

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL
BOARD

MASIMO CORPORATION
Petitioner,

v.

APPLE INC.,
Patent Owner

Case IPR2023-00702
U.S. Patent D947,842

PATENT OWNER'S PRELIMINARY RESPONSE

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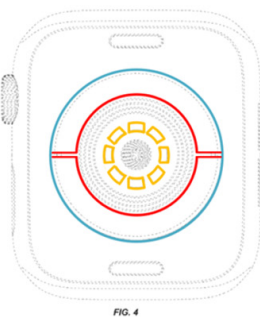
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LIST OF EXHIBITS

Exhibit Number	Description
2001	Declaration of Lance Gordon Rake
2002	Replacement Drawings filed in U.S. Design Patent Application 29/816,024 on December 14, 2021
2003	<i>Aries Watches Watch AW80 – Unisex,</i> https://allegro.pl/oferta/smartwatch-zegarek-ekg-pulsoksymetrtermometr-pl-9927412179 .
2004	<i>P11 Plus 0.96 Inch Screen ECG+HRV Smart Health Bracelet, Support Body Temperature, Dynamic Heart,</i> Newegg.com, http://www.newegg.com/p/3EG-000R-000F7 .

I. INTRODUCTION

Masimo's Petition challenging U.S. Patent No. D947,842 ("the '842 patent") is fatally deficient in multiple ways. The Petition fails to identify any reference that has an appearance "basically the same" as the claimed design's series of concentric circle shapes, and thus none of Grounds 1-3 include a proper *Rosen* reference. For example, Paulke, Yuen, and Fong each altogether lack an inner circular shape formed by an arrangement of multiple elongated four-sided shapes (yellow) that is central to the claimed design's concentric circle overall appearance. This prominent feature, and resulting overall appearance, is simply not present in any of the primary references.



'842 Patent
(EX1001, FIG. 4)

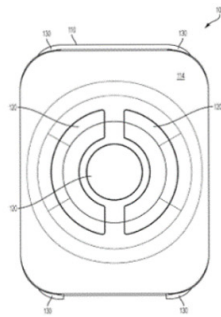
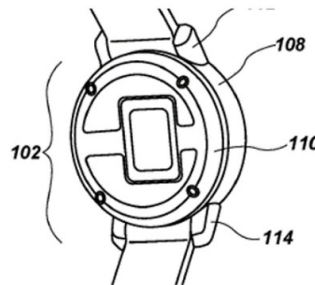


FIG. 1G
Paulke
(EX1006, Fig. 1G)



Yuen
(EX1007, Fig. 1B
(excerpeted))

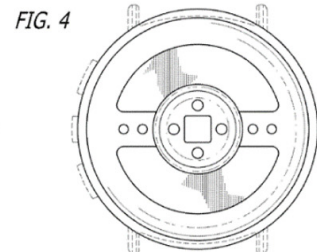


FIG. 4
Fong
(EX1008, Fig. 4)

This alone provides an independent reason why Paulke, Yuen, and Fong lack an appearance that is "basically the same" as the claimed design. Together with multiple other readily apparent differences between the claimed design and Paulke, Yuen, and Fong—many of which are never specifically addressed by the Petition—

the Petition is woefully deficient in demonstrating any of these references are *Rosen* references.

The Petition relies on layers of yet additional factual and legal errors. Masimo's proposed claim construction focuses on design concepts that fail to accurately portray the actual claimed design, and which improperly "factors out" multiple ornamental features significant to the design's cohesive overall appearance. Rather than address the claimed aspects that contribute to the design's overall appearance, and their differences from the prior art, Masimo's analysis obscures the design without the required analysis relative to the cited references, each of which have fundamental differences that contrast with the '842 patent's overall appearance. These deficiencies in the cited art are further confirmed by Masimo's attempt to make yet further layers of modifications beyond what are depicted by these references.

For at least the reasons explained below, Masimo fails to demonstrate a reasonable likelihood that the design claim is unpatentable. The Petition should be denied.

II. BACKGROUND

Apple is known as an innovator in consumer products and a leader in industrial design. Apple's innovative products are produced through its significant investment in research and development in technology and product design. Each

product is meticulously created to be appealing and sleek, with numerous iterations to perfect the design of each product and to incorporate aesthetic themes that run through the Apple products.

The Apple Watch is no exception, and has been a best-seller and consumer favorite in part due to its innovative, stylish, and distinctive style. The design claimed in the '842 patent is the result of tremendous design efforts to produce a consumer-wearable product incorporating signature Apple design qualities such as elegant and simple designs that echo themes in other Apple products. As discussed in greater detail below, a Designer of Ordinary Skill (“DOSA”) would have recognized these qualities of the overall claimed design, and appreciated the efforts underlying the design that immediately distinguish its appearance from prior designs.

III. LEVEL OF ORDINARY SKILL

For the purposes of this case, a Designer of Ordinary Skill in the Art (“DOSA”) would have a degree in Industrial Design or Mechanical Engineering, and at least two years of professional experience creating Industrial Designs of consumer products. EX2001, ¶19.

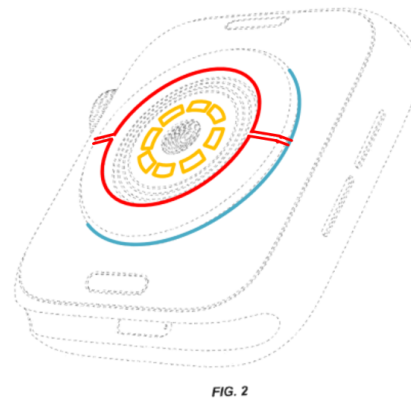
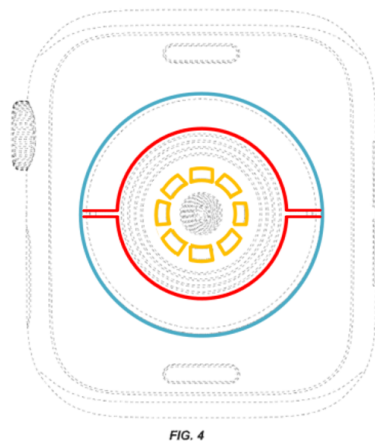
IV. MASIMO CANNOT PREVAIL ON ANY CHALLENGED CLAIM

A. Masimo's Proposed Claim Construction Ignores Features of the Claimed Design and Relies on General Design Concepts

Masimo's proposed claim construction is deficient because it fails to address prominent features of the claimed design and, critically, the contributions of those features to the overall appearance. *See Skechers U.S.A., Inc. v. Nike, Inc.*, IPR 2017-00617, Paper 13 at 7-8 (PTAB July 6, 2017) ("While we recognize that the illustration, rather than a verbal description, is the better representation of the claimed design ... Petitioner's verbal description in these cases does not go far enough."). While a verbal description may not always be necessary, any verbal description must identify readily observable features of the claimed design that impact its overall appearance. *See Skechers*, IPR2017-00617, Paper 13 at 8; *see also Vitro Packaging, LLC v. SaverGlass, Inc.*, IPR2015-00947, Paper 13 at 5 (PTAB Sept. 29, 2015) ("We are not persuaded that this is an accurate portrayal of the claimed bottle because it focuses on general dimensions, ratios, and elements common to many bottles."). As described below, this error infects each of Masimo's grounds, and therefore compels denial of the Petition. *See, id.* at 13 (denying institution, stating, "[w]e do not find Petitioner's arguments persuasive because Petitioner focuses on design concepts rather than actual appearance and specific design characteristics." (citation omitted)).

The '842 patent claims a unique, elegant design for an “electronic device” having an overall appearance of multiple concentric circles, evoking a bulls-eye, target, or ripples in a pond. EX2001, ¶¶20-27; EX1001, Figs. 1-9; EX2002, Figs. 1-9.¹ As illustrated below, the claimed design includes a circular element having a concentric circular arrangement contained within an outermost continuous circle (blue). *Id.* An outer circular shape is formed by thin, elongated arches positioned within the outermost continuous circle (red). *Id.* The inner edges of the arches are raised relative to the outermost continuous circle, resulting in the appearance that the arches protrude upward from the outermost continuous circle. Moving toward the center of the concentric circular arrangement, spaced apart from the outer circular shape, an inner circular shape is formed by an arrangement of multiple elongated four-sided shapes (yellow). *Id.* The inner circular shape is smaller in diameter than the outer circular shape. *Id.*

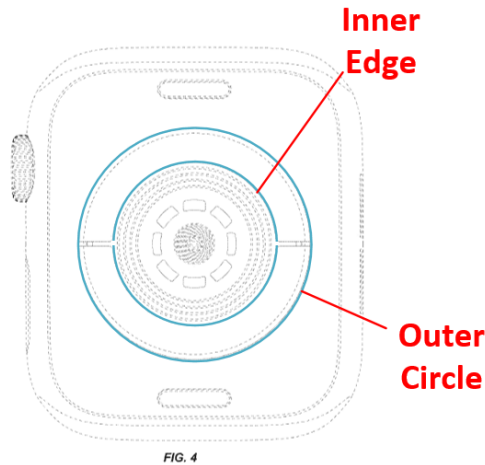
¹ EX2002 is the supplemental drawings filed with the USPTO on December 14, 2021.



EX2001, ¶20 ((EX1001, Figs. 2 and 4 (annotated))).

Each of these aspects are readily observable features that contribute to the claimed design's overall appearance that evokes concentric circles within the outermost continuous circle. *Id.* Moving inward from the outermost continuous circle, the arch shapes are positioned such that the outer circular shape appears as a unified ring or circular shape. *Id.*

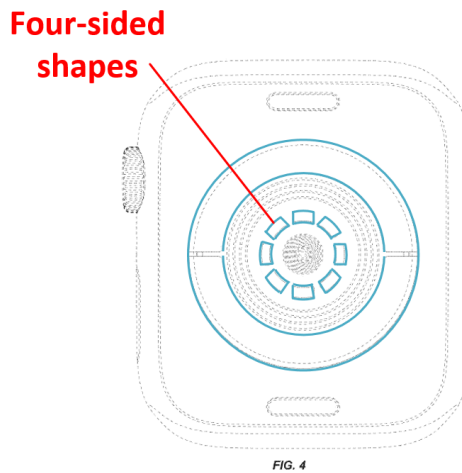
The outer circular shape is formed by elongated arches. The distance between the inner edge of the arches and the outermost continuous circle is small compared to the diameter of the outermost continuous circle, contributing to the appearance of an elegant, precise and streamlined shape. EX2001, ¶21.



EX2001, ¶21 (EX1001, Fig. 4 (annotated)).

Toward the center of the concentric circular arrangement from the outer circular shape is an inner circular shape formed by multiple elongated four-sided shapes. The elongate shape of the four-sided shapes that reach toward one another emphasize the arrangement's circular shape, and complement the curvature of the outermost continuous circle and the outer circular shape formed by the arches.

EX2001, ¶¶22-24.



EX2001, ¶¶23-24 (EX1001, Fig. 4 (annotated)).

The diameter of the inner circular shape formed by the multiple four-sided shapes is smaller than the diameter of the outer circular shape formed by the arches. Together with the arch shapes and outermost continuous circle, the inner circular shape formed by the multiple four-sided shapes contribute to an overall appearance of multiple concentric circles, evoking a bulls-eye, target, or ripples in a pond. EX2001, ¶24. The concentric circles evoked by the outermost continuous circle, inner edges of the arch shapes, and outer edges of the multiple four-sided shapes are highlighted in the annotated figure below.

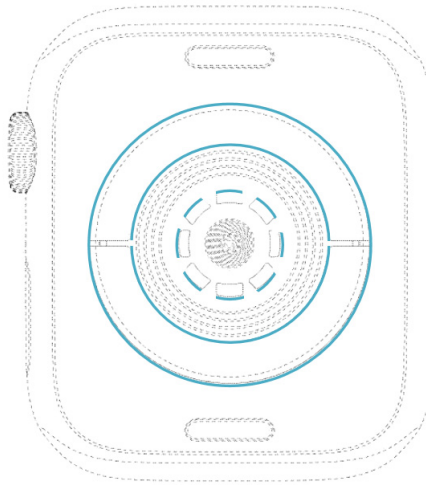


FIG. 4

EX2001, ¶¶25-26 (EX1001, Fig. 4 (annotated)).

Each of the elements of the outermost continuous circle, arches forming an outer circular shape, and multiple four-sided shapes forming an inner circular shape smaller in diameter than the outer circular shape contribute to this overall design, by depicting continuous and concentric circles of decreasing diameter. EX2001, ¶¶25-27.

The concentric rings suggested by the elements of the outermost continuous circle, arch shapes, and plurality of four-sided shapes, are prominently visible. EX2001, ¶27. The physical position of the arch shapes, and their elongate proportions compared to the diameter of the outermost continuous circle, suggests a unified, continuous circle despite the arch shapes not touching each other. Similarly, the positions of the four-sided shapes are close to one another, with their elongate

proportions extending towards one another, accentuating a circular appearance formed by the four-sided shape's outer and inner edges. *Id.*

Masimo largely ignores these immediately observable features in its claim construction. *See* Pet., 11. For example, Masimo describes the '842 patent's design as "two arc-shaped portions (gray) protruding from the back of an electronic device and surrounding a circular arrangement of rectangles (blue)." *Id.* But this construction ignores many of the prominent features noted above, including 1) the outermost continuous circle, 2) the unified circular appearance provided by the arches, 3) the distance between the inner edges of the arches and the outermost continuous circle that is relatively small and complementary to the proportions of other features, and 4) the elongated four-sided shapes arranged to complement the curvature of the outermost continuous circle and the arch-shaped portions. Each of these features contribute to the unique, concentric circular overall appearance, and are significant to the ordinary designer. EX2001, ¶28.

Ultimately, Masimo's generic description of design concepts and omission of the appearance provided by the actual claimed shapes and their relationships fails to recognize the claimed design's overall impression. These omissions taint each of the Petition's grounds, warranting denial of the petition. *Infra*, §§IV.C-E; *see also*, *Macsports, Inc., v. Idea Nuevo, Inc.*, IPR2018-01006, Paper 6 at 12 (PTAB Nov. 13,

2018) (denying institution); *Vitro Packaging*, IPR2015-00947, Paper 13 at 5 (denying institution); *Skechers*, IPR2017-00617, Paper 13 at 13 (denying institution).

B. Masimo’s Proposed Construction Erroneously “Factored Out” Purportedly Functional Aspects of the Design

In an attempt to map the ’842 patent’s unique design to the prior art, Masimo relies on a construction that improperly “factored out” meaningful aspects of the design. Even if particular aspects of the design are associated with a functional purpose, they have ornamental contributions that cannot be excluded from the claimed design. Masimo’s proposal is based on legal error. Additionally, Masimo improperly imports purported functionality from a commercial embodiment, ignoring that such functionality is not required or mentioned by the ’842 patent, and ignores the numerous alternative designs that can achieve the same or similar functionality.

1. Even if Particular Features are Associated with a Functional Purpose, They Contribute to the Overall Appearance of the Design and Cannot be “Factored Out”

As the Federal Circuit explained in *Sport Dimension*, “[w]hile we agreed that certain elements of the device were functional, their functionality did not preclude those elements from having protectable ornamentation.” *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1321 (Fed. Cir. 2016) (“in no case did we entirely

eliminate a structural element from the claimed ornamental design, even though that element also served a functional purpose”). Masimo’s “construction in this case conflicts with that principle of design patent claim construction because it eliminates whole aspects of the claimed design.” *Id.*; Pet., 47 (“should be disregarded”); 49 (“should be disregarded”); 50 (“should be disregarded”); 52 (“should be disregarded” and “design encompasses *any arrangement* of rectangles surrounded by and spaced apart from the arc-shaped portions.”); 69; 71; 72; 90; 92; 94; 96. Even if particular aspects of the claimed design can have a functional purpose (which Masimo fails to demonstrate), they are still significant to the overall ornamental appearance of the ’842 patent. Masimo’s assertions that these features be “factored out” is based on legal error and must be rejected.

The Petition conspicuously omits discussion of *Sport Dimension* and subsequent decisions highlighting that “in no case did [the Federal Circuit] entirely eliminate a structural element from the claimed ornamental design,” even if the element also served a functional purpose. *Sport Dimension*, 820 F.3d at 1321. Masimo engages in the same prohibited practice as the *Ethicon* District Court, relying on a construction that “factored out” features from the claimed design. *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1328 (Fed. Cir. 2015) (reversing district court that “found that because each of the designs of the trigger, torque knob, and button must be ‘factored out’ under *Richardson v. Stanley Works*,

. . . the Design Patents had no scope.”). It would be reversible error for the Board to do the same.

“[T]he claim construction in *Richardson* did not exclude those components in their entirety. Rather, the claim construction included the ornamental aspects of those components,” and “[a]s such, the language ‘dictated by their functional purpose’ in *Richardson* was only a description of the facts there; it did not establish a rule to eliminate entire elements from the claim scope.” *Apple Inc. v. Samsung Elecs. Co.*, 786 F.3d 983, 998 (Fed. Cir. 2105). Masimo’s legal error taints the entirety of its analysis, providing an independent reason that its construction is unsupportable. Each of the outermost continuous circle, outer circular shape provided by the arch-shaped portions, inner circular shape provided by the arrangement of elongated four-sided shapes, and spacing of the outermost continuous circle, arch-shaped portions’ inner edges, and four-sided shapes relative to one another has an ornamental contribution significant to the claimed design’s overall appearance. EX2001, ¶¶20-27, 29.

Masimo’s claim construction is premised on a further legal error by asking the Board to consider each aspect of the claimed design separately. Contrary to Masimo’s assertions that particular aspects be “factored out,” the Federal Circuit has repeatedly explained “design patents protect the **overall** ornamentation of a design, not an aggregation of separable elements.” *Sport Dimension*, 820 F.3d at 1322. The

features depicted by the '842 patent's claimed design must be considered together in view of the overall appearance achieved by the claimed features—here, including a series of concentric circles reminiscent of a bullseye or ripples in a pond. EX2001, ¶¶24-27. By “factoring out” structural elements from the claim, Masimo “improperly converted the claim scope of the design patent from one that covers the overall ornamentation to one that covers individual elements.” *Sport Dimension*, 820 F.3d at 1322. This is improper.

2. Masimo's Focus on Functionalities of the Commercial Embodiment of the '842 Patent Constitutes Legal Error

Masimo's functionality discussion is based on yet another independent error. Masimo's attempt to “factor out” design aspects is premised on purported functionality that is not required, or even mentioned, by the '842 patent. Instead, Masimo's functionality arguments improperly incorporate uses of an underlying commercial product into the design of '842 patent. For example, Masimo's functionality arguments are premised on the presence of wireless charging components located between the arch-shaped features and the arrangement of four-sided shapes. Pet., 26 (“the claimed arc-shaped portions' design is also dictated by the need to ensure that the electrodes do not interfere with other Watch components.”); 18 (referring to “wireless charging” of a commercial product). But nothing in the '842 patent tethers the claimed ornamental shapes to wireless charging

components, or any other particular charging component—the ’842 patent is directed to an “electronic device” without any requirement of wireless charging at all. *See Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1455 (Fed. Cir. 1997) (vacating summary judgment of invalidity on functionality because district court erred in considering functional limitations of commercial embodiment rather than the claimed design). Indeed, “the court cannot use the limitations of the commercial embodiment of the underlying article of manufacture to impose limitations on the scope of the design patent.” *Id.* Masimo’s functionality arguments are premised on features extraneous to the claimed design, rather than the actual features shown and described by the ’842 patent. *See id.* This is yet a further independent reason that Masimo’s claim construction is erroneous and cannot be adopted.

3. A Multitude of Alternative Designs Highlight the Ornamental Contributions of Features of the Claimed Design

There is no dispute that “[w]hether suitable alternative designs are available is ‘an important – if not dispositive – factor in evaluating the legal functionality of a claimed design.’” *Ethicon*, 796 F.3d at 1329-30; Pet., 11. Here, multiple suitable alternative designs exist as described below that provide the same or similar functionality. The elements of the ’842 patent contribute to its overall appearance, and cannot be “factored out.”

For example, the Aries AW80 watch is described as enabling measurement of ECG, heart rate tracking, and blood oxygen tracking, and uses a magnetic charging cable. *See* EX2003, 1, 5-6, 11, 13-16. The AW80 accomplishes its functionalities with a design that includes opposed shapes on either side of a central band including square and rectangular sensors, and thus has a rear face having an appearance significantly different than the '842 claimed design. EX2001, ¶31.



EX2003, 6-7.

As another example, the P11 Plus watch is described as enabling measurement of ECG, heart rate tracking, and blood oxygen tracking. *See* EX2004, 1-3. The P11 Plus accomplishes its functionalities with a design that includes three rectangular electrodes, such that its rear face has a significantly different appearance than the '842 claimed design. EX2001, ¶32.



EX2004, 3.

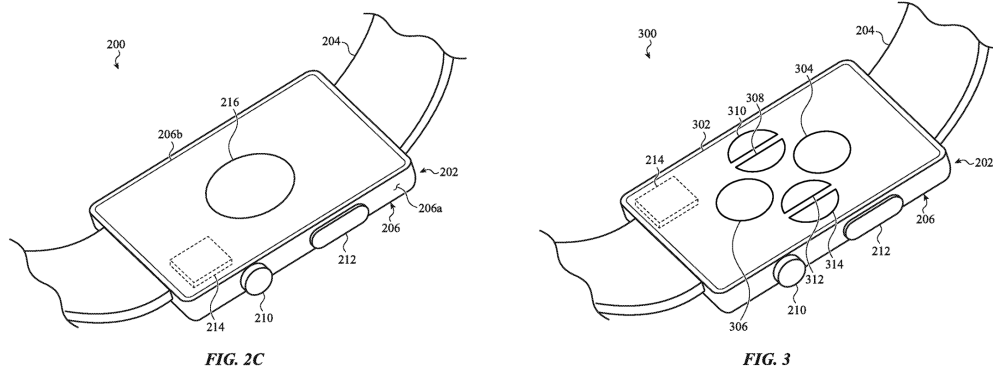
The Petition is silent as to these alternative designs.

As discussed in further detail below, references cited by the Petition itself also confirm the existence of alternative designs as to each of the features identified by Masimo as purportedly functional, and confirm the features identified by Masimo contribute to the claimed design's ornamental appearance. *See e.g.*, Pet., 24, 33-34.

a) The Specific Arrangement of the Arch-Shaped Portions is Decorative and Contributes to the Unique Overall Appearance

Masimo points to the '157 utility patent (U.S. 10,610,157) as explaining that the electrodes are “arc-shaped and positioned” and “sized” to achieve the functions of providing electrical contact between the electrodes and a wearer's skin. Pet., 24

(citing EX1024, 17:20-34; 13:54-59). The '157 patent itself, however, discloses multiple arrangements, shapes, and sizes of electrodes to achieve the stated purpose while having different appearances including a single rear-facing electrode (Fig. 2C), an arrangement of half-circle and circular electrodes (Fig. 3), or other arrangements. *See* EX1024, 17:24-34; EX2001, ¶¶35-37.



EX1024, Figs. 2C and 3.

b) The Specific Arrangement of the Four-Sided Shapes is Decorative and Contributes to the Unique Overall Appearance

The multitude of alternative designs confirm that the '842 patent's particular appearance, including number, size, and configuration of four-sided shapes contributes ornamentally to the overall appearance. For example, the '157 Patent reflects multiple alternative arrangements of photodiodes that enable functionality of emitting and receiving light from the wearer's skin. *See* EX1024, 15:34-40, 13:59-63; *see also* EX2001, ¶¶38-39. Other examples of alternative designs are

provided by Masimo's citation to a plethora of references illustrating different photodiode configurations. *See* Pet., 34 (citing EX1038, 2-3 and EX1014, ¶¶68).

**c) The Overall Circular Shape is Decorative and
Contributes to the Unique Overall Appearance**

Masimo contends that the overall circular shape of the claimed sensor design is functional. Pet., 33-34. But, here again, Masimo's own citations demonstrate multiple suitable alternative designs having non-circular shapes. EX2001, ¶¶40-41; EX1038, 2-3.

**C. Ground 1: Masimo Fails to Demonstrate that the Claimed Design
is Obvious Based on Paulke in View of Mendelson**

Ground 1 is fatally flawed because the Petition simply fails to demonstrate that Paulke is a proper *Rosen* reference in view of major aspects of the design that are entirely absent. The '842 patent depicts a design having a streamlined appearance of multiple concentric circles, including an outermost continuous circle (blue), an outer circular shape formed by multiple thin, elongated arches (red), and an inner circular shape formed by an arrangement of multiple elongated four-sided shapes (yellow). *Supra*, §IV.A.

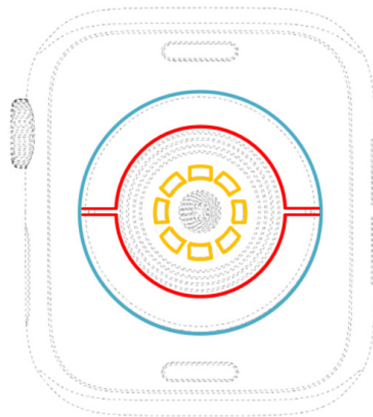


FIG. 4

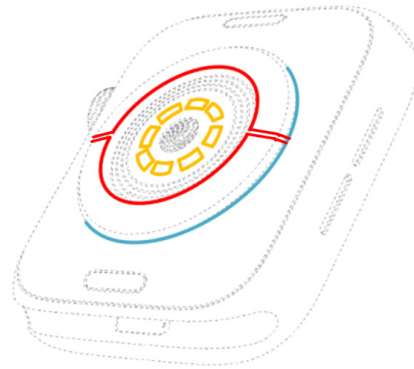


FIG. 2

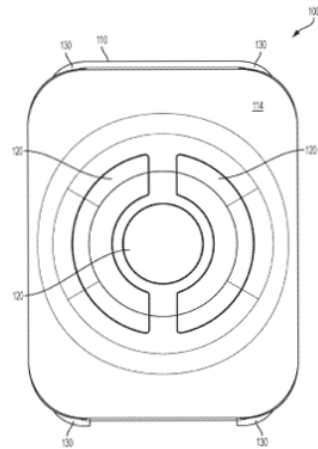


FIG. 1G

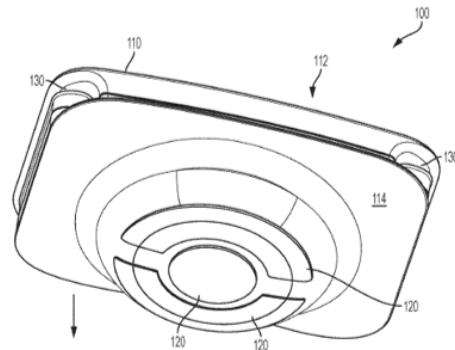


FIG. 1F

EX2001, ¶42-45 (Top: EX1001, Figs. 2 and 4 (annotated); Bottom: EX1006, Figs. 1G, 1F).

While the inner circular shape formed by multiple four-sided shapes (yellow) is central to the claimed design's concentric circle overall appearance, it's entirely absent from Paulke (*infra*, §IV.C.4.a). Given this prominent difference, Paulke simply lacks an overall appearance that is “basically the same” as the claimed design.

Moreover, the claimed design's overall appearance differs prominently from Paulke due to the outer circular shape formed by the arches (*infra*, §IV.C.4.b), and the relationship between the outer continuous circle and the arches (*infra*, §IV.C.4.c). Each of these differences alone result in an overall appearance that is not “basically the same” as the claimed design. Collectively they compel such a finding. Ground 1 fails for these independent reasons.

Beyond failing to demonstrate a proper *Rosen* reference, the Petition relies on layers of modifications that significantly change Paulke's appearance, and that are not depicted by Paulke or Mendelson, in an attempt to recreate the claimed design. These additional defects render the Petition's Ground 1 obviousness theories woefully deficient, and the gaps in its analysis highlight that Masimo cannot demonstrate unpatentability of the design claim based on the evidence set forth in the Petition.

1. Paulke is Not a Proper *Rosen* Reference

The Ground 1 obviousness theory is defective because the Petition fails to demonstrate that Paulke is a proper *Rosen* reference. *See* EX2001, ¶¶46-47. Masimo's obviousness theory is based on the flawed premise that “any differences between Paulke and the '842 patent do not change the overall visual similarity of the designs.” Pet., 44. But in making this assumption, Masimo does not address multiple, prominent differences between the claimed design and Paulke, such as

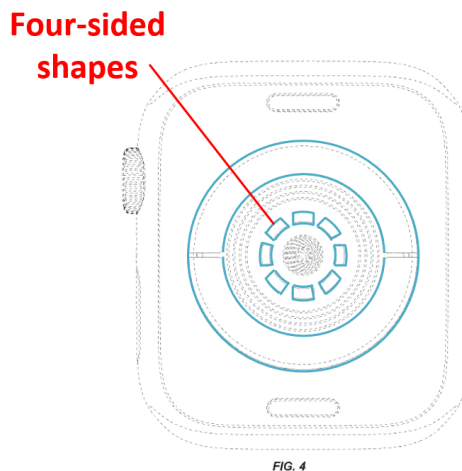
Paulke's lack of an inner circular shape formed by an arrangement of multiple elongated four-sided shapes. Additionally, Masimo does not address the differences between Paulke's opposed shapes and the claimed design's outer circular shape formed by the elongated and spaced-apart arches and the claimed design's outermost continuous circle and its relationship to the outer circular shape.

Moreover, while Masimo acknowledges that Paulke lacks an "arrangement of rectangles," Masimo's theory that Paulke is nonetheless "basically the same" is based on multiple factual and legal errors—Masimo relies on a purported internal "rectangle" that is not depicted by Paulke and never visible together with Paulke's external components, and a legally erroneous claim construction in which the claimed design purportedly "encompasses *any arrangement* of rectangles surrounded by and spaced apart from the arc-shaped portions." Pet., 52. The multiple, readily apparent differences between Paulke and the claimed design, and the layers of intermediate modifications proposed in an attempt to reach the claimed design, confirm that the Petition fails to demonstrate Paulke is a "single reference that creates basically the same visual impression." *Levitation Arts, Inc. v. Flyte LLC*, PGR2018-00073, Paper 14, 16-22 (PTAB, Jan. 17, 2019) (denying institution in part because "claimed design includes ornamental features that are entirely absent or significantly different in the [prior art] design"); *Dorman Products Inc. v. PACCAR Inc.*, IPR2014-00542, Paper 10 at 5 (PTAB Sept. 5, 2014) (denying institution); *In*

re Harvey, 12 F.3d 1061, 1063 (Fed. Cir. 1993) (“Because major modifications would be required to make Harvey’s prior art vase look like the claimed designs, it cannot qualify as a basic design.”).

a) Masimo Fails to Properly Analyze the Inner Circular Shape Formed by the Arrangement of Four-Sided Shapes of the Claimed Design in Comparison to Paulke

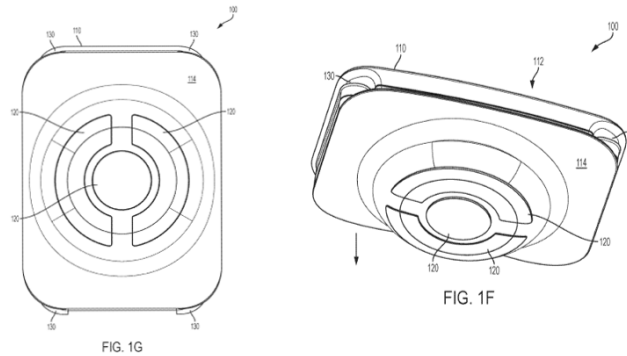
Paulke lacks the claimed design’s concentric circle overall appearance flowing from the inner circular shape formed by the distinctive arrangement of elongated four-sided shapes.



EX2001, ¶¶48-49 (EX1001, Fig. 4 (annotated)).

Paulke depicts a device having a central circular component 120, entirely lacking an inner circular shape formed by an arrangement of multiple, elongated, four-sided shapes. EX1006, Fig. 1G, 1F, 5D. In view of this prominent difference,

the Petition fails to demonstrate that Paulke has an appearance that is “basically the same” as the claimed design. *See* EX2001, ¶¶49-50.



EX1006, Figs. 1G, 1F.

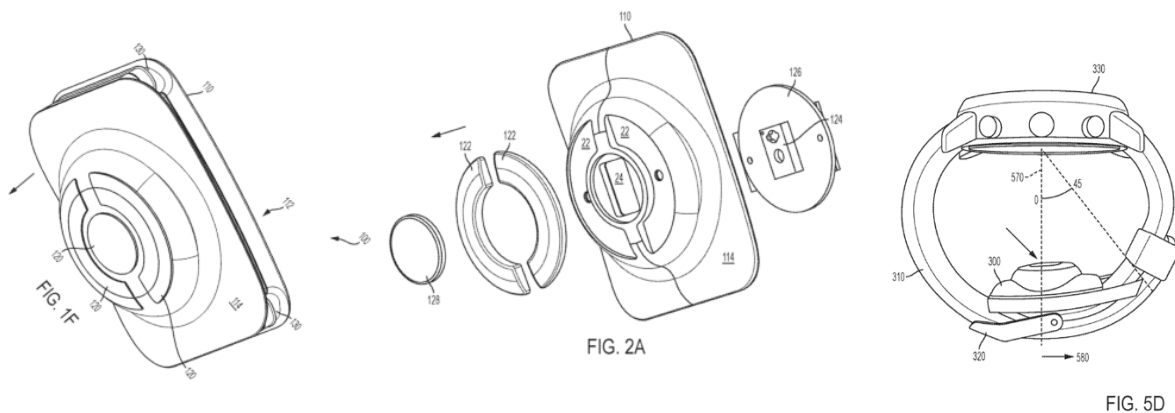
Ground 1 fails to demonstrate a proper *Rosen* reference for this independent reason, and the obviousness inquiry can thus end here.

Beyond this fatal deficiency, Masimo’s Ground 1 obviousness analysis is tainted by multiple additional defects that further confirm that Paulke is not “basically the same” as the claimed design.

For example, in its hindsight attempt to recreate the claimed design, Masimo embarks on a multi-layered analysis that relies on the purported shape of an internal component of Paulke’s device for a purported rectangle. *Pet.*, 52-56. But Paulke never illustrates the purported internal component as a rectangle, and even if it were rectangle, the internal component is *never visible together with* the external components of Paulke. Being an internal component isolated from the external components that Masimo relies on, the purported rectangle does not contribute to a

visual impression of “rectangles surrounded by and spaced apart from the arc-shaped portions” that Masimo improperly asserts (Pet., 52). Paulke simply lacks the combination of an outer circular shape formed by arch shapes together with a rectangle component that is the basis for Masimo’s modification of Paulke. EX2001, ¶¶51-52.

Paulke’s Fig. 2A illustrates an exploded perspective view of the device’s internal components, illustrating that “heart rate and/or blood oxygen sensor 124” is mounted on a “board 126” within the housing beneath a “lens 128.” EX1006, 16.



EX1006, Figs. 1F (rotated), 2A, and 5D.

The Petition alleges that Paulke’s “sensor 124” includes “(1) a light source (e.g., LEDs), (2) at least one light detector (e.g., photodiodes), and (3) an opening to allow light to reach and be detected by the detector,” and “a DOSA would have understood Paulke included a rectangular photodiode (blue) associated with the blood oxygen sensor’s opening.” Pet., 33. But even if an ordinary designer would

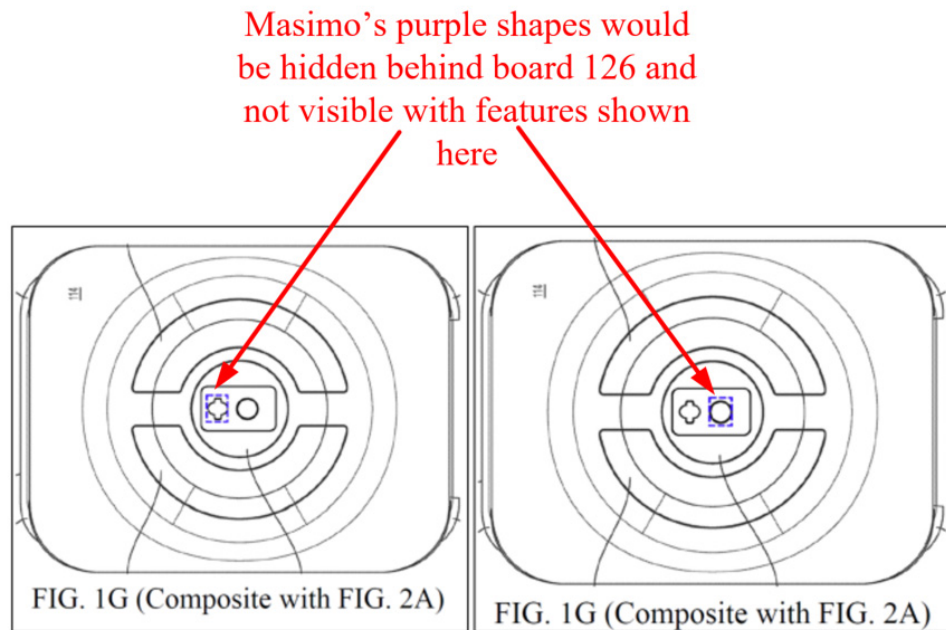
have understood Paulke as including a photodiode having a rectangle shape (which Paulke never mentions and Masimo fails to demonstrate²), Paulke’s appearance is starkly different than the claimed design. EX2001, ¶52.

First, Masimo’s analysis is fatally deficient because Masimo relies on *a single* rectangle shape—a stark contrast from the claimed design’s circular array of four-sided shapes that contributes to the overall appearance of concentric circles. EX2001, ¶57. Masimo’s theory based on a single offset rectangle (even if visible with Paulke’s other features, which it is not) simply creates a different overall appearance that lacks the claimed design’s concentric overall appearance. *Id.* The Petition is silent on this prominent difference, merely concluding “any difference in the arrangement of rectangles does not change the overall visual similarity of the Paulke and claimed designs,” without evidence or explanation. *See*, Pet., 55-56.

Second, Masimo ignores that the purported rectangle is never visible with Paulke’s external features. The purported photodiode, even if present, would have been *hidden behind* Paulke’s depicted openings through sensor 124. EX2001, ¶¶54-

² To be clear, Paulke never mentions the term “photodiode” at all, and certainly not that the photodiode would have a particular appearance alleged by Masimo.

55. Indeed, Masimo itself acknowledges the purpose of Paulke’s depicted openings are “to allow light to reach and be detected by the detector” (Pet., 34), which is an internal component positioned behind Paulke’s openings.



EX2001, ¶53 (Pet., 55 (purple annotations in Pet.; red text/arrows added))

The Petition simply ignores that the purported “rectangular photodiode” is never described or shown by Paulke as visible together with Paulke’s arch portions or other exterior features. *Levitation Arts*, PGR2018-00073, Paper 14 at 21 (denying institution and indicating “Petitioner does not explain how or why ‘hidden’ structures . . . that are not visible in [the prior art] design contribute to the overall visual impression”).

Third, Masimo's theory fails to address the actual appearance depicted by Paulke that depicts ***non-rectangular*** shapes—a cross-shaped opening and a circle-shaped opening. EX1006, Fig. 2A; EX2001, ¶56. Nothing in Paulke depicts the contrary rectangle shapes Masimo purports to be present, or explains why a DOSA would have understood Paulke to have an appearance of a rectangular shape that deviates from Paulke's illustrated appearance.³ *Berry Sterling Corp. v. Pescor Plastics, Inc.*, 1999 U.S. App. LEXIS 20789, *9 (C.A.F.C. 1999) (“The modifications to the primary reference cannot be such that they change the fundamental characteristics of the design.”); *see also Termax Co. v. Illinois Tool Works Inc.*, IPR2022-00106, Paper 7, 30 (PTAB, May 12, 2022) (citing *Apple, Inc. v. Samsung Elec. Co.*, 678 F.3d 1314, 1331 (Fed. Cir. 2012)).

³ To the extent Masimo relies on modification of Paulke (e.g., to have a rectangle shape visible together with external features, or to modify Paulke's cross or circle shapes to instead have a rectangle shape) before even reaching combination with Mendelson, such a theory is based on legal error and contrary to the *Rosen* analysis that calls for “a single reference, ***a something in existence***, the design characteristics of which are basically the same as the claimed design.” *High Point Design*, 730 F.3d at 1311 (emphasis added).

The Petition’s deficiencies with respect to the concentric circular arrangement of four-sided shapes is not remedied by Masimo’s assertion “the claimed design encompasses *any arrangement* of rectangles surrounded by and spaced apart from the arc-shaped portions.” Pet., 52. Masimo’s theory is based on the legal error of improperly “factoring out” this aspect of the claimed design. *Supra*, §IV.B. But the appearance of the circular arrangement of four-sided shapes is significant to the overall appearance of the design and is fundamentally different than Paulke. *Id.*; *see also* EX2001, ¶58.

This deficiency is likewise not remedied by Masimo’s reliance on an isolated quote: “there’s nothing patentable about multiple detectors.” Pet., 56. Tellingly, Masimo omits the quote’s context, which does not speak to the ornamental appearance of an arrangement of detectors, and certainly not the ornamental appearance of the claimed design’s arrangement of four-sided shapes, in combination with other claimed features contributing to the overall concentric circular appearance.

Paulke simply lacks the inner circular shape provided by the arrangement of multiple elongated four-sided shapes of the ’842 patent, and has a markedly different appearance as a result. Paulke is not a proper *Rosen* reference, and Ground 1 fails.

b) Masimo Fails to Properly Analyze the Outer Circular Shape Formed by the Arches of the Claimed Design in Comparison to Paulke

Masimo's assertion that "the arc-shaped portions of Paulke and the '842 Patent provide the same overall visual impression" fails to address readily visible differences that are significant to the claimed design's overall appearance. Pet., 47. The '842 patent includes an outer circular shape formed by unified thin and elongated arches. *Supra*, §IV.A. The ends of each arch are positioned to form the unified circular appearance. EX2001, ¶¶20-27, 60-61. As discussed above, the thickness of the arches from the arch's inner edge to the outermost continuous circle is relatively small, contributing to the appearance of an elegant and streamlined outer circular shape. *Id.*

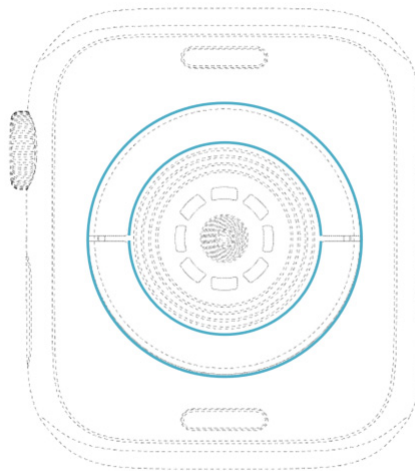


FIG. 4

EX2001, ¶61 (EX1001, Fig. 4 (annotated)).

In contrast to the '842 patent's design, Paulke depicts opposed shapes spaced apart from one another and having a relatively larger thickness. Paulke's features provide an appearance of two separate, opposed shapes that differs prominently from the '842 patent's arches that evoke an overall concentric circle appearance. EX2001, ¶62.

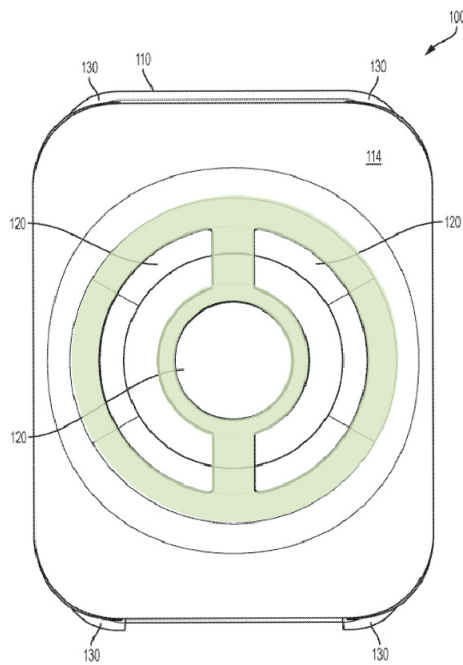


FIG. 1G

EX2001, ¶¶62-63 (EX1006, Fig. 1G (highlighted)).

As discussed above, Paulke's opposed shapes are meaningfully wider than the '842 patent's claimed arches, with the inner edge of Paulke's opposed shapes are spaced a substantial distance inwardly (e.g., relative to radius lines depicted in Fig. 1G), and the width of Paulke's curved shapes extend across a significant portion of Paulke's sensor body surface. These prominently visible features provide a different

overall appearance that is bulky and dominated by the opposed curved shapes, providing a crowded appearance rather than the '842 patent's streamlined, elegant concentric circle appearance. Masimo ignores this aspect of the claimed design, and its contribution to the overall appearance.

Masimo acknowledges “Paulke’s arc-shaped portions are spaced slightly farther apart than the claimed design” but merely concludes “that difference, or any difference in the size, shape or spacing of the arc-shaped portions of Paulke and the claimed design, does not alter the overall visual similarity of these designs.” Pet., 48. Here again, Masimo never addresses the contribution of these features on the claimed design’s overall appearance, ignoring the visual appearance of the claimed design’s concentric circles that is lacking from Paulke’s opposed “arc-shaped” components. This is not a matter of degree—Paulke’s opposed shapes have the appearance of two separate features rather than the '842 patent’s unified circular appearance of the arches. EX2001, ¶¶63-65.

The Petition cites paragraphs 60-61 of the Delman Declaration, but these paragraphs parrot the petition without any additional underlying explanation. *Compare* EX1003, 60-61 *with* Pet., 47-50. Such an “*ipse dixit* declaration” is insufficient and does nothing to remedy the Petition’s deficient analysis. *TQ Delta, LLC v. Cisco Sys.*, 942 F.3d 1352, 1362-64 (Fed. Cir. 2019) (refusing to give weight to petitioner’s “*ipse dixit* declaration”).

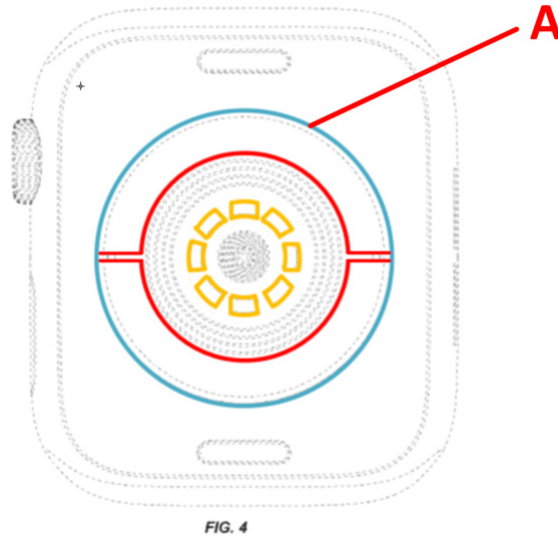
Here again, Masimo's analysis is fatally deficient, ignoring meaningful features of the claimed design that differ in comparison to Paulke. These differences highlight Paulke's failure to provide an appearance that is "basically the same" as the claimed design, and Paulke is not a proper *Rosen* reference for at least this additional reason.

c) Masimo Fails to Properly Analyze the Outermost Continuous Circle and Its Relationship with the Arches of the Claimed Design in Comparison to Paulke

The Petition fails to address the claimed design's outermost continuous circle, and its contribution to the overall appearance, in its Ground 1 analysis. *See*, Pet., Ground 1. Masimo further fails to address the differences between Paulke's design and the claimed design's relationship between the outermost continuous circle and outer circular shape formed by the spaced-apart elongated arch shapes.

The outermost continuous circle encompasses each of the other features of the claimed design and sets the tone of its concentric circular overall impression. EX2001, ¶¶66-67. For example, the claimed design's outermost continuous circle (annotated "A" below) surrounds the outer circular shape formed by the arches and the inner circular shape formed by the four-sided shapes. It encompasses the other features of the claimed design and provides a visual continuity that is mimicked by the assemblies of shapes arranged within the outermost continuous circle. The outermost continuous circle thus meaningfully contributes to the claimed design's

appearance as a series of concentric circles evoking a target, bulls-eye or ripples in a pond. EX2001, ¶67.



EX2001, ¶¶66-67 (EX1001, Fig. 4 (annotated)).

Masimo fails to address this aspect of the claimed design in its Ground 1 analysis. The Petition's annotations of Paulke ignore this aspect, which do not depict such an outermost continuous circle near its opposed shapes. EX2001, ¶¶68-69.

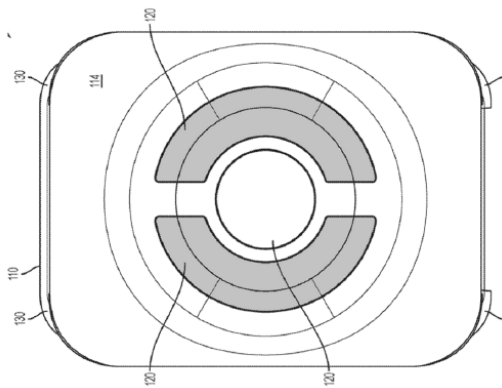


FIG. 1G (rotated)

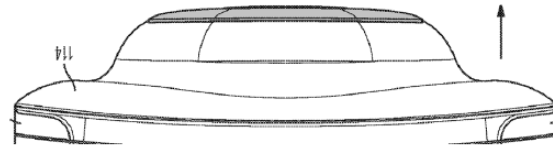
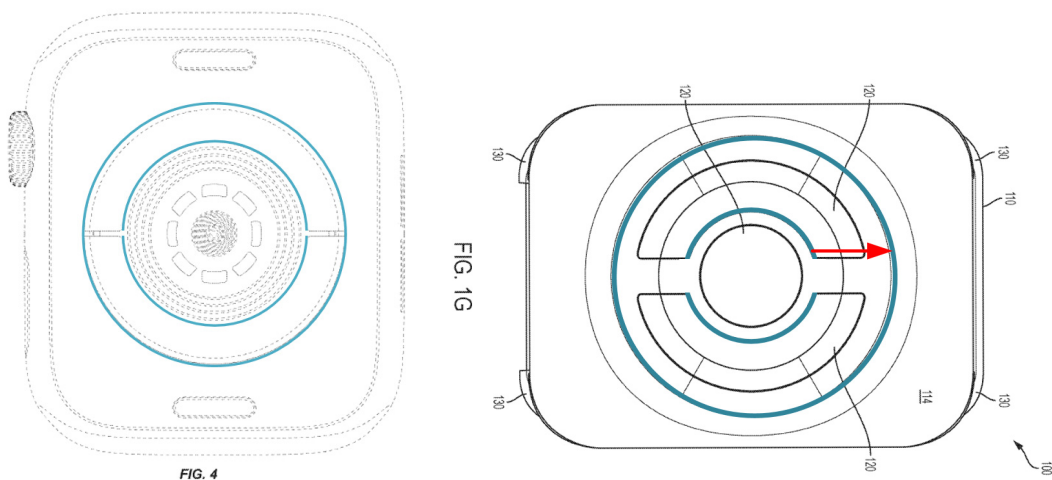


FIG. 1D (rotated)

Pet., 48, 51 (EX1006, FIGS. 1G, 1D).

Moreover, Masimo ignores the specific appearance provided by the relationship between the outermost continuous circle and the inner and outer circular shapes provided by the arches and multiple four-sided shapes, respectively. For example, by ignoring the outermost continuous circle altogether, Masimo fails to address the overall impression of a series of continuous and concentric circles of decreasing size, that provides a target or bulls-eye appearance. Additionally, Masimo neglects to address the position of the outermost continuous circle relative to the inner edge of the outer circular shape formed by the arch-shapes, and further relative to the outer edge of the inner circular shape formed by the four-sided shapes. Each of these is spaced from the other to highlight the elegant circles of decreasing size.

Masimo further fails to address the relationship between the arch shapes and the size of the outermost continuous circle in the '842 patent, which depicts a readily apparent thickness of the arches that is relatively small compared to the diameter of the circle traced by the outermost continuous circle. EX2001, ¶¶70-71. The small thickness of the outer circular shape relative to the diameter of the outermost continuous circle contributes to the claimed design's overall appearance as an elegant and streamlined series of concentric circles, rather than a bulky assembly of shapes.

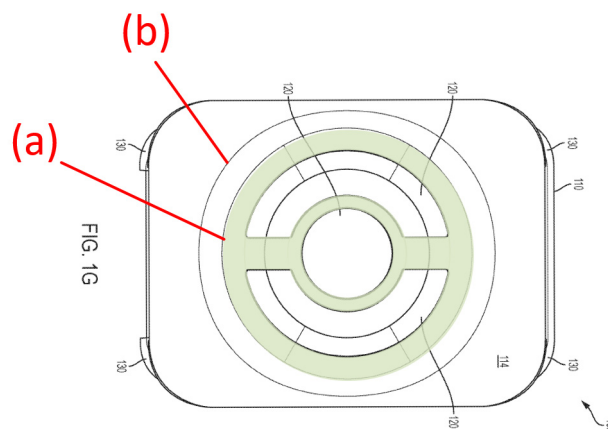


EX2001, ¶¶70-71 (Left: EX2001, Fig. 4 (annotated); Right: EX1004, Fig. 1G (rotated, annotated)).

Masimo ignores this aspect of the claimed design and its contribution to the overall appearance. In contrast to the claimed design, Paulke's opposed shapes have a much thicker appearance. EX2001, ¶72. Paulke's opposed shapes are bulky and take up a significant amount of space in Paulke's design, contributing to a crowded

appearance (e.g., between the opposed shapes) rather than the '842 patent's streamlined appearance. *Id.*

Indeed, the Petition does not specifically identify an outermost continuous circle in Paulke at all – the lines in Paulke appear to depict radius lines showing changes in slope of the edges of a raised portion, and at least in the case of the outermost line, are oval rather than circular in shape. To the extent Masimo relies on radius lines in Paulke's drawing (which the Petition never mentions), Paulke's opposed shapes are spaced inwardly significantly from both the intermediate (a) and outer (b) lines, here again conveying a different overall appearance that lacks the claimed design's streamlined, well-proportioned appearance. Moreover, Paulke's outer line is not a circle at all, instead slightly depressed inwardly such that it has an elliptical or oval shape. EX2001, ¶¶72-73; EX1006, FIGS. 1D and 1G.



EX2001, ¶72 (EX1004, Fig. 1G (rotated, annotations and highlighting added)).

2. Masimo Fails to Demonstrate that it Would Have Been Obvious to a DOSA To Modify Modify Paulke in View of Mendelson To Create the Claimed Design

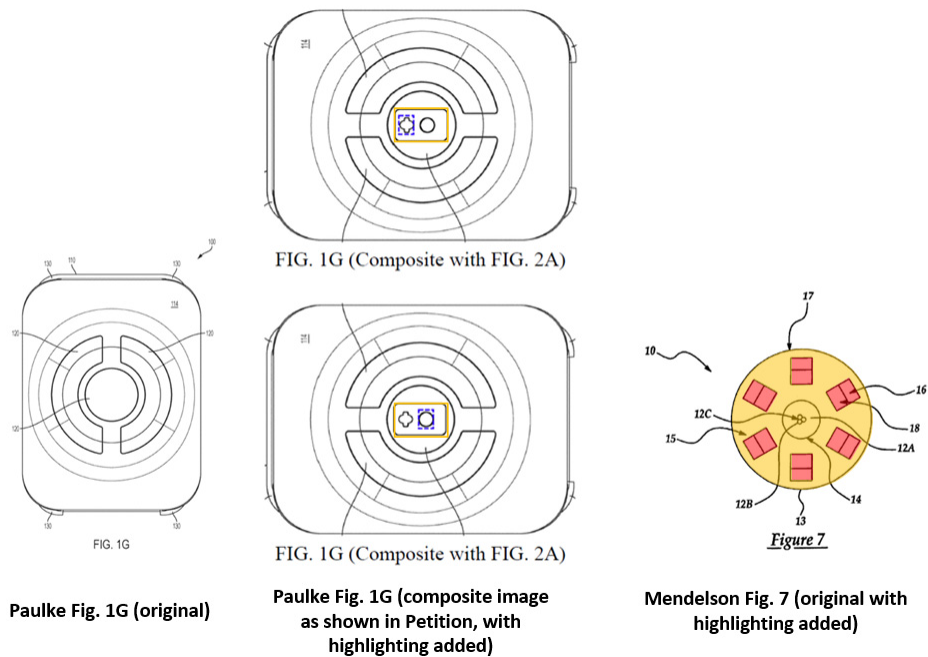
a) Mendelson is Not a Proper Secondary Reference for Combination with Paulke

The Petition’s focus on Paulke and Mendelson as providing a sensor fails to demonstrate that Mendelson’s design is “so related” to Paulke in *appearance* that Mendelson is a proper secondary reference. EX2001, ¶¶74-75. A secondary reference may only be used to modify the primary reference if the secondary reference is “so related that the appearance of certain ornamental features in one would suggest the application of those features to the other.” *In re Glavas*, 230 F.2d 447, 450 (C.C.P.A. 1956). “The question in design cases is not whether the references sought to be combined are in analogous arts in the mechanical sense,” but rather whether the appearance of the references is “so related” that the “appearance of certain ornamental features in one would suggest application of those features to the other.” *Id.*; *see also Termax*, IPR2022-00106, Paper 7 at 29 (rejecting Petitioner’s reliance on aspects other than ornamental appearance).

Masimo relies on Paulke’s central circular biosensor 120 and Mendelson’s circularly-shaped sensor as evidence that Mendelson is “so related” to Paulke’s design. Pet., 57-58 (“Mendelson is so related to Paulke *because it discloses a suitable sensor* for Paulke’s design” and “Paulke suggests replacing its central circular biosensor with a suitable oxygen saturation sensor.”). In doing so, Masimo

improperly focuses on Mendelson’s *use* as a sensor rather than the visual *appearance* of Mendelson and Paulke. *In re Sung Nam Cho*, 813 F.2d 378, 382 (Fed. Cir. 1987) (reversing Board’s obviousness determination that analyzed design patent “as if it were the subject of an application for a utility patent”) (“[a]lthough it may have been obvious, from a utility stand point, to place cylindrical depressions in crown type caps and to include flaps in the depressions, it does not follow that Cho’s design was obvious”); *Termax*, IPR2022-00106, Paper 7 at 29.

When properly focusing on appearance instead of use, Mendelson and Paulke have little in common. In contrast to Mendelson’s arrangement of pairs of rectangles, Paulke altogether lacks the rectangular shape relied on by the Petition in visual combination with the claimed design’s external features. Likewise, Mendelson lacks any relationship between its pairs of rectangles and surrounding opposed arc shapes—no such features are present in Mendelson.



EX2001, ¶¶75-76 (EX1006 Fig. 1G; Pet., 55 (EX1006, Fig. 1G); EX1011, Fig. 7 (annotated)).

Paulke’s appearance is significantly different from Mendelson’s appearance with an arrangement of pairs of rectangles aligned in lines bisecting a central circular shape. In view of the differences between Paulke and Mendelson, the references are not “so related that the appearance of certain ornamental features in one would suggest the application of those features to the other.” *Glavas*, 230 F.2d at 450.

To be clear, Masimo’s reliance on the presence of a “circular biosensor” in Paulke and “circular shape” in Mendelson is alone insufficient to demonstrate Paulke and Mendelson are “so related” as to suggest application of Mendelson’s arrangement of rectangle shapes into Paulke in view of the remainder of the respective designs. Paulke describes a circular shape with a single elongate shape

centered therein, and two non-symmetrical offset apertures of different, non-rectangular shapes (a cross shape and a circle shape). In contrast, Mendelson describes an outer circular shape surrounding a radially symmetrical array of rectangles aligned in lines bisecting a central circle. EX2001, ¶¶75-78. The mere presence of a circle is insufficient to suggest application of Mendelson’s array of rectangles to Paulke, except for improper use of the claimed design as a roadmap. *Premier Gem*, IPR2016-00434, Paper 9 at 16; *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1124 (Fed. Cir. 1993) (“Not only the individual elements, but the ornamental quality of the combination must be suggested in the prior art. . . . A reconstruction of known elements does not invalidate a design patent, absent some basis whereby a designer of ordinary skill would be led to create this particular design.” (emphasis added)).

This hindsight reasoning employed by Masimo becomes even more egregious as additional modifications to the Paulke/Mendelson combination are layered on beyond the depictions of Paulke and Mendelson.

b) Masimo’s Proposed Series of Modifications Beyond the Design Depicted in Mendelson are Improper

Masimo acknowledges multiple additional modifications are necessary to provide features of the ’842 patent beyond that depicted by Paulke or Mendelson, tacitly acknowledging that modifying Paulke to use “Mendelson’s arrangement of

rectangular photodiodes” fails to achieve the claimed design. Pet., 59-64. But these additional modifications are directed to features that are not depicted by either reference and are not trivial or *de minimis*. EX2001, ¶¶79-82. The proposed modification fails for this additional reason.

For example, Masimo’s assertion that “the difference between the claimed photodiode shapes (curved rectangles) and those in Mendelson (straight rectangles 16/18) was a change known in the art,” fails to demonstrate that such a change would have been considered trivial by a DOSA, and that a DOSA would have further modified the proposed Paulke/Mendelson combination to achieve the claimed design’s specific appearance. First, the Petition fails to provide any prior art evidence of “curved rectangles” having the specific appearance proposed by the Petition. The Petition does not rely on Paulke or Mendelson for this modification, neither of which depict such a feature.

Second, even if “curved rectangles” was a “change known in the art” (which Masimo fails to demonstrate with prior art evidence), the Federal Circuit has made clear that mere knowledge of a shape is insufficient:

If we adopted the logic of the Board and concluded that the substitution of the Carder shapes for those in the Harvey prior art case would render the ’904 and ’906 design applications obvious ***just because the Carder shapes were well-known and frequently used in vase designs***, each and every prior art bowl or vase shape ever publicly disclosed would render obvious any generally similar vase shape. Clearly, ***this cannot be the case***.

Harvey, 12 F.3d at 1065 (emphasis added). It is not enough that curved rectangles for particular sensor features were known (which Masimo fails to demonstrate). The prior art's appearance must suggest modifying the references in the specific proposed manner. *Id.*

Third, Masimo's assertions that a DOSA would have created curved edges "to visually parallel the corresponding curvatures of Paulke's . . . arc-shaped portions and the sensor's overall circular shape and" to "provide a visually consistent, simplistic, and appealing look of concentric circles" ignores that Mendelson already includes an outer circle shape yet utilizes rectangle shapes *without* curved edges. Pet., 63. In other words, the purported reason for modifying Mendelson's rectangles to have curved edges—to complement curved lines of Paulke—ignores that Mendelson already includes a curved outer shape in combination with straight edges. Mendelson itself undermines Masimo's proffered reasons for this modification. Masimo failed to demonstrate a DOSA would have considered such a modification to the detriment of Paulke and Mendelson's original designs. *See Termax*, IPR2022-00106, Paper 7 at 30 ("the notably consistent symmetrical nature of both designs would not suggest that a skilled designer would destroy that symmetry by using a rounded platform with a rectangular platform." (citing *Apple*, 678 F.3d at 1331)). Masimo's proposed modification and motivation to do so is unsupported and fatally deficient.

The deficiencies discussed above are not remedied by Masimo's reliance on purported utility motivations. The teachings of references can properly be combined in a design patent context if they are so related that the *appearance* of certain ornamental features in one reference would have *suggested application of those features to another*. *In re Rosen*, 673 F.2d 388, 213 U.S.P.Q. (BNA) 347 (CCPA 1982). Simply stated, when determining obviousness of a design patent claim, "the focus must be on appearances and not uses." *See Harvey*, 12 F.3d at 1064 (reversing Board's obviousness determination where "the Board improperly mixed principles of obviousness for utility patents with those for ornamental design patents."); *In re Sung Nam Cho*, 813 F.2d at 382 (reversing Board's obviousness determination that analyzed design patent "as if it were the subject of an application for a utility patent"); *Termax*, IPR2022-00106, Paper 7 at 29 (rejecting Petitioner's reliance on aspects other than ornamental appearance, and indicating "the Federal Circuit has made clear that the motivation to modify one design with another is limited to whether the articles are 'so related' (*i.e., so similar in appearance*)").

Masimo ignores this well-established principle of design patent law, embarking on a multi-layered series of modifications based on purported utility considerations. Pet., 57-63. Masimo's analysis does nothing to address the requisite standard of whether the appearance of certain ornamental features in one reference

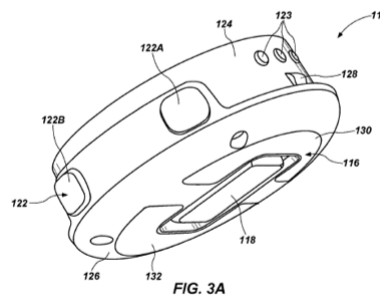
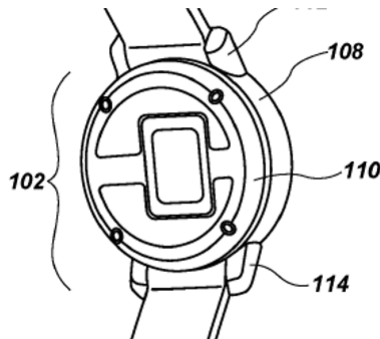
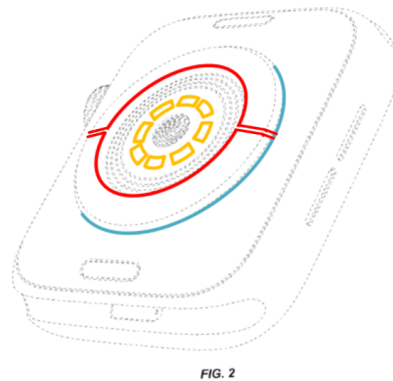
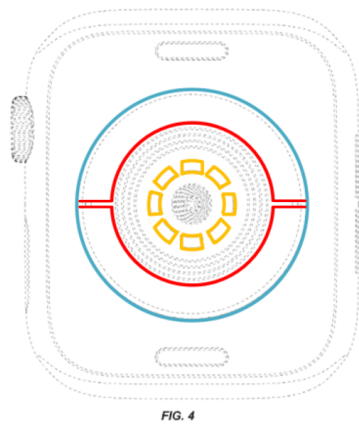
would have suggested application of those features to another and does not address the claimed design's specific ornamental contributions.

Masimo's assertion that "rather than use both of Mendelson's six-photodiode arrays with Paulke as shown above, a DOSA alternatively would have been motivated to use one array, as shown below," is unsupported by any aspect related to the appearance of the photodiode array. Pet., 62. This deficiency is not remedied by Masimo's purported motivation to "improve the performance of the PPG," which is contrary to Mendelson's explicit teachings of utilizing "far" and "near" detectors. *Id.*; *see also* EX1011, 9:26-34, 13:19-22. Moreover, even presuming a DOSA would have been motivated to make the device "cheaper and easier" (which Masimo fails to demonstrate), Masimo fails to demonstrate such a motivation would have led to the particular ornamental appearance that it proposes. *See Termax*, IPR2022-00106, Paper 7 at 29.

Additionally, Masimo's removal of an entire array is at odds with Masimo's claimed motivation of "using more photodiodes [to] improve[] the sensor's signal-to-noise ratio, and thus its accuracy." Pet., 63. Masimo's multiple modifications beyond the Mendelson designs—and the tortured logic required to support such modifications—is improper. Masimo's obviousness analysis in Ground 1 is fatally deficient for at least these reasons.

D. Ground 2: Masimo Fails to Demonstrate that the Claimed Design is Obvious Based on Yuen in View of Mendelson and Bushnell

Ground 2 is fatally flawed because the Petition simply fails to demonstrate that Yuen is a proper *Rosen* reference. While the inner circular shape formed by multiple four-sided shapes is central to the concentric circle overall appearance of the claimed design, any similar aspect is entirely lacking from Yuen.



EX2001, ¶¶83-84 (Top: EX1001, Figs. 2 and 4 (annotated)); Bottom: EX1007, Figs. 1B (excerpted) and 3A).

Yuen entirely lacks the appearance of concentric rings suggesting a bulls-eye or ripples in a pond. Given this prominent difference, Masimo fails to satisfy its

burden to demonstrate that Yuen has an appearance that is “basically the same” as the claimed design, and the obviousness analysis can end here. *See, e.g., Vitro Packaging*, IPR2015-00947, Paper 13 (“we need not reach the second step of the obviousness analysis”).

Beyond failing to demonstrate Yuen is a proper *Rosen* reference, the Petition relies on layers of modifications that significantly change Yuen’s appearance, and that are not depicted by (or even suggested by) Yuen, Mendelson or Bushnell, in an attempt to recreate the claimed design. The gaps in the Petition’s analysis highlight that Masimo cannot demonstrate unpatentability of the design claim based on the evidence set forth in the Petition.

1. Yuen is Not a Proper *Rosen* Reference

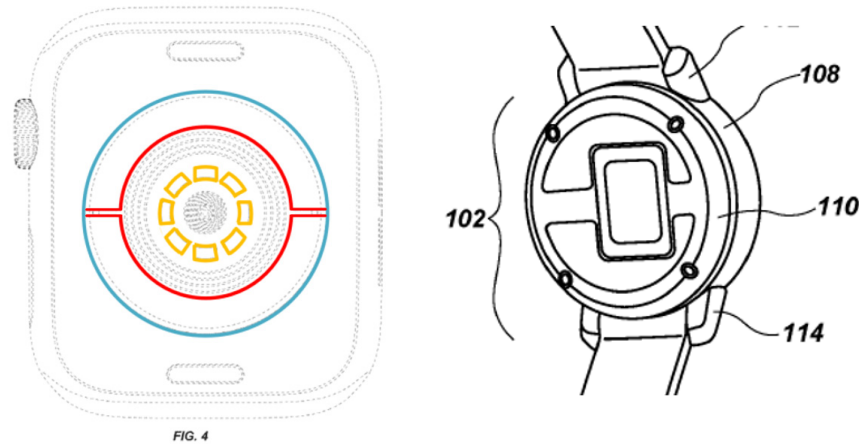
Masimo’s obviousness theory is based on the flawed premise that “any differences between Yuen and the ’842 patent do not change the designs’ overall visual similarity.” Pet., 67. But in making this assumption, Masimo fails to address the vastly different overall appearance provided by Yuen in comparison to the claimed design. *See* EX2001, ¶85. Yuen entirely lacks an inner circular shape formed by an arrangement of multiple elongated four-sided shapes, and the contribution of such features to the claimed design’s concentric circle overall appearance. Additionally, Masimo does not address the differences between Yuen’s asymmetric and squarish opposed shapes that provide a markedly different overall

appearance from the '842 patent's outer circular shape. Moreover, the Petition fails to address additional prominent differences between the claimed design and Yuen, such as the relationship between the claimed design's outer circular shape formed by the arrangement of elongated arch shapes within an outermost continuous circle, that together with the inner circular shape provide a concentric circular appearance. These differences between Yuen and the claimed design result in an overall appearance that is asymmetrical and bulky as opposed to the claimed design's appearance of sleek and balanced concentric circles. Each of these differences are enough to independently disqualify Yuen as a proper *Rosen* reference because of the significantly different overall appearance that results from these features. See *Levitation Arts*, PGR2018-00073, Paper 14 at 16-22; *Dorman Products*, IPR2014-00542, Paper 10 at 5; *In re Harvey*, 12 F.3d at 1063.

a) Masimo Fails to Properly Analyze the Inner Circular Shape Formed by the Arrangement of Four-Sided Shapes of the Claimed Design in Comparison to Yuen

Yuen lacks the claimed design's distinctive inner circular shape formed by an arrangement of four-sided shapes, and the claimed design's resulting concentric circle overall appearance. Masimo does not identify an inner circular shape or even a single four-sided shape arranged to form such an inner circular shape in Yuen's design. Indeed, Yuen's design completely omits any inner circular shape formed by

elongated four-sided shapes and lacks any impression of concentric circles provided by the '842 patent. *See* EX2001, ¶¶86-87



EX2001, ¶87 (EX1001, Fig. 4 (annotated)); EX1007, Figs. 1B (excerpted)).

In view of these prominent differences, the Petition fails to demonstrate that Yuen has an appearance that is “basically the same” as the claimed design. Ground 2 lacks a proper *Rosen* reference for this independent reason.

Yuen depicts a rear face of a device having an offset sensor component that Yuen identifies as “photoplethysmography sensor 118.” EX1007, Fig. 1B; [0032]; *see also* [0041] (“PPG sensor 118”); Pet., 72. Yuen describes that “PPG sensor 118 may include any PPG sensor 118 known in the art” (EX1007, [0041]). From this terse description, Masimo extrapolates “a DOSA would have understood Yuen’s PPG sensor included at least one rectangular photodiode.” Pet., 73. But nothing in Yuen specifically mentions a photodiode, much less a photodiode having the specific shape that Masimo annotates in Fig. 4 below.

Masimo relies on
appearance of added
rectangle that is not shown
or described by Yuen

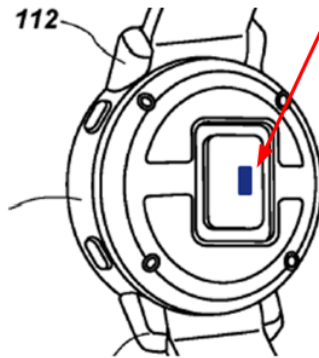


FIG. 4 (Composite)

EX2001, ¶¶90-91 (Pet., 73 (blue rectangle added by Petition to EX1007, Fig. 4, red arrow and text added)).⁴

Even if an ordinary designer would have understood Yuen as including a photodiode having a rectangle shape (which Yuen never mentions and Masimo fails to demonstrate), Masimo’s analysis is fatally deficient because Masimo relies on the appearance of *a single offset rectangle*. Here again, Masimo ignores that a single offset rectangle has a different appearance that lacks the claimed design’s concentric circular arrangement of four-sided shapes that forms an inner circular shape and contributes to the overall concentric circular appearance. EX2001, ¶¶88-91. The

⁴ Masimo describes its figure as a “composite” but does not specify what Yuen’s image is composited with to produce the image.

Petition is silent on this prominent difference, merely concluding that though “Yuen differs from the claimed design because Yuen only includes the one rectangle shown above... Yuen remains an appropriate primary reference...because it discloses basically the same visual impression as the claimed design,” without evidence or explanation. *See*, Pet., 73-74. This is insufficient to meet its burden.

Additionally, Masimo ignores that the purported “rectangular photodiode” is not visible together with Yuen’s external features. If present at all, Masimo ignores that it would be an internal component isolated from any aesthetic appearance of the external components. *See Levitation Arts*, PGR2018-00073, Paper 14 at 21. To the extent Masimo relies on modification of Yuen (e.g., to have a rectangle shape visible together with external features) before even reaching combination with secondary references, such a theory is based on legal error and contrary to the *Rosen* analysis that calls for “a single reference, a something in existence, the design characteristics of which are basically the same as the claimed design.” *High Point Design*, 730 F.3d at 1311.

The Petition’s deficiencies with respect to the concentric inner circular shape provided by the arrangement of elongated four-sided shapes are not remedied by Masimo’s assertion that “the claimed design encompasses *any arrangement* of rectangles surrounded by and spaced apart from the arc-shaped portions.” Pet., 52; *see also* Pet., 72. Masimo’s theory is based on the legal error of improperly

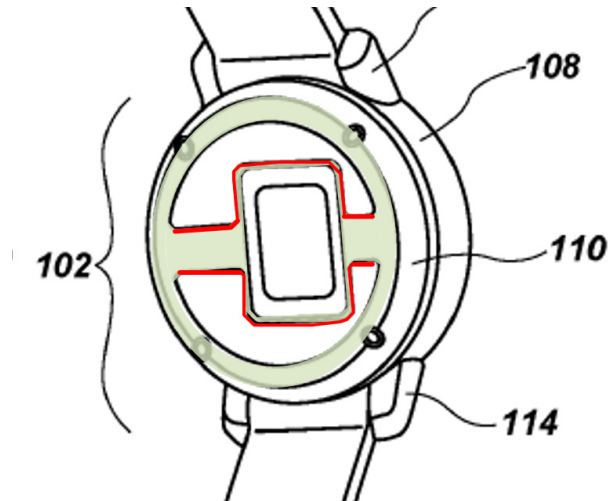
“factoring out” this aspect of the claimed design. *Supra*, §IV.B. The appearance of the circular arrangement of four-sided shapes is significant to the overall appearance of concentric circles provided by the claimed design and is fundamentally different than Yuen. *Id.*

Yuen’s complete omission of the ’842 patent’s inner circular shape provided by the arrangement of multiple elongated four-sided shapes highlights that Yuen has a different appearance and is not a proper *Rosen* reference. Accordingly, Ground 2 fails. EX2001, ¶¶92-93.

b) Masimo Fails to Properly Analyze the Outer Circular Shape Formed by the Arches of the Claimed Design in Comparison to Yuen

In contrast to the ’842 patent’s design, Yuen depicts asymmetrical, squarish shapes that are spaced apart from one another in an opposed relationship. These features provide an immediately apparent overall appearance different from the claimed design’s appearance of concentric circles resulting from the outer circular shape provided by the arches. EX2001, ¶94.

Yuen’s opposed shapes are *asymmetrical*. For example, the left side of the shapes is notably wider than the right side of the shapes (e.g., as shown in FIG. 1B).

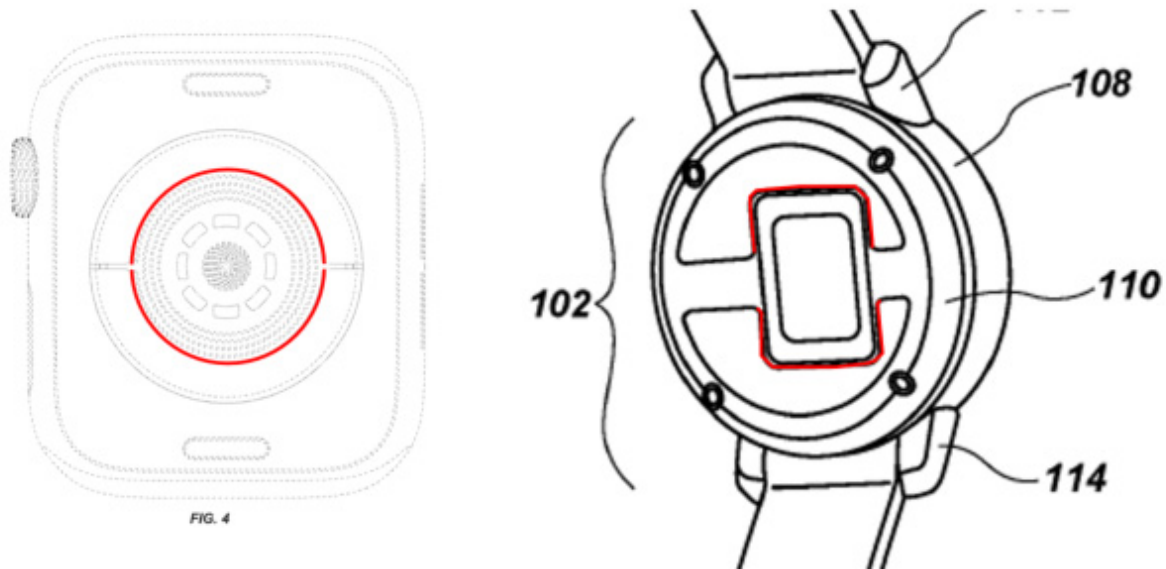


EX2001, ¶95 (EX1007, Fig. 1B (excerpted, annotated)).

The asymmetric appearance is not just a result of the perspective shown in Fig. 1B—Masimo admits elsewhere in the Petition that Yuen’s shapes are asymmetric. *See*, Pet., 79 (“Yuen’s asymmetrically located PPG sensor”). EX2001, ¶¶95-96.

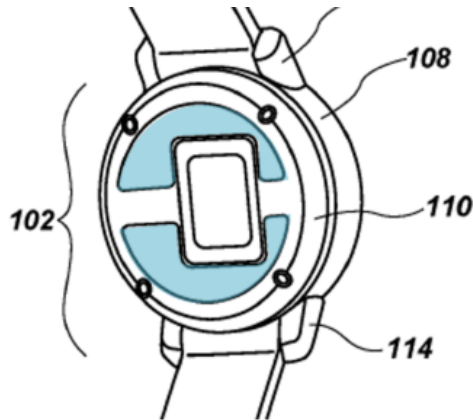
Additionally, Yuen’s opposed shapes are not arch-shaped but instead have a square, off-center cut-out. The inner edge of the opposed shapes are not curved or

circular at all, and certainly do not evoke an appearance of concentric circles.



EX2001, ¶97 (Left: EX1001, Fig. 4 (annotated); EX1007, Fig. 1B (excerpted, annotated)).

As yet a further prominent difference, Yuen's features provide an appearance of two separate, opposed shapes. EX2001, ¶98. Yuen's shapes are meaningfully wider than the claimed design's elongated thin arch elements, and the ends of Yuen's shapes are separated by a relatively large gap. These prominently visible features provide a different overall appearance that is bulky and dominated by the opposed shapes, providing a crowded overall appearance rather than the '842 patent's streamlined, elegant concentric circle appearance. Masimo ignores these aspects of the claimed design, and the differing appearance of Yuen's shapes.



EX2001, ¶98 (EX1007, Fig. 1B (excerpted, annotated)).

The above deficiencies are not remedied by Masimo’s acknowledgement that “Yuen’s arc-shaped portions have a slightly different shape and spacing than in the claimed design.” Pet., 69-70. Masimo merely concludes “that difference, or any difference in the size, shape, or spacing of the arc-shaped portions of Yuen and the claimed design, does not alter the overall visual similarity of these designs,” without following this assertion with any analysis of these differences or why they purportedly do not alter the overall visual appearance. *Id.* Here again, Masimo never addresses the contribution of these prominent features to the claimed design’s overall appearance, ignoring the visual appearance of the claimed design’s concentric circles that is lacking from Yuen’s squarish shapes. To be clear, these differences are not a mere matter of degree—Yuen’s opposed shapes are asymmetric and squarish, immediately contrasting with the ’842 patent’s arches and its overall appearance of concentric circles. EX2001, ¶99.

These differences highlight Yuen has a different appearance that is not “basically the same” as the claimed design. Yuen is not a proper *Rosen* reference for these additional reasons.

c) Masimo Fails to Properly Analyze the Outermost Continuous Circle and Its Relationship with the Arches of the Claimed Design in Comparison to Yuen

Masimo’s obviousness theory ignores the different overall appearance flowing from the claimed design’s outermost continuous circle, and the relationship between the outermost continuous circle and the outer circular shape provided by the spaced-apart elongated arches formed within the outermost continuous circle. *Supra*, §IV.A As described above, the outermost continuous circle encompasses the other features of the claimed design and sets the tone of the concentric circular overall impression. *See supra* §IV.A; EX2001, ¶¶20-27.

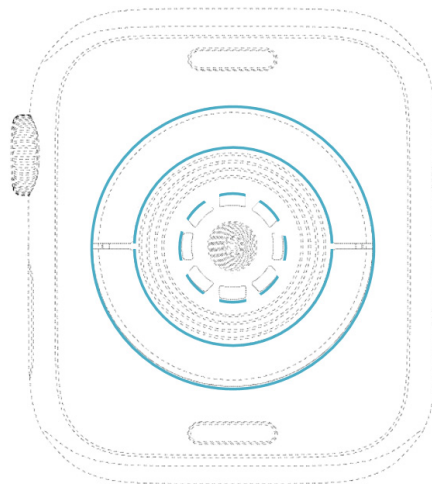
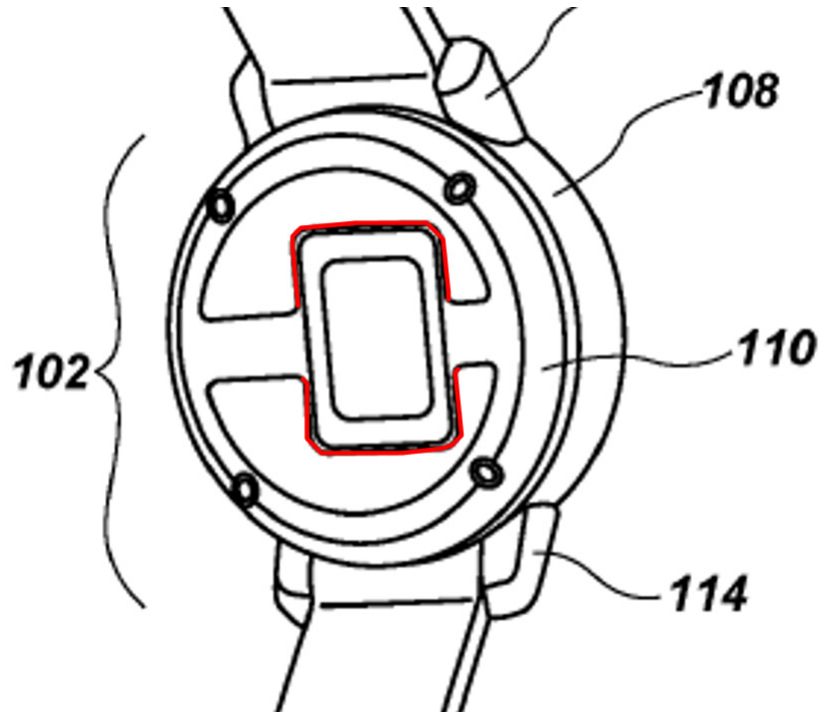


FIG. 4

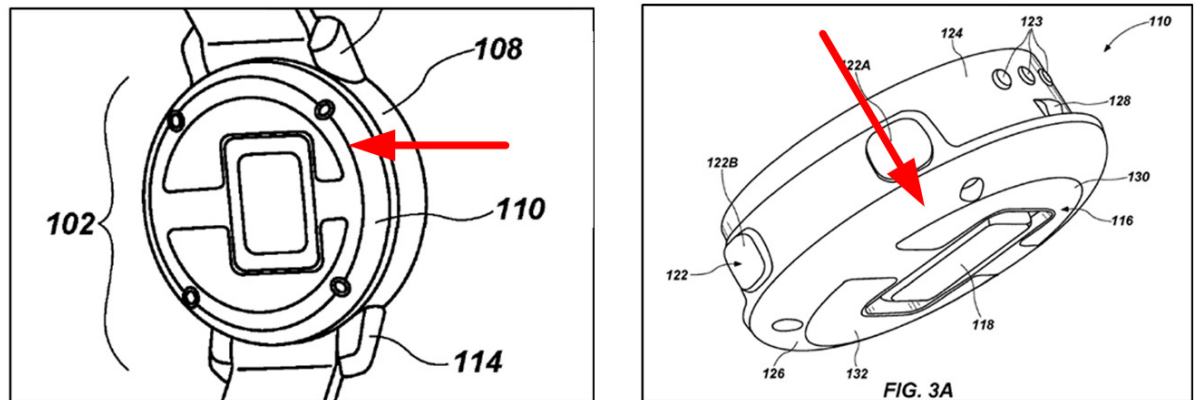
EX2001, ¶100 (EX1001, Fig. 4).

The Petition's analysis of Ground 2 is silent as to this outermost continuous circle shape and its contribution to the claimed design's overall appearance, and Masimo fails to address the outermost continuous circle in its comparison to Yuen. The Petition ignores that Yuen lacks the outermost continuous circle altogether, instead depicting a line showing the change in slope of the raised element and the watchface's back, and as a result, Yuen also lacks the overall impression of a series of continuous and concentric circles of decreasing size, suggesting a target or bulls-eye. Additionally, Masimo neglects to address the position of the outermost continuous circle relative to the inner edges of the arches, and further relative to the outer edges of the inner circular shape formed by the four-sided shapes. While the claimed design's outermost continuous circle and inner edge of the arches are spaced to provide a streamlined, elegant appearance of circles of decreasing size, Yuen depicts thick, squarish, opposed shapes that entirely lack a ring-like appearance.



EX2001, ¶101 (EX1007, Fig. 4 (excerpted, annotated to highlight squarish inner edge of opposed shapes)).

Masimo also fails to address the claimed design’s relationship between the outer circular shape formed by the arches and the size of the outermost continuous circle (e.g., the “thickness” of the arches). *See supra* §IV.A; EX2001, ¶¶100-102. The small thickness relative to the diameter of the outermost continuous circle contributes to the claimed design’s overall appearance as an elegant series of concentric circles, rather than a bulky assembly of shapes having a thicker and imprecise appearance.



EX2001, ¶103 (EX1007, Figs. 1B and 3A (excerpted, annotated)).

To the extent Masimo relies on the line delineating the back face of the watch in Fig. 1B (which the Petition never mentions), Yuen’s Fig. 3A confirms that this line merely represents curvature of the watch’s rear surface. Additionally, Yuen’s opposed shapes are spaced inwardly significantly from this line, here again conveying a different overall appearance that lacks the claimed design’s streamlined, well-proportioned appearance. EX2001, ¶103.

Because the Petition has failed to provide any explanation that accounts for these visible differences, Masimo has not demonstrated that Yuen is “a single reference that creates basically the same visual impression” as the claimed design. *High Point Design*, 730 F.3d at 1314; *Harvey*, 12 F.3d at 1063.

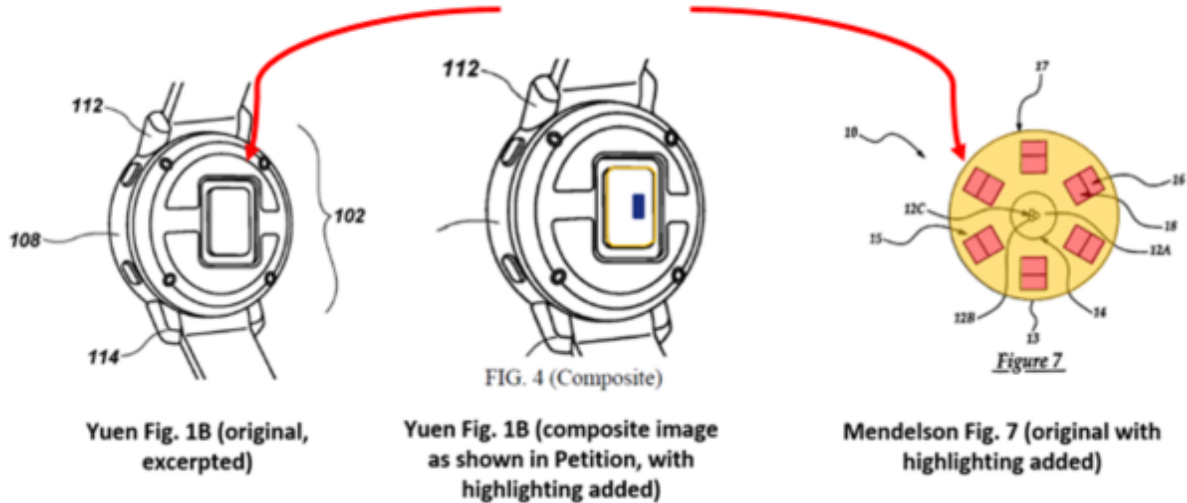
2. Masimo Fails to Demonstrate that it Would Have Been Obvious to a DOSA To Modify Yuen in View of Mendelson and Bushnell To Create the Claimed Design

a) Mendelson is Not a Proper Secondary Reference for Combination with Yuen

The Petition fails to demonstrate that Mendelson’s sensor design is “so related” to Yuen that “the appearance” of certain ornamental features in Mendelson would suggest the application of those features to Yuen. *Glavas*, 230 F.2d at 450.

Masimo relies on Yuen’s description that its device can include “any PPG sensor 118 known in the art” and Mendelson’s sensor as evidence that Mendelson is “so related” to Yuen’s design. Pet., 75 (“Mendelson is so related to Yuen because it discloses a suitable sensor for Yuen [sic] design”). In doing so, Masimo improperly focuses on Mendelson’s use as a sensor rather than the visual appearances of Mendelson and Yuen, which have virtually no overlap in appearance. *Termax*, IPR2022-00106, Paper 7 at 29 (rejecting Petitioner’s reliance on aspects other than ornamental appearance, and indicating “the Federal Circuit has made clear that the motivation to modify one design with another is limited to whether the articles are ‘so related’ (*i.e., so similar in appearance*)”). In contrast to Mendelson’s arrangement of pairs of rectangles, Yuen lacks any corresponding rectangular shape whatsoever. EX2001, ¶¶104-105. Likewise, while Mendelson has a circular perimeter shape and radially-symmetric rectangle arrangement, Yuen has a squarish arrangement between opposed, asymmetric shapes. *Id.*

Yuen and Mendelson are not “so related”—their designs
have virtually no overlap in appearance



EX2001, ¶¶105-106 (Yuen (EX1007) Fig. 1B (excerpted); Yuen (EX1007) Fig. 1B as modified in Petition p. 73 (annotated); Mendelson (EX1011) Fig. 7).

Mendelson’s appearance, having a radial arrangement of rectangles surrounding a central circular shape, lacks any features similar to Yuen, having an elongate central shape (yellow). EX2001, ¶¶105-106. In view of these prominent differences, and the lack of visually similar features, Masimo has failed to satisfy its burden of demonstrating the references are “so related that the appearance of certain ornamental features in one would suggest the application of those features to the other.” *Glavas*, 230 F.2d at 450. Instead, there is no suggestion to incorporate Mendelson’s features into Yuen’s device based on their appearances.

To be clear, Masimo’s reliance on the presence of a “PPG sensor” in Yuen and “suitable sensor” in Mendelson is alone insufficient to demonstrate Yuen and

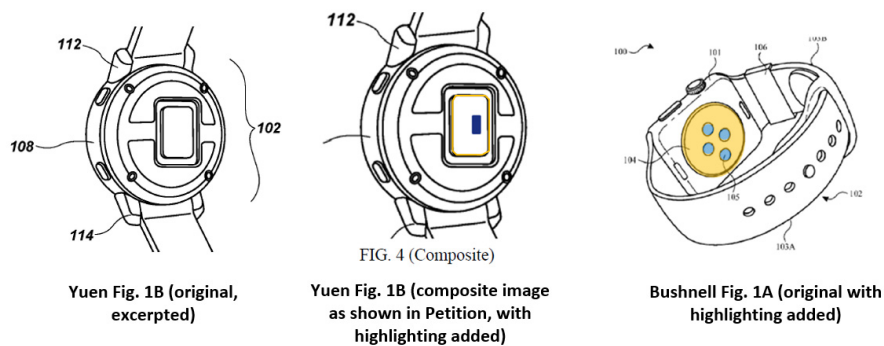
Mendelson are “so related” as to suggest application of Mendelson’s arrangement of rectangle shapes into Yuen. Pet., 75. Nothing in Mendelson’s symmetrical radial arrangement suggests application to Yuen’s offset/asymmetrical sensor. The mere presence of a space in Yuen’s design described as providing the function/use of a sensor is insufficient to suggest application of Mendelson’s specific ornamental appearance, except for improper use of the claimed design as a roadmap. *Premier Gem*, IPR2016-00434, Paper 9 at 16; *L.A. Gear*, 988 F.2d at 1124 (“Not only the individual elements, but the ornamental quality of the combination must be suggested in the prior art. . . . A reconstruction of known elements does not invalidate a design patent, absent some basis whereby a designer of ordinary skill would be led to create this particular design.”). Accordingly, Masimo has failed to demonstrate that Mendelson is an appropriate secondary reference.

b) Bushnell is Not a Proper Secondary Reference for Combination with Yuen

Bushnell’s design is significantly different than Yuen, such that the references are not “so related that the appearance of certain ornamental features in one would suggest the application of those features to the other.” *Glavas*, 230 F.2d at 450. Masimo fails to demonstrate any suggestion in the designs’ appearances to incorporate Bushnell’s features into Yuen’s design.

Bushnell's rear face has a circular feature protruding from the center of a generally squarish body. *See* EX1009, Figs. 1A, 2A. In contrast, Yuen's wristwatch rear face is circular with a convex portion at the outer perimeter edge. *See* EX1007, Fig. 3A. Moreover, the positioning of any raised portion is also different, with Bushnell's raised circular feature being positioned on the relatively square, flat rear face and Yuen's circular face including a curved perimeter edge with no raised feature positioned on the face surface.

Further, as illustrated below, Bushnell's rear wristwatch face does not include visual elements similar to Yuen's opposed, asymmetrical shapes and offset rectangular portion. EX2001, ¶¶107-108.



EX2001, ¶108 (EX1007, Fig. 1B (excerpted); Pet. 73 (EX1007, Fig. 1B as modified in Pet. (annotated); EX1009, Fig. 1A (annotated)).

In view of these unaddressed differences between Yuen and Bushnell, Masimo fails to satisfy its burden of demonstrating the references are so related in

appearance as to suggest the incorporation of features from Bushnell into Yuen’s design. EX2001, ¶¶107-109.

The above deficiencies are not remedied by Masimo’s assertion that “Bushnell is so related to Yuen because it discloses a suitable design for Yuen’s devices,” and “both references concern a circular convex surface that protrudes from the back of the wrist-worn device and incorporates the devices sensors.” Pet., 77. Contrary to Masimo’s characterization, Yuen’s alleged “circular convex surface” *is* the back of the wrist-worn device—it does not protrude from the back surface. EX2001, ¶109. Masimo further asserts “Bushnell and Yuen are further related because Yuen expressly suggests using any known PPG sensor ... which Bushnell discloses.” Pet., 78. As described above with regard to Mendelson, Masimo’s reliance on the presence of a PPG sensor, and any components of such a sensor, fail to demonstrate the *appearance* of Yuen and Bushnell are “so related” as to suggest application of Bushnell’s convex protruding surface to Yuen. *Supra*, §IV.D.2.a; *Termax*, IPR2022-00106, Paper 7 at 29. Here again, the prominent differences in appearance, with almost no visual similarity, confirm the improper hindsight nature of Masimo’s analysis. *L.A. Gear*, 988 F.2d at 1124. Accordingly, Masimo has failed to demonstrate that Bushnell is an appropriate secondary reference.

c) Masimo's Proposed Series of Modifications Beyond the Designs Depicted in Mendelson and Bushnell are Improper

Masimo acknowledges multiple additional modifications are necessary to provide the features of the '842 patent beyond that depicted by Yuen, Mendelson, or Bushnell, tacitly acknowledging that the proposed combination fails to achieve the claimed design. Pet., 78-80, 86-88. But these additional modifications are directed to features that are not depicted by either reference and are not trivial or *de minimis*. EX2001, ¶¶110-115. The proposed modification fails for this additional reason. *See Harvey*, 12 F.3d at 1065.

For example, Masimo's assertion that "the differences between the six straight rectangle-shaped photodiodes shown above and the claimed design (eight curved rectangle-shaped photodiodes) are changes that a DOSA would have been motivated to make" (Pet., 80), fails to demonstrate that such a change would have been considered trivial by a DOSA, and that a DOSA would have further modified the proposed Yuen/Mendelson/Bushnell combination to achieve the claimed design's specific appearance.

As described above, Masimo fails to provide evidence that "curved rectangles" were known in the prior art, and even if the shape were known, this is not sufficient to support Masimo's modification beyond what is shown in the Yuen, Mendelson and Bushnell references. *Supra* §IV.C.5.b. Further, Masimo's purported

reasons for modifying the rectangular arrangement of the Yuen/Mendelson combination are not suggested by the appearance of the references, but instead are counter to the specific designs depicted in the references. *Id.*

The Petition’s analysis is further undermined by the internal shape delineated by the inner edges of Yuen’s opposed shapes, which do not form a curved or circular shape, but rather a rectangular shape. Puzzlingly, Masimo contends “the relatedness of Mendelson’s circular sensor design to the available circular area of Yuen’s design also would have suggested their combination.” Pet., 79. Yuen, however, clearly lacks any such “available circular area.” EX2001, ¶113.

Likewise, Masimo’s hindsight motivation of “achieving a symmetrical sensor design” (Pet., 79), does not support the proposed modifications. Neither Yuen nor Mendelson depict a sensor positioned symmetrically on a housing. EX2001, ¶¶114-115. And even if the DOSA were motivated to do so (which Masimo fails to demonstrate), achieving a symmetrical design does not support the numerous modifications that Masimo proposes.

Masimo’s multiple modifications beyond the Mendelson designs—and the tortured logic required to support such modifications—is improper. Masimo’s obviousness analysis in Ground 2 is fatally deficient for at least these reasons.

E. Ground 3: Masimo Fails to Demonstrate that the Claimed Design is Obvious Based on Fong in View of Mendelson and Bushnell

Ground 3 is fatally flawed because the Petition simply fails to demonstrate that Fong is a proper *Rosen* reference.

As described above, the '842 patent depicts a design having a streamlined appearance of concentric circular rings, formed by an outermost continuous circle (blue), an outer circular shape formed by thin, elongated arches positioned within the outermost continuous circle (red), and an inner circular shape is formed by an arrangement of multiple elongated four-sided shapes (yellow). *See* EX1001, Figs. 1-9.

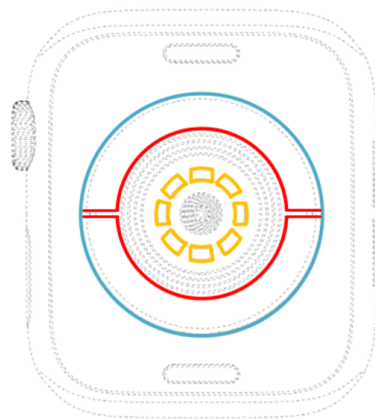


FIG. 4

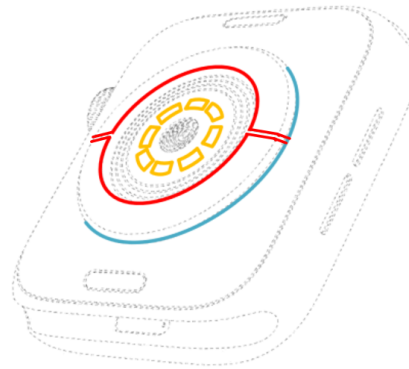


FIG. 2

FIG. 4

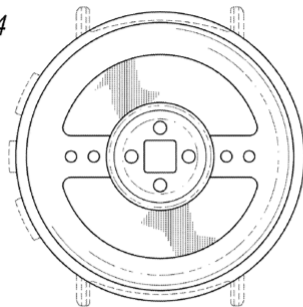


FIG. 2

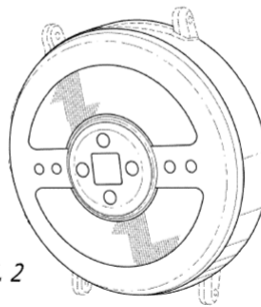


FIG. 5



EX2001, ¶¶116-117 (Top: EX1001, Figs. 2 and 4 (annotated); Bottom: EX1008, Figs. 4, 2, and 5).

While the inner circular shape formed by multiple four-sided shapes is central to the claimed design's concentric circle overall appearance, any similar aspect is entirely lacking from Fong. Instead, Fong depicts centrally arranged square and diamond shapes. Given this prominent difference, and its impact on overall appearance, Fong simply lacks an appearance that is "basically the same" as the claimed design.

Moreover, the claimed design's overall appearance differs prominently from Fong due to the outer circular shape formed by the arches (*infra*, §IV.E.1.b) and the outermost continuous circle and its relationship with the arches (*infra*, §IV.E.1.c). Each of these differences alone result in an overall appearance that is not “basically the same” as the claimed design. Collectively they compel such a finding. Ground 3 fails for these independent reasons.

Beyond failing to demonstrate a proper *Rosen* reference, the Petition relies on layers of modifications that significantly change Fong's appearance, and that are not depicted by Fong, Mendelson or Bushnell, to recreate the claimed design. The Petition's Ground 1 obviousness theories are woefully deficient, and the gaps in its analysis highlight that Masimo cannot demonstrate unpatentability of the design claim based on the evidence set forth in the Petition.

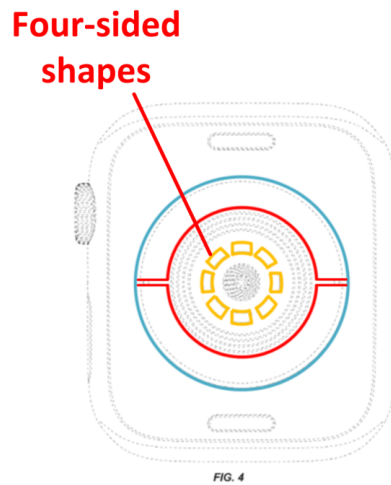
1. Fong is Not a Proper *Rosen* Reference

Masimo's obviousness theory is based on the flawed premise that “any differences between Fong and the '842 patent do not change the overall visual similarity of the designs.” Pet., 88. But the Petition here again fails to address the vastly different overall appearance provided by Fong in comparison to the claimed design. *See* EX2001, ¶118. Masimo fails to specifically address significant aspects of Fong, such as Fong's lack of an inner circular shape formed by an arrangement of elongated four-sided shapes, and Fong's spacing between the opposed shapes that

include interposed circular elements separating the shapes, each of which yields a markedly different overall appearance. Moreover, the Petition fails to address additional prominent differences between the claimed design and Fong, such as the relationship in the claimed design between the arches that form an outer circular shape and the outermost continuous circle. Masimo's theory that Fong is "basically the same" despite these differences is based on multiple factual and legal errors. The prominent differences between Fong and the claimed design, some of which are wholly unaddressed by the Petition, confirm that the Petition fails to demonstrate Fong is a "single reference that creates basically the same visual impression." *Levitation Arts*, PGR2018-00073, Paper 14, 16-22; *Dorman Products*, IPR2014-00542, Paper 10 at 5; *Harvey*, 12 F.3d at 1063.

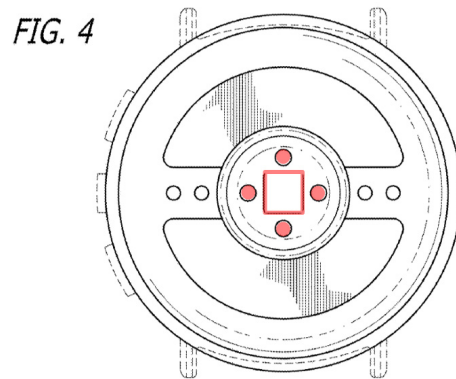
a) Masimo Fails to Properly Analyze the Inner Circular Shape Formed by the Arrangement of Four-Sided Shapes of the Claimed Design in Comparison to Fong

As discussed above, the claimed design includes an inner circular shape formed by the arrangement of multiple elongated four-sided shapes forming which contributes to the concentric circle appearance that evokes a bullseye or ripples in a pond. *Supra*, §IV.A.



EX2001, ¶119 (EX1001, Fig. 4 (annotated)).

Masimo relies on the central square in Fong’s design as providing “one or more central rectangles,” and its four circles (red) as providing a purported “circular array.” Pet., 95-96. But Masimo ignores aspects of Fong that render it significantly different than the claimed design’s circular arrangement of four-sided shapes.



EX2001, ¶120 (EX1008, Fig. 4 (highlighting added)).

For example, Fong’s four circles give the impression not of a circular array but of a diamond-shaped configuration. EX2001, ¶121. The diamond-shaped

appearance is emphasized by the positioning of the four circles along flat edges of the central square. Masimo never addresses the diamond-shaped appearance conveyed by Fong's four circles, which do not suggest an inner circular shape in their arrangement.

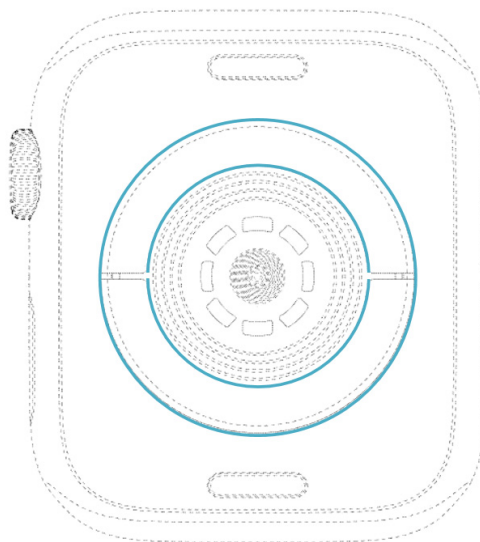
To be clear, even if an ordinary designer would have understood Fong as including a central rectangle shape and a circular array of four circles, Masimo's analysis remains deficient in demonstrating Fong has "basically the same" appearance as the claimed design. Pet., 95. Masimo merely assumes that, if the '842 patent's circular arrangement of four-sided shapes is included within the claimed scope, "Fong remains an appropriate primary reference for the same reasons discussed above regarding Paulke." Pet., 96. Such a bare conclusion that lacks any comparison of Fong's four circles and the claimed design—not followed by the requisite analysis—fails to satisfy Masimo's burden. Instead, these features highlight fundamental differences compared to the claimed design—circle shapes positioned around a central square in a diamond arrangement. EX2001, ¶121.

The Petition cites paragraphs 117-120 of the Delman Declaration, but these paragraphs parrot the petition without any additional underlying explanation. *Compare* EX1003, ¶¶117-120 *with* Pet., 94-95. Such an "*ipse dixit* declaration" is insufficient and does nothing to remedy the Petition's deficient analysis. *TQ Delta*, 942 F.3d at 1362-64.

Fong lacks the inner circular shape provided by the arrangement of multiple elongated four-sided shapes of the '842 patent, and Fong's diamond-shaped central design fails to provide an appearance that is "basically the same" as the '842 patent's overall appearance of concentric circles. Accordingly, Fong is not a proper *Rosen* reference for this independent reason

b) Masimo Fails to Properly Analyze the Outer Circular Shape Formed by the Arches of the Claimed Design in Comparison to Fong

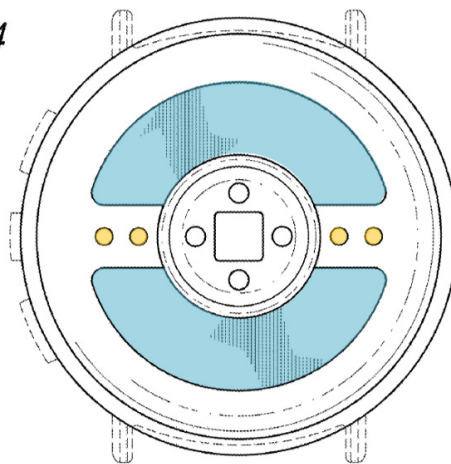
As discussed above, the claimed design includes an outer circular shape formed by an arrangement of unified thin, elongated arch shapes that contribute to the '842 design's overall appearance of well-proportioned concentric circles. *Supra*, §IV.A.



EX2001, ¶122-123 (EX1001, Fig. 4 (annotated)).

In contrast to the '842 patent's design, Fong depicts wide, opposed shapes (below, blue) separated from one another at the ends by a significant gap that provides an appearance of opposed, divided shapes. EX2001, ¶¶122-125. Moreover, this separation is visually highlighted by the presence of multiple circular elements (yellow). In particular, two circular elements are positioned between each end of the opposed shapes (e.g., as shown in Fig. 4). These circular elements are significant to Fong's appearance, aligned with two additional circular elements and the central square. Together, the circular elements and central square extend across the entire width of the opposed shapes and visually divide the design into upper and lower portions (blue) separated by a middle row of the circle and square elements. EX2001, ¶¶122-126.

FIG. 4



EX2001, ¶¶122-123 (EX1008, Fig. 4 (highlighting added)).

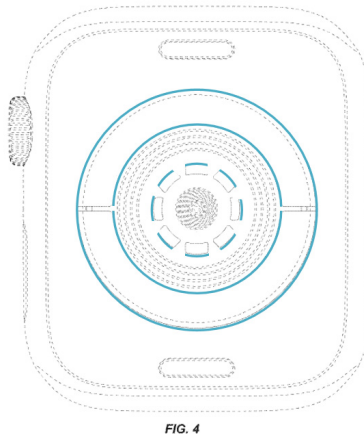
Far from the claimed design's unified, outer circular shape, Fong's round elements separating ends of the two opposed shapes highlight the distinct and opposed appearance of Fong's shapes. EX2001, ¶123.

The differences in Fong's visual appearance compared to the '842 patent are not a mere matter of degree. Fong's opposed shapes are spaced apart from one another not only by a large space, but by additional elements interposed in this space that are significant to Fong's different appearance. EX2001, ¶¶124-126. Masimo fails to specifically address these aspects of Fong, which plainly lacks an appearance that is "basically the same" as the overall appearance of continuous concentric circles provided by the '842 patent.

Accordingly, Fong is not a proper *Rosen* reference and Masimo's analysis is fatally deficient for this independent reason.

c) Masimo Fails to Properly Analyze the Outermost Continuous Circle and Its Relationship with the Arches of the Claimed Design in Comparison to Fong

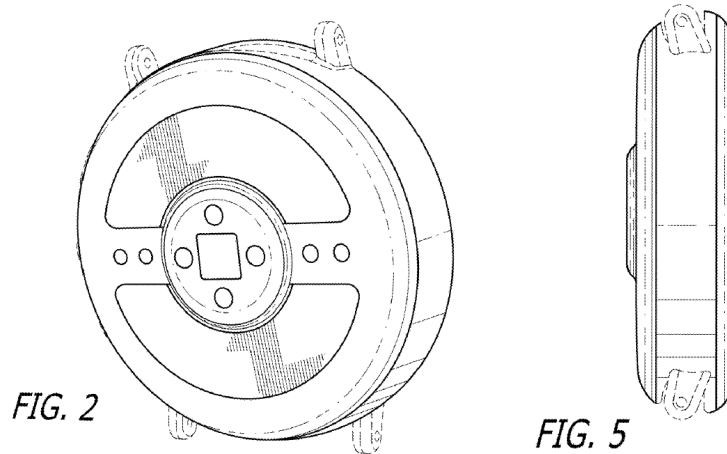
The claimed design's overall appearance of concentric circles is provided in part by the outermost continuous circle, and the relationship between the outermost continuous circle and the arches that form an outer circular shape within the outermost continuous circle. *Supra* §IV.A.



EX2001, ¶¶127-128 (EX1001, Fig. 4 (annotated)).

The Petition fails to address the outermost continuous circle in its comparison to Fong, never identifying such a feature in Fong at all. Likewise, the Petition does not address Fong's different overall appearance that lacks the series of continuous and concentric circles of decreasing size, suggesting a target or bulls-eye provided by the '842 patent.

Fong's design includes opposed shapes surrounding a raised circular central portion, and lacks any continuous outer circle proximate Fong's opposed shapes.



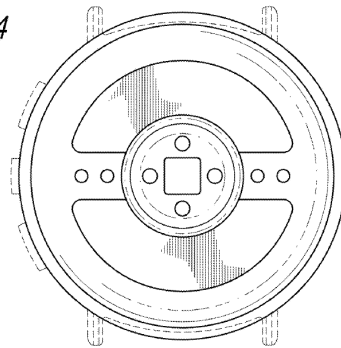
EX1008, Figs. 2 and 5.

The lack of outermost continuous circle in Fong's design is not trivial or *de minimis*—it goes to a fundamental aspect of Fong in which top and bottom portions are divided by a central portion that includes a row of small circles and a central square that extend across the device's back. EX2001, ¶¶128-130. Unlike the claimed design, Fong's opposed features are visibly separated and not encompassed by a closely-proximate outermost continuous circle. *Id.*

Additionally, the Petition ignores the claimed design's position of the outermost continuous circle relative to the inner edge of the arches and to the outer edge of the four-sided shapes.

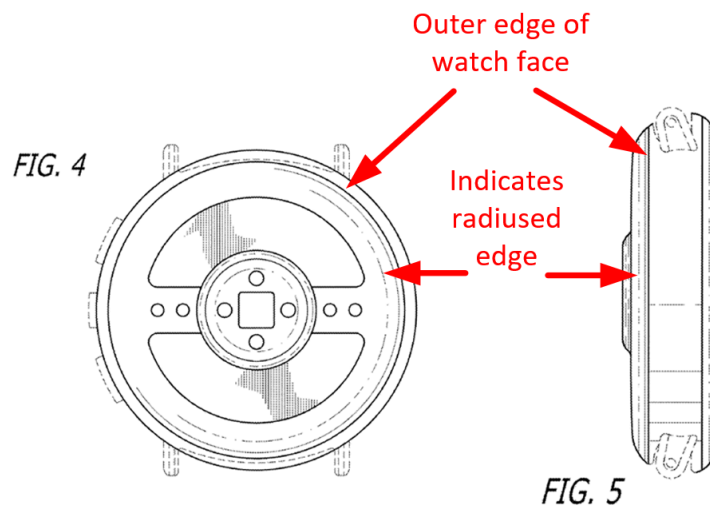
In contrast, Fong's opposed shapes have a much thicker appearance, and Fong altogether lacks an outermost continuous circle in close proximity to the opposed shapes.

FIG. 4



EX1008, Fig. 4.

To the extent Masimo relies on the circle delineating the watch's back face in Fig. 4 (which the Petition never mentions), Fong's Fig. 2 makes clear that this line is included merely to show the edges of the curved rear watch surface. EX2001, ¶¶131-133.



EX2001, ¶¶132-133 (EX1008, Figs. 4 and 5 (annotated)).

Additionally, Fong's opposed shapes (inner edges in blue, below) are spaced significantly inwardly from the line included in Fig. 4 (yellow, below), here again

conveying a different overall appearance that lacks the claimed design's streamlined, well-proportioned appearance.

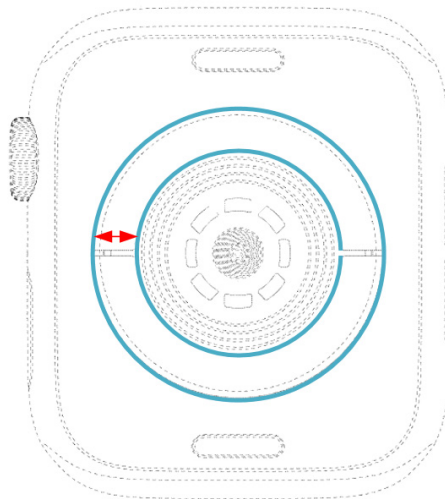
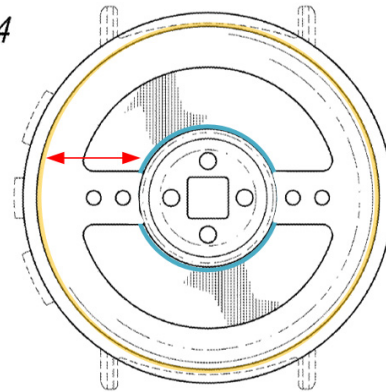


FIG. 4

FIG. 4



EX2001, ¶134 (Left: EX1001, Fig. 4 (annotated); Right: EX1008, Fig. 4 (annotated)).

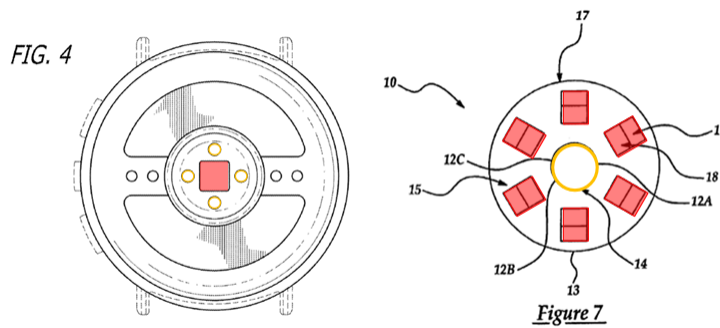
Because the Petition has failed to provide explanation that accounts for these visible differences, Masimo has not demonstrated that Fong is “a single reference that creates basically the same visual impression” as the claimed design. *High Point Design*, 730 F.3d at 1314; *Harvey*, 12 F.3d at 1063 (“Because major modifications would be required to make Harvey’s prior art vase look like the claimed designs, it cannot qualify as a basic design.”). The Petition is thus insufficient to establish that Fong is an appropriate primary reference, and therefore fails to demonstrate a reasonable likelihood that it would prevail in showing that the design claim is rendered obvious under Ground 3 for this independent reason.

2. Masimo Fails to Demonstrate that it Would Have Been Obvious to a DOSA To Modify Fong in View of Mendelson and Bushnell To Create the Claimed Design

a) Mendelson is Not a Proper Secondary Reference for Combination with Fong

The Petition fails to demonstrate that Mendelson’s sensor design is “so related” to Fong that Mendelson is a proper secondary reference. *Glavas*, 230 F.2d at 450. Masimo describes “Fong’s design includes arc-shaped electrodes surrounding a central PPG sensor” and “Mendelson is so related to Fong because it discloses a suitable sensor for Fong’s design.” Pet., 97. Masimo’s theory is based on legal error by improperly focusing on Mendelson’s use as a sensor rather than Fong’s and Mendelson’s visual appearances, which have little in common and many readily apparent differences. *Termax*, IPR2022-00106, Paper 7 at 29 (“limited to whether the articles are ‘so related’ (*i.e., so similar in appearance*)”).

In contrast to Mendelson’s arrangement of rectangle pairs about a central circle, Fong includes a central square element with four circles arranged along the square’s edges. Mendelson also lacks any relationship between its pairs of rectangles and surrounding opposed arch shapes, which are not present in Mendelson. EX2001, ¶¶136-137.



EX2001, ¶¶136-137 (EX1008, Fig. 4 (annotated); EX1011, Fig. 11 (annotated)).

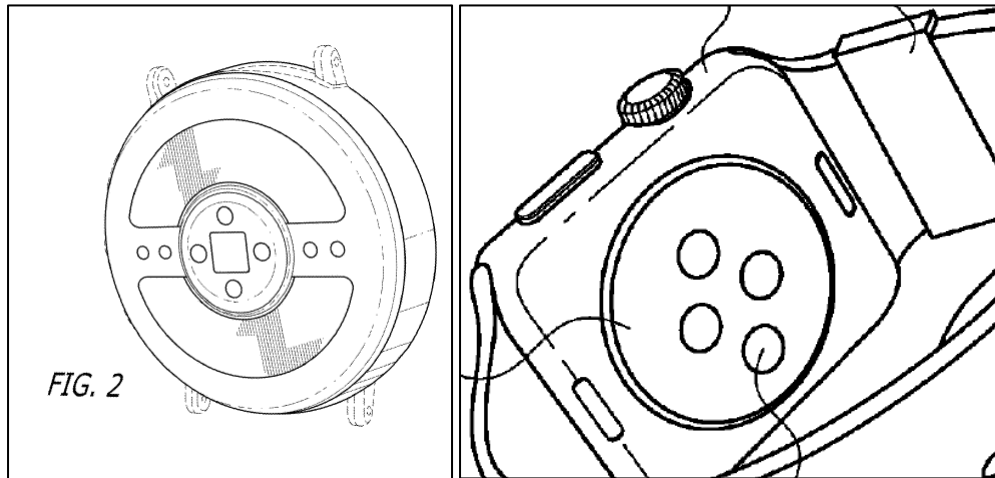
Fong’s appearance having four circles (yellow) arranged around the central square shape (red) is significantly different from Mendelson’s appearance having pairs of rectangles (red) surrounding a central circle (yellow). The Petition never specifically addresses these differences, and fails to satisfy its burden of demonstrating these references are so related in appearance despite these differences. *Glavas*, 230 F.2d at 450.

b) Masimo’s Proposed Combination of Bushnell with Fong is Improper

Masimo’s proposed combination of Bushnell’s “convex housing component” with Fong’s design is improper. EX2001, ¶¶138-140. As described above, Bushnell’s rear face is square with a circular feature protruding from the square’s center. *See* EX1009, Figs. 1A, 2A. Bushnell includes four circular elements on the flat top surface of the protrusion. Fong also includes a protruding central portion,

on which the square central element and configuration of four circles are positioned.

See EX1008, Fig. 2



Left: EX1008, Fig. 2; Right: EX1009, Fig. 1A (excerpted).

Masimo’s proposed combination of Bushnell’s “convex housing” with Fong results in a fundamental change contrary to Fong’s original design. Fong includes a protruding central circle that is on a different plane compared to the pair of opposed shapes above and below the central protruding circle. Petitioner ignores that its proposal would eliminate this arrangement in favor of a different arrangement that would cause the opposed shapes to protrude outwardly, and the inner circle to instead be recessed. *See, e.g., Pet.*, 103 (showing Petitioner’s proposed combined design). Masimo fails to demonstrate a DOSA would have considered such a modification to the detriment of Yuen and Mendelson’s original designs. *See Termax*, IPR2022-00106, Paper 7 at 30 (rejecting proposal that would result in fundamental change and indicating “the notably consistent symmetrical nature of both designs would not

suggest that a skilled designer would destroy that symmetry by using a rounded platform with a rectangular platform”) (citing *Apple*, 678 F.3d at 1331).

Accordingly, Masimo’s proposed combination of Fong with Bushnell is improper.

c) Masimo’s Proposed Series of Modifications Beyond the Designs Depicted in Mendelson and Bushnell are Improper

Masimo acknowledges that multiple additional modifications are necessary to provide features of the claimed design beyond that depicted by Fong, Mendelson, or Bushnell, here again tacitly acknowledging that modifying Fong to use Mendelson’s “circular array of rectangular photodiodes” and Bushnell’s “convex housing component 104” fails to achieve the claimed design. Pet., 98, 100-102. These additional modifications are directed to features that are not depicted by either reference and are not trivial or *de minimis*. EX2001, ¶141-142.

The deficiencies discussed above are not remedied by Masimo’s improper reliance on motivations based on purported functionality of various features rather than the actual design appearances. The alleged motivation of replacing Fong’s purported PPG sensor (which is not disclosed or even mentioned in Fong) with a different sensor does not provide motivation for incorporating photodiodes having the particular ornamental appearance the Petition proposes. *Termax*, IPR2022-00106, Paper 7 at 29 (rejecting Petitioner’s reliance on aspects other than ornamental

appearance, and indicating “the Federal Circuit has made clear that the motivation to modify one design with another is “limited to whether the articles are ‘so related’ (*i.e., so similar in appearance*)”). Masimo’s reliance on additional functional alleged improvements achieved by the combination of Fong with Mendelson and Bushnell are improper. For example, Masimo’s assertions that the combination would have been motivated by “improving Fong’s PPG sensor accuracy” and that Fong and Bushnell’s “PPG sensors necessarily include the same basic components” improperly rely on use/utility rather than the appearance of Fong, Mendelson, and Bushnell. Pet., 101-102. Accordingly, Masimo’s utility-based motivations are insufficient to remedy its deficiencies in demonstrating that the appearance of Mendelson and Bushnell are “so related” to Fong as to suggest application to Fong.

For reasons similar to those discussed above in Grounds 1 and 2, Masimo’s additional modifications to alter the number, shape, and edges of Mendelson’s rectangular photodiodes beyond what is depicted in Fong, Mendelson, and Bushnell is improper. *See supra* §IV.C.2.b and IV.D.2.c; *see also Harvey*, 12 F.3d at 1065.

V. CONCLUSION

For the foregoing reasons, Patent Owner requests that the Board deny institution.

Respectfully submitted,

Date: June 29, 2023

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CERTIFICATION UNDER 37 CFR § 42.24(d)

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Preliminary Response totals 13,926, which is less than the 14,000 allowed under 37 CFR § 42.24(b)(1).

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on June 29, 2023, a complete and entire copy of this Patent Owner's Preliminary Response and its supporting exhibits were provided via email, to the Petitioner by serving the email correspondence addresses of record as follows:

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