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Patent Owner's Demonstratives

Samsung Electronics et al. v. Ouraring

IPR2025-00147

May 13, 2026

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

1

- **Title:**
Wearable Computing
- **Priority Date:**
November 29, 2013
- **Challenged Claims:**
1-6, 8-20



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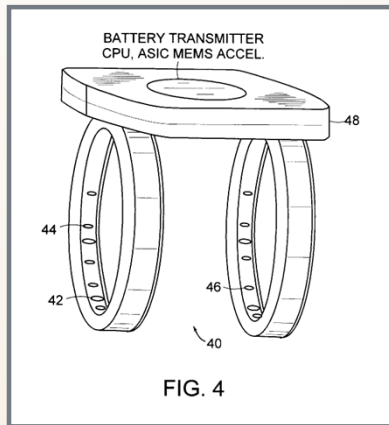
Development of Wearable Rings

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Development of Wearable Rings



Ex. 2025, Fig. 4

- No housing components
- Flat, coin-type batteries
- Printed circuit boards and battery located *outside* the ring

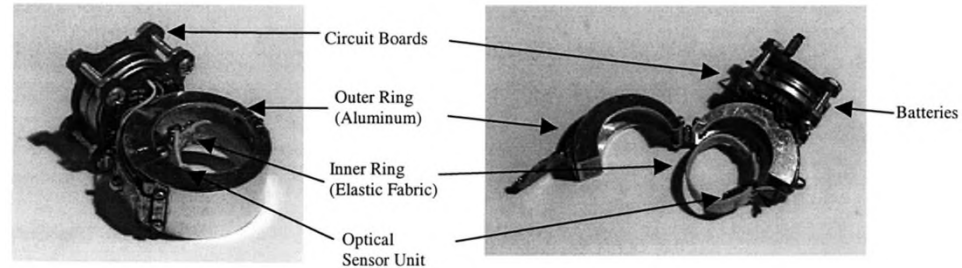


Figure 7-1 Isolating ring sensor designed for motion artifact minimization

Ex 1035, Figs. 7-1, 8-1.



Figure 8-1 First Prototype Ring Sensor

Paper 20 at 9

Paper 20 at 7-16

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Development of Wearable Rings

Wearable Technology



Mobile Monitoring with Wearable Photoplethysmographic Biosensors

H. HARRY ASADA,
PHILIP SHAUL,
ANDREW REISER,
EDMOND RHE, AND
REGINALD C. HUTCHINSON

Technical and Clinical Aspects of a Ring Sensor for Ambulatory, Telemetric, Continuous Health Monitoring in the Field, in the Hospital, and in the Home

Wearable biosensors (WBS) will permit continuous, ambulatory (CV) monitoring in a number of novel settings. Benefits may be realized in the diagnosis and treatment of a number of major diseases. WBS, in conjunction with appropriate alarm algorithms, can increase surveillance capabilities for CV catastrophe for high-risk subjects. WBS could also play a role in the treatment of chronic diseases, by providing information that enables precise titration of therapy or detecting lapses in patient compliance.

WBS could play an important role in the wireless surveillance of people during hazardous operations (military, fire-fighting, etc.), or such sensors could be deployed during a mass civilian casualty occurrence. Given that CV physiologic parameters make up the "vital signs" that are the most important information in emergency medical situations, WBS might enable a wireless monitoring system for large numbers of at-risk subjects. This same approach may also have utility in monitoring the waiting areas of today's overcrowded emergency departments. For hospital inpatients who require CV monitoring, current biosensor technology typically subjects patients to a tangle of cables, whereas wearable CV sensors could increase inpatient comfort and may even reduce the risk of tripping and falling, a perennial problem for hospital patients who are ill, medicated, and in an infirm setting.

On a daily basis, wearable CV sensors could detect a missed dose of medication by sensing untreated elevated blood pressure and could trigger an automated reminder for the patient to take the medication. Moreover, it is important for doctors to titrate the treatment of high blood pressure, since both insufficient therapy as well as excessive therapy (leading to abnormally low blood pressures) increase mortality. However, healthcare providers have only intermittent values of blood pressure on which to base therapy decisions; it is possible that continuous blood pressure monitoring would permit enhanced titration of therapy and reductions in mortality. Similarly, WBS would be able to log the physiologic signature of a patient's exercise effort (manifested as changes in heart rate and blood pressure), permitting the patient and healthcare provider to assess compliance with a regimen proven to improve health outcomes. For patients with chronic cardiovascular disease, such as heart failure, home monitoring employing WBS may detect exacerbations in very early and

often easily treated stages, long before the patient progresses to more dangerous levels that necessitate an emergency room visit and costly hospital admission.

In this article we will address both technical and clinical issues of WBS. First, design concepts of a WBS will be presented, with emphasis on the ring sensor developed by the author's group at MIT. The ring sensor is an ambulatory, telemetric, continuous health-monitoring device. This WBS combines miniaturized data acquisition features with advanced photoplethysmographic (PPG) techniques to acquire data related to the patient's cardiovascular state using a method that is far superior to existing finger-tip PPG sensors [1]. In particular, the ring sensor is capable of reliably monitoring a patient's heart rate, oxygen saturation, and heart rate variability. Technical issues, including motion artifact, interference with blood circulation, and battery power issues, will be addressed, and effective engineering solutions to alleviate these problems will be presented. Second, based on the ring sensor technology the clinical potentials of WBS monitoring will be addressed.

WBS System Paradigm

For novel healthcare applications to employ WBS technology, several system criteria must be met. The WBS hardware solution must be adequate to make reliable physiologic measurements during activities of daily living or even more demanding circumstances such as fitness training or military battle. There must exist data processing and decision making algorithms for the waveform data. These algorithms must prompt some action that improves health outcomes. Finally, the systems must be cost effective when compared with less expensive, lower technology alternatives.

WBS Design Paradigm

The monitoring environments for out-of-hospital, wearable devices demand a new paradigm in noninvasive sensor design. There are several design requirements central to such devices. Compactness, stability of signal, motion and other disturbance rejection, durability, data storage and transmission, and low power consumption comprise the major design considerations. Additionally, since WBS devices are to be worn without direct doctor supervision, it is imperative that they are simple to use and comfortable to wear for long periods of time. A challenge unique to wearable sensor design is the

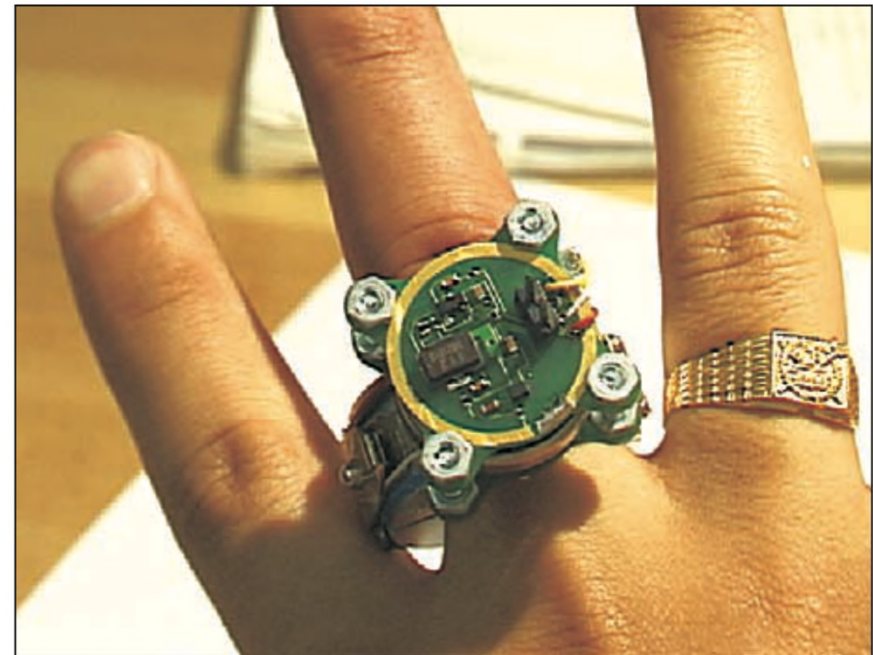


Fig. 9. First prototype ring sensor with RF transmitter powered by a coin-size cell battery.

Petitioner Samsung Ex-1037, 0001

Ex. 1037

Ex. 1037, at 7

Paper 20 at 11-20

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Development of Wearable Rings

- A. [I]n the 2012-2013 timeframe...I was aware of smart ring designs, including...the designs by Professor Harry Asada at MIT, in part because that's where I went to grad school, and I met with him there....

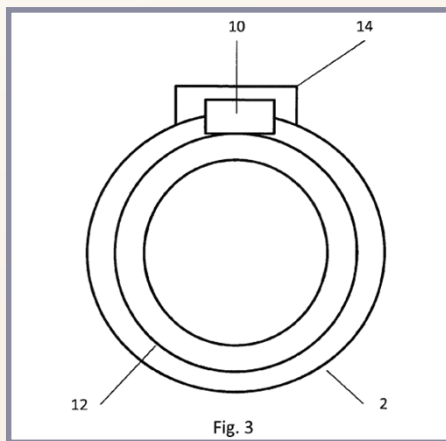
And I very quickly concluded that the most logical way to build such a device was to follow the prior art, including Professor Asada's and the other art that I found in the literature on this topic, and place the battery at the top of the device....

[W]hat I can say is that a POSITA who was...exactly in this space at the time of invention had considered various different ways of building a smart ring, and I concluded, at the time, that I wasn't able to make it sufficiently small.

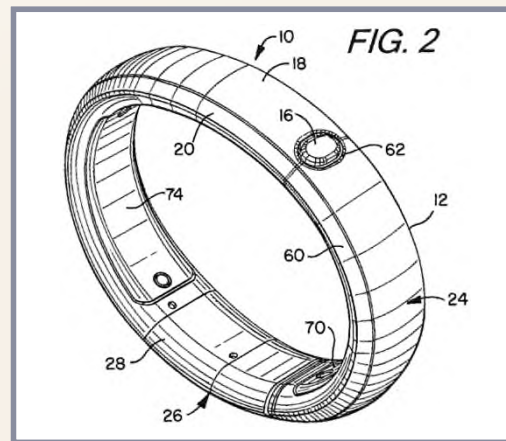
Ex. 1081, 35:9-37:10, Ex. 2018, ¶¶ 73-74, 78-83; Paper 20 at 15



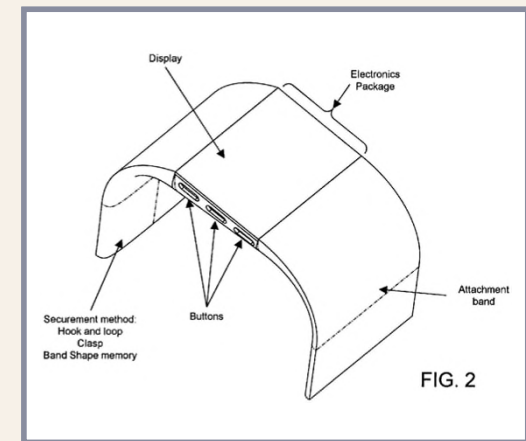
Development of Wearable Devices



Ex. 1007 (Schröder), Fig. 3



Ex. 1010 (Mestas), Fig. 2



Ex. 1006 (Yuen), Fig. 2

POSITA Would Apply Teachings Of Prior Art

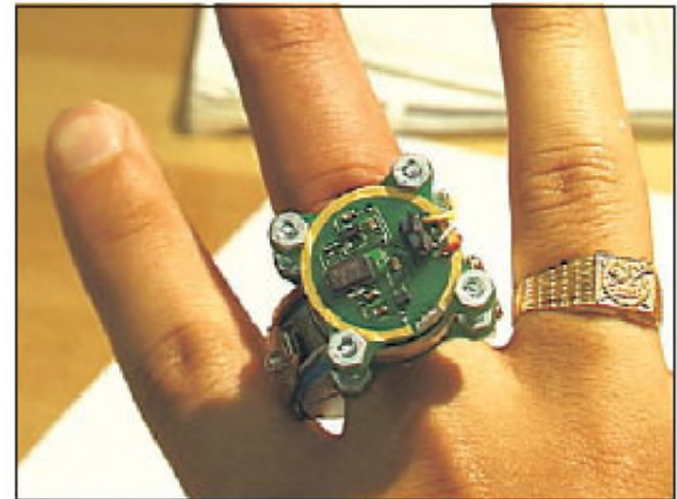
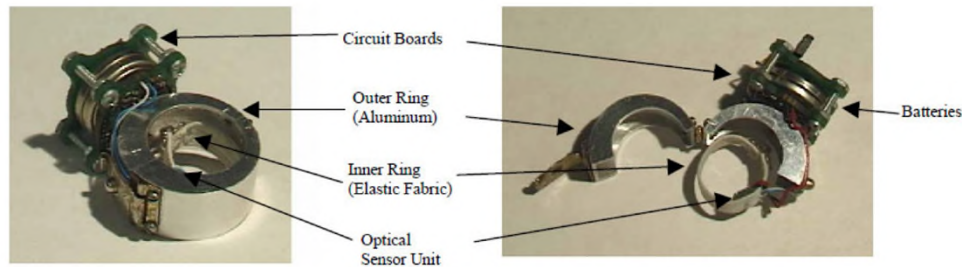


Fig. 9. First prototype ring sensor with RF transmitter powered by a coin-size cell battery.

Paper 20, 8-11

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POSITA Would Apply Teachings Of Prior Art

- A. And in the 2012-2013 time frame, as I was beginning to launch the center, we were looking at all sorts of different types of wearable device form factors. I was aware of smart ring designs, including, you know, the designs by Professor Harry Asada at MIT, in part because that's where I went to grad school, and I met with him there.

And when I was trying to look at different types of wearables I could potentially make within my center, I had considered designing a wearable smart ring, and I had done some exploration on what would need to go into, you know, the design of such a ring to make it small and comfortable and so on for a user to wear.

And I very quickly concluded that the most logical way to build such a device was to follow the prior art, including Professor Asada's and the other art that I found in the literature on this topic, and place the battery at the top of the device, as all the other prior art did, simply because there's just not enough room in kind of the body, if you will, of the ring that goes around the sides and the bottom of the finger, while making the user comfortable.

Ex. 1081 at 35:16-36:12

Petitioner also fails to explain why a POSITA having issues with a power solution would incorporate one half of Mestas's power solution—Mestas's curved batteries—but reject the other half of Mestas's power solution—Mestas's battery housing in recesses on a spine member. *See* POR at 33-34, 59, 70-71, 75, 82. A POSITA would use the battery solution that was used repeatedly in the prior art. *Id.*; *see also* Ex-2154 at 54-56 (“[W]e credit Dr. Mercier’s testimony that a ‘non-obvious structural overhaul’ beyond the level of ordinary skill in the art would have been required [to combine Mestas and Schröder] ... Dr. Mercier’s testimony is further supported by evidence showing a consistent pattern of flat battery use in prior art finger-ring devices.”)

Paper 31, 9

Level of Skill of POSITA

Proposed by Petitioner:

1. At least four-year degree in electrical engineering, biomedical engineering, optical engineering, or related field of study, or equivalent experience; and

2. At least two years' experience in academia or industry studying or developing physiological monitoring devices such as non-invasive biosensors. A person of ordinary skill in the art would have also been familiar with, for example, sensor system design and signal processing.

Paper 3 at 8

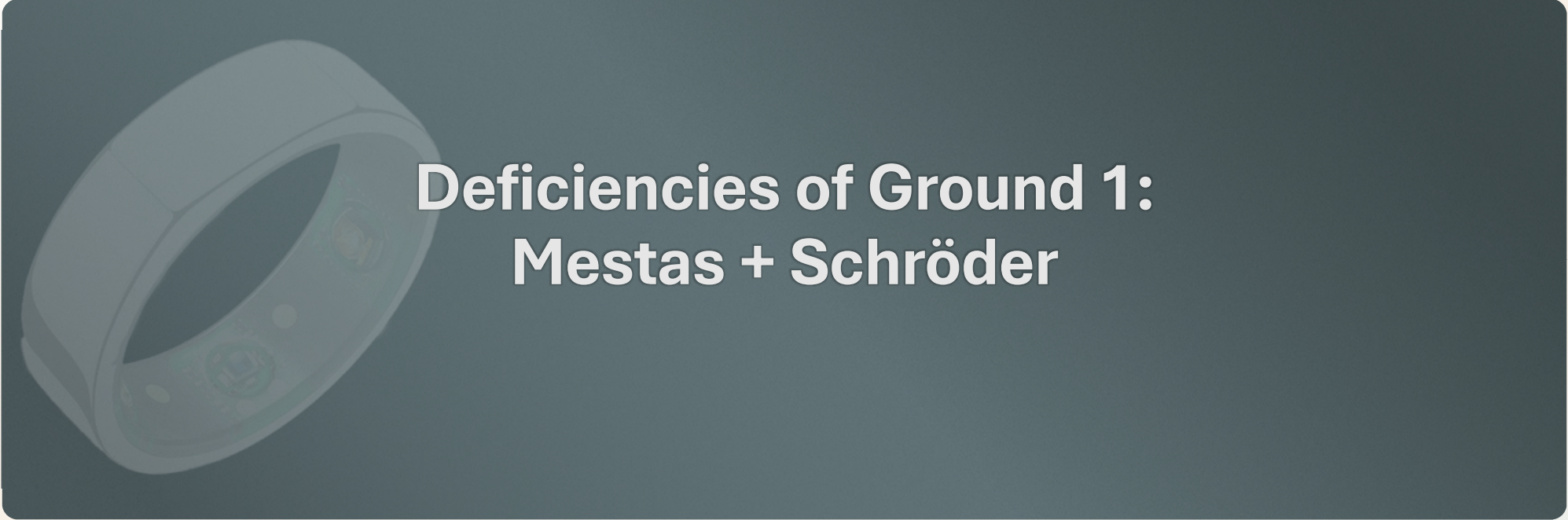


The '124 Patent: Summary of Grounds

1	Mestas/Schröder (Claims 1-2, 4-5, 8-11, 14, 16, 18-19)
2	Mestas/Schröder/Yuen (Claims 3, 6, 12-13, 15, 17, 20)
3	Yuen/Schröder/Mestas (Claims 1-6, 8-20)

Paper 3 at 4

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Deficiencies of Ground 1: Mestas + Schröder

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Ground 1 Relies Mostly on Mestas



- Schröder is used for the finger-ring form factor [1.pre].
- Mestas alone is used for the external housing [1.a], the curved rechargeable battery [1.b], the printed circuit board [1.c], sensors [1.d, 1.g], a memory [1.e], a processor [1.h].
- Schröder and Mestas together are used to show a communication module (1.f), and potting (1.i).

Paper 3 at 18-35

Mestas

United States
Patent Application Publication
Mestas

(10) Pub. No.: US 2014/0244009 A1
(43) Pub. Date: Aug. 28, 2014

(54) ACTIVITY MONITORING, TRACKING AND SYNCHRONIZATION

(71) Applicant: NIKE, INC., Beaverton, OR (US)

(72) Inventor: Alex Mestas, Portland, OR (US)

(73) Assignee: NIKE, INC., Beaverton, OR (US)

(21) Appl. No.: 14/386,425

(22) Filed: Feb. 21, 2014

Related U.S. Application Data

(90) Provisional application No. 61/765,279, filed on Feb. 22, 2013.

Publication Classification

(51) Int. Cl.

A61B 24/00 (2006.01)

(52) U.S. Cl.

A61B 24/0062 (2013.01)

CPC

USPC

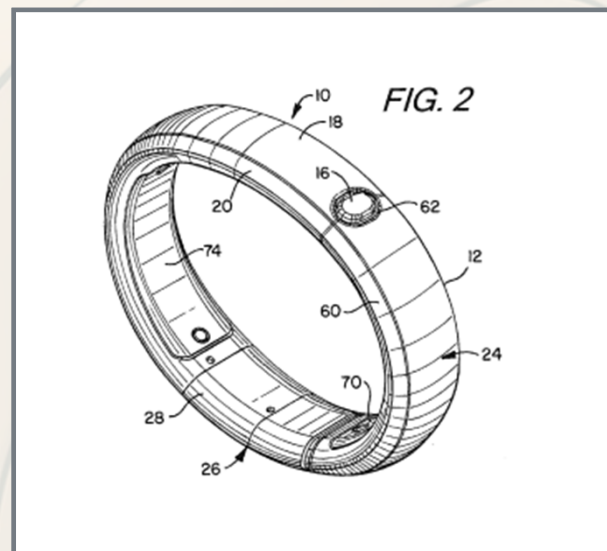
780/91

(57) ABSTRACT

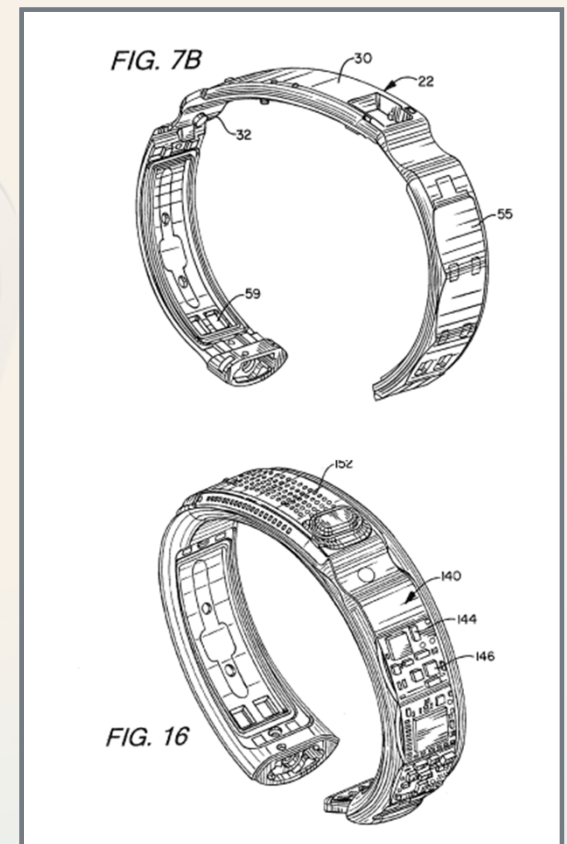
A physical activity monitoring method and system may include a competition component requiring users to compete based on various metrics. The challenge may be device-specific, activity-type-specific, user-type specific and the like. In some examples, the users' performance might only affect the status of the competition if the user synchronizes the information to an activity monitoring system.



Ex. 1010
Paper 20, 19-23

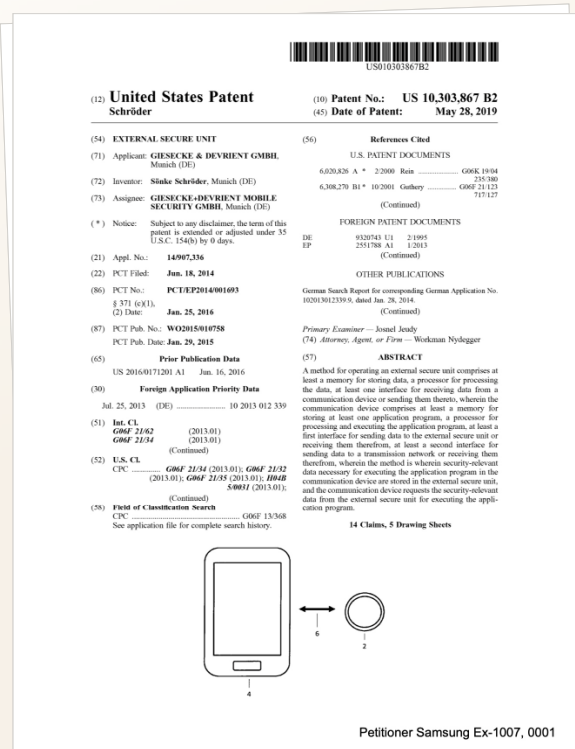


Ex. 1010, Figs. 2, (showing unitary housing enclosing spine member) 7B, Fig 16, (showing spine member)

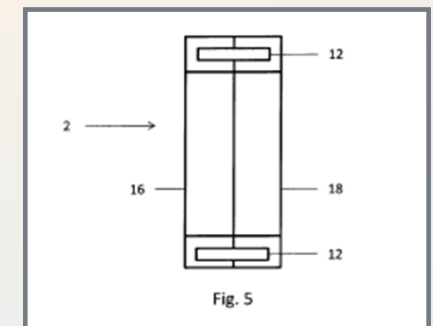
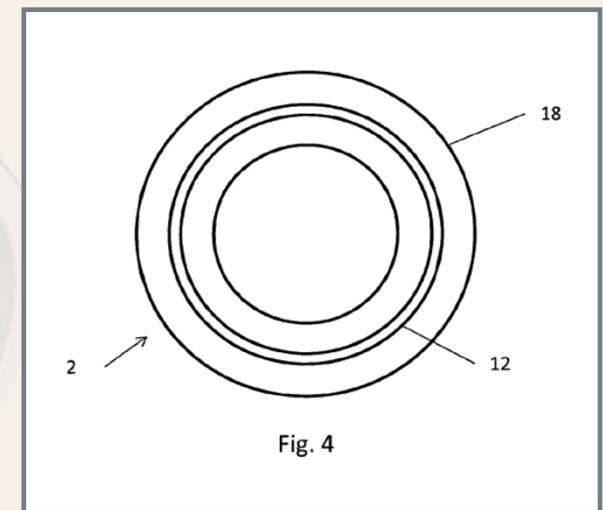
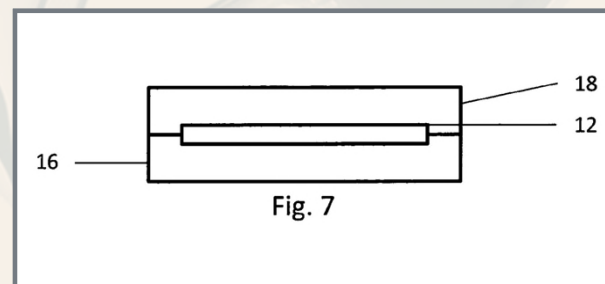
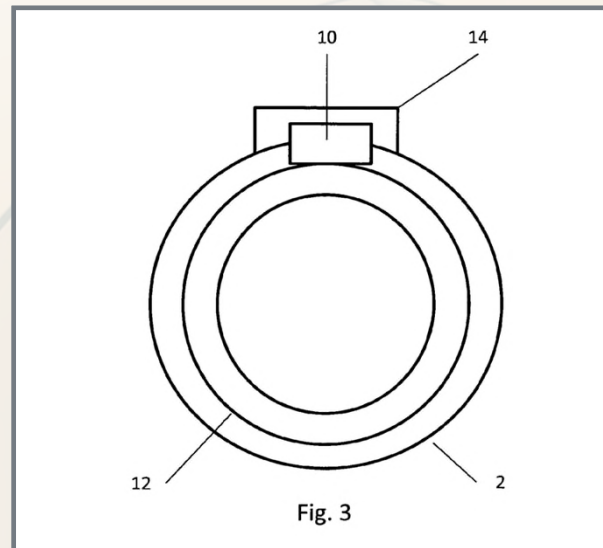


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Schröder



Ex. 1007
Paper 20; 19-23



Ex. 1007, Figs. 3, 4, 5, and 7

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE



A POSITA Would Not Combine Mestas With Schröder

Devices have different functions (physiological vs. security)

Devices include different components and different power requirements

Mestas' device is worn on the wrist. Mestas only considers deploying the device on large parts of the body. (chest, arm, head, ankle, or thigh)

Mestas' components cannot fit in Schröder's inlay

The Claims At Issue Are Similar to Claims in Related IPRs

What is claimed is:

1. A finger-worn wearable ring device, comprising:
 - an external housing component defining an outer circumferential surface of the finger-worn wearable ring device;
 - an internal housing component defining an inner circumferential surface of the finger-worn wearable ring device, the internal housing component coupled with the external housing component, wherein at least a portion of the inner circumferential surface of the internal housing component is configured to contact a tissue of a user when the finger-worn wearable ring device is being worn by the user;
 - a battery positioned within a cavity formed between the internal housing component and the external housing component, wherein the battery comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component, and wherein the battery extends through at least a first portion of the cavity of the finger-worn wearable ring device;
 - a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion; and
 - one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component.

US 11,868,178; PGR2024-00030

What is claimed is:

1. A system, comprising:
 - a wearable ring computing device, the ring computing device including a housing, the housing having an interior bounding member and an exterior bounding member, the interior bounding member and the exterior bounding member being configured for being coupled together to form a waterproof cavity there between;
 - a curved battery positioned within the cavity, the curved battery having an arc approximating a corresponding arc of the ring housing;
 - a sensor module, the sensor module positioned within the cavity and proximate the battery, the sensor module comprising one or more sensors, the one or more sensors comprising one or more of a pedometer, an accelerometer, a gyroscope, a heart rate sensor, a pulse oximeter, a sleep monitor, an internal measurement unit, a thermometer, a Galvanic skin response sensor, and an electrocardiogram, the one or more sensors being configured to sense a change in a condition of a wearer of the ring;
 - a flexible printed circuit board positioned within the cavity proximate one or both of the curved battery and the sensor module, the flexible printed circuit board portion comprising:
 - a processor, the processor configured for determining one or more of a number of steps taken, a quality of sleep, a heart rate, blood pressure, and body temperature of a user of the ring computing device; and
 - a memory, associated with the processor for storing data; and
 - a semiconducting light element disposed at least partially within the housing.

US 10,139,859; IPR2024-01077

1. A wearable computing device configured to be worn around a finger of a wearer comprising:
 - an external housing having an outer surface, an interior surface and sidewalls, wherein the interior surface and the sidewalls are characterized by approximately a C-shaped cross section and define an interior space, and wherein the interior space is configured to retain a plurality of components;
 - wherein the plurality of components comprises:
 - a curved rechargeable battery disposed within the interior space of the housing, wherein the rechargeable battery is curved to conform to the interior surface;
 - a printed circuit board disposed within the interior space configured to approximately conform to the interior surface;
 - one or more sensors disposed upon the printed circuit board, wherein the one or more sensors are selected from a group consisting of: an accelerometer, a gyroscope, and a motion sensor, wherein the one or more sensors are configured to sense physical perturbations and to output sensed data;
 - a memory disposed upon the printed circuit board, the memory configured to store one or more executable instructions;
 - a short-range communication module disposed upon the printed circuit board, the short-range communications module configured to communicate a first set of data to a client computing device via a first communications protocol;
 - a first temperature sensor configured to provide first temperature data associated with a temperature of a wearer of the wearable computing device;
 - a processor disposed upon the printed circuit board and coupled to the battery, the one or more sensors, the memory, the short-range communication module, and the first temperature sensor, wherein the processor is configured to receive the sensed data, is configured to perform the one or more executable instructions in response to the sensed data, and is configured to direct the short-range communication module to output data to the client computing device; and
 - a potting material disposed in the interior space encapsulating the plurality of components, wherein the potting material forms an interior wall of the wearable computing device, wherein the potting material is substantially transparent to light selected from a group consisting of: visible light, infrared light, and ultraviolet light.

US 11,188,124; IPR2025-00147

See also, PGR2024-00039, IPR2024-01078 (showing similar claims)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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The Board Rejected Combinations of Mestas and Schröder Based on Similar Arguments Presented in this Proceeding

Ground	Summary
1	Claims 1-2, 4-5, 8-11, 14, 16, and 18-19 are obvious over Mestas (Ex-1010) in view of Schröder (Ex-1007).
2	Claims 3, 6, 12-13, 15, 17, and 20 are obvious over Mestas in view of Schröder and further in view of Yuen (Ex-1006).
3	Claims 1-6 and 8-20 are obvious over Yuen in view of Schröder and further in view of Mestas.

Paper 3 at 4.

Petitioner has not shown, by a preponderance of the evidence, that claims 1–10 and 12–16 of the '178 patent are unpatentable. Petitioner has shown, by a preponderance of the evidence, that claims 17 and 18 of the '178 patent are unpatentable.¹⁵

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1–3, 17, 18	103	Schröder		1–3, 17, 18
1–3, 13–16	103	Schröder, Niwa		1–3, 13–16
3, 12	103	Schröder, Mestas		3, 12
1, 4–10, 13–16	103	Schröder, Yuen		1, 4–10, 13–16

EX2151; FWD PGR2024-00030 at 56-57

Petitioner has not shown, by a preponderance of the evidence, that claims 1–17 of the '702 patent are unpatentable.

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1, 5, 7, 12–15	103	Schröder		1, 5, 7, 12–15
2–4, 6, 8–11	103	Schröder, LeBoeuf		2–4, 6, 8–11
8–11	103	Schröder, LeBoeuf, Niwa		8–11
16, 17	103	Schröder, Mestas		16, 17
1–15	103	LeBoeuf, Schröder		1–15
8–11	103	LeBoeuf, Schröder, Niwa		8–11
16, 17	103	LeBoeuf, Schröder, Mestas		16, 17
Overall Outcome				1–17

EX2153; FWD PGR2024-00039 at 85

V. CONCLUSION

Petitioner has not shown by a preponderance of the evidence that claims 1, 11, and 13–20 of the '859 patent are unpatentable.

Ground	Claims	35 U.S.C. §	References/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1	1, 11, 13–20	103	Yuen, Mestas		1, 11, 13–20
2	1, 11, 13–20	103	Schröder, Mestas		1, 11, 13–20
Overall Outcome					1, 11, 13–20

EX2155; FWD IPR2024-01077 at 59

III. CONCLUSION

Petitioner has not shown by a preponderance of the evidence that claims 1–6, 11–15, 38–43 of the '953 patent are unpatentable:

Ground	Claims	35 U.S.C. §	References/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1	1–6, 11–14	103	Mestas, Asami		1–6, 11–14
2	1–6, 11, 14, 15, 38, 39, 41–43	103	Mestas, Schröder		1–6, 11, 14, 15, 38, 39, 41–43
3	1–6, 11, 14, 15, 38, 39, 41–43	103	Schröder, Mestas		1–6, 11, 14, 15, 38, 39, 41–43
4	11–15	103	Schröder, Mestas, Asami		11–15
5	40–43	103	Schröder, Mestas, Wissmar		40–43
Overall Outcome					1–6, 11–15, 38–43

*Samsung Electronics Co. Ltd. v. Ouraring Inc.,
IPR2024-01078, Paper 62 at 50 (PTAB Jan. 27, 2026)*

Paper 31, 1

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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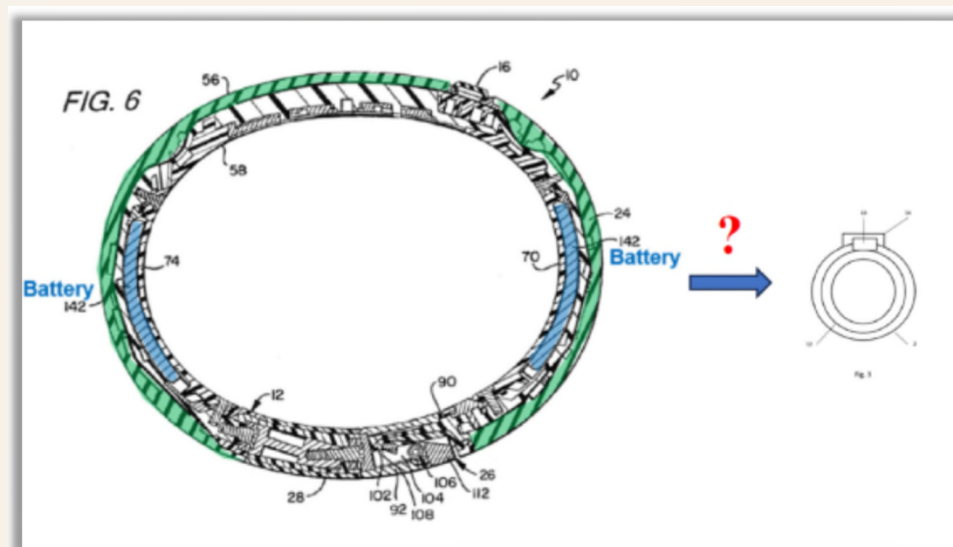
A POSITA Would Not Combine Mestas With Schröder

Q. Doctor, I'm talking about the battery of Figure 6. How much smaller would you have to make it too have it fit in the ring? ... How big a scaling factor would you be comfortable that would require to—that would be required to fit that in a ring?

A. Some place between 5 and 10 – with that not having calculated it.

Q. Have you in your work on this case attempted to find whether there was a battery available in 2013 that was appropriate to fit in Schröder as you've proposed?

A. I did not find it necessary to do that, no.



Ex. 1010, FIG. 6

Paper 20 at 34-39

Ex. 2021 at 312:16-313:12; 321:5-10

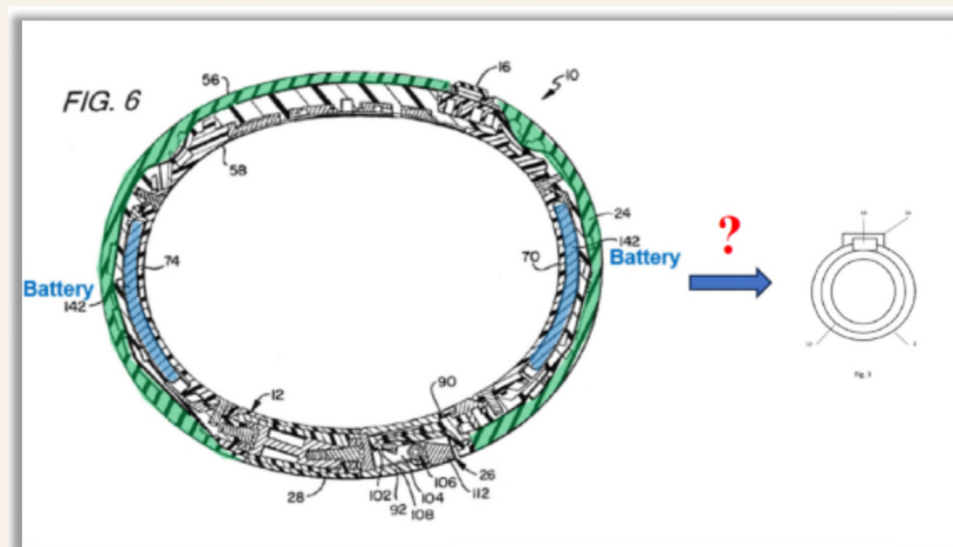
A POSITA Would Not Combine Mestas with Schröder

Q. In 2013 when you were working on this ring design, were you aware of any off-the-shelf curved batteries that would work for a ring form factor that you were designing?

A. There were curved cells, but I – to my recollection, there weren't any that would be drop-linked for our application.

Q. Could a curved cell for a wrist wearable work for a ring form factor?

A. If the ring was very, very, very big, but for our application, the sizes of the other wearables that were out there were nowhere near where we needed them to be. Capacity was great, but the size was just massive. There was no way it would work.



Ex. 1010, FIG. 6
Paper 20 at 34-39
Ex. 2024, 188:4-17



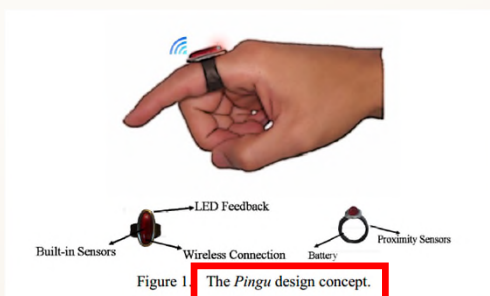
A POSITA Would Not Combine Mestas With Schröder

138. The power requirements of Schröder and Mestas would also be different, given that Mestas is constantly monitoring health conditions and features active wireless communications – both of which require substantial amounts of both peak and average power draws, while Schröder only takes vein pattern images in a security validation event, and communicates via NFC or RFID, which are backscatter systems that can be 1,000x lower power than active communications such as Bluetooth, for example. Ex-2152 at 2 (“It can be seen that backscatter systems are at least 1000 times more energy efficient than corresponding radios.”). Given the typically low power requirements of Schröder’s intended RFID and NFC applications, and its description of the battery as optional, a POSITA would not be motivated to combine the references or have a reasonable expectation of success in doing so. Indeed, as Dr. Anthony admits, Mestas’s battery would have to be reduced

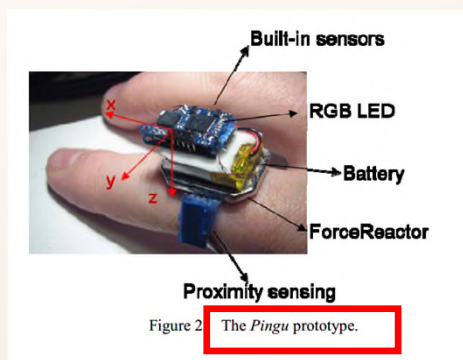
140. Dr. Anthony also neglects to address the fact that unlike coin or button cells, flexible or curved batteries include flexible packaging materials such as aluminum laminated films that house the electrodes and electrolyte. Ex-2026. Thus even if the battery itself could be miniaturized—and there is no evidence in the record that such miniaturized batteries with the required power requirements existed—a curved cell would have required a POSITA to separately address the issue of battery packaging that also requires real estate which is already limited when designing a finger-worn wearable ring device. Given that all of the development in finger ring wearables up to the '124 Patent had used “coin” type batteries, the ordinary person would look to that type of battery.

Ex. 2018, (Dr. Mercier) at ¶¶138, 140

Petitioner Misrepresents The State Of Wearable Ring Devices



EX1007



Petitioner points to aspirational artist renderings not to Ketabdar's device (Left)

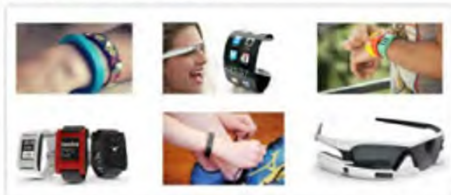
Petitioner relies on GMB Power batteries that the ITC rejected (Left Lower)

Solid-State batteries were not suitable for ring devices. EX2018 ¶¶ 102-103

Battery Miniaturization is not a trivial undertaking. EX2018 ¶¶ 105-107

Main Application of Curved Lithium Polymer Battery:

i-watches, sports bracelets and wrist straps, etc.



RX-0030.1. As shown above, GMBPow advertised its batteries for use with "i-watches, sports bracelets, and wrist straps." *Id.* Such devices, designed for wrist-worn accessories, are larger in size, and accommodate larger batteries relative to finger-worn ring devices. Dr. Rosing provided credible testimony that one of skill would not have used GMBPow's batteries in Niwa because "they effectively are the size of two Cheerios stacked on top of each other, which is plenty big when you consider having to try to put it inside of a ring." Rosing Tr. at 1215:12-18.

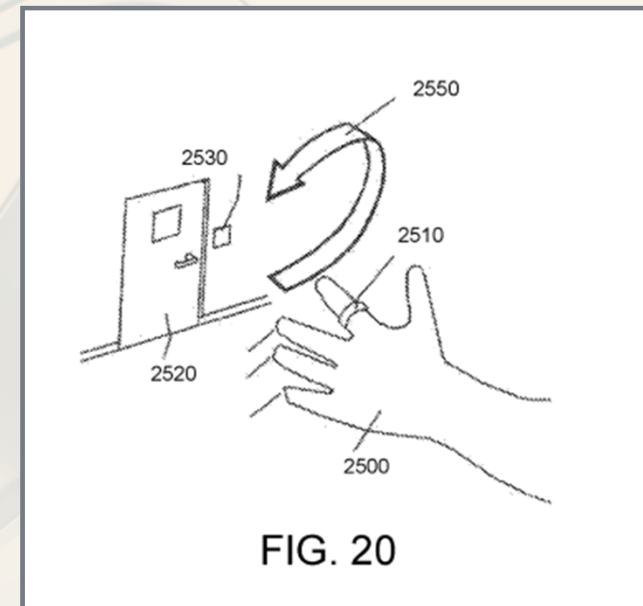
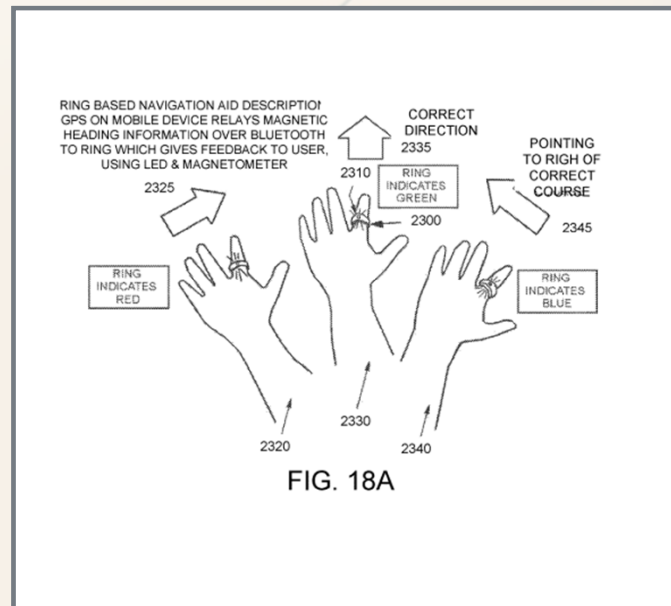
EX2122 at 92-93

Paper 20 at 16-19

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

22

The '124 Patent Claims Finger Worn Wearable Computing Devices



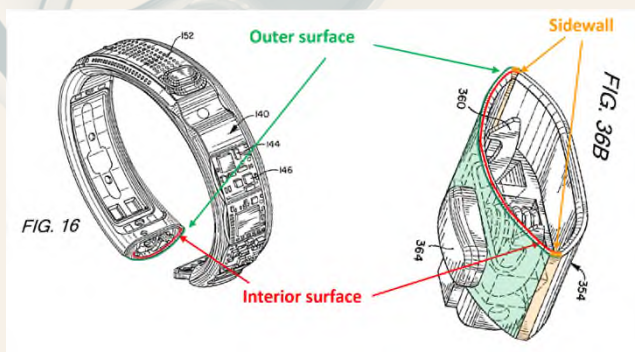
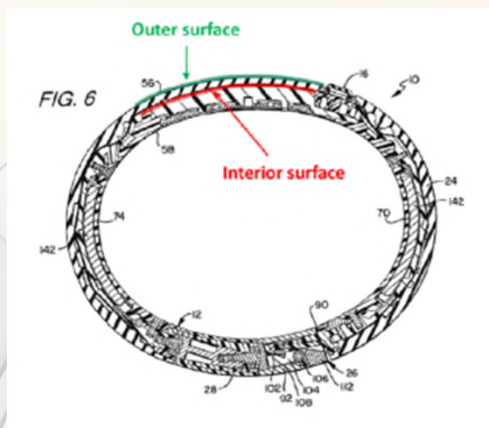
Ex. 1001, Figs. 18A, 20.; Paper 20,42-43.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

24

Mestas-Schröder Fails To Disclose Limitations 1[a] and 14[a]

- Claim 1[a]: an external housing having an **outer surface**, and **interior surface** and **sidewalls**, wherein the interior surface and the sidewalls are characterized by approximately a C-shaped cross-section and **define an interior space**, and wherein the interior space is configured to retain a plurality of components;



Mestas's device has "a *housing portion* that supports a controller therein." Ex-1010 ¶141. The housing includes an "outer encasement member 24" that houses the spine member 22 inside. *Id.* ¶151; Ex-1002 ¶188. The "outer encasement member...has a generally rounded *outer surface* 56 and a generally planar inner surface 58, and may be considered to have an inner portion defining an inner diameter of device 10 and an *outer portion* defining an outer diameter of the device 10." Ex-1010 ¶157, Fig. 6. A POSITA would have understood the outer portion of the encasement member is the claimed external housing, which, as shown in Fig. 6, has an outer surface 56 (the claimed "exterior wall" of the device) and an interior surface. Ex-1002 ¶188.

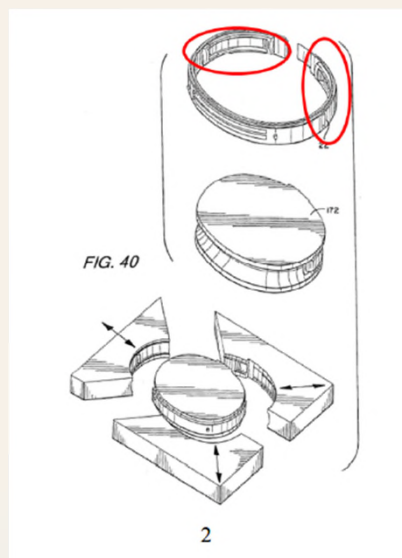
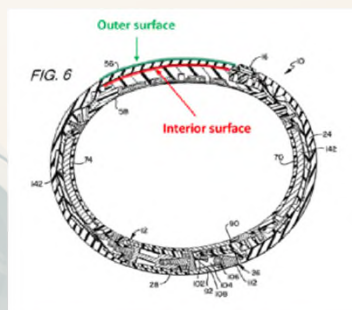
Mestas-Schröder Fails To Disclose Limitations 1[a] and 14[a]

- Claim 1[a]: an external housing having an **outer surface**, and **interior surface** and **sidewalls**, wherein the interior surface and the sidewalls are characterized by approximately a C-shaped cross-section and **define an interior space**, and wherein the interior space is configured to retain a plurality of components;

Paper 3 at 33.

[0172] FIGS. 39-42 are schematic views illustrating a molding process for creating a wearable device assembly according to aspects of the invention. In FIG. 39, a first mold 170 may be used to create the spine member 22 of the wearable device assembly 10. As discussed, the structural features of the spine member 22 allow the attachment, insertion and mating of various electronic and non-electronic components of the wearable device assembly 10. The spine member 22

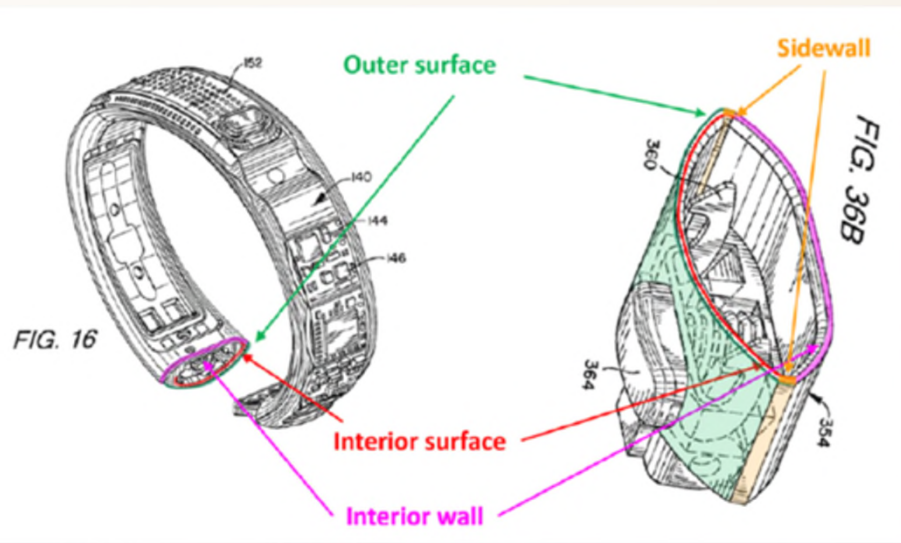
[0173] As further shown in FIG. 40, the assembled spine member 22 supporting certain of the various components may then be wrapped or loaded onto an insert core 172 for further injection molding. An interior diameter, or inner portion, may then be injection molded onto the spine member 22. In FIGS. 41 and 42, the molded assembly may then be inserted into an outer diameter mold 174 and an outer diameter, or outer portion, of the wearable device assembly 10 may be molded to completely form the outer encasement member 24 of the housing 12. The device assembly 10 can then be removed from the insert core 172.



- The interior wall formed through the injection molding process ends before the battery recess starts. The metallic battery caps are not part of the interior wall of the device formed of potting. Paper 20 at 41-47. Paper 31 at 1-5. The injection molding process that fills the interior space is deposited in a separate process than the process that forms the interior wall. Paper 31 at 5-7.

EX1010 at ¶¶ 0172-73, Fig. 40; Paper 31 at 2.

Mestas-Schröder Fails To Disclose Limitations 1[a] and 14[a]



Paper 3 at 33.

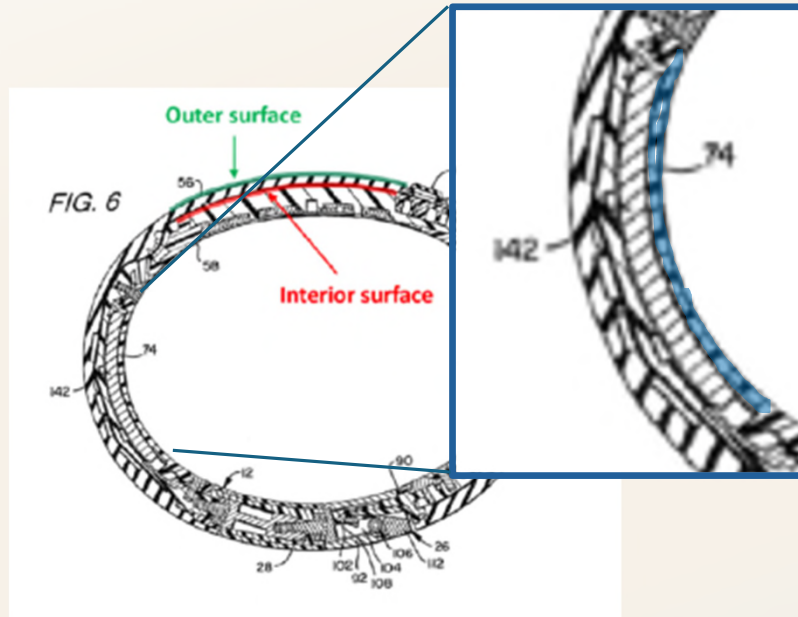
- Dr. Anthony stated that the interior space ends at the sidewalls (element 354). EX2150, 31:6-15; Paper 20 at 43-45, 52-54.
- The battery recesses are above the spine member and element 354. *Id.*

Mestas-Schröder Fails To Disclose Limitations 1[a] and 14[a]

[0174] It is understood that additional processes can be utilized in forming the device such as the device 10 shown in FIGS. 1-6. In an exemplary embodiment, a process of forming the spine member 22 initially includes forming the battery compartments. As can be appreciated from FIGS. 7a, 7b, 8a and 8b, a mold is provided wherein via a thixo-molding

process, magnesium is injected into the mold to form the thixo-molded members 55. The magnesium thixo-molded members 55 cooperate with the metal battery caps 70, 74 (FIG. 2) to provide a substantially metal enclosure for the batteries 142. As discussed, other metal forming processes can be used. Once formed, the thixo-molded members 55 are placed in a mold wherein material is injected into the mold to form the spine member 22. The material is overmolded around the thixo-molded members 55 wherein a certain amount of injected material extends over an internal surface of the members 55 (FIGS. 7-8). It is understood that the mold is designed to incorporate forms for the substantially rigid portions of the spine member 22, the flexible zones 46, 48 of the spine member 22 as well as other structures for receiving, mounting or otherwise supporting the various components of the device 10 as described herein. In an exemplary embodiment, the material injected over the thixo-molded members 55 to form the remaining portions of the spine member 22 is polypropylene.

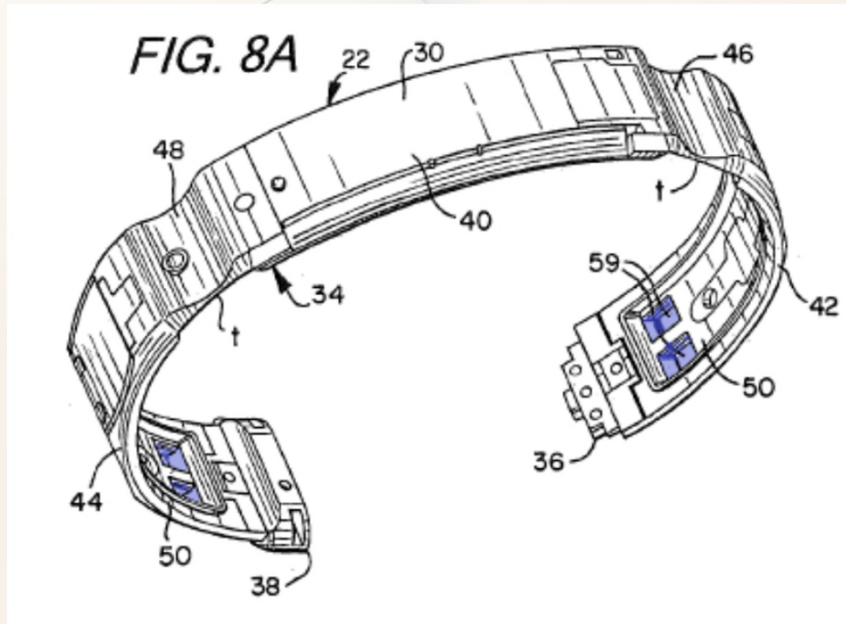
EX1010 at ¶ 0174



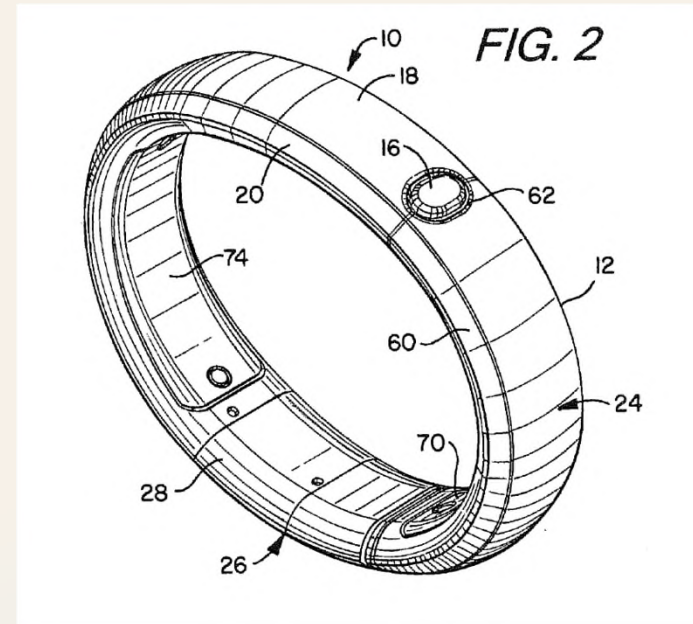
- The battery recesses are not protected by the potting material.

Mestas-Schröder Fails To Disclose Limitations 1[b] and 14[b]

- Claim 1[b]: a curved rechargeable battery disposed within the interior space of the housing, wherein the rechargeable battery is curved to conform to the interior surface



Paper 20 at 52; EX1002, ¶ 81



Paper 20 at 53; EX1010, FIG. 2

The Board Rejected Implementing Mestas's Batteries in Ring Sized Devices

Pet. 53 (citing Ex. 1010 ¶¶ 157, 168). Petitioner submits that a person having ordinary skill would have been motivated to implement Mestas's curved battery in Schröder's finger-ring because "a curved battery allows a larger battery to conform to a ring's circular shape without stressing the battery or ring housing." *Id.* at 50 (citing Ex. 1002 ¶ 241); *id.* at 53–54 (citing Ex. 1010 ¶ 168; Ex. 1002 ¶ 248). This proposed modification of Schröder's finger-ring with the curved batteries of Mestas does not cure the deficiencies in the challenge to claim 1 based on Schröder. Further, as explained above in our analysis of the challenge to claim 3 (Section III.G.i), Petitioner has not met its burden to show by a preponderance of the evidence that a person having ordinary skill in the art would have been led to modify Schröder's finger-ring to place a curved battery between the internal and external housing components in light of the teachings in Mestas. Thus, Petitioner has not met its burden to show by a preponderance of the evidence that dependent claim 12 of the '178 patent is unpatentable over Schröder and Mestas.

EX2151; FWD PGR2024-00030 at 40-41

In sum, Petitioner's showing for limitation 1[B] is deficient in multiple respects. First, Petitioner assumes that an ordinarily-skilled artisan would have been motivated to implement Mestas's curved battery in the much smaller interior space occupied by Schröder's inlay 12 without sufficiently considering the feasibility of that modification or alternative designs suggested by Schröder. Second, even if we accept Petitioner's purported rationale for the combination (which we do not because we find it that it is predicated on improper hindsight), Petitioner has not shown that an ordinarily-skilled artisan would have had a reasonable expectation of successfully implementing the proposed modification.

The record supports Patent Owner's argument that Mestas's batteries are much too large to fit within a ring form factor, and "Mestas's batteries, layout, and other components . . . would have to be scaled down 5 to 10 times to be appropriately sized for a finger worn ring." Resp. 64 (internal quotation marks omitted) (citing Dr. Anthony's cross-examination testimony at Ex. 2021, 313:12). Moreover, we do not credit Dr. Anthony's testimony that miniaturization of the battery would have been "trivial to implement." Ex. 1002 ¶ 215. Dr. Anthony admitted on cross examination that it would not have been within the level of skill of a person having ordinary skill in the art to design a smaller version of Mestas's battery, and that such a person would need to procure a battery of the appropriate size and specifications for implementation in a finger-ring from a battery manufacturer. Ex. 2021,

EX2153; FWD PGR2024-00039 at 36

Petitioner attempts to downplay this concern by characterizing the modification of Schröder's ring to include Mestas's curved battery as an obvious "matter of choice" in design. *See* Reply 10–11 (citing Ex. 1079 ¶¶ 71–77). We disagree. As explained above, the record supports Patent Owner's argument that Mestas's batteries are much too large to fit within a ring form factor because they are "5 to 10 times" the size that would be required for a finger ring. PO Resp. 27 (quoting Ex. 2021, 313:12). Petitioner argues that it "does not propose bodily incorporating Mestas's battery into Schröder's ring," which on the surface is correct. *See* Reply 10. But this does not help Petitioner meet its burden because its actual obviousness theory that "a POSITA would have found it trivial to implement Mestas's teachings into a ring like Schröder's 'finger-ring'" is not persuasive. *See* Pet. 60 (citing Ex. 1002 ¶ 338). For the same reasons

*Samsung Electronics Co. Ltd. v. Ouraring Inc.,
IPR2024-01078, Paper 62 at 46 (PTAB Jan. 27, 2026)*

Paper 31, 4-5

EX2155; FWD IPR2024-01077 at 54-56

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

30

Petitioner Proposes Adopting the Concept of an Appropriate Battery from Mestas into Schröder

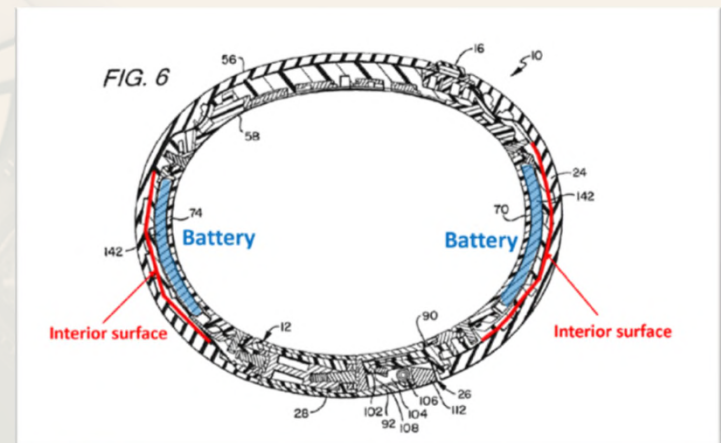
The curved batteries are disposed within the interior space of the housing and are curved to conform to the device's interior surface. *See id.* ¶163 ("The controller 14 further includes a power supply 142 in the form of a battery pack(s) or batteries 142."). Mestas's battery "charging can be done via wireless...connections," and "the device 10 may be configured for *re-charging batteries* via induction charging." *Id.* ¶201. A POSITA would have found implementing the rechargeable batteries of Mestas in the Schröder finger ring form factor desirable and feasible, given the advancements in flexible battery miniaturization. Ex-1002 ¶¶195-197.

Paper 3, 26

While PO further argues that the ordinary person would not have the skill to "miniaturize the components of Mestas" into a finger ring (POR, 33-34, 39), Petitioner does not propose bodily incorporating each of Mestas's components into Schröder's ring. Ex-2021, 307:7-17; Ex-1079 ¶71. Instead, a POSITA would implement Mestas's teaching of an appropriately sized curved battery into Schröder to avoid increasing the ring's thickness or straining the battery or housing. *Pet.*, 60; Ex-1002 ¶337; Ex-1369, ¶10-14. Both parties agree that Schröder includes

Paper 25, 4

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

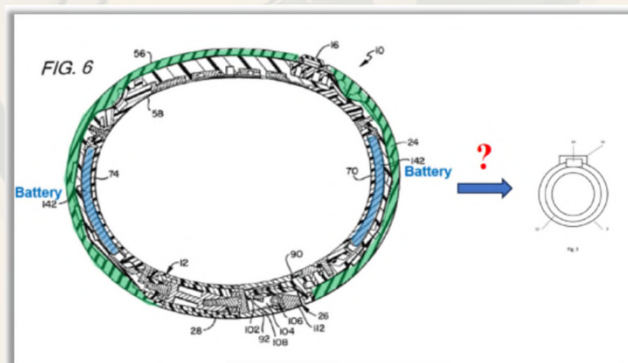


Ex-1010, Fig. 6, Paper 1, 26

Mestas's Power Solution is Not Appropriate for Schröder

Q. Doctor, I'm talking about the battery of Figure 6. How much smaller would you have to make it too have it fit in the ring? ... How big a scaling factor would you be comfortable that would require to—that would be required to fit that in a ring?

A. Some place between 5 and 10 – with that not having calculated it.



Ex. 2021, 313:12
Paper 20, 38-39.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

32

Petitioner Uses Hindsight to Discard All Aspects of Mestas's Power Solution Besides the Concept of A Suitable Battery

Petitioner repeatedly complains that it does not argue for bodily incorporation of Mestas into Schröder or Yuen. Reply at 4, 9, 15 (“a POSITA would not bodily incorporate the spine member into the combined device, nor would they implement the internal components in a way that prevents the combined device from working as intended.”) Yet, Petitioner ignores the difficulty of shrinking Mestas’s wrist sized power solution to a finger sized device. In a related proceeding, the Board noted that “Petitioner [] fails to account for the significant redesign that would have been required to try to incorporate Mestas’s much larger, curved battery into a ring sized to be worn around a single toe . . . the record supports . . . ‘that Mestas’s batteries, layout, and other components would have to be scaled down ‘5 to 10 times.’” Ex-2154 at 30-31; *see also* Ex-2151 at 38-40; Ex-2153 at 36-37; *Samsung Electronics Co. Ltd. v. Ouraring Inc.*, IPR2024-01078, Paper 62 at 21-24 (PTAB Jan. 27, 2026).

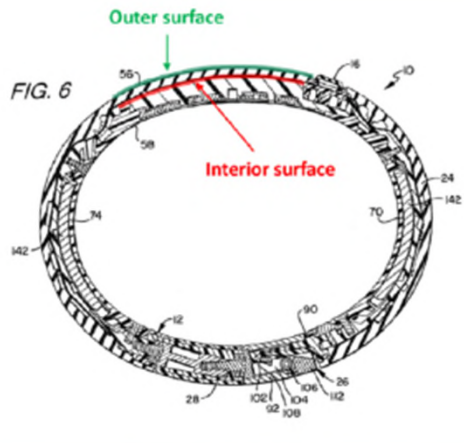
Paper 31, 8

Petitioner also fails to explain why a POSITA having issues with a power solution would incorporate one half of Mestas’s power solution—Mestas’s curved batteries—but reject the other half of Mestas’s power solution—Mestas’s battery housing in recesses on a spine member. *See* POR at 33-34, 59, 70-71, 75, 82. A POSITA would use the battery solution that was used repeatedly in the prior art. *Id.*; *see also* Ex-2154 at 54-56 (“[W]e credit Dr. Mercier’s testimony that a ‘non-obvious structural overhaul’ beyond the level of ordinary skill in the art would have been required [to combine Mestas and Schröder] . . . Dr. Mercier’s testimony is further supported by evidence showing a consistent pattern of flat battery use in prior art finger-ring devices.”)

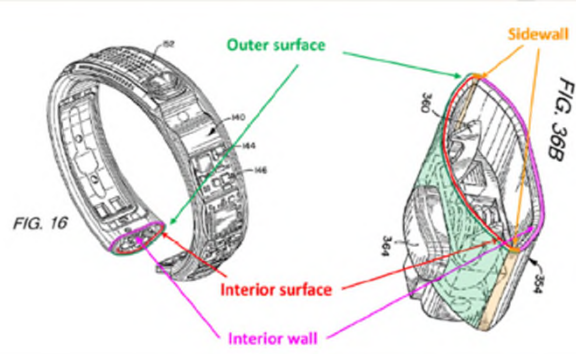
Paper 31, 9

- Petitioner relies solely on Mestas’s teaching of a suitable sized battery for element 1.b. Paper 3 at 25-26.

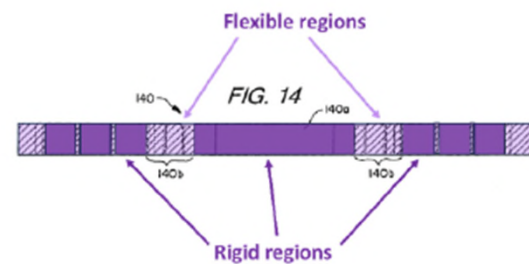
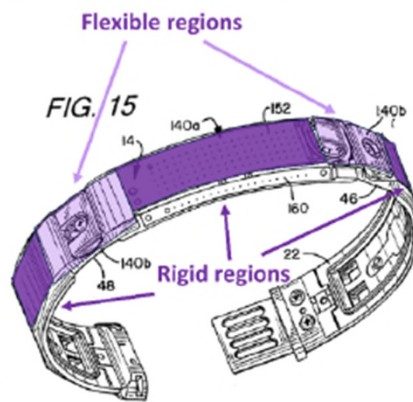
Mestas-Schröder Fails To Disclose Limitations 1[c]/14[c]



Paper 3 at 24; EX1010 Fig. 6



Paper 3 at 33; EX1010 Fig. 36



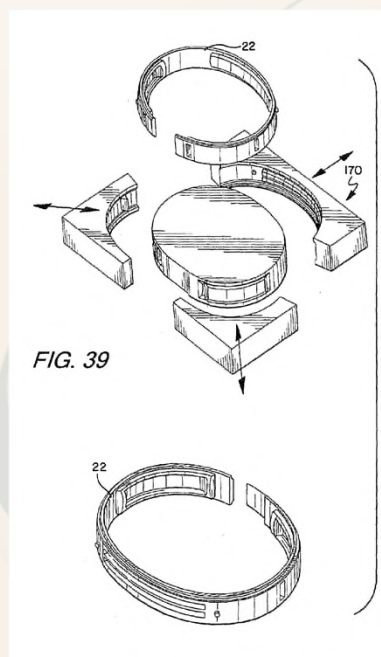
Paper 3 at 28; EX1010 Fig. 15

- Claims 1/14[c] require the PCB to approximately “conform [] to the interior surface.”
- Petitioner shows the PCB conforming to Mestas’s spine member which is a different surface with a different arc length.

Paper 20 at 54-59

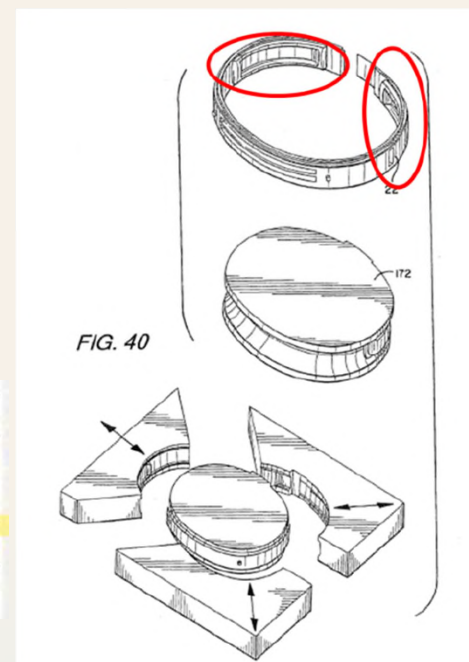
Mestas-Schröder Fails To Disclose Limitations 1[i]/14[i]

- Claim 1[i]: a potting material disposed in the interior space **encapsulating the plurality of components**, wherein the potting material forms an interior wall of the wearable computing device, wherein the potting material is substantially transparent to light selected from the group consisting of: visible light, infrared light, and ultraviolet light;
- Plurality of components:
 - Curved rechargeable battery;
 - PCB
 - One or more sensors
 - Memory
 - Short-range communication module
 - Temperature sensor
 - Processor



[0172] FIGS. 39-42 are schematic views illustrating a molding process for creating a wearable device assembly according to aspects of the invention. In FIG. 39, a first mold 170 may be used to create the spine member 22 of the wearable device assembly 10. As discussed, the structural features of the spine member 22 allow the attachment, insertion and mating of various electronic and non-electronic components of the wearable device assembly 10. The spine member 22

[0173] As further shown in FIG. 40, the assembled spine member 22 supporting certain of the various components may then be wrapped or loaded onto an insert core 172 for further injection molding. An interior diameter, or inner portion, may then be injection molded onto the spine member 22. In FIGS. 41 and 42, the molded assembly may then be inserted into an outer diameter mold 174 and an outer diameter, or outer portion, of the wearable device assembly 10 may be molded to completely form the outer encasement member 24 of the housing 12. The device assembly 10 can then be removed from the insert core 172.



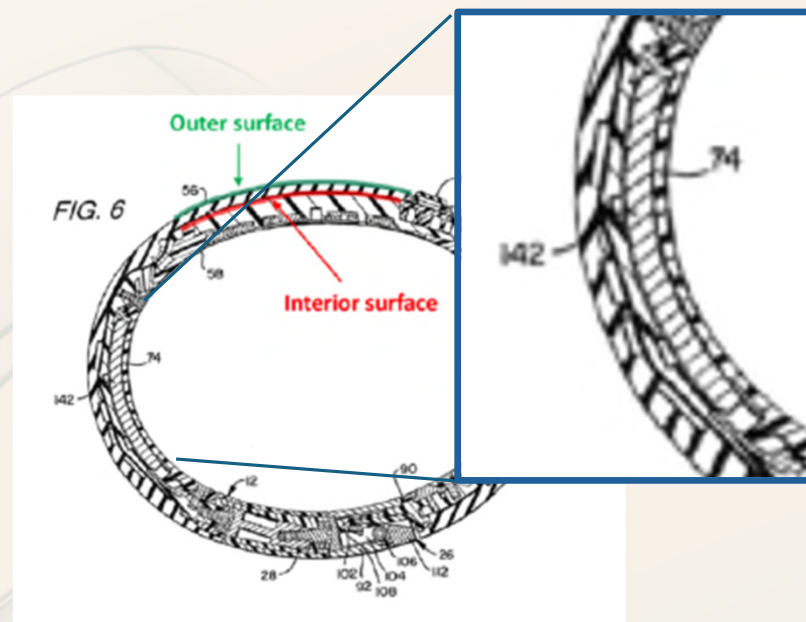
EX1010 at ¶¶ 172-74, Fig. 40; Paper 31 at 2.

Paper 20 at 61-62; Paper 31 at 5-7

Mestas-Schröder Fails To Disclose Limitations 1[i]/14[i]

[0174] It is understood that additional processes can be utilized in forming the device such as the device 10 shown in FIGS. 1-6. In an exemplary embodiment, a process of forming the spine member 22 initially includes forming the battery compartments. As can be appreciated from FIGS. 7a, 7b, 8a and 8b, a mold is provided wherein via a thixo-molding

process, magnesium is injected into the mold to form the thixo-molded members 55. The magnesium thixo-molded members 55 cooperate with the metal battery caps 70, 74 (FIG. 2) to provide a substantially metal enclosure for the batteries 142. As discussed, other metal forming processes can be used. Once formed, the thixo-molded members 55 are placed in a mold wherein material is injected into the mold to form the spine member 22. The material is overmolded around the thixo-molded members 55 wherein a certain amount of injected material extends over an internal surface of the members 55 (FIGS. 7-8). It is understood that the mold is designed to incorporate forms for the substantially rigid portions of the spine member 22, the flexible zones 46, 48 of the spine member 22 as well as other structures for receiving, mounting or otherwise supporting the various components of the device 10 as described herein. In an exemplary embodiment, the material injected over the thixo-molded members 55 to form the remaining portions of the spine member 22 is polypropylene.



- The battery sits in a “substantially metal enclosure,” and is not encapsulated by potting.
- Potting material deposited between the spine member and external housing is not part of the interior wall. Likewise, material deposited between the spine member and the interior wall does not encapsulate the plurality of components.

EX1010 at ¶¶ 0172-74, Fig. 40; Paper 31 at 2.

Paper 20 at 61-62; Paper 31 at 5-7

OURA



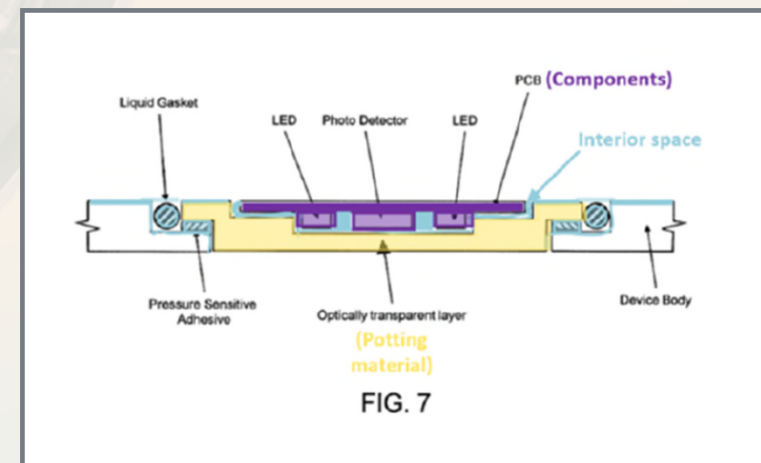
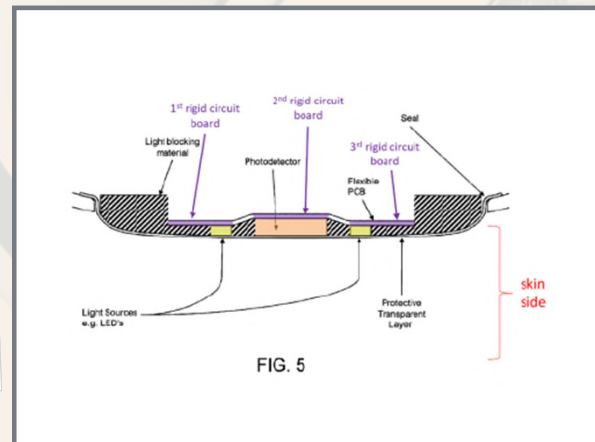
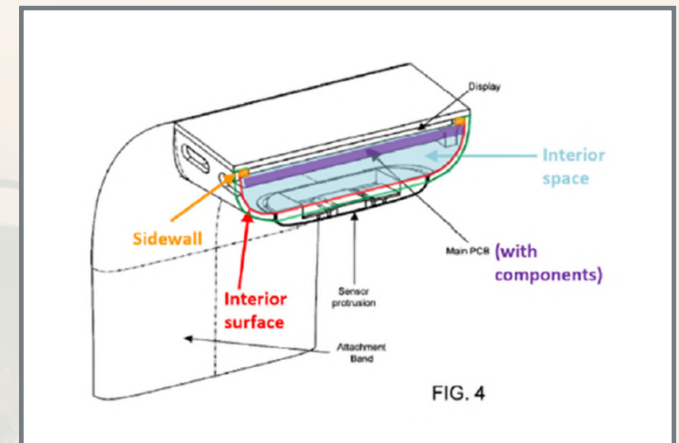
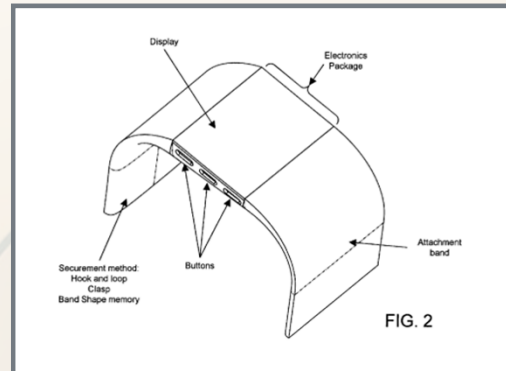
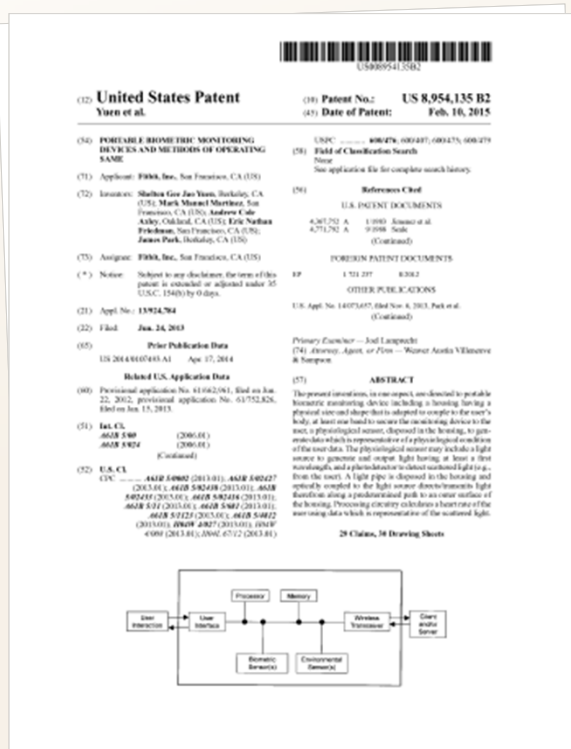
Deficiencies of Ground 3: Yuen + Mestas + Schröder

IPR2025-00147

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

37

Yuen



Ex. 1006
Paper 20 at 23-25

Ex. 1006, Figs. 2, 4', 5, 7,

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

38

A POSITA Would Not Combine Yuen, Mestas, and Schröder

Devices have different functions (physiological vs. security)

Devices include different components and different power requirements.

Yuen and Mestas are worn on the wrist.

Yuen and Mestas' components cannot fit in Schröder's inlay

Yuen-Mestas-Schröder Fails To Disclose Limitations 1[pre]/14[pre]

Adapting Mestas's components designed for a wristband into Schröder's rudimentary ring structure presents major technical challenges. Mestas's battery and PCB would require non-trivial scaling. EX2018, ¶130. Schröder's ring provides minimal internal space, primarily for a thin "inlay 12" as an antenna carrier (EX1007, 8:57-58, 12:28-32), which was "credibly testified" by Dr. Rosing in related ITC proceedings as being approximately 100 µm thick. EX2122, 101. It does not suggest the internal volume or structural support needed for Mestas-style components; even if they could be miniaturized, there are no teachings as to how to arrange such components on inlay 12 in Schröder. EX2018, ¶130. While placing a small RFID/NFC-style chip and an antenna coil on Schröder's inlay is reasonably within the skillset of a POSITA circa 2013, Dr. Mercier testifies that placing a large spine member as taught by Mestas, or arranging a curved battery (EX2018, ¶¶88-98 (showing batteries were too large), a power management module (EX2143, 49 (2.1 x 2.1 mm and a height of .625 mm), a communication module (EX2141, 29 (6.1 x 6.1 mm and a height of 1 mm)) and a printed circuit board with sensors, a processor, and memory, within an internal space occupied by inlay Schröder was not possible.

As explained in Section VII.A.1, Petitioner ignores the challenges of miniaturizing Mestas's components into a Schröder sized finger ring in Ground 2. See Pet., 44-45. Petitioner similar ignores the challenges of miniaturizing Yuen's components.

Paper 20 at 33, 75; See EX2154 at 55-56.

- Petitioner uses Schröder primarily for the finger ring form factor. Schröder is not used for the housing [1.a], the curved rechargeable battery [1.b], the printed circuit board [1.c], sensors [1.d, 1.g], a memory [1.e], a processor [1.h].
- Petitioner argues that "Yuen's 'toe band' expressly teaches that its design can be implemented in small, ring-sized form factor." Paper 25 at 14.
- Petitioner alternatively repeats its arguments from Ground 1. (Shrinking Mestas's and Yuen's components into Schröder's form factor.) Paper 3 at 59-60.
- Yuen does not provide any information on what the "toe band" is. Paper 20, 73-75, 79.

The problem with Petitioner's arguments is that they are premised on a number of significant departures from the depicted design of Yuen's device that find little or no support in the cited references. As Patent Owner points out, Yuen does not explain what it means by a "toe band." See Resp.

EX2154 at 28

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

40

Yuen-Mestas-Schröder Fails To Disclose Limitations 1[a]/14[a]

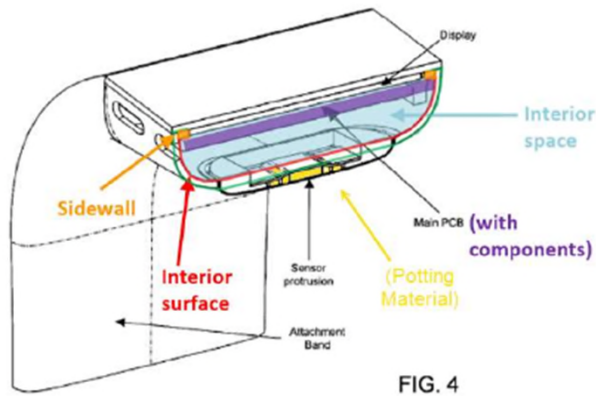


FIG. 4

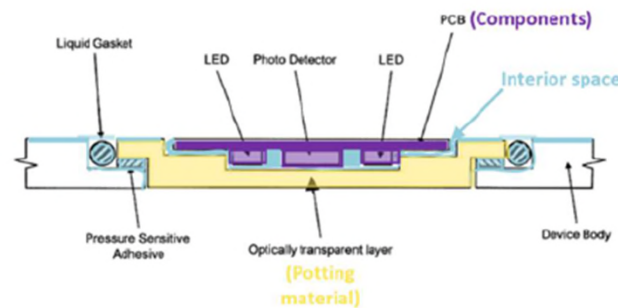


FIG. 7

Paper 25 at 21; EX1006 Figs. 4, 7

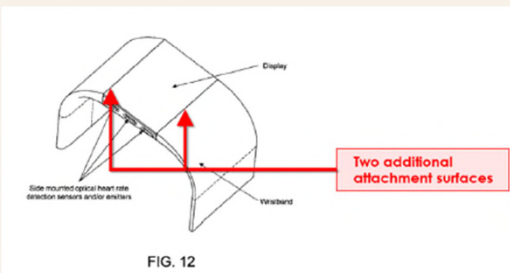


FIG. 12

Paper 20, 81; EX1006 Fig. 12

- Claims 1/14[a] define an “external housing having an outer surface, an interior surface and sidewalls ... characterized by approximately a C-shaped cross section and define an interior space” configured to retain the components.
- Yuen’s interior space is defined by at least two additional surfaces. Paper 20, 81.
- Petitioner is either treating the surface of the interior wall opposite of the external housing as the “interior surface” of the external housing or Petitioner is treating the internal housing structure as the external housing. Paper 20, 71-82, 88-91; Paper 31, 11-14.
- Petitioner adds a theory to element 1[a]/14[a] in reply arguing “the proposed combination with Schröder does not include Yuen’s attachment band.” Petitioner relies solely on Yuen to teach the claimed invention’s interior space in the Petition and does not discuss how Yuen’s interior space would be changed in a combination with Schröder. Paper 3 56-62; Paper 25, 15-17.
- Petitioner also changes its definition of interior space (and the C-shaped cross section, PCB, components explicitly and the sidewall and interior surface implicitly) when discussing element 1.i. (see difference between annotated Fig. 4 and 7). Paper 25 at 20-21; Paper 31 at 11-14.

Yuen-Mestas-Schröder Fails To Disclose Limitations 1[c]/14[c]

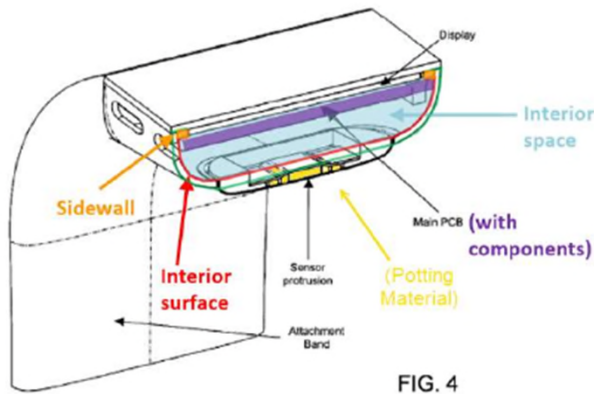


FIG. 4

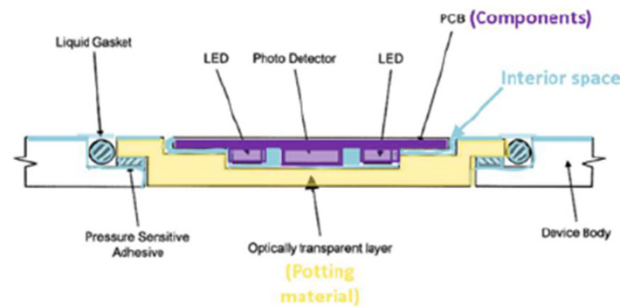


FIG. 7

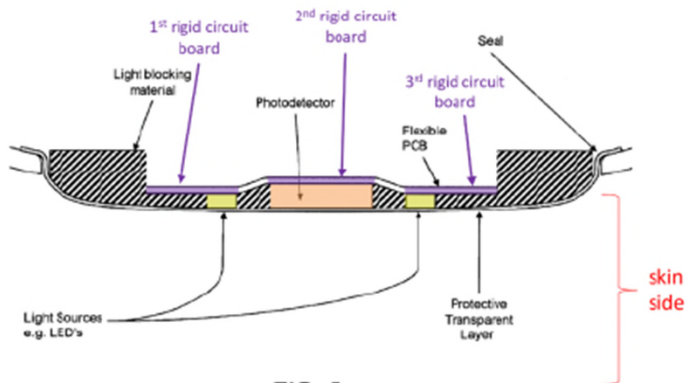


FIG. 5

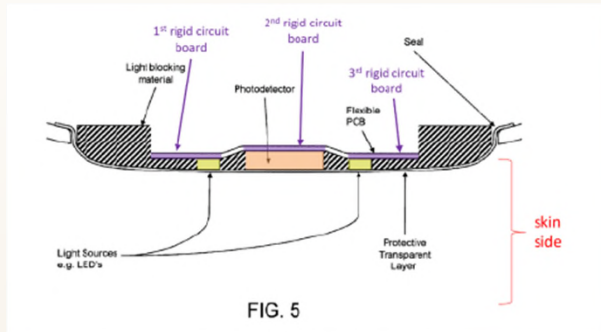
Paper 25 at 21; EX1006 Figs. 4, 7

Paper 3 at 17, 48, 73 EX1006 Figs. 5 (Secondary PCB outside of the interior surface)

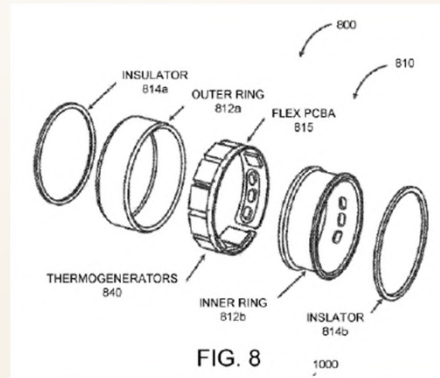
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

- Claims 1/14[c] requires the printed circuit board “disposed in the interior space of the housing, [] to conform to the interior surface.”
- Yuen’s Mian PCB is located far away from Yuen’s interior surface and is flat. (See annotated Fig. 4) Paper 20, 82-83.
- Petitioner also points to a secondary PCB that can be connected to a non-flexible PCB. Paper 3 at 64. If this secondary PCB is the PCB indicated in Figure 7, Petitioner fails to explain how the secondary PCB conforms to the interior surface, how it is within a c-shaped interior space, and fails to show that the secondary PCB contains the components listed in elements 1[b]-1[h].
- While discussing elements 1[b]-1[h] Petitioner fails to identify which PCB the components are on. Paper 3 63-70. Paper 20, 82-88.
- Petitioner adds a theory to element 1[c]/14[c] to its petition in reply arguing that a POSITA would “conform the PCB to the shape of the user’s finger and the ring’s curvature” in combination with Schröder. Petitioner relies solely on Yuen to teach the claimed invention’s PCB in the Petition and does not discuss how a POSITA would adopt Yuen’s PCB in a combination with Schröder. Paper 3, 63-64; Paper 25, 18-19.

Yuen-Mestas-Schröder Fails To Disclose Limitations 1/14[d]/1/14[g]

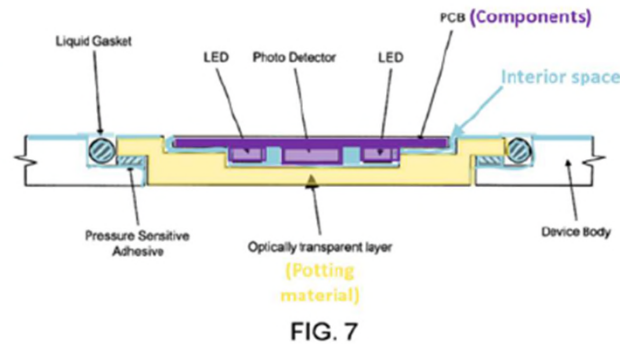
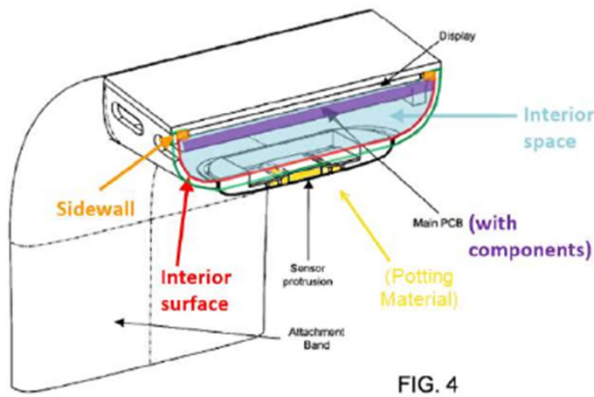


Paper 3 at 17, 48, 73 EX1006 Figs. 5



EX1001, Fig. 8

- Claims 1/14[d], and 1/14[g] requires sensors to be disposed on the “printed circuit board disposed in the interior space configured to conform approximately to the interior surface.”
- The '124 Patent positions its sensor module and flex PCBA (815) within the main cavity of the ring. Paper 20 83-84.
- Yuen’s interior space (light blue) begins at the interior surface of the external housing (red) not the external surface (green) of Yuen’s external housing. Yuen’s sensor protrusion is external to the interior space.



Paper 25 at 21; EX1006 Figs. 4, 7

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Yuen-Mestas-Schröder Fails To Disclose Limitations 1/14[i]

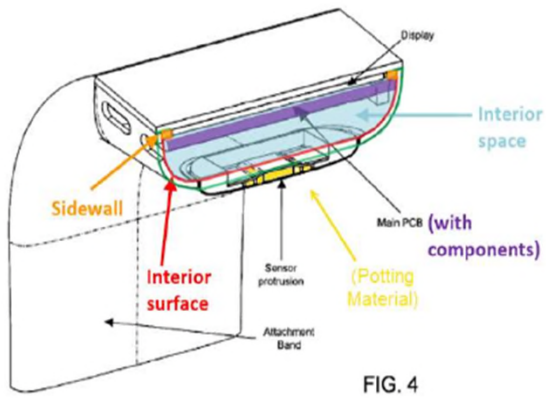


FIG. 4

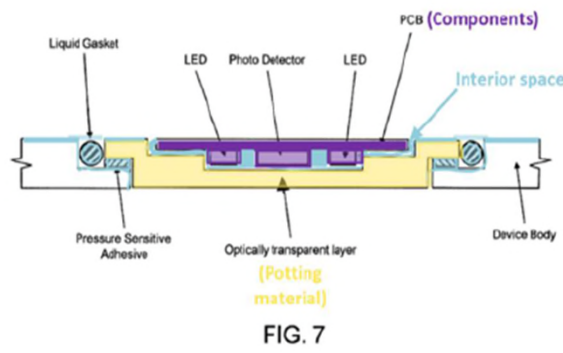


FIG. 7

Paper 25 at 21; EX1006 Figs. 4, 7

- Claims 1/14[i], requires potting to be “disposed in the interior space” to “form an interior wall” and to “encapsulat[e] the plurality of components.”
- Petitioner appears to identify the yellow potting material as the interior wall. Paper 3, 71-72.
- The interior space of a device is the area between the interior surface of the external housing, and the sidewalls which Petitioner labels in light blue.
- Petitioner fails to argue that the potting material is disposed in the interior space (light blue) and fails to show that the potting material encapsulates the plurality of components identified in Fig. 4. Paper 20 at 88-90; Paper 31, 13-14.
- Petitioner fails to label the interior wall of Yuen. The '124 Patent claims the housing element external to the user as the external housing and the housing element internal from that element as the interior wall. Yuen's external housing and interior wall elements are internal to Yuen's outer housing element. Paper 20 at 90; Paper 31 at 13-14.

OURA



Secondary Considerations

IPR2025-00147

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

45



Objective Indicia of Obviousness

Commercial Success

Copying By Others

Paper 18 at 77-98

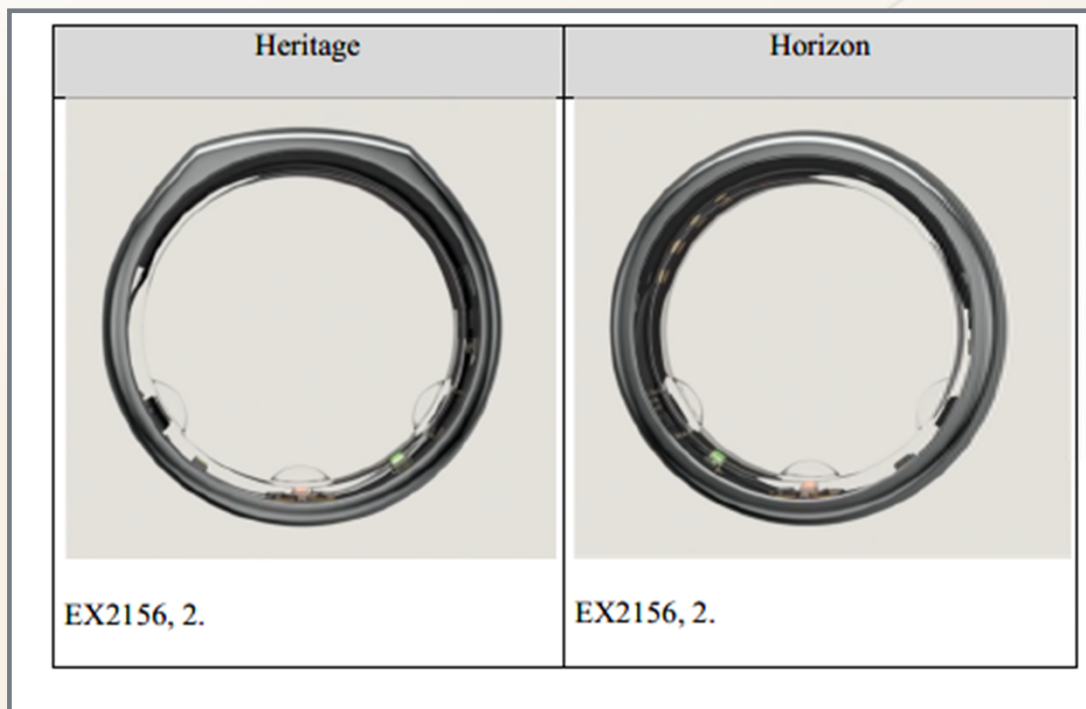
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Nexus

Oura Ring Gen. 3 Horizon and Heritage practice the Asserted Claims of the '124 Patent



297. Oura Gen. 3 is available in two styles Horizon and Heritage. I have analyzed the styles and the only difference between the styles is the shape of the exterior housing. Oura Ring Horizon is an uninterrupted design that has a near round exterior for the full length, whereas the Heritage variation includes a minor plateau design on the exterior for a portion of the ring. Ex-2145 at 1; EX2156. The plateau design is to assist users in orienting the ring such that the sensors are aligned on the palm side of the hand. Horizon accomplishes the same functionality by including a minor divot at the bottom of the ring such that users can adjust the positioning of the ring based on the divot (i.e., facing the palm). Outside of the external structure for part of the ring, both styles have the same technical and hardware capabilities. Ex-2145 at 1. In my claim by claim nexus analysis, I use Oura Ring Gen 3 Horizon photographs. The same nexus arguments would apply equally to the Oura Ring Gen 3 Heritage device.

Paper 20, 96-102; EX2108 at ¶ 297

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE



Nexus (ITC)

Oura argues that it is entitled to a presumption of nexus because the products it relies on, its Gen. 3 and Gen. 4, are commercial embodiments and coextensive with the asserted claims. Oura Br. at 31. As detailed above with respect to technical domestic industry, the evidence supports that Gen. 3 and Gen. 4 embody the asserted claims. See also Sarrafzadeh Tr. at 1277:17–20.

*Ex. 2122, 108-110
Paper 31 at 14-15*

Respondents also contend that Oura's marketing focus has little to do with the technology claimed in the '178 patent and is directed instead to "mobile app features, not the claimed ring components." Resp. Br. at 66, *citing* RX-0036C.9–10. That document, however, and those pages in particular, focus on the ring itself and identify one of Oura's 2023 goals as solidifying "Oura as the gold standard of the wearable industry, as new competitors emerge." The evidence cited by respondents does not show that Oura's marketing focus was on unpatented features.

As for whether Oura's app is responsible for the success of the product, as respondents contend, the evidence supports that success of Gen. 3 and Gen. 4 is tied to the "unique characteristics of the claimed invention." See *Fox Factory*, 944 F.3d at 1373–74. As Mr. Chapp

testified, for Oura, "[i]t starts off with the ring" and how to "take something that looks really complex and make it look really simple." Chapp Tr. at 88:2–8 and 89:3–9. This was confirmed by inventor Strasser who stressed the importance of the ring form factor with the technology inside. Strasser Tr. at 573:5–7 and 576:2–12. The evidence supports that "the ring form factor is the foundation of the system that enables the data collection, that then in turn enables the functionality of the device." Mulhern Tr. at 1271:2–15. Thus, while the app may be part of the user's experience with the Gen. 3 and Gen. 4, and may be the focus of some of Oura's marketing efforts, the evidence supports that the driver of the experience is the ring itself.



Nexus (Related IPR Proceedings)

For these reasons, we find that Patent Owner has successfully shown that the Oura Ring Gen. 3 Horizon and Gen. 4 products are coextensive with claims 1, 16, and 17 of the '702 patent and is thus entitled to a presumption of nexus between its objective indicia evidence and the patented claims 1, 16, and 17.

EX2153; FWD PGR2024-00039

For these reasons, we find that Patent Owner has successfully shown that the Oura Ring Gen. 3 Horizon and Gen. 4 products are coextensive with claim 1 of the '859 patent and is thus entitled to a presumption of nexus between its objective indicia evidence and that claim.

EX2155; FWD IPR2024-01077 at 39

For these reasons, we find that Patent Owner has successfully shown that the Oura Ring Gen. 3 Horizon and Gen. 4 products are coextensive with claim 1 of the '953 patent and is thus entitled to a presumption of nexus between its objective indicia evidence and that claim.

*Samsung Electronics Co. Ltd. v. Ouraring Inc.,
IPR2024-01078, Paper 62 at 30-31 (PTAB Jan. 27, 2026)*

Paper 31, 14-15

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Commercial Success

- Q. Would you agree with me that Oura Ring Gen 3, at least had some commercial success?
- A. There are two products that comprise Oura Ring Gen 3, two debiting products. If by Gen 3 Ouraring you mean Oura Ring Heritage and Oura Ring Gen 3 Horizon together, then, **yes, there was some commercial success**, but the emphasis on "some."

*Ex. 2135, 15:13-17
Paper 31 at 14-15*



Commercial Success

- **Oura Ring and Application account for [REDACTED]**
- **[REDACTED] rings sold since October 2021**
- **[REDACTED] million in *ring* revenue from January 2022 – December 2024**
- **Oura Ring and Application responsible for Oura’s successful fundraising and increasing company valuation**
 - Between April 2021 (prior to launch of Gen 3) and December 2024, company valuation increased from [REDACTED]
- **Oura has established network [REDACTED] partnerships**
 - Partnerships focus on improving wellness for customers in areas including women’s health, metabolic health, behavioral health, and fitness and lifestyle

Outside Attorney’s Eyes Only – Protective Order Material

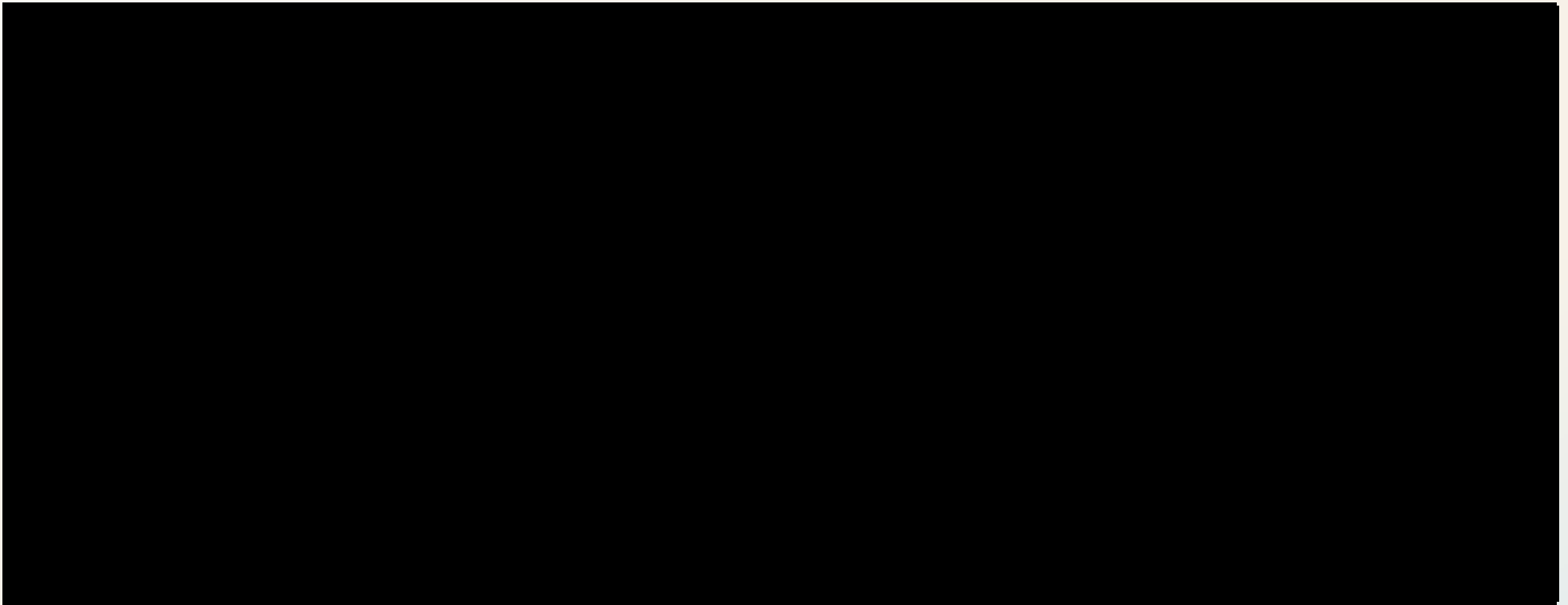
Ex. 2019, ¶¶ 26, 33, 35, 38, 42

Paper 31 at 19



Commercial Success

- **Substantial growth in sales**



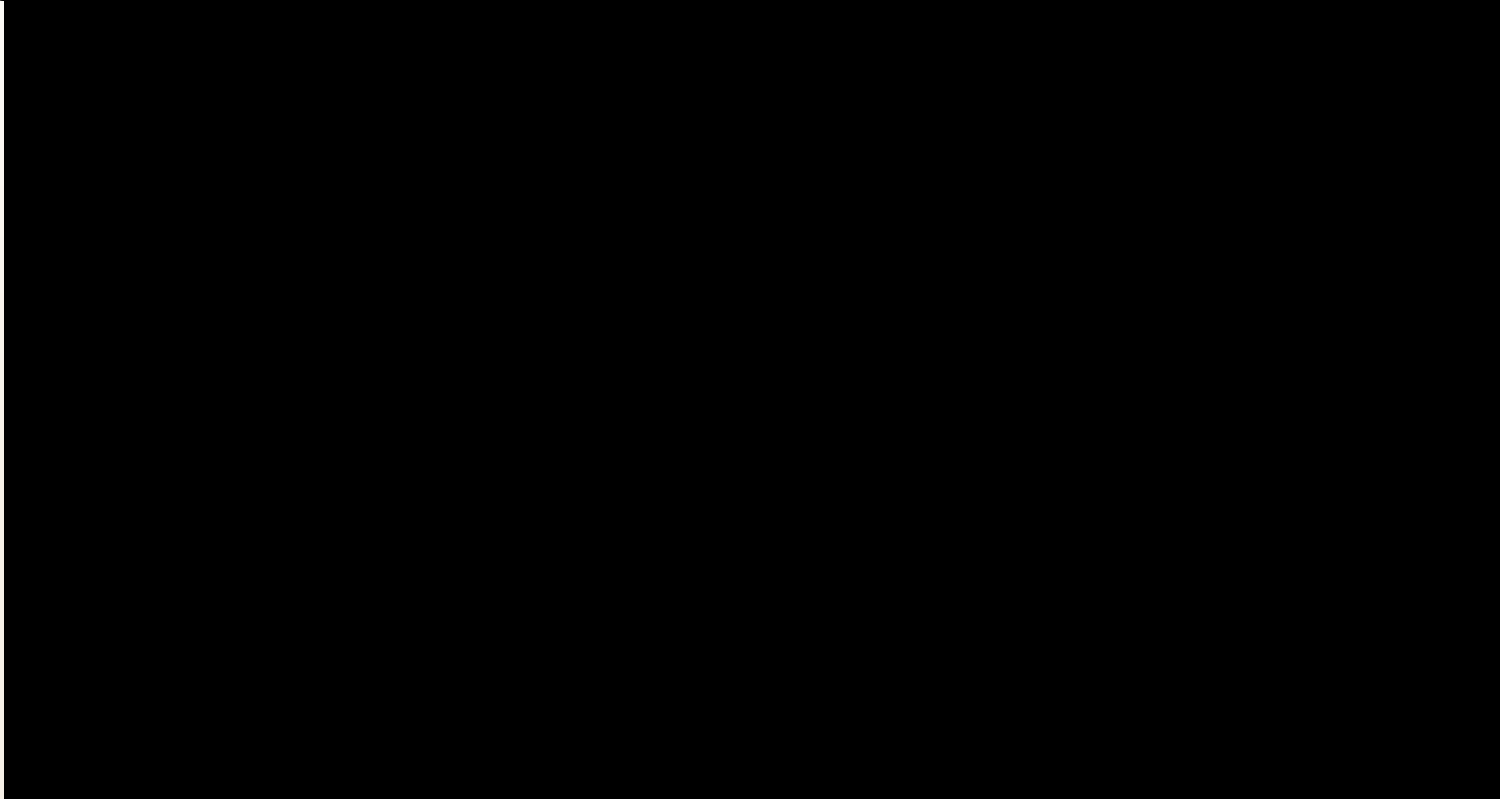
Outside Attorney's Eyes Only – Protective Order Material

*Ex. 2019, ¶¶ 33-36; Appx. 9
Paper 20 at 104-105*



Commercial Success

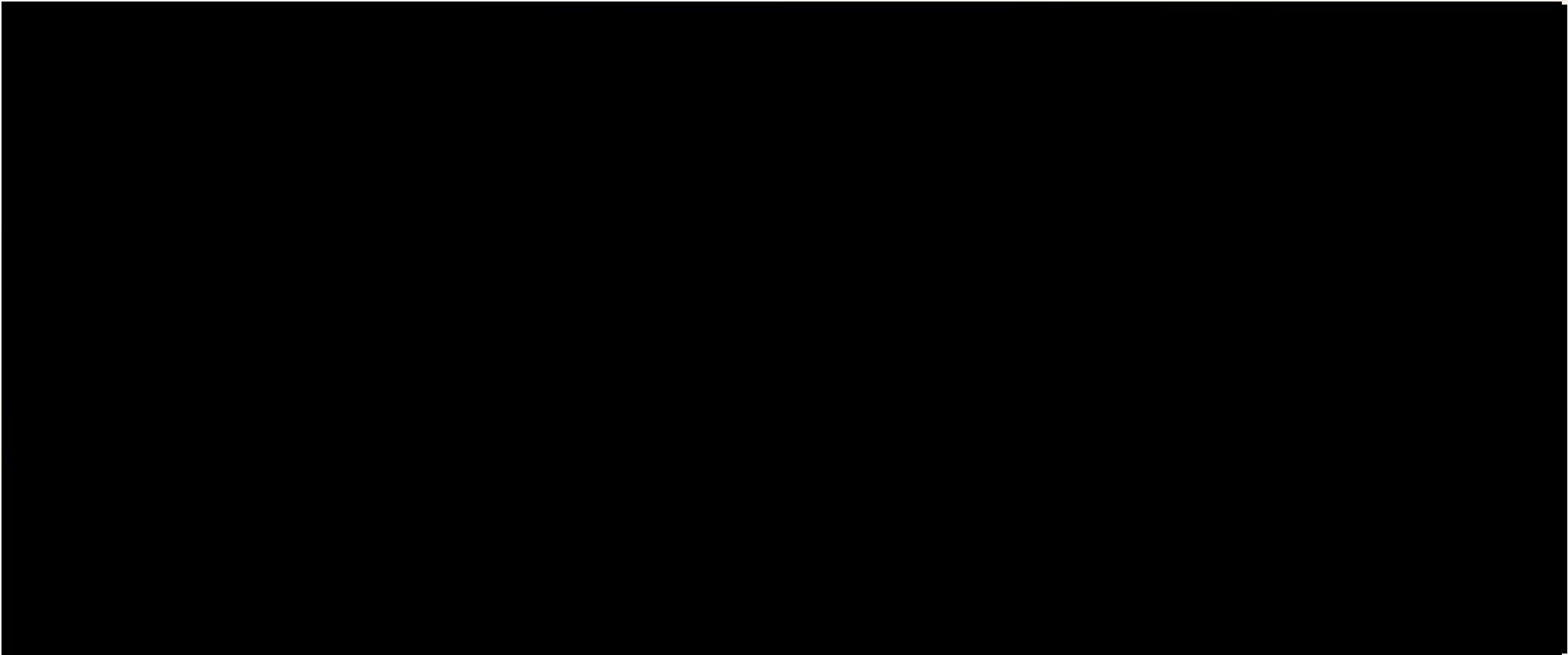
- Substantial growth in sales



Outside Attorney's Eyes Only – Protective Order Material

*Ex. 2019, ¶¶ 33-36;
Appx. 12
Paper 20 at 104-105*

Oura's Spending on Sales & Marketing Has Declined



*Ex. 2019, ¶¶ 33-36;
Appx. 4*

Outside Attorney's Eyes Only – Protective Order Material

Paper 20 at 104-105



Commercial Success

Oura argues that the Gen. 3 and Gen. 4 have been commercially successful. *See* Oura Reply at 31–36. The Staff agrees that this commercial success indicates non-obviousness. Staff Br. at 59.

Respondents contend that any alleged commercial success of Gen. 3 and Gen. 4 is due to factors unrelated to the '178 patent claims, which they contend is demonstrated by the failure of the Motiv Ring. Resp. Reply at 64–65.

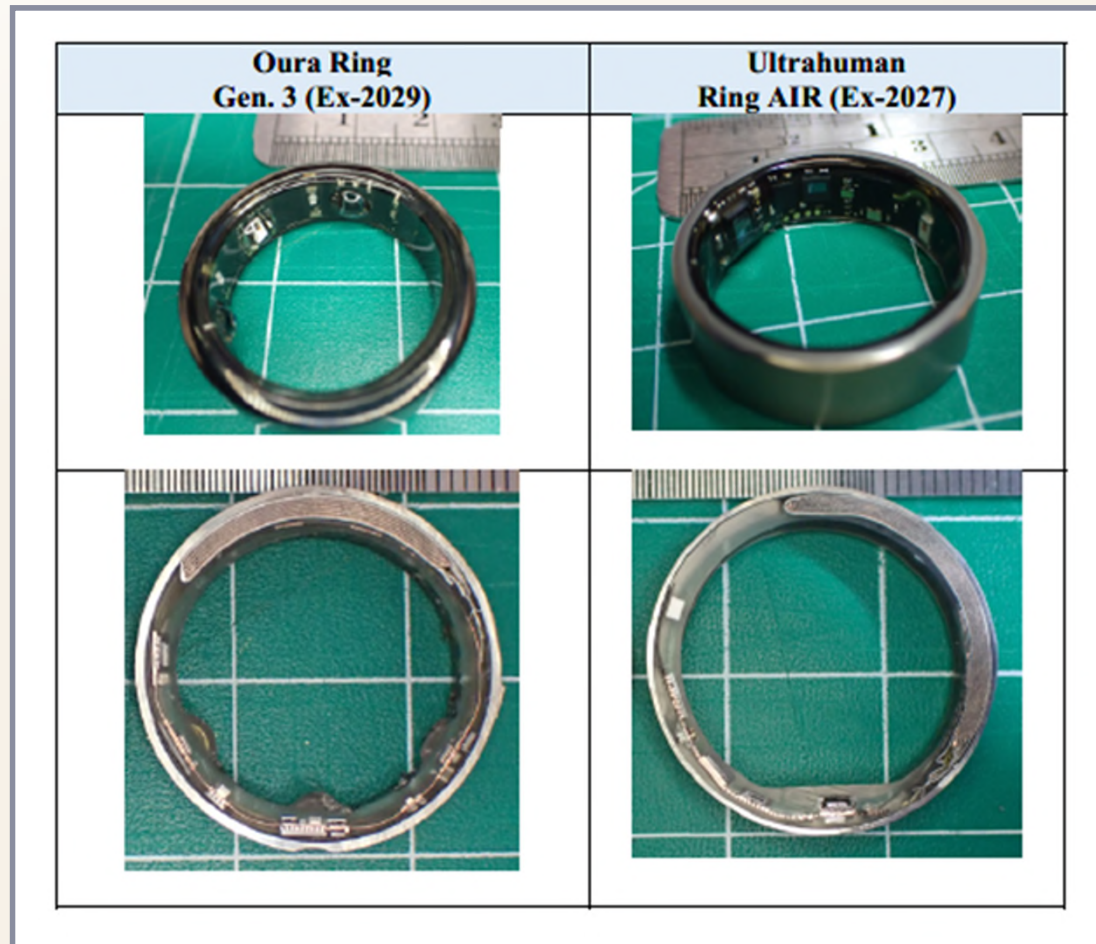
66. But as explained previously, Oura's marketing expenses are [REDACTED] similar companies and the ratio of marketing expenses to revenues has been steadily decreasing over time. In addition, the evidence supports that revenues from sales of Oura products embodying the claims grew from approximately [REDACTED] in 2022 to [REDACTED] in 2023, and then to [REDACTED] in the first two quarters of 2024. Mulhern Tr. at 1258:7–20; CX-0723C; CX-0581C; CX-0955C, and CX-0958C. As. Ms. Mulhern testified, Oura exhibited a similar growth rate with respect to Oura's membership subscribers, increasing from [REDACTED] in September 2022 to [REDACTED] in September 2023, and then [REDACTED] in March 2024. Mulhern Tr. at 1259:4–9; CX-0042C; and CX-0573C.

This factor weighs in favor of a determination of non-obviousness for the asserted claims.

*Ex. 2122, 110-112
Paper 31 at 19*



Copying



Paper 20 at 109-114

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Copying

The '178 Patent

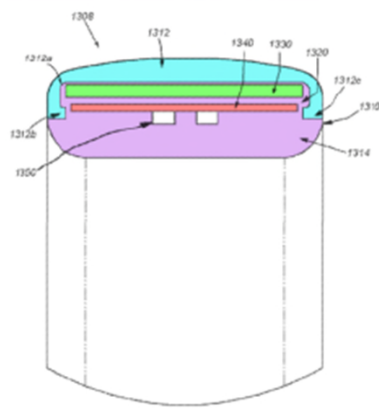
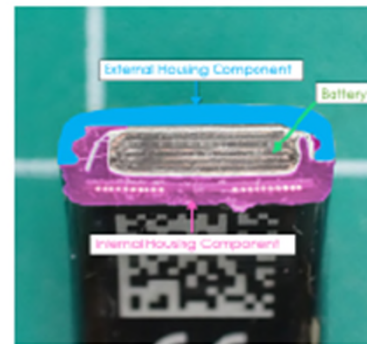


FIG. 13

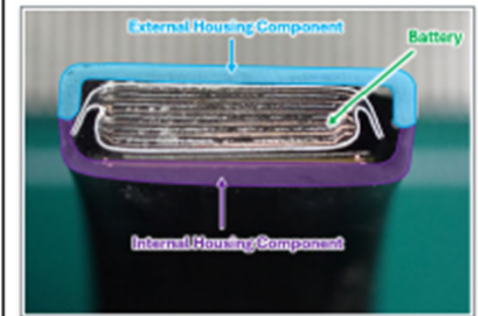
Ex-0001 at Fig. 13

Oura



Ex-2029

Ultrahuman



Ex-2027

Copying

A. And, lastly, you said everyone did it, but I want to make sure that you also testified that the hardware team at Ultrahuman analyzed the Oura Ring, correct?

A. The R&D team.

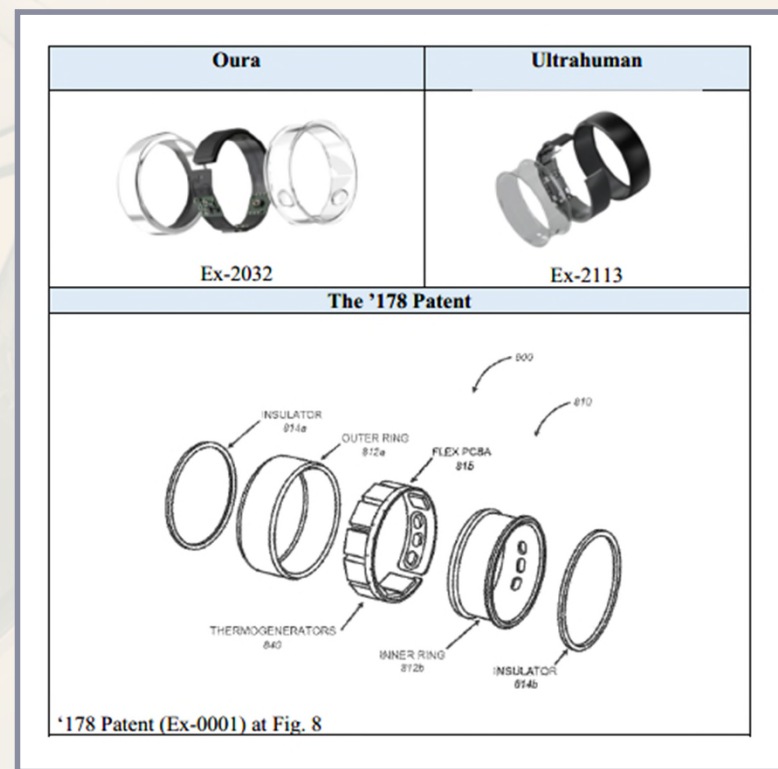
Q. I didn't ask about R&D. I just want to ask specifically about the hardware team. They were involved in the teardown of the Oura Ring product, correct?

A. Maybe hardware would mean R&D and production and everyone else as well, so I think that's why I specified it's R&D.

* * *

Q. So you wanted to figure out what the Oura Ring was made of, that's what you said, right? And you also wanted to figure out how large of a battery Oura used, correct?

A. Not specifically on the battery front, I would say, because we looked at the Oura Ring, there was a battery for sure, but there was a metallic shell as well. I think the core insight that I remember we were addressing was that it has two symmetric Rx coils attached to the PCB. That was the major insight.



Ex. 2024, 696-698; Paper 20 at 109-114

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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OURA

***Certain Smart Wearables Devices, Systems, and
Components Thereof***

337-TA-1398

(ITC Aug. 21, 2025)

IPR2025-00147

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

59

The Claims At Issue Are Similar to Claims in Related IPRs

What is claimed is:

1. A finger-worn wearable ring device, comprising:
 - an external housing component defining an outer circumferential surface of the finger-worn wearable ring device;
 - an internal housing component defining an inner circumferential surface of the finger-worn wearable ring device, the internal housing component coupled with the external housing component, wherein at least a portion of the inner circumferential surface of the internal housing component is configured to contact a tissue of a user when the finger-worn wearable ring device is being worn by the user;
 - a battery positioned within a cavity formed between the internal housing component and the external housing component, wherein the battery comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component, and wherein the battery extends through at least a first portion of the cavity of the finger-worn wearable ring device;
 - a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion; and
 - one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component.

US 11,868,178; ITC 337-TA-1398; PGR2024-00030

What is claimed is:

1. A system, comprising:
 - a wearable ring computing device, the ring computing device including a housing, the housing having an interior bounding member and an exterior bounding member, the interior bounding member and the exterior bounding member being configured for being coupled together to form a waterproof cavity there between;
 - a curved battery positioned within the cavity, the curved battery having an arc approximating a corresponding arc of the ring housing;
 - a sensor module, the sensor module positioned within the cavity and proximate the battery, the sensor module comprising one or more sensors, the one or more sensors comprising one or more of a pedometer, an accelerometer, a gyroscope, a heart rate sensor, a pulse oximeter, a sleep monitor, an internal measurement unit, a thermometer, a Galvanic skin response sensor, and an electrocardiogram, the one or more sensors being configured to sense a change in a condition of a wearer of the ring;
 - a flexible printed circuit board positioned within the cavity proximate one or both of the curved battery and the sensor module, the flexible printed circuit board portion comprising:
 - a processor, the processor configured for determining one or more of a number of steps taken, a quality of sleep, a heart rate, blood pressure, and body temperature of a user of the ring computing device; and
 - a memory, associated with the processor for storing data; and
 - a semiconducting light element disposed at least partially within the housing.

US 10,139,859; IPR2024-01077

1. A wearable computing device configured to be worn around a finger of a wearer comprising:
 - an external housing having an outer surface, an interior surface and sidewalls, wherein the interior surface and the sidewalls are characterized by approximately a C-shaped cross section and define an interior space, and wherein the interior space is configured to retain a plurality of components;
 - wherein the plurality of components comprises:
 - a curved rechargeable battery disposed within the interior space of the housing, wherein the rechargeable battery is curved to conform to the interior surface;
 - a printed circuit board disposed within the interior space configured to approximately conform to the interior surface;
 - one or more sensors disposed upon the printed circuit board, wherein the one or more sensors are selected from a group consisting of: an accelerometer, a gyroscope, and a motion sensor, wherein the one or more sensors are configured to sense physical perturbations and to output sensed data;
 - a memory disposed upon the printed circuit board, the memory configured to store one or more executable instructions;
 - a short-range communication module disposed upon the printed circuit board, the short-range communications module configured to communicate a first set of data to a client computing device via a first communications protocol;
 - a first temperature sensor configured to provide first temperature data associated with a temperature of a wearer of the wearable computing device;
 - a processor disposed upon the printed circuit board and coupled to the battery, the one or more sensors, the memory, the short-range communication module, and the first temperature sensor, wherein the processor is configured to receive the sensed data, is configured to perform the one or more executable instructions in response to the sensed data, and is configured to direct the short-range communication module to output data to the client computing device; and
 - a potting material disposed in the interior space encapsulating the plurality of components, wherein the potting material forms an interior wall of the wearable computing device, wherein the potting material is substantially transparent to light selected from a group consisting of: visible light, infrared light, and ultraviolet light.

US 11,188,124; IPR2025-00147

See also, PGR2024-00039, IPR2024-01078 (showing similar claims)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

60

The ITC Adjudicated in Favor of Oura on a Similar Challenge

e. Conclusion

Accounting for the objective indicia discussed below, respondents have not shown by clear and convincing evidence that the combination of Niwa and Schröder renders obvious claim 1 or dependent claims 2, 13, and 14.

I considered and weighed the objective indicia of non-obviousness before reaching all conclusions in the above obviousness analysis, and I discuss these objective indicia below. *Apple Inc. v. Samsung*, 839 F.3d at 1038. If Oura had submitted no evidence of objective indicia, I would still find that the asserted claims were not proved obvious.

Ex. 2122, 107

As detailed above with respect to technical domestic industry, the evidence supports that Gen. 3 and Gen. 4 embody the asserted claims. See also Sarrafzadeh Tr. at 1277:17–20.

Ex. 2122, 108

2. Commercial Success

Oura argues that the Gen. 3 and Gen. 4 have been commercially successful. See Oura Reply at 31–36. The Staff agrees that this commercial success indicates non-obviousness. Staff Br. at 59. This factor weighs in favor of a determination of non-obviousness for the asserted claims.

4. Industry Praise

Oura argues that industry praise supports non-obviousness of the asserted '178 patent claims. Oura Br. at 42–43. The Staff agrees. Staff Br. at 61. The evidence demonstrates industry praise, supporting non-obviousness.

Ex. 2122, 111–112, 114

- Respondents at the ITC relied on the similar evidence such as Schröder, Mestas, Yuen
- The Respondents' arguments centered on Schröder in combination of other references including "curved battery" references like Mestas, supported by testimony similar to Dr. Anthony's
- The Commission affirmed the ALJ's findings, the Presidential Review period is complete and the USTR took no action.

Ex. 2122, 81–116, Ex. 2123, 1–3,
Ex. 2124, 29 Ex. 2126, 168–400,
Ex. 2129, 1–61, Ex-2136
Paper 20 at 17–18, 33, 92

5. Failure of Others

Oura argues that others failed in achieving the results of the asserted '178 patent claims.

This factor weighs in favor of a determination of non-obviousness of the asserted claims.

6. Long-Felt But Unmet Need

Oura argues that the asserted '178 patent claims met a long-felt but unmet need for "compact, wearable monitoring systems with continuous monitoring of health conditions and sleep." Oura Reply at 44–45.

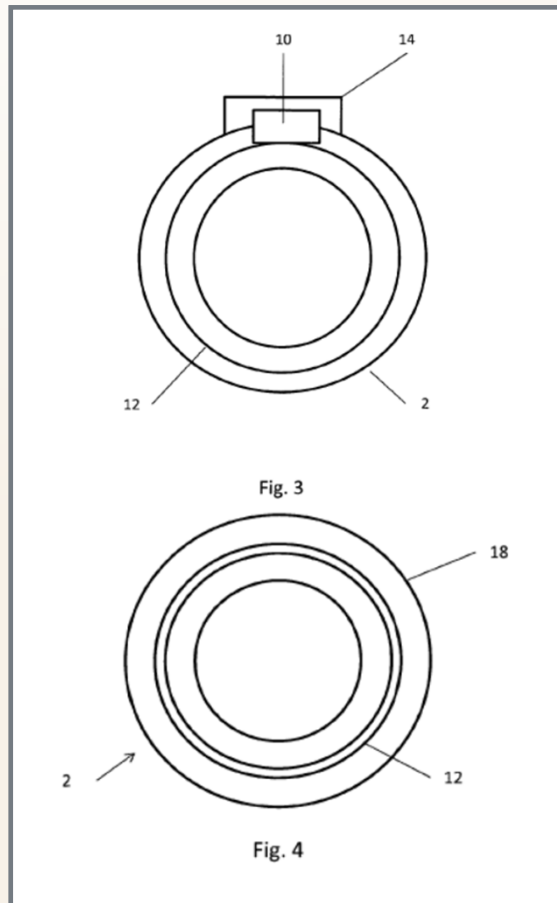
This factor weighs in favor of a determination of non-obviousness of the asserted claims.

Ex. 2122, 114, 116

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

61

The ITC Made Certain Findings Regarding Schröder



Ex. 1007, Figs. 3, 4

While Niwa and Schröder are both directed to ring-based devices, respondents have not shown by clear and convincing evidence that one of ordinary skill in the art would combine them to arrive at the invention of claim 1. *PharmaStem Therapeutics*, 491 F.3d at 1360 (an obviousness defense requires “clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process”).

First, Schröder’s design, while disclosing separate housing components, only contemplates the inclusion of an inlay between them. Schröder at 8:54–57 (regarding Fig. 3), 12:4–9 (regarding Fig. 4). Dr. Rosing credibly testified that one of skill would understand that the thickness of Schröder’s inlay is on the order of 100 microns. Rosing Tr. at 1218:18–25. This stands in stark contrast to the battery in Niwa’s sensor, which is between two and five mm, or at least 20 times the thickness of the inlay. See Niwa at [0201]. Respondents provide no logical reason why one of skill would modify Niwa’s ring to accommodate Schröder’s 100-micron inlay, when Niwa’s components take up a much larger volume.

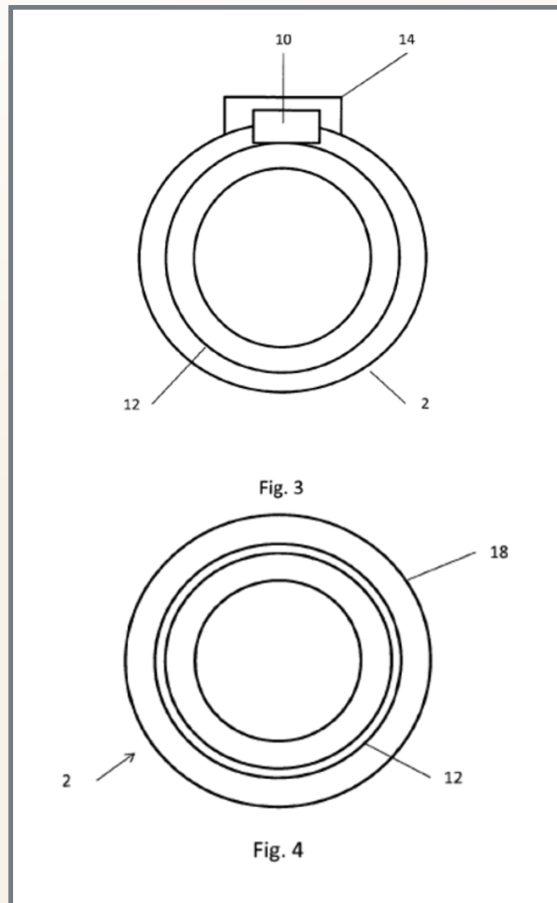
Ex. 2122, 101

Paper 20 at 33

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

62

The ITC Made Certain Findings Regarding Schröder



Ex. 1007, Figs. 3, 4

Respondents argue that Schröder “shows a cavity formed by the internal and external housing components, in which the battery would reside.” Resp. Br. at 49, *citing* Alarcon Tr. at 1000:8–15, RDX-0001C-104; and Schröder at Fig. 4. Schröder, however, does not in fact disclose that the battery would be in the cavity of Fig. 4. Schröder discusses the possibility of a battery (although it does not show it) when addressing Fig. 3 but not when addressing the embodiment shown in Fig. 4. Schröder at 11:46–67. In Fig. 3, the chip module 10 is disposed above and outside of the inlay 12. While Schröder explains that the battery is “connected to the chip module 10” and that it may be used “to increase the range of the antenna coil 8” or “to operate alternative communication channels” and “electronic components,” there is no disclosure in Schröder that the battery is disposed in the inlay embodiment of Fig. 4. While respondents contend that “Schröder also discloses that the battery can reside within the curved recess shown in Figures 4-10 and would be connected to the chip module 10 that resides within the recess between components 16 and 18,” Resp. Br. at 50 (emphasis removed), *citing* Alarcon Tr. at 1000:7–1001:11, there is, simply, no such disclosure in Schröder. Read in context, the evidence supports that one of skill would understand that Schröder’s battery would be placed adjacent to the chip module 10 of Fig. 3.

Ex. 2122, 114-115

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

63

OURA

***Certain Smart Wearables Devices, Systems, and
Components Thereof
Related IPR Proceedings***

PGR2024-00030

PGR2024-00039

IPR2024-01077

IPR2024-01078

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

64

The Claims At Issue Are Similar to Claims in Related IPRs

What is claimed is:

1. A finger-worn wearable ring device, comprising:
 - an external housing component defining an outer circumferential surface of the finger-worn wearable ring device;
 - an internal housing component defining an inner circumferential surface of the finger-worn wearable ring device, the internal housing component coupled with the external housing component, wherein at least a portion of the inner circumferential surface of the internal housing component is configured to contact a tissue of a user when the finger-worn wearable ring device is being worn by the user;
 - a battery positioned within a cavity formed between the internal housing component and the external housing component, wherein the battery comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component, and wherein the battery extends through at least a first portion of the cavity of the finger-worn wearable ring device;
 - a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion; and
 - one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component.

US 11,868,178; PGR2024-00030

What is claimed is:

1. A system, comprising:
 - a wearable ring computing device, the ring computing device including a housing, the housing having an interior bounding member and an exterior bounding member, the interior bounding member and the exterior bounding member being configured for being coupled together to form a waterproof cavity there between;
 - a curved battery positioned within the cavity, the curved battery having an arc approximating a corresponding arc of the ring housing;
 - a sensor module, the sensor module positioned within the cavity and proximate the battery, the sensor module comprising one or more sensors, the one or more sensors comprising one or more of a pedometer, an accelerometer, a gyroscope, a heart rate sensor, a pulse oximeter, a sleep monitor, an internal measurement unit, a thermometer, a Galvanic skin response sensor, and an electrocardiogram, the one or more sensors being configured to sense a change in a condition of a wearer of the ring;
 - a flexible printed circuit board positioned within the cavity proximate one or both of the curved battery and the sensor module, the flexible printed circuit board portion comprising:
 - a processor, the processor configured for determining one or more of a number of steps taken, a quality of sleep, a heart rate, blood pressure, and body temperature of a user of the ring computing device; and
 - a memory, associated with the processor for storing data; and
 - a semiconducting light element disposed at least partially within the housing.

US 10,139,859; IPR2024-01077

1. A wearable computing device configured to be worn around a finger of a wearer comprising:
 - an external housing having an outer surface, an interior surface and sidewalls, wherein the interior surface and the sidewalls are characterized by approximately a C-shaped cross section and define an interior space, and wherein the interior space is configured to retain a plurality of components;
 - wherein the plurality of components comprises:
 - a curved rechargeable battery disposed within the interior space of the housing, wherein the rechargeable battery is curved to conform to the interior surface;
 - a printed circuit board disposed within the interior space configured to approximately conform to the interior surface;
 - one or more sensors disposed upon the printed circuit board, wherein the one or more sensors are selected from a group consisting of: an accelerometer, a gyroscope, and a motion sensor, wherein the one or more sensors are configured to sense physical perturbations and to output sensed data;
 - a memory disposed upon the printed circuit board, the memory configured to store one or more executable instructions;
 - a short-range communication module disposed upon the printed circuit board, the short-range communications module configured to communicate a first set of data to a client computing device via a first communications protocol;
 - a first temperature sensor configured to provide first temperature data associated with a temperature of a wearer of the wearable computing device;
 - a processor disposed upon the printed circuit board and coupled to the battery, the one or more sensors, the memory, the short-range communication module, and the first temperature sensor, wherein the processor is configured to receive the sensed data, is configured to perform the one or more executable instructions in response to the sensed data, and is configured to direct the short-range communication module to output data to the client computing device; and
 - a potting material disposed in the interior space encapsulating the plurality of components, wherein the potting material forms an interior wall of the wearable computing device, wherein the potting material is substantially transparent to light selected from a group consisting of: visible light, infrared light, and ultraviolet light.

US 11,188,124; IPR2025-00147

See also, PGR2024-00039, IPR2024-01078 (showing similar claims)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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Nexus was Found in Related IPR Proceedings

For these reasons, we find that Patent Owner has successfully shown that the Oura Ring Gen. 3 Horizon and Gen. 4 products are coextensive with claims 1, 16, and 17 of the '702 patent and is thus entitled to a presumption of nexus between its objective indicia evidence and the patented claims 1, 16, and 17.

EX2153; FWD PGR2024-00039

For these reasons, we find that Patent Owner has successfully shown that the Oura Ring Gen. 3 Horizon and Gen. 4 products are coextensive with claim 1 of the '859 patent and is thus entitled to a presumption of nexus between its objective indicia evidence and that claim.

EX2155; FWD IPR2024-01077 at 39

For these reasons, we find that Patent Owner has successfully shown that the Oura Ring Gen. 3 Horizon and Gen. 4 products are coextensive with claim 1 of the '953 patent and is thus entitled to a presumption of nexus between its objective indicia evidence and that claim.

*Samsung Electronics Co. Ltd. v. Ouraring Inc.,
IPR2024-01078, Paper 62 at 30-31 (PTAB Jan. 27, 2026)*

Oura's Products were Held Commercially Successful in Related IPR Proceedings

b. Commercial Success

For the reasons that follow, we find that Patent Owner's evidence of commercial success is probative of non-obviousness. The Oura Ring is Patent Owner's only product offering. Ex. 2019 ¶ 13. Patent Owner introduced a first generation of the Oura Ring (Gen. 1) in March 2015, a second generation (Gen. 2) in 2018, two versions of a third generation (Gen. 3) in 2021, and a fourth generation (Gen. 4) in 2024. Patent Owner presents evidence of purported commercial success of the Gen. 3 and Gen. 4 products based on absolute sales (both revenue and unit sales) and sales growth, the Oura Ring's contribution to Ouraring as a company, and its marketplace performance relative to competing products. Resp. 78–84; Ex. 2019 ¶¶ 32–50.

EX2153; FWD PGR2024-00039 at 57

2. Commercial Success

For the reasons that follow, we find that Patent Owner's evidence of commercial success is probative of non-obviousness. The Oura Ring is Patent Owner's only product offering. Ex. 2019 ¶ 13. Patent Owner introduced a first generation of the Oura Ring (Gen. 1) in March 2015, a second generation (Gen. 2) in 2018, two versions of a third generation (Gen. 3) in 2021, and a fourth generation (Gen. 4) in 2024. *Id.* ¶¶ 15–18. Patent Owner presents evidence of the purported commercial success of the Gen. 3 and Gen. 4 products based on absolute sales (both revenue and unit sales) and sales growth, the Oura Ring's contribution to Ouraring as a company, and its marketplace performance relative to competing products. Resp. 89–96; Ex. 2019 ¶¶ 32–45.

EX2155; FWD IPR2024-01077 at 39-40

(2) Commercial Success

For the reasons that follow, we find that Patent Owner's evidence of commercial success is probative of non-obviousness. The Oura Ring is Patent Owner's only product offering. Ex. 2019 ¶ 13. Patent Owner introduced a first generation of the Oura Ring (Gen. 1) in March 2015, a second generation (Gen. 2) in 2017, two versions of a third generation (Gen. 3) in 2021, and a fourth generation (Gen. 4) in 2024. *Id.* ¶¶ 15–18. Patent Owner presents evidence of the purported commercial success of the Gen. 3 and Gen. 4 products based on absolute sales (both revenue and unit sales) and sales growth, the Oura Ring's contribution to Ouraring as a company, and its marketplace performance relative to competing products. PO Resp. 93–99; Ex. 2019 ¶¶ 32–45.

*Samsung Electronics Co. Ltd. v. Ouraring Inc.,
IPR2024-01078, Paper 62 at 31 (PTAB Jan. 27, 2026)*

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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The Board found that Oura's evidence of copying was probative of Non-Obvious in related Proceedings

c. Copying

For the reasons that follow, we find that Patent Owner's evidence of copying is probative of non-obviousness. Patent Owner asserts that evidence of copying by new entrants into the market is further evidence of non-obviousness of the claimed ring. Resp. 85–92. “Not every competing

In our view, Patent Owner's evidence of access, disassembly, and substantial similarity of the products is sufficient to demonstrate replication of the Oura Ring Gen. 3 Horizon product. *See Medtronic, Inc. v. Teleflex Innovations S.a.r.l.*, 70 F.4th 1331, 1340 (Fed. Cir. 2023) (“Evidence of access and substantial similarity is evidence of copying.”). While such evidence is circumstantial, as opposed to direct evidence, of copying, the Federal Circuit has made clear that such evidence is not “second-class to direct evidence” and may even be “more certain, satisfying and persuasive than direct evidence.” *Id.* (quotations omitted). Indeed, here we find that Patent Owner has presented a compelling case of copying based on such evidence.

EX2153; FWD PGR2024-00039 at 65-69

The Board Rejected Combinations of Schröder, Yuen, and Mestas Based on Similar Arguments Presented in this Proceeding

Ground	Summary
1	Claims 1-2, 4-5, 8-11, 14, 16, and 18-19 are obvious over Mestas (Ex-1010) in view of Schröder (Ex-1007).
2	Claims 3, 6, 12-13, 15, 17, and 20 are obvious over Mestas in view of Schröder and further in view of Yuen (Ex-1006).
3	Claims 1-6 and 8-20 are obvious over Yuen in view of Schröder and further in view of Mestas.

Paper 3 at 4.

Petitioner has not shown, by a preponderance of the evidence, that claims 1–10 and 12–16 of the '178 patent are unpatentable. Petitioner has shown, by a preponderance of the evidence, that claims 17 and 18 of the '178 patent are unpatentable.¹⁵

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1–3, 17, 18	103	Schröder		1–3, 17, 18
1–3, 13–16	103	Schröder, Niwa		1–3, 13–16
3, 12	103	Schröder, Mestas		3, 12
1, 4–10, 13–16	103	Schröder, Yuen		1, 4–10, 13–16

EX2151; FWD PGR2024-00030 at 56-57

Petitioner has not shown, by a preponderance of the evidence, that claims 1–17 of the '702 patent are unpatentable.

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1, 5, 7, 12–15	103	Schröder		1, 5, 7, 12–15
2–4, 6, 8–11	103	Schröder, LeBoeuf		2–4, 6, 8–11
8–11	103	Schröder, LeBoeuf, Niwa		8–11
16, 17	103	Schröder, Mestas		16, 17
1–15	103	LeBoeuf, Schröder		1–15
8–11	103	LeBoeuf, Schröder, Niwa		8–11
16, 17	103	LeBoeuf, Schröder, Mestas		16, 17
Overall Outcome				1–17

EX2153; FWD PGR2024-00039 at 85

V. CONCLUSION

Petitioner has not shown by a preponderance of the evidence that claims 1, 11, and 13–20 of the '859 patent are unpatentable.

Ground	Claims	35 U.S.C. §	References/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1	1, 11, 13–20	103	Yuen, Mestas		1, 11, 13–20
2	1, 11, 13–20	103	Schröder, Mestas		1, 11, 13–20
Overall Outcome					1, 11, 13–20

EX2155; FWD IPR2024-01077 at 59

III. CONCLUSION

Petitioner has not shown by a preponderance of the evidence that claims 1–6, 11–15, 38–43 of the '953 patent are unpatentable:

Ground	Claims	35 U.S.C. §	References/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1	1–6, 11–14	103	Mestas, Asami		1–6, 11–14
2	1–6, 11, 14, 15, 38, 39, 41–43	103	Mestas, Schröder		1–6, 11, 14, 15, 38, 39, 41–43
3	1–6, 11, 14, 15, 38, 39, 41–43	103	Schröder, Mestas		1–6, 11, 14, 15, 38, 39, 41–43
4	11–15	103	Schröder, Mestas, Asami		11–15
5	40–43	103	Schröder, Mestas, Wissmar		40–43
Overall Outcome					1–6, 11–15, 38–43

*Samsung Electronics Co. Ltd. v. Ouraring Inc.,
IPR2024-01078, Paper 62 at 50 (PTAB Jan. 27, 2026)*

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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The Board Found's Yuen's Toe Band Reference Bereft of Detail

In addition to the deficiencies in its showing for limitation 1[A], Petitioner has not met its burden with respect to the “curved battery” recited in limitation 1[B]. For this limitation, Petitioner asserts that Yuen teaches a battery positioned within the wearable computing device’s cavity. Pet. 22. Relying again on Yuen’s reference to a “toe band,” Petitioner argues it would have been obvious that “[i]n order to shrink the device to the smaller package size, and also conform to the more pronounced curvature of a toe, Yuen’s electronics package (including its battery) would have been curved to follow the shape of the device that conforms to the body part underneath it.” *Id.* at 22–23 (citing Ex. 1002 ¶ 167). According to Petitioner, the use of a curved battery in that redesigned package would have been obvious because Mestas teaches the use of a curved battery in a circular, wrist-worn device. *See id.* at 23–24 (citing Ex. 1002 ¶¶ 168–169; 1010, Fig. 6).

The problem with Petitioner’s arguments is that they are premised on a number of significant departures from the depicted design of Yuen’s device that find little or no support in the cited references. As Patent Owner points out, Yuen does not explain what it means by a “toe band.” *See* Resp. 32 (“The word ‘toe’ is mentioned exactly once in Yuen.”). Dr. Mercier

EX2155; FWD IPR2024-01077 at 28

Paper 31 at 7-8

OURA



Deficiencies of Ground 2: Yuen + Mestas + Schröder

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