

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

K/S HIMPP
Petitioner

v.

Bragi GmbH
Patent Owner

Case: IPR2023-00901
U.S. Patent No. 10,635,385

PATENT OWNER'S DEMONSTRATIVE EXHIBITS

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Alexandria, VA 22313-1450

**Bragi Exhibit 2027
K/S Himpp v. Bragi
IPR2023-00901**



BRAGI

**ORAL ARGUMENT FOR
IPR2023-00901 (U.S. PATENT NO. 10,635,385)**

Before Administrative Patent Judges

- Larry J. Hume
- Stacey G. White
- Norman H. Beamer

McKool Smith

TABLE OF CONTENTS

HENSEN-VIDEO IS NOT PRIOR ART TO THE '385 PATENT

- The proper subject matter comparison for inventor-originated public disclosures under § 102(b)(1)(B) is limited to the subject matter *relied upon by the Petition*.
- Bragi's prior public disclosures contain the same subject matter relied upon by Petitioner.
- Hensen-Kickstarter does not disclose all of the same subject matter as Hensen-Video.

CHALLENGED CLAIMS REMAIN PATENTABLE OVER PETITIONER'S PRIOR ART

- Properly understood, Petitioner's prior art does not teach the '385 Patent's claims.
- Petitioner's invalidity grounds rely on misreading references, hindsight, and an improper expert declaration.

OBJECTIVE EVIDENCE CONFIRMS NONOBVIOUSNESS

- The Dash is coextensive with the subject matter of the '385 Patent.
- The Dash earned industry praise for its novel commercial embodiment, while competitors tried and failed.

Hensen-Video Is Not Prior Art to the '385 Patent

Under § 102(b)(1)(B), Prior Public Disclosures
Disqualify Petitioner's Relied Upon Subject Matter

Inventor-Originated Prior Public Disclosures Disqualify Prior Art

- 35 U.S.C. § 102(b)(1)(B) provides that inventor-originated “grace period” public disclosures exclude the disclosed subject matter from § 102(a)(1) prior art.

(b) Exceptions.—

(1) **Disclosures made 1 year or less before the effective filing date of the claimed invention.**--A disclosure made 1 year or less before the effective filing date of a claimed invention **shall not be prior art to the claimed invention** under subsection (a)(1) if--

(A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(B) **the subject matter disclosed had, before such disclosure, been publicly disclosed** by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

§ 102(b)(1)(B) Compares Petition's Relied-Upon Subject Matter to the Inventor-Originated Prior Public Disclosure

The exception in AIA 35 U.S.C. 102(b)(1)(B) applies to the subject matter in the intervening grace period disclosure being relied upon as prior art for a rejection under AIA 35 U.S.C. 102(a)(1) (an intervening disclosure) that was also publicly disclosed by the inventor or a joint inventor (or by another who obtained the subject matter therefrom) before such intervening disclosure. The subject matter of an intervening grace period disclosure that is not in the inventor-

M.P.E.P. § 2153.02

Inventor-Originated Prior Public Disclosures Disqualify Prior Art

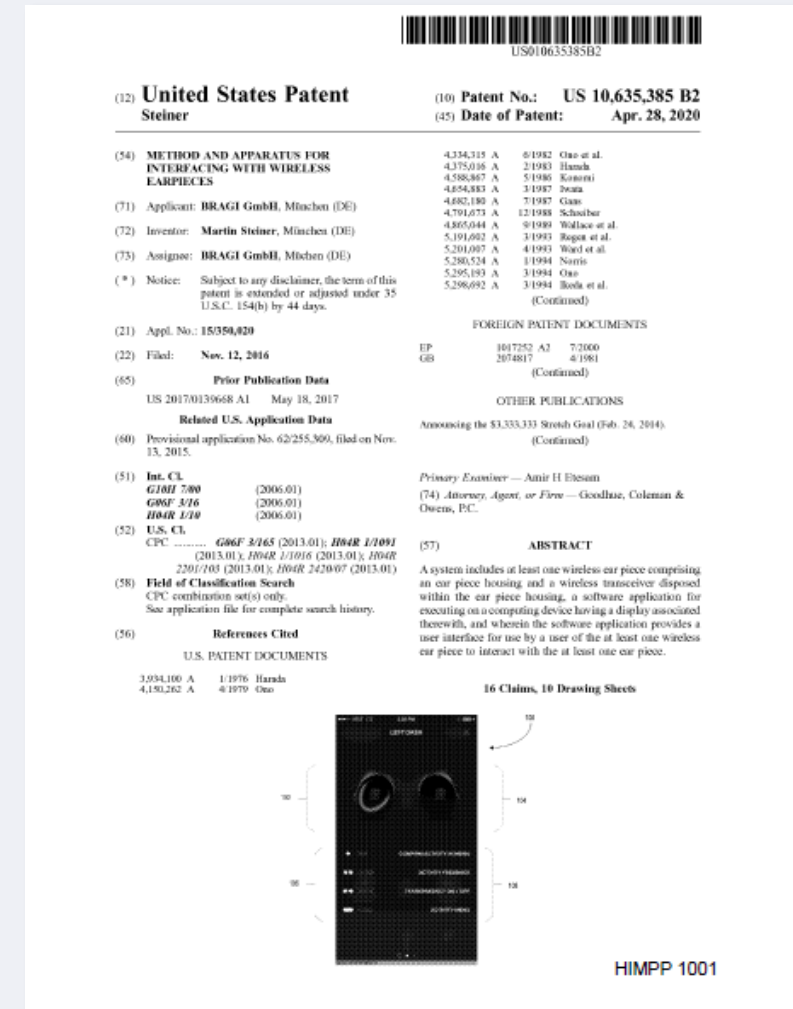
- Inventor-originated prior public disclosures disqualify prior art if the inventor-originated disclosure
 - Is made less than one year before the patent's priority date *and*
 - Discloses the same subject matter as the teachings of the alleged prior art relied upon to support the obviousness grounds asserted in the Petition.

Hensen-Video Is Not Prior Art to the '385 Patent

Bragi's Dash Kickstarter Was Published Less Than
One Year before the '385 Patent's Priority Date

'385 Patent

- Method and Apparatus for Interfacing with Wireless Earpieces
- Priority Date: November 13, 2015

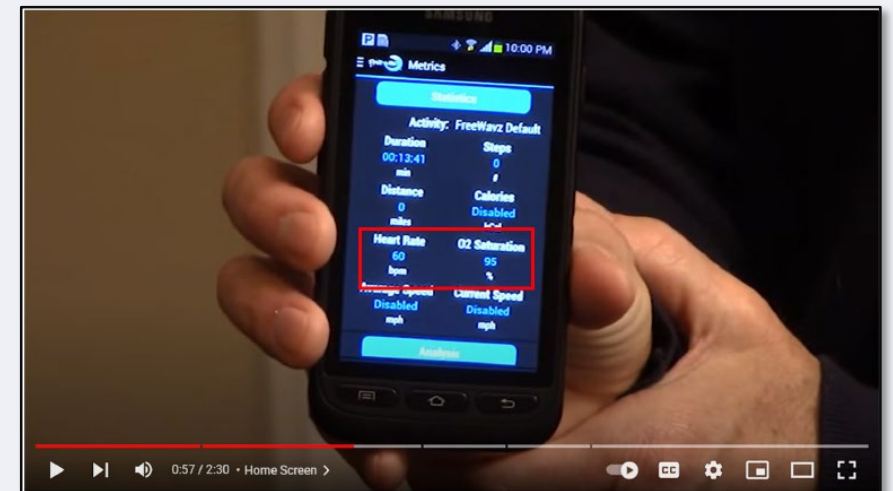


Petitioner Claims Hensen-Video is § 102(a)(1) Prior Art

2. YouTube.com, *September 2015 – FreeWavz Demo* (“Hensen-Video”) (Ex-1004 (video); Ex-1010 (screenshots)), uploaded September 10, 2015, as § 102(a)(1) prior art.

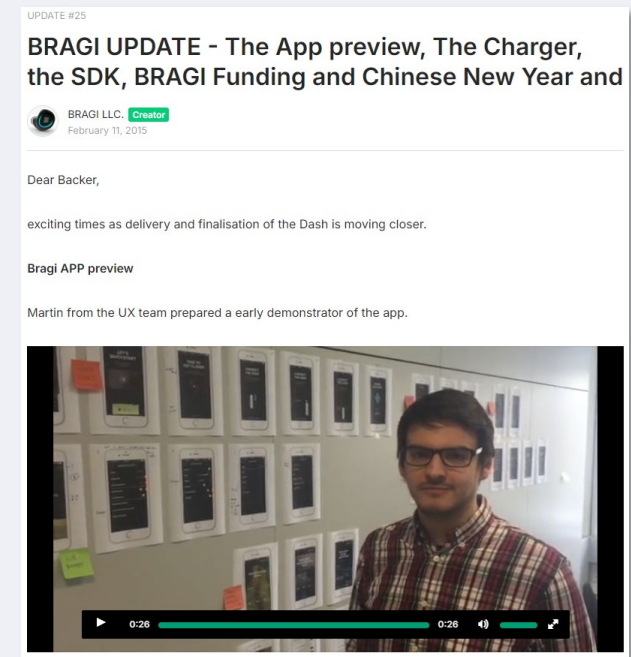
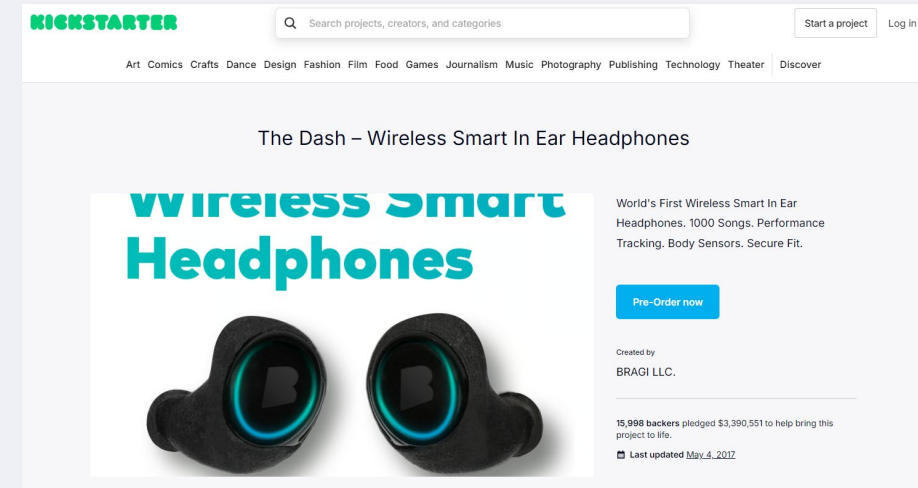
Hensen-Video

- Published September 10, 2015
- Created by inventor of Hensen-Patent
- Discloses a demonstration by Dr. Hensen of the FreeWavz earpiece system.

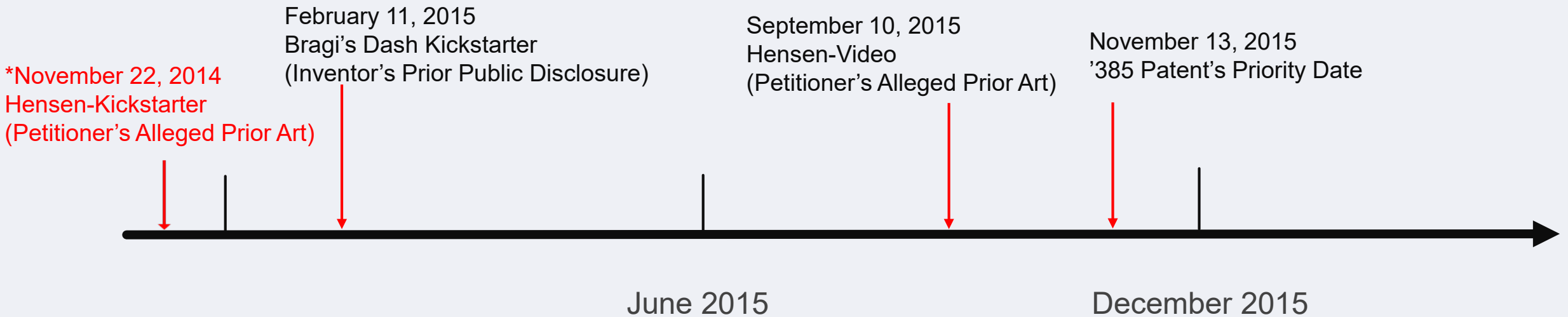


Bragi's "Dash Kickstarter"

- Published February 11, 2015
- Created by '385 Patent Inventor
- Discloses a wireless earpiece system with a remote control display, including various visual representations of the wireless earpieces.



Bragi Dash Kickstarter Published Less Than 1 Year Before '385 Patent's Priority Date



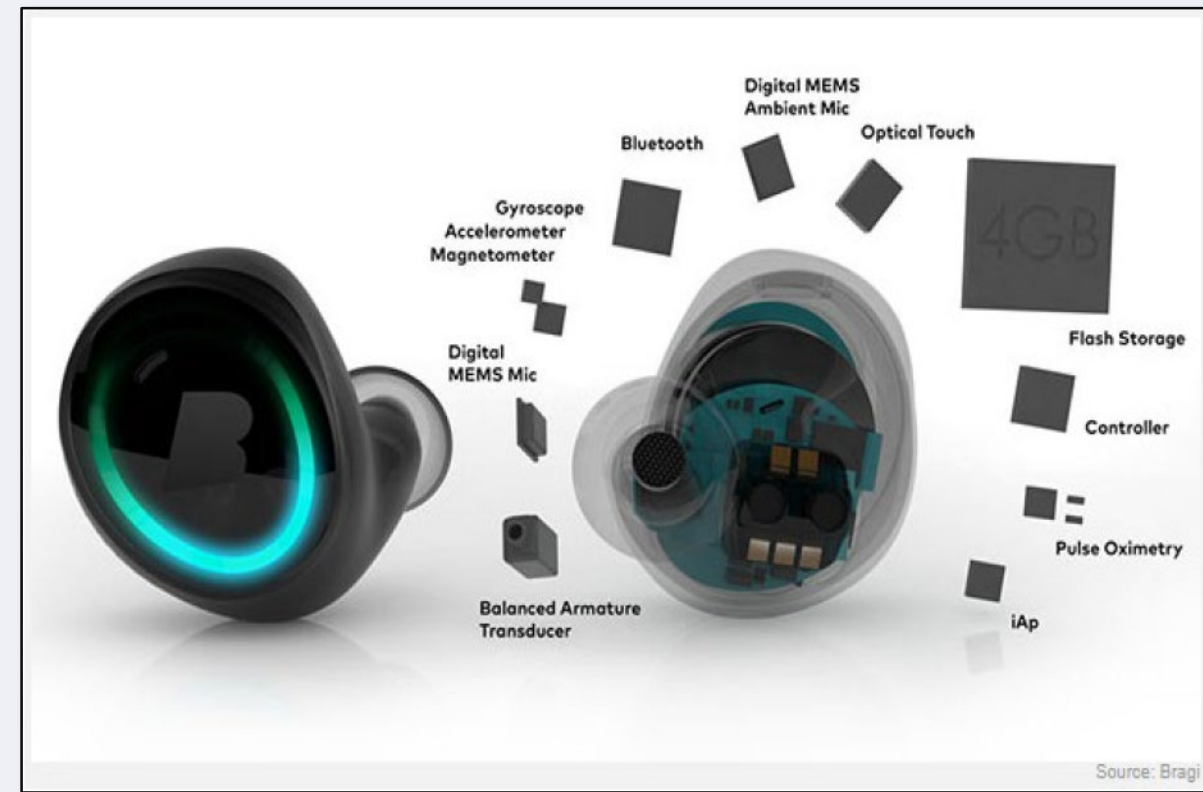
Hensen-Video Is Not Prior Art to the '385 Patent

Bragi's Dash Kickstarter Contains the Same Subject
Matter Relied Upon by the Petition

Bragi's Dash Kickstarter Discloses Same Subject Matter Relied On by the Petition

Petition's Relied Upon Subject Matter

- “Hensen-Video discloses a **wireless earpiece system** similar to that of Hensen-Patent, e.g., the system includes **two wireless earpieces** and a remote control device having a display.” Pet. at 32
- “[T]he remote control device in Hensen-Video includes a software application (e.g., smartphone app) running on a smartphone. The software application causes various display screens (e.g., the ‘home screen’) to be displayed on the smartphone display.” Pet. at 32-33.



Bragi's Dash Kickstarter Discloses Same Subject Matter Relied On by the Petition

Petition's Relied Upon Subject Matter

- “Hensen-Video discloses a **wireless earpiece system** similar to that of Hensen-Patent, e.g., the system includes two **wireless earpieces** and a remote control device having a display.” Pet. at 32
- “[T]he remote control device in Hensen-Video includes a software application (e.g., smartphone app) running on a smartphone. The software application causes various display screens (e.g., the ‘home screen’) to be displayed on the smartphone display.” Pet. at 32-33.

Just like wireless headphones, the Dash can play music by connecting to your smartphone via Bluetooth, although it also has internal storage capacity for about 1,000 songs. Users can turn them off and on by tapping the outside of the device. Beyond that, the earbuds are equipped with 15 sensors that measure everything from how far and fast you've run to your heart and respiration rates. Bragi's chief executive, Nikolaj Hviid, says that the ear is actually a natural place on the body to collect this kind of biometric data. The goal, however, is combining that information into useful feedback, so that the Dash could, conceivably, inform a runner, based on her oxygen-saturation level and heart rate, whether she should slow her pace.

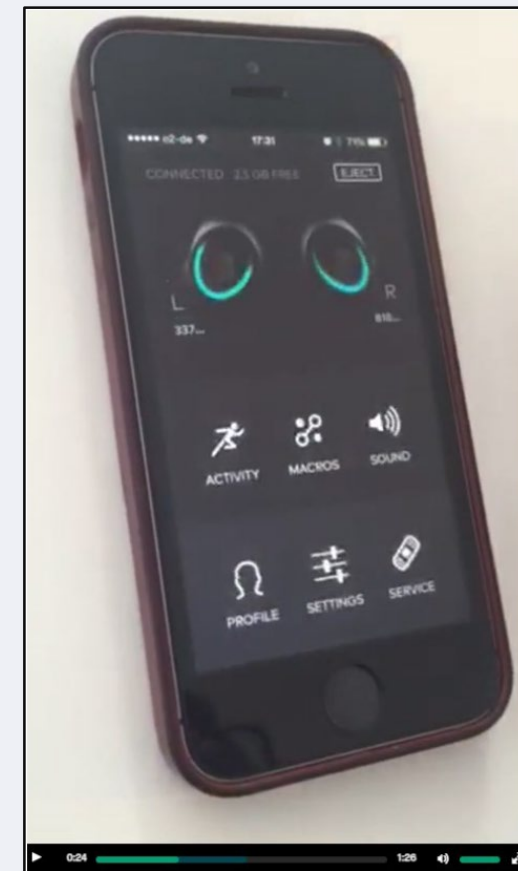


Source: Bragi

Bragi's Dash Kickstarter Discloses Same Subject Matter Relied On by the Petition

Petition's Relied Upon Subject Matter

- “Hensen-Video discloses a **wireless earpiece system** similar to that of Hensen-Patent, e.g., the system includes two wireless earpieces and a remote control device having a display.” Pet. at 32
- “[T]he **remote control device** in Hensen-Video includes a software application (e.g., smartphone app) running on a smartphone. The software application causes **various display screens** (e.g., the ‘home screen’) to be displayed on the smartphone display.” Pet. at 32-33.

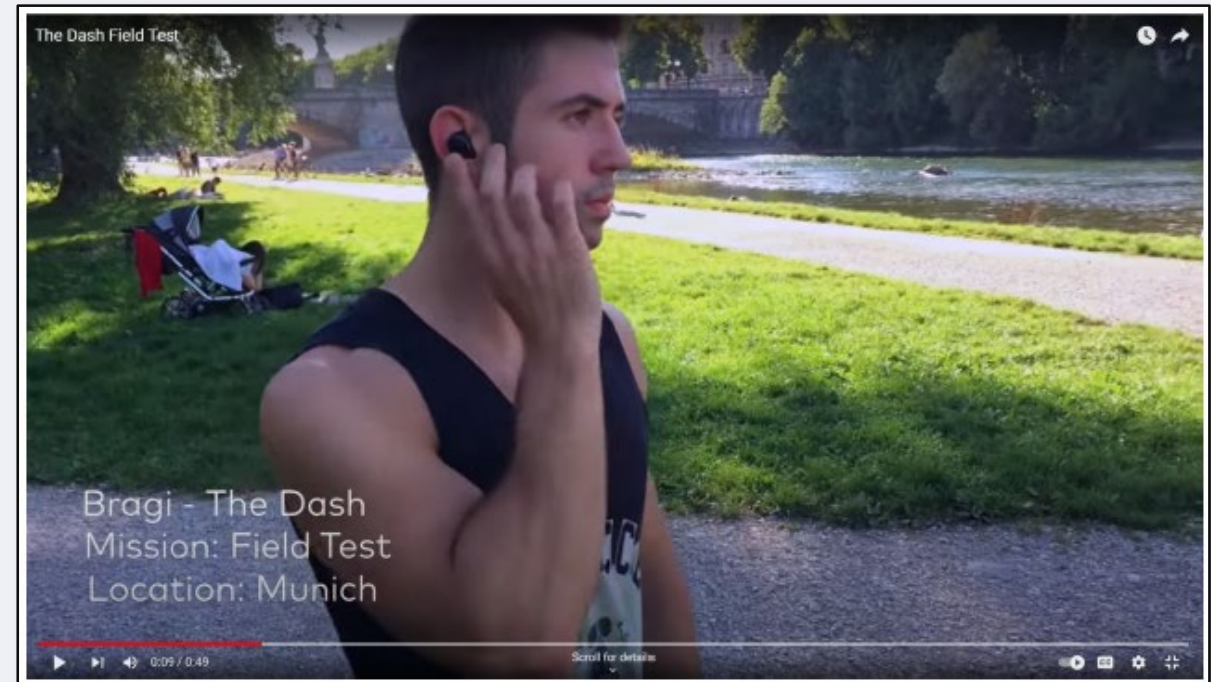


Bragi's Dash Kickstarter Discloses Same Subject Matter Relied On by the Petition

Petition's Relied Upon Subject Matter

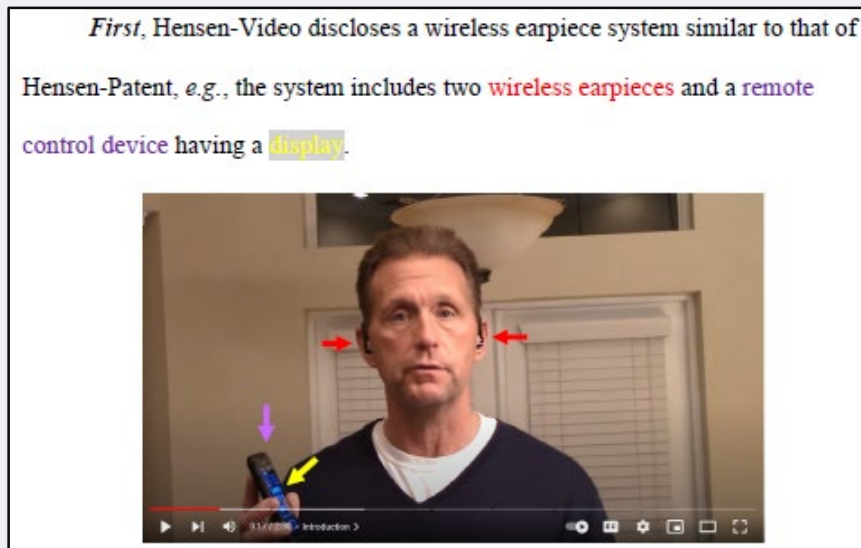
Hensen-Patent and Hensen-Video both disclose that the system can be used for physical activities such as running and cycling. *See, e.g.*, Ex-1009-Hensen-Provisional, ¶14 (“The ear-mounted device may be removably attached to an ear of the user so as to resist unintended detachment during ... any type of exercise or athletic endeavor, including, but not limited to, *running* [and] *cycling*”); Ex-1004-Hensen-Video, 0:38 (user-selectable activities include “running” and “cycling”);

Pet. at 37

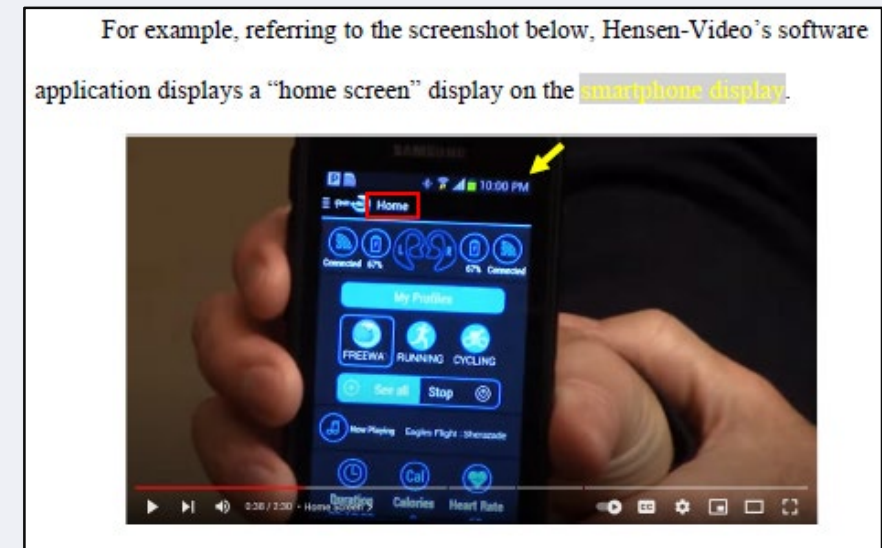


Petitioner Attempts to Shift Subject Matter Away from Petition

- Subject Matter relied upon by Petition to support obviousness grounds:
 - “*First*, Hensen-Video discloses a wireless earpiece system similar to that of Hensen-Patent, e.g., the system includes two **wireless earpieces** and a **remote control device** having a **display**. . . . The **earpieces** are wirelessly paired with the **remote control device**.” Pet. at 32.
 - “*Second*, the **remote control device** in Hensen-Video includes a software application (e.g., smartphone app) running on a smartphone. The software application causes various **display screens** (e.g., the “home screen”) to be displayed on the **smartphone display**.” Pet. at 33.



Pet. at 32



Pet. at 40

Petitioner's Reply Shifts Comparison to New Subject Matter Not Relied On by the Petition's Obviousness Grounds

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PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

A comparison between Freewavz's and The Dash's respective smartphone applications establishes that they are not the same. Ex.1033-Reply-Decl., ¶8.

First, as shown by the above side-by-side comparison, Freewavz's and The Dash's respective smartphone applications have a different outward appearance, such as, for example, different colors, icons, and arrangement and organization of menu options. Ex.1033-Reply-Decl., ¶¶9-10.

Reply at 8

Not relied upon subject matter:

- "outward appearance"
- "colors"
- "icons"
- "arrangement and organization of menu options"

These subject matter are not relied upon by Petition's grounds.

Petitioner's Reply Shifts Comparison to New Subject Matter Not Relied On by the Petition's Obviousness Grounds

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PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

Second, FreeWavz's and The Dash's smartphone applications are different because they disclose alternative species of the claimed "software application." M.P.E.P. §2153.02. Namely, the FreeWavz smartphone application is an Android software application (species #1), whereas The Dash's smartphone application is an iOS software application (species #2). Consistent with the '385 patent

Reply at 8

Not relied upon subject matter:

- Different operating systems
- Android v. iOS

These subject matter are not relied upon by Petition's grounds.

Petitioner's Reply Shifts Comparison to New Subject Matter Not Relied On by the Petition's Obviousness Grounds

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PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE

First, given that the visual representations are part of the software applications, Freewavz's and The Dash's respective visual representations are different for the same reasons that the underlying software applications are different, as explained above. Ex.1033-Reply-Decl., ¶17.

Second, like the underlying software applications, FreeWavz's and The Dash's respective visual representations have a different overall look and feel,

Reply at 10

Not relied upon subject matter:

- Different "overall look and feel"

This subject matter is not relied upon by Petition's grounds.

Petitioner's Shifting Subject Matter

Petition: "Same"

a claimed visual representation. For example, FreeWavz had already developed, patented, and demonstrated (via a YouTube video and other promotional materials) a fitness-tracking software application that displays a visual representation of a pair of wireless earpieces to show their remaining battery life.



Pet. at 2

Reply: "Not the Same"



Ex.1033-Reply-Decl., ¶¶5-7.

A comparison between Freewavz's and The Dash's respective smartphone applications establishes that they are not the same. Ex.1033-Reply-Decl., ¶8.

Reply at 7-8

Petitioner's Shifting Subject Matter

Petition: "Same"

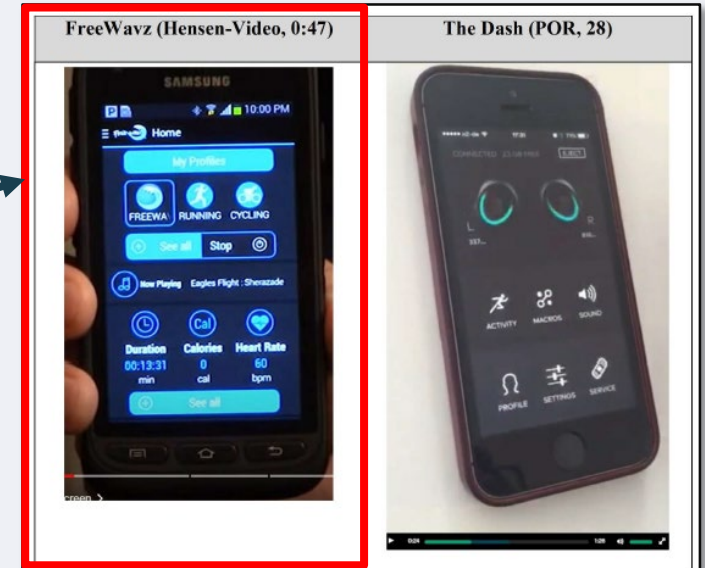
a claimed visual representation. For example, FreeWavz had already developed, patented, and demonstrated (via a YouTube video and other promotional materials) a fitness-tracking software application that displays a visual representation of a pair of wireless earpieces to show their remaining battery life.



Pet. at 2

Petitioner now compares a different screen after confronted with Bragi's prior public disclosure.

Reply: "Not the Same"



Ex.1033-Reply-Decl., ¶¶5-7.

A comparison between Freewavz's and The Dash's respective smartphone applications establishes that they are not the same. Ex.1033-Reply-Decl., ¶8.

Reply at 7-8

Subject matter compared:

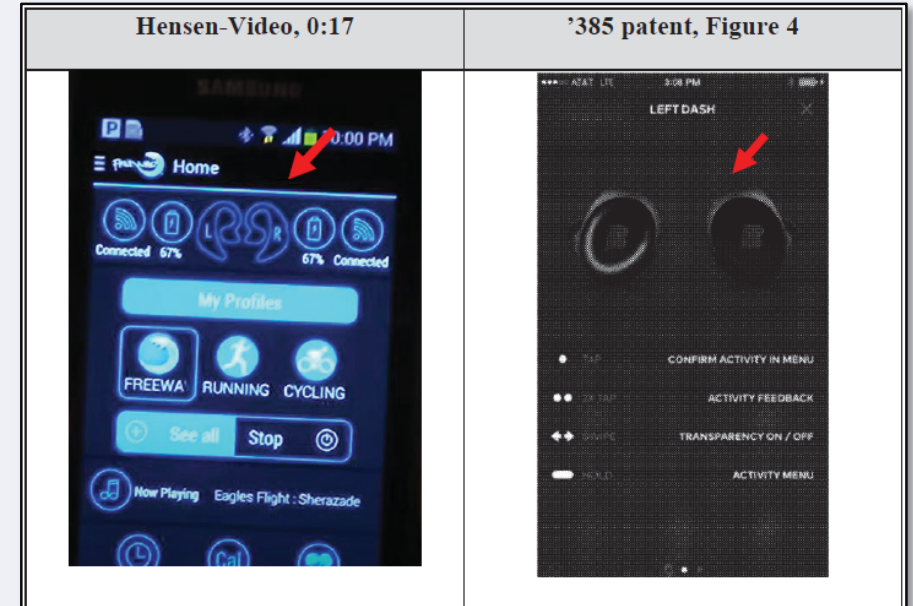
Visual representation of wireless earpieces

Subject matter compared:

Software application – color, icons, OS

Petitioner's Own Expert Recognizes the Same Subject Matter

- Expert testimony cited in Petition identifies “many similarities” to embodiments that Bragi had already disclosed to the public.



As shown above, the visual representation of the earpieces (red arrow) in Hensen-Video bears many similarities to the embodiment shown in Figure 4 of the '385 patent, e.g., both visual representations show the two earpieces (left and right) as mirror images of each other, centered on the display, and with approximately the same dimensions relative to other elements shown on the user interface (e.g., they occupy a similar fraction of the overall display screen). Moreover, both visual representations depict the earpieces in a similar level of detail, conveying the shape of the actual earpieces with relatively high similarity to the physical structure.

Ex-1002 Anthony Decl. at 54

“[T]he visual representation of the earpieces (red arrow) in Hensen-Video bears many similarities to the embodiment shown in Figure 4 of the '385 patent”

Hensen-Video Is Not Prior Art to '385 Patent

Hensen-Video's Teachings Cannot Be Attributed to the
Hensen-Kickstarter Grounds

§ 102(b)(1)(B) Excludes Hensen-Video; Thus All Grounds Must Fail

- All Grounds 1-6 rely on Hensen-Video:
 - Grounds 1-3 explicitly
 - Grounds 4-6 try to incorporate all the teachings of Hensen-Video into Hensen-Kickstarter
- Petition, Grounds 4-6:

As further explained below, Hensen-Kickstarter has nearly identical teachings to Hensen-Video for each of the limitations for which Hensen-Video was cited in Grounds 1-3. Thus, the challenged claims would have been obvious over Hensen-Kickstarter for the same reasons that they would have been obvious over Hensen-Video. Ex-1002-Anthony-Decl., ¶163.

Pet. at 100

B. Grounds for Challenge		
The challenged claims are rendered obvious under 35 U.S.C. § 103 as follows:		
Ground	Claims	References
1	1-4, 9-16	Hensen-Patent and Hensen-Video
2	5-7	Hensen-Patent, Hensen-Video, and LG-Manual
3	8	Hensen-Patent, Hensen-Video, and Lee
4	1-4, 9-16	Hensen-Patent and Hensen-Kickstarter
5	5-7	Hensen-Patent, Hensen-Kickstarter, and LG-Manual
6	8	Hensen-Patent, Hensen-Kickstarter, and Lee

Petitioner Conflates Hensen-Video and Hensen-Kickstarter

² Unless otherwise stated, Petitioner's responses to PO's arguments in connection with Hensen-Video apply equally to PO's similar arguments in connection with Hensen-Kickstarter (Ex.1007).

Reply at 1

- Hensen-Video discloses much more than Hensen-Kickstarter discloses.
 - Refuting Petitioner's obviousness grounds for Hensen-Video also refutes Hensen-Kickstarter.
 - Hensen-Kickstarter does not incorporate the teachings of Hensen-Video.
 - All of Petition's obviousness grounds relying on Hensen-Video contain disclosures not found in the Hensen-Kickstarter blog post.

Grounds 1-3 Argue Disclosures Absent From Hensen-Kickstarter

- Grounds 4-6 attribute disclosures from Hensen-Video (Grounds 1-3) to Hensen-Kickstarter and rely on these Hensen-Video disclosures to establish obviousness.
- Petitioner compares portions of Hensen-Video and Hensen-Kickstarter to suggest they are the same disclosure, but Petitioner's arguments rely on many disclosures absent from Kickstarter.
- Grounds 4-6 rely upon elements from Hensen-Video not disclosed by Hensen-Kickstarter.

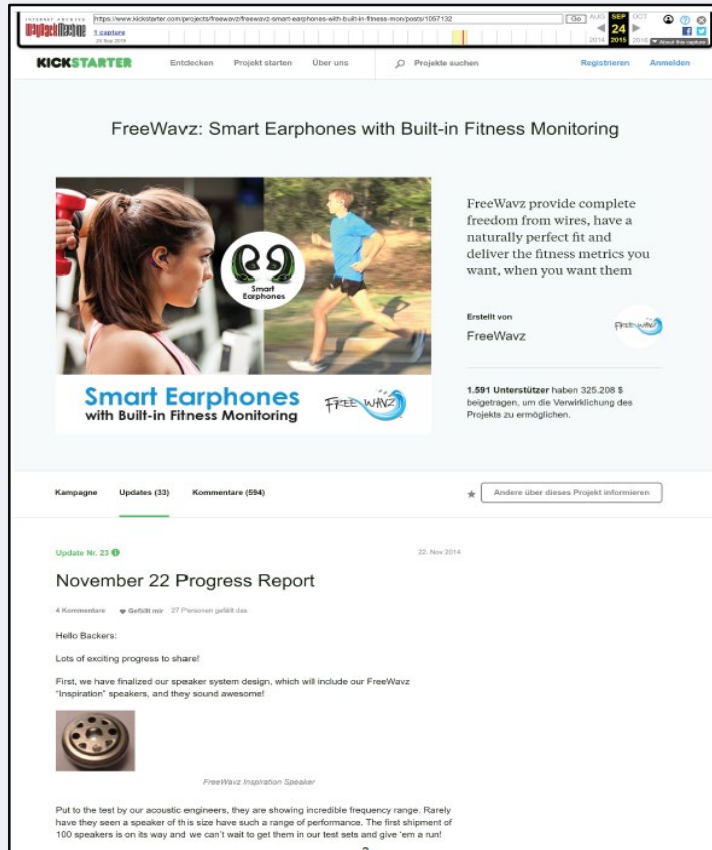
Petitioner wants to rely on the teachings of Hensen-Video and the priority date of Hensen-Kickstarter.

Hensen-Video and Hensen-Kickstarter Do Not Teach the Same Subject Matter

- Hensen-Kickstarter (Nov. 2014)

5. Kickstarter.com, *November 22 Progress Report* (“Hensen-Kickstarter”) (Ex-1007), posted November 22, 2014, as § 102(a)(1) prior art.³

Pet. at 7



Ex-1007

- Hensen-Video (Sep. 2015)

2. YouTube.com, *September 2015 – FreeWavz Demo* (“Hensen-Video”) (Ex-1004 (video); Ex-1010 (screenshots)), uploaded September 10, 2015, as § 102(a)(1) prior art.

Pet. at 6

Namely, the user of the **earpieces** (i.e., Dr. Hensen, pictured below) uses a touchscreen user interface of the **smartphone display** to interact with the **earpieces**.



Ex-1004-Hensen-Video, 0:09-0:19 (“I’m currently wearing both the **right and left units**. I’ve already turned them on. I’ve paired them with each other and also paired with the **source device**, in this case, a smartphone.”); *see also id.*, 0:28-1:28 (showing Dr. Hensen performing operations via the touchscreen user interface of the **smartphone display**); Ex-1002-Anthony-Decl., ¶69.

Pet. at 45

Hensen-Video and Hensen-Kickstarter Do Not Teach the Same Subject Matter

- Not in Hensen-Kickstarter:
 - Using a touchscreen user interface of the smartphone display to interact with the earpieces

Namely, the user of the earpieces (i.e., Dr. Hensen, pictured below) uses a

touchscreen user interface of the smartphone display to interact with the earpieces.



Ex-1004-Hensen-Video, 0:09-0:19 (“I’m currently wearing both the right and left units. I’ve already turned them on. I’ve paired them with each other and also paired with the source device, in this case, a smartphone.”); *see also id.*, 0:28-1:28 (showing Dr. Hensen performing operations via the touchscreen user interface of the smartphone display); Ex-1002-Anthony-Decl., ¶69.

Pet. at 45

Hensen-Video and Hensen-Kickstarter Do Not Teach the Same Subject Matter

- Not in Hensen-Kickstarter:
 - Benefits of using smartphone computing device running a *software application* as a remote control unit in a wireless earpiece system

Third, Hensen-Video specifically discloses the benefits of using a smartphone computing device running a software application as a remote control unit in a wireless earpiece system—*i.e.*, the ability to access and display data from the wireless earpieces via a touchscreen user interface. *See, e.g.*, Ex-1004-Hensen-Video, 0:32-0:38 (“I want to show you this home screen. I’m going to hold it real still. Now at the top you’re going to see each unit and the battery life.”), 0:43-0:48 (“You can also see down below here is my heart rate at 60”), 1:09-1:24 (“I’m going to demonstrate the raw data that has been obtained. If you can see that red line, that is our waveform. That is where our raw data is being obtained from -- that is, the heart rate and the oxygen saturation.”); *see also* Ex-1015 (“Easy to Use

Pet. at 38

Hensen-Video and Hensen-Kickstarter Do Not Teach the Same Subject Matter

- Not in Hensen-Kickstarter:
 - Remote control device can read *pulse oximetry* data from the wireless earpieces

No citation to Hensen-Kickstarter

- Hensen-Patent and Hensen-Video both disclose that the remote control device can read pulse oximetry data from the wireless earpieces. Ex-1009-Hensen-Provisional, ¶14 (“An embodiment of the invention, as shown and described by the various figures and accompanying text, provides an ear-mounted device comprising integrated pulse oximetry capabilities.... [T]he ear-mounted device may be configured to be wirelessly connected to an electronic device so as to provide the pulse oximetry information generated thereby to the electronic device.”); Ex-1004-Hensen-Video, 0:09-0:19 (“Right now I’m actually listening to some music and I’ve also engaged the pulse oximetry”), 0:48-1:09 (“I’m going to go ahead and show all, and you can see not only my heart rate but my oxygen saturation at 95%.”);

Petition at 36-37

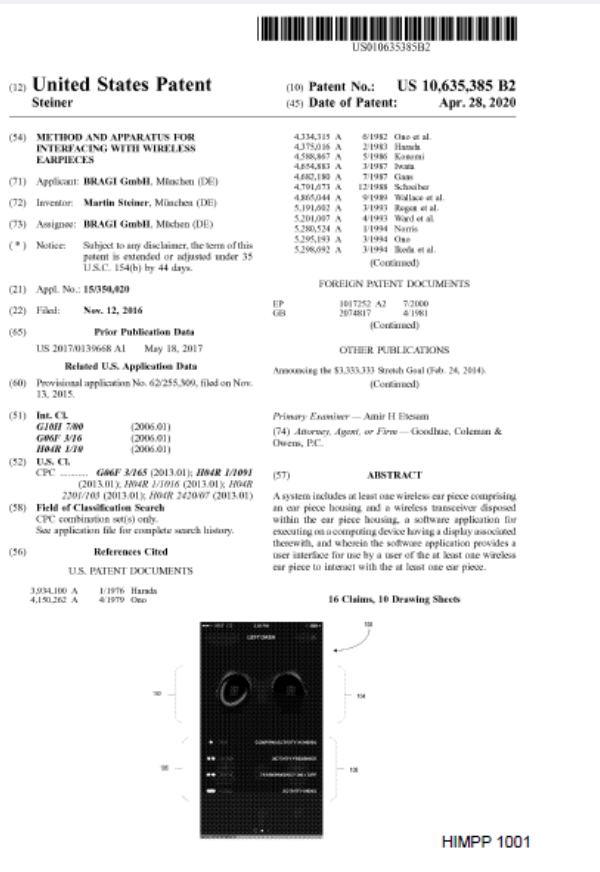
Challenged Claims Remain Patentable Over Petitioner's Prior Art

Petitioner's Alleged Prior Art References Do Not Teach
the '385 Patent Claims

Claim 1: Limitation 1[F]

wherein the user interface is configured to display a visual representation of the at least one wireless ear piece on at least one of the one or more screen displays, the visual representation indicative of a function or property of the at least one wireless ear piece communicated from the at least one wireless earpiece to the computing device.

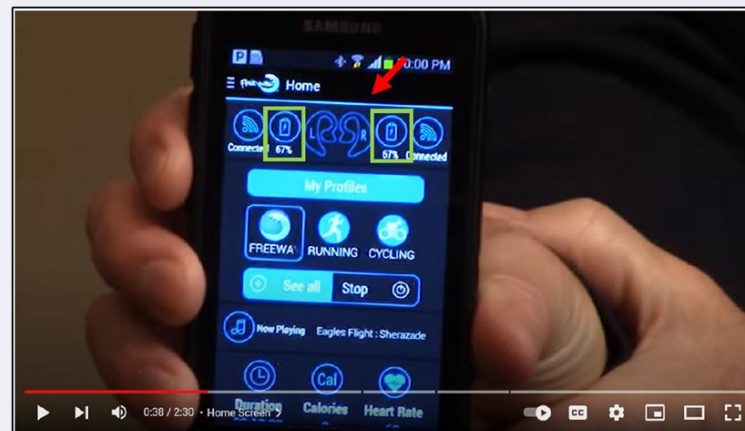
- Limitations 1[E] and 1[F] must be read together to properly capture the full scope of the claimed “visual representation of the one or more wireless ear pieces.”
- The *visual representation* of the earpiece is not satisfied by the numerical battery icon.



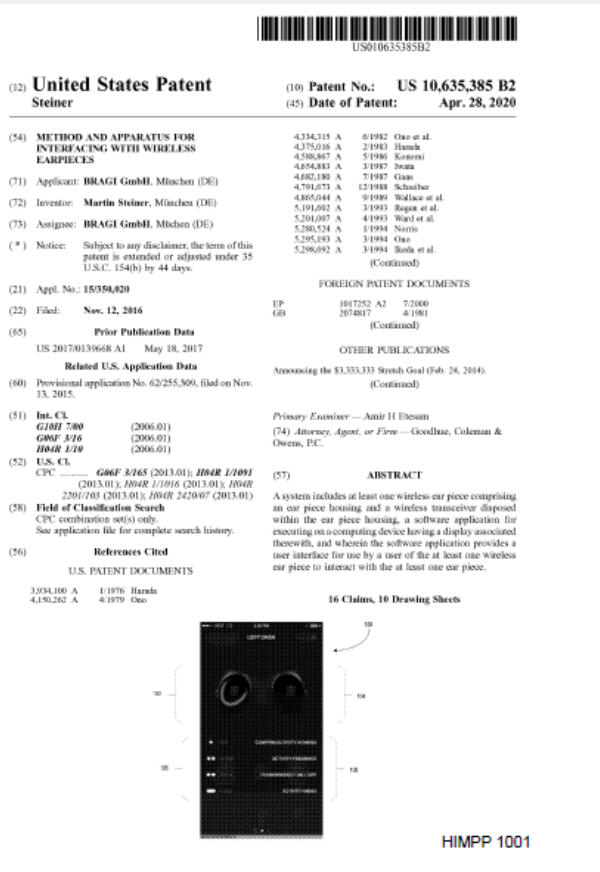
Claim 1: Limitation 1[F]

wherein the user interface is configured to display a visual representation of the at least one wireless ear piece on at least one of the one or more screen displays, the visual representation indicative of a function or property of the at least one wireless ear piece communicated from the at least one wireless earpiece to the computing device.

– The *visual representation* of the earpiece is not satisfied by the numerical battery icon.



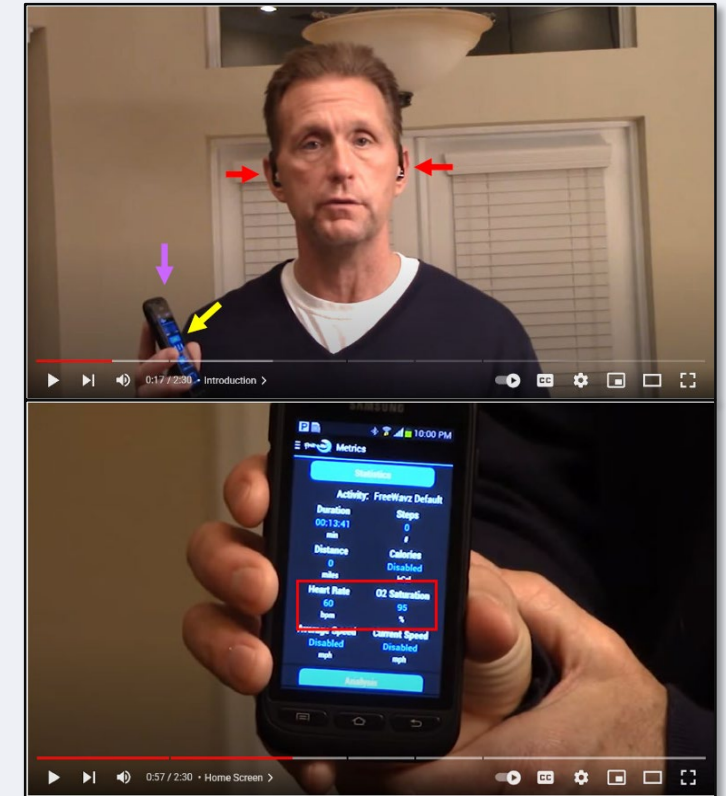
Ex-1004-Hensen-Video



Claim 2

2. The system of claim 1 wherein the at least one wireless earpiece comprises a **physiological sensor**.

- Hensen-Video never discloses the required physiological sensor on the wireless earpiece.
- O2 readings from an external device does not teach that the earpiece comprises the pulse oximetry sensor.



Ex-1004-Hensen-Video

US/10635383B2

(12) **United States Patent**
Steiner

(10) Patent No.: US 10,635,383 B2
(45) Date of Patent: Apr. 28, 2020

(54) **METHOD AND APPARATUS FOR INTERFACING WITH WIRELESS EARPIECES**

(71) Applicant: BRAGI GmbH, München (DE)
(72) Inventor: Martin Steiner, München (DE)
(73) Assignee: BRAGI GmbH, München (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 44 days.

(21) Appl. No.: 15/550,929
(22) Filed: Nov. 12, 2016
(65) Prior Publication Data: US 2017/0130668 A1 May 18, 2017
(60) Related U.S. Application Data: Provisional application No. 62/255,309, filed on Nov. 13, 2015.

(51) Int. Cl. G16H 7/00 (2006.01) G06F 3/16 (2006.01) H04R 1/10 (2006.01)
(52) U.S. Cl. CPC: G06F 3/165 (2013.01); H04R 1/1091 (2013.01); H04R 1/1016 (2013.01); H04R 2200/103 (2013.01); H04R 2420/07 (2013.01)
(58) Field of Classification Search: CPC combination set(s) only. See application file for complete search history.

(56) References Cited: U.S. PATENT DOCUMENTS 3,934,100 A 1/1976 Harada 4,150,262 A 6/1979 Ono

FOREIGN PATENT DOCUMENTS EP 1817252 A2 7/2000 GB 2074817 6/1981 (Continued)

OTHER PUBLICATIONS Announcing the \$3,333,333 Stretch Goal (Feb. 24, 2016). (Continued)

Primary Examiner: Amir H. Ehsani
(74) Attorney, Agent, or Firm: Goodhue, Coleman & Owens, P.C.

(57) **ABSTRACT**
A system includes at least one wireless ear piece comprising an ear piece housing, and a wireless transceiver disposed within the ear piece housing, a software application for executing on a computing device having a display associated therewith, and wherein the software application provides a user interface for use by a user of the at least one wireless ear piece to interact with the at least one ear piece.

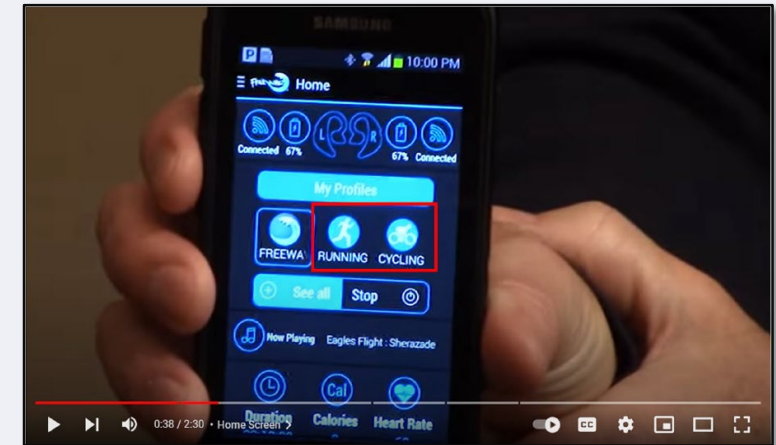
16 Claims, 10 Drawing Sheets

HIMPP 1001

Claim 3

3. The system of claim 2 wherein the software application provides for **tracking** one or more physical activities using the physiological sensor.

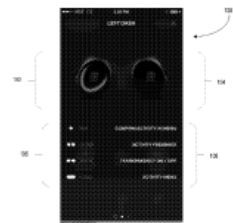
- Petitioner fails to establish that there is tracking as required by the limitation.
- Hensen-Video does not indicate the app can record anything at all.



Ex-1004-Hensen-Video

 US/063385B2		
(12) United States Patent Steiner	(10) Patent No.: US 10,635,385 B2	
	(45) Date of Patent: Apr. 28, 2020	
(54) METHOD AND APPARATUS FOR INTERFACING WITH WIRELESS EARPIECES		
(71) Applicant: BRAGI GmbH, München (DE)	4,334,315 A	6/1982 Oso et al.
(72) Inventor: Martin Steiner, München (DE)	4,375,038 A	2/1983 Hamsh
(73) Assignee: BRAGI GmbH, München (DE)	4,508,867 A	5/1986 Kozumi
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 44 days.	4,654,883 A	3/1987 Iwata
	4,682,180 A	7/1987 Oso
	4,791,673 A	12/1988 Schaeber
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	5,201,097 A	4/1993 Ward et al.
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		(Continued)
FOREIGN PATENT DOCUMENTS		
(21) Appl. No.: 15/550,929	EP	1817252 A2
(22) Filed: Nov. 12, 2016	GB	2074817
(65) Prior Publication Data		(Continued)
US 2017/0130668 A1		May 18, 2017
OTHER PUBLICATIONS		
(60) Related U.S. Application Data		Announcing the \$3,333,333 Stretch Goal (Feb. 24, 2014).
Provisional application No. 62/255,309, filed on Nov. 13, 2015.		(Continued)
(51) Int. Cl.		Primary Examiner: Amir H. Ehsani
G10H 7/00 (2006.01)		(74) Attorney, Agent, or Firm: Goodhue, Coleman & Owens, P.C.
G06F 3/16 (2006.01)		
H04R 1/10 (2006.01)		
(52) U.S. Cl.		
G06F 3/16 (2013.01); H04R 1/10 (2013.01); H04R 1/1016 (2013.01); H04R 1/1016 (2013.01); H04R 24/20 (2013.01)		
(58) Field of Classification Search		
CPC contribution set(s) only.		
See application file for complete search history.		
(56) References Cited		
U.S. PATENT DOCUMENTS		
3,934,100 A	1/1976	Hamsh
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16 Claims, 10 Drawing Sheets

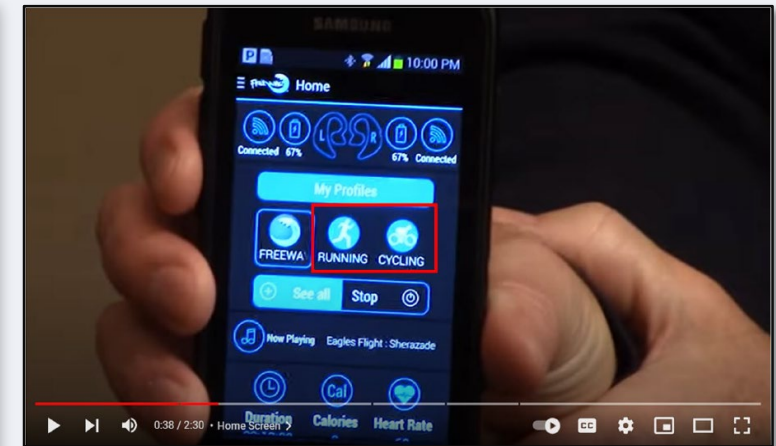


HIMPP 1001

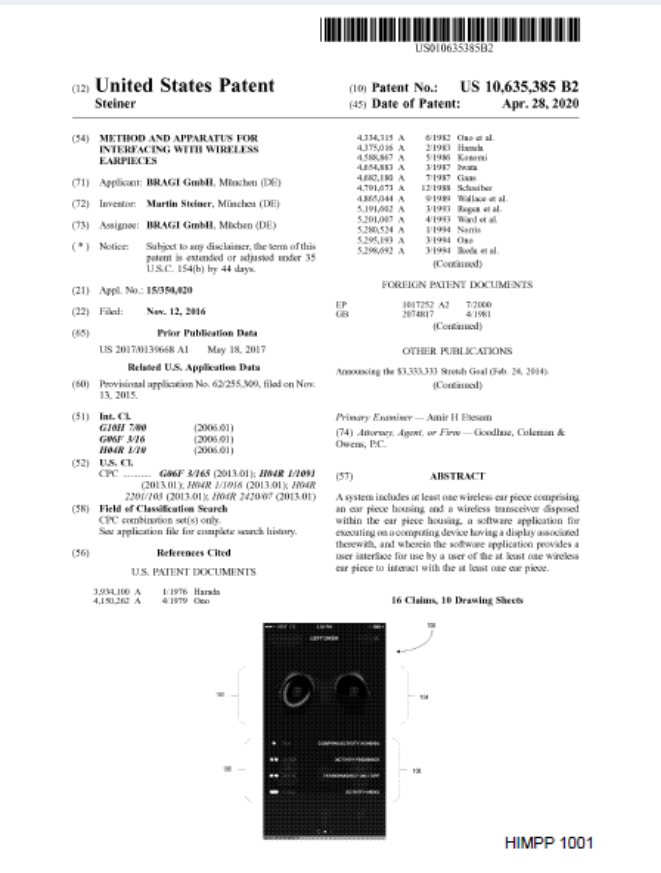
Claim 4

4. The system of claim 3 wherein the physical activities are selected from a set consisting of **running, biking, and swimming.**

- Claim 4 depends from Claim 3.
- Because Petitioner fails to demonstrate Hensen-Video discloses tracking as required by Claim 3, Claim 4 also fails.
- The “swimming” element is missing.



Ex-1004-Hensen-Video



Claims 5-7

5. The system of claim 1 wherein the representation visual representation includes lighting of the at least one wireless ear piece.

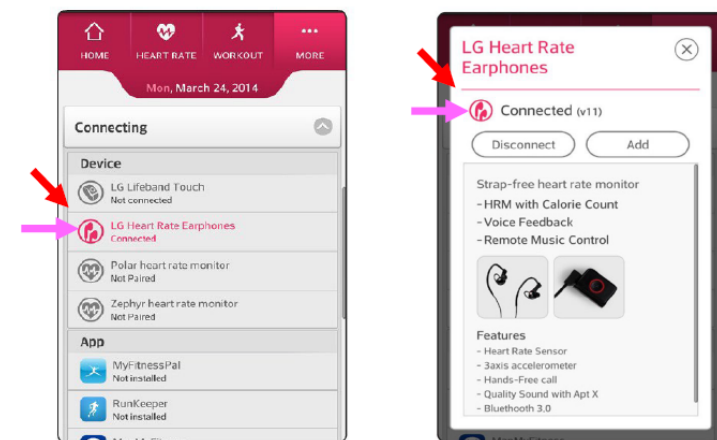
6. The system of claim 5 wherein the lighting is associated with the function or property of the at least one wireless ear piece.

7. The system of claim 6 wherein the property is remaining battery life.

– Petitioner recognizes that LG-Manual discloses “coloring them [earpieces] pink.”

– “Lighting,” however, refers to illumination, not changing the color of an element.

Referring to the diagram below, LG-Manual similarly discloses a visual representation of **left and right earpieces** (e.g., an icon showing a silhouette of the earpieces) and further discloses that the visual representation includes **lighting** the earpieces (i.e., coloring them pink) when they are connected.



Pet. at 87

US 10,635,385 B2

(12) **United States Patent**
Steiner

(10) **Patent No.:** US 10,635,385 B2
(45) **Date of Patent:** Apr. 28, 2020

(54) **METHOD AND APPARATUS FOR INTERFACING WITH WIRELESS EARPICES**

(71) **Applicant:** BRAGI GmbH, München (DE)

(72) **Inventor:** Martin Steiner, München (DE)

(73) **Assignee:** BRAGI GmbH, München (DE)

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 44 days.

(21) **Appl. No.:** 15/590,929

(22) **Filed:** Nov. 12, 2016

(65) **Prior Publication Data**
US 2017/0130668 A1 May 18, 2017

Related U.S. Application Data
(60) Provisional application No. 62/255,309, filed on Nov. 13, 2015.

(51) **Int. Cl.**
G10H 7/00 (2006.01)
G06F 3/16 (2006.01)
H04R 1/10 (2006.01)

(52) **U.S. Cl.**
CPC: G06F 3/16 (2013.01); H04R 1/10 (2013.01); H04R 1/1016 (2013.01); H04R 2201/01 (2013.01); H04R 2420/07 (2013.01)

(58) **Field of Classification Search**
CPC contribution set(s) only.
See application file for complete search history.

(56) **References Cited**
U.S. PATENT DOCUMENTS
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EP 1817252 A2 7/2000
GB 2074817 6/1981 (Continued)

OTHER PUBLICATIONS
Announcing the \$3,333,333 Stretch Goal (Feb. 24, 2014). (Continued)

Primary Examiner: Amir H Ehsani
(74) **Attorney, Agent, or Firm:** Goodhue, Coleman & Owens, P.C.

ABSTRACT
A system includes at least one wireless ear piece comprising an ear piece housing, and a wireless transceiver disposed within the ear piece housing, a software application for executing on a computing device having a display associated therewith, and wherein the software application provides a user interface for use by a user of the at least one wireless ear piece to interact with the at least one ear piece.

16 Claims, 10 Drawing Sheets

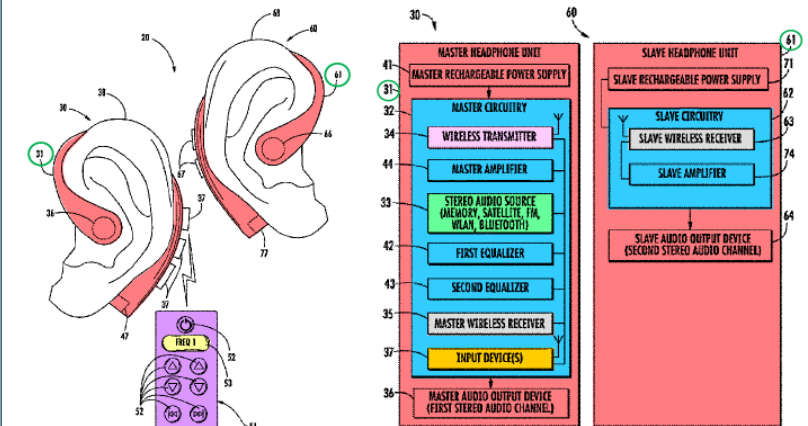
HIMPP 1001

Claim 10

10. The system of claim 1 wherein the at least one wireless ear piece is configured to store at least one playlist of audio files.

- “Playlist” does not appear in the reference.
- Instead, Petitioner relies upon the disclosure of “skipping” a song for “playlist.”
- However, a POSITA would know at the time of invention that a “playlist” refers to the organization of the user’s songs into lists stored on the device.

stereo audio data that may be stored in a memory or provided by the stereo audio source may be mpeg layer 3 (mp3) encoded data [(“audio files”)], for example. Other types of stereo audio data or other data may be stored in the memory.”).



Pet. at 68-69



(12) **United States Patent**
Steiner
(10) **Patent No.:** US 10,635,385 B2
(45) **Date of Patent:** Apr. 28, 2020

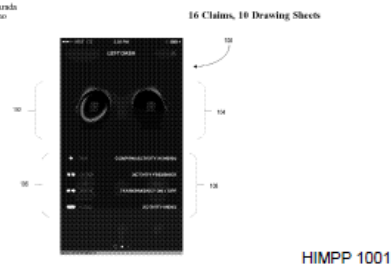
(54) **METHOD AND APPARATUS FOR INTERFACING WITH WIRELESS EARPIECES**
(71) Applicant: **BRAGI GmbH, München (DE)**
(72) Inventor: **Martin Steiner, München (DE)**
(73) Assignee: **BRAGI GmbH, München (DE)**
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 44 days.

(21) Appl. No.: 15/550,929
(22) Filed: Nov. 12, 2016
(65) **Prior Publication Data**
US 2017/0130668 A1 May 18, 2017
Related U.S. Application Data
(60) Provisional application No. 62/255,309, filed on Nov. 13, 2015.

FOREIGN PATENT DOCUMENTS
EP 1817252 A2 7/2000
GB 2074817 6/1991 (Continued)
OTHER PUBLICATIONS
Announcing the \$3,333,333 Stretch Goal (Feb. 24, 2014). (Continued)

(51) **Int. Cl.**
G10H 7/00 (2006.01)
G06F 3/16 (2006.01)
H04R 1/10 (2006.01)
(52) **U.S. Cl.**
CPC: G06F 3/16 (2013.01); H04R 1/10 (2013.01); H04R 1/1016 (2013.01); H04R 2200/01 (2013.01); H04R 2420/07 (2013.01)
(58) **Field of Classification Search**
CPC contribution set(s) only.
See application file for complete search history.

(56) **References Cited**
U.S. PATENT DOCUMENTS
3,934,100 A 1/1976 Harada
4,150,262 A 6/1979 Ono
(57) **ABSTRACT**
A system includes at least one wireless ear piece comprising an ear piece housing, and a wireless transceiver disposed within the ear piece housing, a software application for executing on a computing device having a display associated therewith, and wherein the software application provides a user interface for use by a user of the at least one wireless ear piece to interact with the at least one ear piece.



Claim 11

11. The system of claim 1 wherein the software application provides for connecting the at least one wireless ear piece with the computing device.

- Dr. Hensen declares the earpieces are paired to the smartphone.
- Yet, Hensen-Video does not teach the full requirements of the limitation that the software application provides for connecting the wireless earpieces.



Ex-1004-Hensen-Video, 0:09-0:19 (“I’ve paired [the **earpieces**] with each other and also paired with the **source device**, in this case, a smartphone.”). Namely, a

Pet. at 68-69

US 10,635,385 B2

(12) **United States Patent**
Steiner

(10) **Patent No.:** US 10,635,385 B2
(45) **Date of Patent:** Apr. 28, 2020

(54) **METHOD AND APPARATUS FOR INTERFACING WITH WIRELESS EARPIECES**

(71) Applicant: **BRAGI GmbH, München (DE)**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 44 days.

(21) Appl. No.: 15/550,929

(22) Filed: **Nov. 12, 2016**

(65) **Prior Publication Data**
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(51) **Int. Cl.**
G10H 7/00 (2006.01)
G06F 3/16 (2006.01)
H04R 1/10 (2006.01)

(52) **U.S. Cl.**
CPC **G06F 3/165** (2013.01); **H04R 1/1091** (2013.01); **H04R 1/1016** (2013.01); **H04R 2205/103** (2013.01); **H04R 2420/07** (2013.01)

(58) **Field of Classification Search**
CPC contribution set(s) only.
See application file for complete search history.

(56) **References Cited**
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GB 2074817 6/1981 (Continued)

OTHER PUBLICATIONS
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Primary Examiner — Amir H. Ehsani
(74) **Attorney, Agent, or Firm** — Goodhue, Coleman & Owens, P.C.

(57) **ABSTRACT**
A system includes at least one wireless ear piece comprising an ear piece housing, and a wireless transceiver disposed within the ear piece housing, a software application for executing on a computing device having a display associated therewith, and wherein the software application provides a user interface for use by a user of the at least one wireless ear piece to interact with the at least one ear piece.

16 Claims, 10 Drawing Sheets

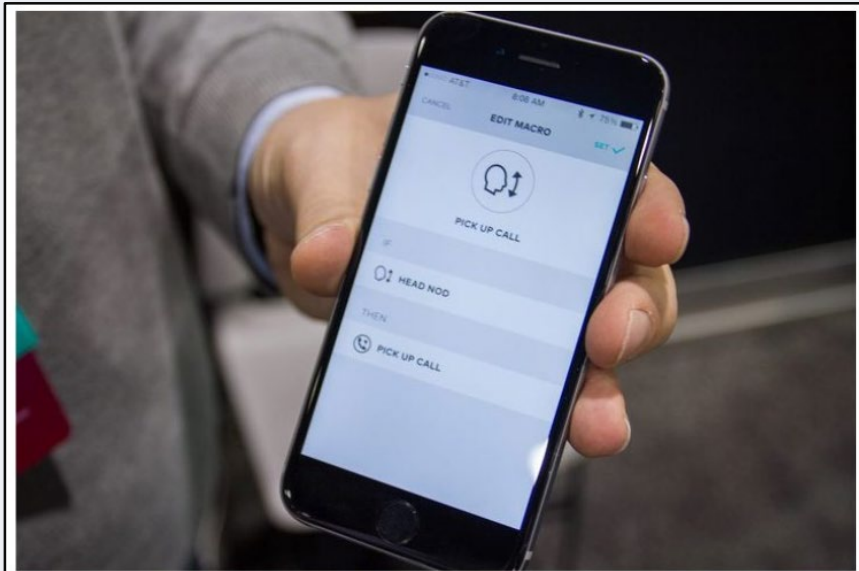
HIMPP 1001

Objective Evidence Confirms Nonobviousness

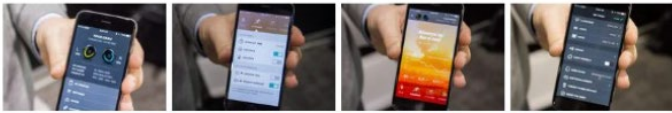
The Dash Is Coextensive with the '385 Patent

Objective Indicia of Nonobviousness Have a Nexus to '385 Patent

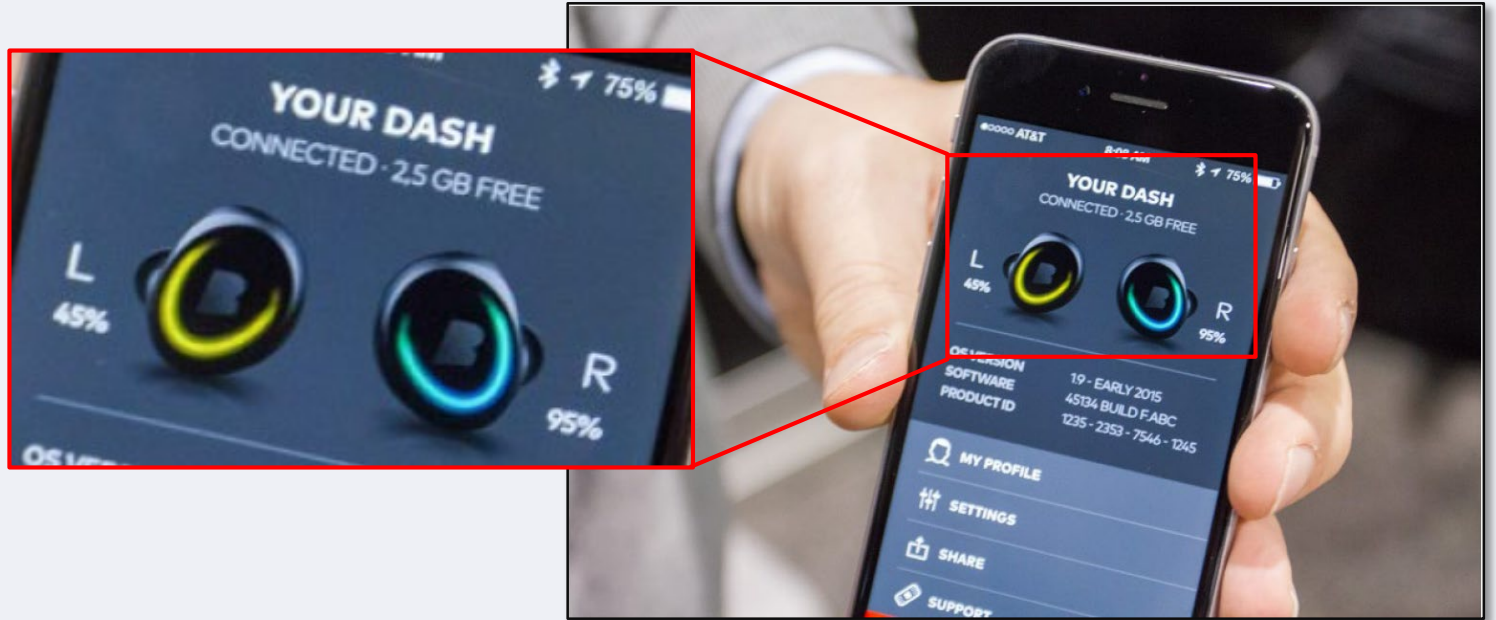
- The Dash embodies the claimed novel features of the '385 Patent.
- Industry praise and commercial success is directly tied to The Dash's features claimed by the '385 Patent.



These macros would be customizable from the app itself. They're expected to be available within a few months from release. As an update, here's a few more shots from the app I went back and got:



Overall I was impressed with how polished the app looks at this point at time.



Ex-2019

The app's novel visuals and functionality garnered industry praise, including article features and awards.

Objective Evidence Confirms Nonobviousness

Bragi's Dash Earned Industry Praise for Novel
Embodiment While Competitors Tried and Failed

Immense Industry Praise for The Dash

The Kickstarter campaign was a massive success, with The Dash smashing its modest (and perhaps naive) original goal of \$260,000. It went on to raise a total in excess of \$3 million, making it the highest funded campaign in Europe. People were obviously excited about these do-it-all headphones. But, with success, comes the inevitable backlash of doubters and naysayers. And not just from the now-weary Kickstarter community. Meeting with Bragi CEO, Nikolaj Hviid, at CES, he told me many big industry players told him what he was trying to do with The Dash simply wasn't possible. They were wrong. Conclusively. Because I just saw them for myself -- the first time the working product has been seen outside of the company.



Ex-2011

“People were obviously excited about these do-it-all headphones”

“many big industry players told him what he was trying to do with The Dash simply wasn't possible”

Immense Industry Praise for The Dash



James Trew | @itstrew | January 5, 2016 7:40 PM

I insert a bud into my right ear, and then the left. A few seconds later I hear a woman's voice. She explains how I can listen to music on my phone, afterwards there is silence; deafening silence. Until I connect my phone to the wireless headphones, and the lady returns, confirming that everything is good, and I'm all set. This is probably the slickest gadget set-up I have ever experienced. An experience over 5,000 [backers](#) of the [Bragi Dash](#) are about to enjoy this week. The [award-winning](#) wireless fitness-tracking headphones have been a long time coming, but if these first few moments are anything to go by, that wait has been worth it.

“probably the slickest gadget set-up I have ever experienced”

“Bragi’s Dash are easily the most ambitious headphones I have ever seen. . . . it tracks your heart rate, steps and many other things”

Bragi's Dash are easily the most ambitious headphones I've ever seen. One part waterproof fitness device (it tracks your heart rate, steps and many other things), and one part feat of engineering (these two buds contain a host of sensors and computing tricks it would have been almost impossible to imagine if they weren't right here in my hand). When I last tried them a year ago, the prototypes were functional, but missing key features and aesthetic polish. But today the Dash isn't just fully functioning, it's fully finished. And, as the lady in my ears tells me, ready to go.

Ex-2015

CONCLUSION

HENSEN-VIDEO IS NOT PRIOR ART TO THE '385 PATENT

- The proper subject matter comparison for inventor-originated public disclosures under § 102(b)(1)(B) is limited to the subject matter *relied upon by the Petition*.
- Bragi's prior public disclosures contain the same subject matter relied upon by Petitioner.
- Hensen-Kickstarter does not disclose all of the same subject matter as Hensen-Video.

CHALLENGED CLAIMS REMAIN PATENTABLE OVER PETITIONER'S PRIOR ART

- Properly understood, Petitioner's prior art does not teach the '385 Patent's claims.
- Petitioner's invalidity grounds rely on misreading references, hindsight, and an improper expert declaration.

OBJECTIVE EVIDENCE CONFIRMS NONOBVIOUSNESS

- The Dash is coextensive with the subject matter of the '385 Patent.
- The Dash earned industry praise for its novel commercial embodiment, while competitors tried and failed.

Respectfully submitted,

/Richard Kamprath

Richard Kamprath, Reg. No. 65,320

CERTIFICATION OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S DEMONSTRATIVE EXHIBITS** has been served on Petitioner via email on the following counsel of record for Petitioner:

Haixia Lin

lhaixia.lin@ilmerhale.com

Brian Lambson

Brian.lambson@wilmerhale.com

Trishan Efram

Trishan.esram@wilmerhale.com

Dated: August 7, 2024

By: /s/ Richard A. Kamprath

Richard A. Kamprath

Reg. No. 65,320