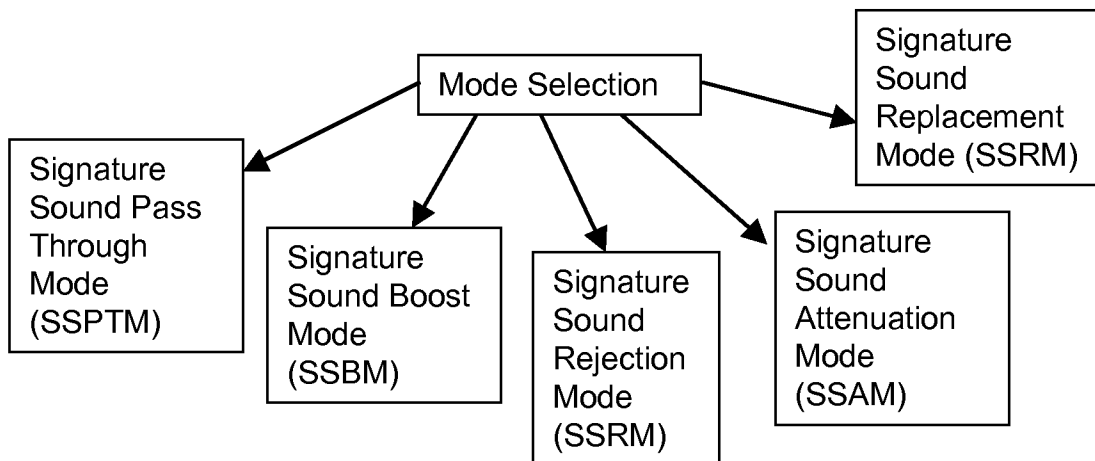


FIG. 2

Monitoring and Target Detection



300
FIG. 3



400
FIG. 4

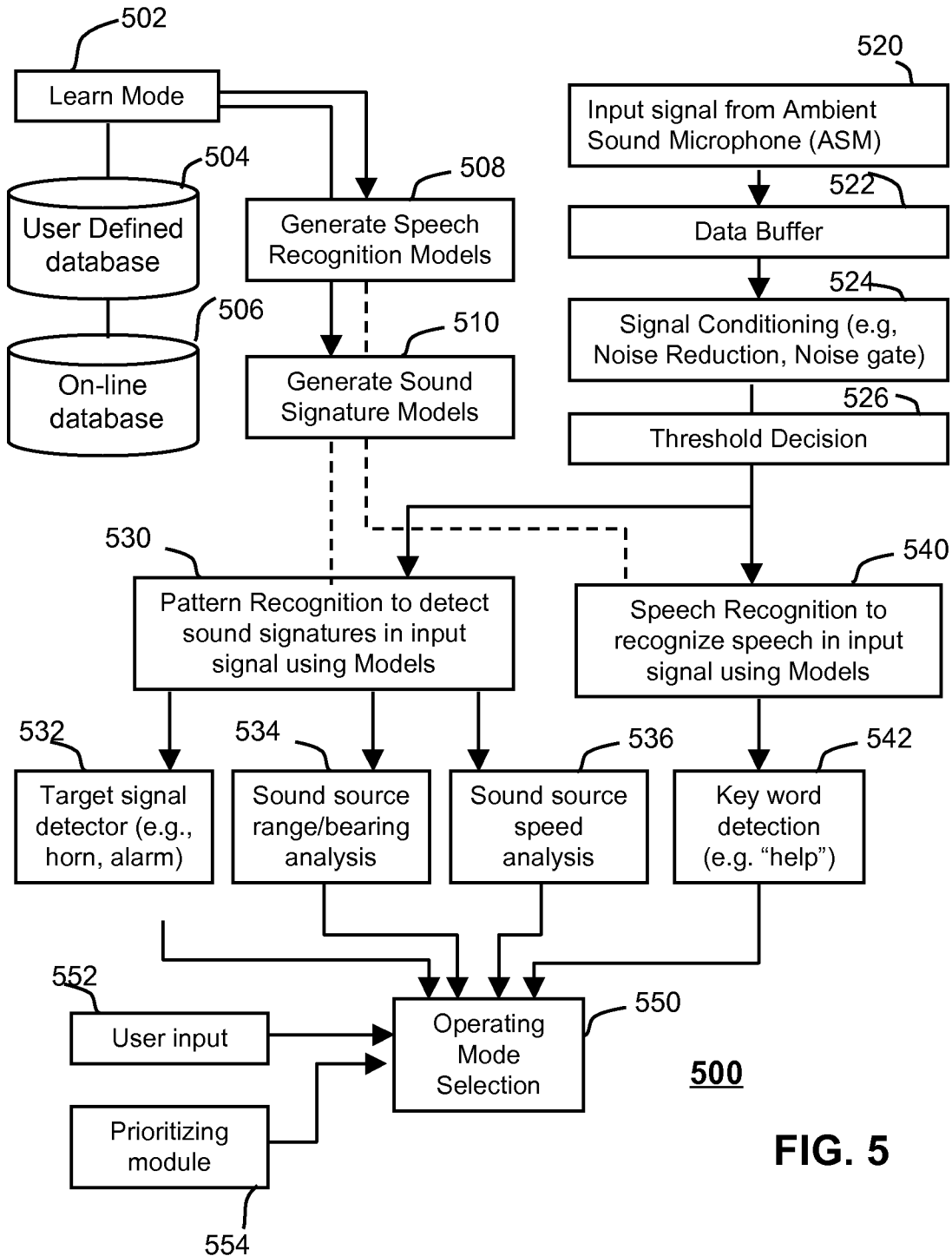
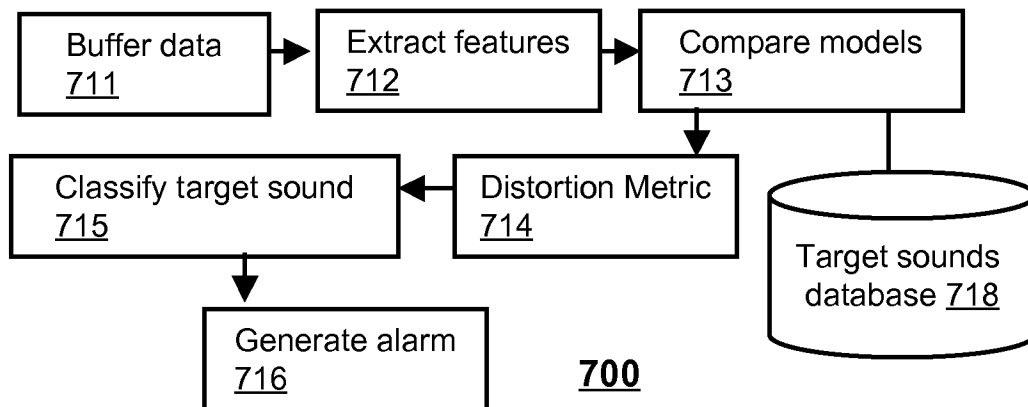
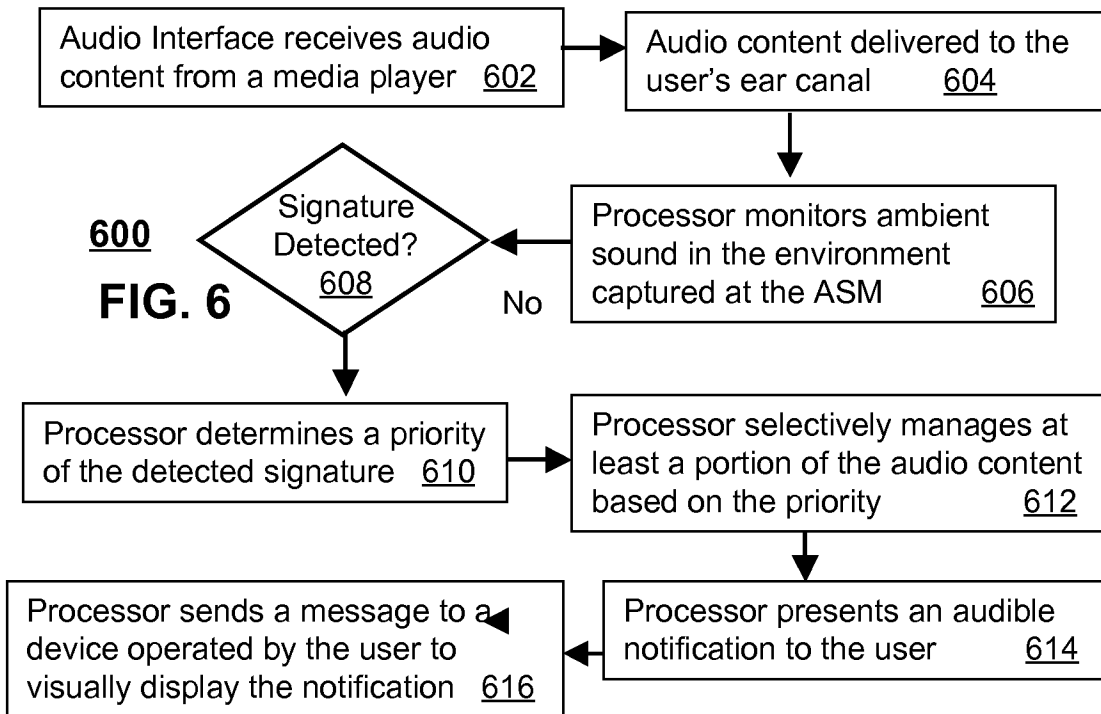
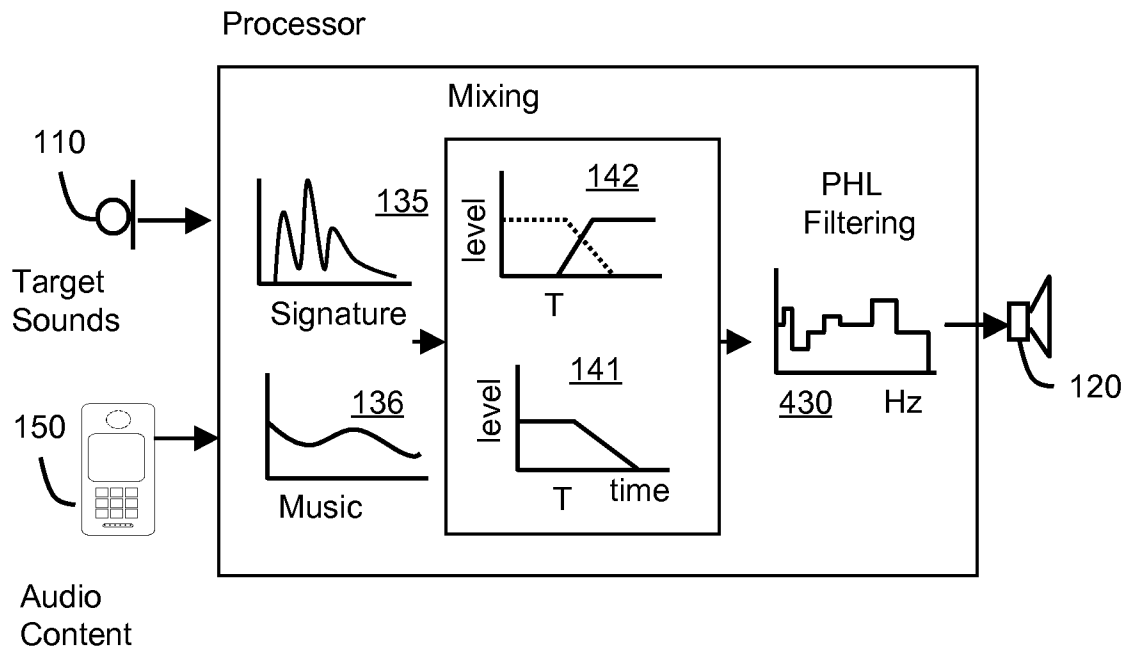


FIG. 5

Managing Audio Delivery





800
FIG. 8

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	PERS-0012-US
		Application Number	
Title of Invention	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

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	Marc	Andre		Boillot			
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number		PERS-0012-US	
		Application Number			
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Title of the Invention	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION		
Attorney Docket Number	PERS-0012-US	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	5	Suggested Figure for Publication (if any)	4

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☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	PERS-0012-US
		Application Number	
Title of Invention	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION		
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Domestic Priority Information:

This section allows for the applicant to claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c). Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
60883013	Continuation of	60883013	2006-12-31
Additional Domestic Priority Data may be generated within this form by selecting the Add button.			Add

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Application Number	Country ⁱ	Parent Filing Date (YYYY-MM-DD)
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number		PERS-0012-US	
		Application Number			
Title of Invention		METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION			
Signature		/Richard E. Kurtz/Reg. #33,936		Date (YYYY-MM-DD)	2007-12-28
First Name	Richard	Last Name	Kurtz	Registration Number	33936

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION FOR U.S. UTILITY PATENT

Title:

METHOD AND DEVICE

CONFIGURED FOR SOUND SIGNATURE DETECTION

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Citizenship: U.S.

Citizenship: U.S.

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METHOD AND DEVICE

CONFIGURED FOR SOUND SIGNATURE DETECTION

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This Application is a Non-Provisional and claims the priority benefit of Provisional Application No. 60/883,013 filed on December 31, 2006, the entire disclosure of which is incorporated herein by reference.

FIELD

[0002] The present invention relates to a device that monitors target (e.g. warning) sounds, and more particularly, though not exclusively, to an earpiece and method of operating an earpiece that detects target sounds.

BACKGROUND

[0003] Excess noise exposure can generate auditory fatigue, possibly comprising a person's listening abilities. On a daily basis, people are exposed to various environmental sounds and noises within their environment, such as the sounds from traffic, construction, and industry. Some of the sounds in the environment may correspond to warnings, such as those associated with an alarm or siren. A person that can hear the warning sounds can generally react in time to avoid danger. In contrast, a person that cannot adequately hear the warning sounds, or whose hearing faculties have been compromised due to auditory fatigue, may be susceptible to danger.

[0004] Environmental noise can mask warning sounds and impair a person's judgment. Moreover, when people wear headphones to listen to music, or engage in a call using a telephone, they can effectively impair their auditory judgment and their ability to discriminate between sounds. With such devices, the person is immersed in the audio experience and generally less likely to hear target sounds within their environment. In some cases, the user may even turn up the volume to hear their personal audio over environmental noises. This can put the user in a compromising situation since they may not be aware of target sounds in their environment. It also

puts them at high sound exposure risk, which can potentially cause long term hearing damage.

[0005] A need therefore exists for enhancing the user's ability to hear target sounds in their environment without compromising his hearing.

SUMMARY

[0006] At least one exemplary embodiment is directed to a method and device for sound signature detection.

[0007] In at least one exemplary embodiment, an earpiece, can include an Ambient Sound Microphone (ASM) configured to capture ambient sound, at least one Ear Canal Receiver (ECR) configured to deliver audio to an ear canal, and a processor operatively coupled to the ASM and the at least one ECR to monitor target sounds in the ambient sound. Target (e.g., warning) sounds can be amplified, attenuated, or reproduced and reported to the user by way of the ECR. As an example, the target (e.g., warning) sound can be an alarm, a horn, a voice, or a noise. The processor can detect sound signatures in the ambient sound to identify the target (e.g., warning) sounds and adjust the audio delivered to the ear canal based on detected sound signatures.

[0008] In a second exemplary embodiment, a method for personalized listening suitable for use with an earpiece is provided. The method can include capturing ambient sound from an Ambient Sound Microphone (ASM) of an earpiece that is partially or fully occluded in an ear canal, monitoring the ambient sound for a target sound, and adjusting by way of an Ear Canal Receiver (ECR) in the earpiece a delivery of audio to an ear canal based on a detected target sound. The method can include passing, amplifying, attenuating, or reproducing the target sound for delivery to the ear canal.

[0009] In a third exemplary embodiment a method for personalized listening suitable for use with an earpiece can include the steps of capturing ambient sound from an Ambient Sound Microphone (ASM) of an earpiece that is partially or fully occluded in an ear canal, detecting a sound signature within the ambient sound that is associated with a target sound, and mixing the target sound with audio content delivered to the

earpiece in accordance with a priority of the target sound. A direction and speed of a sound source generating the target sound can be determined, and presented as a notification to a user of the earpiece. The method can include detecting a spoken utterance in the ambient sound that corresponds to a verbal warning or help request.

[0010] In a fourth exemplary embodiment a method for sound signature detection can include capturing ambient sound from an Ambient Sound Microphone (ASM) of an earpiece, and receiving a directive to learn a sound signature within the ambient sound. The method can include receiving a voice command or detecting a user interaction with the earpiece to initiate the step of capturing and learning. A sound signature can be generated for a target sound in the environment and saved to a memory locally on the earpiece or remotely on a server.

[0011] In a fifth exemplary embodiment a method for personalized listening can include capturing ambient sound from an Ambient Sound Microphone (ASM) of an earpiece that is partially or fully occluded in an ear canal, detecting a sound signature within the ambient sound that is associated with a target sound, and mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound and a personalized hearing level (PHL). The method can include retrieving from a database learned models, comparing the sound signature to the learned models, and identifying the target sound from the learned models in view of the comparison. Auditory queues in the target sound can be enhanced relative to the audio content based on a spectrum of the ambient sound captured at the ASM. A perceived direction of a sound source generating the target sounds can be spatialized using Head Related Transfer Functions (HRTFs).

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a pictorial diagram of an earpiece in accordance with an exemplary embodiment;

[0013] FIG. 2 is a block diagram of the earpiece in accordance with an exemplary embodiment;

[0014] FIG. 3 is a flowchart of a method for ambient sound monitoring and target detection in accordance with an exemplary embodiment;

[0015] FIG. 4 illustrates earpiece modes in accordance with an exemplary embodiment;

[0016] FIG. 5 illustrates a flowchart of a method for sound signature detection in accordance with an exemplary embodiment;

[0017] FIG. 6 is a flowchart of a method for managing audio delivery based on detected sound signatures in accordance with an exemplary embodiment;

[0018] FIG. 7 is a flowchart for sound signature detection in accordance with an exemplary embodiment; and

[0019] FIG. 8 is a pictorial diagram for mixing ambient sounds and target sounds with audio content in accordance with an exemplary embodiment.

DETAILED DESCRIPTION

[0020] The following description of at least one exemplary embodiment is merely illustrative in nature and is in no way intended to limit the invention, its application, or uses.

[0021] Processes, techniques, apparatus, and materials as known by one of ordinary skill in the relevant art may not be discussed in detail but are intended to be part of the enabling description where appropriate, for example the fabrication and use of transducers. Additionally in at least one exemplary embodiment the sampling rate of the transducers can be varied to pick up pulses of sound, for example less than 50 milliseconds.

[0022] In all of the examples illustrated and discussed herein, any specific values, for example the sound pressure level change, should be interpreted to be illustrative only and non-limiting. Thus, other examples of the exemplary embodiments could have different values.

[0023] Note that similar reference numerals and letters refer to similar items in the following figures, and thus once an item is defined in one figure, it may not be discussed for following figures.

[0024] Note that herein when referring to correcting or preventing an error or damage (*e.g.*, hearing damage), a reduction of the damage or error and/or a correction of the damage or error are intended.

[0025] At least one exemplary embodiment of the invention is directed to an earpiece for ambient sound monitoring and target detection. Reference is made to **FIG. 1** in which an earpiece device, generally indicated as earpiece 100, is constructed in accordance with at least one exemplary embodiment of the invention. Earpiece 100 includes an Ambient Sound Microphone (ASM) 110 to capture ambient sound, an Ear Canal Receiver (ECR) 120 to deliver audio to an ear canal 140, and an ear canal microphone (ECM) 130 to assess a sound exposure level within the ear canal. The earpiece 100 can partially or fully occlude the ear canal 140 to provide various degrees of acoustic isolation.

[0026] The earpiece 100 can actively monitor a sound pressure level both inside and outside an ear canal and enhance spatial and timbral sound quality to ensure safe reproduction levels. The earpiece 100 in various exemplary embodiments can provide listening tests, filter sounds in the environment, monitor target sounds in the environment, present notifications based on identified target sounds, adjust audio content levels with respect to ambient sound levels, and filter sound in accordance with a Personalized Hearing Level (PHL). The earpiece 100 is suitable for use with users having healthy or abnormal auditory functioning. The earpiece 100 can be an in the ear earpiece, behind the ear earpiece, receiver in the ear, open-fit device, or any other suitable earpiece type. Accordingly, the earpiece 100 can be partially or fully occluded in the ear canal.

[0027] As part of its operation, the earpiece 100 can generate an Ear Canal Transfer Function (ECTF) to model the ear canal 140 using ECR 120 and ECM 130. The ECTF can be used to establish a personalized hearing level profile. The earpiece 100 can also determine a sealing profile with the user's ear to compensate for any sound leakage. In one configuration, the earpiece 100 can provide personalized full-band width general audio reproduction within the user's ear canal via timbral equalization based on the ECTF to account for a user's hearing sensitivity. The earpiece 100 also provides Sound Pressure Level dosimetry to estimate sound exposure of the ear and associated recovery times from excessive sound exposure. This permits the earpiece 100 to safely administer and monitor sound exposure to the ear.

[0028] Referring to **FIG. 2**, a block diagram of the earpiece 100 in accordance with an exemplary embodiment is shown. As illustrated, the earpiece 100 can include a processor 206 operatively coupled to the ASM 110, ECR 120, and ECM 130 via one or more Analog to Digital Converters (ADC) 202 and Digital to Analog Converters (DAC) 203. The processor 206 can monitor the ambient sound captured by the ASM 110 for target sounds in the environment, such as an alarm (e.g., bell, emergency vehicle, security system, etc.), siren (e.g., police car, ambulance, etc.), voice (e.g., “help”, “stop”, “police”, etc.), or specific noise type (e.g., breaking glass, gunshot, etc.). The memory 208 can store sound signatures for previously learned target sounds from which the processor 206 refers to for detecting target sounds. The sound signatures can be resident in the memory 208 or downloaded to the earpiece 100 via the transceiver 204 during operation as needed. Upon detecting a target sound, the processor 206 can report the target to the user via audio delivered from the ECR 120 to the ear canal.

[0029] The earpiece 100 can also include an audio interface 212 operatively coupled to the processor 206 to receive audio content, for example from a media player, and deliver the audio content to the processor 206. The processor 206 responsive to detecting target sounds can adjust the audio content and the target sounds delivered to the ear canal. The processor 206 can actively monitor the sound exposure level inside the ear canal and adjust the audio to within a safe and subjectively optimized listening level range. The processor 206 can utilize computing technologies such as a microprocessor, Application Specific Integrated Chip (ASIC), and/or digital signal processor (DSP) with associated storage memory 208 such as a Flash, ROM, RAM, SRAM, DRAM or other like technologies for controlling operations of the earpiece device 100.

[0030] The earpiece 100 can further include a transceiver 204 that can support singly or in combination any number of wireless access technologies including without limitation Bluetooth™, Wireless Fidelity (WiFi), Worldwide Interoperability for Microwave Access (WiMAX), and/or other short or long range communication protocols. The transceiver 204 can also provide support for dynamic downloading over-the-air to the earpiece 100. It should be noted also that next generation access technologies can also be applied to the present disclosure.

[0031] The power supply 210 can utilize common power management technologies such as replaceable batteries, supply regulation technologies, and charging system technologies for supplying energy to the components of the earpiece 100 and to facilitate portable applications. A motor (not shown) can be a single supply motor driver coupled to the power supply 210 to improve sensory input via haptic vibration. As an example, the processor 206 can direct the motor to vibrate responsive to an action, such as a detection of a target sound or an incoming voice call.

[0032] The earpiece 100 can further represent a single operational device or a family of devices configured in a master-slave arrangement, for example, a mobile device and an earpiece. In the latter exemplary embodiment, the components of the earpiece 100 can be reused in different form factors for the master and slave devices.

[0033] **FIG. 3** is a flowchart of a method 300 for earpiece monitoring and target detection in accordance with an exemplary embodiment. The method 300 can be practiced with more or less than the number of steps shown and is not limited to the order shown. To describe the method 300, reference will be made to components of FIG 2 , although it is understood that the method 300 can be implemented in any other manner using other suitable components. The method 300 can be implemented in a single earpiece, a pair of earpieces, headphones, or other suitable headset audio delivery device.

[0034] The method 300 can start in a state wherein the earpiece 100 has been inserted and powered on. As shown in step **302**, the processor 206 can monitor the environment for target sounds, such as an alarm, a horn, a voice, or a noise. Each of the target sounds can have certain identifiable features that characterize the sound. The features can be collectively referred to as a sound signature which can be used for recognizing the target sound. As an example, the sound signature may include statistical properties or parametric properties of the target sound. For example, a sound signature can describe prominent frequencies with associated amplitude and phase information. As another example, the sound signature can contain principal components identifying the most likely recognizable features of a target sound.

[0035] The processor 206 at step **304** can then detect the target sounds within the environment based on the sound signatures. As will be shown ahead, feature

extraction techniques are applied to the ambient sound captured at the ASM 110 to generate the sound signatures. Pattern recognition approaches are applied based on known sound signatures to detect the target sounds from their corresponding sound signatures. More specifically, sound signatures can then be compared to learned models to identify a corresponding target sound. Notably, the processor 206 can detect sound signatures from the ambient sound regardless of the state of the earpiece 100. For example, the earpiece 100 may be in a listening state wherein ambient sound is transparently passed to the ECR 120, in a media state wherein audio content is delivered from the audio interface 212 to the ECR 120, or in an active listening state wherein sounds in the environment are selectively enhanced or suppressed.

[0036] At step **306**, the processor 206 can adjust sound delivered to the ear canal in view of a detected target sound. For instance, if the earpiece is in a listening state, the processor 206 can amplify detected target sounds in accordance with a Personalized Hearing Level (PHL). The PHL establishes comfortable and uncomfortable levels of hearing, and can be referenced by the processor 206 to set the volume level of the target sound (or ambient sound) so as not to exceed the user's preferred listening levels. As another example, if the earpiece is in a media state, the processor 206 can attenuate the audio content delivered to the ear canal, and amplify the target sounds in the ear canal. The PHL can also be used to properly mix the volumes of the different sounds. As yet another example, if the earpiece 100 is in an active state, the processor 206 can selectively adjust the volume of the target sounds relative to background noises in the environment.

[0037] The processor 206 can also compensate for an ear seal leakage due to a fitting of the earpiece 100 with the ear canal. An ear seal profile can be generated by evaluating amplitude and phase difference between the ASM 110 and the ECM 202 for known signals produced by the ECR 120. That is, the processor 120 can monitor and report transmission levels of frequencies through the ear canal 140. The processor 206 can take into account the ear seal leakage when performing audio enhancement, or other spectral enhancement techniques, to maintain minimal audibility of the ambient noise while audio content is playing.

[0038] Upon detecting a target sound in the ambient sound of the user's environment, the processor at step **308** can generate an audible alarm within the ear canal that identifies the detected sound signature. The audible alarm can be a reproduction of the target sound, an amplification of the target sound (or the entire ambient sound), a text-to-speech message (e.g. synthetic voice) identifying the target sound, a haptic vibration via a motor in the earpiece 100, or an audio clip. For example, the earpiece 100 can play a sound bite (i.e., audio clip) corresponding to the detected target sound such as an ambulance, fire engine, or other environmental sound. As another example, the processor 206 can synthesize a voice to describe the detected target sound (e.g., "ambulance approaching").

[0039] **FIG. 4** illustrates earpiece modes in accordance with an exemplary embodiment. The earpiece mode can be manually selected by the user, for example, by pressing a button, or automatically selected, for example, when the earpiece 100 detects it is in an active listen state or in a media state. As shown in FIG. 4, the earpiece mode can correspond to Signature Sound Pass Through Mode (SSPTM), Signature Sound Boost Mode (SSBM), Signature Sound Replacement Mode (SSRM), Signature Sound Attenuation Mode (SSAM), and Signature Sound Replacement Mode (SSRM).

[0040] In SSPTM mode, ambient sound captured at the ASM 110 is passed transparently to the ECR 120 for reproduction within the ear canal. In this mode, the sound produced in the ear canal sufficiently matches the ambient sound outside the ear canal, thereby providing a "transparency" effect. That is, the earpiece 100 recreates the sound captured at the ASM 110 to overcome occlusion effects of the earpiece 100 when inserted within the ear. The processor 206 by way of sound measured at the ECM 130 adjusts the properties of sound delivered to the ear canal so the sound within the occluded ear canal is the same as the ambient sound outside the ear, as though the earpiece 100 were absent in the ear canal. In one configuration, the processor 206 can predict an approximation of an equalizing filter to provide the transparency by comparing an ASM 110 signal and an ECM 130 signal transfer function.

[0041] In SSBM, target sounds and/or ambient sounds are amplified upon the processor 206 detecting a target sound. The target sound can be amplified relative to

the normal level received, or amplified above an audio content level if audio content is being delivered to the ear canal. As noted previously, the target sound can also be amplified in accordance with a user's PHL to be within safe hearing levels, and within subjectively determined listening levels.

[0042] In SSRM, target sounds detected in the environment can be replaced with audible warning messages. For example, the processor 206 upon detecting a target sound can generate synthetic speech identifying the target sound (e.g., "ambulance detected"). In such regard, the earpiece 100 audibly reports the target sound identified thereby relieving the user from having to interpret the target sound. The synthetic speech can be mixed with the ambient sound (e.g., amplified, attenuated, cropped, etc.), or played alone with the ambient sound muted.

[0043] In SSAM, sounds other than target sounds can be attenuated. For instance, annoying sounds or noises not associated with target sounds can be suppressed. For instance, by way of a learning session, the user can establish what sounds are considered target sounds (e.g., "ambulance") and which sounds are non-target sounds (e.g., "jackhammer"). The processor 206 upon detecting non-target sounds can thus attenuate these sounds within the occluded or partially occluded ear canal.

[0044] FIG. 5 is a flowchart of a method 500 for a method for sound signature detection in accordance with an exemplary embodiment. The method 500 can be practiced with more or less than the number of steps shown and is not limited to the order shown. To describe the method 500, reference will be made to components of FIG 2 , although it is understood that the method 500 can be implemented in any other manner using other suitable components. The method 500 can be implemented in a single earpiece, a pair of earpieces, headphones, or other suitable headset audio delivery device.

[0045] The method can start at step 502, in which the earpiece 100 can enter a learn mode. Notably, the earpiece upon completion of a learning mode or previous learning configuration can start instead at step 520. In the learning mode of step 502, the earpiece 100 can actively generate and learn sound signatures from ambient sounds within the environment. In learning mode, the earpiece 100 can also receive previously trained learning models to use for detecting target sounds in the environment. In an active learning mode, the user can press a button or otherwise

(e.g. voice recognition) initiate a recording of ambient sounds in the environment. For example, the user can upon hearing a new target sound in the environment (“car horn”), activate the earpiece 100 to learn the new target sound. Upon generating a sound signature for the new target sound, it can be stored in the user defined database 504. In another arrangement, the earpiece 100 upon detecting a unique sound, characteristic to a target sound, can ask the user if they desire to have the sound signature for the unique sound learned. In such regard, the earpiece 100 actively senses sounds and queries the user about their environment to learn the sounds. Moreover, the earpiece can organize learned sounds based on environmental context, for example, in outdoor (e.g. traffic, car, etc.) or indoor (e.g., restaurant, airport) environments.

[0046] In another learning mode, trained models can be retrieved from an on-line database 506 for use in detecting target sounds. The previously learned models can be transmitted on a scheduled basis to the earpiece, or as needed, depending on the environmental context. For example, upon the earpiece 100 detecting traffic noise, sound signature models associated with target sounds (e.g., ambulance, police car) in traffic can be retrieved. In another exemplary embodiment, upon the earpiece 100 detecting conversational noise (e.g. people talking), sound signature models for verbal warnings (“help”, “police”) can be retrieved. Groups of sound signature models can be retrieved based on the environmental context or on user directed action.

[0047] As shown in step 508, the earpiece can also generate speech recognition models for target sounds corresponding to voice, such as “help”, “police”, “fire”, etc. The speech recognition models can be retrieved from the on-line database 506 or the user defined database 504. In the latter for example, the user can say a word or enter a text version of a word to associate with a verbal warning sound. For instance, the user can define a set of words of interest along with mappings to their meanings, and then use keyword spotting to detect their occurrences. If the user enters an environment wherein another individual says the same word (e.g., “help”) the earpiece 100 can inform the user of the verbal warning sound. For other acoustic sounds, the earpiece 100 can generate sound signature models as shown in step 510. Notably, the earpiece 100 itself can generate the sound signature models, or transmit the captured target sounds to external systems (e.g., remote server) that

generate the sound signature models. Such learning can be conducted off-line in a training phase, and the earpiece 100 can be uploaded with the new learning models.

[0048] It should also be noted that the learning models can be updated during use of the earpiece, for example, when the earpiece 100 detects target sounds. The detected target sounds can be used to adapt the learning models as new target sound variants are encountered. For example, the earpiece 100 upon detecting a target sound, can use the sound signature of the target sound to update the learned models in accordance with the training phase. In such an exemplary embodiment a first learned model is adapted based on new training data collected in the environment by the earpiece. In such regard, for example, a new set of “horn” target sounds could be included in real-time training without discarding the other “horn” sounds already captured in the existing model.

[0049] Upon completion of learning, uploading, or retrieval of sound signature models, the earpiece 100 can monitor and report target sounds within the environment. As shown in step **520**, ambient sounds (e.g. input signal) within the environment are captured by the ASM 110. The ambient sounds can be digitized by way of the ADC 202 and stored temporarily to a data buffer in memory 208 as shown in step **522**. The data buffer holds enough data to allow for generation of a sound signature as will be described ahead in FIG. 7.

[0050] In another configuration, the processor 206 can implement a “look ahead” analysis system by way of the data buffer for reproduction of pre-recorded audio content, using a data buffer to offset the reproduction of the audio signal. The look-ahead system allows the processor to analyze potentially harmful audio artifacts (e.g. high level onsets, bursts, etc.) either received from an external media device, or detected with the ambient microphones, in-situ before it is reproduced. The processor 206 can thus mitigate the audio artifacts in advance to reduce timbral distortion effects caused by, for instance, attenuating high level transients.

[0051] At step **524**, signal conditioning techniques can be applied to the ambient sound for example to suppress noise or gate the noise to a predetermined threshold. Other signal processing steps such as threshold detection shown in step **526** can be employed to determine whether ambient sounds should be evaluated for target sounds. For instance, to conserve computational processing resources (e.g., battery,

processor) only ambient sounds that exceed a predetermined power level are evaluated for target sounds. Other metrics such as signal spectrum, duration, and stationarity are considered in determining whether the ambient sound is analyzed for target sounds. Notably, other metrics (e.g., context aware) can also be employed to determine when the ambient sound should be processed for target sound detection.

[0052] If at least one property (e.g., power, spectral shape, duration, etc) of the ambient sound exceeds a threshold (or adaptive threshold), the earpiece 100 at step **530** can proceed to generate a sound signature for the ambient sound. In one exemplary embodiment the sound signature is a feature vector which can include statistical parameters or salient features of the ambient sound. An ambient sound with a target sound (e.g. “bell”, “siren”), such as shown in step **532**, is generally expected to exhibit features similar to sound signatures for similar target sounds (e.g. “bell”, “siren”) stored in the user defined database 504 or the on-line database 506. The earpiece 100 can also identify a direction and speed of the sound source if it is moving, for example, by evaluating Doppler shift as shown in step **534** and **536**. The earpiece 100, by way of beam-forming among multiple ASM microphones can also determine estimate a direction of a sound source generating the target sound. In another arrangement, when dual earpieces 100 are used, or when multiple ASMs are employed, the distance and bearing of a sound source can be calculated by frequency dependent magnitude and phase between ASMs 110 (e.g. left and right). The speed and bearing of the sound source can also be estimated using pitch analysis to detect changes predicted by Doppler effect, or alternatively by an analysis in changes in relative phase and magnitude between the two ASM signals. The earpiece 100, by way of a sound recognition engine, can detect general target signals such as car horns or emergency sirens (and other signals referenced by ISO 7731) using spectral and temporal analysis.

[0053] The earpiece 100 can also analyze the ambient sound to determine if a verbal target (e.g. “help”, “police”, “excuse me”) is present. As shown in step **540**, the sound signature of the ambient sound can be analyzed for speech content. For instance, the sound signature can be analyzed for voice information, such as vocal cord pitch periodicities, time-varying voice formant envelopes, or other articulation parameter attributes. Upon detecting the presence of voice in the ambient sound, the

earpiece 100 can perform key word detection (e.g. “help”) in the spoken content as shown in step **542**. Speech recognition models as well as language models can be employed to identify key words in the spoken content. As previously noted, the user can themselves say or enter in one or more target sounds that can be mapped to associated learning models for sound signature detection.

[0054] As shown in step **552**, the user can also provide user input to direct operation of the earpiece, for example, to select an operational mode as shown in **550**. As one example, the operation mode can enable, disable or adjust monitoring of target sounds. For instance, in listening mode, the earpiece 100 can mix audio content with ambient sound while monitoring for target sounds. In quiet mode, the earpiece 100 can suppress all noises except detected target sounds. The user input may be in the form of a physical interaction (e.g., button press) or a vocalization (e.g., spoken command). The operating mode can also be controlled by a prioritizing module as shown in step **554**. The prioritizing module prioritizes target sounds based on severity and context. For example, if the user is in a phone call, and a target sound is detected, the earpiece 100 can audibly inform the user of the warning and/or present a text message of the target sound. If the user is listening to music, and a target sound is detected, the earpiece 100 can automatically shut off the music and alert the user. The user, by way of a user interface or administrator, can rank target sounds and instruct the earpiece 100 how to respond to targets in various contexts.

[0055] **FIG. 6** is a flowchart of a method 600 for a method for managing audio delivery based on detected sound signatures in accordance with an exemplary embodiment. The method 600 can be practiced with more or less than the number of steps shown and is not limited to the order shown. To describe the method 600, reference will be made to components of FIG 2 , although it is understood that the method 600 can be implemented in any other manner using other suitable components. The method 600 can be implemented in a single earpiece, a pair of earpieces, headphones, or other suitable headset audio delivery device.

[0056] As noted previously, the audio interface 212 can supply audio content (e.g., music, cell phone, voice mail, etc) to the earpiece 100. In such regard, the user can listen to music, talk on the phone, receive voice mail, or perform other audio related

tasks while the earpiece 100 additionally monitors target sounds in the environment. During normal use, when a target sound is not present, the earpiece 100 can operate normally to recreate the sound experience requested by the user. If however the earpiece 100 detects a target sound, the earpiece 100 can manage audio content delivery to notify the user of the target sound. Managing audio content delivery can include adjusting or overriding other current audio settings.

[0057] By way of example, as shown in step **602**, the audio interface 212 receives audio content from a media player, such as a portable music player, or cell phone. The audio content can be delivered to the user's ear canal by way of the ECR 120 as shown in step **604**. The processor 206 can regulate the delivery of audio to the ear canal such that the sound pressure level dose is within safe limits. For instance, the processor 206 can adjust the audio level in accordance with a personalized hearing level (PHL) previously established for the user. The PHL provides upper and lower volume bounds across frequency for establishing comfortable listening levels.

[0058] At step **606**, the processor 206 monitors ambient sound in the environment captured at the ASM 110. Ambient sound can be sampled at sufficiently data rates (e.g. 8, 16, and 32KHz) to allow for feature extraction of sound signatures. Moreover, the processor 206 can adjust the sampling rate based on the information content of the ambient signal. For example, upon the ambient sound exceeding a first threshold, the sampling rate can be set to a first rate (e.g. 4KHz). As the ambient sound increases in volume, or as prominent features are identified, the sampling rate can be increased to a second rate (e.g. 8KHz) to increase signal resolution. Although, the higher sampling rate improves resolution of features, the lower sampling rate can preserve use of computational resources for minimally sufficient feature resolution (e.g., battery, processor).

[0059] If at step **608**, a sound signature is detected, the processor **206** can then determine a priority of the detected sound signature. The priority establishes how the earpiece 100 manages audio content. Notably, targets sounds for various environmental conditions and user experiences can be learned. Accordingly, the user or an administrator, can establish priorities for target sounds. Moreover, these priorities can be based on environmental context. For example, if a user is in a warehouse where loading vehicles emit a beeping sound, sound signatures for such

vehicles can be given the highest priority. A user can also prioritize learned target sounds for example via a user interface on a paired device (e.g., cell phone), or via speech recognition (e.g., “prioritize – ‘ambulance’ – high”).

[0060] Upon detecting a target sound and identifying a priority, the processor 206 at step **612** selectively manages at least a portion of the audio content based on the priority. For example, if the user is listening to music during the time a target sound is detected, the processor 206 can decrease the music volume to present an audible notification. This is one indication that the earpiece 100 has detected a target sound. At step **614**, the processor can further present an audible notification to the user. For instance, upon detecting a “horn” sound, a speech-to-text message can be presented to the user to audibly inform them that a horn sound has been detected (e.g., “horn detected”). Information related to the target sound (e.g., direction, speed, priority, etc.) can also be presented with the audible notification.

[0061] In a further arrangement, the processor 206 can send a message to a device operated by the user to visually display the notification as shown in step **616**. For example, if the user has disengaged audible notification, the earpiece 100 can transmit a text message to a paired device (e.g. cell phone) containing the audible warning. Moreover, the earpiece 100 can beacon out an audible alarm to other devices within a vicinity, for example via Wi-Fi (e.g., IEEE 802.16x) . Other devices in the proximity of the user can sign up to receive audible alarms from the earpiece 100. In such regard, the earpiece 100 can beacon a warning notification to other devices in the area to share warning information with other users.

[0062] **FIG. 7** is a flowchart of a method 700 further describing sound signature detection in accordance with an exemplary embodiment. The method 700 can be practiced with more or less than the number of steps shown and is not limited to the order shown. The method 700 can begin in a state in which the earpiece 100 is actively monitoring target sounds in the environment.

[0063] At step **711**, ambient sound captured from the ASM 110 can be buffered into short term memory as frames. As an example, the ambient sound can be sampled at 8KHz with 10-20 ms frame sizes (80 to 160 samples). The frame size can also vary depending on the energy level of the ambient sound. For example, the processor 206 upon detecting low level sounds (e.g., 70-74dB SPL) can use a frame size of 30ms,

and update the frame size to 10ms as the power level increases (e.g. > 86dB SPL). The processor 206 can also increase the sampling rate in accordance with the power level and/or a duration of the ambient sound. (A longer frame size with lower sampling can compromise resolution for computational resources.) The data buffer is of sufficient length to hold a history of frames (e.g. 10-15 frames) for short-term historical analysis.

[0064] At step **712**, the processor 206 can perform feature extraction on the frame as the ambient sound is buffered into the data buffer. As one example, feature extraction can include performing a filter-bank analysis and summing frequencies in auditory bandwidths. Features can also include Fast Fourier Transform (FFT) coefficients, Discrete Cosine Transform (DCT) coefficients, cepstral coefficients, PARCOR coefficients, wavelet coefficients, statistical values (e.g., energy, mean, skew, variance), parametric features, or any other suitable data compression feature set. Additionally, dynamic features, such as derivatives of any order, can be added to the static feature set. As one example, mel-frequency-cepstral analysis can be performed on the frame to generate between 10-16 mel-frequency-cepstral coefficients. The small number of coefficients represent features that can be compactly stored to memory for that particular frame. Such front end feature extraction techniques reduce the amount of data needed to represent the data frame.

[0065] At step **713**, the features can be incorporated as a sound signature and compared to learned models, for example, those retrieved from the target sounds database **718** (e.g., user defined database 504 or the on-line database 506 of FIG. 5). A sound signature can be defined as a sound in the user's ambient environment which has significant perceptual saliency. As an example, a sound signature can correspond to an alarm, an ambulance, a siren, a horn, a police car, a bus, a bell, a gunshot, a window breaking, or any other target sound, including voice. The sound signature can include features characteristic to the sound. As an example, the sound signature can be classified by statistical features of the sound (e.g., envelope, harmonics, spectral peaks, modulation, etc.).

[0066] Notably, each learned model used to identify a sound signature has a set of features specific to a target sound. For example, a feature vector of a learned model for an "alarm" is sufficiently different from a feature vector of a learned model for a

“bell sound”. Moreover, the learned model can describe interconnectivity (e.g., state transitions, emission probabilities, initial probabilities, synaptic connections, hidden layers) among the feature vectors (e.g. frames). For instance, the features of a “bell” sound may change in a specific manner compared to the features of an “alarm” sound. The learned model can be a statistical model such as a Gaussian mixture model, a Hidden Markov Model (HMM), a Bayes Classifier, or a Neural Network (NN) that requires training.

[0067] In the foregoing, a Gaussian Mixture Model (GMM) is presented, although it should be noted that any of the above models can be used for sound signature detection. In this case, each target sound can have an associated GMM used for detecting the target sound. As an example, the target sound for an “alarm” will have its own GMM, and a target sound for a “bell” will have its own GMM. Separate GMMs can also be used as a basis for the absence of the sounds (“anti-models”), such as “not alarm” or “not bell.” Each GMM provides a model for the distribution of the feature statistics for each target sound in a multi-dimensional space. Upon presentation of a new feature vector, the likelihood of the presence of each target sound can then be calculated. In order to detect a target sound, each target sound’s GMM is evaluated relative to its anti-model, and a score related to the likelihood of that target sound is computed. A threshold can be applied directly to this score to decide whether the target sound is present or absent. Similarly, the sequence of scores can be relayed to yet another module which uses a more complex rule to decide presence or absence. Examples of such rules include linear smoothing or median filtering.

[0068] As previously noted, a HMM model or NN model with their associated connection logic can be used in place of each GMM for each learning model. For instance, each target sound in the database (718 see FIG. 7) can have a corresponding HMM. A sound signature for a target sound captured at the ASM 110 in ambient sound can be processed through a lattice network (e.g. Viterbi network) for comparison to each HMM to determine which HMM corresponds to the target sound, if any. Alternatively, in a trained NN, the sound signature can be input to the NN wherein the output states of the NN correspond to target sound indices. The NN can include various topologies such as a Feed-Forward, Radial Basis Function,

Hopfield, Time-Delay Recurrent, or other optimized topologies for real-time sound signature detection.

[0069] At step **714**, a distortion metric is performed with each learned model to determine which learned models are closest to the captured feature vector (e.g., sound signature). The learned model with the smallest distortion (e.g., mathematical distance) is generally considered the correct match, or recognition result. It should also be noted that the distortion can be calculated as part of the model comparison in step **716**. This is because the distortion metric may depend on the type of model used (e.g., HMM, NN, GMM, etc) and in fact may be internal to the model (e.g. Viterbi decoding, back-propagation error update, etc). The distortion module is merely presented in FIG. 7 as a separate component to suggest use with other types of pattern recognition methods or learning models.

[0070] Upon evaluating the feature vector (e.g. sound signature) against the candidate target sound learned models, the ambient sound at step **715** can be classified as a target sound. Each of the learned models can be associated with a score. For example, upon the presentation of a sound signature, each GMM will produce a score. The scores can be evaluated against a threshold, and the GMM with the highest score can be identified as the detected target sound. For instance, if the learned model for the “alarm” sound produces the highest score (e.g., smallest distortion result) compared to other learned models, the ambient sound is classified as an “alarm” target sound.

[0071] The classification step **715** also takes into account likelihoods (e.g. recognition probabilities). For instance, as part of the step of comparing the sound signature of the unknown ambient sound against all the GMMs for the learned models, each GMM can produce a likelihood result, or output. As an example, this likelihood results can be evaluated against each other or in the context in a logical context to determine the GMM considered “most likely” to match the sound signature of the target sound. The processor 206 can then select the GMM with the highest likelihood or score via soft decisions.

[0072] The earpiece 100 can continually monitor the environment for target sounds, or monitor the environment on a scheduled basis. In one arrangement, the earpiece 100 can increase monitoring in the presence of high ambient noise possibly

signifying environmental danger or activity. Upon classifying an ambient sound as a target sound the processor 206 at step **716** can generate an alarm. As previously noted, the earpiece 100 can mix the target sound with audio content, amplify the target sound, reproduce the target sound, and/or deliver an audible message. As one example, spectral bands of the audio content that mask the target sound can be suppressed to increase an audibility of the target sound. This serves to notify the user of a target sounded detected in the environment, to which the user may not be aware depending on their environmental context.

[0073] As an example, the processor 206 can present an amplified audible notification to the user via the ECR 120. The audible notification can be a synthetic voice identifying the target sound (e.g. “car alarm”), a location or direction of the sound source generating the target sound (e.g. “to your left”), a duration of the target sound (e.g., “3 minutes”) from initial capture, and any other information (e.g., proximity, severity level, etc.) related to the target sound. Moreover, the processor 206 can selectively mix the target sound with the audio content based on a predetermined threshold level. For example, the user can prioritize target sound types for receiving various levels of notification, and/or identify the sound types as desirable or undesirable.

[0074] FIG. 8, presents a pictorial diagram for mixing ambient sounds and target sounds with audio content. In the illustration show, the earpiece 100 is playing music to the ear canal while simultaneously monitoring target sounds in the environment. At time, T, the processor upon detecting a target sound can lower the music volume from the media player 150, and increase the volume of the ambient sound received at the ASM 110. Other mixing arrangements are herein contemplated. In such regard, the hears a smooth audio transition between the music and the target sound. Notably, the ramp up and down times can also be adjusted based on the priority of the target sound. For example, in an extreme case, the processor 206 can immediately shut off the music, and present the audible warning. Other various implementations for mixing audio and managing audio content delivery have been herein contemplated. Moreover, the audio content can be managed with other media devices (e.g., cell phone). For instance, upon detecting a target sound, the processor can inform the user and the called party of a target sound. In such regard, the user

does not need to inform the called party since they also receive the notification which can save them time to explain an emergency situation.

[0075] As one example, the processor 206 can spectrally enhance the audio content in view of the ambient sound. Moreover, a timbral balance of the audio content can be maintained by taking into account level dependent equal loudness curves and other psychoacoustic criteria (e.g., masking) associated with the personalized hearing level (PHL). For instance, auditory queues in a received audio content can be enhanced based on the PHL and a spectrum of the ambient sound captured at the ASM 110. Frequency peaks within the audio content can be elevated relative to ambient noise frequency levels and in accordance with the PHL to permit sufficient audibility of the ambient sound. The PHL reveals frequency dynamic ranges that can be used to limit the compression range of the peak elevation in view of the ambient noise spectrum.

[0076] In one arrangement, the processor 206 can compensate for a masking of the ambient sound by the audio content. Notably, the audio content if sufficiently loud, can mask auditory queues in the ambient sound, which can i) potentially cause hearing damage, and ii) prevent the user from hearing target sounds in the environment (e.g., an approaching ambulance, an alarm, etc.) Accordingly, the processor 206 can accentuate and attenuate frequencies of the audio content and ambient sound to permit maximal sound reproduction while simultaneously permitting audibility of ambient sounds. In one arrangement, the processor 206 can narrow noise frequency bands within the ambient sound to permit sensitivity to audio content between the frequency bands. The processor 206 can also determine if the ambient sound contains salient information (e.g., target sounds) that should be un-masked with respect to the audio content. If the ambient sound is not relevant, the processor 206 can mask the ambient sound (e.g., increase levels) with the audio content until target sounds are detected.

[0077] Note that in at least one exemplary embodiment the ASM is not part of an earpiece and is configured to measure the environment. Additionally in at least one exemplary embodiment the ECR is not part of an earpiece but can be a speaker that emits a notification signal. Note that at least one exemplary embodiment is an

acoustic device (e.g., non-earpiece) that includes the ASM, optionally an ECR, and optionally ECM.

[0078] While the present invention has been described with reference to exemplary embodiments, it is to be understood that the invention is not limited to the disclosed exemplary embodiments. The scope of the following claims is to be accorded the broadest interpretation so as to encompass all modifications, equivalent structures and functions of the relevant exemplary embodiments. Thus, the description of the invention is merely exemplary in nature and, thus, variations that do not depart from the gist of the invention are intended to be within the scope of the exemplary embodiments of the present invention. Such variations are not to be regarded as a departure from the spirit and scope of the present invention.

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First Named Inventor/Applicant Name:	Steven W. GOLDSTEIN
Customer Number:	22191
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Submitted with Payment			no		
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Claims	PERS-0012-US-CLAIMS.pdf	46123 0a65e8bf76f55b73d0245ca7328ee4621ae106c5	no	4
Warnings:					
Information:					

2	Abstract	PERS-0012-US-ABSTRACT.pdf	31651 9a01b84bc30ede95c50f6fe6ff9c72b4bfd429ba	no	1
Warnings:					
Information:					
3	Drawings-only black and white line drawings	PERS-0012-US-FIGS.pdf	152413 db16855261d375aa4ca3809ee484707434c8c1e1	no	5
Warnings:					
Information:					
4	Application Data Sheet	PERS-0012-US_ADS_Form.pdf	1100761 556b60e183dbad0231284fef3c82a3d68f22620	no	5
Warnings:					
Information:					
5	Specification	PERS-0012-US-SPEC.pdf	166392 53f086dc0e869e1682edbabf61db57b42a1275c3	no	23
Warnings:					
Information:					
Total Files Size (in bytes):			1497340		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

12/28/07

Approved for use through 7/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number

11/966,457**APPLICATION AS FILED – PART I**

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(i))	25 minus 20=	* 5
INDEPENDENT CLAIMS (37 CFR 1.16(h))	6 minus 3 =	* 3
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

* If the difference in column 1 is less than zero, enter "0" in column 2.

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

RATE (\$)	FEE (\$)
N/A	75
N/A	255
N/A	105
X\$ 25=	125
X\$ 105	315
N/A	
N/A	
TOTAL	875

OR

RATE (\$)	FEE (\$)
N/A	
N/A	
N/A	
X\$50=	
X\$210	
N/A	
N/A	
TOTAL	

APPLICATION AS AMENDED – PART II

(Column 1) (Column 2) (Column 3)

AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(i))	*	Minus	**	=	
Independent (37 CFR 1.16(h))	*	Minus	***	=	
Application Size Fee (37 CFR 1.16(s))					
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL	
ADD'T FEE	

OR

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL	
ADD'T FEE	

(Column 1) (Column 2) (Column 3)

AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(i))	*	Minus	**	=	
Independent (37 CFR 1.16(h))	*	Minus	***	=	
Application Size Fee (37 CFR 1.16(s))					
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL	
ADD'T FEE	

OR

RATE (\$)	ADDITIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL	
ADD'T FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
11/966,457	12/28/2007	2615	0.00	PERS-0012-US	25	6

CONFIRMATION NO. 5168

22191
GREENBERG TRAURIG, LLP
1750 TYSONS BOULEVARD, 12TH FLOOR
MCLEAN, VA 22102

FILING RECEIPT



OC000000027825631

Date Mailed: 01/24/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Steven Wayne Goldstein, Delray Beach, FL;
Mark Andrew Clements, Lilburn, GA;
Marc Andre Boillot, Plantation, FL;

Assignment For Published Patent Application

PERSONICS HOLDINGS INC., Boca Raton, FL

Power of Attorney: None

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/883,013 12/31/2006

Foreign Applications

If Required, Foreign Filing License Granted: 01/19/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 11/966,457**

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

Preliminary Class

381

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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NOT GRANTED

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven Wayne Goldstein	PERS-0012-US

CONFIRMATION NO. 5168

FORMALITIES LETTER



22191
GREENBERG TRAURIG, LLP
1750 TYSONS BOULEVARD, 12TH FLOOR
MCLEAN, VA 22102

Date Mailed: 01/24/2008

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
Applicant must submit \$75 to complete the basic filing fee for a small entity.
- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The application is informal since it does not comply with the regulations for the reason(s) indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
 - The drawings must be reasonably free from erasures and must be free from alterations, overwriting, interlineations, folds, and copy marks. See Figure(s) 1.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Additional claim fees of **\$440** as a small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of **\$65** for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this notice.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$940** for a small entity

- **\$75** Statutory basic filing fee.
- **\$65** Surcharge.
- The application search fee has not been paid. Applicant must submit **\$255** to complete the search fee.
- The application examination fee has not been paid. Applicant must submit **\$105** to complete the examination fee for a small entity in compliance with 37 CFR 1.27.
- Total additional claim fee(s) for this application is **\$440**
 - **\$315** for **3** independent claims over 3.
 - **\$125** for **5** total claims over 20.

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Commissioner for Patents
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/bmnguyen/

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MCLEAN, VA 22102



**Courtesy Reminder for
Application Serial No: 11/966,457**

Attorney Docket No: PERS-0012-US

Customer Number: 22191

Date of Electronic Notification: 01/24/2008

This is a courtesy reminder that new correspondence is available for this application. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:

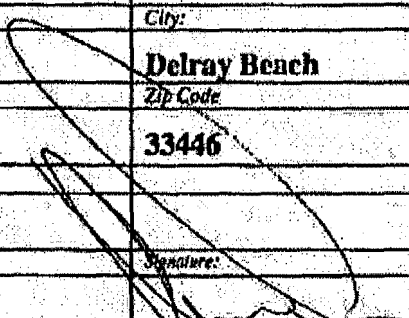
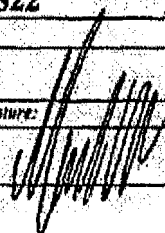
tcopatdkt@gtlaw.com

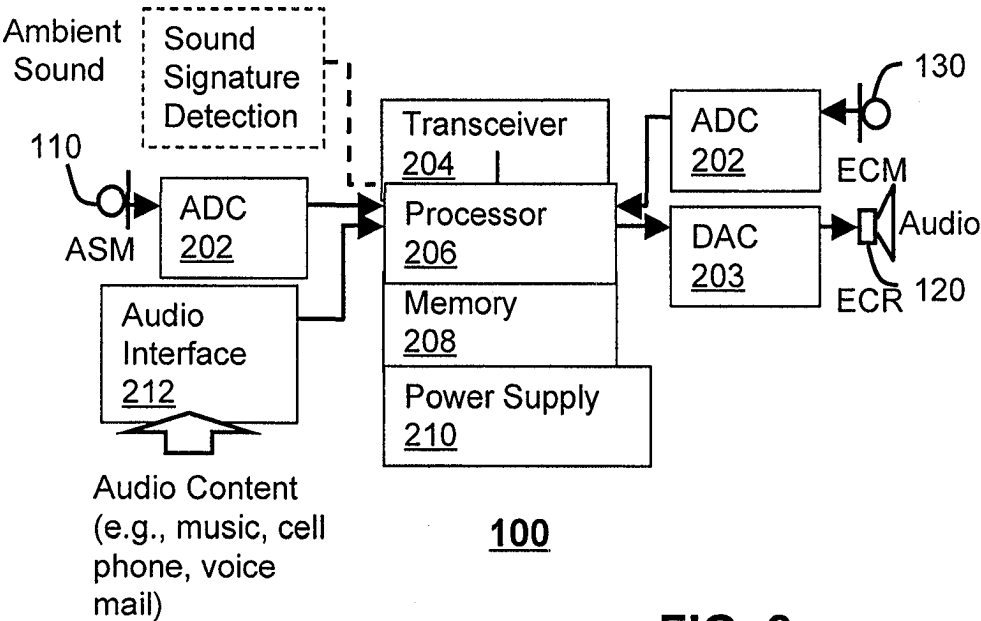
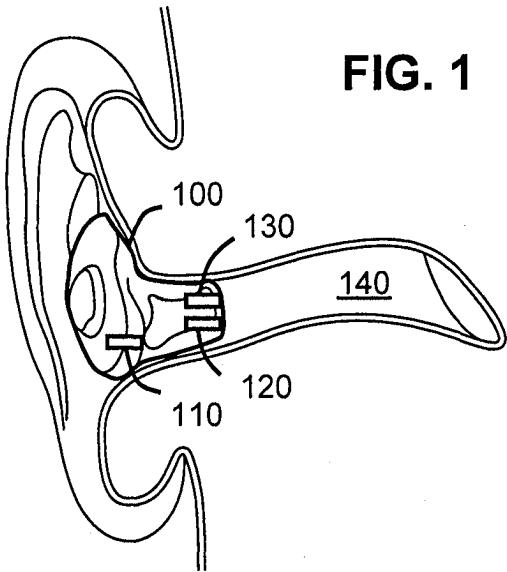
goepelj@gtlaw.com

kinneyb@gtlaw.com

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POWER OF ATTORNEY	
I (We) hereby appoint as my (our) attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, the Patent Practitioners associated with Customer Number 22191.	
FIRST INVENTOR INFORMATION	
Full Name	Citizenship
Steven W. Goldstein	U.S.
Mailing Address	City:
16390 Maddalena Place	Delray Beach
State	Zip Code
Florida	33446
Country	
United States of America	
Date:	Signature:
18 JAN 2008	
SECOND INVENTOR INFORMATION	
Full Name	Citizenship
Mark A. Clements	U.S.
Mailing Address	City:
1795 Pinetree Pass Lane	Lilburn
State	Zip Code
Georgia	30047
Country	
United States of America	
Date:	Signature:
18 JAN 2008	
THIRD INVENTOR INFORMATION	
Full Name	Citizenship
Marc A. Boillot	U.S.
Mailing Address	City:
9110 NW 11 th Court	Plantation
State	Zip Code
Florida	33322
Country	
United States of America	
Date:	Signature:
18 JAN 2008	

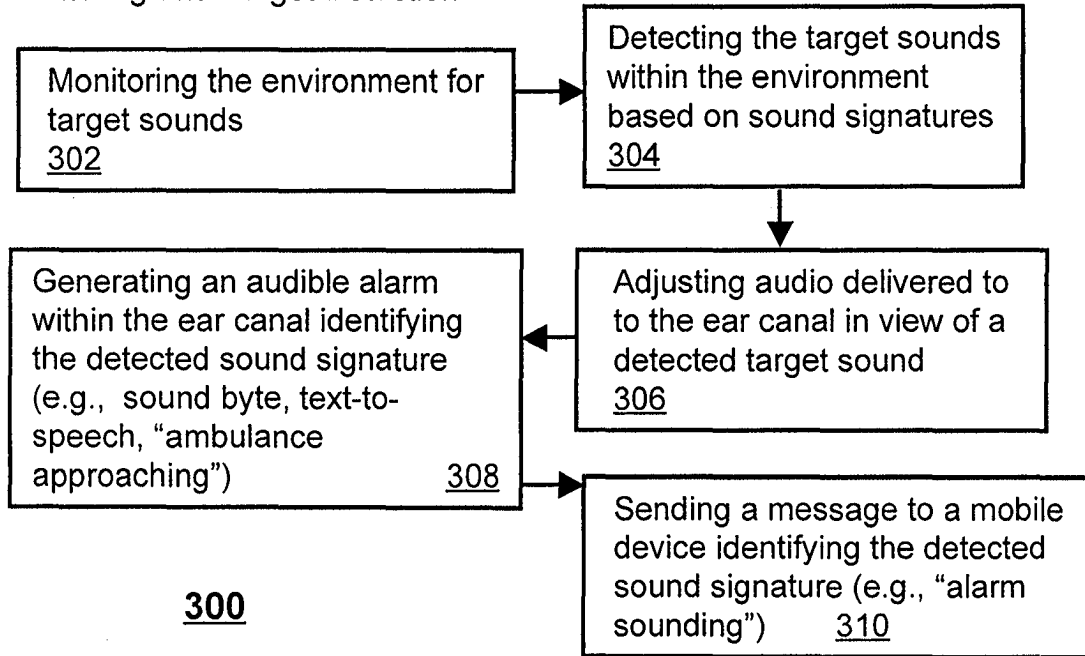


REPLACEMENT SHEET

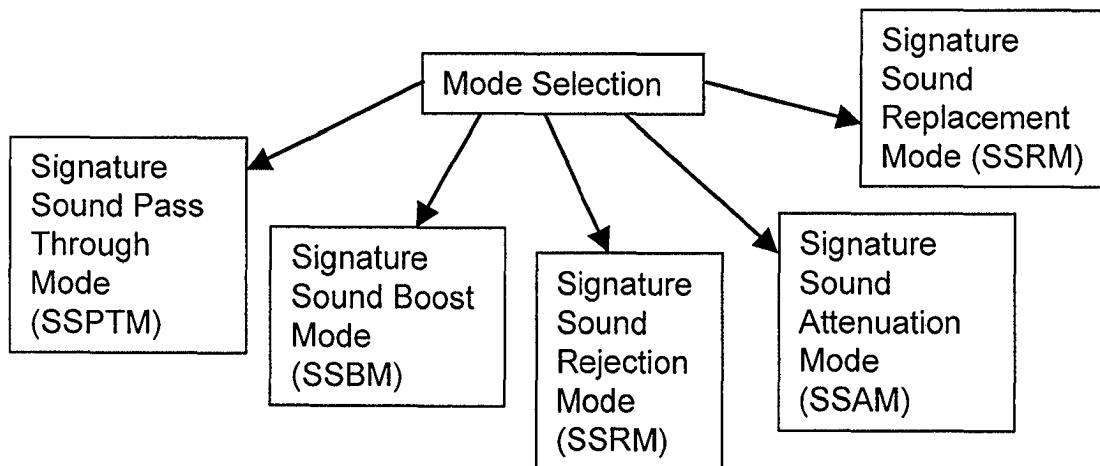
PERS-0012-US

2/5

Monitoring and Target Detection



300
FIG. 3



400
FIG. 4

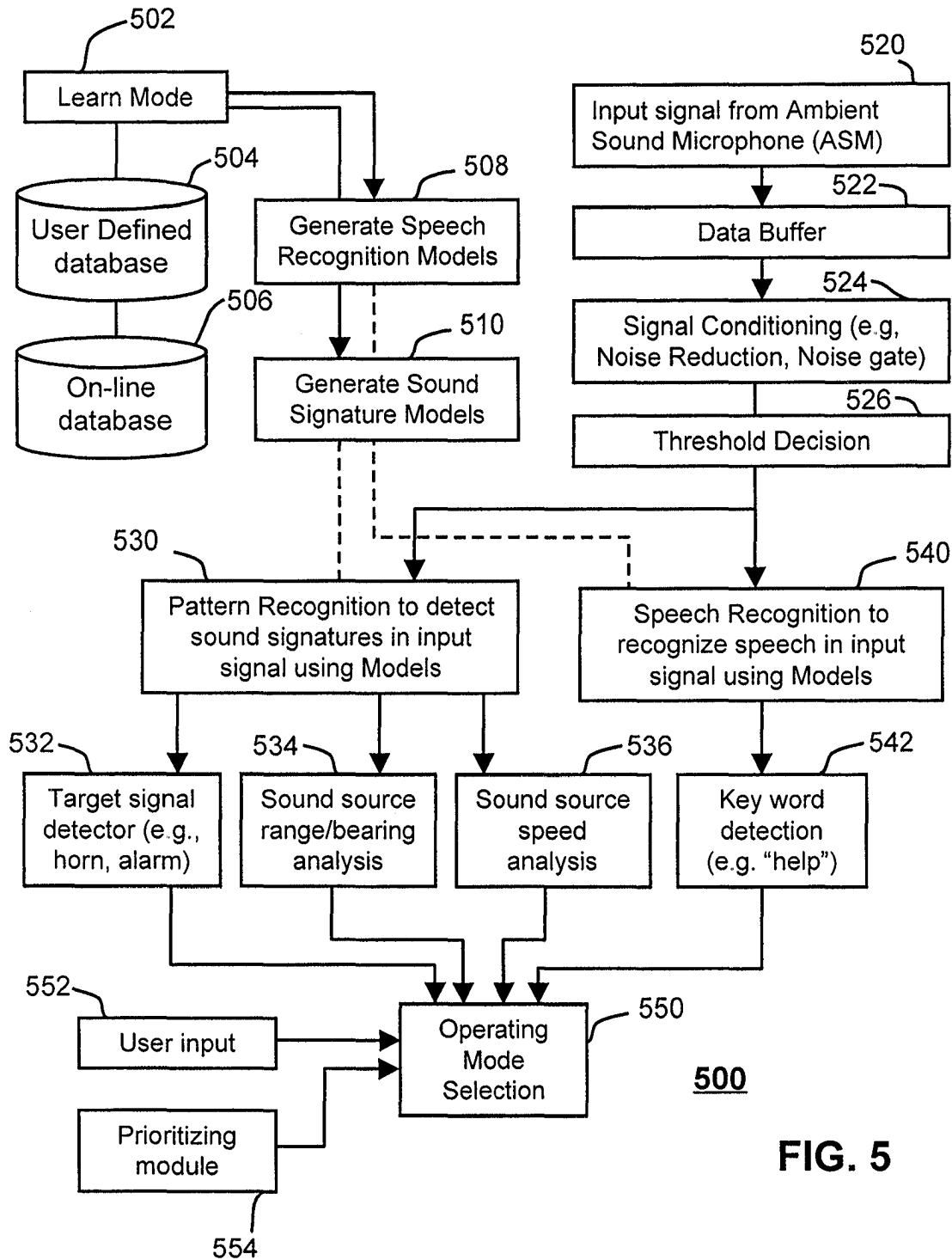
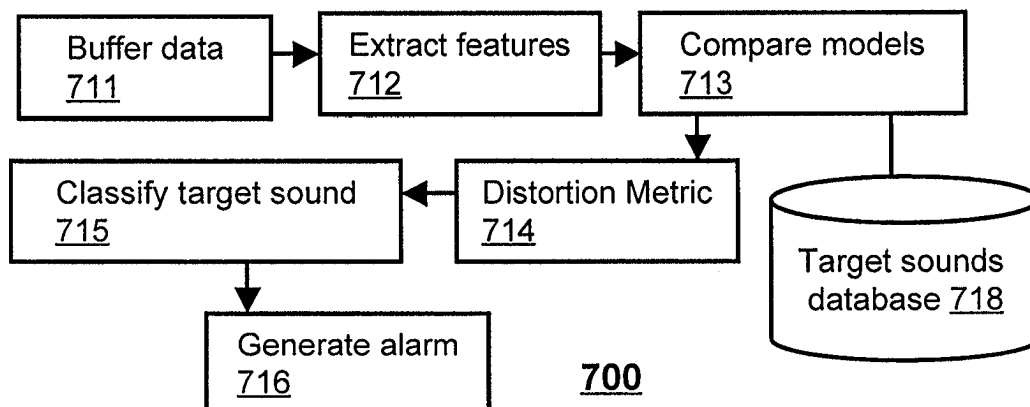
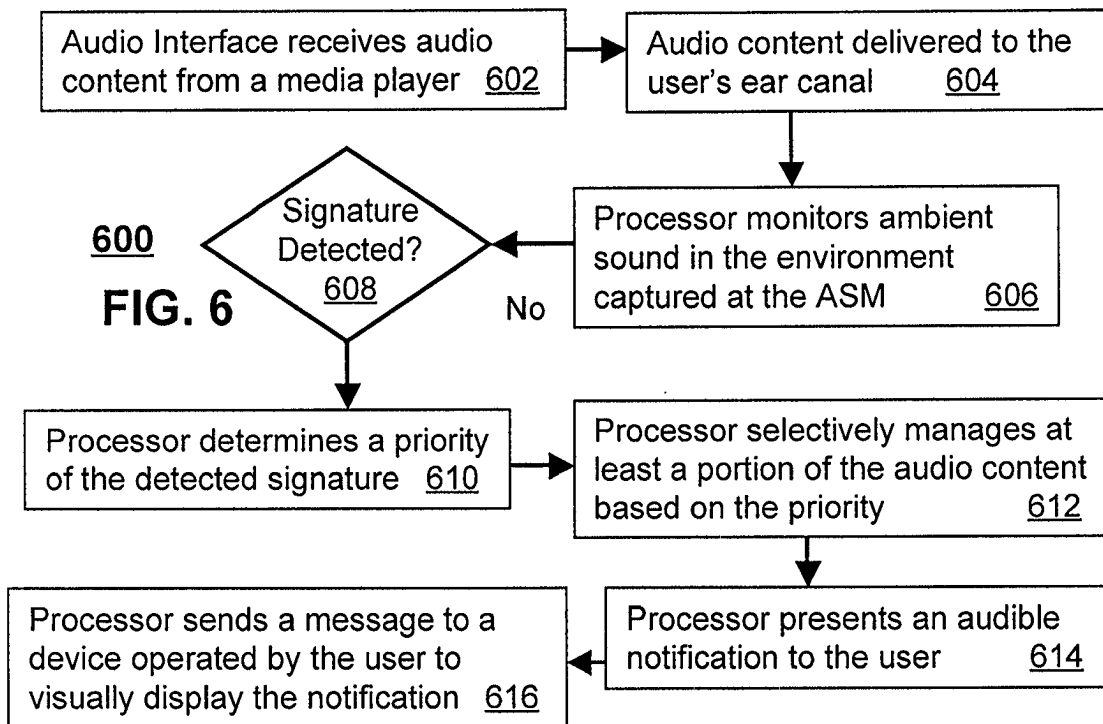
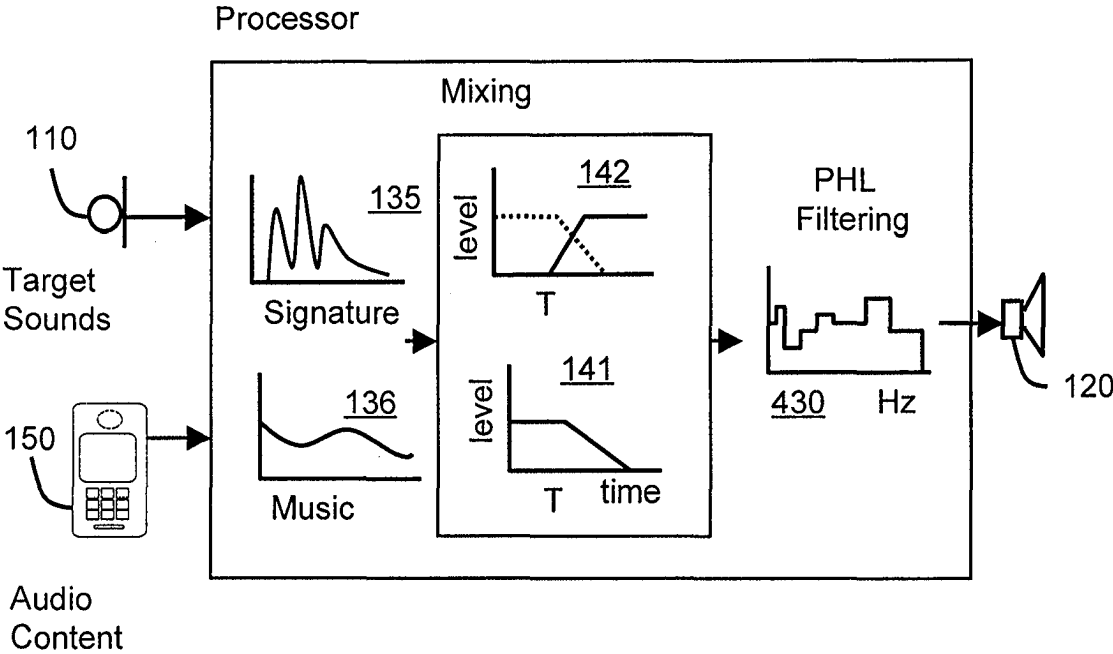


FIG. 5

Managing Audio Delivery





800
FIG. 8

Electronic Patent Application Fee Transmittal				
Application Number:		11966457		
Filing Date:		28-Dec-2007		
Title of Invention:		METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION		
First Named Inventor/Applicant Name:		Steven Wayne Goldstein		
Filer:		Richard E. Kurtz/Catherine Updegraff		
Attorney Docket Number:		PERS-0012-US		
Filed as Small Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	75	75
Utility Search Fee	2111	1	255	255
Utility Examination Fee	2311	1	105	105
Pages:				
Claims:				
Claims in excess of 20	2202	5	25	125
Independent claims in excess of 3	2201	3	105	315
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Late filing fee for oath or declaration	2051	1	65	65
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				940

Electronic Acknowledgement Receipt

EFS ID:	3039425
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven Wayne Goldstein
Customer Number:	22191
Filer:	Richard E. Kurtz/Catherine Updegraff
Filer Authorized By:	Richard E. Kurtz
Attorney Docket Number:	PERS-0012-US
Receipt Date:	24-MAR-2008
Filing Date:	28-DEC-2007
Time Stamp:	10:47:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 940
RAM confirmation Number	4687
Deposit Account	504284
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1		Executed_Declaration.pdf	259689 c93060015e765e4e241c90ec53f866407d983071	yes	3
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Oath or Declaration filed		1	2	
	Power of Attorney		3	3	
Warnings:					
Information:					
2	Drawings-only black and white line drawings	Replacement_Drawings.pdf	307572 c7fbb558d0072f7d2edfa5b9257c2523a83c0356	no	5
Warnings:					
Information:					
3	Fee Worksheet (PTO-06)	fee-info.pdf	8801 7f5cd3ed1796f555aaca67f4311461fabda940	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			576062		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

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In re Application of:	Docket No.:	
Steven W. Goldstein et al.	092624.011600 (PERS-0012-US)	
Serial No.: 11/966,457	Art Unit: Unknown	
Filing Date: December 28, 2007	Examiner: Unassigned	
Title METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION		
DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY		
DECLARATION OF SOLE OR JOINT INVENTOR		
As a below-named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention (Design, if applicable) entitled above, the specification of which is either attached hereto, or was filed on the date listed above as with the Application Serial Number listed above (whichever is applicable).		
REVIEW AND UNDERSTOOD CLAUSE		
I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s). I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with <i>Title 37, Code of Federal Regulations, §1.56(a)</i> .		
DOMESTIC PRIORITY CLAIM		
I hereby claim the benefit under <i>Title 35, United States Code, § 120</i> of any United States application(s) or PCT International Application(s) designating The United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of <i>Title 35, United States Code § 112</i> , I acknowledge the duty to disclose information which is material to patentability as defined in <i>Title 37, Code of Federal Regulations, § 1.56(a)</i> which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:		
APPLICATION NUMBER	FILING DATE	STATUS (Patented, Pending, Abandoned)
60/883,013	December 31, 2006	Expired

DECLARATION FOR PATENT APPLICATION AND APPOINTMENT OF ATTORNEY**FOREIGN PRIORITY CLAIM**

I hereby claim foreign priority benefits under *Title 35, United States Code § 119* of any foreign application(s) for patent or inventor's certificate or of any PCT International Application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or of any PCT International application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) on which the priority is claimed.

APPLICATION NUMBER	FILING DATE	COUNTRY

WILLFUL FALSE STATEMENT CLAUSE

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, or imprisonment, or both, under *Section 1001 Title 18 of the United States Code*, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

CORRESPONDENCE ADDRESS

Please send all correspondence regarding the above-captioned application to:

CUSTOMER NUMBER: 22191

Direct all phone inquiries to: 407-418-2356

Electronic Acknowledgement Receipt

EFS ID:	3039425
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven Wayne Goldstein
Customer Number:	22191
Filer:	Richard E. Kurtz/Catherine Updegraff
Filer Authorized By:	Richard E. Kurtz
Attorney Docket Number:	PERS-0012-US
Receipt Date:	24-MAR-2008
Filing Date:	28-DEC-2007
Time Stamp:	10:47:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 940
RAM confirmation Number	4687
Deposit Account	504284
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1		Executed_Declaration.pdf	259689 c93060015e765e4e241c90ec53f866407d983071	yes	3
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Oath or Declaration filed		1	2	
	Power of Attorney		3	3	
Warnings:					
Information:					
2	Drawings-only black and white line drawings	Replacement_Drawings.pdf	307572 c7fbb558d0072f7d2edfa5b9257c2523a83c0356	no	5
Warnings:					
Information:					
3	Fee Worksheet (PTO-06)	fee-info.pdf	8801 7f5cd3ed1796f555aaca67f4311461fabda940	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			576062		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
11/966,457	12/28/2007	2615	940	092624.011600(PERS-0012-U	25	6

CONFIRMATION NO. 5168

UPDATED FILING RECEIPT



22191
GREENBERG TRAURIG, LLP
2101 L Street, N.W.
Suite 1000
Washington, DC 20037

Date Mailed: 06/23/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Steven W. Goldstein, Delray Beach, FL;
Mark A. Clements, Lilburn, GA;
Marc A. Boillot, Plantation, FL;

Assignment For Published Patent Application

PERSONICS HOLDINGS INC., Boca Raton, FL

Power of Attorney: The patent practitioners associated with Customer Number 22191

Domestic Priority data as claimed by applicant

This appln claims benefit of 60/883,013 12/31/2006

Foreign Applications

If Required, Foreign Filing License Granted: 01/19/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 11/966,457**

Projected Publication Date: 10/02/2008

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

Preliminary Class

381

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER**Title 35, United States Code, Section 184****Title 37, Code of Federal Regulations, 5.11 & 5.15****GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Steven W. Goldstein et al.	Confirmation No.: 5168
Serial No.: 11/966,457	Art Unit: 2615
Filing Date: December 28, 2007	Examiner: Unassigned
Title: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION	

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97

MAIL STOP AMENDMENT

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

Sir:

Transmitted herewith is a Form PTO-1449 pursuant to 37 C.F.R. § 1.56. Applicants respectfully request that the listed references be considered and made of record in the subject application, and that an initialed copy of Form PTO-1449 be returned pursuant to M.P.E.P. § 609. Copies of the cited U.S. patent references are not enclosed pursuant to 37 C.F.R. § 1.98(a)(2)(ii).

This Information Disclosure Statement is submitted prior to the mailing date of the first Office Action on the merits under 37 C.F.R. § 1.97(b)(3). Thus no fee, petition, or certification is required. However, the Commissioner is authorized to charge any fees or credit any overcharges to Deposit Account No. 50-2638.

Consideration of the references and Examination on the Merits is earnestly solicited.

Respectfully submitted,
/Richard E. Kurtz/Reg. #33,936
Richard E. Kurtz
Registration No. 33,936

Date: July 18, 2008

Greenberg Traurig, LLP
2101 L Street NW, Suite 1000
Washington, D.C. 20037
407-420-1000

Customer No. 22191

REK:cmu

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DKT. NO. 092624.011600		SERIAL NO. 11/966,457	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)				APPLICANT Steven W. Goldstein et al.		EXAMINER: Unassigned	
				FILING DATE December 28, 2007		GROUP 2615	

U.S. PATENT DOCUMENTS							
Examiner's Initial		Document No.	Publication Date	Name	Class	Subclass	Filing Date
	AA	2005/0105750	05/19/2005	Frohlich et al.			
	AB	6728385	04/27/2004	Kvaloy et al.			
	AC	6023517	02/08/2000	Ishige			
	AD	5867581	02/02/1999	Obara			
	AE	4837832	06/06/1989	Fanshel			
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						
	AO						
	AP						
	AQ						
	AR						

FOREIGN PATENT DOCUMENTS								
Examiner's Initial		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AS							
	AT							
	AU							
	AV							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
	AW	
	AX	
	AY	
	AZ	

Examiner	Date Considered
-----------------	------------------------

Electronic Acknowledgement Receipt

EFS ID:	3640891
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	22191
Filer:	Richard E. Kurtz/Catherine Updegraff
Filer Authorized By:	Richard E. Kurtz
Attorney Docket Number:	092624.011600 (PERS-12)
Receipt Date:	18-JUL-2008
Filing Date:	28-DEC-2007
Time Stamp:	14:16:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement Letter	071808_IDS.pdf	88166 6f30e9935a4ed124ccf043883e7a14f308380eff	no	1

Warnings:

Information:

2	Information Disclosure Statement (IDS) Filed	071808_PTO_1449.pdf	115462 7cf0c35d5bef54f110dae23abbacb78aa6ebcfbd	no	1
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
Total Files Size (in bytes):				203628	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven W. Goldstein	092624.011600 (PERS-12)

CONFIRMATION NO. 5168

PUBLICATION NOTICE



OC000000032392150

22191
GREENBERG TRAURIG, LLP
2101 L Street, N.W.
Suite 1000
Washington, DC 20037

Title:METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

Publication No.US-2008-0240458-A1

Publication Date:10/02/2008

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:



Practitioners associated with the Customer Number:

71158

OR



Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:



The address associated with Customer Number:

71158

OR

☐ Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone			Email

Assignee Name and Address:

Personics Holdings Inc.
4800 N Federal Highway, Suite 205A
Boca Raton, FL 33431

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	<i>Steven W. Goldstein</i>	Date	2-10-11
Name	Steven W. Goldstein	Telephone	561-212-6163
Title	Chief Executive Officer		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Please type a plus sign (+) inside this box → +

PTO/SB/82 (04-05)
Approved for use through 10/31/2002. OMB 0651-0035
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REVOCATION OF POWER OF ATTORNEY WITH NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS	Application Number	11/966,457
	Filing Date	December 28, 2007
	First Named Inventor	Steven W. Goldstein
	Group Art Unit	2614
	Examiner Name	Vivian C. Chin
	Attorney Docket Number	PRS-116US (PERS-0012US)

I hereby revoke all previous powers of attorney or authorizations of agent given in the above-identified application:

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint the practitioners associated with the Customer Number: 71158

☒ Please change the correspondence address for the above-identified application to:

☒ The address associated with
Customer Number: 71158

OR

☐ Firm or Individual Name					
Address					
City					
Country		State		ZIP	
Telephone		Fax			

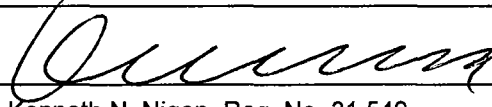
I am the:

☐ Applicant/Inventor.

☐ Assignee of record of the entire interest. See 37 CFR 3.71.

☒ Authorized Person - *Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)*

SIGNATURE of Authorized Person

Signature			
Name	Kenneth N. Nigon, Reg. No. 31,549		
Date	April 18, 2011	Telephone	610-407-0700

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO.. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

STATEMENT UNDER 37 CFR 3.73(b)Applicant/Patent Owner: PERSONICS HOLDINGS INC.Application No./Patent No.: 11/966,457Filed/Issue Date: December 28, 2007Entitled: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

PERSONICS HOLDINGS INC., a corporation
 (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest in;
2. ☐ an assignee of less than the entire right, title and interest in
The extent (by percentage) of its ownership interest is _____ %; or
3. ☐ The assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

in the patent application/patent identified above by virtue of either:

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

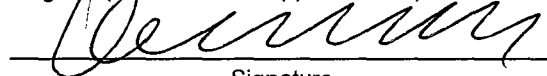
1. From: Steven W. Goldstein, Mark A. Clements, Marc A. Boillot To: Personics Holdings Inc.
The document was recorded in the United States Patent and Trademark Office at Reel 020689, Frame 0897, or for which a copy thereof is attached.
2. From: Steven W. Goldstein, Mark A. Clements, Marc A. Boillot To: Personics Holdings Inc.
The document was recorded in the United States Patent and Trademark Office at Reel 025713, Frame 0694, or for which a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 36 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.



Signature

Kenneth N. Nigon, Reg. No. 31,549

Printed or Typed Name

Authorized Person

Title

April 18, 2011

Date

610-407-0700

Telephone Number

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Electronic Acknowledgement Receipt	
EFS ID:	9897023
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	22191
Filer:	Kenneth Nicholas Nigon/Kathleen Carney
Filer Authorized By:	Kenneth Nicholas Nigon
Attorney Docket Number:	092624.011600 (PERS-12)
Receipt Date:	18-APR-2011
Filing Date:	28-DEC-2007
Time Stamp:	13:56:21
Application Type:	Utility under 35 USC 111(a)

Payment information:					
Submitted with Payment			no		
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POAtoProsecuteApplicationsBeforePTO.pdf	90323 36d7a12e876eb6b7f97c7e43016d76a1a7baf3e6	no	1
Warnings:					
Information:					

2	Miscellaneous Incoming Letter	RevocationPOA.pdf	50425 d15c8e1fcc11d325e2cce0f690ada17f67eae d77	no	1
Warnings:					
Information:					
3	Assignee showing of ownership per 37 CFR 3.73(b).	StatementUnder37CFR373b.pdf	67705 baa8be666db300134c946426d529fc9a3c1 aa10b	no	1
Warnings:					
Information:					
Total Files Size (in bytes):			208453		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)

CONFIRMATION NO. 5168

POA ACCEPTANCE LETTER

71158
RatnerPrestia
P.O. Box 980
Valley Forge, PA 19482



Date Mailed: 04/27/2011

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/18/2011.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/tnnguyen/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven W. Goldstein	092624.011600 (PERS-12)

CONFIRMATION NO. 5168

POWER OF ATTORNEY NOTICE



OC000000047322691

22191
GREENBERG TRAURIG, LLP (DC/ORL)
2101 L Street, N.W.
Suite 1000
Washington, DC 20037

Date Mailed: 04/27/2011

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/18/2011.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/tnnguyen/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)	5168
71158 RatnerPrestia P.O. Box 980 Valley Forge, PA 19482	7590 08/17/2011		EXAMINER MANDALA, VICTOR A	
			ART UNIT 2826	PAPER NUMBER
			MAIL DATE 08/17/2011	DELIVERY MODE PAPER

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.

Office Action Summary	Application No. 11/966,457	Applicant(s) GOLDSTEIN ET AL.	
	Examiner VICTOR A. MANDALA	Art Unit 2826	

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 28 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ 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

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-13,15-18,20 and 23 is/are rejected.
- 7) ☒ Claim(s) 4,14,19,21, 22, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2007 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).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).
- a) ☐ All b) ☐ Some * c) ☐ None of:
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) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) | 5) ☐ Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/18/08</u> | 6) ☐ Other: _____ |

DETAILED ACTION

Double Patenting

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 obviousness-type double patenting rejection is appropriate where the conflicting claims 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 conflicting 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.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2826

1. Claims 1, 2, 7, 12, 20, and 23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 7, and 23 of copending Application No. 11/942370. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 1, 2, 7, 12, 20, and 23 of the instant application are anticipated by copending application claims 1, 7, and 23 in that claims 1, 7, and 23 of the copending application contains all the limitations of claims 1, 2, 7, 12, 20, and 23 of the instant application. Claims 1, 2, 7, 12, 20, and 23 of the instant application therefore is not patently distinct from the earlier patent claim and as such is unpatentable for obvious-type double patenting

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 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.

Claims 1, 3, 5, 7, 13, 15-18, 20, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication No. 2005/0111683 Chabries et al.

2. Referring to claim 1, Chabries et al. teaches an acoustic device, comprising: an Ambient Sound Microphone (ASM) configured to capture ambient sound; at least one Ear Canal Receiver (ECR) configured to deliver audio to an ear canal; and a processor operatively coupled to the ASM, where the processor monitors the ambient sound for a target sound, (Paragraphs 0062,

Art Unit: 2826

0063, 0066, and 0072).

3. Referring to claim 2, Chabries et al. teaches an acoustic device of claim 1, where the acoustic device is earpiece, wherein the processor detects sound signatures in the ambient sound and adjusts the audio delivered to the ear canal based on detected sound signatures, (Paragraphs 0062, 0063, 0066, and 0072).

4. Referring to claim 3, Chabries et al. teaches an acoustic device of claim 1, where the acoustic device is an earpiece, wherein the target sound is at least one among an alarm, a horn, and a noise, (Paragraphs 0062, 0063, 0066, and 0072).

5. Referring to claim 5, Chabries et al. teaches an acoustic device of claim 1, where the acoustic device is an earpiece, further comprising a memory to store, responsive to a directive by a user of the device, at least one target sound captured by the ASM for learning, (Paragraphs 0164-0167).

6. Referring to claim 7, Chabries et al. teaches a method for personalized listening, the method comprising: capturing ambient sound with an Ambient Sound Microphone (ASM) ; monitoring the ambient sound for a target sound; and adjusting by way of an Ear Canal Receiver (ECR) in the earpiece a delivery of audio to an ear canal based on a detected target sound, (Paragraphs 0062, 0063, 0066, and 0072).

7. Referring to claim 8, Chabries et al. teaches a method of claim 7, further comprising: passing the target sound to the ECR for delivery to the ear canal, (Paragraphs 0062, 0063, 0066, and 0072).

Art Unit: 2826

8. Referring to claim 9, Chabries et al. teaches a method of claim 7, further comprising: amplifying the target sound for delivery to the ear canal, (Paragraphs 0062, 0063, 0066, and 0072).

9. Referring to claim 10, Chabries et al. teaches a method of claim 7, further comprising: attenuating the target sound for delivery to the ear canal, (Paragraphs 0062, 0063, 0066, and 0072).

10. Referring to claim 11, Chabries et al. teaches a method of claim 7, further comprising: generating an audible message for delivery to the ear canal, (Paragraphs 0062, 0063, 0066, and 0072).

11. Referring to claim 12, Chabries et al. teaches a method for personalized listening, the method comprising: capturing ambient sound with an Ambient Sound Microphone (ASM); detecting a sound signature within the ambient sound that is associated with a target sound; and mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound, (Paragraphs 0062, 0063, 0066, and 0072).

12. Referring to claim 13, Chabries et al. teaches a method of claim 12, further comprising: detecting and reporting from the sound signature a direction or a speed of a sound source generating the target sound, (Paragraphs 0062, 0063, 0066, and 0072).

13. Referring to claim 15, Chabries et al. teaches a method of claim 12, further comprising: identifying the target sound from the sound signatures and transmitting a warning notification to other devices, (Paragraphs 0062, 0063, 0066, and 0072).

Art Unit: 2826

14. Referring to claim 16, Chabries et al. teaches a method of claim 12, wherein the target sound is at least one among an alarm, a horn, a voice, and a noise, (Paragraphs 0062, 0063, 0066, and 0072).

15. Referring to claim 17, Chabries et al. teaches a method for sound signature detection, the method comprising: capturing ambient sound with an Ambient Sound Microphone (ASM); and receiving a directive to learn a sound signature within the ambient sound, (Paragraphs 0062, 0063, 0066, and 0072).

16. Referring to claim 18, Chabries et al. teaches a method of claim 17, further comprising: saving the sound signature locally on the earpiece or remotely to a server, (Paragraphs 0164-0167).

17. Referring to claim 20, Chabries et al. teaches a method for personalized listening, the method comprising: capturing ambient sound via an earpiece that is at least partially occluded in an ear canal; detecting a sound signature within the ambient sound that is associated with a target sound; and mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound and a personalized hearing level (PHL), (Paragraphs 0062, 0063, 0066, and 0072).

18. Referring to claim 23, Chabries et al. teaches a sound detection device comprising: an ambient sound microphone configured to measure an ambient sound; and a processor configured to compare the ambient sound to at least one target sound signature, and where the processor identifies an onset of an identified target sound signature in the ambient sound, (Paragraphs 0062, 0063, 0066, and 0072).

Art Unit: 2826

Claim Rejections - 35 USC § 103

The following is a quotation of 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 negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

Application Publication No. 2005/0111683 Chabries et al.

19. Referring to claim 6, teaches an acoustic device of claim 1, where the acoustic device is an earpiece, further comprising an audio interface operatively coupled to the processor configured to receive audio content from a media player or cell phone, wherein the processor selectively adjusts a volume of the audio content delivered to the ear canal when the target sound is detected, (Paragraphs 0062,0063, 0066, and 0072 and where it is obvious that the audible signals can come from anything such as a cell phone etc).

Allowable Subject Matter

20. Claims 4, 14, 19, 21, 22, 24, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

21. The prior art teaches the claimed matter of the independent claims but is silent with respect to the above teachings in combination with where the acoustic device is an earpiece, wherein the processor monitors the ambient sound for spoken words associated with verbal

Art Unit: 2826

warnings or retrieving learned models from a database, comparing the sound signature to the learned models, and identifying the target sound from the learned models in view of the comparison, or further comprising: enhancing auditory queues in the target sound relative to the audio content based on a spectrum of the ambient sound captured at the ASM.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTOR A. MANDALA whose telephone number is (571)272-1918. The examiner can normally be reached on Monday through Thursday from 9-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davienne Monbleau can be reached on 571-272-1945. 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.

/VICTOR A MANDALA/
Primary Examiner, Art Unit 2826
8/14/11

Notice of References Cited	Application/Control No. 11/966,457		Applicant(s)/Patent Under Reexamination GOLDSTEIN ET AL.	
	Examiner VICTOR A. MANDALA		Art Unit 2826	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2005/0111683	05-2005	Chabries et al.	381/317
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*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.

Form PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DKT. NO. 092624.011600	SERIAL NO. 11/966,457
	APPLICANT Steven W. Goldstein et al.	EXAMINER: Unassigned
	FILING DATE December 28, 2007	GROUP 2615

U.S. PATENT DOCUMENTS

Examiner's Initial		Document No.	Publication Date	Name	Class	Subclass	Filing Date
	AA	2005/0105750	05/19/2005	Frohlich et al.			
	AB	6728385	04/27/2004	Kvaloy et al.			
	AC	6023517	02/08/2000	Ishige			
	AD	5867581	02/02/1999	Obara			
	AE	4837832	06/06/1989	Fanshel			
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	AQ						
	AR						

FOREIGN PATENT DOCUMENTS

Examiner's Initial		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AS							
	AT							
	AU							
	AV							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AW	
	AX	
	AY	
	AZ	

Examiner /Victor Mandala/	Date Considered 08/10/2011
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<i>Index of Claims</i> 	Application/Control No. 11966457	Applicant(s)/Patent Under Reexamination GOLDSTEIN ET AL.
	Examiner VICTOR A MANDALA	Art Unit 2826

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant											☐ CPA											☐ T.D.											☐ R.1.47										
CLAIM		DATE																																									
Final	Original	08/10/2011	08/14/2011																																								
	1	✓																																									
	2	✓																																									
	3	✓																																									
	4	O																																									
	5	✓																																									
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Appln. No.: 11/966,457
Amendment Dated November 17, 2011
Reply to Office Action of August 17, 2011

PRS-116US (PERS-0012US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No: 11/966,457
Applicant: Steven W. Goldstein et al.
Filed: December 28, 2007
Title: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE
DETECTION
T.C./A.U.: 2826
Examiner: Victor A. Mandala
Confirmation No.: 5168
Docket No.: PRS-116US (PERS-0012US)

AMENDMENT

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

Sir:

Responsive to the Office Action dated August 17, 2011, please amend the above-identified application as follows:

- ☒ **Amendments to the Specification** begin on page 2 of this paper.
- ☒ **Amendments to the Claims** are reflected in the listing of claims which begins on page 7 of this paper.
- ☐ **Amendments to the Drawings** begin on page _____ of this paper and include an attached replacement sheet(s).
- ☒ **Amendments to the Abstract** are on page 11 of this paper. A clean version of the Abstract is on page 15 of this paper.
- ☒ **Remarks/Arguments** begin on page 12 of this paper.

Amendments to the Specification:

Please replace paragraph [0003] with the following rewritten paragraph:

[0003] Excess noise exposure can generate auditory fatigue, possibly comprising compromising a person's listening abilities. On a daily basis, people are exposed to various environmental sounds and noises within their environment, such as the sounds from traffic, construction, and industry. Some of the sounds in the environment may correspond to warnings, such as those associated with an alarm or siren. A person that can hear the warning sounds can generally react in time to avoid danger. In contrast, a person that cannot adequately hear the warning sounds, or whose hearing faculties have been compromised due to auditory fatigue, may be susceptible to danger.

Please replace paragraph [0029] with the following rewritten paragraph:

[0029] The earpiece 100 can also include an audio interface 212 operatively coupled to the processor 206 to receive audio content, for example from a media player, and deliver the audio content to the processor 206. The processor 206 responsive to detecting target sounds can adjust the audio content and the target sounds delivered to the ear canal. The processor 206 can actively monitor the sound exposure level inside the ear canal and adjust the audio to within a safe and subjectively optimized listening level range. The processor 206 can utilize computing technologies such as a microprocessor, Application Specific Integrated Chip (ASIC), and/or digital signal processor (DSP) with associated storage memory 208 such as a as Flash, ROM, RAM, SRAM, DRAM or other like technologies for controlling operations of the earpiece device 100.

Please replace paragraph [0037] with the following rewritten paragraph:

[0037] The processor 206 can also compensate for an ear seal leakage due to a fitting of the earpiece 100 with the ear canal. An ear seal profile can be generated by evaluating amplitude and phase difference between the ASM 110 and the ECM 130202 for known signals produced by the ECR 120. That is, the processor 206120 can monitor and report transmission levels of frequencies through the ear canal 140. The processor 206 can take into account the ear seal leakage when performing audio enhancement, or other spectral enhancement techniques, to maintain minimal audibility of the ambient noise while audio content is playing.

Please replace paragraph [0038] with the following rewritten paragraph:

[0038] Upon detecting a target sound in the ambient sound of the user's environment, the processor 206 at step **308** can generate an audible alarm within the ear canal that identifies the detected sound signature. The audible alarm can be a reproduction of the target sound, an amplification of the target sound (or the entire ambient sound), a text-to-speech message (e.g. synthetic voice) identifying the target sound, a haptic vibration via a motor in the earpiece 100, or an audio clip. For example, the earpiece 100 can play a sound bite (i.e., audio clip) corresponding to the detected target sound such as an ambulance, fire engine, or other environmental sound. As another example, the processor 206 can synthesize a voice to describe the detected target sound (e.g., "ambulance approaching"). At step 310, a message may be sent to a mobile device identifying the detected sound signature (e.g., "alarm sounding").

Please replace paragraph [0039] with the following rewritten paragraph:

[0039] **FIG. 4** illustrates earpiece modes 400 in accordance with an exemplary embodiment. The earpiece mode can be manually selected by the user, for example, by pressing a button, or automatically selected, for example, when the earpiece 100 detects it is in an active ~~listening~~listen state or in a media state. As shown in FIG. 4, the earpiece mode can correspond to Signature Sound Pass Through Mode (SSPTM), Signature Sound Boost Mode (SSBM), Signature Sound ~~Rejection~~Replacement Mode (SSRM), Signature Sound Attenuation Mode (SSAM), and Signature Sound Replacement Mode (SSRM).

Please replace paragraph [0052] with the following rewritten paragraph:

If at least one property (e.g., power, spectral shape, duration, etc) of the ambient sound exceeds a threshold (or adaptive threshold), the earpiece 100 at step **530** can proceed to generate a sound signature for the ambient sound. In one exemplary embodiment the sound signature is a feature vector which can include statistical parameters or salient features of the ambient sound. An ambient sound with a target sound (e.g. "bell", "siren"), such as shown in step **532**, is generally expected to exhibit features similar to sound signatures for similar target sounds (e.g. "bell", "siren") stored in the user defined database 504 or the on-line database 506. The earpiece 100 can also identify a direction and speed of the sound source if it is moving, for example, by evaluating Doppler shift as shown in step **534** and **536**. The earpiece 100, by way of beam-forming among multiple ASM microphones can also ~~determine~~-estimate a direction of a sound source generating the

target sound. In another arrangement, when dual earpieces 100 are used, or when multiple ASMs are employed, the distance and bearing of a sound source can be calculated by frequency dependent magnitude and phase between ASMs 110 (e.g. left and right). The speed and bearing of the sound source can also be estimated using pitch analysis to detect changes predicted by Doppler effect, or alternatively by an analysis in changes in relative phase and magnitude between the two ASM signals. The earpiece 100, by way of a sound recognition engine, can detect general target signals such as car horns or emergency sirens (and other signals referenced by ISO 7731) using spectral and temporal analysis.

Please replace paragraph [0055] with the following rewritten paragraph:

[0055] FIG. 6 is a flowchart of a method 600 for a method for managing audio delivery based on detected sound signatures in accordance with an exemplary embodiment. The method 600 can be practiced with more or less than the number of steps shown and is not limited to the order shown. To describe the method 600, reference will be made to components of FIG 2 , although it is understood that the method 600 can be implemented in any other manner using other suitable components. The method 600 can be implemented in a single earpiece, a pair of earpieces, headphones, or other suitable headset audio delivery device.

Please replace paragraph [0059] with the following rewritten paragraph:

[0059] If at step **608**, a sound signature is detected, the processor **206** can then determine a priority of the detected sound signature (at step 610). The priority establishes how the earpiece 100 manages audio content. Notably, target ~~targets~~ sounds for various environmental conditions and user experiences can be learned. Accordingly, the user or an administrator, can establish priorities for target sounds. Moreover, these priorities can be based on environmental context. For example, if a user is in a warehouse where loading vehicles emit a beeping sound, sound signatures for such vehicles can be given the highest priority. A user can also prioritize learned target sounds for example via a user interface on a paired device (e.g., cell phone), or via speech recognition (e.g., "prioritize - 'ambulance' - high").

Please replace paragraph [0069] with the following rewritten paragraph:

[0069] At step **714**, a distortion metric is performed with each learned model to determine which learned models are closest to the captured feature vector (e.g., sound signature). The learned model with the smallest distortion (e.g., mathematical distance) is generally considered the correct match, or recognition result. It should also be noted that the distortion can be calculated as part of the model comparison in step ~~713~~**716**. This is because the distortion metric may depend on the type of model used (e.g., HMM, NN, GMM, etc) and in fact may be internal to the model (e.g. Viterbi decoding, back-propagation error update, etc). The distortion module is merely presented in FIG. 7 as a separate component to suggest use with other types of pattern recognition methods or learning models.

Please replace paragraph [0071] with the following rewritten paragraph:

[0071] The classification step **715** also takes into account likelihoods (e.g. recognition probabilities). For instance, as part of the step of comparing the sound signature of the unknown ambient sound against all the GMMs for the learned models, each GMM can produce a likelihood result, or output. As an example, ~~this~~these likelihood results can be evaluated against each other or in the context in a logical context to determine the GMM considered "most likely" to match the sound signature of the target sound. The processor 206 can then select the GMM with the highest likelihood or score via soft decisions.

Please replace paragraph [0074] with the following rewritten paragraph:

[0074] **FIG. 8**, presents a pictorial diagram 800 for mixing ambient sounds and target sounds with audio content. In the illustration show, the earpiece 100 is playing music 136 to the ear canal via ECR 120 while simultaneously monitoring target sounds in the environment. At time, T, the processor 206 upon detecting a target sound (signature 135) can lower the music volume from the media player 150 (graph 141), and increase the volume of the ambient sound received at the ASM 110 (graph 142). Other mixing arrangements are herein contemplated. In such regard, the user hears a smooth audio transition between the music and the target sound. Notably, the ramp up and down times can also be adjusted based on the priority of the target sound. For example, in an extreme case, the processor 206 can immediately shut off the music, and present the audible warning. Other various implementations for mixing audio and managing audio content delivery have been herein contemplated. Moreover, the audio content can be managed with other media devices (e.g., cell phone). For instance, upon detecting a target sound, the

| processor 206 can inform the user and the called party of a target sound. In such regard, the user does not need to inform the called party since they also receive the notification which can save them time to explain an emergency situation.

Please replace paragraph [0075] with the following rewritten paragraph:

[0075] As one example, the processor 206 can spectrally enhance the audio content in view of the ambient sound. Moreover, a timbral balance of the audio content can be maintained by taking into account level dependent equal loudness curves and other psychoacoustic criteria (e.g., masking) associated with the personalized hearing level (PHL). For instance, auditory queues in a received audio content can be enhanced based on the PHL 430 and a spectrum of the ambient sound captured at the ASM 110. Frequency peaks within the audio content can be elevated relative to ambient noise frequency levels and in accordance with the PHL to permit sufficient audibility of the ambient sound. The PHL reveals frequency dynamic ranges that can be used to limit the compression range of the peak elevation in view of the ambient noise spectrum.

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) An acoustic device, comprising:

an Ambient Sound Microphone (ASM) configured to capture ambient sound;

at least one Ear Canal Receiver (ECR) configured to deliver audio to an ear canal;

and

a processor operatively coupled to the ASM and the ECR, where the processor monitors the ambient sound for a target sound and adjusts the audio delivered to the ear canal based on the target sound, the processor generating a sound signature from the ambient sound and comparing the sound signature to a plurality of learned signature models to detect the target sound.
2. (Cancelled)
3. (Original) The acoustic device of claim 1, where the acoustic device is an earpiece, wherein the target sound is at least one among an alarm, a horn, and a noise.
4. (Original) The acoustic device of claim 1, where the acoustic device is an earpiece, wherein the processor monitors the ambient sound for spoken words associated with verbal warnings.
5. (Currently Amended) The acoustic device of claim 1, where the acoustic device is an earpiece, further comprising a memory to store, responsive to a directive by a user of the acoustic device, at least one target sound captured by the ASM for learning.
6. (Original) The acoustic device of claim 1, where the acoustic device is an earpiece, further comprising an audio interface operatively coupled to the processor configured to receive audio content from a media player or cell phone,

wherein the processor selectively adjusts a volume of the audio content delivered to the ear canal when the target sound is detected.
7. (Currently Amended) A method for personalized listening, the method comprising:

capturing ambient sound with an Ambient Sound Microphone (ASM)-;

monitoring the ambient sound for a target sound by generating a sound signature from the ambient sound and comparing the sound signature to a plurality of learned signature models to detect the target sound; and

~~adjusting by way of an Ear Canal Receiver (ECR) in the earpiece~~ a delivery of audio by an Ear Canal Receiver (ECR) in an earpiece to an ear canal based on ~~thea~~ detected target sound.

8. (Original) The method of claim 7, further comprising: passing the target sound to the ECR for delivery to the ear canal.

9. (Original) The method of claim 7, further comprising: amplifying the target sound for delivery to the ear canal.

10. (Original) The method of claim 7, further comprising: attenuating the target sound for delivery to the ear canal.

11. (Original) The method of claim 7, further comprising: generating an audible message for delivery to the ear canal.

12. (Currently Amended) ~~A-The method for personalized listening, the method of claim 7, further comprising:~~

~~—capturing ambient sound with an Ambient Sound Microphone (ASM);~~

~~—detecting a sound signature within the ambient sound that is associated with a target sound; and~~

mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound.

13. (Currently Amended) The method of claim ~~7~~¹², further comprising: detecting and reporting from the sound signature a direction or a speed of a sound source generating the target sound.

14. (Currently Amended) The method of claim ~~7~~¹², further comprising: detecting and reporting from the sound signature a spoken utterance in the ambient sound associated with verbal warnings.

15. (Currently Amended) The method of claim ~~7~~¹², further comprising: identifying the target sound from the sound ~~signature~~^{signatures} and transmitting a warning notification to other devices.

16. (Currently Amended) The method of claim 7±2, wherein the target sound is at least one among an alarm, a horn, a voice, and a noise.

17. (Currently Amended) A method for sound signature detection, the method comprising:

capturing ambient sound with an Ambient Sound Microphone (ASM); and

receiving a directive to learn a sound signature within the ambient sound,

where a voice command or an indication from a user is received and is used to initiate the steps of capturing and learning.

18. (Original) The method of claim 17, further comprising: saving the sound signature locally on the earpiece or remotely to a server.

19. (Cancelled)

20. (Currently Amended) A method for personalized listening, the method comprising:

capturing ambient sound via an earpiece that is at least partially occluded in an ear canal;

detecting a sound signature within the ambient sound that is associated with a target sound; and

mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound and a personalized hearing level (PHL),

where learned models are retrieved from a database, the sound signature is compared to the learned models, and the target sound is identified from the learned models in view of the comparison.

21. (Cancelled)

22. (Original) The method of claim 20, further comprising: enhancing auditory queues in the target sound relative to the audio content based on a spectrum of the ambient sound captured at the ASM.

23. (Currently Amended) A sound detection device comprising:

an ambient sound microphone configured to measure an ambient sound; and

an ear canal microphone; and

a processor configured to compare the ambient sound to at least one target sound signature, and where the processor identifies an onset of an identified target sound signature in the ambient sound,

where the ear canal microphone is configured to emit an auditory warning when the processor identifies the onset.

24. (Cancelled)

25. (Currently Amended) The sound detection device according to claim 23, where the ear canal microphone is operatively connected to an earpiece.

Amendment to the Abstract:

The Abstract has been amended. A revised Abstract is attached.

~~At least one exemplary embodiment is directed to a method~~Methods for personalized listening which can be used with an earpiece ~~is are provided, that can~~ A method includes include capturing ambient sound from an Ambient Sound Microphone (ASM) of an earpiece partially or fully occluded in an ear canal, monitoring the ambient sound for a target sound, and adjusting by way of an Ear Canal Receiver (ECR) in the earpiece a delivery of audio to an ear canal based on a detected target sound. A volume of audio content can be adjusted upon the detection of a target sound, and an audible notification can be presented to provide a warning.

Attachment

Remarks/Arguments:

Claims 1, 5, 7, 12-17, 20, 23 and 25 have been amended. No new matter is introduced herein. Claims 2, 19, 21 and 24 have been cancelled. Claims 1, 3-18, 20, 22, 23 and 25 are pending.

Claim Amendments

Claim 1 has been amended to clarify that the processor is operatively coupled to the ASM and the ECR. Claim 1 has also been amended to clarify that the processor: adjusts the audio delivered to the ear canal based on the target sound and generates a sound signature from the ambient sound and compares the sound signature to a plurality of learned signature models to detect the target sound. Claim 7 has been amended similarly to claim 1. No new matter is introduced herein. Support for the amendments to claims 1 and 7 may be found, for example, at paragraphs [0034]-[0036] and Fig. 3 of the original specification.

Claims 12-16 has been amended to depend from claim 7. Claim 17 has been amended to include the features of claim 19. Claim 20 has been amended to include the features of claim 21. Claim 23 has been amended to include the features of claim 24. Claims 5 and 15 have been amended to correspond with respective claims 1 and 7. Claim 25 has been amended to depend from claim 23. No new matter is introduced herein.

Specification Amendments

The specification has been amended to correct for typographical errors and to correspond to the figures. No new matter is introduced herein.

Abstract Amendments

The Abstract has been amended to clarify the language. No new matter is introduced herein.

Double Patenting

Claims 1, 2, 7, 12, 20 and 23 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 7 and 23 of co-pending application no. 11/942,370. It is submitted that, because this is a provisional rejection, Applicants are not required to substantively respond to this provisional rejection until the cited application issues and the rejection is thus, no longer provisional.

Allowable Subject Matter

Applicants appreciate the indication, on pages 7-8 of the Office Action, that claims 4, 14, 19, 21, 22, 24 and 25 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, Applicants have amended claims 17, 20 and 23 with the respective allowable features of claims 19, 21 and 24. Claims 19, 21 and 24 have been canceled. Therefore, Applicants respectfully submit that claims 17, 18, 20 and 23 are also in condition for allowance. The Examiner has acknowledged that claims 19, 21, 22, 24 and 25 include allowable subject matter. Because claims 17, 20 and 23 have been amended to include the indicated allowable features of respective claims 19, 21 and 24, Applicants respectfully request that the objection to claims 22 and 25 be withdrawn, and that the rejection of claims 17, 18, 20 and 23 be withdrawn.

Applicants note that claims 1 and 7 have been amended to include features similar to the indicated allowable features of claim 21. Namely, comparing the sound signature to a plurality of learned signature models to detect target sound. Applicants also note that claims 12-16 has been amended to depend from claim 7. Because claims 1 and 7 have been amended to include features similar to the indicated allowable features of claim 21, Applicants respectfully request that the rejection of claims 1, 3, 5-13, 15 and 16 be withdrawn, and that the objection to claims 4 and 14 be withdrawn.

Rejections Under 35 U.S.C. §§ 102, 103

Claims 1-3, 5, 7-13, 15-18, 20 and 23 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Chabries et al. (U.S. 2005/0111683, referred to herein as Chabries). Claim 6 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chabries. Claim 2 has been cancelled. Accordingly, the rejection of this claim is moot. It is respectfully submitted, however, that the remaining claims are patentable over the cited art for the reasons set forth below.

Claims 1 and 7 have been amended to include features similar to the indicated allowable features of claim 21. Namely, comparing the sound signature (generated from the ambient sound) to a plurality of learned signature models to detect the target sound.

Chabries discloses, in Fig. 1, hearing compensation system 10 including input transducer 12, bandpass filters 18, multiplicative AGCs 20 and output transducer 24. Multiplicative AGC circuits 20 attenuate acoustic signals having a constant background level without removing the portions of the speech signal which contribute to intelligibility. The

identification of the background noise portion is made by the constancy of the envelope of the input signal in each of several frequency bands. Background noise that is suppressed includes multi-talker speech babble, fan noise, feedback whistle, fluorescent light hum, other colored noise and white noise. (Paragraphs [0062], [0063] and [0066]-[0072].)

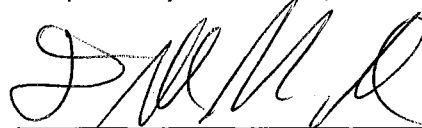
Chabries, however, does not compare the sound signature generated from the ambient sound to a plurality of learned signature models to detect the target sound, as required by claims 1 and 7. Instead, Chabries examines the constancy of the envelope of the input signature in several frequency bands. Thus, Chabries does not include all of the features of claim 1 and 7. Accordingly, allowance of claims 1 and 7 is respectfully requested.

Claims 3, 5, 6, 8-13, 15 and 16 include all of the features of respective claims 1 and 7 from which they depend. Accordingly, these claims are also patentable over the cited art for at least the same reasons as respective claims 1 and 7.

Conclusion

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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Deborah M. Grove, Reg. No. 61,091
Attorney/Patent Agent for Applicants

KNN/DMG/kpc

Attachment: Abstract

Dated: November 17, 2011

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The Director is hereby authorized to charge or credit Deposit Account No. 18-0350 for any additional fees, or any underpayment or credit for overpayment in connection herewith.

1413659

ABSTRACT

Methods for personalized listening which can be used with an earpiece are provided. A method includes capturing ambient sound from an Ambient Sound Microphone (ASM) of an earpiece partially or fully occluded in an ear canal, monitoring the ambient sound for a target sound, and adjusting by way of an Ear Canal Receiver (ECR) in the earpiece a delivery of audio to an ear canal based on a detected target sound. A volume of audio content can be adjusted upon the detection of a target sound, and an audible notification can be presented to provide a warning.

Electronic Acknowledgement Receipt	
EFS ID:	11430969
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	71158
Filer:	Deborah M. Grove/Danielle Murphy
Filer Authorized By:	Deborah M. Grove
Attorney Docket Number:	PRS-116US (PERS-0012US)
Receipt Date:	17-NOV-2011
Filing Date:	28-DEC-2007
Time Stamp:	15:41:53
Application Type:	Utility under 35 USC 111(a)

Payment information:					
Submitted with Payment			no		
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	Amendment.pdf	658087 c7a955668263a71f52ca6ccf34324bd69c2b0e9d	no	15
Warnings:					
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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

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 11/966,457		Filing Date 12/28/2007		☐ To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)			SMALL ENTITY ☒ OR		OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A				
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A				
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A				
TOTAL CLAIMS (37 CFR 1.16(j))	minus 20 =	*	X \$	=		X \$	=			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		X \$	=			
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))										
* If the difference in column 1 is less than zero, enter "0" in column 2.										
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT	11/17/2011	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 21	Minus	** 25	= 0	X \$30 =	0		X \$	=
	Independent (37 CFR 1.16(h))	* 5	Minus	***6	= 0	X \$125 =	0		X \$	=
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE	0		TOTAL ADD'L FEE	
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$	=		X \$	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$	=		X \$	=
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE			TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

Legal Instrument Examiner:
/SONYA HILLIARD/

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MANDALA, VICTOR A

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 11/30/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/966,457

12/28/2007

Steven W. Goldstein

PRS-116US
(PERS-0012US)

5168

TITLE OF INVENTION: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$870	\$300	\$0	\$1170	02/29/2012

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THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or **Fax** (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

71158 7590 11/30/2011
RatnerPrestia
P.O. Box 980
Valley Forge, PA 19482

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/966,457

12/28/2007

Steven W. Goldstein

PRS-116US
(PERS-0012US)

5168

TITLE OF INVENTION: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional

YES

\$870

\$300

\$0

\$1170

02/29/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
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MANDALA, VICTOR A

2826

381-057000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☐ Issue Fee☐ Publication Fee (No small entity discount permitted)☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.☐ Payment by credit card. Form PTO-2038 is attached.☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)	5168
71158	7590	11/30/2011	EXAMINER	
RatnerPrestia P.O. Box 980 Valley Forge, PA 19482			MANDALA, VICTOR A	
			ART UNIT	PAPER NUMBER
			2826	
DATE MAILED: 11/30/2011				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 900 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 900 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No.	Applicant(s)	
	11/966,457	GOLDSTEIN ET AL.	
	Examiner	Art Unit	
	VICTOR A. MANDALA	2826	

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/17/11.
2. ☐ 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.
3. ☒ The allowed claim(s) is/are 1,3-18,20,22,23 and 25.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - 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)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. ☒ Notice of References Cited (PTO-892) | 5. ☐ Notice of Informal Patent Application |
| 2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____ | 7. ☐ Examiner's Amendment/Comment |
| 4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. ☒ Examiner's Statement of Reasons for Allowance |
| | 9. ☐ Other ____. |

/VICTOR A MANDALA/
Primary Examiner, Art Unit 2826

Art Unit: 2826

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

The amendment and the arguments filed on 11/17/11 have been considered and found persuasive, hence claims 1, 3-18, 20, 22, 23, and 25 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTOR A. MANDALA whose telephone number is (571)272-1918. The examiner can normally be reached on Monday through Thursday from 9-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davienne Monbleau can be reached on 571-272-1945. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2826

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.

/VICTOR MANDALA /
Primary Examiner, Art Unit 2826
11/28/11

Notice of References Cited	Application/Control No. 11/966,457		Applicant(s)/Patent Under Reexamination GOLDSTEIN ET AL.	
	Examiner VICTOR A. MANDALA		Art Unit 2826	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2008/0137873	06-2008	Goldstein, Steven W.	381/57
*	B	US-2008/0037801	02-2008	Alves et al.	381/71.6
*	C	US-2007/0223717	09-2007	Boersma, Johan	381/074
*	D	US-2007/0160243	07-2007	Dijkstra et al.	381/317
*	E	US-2005/0254665	11-2005	Vaudrey et al.	381/072
*	F	US-2005/0111683	05-2005	Chabries et al.	381/317
*	G	US-2004/0234089	11-2004	Rembrand et al.	381/312
*	H	US-2004/0037428	02-2004	Keller, James E.	381/60
*	I	US-5,251,263	10-1993	Andrea et al.	381/71.6
*	J	US-8,059,847	11-2011	Nordahn, Morten Agerbak	381/328
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*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.

Search Notes 	Application/Control No. 11966457	Applicant(s)/Patent Under Reexamination GOLDSTEIN ET AL.
	Examiner VICTOR A MANDALA	Art Unit 2826

SEARCHED			
Class	Subclass	Date	Examiner
381	56,57,60,317	11/28/11	VAMJ

SEARCH NOTES		
Search Notes	Date	Examiner
EAST WORD SEARCH	8/10/11	VAMJ
INVENTOR SEARCH	8/10/11	VAMJ
381/56,57,60,317,58,71.1,71.5,71.6,73.1 WITH WORD SEARCH	8/10/11	VAMJ
CONTINUE SEARCH	8/12/11	VAMJ
REFRESH AND RENEW SEARCH	11/28/11	VAMJ

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
381	56,57,60,317	11/28/11	VAMJ

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UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 5168

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.		
11/966,457	12/28/2007	381	2826	PRS-116US (PERS-0012US)		
APPLICANTS Steven W. Goldstein, Delray Beach, FL; Mark A. Clements, Lilburn, GA; Marc A. Boillot, Plantation, FL; ** CONTINUING DATA ***** This appln claims benefit of 60/883,013 12/31/2006 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 01/19/2008						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and /VICTOR A MANDALA/ Acknowledged Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY FL	SHEETS DRAWINGS 5	TOTAL CLAIMS 25	INDEPENDENT CLAIMS 6
ADDRESS RatnerPrestia P.O. Box 980 Valley Forge, PA 19482 UNITED STATES						
TITLE METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION						
FILING FEE RECEIVED 940	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit		

<i>Index of Claims</i> 	Application/Control No. 11966457	Applicant(s)/Patent Under Reexamination GOLDSTEIN ET AL.
	Examiner VICTOR A MANDALA	Art Unit 2826

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant										☐ CPA		☐ T.D.		☐ R.1.47	
CLAIM		DATE													
Final	Original	08/10/2011	08/14/2011												
1	1	✓	=												
	2	✓	-												
2	3	✓	=												
3	4	O	=												
4	5	✓	=												
5	6	✓	=												
6	7	✓	=												
7	8	✓	=												
8	9	✓	=												
9	10	✓	=												
10	11	✓	=												
11	12	✓	=												
12	13	✓	=												
13	14	O	=												
14	15	✓	=												
15	16	✓	=												
16	17	✓	=												
17	18	✓	=												
	19	O	-												
18	20	✓	=												
	21	O	-												
19	22	O	=												
20	23	✓	=												
	24	O	-												
21	25	O	=												

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	897	381/56.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L2	438	381/57.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L3	955	381/58.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L4	419	381/60.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L5	297	381/317.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L6	489	381/71.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L7	411	381/71.5.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L8	304	381/71.6.ccls.	US-PGPUB;	OR	OFF	2011/11/28

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			16:10
L9	271	381/73.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L10	4147	L1 L2 L3 L4 L5 L6 L7 L8 L9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L11	3430	L10 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L12	3430	L11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L13	7	L12 and (((ambient adj sound) near2 (microphone)) or asm) and (((ear adj canal) near2 receiver) or ecr)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L14	166	L12 and (((background or ambient) adj (noise or sound)) or asm) and ((ear adj canal) or ecr)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L15	159	L14 not L13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L16	88	L15 and (memory or storage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2011/11/28 16:10

			IBM_TDB			
L17	897	381/56.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L18	438	381/57.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L19	955	381/58.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L20	419	381/60.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L21	297	381/317.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L22	489	381/71.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L23	411	381/71.5.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L24	304	381/71.6.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L25	271	381/73.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2011/11/28 16:10

			JPO; DERWENT; IBM_TDB			
L26	4147	L17 L18 L19 L20 L21 L22 L23 L24 L25	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L27	3430	L26 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L28	3430	L27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L29	29	L28 and (((background or ambient) adj (noise or sound)) or asm) and target and (mix or mixing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L30	6	L29 and (ear adj canal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L31	121	((ear adj canal) ecr) and (((ambient background) adj (sound noise)) asm) and ((hearing adj level) phl)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L32	64	L31 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L33	1	L32 and (target adj sound)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L34	2	L32 and signature	US-PGPUB; USPAT;	OR	OFF	2011/11/28 16:10

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
L35	43	((ear adj canal) ecr) and (((ambient background) adj (sound noise)) asm) with (monitor monitoring monitored)) and ((hearing adj level) phl)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L36	42	L35 and processor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L37	12	L36 and (learn learning learned)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L38	3	L37 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L39	14	L35 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L40	14	L39 and processor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L41	185	((ear adj canal) ecr) and (((ambient background) adj (sound noise)) asm) SAME (monitor monitoring monitored))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L42	119	L41 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10

L43	14	L42 and (learn learning learned)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L44	14	L40 L38	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/11/28 16:10
L45	9	(hearing adj aid) and (verbal adj warning)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L46	197	L13 L14 L16 L30 L33 L34 L37 L38 L40 L43 L44 L45	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:10
L47	1	46 and @pd>="20110810"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:11
L48	0	((ambient adj sound) adj microphone) and (capture adj ambient) and ((ear adj canal) adj receiver) and (deliver adj audio) and processor and monitors and (target adj sound) and (sound adj signature) and comparing and (learned adj signature) and detect).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:16
L51	0	((ambient adj sound) adj microphone) and ((ear adj canal) adj receiver) and (deliver near2 audio) and monitoring and (target adj sound) and (sound adj signature) and comparing and (learned adj signature) and detect).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:18
L52	0	((ambient adj sound) adj microphone) and receiving and directive and (sound adj signature) and (voice adj command) and user and capturing and learning and indication).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:24
L55	1	((ambient adj sound) adj microphone) and (sound adj signature) and earpiece and ((personalized adj hearing) adj level) and (audio adj content) and (target adj sound) and (database) and (learned adj	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2011/11/28 16:26

		models)).clm.	DERWENT; IBM_TDB			
L56	25	((ambient adj sound) adj microphone) and processor ((identified adj target) adj sound) and (ear adj canal) and onset and (auditory adj warning)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:28
L59	1	((ambient adj sound) adj microphone) and processor and ((identified adj target) adj sound) and (ear adj canal) and onset and (auditory adj warning)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/11/28 16:28
S2	866	381/56.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:22
S3	423	381/57.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:22
S4	930	381/58.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:22
S5	404	381/60.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:23
S6	284	381/317.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:23
S7	455	381/71.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:23
S8	409	381/71.5.ccls.	US-PGPUB; USPAT; USOCR;	OR	OFF	2011/08/10 15:23

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S9	291	381/71.6.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:23
S10	266	381/73.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:23
S11	4016	S2 S3 S4 S5 S6 S7 S8 S9 S10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:23
S12	3381	S11 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/10 15:24
S13	866	381/56.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S14	423	381/57.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S15	930	381/58.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S16	405	381/60.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S17	284	381/317.ccls.	US-PGPUB;	OR	OFF	2011/08/12

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			10:25
S18	455	381/71.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S19	409	381/71.5.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S20	291	381/71.6.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S21	266	381/73.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S22	4017	S13 S14 S15 S16 S17 S18 S19 S20 S21	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S23	3381	S22 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S24	3381	S23	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/12 10:25
S25	7	S24 and (((ambient adj sound) near2 (microphone)) or asm) and (((ear adj canal) near2 receiver) or ecr)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2011/08/12 10:27

			IBM_TDB			
S26	7	S24 and (((ambient adj sound) near2 (microphone)) or asm) and (((ear adj canal) near2 receiver) or ecr)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/12 10:27
S27	165	S24 and (((background or ambient) adj (noise or sound)) or asm) and ((ear adj canal) or ecr)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/12 10:41
S28	158	S27 not S26	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/12 10:41
S29	87	S28 and (memory or storage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/12 10:52
S30	5	("20050105750" "4837832" "5867581" "6023517" "6728385").PN.	US-PGPUB; USPAT	OR	OFF	2011/08/14 19:31
S31	866	381/56.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S32	423	381/57.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S33	930	381/58.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S34	405	381/60.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37

S35	284	381/317.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S36	455	381/71.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S37	409	381/71.5.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S38	291	381/71.6.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S39	266	381/73.1.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S40	4017	S31 S32 S33 S34 S35 S36 S37 S38 S39	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S41	3381	S40 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S42	3381	S41	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 19:37
S43	115	S42 and (((background or ambient) adj (noise or sound)) or asm) and target	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2011/08/14 19:37

			DERWENT; IBM_TDB			
S44	29	S42 and (((background or ambient) adj (noise or sound)) or asm) and target and (mix or mixing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/14 19:37
S45	22	S44 and ear	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/14 19:38
S46	6	S44 and (ear adj canal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/14 19:38
S47	104	((ear adj canal) ecr) and (((ambient background) adj (sound noise)) asm) and ((hearing adj level) phl)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:02
S48	114	((ear adj canal) ecr) and (((ambient background) adj (sound noise)) asm) and ((hearing adj level) phl)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/14 20:02
S49	64	S48 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:02
S50	1	S49 and (target adj sound)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:03
S51	2	S49 and signature	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:03
S52	42	((ear adj canal) ecr) and (((ambient background) adj (sound noise)) asm) with (monitor monitoring monitored))	US-PGPUB; USPAT; USOCR;	OR	ON	2011/08/14 20:05

		and ((hearing adj level) phl)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S53	41	S52 and processor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:05
S54	12	S53 and (learn learning learned)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:06
S55	3	S54 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:07
S56	14	S52 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:08
S57	14	S56 and processor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:08
S58	11	S57 not S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:08
S59	179	((ear adj canal) ecr) and (((ambient background) adj (sound noise)) asm) SAME (monitor monitoring monitored))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/14 20:16
S60	118	S59 and (@rlad<="20061231" @ad<="20061231" @pd<="20061231")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:16
S61	14	S60 and (learn learning learned)	US-PGPUB;	OR	OFF	2011/08/14

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			20:16
S62	14	S57 S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:16
S63	11	S61 not S62	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/08/14 20:16
S64	9	(hearing adj aid) and (verbal adj warning)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/08/14 20:32

11/ 28/ 2011 4:29:24 PM
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number	11/966,457
Filing Date	December 28, 2007
First Named Inventor	Steven W. Goldstein et al.
Art Unit	2826
Examiner Name	Victor A. Mandala
Attorney Docket No.	PRS-116US

SHEET 1 of 2

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US-20060262938	11-23-2006	Gauger et al.	
		US-6,415,034	07-02-2002	Hietanen	
		US-			
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FOREIGN PATENT DOCUMENTS

[illegible]

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional).

²See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³Enter Office that issued the document, by the two-letter code (WIPO Standard St.3).

⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

⁶Applicant is to place a check mark here if English language translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>	Complete if Known	
	Application Number	11/966,457
	Filing Date	December 28, 2007
	First Named Inventor	Steven W. Goldstein et al.
	Art Unit	2826
	Examiner Name	Victor A. Mandala
	Attorney Docket No.	PRS-116US
SHEET 2 of 2		

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Office Action for Appln. No. 12/165,022, filed June 30, 2008, mailed December 22, 2011.	
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Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional).

²Applicant is to place a check mark here if English language translation is attached.

The collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

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Electronic Patent Application Fee Transmittal				
Application Number:		11966457		
Filing Date:		28-Dec-2007		
Title of Invention:		METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION		
First Named Inventor/Applicant Name:		Steven W. Goldstein		
Filer:		Deborah M. Grove/Edna Phelan		
Attorney Docket Number:		PRS-116US (PERS-0012US)		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
Total in USD (\$)				180

Electronic Acknowledgement Receipt

EFS ID:	12142182
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	71158
Filer:	Deborah M. Grove/Edna Phelan
Filer Authorized By:	Deborah M. Grove
Attorney Docket Number:	PRS-116US (PERS-0012US)
Receipt Date:	23-FEB-2012
Filing Date:	28-DEC-2007
Time Stamp:	15:26:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 180
RAM confirmation Number	2082
Deposit Account	180350
Authorized User	GROVE,DEBORAH

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	IDS.pdf	65809 231665980f34312eb27444458a2295958a301b70	no	2
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	SB08.pdf	91482 55cdb43d423416aad25a1b2afa9dfba63bd200d	no	2
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Non Patent Literature	officeaction.pdf	481201 7555681977f308d33f8c596f00d45039e857f3cb	no	14
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30339 71300858cbbf3701be44b7c7840de888fcd4ebc4	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			668831		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No: 11/966,457
Applicant: Steven W. Goldstein, et al.
Filed: December 28, 2007
Title: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE
DETECTION
TC/A.U.: 2826
Examiner: Victor A. Mandala
Confirmation No.: 5168

INFORMATION DISCLOSURE STATEMENT

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

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO/SB/08a and PTO/SB/08b form submitted herewith. A copy of each reference listed on the PTO/SB/08a and PTO/SB/08b form, other than U.S. patents, is enclosed.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

Pursuant to 37 C.F.R. § 1.98(a)(3), a brief statement of relevance as to each of these references follows:

STATEMENT UNDER 37 C.F.R. § 1.97(e)

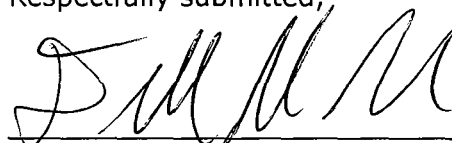
The undersigned hereby states that

☐ each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Information Disclosure Statement.

☒ no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of the Information Statement.

The required fee set forth in 37 C.F.R. § 1.17(p) is provided herewith.

Respectfully submitted,



Kenneth N. Nigon, Reg. No. 31,549
Attorney for Applicants
Deborah M. Grove, Reg. No. 61,091
Patent Agent for Applicants

KNN/DMG/emp

Enclosures: PTO/SB/08a and PTO/SB/08b
Office Actions (2)

Dated: February 23, 2012

☒ P.O. Box 980
Valley Forge, PA 19482
(610) 407-0700

The Director is hereby authorized to charge or credit Deposit Account No. 18-0350 for any additional fees, or any underpayment or credit for overpayment in connection herewith..

1488029_1

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or **Fax** (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

71158 7590 11/30/2011
RatnerPrestia
P.O. Box 980
Valley Forge, PA 19482

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

11/966,457 12/28/2007 Steven W. Goldstein PRS-116US 5168

TITLE OF INVENTION: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

(PERS-0012US)

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional YES \$870 \$300 \$0 \$1170 02/29/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
MANDALA, VICTOR A	2826	381-057000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 RatnerPrestia

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Personics Holdings Inc.

Boca Raton, FL

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee

☒ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.

☒ Payment by credit card. Form PTO-2038 is attached.

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 18-0350 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☒ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature



Date

02/27/12

Typed or printed name Deborah M. Grove

Registration No. 61,091

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No: 11/966,457
Applicant: Steven W. Goldstein et al.
Filed: December 28, 2007
Title: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE
DETECTION
TC/A.U.: 2826
Examiner: Victor A. Mandala
Confirmation No.: 5168
Docket No.: PRS-116US

AMENDMENT UNDER 37 C.F.R § 1.312

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §1.312, Applicant requests that the above-identified application be amended as follows:

- ☐ **Amendments to the Specification** begin on page of this paper.
- ☒ **Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.
- ☐ **Amendments to the Drawings** begin on page of this paper and include an attached replacement sheet(s).
- ☐ **Amendments to the Abstract** are on page of this paper. A clean version of the Abstract is on page of this paper.
- ☒ **Remarks/Arguments** begin on page 6 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. (Previously Presented) An acoustic device, comprising:

an Ambient Sound Microphone (ASM) configured to capture ambient sound;

at least one Ear Canal Receiver (ECR) configured to deliver audio to an ear canal; and

a processor operatively coupled to the ASM and the ECR, where the processor monitors the ambient sound for a target sound and adjusts the audio delivered to the ear canal based on the target sound, the processor generating a sound signature from the ambient sound and comparing the sound signature to a plurality of learned signature models to detect the target sound.
2. (Cancelled)
3. (Original) The acoustic device of claim 1, where the acoustic device is an earpiece, wherein the target sound is at least one among an alarm, a horn, and a noise.
4. (Original) The acoustic device of claim 1, where the acoustic device is an earpiece, wherein the processor monitors the ambient sound for spoken words associated with verbal warnings.
5. (Previously Presented) The acoustic device of claim 1, where the acoustic device is an earpiece, further comprising a memory to store, responsive to a directive by a user of the acoustic device, at least one target sound captured by the ASM for learning.
6. (Original) The acoustic device of claim 1, where the acoustic device is an earpiece, further comprising an audio interface operatively coupled to the processor configured to receive audio content from a media player or cell phone,

wherein the processor selectively adjusts a volume of the audio content delivered to the ear canal when the target sound is detected.
7. (Previously Presented) A method for personalized listening, the method comprising:

capturing ambient sound with an Ambient Sound Microphone (ASM);

monitoring the ambient sound for a target sound by generating a sound signature from the ambient sound and comparing the sound signature to a plurality of learned signature models to detect the target sound; and

adjusting a delivery of audio by an Ear Canal Receiver (ECR) in an earpiece to an ear canal based on the target sound.

8. (Original) The method of claim 7, further comprising: passing the target sound to the ECR for delivery to the ear canal.

9. (Original) The method of claim 7, further comprising: amplifying the target sound for delivery to the ear canal.

10. (Original) The method of claim 7, further comprising: attenuating the target sound for delivery to the ear canal.

11. (Original) The method of claim 7, further comprising: generating an audible message for delivery to the ear canal.

12. (Previously Presented) The method of claim 7, further comprising:

mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound.

13. (Previously Presented) The method of claim 7, further comprising: detecting and reporting from the sound signature a direction or a speed of a sound source generating the target sound.

14. (Previously Presented) The method of claim 7, further comprising: detecting and reporting from the sound signature a spoken utterance in the ambient sound associated with verbal warnings.

15. (Previously Presented) The method of claim 7, further comprising: identifying the target sound from the sound signature and transmitting a warning notification to other devices.

16. (Previously Presented) The method of claim 7, wherein the target sound is at least one among an alarm, a horn, a voice, and a noise.

17. (Previously Presented) A method for sound signature detection, the method comprising:
capturing ambient sound with an Ambient Sound Microphone (ASM); and
receiving a directive to learn a sound signature within the ambient sound,

where a voice command or an indication from a user is received and is used to initiate the steps of capturing and learning.

18. (Currently Amended) The method of claim 17, further comprising: saving the sound signature locally on ~~the~~an earpiece or remotely to a server.

19. (Cancelled)

20. (Previously Presented) A method for personalized listening, the method comprising:
capturing ambient sound via an earpiece that is at least partially occluded in an ear canal;

detecting a sound signature within the ambient sound that is associated with a target sound; and

mixing the target sound with audio content delivered to the earpiece in accordance with a priority of the target sound and a personalized hearing level (PHL),

where learned models are retrieved from a database, the sound signature is compared to the learned models, and the target sound is identified from the learned models in view of the comparison.

21. (Cancelled)

22. (Currently Amended) The method of claim 20, further comprising: enhancing auditory queues in the target sound relative to the audio content based on a spectrum of the ambient sound captured at ~~the~~an ambient sound microphone (ASM).

23. (Previously Presented) A sound detection device comprising:

an ambient sound microphone configured to measure an ambient sound;

an ear canal microphone; and

a processor configured to compare the ambient sound to at least one target sound signature, and where the processor identifies an onset of an identified target sound signature in the ambient sound,

where the ear canal microphone is configured to emit an auditory warning when the processor identifies the onset.

24. (Cancelled)

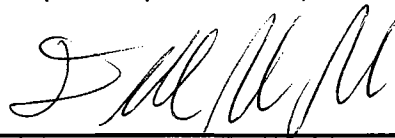
25. (Previously Presented) The sound detection device according to claim 23, where the ear canal microphone is operatively connected to an earpiece.

Remarks/Arguments:

In reviewing the application, applicant noted some minor problems with Claims 18 and 22. Claims 18 and 22 have been amended to correct these problems.

No new matter is added or new issues raised, accordingly, the amendment is proper under 37 C.F.R. § 1.312 and its entry is requested.

Respectfully submitted,



Kenneth N. Nigon, Reg. No. 31,549
Attorney for Applicants
Deborah M. Grove, Reg. No. 61,091
Patent Agent for Applicants

KNN/DMG/emp

Dated: February 27, 2012

P.O. Box 980
Valley Forge, PA 19482-0980
(610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

1486867_1

Electronic Patent Application Fee Transmittal				
Application Number:		11966457		
Filing Date:		28-Dec-2007		
Title of Invention:		METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION		
First Named Inventor/Applicant Name:		Steven W. Goldstein		
Filer:		Deborah M. Grove		
Attorney Docket Number:		PRS-116US (PERS-0012US)		
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	2501	1	870	870
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1170

Electronic Acknowledgement Receipt

EFS ID:	12130251
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	71158
Filer:	Deborah M. Grove/Edna Phelan
Filer Authorized By:	Deborah M. Grove
Attorney Docket Number:	PRS-116US (PERS-0012US)
Receipt Date:	27-FEB-2012
Filing Date:	28-DEC-2007
Time Stamp:	12:58:09
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 1170
RAM confirmation Number	12896
Deposit Account	180350
Authorized User	GROVE,DEBORAH

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	issuefeetransmittal.pdf	92189 10ace53e9582a3cdb4bb4242906d4cfc35309ca	no	1
Warnings:					
Information:					
2	Amendment after Notice of Allowance (Rule 312)	312amendment.pdf	184345 d0a10e933957bb7b8f32a3d3a7b69e2d78e5ca8f	no	6
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	31898 3f3965dbc0d7450c64c8c7c1711bf1ff98a627ec	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			308432		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

Response to Rule 312 Communication	Application No. 11/966,457	Applicant(s) GOLDSTEIN ET AL.
	Examiner VICTOR A. MANDALA	Art Unit 2826

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

1. ☒ The amendment filed on 2/27/12 under 37 CFR 1.312 has been considered, and has been:

a) ☒ entered.

b) ☐ entered as directed to matters of form not affecting the scope of the invention.

c) ☐ disapproved because the amendment was filed after the payment of the issue fee.
Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.

d) ☐ disapproved. See explanation below.

e) ☐ entered in part. See explanation below.

	/VICTOR A MANDALA/ Primary Examiner, Art Unit 2826
--	---

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No: 11/966,457
Applicant: Steven W. Goldstein et al.
Filed: December 28, 2007
Title: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE
DETECTION
TC/A.U.: 2826
Examiner: Victor A. Mandala
Confirmation No.: 5168
Docket No.: PRS-116US

AMENDMENT UNDER 37 C.F.R § 1.312

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

OK TO ENTER: /V.M./

Sir:

Pursuant to 37 C.F.R. §1.312, Applicant requests that the above-identified application be amended as follows:

- ☐ **Amendments to the Specification** begin on page of this paper.
- ☒ **Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.
- ☐ **Amendments to the Drawings** begin on page of this paper and include an attached replacement sheet(s).
- ☐ **Amendments to the Abstract** are on page of this paper. A clean version of the Abstract is on page of this paper.
- ☒ **Remarks/Arguments** begin on page 6 of this paper.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)	5168
71158 RatnerPrestia P.O. Box 980 Valley Forge, PA 19482	7590 03/06/2012		EXAMINER MANDALA, VICTOR A	
			ART UNIT	PAPER NUMBER
			2826	
			MAIL DATE	DELIVERY MODE
			03/06/2012	PAPER

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.



UNITED STATES DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office

Address : COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
11/966,457 0012US)	28 December, 2007	GOLDSTEIN ET AL.	PRS-116US (PERS-

RatnerPrestia P.O. Box 980 Valley Forge, PA 19482		EXAMINER	
		VICTOR A. MANDALA	
		ART UNIT	PAPER
		2826	20120229

DATE MAILED:

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

Commissioner for Patents

The IDS filed on 2/23/12 has been considered and the allowance stands as is.

/VICTOR A MANDALA/
Primary Examiner, Art Unit 2826

INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>	Complete if Known	
	Application Number	11/966,457
	Filing Date	December 28, 2007
	First Named Inventor	Steven W. Goldstein et al.
	Art Unit	2826
	Examiner Name	Victor A. Mandala
SHEET 1 of 2	Attorney Docket No.	PRS-116US

[illegible][illegible]

Examiner Signature	/Victor Mandala/	Date Considered	02/29/2012
-----------------------	------------------	--------------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional).

²See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³Enter Office that issued the document, by the two-letter code (WIPO Standard St.3).

⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

⁶Applicant is to place a check mark here if English language translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /V.M./

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	11/966,457
Filing Date	December 28, 2007
First Named Inventor	Steven W. Goldstein et al.
Art Unit	2826
Examiner Name	Victor A. Mandala
Attorney Docket No.	PRS-116US

SHEET 2 of 2

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Office Action for Appln. No. 12/165,022, filed June 30, 2008, mailed December 22, 2011.	
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐

Examiner Signature	/Victor Mandala/	Date Considered	02/29/2012
-----------------------	------------------	--------------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional).

²Applicant is to place a check mark here if English language translation is attached.

The collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

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If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/966,457	04/03/2012	8150044	PRS-116US (PERS-0012US)	5168

71158 7590 03/14/2012
RatnerPrestia
P.O. Box 980
Valley Forge, PA 19482

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 1089 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Steven W. Goldstein, Delray Beach, FL;
Mark A. Clements, Lilburn, GA;
Marc A. Boillot, Plantation, FL;

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CHANGE OF CORRESPONDENCE ADDRESS Patent

Address to:
Mail Stop Post Issue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Patent Number	8,150,044
Issue Date	April 3, 2012
Application Number	11/966,457
Filing Date	December 28, 2007
First Named Inventor	Steven Goldstein
Attorney Docket Number	PRS-116US

Please change the Correspondence Address for the above-identified patent to:



The address associated with Customer Number:

000117822

OR

Firm or
Individual Name

Address

City

State

ZIP

Country

Telephone

Email

This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

This form will not affect any "fee address" provided for the above-identified patent. To change a "fee address" use the "Fee Address Indication Form" (PTO/SB/47).

I am the:



Patentee.



Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

Attorney or agent of record. Registration Number 31,549.

Signature

Typed or

Printed Name

Kenneth N. Nigon

Date

November 7, 2013

Telephone 610-407-0700

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop Post Issue, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Acknowledgement Receipt	
EFS ID:	17338328
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	71158
Filer:	Kenneth Nicholas Nigon/Edna Phelan
Filer Authorized By:	Kenneth Nicholas Nigon
Attorney Docket Number:	PRS-116US (PERS-0012US)
Receipt Date:	07-NOV-2013
Filing Date:	28-DEC-2007
Time Stamp:	12:24:05
Application Type:	Utility under 35 USC 111(a)

Payment information:					
Submitted with Payment			no		
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Change of Address	changeofcorrespdenceaddress.pdf	65575	no	1
			1ba1a82aeda5e09972e4ea20b4fadda4442d07b8		
Warnings:					
Information:					

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

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.

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PATENT - POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS	Patent Number	8,150,044
	Issue Date	04-03-2012
	First Named Inventor	Steven W. Goldstein
	Title	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
	Attorney Docket No.	PRS-116US (PEPS-0012US)

I hereby revoke all previous powers of attorney given in the above identified patent.

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint Practitioner(s) associated with the Customer Number identified in the box at right as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

150139

OR

☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified patent to:

☒ The address associated with the above-identified Customer Number.

OR

☐ The address associated with the Customer Number identified in the box at right:

OR

☐ Firm or
Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the:

☐ Applicant.

OR

☒ Patent owner.

Statement under 37 CFR 3.73(c) (Form PTO/AIA/96) submitted herewith or filed on _____

SIGNATURE of Applicant or Patent Owner

Signature

Name

Maria Stata

Date

10-12-17

Telephone

561 306 7599

Title and Company

Treasurer

NOTE: Signatures of all the applicants or patent owners of the entire interest or their representative(s) are required. If more than one signature is required, submit multiple forms, check the box below, and identify the total number of forms submitted in the blank below.☐ A total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1480, Alexandria, VA 22313-1480. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:



Practitioners associated with the Customer Number:

150139

OR



Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:



The address associated with Customer Number:

150139

OR

☐ Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone	Email		

Assignee Name and Address:

Staton Techiya LLC, 16193 Bridlewood Circle, Delray Beach, FL 33445

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	10-12-17
Name	Maria Staton	Telephone	561 306 7599
Title	Treasurer		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

☒

Practitioners associated with Customer Number:

150139

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Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number

Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

☒

The address associated with Customer Number:

150139

OR

☐

Firm or individual name

Address

City

State

Zip

Country

Telephone

Email

Assignee name and address:

Staton Techiya LLC, 16193 Bridlewood Circle, Delray Beach, FL 33445

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee.

Signature

Maria Staton

Date

10-12-17

Name Maria Staton

Telephone

561 306-7599

Title Treasurer

This collection of information is required by 37 CFR 1.31, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 18 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: STATON TECHIYA, LLC

Application No./Patent No.: 8150044 Filed/Issue Date: 04/03/2012

Titled: METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION

STATON TECHIYA, LLC, a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest in;
2. ☐ an assignee of less than the entire right, title, and interest in
(The extent (by percentage) of its ownership interest is _____ %); or
3. ☐ the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

the patent application/patent identified above, by virtue of either:

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy therefore is attached.

OR

B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: 01/18/2008 To: 01/18/2008

The document was recorded in the United States Patent and Trademark Office at
Reel 020689, Frame 0897, or for which a copy thereof is attached.

2. From: 01/18/2008 To: 04/18/2013

The document was recorded in the United States Patent and Trademark Office at
Reel 025713, Frame 0694, or for which a copy thereof is attached.

3. From: 04/18/2013 To: 12/31/2013

The document was recorded in the United States Patent and Trademark Office at
Reel 030249, Frame 0078, or for which a copy thereof is attached.

☒ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Gary Hoshizaki/

10/15/2017

Signature

Date

Gary Hoshizaki

Patent Agent

Printed or Typed Name

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Supplemental Sheet - additional documents in the chain of title are listed below.

A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

4. From: 12/31/2013 To: 12/31/2013
The document was recorded in the United States Patent and Trademark Office at
Reel 032189 , Frame 0304 , or for which
a copy thereof is attached.
5. From: 12/31/2013 To: 10/17/2014
The document was recorded in the United States Patent and Trademark Office at
Reel 034170 , Frame 0771 , or for which
a copy thereof is attached.
6. From: 10/17/2014 To: 06/20/2017
The document was recorded in the United States Patent and Trademark Office at
Reel 034170 , Frame 0933 , or for which
a copy thereof is attached.
7. From: 06/20/2017 To: 06/20/2017
The document was recorded in the United States Patent and Trademark Office at
Reel 043392 , Frame 0961 , or for which
a copy thereof is attached.
8. From: 06/20/2017 To: 06/21/2017
The document was recorded in the United States Patent and Trademark Office at
Reel 042992 , Frame 0493 , or for which
a copy thereof is attached.
9. From: 06/21/2017 To: 06/21/2017
The document was recorded in the United States Patent and Trademark Office at
Reel 043393 , Frame 0001 , or for which
a copy thereof is attached.
10. From: 06/21/2017 To: Present
The document was recorded in the United States Patent and Trademark Office at
Reel 042992 , Frame 0524 , or for which
a copy thereof is attached.

Electronic Acknowledgement Receipt	
EFS ID:	30658787
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	117822
Filer:	Gary Wesley Hoshizaki
Filer Authorized By:	
Attorney Docket Number:	PRS-116US (PERS-0012US)
Receipt Date:	15-OCT-2017
Filing Date:	28-DEC-2007
Time Stamp:	15:42:16
Application Type:	Utility under 35 USC 111(a)

Payment information:					
Submitted with Payment			no		
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POAMariav1.pdf	1131593	no	3
			347b8ba13519843fb0cd5cf20a1ebdfa94910e		
Warnings:					

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	sb0096_373_before_9162012v1.pdf	113475	no	2
			65104990ccbd742d3eb21068a2366c83ad817813		
Warnings:					
Information:					
3	Assignee showing of ownership per 37 CFR 3.73	SupplementalSheetBeforev1.pdf	29442	no	1
			7cbc9b28455af9ab897561c388bd68e14e2ef7e3		
Warnings:					
Information:					
Total Files Size (in bytes):			1274510		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)

CONFIRMATION NO. 5168

117822
 Personics Holdings, LLC.
 4800 N Federal Hwy. Ste A205
 Boca Raton, FL 33431



Cc: STATON TECHIYA LLC
 16193 BRIDLEWOOD CIRCLE
 DELRAY BEACH, FL 33445

Date Mailed: 10/23/2017

DENIAL OF REQUEST FOR POWER OF ATTORNEY

The request for Power of Attorney filed 10/15/2017 is acknowledged. However, the request cannot be granted at this time for the reason stated below.

- ☐ The Power of Attorney you provided did not comply with the new Power of Attorney rules that became effective on June 25, 2004. See 37 CFR 1.32.
- ☐ The revocation is not signed by the applicant, the assignee of the entire interest, or one particular principal attorney having the authority to revoke.
- ☒ The Power of Attorney is from an assignee and the Certificate required by 37 CFR 3.73(c) has not been received.
- ☐ The person signing for the assignee has omitted their empowerment to sign on behalf of the assignee.
- ☐ The inventor(s) is without authority to appoint attorneys since the assignee has intervened as provided by 37 CFR 3.71.
- ☐ The signature(s) of _____, a co-inventor in this application, has been omitted. The Power of Attorney will be entered upon receipt of confirmation signed by said co-inventor(s).
- ☐ The person(s) appointed in the Power of Attorney is not registered to practice before the U.S. Patent and Trademark Office.
- ☐ Only one Customer Number can be designated for the Power of Attorney in an application. The Customer Number that was captured is the first Customer Number provided on the Power of Attorney document.
- ☐ A request under 37 CFR 1.48 to add an inventor was granted in this application, however, no power of attorney consistent with the power of attorney granted by the originally named inventive entity has been received. Thus, the addition of the inventor has resulted in the loss of power of attorney in the application. See 37 CFR 1.32(e).



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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

- ☐ The power of attorney has not been accepted because the party who is giving power of attorney has not been identified. Power of attorney may only be signed by the applicant for patent (37 CFR 1.42) or the patent owner. A patent owner who was not the applicant must appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. See 37 CFR 1.32(b)(4).
- ☐ The power of attorney from the inventors has not been accepted because it is a copy from a prior national application for which benefit is claimed and the continuing application names an inventor who was not named as an inventor in the prior application.
- ☐ The power of attorney from the inventors has not been accepted because the power of attorney must be signed by the applicant for patent. See 37 CFR 1.32(b)(4).
- ☐ Any request to correct or update the name of the applicant must include an application data sheet (ADS) in compliance with 37 CFR 1.76 specifying the correct or updated name of the applicant in the applicant information section. Any request to change the applicant after an original applicant has been specified under 37 CFR 1.46(b) must include a new ADS in compliance with 37 CFR 1.76 specifying the applicant in the applicant information section and comply with 37 CFR 3.71 and 3.73. See 37 CFR 1.46(c).

Any inquiries regarding this notice should be directed to the Application Assistance Unit at 571-272-4200.

EG

Application Assistance Unit
571-272-4200



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)

CONFIRMATION NO. 5168

MISCELLANEOUS NOTICE

117822
Personics Holdings, LLC.
4800 N Federal Hwy. Ste A205
Boca Raton, FL 33431



Date Mailed: 10/23/2017

A communication which cannot be delivered in electronic form has been mailed to the applicant.

UNITED STATES PATENT AND TRADEMARK OFFICE
COMMISSIONER FOR PATENTS
P.O.BOX 1450
ALEXANDRIA VA 22313-1451

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U.S. POSTAGE PAID
POSTEDIGITAL
NNNNN

Personics Holdings, LLC.
4800 N Federal Hwy. Ste A205
Boca Raton, FL 33431



**Courtesy Reminder for
Application Serial No: 11/966,457**

Attorney Docket No: PRS-116US
(PERS-0012US)

Customer Number: 117822

Date of Electronic Notification: 10/23/2017

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:

iepstein@personicslabs.com
personics_docketing@cardinal-ip.com
pmeles@personicslabs.com

To view your correspondence online or update your email addresses, please visit us anytime at <https://sportal.uspto.gov/secure/myportal/privatepair>. If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

☒ Practitioners associated with the Customer Number:

150139

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

☒ The address associated with Customer Number:

150139

OR

☐ Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone			Email

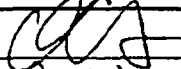
Assignee Name and Address:

Staton Techiya LLC. 16193 Bridlewood Circle, Delray Beach, FL 33445

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	8-14-17
Name	DANIEL C. STATON	Telephone	513-404-0099
Title	MANAGING MEMBER		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)Applicant/Patent Owner: Staton Techiya, LLCApplication No./Patent No.: 8,150,044 Filed/Issue Date: 04-03-2012Titled: Method and Device Configured for Sound Signature DetectionStaton Techiya, LLC, a limited liability company

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose one of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose one of options A or B below):

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: Steven W. Goldstein, Mark A. Clements, Marc A. Boillot To: Personics Holdings Inc.The document was recorded in the United States Patent and Trademark Office at
Reel 020689, Frame 0897, or for which a copy thereof is attached.2. From: Steven W. Goldstein, Mark A. Clements, Marc A. Boillot To: Personics Holdings Inc.The document was recorded in the United States Patent and Trademark Office at
Reel 025713, Frame 0694, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: Personics Holdings, Inc. To: Personics Holdings, LLC

The document was recorded in the United States Patent and Trademark Office at
Reel 032189, Frame 0304, or for which a copy thereof is attached.

4. From: Personics Holdings, Inc., Personics Holdings, LLC To: DM Station Family Limited Partnership, Assignee of Staton Family Investments, Ltd.

The document was recorded in the United States Patent and Trademark Office at
Reel 042992, Frame 0493, or for which a copy thereof is attached.

5. From: Personics Holdings, Inc., Personics Holdings, LLC To: DM Station Family Limited Partnership, Assignee of Staton Family Investments, Ltd.

The document was recorded in the United States Patent and Trademark Office at
Reel 043392, Frame 0961, or for which a copy thereof is attached.

6. From: DM Station Family Limited Partnership, Assignee of Staton Family Investments, Ltd. To: Staton Techiya, LLC

The document was recorded in the United States Patent and Trademark Office at
Reel 042992, Frame 0524, or for which a copy thereof is attached.

☒ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Peter A. Chiabotti/

12-11-2018

Signature

Date

Peter A. Chiabotti

54,603

Printed or Typed Name

Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Continuation of Statement Under 37 CFR 3.73(c) – Section 1(B)

Applicant/Patent Owner: Staton Techiya, LLC

Application No. Patent No.: 8,150,044 Filed/Issue Date: 04-03-2012

Titled: Method and Device Configured for Sound Signature Detection

Staton Techiya, LLC, a limited liability company

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

7. From: DM Staton Family Limited Partnership, Assignee of Staton Family Investments, Ltd.
To: Staton Techiya, LLC

The document was recorded in the United States Patent and Trademark Office at
Reel 043393, Frame 0001, or for which a copy thereof is attached.

Electronic Acknowledgement Receipt	
EFS ID:	34549820
Application Number:	11966457
International Application Number:	
Confirmation Number:	5168
Title of Invention:	METHOD AND DEVICE CONFIGURED FOR SOUND SIGNATURE DETECTION
First Named Inventor/Applicant Name:	Steven W. Goldstein
Customer Number:	117822
Filer:	Peter Allen Chiabotti/Gabriela Batteiger
Filer Authorized By:	Peter Allen Chiabotti
Attorney Docket Number:	PRS-116US (PERS-0012US)
Receipt Date:	11-DEC-2018
Filing Date:	28-DEC-2007
Time Stamp:	14:44:41
Application Type:	Utility under 35 USC 111(a)

Payment information:					
Submitted with Payment			no		
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	11472_38_4_POA_Executed.pdf	70457	no	1
			0eec5fcb33e18cda80fc9d354778e683e47545e6		
Warnings:					

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	US_Patent_No_8150044.pdf	106397	no	4
			2ce7b350ba9340546ecd548bfce0b1ebbeb e27a6		
Warnings:					
Information:					
Total Files Size (in bytes):			176854		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)

CONFIRMATION NO. 5168

POA ACCEPTANCE LETTER



150139
Akerman LLP
777 South Flagler Drive
Suite 1100 West Tower
West Palm Beach, FL 33401

Date Mailed: 12/19/2018

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/11/2018.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/ldvan/



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/966,457	12/28/2007	Steven W. Goldstein	PRS-116US (PERS-0012US)

CONFIRMATION NO. 5168

POWER OF ATTORNEY NOTICE

117822
Personics Holdings, LLC.
4800 N Federal Hwy. Ste A205
Boca Raton, FL 33431



Date Mailed: 12/19/2018

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/11/2018.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/ldvan/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	PATENT NUMBER	GROUP ART UNIT	REQUEST ID
11/966,457	8150044	2826	78193

PAIR Correspondence Address/Fee Address Change

The following fields have been changed to Customer Number 154598 on 12/28/2018 via Private PAIR in view of the certification copied below that authorized the change.

• Correspondence Address

The address for Customer Number 154598 is:

154598

Staton Techiya, LLC

John Keady

16193 Bridlewood Circle

Delray Beach, FL 33445

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

An attorney or Agent of Record registered to practice before the Patent and Trademark Office who has been given power of attorney in this application

Signature:	/Peter A. Chiabotti/
Name:	Peter A. Chiabotti
Registration Number:	54603



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	PATENT NUMBER	GROUP ART UNIT	REQUEST ID
11/966,457	8150044	2826	78193

PAIR Correspondence Address/Fee Address Change

The following fields have been changed to Customer Number 154598 on 12/28/2018 via Private PAIR in view of the certification copied below that authorized the change.

- Maintenance Fee Address

The address for Customer Number 154598 is:

154598

Staton Techiya, LLC

John Keady

16193 Bridlewood Circle

Delray Beach, FL 33445

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

An attorney or Agent of Record registered to practice before the Patent and Trademark Office who has been given power of attorney in this application

Signature:	/Peter A. Chiabotti/
Name:	Peter A. Chiabotti
Registration Number:	54603