

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**VALENCELL, INC.,**  
*Appellant*

v.

**FITBIT, INC.,**  
*Appellee*

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2018-2223

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2017-00315, IPR2017-01552.

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Decided: September 26, 2019

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JUSTIN KIMBLE, Bragalone Conroy PC, Dallas, TX, argued for appellant. Also represented by JEFFREY BRAGALONE, THOMAS WILLIAM KENNEDY, JR., DANIEL FLETCHER OLEJKO, JONATHAN H. RASTEGAR.

KEVIN P.B. JOHNSON, Quinn Emanuel Urquhart & Sullivan, LLP, Redwood Shores, CA, argued for appellee. Also represented by MARK YEH-KAI TUNG; SAM STEPHEN STAKE, OGNJEN ZIVOJNOVIC, San Francisco, CA; HARPER BATTS,

CHRISTOPHER SCOTT PONDER, Sheppard Mullin Richter & Hampton LLP, Palo Alto, CA.

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Before TARANTO, CHEN, and STOLL, *Circuit Judges*.

CHEN, *Circuit Judge*.

Valencell appeals from the final written decision of the United States Patent and Trademark Office Patent Trial and Appeal Board (Board) in the above-captioned *inter partes* review proceedings (IPRs) that found unpatentable all of the claims of U.S. Patent No. 8,292,965 on independent grounds: obviousness over Japanese Publication No. 2005-040261 (Numaga), and anticipation by United States Application Patent Publication No. 2005/0209516 (Fraden). We agree with the Board as to both grounds and therefore affirm.

Valencell's '965 patent is directed to a light sensor module for detecting and measuring heart rate or other physiological information. Claim 1, which is representative for the purposes of this appeal,<sup>1</sup> is reproduced below:

1. A sensor module for detecting and/or measuring physiological information from a subject, the sensor module comprising:

a housing;

at least one optical emitter supported by the housing;

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<sup>1</sup> Claim 12, the only other independent claim, is similar to claim 1 except that it describes "distal free ends" in an "adjacent, spaced-apart relationship" instead of claim 1's "distal ends." The parties did not separately argue these features on appeal.

at least one optical detector supported by the housing;

a *first light guide* supported by the housing, wherein the first light guide is in optical communication with the at least one optical emitter, wherein the first light guide comprises a *distal end* having an exposed end surface that is configured to engage a portion of a body of the subject, and wherein the first light guide is configured to deliver light from the at least one optical emitter directly into the body of the subject via the exposed end surface thereof; and

a *second light guide* supported by the housing, wherein the second light guide is in optical communication with the at least one optical detector, wherein the second light guide comprises a *distal end* having an exposed end surface that is configured to engage a portion of the body of the subject, and wherein the second light guide is configured to collect light directly from the body of the subject via the exposed end surface thereof and deliver collected light to the at least one optical detector.

'965 patent at claim 1 (emphases added).

#### A. Obviousness over Numaga

In concluding that claim 1 was obvious over Numaga, the Board found that Numaga discloses “light guide parts” that fall within the scope of the Board’s construction of “light guide” as “a mechanism for delivering light along a path.” See J.A. 10 (construing “light guide”); J.A. 17. Valencell argues that Numaga’s light guide parts are not light guides because Numaga also discloses a shielding material that surrounds the light guide parts. Under Valencell’s theory, the use of shielding material means that Numaga’s light guide part does not deliver light along a path. We disagree. The presence of shielding material does not

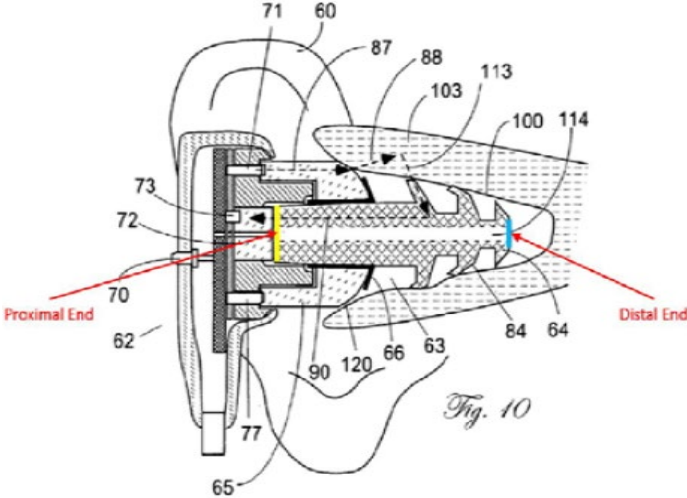
prevent *light guide* parts from being *light guides*. And Valencell’s own patent discloses the use of such a shielding material. ’965 patent at col. 7, ll. 29–37 (“the at least one light guide may be surrounded or partially surrounded by a cladding material that is configured to at least partially confine light within the light guide and/or block light from an external source from entering the at least one light guide”). Under Valencell’s theory, the light guides described in its own patent as surrounded by a cladding material would not qualify as the claimed light guides.

We are also not persuaded by Valencell’s argument that the Board’s reference to shielding material in connection with Numaga’s light guide parts constitutes a new theory of obviousness beyond the scope of the petition for *inter partes* review. The petition explained that the claimed light guides are disclosed by Numaga’s light guide parts 21a and 21b, and that those light guide parts are covered by a shell support member (i.e., shielding material). J.A. 87–90. The Board likewise concluded that “Numaga explicitly discloses directing light with light guide parts” that “structurally and functionally teach the light guides recited.” J.A. 17. Although Valencell complains that the Board also referred to Numaga’s light guide parts as “clad light guide[s],” the existence of shielding does not prevent a *light guide* part from delivering light along a path (as we explained above). The Board relied on the same light guide parts as the petitioner did, and thus Valencell was not deprived of notice or opportunity to respond to that theory of obviousness.

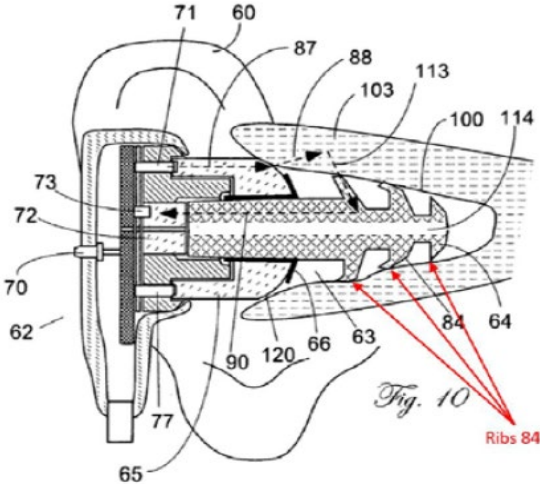
#### B. Anticipation by Fraden

Valencell argues that the Board erred when it found that Fraden anticipates claim 1’s “distal end” limitation in view of the Board’s construction of “distal end” to mean “end opposite the proximal end”—the construction that Valencell itself proposed. J.A. 900. The crux of Valencell’s position, as depicted in Valencell’s annotation of Fraden’s

Fig. 10, reproduced below, is that the “end opposite the proximal end” must be *directly* opposite to what Valencell labels a “proximal end.”



J.A. 29. But as the Board explained, the construction is not so limited. J.A. 30 (“We did not limit ‘distal end’ to mean any particular end or to be limited to a single end at the farthest distance from the proximal end.”). Under the Board’s construction, which does not include the requirement “directly opposite,” at least the right-most of ribs 84 is opposite to what Valencell alleges is Fraden’s proximal end:



J.A. 29 (annotating ribs 84 in Fraden’s Fig. 10, the right-most rib being an extension of the surface that Valencell alleges is the “distal end”). Thus, we conclude that the Board’s finding of anticipation based on Fraden is supported by substantial evidence.

### C. Valencell’s Conditional Motion to Amend

During the *inter partes* proceedings, Valencell filed a contingent motion to amend the ’965 patent claims. The Board denied the motion because it concluded that Valencell’s substitute claims were unpatentable as obvious and Valencell failed to submit sufficient corroborating evidence to swear behind the prior art references. J.A. 44–47. Valencell does not challenge the Board’s conclusion of obviousness. Rather, Valencell appeals the Board’s findings with regard to the sufficiency of Valencell’s evidence for corroborating inventor testimony on prior reduction to practice.

We review the Board’s denial of a contingent motion to amend under 5 U.S.C. § 706. *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1306 (Fed. Cir. 2015), *overruled on other grounds by Aqua Prods., Inc. v. Matal*, 872 F.3d 1290 (Fed. Cir. 2017) (en banc). We set aside the Board’s action only if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). In appeals from the Board, corroboration is a subsidiary factual issue reviewed for substantial evidence. *REG Synthetic Fuels, LLC v. Neste Oil Oyj*, 841 F.3d 954, 958 (Fed. Cir. 2016).

Valencell relied on inventor testimony on the development of two prototype sensor modules to establish a prior reduction to practice. J.A. 45. As we have explained, inventor testimony must be corroborated by independent evidence, and the inventor has the burden of proving that (1) he constructed an embodiment or performed a process that met all claim limitations, and (2) the invention would work for its intended purpose. *Cooper v. Goldfarb*, 154 F.3d

1321, 1327, 1330 (Fed. Cir. 1998). To corroborate the inventor's testimony, Valencell submitted evidence from various sources: testimony from Mr. Paik, who allegedly tested the prototypes; photographs; a claim chart based on those photographs; invoices; and a table of numbers alleged to be test results. J.A. 45.

Valencell's corroborating evidence, considered in its entirety, fails to establish that the prototype modules meet the claim limitations. The claims at issue recite limitations that are directed to interior features of a sensor module. *See, e.g.*, J.A. 2142–43 (claiming “a sensor module comprising” “at least one optical emitter supported by the housing,” “at least one optical detector supported by the housing,” “a first light guide supported by the housing, wherein the first light guide is in optical communication with the at least one optical emitter, wherein the first light guide comprises a distal end having a substantially flat-faced surface,” “wherein the first light guide is configured to deliver light from the at least one optical emitter directly into the body of the subject,” etc.). But Mr. Paik, who allegedly tested the prototypes, testified that he had no knowledge of the inner workings of the sensor modules. J.A. 46. The photographs depicted only an exterior view and, as explained by the Board, “no internal connections or light guides are shown.” J.A. 46; J.A. 3004–07. The invoices only indicate that some parts were purchased, and not how, if at all, those parts were arranged in the prototypes. J.A. 3009. And the alleged test results are merely a collection of numbers with no connection to the claim limitations. J.A. 3017–79. The sum of Valencell's corroborating evidence amounts to a black box for which the inner workings are unstated and unknown. Although “our case law does not require that evidence have a source independent of the inventors on every aspect of conception and reduction to practice,” *E.I. du Pont De Nemours & Co. v. Unifrax, LLC*, 921 F.3d 1060, 1077 (Fed. Cir. 2019), as the Board correctly

recognized, here, Valencell's corroborating evidence is conclusory at best. J.A. 46.

Thus, we conclude that the Board's finding that Valencell failed to meet its burden of corroborating its inventor testimony was supported by substantial evidence and the Board did not abuse its discretion in denying Valencell's contingent motion to amend on that basis.<sup>2</sup>

#### CONCLUSION

We have considered Valencell's remaining arguments and find them unpersuasive. For the reasons stated above, we *affirm* the Board's conclusion that the claims at issue are unpatentable, as well as the Board's denial of Valencell's contingent motion to amend.

#### **AFFIRMED**

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<sup>2</sup> We therefore need not reach the Board's conclusions with regards to indefiniteness of the substitute claims.