

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MASIMO CORPORATION,
Petitioner,

v.

APPLE INC.,
Patent Owner.

IPR2023-00728
Patent D962,936 S

Before KEN B. BARRETT, JOSIAH C. COCKS, and
ROBERT L. KINDER, *Administrative Patent Judges*.

COCKS, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner, Masimo Corporation (“Petitioner”), filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of U.S. Patent No. D962,936 S (“the ’936 patent,” Ex. 1001). Patent Owner, Apple Inc. (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”) We have authority under 35 U.S.C. § 314, which provides that *inter partes* review may not be instituted unless the information presented in the Petition shows that “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); *see also* 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”).

Having considered the arguments and evidence presented in the Petition, for the reasons discussed below, we do not institute an *inter partes* review.

A. *Real Parties-In-Interest*

Petitioner identifies itself, Masimo Corporation, as the only real party-in-interest. Pet. 4. Patent Owner identifies itself, Apple Inc., as the only real party-in-interest. Paper 4, 1.

B. *Related Matters*

The parties identify *Apple Inc. v. Masimo Corporation and Sound United, LLC*, Case No. 1:22-cv-01377-MN (D. Del.). Pet. 5; Paper 4, 1.

C. *The ’936 Patent and Claim*

In an *inter partes* review requested in a petition filed on or after November 13, 2018, we apply the same claim construction standard used in

district courts, namely that articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b) (2019). With regard to design patents, it is well-settled that a design is represented better by an illustration than a description. *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 679 (Fed. Cir. 2008) (en banc) (citing *Dobson v. Dornan*, 118 U.S. 10, 14 (1886)). Although preferably a design patent claim is not construed by providing a detailed verbal description, it may be “helpful to point out . . . various features of the claimed design as they relate to the . . . prior art.” *Id.* at 679–80; *cf. High Point Design LLC v. Buyers Direct, Inc.*, 730 F.3d 1301, 1314–15 (Fed. Cir. 2013) (remanding to the district court, in part, for a “verbal description of the claimed design to evoke a visual image consonant with that design”).

The ’936 patent is titled “Electronic Device.” Ex. 1001, code (54). The claim recites “[t]he ornamental design for an electronic device, as shown and described.” *Id.* at code (57). The ’936 patent includes nine drawings. Those drawings depict various bottom, top, front, rear, left side, and right side views of an electronic device. *Id.* Additionally, the ’936 patent states “[t]he broken lines in the figures show portions of the electronic device and environment that form no part of the claimed design.” *Id.* Figures 2, 4, 5, and 6 of the ’936 patent are reproduced below:

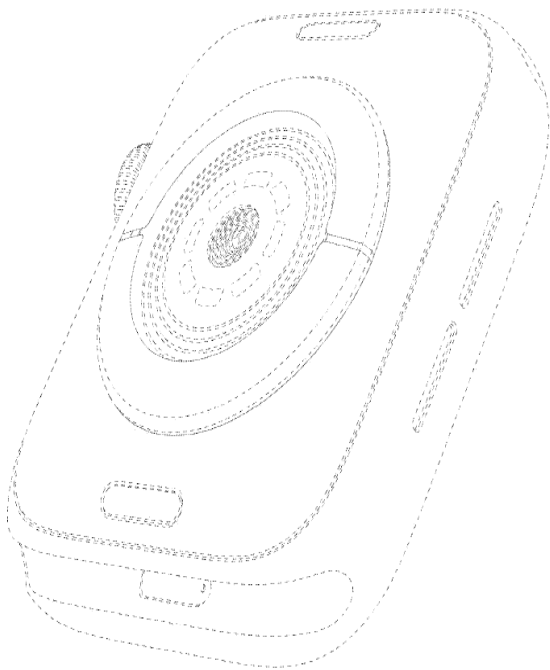


FIG. 2

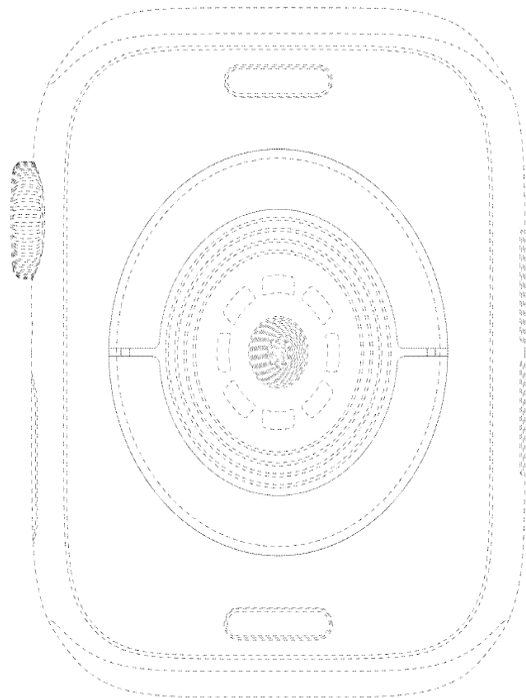


FIG. 4

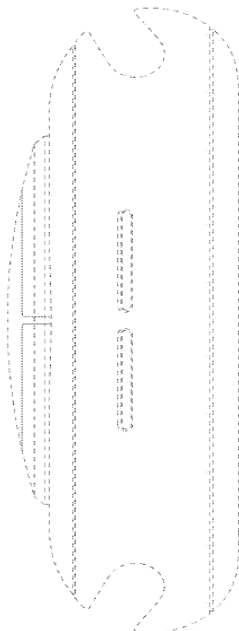


FIG. 5

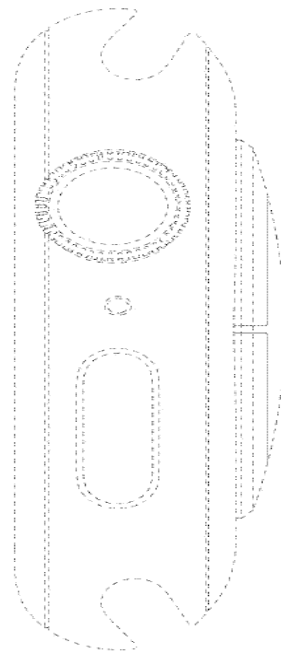


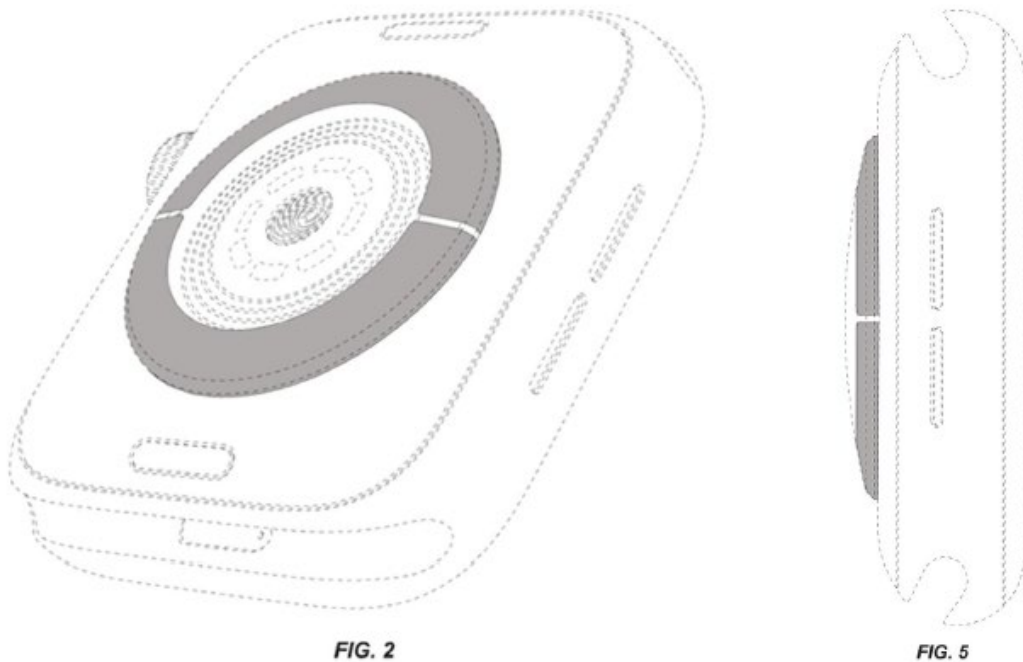
FIG. 6

The drawings above show “a bottom rear perspective view” (Figure 2) of an electronic device, “a rear view” (Figure 4), “a left side view” (Figure 5), and “a right side view” (Figure 6). *Id.* at code (57). We are mindful that,

given the presence of multiple broken lines representing non-claimed aspects of the design, it is challenging to discern what does form part of the claimed design from the reproduced drawings of the '936 patent. We evaluate the claim further below in the context of the parties' respective positions on claim construction.

1. Petitioner's Proposed Claim Construction

Petitioner proposes the following by way of claim construction of the '936 patent:



Pet. 12.

The figures above depict Figures 2 and 5 of the '936 patent with gray shading in connection with “arc-shaped portions” of the electronic device.

Pet. 11–12. In particular, Petitioner contends that “[t]he D’936 Patent claims the design of two arc-shaped portions (gray) protruding from the back of an electronic device.” *Id.* at 11. Of note is the understanding that, in

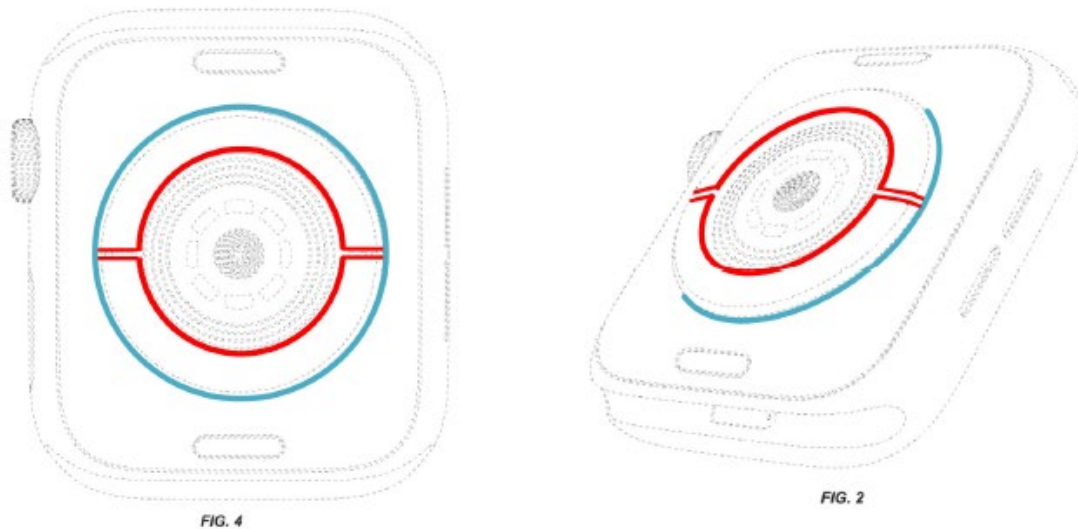
Petitioner’s view, the two arcs each include a “sidewall,” but no part of those sidewalls’ design is claimed. *Id.* at 13. Additionally, we understand Petitioner’s view to be that there is no claimed portion of the design within the space or gap that appears between the two arc-shaped portions. *See id.* at 12.

Moreover, as a part of its position on claim construction, Petitioner contends that the ’936 patent “includes numerous design elements that are functional and should thus be ‘factored out’ of the Challenged Claim’s scope.” Pet. 16 (citing *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1293–94 (Fed. Cir. 2010)). Petitioner assesses the functionality of what it characterizes as: (1) “convex curvature” of the “arc-shaped portions” (*id.* at 16–23); (2) the “arrangement” of the “arc-shaped portions” (*id.* at 23–30); and (3) “[t]he overall circular shape of the claimed sensor design” (*id.* at 30–31). In our view, Petitioner regards essentially the entirety of the claimed design of the ’936 patent as being “dictated by function” such that there is seemingly no portion of the ’936 patent that should be afforded the ornamentation protection offered by a design patent. Pet. 14–34. In attempting to make its case in that regard, Petitioner likens the ’936 patent design to a commercial product, *e.g.*, the “Apple Watch Series 4” said to be covered by the ’936 patent, and proceeds to discuss proposed functional aspects of those products. *Id.*

Petitioner also, at times, makes reference to two utility patents, U.S. Patent No. 10,627,157 (“the ’157 patent”) (Ex. 1024) and U.S. Patent No. 10,627,783 (“the ’783 patent”) (Ex. 1025) said to be associated with the design of the “Apple Watch Series 4,” and discusses proposed functional aspects disclosed in those patents. *See, e.g., id.* at 20–27.

2. Patent Owner's Proposed Claim Construction

For its part, Patent Owner offers the following annotated (colorized) figures showing what we understand to be Patent Owner's claim construction:



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

Prelim. Resp. 4.

The annotated figures depict Figures 2 and 3 of the '936 patent emphasizing that the figures show two arc shapes with an “outer circular shape” shown in blue, and portions interior to that circular shape shown in red. *See id.* at 3–4. Patent Owner characterizes the outer circular shape (in blue) as an “outermost continuous circle.” *Id.* at 4. More particularly, Patent Owner sets forth that “[t]he physical position of the arc shapes, and their elongate portions compartmented to the outermost continuous circle, suggests a unified continuous circle, despite the arc shapes not touching each other. *Id.* Patent Owner contends that Petitioner’s proposed construction ignores certain prominent features, as follows: “1) the outermost continuous

circle, 2) the unified circular appearance provided by the arcs, and 3) the distance between the inner edges of the arcs and the outermost continuous circle that is small and complementary to the proportions of the other features.” *Id.* at 5. Patent Owner also submits that “[e]ach of these features contribute to the unique concentric circular overall appearance, and are significant to the ordinary designer.” *Id.* (citing Ex. 2001 ¶ 24).

Patent Owner also disputes Petitioner’s view that aspects of the ’936 patent’s design should be “factored out” as being functional. Prelim. Resp. 6. For instance, Patent Owner contends the following:

In an attempt to map the ’936 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 ’936 patent, and ignoring the numerous alternative designs that can achieve the same or similar functionality.

Id.

Patent Owner proceeds to express at length its view as to why Petitioner’s position discounting the design of the ’936 patent as solely functional is incorrect, and that the ’936 patent includes a claimed design with ornamental contributions. Prelim. Resp. 7–15.

3. Discussion

a) *The Issue of Functional Elements in the ’936 Patent*

We turn first to the matter of Petitioner’s proposed “factor[ing] out” of aspects of the claimed design under the guise of functionality. As

Petitioner observes, the Court of Appeals for the Federal Circuit has identified multiple factors that may be considered in assessing the functionality of a claimed design. Pet. 11 (citing *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1329–30 (Fed. Cir. 2015); *Sport Dimension, Inc. v. Coleman Co., Inc.*, 820 F.3d 1316, 1322 (Fed. Cir. 2016)). One central consideration is the “availability of alternative designs [, which is] an important—if not dispositive—factor in evaluating the legal functionality of a claimed design.” *Ethicon*, 796 F.3d at 1329–30.

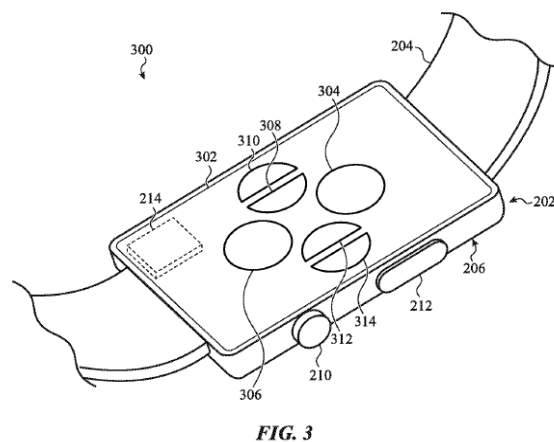
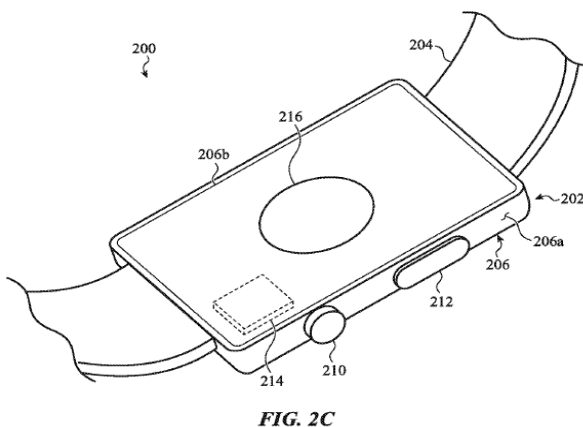
As Patent Owner points out (*see, e.g.*, Prelim. Resp. 10–14), the record before us is replete with various designs for the back or rear portions of various electronic devices, such as watches. For instance, Patent Owner directs attention to Exhibits 2003 and 2004 showing designs for two types of an “Aries AW80 watch” and a “P11 Plus watch.” *Id.* at 10–13 (citing Ex. 2003, 1, 5–6, 11, 13–16; Ex. 2004, 1–3; Ex. 2001 ¶¶ 25–30). Depictions of images from Exhibits 2003 and 2004 are reproduced below:



Ex. 2003, 7 (above left); Ex. 2004, 3 (above right).¹

The images reproduced above show, in-part, the rear face of the two types of watches noted above. The apparent electrode geometries and arrangements shown are, in our view, clearly distinct from the claimed design of the '936 patent. We, thus, agree with Patent Owner, and its declarant, Mr. Lance Gordon Rake, for essentially all the reasons offered, that there is a different overall appearance as between the rear faces reproduced above and the design of the '936 patent. *See* Prelim. Resp. 11–12; Ex. 2001 ¶¶ 25–30.

Additionally, as also noted by Patent Owner and Mr. Rake (*see* Prelim. Resp. 13; Ex. 2001 ¶¶ 31–33), the '157 patent identified by Petitioner as being associated with the '936 patent (*see* Pet. 20–21, 24–27) includes various examples or embodiments of an electronic watch. Two of those examples from the '157 patent are reproduced below:



¹ The identified page numbering for these two exhibits is that appearing at the bottom right corner of each exhibit.

Figures 2C and 3 reproduced above each show an example of “an electronic watch that incorporates a set of electrodes.” Ex. 1024, 2:34–37. We agree with Patent Owner and Mr. Rake that the appearance of the “single rear-facing electrode (Fig. 2C)” and the “half-circle and circular electrodes (Fig. 3) present a visual appearance that is different or distinct from the ’936 patent design. *See* Prelim. Resp. 13; Ex. 2001 ¶¶ 31–33.

That the record amply demonstrates that there are multiple alternative designs for the rear face or surface of an electronic device that present a distinct visual appearance is, in our view, significant in undermining Petitioner’s assertion that the ’936 patent design should be regarded largely, if not entirely, as including elements that are purely functional.

Furthermore, however, we share Patent Owner’s view that Petitioner’s reliance on the assessment of a commercial product that may be covered by the ’936 patent, e.g., the Apple Watch Series 4, based on functionality disclosed as to that product’s wireless charging, is problematic. As Patent Owner notes, “nothing in the ’936 patent tethers the claimed ornamental shapes to wireless charge components, or any other particular charging component” (*see* Prelim. Resp. 10), yet it is features pertaining to wireless charging that underscore the bulk of Petitioner’s position on functional elements. *See, e.g.*, Pet. 16–24. There is considerable tension in Petitioner’s assessment that leans on the functionality of the features of a commercial product rather than evaluation based on the claimed design of the ’936 patent. *See Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1455 (Fed. Cir. 1997) (“[T]he 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.”)

Further still, we observe that even if some individual elements of the '936 patent may have some functional purpose, Petitioner's piecemeal assessment of potentially functional aspects of individual elements of the design does not, in our view, adequately account for the requirement to evaluate the "overall appearance" of a design, i.e., "the claimed design viewed in its entirety." *See Ethicon*, 796 F.3d at 1329 ("[w]e have also instructed that the overall appearance of the article—the claimed design viewed in its entirety—is the basis of the relevant inquiry, not the functionality of elements of the claimed design viewed in isolation"); *see also Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1321 (Fed. Cir. 2016) ("While we agreed that certain elements of the device were functional, their functionality did not preclude those elements from having protectable ornamentation.")

Accordingly, we have considered Petitioner's argument pertaining to potential functionality of aspects of the '936 patent's claimed design. We, however, decline to "factor out," in the manner proposed by Petitioner, aspects that contribute to the overall appearance of that design.

b) Claim Construction of the '936 Patent

Although the parties present some level of similarity in their respective constructions of the '936 patent, i.e., that the claimed design incorporates two arc-shaped portions residing on a rear face of an electronic device, we observe that one point of disagreement centers on the proposed presence of an "outer continuous circle" as is advanced by Patent Owner. *See Prelim. Resp. 4*. Although we agree with Petitioner that the "sidewall" of the arcs does not appear to be a claimed feature, careful review of the

figures of the '936 patent, particularly Figure 4, does appear to bear out the conclusion that the arc-shaped portions do incorporate a continuous circle.²

Accordingly, we adopt the claim construction that is advanced by Patent Owner. *See, e.g., supra* § I.C.2. We note, however, that even were we to adopt Petitioner's claim construction, the ultimate outcome of this proceeding would be the same. That is so because, for reasons discussed below, we conclude that Patent Owner has identified sufficient deficiencies in Petitioner's proposed grounds that preclude institution of *inter partes* review irrespective of any claim construction.

D. Evidence

Petitioner relies on the following references:

Name	Reference	Exhibit(s)
Paulke	PCT Application Publication No. WO 2017/165532 A1 published Sept. 28, 2017	1006
Yuen	U.S. Patent Application Publication No. 2019/0196411 A1 published June 27, 2019	1007
Fong	U.S. Design Patent No. D827,831 S issued Sept. 4, 2018	1008
Bushnell	U.S. Patent Application Publication No. 2017/0086743 A1 published Mar. 30, 2017	1009
Mendelson	U.S. Patent No. 6,801,799 B2 issued Oct. 5, 2004	1011

² We note that Patent Owner makes reference to Exhibit 2002 as constituting "supplemental drawings filed with the USPTO on December 14, 2021." Prelim. Resp. 3 n.1. As the '936 patent issued on September 6, 2022, it is not apparent why the supplemental drawings do not appear in the patent. We note that the supplemental drawings, specifically Figure 4 (*see* Ex. 2002, 4), are clearer in showing that the noted design includes an outer continuous circle. Regardless, we conclude that it is also sufficiently apparent that the drawings of the '936 patent, e.g., Figure 4, show such an outer continuous circle.

In support of its arguments, Petitioner also relies on the Declarations of Joel Delman (Ex. 1003) and R. James Duckworth, Ph.D. (Ex. 1014). In opposing the Petition, Patent Owner relies on the Declaration of Lance Gordon Rake (Ex. 2001).

E. Proposed Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1	103 ³	Paulke
1	103	Yuen, Mendelson, Bushnell
1	103	Fong, Bushnell

II. ANALYSIS

A. Principles of Law

“In addressing a claim of obviousness in a design patent, the ultimate inquiry is whether the claimed design would have been obvious to a designer of ordinary skill who designs articles of the type involved.” *Apple, Inc. v. Samsung Elec. Co.*, 678 F.3d 1314, 1329 (Fed. Cir. 2012) (internal quotation and citations omitted); *see also High Point Design*, 730 F.3d at 1313 (“The use of an ‘ordinary observer’ standard to assess the potential obviousness of a design patent runs contrary to the precedent of this court and our

³ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103 effective on March 16, 2013. Neither party argues, at least at this stage of the proceeding, that the outcome of this case would differ based on applying the pre-AIA or post-AIA versions of this law.

predecessor court, under which the obviousness of a design patent must, instead, be assessed from the viewpoint of an ordinary designer.”). This obviousness analysis generally involves two steps: first, “one must find a single reference, a something in existence, the design characteristics of which are basically the same as the claimed design”; second, “once this primary reference is found, other references may be used to modify it to create a design that has the same overall visual appearance as the claimed design.” *High Point Design*, 730 F.3d at 1311 (internal quotation and citations omitted).

In performing the first step, we must “(1) discern the correct visual impression created by the patented design as a whole; and (2) determine whether there is a single reference that creates basically the same visual impression.” *Id.* at 1312 (internal quotation and citations omitted). In the second step, the primary reference may be modified by secondary references “to create a design that has the same overall visual appearance as the claimed design.” *Id.* at 1311 (internal quotation and citations omitted). However, the “secondary references may only be used to modify the primary reference if they are ‘so related [to the primary reference] that the appearance of certain ornamental features in one would suggest the application of those features to the other.’” *Durling v. Spectrum Furniture Co.*, 101 F.3d 100, 103 (Fed. Cir. 1996) (quoting *In re Borden*, 90 F.3d 1570, 1575 (Fed. Cir. 1996)).

When evaluating prior art references for purposes of determining patentability of ornamental designs, the focus must be on actual appearances and specific design characteristics rather than design concepts. *In re Harvey*, 12 F.3d 1061, 1064 (Fed. Cir. 1993); *see also Apple, Inc. v.*

Samsung Elec. Co., 678 F.3d at 1332 (“Rather than looking to the ‘general concept’ of a tablet, the district court should have focused on the distinctive ‘visual appearances’ of the reference and the claimed design.”).

We analyze the asserted grounds with the above-noted principles in mind.

B. The Designer of Ordinary Skill

In connection with the designer of ordinary skill, Petitioner contends the following:

For purposes of this Petition, a designer of ordinary skill in the art related to the D’936 Patent (“DOSA”) would have had an undergraduate or graduate degree in industrial/product design, along with at least two years of relevant work experience in the field of industrial/product design of portable electronic devices. EX1003 ¶26. A DOSA would not need to be familiar with electrical, biomedical, or other advanced technical concepts employed by such devices. *Id.* ¶27. Rather, the DOSA would consult or collaborate with a person of ordinary skill in the art (“POSITA”) regarding concepts outside of the DOSA’s expertise. *Id.* Here, a POSITA would have had at least a Bachelor or Master of Science degree in electrical or biomedical engineering, or a comparable engineering discipline, in combination with at least two years of related work experience involving wearable devices for noninvasively measuring health parameters. EX1014 ¶28.

Pet. 31–32.

Patent Owner contends the following: “[f]or 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.” Prelim. Resp. 2 (citing Ex. 2001 ¶ 19).

In assessing the parties' views as to level of skill of a designer of ordinary skill in the art, we conclude that they are effectively the same. Indeed, the parties do not identify any material difference between the parties' proposed assessments. Nevertheless, for clarity and completeness, we adopt Petitioner's proposed assessment. We note, however, that were we to adopt Patent Owner's assessment, the outcome of this Decision would be the same.

C. Proposed Obviousness Ground of Unpatentability Based on Paulke

Petitioner contends that the claimed design of the '936 patent would have been obvious in view of Paulke. Pet. 41–54.

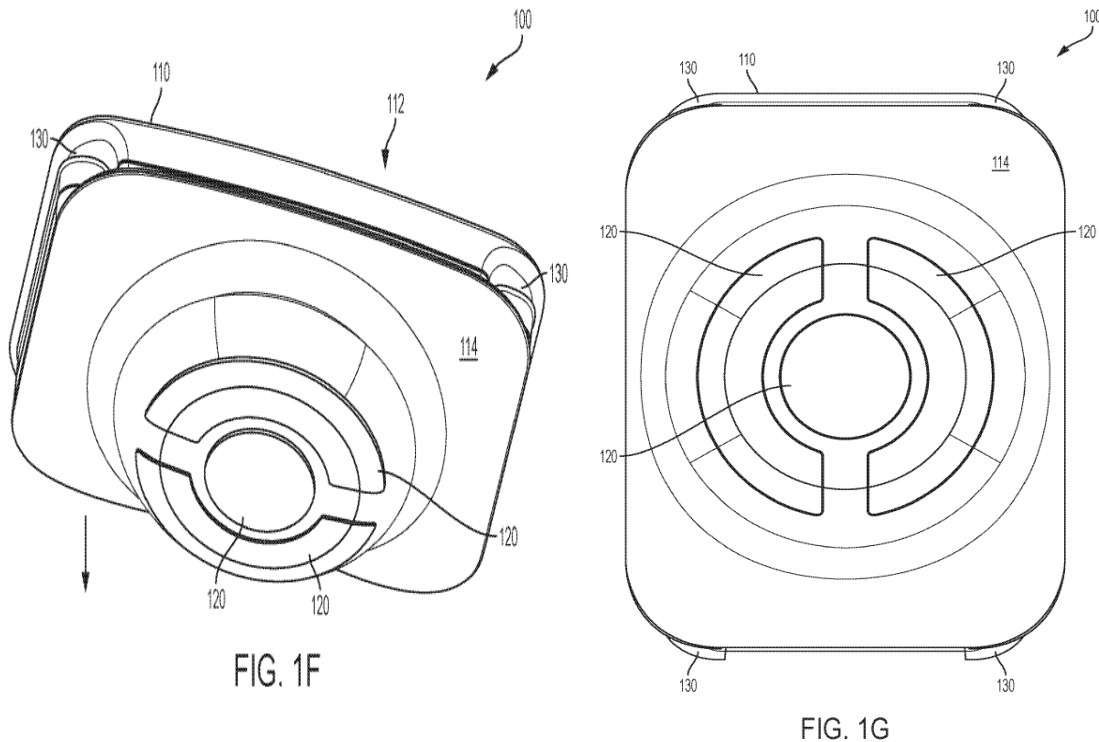
1. Overview of Paulke

Paulke is titled "Biosensor Module for Band Attachment." Ex. 1006, code (54). Paulke's Abstract is reproduced below:

A biosensor module is provided for detecting one or more biosignals at a wearer's ventral wrist. The module includes a housing having a wrist-facing inner surface and a non-wristfacing outer surface, both formed of an insulative material, housing one or more processing units between the inner and outer surfaces; and one or more biosensors protruding from the wrist-facing inner surface and electronically coupled to the one or more processing units within the housing. An assembly is also provided, including a support member including a portion configured to receive a wrist band; and a biosensor module including a housing having a wrist-facing inner surface and a non-wrist-facing outer surface, the housing being curved in the wrist-facing direction and housing one or more processing units between the inner and outer surfaces, and one or more biosensors protruding from the wrist-facing inner surface and electronically coupled to the one or more processing units.

Id. at code (57).

Paulke's Figures 1F and 1G are reproduced below:



Figures 1F and 1G above “illustrate an exemplary biosensor module in accordance with some embodiments.” *Id.* at 3:28–29.

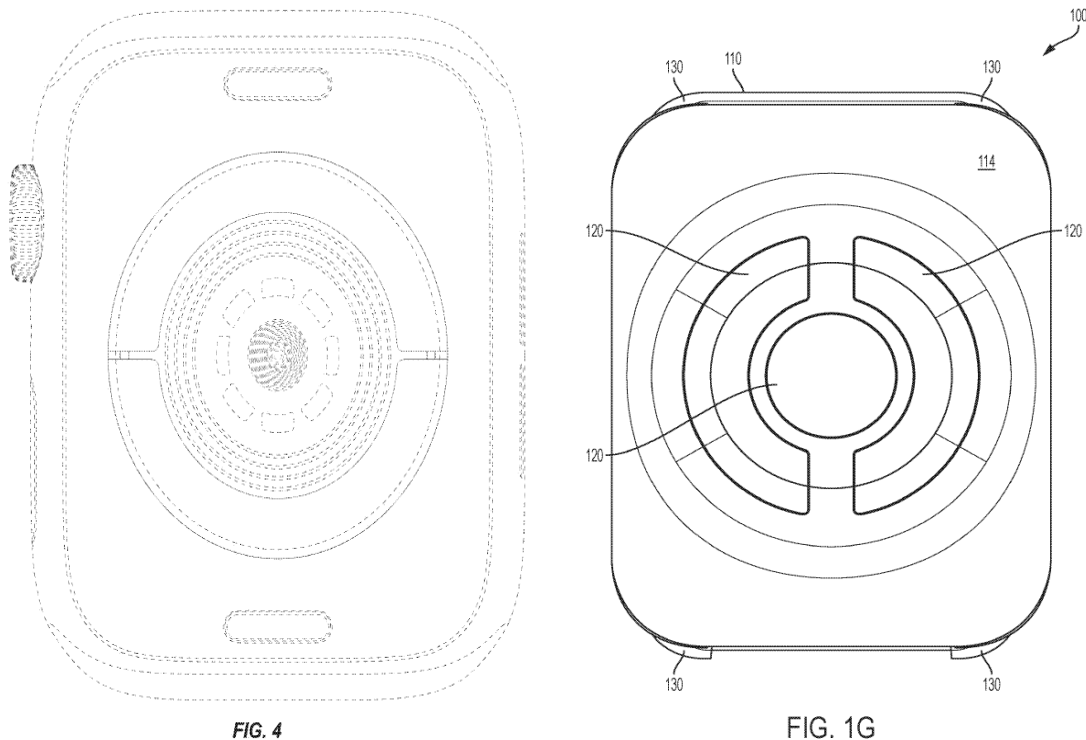
2. Discussion—Paulke Based Ground

Petitioner contends that the '936 design would have been obvious over Paulke. Petitioner urges that Paulke is a proper primary, or *Rosen*,⁴ reference because “it is a single prior art reference with basically the same design characteristic as the claimed design.” Pet. 41 (citing Ex. 1006, Figs. 1–2; Ex. 1003 ¶¶ 58–65). Patent Owner disagrees. In that regard, Patent Owner contends that Petition has not shown that Paulke is a proper *Rosen*

⁴ In the context of design patent law, a proper primary, or *Rosen*, reference is “something in existence, the design characteristics of which are basically the same as the claimed design.” *In re Rosen*, 673 F.2d 388, 391 (CCPA 1982).

reference because there are multiple apparent differences between Paulke and the claimed design such that Paulke is not a “single reference that creates basically the same visual impression.” Prelim. Resp. 15 (citing *Levitation Arts, Inc. v. Flyte LLC*, PGR2018-00073, Paper 14, 16–22 (PTAB Jan. 17, 2019); *Dorman Products Inc. v. PACCAR Inc.*, IPR2014-00542, Paper 10, 5 (PTAB Sept. 5, 2014); *In re Harvey*, 12 F.3d 1061, 1063 (Fed. Cir. 1993)).

Figure 4 of the '936 patent (left) alongside Paulke's Figure 1G (right) are reproduced below:



The figures above show views of the rear or bottom face of each of the electronic device of the '936 patent and the Paulke's biosensor. Ex. 1001, code (57); Ex. 1006, 14:25. Although both figures include a central portion with arc-shaped portions, there are some significant differences in the appearance of those portions. For instance, as noted by Patent Owner

(see, e.g., Prelim. Resp. 21–24), the arc-shaped portions of the '936 design are thinner than those of Paulke's Figure 1G, and the spacing of the arc-shaped portions in the '936 patent is noticeably smaller than in Paulke. That enlarged spacing in Paulke eliminates any appearance of an outer continuous circle formed by the outer ring of the arc-shaped portions, which is present in the '936 design. In that respect, we find credible Patent Owner's argument that "the Paulke arc-shaped components have the appearance of two separate features rather than the unified circular appearance of arcs of the '936 patent. Prelim. Resp. 23 (citing Ex. 2001 ¶¶ 51–52). Additionally, the orientation of the arc-shaped portions in Paulke is rotated 90 degrees from that of the '936 patent.⁵ In our view, there is a plausible argument to be made that the above-noted differences establish sufficient visual dissimilarities to remove Paulke from being considered a proper *Rosen* reference.

Nevertheless, even were we to assume that Paulke is a proper *Rosen* reference, for the reasons discussed below, we do not find persuasive that a designer of ordinary skill in the art would have made Petitioner's proposed modifications to Paulke's biosensor module, so as to arrive at the design of the '936 patent.

Petitioner seemingly acknowledges that there are at least some differences as between the '936 design and Paulke's figures with respect to the "size, shape or spacing of the arc-shaped portions" but concludes that such differences "between the design of Paulke and the claimed design would have been obvious changes to a DOSA, as explained below."

⁵ We are mindful, however, that both parties analyze Paulke's Figure 1G in a rotated configuration. See, e.g., Pet. 42; Prelim. Resp. 18.

Pet. 44–45 (citing Ex. 1001, Fig. 4; Ex. 1006, Fig. 1G; Ex. 1003 ¶ 60).

According to Petitioner, a designer of ordinary skill in the art would have been motivated to make various modifications to Paulke’s biosensor module, for instance: (1) “to extend the ends of [Paulke’s] arc-shaped electrodes closer together to maximize the arc-shaped electrodes’ surface area for contacting the user’s skin in use”; (2) to ensure that Paulke’s electrodes “were shaped to avoid interference between the charging coils of the device and its charger”; and (3) to make Paulke’s arc-shaped electrodes include certain “chamfered and vertical edges” as in the ’936 patent because such edges were a known design “for improving user comfort.” Pet. 50 (citing various portions of Ex. 1006; Ex. 1003 ¶ 70).

As Patent Owner notes, essentially all of the multiple modifications to Paulke proposed by Petitioner are based on “purported utility considerations” rather than being based on ornamental design. *See* Prelim. Resp. 24–25. We agree with Patent Owner that such rationales for altering the appearance of Paulke’s biosensor module are in tension with principles underscoring design patent law, in that, when assessing obviousness of a claimed design, “the focus must be on appearances and not uses.” *See id.* (quoting *In re Harvey*, 12 F.3d 1061, 1064 (Fed. Cir. 1993)). Moreover, we simply find unpersuasive Petitioner’s view as to the types and forms of modifications of Paulke’s biosensor module appearance that would emerge to a designer of ordinary skill in the art.

Petitioner's illustrations of what it proposes as "Modified" versions of Paulke's figures are reproduced below:



Pet. 53.

The images above represent Petitioner's proposed creation of a biosensor module appearance based on modification to Paulke. *See id.* at 52. In our view, Petitioner simply does not adequately explain how the above images would have emerged to a designer of ordinary skill in the art in modifying figures shown in Paulke. The above images appear, to us, to be manufactured to simulate the appearance of the claimed design of the '936 patent rather than adhering to a design that would have been conveyed to a designer of ordinary skill in the art based on modification to Paulke's biosensor module. Moreover, Petitioner's created images still do not account for the appearance of a continuous outer circle, as the images clearly show substantial gaps, on each side, between the upper and lower arc-shaped portions.

Accordingly, having considered Petitioner's proposed ground of based on Paulke (and the proffered supporting evidence), we conclude that it is

inadequate to establish a reasonable likelihood of demonstrating the unpatentability of the claimed design of the '936 patent.

D. Proposed Grounds of Unpatentability Based on Yuen, Mendelson, and Bushnell

Petitioner contends that the claimed design of the '936 patent would have been obvious in view of Yuen, Mendelson, and Bushnell. Pet. 54–75.

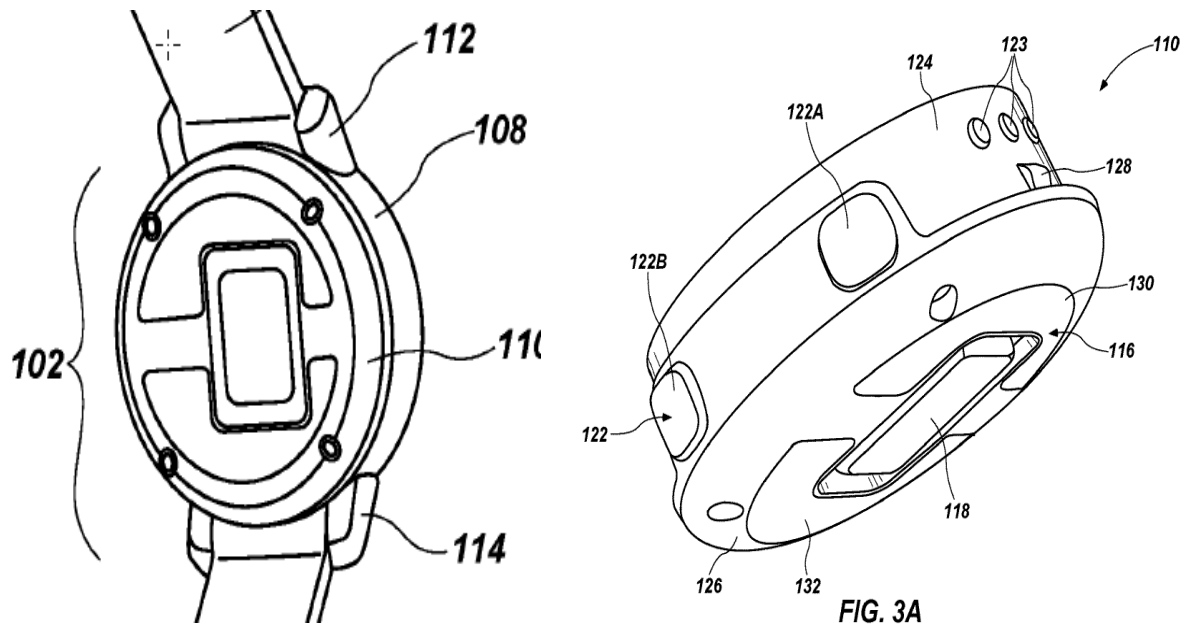
1. Overview of Yuen

Yuen is titled “Smartwatch Assemblies Having Electrocardiogram Sensors Photoplethysmography Sensors and Blood Pressure Monitors and Related Methods.” Ex. 1007, code (54). Yuen’s Abstract is reproduced below:

A smartwatch assembly including an outer frame portion and an insert portion removably insertable into the outer frame portion. The insert portion may include a casing, a controller disposed within the casing, an electrocardiogram sensor operably coupled to the controller, the electrocardiogram sensor having at least two electrodes configured to be placed in contact with a user's skin, a photoplethysmography sensor operably coupled to the controller and oriented to face the user's skin, and a display operably coupled to the controller and configured to show data related to measurements taken by the electrocardiogram sensor and the photoplethysmography sensor. The photoplethysmography sensor may detect trigger events in a heart function of the user, and, in response to the detection of a trigger event, the electrocardiogram sensor may initiate an electrocardiogram measurement of the user.

Id. at code (57).

Yuen's Figures 1B (partial) and 3A are reproduced below:



The partial Figure 1B above shows a “back perspective view” of a smartwatch assembly. *Id.* ¶ 9.⁶ Figure 3A reproduced above on the right shows a “perspective view of insert portion of a smartwatch assembly” of Yuen. *Id.* ¶ 11. As shown and numbered in Figure 3A, and as shown (but not numbered in Fig. 1B), Yuen’s smartwatch assembly includes two electrodes 130, 132, each with a “general half-moon shape.” *Id.* ¶ 35.

2. Overview of Mendelson

Mendelson is titled “Pulse Oximeter and Method of Operation.” Ex. 1011, code (54). Mendelson’s Abstract is reproduced below:

⁶ In a similar manner as presented in the Petition (*see, e.g.*, Pet. 57), Yuen’s Figure 1B is reproduced so as to focus on the appearance of watch body 102 and omits further depiction of first and second watch band portions 104 and 106 (reference characters not present in the reproduced portion of Yuen’s Figure 1B).

A sensor for use in an optical measurement device and a method for non-invasive measurement of a blood parameter. The sensor includes sensor housing, a source of radiation coupled to the housing, and a detector assembly coupled to the housing. The source of radiation is adapted to emit radiation at predetermined frequencies. The detector assembly is adapted to detect reflected radiation at least one predetermined frequency and to generate respective signals. The signals are used to determine the parameter of the blood.

Id. at code (57).

Mendelson's Figure 7 is reproduced below:

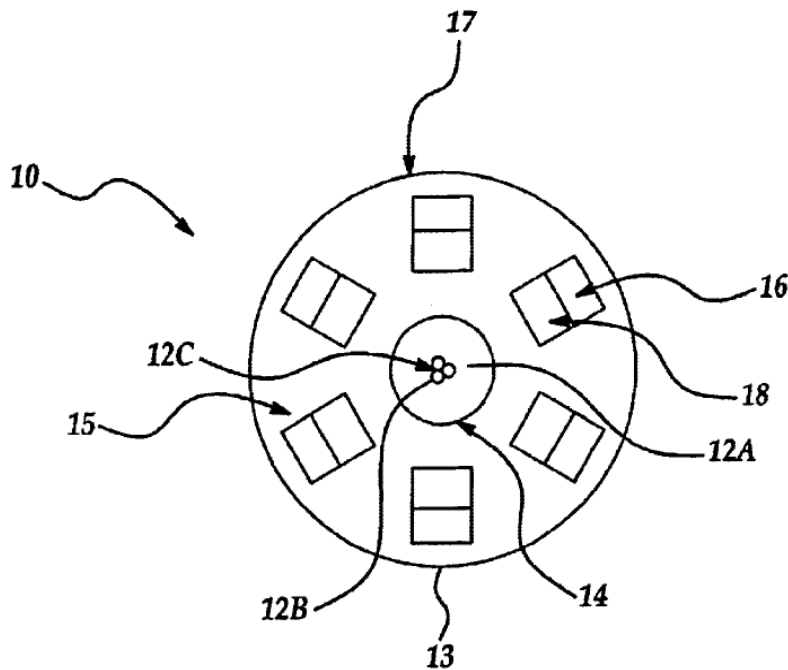


Figure 7

Figure 7 above shows an “optical sensor” according to Mendelson’s invention. *Id.* at 8:37–38. Sensor 10 includes light sources 12a, 12b, 12c and an array of detectors (photodiodes) including “‘far’ detector 16” and “‘near’ detector 18” in concentric rings. *Id.* at 9:22–34.

3. Overview of Bushnell

Bushnell is titled “Sensing Contact Force Related to User Wearing an Electronic Device.” Ex. 1009, code (54). Bushnell’s Abstract is reproduced below:

A wearable electronic device includes a body, a housing component, a band operable to attach the body to a body part of a user, and a force sensor coupled to the housing component. The force sensor is operable to produce a force signal based on a force exerted between the body part of the user and the housing component. A processing unit of the wearable electronic device receives the force signal from the force sensor and determines the force exerted on the housing component based thereon. The processing unit may use that force to determine a tightness of the band, determine health information for the user, adjust determined force exerted on a cover glass, and/or to perform various other actions.

Id. at code (57).

Bushnell’s 1A and 2B are reproduced below:

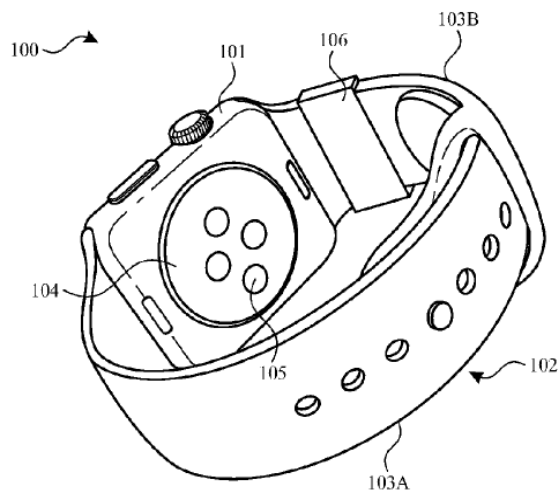


FIG. 1A

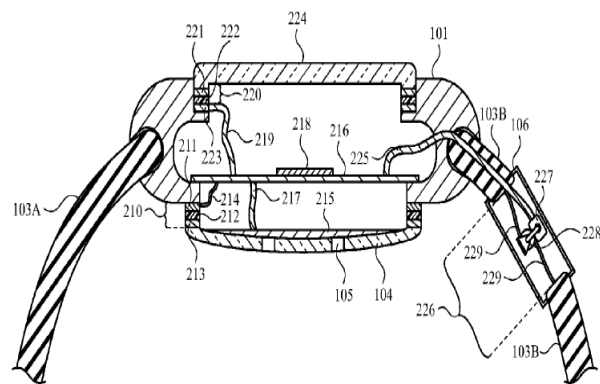


FIG. 2A

Figure 1A above shows a wearable electronic device. *Id.* ¶ 21. Figure 2A above shows a cross-sectional view of a wearable electronic device. *Id.*

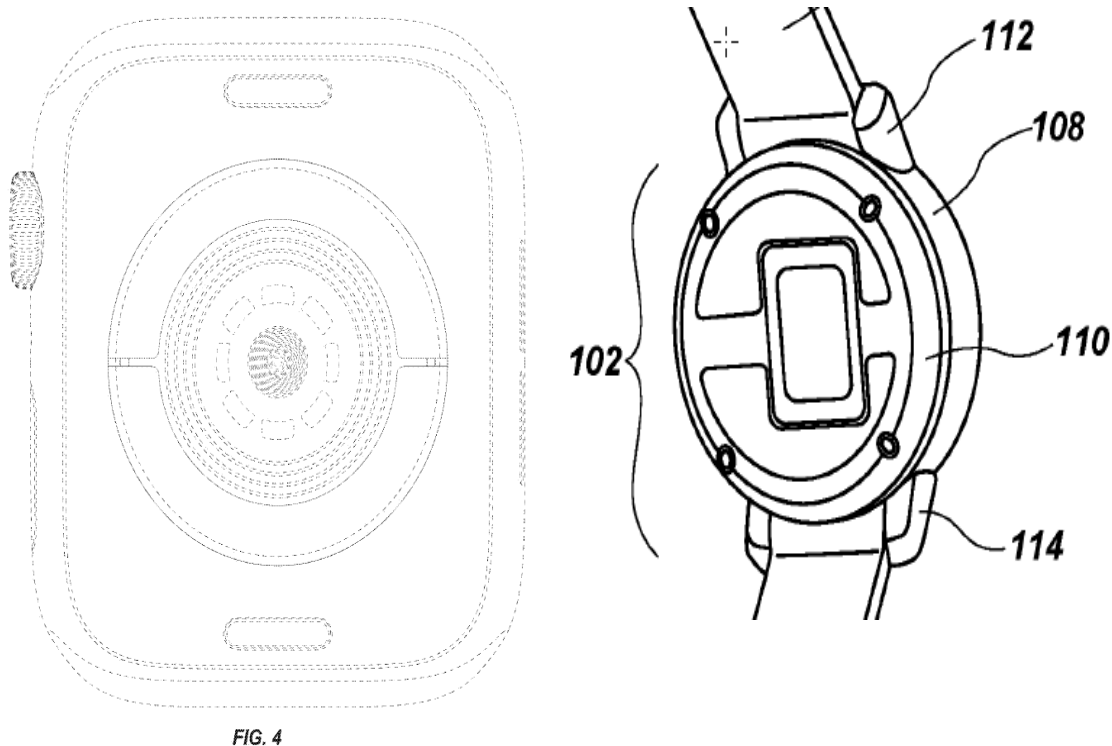
¶ 23. Wearable electronic device 100 includes main body 101, housing component 104, and sensor windows 105. *Id.* ¶¶ 37–38.

4. *Discussion—Yuen Based Ground*

Petitioner contends that the claimed design of the '936 patent would have been obvious in view of Yuen, Mendelson, and Bushnell. As with Paulke, Petitioner contends that Yuen is a proper primary or *Rosen* reference because “its design characteristics are basically the same as the claimed design” and that “any difference between Yuen and the D’936 Patent do not change the designs’ overall visual similarity.” Pet. 54 (citing Ex. 1007, Figs. 1, 3–4, Ex. 1003 ¶¶ 72–80).

Patent Owner has a different view and contends that Yuen is not a proper *Rosen* reference because of its “markedly different overall appearance.” Prelim. Resp. 25–26.

We reproduce Figure 4 of the '936 patent alongside a portion of Yuen’s Figure 1B:



The figures above show views of the rear or back face of each of the electronic devices of the '936 patent and the sensor arrangement on Yuen's smartwatch. Ex. 1001, code (57); Ex. 1007 ¶ 13. We are mindful of Petitioner's contention that a "primary reference and [the] claimed design can have differences because, if they had to be identical, 'no obviousness analysis would be required.'" Pet. 54–55 (quoting *MRC Innovations, Inc. v. Hunter Mfg.*, 747 F.3d 1326, 1332–33 (Fed. Cir. 2014)). Yet, here the differences in appearance as between the claimed design and that of Yuen's smartwatch are not minor in character but are, in our view, substantial.

To that end, we agree with Patent Owner's characterization of Yuen's design as presenting "asymmetrical, squarish shapes that are spaced apart from one another in an opposed relationship." Prelim. Resp. 26. Indeed, we note that Petitioner, itself, acknowledges that Yuen's sensor has an "asymmetrically located" sensor. See Pet. 66. As compared with the

symmetrical appearance of the arch-shaped portions of the '936 patent, Yuen's asymmetrical appearance creates visual distinction.

We also agree with Patent Owner that Yuen's "opposed shapes" on the back of its watch are not "arch-shaped" as in the claimed design and instead "have a square, off-center cut-out" and also "are meaningfully wider than the arches of the claimed design," with "ends [that] are separated by a relatively large gap. Prelim. Resp. 27–28. Additionally, Yuen's opposed shapes appear thicker than the arch-shaped portions of the '936 patent and such thickness is not uniform over the extent of the shapes. We find credible Patent Owner's arguments, and the testimony of its declarant, Mr. Rake, that Yuen's design does not convey to a designer of ordinary skill the appearance of concentric circles with a "continuous outer circular shape" that is presented by the '936 patent design. *See, e.g., id.* at 27–33; Ex. 2001 ¶¶ 59–65.

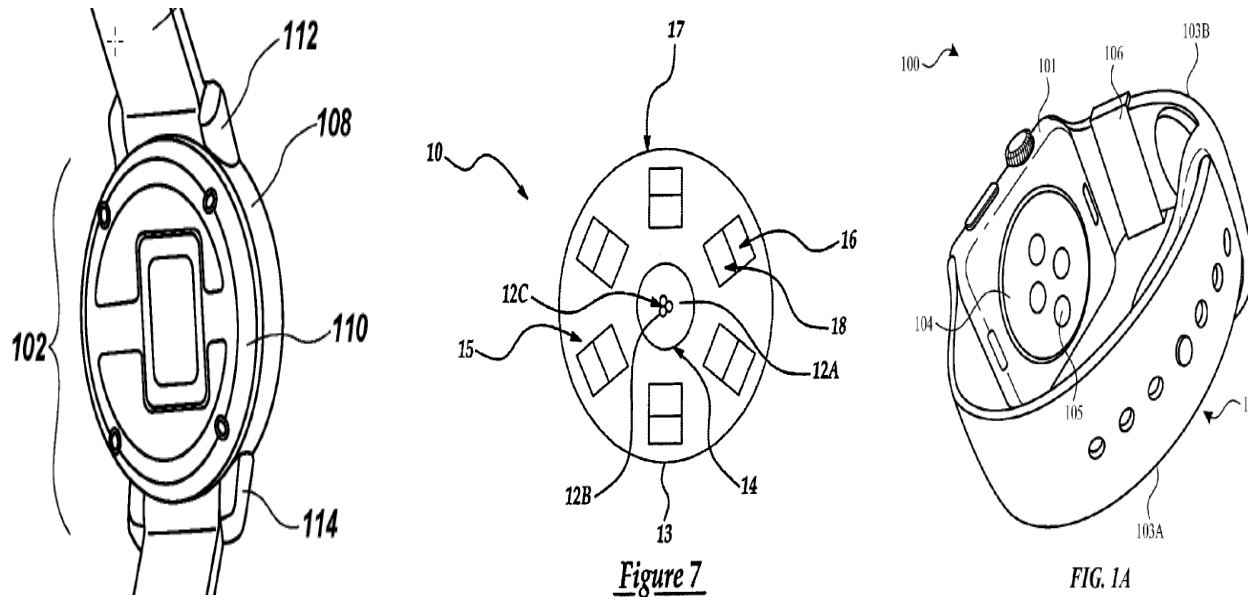
In sum, we agree with Patent Owner and Mr. Rake that the rear of Yuen's smartwatch presents a configuration of opposed shapes that are asymmetric with squarish ends and are of non-uniform thickness, and convey a different visual appearance than the arch-shaped portions that present symmetric concentric circles in the '936 patent. Because those respective shapes are different in position, shape, size and relationship, we conclude that they are not reasonably viewed as having a similar overall appearance. As a result, we conclude that the designs are visually dissimilar such that Yuen is not "basically the same" as the claimed design of the '936 patent so as to be regarded as a proper *Rosen* reference. *See In re Rosen*, 673 F.2d at 391.

Nevertheless, here too, even were we to assume that Yuen is a proper *Rosen* reference, for the reasons discussed below, we do not find persuasive that a designer of ordinary skill in the art would have made Petitioner's proposed modifications to Yuen's smartwatch, so as to arrive at the design of the '936 patent.

Petitioner contends that a designer of ordinary skill in the art would have been motivated to combine various aspects of Mendelson's sensor and Bushnell's electronic device with the sensor arrangement of Yuen's smartwatch to allegedly arrive at the design of the '936 patent. *See* Pet. 60–75. According to Petitioner, Mendelson and Bushnell are each “so related” to Yuen so as to constitute proper secondary references. *See, e.g.*, Pet. 61, 63. Petitioner proceeds to select various aspects of each of Mendelson and Bushnell and amalgamates those various aspects to purportedly arrive at the design of the '936 patent.

Patent Owner disagrees that Mendelson and Bushnell are considered proper secondary references and disputes a designer of ordinary skill would have found the claimed design of the '936 patent based on a combination of Yuen, Mendelson, and Bushnell. *See* Prelim. Resp. 33–39. For instance, in connection with Mendelson, Patent Owner contends that Mendelson and Yuen “have virtually no overlap in appearance.” *Id.* at 33. With respect to Bushnell, Patent Owner also contends that the reference lacks various “visual elements” present in Yuen. *Id.* at 36.

Figures on which Petitioner relies from each of Yuen, Mendelson, and Bushnell are reproduced below:



Yuen's Figure 1B (partial) above shows a "back perspective view" of a smartwatch assembly. Ex. 1007 ¶ 9. Mendelson's Figure 7 above shows an "optical sensor" according to Mendelson's invention. Ex. 1011, 8:37–38. Bushnell's Figure 1A above shows a wearable electronic device. Ex. 1009 ¶ 21.

We agree with Patent Owner that as evidenced from the figures above, there are marked differences in visual appearance as between the assemblies of the three references. To that end, given the visual dissimilarity between Mendelson and Bushnell's sensors with Yuen's sensor, it is difficult to conclude that those secondary references are "so related" such that their ornamental features would suggest application of those features to Yuen. *See Durling*, 101 F.3d at 103. Moreover, Petitioner's piecemeal selection of various components and aspects to somehow construct an amalgamation of those teachings that is said to arrive at the '936 patent design is tenuous.

We reproduce below images created by Petitioner:



Pet. 74.

According to Petitioner, the images above provide the visual appearance of a sensor that allegedly results from the teachings of Yuen when combined with the secondary references of Mendelson and Bushnell. Pet. 73–74. The stark visual distinction of Petitioner’s created image and the appearance of any assembly or sensor of Yuen, Mendelson, and Bushnell is notable. In our view, Petitioner’s created images simply are not adequately tethered to what a designer of ordinary skill would reasonably have taken from the combined teachings of those references. As was the case with the Paulke ground discussed above, neither Petitioner, nor its declarants (Exs. 1003, 1014), adequately explain that the above-created images result from the combined teachings of the references instead of merely being illustrations that mimics the design characteristics of the ’936 patent. Moreover, here too, Petitioner’s created images still do not account for the appearance of a continuous outer circle, as the images clearly show

substantial gaps, on each side, between the upper and lower arc-shaped portions.

Accordingly, we have considered the Petition and its accompanying evidence in connection with the ground based on Yuen (including Petitioner’s declarant testimony (Exs. 1003, 1014)) alongside Patent Owner’s arguments and evidence. On this record, we find more credible Patent Owner’s view (and its declarant (Ex. 2001)) that the Petition does not adequately account for the design of the ’936 patent based on the teachings of Yuen, Mendelson, and Bushnell. We conclude that the ground based on Yuen is inadequate to establish a reasonable likelihood of demonstrating the unpatentability of the claimed design of the ’936 patent.

E. Proposed Grounds of Unpatentability Based on Fong and Bushnell

Petitioner contends that the claimed design of the ’936 patent would have been obvious in view of Fong and Bushnell. Pet. 75–87.

1. Overview of Fong

Fong is titled “Health Monitoring Wrist Wearable.” Ex. 1008, code (54). Fong claims “the ornamental design of a health monitoring wrist wearable.” *Id.* at code (57).

Fong's Figures 2 and 5 are reproduced below:

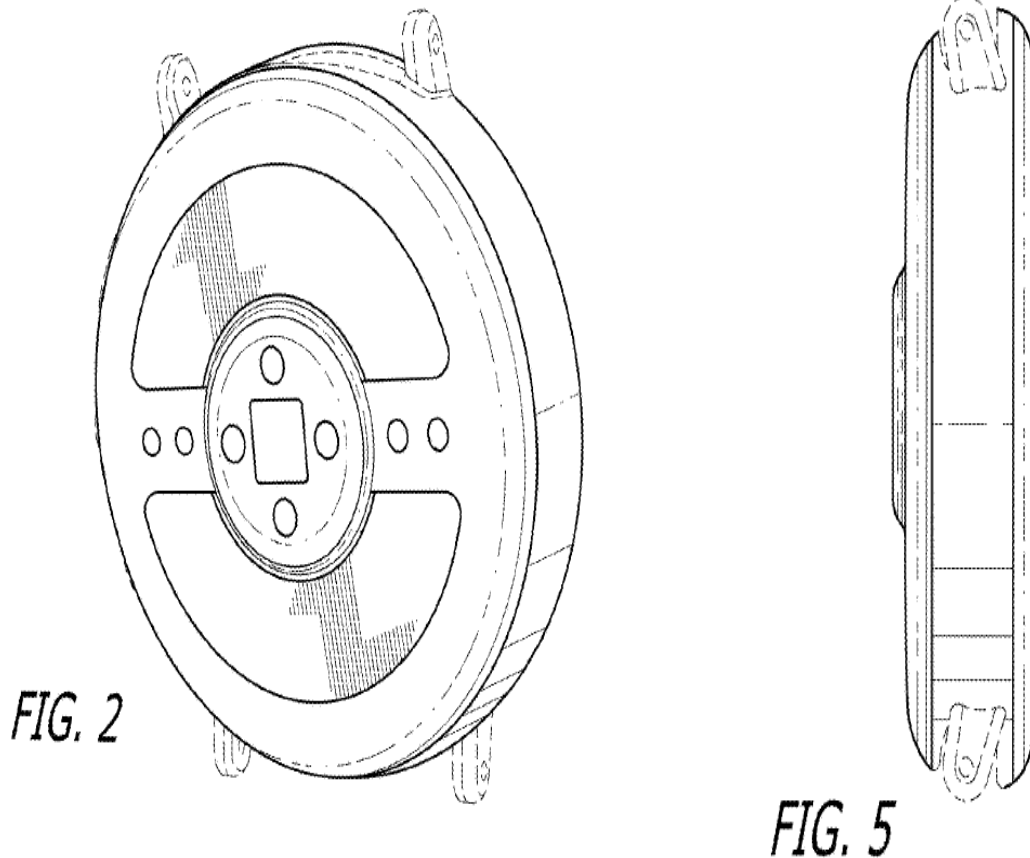


Figure 2 above shows a left perspective view of a health monitoring wrist wearable. *Id.* Figure 5 shows a left side elevation view of a health monitoring wrist wearable. *Id.*

2. Discussion—Fong Based Ground

Petitioner contends that the claimed design of the '936 patent would have been obvious in view of Fong and Bushnell. Petitioner contends that Fong is a proper primary or *Rosen* reference because, in Petitioner's view, "its design characteristics are basically the same as the claimed design." *Id.* at 75. Patent Owner opposes that contention, urging that Fong as a "markedly different overall appearance" as compared to the '936 patent.

Prelim. Resp. 39–46. More specifically, Patent Owner contends that there are “prominent differences between Fong and the claimed design, some of which are wholly unaddressed by the Petition.” *Id.* at 39.

We reproduce Figure 4 of the ’936 patent alongside Figure 4 of Fong:

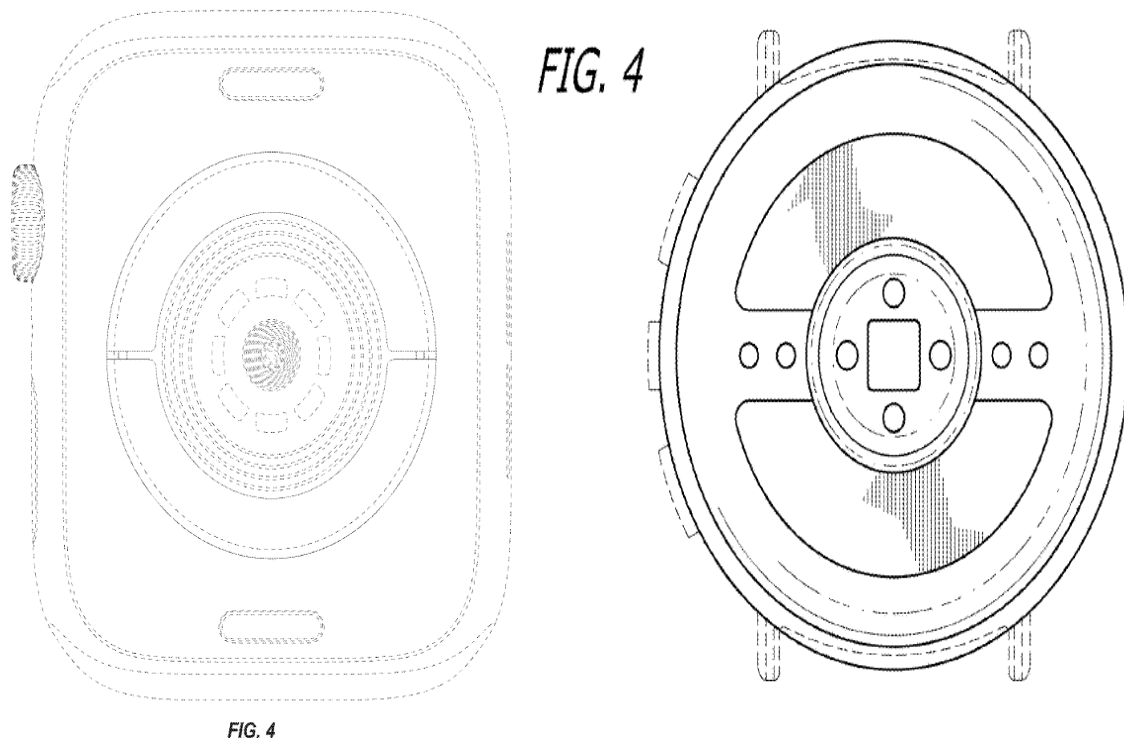


Figure 4 of the ’936 patent above (left) shows a rear view of an electronic device. Ex. 1001, code (57). Figure 4 of Fong (right) shows a “rear elevation view” of a health monitoring wrist wearable. Ex. 1008, code (57). We agree with Patent Owner that, although both figures show what appear to be upper and lower opposed arc-shaped (or arch-shaped) portions, there is visual disparity as between those portions. In particular, we agree that “Fong depicts wide, opposed shapes . . . separated from one another at the ends by a significant gap that provides an appearance of opposed, divided shapes.” Prelim. Resp. 40 (citing Ex. 2001 ¶ 77). Fong also

includes two circular elements positioned between end each of the opposed shapes. We agree that “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.” Prelim. Resp. 41–42.

Furthermore, we also agree with Patent Owner that Fong lacks the visual of inner and outer concentric circles with an outer “continuous circle” as is present in the ’936 patent design. *Id.* at 43–44. Also, we discern that there is visual distinction in thickness, size and spacing of Fong’s opposed shapes as compared with the arc-shaped portion in the ’936 patent. As a result, we share Patent Owner’s view that Fong does not create “basically the same visual impression” and does not reasonably constitute a proper primary or *Rosen* reference. *See id.* at 46 (quoting *High Point Design*, 730 F.3d at 1314).

In any event, even assuming that Fong is a proper *Rosen* reference, we are not persuaded that the series of modifications that Petitioner proposes to Fong based in-part on Bushnell (*see* Pet. 82–86) are what would have been taught to a designer of ordinary skill in the art.

We reproduce below Fong’s Figure 4 and Bushnell’s Figure 1A:

FIG. 4

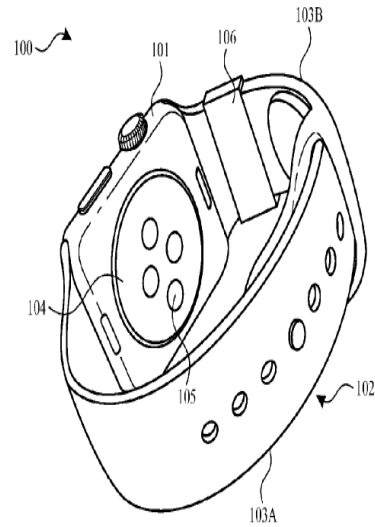
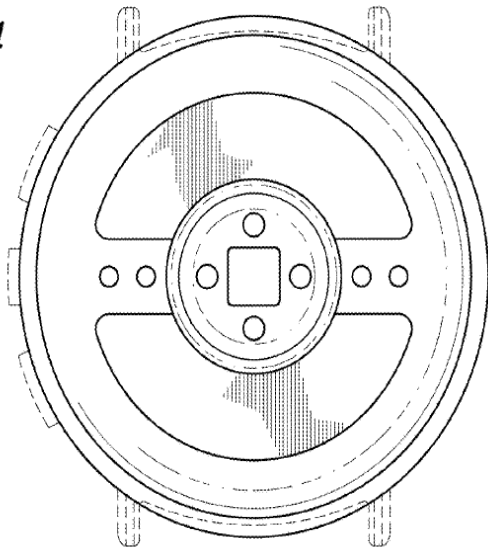


FIG. 1A

Figure 4 of Fong above shows a “rear elevation view” of a health monitoring wrist wearable. Ex. 1008, code (57). Bushnell’s Figure 1A above shows a wearable electronic device. Ex. 1009 ¶ 21. Based in part on the above figures, Petitioner contends that a designer of ordinary skill in the art would have derived the following images:



Pet. 85–86.

According to Petitioner, upon combining Fong and Bushnell, a sensor appearing as the images above is created that allegedly has “the same overall visual appearance as the claimed design” of the ’936 patent. *Id.* Yet, Petitioner provides little in the way of persuasive reasoning as to why the modified arc-shaped portions as they appear in the image above emerge from any combination of Fong and Bushnell. And, in a familiar refrain, Petitioner’s created images again do not account for the appearance of a continuous outer circle, as the image clearly shows substantial gaps accommodating interstitial circular elements, on each side, between the upper and lower arc-shaped portions.

Accordingly, having considered Petitioner’s proposed ground based on Fong and Bushnell (and the supporting evidence), we conclude that it is inadequate to establish a reasonable likelihood of demonstrating the unpatentability of the claimed design of the ’936 patent.

III. CONCLUSION

For the reasons set forth above, we conclude that Petitioner has not shown a reasonable likelihood that it would prevail with respect to the claimed design of the ’936 patent.

IV. ORDER

It is

ORDERED that Petitioner’s request for an *inter partes* review of the claim of the ’936 patent is *denied* and no trial is instituted.

IPR2023-00728
Patent D962,936 S

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